

**CITY OF FLINT, MICHIGAN
DEPARTMENT OF PURCHASES & SUPPLIES**



**PROJECT MANUAL FOR
RENOVATION TO MCKINLEY COMMUNITY
CENTER**

CITY OF FLINT BID NO. 20000564

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Sheldon A. Neeley
Mayor

DEPARTMENT OF PURCHASES AND SUPPLIES

City Hall

1101 S. Saginaw Street, Rm 203 – Flint, Michigan 48502
(810) 766-7340 FAX (810) 766-7240 www.cityofflint.com

PROPOSAL NO: 20000564	PROPOSAL ISSUE DAE: 02/05/20
PROPOSAL DESCRIPTION	RENOVATION TO MCKINLEY COMMUNITY CENTER
PROPOSAL OPENING DATE: 02/26/20	PROPOSAL OPENING TIME: 1:00 P.M.
NUMBER OF COPIES TO SUBMIT	ONE (1) ORIGINAL PLUS TWO (2) COPIES

OWNER:

The City of Flint
Department of Purchases and Supplies
1101 S. Saginaw St., Second Floor
Flint, MI 48502

Proposal No. 20000564

SCOPE OF WORK:

The City of Flint (The City), Department of Purchases & Supplies, is soliciting sealed bids from General Contractors for providing:

Renovations to McKinley Community Center

If your firm is interested in providing the requested services, please submit 1 original and 3 copies of your detailed proposal to City of Flint, Department of Purchases and Supplies, 1101 S. Saginaw St., Second Floor, Flint, MI, 48502, by **Wednesday, February 26, 2020, before 1:00 PM** (EST). Please note: all detailed proposals received after **1:00 PM** (EST) will not be considered. Faxed proposals are not accepted.

The City of Flint may hold proposals for a period of 120 days from opening, for the purpose of reviewing the results and investigating the qualifications of proposal prior to making an award. The City of Flint reserves the right to waive any irregularities and accept or reject any or all bids submitted. Vendors located within the corporate city limits of Flint, Michigan may be given a seven percent (7%) competitive price advantage. Additionally, if the lowest responsible vendor is not located within the limits of the City of Flint, but is located within the County of Genesee and vendor does not exceed the bid of the lowest non- local bidder by more than three and one-half percent (3.5%), the County vendor may have a competitive advantage.

The City reserves the right to waive any irregularities and accept or reject any or all proposals submitted. The City is an equal opportunity employer.

The successful bidder must comply with all requirements and pay prevailing wages and fringe benefits on this project per the City's Resolution R-12 adopted 4/8/91. Pursuant to the requirements of 1976 P.A. 453 (Michigan Civil Rights Act) and 1976 P.A. 220 (Michigan Handicapped Rights Act), the local unit and its agent agree not to discriminate against any employee or applicant for directly or indirectly related to employment because of race, color, religion, national origin, age, sex, height, weight, marital status or because of a handicap that is unrelated to the person's ability to perform the duties of nondiscrimination provision identical to this provision and binding upon any and all contractors and subcontractors. A breach of this covenant shall be regarded as a material breach of this contract.

Insurance/Worker's Compensation: Contractor shall not commence work under this contract until he has procured and provided evidence of the insurance required under this section. All coverage shall be obtained from insurance companies licensed and authorized to do business in the State of Michigan unless otherwise approved by the City's Risk Manager. Policies shall be reviewed by the City's Risk Manager for completeness and limits of coverage. All coverage shall be with insurance carriers acceptable to the City of Flint. Contractor shall maintain the following insurance coverage for the duration of the contract.

(a) Commercial General Liability coverage of not less than one million dollars (\$1,000,000) combined single limit with the City of Flint, and including all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and their board members, employees and volunteers, named as "Additional Insured". This coverage shall be written on an ISO occurrence basis form and shall include: Bodily Injury, Personal Injury, Property Damage, Contractual Liability, Products and Completed Operations, Independent Contractors' Broad Form Commercial General Liability Endorsement, (XCU) Exclusions deleted and a per contract aggregate coverage. This coverage shall be primary to the Additional Insured, and not contributing with any other insurance or similar protection available to the Additional Insured, whether said other available coverage be primary, contributing, or excess.

(b) Worker's Compensation Insurance in accordance with Michigan statutory requirements, including Employers Liability coverage.

(c) Commercial Automobile Insurance in the amount of not less than \$1,000,000 combined single limit per accident with the City of Flint, and including all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and their board members, employees and volunteers, named as "Additional Insured". This coverage shall be written on ISO business auto forms covering Automobile Liability, code "any auto".

(d) Contractor shall furnish the City with two certificates of insurance for all coverage requested with original endorsements for those policies requiring the Additional Insured. All certificates of insurance must provide the City of Flint with not less than 30 days advance written notice in the event of cancellation, non-payment of premium, non-renewal, or any material change in policy coverage. In addition, the wording "Endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" must be removed from the standard ACORD cancellation statement. These certificates must identify the City of Flint, Risk Management Division, as the "Certificate Holder". Contractor must provide, upon request, certified copies of all insurance policies. If any of the above policies are due to expire during the term of this contract, Contractor shall deliver renewal certificates and copies of the new policies to the City of Flint at least ten days prior to the expiration date. Contractor shall ensure that all subcontractors utilized obtain and maintain all insurance coverage required by this provision.

Performance and Payment Bonds: Successful bidder shall be required to furnish Performance, and Labor/Material Bonds in an amount equal to one hundred percent (100%) of the contract amount. Surety on such bonds shall be a duly authorized company satisfactory to the City.

Pre-Bid Meeting: A pre-bid meeting will be conducted at the project site, **249 Peer Avenue, Flint, Michigan** on **Wednesday, February 12, 2020 at 10:00 a.m.** All bidders are encouraged to attend and sign the sign-in sheet.

Due to the current condition of the building, it is recommended to wear work clothes, closed-toed shoes, and bring a flashlight.

All materials furnished must be new, of latest model and standard first grade quality, or best workmanship and design, unless otherwise expressly specified. Bidder, if required, must furnish satisfactory evidence of quality materials, offers of experimental or unproven equipment may be disregarded.

Bidder shall protect against expense of any nature, shall bear costs of any suits which arise, and shall pay all damages which may be awarded against the City for the use, under this specification, of any patented device, process, apparatus, material or invention.

Bidder is not permitted to take advantage of any obvious errors or omissions in specifications. The City reserves the right to reject any or all proposal, or to accept any bid which will best serve its interests.

The City shall not knowingly accept the bid of a vendor/contractor who is in default on the payment of taxes, licenses, fees or other monies due the City. Purchase agreements with bidders who are found to have been in default at the time of award of such agreement shall be voided. The bidder acknowledges that by signing this document that he/she is duly authorized to make said offer on behalf of the company he/she represents and that said bid is genuine and not sham or collusive and not made in the interests or on behalf of any person not therein named, and that he/she and said bidder have not directly induced or solicited any other person(s) or corporation to refrain from responding to this solicitation and that he/she and said bidder have not in any manner sought by collusion to secure himself/herself and said bidder any advantage over any other bidder.

Any questions regarding this bid request shall be directed to City of Flint, Department of Purchases and Supplies, 1101 S. Saginaw St., Second Floor, Flint, MI, 48502, Attn: Joyce McClane, Purchasing Manager, email: jmcclane@cityofflint.com, phone (810) 766-7426 ext. 2902 by **Tuesday, February 18, 2020 before 1:00 PM.**

All additional bid documents, requirements, addendums, specifications and plans/drawings (if utilized) are available on the Purchasing page of the City of Flint's web site at www.cityofflint.com/purchasing under "open bids" and the specific bid or proposal number assigned to this notice.

SPECIAL NOTICE

City of Flint has partnered with BidNet as part of the [MITN Purchasing Group](#) (branded page link) to post bid opportunities to this site. As a vendor, you can register with the [MITN Purchasing Group](#) and be sure that you see all available bids and opportunities. By selecting automatic bid notification, your company will receive emails once the City of Flint has a bid opportunity that matches your company's business. In addition, the site handles bid opportunities, RFPs, and RFQs for other member governmental agencies throughout Michigan.

City of Flint looks forward to providing you with more bid information and simplifying the entire bid, proposal, and quote processes for everyone involved. We appreciate your cooperation and welcome your participation. If you need help registering, please call the MITN Purchasing Group support department toll free 1-800-835-4603 option #2.

Link to City of Flint open solicitations:
[MITN Purchasing Group](#) (branded page link)

The City of Flint will continue to advertise bids under Purchasing/Open Bids

INSTRUCTIONS TO VENDORS

- 1) **PRE-BID INFORMATION AND QUESTIONS:** Each bid that is timely received will be evaluated on its merit and completeness of all requested information. In preparing bids, Bidders are advised to rely only upon the contents of this Request for Proposals (RFP) and accompanying documents and any written clarifications or addenda issued by the City of Flint. If a Bidder finds a discrepancy, error or omission in the RFP package, or requires any written addendum thereto, the Bidder is requested to notify the Purchasing contact noted on the cover of this RFP, so that written clarification may be sent to all prospective Bidders. **THE CITY OF FLINT IS NOT RESPONSIBLE FOR ANY ORAL INSTRUCTIONS.** All questions must be submitted in writing to the Finance Department of Purchases and Supplies before any pre-bid deadline (if specified) or at least one (1) week prior to the proposal opening date indicated on the front of this document.
- 2) **RFP MODIFICATIONS:** The City of Flint has the right to correct, modify or cancel the RFP, in whole or in part, or to reject any Bid, in whole or in part, within the discretion of the City of Flint, or their designee. If any such changes are made, all known recipients of the RFP will be sent a copy of such changes. If any changes are made to this RFP document by any party other than the City of Flint, the original document in the City of Flint's files takes precedence.
- 3) **PROPOSAL SUBMISSION:**
 - a) The Bidder must include the following items, or the proposal may be deemed non-responsive:
 - i) All forms contained in this RFP, fully completed.
 - b) Bids must be submitted to the Finance Department of Purchases and Supplies, City of Flint, 1101 S. Saginaw Street, Room 203, Flint, Michigan 48502 by the date and time indicated as the deadline. The Purchasing Department time stamp will determine the official receipt time. It is each Bidder's responsibility to insure that their proposal is time stamped by the Purchasing Department by the deadline. This responsibility rests entirely with the Bidder, regardless of delays resulting from postal handling or for any other reasons. Proposals will be accepted at any time during the normal course of business only, said hours being 8:00 a.m. to 5:00 p.m. local time, Monday through Friday, legal holidays as exception.
 - c) Bids must be enclosed in a sealed, non-transparent envelope, box or package, and clearly marked on the outside with the following: RFP Title, RFP Number, Deadline and Bidder's name.
 - d) Submission of a bid establishes a conclusive presumption that the Bidder is thoroughly familiar with the Request for Proposals (RFP), and that the Contractor understands and agrees to abide by each and all of the stipulations and requirements contained therein.
 - e) All prices and notations must be typed or printed in ink. No erasures are permitted. Mistakes may be crossed out and corrections must be initialed in ink by the person(s) signing the bid.
 - f) Proposals sent by email, facsimile, or other electronic means will not be considered unless specifically authorized in this RFP.
 - g) All costs incurred in the preparation and presentation of the bid are the Bidder's sole responsibility; no pre-bid costs will be reimbursed to any Bidder. All documentation submitted with the proposal will become the property of the City of Flint.
 - h) Proposals must be held firm for a minimum of 120 days.

- 4) **EXCEPTIONS:** Bidder shall clearly identify any proposed deviations from the Terms or Scope in the Request for Proposals. Each exception must be clearly defined and referenced to the proper paragraph in this RFP. The exception shall include, at a minimum, the proposed substitute language and opinion as to why the suggested substitution will provide equivalent or better service and performance. If no exceptions are noted in the bid, the City of Flint will assume complete conformance with this specification and the successful Bidder will be required to perform accordingly. Bids not meeting all requirements may be rejected.
- 5) **DUPLICATE BIDS:** No more than one (1) bid from any Bidder including its subsidiaries, affiliated companies and franchises will be considered by the City of Flint. In the event multiple proposals are submitted in violation of this provision, the City will have the right to determine which bid will be considered or, at its sole option, reject all such multiple proposals.
- 6) **WITHDRAWAL:** Bids may only be withdrawn by written notice prior to the date and time set for the opening of bids. No bid may be withdrawn after the deadline for submission.
- 7) **REJECTION/GOOD STANDING:** The City of Flint reserves the right to reject any or all bids, or to accept or reject any bid in part, and to waive any minor informality or irregularity in bids received if it is determined by the City of Flint, or their designee, that the best interest of the City will be served by doing so. No bid will be considered from any person, firm or corporation in arrears or in default to the City on any contract, debt, taxes or other obligation, or if the Bidder is debarred by the City of Flint from consideration for a contract award pursuant to Section 18-21.5 (d) of Article IV of the "Purchasing Ordinance of the City of Flint".
- 8) **PROCUREMENT POLICY:** Procurement for the City of Flint will be handled in a manner providing fair opportunity to all businesses. This will be accomplished without abrogation or sacrifice of quality and as determined to be in the best interest of the City. The City of Flint and their officials have the vested authority to execute a contract, subject to City Council and Mayoral approval where required.
- 9) **BID SIGNATURES:** Bids must be signed by an authorized official of the Bidder Each signature represents binding commitment upon the Bidder to provide the goods and/or services offered to the City of Flint if the Bidder is determined to be the lowest Responsive and Responsible Bidder.
- 10) **CONTRACT AWARD/SPLIT AWARDS:** The City of Flint reserves the right to award by item, group of items, or total bid. The Bidder to whom the award is made will be notified at the earliest possible date. Tentative acceptance of the bid, intent to recommend award of a contract and actual award of the contract will be provided by written notice sent to the Bidder at the address designated in the bid if a separate Agreement is required to be executed. After a final award of the Agreement by the City of Flint, the Contractor/Vendor must execute and perform said Agreement. All proposals must be firm for at least 120 days from the due date of the proposal. If, for any reason, a contract is not executed with the selected Bidder within 14 days after notice of recommendation for award, then the City may recommend the next lowest responsive and responsible Bidder.
- 11) **NO RFP RESPONSE:** Bidders who receive this RFP but who do not submit a bid should return this RFP package stating "No Bid" and are encouraged to list the reason(s) for not responding. Failure to return this form may result in removal of the Bidder's name from all future lists.
- 12) **FREEDOM OF INFORMATION ACT (FOIA) REQUIREMENTS:** Bids are subject to public disclosure after the deadline for submission in accordance with state law.

- 13) **ARBITRATION:** Contractor/Vendor agrees to submit to arbitration all claims, counterclaims, disputes and other matters in question arising out of or relating to this agreement or the breach thereof. The Contractor's/Vendor's agreement to arbitrate shall be specifically enforceable under the prevailing law of any court having jurisdiction to hear such matters. Contractor's/Vendor's obligation to submit to arbitration shall be subject to the following provisions:
- a) Notice of demand for arbitration must be submitted to the City in writing within a reasonable time after the claim, dispute or other matter in question has arisen. A reasonable time is hereby determined to be fourteen (14) days from the date the party demanding the arbitration knows or should have known the facts giving rise to their claim, dispute or question. In no event may the demand for arbitration be made after the time when institution of legal or equitable proceedings based on such claim dispute or other matters in question would be barred by the applicable statute of limitation.
 - b) Within fourteen (14) days from the date that demand for arbitration is received by the City, each party shall submit to the other the name of one person to serve as an arbitrator. The two arbitrators together shall then select a third person, the three together shall then serve as a panel in all proceedings. Any decision concurred in by a majority of the three shall be a final binding decision.
 - c) The final decision rendered by said arbitrators shall be binding and conclusive and shall be subject to specific enforcement by a court of competent jurisdiction.
 - d) The costs of the arbitration shall be split and borne equally between the parties and such costs are not subject to shifting by the arbitrator.
 - e) These provisions shall survive the termination or expiration of any agreement entered into as a result of this request.
- 14) **BID HOLD:** The City of Flint may hold bids for a period of one hundred twenty (120) days from opening, for the purpose of reviewing the results and investigating the qualifications of bidders prior to making an award.
- 15) **NONCOMPLIANCE:** Failure to deliver in accordance with specifications will be cause for the City of Flint and they may cancel the contract or any part thereof and purchase on the open market, charging any additional cost to the Contractor/Vendor.
- 16) **DISCLAIMER OF CONTRACTUAL RELATIONSHIP:** Nothing contained in these documents shall create any contractual relationship between the City and any Subcontractor or Sub-subcontractor.
- 17) **ERRORS AND OMISSIONS:** Bidder is not permitted to take advantage of any obvious errors or omissions in specifications.
- 18) **INTERPRETATION:** In the event that any provision contained herein shall be determined by a court of competent jurisdiction or an appropriate administrative tribunal to be contrary to the provision of law or to be unenforceable for any reason, then, to the extent necessary and possible to render the remainder of this Agreement enforceable, such provision may be modified or severed by such court or administrative tribunal having jurisdiction over this Agreement and the interpretation thereof, or the parties hereto, so as to, as nearly as possible, carry out the intention of the parties hereto, considering the purpose of the entire Agreement in relation to such provision.

- 19) **LAWS AND ORDINANCES:** The Bidder shall obey and abide by all of the laws, rules and regulations of the Federal Government, State of Michigan, Genesee County and the City of Flint, applicable to the performance of this Agreement, including, but not limited to, labor laws, and laws regulating or applying to public improvement, local government, and its operational requirements.
- 20) **LOCAL PREFERENCE:** Contractors/bidders located within the corporate city limits of Flint, Michigan may be given a seven percent (7%) competitive price advantage. Additionally, if the lowest responsible bidder is not located within the limits of the City of Flint, but is located within the County of Genesee, and said bidder does not exceed the bid of the lowest non-local bidder by more than three and one-half percent (3-1/2%), then said lowest Genesee County bidder may be determined to be the lowest responsible bidder, and make the award to such Genesee County bidder accordingly, subject to the approval of the City Council. If the lowest non-local bidder does not exceed that of any Proposers/bidders by (7%) inside the City of Flint or (3-1/2%) inside the County of Genesee, then the Purchasing Director shall be allowed to request that the lowest local vendor match the price offered by the lowest non-local vendor.
- 21) **MATERIAL WORKMANSHIP AND STANDARDS OF PERFORMANCE:** The Bidder agrees to exercise independent judgment and to complete performance under this Agreement in accordance with sound professional practices. In entering into this Agreement, the City is relying upon the professional reputation, experience, certification and ability of the Bidder by her/him/themselves or by others employed by her/him/them and working under their direction and control. The continued effectiveness of this Agreement during its term or any renewal term shall be contingent, in part, upon the Bidder maintaining her/his/their operating qualifications in accordance with the requirements of federal, state and local laws. All materials furnished must be new, of latest model and standard first grade quality, or best workmanship and design, unless otherwise expressly specified. Bidder, if required, must furnish satisfactory evidence of quality materials; offers of experimental or unproven equipment may be disregarded.
- 22) **MODIFICATIONS/CHANGES:** Any modification to this agreement must be in writing and signed by the authorized employee, officer, board or council representative authorized to make such modifications pursuant to the State law and local ordinances.
- 23) **NON-COLLUSION:** The Bidder acknowledges that by signing this document that she/he/they is/are duly authorized to make said offer on behalf of the company she/he/they represent(s) and that said bid is genuine and not sham or collusive and not made in the interests or on behalf of any person not therein named, and that she/he/they and said bidder have not directly induced or solicited any other person(s) or corporation to refrain from responding to this solicitation and that she/he/they and said bidder have not in any manner sought by collusion to secure to themselves and said bidder any advantage over any other bidder.
- 24) **NON-DISCRIMINATION:** Pursuant to the requirements of 1976 P.A. 453 (Michigan Civil Rights Act) and 1976 P.A. 220 (Michigan Handicapped Rights Act), the local unit and its agent agree not to discriminate against any employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment or a matter directly or indirectly related to employment because of race, color, religion, national origin, age, sex, height, weight, marital status or because of a handicap that is unrelated to the person's ability to perform the duties of nondiscrimination provision identical to this provision and binding upon any and all contractors and subcontractors. A breach of this covenant shall be regarded as a material breach of this contract.
- 25) **SUBCONTRACTING:** No subcontract work shall be started prior to the written approval of the subcontractor by the City. The City reserves the right to accept or reject any subcontractor.

- 26) **UNION COMPLIANCE:** Bidder agrees to comply with all regulations and requirements of any national or local union(s) that may have jurisdiction over any of the materials, facilities, services or personnel to be furnished by the City.
- 27) **WAIVER:** Failure of the City to insist upon strict compliance with any of the terms, covenants or conditions of this Agreement shall not be deemed a waiver of that term, covenant or condition or of any other term, covenant or condition. Any waiver or relinquishment of any right or power hereunder at any one or more times shall not be deemed a waiver or relinquishment of that right or power at any other time.
- 28) **CITY INCOME TAX WITHHOLDING:** Contractor and any subcontractor engaged in this contract shall withhold from each payment to his employees the City income tax on all of their compensation subject to tax, after giving effect to exemptions, as follows:
- a) Residents of the City:
At a rate equal to 1% of all compensation paid to the employee who is a resident of the City of Flint.
 - b) Non-residents:
At a rate equal to 1/2% of the compensation paid to the employee for work done or services performed in the City of Flint.
- These taxes shall be held in trust and paid over to the City of Flint in accordance with City ordinances and State law. Any failure to do so shall constitute a substantial and material breach of this contract.
- 29) **CONTRACT DOCUMENTS:** The invitation for proposal, instructions to proposal, proposal, affidavit, addenda (if any), statement of Bidder's qualifications (when required), general conditions, special conditions, performance bond, labor and material payment bond, insurance certificates, technical specifications, and drawings, together with this agreement, form the contract, and they are as fully a part of the contract as if attached hereto or repeated herein.
- 30) **DISCLAIMER OF CONTRACTUAL RELATIONSHIP WITH SUBCONTRACTORS:** Nothing contained in the Contract Documents shall create any contractual relationship between the City and any Subcontractor or Sub-subcontractor.
- 31) **EFFECTIVE DATE:** Any agreement between the City and the Bidder shall be effective upon the date that it is executed by all parties hereto.
- 32) **FORCE MAJEURE:** Neither party shall be responsible for damages or delays caused by Force Majeure nor other events beyond the control of the other party and which could not reasonably have anticipated the control of the other party and which could not reasonably have been anticipated or prevented. For purposes of this Agreement, Force Majeure includes, but is not limited to, adverse weather conditions, floods, epidemics, war, riot, strikes, lockouts, and other industrial disturbances; unknown site conditions, accidents, sabotage, fire, and acts of God. Should Force Majeure occur, the parties shall mutually agree on the terms and conditions upon which the services may continue.
- 33) **INDEMNIFICATION:** To the fullest extent permitted by law, Bidder agrees to defend, pay on behalf of, indemnify, and hold harmless the City of Flint, its elected and appointed officials, employees and volunteers and others working on behalf of the City of Flint, including the Project Manager, against any and all claims, demands, suits, or losses, including all costs connected therewith, and for any damages which may be asserted, claimed, or recovered against or from the City of Flint, its elected and appointed officials, employees, volunteers or others working on behalf of the City of Flint, by reason of personal injury, including bodily injury or death and/or property damage, including loss of use thereof, which may arise as a result of Bidder's acts, omissions, faults, and negligence or that of any of his employees,

agents, and representatives in connection with the performance of this contract. Should the Bidder fail to indemnify the City in the above-mentioned circumstances, the City may exercise its option to deduct the cost that it incurs from the contract price forthwith. *These provisions shall survive the termination or expiration of any agreement entered into as a result of this request.*

- 34) **INDEPENDENT CONTRACTOR:** No provision of this contract shall be construed as creating an employer-employee relationship. It is hereby expressly understood and agreed that Bidder is an “independent contractor” as that phrase has been defined and interpreted by the courts of the State of Michigan and, as such, Bidder is not entitled to any benefits not otherwise specified herein.
- 35) **NO THIRD-PARTY BENEFICIARY:** No contractor, subcontractor, mechanic, material man, laborer, vendor, or other person dealing with the principal Contractor shall be, nor shall any of them be deemed to be, third-party beneficiaries of this contract, but each such person shall be deemed to have agreed (a) that they shall look to the principal Contractor as their sole source of recovery if not paid, and (b) except as otherwise agreed to by the principal Contractor and any such person in writing, they may not enter any claim or bring any such action against the City under any circumstances. Except as provided by law, or as otherwise agreed to in writing between the City and such person, each such person shall be deemed to have waived in writing all rights to seek redress from the City under any circumstances whatsoever.
- 36) **NON-ASSIGNABILITY:** Contractor shall not assign or transfer any interest in this contract without the prior written consent of the City provided, however, that claims for money due or to become due to Contractor from the City under this contract may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the City.
- 37) **NON-DISCLOSURE/CONFIDENTIALITY:** Contractor agrees that the documents identified herein as the contract documents are confidential information intended for the sole use of the City and that Contractor will not disclose any such information, or in any other way make such documents public, without the express written approval of the City or the order of the court of appropriate jurisdiction or as required by the laws of the State of Michigan.
- 38) **RECORDS PROPERTY OF CITY:** All documents, information, reports and the like prepared or generated by Contractor as a result of this contract shall become the sole property of the City of Flint.
- 39) **SEVERABILITY:** In the event that any provision contained herein shall be determined by a court or administrative tribunal to be contrary to a provision of state or federal law or to be unenforceable for any reason, then, to the extent necessary and possible to render the remainder of this Agreement enforceable, such provision may be modified or severed by such court or administrative tribunal so as to, as nearly as possible, carry out the intention of the parties hereto, considering the purpose of the entire Agreement in relation to such provision. The invalidation of one or more terms of this contract shall not affect the validity of the remaining terms.
- 40) **TERMINATION:** This contract may be terminated by either party hereto by submitting a notice of termination to the other party. Such notice shall be in writing and shall be effective 30 days from the date it is submitted unless otherwise agreed to by the parties hereto. Contractor, upon receiving such notice and prorated payment upon termination of this contract shall give to the City all pertinent records, data, and information created up to the date of termination to which the City, under the terms of this contract, is entitled.

- 41) **TIME PERFORMANCE:** Contractor's services shall commence immediately upon receipt of the notice to proceed and shall be carried out forthwith and without reasonable delay.
- 42) **EVALUATION OF PROPOSAL:** In the City's evaluation of proposals, at minimum: cost, serviceability, financial stability, and all requirements set forth in this document shall be considered as selection and award criteria unless otherwise specified.
- 43) **PREVAILING WAGE:** All work for this project must meet Davis-Bacon Act requirements and full prevailing wage. Information on Davis-Bacon reporting and requirements, including payroll reporting, can be found at: <https://www.dol.gov/whd/govcontracts/dbra.htm>

END OF GENERAL TERMS & CONDITIONS

CITY OF FLINT, MICHIGAN

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

BID/TENDER FORM

FOR: Renovations to McKinley Community Center
249 Peer Avenue,
Flint, Michigan 48502

DATE: _____

NAME OF BIDDER: _____

ADDRESS _____

TELEPHONE: () _____

E-MAIL ADDRESS: _____

TO: The City of Flint (hereinafter called "Owner")

The Bidder, in compliance with the invitation for bids for work on the Renovations for McKinley Community Center (CHMP Project No. 18001300) having examined the Contract Documents prepared by CHMP, Inc., and other related documents and being familiar with site of proposed work, and with all conditions surrounding construction of proposed project including availability of materials and labor, hereby propose to furnish all labor, materials, tools, equipment, machinery, equipment rental, transportation, superintendence, perform all work, provide all services, and to construct all work for the options which are being bid on, in accordance with Contract Documents, within time set forth herein, at prices stated below. These prices are to cover all expenses incurred in performing work required for these options under Contract Documents, of which this Bid/Tender is a part.

Successful bidder agrees to provide performance and payment bonds written by surety acceptable to Owner. Made in favor of Owner as obligee.

BID:
Bidder agrees to perform all work, as described in the Contract Documents, for Lump Sum* of _____

_____ (\$ _____)*

Note: This amount should not include the optional deductions or additions.

Bidder, if awarded a Contract, hereby agrees to fully complete the project within _____ consecutive calendar days after given a "Notice to Proceed".

FEES FOR CHANGE IN WORK

The undersigned agrees that if awarded the contract for this work, it will, upon request by the Owner, perform additional work or omit specified work, or cause same to be performed or omitted by subcontractors, for the following percentage fees which have been computed in accordance with requirements set forth in the specifications.

Work By Prime Contractor's Own Forces _____ %
Work By Subcontractor's Forces _____ %

It is agreed that in this context a subcontractor shall be as specified in Article 5 of the General Conditions.

CITY OF FLINT, MICHIGAN

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

ALTERNATES

The following alternates shall be expressed in words and figures as an Addition or Deduction to Base Bid.

Alternate No. 1, Omit air conditioning including the condensers, concrete slab, access door, and security fence. DEDUCT the sum _____

_____ (\$ _____)

Alternate No. 2, Omit painting exterior of steel building. DEDUCT the sum of _____

_____ (\$ _____)

Alternate No. 3, Remove damaged furniture and other items from interior of building to facilitate renovations. The extent of such work to be determined during site visit. ADD the sum of _____

_____ (\$ _____)

UNIT PRICES

Bidder agrees to provide additional work if requested by the Owner at the unit prices indicated below. Unit prices shall include all necessary work, plus cost for delivery, installation, insurance, overhead, profit and applicable taxes.

	ADD
Price No. 1: Remove existing and install new 5/8" drywall system at walls and paint	\$ _____/SF
Price No. 2: Remove existing and install new 1/2" CDX plywood roof decking	\$ _____/SF
Price No. 3: Remove existing and install new 1/2" CDX plywood wall sheathing	\$ _____/SF

CITY OF FLINT, MICHIGAN

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

PROPOSED SUBSTITUTIONS

The undersigned submits for consideration by the Owner and/or the Architect-Engineer the Proposed Substitutions as listed hereinafter, each item being offered as a substitute for the referenced specified item which was used in compiling the Lump Sum Price of this Proposal.

<u>Proposal Item</u>	<u>Proposed Substitution</u>	<u>Add</u>	<u>Deduct</u>
1. _____	_____	\$ _____	\$ _____
2. _____	_____	\$ _____	\$ _____
3. _____	_____	\$ _____	\$ _____
4. _____	_____	\$ _____	\$ _____

The bidder agrees that the Owner may accept or reject any or all of the above Proposed Substitutions, and that the work applicable to any items which are accepted will be performed in accordance with the requirements of the drawings and specifications.

Bidder understands that the Owner reserves right to reject any or all Bid/Tenders and to waive any informalities or irregularities herein.

Upon notice of acceptance of this Bid/Tender, bidder may be required to execute Contract Agreement and deliver properly executed Performance and Payment Bonds to Owner within 15 days.

Bidder acknowledges receipt of following addenda:

CERTIFICATION OF SITE VISIT

The undersigned hereby affirms that is has complied with the requirement for visiting the site.

ADDRESS, LEGAL STATUS, AND SIGNATURE OF BIDDER

The undersigned does hereby designate the address, given below, as the legal address to which all notices, directions, or other communications may be served or mailed.

P.O. Box (if applicable)

Street _____

City _____ State _____ Zip Code _____

CITY OF FLINT, MICHIGAN

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

The undersigned does hereby declare that it has the legal status checked below.

_____ Individual
_____ Co-Partnership
_____ Corporation Incorporated under the laws and State of _____

The names and address of all persons indicated as partners in this Bid Proposal are as follows:

<u>NAME</u>	<u>ADDRESS</u>
_____	_____
_____	_____
_____	_____
_____	_____

This Bid Proposal is submitted in the name of:

(Name of Contractor)

By _____

Title _____

Signed and sealed this _____ Day of _____, 20____.

INSTRUCTIONS: Please submit one (1) original and two (2) copies.

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

CERTIFICATION FORM (must be completed and included with submittal)

Certification Form Note

THIS PAGE MUST BE COMPLETED AND INCLUDED WITH THE SUBMITTAL: The undersigned hereby certifies, on behalf of the Respondent named in this Certification (the "Respondent"), that the information provided in this RFP submittal to City of Flint is accurate and complete, and I am duly authorized to submit same. I hereby certify that the Respondent has reviewed this RFP in its entirety and accepts its terms and conditions.

(Signature of Authorized Representative)

(Typed Name of Authorized Representative)

(Title) (Date)

(Address)

(City, State, Zip Code)

(Phone Number)

(Fax Number)

(Email address)

Please submit original documents plus one copy.

New vendors are required to complete and submit an IRS W-9 Form and Vendor ACH Form with the City of Flint. Link is available at <https://www.cityofflint.com/finance/accounts-payable-department/>

Bid results may be viewed next business day online at <https://www.cityofflint.com/purchasing>, under "bid results".

PROPOSAL RESPONSES MUST BE RECEIVED AND TIME STAMPED NO LATER THAN THE PUBLIC PROPOSAL OPENING DATE AND TIME (LOCAL TIME) SPECIFIED ABOVE. PROPOSALS WILL BE OPENED AND READ ALOUD AT THAT TIME IN THE PROCUREMENT SERVICES DIVISION. LATE PROPOSALS WILL NOT BE CONSIDERED.

CITY OF FLINT, MICHIGAN

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

<input type="checkbox"/>	SUBMITTAL CHECKLIST (PROPOSAL PACKET SHOULD BE RETURNED IN ITS ENTIRETY)
	ORIGINAL PROPOSAL
	Three (3) COPIES OF PROPOSAL
	ADDENDA NUMBER ACKNOWLEDGED, IF APPLICABLE
	REFERENCES
	PROPOSAL PRICING (INCLUDING UNIT PRICES, WHERE REQUIRED)
	COMPLETED IRS-Form W-9
	CERTIFICATE OF LIABILITY INSURANCE
	PERFORMANCE AND PAYMENT BONDS: SUCCESSFUL BIDDER SHALL BE REQUIRED TO FURNISH PERFORMANCE, AND LABOR/MATERIAL BONDS IN AN AMOUNT EQUAL TO ONE HUNDRED PERCENT (100%) OF THE CONTRACT AMOUNT. SURETY ON SUCH BONDS SHALL BE A DULY AUTHORIZED COMPANY SATISFACTORY TO THE CITY.
	CERTIFICATION/PROPOSAL SIGNATURE AFFIDAVIT PAGE, COMPLETED, WITH SEAL (IF CORPORATION) NOTARY PUBLIC AND AUTHORIZED SIGNATURE

SPECIAL CONDITIONS

NON-EXCLUSIVITY:

Nothing herein is intended nor shall be construed as creating any exclusive arrangement with Vendor.

WARRANTY:

Complete warranty information detailing period and coverage must be submitted.

VENDOR QUALIFICATIONS:

Vendor will provide a general history, description and status of their Company.

Results may be viewed next business day online EXCEPT when a bid is under review. The bidders/public will only see the names of the bidders that submitted a bid, not their cost. This will protect the bidders cost in case there is a re-bid.

<https://www.cityofflint.com/finance/purchasing/results/> under "bid results".

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

REFERENCES

The Offer must list four (4) references, listing firm name, address, telephone number and contact person to whom they have provided similar equipment, material or services for a period of not less than six (6) months. Additional references may be required. If Offer or is a new business, provide references that will enable the County to determine if Offer or is responsible.

COMPANY NAME:	
ADDRESS:	
CONTACT PERSON:	
TELEPHONE NUMBER:	

COMPANY NAME:	
ADDRESS:	
CONTACT PERSON:	
TELEPHONE NUMBER:	

COMPANY NAME:	
ADDRESS:	
CONTACT PERSON:	
TELEPHONE NUMBER:	

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

REFERENCES

COMPANY NAME:	
ADDRESS:	
CONTACT PERSON:	
TELEPHONE NUMBER:	

STATE THE NUMBER OF YEARS IN BUSINESS:	
STATE THE CURRENT NUMBER OF PERSONNEL ON STAFF:	

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

CITY OF FLINT, MICHIGAN AFFIDAVIT
AFFIDAVIT FOR INDIVIDUAL

STATE OF _____

S.S.

COUNTY OF _____

_____ being duly sworn, deposes and says that he is the person making the above bid; and that said bid is genuine and not sham or collusive, and is not made in the interest of or on behalf of any person not therein named, and that he has not directly or indirectly induced or solicited any bidder to put in a sham bid; that he has not directly or indirectly induced or solicited any other person or corporation to refrain from bidding, and that he has not in any manner sought by collusion to secure himself any advantage over other bidders.

Subscribed and sworn to before me at _____, in said County and State,

this _____ day of _____, A.D. 20____,

*Notary Public, _____ County, _____

My Commission expires _____, 20____

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

CITY OF FLINT, MICHIGAN AFFIDAVIT

FOR CORPORATION

STATE OF _____

S.S.

COUNTY OF _____

_____ being duly sworn, deposes and says that she/he/they

is _____ of _____
(Official Title) (Name of Corporation)

a corporation duly organized and doing business under the laws of the State of _____ the corporation making the within and foregoing bid; that he executed said bid in behalf of said corporation by authority of its Board of Directors; that said bid is genuine and not sham or collusive and is not made in the interests of or on behalf of any person not herein named, and that he has not and said bidder has not directly or indirectly induced or solicited any other person or corporation to refrain from bidding; that he has not and said bidder has not in any manner sought by collusion to secure to himself or to said corporation an advantage over other bidders.

Subscribed and sworn to before me at _____, in said County and State,

this _____ day of _____, A.D. 20_____,

*Notary Public, _____ County, _____

My Commission expires _____, 20_____

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

CITY OF FLINT, MICHIGAN AFFIDAVIT

FOR PARTNERSHIP

STATE OF _____

S.S.

COUNTY OF _____

_____ being duly sworn, deposes and says that he is a member of the firm of _____, a co-partnership, making the above bid; that he is duly authorized to make said bid on behalf of said co-partnership; that said bid is genuine and not sham of collusive, and is not made in the interest of or on behalf of any person not therein named, and that he has and said bidder has not directly or indirectly induced or solicited any other person or corporation to refrain from bidding, and that he has not and said bidder has not in any manner sought by collusion to secure to himself or to said bidder any advantage over other bidders.

Subscribed and sworn to before me at _____, in said County and State,

this _____ day of _____, A.D. 20_____,

*Notary Public, _____ County, _____

My Commission expires _____, 20_____

PROPOSAL NO. 20000564 – RENOVATION TO MCKINLEY COMMUNITY CENTER

CITY OF FLINT, MICHIGAN AFFIDAVIT

FOR AGENT

STATE OF _____

S.S.

COUNTY OF _____

_____ being duly sworn, deposes and says that he executed the within and foregoing bid in behalf of _____, the bidder therein named, he having been theretofore lawfully authorized, as the agent of said bidder, so to do; that said bid is genuine and not sham or collusive and not made in the interests of or on behalf of any person not therein named, and that he has not and said bidder has not directly or indirectly induced or solicited any bidder to put in a sham bid; that he has not and said bidder has not directly or indirectly induced or solicited any other person or corporation to refrain from bidding, and that he has not and said bidder has not in any manner sought by collusion to secure to himself or to said bidder any advantage over other bidders.

Subscribed and sworn to before me at _____, in said County and State,

this _____ day of _____, A.D. 20 _____,

*Notary Public, _____ County, _____

My Commission expires _____, 20 _____

NOTE: If executed outside of the State of Michigan, certificate by the Clerk of the Court of Record, authenticating the Notary's Signature and authority should be attached.

LEFT BLANK INTENTIONALLY

The City of Flint
Department of Purchases and Supplies
1101 S. Saginaw St., Second Floor
Flint, MI 48502

PROJECT: Renovations for McKinley
Community Center

ADDENDUM NO.: ONE
PROPOSAL NO.: 19000575

PROJECT NO.: 18001300

LOCATION: 3001 Colingwood Parkway
Flint, MI 48504
Aka: 249 Peer Avenue

DATE: _____

I. INSTRUCTIONS

- A. The proposed Contract Documents dated April 22, 2019 for the project noted above are modified as noted in this Addendum No. One.
- B. Receipt of this Addendum shall be acknowledged by inserting its number and date in the space provided on the Bid/Tender Form.
- C. All work performed under this Addendum shall be subject to the General Conditions of the Contract and Specifications for similar work in connection with this project. Include all incidental work required to properly complete the work.
- D. This addendum to the Construction Documents is issued prior to receipt of bids. All work covered in this Addendum shall be included in the original quotation and the Addendum will be considered one of the Contract Documents.

II. MODIFICATIONS TO THE CONTRACT DOCUMENTS

- A. Refer to the Drawings
 1. Sheet A-1: Reference Note #5 shall change and read as follows: "Remove and dispose of existing floor carpet and vinyl base. Prep floor and furnish and install new 28 oz/cu. yd., 100 percent nylon 6, direct-glue-down tufted carpet and vinyl base to match existing."
 2. Sheet SP-1: Section 007100 – General Conditions of the Contract; Document A201-2007 requires the General Contractor to obtain and pay for the building permit. The Bidder shall include an allowance of \$1,123.00 in their quotation for the cost of the building permit.
 3. Sheet M-2 (Re-issued): Item 1 – A new condenser unit schedule has been provided.

END OF ADDENDUM

RENOVATIONS FOR

McKinley Community Center

3001 COLINGWOOD PARKWAY, FLINT, MICHIGAN 48503
a.k.a. 249 PEER AVENUE

OWNER

CITY OF FLINT
FLINT, MICHIGAN

ARCHITECT

CHMP, INC.
5198 TERRITORIAL ROAD
GRAND BLANC, MI 48439
(810) 695-5910
(810) 695-0680 (FAX)

MECHANICAL / ELECTRICAL ENGINEER

TRIUMPH ENGINEERING & DESIGN, INC.
10775 S. SAGINAW STREET, SUITE D
GRAND BLANC, MICHIGAN 48439
(810) 584 1364
(810) 584 1362 (FAX)

DRAWING SYMBOLS

-  SECTION CUT
-  DETAIL NUMBER
SHEET REFERENCE NUMBER
-  DETAIL REFERENCE
-  FINISH ELEVATION
-  COLUMN CENTERLINE

ABBREVIATIONS

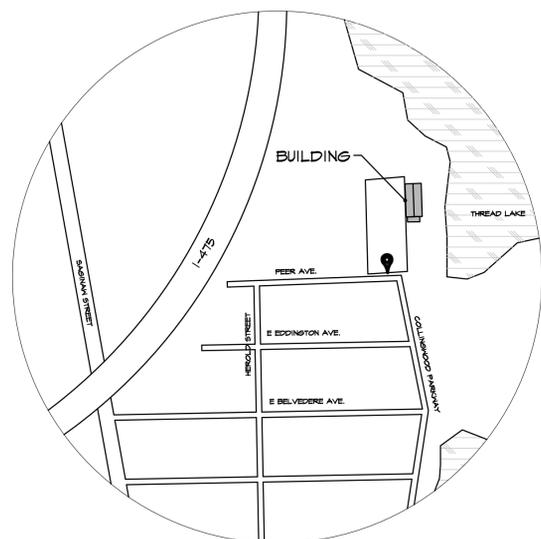
∅	AT	INT.	INTERIOR
∠	ANGLE	JAN.	JANITOR
A.C.	AIR CONDITIONING	J.B./J. BOX	JUNCTION BOX
ACOUST.	ACOUSTICAL	LAM.	LAMINATE
		LAV.	LAVATORY
ADJ.	ADJUSTABLE	LL.	LANDLORD
A.F.F.	ABOVE FINISH FLOOR	MAS.	MASONRY
ALT.	ALTERNATE	MATL.	MATERIAL
ALUM.	ALUMINUM	MAX.	MAXIMUM
ARCH.	ARCHITECTURAL	MECH.	MECHANICAL
BLKG.	BLOCKING	MET.	METAL
B.M.	BENCH MARK	MISC.	MISCELLANEOUS
BOT.	BOTTOM	MIN.	MINIMUM
BRG.	BEARING	M.O.	MASONRY OPENING
B.U.R.	BUILT UP ROOF	N.I.C.	NOT IN CONTRACT
		N.T.S.	NOT TO SCALE
CHNL.	CHANNEL	O.C.	ON CENTER
C.T.	CERAMIC TILE	O.D.	OUTSIDE DIAMETER
C.J.	CONTROL JOINT	OPNG.	OPENING
C.L./	CENTER LINE	OPP.	OPPOSITE
CLG.	CEILING		
C.O.	CLEAN OUT	FL.LAM.	PLASTIC LAMINATE
COL.	COLUMN	FL / F	PLATE
CONC.	CONCRETE	FLYWD.	PLYWOOD
CONST. JT.	CONSTRUCTION JOINT	FR.	FAIR
CONT.	CONTINUOUS	RA.	RETURN AIR
		R.	RADIUS
DBL.	DOUBLE	R.D.	ROOF DRAIN
DET.	DETAIL	REF.	REFRIGERATOR
DIA./∅	DIAMETER	REINF.	REINFORCING
DN.	DOWN	REQ.	REQUIRED
DW.	DISHWASHER	S.A.	SUPPLY AIR
D.S.	DOWN SPOUT	SFS	SURFACE FOUR SIDES
DWG.	DRAWING	S.C.	SOLID CORE
EA.	EACH	SHT.	SHEET
E.J.	EXPANSION JOINT	SPEC.	SPECIFICATION
		S.S.	SERVICE SINK
ELEC.	ELECTRICAL	ST.STL.	STAINLESS STEEL
ELEV.	ELEVATION	STL.	STEEL
EQ.	EQUAL	STOR.	STORAGE
E.W.	EACH WAY	STR.	STRUCTURAL
E.W.C.	ELECTRICAL WATER COOLER		
		T.	THERMOSTAT
EXT.	EXTERIOR	T.C.	TOP OF CURB
FIN. FLR./FF.	FINISH FLOOR	TEN.	TENANT
FIN.	FINISH	T.G.C.	TENANT GENERAL CONTRACTOR
F/C	FACE OF CURB	T.P.	TOP OF PAVING
FLR.	FLOOR		
F.B.O.	FURNISHED BY OWNER		
F.S.	FLOOR SINK		
F.D.	FLOOR DRAIN	TYP.	TYPICAL
		U.N.O.	UNLESS NOTED OTHERWISE
GA.	GAUGE	V.I.F.	VERIFY IN FIELD
GALV.	GALVANIZED	V.T.R.	VENT THROUGH ROOF
G.C.	GENERAL CONTRACTOR	W.H.	WATER HEATER
G.I.	GALVANIZED IRON	W.I.	WROUGHT IRON
		W.P.	WATER PROOF
H.B.	HOSE BIBB	W.R.	WATER RESISTANT
		WT.	WEIGHT
H.C.	HOLLOW CORE	W	WITH
HDWE.	HARDWARE	WO	WITHOUT
H.M.	HOLLOW METAL		
INSUL.	INSULATION		

BUILDING DATA

- APPLICABLE CODES:
- ALL WORK UNDER THE CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS AND DRAWINGS, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS OF ALL GOVERNING AGENCIES INVOLVED. ALL PERMITS AND LICENSES NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR INVOLVED. APPLICABLE CODES INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
- | | | |
|---------------|---|--------|
| 1. BUILDING | MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS | |
| | CHAPTER 7, ALTERATION LEVEL 1 | (2018) |
| 2. PLUMBING | MICHIGAN PLUMBING CODE | (2018) |
| 3. MECHANICAL | MICHIGAN MECHANICAL CODE | (2018) |
| 4. ELECTRICAL | NATIONAL ELECTRICAL CODE | (2017) |

SHEET INDEX

SHEET No.	TITLE
T-5	TITLE SHEET
ARCHITECTURAL	
A-1	EXISTING FLOOR PLAN & DETAILS
A-2	BUILDING ELEVATIONS & MECHANICAL FENCED AREA
A-3	ENLARGED PARTIAL ELEVATIONS & PARTIAL ROOF PLAN
SP-1	ARCHITECTURAL SPECIFICATIONS
SP-2	ARCHITECTURAL SPECIFICATIONS
SP-3	ARCHITECTURAL SPECIFICATIONS
SP-4	ARCHITECTURAL SPECIFICATIONS
MECHANICAL	
M-1	FLOOR PLAN - HVAC; FLOOR PLAN - PLUMBING
M-2	HVAC NOTES; PLUMBING NOTES
ELECTRICAL	
E-1	FLOOR PLAN - LIGHTING; FLOOR PLAN - POWER
E-2	ELECTRICAL PANEL SCHEDULES & RISER DIAGRAM



 **LOCATION MAP**
N.T.S.

CHMP INC.
5198 TERRITORIAL ROAD
GRAND BLANC, MI 48439
TELEPHONE 810/695-5910



ARCHITECTURE

TITLE SHEET
PROJECT No. 18001300
APRIL 10, 2019

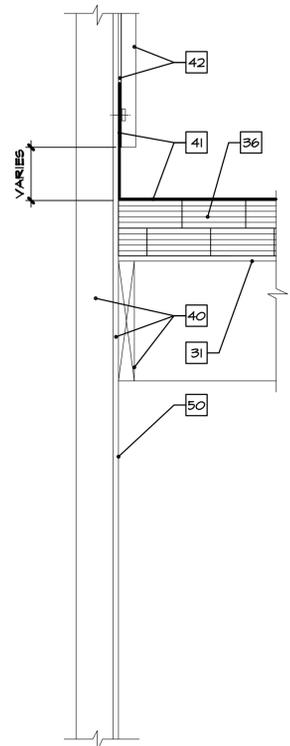
ISSUED FOR BIDS 04-22-2019



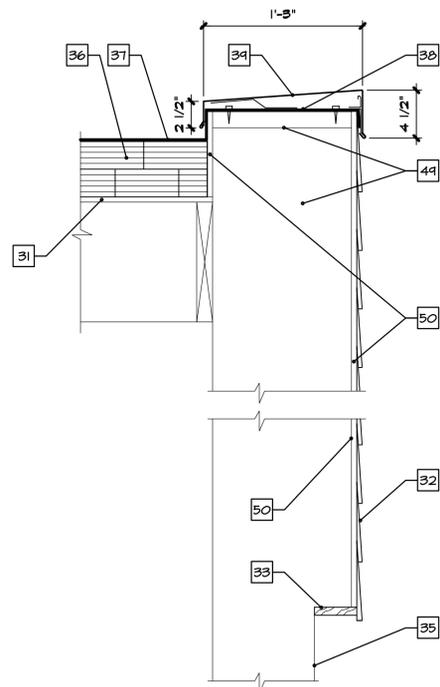
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 ENGINEERING
 LANDSCAPE ARCHITECTURE
 SURVEYING

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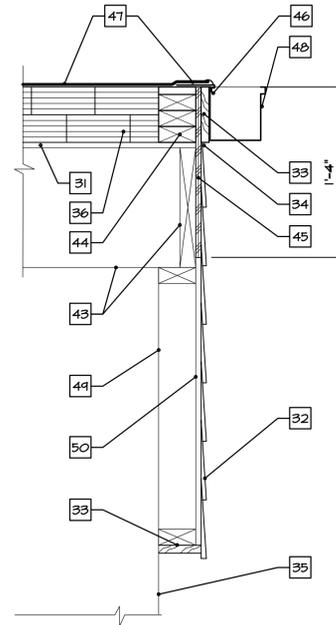
RENOVATIONS FOR
McKINLEY COMMUNITY CENTER
 3001 COLLINGWOOD PARKWAY, FLINT, MICHIGAN 48503



① **DETAIL**
 SCALE 1 1/2" = 1'-0"



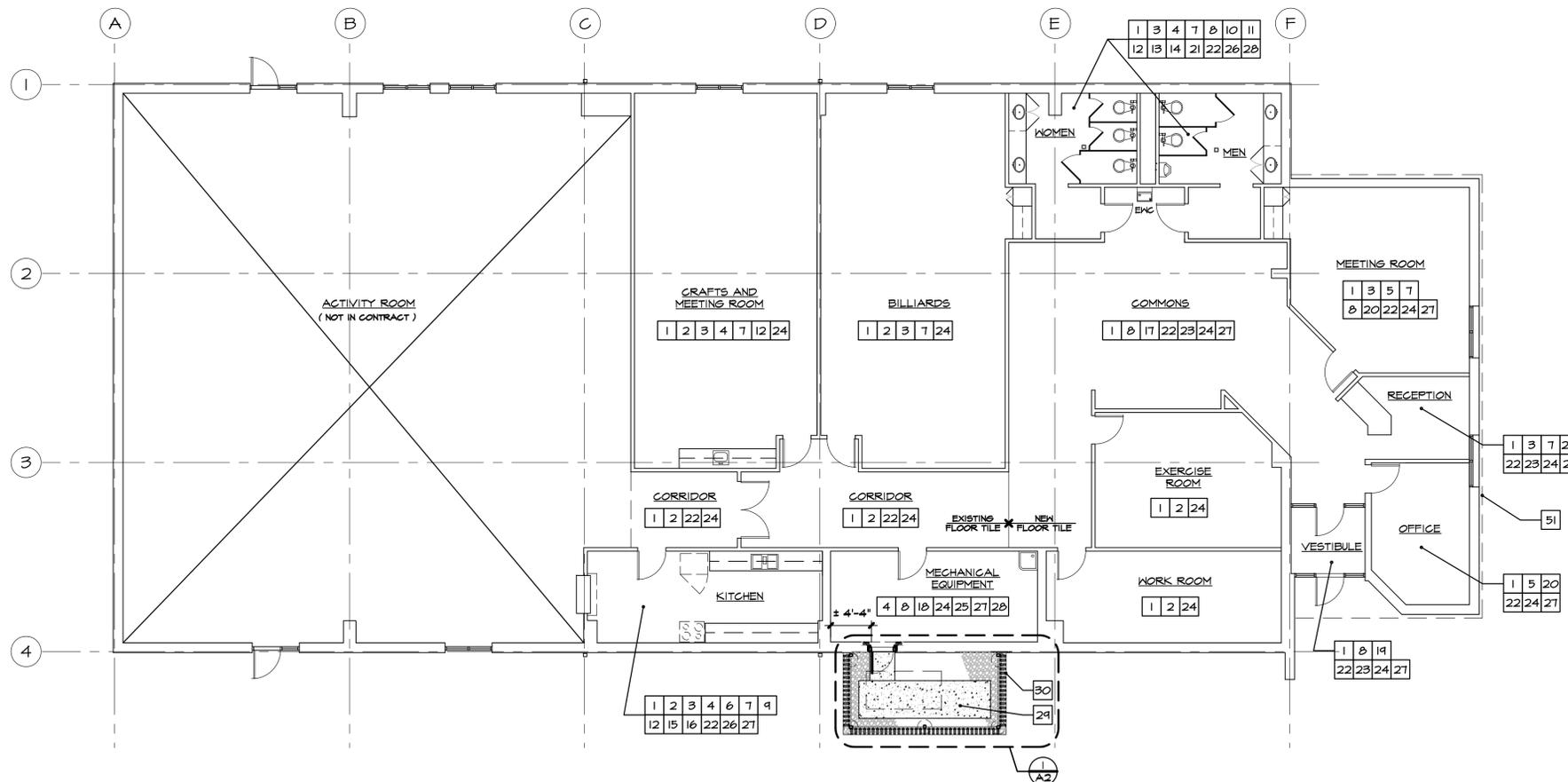
② **DETAIL**
 SCALE 1 1/2" = 1'-0"



③ **DETAIL**
 SCALE 1 1/2" = 1'-0"

REFERENCE NOTES

- 1 CLEAN AND WASH WALLS; CLEAN DOOR & FRAME
- 2 CLEAN WALL BASE; STRIP RESILIENT FLOOR TILE, WAX & BUFF
- 3 CLEAN PLASTIC LAMINATE COUNTERTOP AND BACKSPLASH
- 4 CLEAN SINK & FAUCET
- 5 PROFESSIONALLY CLEAN CARPET AND WALL BASE
- 6 CLEAN ROLLING SHUTTER, TRACKS, HOOD, AND COUNTER
- 7 CLEAN WOOD CABINETRY INSIDE AND OUT, APPLY WOOD REJUVENATING AGENT TO ALL OUTSIDE SURFACES OF CABINETRY
- 8 REPAIR DAMAGED DRYWALL AREAS; APPLY PRIMER
- 9 REPAIR DAMAGED CABINET DOORS AND/OR DRAWERS & RE-INSTALL
- 10 CLEAN CERAMIC FLOOR AND BASE
- 11 CLEAN ALL PLUMBING FIXTURES
- 12 CLEAN ALL WALL MOUNTED ACCESSORIES
- 13 CLEAN MIRRORS
- 14 REMOVE WALL COVERING AND PREP WALL FOR PAINT
- 15 FUTURE REFRIGERATOR & RANGE (N.I.C.); CLEAN RANGE HOOD
- 16 PROVIDE NEW 1.5 HOUR RATED DOOR TO MATCH EXISTING; PROVIDE HINGES, LOCKSET & CLOSER TO MATCH EXISTING
- 17 CLEAN ELECTRIC WATER COOLER
- 18 PROVIDE NEW 1.5 HOUR RATED DOOR TO MATCH EXISTING; REUSE ALL EXISTING HARDWARE
- 19 CLEAN EXISTING ALUMINUM DOOR, FRAMES AND ALL GLAZING
- 20 CLEAN EXISTING ALUMINUM WINDOW FRAME AND GLAZING
- 21 CLEAN ALL TOILET PARTITIONS AND ALL TOILET ACCESSORIES
- 22 FURNISH AND APPLY NEW PAINT TO ALL WALLS
- 23 REMOVE EXISTING RESILIENT TILE FLOORING AND BASE FOR NEW RESILIENT TILE FLOORING AND WALL BASE
- 24 REMOVE ACOUSTICAL CEILING TILE & REPLACE WITH NEW
- 25 REPAIR / REPLACE DAMAGED CEILING GRID AREAS
- 26 REMOVE EXISTING CEILING TILE AND GRID FOR NEW GRID & CEILING TILE
- 27 RE-INSTALL EXISTING FIBERGLASS BATT INSULATION ON TOP OF NEW CEILING
- 28 PROVIDE NEW R-19 FIBERGLASS BATT INSULATION; INSTALL ON TOP OF NEW CEILING TO MATCH EXISTING
- 29 NEW 6" CONCRETE SLAB
- 30 NEW SECURITY FENCE ENCLOSURE - SEE SPEC'S
- 31 EXISTING 1/2" PLYWOOD ROOF DECK - SEE SPEC'S
- 32 NEW HORIZONTAL LAPPED FIBER CEMENT SIDING - SEE SPEC'S OVER TYVEK OR EQUAL AIR/WATER BARRIER
- 33 NEW 1X CEDAR TRIM - PAINT
- 34 SEALANT - TYPICAL
- 35 EXISTING FACE BRICK
- 36 NEW R-30 INSULATION BOARD - SEE SPEC'S
- 37 NEW 60 MIL EPDM ROOF MEMBRANE - CARRY UP AND OVER PARAPET WALL & LAP 2" OVER NEW CEMENT SIDING - SEE SPEC'S
- 38 NEW COPING ANCHOR PLATE WITH TOP CHAIR AND HOLD-DOWN CLEATS EACH SIDE AT 48" O.C. - SEE SPEC'S
- 39 NEW SNAP ON COPING COVER - SEE SPEC'S
- 40 EXISTING PLYWOOD SHEATHING & WOOD ENDWALL FRAMING
- 41 NEW 60 MIL ROOF MEMBRANE - CARRY UP AND UNDER EXISTING STEEL WALL SIDING A MINIMUM 6"; RE-SECURE SIDING - SEE SPEC'S
- 42 EXISTING RIBBED STEEL ROOF SIDING - PAINT
- 43 EXISTING WOOD FRAME ROOF STRUCTURE
- 44 NEW 2X4 WOLMAIZED BLOCKING & PLYWOOD SPACER - MATCH HEIGHT OF NEW RIGID INSULATION BOARD
- 45 REMOVE PORTION OF EXISTING WALL SHEATHING - INSTALL 1'-4" HIGH EXTERIOR PLYWOOD SHEATHING TO MATCH EXISTING
- 46 NEW METAL EDGE TRIM WITH FORMED DRIP - MATCH NEW COPING - SEE SPEC'S
- 47 CARRY NEW EPDM MEMBRANE OVER EDGE TRIMM & SEAL
- 48 RE-INSTALLED, EXISTING GALVANIZED STEEL GUTTER
- 49 EXISTING WOOD FRAME PARAPET CONSTRUCTION
- 50 EXISTING 1/2" PLYWOOD SHEATHING - SEE SPEC'S
- 51 LINE OF ROOF OVERHANG ABOVE



EXISTING FLOOR PLAN
 SCALE 1/8" = 1'-0"

PROJECT NO.	18001300
DATE	04-10-2019
AS BUILT DATE	
DRAWN BY	RP
CHECKED BY	MB
SCALE	AS NOTED
REVISION	DATE
ISSUED FOR BIDS	04-22-2019

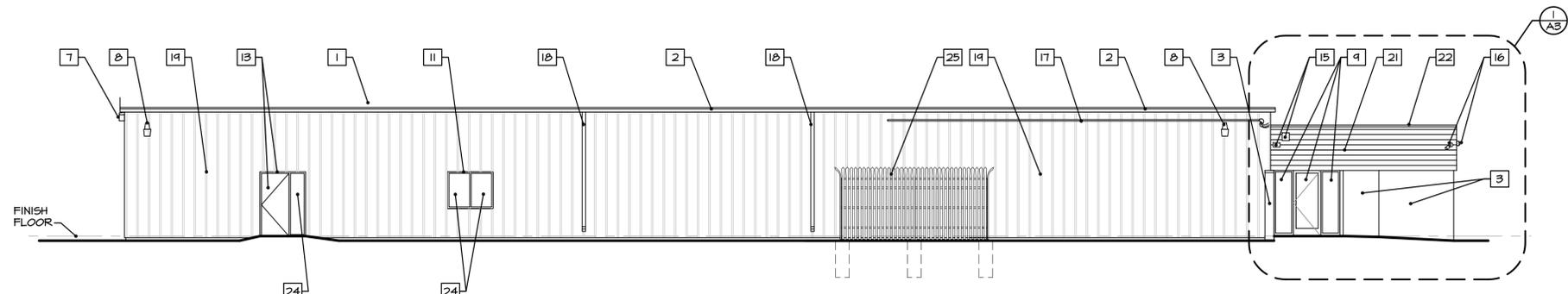
SHEET NO.
A-1
 OF 3



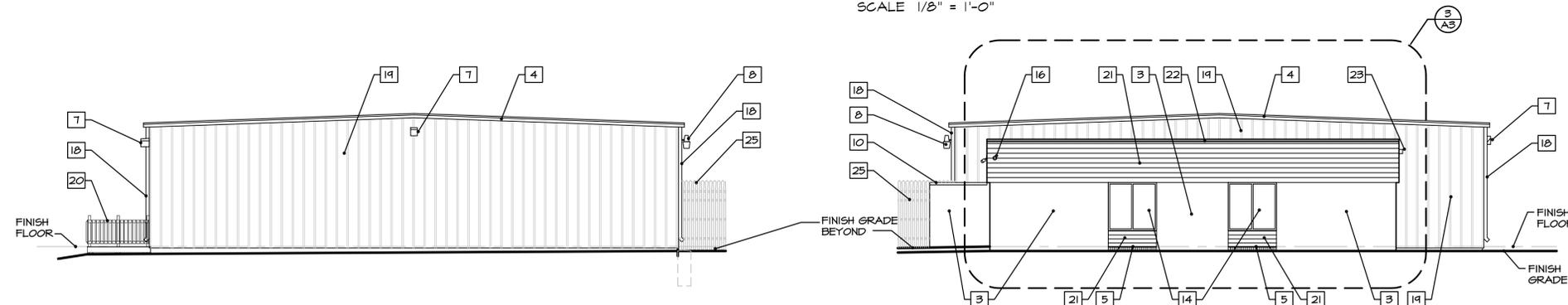
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RENOVATIONS FOR
McKINLEY COMMUNITY CENTER
3001 COLLINGWOOD PARKWAY, FLINT, MICHIGAN 48503

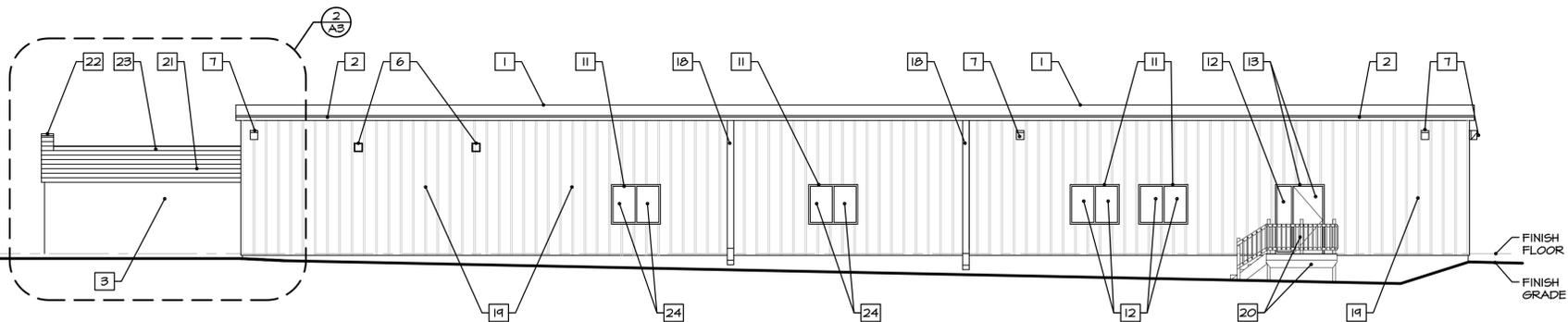


WEST ELEVATION
SCALE 1/8" = 1'-0"

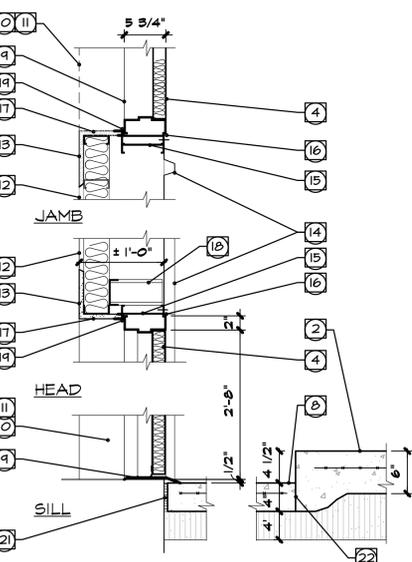


NORTH ELEVATION
SCALE 1/8" = 1'-0"

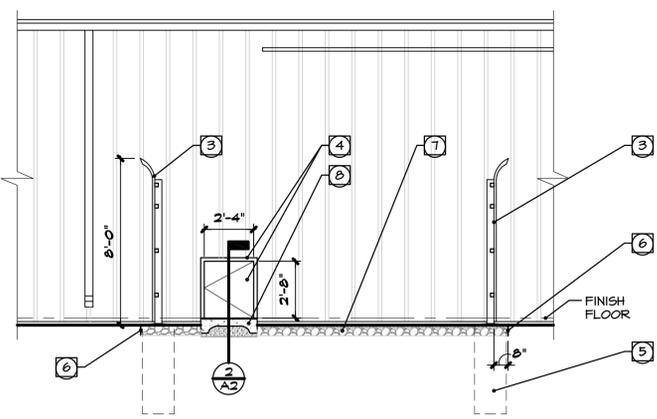
SOUTH ELEVATION
SCALE 1/8" = 1'-0"



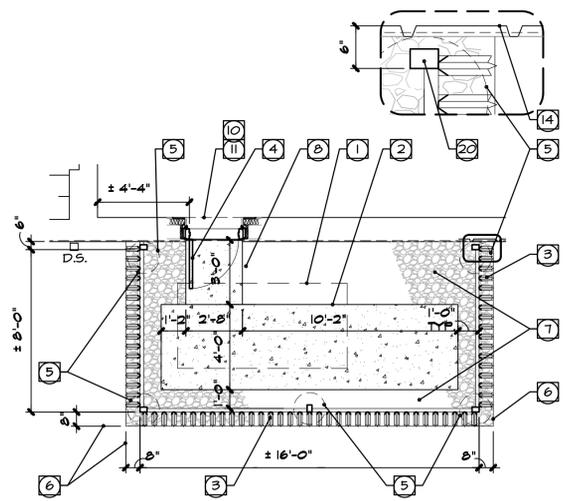
EAST ELEVATION
SCALE 1/8" = 1'-0"



NEW ACCESS DOOR
SCALE 3/4" = 1'-0"



PARTIAL WEST ELEVATION
SCALE 1/4" = 1'-0"



NEW MECHANICAL FENCED AREA
SCALE 1/4" = 1'-0"

**BUILDING ELEVATIONS
REFERENCE NOTES**

- 1 EXISTING STANDING SEAM STEEL ROOF PANELS - NO CHANGE
- 2 EXISTING GUTTER / EAVE TRIM - NO CHANGE
- 3 EXISTING PAINTED FACE BRICK - PAINT
- 4 EXISTING GABLE END EAVE TRIM - NO CHANGE
- 5 EXISTING PAINTED ROWLOCK BRICK SILL - PAINT
- 6 EXISTING EXHAUST FAN HOOD AND GRILLE - NO CHANGE
- 7 EXISTING WALL PACK SECURITY LIGHT - NO CHANGE
- 8 EXISTING BARNYARD SECURITY LIGHT - NO CHANGE
- 9 EXISTING ALUMINUM AND GLASS ENTRANCE DOOR & SIDELIGHTS - CLEAN
- 10 EXISTING METAL COPING - PAINT TO MATCH STEEL SIDING
- 11 EXISTING STEEL WINDOW FRAMES - PAINT TO MATCH STEEL SIDING
- 12 EXISTING GLAZING - NO CHANGE
- 13 EXISTING STEEL DOOR, FRAME AND SIDELIGHT - PAINT TO MATCH STEEL SIDING
- 14 EXISTING ALUMINUM WINDOW FRAMES & GLAZING - CLEAN
- 15 REMOVE EXISTING TELEPHONE EQUIPMENT - RELOCATE TO STEEL WALL PANELS
- 16 EXISTING CAMERA - TEMPORARILY REMOVE & REINSTALL AFTER RE-SIDING
- 17 EXISTING ELECTRICAL SERVICE CONDUIT - PAINT TO MATCH STEEL SIDING
- 18 EXISTING DOWNSPOUT - PAINT TO MATCH STEEL SIDING
- 19 EXISTING VERTICAL RIBBED STEEL SIDING - PAINT
- 20 EXISTING WOOD PORCH, STEPS & RAILING - NO CHANGE
- 21 REMOVE EXISTING HORIZONTAL LAPPED WOOD SIDING COMPLETE
- 22 REMOVE EXISTING COPING COMPLETE
- 23 REMOVE, CLEAN AND RETAIN EXISTING STEEL GUTTER FOR REUSE
- 24 NEW GLAZING - SEE SPEC'S
- 25 NEW STEEL FENCE

ACCESS DOOR HARDWARE

FURNISH AND PROVIDE ALL NECESSARY REINFORCEMENTS, BRACKETS, FASTENERS, SHIMS, SPACERS AND FILLERS TO PROVIDE A COMPLETE FUNCTIONING OPENING.

- | | |
|-----------------------------------|----------|
| 1 PAIR BUTT HINGE 355SHB 4545 NRP | 32D PDG |
| 1 EA. DEADBOLT LOCK MR 154 BLEW | 32D PDG |
| 1 EA. THRESHOLD S205A | AL REESE |
| 1 EA. SWEEP 353A | AL REESE |
| 1 EA. WEATHERSTRIP 855C | AL REESE |
| 1 EA. RAIN DRIP 201C | AL REESE |

**MECHANICAL FENCED AREA
REFERENCE NOTES**

- 1 REMOVE EXISTING CONCRETE SLAB & DISPOSE OF PROPERLY OFF-SITE - BY G.C.
- 2 NEW 6", 3000 P.S.I. CONCRETE CONDENSER SLAB W/ 6X6 #10 W.W.F. ON 4" MIN. COMPACTED SAND FILL - TOP OF SLAB @ 4" ABOVE BUILDING FLOOR ELEVATION
- 3 NEW STEEL FENCE - SEE SPEC'S
- 4 NEW INSULATED GALVANIZED 16 GA. HOLLOW METAL ACCESS DOOR & 18 GA. GALVANIZED, WELDED FRAME - PAINT TO MATCH EXISTING METAL SIDING
- 5 NEW 18" X 48" DEEP, 3000 P.S.I. CONCRETE FOOTING
- 6 NEW COMMERCIAL GRADE LAWN EDGING - LOCATE 6" OUTSIDE OF FENCE - BY G.C.
- 7 REMOVE ± 6" DEPTH OF EXISTING TOP SOIL, INSTALL HEAVY DUTY FABRIC WEED BARRIER AND 8" OF MAX. 2"φ WASHED RIVER ROCK SURFACE
- 8 NEW 4", 3000 P.S.I. CONCRETE SLAB W/ 6 X 6 #10 W.W.F. ON 4" MIN. COMPACTED SAND FILL - TOP OF SLAB AT BUILDING FLOOR ELEVATION - BY G.C.
- 9 NEW ALUMINUM THRESHOLD SET IN SEALANT
- 10 CUT & REMOVE SECTION OF EXISTING STEEL SIDING BOTTOM SUPPORT AT NEW DOOR & FRAME OPENING
- 11 REMOVE SECTION OF EXISTING DRYWALL & STEEL STUD FRAMING AT NEW DOOR & FRAME OPENING
- 12 EXISTING DRYWALL, STEEL STUD FRAMING & BATT INSULATION
- 13 NEW DRYWALL & 22 GA. STEEL STUD FRAMING TO MATCH EXISTING - TAPE, MUD, SAND & PRIME
- 14 EXISTING STEEL SIDING - CUT & REMOVE SECTION AT NEW DOOR & FRAME
- 15 NEW 6" X 18 GA. STEEL STUD FRAMING BEHIND STEEL SIDING AT HEAD & JAMBS OF NEW STEEL ACCESS DOOR - SECURE SIDING TO 6" STEEL STUD FRAMING
- 16 CAULK PERIMETER OF NEW STEEL ACCESS DOOR FRAME - SEE SPEC'S
- 17 METAL CASING BEAD AT DRYWALL PERIMETER - HOLD BACK 1/4" FROM DOOR FRAME & CAULK
- 18 SECURE NEW 6" STEEL STUD FRAMING TO FLOOR TRACK AND BRACE BACK TO INTERIOR STEEL STUD FRAMING AT NEW DOOR HEAD
- 19 SEALANT - TYPICAL
- 20 NEW FENCE POST
- 21 1/2" EXPANSION MATERIAL
- 22 BUILDING PAPER BOND BREAK

PROJECT NO.	18001300
DATE	04-10-2019
AS BUILT DATE	
DRAWN BY	RP
CHECKED BY	MB
SCALE	AS NOTED
REVISION	DATE
ISSUED FOR BIDS	04-22-2019



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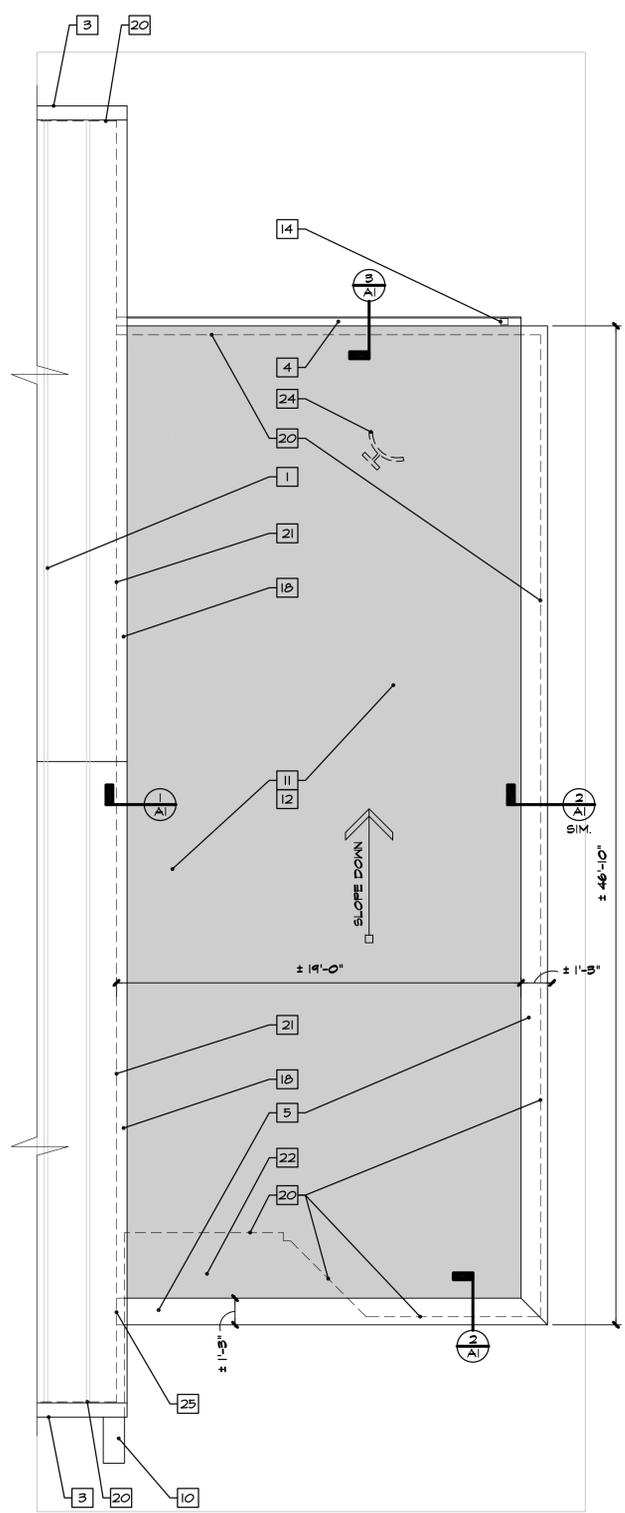
RENOVATIONS FOR
McKINLEY COMMUNITY CENTER
 3001 COLLINGWOOD PARKWAY, FLINT, MICHIGAN 48503

PROJECT NO.	18001300
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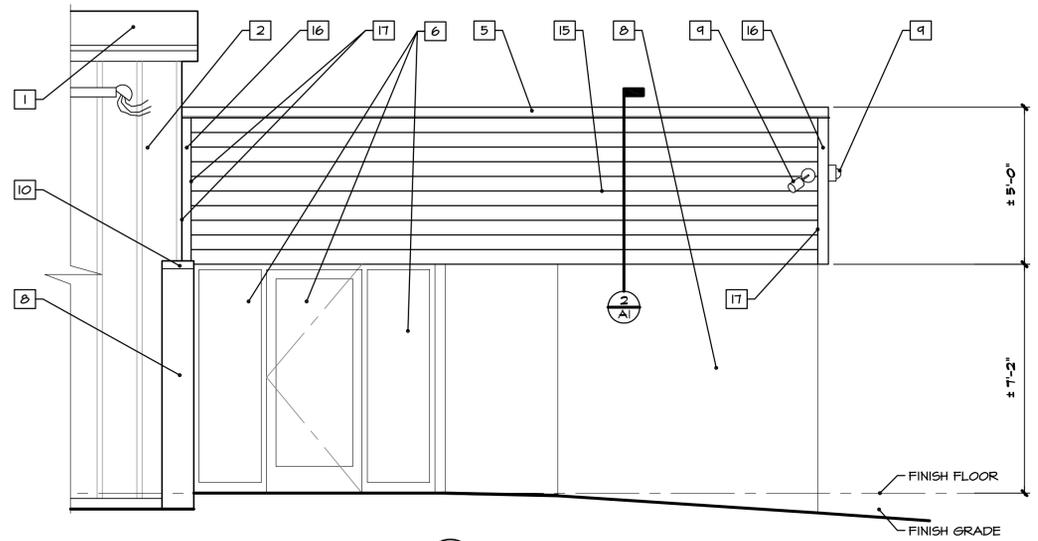
SHEET NO.
A-3
 OF 3

REFERENCE NOTES

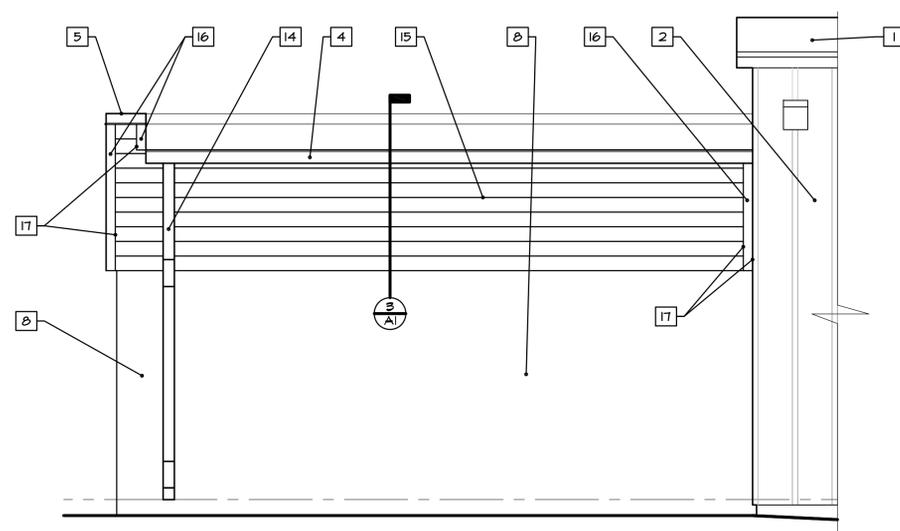
- 1 EXISTING STANDING SEAM STEEL ROOF PANELS - NO CHANGE
- 2 EXISTING VERTICAL RIBBED STEEL SIDING - PAINT
- 3 LINE OF STEEL BUILDING ROOF OVERHANG ABOVE
- 4 REUSED EXISTING GALVANIZED STEEL GUTTER
- 5 NEW PREFINISHED METAL COPING WITH FORMED DRIP - SEE SPECS
- 6 EXISTING ALUMINUM DOOR, FRAMES & SIDELIGHTS - CLEAN
- 7 EXISTING ALUMINUM WINDOW FRAMES & GLAZING - CLEAN
- 8 EXISTING PAINTED FACE BRICK - PAINT
- 9 RE-INSTALLED EXISTING SECURITY CAMERA
- 10 EXISTING METAL COPING - PAINT TO MATCH SIDING
- 11 REMOVE EXISTING ROOFING & INSULATION COMPLETE DOWN TO WOOD DECK
- 12 NEW EPDM ROOF MEMBRANE ON RIGID INSULATION - SEE SPECS
- 13 EXISTING PAINTED ROWLOCK BRICK SILL - PAINT
- 14 NEW GALVANIZED STEEL DOWNSPOUT - SECURE TO GUTTER & BRICK
- 15 NEW FIBER CEMENT SIDING (5 1/2" EXPOSURE) - PAINT - SEE SPECS
- 16 NEW 1 X 4 VERTICAL CEDAR TRIM - MITER CORNERS - PAINT - SEE SPECS
- 17 SEALANT - TYP. - SEE SPECS
- 18 EXISTING GABLE END GALVANIZED STEEL EAVE TRIM - NO CHANGE
- 19 NEW 1X CEDAR SILL TO MATCH EXISTING - PAINT
- 20 FACE OF EXISTING WALL BELOW
- 21 FACE OF EXISTING STEEL SIDING BELOW
- 22 SCRAPE, PRIME & PAINT EXISTING EXTERIOR DRYWALL SOFFIT BELOW
- 23 RELOCATED EXISTING TELEPHONE SERVICE
- 24 REMOVE EXISTING SATELLITE DISH
- 25 NOTCH AND RETURN NEW COPING VERTICALLY UP WALL AND TERMINATE UNDER EXISTING STEEL SIDING - SEAL AS REQUIRED



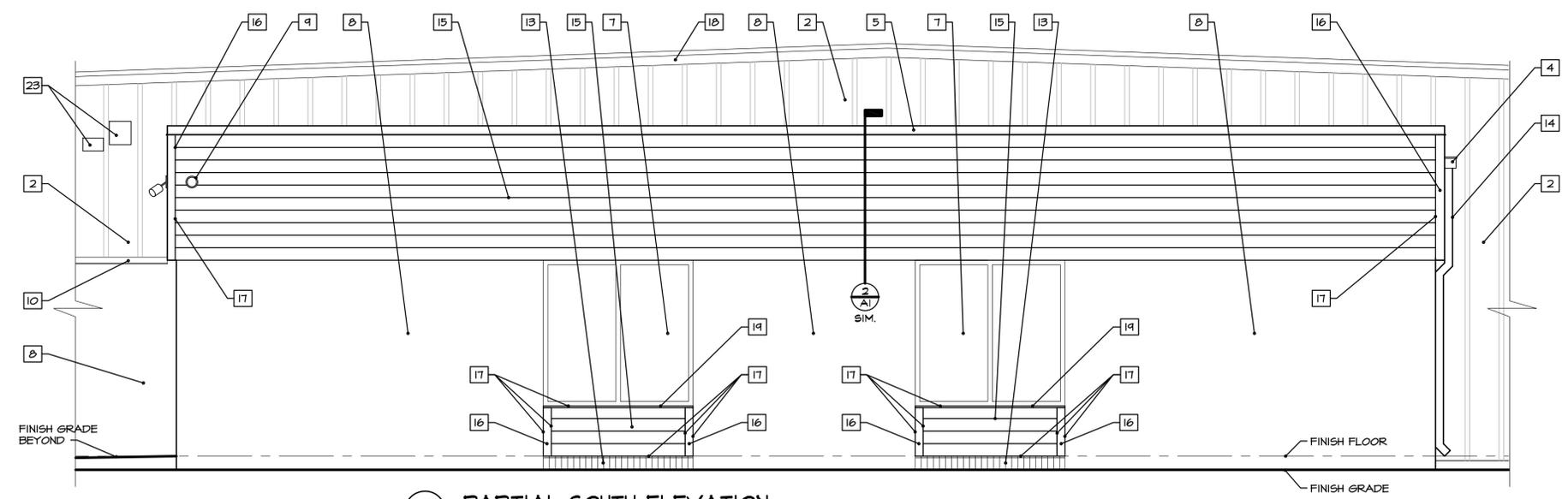
PARTIAL ROOF PLAN
 SCALE 1/4" = 1'-0"



PARTIAL WEST ELEVATION
 SCALE 3/8" = 1'-0"



PARTIAL EAST ELEVATION
 SCALE 3/8" = 1'-0"

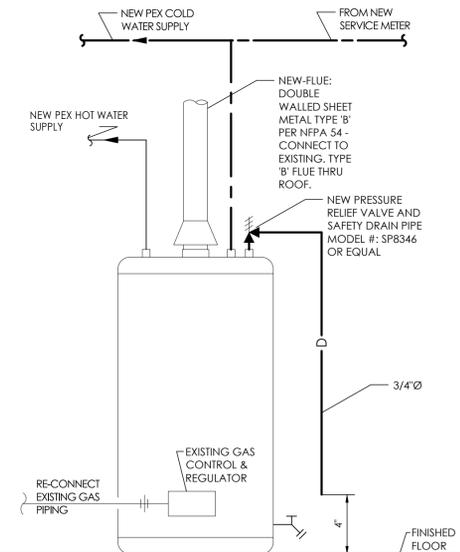


PARTIAL SOUTH ELEVATION
 SCALE 3/8" = 1'-0"

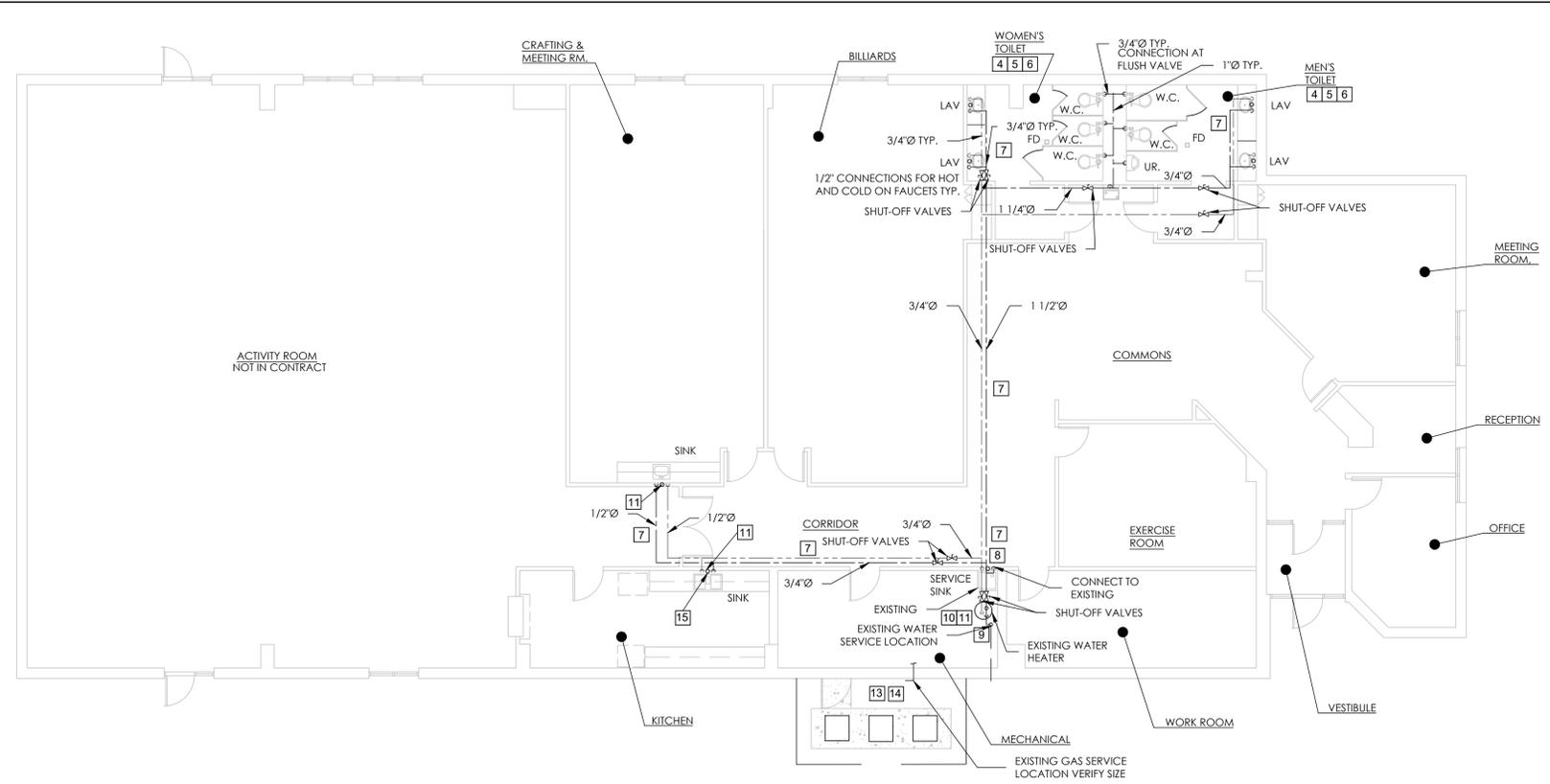


PLUMBING NOTES

- PROVIDE NEW FLUSH VALVES FOR TOILETS AND URINAL. NEW FAUCETS FOR LAVATORIES AND KITCHEN SINK. CLEAN EXISTING EWC AND REINSTALL. CLEAN EXISTING PLUMBING FIXTURES AND RESTORE ALL PLUMBING TO WORKING ORDER, PER CODE.
- RECONNECT EXISTING WATER HEATER INCLUDING FLUE, GAS, NEW PEX HOT, COLD WATER PIPING AND VALVES
- COORDINATE INSTALLATION OF GAS METER AND PIPING WITH UTILITY PROVIDER
- REPAIR, CHECK, TEST, AND STARTUP ALL THREE FURNACES FOR PROPER OPERATION.
- COORDINATE THE INSTALLATION OF NEW WATER METER WITH CITY OF FLINT. EXISTING SERVICE IS SHEARED OFF AT THE SLAB. CHIP-AWAY CONCRETE AS REQ'D TO INSTALL NEW SERVICE CONNECTION TO NEW METER AND BACK FLOW PREVENTER. CONNECT 2" PEX TO BACKFLOW PREVENTER, THEN 3/4" DIA. TO WATER HEATER AND 1 1/2" DIA. TO COLD WATER SUPPLY TO REST OF STRUCTURE.
- RECONNECT EWC TO EXISTING WATER & WASTE PIPING AS REQ'D.
- RE-INSTALL EXISTING LAVATORIES IN EXISTING COUNTER TOPS. CAULK PERIMETER & RE-CONNECT EXISTING WASTE PIPES AS REQ'D
- PROVIDE WATT, LF909 SMALL REDUCED PRESSURE BACKFLOW PREVENTER OR EQUAL AND INSTALL AT METER CONNECTION.
- USE APPROPRIATE SIZED SHARK BITE BALL VALVES OR EQUAL (NON METAL VALVES) FOR SHUT OFF VALVES. SEE PLUMBING PLAN FOR PIPE SIZES

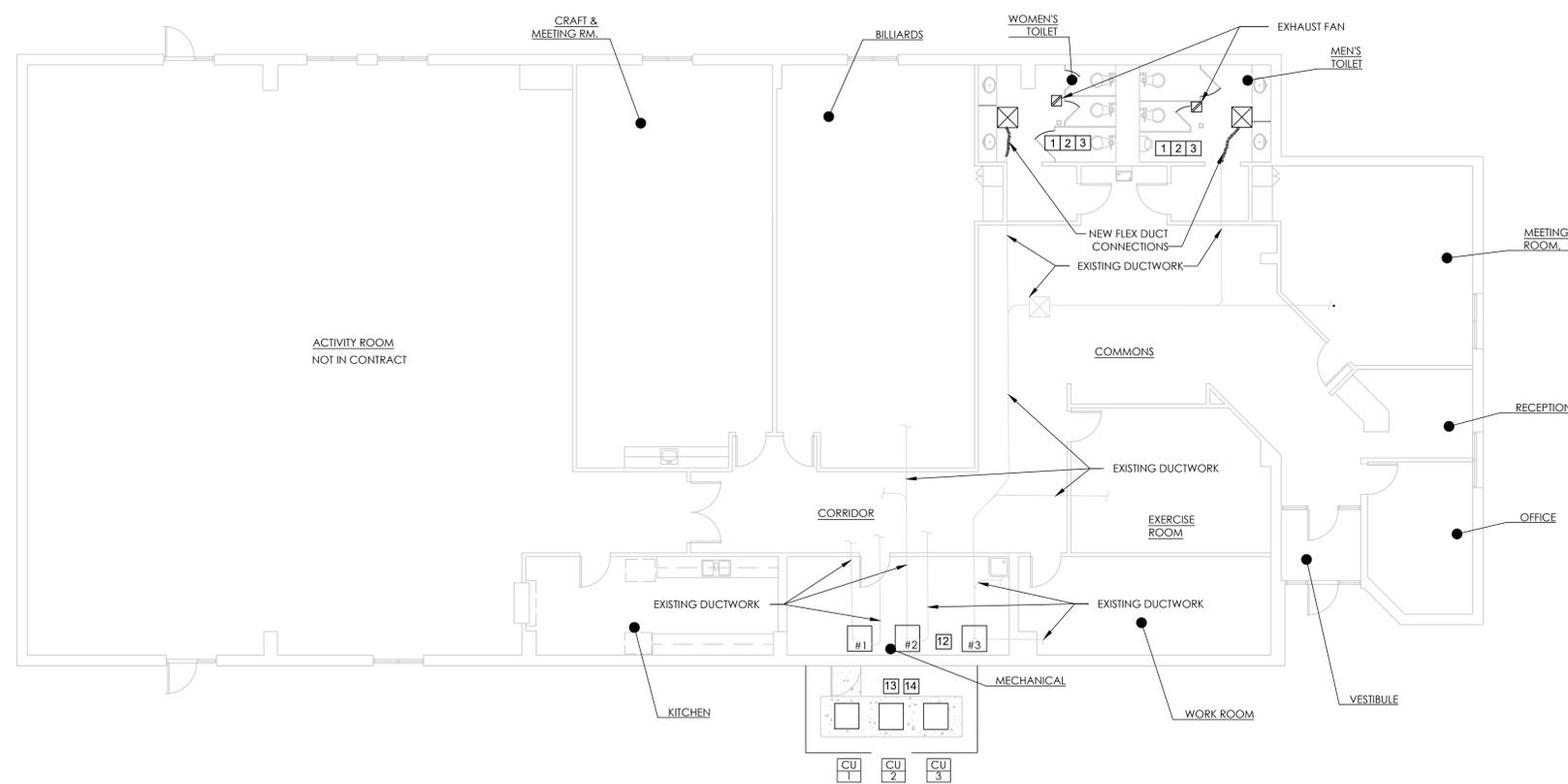


EXIST. GAS FIRED WATER HEATER
NOT TO SCALE



NORTH

FLOOR PLAN- PLUMBING (PLUMBING) SCALE: 1/8" = 1'-0"



NORTH

FLOOR PLAN - HVAC (MECHANICAL) SCALE: 1/8" = 1'-0"

HEATING AND AIR CONDITIONING SPECIFICATIONS

- FURNACES (EXISTING):
- #1 - RHEEM HIGH EFFICIENCY APPROX: 112,000 BTU INPUT, 107,520 BTU OUTPUT, SPARK IGNITION, WITH 60,000 BTU COOLING
 - #2 - RHEEM HIGH EFFICIENCY APPROX: 112,000 BTU INPUT, 107,520 BTU OUTPUT, SPARK IGNITION, WITH 60,000 BTU COOLING.
 - #3 - RHEEM HIGH EFFICIENCY APPROX: 112,000 BTU INPUT, 107,520 BTU OUTPUT, SPARK IGNITION, WITH 60,000 BTU COOLING.
- REPLACE TWO CEILING BATHROOM EXHAUST FANS, WITH NEW BROAN 363-B FANS, 120 VOLTS, 60 Hz, 2.3 AMP, 165 WATTS, 330 CFM OR EQUAL EXHAUST FANS.
 - (2) TOILET ROOM SUPPLY AIR REGISTERS SHALL BE EQUAL TO HART AND COOLING SURFAIRE., 24X24 LAY-IN.
 - ROUND INSULATED FLEX DUCT TO BE REPLACED WITH NEW IN BOTH TOILET ROOMS. MATCH EXISTING SIZE.
 - SUPPLY AND INSTALL NEW A-COILS IN EACH FURNACE TO MATCH EACH A/C CONDENSER.
 - SUPPLY A NEW HEATING AND COOLING THERMOSTAT FOR EACH FURNACE.

REFERENCE NOTES	
NUMBER	DESCRIPTION
1	CONNECT NEW BATHROOM FLEX DUCT TO EXISTING DUCT
2	SUPPLY AND INSTALL NEW DIFFUSERS IN RESTROOM
3	REPLACE EXHAUST FAN AND RECONNECT TO EXHAUST VENT DUCT
4	INSTALL NEW FLUSHMETER TO W.C. AND URINAL
5	REINSTALL EXISTING LAVATORIES AND NEW FAUCETS
6	INSTALL NEW 1/2" PEX PIPING TO HOT AND COLD CONNECTIONS ON EXISTING LAV'S
7	INSTALL HOT AND COLD WATER PEX PIPING FROM MECHANICAL ROOM (SEE PLUMBING DRAWING FOR SIZES), REUSE EXISTING PIPE HANGERS WHERE POSSIBLE.
8	CONNECT NEW 1/2" PEX PIPING TO EXISTING MOP SINK, FAUCET PIPES CUT OFF ABOVE CEILING.
9	RE-CONNECT WATER METER AND SERVICE, COORDINATE WITH CITY OF FLINT
10	REINSTALL EXISTING WATER HEATER, SEE DIAGRAMMATIC DETAIL
11	CONNECT NEW 1/2" HOT AND COLD WATER PEX PIPING TO EXISTING WATER LINES CUT OFF ABOVE CEILING
12	REPAIR EXISTING FURNACES #2 AND #3 AS REQ'D, CHECK #1 FOR PROPER OPERATION.
13	INSTALL NEW CONDENSER UNITS FOR FURNACES
14	INSTALL GAS METER AND SERVICE, COORDINATE WITH LOCAL UTILITY PROVIDER
15	PROVIDE AND INSTALL NEW KITCHEN FAUCET

CHMP INC.
5198 TERRITORIAL ROAD
GRAND BLANC, MI 48439
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RENOVATIONS FOR
MCKINLEY COMMUNITY CENTER
3001 COLLINGWOOD PARKWAY, FLINT MICHIGAN 48509

PROJECT NO. 18001300
DATE 04-10-2019
AS BUILT DATE
DRAWN BY JDL
CHECKED BY PGM
SCALE AS NOTED
REVISION
ISSUED FOR BIDS 4-22-2019
FLOOR PLAN
-PLUMBING &
FLOOR PLAN-HVAC
SHEET NO.
M-1
OF 2

GENERAL NOTES:

PLUMBING - DELIVERY, STORAGE AND HANDLING

1. DELIVER PIPES WITH END CAPS. MAINTAIN END CAPS THROUGH SHIPPING, STORAGE AND HANDLING TO PREVENT PIPE END DAMAGE AND PREVENT ENTRANCE OF DIRT, DEBRIS AND MOISTURE.
2. PROTECT STORED PIPING FROM MOISTURE AND DIRT. ELEVATE ABOVE GRADE. DO NOT EXCEED STRUCTURAL CAPACITY OF FLOOR, IF STORED INSIDE.
3. PROTECT FLANGES, FITTINGS, AND SPECIALTIES FROM MOISTURE, DIRT AND DAMAGE RESULTING FROM OTHER SUCH CAUSES AS TOOL IMPACT, ACCIDENTS, CARELESSNESS OR ABUSE.
4. STORE PLASTIC PIPE PROTECTED FROM DIRECT SUNLIGHT. SUPPORT TO PREVENT SAGGING AND BENDING.
5. PROTECT DRAINS DURING CONSTRUCTION TO AVOID CLOGGING WITH DIRT AND DEBRIS.

PLUMBING CONSTRUCTION NOTES

1. ALL PLUMBING WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL STATE, LOCAL AND NATIONAL PLUMBING CODES AND ORDINANCES.
2. ALL PIPING IS TO BE INSTALLED ON SUSPENDED CEILINGS BELOW EXISTING BATT INSULATION.
3. ALL PIPE CONNECTIONS SHALL BE MADE IN A MANNER TO ALLOW FLEXIBILITY OF PIPE MOVEMENT DURING EXPANSION AND CONTRACTION WITHOUT CAUSING THE PIPING TO BECOME WARPED, FITTINGS TO BE OVERSTRESSED, OR JOINTS TO LEAK. FURNISH AND INSTALL ALL SUPPORTS, BRACKETS, HANGERS, ETC., NECESSARY FOR PIPING INSTALLATION.
4. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORE DRILLING, CUTTING, PATCHING AND REPAIR OF ALL SURFACES NECESSARY FOR THE INSTALLATION OF ITEMS INSTALLED. PATCHING AND REPAIR TO MATCH SURROUNDING SURFACES. DO NOT DRILL THROUGH JOIST OR BEAMS.
5. PROVIDE SHUTOFF VALVES ON ALL BRANCH TAKE-OFFS FROM THE DISTRIBUTION PIPING FOR ISOLATING SERVICE TO THE PIECE OF EQUIPMENT. DESIGN THE PIPING SYSTEM WITH VALVES LOCATED TO PERMIT REPAIRS WITHOUT SHUTTING DOWN MORE THAN ONE PIPING RISER AT A TIME.
6. FURNISH AND INSTALL ALL REQUIRED VALVES, STRAINERS, FITTINGS, UNIONS, SHUTOFF VALVES, EXPANSIONS, THERMOMETERS AND OTHER SPECIALTIES AS REQUIRED PER PLUMBING CODE AND / OR EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.

PLUMBING - MATERIALS :

- BACKFLOW PREVENTERS
- A. GENERAL: ASSE STANDARD, BACKFLOW PREVENTERS, OF SIZE INDICATED FOR MAXIMUM FLOW RATE AND MAXIMUM PRESSURE LOSS INDICATED.
1. BODY: BRONZE, WITH FLANGED ENDS.
2. INTERIOR LINING: AWWA C550 OR FDA APPROVED, EPOXY COATING FOR BACKFLOW PREVENTERS HAVING CAST IRON OR STEEL BODY.
3. EXTERIOR FINISH: ROUGH BRASS.
4. STRAINER ON INLET.
5. TEST KIT WITH PLASTIC CASE: PER MANUFACTURER'S RECOMMENDATION.
- B. PIPE APPLIED, ATMOSPHERIC TYPE VACUUM BREAKERS: ASSE 1001, WITH FLOATING DISC AND ATMOSPHERIC VENT.
- C. HOSE CONNECTION VACUUM BREAKERS: ASSE 1011, NICKEL PLATED, WITH NONREMOVABLE AND MANUAL DRAIN FEATURES, AND ASME B1.20.7 GARDEN-HOSE THREADS ON OUTLET. UNITS ATTACHED TO ROUGH-BRONZE-FINISH HOSE CONNECTIONS MAY BE ROUGH BRONZE.
- D. INTERMEDIATE ATMOSPHERIC-VENT BACKFLOW PREVENTERS: ASSE 1012, SUITABLE FOR CONTINUOUS PRESSURE APPLICATION. INCLUDE INLET SCREEN AND 2 INDEPENDENT CHECK VALVES WITH INTERMEDIATE ATMOSPHERIC VENT.
- E. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTERS: ASSE 1013, SUITABLE FOR CONTINUOUS PRESSURE APPLICATION. INCLUDE OUTSIDE SCREW AND YOKE GATE VALVES ON INLET AND OUTLET, AND STRAINER ON INLET; TEST COCKS; AND PRESSURE DIFFERENTIAL RELIEF VALVE WITH ASME A112.1.2 AIRGAP FITTING LOCATED BETWEEN 2 POSITIVE SEATING CHECK VALVES.

1. PRESSURE LOSS: 12 PSIG MAXIMUM, THROUGH MIDDLE ONE THIRD OF FLOW RANGE.
- F. DOUBLE-CHECK BACKFLOW PREVENTION ASSEMBLIES: ASSE 1015, SUITABLE FOR CONTINUOUS PRESSURE APPLICATION. INCLUDE SHUTOFF VALVES ON INLET AND OUTLET, AND STRAINER ON INLET; AND TEST COCKS WITH 2 POSITIVE SEATING CHECK VALVES.

1. PRESSURE LOSS: 5 PSIG MAXIMUM, THROUGH MIDDLE ONE THIRD OF FLOW RANGE.
- G. ANTISIPHON PRESSURE TYPE VACUUM BREAKERS: ASSE 1020, SUITABLE FOR CONTINUOUS PRESSURE APPLICATION. INCLUDE SHUTOFF VALVES, SPRING-LOADED CHECK VALVE, SPRING LOADED FLOATING DISC, TEST COCKS, AND ATMOSPHERIC VENT.
1. PRESSURE LOSS: 5 PSIG MAXIMUM, THROUGH MIDDLE ONE THIRD OF FLOW RANGE.

WATER PRESSURE REDUCING VALVES

A. GENERAL: ASSE 1003, WATER REGULATORS, RATED FOR INITIAL WORKING PRESSURE OF 150 PSIG MINIMUM, OF SIZE, FLOW RATE, AND INLET AND OUTLET PRESSURES INDICATED. INCLUDE INTEGRAL FACTORY-INSTALLED OR SEPARATE FIELD INSTALLED Y PATTERN STRAINER.

1. 2 INCH AND SMALLER: BRONZE BODY WITH THREADED ENDS.
2. 2 1/2 INCH AND LARGER: BRONZE OR CAST IRON BODY WITH FLANGED ENDS. INCLUDE AWWA C550 OR FDA-APPROVED INTERIOR EPOXY COATING FOR REGULATORS WITH CAST IRON BODY.
3. INTERIOR COMPONENTS: CORROSION RESISTANT MATERIALS.
4. EXTERIOR FINISH: STANDARD
5. SINGLE SEATED, DIRECT OPERATED TYPE.

SINGLE SEATED, DIRECT OPERATED, INTEGRAL BYPASS TYPE.

DOMESTIC WATER PIPING

1. ALL DOMESTIC ABOVEGROUND WATER PIPING (COLD AND HOT WATER) SHALL BE CROSSLINKED POLYETHYLENE (PEX-A) ASTM F-876 AND ASTM F-877
2. ALL DOMESTIC ABOVEGROUND WATER PIPING (COLD AND HOT WATER) SHALL BE TYPE PEX-A.
3. ALL DOMESTIC WATER PIPING SHALL BE INSTALLED WITH A 1/4" PER 10 FOOT SLOPE AND BE ALLOWED TO DRAIN AT ONE POINT. PROVIDE A LOW POINT DRAIN.

REAM, FLUSH AND DISINFECT ALL SUPPLY WATER LINES BEFORE BEING PUT INTO SERVICE. FIRST FLUSH THE ENTIRE SYSTEM WITH CLEAN, POTABLE WATER UNTIL NO DIRTY WATER APPEARS AT THE OUTLETS.

4. PROVIDE WATER HAMMER ARRESTORS AS CLOSE AS POSSIBLE TO THE FIXTURES.

REFRIGERANT PIPING

1. PIPING SHALL BE TYPE 'L' OR TYPE 'M' COPPER TUBING
2. HORIZONTAL REFRIGERANT AND DRAIN PIPING SHALL SLOPE DOWN IN THE DIRECTION OF FLOW AT A MINIMUM SLOPE OF 1/8" PER FOOT OF RUN.

REFRIGERANT PIPING INSULATION

1. CLOSED-CELL INSULATION SHALL BE PROVIDED OVER ALL REFRIGERANT PIPING AND OTHER SERVICES AS SPECIFIED OR NOTED. CLOSED-CELL PIPING INSULATION SHALL BE 1/2" THICK 25/50 ARMAFLEX OR RUBATEX. ALL GLUES AND COATINGS SHALL BE PRODUCTS OF THE SAME MANUFACTURER AS THE INSULATION.

2. INSULATION SHALL BE CONTINUOUS OVER ALL VALVE BODIES, FITTINGS, AND WALL AND FLOOR PENETRATIONS.

REFRIGERANT PIPING

1. GENERAL: INSTALL REFRIGERANT LINES PROPERLY PITCHED WITH OIL TRAPS PROPERLY SIZED, LOCATED AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. ANY OIL IN ANY PART OF THE SYSTEM SHALL BE ABLE TO FIND ITS WAY BACK TO THE COMPRESSOR WITH THE SYSTEM OPERATING ON MINIMUM CAPACITY. INSTALL PIPING IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE AS RECOGNIZED BY THE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS, AND AS FOLLOWS.

3. ACCESSORIES: PROVIDE NECESSARY ACCESSORIES FOR A COMPLETE AND WORKABLE SYSTEM WHETHER SHOWN ON THE DRAWINGS OR NOT WHICH COULD INCLUDE SUCH ITEMS AS STRAINERS, FILTER DRIER, SIGHT GLASS, RELIEF VALVES, CHARGING VALVES, STOP VALVES, CHECK VALVES, EXPANSION VALVES AND SOLENOID VALVES.

4. UTILIZE THE SERVICES OF A QUALIFIED REFRIGERATION MECHANIC FOR THE INSTALLATION AND TESTING OF REFRIGERANT PIPING AND REFRIGERATION EQUIPMENT.

5. ALL REFRIGERATION PIPING, INSTALLATION, AND TESTING SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF ANS SPECIFICATION B9.1.

CONDENSATE PIPING

1. PIPING SHALL BE SCHEDULE 80 POLYVINYL CHLORIDE PIPE (PVC).

2. CONNECT CONDENSATE PIPING TO EXISTING CONDENSATE SYSTEM.

CHECK VALVES:

CHECK VALVES 2" AND SMALLER SHALL BE BRONZE, SILENT CHECK, SPRING ACTUATED WITH TEFLON SEAT. CHECK VALVE TO BE NIBCO NO. 480.

A. DUAL PRESSURE/TEMPERATURE TEST PORTS FOR VERIFYING THE PRESSURE DIFFERENTIAL AND SYSTEM TEMPERATURE SHALL BE STANDARD.

PIPE INSULATION NOTES

1. INSULATE ALL DOMESTIC COLD WATER, HOT WATER, AND VALVES, FITTINGS AND ELBOWS WITH FOAM-PIPE INSULATION.
2. INSULATION SHALL BE APPLIED TO PIPING AFTER PIPE SYSTEM HAS BEEN TESTED AND INSPECTED AND ALL SURFACES HAVE BEEN THOROUGHLY CLEANED.
3. PIPE HANGERS SHALL BE ON THE OUTSIDE OF INSULATION. CURVED SHEET METAL SHIELDS SHALL BE USED BETWEEN THE HANGERS AND THE BOTTOM OF INSULATIONS.

TESTING:

- A. PROVIDE TEST PUMPS, GAUGES, METERS, AND OTHER INSTRUMENTS, MATERIALS, AND LABOR IN CONNECTION WITH TESTS.
- B. DO NOT PAINT, COVER OR CONCEAL PIPING, SWING JOINTS, AND THE LIKE, BEFORE TESTING AND OBTAINING APPROVAL.
- C. TEST PIPING WHICH WILL BE CONCEALED, IN SECTIONS AS APPROVED, IN A MANNER WHICH WILL NOT LEAVE ANY PIPE OR JOINT UNTESTED.
- D. PRIOR TO TESTING PIPING SYSTEMS, REMOVE OR OTHERWISE PROTECT FROM DAMAGE, CONTROL DEVICES, AIR VENTS, AND OTHER PARTS WHICH ARE NOT DESIGNED TO STAND PRESSURES USED IN TESTING PIPING.
- E. TEST WELDED PIPING FOR LEAKS, UNDER 100 PSI AIR PRESSURE WITH SOAP SUDS; THIS TEST SHALL PRECEDE HYDROSTATIC TEST.
- F. MAKE NECESSARY REPAIRS AND REPEAT TESTS UNTIL THE ENTIRE SYSTEM IS APPROVED AND SATISFACTORY.
- G. PERFORM SPECIFIED SERVICES WITH CONTRACTOR'S QUALIFIED PERSONNEL, OR EMPLOY AND PAY FOR A QUALIFIED ORGANIZATION TO PERFORM SPECIFIED SERVICES.

GAS PIPING

1. THE TEST PRESSURE FOR THIS SYSTEM SHALL BE 1.5 TIMES WORKING PRESSURE BUT NO LESS THAN 60 POUNDS PER SQUARE INCH. THIS TESTING WILL BE CONDUCTED BY USING AIR, CO2, OR NITROGEN PRESSURE TEST. THIS TEST WILL BE HELD FOR NO LESS THAN 1 HOUR WITH NO DROP IN PRESSURE. ALL JOINTS WILL BE SUBJECT TO A VISUAL INSPECTION AND SOAP TEST. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED. REPAIR ALL LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST SYSTEM OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.

DOMESTIC WATER

1. CAP AND SUBJECT THE PIPING SYSTEM TO A STATIC WATER PRESSURE OF 50 PSIG ABOVE THE OPERATING PRESSURE WITHOUT EXCEEDING THE PRESSURE RATING OF THE PIPING SYSTEM MATERIAL. ISOLATE THE TEST SOURCE AND ALLOW TO STAND FOR FOUR HOURS. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED. REPAIR ALL LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST SYSTEM OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.

GENERAL NOTES: (CONTINUED)

CHLORINATION OF DOMESTIC POTABLE WATER SYSTEM

A. DOMESTIC HOT AND COLD WATER PIPING: CHLORINATE ALL DOMESTIC HOT AND COLD WATER LINES UPON INSTALLATION OF THE SYSTEM AND BEFORE USING FOR DOMESTIC SERVICE.

1. THIS WORK SHALL BE WITNESSED BY THE ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
2. BEFORE BEING PLACED IN SERVICE, THE ENTIRE SYSTEM SHALL BE CHLORINATED AS OUTLINED HEREAFTER. THE CHLORINATING AGENT SHALL BE APPLIED AT THE START OF A NEW LINE AND SHALL BE INJECTED THROUGH A CORPORATION COCK OR SIMILAR DEVICE, TO INSURE COMPLETE CHLORINATION OF ALL PIPE.
3. USE CALCIUM HYPOCHLORITE OR COMMERCIAL PRODUCTS SUCH AS H.T.H., PERCHLORON, OR MEXOCHLORON WHERE APPLICABLE. THE CALCIUM HYPOCHLORITE MUST FIRST BE MIXED TO A HOMOGENEOUS PASTE. THE PASTE MUST CONTAIN APPROXIMATELY 5% AVAILABLE CHLORINE BY WEIGHT. THEN PASTE MUST BE THINNED TO A SLURRY AND MIXED WITH WATER TO OBTAIN A RESULANT CONSISTENCY OF 100 PARTS PER MILLION.
4. THIS MIXTURE MUST BE FED INTO THE PIPELINE AND RETAINED FOR A ONE-HOUR CONTACT PERIOD. ALL VALVES MUST THEN BE OPENED IN GROUPS OF 3 AND WATER OF 100 PARTS PER MILLION CALCIUM CHLORITE CONCENTRATION RUN THROUGH FOR A TEN (10) MINUTE INTERVAL FOR EACH GROUP OF VALVES.
5. AFTER CHLORINATION, ALL VALVES SHALL BE OPENED AND WATER RUN THROUGH TO WASTE FOR A TEN (10) MINUTE PERIOD OR UNTIL THE WASTE WATER INDICATES A RESIDUAL OF NOT OVER 0.5 PARTS PER MILLION. 6. WHEN CHLORINATION IS COMPLETE, PROVIDE DOCUMENTATION TO THE OWNER AND ARCHITECT THAT CERTIFIES THAT DOMESTIC WATER SYSTEM HAS BEEN CHLORINATED AS OUTLINED ABOVE.

MECHANICAL COMMISSIONING - TESTING NOTES

NEW AND EXISTING EQUIPMENT FOR THE HVAC SYSTEM AND TEMPERATURE CONTROLS SHALL BE COMMISSIONED PER THE ANSI / ASHRAE COMMISSIONING PROCESS FOR BUILDINGS AND SYSTEMS. THE COMMISSIONING PROCESS INTEGRATES THE TRADITIONALLY SEPARATE FUNCTIONS OF SYSTEM DOCUMENTATION, EQUIPMENT STARTUP, PERFORMANCE TESTING AND TRAINING. COMMISSIONING DURING THE CONSTRUCTION PHASE IS INTENDED TO ACHIEVE THE FOLLOWING SPECIFIC OBJECTIVES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS:

1. VERIFY AND DOCUMENT THAT APPLICABLE EQUIPMENT AND SYSTEMS ARE INSTALLED ACCORDING TO THE MANUFACTURE'S RECOMMENDATIONS, CONTRACT REQUIREMENTS, AND INDUSTRY STANDARDS AND THAT THEY RECEIVE ADEQUATE OPERATIONAL CHECKOUT BY INSTALLING CONTRACTORS.
2. VERIFY AND DOCUMENT PROPER PERFORMANCE OF EQUIPMENT AND SYSTEMS. CONTRACTOR SHALL OPERATE ALL PARTS OF ENTIRE HEATING, VENTILATING, AND AIR CONDITIONING, MAKING ADJUSTMENTS AND REPAIRS. BALANCE WATER FLOWS AT EQUIPMENT REQUIRING WATER, AND LEAVE SYSTEM TESTED AND READY FOR OPERATION.

START MOTOR DRIVEN EQUIPMENT AND MAKE SURE THAT THERMAL OVERLOAD PROTECTION DOES NOT SHUT DOWN THE MOTOR DURING ACCELERATION PERIOD. START FANS AND CHECK FOR UNUSUAL VIBRATION AS WELL AS FOR DISTORTION AND MISALIGNMENT OF FAN WHEELS AND SHAFTS. CORRECT DEFECTS FOUND. CHECK MOTORS FOR DIRECTIONAL ROTATION, OBTAIN ELECTRICAL TRADES ASSISTANCE WHERE REQUIRED. ALIGN BELTS AND CHECK BELT TENSION. CHECK THAT BELTS OF EACH MULTI-BELT DRIVE ARE MATCHED SET. REPLACE IF REQUIRED. ON MULTIPLE BELT VARIABLE PITCH DRIVES, CHECK THAT ALL BELTS AREA STRICTLY PARALLEL. ADJUST AS REQUIRED. AFFIX LABEL ON EQUIPMENT INFORMATION REQUIRED FOR ORDERING REPLACEMENT BELTS. CHECK THAT TACHOMETER OPENINGS IN BELT GUARD ARE ALIGNED WITH SHAFT ENDS. ADJUST GUARDS AS REQUIRED. CHECK SET POINTS OF OPERATING AND SAFETY CONTROL DEVICES. OPERATE DAMPER MECHANISM, CHECK DAMPERS FOR CORRECT ACTION. CHECK FOR TIGHT CLOSING. ADJUST AS REQUIRED. OPERATE TEMPERATURE CONTROL VALVES AND CHECK FOR CORRECT ACTION.

3. TEST AND BALANCING WATER FLOWS AT EQUIPMENT REQUIRING WATER, AND LEAVE SYSTEMS TESTED AND READY FOR OPERATION.

4. CONTRACTOR SHALL TEST ALL CONTROLS AND WIRING TO ENSURE OPERATION OF EQUIPMENT. CHECK IF PRESSURE, GAUGES, THERMOMETERS, SENSORS AND FLOW MEASUREMENT DEVICES ARE PLACED IN CORRECT LOCATION. MAKE MODIFICATIONS AS REQUIRED. CHECK ACCESS DOORS AND ACCESS PANELS FOR FREE HINGE AND LATCH OPERATION AS WELL AS EFFECTIVE SEATING OF SEALS. MAKE REPAIR AS REQUIRED. REPOSITION INSTRUMENTS FOUND DIFFICULT TO READ.

5. VERIFY AND DOCUMENT THAT OPERATION AND MAINTENANCE DOCUMENTATION IS COMPLETE. VERIFY AND DOCUMENT THAT THE FACILITY OPERATING PERSONNEL ARE PROPERLY TRAINED. PRIOR TO FINAL ACCEPTANCE, THIS REPORT SHALL INCLUDE INDIVIDUAL WATER FLOW A EQUIPMENT, TOTAL WATER FLOW AT PUMPS, MOTOR AND AMPERAGE, VOLTAGE NAMEPLATE, ACTUAL OPERATING AMPERAGE AND VOLTAGE, AND A STATEMENT THAT THE CONTROL SYSTEM HAS BEEN CHECKED AND VERIFIED FOR OPERATION.

EXISTING GAS FORCED AIR FURNACE SCHEDULE

MARK	AREA SERVED	MANF	MODEL	CAPACITY TONS	CFM	GAS		ELECTRICAL DATA				ENERGY RATINGS		PHYSICAL PROPERTIES	
						MBH INPUT	MPH OUTPUT	VOLTAGE	HP	MIN INPUT AMPS	MAX FUSE SIZE	ENERGY EFF	APPROX WEIGHT	SIZE	
#1	CRAFTS AND BILLIARDS	RHEEM	R95PA115	5	1750/1934	112	107.52	115 / 1/ 60	3/4	13	20	95.5%	165	29 5/8" d x 23 17/64" w x 34" h	
#2	ACTIVITIES ROOM	RHEEM	R95PA115	5	1750/1934	112	107.52	115 / 1/ 60	3/4	13	20	95.5%	165	29 5/8" d x 23 17/64" w x 34" h	
#3	COMMONS, OFFICE, ETC	RHEEM	R95PA115	5	1750/1934	112	107.52	115 / 1/ 60	3/4	13	20	95.5%	165	29 5/8" d x 23 17/64" w x 34" h	

NEW CU - CONDENSER UNIT SCHEDULE

MARK	SERVED	MANF	MODEL	CFM	CAP TONS	COOLING CAPACITY	ELECTRICAL	MIN CIRCUIT AMPS	MAX FUSE SIZE	CONDENSER MOTOR TYPE	CONDENSER MOTOR HP	ENERGY RATINGS		PHYSICAL PROPERTIES		NOTES
												EER	SEER	WEIGHT	SIZE	
CU-1	F-1	RHEEM	RA2060AJVCB	6175	5	60,000	208 / 1 / 60	48	80	DIRECT DRIVE	1/2	13	20.5	316	35.75" x 35.75 x 51	
CU-2	F-2	RHEEM	RA2060AJVCB	6175	5	60,000	208 / 1 / 60	48	80	DIRECT DRIVE	1/2	13	20.5	316	35.75" x 35.75 x 51	
CU-3	F-3	RHEEM	RA2060AJVCB	6175	5	60,000	208 / 1 / 60	48	80	DIRECT DRIVE	1/2	13	20.5	316	35.75" x 35.75 x 51	

NEW PLUMBING FIXTURE SCHEDULE

FIXTURE	ITEM	DESCRIPTION	MANF	MODEL	VALVE / TRIM	MANF	MODEL	PIPING SIZES					FLOW RATE GPM	DRAINAGE FIXTURE UNITS	ASSE DEVICE	GENERAL NOTES
								COLD WATER	HOT WATER	DIRECT WASTE	INDIRECT WASTE	VENT				
KS	KITCHEN SINK	EXISTING	EXISTING	EXISTING	CHROME DUAL HANDLE FAUCET	CHICAGO	201-A317ABCP	1/2"	1/2"	EXISTING	EXISTING	EXISTING	2.5	2		
LAV-1	LAVATORY	EXISTING	EXISTING	EXISTING	CHROME SINGLE HANDLE FAUCET	MOEN	6191	1/2"	1/2"	EXISTING	EXISTING	EXISTING	1.5	1	1070	
SS	SERVICE SINK	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	1/2"	1/2"	EXISTING	EXISTING	EXISTING	3	3	1052	
UR	URINAL	EXISTING	EXISTING	EXISTING	FLUSH VALVE	AMERICAN STANDARD	6045.601.002	3/4"		EXISTING	EXISTING	EXISTING	0.125	2		
WHA	WATER HAMMER ARRESTOR	PISTON TYPE WITH PRESSURIZED CUSHIONING CHAMBER.	J.R. SMITH	5005 - 5050												
WC-3	WATER CLOSET	EXISTING	EXISTING	EXISTING	MANUAL FLUSH VALVE	AMERICAN STANDARD	6047.161.002	1/2"		EXISTING	EXISTING	EXISTING	1.28	4		

CHMP INC.
5198 TERRITORIAL ROAD
GRAND BLANC, MI 48439
TELEPHONE 810/695-5910



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RENOVATIONS FOR
MCKINLEY COMMUNITY CENTER
3001 COLLINGWOOD PARKWAY, FLINT MICHIGAN 48504

PROJECT NO. 18001300
DATE 04-10-2019
AS BUILT DATE
DRAWN BY JDL
CHECKED BY PGM
SCALE AS NOTED
REVISION
ISSUED FOR BIDS 4-22-2019

PLUMBING, HVAC NOTES, & SCHEDULES

SHEET NO.
M-2
OF 2



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RENOVATIONS FOR
MCKINLEY COMMUNITY CENTER
 3001 COLLINGWOOD PARKWAY, FLINT MICHIGAN 48504

PROJECT NO. 18001300
 DATE 04-10-2019
 AS BUILT DATE .
 DRAWN BY JOK
 CHECKED BY JDW
 SCALE 1/8" = 1'-0"
 REVISION

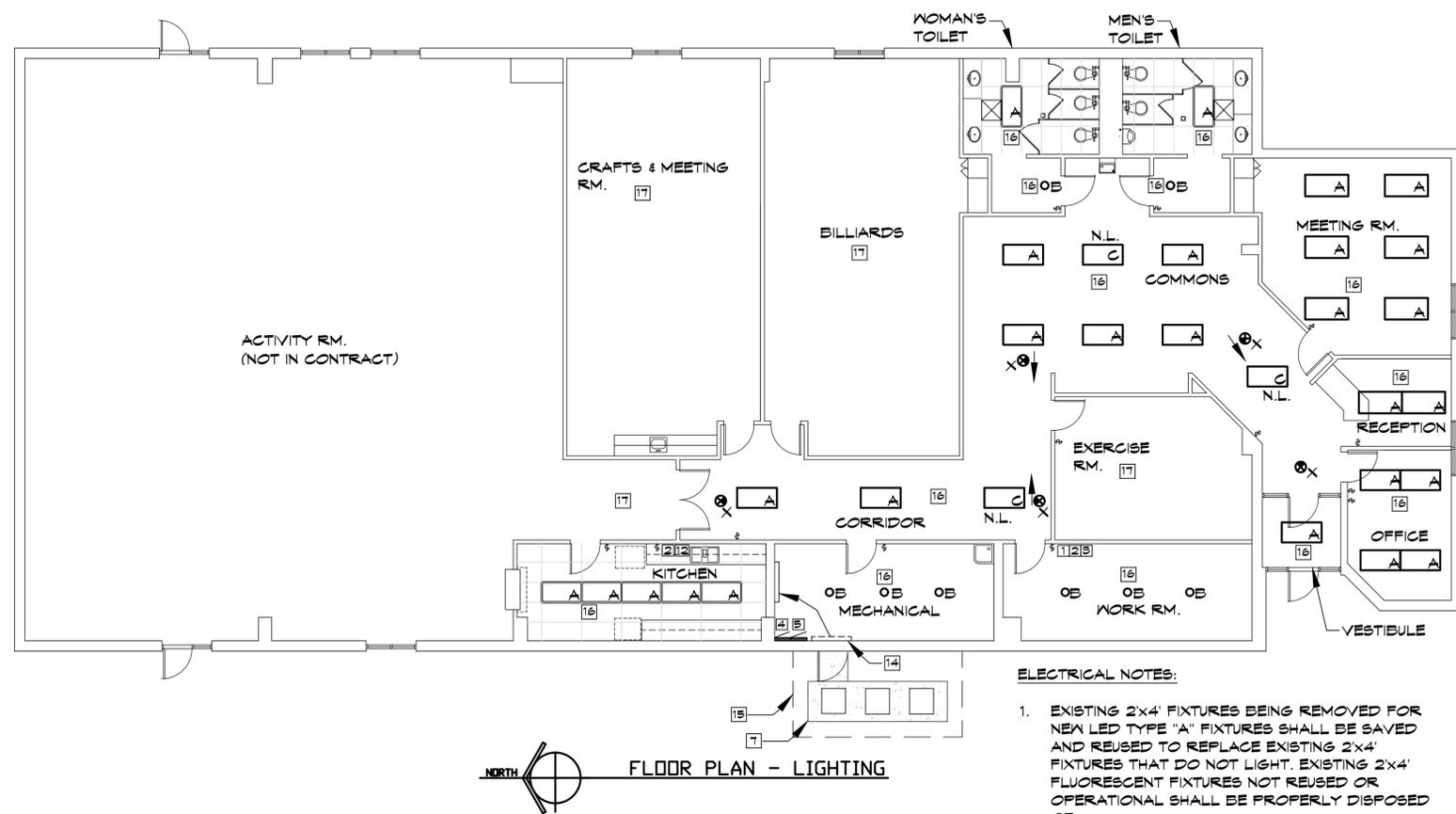
ISSUED FOR BIDS 4-22-2019
 FLOOR PLAN-LIGHTING
 FLOOR PLAN-POWER

SHEET NO.
M-1
 OF 2

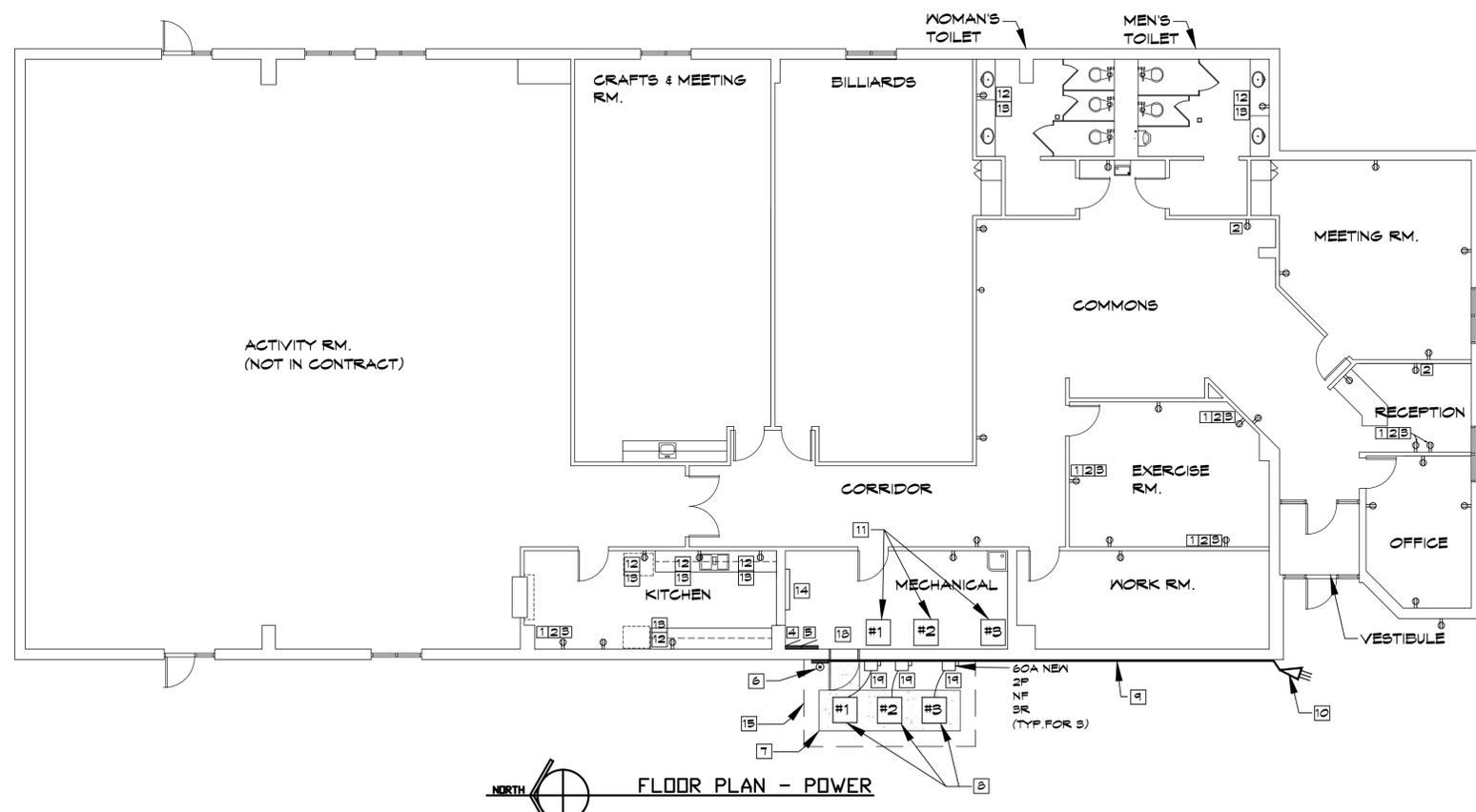
NEW FIXTURE SCHEDULE			
ITEM	LAMP	DESCRIPTION & CAT. #	WATTAGE
A	LED, 4000 LUMENS, 4000K	2'x4' LAY-IN FLAT PANEL, 120 VOLT, LITHONIA CAT.# CPX-2X4-4000-LM-40K-M2	40W
B	LED, 1200 LUMENS, 4000K	6" RECESSED FLAT PANEL DOWNLIGHT, 120 VOLT, LITHONIA CAT.# WF6-LED.40K-MW	13.6W
C	LED, 4000 LUMENS, 4000K	SAME AS TYPE 'A' EXCEPT WITH EMERGENCY BATTERY PACK, LITHONIA CAT.# CPX-2X4-4000-LM-40K-M2-PS1555CP	40W
X	LED	LED EXIT SIGN WITH RED LETTERS AND TWO EMERGENCY LAMP HEADS, LITHONIA CAT.# LHQM-LED-R-HD	4.3W

SYMBOL LIST	
SYMBOL	DESCRIPTION
	2'x4' LED LUMINAIR
	CEILING MOUNTED LED DOWNLIGHT
	LED EXIT LIGHT WITH BATTERY BACKUP, CEILING MOUNTED
	SINGLE POLE SWITCH
	SINGLE RECEPTACLE AT WALL
	DUPLEX RECEPTACLE AT WALL
	DISCONNECT SWITCH, SIZE AS NOTED

REFERENCE NOTES	
NUMBER	DESCRIPTION
1	REPLACE SWITCH/RECEPTACLE
2	REPLACE FACEPLATE
3	RE-FEED DEVICE BACK TO NEAREST TERMINATION POINT
4	EXISTING PANELS "A" & "B" TO REMAIN - SEE RISER DIAGRAM
5	NEW PANEL "MDP" TO REPLACE EXISTING PANELS - SEE RISER DIAGRAM
6	EXISTING UTILITY METERING EQUIPMENT TO REMAIN - COORDINATE METER INSTALLATION WITH LOCAL UTILITY
7	NEW A/C CONDENSER PAD, LOCATE PER ARCH. (BY G.C.)
8	NEW A/C CONDENSERS (x3)
9	EXISTING 4-350kcmil-2 1/2" - TO REMAIN
10	EXISTING OVERHEAD ELECTRICAL SERVICE TO REMAIN
11	EXISTING FURNACES TO REMAIN
12	ABOVE COUNTER TOP
13	REPLACE EXISTING DEVICE WITH NEW GFI RECEPTACLE
14	EXISTING TELEPHONE BOARD RELOCATE TO NORTH WALL
15	NEW EXTERIOR FENCE, PER ARCH.
16	REPLACE EXISTING LIGHTS WITH NEW LED AS SCHEDULED
17	EXISTING LIGHTING TO REMAIN
18	REMOVE EXISTING CONDUIT & J-BOX TO ALLOW NEW DOOR INSTALLATION
19	PROVIDE NEW 60 AMP SERVICE TO NEW "MDP", FOR NEW CONDENSER UNITS



NORTH
FLOOR PLAN - LIGHTING



NORTH
FLOOR PLAN - POWER



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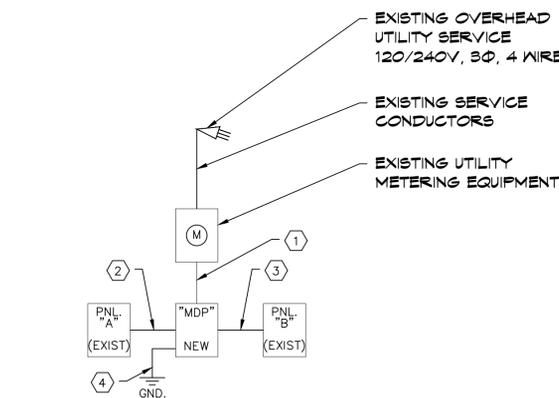
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RENOVATIONS FOR
MCKINLEY COMMUNITY CENTER
3001 COLLINGWOOD PARKWAY, FLINT MICHIGAN 48504

TE-19-146 McKinley Community Center 492019														
PANELBOARD DESIGNATION / TAG: "MDP"(NEW)				LOCATION: MECHANICAL ROOM				Options:		Options:				
ELECTRICAL CHARACTERISTICS: 120/208v - 3ph - 4w				FEEDER SIZE: 300A - 4#350 kcmil & 1#4 Gnd - 3" C				SUB-FEED LUGS		MULTIPLE SECTIONS				
PANELBOARD CONSTRUCTION: CIRCUIT BREAKER				FED FROM: UTILITY				SUB-FEED BREAKER		NONE TVSS				
AMP MAIN LUGS: 22k A.I.C. (FULLY RATED)				SURFACE MOUNTING				FEED-THRU LUGS		PLUG-IN BREAKERS				
300 AMP MAIN BREAKER/SWITCH: 100 % NEUTRAL (SOLID)				NEMA 1 ENCLOSURE				SERVICE ENTRANCE RATED		UP TO #4/0 MAIN TERMINAL LUGS				
42 AVAILABLE CIRCUIT SPACES				INCOMING FEED				100% RATING						
* After the circuit no. indicates handle locking device.														
LOAD DESCRIPTION	VOLT AMPS			CIRCUIT		WIRE SIZE		CIRCUIT		VOLT AMPS			LOAD DESCRIPTION	
1 FURNACE NO. 1	1560			1	20	#12	#2	100	3	4485			EXISTING PANEL "A"	2
3 FURNACE NO. 2		1560		1	20	#12	#2	100			3052			4
5 FURNACE NO. 3			1560	1	20	#12	#2	100				3876		6
7 EXISTING PANEL "B"	1030			2	40	#8	#12	20	1	1232			DINNING ROOM LIGHTING, ROW 6&7	8
9					40	#8	#12	20	1		616		DINNING ROOM LIGHTING ROW 5	10
11 SPACE				1	20	#12	#2	20	1		616		DINNING ROOM LIGHTING ROW 8	12
13 SPACE				1	20	#12	#2	20	1	1232			DINNING ROOM LIGHTING ROW 3&4	14
15 SPACE				1	20	#12	#2	20	1		1232		DINNING ROOM LIGHTING ROW 1&2	16
17 SPACE				1	20	#12	#2	20	1			180	RECEPTACLES	18
19 SPACE				1	20	#12	#2	20	1	180			RECEPTACLES	20
21 SPACE				1	20	#12	#2	20	1		180		RECEPTACLES	22
23 CONDENSER NO. 1				2	60	#6	#12	20	1			180	RECEPTACLES	24
25	4992			2	60	#6	#12	20	1	180			RECEPTACLES	26
27 CONDENSER NO. 2		4992		2	60	#6	#12	20	1			180	RECEPTACLES	28
29			4992	2	60	#6	#12	20	1			180	KITCHEN RECEPTACLES	30
31 CONDENSER NO. 3	4992			2	60	#6	#12	20	1	180			KITCHEN RECEPTACLES	32
33		4992			60	#6	#12	20	1			180	KITCHEN RECEPTACLES	34
35 KITCHEN RANGE PLUG				2	45	#8	#12	20	1			180	KITCHEN RECEPTACLES	36
37					45	#8	#12	20	1	180			KITCHEN RECEPTACLES	38
39 CRAFT ROOM RANGE PLUG				2	45	#8	#12	20	1			180	KITCHEN RECEPTACLES	40
41					45	#8	#12	20	1				SPACE	42
SUB TOTAL VA	12,574	12,554	11,544							7,669	5,620	5,212	SUB TOTAL VA	
PHASE TOTALS	A	B	C	Circuit wire size(s) indicated are minimum allowable. Refer to wire sizing Table(s) and one-line diagram(s) on plan(s) additional information										
TOTAL PHASE VA	20,243	18,174	16,756		153.1								CONNECTED AMPS (Balanced)	
TOTAL PHASE AMPS	168.7	151.5	139.6		148.2								PHASE DEMAND AMPS (Balanced)	
TOTAL CONNECTED KVA		55.173			53.40								TOTAL DEMAND KVA	

* -INDICATES HACR BREAKER

TE-19-146 MCKINLEY 04082019														
PANELBOARD DESIGNATION / TAG: "A"(EXISTING)				LOCATION: MECHANICAL ROOM				Options:		Options:				
ELECTRICAL CHARACTERISTICS: 120/208v - 3ph - 4w				FEEDER SIZE: 100A - 4#2 & 1#8 Gnd - 1 1/4" C				SUB-FEED LUGS		MULTIPLE SECTIONS				
PANELBOARD CONSTRUCTION: CIRCUIT BREAKER				FED FROM: MDP				SUB-FEED BREAKER		NONE TVSS				
100 AMP MAIN LUGS: 10k A.I.C. (FULLY RATED)				SURFACE MOUNTING				FEED-THRU LUGS		PLUG-IN BREAKERS				
AMP MAIN BREAKER/SWITCH: 100 % NEUTRAL (SOLID)				NEMA 1 ENCLOSURE				SERVICE ENTRANCE RATED		UP TO #4/0 MAIN TERMINAL LUGS				
18 AVAILABLE CIRCUIT SPACES				INCOMING FEED				100% RATING						
* After the circuit no. indicates handle locking device.														
LOAD DESCRIPTION	VOLT AMPS			CIRCUIT		WIRE SIZE		CIRCUIT		VOLT AMPS			LOAD DESCRIPTION	
1 EXERCISE ROOM RECEPTACLES	1080			1	20	#12	#12	20	1	720			BILLIARD ROOM RECEPTACLES	2
3 LIGHTS, KITCHEN, MECH. & STORE ROOM		242		1	20	#12	#12	20	1		720		CRAFT & MEETING ROOM RECEPTACLES	4
5 OFFICE RECEPTACLES			1260	1	20	#12	#12	20	1			1080	COMMONS RECEPTACLES	6
7 CEILING FANS	150			1	20	#12	#12	20	1	1535			MEETING ROOM LIGHTING	8
9 SMOKE EATER			500	1	20	#12	#12	20	1		590		TOILET ROOMS	10
11 SPACE				1	20	#12	#12	20	1			1536	LIGHTS, WEST END, CRAFT & BILLIARD ROOMS	12
13 SPACE				1	20	#12	#12	20	1	1000			OUTDOOR LIGHTING	14
15 SPACE				1	20	#12	#12	20	1		1000		OUTDOOR WALL PACKS	16
17 SPACE				1	20	#12	#12	20	1				SPACE	18
SUB TOTAL VA	1,220	742	1,260							3,255	2,310	2,616	SUB TOTAL VA	
PHASE TOTALS	A	B	C	Circuit wire size(s) indicated are minimum allowable. Refer to wire sizing Table(s) and one-line diagram(s) on plan(s) additional information										
TOTAL PHASE VA	4,485	3,052	3,876										31.7	CONNECTED AMPS (Balanced)
TOTAL PHASE AMPS	37.4	25.4	32.3										31.6	PHASE DEMAND AMPS (Balanced)
TOTAL CONNECTED KVA		11.413											11.37	TOTAL DEMAND KVA



120/208V, 3φ, 4 WIRE RISER DIAGRAM
N.T.S.

REFERENCE NOTES	
NUMBER	DESCRIPTION
①	4-350kcmil-2 1/2" C
②	4-#2 & 1-#8GND-1 1/4" C
③	3-#8 & 1-#10GND-3/4" C
④	#2 GROUND

TE 19146 MCKINLEY 04082019														
PANELBOARD DESIGNATION / TAG: "B"(EXISTING)				LOCATION: MECHANICAL ROOM				Options:		Options:				
ELECTRICAL CHARACTERISTICS: 120/240v - 1ph - 3w				FEEDER SIZE: 100A - 3#2 & 1#8 Gnd - 1 1/4" C				SUB-FEED LUGS		MULTIPLE SECTIONS				
PANELBOARD CONSTRUCTION: CIRCUIT BREAKER				FED FROM: PANEL "MDP"				SUB-FEED BREAKER		NONE TVSS				
100 AMP MAIN LUGS: 10k A.I.C. (FULLY RATED)				SURFACE MOUNTING				FEED-THRU LUGS		BOLT-ON BREAKERS				
AMP MAIN BREAKERS/SWITCH: 100 % NEUTRAL (SOLID)				NEMA 1 ENCLOSURE				SERVICE ENTRANCE RATED		MAIN TERMINAL LUGS				
12 AVAILABLE CIRCUIT SPACES				INCOMING FEED				100% RATING						
* After the circuit no. indicates handle locking device.														
LOAD DESCRIPTION	VOLT AMPS			CIRCUIT		WIRE SIZE		CIRCUIT		VOLT AMPS			LOAD DESCRIPTION	
1 EXIT SIGNS	10			1	20	#12	#12	20	1	1000			TELEPHONE BACKBOARD	2
3 EXIT SIGNS		10		1	20	#12	#12	20	1		1000		TELEPHONE BACKBOARD	4
5 EXIT SIGNS	10			1	20	#12	#12	20	1		10		EXIT SIGNS	6
7														8
9														10
11														12
SUB TOTAL VA	20	10								1,010	1,000		SUB TOTAL VA	
PHASE TOTALS	A	B	Circuit wire size(s) indicated are minimum allowable. Refer to wire sizing Table(s) and one-line diagram(s) on plan(s) additional information											
TOTAL PHASE VA	1,030	1,010											8.5	CONNECTED AMPS (Balanced)
TOTAL PHASE AMPS	8.6	8.4											8.5	PHASE DEMAND AMPS (Balanced)
TOTAL CONNECTED KVA		2.04											2.04	TOTAL DEMAND KVA

FACILITY LOAD SCHEDULE		
	CONNECTED	DEMAND
RECEPTACLE	9380W	9380W
LIGHTING	10361W	10361W
HVAC	35432W	26928W
TOTALS	55173W = 153A	46669W = 129.5A

PROJECT NO. 18001300
DATE 04-10-2019
AS BUILT DATE
DRAWN BY .JDK
CHECKED BY .JDW
SCALE 1/8" = 1'-0"
REVISION
ISSUED FOR BIDS 4-22-2019
RISER DIAGRAM & PANEL SCHEDULES

SHEET NO.
11-2
OF 2

SECTION 02100 - GENERAL CONDITIONS OF THE CONTRACT (A.I.A. A201)

PART 1 - GENERAL

1.1 DESCRIPTION

A. American Institute of Architects document: A201-2007 General Conditions of the Contract for Construction is hereby made a requirement of the Contract Documents.
B. This document may be purchased from A.I.A. Michigan, A Society of the American Institute of Architects, Beaubien House, 553 E. Jefferson, Detroit, Michigan 48226-4324. Telephone (313) 965-4100. Facsimile Number (313) 965-1501.
END OF SECTION 02100

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following:

- 1. Wood studs, plates, joists, nailers, and blocking.
2. Plywood wall sheathing and plywood roof deck.

B. Related Sections: The following Sections contain requirements that relate to this Section:

- 1. Division 6 Section "Finish Carpentry" for nonstructural carpentry items exposed to view and not specified in another Section.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Keep materials under cover and dry. Protect from weather and contact with damp or wet surfaces. Stack lumber, plywood, and other panels. Provide for air circulation within and around stacks and under temporary coverings.

PART 2 - PRODUCTS

2.1 LUMBER, GENERAL

A. Lumber Standards: Comply with DOC P5 20, "American Softwood Lumber Standard," and with applicable grading rules of inspection agencies certified by ALSC's Board of Review.

B. Inspection Agencies: Inspection agencies, and the abbreviations used to reference them, include the following:

- 1. NELMA - Northeastern Lumber Manufacturers Association.
2. NLGA - National Lumber Grades Authority (Canadian).
3. RIS - Redwood Inspection Service.
4. SPIB - Southern Pine Inspection Bureau.
5. WCLIB - West Coast Lumber Inspection Bureau.
6. WPA - Western Wood Products Association.

C. Grade Stamps: Provide lumber with each piece factory marked with grade stamp of inspection agency evidencing compliance with grading rule requirements and identifying grading agency, grade, species, moisture content at time of surfacing, and mill.

1. For exposed lumber, furnish pieces with grade stamps applied to ends or back of each piece, or omit grade stamps and provide grade-compliance certificates issued by inspection agency.

D. Where nominal sizes are indicated, provide actual sizes required by DOC P5 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.

- 1. Provide dressed lumber, S4S, unless otherwise indicated.
2. Provide dry lumber with 19 percent maximum moisture content at time of dressing for 2-inch nominal (38-mm actual) thickness or less, unless otherwise indicated.

E. Wood Structural Panels:

- 1. Plywood: DOC P5 1, unless otherwise indicated.
2. Thickness: Match existing.
3. Comply with "Code Plus" provisions in APA Form No. E30K, "APA Design/Construction Guide: Residential & Commercial."
4. Factory mark panels according to indicated standard.

2.2 DIMENSION LUMBER

A. General: Provide dimension lumber of grades indicated according to the American Lumber Standards Committee National Grading Rule provisions of the grading agency indicated.

2.3 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.

B. Nails, Wire, Brads, and Staples: FS FF-N-105.

C. Power-Driven Fasteners: CABO NER-272.

D. Wood Screws: ASME B10.6.1.

E. Lag Bolts: ASME B10.2.1. (ASME B10.2.3.2M)

F. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

B. Discard units of material with defects that impair quality of rough carpentry and that are too small to use with minimum number of joints or optimum joint arrangement.

C. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted.

D. Fit rough carpentry to other construction; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds, and similar supports to allow attachment of other construction.

3.2 WOOD STUDS, PLATES, JOISTS, NAILERS AND BLOCKING

A. Install wood studs, plates, nailers, and blocking where necessary to replace water damaged and/or rotted existing wood framing. Form to shapes shown and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.

3.3 PLYWOOD WALL SHEATHING AND ROOF DECK

A. Install plywood sheathing where necessary to replace rotted or water damaged plywood sheathing. Install plywood roof deck where necessary to replace water damaged roof deck.

B. All replacement plywood sheathing and deck, if required, shall match thickness of the existing sheathing or roof deck.

3.4 INSPECTION

- A. Examine substrate for suitability to accept work.
B. Start of work constitutes acceptance of substrate and responsibility for performance.

END OF SECTION 061000

SECTION 074646 - FIBER-CEMENT SIDING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes fiber-cement siding.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood studs, plates, joists, nailers, blocking, and sheathing.

1.3 COORDINATION

A. Coordinate siding installation with roofing, coping, sealants and other adjoining construction to ensure proper sequencing.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Samples for Initial Selection: For fiber-cement siding including related accessories.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store packaged materials in original containers with labels intact until time of use.

B. Store materials on elevated platforms, under cover, and in a dry location.

1.6 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace products that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

- a. Structural failures including cracking and deforming.
b. Deterioration of materials beyond normal weathering.
2. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain products, including related accessories, from single source from single manufacturer.

2.2 FIBER-CEMENT SIDING

A. General: ASTM C1186, Type A, Grade II, fiber-cement board, noncombustible when tested according to ASTM E136; with a flame-spread index of 25 or less when tested according to ASTM E84. 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following: a. CertainTeed Corporation. b. GAF. c. James Hardie Building Products, Inc. d. Nichia Fiber Cement.

B. Labeling: Provide fiber-cement siding that is tested and labeled according to ASTM C1186 by a qualified testing agency acceptable to authorities having jurisdiction.

C. Nominal Thickness: Not less than 5/16 inch

D. Horizontal Pattern: Boards 7-1/4 to 7-1/2 inches wide in plain edge style.

1. Texture: Wood grain.

2. Siding shall be installed providing for a 5-1/2" exposure.

E. Factory Priming: Manufacturer's standard acrylic primer.

2.3 ACCESSORIES

A. Siding Accessories, General: Provide starter strips, edge trim, and other items as recommended by siding manufacturer for building configuration.

1. Provide 1x nominal cedar trim at ends, outside corners and bottom of cement siding as outlined on the drawings. Finish to match cement siding.

B. Fasteners:

- 1. For fastening to wood, use siding or roofing nails of sufficient length to penetrate into substrate per manufacturer's recommendations.
2. For fastening fiber cement, siding, and cedar trim use hot-dip galvanized fasteners.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of fiber-cement siding and related accessories.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Remove existing horizontal lapped wood siding, related wood trim and all fasteners.

B. Replace, if required, all water damaged or rotted plywood sheathing with new exterior grade plywood sheathing of thickness to match existing.

C. Clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION

A. General: Comply with manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.

1. Install siding over Tyvek or approved equal air/water barrier.

2. Do not install damaged components.

3. Install fasteners no more than 24 inches o.c.

B. Install joint flashings and sealants as specified in Section 079200 "Joint Sealants" and to produce a weathertight installation and in compliance with siding manufacturer's written instructions.

3.4 ADJUSTING AND CLEANING

A. Remove damaged, improperly installed, or otherwise defective materials and replace with new materials complying with specified requirements.

B. Clean finished surfaces according to manufacturer's written instructions and maintain in a clean condition during construction.

C. Refer to Painting Division for finish painting of all fiber cement siding and related wood trim.

END OF SECTION 074646

SECTION 075323 - EPDM SINGLE-PLY MEMBRANE ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following:

- 1. Adhered sheet roofing.
2. Rigid insulation.
3. Tapered insulation.

B. Related Sections include the following:

- 1. Division 6 Section "Rough Carpentry" for plywood sheathing, plywood roof deck, nailers, and blocking.
2. Division 7 Section "Joint Sealants."

1.3 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D 1074 for definition of terms related to roofing work not otherwise defined in this Section.

1.4 PERFORMANCE REQUIREMENTS

A. General: Install sheet membrane roofing and base flashing that are watertight; will not permit the passage of liquid water; and will withstand wind loads, thermally induced movement, and exposure to weather without failure.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing system manufacturer based on testing and field experience.

C. Roofing System Design: Provide a roofing system that complies with roofing system manufacturer's written design instructions and with the following:

- 1. SPRI's "Wind Design Guide for Adhered Roofing Systems." Based on T2 MPH wind.

- a. Corner uplift pressure.
b. Perimeter uplift pressure.
c. Field of roof uplift pressure.
d. Safety factor.

1.5 SUBMITTALS

A. Product Data: Include data substantiating that materials comply with requirements.

B. Installer Certificates: Signed by roofing system manufacturer certifying that installer is approved, authorized, or licensed by manufacturer to install specified roofing system.

C. Manufacturer Certificates: Signed by roofing manufacturer certifying that the roofing system complies with requirements specified in the "Performance Requirements" Article. Upon request, submit evidence of meeting requirements.

D. Qualification Data: For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

E. Product Test Reports: Based on evaluation of tests performed by manufacturer and witnessed by a qualified independent testing agency, indicate compliance of components of roofing system with requirements based on comprehensive testing of current product compositions.

F. Maintenance Data: For roofing system to include in the maintenance manuals specified in Division 1.

G. Warranty: Sample copy of standard roofing system manufacturer's warranty stating obligations, remedies, limitations, and exclusions of warranty.

H. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.

I. Research/Evaluation Reports: for components of membrane roofing system.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer to perform work of this Section who has specialized in installing roofing similar to that required for this Project and who is approved, authorized, or licensed by the roofing system manufacturer to install manufacturer's product.

B. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method indicated below by UL, FM, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.

1. Exterior Fire-Test Exposure: Class A; ASTM E 108, for application and slopes indicated.

C. Pre-Installation Conference:

1. Prior to start of roofing work, Architect to meet with General Contractor, testing and inspecting agency representative, roofing installer and roof system manufacturer's representative.

2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.

3. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.

4. Review governing regulations and requirements for insurance, certificates, and inspection and testing.

5. Review temporary protection requirements for roofing system during and after installation, in particular, as it relates to the painting of the metal siding panels at the north wall and the installation of the new fiber cement siding at the building fascia.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.

1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

1.8 PROJECT CONDITIONS

A. Weather Limitations: Proceed with roofing work only when existing and forecasted weather conditions permit roofing to be installed according to manufacturers' written instructions and warranty requirements.

1.9 WARRANTY

A. General Warranty: The warranties specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

B. Standard Roofing Manufacturer's Warranty: Submit a written warranty, without monetary limitation, signed by roofing system manufacturer agreeing to promptly repair leaks in the roof membrane and base flashings resulting from defects in materials or workmanship for the following warranty period:

- 1. Warranty Period: 15 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- 1. EPDM Sheet (60 mil):
a. Allied-Trent Roofing Systems Inc.
b. Carlisle Syntec Systems; Carlisle Corp.
c. Celotex Corp. (The).
d. Johns Manville.
e. Firestone Building Products Co.
f. GenFlex Roofing Systems; GenCorp Polymer Products.
g. HPS Roofing Systems.
h. International Diamond Systems.
i. Kelly Energy Systems, Inc.
j. Mule Hide Products Co., Inc.
k. Roofing Products International, Inc.
l. Schuller Roofing Systems.
m. Skafast Roofing Products.
n. Versico, Inc.
o. TremCo.

2. Polyisocyanurate Board Insulation:

- a. Apache Products Co.
b. Atlas Roofing Corporation.
c. Celotex Corp. (The).
d. GAF Materials Corp.
e. NRG Barriers, Inc.
f. Johns Manville.

2.2 EPDM SHEET

A. EPDM Sheet: Uniform, flexible sheet formed from a terpolymer of ethylene-propylene-diene, complying with ASTM D 4637, Type I, of the following grade, class, thickness, backing, and exposed face color:

- 1. Grade and Class: Grade I and Class U, unreinforced.
2. Thickness: 60 mils (1.5 mm), nominal.
3. Backing: Unbacked.
4. Exposed Face Color: Manufacturer's standard. (white or gray)
5. Class A Rating.

2.3 AUXILIARY MATERIALS

A. General: Furnish auxiliary materials recommended by roofing system manufacturer for intended use and compatible with EPDM membrane roofing.

1. Furnish liquid-type auxiliary materials that meet VOC limits of authorities having jurisdiction.

B. Sheet Flashing: 60-mil- (1.5-mm-) thick EPDM, uncured or cured, according to application.

C. Bonding Adhesive: Manufacturer's standard bonding adhesive.

D. Splice Adhesive and Cleaner: Single-component butyl splicing adhesive and solvent-based splice cleaner.

E. Splice Primer and Tape: Manufacturer's standard synthetic rubber polymer primer and 3-inch- (75-mm-) wide minimum, butyl splice tape with release film.

F. Lap Sealant: Manufacturer's standard single-component sealant.

G. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.

H. Metal Termination Bars: Manufacturer's standard aluminum bars, approximately 1 inch (25 mm) wide, roll formed and prepunched.

I. Metal Battens: Manufacturer's standard aluminum-zinc-alloy-coated or zinc-coated steel sheet, approximately 1 inch (25 mm) wide by 0.05 inch (1.3 mm) thick, prepunched.

J. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions of FM 4470, designed for fastening sheet to substrate, and acceptable to roofing system manufacturer.

K. Miscellaneous Accessories: Provide pourable sealers, preformed inside and outside corner sheet flashings, T-joint covers, in-seam sealants, termination reglets, and other accessories recommended by roofing system manufacturer for intended use.

2.4 INSULATION MATERIALS

A. General: Provide preformed roof insulation boards that comply with requirements, selected from manufacturer's standard sizes and of thicknesses indicated.

B. Roofing Systems Manufacturer's H.P. Recovery Board: High density wood fiber sheathing 7" minimum with asphalt-coated faces, if required.

C. Polyisocyanurate Board Insulation: Rigid, cellular polyisocyanurate thermal insulation with core formed by using HCFCs as blowing agents to comply with ASTM C 1289, classified by facer type as follows:

- 1. Facer Type: Type II, felt or glass-fiber mat on both major surfaces.
2. Minimum R value R20. Depth of insulation as determined to meet minimum thermal performance. Two layers with staggered joints.

2.5 INSULATION ACCESSORIES

A. General: Furnish roof insulation accessories recommended by insulation manufacturer for intended use and compatible with sheet roofing material.

B. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions of FM 4470, designed for fastening roof insulation to substrate, and acceptable to roofing system manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Remove existing roofing materials, roof insulation, copings, flashings, adhesives, cements and fasteners complete down to roof deck.

B. Examine substrates, areas, and conditions, with installer present, for compliance with the following requirements and other conditions affecting performance of roofing system.

- 1. Replace all water damaged or rotted plywood roof deck and/or plywood wall sheathing as required. Refer to rough carpentry division.
2. Proceed with installation only after unsatisfactory conditions have been corrected.

CHMP INC.
5188 TERRITORIAL ROAD
GRAND BLANC, MI 48439
TELEPHONE 810/696-6910



ARCHITECTURE
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RENOVATIONS FOR
McKINLEY COMMUNITY CENTER
3001 COLLINGWOOD PARKWAY, FLINT, MICHIGAN 48503

PROJECT NO. 18001300
DATE 04-10-2019
AS BUILT DATE
DRAWN BY RP
CHECKED BY MB
SCALE AS NOTED
REVISION DATE
ISSUED FOR BIDS 04-22-2019

SHEET NO.
SP-1
OF

3.2 PREPARATION

A. Clean substrate of dust, debris, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of the roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

3.3 INSULATION INSTALLATION

A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with roofing system manufacturer's written instructions for installing roof insulation.

C. Install the two layers of insulation to achieve required thermal value. Install required thickness in 2 layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.

D. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with insulation.

E. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.

F. Attached insulation: Install each layer of insulation and secure to plywood deck using means specifically designed for fastening specified board-type roof insulation to deck type indicated.

G. Fasten insulation according to the insulation and roofing system manufacturers' written instructions to meet specified wind-uplift requirements.

3.4 ADHERED SHEET INSTALLATION

A. Install EPDM sheet over area to receive roofing according to roofing system manufacturer's written instructions. Unroll sheet and allow to relax for a minimum of 30 minutes.

B. Start installation of sheet in presence of roofing system manufacturer's technical personnel.

C. Accurately align sheets and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.

D. Apply bonding adhesive to substrate and underside of sheet at rate required by manufacturer and allow to partially dry. Do not apply bonding adhesive to splice area of sheet.

E. Mechanically or adhesively fasten sheet securely at terminations and perimeter of roofing.

F. At the north face of the new EPDM membrane roofing, temporarily remove the steel siding fasteners and retain for re-use. Install EPDM membrane vertically up face of wall and terminate a minimum of 6" up behind steel siding. Re-install steel siding fasteners with new rubber or neoprene gaskets. Seal bottom of steel siding panels as required.

G. Carry EPDM membrane up and over top of parapet walls. Lap membrane a minimum of 2" over top of fiber cement siding.

3.5 SEAM INSTALLATION

A. Clean both faces of splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet terminations.

B. Apply a continuous bead of in-seam sealant before closing splice if required by roofing system manufacturer.

C. Clean and prime both faces of splice areas, apply splice tape, and firmly roll side and end laps of overlapping sheets according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet terminations.

D. Repair tears, voids, and lapped seams in roofing that does not meet requirements.

3.6 FLASHING INSTALLATION

A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to roofing system manufacturer's written instructions.

B. Apply bonding adhesive to substrate and underside of flashing sheet at required rate and allow to partially dry. Do not apply bonding adhesive to seam area of flashing.

C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing as recommended by manufacturer.

D. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.

3.7 FIELD QUALITY CONTROL

A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to Architect.

B. Notify the Architect at least five (5) working days in advance of the date and time of inspection.

3.8 PROTECTING AND CLEANING

A. Protect sheet membrane roofing from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

B. Correct deficiencies in or remove roofing that does not comply with requirements, repair substrates, reinstall roofing, and repair sheet flashings to a condition free of damage and deterioration at the time of substantial completion and according to warranty requirements.

C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.9 ROOFING INSTALLER'S WARRANTY

A. WHEREAS (NAME) OF (ADDRESS), herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:

1. Owner;
2. Address;
3. Building Name/Type;
4. Address;
5. Area of Work;
6. Acceptance Date;
7. Warranty Period needs to be 2 years
8. Expiration Date.

B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,

C. Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.

A. This Warranty is made subject to the following terms and conditions:

1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:

- a. Lightning;
- b. peak gust wind speed exceeding 72 mph;
- c. Fire;
- d. Failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration and deterioration;
- e. Faulty construction of parapet walls, copings, and other edge conditions and penetrations of the work;
- f. vapor condensation on bottom of roofing; and
- g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by the Owner.

2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof has been paid by the Owner or by another responsible party so designated.

3. The Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents, resulting from leaks or faults or defects of work.

4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If the Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void, unless Roofing Installer, before starting said work, shall have notified the Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.

5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.

6. The Owner or his/her representative shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.

7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off the Owner from other remedies and resources lawfully available to the Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with the Owner or a subcontract with the Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this (DAY) day of (MONTH), 20(YEAR).

1. Authorized Signature;
2. Name;
3. Title.

END OF SECTION 075323

SECTION 071100 - ROOF SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Copings.
2. Reglets and counterflashings.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, studs, plates, joists, and blocking.

2. Section 071200 "Joint Sealants" for field-applied sealants between roof specialties and adjacent materials.

1.3 SUBMITTALS

A. Product Data:

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Do not store roof specialties in contact with other materials that might cause staining, denting, or other surface damage.

B. Protect shippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof-specialty installation.

1.5 FIELD CONDITIONS

A. Field Measurements: Verify profiles and tolerances of roof-specialty substrates by field measurements before fabrication.

B. Coordination: Coordinate roof specialties with flashing, trim, and construction of parapets, roof deck, fascia siding, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.7 WARRANTY

A. Special Warranty on Painted Finishes: Manufacturer agrees to repair finish or replace roof specialties that show evidence of deterioration on factory-applied finishes within specified warranty period.

1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:

- a. Color fading more than 5 Delta E units when tested according to ASTM D2244.
- b. Chalking in excess of a No. 3 rating when tested according to ASTM D4214.
- c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Roof specialties shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C, material surfaces).

2.2 COPINGS

A. Metal Copings: Manufactured coping system consisting of metal coping cap in section lengths not exceeding 12 feet (3.6 m), concealed anchorage with corner units, end cap units, and concealed splice plates with finish matching coping caps. 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

a. ATAS International, Inc. b. Castle Metal Products. c. Cheney Flashing Company. d. Hickman Company. W. F. e. Metal-Era, Inc. f. Fenimeter Systems; a division of SAF.

2. Metallic-Coated Steel Sheet Coping Caps: Zinc-coated galvanized steel, nominal 0.028-inch (0.71-mm) thickness.

a. Surface: Smooth, flat finish.

b. Finish: Two-coat fluoropolymer.

c. Color: Match existing aluminum door and window frames as closely as possible with standard color.

3. Corners: Factory mitered and soldered.

4. Coping-Cap Attachment Method: Snap-on, fabricated from coping-cap material.

a. Snap-on Coping Anchor Plates: Concealed, galvanized-steel sheet, 12 inches (300 mm) wide, with two-piece integral cleats with integral top chairs to provide inward slope of coping cap. Install cleats at maximum 48" o.c.

2.3 MISCELLANEOUS MATERIALS

A. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:

1. Exposed Penetrating Fasteners: Gasketed screws with hex washer heads matching color of sheet metal.

2. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip zinc-coated steel according to ASTM A 153/A 153M or ASTM F 2324.

B. Elastomeric Sealant: ASTM C 920, elastomeric silicone polymer sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Examine walls, roof edges, and parapets for suitable conditions for roof specialties.

C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage where applicable, and securely anchored.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, underlayment, sealants, and other miscellaneous items as required to complete roof-specialty systems.

1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.

2. Provide uniform, neat seams with minimum exposure of solder and sealant.

3. Install roof specialties to fit substrates and to result in weathertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.

4. Torch cutting of roof specialties is not permitted.

5. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 feet (3.6 m) with no joints within 18 inches (450 mm) of corners or intersections unless otherwise indicated on Drawings.

2. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

D. Fastener Sizes: Use fasteners of sizes that penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.

E. Seal Joints as required for weathertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F (4 deg C).

3.3 INSTALLATION OF COPINGS

A. Install cleats, anchor plates, and other anchoring and attachment accessories and devices with concealed fasteners.

B. Anchor copings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

1. Interlock face and back leg drip edges of snap-on coping cap into cleated anchor plates anchored to substrate at manufacturer's required spacing that meets performance requirements.

2. Top of copings shall slope inward toward roof surface.

3.4 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder and sealants.

C. Remove temporary protective coverings and shippable films as roof specialties are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

D. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 071100

SECTION 071200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes joint sealants for the following locations:

1. Exterior joints in vertical surfaces and nontrafficked horizontal surfaces as indicated below:

a. Joints between fiber cement siding and wood trim.

b. Joints between wood trim and aluminum frames.

c. Joints between wood trim and masonry surfaces.

d. Joint between wood trim and drywall soffit.

e. Joint between wood trim and steel siding.

1.3 SYSTEM PERFORMANCE REQUIREMENTS

A. Provide elastomeric joint sealants that have been produced and installed to establish and to maintain watertight and airtight continuous seals without causing staining or deterioration of joint substrates.

1.4 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Product data from manufacturers for each joint sealant product required.

1. Certification by joint sealant manufacturer that sealants plus the primers and cleaners required for sealant installation comply with local regulations controlling use of volatile organic compounds.

C. Samples for initial selection purposes in form of manufacturer's standard bead samples, consisting of strips of actual products showing full range of colors available, for each product exposed to view.

D. Certificates from manufacturers of joint sealants attesting that their products comply with specification requirements and are suitable for the use indicated.

E. Compatibility and adhesion test reports from elastomeric sealant manufacturer indicating that materials forming joint substrates and joint sealant backings have been tested for compatibility and adhesion with joint sealants. Include sealant manufacturer's interpretation of test results relative to sealant performance and recommendations for primers and substrate preparation needed to obtain adhesion.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer who has completed joint sealant applications similar in material, design, and extent to that indicated for Project that have resulted in construction with a record of successful in-service performance.

B. Single Source Responsibility for Joint Sealant Materials: Obtain joint sealant materials from a single manufacturer for each different product required.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration period for use, pot life, curing time, and mixing instructions for multicomponent materials.

B. Store and handle materials in compliance with manufacturer's recommendations to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.7 PROJECT CONDITIONS

A. Environmental Conditions: Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside the limits permitted by joint sealant manufacturer.

2. When joint substrates are wet.

B. Joint Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than allowed by joint sealant manufacturer for application indicated.

C. Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General Sealer Performance Requirements: Provide colors indicated or, if not otherwise indicated, as selected by the Architect from manufacturer's standard bead samples, consisting of strips of actual products showing a full range of colors. Select materials for compatibility with joint surfaces and other indicated exposures, and except as otherwise indicated select modulus of elasticity and hardness or grade recommended by manufacturer for each application indicated. Where exposed to foot traffic, select marketing materials of sufficient strength and hardness to withstand stiletto heel traffic damage or deterioration of sealer system.

1. Elastomeric Sealants:

a. Two-Component Polysulfide Sealant: Polysulfide-based, 2 part elastomeric sealant, complying with FS TT-5-221, Class A, Type II (non-sag) unless Type I recommended by manufacturer for application shown.

b. Two-Component Polyurethane Sealant: Polyurethane-based, 2 part elastomeric sealant, complying with FS TT-5-00221, Class A, Type I (self-leveling) unless Type II recommended by manufacturer for application shown.

2. Miscellaneous Materials:

a. Joint Primer/Sealer: Provide type of joint primer/sealer recommended by sealant manufacturer for joint surfaces to be primed or sealed.

b. Bond Breaker Type: Polyethylene tape or other plastic tape as recommended by sealant manufacturer to be applied to sealant-contact surfaces where bond to substrate or joint filler must be avoided for proper performance of sealant. Provide self-adhesive tape where applicable.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

A. Comply with manufacturer's printed instructions except where more stringent requirements are shown or specified, and except where manufacturer's technical representative directs otherwise.

3.2 JOINT PREPARATION

A. Clean joint surfaces immediately before installation of sealant or caulking compound. Remove dirt, insecure coatings, moisture and other substances which could interfere with bond of sealant or caulking compound. Etch concrete and masonry joint surfaces as recommended by sealant manufacturer.

B. Prime or seal joint surfaces where indicated, and where recommended by sealant manufacturer. Do not allow primer/sealer to spill or migrate onto adjoining surfaces.

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RENOVATIONS FOR
MCKINLEY COMMUNITY CENTER
3001 COLLINGWOOD PARKWAY, FLINT, MICHIGAN 48503

PROJECT NO. 18001300
DATE 04-10-2019
AS BUILT DATE
DRAWN BY RP
CHECKED BY MB
SCALE AS NOTED
REVISION DATE
ISSUED FOR BIDS 04-22-2019

SHEET NO.
SP-2
OF

3.3 INSTALLATION

- A. Set joint filler units at proper depth or position in joint to coordinate with other work, including installation of bond breakers and sealants. Do not leave voids or gaps between ends of joint filler units.
- B. Install bond breaker tape where indicated and where required by manufacturer's recommendations to ensure that elastomeric sealants will perform properly.
- C. Employ only proven installation techniques, which will ensure that sealants are deposited in uniform, continuous ribbons without gaps or air pockets, with complete 'wetting' of joint bond surfaces equally on opposite sides. Except as otherwise indicated, fill sealant rabbet to a slightly concave surface, slightly below adjoining surfaces. Where horizontal joints are between a horizontal surface and vertical surface, fill joint to form a slight cove, so that joint will not trap moisture and dirt.
- D. Install sealant to depths as shown or, if not shown, as recommended by sealant manufacturer but within the following general limitations, measured at center (thin) section of bead:
- I. For normal moving joints sealed with elastomeric sealants but not subject to traffic, fill joints to a depth equal to 50% of joint width, but neither more than 1/2" deep nor less than 1/4" deep.
- E. Spillage: Do not allow sealants or compounds to overflow or spill onto adjoining surfaces, or to migrate into voids of adjoining surfaces. Clean adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage.

F. Sealant Type and Location:

- I. Building Exterior Surfaces: Two component elastomeric sealants.

3.4 CURE AND PROTECTION

- A. Cure sealants and caulking compounds in compliance with manufacturer's instructions and recommendations, to obtain high early bond strength, internal cohesive strength and surface durability. Advise Contractor of procedures required for cure and protection of joint sealers during construction period, so that they will be without deterioration or damage (other than normal wear and weathering) at time of substantial completion.

END OF SECTION 074200

088000 - GLASS & GLAZING

SCOPE OF WORK

Where indicated on the construction documents, furnish and install insulated glass units in existing hollow metal frames as follows:

Outboard lites to be PPG, 95Raylite IIIA, 1/4 inch, dark gray, fully tempered.

Airspace: 1/2 inch (mill aluminum spacer)

Inboard lites to be 1/4 inch, clear, annealed, laminated safety glass, with .030, interlayer.

INSTALLATION

Remove existing glass units, broken units and/or metal or plywood fillers at all units outlined on the drawings to receive new glazing.

Furnish and install glazing tape at the perimeter of each hollow metal unit. Re-install glass stops at the perimeter of each hollow metal unit.

Clean all new glass units at the completion of the work.

END OF SECTION 08800

SECTION 09513 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes ceilings consisting of acoustical panels.

B. Metal ceiling suspension systems.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer who has completed acoustical panel ceilings similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

B. Source Limitations for Suspension System: Obtain each suspension system from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the work.

I. Obtain both acoustical ceiling panels and suspension system from the same manufacturer.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical panels and suspension system components to Project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.

B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.

C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

1.5 PROJECT CONDITIONS

A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are weatherproof, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.6 COORDINATION

A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, and partition assemblies.

1.7 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels describing contents.

I. Acoustical Ceiling Tiles: One full, unopened box.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, provide 2' x 4' acoustical ceiling panels as follows: Armstrong BP 933 OT (T64) or approved equal.

2.2 ACOUSTICAL PANELS, GENERAL

A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by type, pattern, acoustical rating, and light reflectance, unless otherwise indicated.

2.3 METAL SUSPENSION SYSTEMS, GENERAL

A. Metal Suspension System Standard: Provide manufacturer's standard direct-hung 15/16" exposed metal suspension systems of type, structural classification, and finish to match existing suspension system.

B. Finishes and Colors, General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturer's standard factory-applied white finish to match existing.

C. Wire Hangers, Braces, and Ties: Match existing.

D. Sheet-Metal Edge Moldings and Trim: Match existing.

I. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

- a. Armstrong World Industries, Inc.
- b. Celotex Corporation (The); Building Products Division; Architectural Ceilings Marketing Dept.
- c. Chicago Metallic Corporation.
- d. Fry Reglet Corporation.
- e. Gordon, Inc.
- f. MM Systems, Inc.
- g. USG Interiors, Inc.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install new suspended ceiling grid or repair areas of the ceiling grid at locations as outlined on the drawings.

B. Remove existing acoustical panels for new where indicated on the drawings. Dispose of ceiling panels properly off-site.

C. Use caution when removing existing acoustical panels so as not to disturb the fiberglass insulation batts on the ceiling.

D. Install new 2' x 4' acoustical panels with undamaged edges and fitted accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit. Install new acoustical panels at locations as indicated on the construction documents.

E. During ceiling tile installation, adjust fiberglass batt insulation above so insulation is tight together and tight to the perimeter walls. Provide and install fiberglass insulation to match existing where insulation batts are missing, and as indicated on the drawings.

F. At areas receiving an entirely new ceiling grid and new acoustical ceiling panels, provide and install new R-14 fiberglass batt insulation on these ceilings to match existing insulation.

3.4 CLEANING

A. At the south building area at leading roof areas only, wipe clean exposed surfaces of existing acoustical panel ceiling suspension system members. Remove and replace ceiling components that are damaged or that cannot be successfully cleaned.

END OF SECTION 09513

SECTION 096513 - RESILIENT WALL BASE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following:

I. Resilient wall base.

B. Related Sections include the following:

I. Division 9 Section "Resilient Floor Tile."

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer to perform work of this Section who has specialized in installing resilient products similar to those required for this Project and with a record of successful in-service performance.

B. Source Limitations: Obtain each type and color of product specified from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the work.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to Project site in manufacturer's original, unopened cartons and containers, each bearing names of product and manufacturer, Project identification, and shipping and handling instructions.

B. Store products in dry spaces protected from the weather, with ambient temperatures maintained between 50 and 90 deg F (10 and 32 deg C).

C. Move products into spaces where they will be installed at least 48 hours before installation, unless longer conditioning period is recommended in writing by manufacturer.

1.5 PROJECT CONDITIONS

A. Maintain a temperature of not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C) in spaces to receive resilient products for at least 48 hours before installation, during installation, and for at least 48 hours after installation, unless manufacturer's written recommendations specify longer time periods. After postinstallation period, maintain a temperature of not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).

B. Do not install products until they are at the same temperature as the space where they are to be installed.

C. For resilient products installed on traffic surfaces, close spaces to traffic during installation and for time period after installation recommended in writing by manufacturer.

D. Coordinate resilient product installation with other construction to minimize possibility of damage and soiling during remainder of construction period. Install resilient products after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, those indicated in the Resilient Wall Base Schedule.

2.2 RESILIENT WALL BASE

A. Vinyl Wall Base: Match profile and color of existing base. All new vinyl base shall be 100' long roll stock.

2.3 RESILIENT ACCESSORIES

A. Vinyl Accessories: Match profile and color of existing base.

2.4 INSTALLATION ACCESSORIES

A. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.

PART 3 - EXECUTION

3.1 PREPARATION

A. General: Comply with manufacturer's written installation instructions for preparing substrates indicated to receive resilient products.

B. Remove existing vinyl base and related adhesive at areas to receive new base, as indicated on the contract documents.

3.2 INSTALLATION

A. General: Install resilient products according to manufacturer's written installation instructions.

B. Apply resilient wall base to walls, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.

I. Install wall base without gaps at seams and with tops of adjacent pieces aligned.

2. Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.

3. Do not stretch base during installation.

4. Install premolded outside and inside corners before installing straight pieces.

C. Place resilient products so they are butted to adjacent materials and bond to substrates with adhesive. Install reducer strips at edges of flooring that would otherwise be exposed. Install transition strips between flooring materials of difference thicknesses. Place transition strips on center line of door between two rooms with different flooring materials.

3.3 CLEANING AND PROTECTING

A. Perform the following operations immediately after installing resilient products:

1. Remove adhesive and other surface blemishes using cleaner recommended by resilient product manufacturers.

2. Sweep or vacuum horizontal surfaces thoroughly.

3. Do not wash resilient products until after time period recommended by resilient product manufacturer.

4. Damp-mop or sponge resilient products to remove marks and soil.

B. Protect resilient products against mars, marks, indentations, and other damage from construction operations.

3.4 RESILIENT WALL BASE SCHEDULE

A. Vinyl Wall Base: 4" high preformed vinyl wall base as manufactured by Johnsonite or equal. Match existing vinyl base profile and color.

B. Transition Accessories: As manufactured by Johnsonite or equal.

I. Resilient accessories appropriate for the various project conditions; match existing.

END OF SECTION 096513

SECTION 096519 - RESILIENT FLOOR TILE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes:

I. Vinyl composition floor tile.

B. Related Sections:

I. Division 9 Section "Resilient Wall Base" for resilient base, reducer strips, and other accessories installed with resilient floor coverings.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor tile installation indicated.

I. Engage an installer who employs workers for this Project who are trained or certified by manufacturer for installation techniques required.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32 deg C). Store floor tiles on flat surfaces.

1.5 PROJECT CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C), in spaces to receive floor tile during the following time periods:

I. 48 hours before installation.

2. During installation.

3. 48 hours after installation.

B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).

C. Close spaces to traffic during floor tile installation.

D. Close spaces to traffic for 48 hours after floor tile installation.

1.6 EXTRA MATERIALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

I. Floor Tile: Furnish 1 box of type, color, and pattern of floor tile installed.

PART 2 - PRODUCTS

2.1 VINYL COMPOSITION FLOOR TILE - VCT

A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Armstrong World Industries, Inc.; Imperial Texture.

b. Manning; Essentials.

c. Tarkett, Inc.; Expressions.

B. Tile Standard: ASTM F 1066, Class I.

C. Wearing Surface: Smooth.

D. Thickness: 0.125 inch.

E. Size: 12 by 12 inches.

F. Colors and Patterns: Match existing.

2.2 INSTALLATION MATERIALS

A. Adhesives: Water-resistant type recommended by manufacturer to suit floor tile and substrate conditions indicated.

a. Use adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

I) VCT and Asphalt Tile Adhesives: Not more than 50 g/L.

PART 3 - EXECUTION

3.1 PREPARATION

A. General: Comply with manufacturer's written installation instructions for preparing concrete slab to receive resilient products.

B. Where indicated on the contract documents, remove existing resilient floor tile and related adhesive complete. Prepare floor surface to receive new resilient flooring.

3.2 FLOOR TILE INSTALLATION

A. Comply with manufacturer's written instructions for installing floor tile.

B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.

I. Lay tiles square with room axis.

C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.

D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.

E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.

F. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

3.3 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protection of floor tile.

B. Perform the following operations immediately after completing floor tile installation:

1. Remove adhesive and other blemishes from exposed surfaces.

2. Sweep and vacuum surfaces thoroughly.

3. Damp-mop surfaces to remove marks and soil.

C. Protect floor tile products from mars, marks, indentations, and other damage from construction operations.

END OF SECTION 096519

099100 - PAINTING - INTERIOR AND EXTERIOR

SCOPE OF WORK

Interior patched and previously painted drywall partitions:

Spot primer for patched areas shall be Sherwin Williams B28W02600 ProMar 200 Interior Latex Primer or approved equal.

Apply two coats of finish paint, Sherwin Williams K45W0151 Pro Industrial PreCat Eggshell Acrylic Coating or approved equal.

Interior metal door frames:

Apply two coats of Sherwin Williams B53W0151 Pro Industrial Waterborne Alkyd Urethane Semi-Gloss or approved equal. Only at areas to receive new paint at previously painted drywall partitions.

Clean and paint exterior vertical ribbed metal siding, downspouts, door and window frames:

Wash and scrub exterior metal siding, steel doors, frames and steel window frame surfaces with Trisodium Phosphate surface cleaner, then pressure wash all surfaces clean and free of chalky residue.

Prime all surfaces with Sherwin Williams B66W01310 Pro Industrial Procryl Primer or approved equal.

Apply two coats of Sherwin Williams B66W0151 Pro Industrial DTM Acrylic Semi-Gloss or approved equal.

New horizontal lapped fiber cement board siding and related wood trim:

Prime new bare wood trim with Sherwin Williams Y24W0005 Exterior Oil Based Primer or approved equal.

Paint new cement board siding and wood trim with two coats of Sherwin Williams LX13W0051 Loxon Self Cleaning Acrylic Coating or approved equal. Caulk all joints with sealant to match adjacent surfaces? see specifications for caulking materials.

Existing exterior drywall soffit:

Paint existing drywall soffit with two coats of Sherwin Williams LX13W0051 Loxon Self Cleaning Acrylic Coating or approved equal.

Existing exterior painted face brick masonry:

Wash and scrub exterior painted brick with Trisodium Phosphate surface cleaner, then pressure wash all surfaces clean and free of chalky residue.

Paint existing exterior face brick with two coats of Sherwin Williams LX13W0051 Loxon Self Cleaning Acrylic Coating or approved equal.

All paint colors as selected by the Architect.

END OF SECTION 099100

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RENOVATIONS FOR
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PROJECT NO. 18001300
DATE 04-10-2019
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SCALE AS NOTED
REVISION DATE
ISSUED FOR BIDS 04-22-2019

SHEET NO.
SP-3
OF

SECTION 323114 - SECURITY FENCING

PART 1 - GENERAL

1.1 WORK INCLUDED

A. The Contractor shall provide all labor, materials and appurtenances necessary for installation of the steel corrugated pale security fence system defined herein.

1.2 SYSTEM DESCRIPTION

A. Furnish and install a total steel ornamental pale high security fence system as manufactured by Ameristar Perimeter Security USA, Inc. or approved equal by the Architect. Fence system shall be Impasse II Anti-Scale model, Gauntlet style design. The system shall include all components including pales, rails, posts, connectors and tamper-proof fasteners required.

1.3 QUALITY ASSURANCE

A. The Contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.4 REFERENCES

A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated or Zinc-Iron Alloy Coated by the Hot-Dip Process.

B. ASTM B117 - Practice for Operating Salt-Spray (Fog) Apparatus.

C. ASTM D523 - Test Method for Specular Gloss.

D. ASTM D714 - Test Method for Evaluating Degree of Blistering in Paint.

E. ASTM D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.

F. ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.

G. ASTM D2714 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).

H. ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.

I. ASTM F2408 - Ornamental Fences Employing Galvanized Steel Pickets.

1.5 SUBMITTAL

A. The manufacturer's submittal package shall be provided prior to installation.

1.6 PRODUCT HANDLING AND STORAGE

A. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

1.7 PRODUCT WARRANTY

A. All structural fence components, rails, pales, and posts shall be warranted within specified limitations, by the manufacturer for a period of 15 years from date of original purchase. Warranty shall cover any defects in material finish, including cracking, peeling, chipping, blistering or corroding.

PART 2 - MATERIALS

2.1 MANUFACTURER

A. The steel ornamental pale high security fence system shall conform to Ameristar Impasse II Anti-Scale model, Gauntlet style, 4-Rail style as manufactured by Ameristar Perimeter Security Inc., Tulsa, Oklahoma, or approved equal by the Architect. Refer to the drawings for fence dimensions and height required. Furnish standard 96" wide fence sections.

2.2 MATERIAL

A. Steel material for fence framework, corrugated pales, rails and posts, when galvanized prior to forming, shall conform to the requirements of ASTM A624/A624M with a minimum yield strength of 45,000 psi. The steel shall be hot-dip galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft² (276 g/m²), Coating Designation G-90.

B. Material for corrugated pales shall be a nominal 2.75 inches x .75 inches x 14 Ga. The cross-sectional shape of the rails shall conform to the manufacturer's Impasse II rail design a nominal 2 inches x 2 inches x 11 Ga. Pre-drilled holes in the Impasse II Anti-Scale rail shall be spaced 4.1875 inches on center, providing a pale airspace of no greater than 1.5 inches (38 mm). Tamperproof fasteners shall be used to fasten each pale to rail at every intersection. Fence posts shall meet the minimum size requirement of Table 1.

2.3 FABRICATION

A. Pales, rails and posts shall be pre-cut to specified lengths. Impasse II rails shall be pre-punched to accept tamperproof security fasteners. Post flange shall be pre-punched to accept rail to post attachment. Post web shall be punched providing a clear opening for interior of rails to align throughout the entire system. Impasse II rails shall be attached to post flange providing a bracket-less design at each intermediate post.

B. The manufactured galvanized framework shall be subjected to the PermaCoat thermal stratification coating process (high-temperature, in-line, multi-stage, multi-layer) including, as a minimum, a six-stage pretreatment/wash, an electrostatic spray application of an epoxy base, and a separate electrostatic spray application of a polyester finish. The base coat shall be a thermosetting epoxy powder coating (gray in color) with a minimum thickness of 2 mils (0.0508 mm). The topcoat shall be a "no-mar" TGIC polyester powder coat finish with a minimum thickness of 2 mils (0.0508 mm). The color shall be Black. The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown in Table 2.

C. Completed panels shall be capable of supporting a 400 lb. load (applied at midspan) without permanent deformation. Panels shall be blisable to a 30° change in grade.

D. Impasse II fence system shall be designed to minimize the system impedance to comply with IEEE grounding requirements. No additional grounding material, beyond the structure grounding lug installation, will be required to create a safe low resistance fence system. By way of fence construction, the entire fence system is inherently grounded without the need for any additional work. Grounding location at the post is for taking the fence system to site ground.

PART 3 - EXECUTION

3.1 PREPARATION

A. All new installation shall be laid out by the contractor in accordance with the construction plans.

3.2 FENCE INSTALLATION

A. Fence post shall be spaced according to Figure 1, plus or minus 1/4 inch. Fence panels shall be attached to the line and end posts with fasteners supplied by the manufacturer. Attachment to corner post shall be made using brackets and fasteners supplied by the manufacturer. (See Figure 1). Posts shall be set in 18" diameter x 48" deep, 3000 PSI concrete post-hole footings.

3.3 FENCE INSTALLATION MAINTENANCE

A. When cutting/drilling rails or posts, adhere to the following steps to seal the exposed steel surfaces:

1. Remove all metal shavings from cut area.
2. Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry.
3. Apply two (2) coats of custom finish paint matching fence color.

B. Failure to seal exposed surfaces per steps 1-3 above will negate warranty. Ameristar or equal spray cans or paint pens shall be used to prime and finish exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar or equal parts or components will negate the manufacturer's warranty.

3.4 CLEANING

A. The contractor shall clean the jobsite of excess materials and dispose of properly off-site.

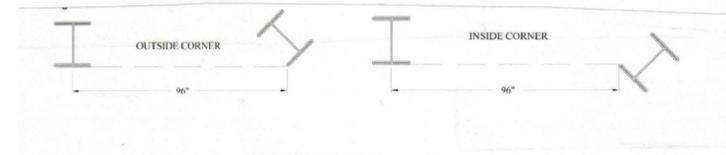
END OF SECTION 323114

Fence Posts (Nominal)	Panel Height
3" x 2.75" x 12 Ga. I-Beam	Up to & Including 8' Height

Quality Characteristics	ASTM Test Method	Performance Requirements
Adhesion	D3359 - Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117, D714 & D1654	Corrosion Resistance over 3,500 hours (Scribed per D1654; failure mode is accumulation of 1/8 inch coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625 inch ball).
Weathering Resistance	D2244, D523 (60° Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

* For Corner Posts see Figure 1

Figure 1



ARCHITECTURE
ENGINEERING
LANDSCAPE ARCHITECTURE
SURVEYING

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RENOVATIONS FOR
McKINLEY COMMUNITY CENTER
 3001 COLLINGWOOD PARKWAY, FLINT, MICHIGAN 48503

PROJECT NO.	18001300
DATE	04-10-2019
AS BUILT DATE	
DRAWN BY	RP
CHECKED BY	MB
SCALE	AS NOTED
REVISION	DATE
ISSUED FOR BIDS	04-22-2019

SHEET NO.
SP-4
OF 4

Directions to McKinley Community Center from Saginaw Street

