

Grand Ledge City Council Resolution # _____ of 2023

A Resolution to Approve Changer Order No. 1 to the Iron Removal Facility Project.

A resolution adopted by the Grand Ledge City Council, at a regular meeting held on Monday, 26 June 2023, in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

Whereas, the City of Grand Ledge, Michigan (“City”) is a municipal corporation organized under the provisions of the Home Rule City Act, Public Act 279 of 1909, as amended, and is governed by the provisions of the Grand Ledge City Charter adopted 07 August 2018, as amended (“Charter”); and

Whereas, Charter §13.1A provides:

“The power to make and to authorize the making of contracts on behalf of the City is vested in the City Council and shall be exercised in accordance with the provisions of law”; and

Whereas, the City previously approved a proposal and authorized a contract for construction services for the Iron Removal Facility Project from Fishbeck; and

Whereas, Fishbeck has submitted Change Order No. 1 for the Iron Removal Facility Project;

Now, Therefore, It Is Resolved:

1. The City approves Changer Order No. 1 to the Iron Removal Facility Project, as attached.
2. The City directs the City Manager and Finance Director / Treasurer to appropriate the funds necessary to implement said change order.
3. The City Manager, or their duly authorized agent or representative, is authorized and directed to implement said change order on behalf of the City; to do any other act(s) or thing(s) which shall be necessary to implement said change order on behalf of the City; to preserve and protect the rights, duties and obligations of the City thereunder; and to do any act or thing required by statute, Charter, ordinance, rule, regulation or other provision of law in order to implement said change order.

Motion by

Second by

Ayes:

Nays:

Absent:

Approved:

Keith O. Mulder, Mayor

I, Gregory L. Newman, Grand Ledge City Clerk, certify this is Resolution #_____ of 2023, adopted by the Grand Ledge City Council at a regular meeting held on Monday, 26 June 2023; in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

Gregory L. Newman, City Clerk

June 19, 2023
Project No. 210262

Adam Smith
City Manager
City of Grand Ledge
310 Greenwood Street
Grand Ledge, MI 48837

Bulletin 1 – City of Grand Ledge Iron Removal Plant, Description, and Impact

The following is a description of the items for Bulletin 1 of the Grand Ledge Iron Removal Plant Project:

Contract Modifications from Bulletin

- Original Contract Price – \$17,338,148
- Total Modification to Contract Price from Bulletin 1 – (\$214,900)
- Revised Contract Price – \$17,123,248

Table 1 – Bulletin 1 Monetary Impact Breakdown

Item No.	Item Description	Contract Modification	Cumulative Contract Price
1	Delete Closure of Clearwell from Project	-\$25,400	\$17,312,748
2	Delete Interior Coating of Aeration Detention Basins from Project	-\$30,930	\$17,281,818
3	Allow Alternative Manufacturer, Maddox, for Electrical Transformer	\$0.00	\$17,281,818
4	City taking Seeding and Restoration Scope for Project	-\$28,775	\$17,253,043
5	City taking Asphalt Paving Scope for Project	-\$128,995	\$17,124,048
6	City taking Project Identification Scope for Project	-\$800	\$17,123,248

Narrative Description of Bulletin

Bulletin 1 included value engineering items which will reduce cost while still keeping a functional building and system. These items included removing scope from the project or using more affordable materials and equipment. Pricing for these items was provided by the Contractor and the City selected those that offered the best cost-benefit in terms of savings.

The value engineering items selected were:

ITEM NO. 1

- Removal of the Clearwell abandonment from the project scope:
 - The City decided to postpone removal of this tank until a later time. Leaving it in place for now will not impact the new Iron Removal Plant.

ITEM NO. 2

- Delete Interior coating of below-grade basins:
 - The below-grade basins can be installed with bare concrete with no loss of performance or longevity.

ITEM NO. 3

- Allow alternative manufacturer, Maddox, for electrical transformer:
 - This item did not save cost but was a significantly reduced lead time from the transformer specified, helping to improve the construction schedule. Fishbeck considers Maddox to be an equivalent manufacturer to the one specified in the bid documents.

ITEM NO. 4

- Delete seeding and restoration from project. The City will complete this work:
 - This item allows the City to complete the work in-house or to hire a local contractor for a reduced cost.

ITEM NO. 5

- Delete asphalt paving from project. The City will complete this work:
 - This item allows the City to do the work in-house or to hire a local contractor for a reduced cost.

ITEM NO. 6

- Delete Project Identification Sign from this project:
 - The City will develop and purchase a sign directly for a reduced cost.

Impact to Project

This will have minimal impact on the project with the main consideration being coordination of the items being completed by the City and the remainder of the contract work by the Contractor. Issues can be minimized by the City waiting to complete their portion of the work when the Contractor has completed their work.

If you have any questions or require additional information, please contact me at 616.464.3825 or cmccorkle@fishbeck.com.

Sincerely,



Colin G. McCorkle, PE

Senior Water and Wastewater Engineer

Attachments

By email

Copy: Dave Pawley – City of Grand Ledge
Kurt Ristow – City of Grand Ledge
Dave Baar, PE – Fishbeck
John Willemin, PE – Fishbeck

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	N/A
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	None
SKETCHES:	None
SHEETS:	None
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. John Willemin, PE – Fishbeck

The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Include all labor, materials, overhead and profit. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.

This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.

Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.

Contractor will be responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.

Contractor shall return one (1) completed and signed copy of the Bulletin to Engineer on or before the due date noted above.

Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.

ITEM NO. 1:

Sheet: C102 – Site Demolition & SESC Plan (not reissued)

- A. Delete the closure of the clear well in place.

ADD/DEDUCT: \$ _____

ITEM NO. 2:

Section: 09 91 00 – Painting (not reissued)

Sheet: P206 – Enlarged Plan and Isometric (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete interior coating of below-grade basins (Backwash Equalization Tank, Detention Basins).

ADD/DEDUCT: \$ _____

BULLETIN
PAGE 2 OF 5

ITEM NO. 3:

Section: 26 22 13 – Low Voltage Distribution Transformers (not reissued)

A. Allow alternative manufacturer, Maddox, for electrical transformer.

ADD/DEDUCT: \$ _____

ITEM NO. 4:

Section: 07 18 13 – Traffic Coatings (not reissued)
09 91 00 – Painting (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)

A. Delete traffic coating from the top of the Aeration Detention Basins. Provide concrete sealer for top and exposed sides of Aeration Detention Basins per Specification 09 91 00 "Painting".

ADD/DEDUCT: \$ _____

ITEM NO. 5:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a 30-year warranty shingled roof system, meeting applicable building codes, in lieu of the metal roof system. Change gypsum sheathing to a plywood sheathing.

ADD/DEDUCT: \$ _____

ITEM NO. 6:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a PAC Snap-Clad Metal Roof System composed of 24-gauge steel, in lieu of the PAC Tite-Loc Plus Metal Roof.

ADD/DEDUCT: \$ _____

ITEM NO. 7:

Section: 00 73 00 – Supplementary Conditions (not reissued)
31 25 00 – Erosion and Sedimentation Controls (not reissued)
32 92 00 – Turf and Grasses (not reissued)

Sheet: C102 – Site Demolition & SESC plan (not reissued)

A. Delete seeding and restoration.

ADD/DEDUCT: \$ _____

ITEM NO. 8:

Section: 32 12 16 – Asphalt Paving (not reissued)

Sheet: C201 – Site Layout Plan (not reissued)

A. Delete asphalt paving. Provide and maintain gravel drive for use as subbase for future asphalt road construction by others.

ADD/DEDUCT: \$ _____

BULLETIN
PAGE 3 OF 5

ITEM NO. 9:

Section: 09 67 23 – Resinous Flooring (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace resinous flooring from the following rooms with bare concrete with sealant in conjunction with what is being done in the Process Area:
Room 103 – Toilet
Room 104 – Shower
Room 115 – Laboratory/Control Room
Room 116 – Office

ADD/DEDUCT: \$ _____

ITEM NO. 10:

Section: 22 05 06 – Cast Iron Pipe and Fittings for Plumbing (not reissued)

Sheet: M401 – Plumbing Schedules (not reissued)

- A. Replace cast iron drains and drain piping with PVC drains and drain piping.

ADD/DEDUCT: \$ _____

ITEM NO. 11:

Section: 22 71 00 – Compressed Air System for General Use (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
P205 – Enlarged Plans and Isometrics (not reissued)
M201 – First Floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)
M401 – Plumbing Schedules (not reissued)
M402 – Plumbing Details (not reissued)
E601 – Panelboard Schedules (not reissued)
I102 – I/O List and Wiring Schedule (not reissued)

- A. Delete compressed air system, including the compressor and air drops.

ADD/DEDUCT: \$ _____

ITEM NO. 12:

Section: 05 51 00 – Metal Stairs and Railings (not reissued)
05 51 33 – Metal Ladders (not reissued)

Sheet: A302 – Interior Elevations (not reissued)
A601 – Stair Section and Details (not reissued)

- A. Delete stairway to access mezzanine. Replace with an OSHA compliant galvanized steel ladder for access to the mezzanine with the ladder at the same opening as the stair.

ADD/DEDUCT: \$ _____

ITEM NO. 13:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
21 10 00 – Water Based Fire Suppression Systems (not reissued)
22 40 00 – Plumbing Fixture (not reissued)
23 09 93 – Sequence of Operation for HVAC (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
A103 – Enlarged Floor Plans (not reissued)
S101 – Foundation Plan (not reissued)
M101 – First floor & Equipment Platform Plumbing Sanitary/Storm Plan (not reissued)
M201 – First floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)

- A. Delete janitors closet and associated appurtenances from project, using the available space to expand the vestibule. Remove interior walls separating janitors closet from vestibule and Door 117 from the project. Door 114A and the eastern interior wall of the vestibule will be collinear with the western wall of the existing Mechanical/Electrical Room.

ADD/DEDUCT: \$ _____

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

- A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

ADD/DEDUCT: \$ _____

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)
A102 – Clerestory Window Plan (not reissued)

- A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

ADD/DEDUCT: \$ _____

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)
40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)
P103 – Flow Schematic and P&ID (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

ADD/DEDUCT: \$ _____

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

ADD/DEDUCT: \$ _____

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

- A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

ADD/DEDUCT: \$ _____

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)
04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

- A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

ADD/DEDUCT: \$ _____

ITEM NO. 20

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

- A. Delete Project Identification Sign from the project.

ADD/DEDUCT: \$ _____

BULLETIN
PAGE 5 OF 5

Contractor:

Signature

Name and Title of Signatory

Date

END OF BULLETIN

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
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ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	None
SKETCHES:	None
SHEETS:	None
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. John Willemin, PE – Fishbeck

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ITEM NO. 1:

Sheet: C102 – Site Demolition & SESC Plan (not reissued)

- A. Delete the closure of the clear well in place.

~~ADD~~/DEDUCT: (\$ 25,400.00)

ITEM NO. 2:

Section: 09 91 00 – Painting (not reissued)

Sheet: P206 – Enlarged Plan and Isometric (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete interior coating of below-grade basins (Backwash Equalization Tank, Detention Basins).

~~ADD~~/DEDUCT: (\$ 30,930.00)

BULLETIN
PAGE 2 OF 5

ITEM NO. 3:

Section: 26 22 13 – Low Voltage Distribution Transformers (not reissued)

A. Allow alternative manufacturer, Maddox, for electrical transformer.

~~ADD~~/DEDUCT: \$ 0.00*

ITEM NO. 4:

Section: 07 18 13 – Traffic Coatings (not reissued)
09 91 00 – Painting (not reissued)

*The lead time is 33 weeks after release vs 96 weeks after release for the Cooper transformer. Prepayment is required, 25% at order 75% prior to shipment.

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)

A. Delete traffic coating from the top of the Aeration Detention Basins. Provide concrete sealer for top and exposed sides of Aeration Detention Basins per Specification 09 91 00 "Painting".

~~ADD~~/DEDUCT: (\$6,875.00)

ITEM NO. 5:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a 30-year warranty shingled roof system, meeting applicable building codes, in lieu of the metal roof system. Change gypsum sheathing to a plywood sheathing.

~~ADD~~/DEDUCT: (\$ 1,031.00)

ITEM NO. 6:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a PAC Snap-Clad Metal Roof System composed of 24-gauge steel, in lieu of the PAC Tite-Loc Plus Metal Roof.

~~ADD~~/DEDUCT: (\$ 14,400.00)

ITEM NO. 7:

*Use aluminum PAC Tite-Loc Plus Metal Roof Deduct (\$12,000.00)

Section: 00 73 00 – Supplementary Conditions (not reissued)
31 25 00 – Erosion and Sedimentation Controls (not reissued)
32 92 00 – Turf and Grasses (not reissued)

Sheet: C102 – Site Demolition & SESC plan (not reissued)

A. Delete seeding and restoration.

~~ADD~~/DEDUCT: (\$ 28,775.00)*

*deduct includes maintenance and mulch blanket

ITEM NO. 8:

Section: 32 12 16 – Asphalt Paving (not reissued)

Sheet: C201 – Site Layout Plan (not reissued)

A. Delete asphalt paving. Provide and maintain gravel drive for use as subbase for future asphalt road construction by others.

~~ADD~~/DEDUCT: (\$ 128,995.00)

BULLETIN
PAGE 3 OF 5

ITEM NO. 9:

Section: 09 67 23 – Resinous Flooring (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace resinous flooring from the following rooms with bare concrete with sealant in conjunction with what is being done in the Process Area:
Room 103 – Toilet
Room 104 – Shower
Room 115 – Laboratory/Control Room
Room 116 – Office

~~ADD~~/DEDUCT: (\$ 9,875.00)

ITEM NO. 10:

Section: 22 05 06 – Cast Iron Pipe and Fittings for Plumbing (not reissued)

Sheet: M401 – Plumbing Schedules (not reissued)

- A. Replace cast iron drains and drain piping with PVC drains and drain piping.

~~ADD~~/DEDUCT: (\$ 19,259.00)

ITEM NO. 11:

Section: 22 71 00 – Compressed Air System for General Use (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
P205 – Enlarged Plans and Isometrics (not reissued)
M201 – First Floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)
M401 – Plumbing Schedules (not reissued)
M402 – Plumbing Details (not reissued)
E601 – Panelboard Schedules (not reissued)
I102 – I/O List and Wiring Schedule (not reissued)

- A. Delete compressed air system, including the compressor and air drops.

~~ADD~~/DEDUCT: (\$ 21,553.00)

ITEM NO. 12:

Section: 05 51 00 – Metal Stairs and Railings (not reissued)
05 51 33 – Metal Ladders (not reissued)

Sheet: A302 – Interior Elevations (not reissued)
A601 – Stair Section and Details (not reissued)

- A. Delete stairway to access mezzanine. Replace with an OSHA compliant galvanized steel ladder for access to the mezzanine with the ladder at the same opening as the stair.

~~ADD~~/DEDUCT: (\$ 7,075.00)

ITEM NO. 13:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
21 10 00 – Water Based Fire Suppression Systems (not reissued)
22 40 00 – Plumbing Fixture (not reissued)
23 09 93 – Sequence of Operation for HVAC (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
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M101 – First floor & Equipment Platform Plumbing Sanitary/Storm Plan (not reissued)
M201 – First floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)

- A. Delete janitors closet and associated appurtenances from project, using the available space to expand the vestibule. Remove interior walls separating janitors closet from vestibule and Door 117 from the project. Door 114A and the eastern interior wall of the vestibule will be collinear with the western wall of the existing Mechanical/Electrical Room.

~~ADD~~/DEDUCT: (\$ 6,590.00)

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

~~ADD~~/DEDUCT: (\$ 3,278.00)

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)
A102 – Clerestory Window Plan (not reissued)

A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

14a. Use black Fundermax countertop DEDUCT (\$3,828.00)

14b. Use PLAM countertop DEDUCT (\$4,683.00)

ADD/~~DEDUCT~~: \$ 2,803.00

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)

40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)

P103 – Flow Schematic and P&ID (not reissued)

P207 – Enlarged Plan, Sections, and Isometric (not reissued)

A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

~~ADD~~/DEDUCT: (\$ 6,189.00)

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)

08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

~~ADD~~/DEDUCT: (\$ 32,069.00)

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

ADD/DEDUCT: \$ No Bid*

*Fabricated Pipe Must Be CL 53

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)

04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

~~ADD~~/DEDUCT: (\$ 2,544.00)

ITEM NO. 20

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

A. Delete Project Identification Sign from the project.

~~ADD~~/DEDUCT: (\$ 800.00)

BULLETIN
PAGE 5 OF 5

Contractor: RK Davis, Inc.



Signature

Peter C. Elzinga, P.E., Project Manager

Name and Title of Signatory

May 2, 2023

Date

END OF BULLETIN

Grand ledge Iron Removal Plant Bulletin No. 1 5/2/2023	E.T. MacKenzie	McKearney Asphalt & Sealing	RK Davis	Oosterhouse Masonry	Advanced Metal Fabrication	DC Byers	Rick Buist Sheet Metal	Architectural Openings	Traverse City Glass	Dave Cole Decorators	Detroit Technical Equipment	Franklin Holwerda Company	Centennial Electric	Line Item Total
1. Delete closure of the clear well	(25,400.00)									(30,930.00)				(25,400.00)
2. Delete interior coating of the detention basin														(30,930.00)
3. Allow Maddox as alternative electrical transformer													0.00	0.00
4. Delete traffic coating from top of aeration basins; provide sealer						(11,400.00)				4,525.00				(6,875.00)
5. Shingled roofing in lieu of metal roofing			103,969.00				(105,000.00)							(1,031.00)
6. Steel PAC Snap-Clad Metal Roof in lieu of Alum PAC Tite-Loc							(14,400.00)							(14,400.00)
6a. Aluminum PAC Snap-Clad roofing							(12,000.00)							(12,000.00)
7. Delete seeding and restoration			(28,775.00)											(28,775.00)
8. Delete asphalt paving		(128,995.00)												(128,995.00)
9. Replace resinous flooring with bare concrete										(9,785.00)				(9,785.00)
10. Replace cast iron drain piping with PVC drains and drain piping												(19,259.00)		(19,259.00)
11. Delete compressed air system												(18,565.00)	(2,988.00)	(21,553.00)
12. Delete stairway to mezzanine and provide a ladder			1,000.00		(8,075.00)									(7,075.00)
13. Delete janitor closet			(720.00)	(3,024.00)				(896.00)		(800.00)		(1,150.00)		(6,590.00)
14. Change lab casework to PLAM											(3,278.00)			(3,278.00)
14a. Black, Fundermax phenolic counter top in lieu of epoxy resin											(3,828.00)			(3,828.00)
14b. Plastic laminate counter top in lieu of epoxy resin											(4,683.00)			(4,683.00)
15. Use fiberglass windows in lieu of storefront framing									2,803.00					2,803.00
16. Delete electric actuator from Pinch Valve (V-441)												(6,189.00)		(6,189.00)
17. Use Painted HM Doors and Frames in lieu of FRP			12,264.00					55,888.00	(105,096.00)	4,875.00				(32,069.00)
18. Replace CL 53 DIP with CL 52 DIP												NO BID		0.00
19. Use standard grey split face block in lieu of colored block				(2,544.00)										(2,544.00)
20. Delete Project Identification Sign			(800.00)											(800.00)
Totals	(25,400.00)	(128,995.00)	86,938.00	(5,568.00)	(8,075.00)	(11,400.00)	(131,400.00)	54,992.00	(102,293.00)	(32,115.00)	(11,789.00)	(45,163.00)	(2,988.00)	

2 May 2023

To: Davis Construction
5236 Dumond Ct Suite A
Lansing, MI 48917

Attn: Rob Kaliniac/Peter Elzinga

Re: Grand Ledge – Revised Price

Proposal

We are pleased to provide you with this quotation. Our scope of work is being revised, eliminating the standing seam roof, underlayment and T-drip and top flashing associated with the metal roof. What remains is the metal wall panel, fascia, gutter and downspouts. All of flashings are to be fabricated using .032 aluminum in standard non-metallic finish. All siding material is to be prefinished .032 aluminum PAC Flush panel with 12" seam spacing. All subgirt framing and wind/water barrier at the wall panels is to be by others. We have NOT included screens at the gutters.

Total Labor & Material \$ 62,000.00

This is a deduct of \$105,000. from the original price.

This price is good for 60 days. Though we do not foresee significant price changes, should it occur, we may need to make adjustments.

Thank you for this opportunity. If you have questions, please contact us. We can be reached at Cell# 616.745.6793

Sincerely,

Richard A. Buist

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

- A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

ADD/DEDUCT: \$ N/A

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)
A102 – Clerestory Window Plan (not reissued)

- A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

~~ADD/DEDUCT:~~ \$ 2,803.00

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)
40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)
P103 – Flow Schematic and P&ID (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

ADD/DEDUCT: \$ N/A

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

~~ADD/DEDUCT:~~ \$ 105,096.00

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

- A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

ADD/DEDUCT: \$ N/A

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)
04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

- A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

ADD/DEDUCT: \$ N/A

ITEM NO. 20:

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

- A. Delete Project Identification Sign from the project.

ADD/DEDUCT: \$ N/A

BULLETIN
PAGE 5 OF 5

Contractor: Traverse City Glass

Signature


Gary K. Alden, President

Name and Title of Signatory

April 27, 2023

Date

END OF BULLETIN

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

- A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

ADD/DEDUCT: \$ _____

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)
A102 – Clerestory Window Plan (not reissued)

- A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

ADD/DEDUCT: \$ _____

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)
40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)
P103 – Flow Schematic and P&ID (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

ADD/DEDUCT: \$ _____

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

Note: Does not include any glass or powder coating of hollow metal frames & doors. ADD/DEDUCT: \$ 55,888.00

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

- A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

ADD/DEDUCT: \$ _____

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)
04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

- A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

ADD/DEDUCT: \$ _____

ITEM NO. 20

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

- A. Delete Project Identification Sign from the project.

ADD/DEDUCT: \$ _____

BULLETIN
PAGE 5 OF 5

Contractor:

Roger Fabiano - Architectural Openings & Access

Signature

Project Manager

Name and Title of Signatory

04/20/23

Date

END OF BULLETIN



April 28, 2023

Peter Elzinga
RK Davis, Inc.
pelzinga@rkdavis.us

Re: Grand Ledge Iron Removal – Bulletin No. 1

Dear Peter:

Here is the pricing for the items that affect us in this bulletin.

Item No. 2 – Delete interior concrete coatings at Wet Wells and Detention Basins
Deduct: (\$30,930.00)

Labor = (\$23,200.00)
Material = (\$7,730.00)

Item No. 4 – Concrete sealer at top and exposed sides of Detention Basins
Add: \$4,525.00

Labor = \$3,425.00
Material = \$1,100.00

Item No. 9 – Delete resinous flooring and provide sealer
Deduct: (\$9,785.00)

Labor = (\$7,340.00)
Material = (\$2,445.00)

Item No. 13 – Delete Janitors Closet
Deduct: (\$800.00)

Labor = (\$600.00)
Material = (\$200.00)

Item No. 17 – Replace FRP doors and frames with hollow metal doors and frames
Add: \$4,875.00

Labor = \$3,900.00
Material = \$975.00

All other items do not affect our cost.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Oosterink', written over a light blue horizontal line.

Dan Oosterink, LEED® AP
Vice President

BULLETIN
PAGE 3 OF 5

ITEM NO. 9:

Section: 09 67 23 – Resinous Flooring (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace resinous flooring from the following rooms with bare concrete with sealant in conjunction with what is being done in the Process Area:
Room 103 – Toilet
Room 104 – Shower
Room 115 – Laboratory/Control Room
Room 116 – Office

ADD/DEDUCT: \$ 8.0.

ITEM NO. 10:

Section: 22 05 06 – Cast Iron Pipe and Fittings for Plumbing (not reissued)

Sheet: M401 – Plumbing Schedules (not reissued)

- A. Replace cast iron drains and drain piping with PVC drains and drain piping.

~~ADD~~ DEDUCT: \$ 19,259⁻

ITEM NO. 11:

Section: 22 71 00 – Compressed Air System for General Use (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
P205 – Enlarged Plans and Isometrics (not reissued)
M201 – First Floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)
M401 – Plumbing Schedules (not reissued)
M402 – Plumbing Details (not reissued)
E601 – Panelboard Schedules (not reissued)
I102 – I/O List and Wiring Schedule (not reissued)

- A. Delete compressed air system, including the compressor and air drops.

~~ADD~~ DEDUCT: \$ 18,565⁻

ITEM NO. 12:

Section: 05 51 00 – Metal Stairs and Railings (not reissued)
05 51 33 – Metal Ladders (not reissued)

Sheet: A302 – Interior Elevations (not reissued)
A601 – Stair Section and Details (not reissued)

- A. Delete stairway to access mezzanine. Replace with an OSHA compliant galvanized steel ladder for access to the mezzanine with the ladder at the same opening as the stair.

ADD/DEDUCT: \$ 8.0.

ITEM NO. 13:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
21 10 00 – Water Based Fire Suppression Systems (not reissued)
22 40 00 – Plumbing Fixture (not reissued)
23 09 93 – Sequence of Operation for HVAC (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
A103 – Enlarged Floor Plans (not reissued)
S101 – Foundation Plan (not reissued)
M101 – First floor & Equipment Platform Plumbing Sanitary/Storm Plan (not reissued)
M201 – First floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)

- A. Delete janitors closet and associated appurtenances from project, using the available space to expand the vestibule. Remove interior walls separating janitors closet from vestibule and Door 117 from the project. Door 114A and the eastern interior wall of the vestibule will be collinear with the western wall of the existing Mechanical/Electrical Room.

~~ADD~~ DEDUCT: \$ 1,150⁻

DELETE SS-1

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

- A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

ADD/DEDUCT: \$ 3.0.

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)
A102 – Clerestory Window Plan (not reissued)

- A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

ADD/DEDUCT: \$ 3.0.

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)
40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)
P103 – Flow Schematic and P&ID (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

~~ADD~~ DEDUCT: \$ 61.89

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

ADD/DEDUCT: \$ 3.0.

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

- A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

FAB PIPE HAS TO BE CL 53

ADD/DEDUCT: \$

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)
04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

- A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

ADD/DEDUCT: \$ 3.0.

ITEM NO. 20

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

- A. Delete Project Identification Sign from the project.

ADD/DEDUCT: \$ 3.0.

BULLETIN
PAGE 5 OF 5

Contractor:

FHC

Signature

D. Reynolds

Name and Title of Signatory

5/1/23

Date

END OF BULLETIN

Take Off

Take Off								
Project:	Grand Ledge Iron Removal	Due:						
	Bulletin: 1							
	Item 10: Plumbing pipe change				Field	Field	Shop	Shop
Spec No.	Description	Quantity	Unit Price	Total Price	Unit Labor	Total Labor	Unit Labor	Total Labor
	Delete CI FD-1 4"	-9	101.5	-913.5		0		0
	Delete CI FD-2 4"	-7	247.32	-1731.24		0		0
	Delete CI CO 4"	-5	119.18	-595.9		0		0
	Delete CI RD 4"	0	see below			0		0
	Delete CI OD 4"	0	see below			0		0
	Add PVC FD-1 4"	9	49.03	441.27		0		0
	Add PVC FD-2 4"	7	57.09	399.63		0		0
	Add PVC CO 4"	5	57.12	285.6		0		0
	Add PVC RD 4"	2	special order			0		0
	Add PVC OD 4"	2	Special order			0		0
	Change CI drain pipe to PVC	-1	12600	-12600	40	-40		0
				0		0		0
				0		0		0
	Note: Changing the RD and OD to PVC are special order so left them per spec			0		0		0
				0		0		0
				0		0		0
				-14714		-40		0

PROJECT NAME: Grand Ledge Iron Removal
 QUOTED TO: RK Davis
 DESCRIPTION: Bulletin: 1
Item 11: Delete compressed air system

DATE: 04/20/23
 FHC JOB # 23-0010-11
 FHC X# 1 Item 11
 SM X# _____

DESCRIPTION	MATERIAL W/OUT TAX	SUBS	FAB	FIELD	DETAILING
Delete Compressed air system in entirety	-\$8,100.00			-109	
SUB TOTALS	-\$8,100.00	\$0.00	0.0	-109.0	0.0
TOOLING					\$0.00
EQUIPMENT RENTAL					\$0.00
PROJECT MANAGEMENT HOURS					
FIELD FOREMAN					
FAB SHOP FOREMAN					0.0
DELIVERY					0.0

	HOURS	RATE	COST	MARK UP	PRICE
MATERIALS including sales tax			-\$8,586.00	\$0.00	-\$8,586.00
SUBCONTRACTORS			\$0.00	\$0.00	\$0.00
SHOP JOURNEYMAN	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FABRICATION SHOP FEE	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FIELD JOURNEYMAN	(109.0)	\$91.55	-\$9,978.95	\$0.00	-\$9,978.95
DETAILING	0.0	\$75.00	\$0.00	\$0.00	\$0.00
TOOLING			\$0.00	\$0.00	\$0.00
EQUIPMENT RENTAL			\$0.00	\$0.00	\$0.00
PROJECT MANAGEMENT	0.0	\$94.55	\$0.00	\$0.00	\$0.00
FIELD FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
FAB SHOP FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
DELIVERY	0.0	\$65.00	\$0.00	\$0.00	\$0.00
TOTAL THIS QUOTATION:					(\$18,565)

Time extension required (days)

Quoted by: dr Date: 4/20/2023

PROJECT NAME: Grand Ledge Iron Removal
 QUOTED TO: RK Davis
 DESCRIPTION: Bulletin: 1
Item 16: Change Pinch va V-441 to manual operator

DATE: 05/01/23
 FHC JOB # 23-0010-11
 FHC X# 1 Item 16
 SM X# _____

DESCRIPTION	MATERIAL W/OUT TAX	SUBS	FAB	FIELD	DETAILING
Delete Rotork operator	-\$9,027.00				
Add manual operator	\$3,188.00				
Electrical	By Others				
SUB TOTALS	-\$5,839.00	\$0.00	0.0	0.0	0.0
TOOLING					\$0.00
EQUIPMENT RENTAL					\$0.00
PROJECT MANAGEMENT HOURS					0.0
FIELD FOREMAN					0.0
FAB SHOP FOREMAN					0.0
DELIVERY					0.0

	HOURS	RATE	COST	MARK UP	PRICE
MATERIALS including sales tax			-\$6,189.34	\$0.00	-\$6,189.34
SUBCONTRACTORS			\$0.00	\$0.00	\$0.00
SHOP JOURNEYMAN	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FABRICATION SHOP FEE	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FIELD JOURNEYMAN	0.0	\$91.55	\$0.00	\$0.00	\$0.00
DETAILING	0.0	\$75.00	\$0.00	\$0.00	\$0.00
TOOLING			\$0.00	\$0.00	\$0.00
EQUIPMENT RENTAL			\$0.00	\$0.00	\$0.00
PROJECT MANAGEMENT	0.0	\$94.55	\$0.00	\$0.00	\$0.00
FIELD FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
FAB SHOP FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
DELIVERY	0.0	\$65.00	\$0.00	\$0.00	\$0.00
TOTAL THIS QUOTATION:					(\$6,189)

Time extension required (days) **0.0**

Quoted by: _____	Date: _____	5/1/2023
------------------	-------------	----------

Dave Reynhout

From: Kurt Somsel <ksomsel@sysspec.com>
Sent: Wednesday, April 19, 2023 3:32 PM
To: Dave Reynhout
Subject: RE: Gr Ledge Bul 1

Hi Dave,

The deduct to remove the actuator for Tag 441 would be **\$9,027.00**.

Keep me posted.

Kurt

Kurt Somsel
Sales Engineer
Systems Specialties Company
ksomsel@sysspec.com
(616) 490-4132 mobile



Filters, Valves, Actuators, Instruments & Rupture Disks
www.sysspec.com

From: Dave Reynhout <dave@franklinholwerda.com>
Sent: Wednesday, April 19, 2023 9:16 AM
To: Eric Griffith P.E. (egriffith@kennedyind.com) <egriffith@kennedyind.com>; Kurt Somsel <ksomsel@sysspec.com>
Subject: Gr Ledge Bul 1
Importance: High

Need this by tomorrow, please

Gents,
Will need pricing for Item 16
Thanks

Dave Reynhout
FHC
2509 29th St SW
Wyoming, MI 49519
Ph: 616-538-3231

Please reply to sender only.

Cc: file

Dave Reynhout

Subject: FW: Grand Ledge Iron Removal Bulletin

From: Eric Griffith <egriffith@kennedyind.com>
Sent: Monday, May 1, 2023 1:40 PM
To: Bryan Davidson <bdauidson@kennedyind.com>; Dave Reynhout <dave@franklinholwerda.com>
Cc: Heather Lake <hlake@kennedyind.com>
Subject: RE: Grand Ledge Iron Removal Bulletin

Hi Dave,

Net Add Price: \$3,188.00 Total

RED VALVE SERIES 75 MANUAL PINCH VALVE

*Body Material: Cast Iron
Sleeve Material: Viton
Sleeve Style: Full Port
Flange Drilling: 125/150# ANSI*

*Supplied with:
15 Ft. Stainless Steel Extension Stem
(1) Stainless Steel Stem Guide
(1) Floor stand for mounting of Bevel Gear above grade
(1) Hand-wheel and Position Indicator*

Please Note:

- (1) The gearbox offered is not submersible and does not appear it will be required to be submersible from plan drawings. If submersible gearbox is required, a revision to this proposal must be made.*
- (2) The gearbox proposed contains standard oil lubricant in lieu of NSF-61 food grade grease as specified.*
- (3) Gearbox will mounted atop the proposed floor-stand in lieu of on the valve in the valve vault.*
- (4) Drawings and drawings approval will be required should this result in an order.*

Eric Griffith, P.E.

Capital Business Development Engineer

(616) 799-0843 Cell

[Contact Information](#) | [Website](#) | [Facebook](#) | [LinkedIn](#) | [Twitter](#) | [YouTube](#)

JOIN OUR TEAM: Account Managers, Customer Service Representatives, Project Managers, Field Service and Shop Personnel. **[CLICK HERE](#)** for more information.

ITEM 18



AMERICAN DUCTILE IRON PIPE

AMERICAN Flanged Pipe
AMERICAN Ductile Iron Flanged Pipe
ANSI/AWWA C115/A21.15

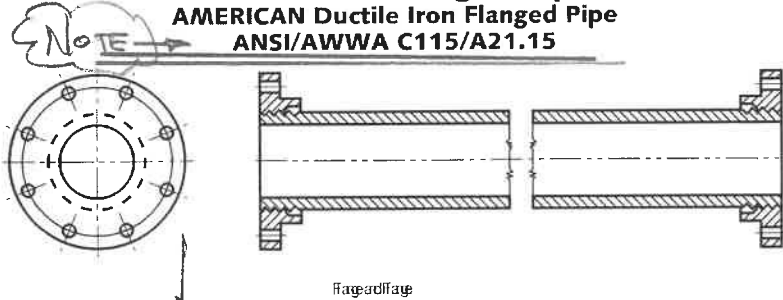


Table No. 8-5

Size in.	Pressure Rating* psi	Nominal Wall Thickness in.	Pipe O.D. in.	Minimum Length** in.	Maximum Length** ft.-in.	Weight in Pounds		
						Per Foot Plain End	One Flange	Per Maximum Length with Two Flanges
4	350†	.32	4.80	4½	17'-6"	13.8	13	266
6	350†	.34	6.90	4½	20'-0"	21.4	17	460
8	350†	.36	9.05	4½	20'-0"	30.1	27	655
10	350†	.38	11.10	6	20'-0"	39.2	38	860
12	350†	.40	13.20	6	20'-0"	49.2	59	1100
14	350†	.42	15.30	7	20'-0"	60.1	70	1340
16	350†	.43	17.40	7	20'-0"	70.1	90	1580
18	350†	.44	19.50	7	20'-0"	80.6	88	1790
20	350†	.45	21.60	7	20'-0"	91.5	112	2060
24	350†	.47	25.80	8	20'-0"	114.4	155	2600
30	250	.51	32.00	12	19'-6"	154.4	245	3500
36	250	.58	38.30	14	19'-6"	210.3	354	4810
42	250	.65	44.50	18	19'-6"	274.0	512	6370
48	250	.72	50.80	18	19'-6"	346.6	632	8020
54	250	.81	57.56	20	19'-6"	441.9	716	10050
60	250	.83	61.61	20	19'-6"	485.0	1113	11680
64	250	.87	65.67	21	19'-0"	542.0	1824	13950

*Pressure rating designated is maximum water working pressure. Contact AMERICAN on higher pressure requirements.

**Check AMERICAN if longer or shorter lengths required.

†This rating is only applicable to flanged joints utilizing AMERICAN Toruseal® gaskets as per page 8-3.

Pipe is available with greater wall thickness than shown. Thicknesses above correspond to Special Class 53 for 4"-54" diameters, and Pressure Class 350 for 60" and 64" diameters as shown in AWWA C115.

Any length between minimum and maximum shown can be furnished.

Tolerance on length is ±0.12 in.

Standard drilling is with bolt holes aligned, straddling a common centerline. Special drilling can be furnished on request.

Where required, specify flanges "Tap for Studs."

The bolt circle and bolt holes of AWWA C115 flanges, AWWA C110 flanges and ANSI B16.1 Class 125 flanges are identical, and these flanges can be joined. AWWA C115 and AWWA C110 flanges are rated for 250-350 psi water working pressure depending on size and specified gasketing system.

NOTE

FABRICATED PIPE = CL. 53 MIN.

BULLETIN
PAGE 2 OF 5

ITEM NO. 3:

Section: 26 22 13 – Low Voltage Distribution Transformers (not reissued)

A. Allow alternative manufacturer, Maddox, for electrical transformer.

ADD/DEDUCT: \$ No Cost Change

ITEM NO. 4:

Payment Terms are 25% deposit & 75% prior to shipment

Section: 07 18 13 – Traffic Coatings (not reissued)
09 91 00 – Painting (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)

A. Delete traffic coating from the top of the Aeration Detention Basins. Provide concrete sealer for top and exposed sides of Aeration Detention Basins per Specification 09 91 00 "Painting".

ADD/DEDUCT: \$ N/A

ITEM NO. 5:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a 30-year warranty shingled roof system, meeting applicable building codes, in lieu of the metal roof system. Change gypsum sheathing to a plywood sheathing.

ADD/DEDUCT: \$ N/A

ITEM NO. 6:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a PAC Snap-Clad Metal Roof System composed of 24-gauge steel, in lieu of the PAC Tite-Loc Plus Metal Roof.

ADD/DEDUCT: \$ N/A

ITEM NO. 7:

Section: 00 73 00 – Supplementary Conditions (not reissued)
31 25 00 – Erosion and Sedimentation Controls (not reissued)
32 92 00 – Turf and Grasses (not reissued)

Sheet: C102 – Site Demolition & SESC plan (not reissued)

A. Delete seeding and restoration.

ADD/DEDUCT: \$ N/A

ITEM NO. 8:

Section: 32 12 16 – Asphalt Paving (not reissued)

Sheet: C201 – Site Layout Plan (not reissued)

A. Delete asphalt paving. Provide and maintain gravel drive for use as subbase for future asphalt road construction by others.

ADD/DEDUCT: \$ N/A

BULLETIN
PAGE 3 OF 5

ITEM NO. 9:

Section: 09 67 23 – Resinous Flooring (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace resinous flooring from the following rooms with bare concrete with sealant in conjunction with what is being done in the Process Area:
Room 103 – Toilet
Room 104 – Shower
Room 115 – Laboratory/Control Room
Room 116 – Office

ADD/DEDUCT: \$ N/A

ITEM NO. 10:

Section: 22 05 06 – Cast Iron Pipe and Fittings for Plumbing (not reissued)

Sheet: M401 – Plumbing Schedules (not reissued)

- A. Replace cast iron drains and drain piping with PVC drains and drain piping.

ADD/DEDUCT: \$ N/A

ITEM NO. 11:

Section: 22 71 00 – Compressed Air System for General Use (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
P205 – Enlarged Plans and Isometrics (not reissued)
M201 – First Floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)
M401 – Plumbing Schedules (not reissued)
M402 – Plumbing Details (not reissued)
E601 – Panelboard Schedules (not reissued)
I102 – I/O List and Wiring Schedule (not reissued)

- A. Delete compressed air system, including the compressor and air drops.

ADD/DEDUCT: \$ 2,988.00

ITEM NO. 12:

Section: 05 51 00 – Metal Stairs and Railings (not reissued)
05 51 33 – Metal Ladders (not reissued)

Sheet: A302 – Interior Elevations (not reissued)
A601 – Stair Section and Details (not reissued)

- A. Delete stairway to access mezzanine. Replace with an OSHA compliant galvanized steel ladder for access to the mezzanine with the ladder at the same opening as the stair.

ADD/DEDUCT: \$ N/A

ITEM NO. 13:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
21 10 00 – Water Based Fire Suppression Systems (not reissued)
22 40 00 – Plumbing Fixture (not reissued)
23 09 93 – Sequence of Operation for HVAC (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
A103 – Enlarged Floor Plans (not reissued)
S101 – Foundation Plan (not reissued)
M101 – First floor & Equipment Platform Plumbing Sanitary/Storm Plan (not reissued)
M201 – First floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)

- A. Delete janitors closet and associated appurtenances from project, using the available space to expand the vestibule. Remove interior walls separating janitors closet from vestibule and Door 117 from the project. Door 114A and the eastern interior wall of the vestibule will be collinear with the western wall of the existing Mechanical/Electrical Room.

ADD/DEDUCT: \$ N/A

BULLETIN
PAGE 5 OF 5

Contractor: **Centennial Electric, LLC**



Signature

Mike Bozung - Estimator/Project Manager

Name and Title of Signatory

4/18/23

Date

END OF BULLETIN

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
B1-No 11	\$1,642.80	100.00%	\$1,642.80	14.42	100.00%	14.42

Top Sheet

Raw Cost	\$2,889.44	Sales per Month	\$0.00
Tax	\$98.57	Return per Month	\$0.00
Raw Cost with Tax	\$2,988.01	Price per Square Foot	\$0.00
Overhead	\$0.00	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$0.00	Job Months	0.00
Total Return %	0.00%	Hours per Week	40.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	86.47
Price	\$2,988.01	Workers per Day	0.00
Bond	\$0.00	Total Hours	14.42
Sell Price	\$2,988.01	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	No

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	100.00%	14.42	\$86.47	\$0.00	0.00%	\$1,246.64
Foreman Local 665	0.00%	0.00	\$99.44	\$0.00	0.00%	\$0.00
General Foreman Local 665	0.00%	0.00	\$108.09	\$0.00	0.00%	\$0.00
Totals	100.00%	14.42	\$86.47	\$0.00	0.00%	\$1,246.64

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT	
	Total	%	Amount	%	Amount	
Materials	\$1,642.80 +	0.00%	\$1,642.80 +	0.00%	\$1,642.80	
Labor	\$1,246.64 +	0.00%	\$1,246.64 +	0.00%	\$1,246.64	
Supplier Quotes	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
SubContractors	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
Direct Job Expense	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
Equipment Rental	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
Fixtures Quotes	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
Totals	\$2,889.44	0.00%	\$2,889.44	0.00%	\$2,889.44	

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	\$1,642.80	6.00%	\$98.57
Labor	\$1,246.64	0.00%	\$0.00
Supplier Quotes	\$0.00	6.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	6.00%	\$0.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	\$98.57

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: B1-No 11

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
Label Set: Combined, Combined, Combined, Combined, Combined											
CCode: Branch Rough											
1,261	1/2 GRC	67.00	\$589.56	C	\$943.16			<u>14.42</u>		<u>100%</u>	<u>100%</u>
1,262	3/4 GRC	69.00	\$615.17	C	\$395.01	5.50	C	8.72		57.41%	60.52%
5,489	1/2 FLEX WP	6.00	\$194.42	C	\$424.47	6.00	C	3.68 cb			
5,501	1/2 FLEX WP CONN	2.00	\$2,126.91	C	\$11.67	4.00	C	4.14 cb			
5,549	1/2 FLEX WP 90 CONN	2.00	\$3,474.13	C	\$42.54	0.15	E	0.24 cb			
CCode: Disc/Safety Switches											
10,742	30A 600V 3PH N1 NF SW	1.00	\$279.00	E	\$69.48	0.18	E	0.30 cb			
CCode: Lugs/Termination/Ground											
5,736	12 GA TERMINATION	8.00	\$0.00	X	\$279.00	2.00	E	2.00 sd		16.98%	13.87%
5,837	RED 3M WIRE NUT	8.00	\$12.37	C	\$0.99	0.14	E	1.12 sl		0.06%	7.77%
CCode: Branch Wire											
40	14 THHN CU STRANDED	194.00	\$713.00	M	\$419.65	0.00	C	0.00 sl			
41	12 THHN CU STRANDED	267.00	\$1,053.68	M	\$138.32	5.00	M	0.97 wb		25.55%	17.84%
					\$281.33	6.00	M	1.60 wb			
					<u>\$1,642.80</u>			<u>14.42</u>			



Quote To:
Centennial Electric LLC
48876-0490, United States

Contact Your Sales Rep

Gus Tssemeloglou
Phone: 864-757-2853
gus@maddoxtransformer.com

Pay Terms: 25% deposit, 75% prior to shipment

Ship To:
48876-0490, United States

#	Description	Count	Price	Amount
1	3-Phase Padmount Transformer	1	\$.00	\$.00

New 500 kVA Padmount Transformer
 High Voltage: 8320 GY/ 4800, 95 kV BIL
 Low Voltage: 480 Y/ 277, 30 kV BIL
 Taps: 2 Above, 2 Below @ 2.5%
 HV Bushings: (6) 15kV 200A Wells & Inserts (dead front loop feed)
 LV Bushings: (4) 4-Hole Spades (Common H0/X0)
 Fluid: Mineral Oil
 Frequency: 60 Hz
 Temperature Rise: 65C
 Cooling Class: ONAN
 Conductor: Al / Al
 Fusing: Bayonet w/ CLFs
 Switch: None
 Tank Material: Mild Steel
 Arresters: Provided By Others
 Cabinet Depth: Standard
Features & Accessories
 -Drain & Sample Valve
 -Dial-Type Thermometer
 -Liquid Level Gauge
 -Pressure Vacuum Gauge
 -Schrader Valve
 -Pressure Relief Valve
 -Padmount Green Paint
 -UL Listed



Shipping: Free within contiguous US, CPT plant (3-5 day service)
 Warranty: 3 years
Lead Time: Shipping starts within 33 weeks after release
Approvals: 3 weeks (if required)

	Quote Lines		Additional Cost		Total Quote	
	Before Tax	\$.00	Before Tax	\$0.00	Before Tax	\$.00
	Tax	\$0.00	Tax	\$0.00	Tax	\$0.00
	Total	\$.00	Total	\$0.00	Total	\$.00

Price valid for 30 days. Stock is subject to prior sale. Pay terms on this quote are contingent on an established account in good standing. It is Buyer's responsibility to verify conformity to any and all specifications. Exceptions and clarifications provided by MIT are not confirmations of conformity to any written, or verbally communicated specifications. Sales taxes may apply unless exemption certificate is provided. MIT's Standard Terms & Conditions apply: www.maddoxtransformer.com/documents

CHANGE ORDER
PAGE 1 OF 1

CONTRACT FOR: City of Grand Ledge Iron Removal Plant

OWNER: City of Grand Ledge
310 Greenwood Street
Grand Ledge, MI 48837

CONTRACTOR RK Davis, Inc.
4457 40th Street, SE
Kentwood, MI 49512

ENGINEER: Fishbeck
1515 Arboretum Drive, SE
Grand Rapids, MI 49546

ATTACHMENTS: Bulletin No. 1 with a number of Value Engineering items. It should be noted that only the items and changes indicated in the Change Order will be used.

Contractor shall indicate approval of Change Order through signing of this document and returning to Engineer. Engineer will forward to Owner, who shall indicate approval of Change Order through signing of this document and returning to Engineer. Upon receipt of fully executed (all signatures) Change Order, Engineer will distribute to all parties.

YOU ARE DIRECTED TO MAKE THE FOLLOWING CHANGES IN THE CONTRACT DOCUMENTS:

The following items changing the contract documents were chosen by the Owner from Bulletin 1 for execution:

ITEM NO. 1:

Sheet: C102 – Site Demolition & SESC Plan (not reissued)

- A. Delete the closure of the clear well in place from the project.

DEDUCT: \$25,400

ITEM NO. 2:

Section: 09 91 00 – Painting (not reissued)

Sheet: P206 – Enlarged Plan and Isometric (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete interior coating of below-grade basins (Detention Basins).

DEDUCT: \$30,930

ITEM NO. 3:

Section: 26 22 13 – Low Voltage Distribution Transformers (not reissued)

- A. Allow alternative manufacturer, Maddox, for electrical transformer.

No Change in Contract Price.

ITEM NO. 4:

Section: 00 73 00 – Supplementary Conditions (not reissued)
31 25 00 – Erosion and Sedimentation Controls (not reissued)
32 92 00 – Turf and Grasses (not reissued)

Sheet: C102 – Site Demolition & SESC plan (not reissued)

- A. Delete seeding and restoration from project. The Owner will complete this work. Coordinate with Owner or Owner secured contractor on when this work needs to occur.

DEDUCT: \$28,775

CHANGE ORDER
PAGE 2 OF 1

ITEM NO. 5:

Section: 32 12 16 – Asphalt Paving (not reissued)

Sheet: C201 – Site Layout Plan (not reissued)

- A. Delete asphalt paving. Provide and maintain gravel drive for use as subbase for future asphalt road construction by others. Coordinate with Owner or Owner secured contractor on when this work needs to occur.

DEDUCT: \$128,995

ITEM NO. 6

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

- A. Delete Project Identification Sign from the project.

DEDUCT: \$800

CHANGE IN CONTRACT PRICE:

CHANGE IN CONTRACT TIMES: N/A

Original Contract Price:

Original Contract time:

Substantial Completion:

\$17,338,148

Ready for final payment:

Previous Change Order No.: N/A

Net change from previous Change Orders:

\$N/A

0 Days

Contract Price prior to this Change Order:

Contract Time prior to this Change Order:

Substantial Completion:

\$17,338,148

Ready for final payment:

Net (decrease) of this Change Order:

Net change of this Change Order:

(\$214,900)

0 Days

Contract Price with all approved Change Orders:

Contract Time with all approved Change Orders:

Substantial Completion:

\$17,123,248

Ready for final payment:

RECOMMENDED

APPROVED

APPROVED

By: Colin McCorkle
Engineer

By: Peter C. Elzinga
Contractor

By: _____
Owner

Colin G. McCorkle, PE,
Sr. Water/Wastewater Engineer

Peter C. Elzinga, P.E., Project Manager
Name and Title of Signatory

Name and Title of Signatory

Date: June 14, 2023

Date: June 14, 2023

Date: _____

END OF CHANGE ORDER

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	N/A
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	None
SKETCHES:	None
SHEETS:	None
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. John Willemin, PE – Fishbeck

The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Include all labor, materials, overhead and profit. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.

This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.

Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.

Contractor will be responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.

Contractor shall return one (1) completed and signed copy of the Bulletin to Engineer on or before the due date noted above.

Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.

ITEM NO. 1:

Sheet: C102 – Site Demolition & SESC Plan (not reissued)

A. Delete the closure of the clear well in place.

~~ADD~~/DEDUCT: (\$ 25,400.00)

ITEM NO. 2:

Section: 09 91 00 – Painting (not reissued)

Sheet: P206 – Enlarged Plan and Isometric (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

A. Delete interior coating of below-grade basins (Backwash Equalization Tank, Detention Basins).

~~ADD~~/DEDUCT: (\$ 30,930.00)

BULLETIN
PAGE 2 OF 5

ITEM NO. 3:

Section: 26 22 13 – Low Voltage Distribution Transformers (not reissued)

A. Allow alternative manufacturer, Maddox, for electrical transformer.

~~ADD~~/DEDUCT: \$ 0.00*

ITEM NO. 4:

Section: 07 18 13 – Traffic Coatings (not reissued)
09 91 00 – Painting (not reissued)

*The lead time is 33 weeks after release vs 96 weeks after release for the Cooper transformer. Prepayment is required, 25% at order 75% prior to shipment.

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)

A. Delete traffic coating from the top of the Aeration Detention Basins. Provide concrete sealer for top and exposed sides of Aeration Detention Basins per Specification 09 91 00 "Painting".

~~ADD~~/DEDUCT: (\$6,875.00)

ITEM NO. 5:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a 30-year warranty shingled roof system, meeting applicable building codes, in lieu of the metal roof system. Change gypsum sheathing to a plywood sheathing.

~~ADD~~/DEDUCT: (\$ 1,031.00)

ITEM NO. 6:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a PAC Snap-Clad Metal Roof System composed of 24-gauge steel, in lieu of the PAC Tite-Loc Plus Metal Roof.

~~ADD~~/DEDUCT: (\$ 14,400.00)

ITEM NO. 7:

*Use aluminum PAC Tite-Loc Plus Metal Roof Deduct (\$12,000.00)

Section: 00 73 00 – Supplementary Conditions (not reissued)
31 25 00 – Erosion and Sedimentation Controls (not reissued)
32 92 00 – Turf and Grasses (not reissued)

Sheet: C102 – Site Demolition & SESC plan (not reissued)

A. Delete seeding and restoration.

~~ADD~~/DEDUCT: (\$ 28,775.00*)

*deduct includes maintenance and mulch blanket

ITEM NO. 8:

Section: 32 12 16 – Asphalt Paving (not reissued)

Sheet: C201 – Site Layout Plan (not reissued)

A. Delete asphalt paving. Provide and maintain gravel drive for use as subbase for future asphalt road construction by others.

~~ADD~~/DEDUCT: (\$ 128,995.00)

BULLETIN
PAGE 3 OF 5

ITEM NO. 9:

Section: 09 67 23 – Resinous Flooring (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace resinous flooring from the following rooms with bare concrete with sealant in conjunction with what is being done in the Process Area:
Room 103 – Toilet
Room 104 – Shower
Room 115 – Laboratory/Control Room
Room 116 – Office

~~ADD~~/DEDUCT: (\$ 9,875.00)

ITEM NO. 10:

Section: 22 05 06 – Cast Iron Pipe and Fittings for Plumbing (not reissued)

Sheet: M401 – Plumbing Schedules (not reissued)

- A. Replace cast iron drains and drain piping with PVC drains and drain piping.

~~ADD~~/DEDUCT: (\$ 19,259.00)

ITEM NO. 11:

Section: 22 71 00 – Compressed Air System for General Use (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
P205 – Enlarged Plans and Isometrics (not reissued)
M201 – First Floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)
M401 – Plumbing Schedules (not reissued)
M402 – Plumbing Details (not reissued)
E601 – Panelboard Schedules (not reissued)
I102 – I/O List and Wiring Schedule (not reissued)

- A. Delete compressed air system, including the compressor and air drops.

~~ADD~~/DEDUCT: (\$ 21,553.00)

ITEM NO. 12:

Section: 05 51 00 – Metal Stairs and Railings (not reissued)
05 51 33 – Metal Ladders (not reissued)

Sheet: A302 – Interior Elevations (not reissued)
A601 – Stair Section and Details (not reissued)

- A. Delete stairway to access mezzanine. Replace with an OSHA compliant galvanized steel ladder for access to the mezzanine with the ladder at the same opening as the stair.

~~ADD~~/DEDUCT: (\$ 7,075.00)

ITEM NO. 13:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
21 10 00 – Water Based Fire Suppression Systems (not reissued)
22 40 00 – Plumbing Fixture (not reissued)
23 09 93 – Sequence of Operation for HVAC (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
A103 – Enlarged Floor Plans (not reissued)
S101 – Foundation Plan (not reissued)
M101 – First floor & Equipment Platform Plumbing Sanitary/Storm Plan (not reissued)
M201 – First floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)

- A. Delete janitors closet and associated appurtenances from project, using the available space to expand the vestibule. Remove interior walls separating janitors closet from vestibule and Door 117 from the project. Door 114A and the eastern interior wall of the vestibule will be collinear with the western wall of the existing Mechanical/Electrical Room.

~~ADD~~/DEDUCT: (\$ 6,590.00)

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

~~ADD~~/DEDUCT: (\$ 3,278.00)

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)

A102 – Clerestory Window Plan (not reissued)

A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

ADD/~~DEDUCT~~: \$ 2,803.00

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)

40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)

P103 – Flow Schematic and P&ID (not reissued)

P207 – Enlarged Plan, Sections, and Isometric (not reissued)

A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

~~ADD~~/DEDUCT: (\$ 6,189.00)

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)

08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

~~ADD~~/DEDUCT: (\$ 32,069.00)

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

ADD/DEDUCT: \$ No Bid*

*Fabricated Pipe Must Be CL 53

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)

04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

~~ADD~~/DEDUCT: (\$ 2,544.00)

ITEM NO. 20

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

A. Delete Project Identification Sign from the project.

~~ADD~~/DEDUCT: (\$ 800.00)

BULLETIN
PAGE 5 OF 5

Contractor: RK Davis, Inc.



Signature

Peter C. Elzinga, P.E., Project Manager

Name and Title of Signatory

May 2, 2023

Date

END OF BULLETIN

Grand Ledger Iron Removal Plant Bulletin No. 1 5/2/2023	E. T. MacKenzie	McKearney Asphalt & Sealing	RK Davis	Oosterhouse Masonry	Advanced Metal Fabrication	DC Byers	Rick Buist Sheet Metal	Architectural Openings	Traverse City Glass	Dave Cole Decorators	Detroit Technical Equipment	Franklin Holwerda Company	Centennial Electric	Line Item Total
1. Delete closure of the clear well	(25,400.00)									(30,930.00)				(25,400.00)
2. Delete interior coating of the detention basin														(30,930.00)
3. Allow Maddox as alternative electrical transformer													0.00	0.00
4. Delete traffic coating from top of aeration basins; provide sealer						(11,400.00)				4,525.00				(6,875.00)
5. Shingled roofing in lieu of metal roofing			103,969.00				(105,000.00)							(1,031.00)
6. Steel PAC Snap-Clad Metal Roof in lieu of Alum PAC Tite-Loc							(14,400.00)							(14,400.00)
7. Aluminum PAC Snap-Clad roofing							(12,000.00)							(12,000.00)
8. Delete seeding and restoration			(28,775.00)											(28,775.00)
9. Delete asphalt paving		(128,995.00)												(128,995.00)
10. Replace cast iron drain piping with PVC drains and drain piping										(9,785.00)				(9,785.00)
11. Delete compressed air system												(19,259.00)		(19,259.00)
12. Delete stairway to mezzanine and provide a ladder			1,000.00		(8,075.00)							(18,565.00)	(2,988.00)	(21,553.00)
13. Delete janitor closet			(720.00)	(3,024.00)			(896.00)			(800.00)		(1,150.00)		(7,075.00)
14. Change lab casework to PLAM											(3,278.00)			(6,590.00)
14a. Black, Fundermax phenolic counter top in lieu of epoxy resin											(3,828.00)			(3,828.00)
14b. Plastic laminate counter top in lieu of epoxy resin											(4,683.00)			(4,683.00)
15. Use fiberglass windows in lieu of storefront framing									2,803.00					2,803.00
16. Delete electric actuator from Pinch Valve (V-441)												(6,189.00)		(6,189.00)
17. Use Painted HM Doors and Frames in lieu of FRP			12,264.00					55,888.00	(105,096.00)	4,875.00				(32,069.00)
18. Replace CL 53 DIP with CL 52 DIP														0.00
19. Use standard grey split face block in lieu of colored block				(2,544.00)										(2,544.00)
20. Delete Project Identification Sign			(800.00)											(800.00)
Totals	(25,400.00)	(128,995.00)	86,938.00	(5,568.00)	(8,075.00)	(11,400.00)	(131,400.00)	54,992.00	(102,293.00)	(32,115.00)	(11,789.00)	(45,163.00)	(2,988.00)	

2 May 2023

To: Davis Construction
5236 Dumond Ct Suite A
Lansing, MI 48917

Attn: Rob Kaliniac/Peter Elzinga

Re: Grand Ledge – Revised Price

Proposal

We are pleased to provide you with this quotation. Our scope of work is being revised, eliminating the standing seam roof, underlayment and T-drip and top flashing associated with the metal roof. What remains is the metal wall panel, fascia, gutter and downspouts. All of flashings are to be fabricated using .032 aluminum in standard non-metallic finish. All siding material is to be prefinished .032 aluminum PAC Flush panel with 12" seam spacing. All subgirt framing and wind/water barrier at the wall panels is to be by others. We have NOT included screens at the gutters.

Total Labor & Material \$ 62,000.00

This is a deduct of \$105,000. from the original price.

This price is good for 60 days. Though we do not foresee significant price changes, should it occur, we may need to make adjustments.

Thank you for this opportunity. If you have questions, please contact us. We can be reached at Cell# 616.745.6793

Sincerely,

Richard A. Buist

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

- A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

ADD/DEDUCT: \$ N/A

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)
A102 – Clerestory Window Plan (not reissued)

- A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

~~ADD/DEDUCT:~~ \$ 2,803.00

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)
40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)
P103 – Flow Schematic and P&ID (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

ADD/DEDUCT: \$ N/A

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

~~ADD/DEDUCT:~~ \$ 105,096.00

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

- A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

ADD/DEDUCT: \$ N/A

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)
04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

- A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

ADD/DEDUCT: \$ N/A

ITEM NO. 20:

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

- A. Delete Project Identification Sign from the project.

ADD/DEDUCT: \$ N/A

BULLETIN
PAGE 5 OF 5

Contractor: Traverse City Glass

Signature

Gary K Alden, President

Name and Title of Signatory

April 27, 2023

Date

END OF BULLETIN

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

- A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

ADD/DEDUCT: \$ _____

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)
A102 – Clerestory Window Plan (not reissued)

- A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

ADD/DEDUCT: \$ _____

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)
40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)
P103 – Flow Schematic and P&ID (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

ADD/DEDUCT: \$ _____

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

Note: Does not include any glass or powder coating of hollow metal frames & doors. **ADD/DEDUCT:** \$ 55,888.00

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

- A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

ADD/DEDUCT: \$ _____

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)
04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

- A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

ADD/DEDUCT: \$ _____

ITEM NO. 20

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

- A. Delete Project Identification Sign from the project.

ADD/DEDUCT: \$ _____

BULLETIN
PAGE 5 OF 5

Contractor:

Roger Fabiano - **Architectural Openings & Access**

Signature

Project Manager

Name and Title of Signatory

04/20/23

Date

END OF BULLETIN



April 28, 2023

Peter Elzinga
RK Davis, Inc.
pelzinga@rkdavis.us

Re: Grand Ledge Iron Removal – Bulletin No. 1

Dear Peter:

Here is the pricing for the items that affect us in this bulletin.

Item No. 2 – Delete interior concrete coatings at Wet Wells and Detention Basins

Deduct: (\$30,930.00)

Labor = (\$23,200.00)

Material = (\$7,730.00)

Item No. 4 – Concrete sealer at top and exposed sides of Detention Basins

Add: \$4,525.00

Labor = \$3,425.00

Material = \$1,100.00

Item No. 9 – Delete resinous flooring and provide sealer

Deduct: (\$9,785.00)

Labor = (\$7,340.00)

Material = (\$2,445.00)

Item No. 13 – Delete Janitors Closet

Deduct: (\$800.00)

Labor = (\$600.00)

Material = (\$200.00)

Item No. 17 – Replace FRP doors and frames with hollow metal doors and frames

Add: \$4,875.00

Labor = \$3,900.00

Material = \$975.00

All other items do not affect our cost.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Oosterink', with a stylized flourish at the end.

Dan Oosterink, LEED® AP
Vice President

BULLETIN
PAGE 3 OF 5

ITEM NO. 9:

Section: 09 67 23 – Resinous Flooring (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace resinous flooring from the following rooms with bare concrete with sealant in conjunction with what is being done in the Process Area:
Room 103 – Toilet
Room 104 – Shower
Room 115 – Laboratory/Control Room
Room 116 – Office

ADD/DEDUCT: \$ 8.0.

ITEM NO. 10:

Section: 22 05 06 – Cast Iron Pipe and Fittings for Plumbing (not reissued)

Sheet: M401 – Plumbing Schedules (not reissued)

- A. Replace cast iron drains and drain piping with PVC drains and drain piping.

~~ADD~~ DEDUCT: \$ 19,259⁻

ITEM NO. 11:

Section: 22 71 00 – Compressed Air System for General Use (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
P205 – Enlarged Plans and Isometrics (not reissued)
M201 – First Floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)
M401 – Plumbing Schedules (not reissued)
M402 – Plumbing Details (not reissued)
E601 – Panelboard Schedules (not reissued)
I102 – I/O List and Wiring Schedule (not reissued)

- A. Delete compressed air system, including the compressor and air drops.

~~ADD~~ DEDUCT: \$ 18,565⁻

ITEM NO. 12:

Section: 05 51 00 – Metal Stairs and Railings (not reissued)
05 51 33 – Metal Ladders (not reissued)

Sheet: A302 – Interior Elevations (not reissued)
A601 – Stair Section and Details (not reissued)

- A. Delete stairway to access mezzanine. Replace with an OSHA compliant galvanized steel ladder for access to the mezzanine with the ladder at the same opening as the stair.

ADD/DEDUCT: \$ 8.0.

ITEM NO. 13:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
21 10 00 – Water Based Fire Suppression Systems (not reissued)
22 40 00 – Plumbing Fixture (not reissued)
23 09 93 – Sequence of Operation for HVAC (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
A103 – Enlarged Floor Plans (not reissued)
S101 – Foundation Plan (not reissued)
M101 – First floor & Equipment Platform Plumbing Sanitary/Storm Plan (not reissued)
M201 – First floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)

DELETE SS-1

- A. Delete janitors closet and associated appurtenances from project, using the available space to expand the vestibule. Remove interior walls separating janitors closet from vestibule and Door 117 from the project. Door 114A and the eastern interior wall of the vestibule will be collinear with the western wall of the existing Mechanical/Electrical Room.

~~ADD~~ DEDUCT: \$ 1,150⁻

BULLETIN
PAGE 4 OF 5

ITEM NO. 14:

Section: 12 31 10 – Metal Laboratory Casework (not reissued)

Sheet: A302 – Interior Elevations (not reissued)

- A. Use a residential style wood cabinetry in the laboratory rather than metal cabinetry.

ADD/DEDUCT: \$ 3.0.

ITEM NO. 15:

Section: 08 43 13 – BSD Aluminum Framed Storefronts (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)
A102 – Clerestory Window Plan (not reissued)

- A. Use a fiberglass framed type of window, Pella Impervia Series Fiberglass Window or equal, rather than a window with aluminum framing for all windows except any fire-rated windows, which remain as specified.

ADD/DEDUCT: \$ 3.0.

ITEM NO. 16:

Section: 40 05 23 – Process Valves (not reissued)
40 90 00 – Instrumentation and Control for Process Systems (not reissued)

Sheet: P003 – Schedules and Details (not reissued)
P103 – Flow Schematic and P&ID (not reissued)
P207 – Enlarged Plan, Sections, and Isometric (not reissued)

- A. Delete electrical actuator from the Pinch Valve (V-441). Provide manual actuator with extension stem to operate from top of vault.

~~ADD~~ DEDUCT: \$ 6,189

ITEM NO. 17:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
08 17 43 – Fire-Rated and Non-Fire-Rated FRP Doors and Frames (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace FRP doors to chemical rooms with factory powder coated galvanized steel doors.

ADD/DEDUCT: \$ 3.0.

ITEM NO. 18:

Section: 40 05 13 – Process Piping Systems (not reissued)

- A. Replace Class 53 Ductile Iron Pipe within the Iron Removal Plant with Class 52 Ductile Iron Pipe.

FRP PIPE HAS TO BE CL 53

ADD/DEDUCT: \$

ITEM NO. 19:

Section: 04 20 00 – Unit Masonry (not reissued)
04 72 00 – Cast Stone Masonry (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)

- A. Use a standard grey-colored split-face block with integral waterproofing on the outside of the building rather than a decorative, colored block as specified.

ADD/DEDUCT: \$ 3.0.

ITEM NO. 20

Section: 01 50 00 – Temporary Facilities and Controls (not reissued)

- A. Delete Project Identification Sign from the project.

ADD/DEDUCT: \$ 3.0.

BULLETIN
PAGE 5 OF 5

Contractor:

FHC

Signature

D. Reynolds

Name and Title of Signatory

5/1/23

Date

END OF BULLETIN

PROJECT NAME: Grand Ledge Iron Removal
 QUOTED TO: RK Davis
 DESCRIPTION: Bulletin: 1
Item 10: Plumbing pipe change

DATE: 04/20/23
 FHC JOB # 23-0010-11
 FHC X# 1 Item 10
 SM X# _____

DESCRIPTION	MATERIAL W/OUT TAX	SUBS	FAB	FIELD	DETAILING
See material chg's on pg 2	-\$14,714.14			-40	
SUB TOTALS	-\$14,714.14	\$0.00	0.0	-40.0	0.0
TOOLING					\$0.00
EQUIPMENT RENTAL					\$0.00
PROJECT MANAGEMENT HOURS					
FIELD FOREMAN					
FAB SHOP FOREMAN					0.0
DELIVERY					0.0

	HOURS	RATE	COST	MARK UP	PRICE
MATERIALS including sales tax			-\$15,596.99	\$0.00	-\$15,596.99
SUBCONTRACTORS			\$0.00	\$0.00	\$0.00
SHOP JOURNEYMAN	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FABRICATION SHOP FEE	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FIELD JOURNEYMAN	(40.0)	\$91.55	-\$3,662.00	\$0.00	-\$3,662.00
DETAILING	0.0	\$75.00	\$0.00	\$0.00	\$0.00
TOOLING			\$0.00	\$0.00	\$0.00
EQUIPMENT RENTAL			\$0.00	\$0.00	\$0.00
PROJECT MANAGEMENT	0.0	\$94.55	\$0.00	\$0.00	\$0.00
FIELD FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
FAB SHOP FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
DELIVERY	0.0	\$65.00	\$0.00	\$0.00	\$0.00
TOTAL THIS QUOTATION:					(\$19,259)
Time extension required (days)					0.0

Quoted by: dr Date: 4/20/2023

Take Off

Take Off								
Project:	Grand Ledge Iron Removal	Due:						
	Bulletin: 1							
	Item 10: Plumbing pipe change				Field	Field	Shop	Shop
Spec No.	Description	Quantity	Unit Price	Total Price	Unit Labor	Total Labor	Unit Labor	Total Labor
	Delete CI FD-1 4"	-9	101.5	-913.5		0		0
	Delete CI FD-2 4"	-7	247.32	-1731.24		0		0
	Delete CI CO 4"	-5	119.18	-595.9		0		0
	Delete CI RD 4"	0	see below			0		0
	Delete CI OD 4"	0	see below			0		0
	Add PVC FD-1 4"	9	49.03	441.27		0		0
	Add PVC FD-2 4"	7	57.09	399.63		0		0
	Add PVC CO 4"	5	57.12	285.6		0		0
	Add PVC RD 4"	2	special order			0		0
	Add PVC OD 4"	2	Special order			0		0
	Change CI drain pipe to PVC	-1	12600	-12600	40	-40		0
				0		0		0
				0		0		0
	Note: Changing the RD and OD to PVC are special order so left them per spec			0		0		0
				0		0		0
				0		0		0
				-14714		-40		0

PROJECT NAME: Grand Ledge Iron Removal
 QUOTED TO: RK Davis
 DESCRIPTION: Bulletin: 1
Item 13: Delete SS-1

DATE: 04/20/23
 FHC JOB # 23-0010-11
 FHC X# 1 Item 13
 SM X# _____

DESCRIPTION	MATERIAL W/OUT TAX	SUBS	FAB	FIELD	DETAILING
Delete SS-1	-\$294.00			-4	
Misc pipe	-\$100.00			-4	
SUB TOTALS	-\$394.00	\$0.00	0.0	-8.0	0.0
TOOLING					\$0.00
EQUIPMENT RENTAL					\$0.00
PROJECT MANAGEMENT HOURS					
FIELD FOREMAN					
FAB SHOP FOREMAN					0.0
DELIVERY					0.0

	HOURS	RATE	COST	MARK UP	PRICE
MATERIALS including sales tax			-\$417.64	\$0.00	-\$417.64
SUBCONTRACTORS			\$0.00	\$0.00	\$0.00
SHOP JOURNEYMAN	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FABRICATION SHOP FEE	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FIELD JOURNEYMAN	(8.0)	\$91.55	-\$732.40	\$0.00	-\$732.40
DETAILING	0.0	\$75.00	\$0.00	\$0.00	\$0.00
TOOLING			\$0.00	\$0.00	\$0.00
EQUIPMENT RENTAL			\$0.00	\$0.00	\$0.00
PROJECT MANAGEMENT	0.0	\$94.55	\$0.00	\$0.00	\$0.00
FIELD FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
FAB SHOP FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
DELIVERY	0.0	\$65.00	\$0.00	\$0.00	\$0.00

TOTAL THIS QUOTATION: (\$1,150)

Time extension required (days)

Quoted by: dr Date: 4/20/2023

Dave Reynhout

From: Kurt Somsel <ksomsel@sysspec.com>
Sent: Wednesday, April 19, 2023 3:32 PM
To: Dave Reynhout
Subject: RE: Gr Ledge Bul 1

Hi Dave,

The deduct to remove the actuator for Tag 441 would be **\$9,027.00**.

Keep me posted.

Kurt

Kurt Somsel
Sales Engineer
Systems Specialties Company
ksomsel@sysspec.com
(616) 490-4132 mobile



Filters, Valves, Actuators, Instruments & Rupture Disks
www.sysspec.com

From: Dave Reynhout <dave@franklinholwerda.com>
Sent: Wednesday, April 19, 2023 9:16 AM
To: Eric Griffith P.E. (egriffith@kennedyind.com) <egriffith@kennedyind.com>; Kurt Somsel <ksomsel@sysspec.com>
Subject: Gr Ledge Bul 1
Importance: High

Need this by tomorrow, please

Gents,
Will need pricing for Item 16
Thanks

Dave Reynhout
FHC
2509 29th St SW
Wyoming, MI 49519
Ph: 616-538-3231

Please reply to sender only.

Cc: file

Dave Reynhout

Subject: FW: Grand Ledge Iron Removal Bulletin

From: Eric Griffith <egriffith@kennedyind.com>
Sent: Monday, May 1, 2023 1:40 PM
To: Bryan Davidson <bdaavidson@kennedyind.com>; Dave Reynhout <dave@franklinholwerda.com>
Cc: Heather Lake <hlake@kennedyind.com>
Subject: RE: Grand Ledge Iron Removal Bulletin

Hi Dave,

Net Add Price: \$3,188.00 Total

RED VALVE SERIES 75 MANUAL PINCH VALVE

*Body Material: Cast Iron
Sleeve Material: Viton
Sleeve Style: Full Port
Flange Drilling: 125/150# ANSI*

*Supplied with:
15 Ft. Stainless Steel Extension Stem
(1) Stainless Steel Stem Guide
(1) Floor stand for mounting of Bevel Gear above grade
(1) Hand-wheel and Position Indicator*

Please Note:

- (1) The gearbox offered is not submersible and does not appear it will be required to be submersible from plan drawings. If submersible gearbox is required, a revision to this proposal must be made.*
- (2) The gearbox proposed contains standard oil lubricant in lieu of NSF-61 food grade grease as specified.*
- (3) Gearbox will mounted atop the proposed floor-stand in lieu of on the valve in the valve vault.*
- (4) Drawings and drawings approval will be required should this result in an order.*

Eric Griffith, P.E.

Capital Business Development Engineer

(616) 799-0843 Cell

[Contact Information](#) | [Website](#) | [Facebook](#) | [LinkedIn](#) | [Twitter](#) | [YouTube](#)

JOIN OUR TEAM: Account Managers, Customer Service Representatives, Project Managers, Field Service and Shop Personnel. **[CLICK HERE](#)** for more information.

ITEM 18



AMERICAN DUCTILE IRON PIPE

AMERICAN Flanged Pipe
AMERICAN Ductile Iron Flanged Pipe
ANSI/AWWA C115/A21.15

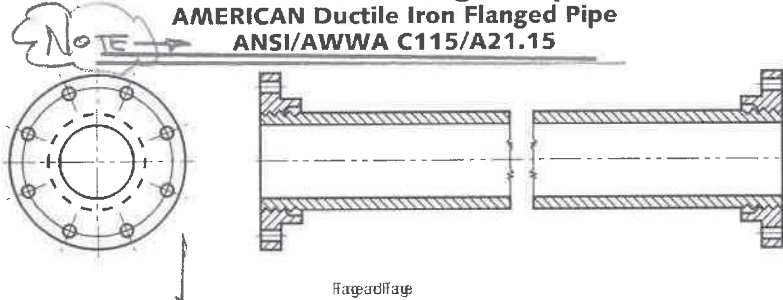


Table No. 8-5

Size in.	Pressure Rating* psi	Nominal Wall Thickness in.	Pipe O.D. in.	Minimum Length** in.	Maximum Length** ft.-in.	Weight in Pounds		
						Per Foot Plain End	One Flange	Per Maximum Length with Two Flanges
4	350†	.32	4.80	4½	17'-6"	13.8	13	266
6	350†	.34	6.90	4½	20'-0"	21.4	17	460
8	350†	.36	9.05	4½	20'-0"	30.1	27	655
10	350†	.38	11.10	6	20'-0"	39.2	38	860
12	350†	.40	13.20	6	20'-0"	49.2	59	1100
14	350†	.42	15.30	7	20'-0"	60.1	70	1340
16	350†	.43	17.40	7	20'-0"	70.1	90	1580
18	350†	.44	19.50	7	20'-0"	80.6	88	1790
20	350†	.45	21.60	7	20'-0"	91.5	112	2060
24	350†	.47	25.80	8	20'-0"	114.4	155	2600
30	250	.51	32.00	12	19'-6"	154.4	245	3500
36	250	.58	38.30	14	19'-6"	210.3	354	4810
42	250	.65	44.50	18	19'-6"	274.0	512	6370
48	250	.72	50.80	18	19'-6"	346.6	632	8020
54	250	.81	57.56	20	19'-6"	441.9	716	10050
60	250	.83	61.61	20	19'-6"	485.0	1113	11680
64	250	.87	65.67	21	19'-0"	542.0	1824	13950

*Pressure rating designated is maximum water working pressure. Contact AMERICAN on higher pressure requirements.

**Check AMERICAN if longer or shorter lengths required.

†This rating is only applicable to flanged joints utilizing AMERICAN Toruseal® gaskets as per page 8-3.

Pipe is available with greater wall thickness than shown. Thicknesses above correspond to Special Class 53 for 4"-54" diameters, and Pressure Class 350 for 60" and 64" diameters as shown in AWWA C115.

Any length between minimum and maximum shown can be furnished.

Tolerance on length is ±0.12 in.

Standard drilling is with bolt holes aligned, straddling a common centerline. Special drilling can be furnished on request.

Where required, specify flanges "Tap for Studs."

The bolt circle and bolt holes of AWWA C115 flanges, AWWA C110 flanges and ANSI B16.1 Class 125 flanges are identical, and these flanges can be joined. AWWA C115 and AWWA C110 flanges are rated for 250-350 psi water working pressure depending on size and specified gasketing system.

NOTE

FABRICATED PIPE = CL. 53 MIN.

BULLETIN
PAGE 2 OF 5

ITEM NO. 3:

Section: 26 22 13 – Low Voltage Distribution Transformers (not reissued)

A. Allow alternative manufacturer, Maddox, for electrical transformer.

ADD/DEDUCT: \$ No Cost Change

ITEM NO. 4:

Section: 07 18 13 – Traffic Coatings (not reissued)
09 91 00 – Painting (not reissued)

Sheet: A101 – First Floor and Equipment Platform Plan (not reissued)

A. Delete traffic coating from the top of the Aeration Detention Basins. Provide concrete sealer for top and exposed sides of Aeration Detention Basins per Specification 09 91 00 "Painting".

ADD/DEDUCT: \$ N/A

ITEM NO. 5:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a 30-year warranty shingled roof system, meeting applicable building codes, in lieu of the metal roof system. Change gypsum sheathing to a plywood sheathing.

ADD/DEDUCT: \$ N/A

ITEM NO. 6:

Section: 05 30 00 – Metal Decking (not reissued)
07 41 13 – Metal Roof Panels (not reissued)
07 53 23 – EPDM Single-Ply Roofing (not reissued)
07 72 00 – Roof Accessories (not reissued)

Sheet: A301 – Exterior Elevations (not reissued)
A501 – Sections (not reissued)
A502 – Sections (not reissued)
A801 – Roof Plan (not reissued)

A. Provide a PAC Snap-Clad Metal Roof System composed of 24-gauge steel, in lieu of the PAC Tite-Loc Plus Metal Roof.

ADD/DEDUCT: \$ N/A

ITEM NO. 7:

Section: 00 73 00 – Supplementary Conditions (not reissued)
31 25 00 – Erosion and Sedimentation Controls (not reissued)
32 92 00 – Turf and Grasses (not reissued)

Sheet: C102 – Site Demolition & SESC plan (not reissued)

A. Delete seeding and restoration.

ADD/DEDUCT: \$ N/A

ITEM NO. 8:

Section: 32 12 16 – Asphalt Paving (not reissued)

Sheet: C201 – Site Layout Plan (not reissued)

A. Delete asphalt paving. Provide and maintain gravel drive for use as subbase for future asphalt road construction by others.

ADD/DEDUCT: \$ N/A

BULLETIN
PAGE 3 OF 5

ITEM NO. 9:

Section: 09 67 23 – Resinous Flooring (not reissued)

Sheet: A202 – Door Schedule and Room Finish Schedule (not reissued)

- A. Replace resinous flooring from the following rooms with bare concrete with sealant in conjunction with what is being done in the Process Area:
Room 103 – Toilet
Room 104 – Shower
Room 115 – Laboratory/Control Room
Room 116 – Office

ADD/DEDUCT: \$ N/A

ITEM NO. 10:

Section: 22 05 06 – Cast Iron Pipe and Fittings for Plumbing (not reissued)

Sheet: M401 – Plumbing Schedules (not reissued)

- A. Replace cast iron drains and drain piping with PVC drains and drain piping.

ADD/DEDUCT: \$ N/A

ITEM NO. 11:

Section: 22 71 00 – Compressed Air System for General Use (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
P205 – Enlarged Plans and Isometrics (not reissued)
M201 – First Floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)
M401 – Plumbing Schedules (not reissued)
M402 – Plumbing Details (not reissued)
E601 – Panelboard Schedules (not reissued)
I102 – I/O List and Wiring Schedule (not reissued)

- A. Delete compressed air system, including the compressor and air drops.

ADD/DEDUCT: \$ 2,988.00

ITEM NO. 12:

Section: 05 51 00 – Metal Stairs and Railings (not reissued)
05 51 33 – Metal Ladders (not reissued)

Sheet: A302 – Interior Elevations (not reissued)
A601 – Stair Section and Details (not reissued)

- A. Delete stairway to access mezzanine. Replace with an OSHA compliant galvanized steel ladder for access to the mezzanine with the ladder at the same opening as the stair.

ADD/DEDUCT: \$ N/A

ITEM NO. 13:

Section: 08 11 13 – Hollow Metal Doors and Frames (not reissued)
21 10 00 – Water Based Fire Suppression Systems (not reissued)
22 40 00 – Plumbing Fixture (not reissued)
23 09 93 – Sequence of Operation for HVAC (not reissued)

Sheet: A101 – First Floor and Equipment Plan (not reissued)
A103 – Enlarged Floor Plans (not reissued)
S101 – Foundation Plan (not reissued)
M101 – First floor & Equipment Platform Plumbing Sanitary/Storm Plan (not reissued)
M201 – First floor & Equipment Platform Plumbing Supply Piping Plan (not reissued)

- A. Delete janitors closet and associated appurtenances from project, using the available space to expand the vestibule. Remove interior walls separating janitors closet from vestibule and Door 117 from the project. Door 114A and the eastern interior wall of the vestibule will be collinear with the western wall of the existing Mechanical/Electrical Room.

ADD/DEDUCT: \$ N/A

BULLETIN
PAGE 5 OF 5

Contractor: **Centennial Electric, LLC**



Signature

Mike Bozung - Estimator/Project Manager

Name and Title of Signatory

4/18/23

Date

END OF BULLETIN

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
B1-No 11	\$1,642.80	100.00%	\$1,642.80	14.42	100.00%	14.42

Top Sheet

Raw Cost	\$2,889.44	Sales per Month	\$0.00
Tax	\$98.57	Return per Month	\$0.00
Raw Cost with Tax	\$2,988.01	Price per Square Foot	\$0.00
Overhead	\$0.00	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$0.00	Job Months	0.00
Total Return %	0.00%	Hours per Week	40.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	86.47
Price	\$2,988.01	Workers per Day	0.00
Bond	\$0.00	Total Hours	14.42
Sell Price	\$2,988.01	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	No

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	100.00%	14.42	\$86.47	\$0.00	0.00%	\$1,246.64
Foreman Local 665	0.00%	0.00	\$99.44	\$0.00	0.00%	\$0.00
General Foreman Local 665	0.00%	0.00	\$108.09	\$0.00	0.00%	\$0.00
Totals	100.00%	14.42	\$86.47	\$0.00	0.00%	\$1,246.64

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT	
	Total	%	Amount	%	Amount	
Materials	\$1,642.80 +	0.00%	\$1,642.80 +	0.00%	\$1,642.80	
Labor	\$1,246.64 +	0.00%	\$1,246.64 +	0.00%	\$1,246.64	
Supplier Quotes	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
SubContractors	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
Direct Job Expense	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
Equipment Rental	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
Fixtures Quotes	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00	
Totals	\$2,889.44	0.00%	\$2,889.44	0.00%	\$2,889.44	

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	\$1,642.80	6.00%	\$98.57
Labor	\$1,246.64	0.00%	\$0.00
Supplier Quotes	\$0.00	6.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	6.00%	\$0.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	\$98.57

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: B1-No 11

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
Label Set: Combined, Combined, Combined, Combined, Combined											
CCode: Branch Rough											
1,261	1/2 GRC	67.00	\$589.56	C	\$943.16			<u>14.42</u>		<u>100%</u>	<u>100%</u>
1,262	3/4 GRC	69.00	\$615.17	C	\$395.01	5.50	C	8.72		57.41%	60.52%
5,489	1/2 FLEX WP	6.00	\$194.42	C	\$424.47	6.00	C	3.68 cb			
5,501	1/2 FLEX WP CONN	2.00	\$2,126.91	C	\$11.67	4.00	C	4.14 cb			
5,549	1/2 FLEX WP 90 CONN	2.00	\$3,474.13	C	\$42.54	0.15	E	0.24 cb			
CCode: Disc/Safety Switches											
10,742	30A 600V 3PH N1 NF SW	1.00	\$279.00	E	\$69.48	0.18	E	0.30 cb			
CCode: Lugs/Termination/Ground											
5,736	12 GA TERMINATION	8.00	\$0.00	X	\$279.00	2.00	E	2.00 sd			
5,837	RED 3M WIRE NUT	8.00	\$12.37	C	\$0.99	0.14	E	1.12 sl		0.06%	7.77%
CCode: Branch Wire											
40	14 THHN CU STRANDED	194.00	\$713.00	M	\$419.65	0.00	C	0.00 sl			
41	12 THHN CU STRANDED	267.00	\$1,053.68	M	\$138.32	5.00	M	0.97 wb			
					\$281.33	6.00	M	1.60 wb			
					<u>\$1,642.80</u>						
						<u>14.42</u>					



Quote To:
 Centennial Electric LLC
 48876-0490, United States

Contact Your Sales Rep
 Gus Tssemeloglou
 Phone: 864-757-2853
 gus@maddoxtransformer.com

Pay Terms: 25% deposit, 75% prior to shipment

Ship To:
 48876-0490, United States

#	Description	Count	Price	Amount
1	3-Phase Padmount Transformer	1	\$0.00	\$0.00

New 500 kVA Padmount Transformer
 High Voltage: 8320 GY/ 4800, 95 kV BIL
 Low Voltage: 480 Y/ 277, 30 kV BIL
 Taps: 2 Above, 2 Below @ 2.5%
 HV Bushings: (6) 15kV 200A Wells & Inserts (dead front loop feed)
 LV Bushings: (4) 4-Hole Spades (Common H0/X0)
 Fluid: Mineral Oil
 Frequency: 60 Hz
 Temperature Rise: 65C
 Cooling Class: ONAN
 Conductor: Al / Al
 Fusing: Bayonet w/ CLFs
 Switch: None
 Tank Material: Mild Steel
 Arresters: Provided By Others
 Cabinet Depth: Standard
Features & Accessories
 -Drain & Sample Valve
 -Dial-Type Thermometer
 -Liquid Level Gauge
 -Pressure Vacuum Gauge
 -Schrader Valve
 -Pressure Relief Valve
 -Padmount Green Paint
 -UL Listed



Shipping: Free within contiguous US, CPT plant (3-5 day service)
 Warranty: 3 years
Lead Time: Shipping starts within 33 weeks after release
Approvals: 3 weeks (if required)

	Quote Lines		Additional Cost		Total Quote	
	Before Tax	\$0.00	Before Tax	\$0.00	Before Tax	\$0.00
	Tax	\$0.00	Tax	\$0.00	Tax	\$0.00
	Total	\$0.00	Total	\$0.00	Total	\$0.00

Price valid for 30 days. Stock is subject to prior sale. Pay terms on this quote are contingent on an established account in good standing. It is Buyer's responsibility to verify conformity to any and all specifications. Exceptions and clarifications provided by MIT are not confirmations of conformity to any written, or verbally communicated specifications. Sales taxes may apply unless exemption certificate is provided. MIT's Standard Terms & Conditions apply: www.maddoxtransformer.com/documents

Grand Ledge City Council Resolution # _____ of 2023

A Resolution to Approve Changer Order No. 2 to the Iron Removal Facility Project.

A resolution adopted by the Grand Ledge City Council, at a regular meeting held on Monday, 26 June 2023, in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

Whereas, the City of Grand Ledge, Michigan (“City”) is a municipal corporation organized under the provisions of the Home Rule City Act, Public Act 279 of 1909, as amended, and is governed by the provisions of the Grand Ledge City Charter adopted 07 August 2018, as amended (“Charter”); and

Whereas, Charter §13.1A provides:

“The power to make and to authorize the making of contracts on behalf of the City is vested in the City Council and shall be exercised in accordance with the provisions of law”; and

Whereas, the City previously approved a proposal and authorized a contract for construction services for the Iron Removal Facility Project from Fishbeck; and

Whereas, Fishbeck has submitted Change Order No. 2 for the Iron Removal Facility Project;

Now, Therefore, It Is Resolved:

1. The City approves Changer Order No. 2 to the Iron Removal Facility Project, as attached.
2. The City directs the City Manager and Finance Director / Treasurer to appropriate the funds necessary to implement said change order.
3. The City Manager, or their duly authorized agent or representative, is authorized and directed to implement said change order on behalf of the City; to do any other act(s) or thing(s) which shall be necessary to implement said change order on behalf of the City; to preserve and protect the rights, duties and obligations of the City thereunder; and to do any act or thing required by statute, Charter, ordinance, rule, regulation or other provision of law in order to implement said change order.

Motion by

Second by

Ayes:

Nays:

Absent:

Approved:

Keith O. Mulder, Mayor

I, Gregory L. Newman, Grand Ledge City Clerk, certify this is Resolution #_____ of 2023, adopted by the Grand Ledge City Council at a regular meeting held on Monday, 26 June 2023; in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

Gregory L. Newman, City Clerk

June 20, 2023
Project No. 210262

Adam Smith
City Manager
City of Grand Ledge
310 Greenwood Street
Grand Ledge, MI 48837

Bulletin 2 – City of Grand Ledge Iron Removal Plant, Description, and Impact

The following is a description of the items for Bulletin 2 of the Grand Ledge Iron Removal Plant Project.

Contract Modifications from Bulletin

- Original Contract Price – \$17,338,148
- Contract Price following previous Bulletins – \$17,123,248
- Total Modification to Contract Price from Bulletin 2 – \$53,141.37
- Total Modification to Contract Price from All Bulletins – (\$161,758,.63)
- Revised Contract Price – \$17,176,389.37

Table 1 – Bulletin 2 Monetary Impact Breakdown

Item No.	Item Description	Contract Modification	Cumulative Contract Price
1	Roofing to have 1" Hail Warranty rather than 2" Hail Warranty	-\$2,120.00	\$17,121,128.00
2	Modify Turn Down Slab to be Wall Foundation	\$18,537.26	\$17,139,665.26
3	Clarification on Waterproofing for the Project	\$15,359.50	\$17,155,024.76
4	Baseplate Modification	\$0.00	\$17,155,024.76
5	Modify Pipe Gallery Beam Attachments	\$20,544.89	\$17,175,569.65
6	Add Steel Reinforcing as Noted	\$819.72	\$17,176,389.37

Narrative Description of Bulletin

Bulletin 2 included items originating from review of detailed shop drawings and input from the Contractor. The items are as follows:

ITEM NO. 1

- Change roofing hail warranty from a 2" Hail Warranty to a 1" Hail Warranty:
 - Reducing the Hail Warranty by an inch allowed for a 60 mil rather than a 90-mil thickness on the rubber roof membrane. This item resulted in a credit to the project. The 60-mil membrane was targeted during design so accepting this credit results in the service being consistent with the design intent. This roofing is only over the southwest corner of the building which houses the low service pumps, an area of roughly 750 square feet.

ITEM NO. 2

- Modify turn down slab to be wall foundation as noted:
 - During review of shop drawings, the thickened slab shown to support the bearing wall through the middle of the building was modified to a spread footing. This is an alternate design approach for better performance that is at the recommendation of the Structural Engineer. This is a revision recommended by Fishbeck.

ITEM NO. 3

- Clarification added to drawings and specifications on waterproofing:
 - Waterproofing was noted on the drawings, but no specification was included in the project manual to define the specific waterproofing system requirements. The Contractor did not include waterproofing in their bid, but due to the need for clarification in a specification, is offering to pay half the value of the waterproofing.

ITEM NO. 4

- Reduce size of baseplates as noted:
 - This item reduces the size of a structural baseplate based on review of shop drawings. These baseplates support the columns which in turn support the overhead piping on the face of the pressure filters. The plates were 12" x 12" but have been reduced to 12" x 8" to improve the layout as shown on the concrete shop drawings.

ITEM NO. 5

- Modify pipe gallery beam attachments:
 - The method of attachment of the beams supporting the grating in the pipe gallery were modified based on review of shop drawings. The original design included placing the beams in a concrete beam pocket. Based on the detailed shop drawings the Structural Engineer is recommending an alternate design approach to use steel supports to mount the beams to the walls directly to reduce the potential for spalling of the concrete that would be placed over the beams within the beam pocket area. This is a revision recommended by Fishbeck.

ITEM NO. 6

- Add steel reinforcing as noted:
 - Based on the detailed shop drawings, the Structural Engineer is recommending additional rebar reinforcement of the concrete at the transition of the air gap sump to the exterior wall and to the floor to improve the performance of the concrete at the transition and further reduce potential for cracking.

Impact to Project

The items within this Bulletin were recommended by our Structural Engineer. These changes will result in a net cost increase to the project and result in the noted improvements.

If you have any questions or require additional information, please contact me at 616.464.3825 or cmccorkle@fishbeck.com.

Sincerely,



Colin G. McCorkle, PE
Senior Water and Wastewater Engineer

Attachments

By email

Copy: Dave Pawley – City of Grand Ledge
Kurt Ristow – City of Grand Ledge
Dave Baar, PE – Fishbeck
John Willemin, PE – Fishbeck

BULLETIN
 PAGE 1 OF 2

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B2
ISSUED HEREWITH:	
	SPECIFICATION SECTIONS: 07 13 00
	SHEETS: S003, S101, S301, S303
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. John Willemin, PE – Fishbeck
<p>The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.</p> <p>This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.</p> <p>Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.</p> <p>Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.</p> <p>Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.</p> <p>Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.</p>	

ITEM NO. 1: Roofing Warranty Change

Sheet: A801 – Roof Plan (not reissued)

Section: 07 53 23 - "EPDM Thermoset Single-Play Roofing" (not reissued)

- A. Roofing to have a 1" Hail Warranty rather than 2" Hail Warranty.

ADD/DEDUCT: \$ _____

ITEM NO. 2: Bearing Wall Foundation

Sheet: S101 – Foundation Plan (reissued)

- A. Modify turn down slab to be wall foundation as noted.

ADD/DEDUCT: \$ _____

BULLETIN
PAGE 2 OF 2

ITEM NO. 3: Waterproofing clarifications

Sheet: S101 – Foundation Plan (reissued)
S301 – Sections and Details (reissued)
S303 – Sections and Details (reissued)

Specification: 07 13 00 – Waterproofing (issued)

- A. Clarification added to drawings showing extent of previously noted waterproofing and protection board.
- B. Waterproofing specification issued in response to RFI 3.

CLARIFICATION

ITEM NO. 4: Baseplate Modifications

Sheet: S003 – Typical Details (reissued)
S101 – Foundation Plan (reissued)

- A. Reduce size of baseplates as noted.

ADD/DEDUCT: \$ _____

ITEM NO. 5: Modify Pipe Gallery Beam Connection

Sheet: S003 – Typical Details (reissued)
S301 – Sections and Details (reissued)

- A. Modify pipe gallery beam attachments as noted.

ADD/DEDUCT: \$ _____

ITEM NO. 6: Modify Steel Reinforcement

Sheet: S301 – Sections and Details (reissued)

- A. Add steel reinforcing as noted.

ADD/DEDUCT: \$ _____

Contractor:

Signature

Name and Title of Signatory

Date

END OF BULLETIN

SECTION 07 13 00 – SHEET WATERPROOFING

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. This Section includes the furnishing and installation of sheet waterproofing over concrete areas as follows:
 - 1. Self adhered sheet waterproofing.
 - 2. Pre-applied sheet waterproofing.

1.3 REFERENCES

- A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
 - 1. ASTM Standards:
 - a. C272 – Water Absorption of Core Materials for Structural Sandwich Construction.
 - b. C719 – Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle).
 - c. C794 – Adhesion-in-Peel of Elastomeric Joint Sealants.
 - d. C920 – Elastomeric Joint Sealants.
 - e. C1193 – Guide for Use of Joint Sealants.
 - f. D412 – Test Methods for Rubber Properties in Tension.
 - g. D570 – Test Method for Water Absorption of Plastics.
 - h. D1621 – Compression Properties of Rigid Cellular Plastics.
 - i. D1970 – Self Adhered Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection and Waterproofing.
 - j. D4258 – Practice of Cleaning Concrete for Coatings.
 - k. D4263 – Indicating Moisture in Concrete by the Plastic Sheet Method.
 - l. D5385 – Hydrostatic Pressure Resistance of Waterproofing Membranes.
 - m. D6135 – Application of Self-Adhering Modified Bituminous Waterproofing.
 - n. E96 – Test Methods for Water Vapor Transmission of Materials.
 - o. E154 – Methods of Testing Materials for Use as Vapor Barriers Under Concrete Slabs and as Ground Cover in Crawl Spaces.
 - p. G21 – Recommended Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.

1.4 SUBMITTALS

- A. Manufacturer's Literature:
 - 1. For each type of waterproof membrane and protection board to include:
 - a. Technical data to demonstrate compliance with Specifications.
 - b. Manufacturer's recommended installation procedures, including details and dimensions.

1.5 QUALITY ASSURANCE

- A. Fabrication and Installation Personnel Qualifications:
 - 1. Trained and experienced in the fabrication and installation of the materials and equipment.
 - 2. Knowledgeable of the design and the reviewed submittals.
 - 3. Authorized by Manufacturer to install Manufacturer's products.
- B. Manufacturer's Services: Provide Manufacturer's field service.
- C. Source Limitation: Obtain waterproofing materials through one source from a single Manufacturer.

- D. Pre-Installation Conference:
 - 1. Conduct conference at Site to comply with requirements of Division 01.
 - 2. Review requirements for waterproofing, including:
 - a. Surface preparation specified under other specification Sections.
 - b. Substrate condition and pretreatment.
 - c. Minimum curing period.
 - d. Weather conditions.
 - e. Special details.
 - f. Sheet flashing.
 - g. Installation procedures.
 - h. Protection and repair procedures.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in original, unbroken, brand marked containers or wrapping as applicable.
- B. Handle and store materials in accordance with Manufacturer's directions in a manner which will prevent deterioration or damage, contamination with foreign matter, and damage by weather or elements.
 - 1. Store rolls according to Manufacturer's written instructions.
 - 2. Protect stored material from direct sunlight.
- C. Reject damaged, deteriorated, or contaminated material and immediately remove from the Site.
 - 1. Replace rejected materials with new materials at no addition cost to Owner.

1.7 WARRANTY

- A. Upon completion of this portion of the work, and as a condition of acceptance, deliver to Engineer a warranty signed by Contractor, an officer of the applicator firm, and the materials Supplier, in which the signatories state and affirm:
 - 1. The work of this Section was completed in accordance with the requirements of the Contract Documents.
 - 2. Should water penetrate through the work of this Section within 5 years following date of Substantial Completion of the Work, and promptly upon receipt of notice from Owner to that effect, the materials Supplier will provide such additional waterproofing and protection board materials as are required, and Contractor and applicator will provide such equipment, labor, and other materials as are required, to properly repair the area through which water penetrated.
 - 3. Should the water penetration be due to faulty original workmanship or materials of this Section, the equipment, labor, and materials will be provided at no additional cost to Owner.
 - 4. Should the water penetration not be due to faulty original workmanship or materials of this Section, the equipment, labor, and materials provided under this Article will be paid for promptly by Owner at the current rates of Contractor, applicator, and materials Supplier.

PART 2 - PRODUCTS

2.1 SELF ADHERED SHEET WATERPROOFING

- A. Subject to the requirements of this section, provide one of the following products or reviewed equal:
 - 1. Bituthene by W.R. Grace and Company.
 - 2. Mel-Rol by W.R. Meadows, Inc.
 - 3. CCW-701 by Carlisle Coatings and Waterproofing Div.
 - 4. Duramem 700 SM by Pecora Corporation.
- B. If the Project schedule requires special products suited for ambient conditions such as cold weather:
 - 1. Select products of the above Manufacturers suited to the ambient conditions.
 - 2. Submit Manufacturer's Literature for products selected.
 - 3. Provide the products at no additional cost to Owner.

- C. Membrane:
1. 60-mil thick, self-adhering sheet consisting of 56 mils of rubberized asphalt laminated to 4-mil thick polyethylene film release liner on adhesive side and formulated for application with primer or surface conditioner that complies with VOC limits of authorities having jurisdiction.
 2. Physical Properties:
 - a. Tensile Strength: 250 psi minimum in accordance with ASTM D412, Die C, modified.
 - b. Elongation: 300% minimum in accordance with ASTM D412, Die C, modified.
 - c. Flexibility: Pass at minus 20 deg F in accordance with ASTM D1970.
 - d. Crack Cycling: Unaffected after 100 cycles of 1/8-inch movement as tested by ASTM C836.
 - e. Puncture Resistance: 40 lbf minimum in accordance with ASTM E154.
 - f. Hydrostatic Head Resistance: 150 feet minimum in accordance with ASTM D5385.
 - g. Water Absorption: 0.15% weight gain maximum after 48-hr immersion at 70 deg F in accordance with ASTM D570.
 - h. Vapor Permeance: 0.05 perms in accordance with ASTM E96, Water Method.
- D. Auxiliary Materials:
1. Primer: Liquid primer recommended for substrate by sheet waterproofing Manufacturer.
 2. Surface Conditioner: Liquid waterborne conditioner recommended for substrate by Manufacturer.
 3. Concealed Strip Flashing: Self adhering, rubberized asphalt composite sheet of same material and thickness as waterproofing membrane.
 4. Substrate Patching Membrane: Low viscosity, 2-component, asphalt modified coating.
 5. Mastic, Adhesives, and Tape: Manufacturer's standard products compatible with membrane used.
 6. Metal Termination Bars: Galvanized steel or aluminum bars 1-inch wide by 1/8-inch thick pre-drilled at 9-inch centers.
- E. Protection Board: Fan-folded, with a core of extruded polystyrene board insulation sandwiched between 2 sheets of plastic film, Manufacturer's standard nominal thickness, with compressive strength of 15 psi in accordance with ASTM D1621 and maximum water absorption by volume of 0.4% in accordance with ASTM C272.

2.2 PRE-APPLIED SHEET WATERPROOFING

- A. Subject to the requirements of this section, provide one of the following products or reviewed equal:
1. Pre-Prufe Plus, by GCP Applied Technologies.
- B. Specifically Formulated:
1. For installation under base slab and in concrete blind side applications.
 2. To integrally bond to fresh concrete placed on or against the waterproofing to prevent migration of fluid under the waterproofing.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with installer present, for compliance with requirements and other conditions affecting performance:
1. Verify that concrete has cured and aged minimum of 7 days.
 2. Verify that substrate is visibly dry and free of moisture: Test for capillary moisture by plastic sheet method according to ASTM D4263 or other method recommended by Manufacturer.
- B. Environmental Limitations:
1. Apply waterproofing within the range of ambient and substrate temperatures recommended by Manufacturer.
 2. Do not apply waterproofing in snow, rain, fog, or mist.
- C. Maintain adequate ventilation during preparation and application of waterproofing materials.

3.2 PREPARATION

- A. Substrate Preparation:
 - 1. Clean and prepare substrate according to Manufacturer's written instructions.
 - 2. Provide clean, dust-free, and dry substrate for waterproofing application.
- B. Protection: Mask off adjoining surfaces not receiving waterproofing to prevent spillage or overspray affecting other construction.
- C. Cleaning: Remove grease, oil, bitumen, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.
- D. Remove fins, ridges, and other projections and fill honeycomb, aggregate pockets, and other voids.
- E. Joints and Cracks:
 - 1. Prepare, fill, prime, and treat joints and cracks in substrate.
 - 2. Remove dust and dirt from joints and cracks according to ASTM D4258.
 - 3. Install sheet strips and center over non-moving joints and cracks exceeding 1/16-inch in width.
 - 4. Bridge and cover expansion joints and discontinuous deck-to-wall and deck-to-deck joints with overlapping sheet strips:
 - a. Invert and loosely lay first sheet strip over center of joint.
 - b. Firmly adhere second sheet strip to first and overlap to substrate.
- F. Corners:
 - 1. Prepare, prime, and treat inside and outside corners according to ASTM D6135.
 - 2. Install membrane strips centered over vertical inside corners.
 - 3. Install 3/4-inch fillets of liquid membrane on horizontal inside corners and as follows:
 - a. At footing-to-wall intersections, extend liquid membrane each direction from corner or install membrane strip centered over corner.
 - b. At plaza deck-to-wall intersections, extend liquid membrane or sheet strips onto deck waterproofing and to finished height of sheet flashing.
- G. Prepare, treat, and seal vertical and horizontal surfaces at terminations, penetrations through waterproofing, and at drains and protrusions, according to ASTM D6135.

3.3 INSTALLATION OF SELF ADHERED SHEET WATERPROOFING

- A. Install self adhered sheets according to Manufacturer's written instructions and recommendations in ASTM D6135.
- B. Primers:
 - 1. Apply primer to walls or deck at required rate and allow to dry.
 - 2. Limit priming to areas that will be covered by sheet waterproofing in same day.
 - 3. Re-prime areas exposed for more than 24 hours.
- C. Membrane Application:
 - 1. Apply and firmly adhere sheets over area to receive waterproofing from low point up to high point to ensure that side laps shed water.
 - 2. Accurately align sheets and maintain uniform 2-1/2-inch minimum lap widths and end laps.
 - 3. Overlap and seal seams and stagger end laps to ensure watertight installation.
 - 4. Apply continuous sheets over sheet strips bridging substrate cracks and construction joints.
 - 5. Seal exposed edges of sheets with mastic or sealant at terminations or install termination bars.
 - 6. If waterproofing ties into other waterproofing, install sheets and auxiliary materials so that systems are fully watertight.

- D. Repairs:
 - 1. Repair tears, voids, and lapped seams in waterproofing not complying with these Specifications.
 - 2. Slit and flatten fish mouths and blisters, and cover with patches extending a minimum of 6 inches beyond repaired areas in each direction.
 - 3. Correct deficiencies in or remove waterproofing that does not meet requirements, repair substrates, reapply waterproofing, and repair sheet flashing.
- E. Install protection course with butted joints over waterproofing before starting subsequent operations.

3.4 INSTALLATION OF PRE-APPLIED SHEET WATERPROOFING

- A. Under Base Slab:
 - 1. Ensure mud slab has been placed in accordance with Division 03 Section “Structural Concrete.”
 - 2. Apply waterproofing onto mud slab with layout and jointing in accordance with Manufacturer's application instructions.
 - 3. Protect waterproofing while base slab is constructed above it.
 - 4. Lap subsequent wall waterproofing over the pre-applied waterproofing to shed water.
 - 5. Ensure product compatibility.
- B. Blind Sided Wall Construction:
 - 1. Install in accordance with Manufacturer's instructions.
 - 2. Lap and adhere waterproofing to base slab waterproofing.
 - 3. Support membrane in vertical position.
 - 4. Flash around penetrations.
 - 5. Protect waterproofing while wall is constructed adjacent to it.

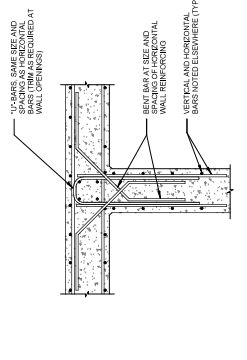
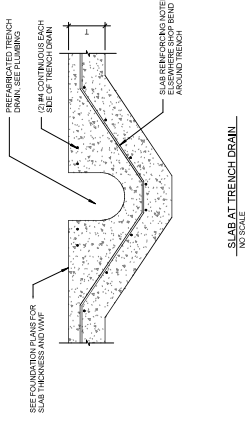
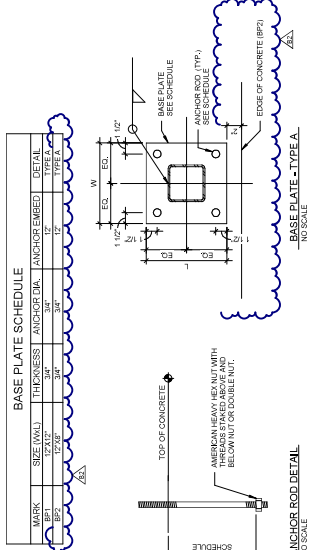
3.5 FIELD QUALITY CONTROL

- A. Do not place backfill or concrete until Engineer has inspected finished waterproofing.

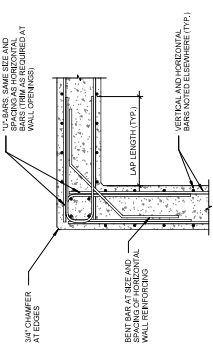
3.6 PROTECTING AND CLEANING

- A. Do not permit foot or vehicular traffic on unprotected waterproofing.
- B. Protect waterproofing from damage and wear during remainder of construction.
- C. Prior to acceptance of the work of this Section, thoroughly clean related areas in accordance with Division 01 Section “Cleaning and Waste Management.”

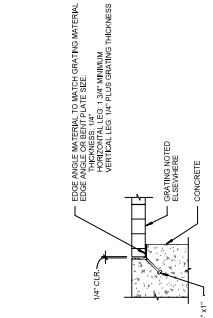
END OF SECTION 07 13 00



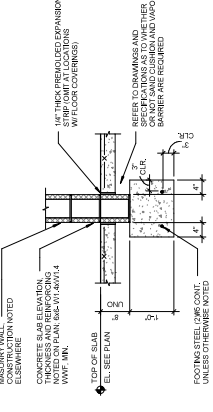
TYPICAL HORIZONTAL WALL REINFORCEMENT AT TANK WALL TEE
NO SCALE



TYPICAL HORIZONTAL WALL REINFORCEMENT AT TANK WALL CORNER
NO SCALE

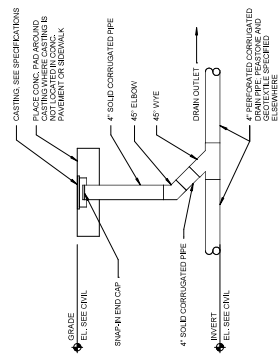


GRATING SUPPORT
NO SCALE

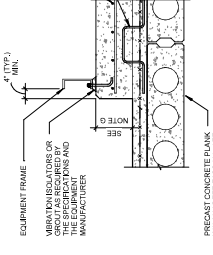


TYPICAL INTERIOR CMU WALL FOOTING
NO SCALE

- NOTES:**
- ANCHOR BOLTS AS SPECIFIED OR SUPPLIED BY ALL ANCHOR BOLTS TO BE CAST INTO BASE
 - COORDINATE ANCHOR BOLT LENGTH WITH PAD
 - SET EQUIPMENT FRAME ON ANCHOR BOLTS
 - SET EQUIPMENT FRAME AND GROUT WITH SWM EQUIPMENT FRAME ISOLATORS AS REQUIRED PROVIDE VIBRATION ISOLATORS AS REQUIRED MANUFACTURER'S INFO AND THE EQUIPMENT MANUFACTURER
 - WHERE NOTED ON PLANS, ANCHOR BOLT ADDITIONAL LENGTH WITH EQUIPMENT
 - ANCHOR BOLT LENGTH MIN. 12\"/>



FOUNDATION DRAIN CLEANOUT
NO SCALE



EQUIPMENT PAD ON PRECAST CONCRETE PLANK
NO SCALE

SYMBOLS LEGEND

0 → GRAIN DIRECTION FOR 1/2" STEEL BAR GRATING

NOTES

1. DIMENSIONS FOR REINFORCING BARS AND REINFORCEMENT SHALL BE AS SHOWN UNLESS NOTED OTHERWISE. ALL BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE. ALL BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE. ALL BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
2. UNLESS NOTED OTHERWISE, ALL BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE. ALL BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
3. TOP OF FOUNDATION WALL EL. 852.7 UNLESS NOTED OTHERWISE. ALL BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
4. REINFORCING BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE. ALL BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
5. GROUT SHALL BE PLACED BETWEEN PRECAST PILES.
6. PROVIDE WALL CONNECTIONS TO MATCH FOUNDATION WALL DETAIL.

KEY NOTES

1. EXTERIOR CONCRETE SLAB, SEE 04A.
2. FOUNDATION WALL WIDTH TO BE EXTENDED TO ACCOMMODATE PRESSURE FILTER SANDSILE SUPPLIER. COORDINATE WITH PRESSURE FILTER SUPPLIER.
3. RFP COVERED GRATING 1/2" WALL COVERED HANDLES AND FEET OF GRATING SHALL BE LONGER THAN 1/2".
4. WALL MOUNTED RFP GRATING SUPPORT.
5. LOADS TO BE 8' ON 12' FOR RFP GRATING.
6. DUE TO PROXIMITY OF THE INTERIOR BOUNDARY TO THE RFP GRATING WALL, PROVIDE 4" TOP OF SOLID FOOTING TO MATCH FINISHED FLOOR, REINFORCING BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
7. IF THICK REINFORCED SLAB WITH 4" TOP OF SOLID FOOTING TO MATCH FINISHED FLOOR, REINFORCING BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
8. CENTER OF WALL BEYOND 1/2" TOP OF SOLID FOOTING TO MATCH FINISHED FLOOR, REINFORCING BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.

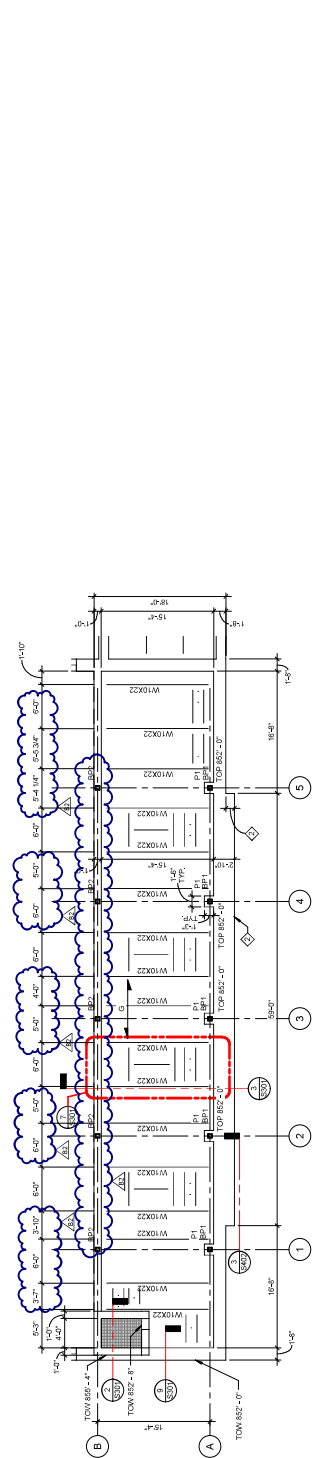


PIER SCHEDULE

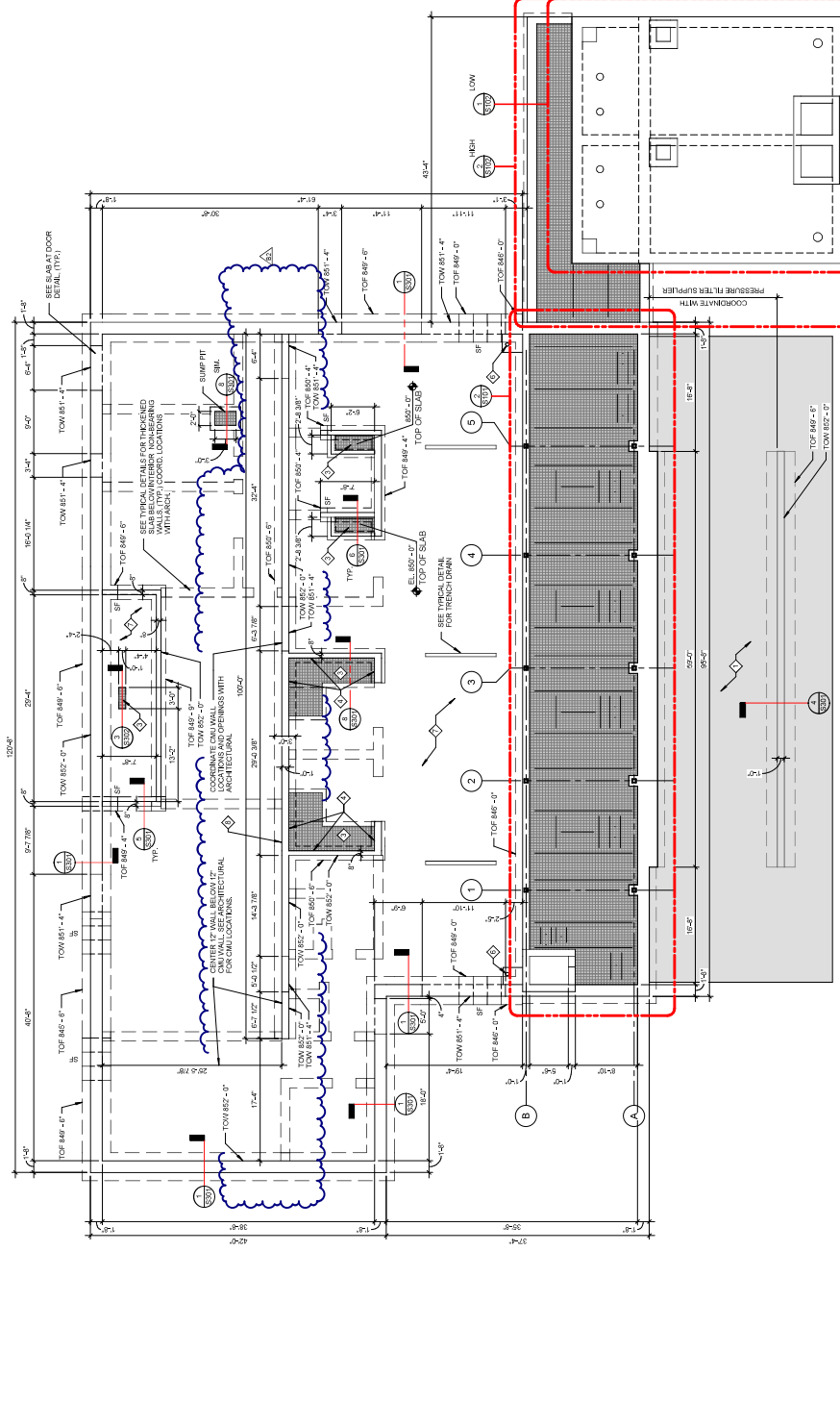
MARK	SIZE (WALL)	REINFORCEMENT	
		VERTICAL	TIES
P1	18"x18"	13.0#	1# SEE TOP DETAIL

REVISIONS
DATE: 08-13-2019 BY: JES/RE/MS

PROJECT NO. 210262
SHEET NO. S101
DRAWN BY: TJB
DESIGNER: TJB
REVIEWER: CDB
MANAGER: CDB
HARD COPY IS REQUIRED FOR CONSTRUCTION. THIS DRAWING SHALL BE USED ONLY WHEN INDICATED AND SHALL BE SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT. NOT BE ACCURATE FOR ANY OTHER PINK.

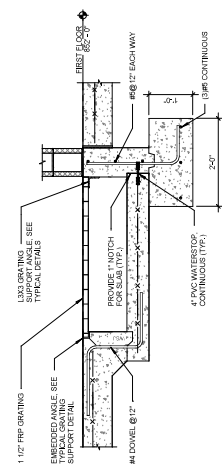


2 PIPE TRENCH GRATING SUPPORT PLAN
SCALE: 1/8" = 1'-0"

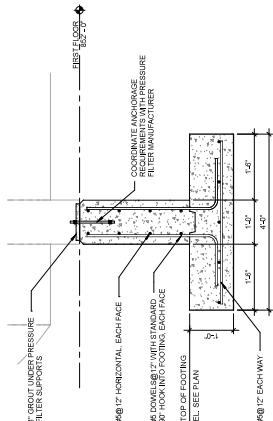


FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

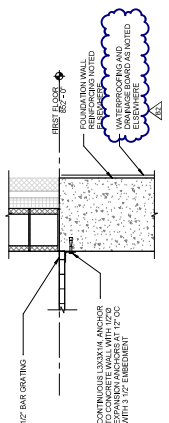




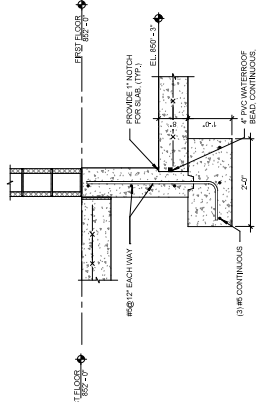
SECTION 8
SCALE: 3/8" = 1'-0"



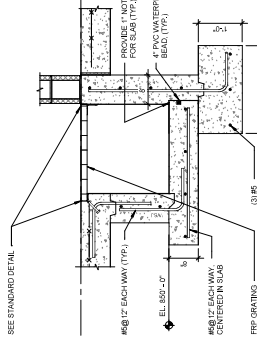
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SCALE: 3/8" = 1'-0"



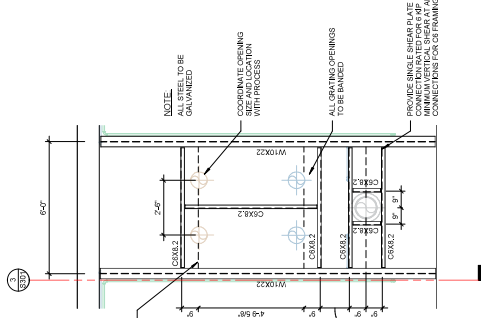
SECTION 9
SCALE: 3/8" = 1'-0"



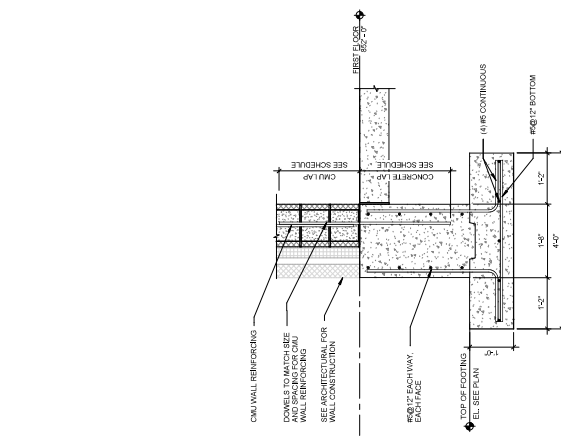
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SCALE: 3/8" = 1'-0"



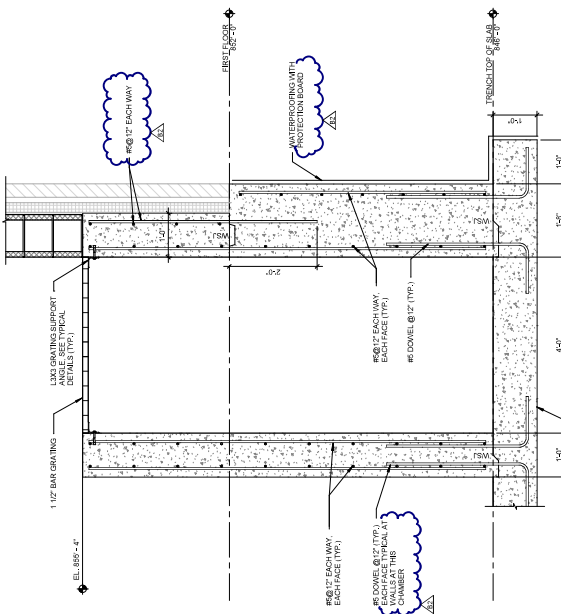
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SCALE: 3/8" = 1'-0"



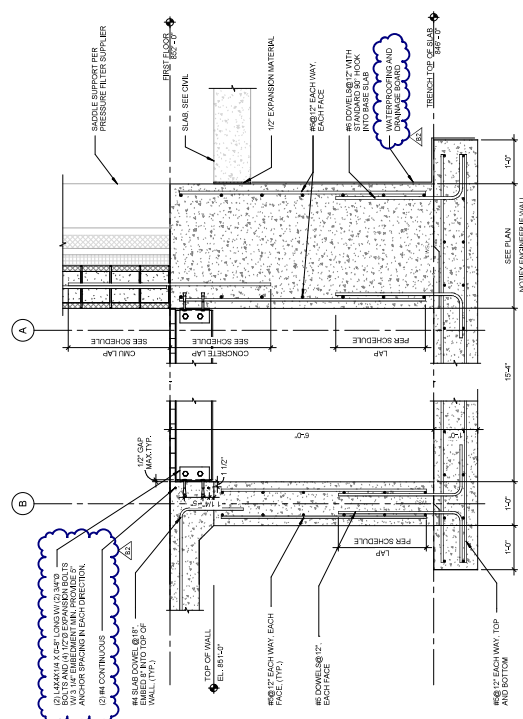
SECTION 7
SCALE: 3/8" = 1'-0"



SECTION 1
SCALE: 3/8" = 1'-0"



SECTION 2
SCALE: 3/8" = 1'-0"



SECTION 3
SCALE: 3/8" = 1'-0"

NOTE: ALL GRATING SHALL BE GALVANNEZED.

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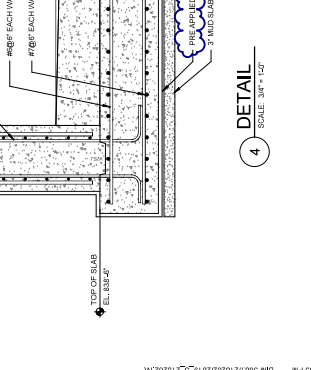
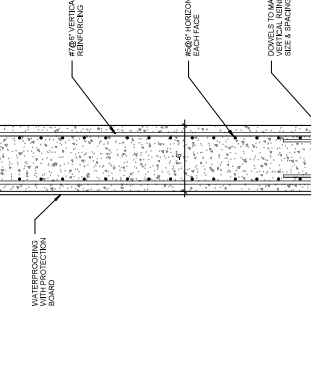
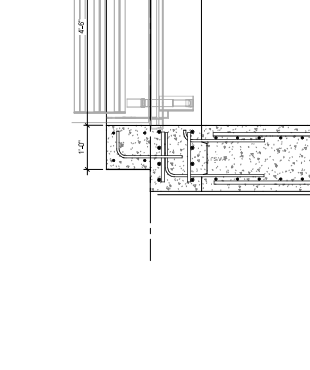
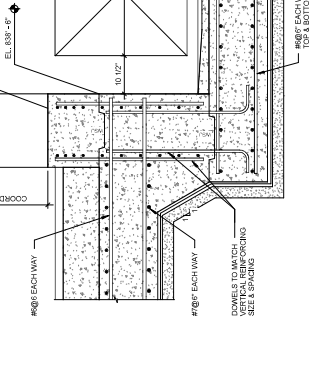
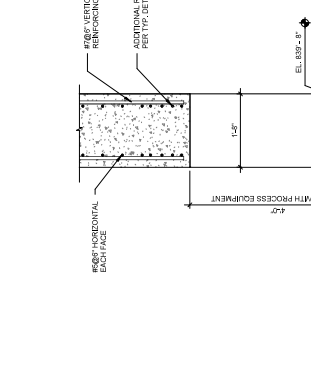
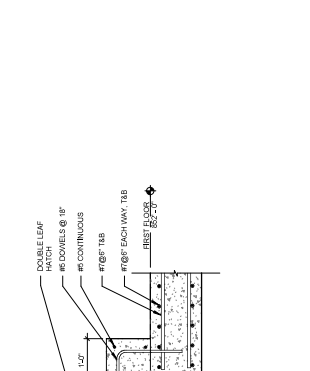
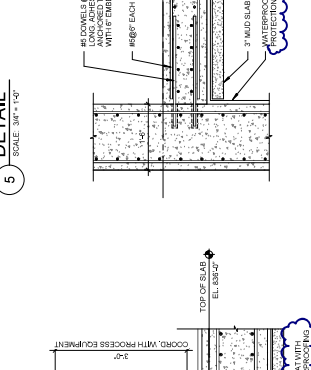
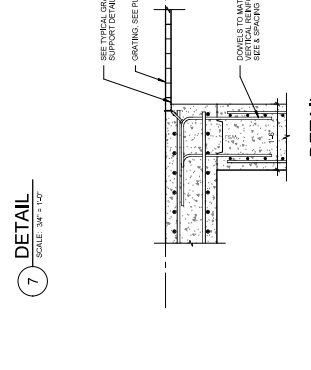
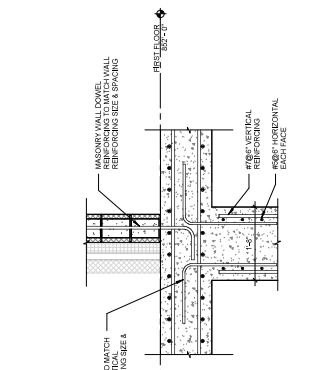
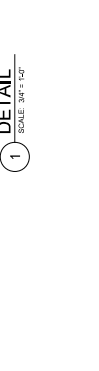
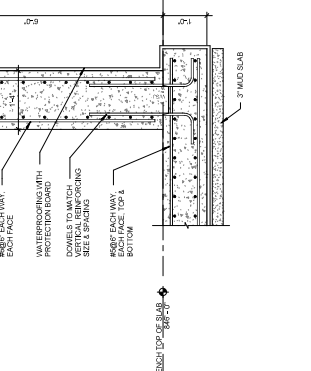
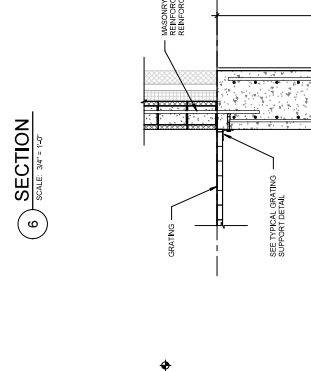
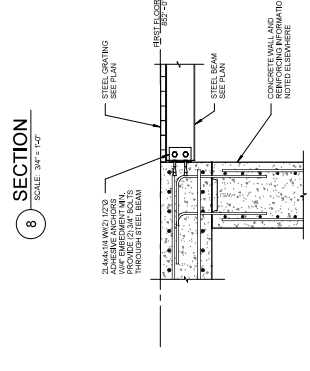
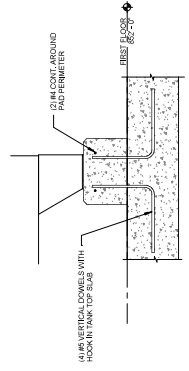
NOTE: ALL GRATING SHALL BE GALVANNEZED.

REVISED	DESCRIPTION

Drawn By: BSM
Designer: TBA
Reviewer: CDS
Manufacturer: CDS

PROJECT NO.
210262
SHEET NO.
S303

DATE PLOTTED: 11/19/2022 10:45 AM



BULLETIN
 PAGE 1 OF 2

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B2
ISSUED HEREWITH:	
	SPECIFICATION SECTIONS: 07 13 00
	SHEETS: S003, S101, S301, S303
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. John Willemin, PE – Fishbeck
<p>The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.</p> <p>This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.</p> <p>Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.</p> <p>Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.</p> <p>Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.</p> <p>Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.</p>	

ITEM NO. 1: Roofing Warranty Change

Sheet: A801 – Roof Plan (not reissued)
 Section: 07 53 23 - "EPDM Thermoset Single-Play Roofing" (not reissued)

A. Roofing to have a 1" Hail Warranty rather than 2" Hail Warranty.

ADD/DEDUCT: \$ (2,120.00)

ITEM NO. 2: Bearing Wall Foundation

Sheet: S101 – Foundation Plan (reissued)

A. Modify turn down slab to be wall foundation as noted.

ADD/DEDUCT: \$ 18,537.26

BULLETIN
PAGE 2 OF 2

ITEM NO. 3: Waterproofing clarifications

Sheet: S101 – Foundation Plan (reissued)
S301 – Sections and Details (reissued)
S303 – Sections and Details (reissued)

Specification: 07 13 00 – Waterproofing (issued)

- A. Clarification added to drawings showing extent of previously noted waterproofing and protection board.
- B. Waterproofing specification issued in response to RFI 3.

ADD \$15,359.50

~~CLARIFICATION~~

ITEM NO. 4: Baseplate Modifications

Sheet: S003 – Typical Details (reissued)
S101 – Foundation Plan (reissued)

- A. Reduce size of baseplates as noted.

ADD/DEDUCT: \$ 425.25

ITEM NO. 5: Modify Pipe Gallery Beam Connection

Sheet: S003 – Typical Details (reissued)
S301 – Sections and Details (reissued)

- A. Modify pipe gallery beam attachments as noted.

ADD/DEDUCT: \$ \$20,544.89

ITEM NO. 6: Modify Steel Reinforcement

Sheet: S301 – Sections and Details (reissued)

- A. Add steel reinforcing as noted.

ADD/DEDUCT: \$ \$819.72

Contractor: RK Davis, Inc.



Signature

Peter C. Elzinga, P.E., Project Manager

Name and Title of Signatory

05/26/2023

Date

END OF BULLETIN

Peter Elzinga

From: Jim Sickles <jsickles@roofinginnovations.com>
Sent: Monday, March 27, 2023 12:05 PM
To: Peter Elzinga
Subject: RE: Grand Ledge Iron Removal Plant

Peter,

If we change the 90 mil to 60 mil EPDM, we can deduct \$2,120.00 from the base bid amount and get 1" hail coverage.

Let me know if you need me to write it up.

Thanks,

Jim Sickles



14500 S. U.S. Hwy. 27, DeWitt, MI 48820

Office: (517) 482-2409

Mobile: (517) 896-3617

Fax: (517) 482-0400

www.roofinginnovations.com



From: Peter Elzinga <pelzinga@rkdavis.us>
Sent: Monday, March 6, 2023 12:43 PM
To: Jim Sickles <jsickles@roofinginnovations.com>
Subject: Grand Ledge Iron Removal Plant

Jim:

This job bid on December 1st and we did not receive any EPDM roofing bids and we'd like to get a quote from you. It's shown on sheet A801 on the right hand side of the page. It 43'-4" x 17'-4".

Make sure you include wage rates.

Please let me know if you need any additional information.

Peter Elzinga, P.E.
RK Davis, Inc.
4457 40th Street SE

Slager Restoration & Sealants, INC.

“WE ARE THE PROFESSIONALS!”

Date: 12/01/2022- Revised 05/18/2023

RE: Grand Ledge Iron Removal Plant
Addendums #1&2 Noted

SRS, Inc. is pleased to provide the following quote:

SCOPE OF WORK

Caulking of the following:

- Hollow metal frames
- Casework
- Countertops/back splashes
- Exterior concrete walks to building only
- Louver perimeters (int/exterior)
- Masonry control joints (Int/ext)
- Masonry rake joints
- Window perimeters (int/ext)

Lump Sum Bid: \$15,485.00

Caulking of the precast core planks to the masonry wall and plank/plank:

Lump Sum Bid: \$1,480.00

Caulking of the gypsum ceiling perimeters to the masonry walls:

Lump Sum Bid: \$5,890.00

Caulking of the pressure filter to the steel plate (int/ext):

Lump Sum Bid: \$3,465.00

Installing of the below grade waterproofing to the foundation walls (detention basin/front wall of process area-based on Carlisle's MriDri 860/861 and a fanfold protection course):

Lump Sum Bid: \$19,385.00 Revised for fanfold and labor

Installing of the below grade waterproofing on underside of floor(on mud slab at detention basin - based on Carlisle's MriClay)

Lump Sum Bid: \$5,675.00 No cost change

If you have any questions, please give me a call.

16011 Hoffman Street
Vandalia, MI 49095

Phone: 269-207-7879
Email:slagclp@yahoo.com

Slager Restoration & Sealants, INC.

“WE ARE THE PROFESSIONALS!”

Date: 12/01/2022

RE: Grand Ledge Iron Removal Plant
Addendums #1&2 Noted

SRS, Inc. is pleased to provide the following quote:

SCOPE OF WORK

Caulking of the following:

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- Masonry rake joints
- Window perimeters (int/ext)

Lump Sum Bid: \$15,485.00

Caulking of the precast core planks to the masonry wall and plank/plank:

Lump Sum Bid: \$1,480.00

Caulking of the gypsum ceiling perimeters to the masonry walls:

Lump Sum Bid: \$5,890.00

Caulking of the pressure filter to the steel plate (int/ext):

Lump Sum Bid: \$3,465.00

Installing of the below grade waterproofing to the foundation walls (detention basin/front wall of process area-based on Carlisle's MriDri 860/861):

Lump Sum Bid: \$15,550.00

Installing of the below grade waterproofing on underside of floor(on mud slab at detention basin - based on Carlisle's MriClay)

Lump Sum Bid: \$5,675.00

If you have any questions, please give me a call.

Sincerely,

Dan Slager

Dan Slager
269-207-7879

16011 Hoffman Street
Vandalia, MI 49095

Phone: 269-207-7879
Email:slagclp@yahoo.com

Peter Elzinga

From: Rob Kaliniak <rob@davisconstruction.us>
Sent: Monday, March 6, 2023 10:26 AM
To: Peter Elzinga
Subject: FW: Grand Ledge Iron Removal Plant
Attachments: grand ledge iron removal.doc

From: slagclp@yahoo.com
Sent: Thursday, December 1, 2022 2:27 PM
To: Rob Kaliniak
Subject: Grand Ledge Iron Removal Plant

Please see attached

Dan Slager
Slager Restoration & Sealants, Inc.
269-207-7879

Advanced Metals

A Division of Perdok Enterprises, Inc.
12958 Christopher Drive
Lowell, Michigan 49331
616-897-7149 Fax 616-897-7465

PROPOSAL

Saturday, May 6, 2023

Mr. Peter Elzinga
RK Davis Construction
4457 40th. Street SE
Kentwood, Michigan 49512

Project: **GRAND LEDGE IRON REMOVAL**
Due: **May 19, 2023**

BULLETIN NO. 2

ITEM NO. 4: Baseplate Modifications.

Sheets: S003 & S101

Breakdown:

Materials	\$	
Detailing	\$400.00	
Total		\$400.00

ITEM NO. 5: Modify Pipe Gallery Beam Connection.

Sheets: S003 & S301

Breakdown:

Materials	\$1320.00	
Fasteners	\$1498.40	
Profit on Above 10%	\$ 281.84	
Fabrication	\$4990.00	
Detailing	\$ 750.00	
Installation	\$8690.00	
Weldments	\$ 701.21	
Tax	\$1093.89	
Total		\$19,325.00

Respectfully Submitted,

H. Michael Perdok
Estimator

Excludes: Testing & Inspections; Mech. Panels; Grout; Power washing & Cleaning of Steel; Installation UNO; AISC Certification; P.E. Stamps; Flashings; Any Steel under 10 Ga. UNO; Bollard Covers, Fasteners for other Trades; Ladder Safety Posts; Temporary Shoring; Demolition; Any Item not Specifically included.

CHANGE ORDER
PAGE 1 OF 1

CONTRACT FOR: City of Grand Ledge Iron Removal Plant
OWNER: City of Grand Ledge
310 Greenwood Street
Grand Ledge, MI 48837
CONTRACTOR RK Davis, Inc.
4457 40th Street, SE
Kentwood, MI 49512
ENGINEER: Fishbeck
1515 Arboretum Drive, SE
Grand Rapids, MI 49546
ATTACHMENTS: Bulletin No. 2 with pricing response from the Contractor.

Contractor shall indicate approval of Change Order through signing of this document and returning to Engineer. Engineer will forward to Owner, who shall indicate approval of Change Order through signing of this document and returning to Engineer. Upon receipt of fully executed (all signatures) Change Order, Engineer will distribute to all parties.

YOU ARE DIRECTED TO MAKE THE FOLLOWING CHANGES IN THE CONTRACT DOCUMENTS:

The following items changing the contract documents were chosen by the Owner from Bulletin 2 for execution:

ITEM NO. 1:

Sheet: A801 – Roof Plan (not reissued)
Section: 07 53 23 - "EPDM Thermoset Single-Play Roofing" (not reissued)
A. Roofing to have a 1" Hail Warranty rather than 2" Hail Warranty.

DEDUCT: \$2,120.00

ITEM NO. 2: Bearing Wall Foundation

Sheet: S101 – Foundation Plan (reissued)
A. Modify turn down slab to be wall foundation as noted.

ADD: \$18,537.26

ITEM NO. 3: Waterproofing clarifications

Sheet: S101 – Foundation Plan (reissued)
S301 – Sections and Details (reissued)
S303 – Sections and Details (reissued)
Section: 07 13 00 – Waterproofing (issued)
A. Clarification added to drawings showing extent of previously noted waterproofing and protection board.
B. Waterproofing specification issued in response to RFI 3.

ADD: \$15,359.50

ITEM NO. 4: Baseplate Modifications

Sheet: S003 – Typical Details (reissued)
S101 – Foundation Plan (reissued)
A. Reduce size of baseplates as noted.

NO COST CHANGE

CHANGE ORDER
PAGE 2 OF 1

ITEM NO. 5: Modify Pipe Gallery Beam Connection
Sheet: S003 – Typical Details (reissued)
S301 – Sections and Details (reissued)

A. Modify pipe gallery beam attachments as noted.

ADD: \$20,544.89

ITEM NO. 6: Modify Steel Reinforcement
Sheet: S301 – Sections and Details (reissued)

A. Add steel reinforcing as noted.

ADD: \$819.72

CHANGE IN CONTRACT PRICE:

CHANGE IN CONTRACT TIMES: N/A

Original Contract Price:

Original Contract time: March 7, 2023

\$17,338,148

Substantial Completion: January 16, 2025

Ready for final payment: February 17, 2025

Previous Change Order No.: 1

Net change from previous Change Orders:

(\$214,900)

0 Days

Contract Price prior to this Change Order:

Contract Time prior to this Change Order:

\$17,123,248

Substantial Completion: January 16, 2025

Ready for final payment: February 17, 2025

Net increase of this Change Order:

Net change of this Change Order:

\$53,141.37

0 Days

Contract Price with all approved Change Orders:

Contract Time with all approved Change Orders:

\$17,176,389.37

Substantial Completion: January 16, 2025

Ready for final payment: February 17, 2025

RECOMMENDED

APPROVED

APPROVED

By: 
Engineer

By: _____
Contractor

By: _____
Owner

Colin G. McCorkle, PE,
Sr. Water/Wastewater Engineer

Name and Title of Signatory

Name and Title of Signatory

Date: June 19, 2023

Date: _____

Date: _____

END OF CHANGE ORDER

BULLETIN
 PAGE 1 OF 2

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B2
ISSUED HEREWITH:	
	SPECIFICATION SECTIONS: 07 13 00
	SHEETS: S003, S101, S301, S303
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. John Willemin, PE – Fishbeck
<p>The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.</p> <p>This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed. Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.</p> <p>Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.</p> <p>Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.</p> <p>Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.</p>	

ITEM NO. 1: Roofing Warranty Change

Sheet: A801 – Roof Plan (not reissued)
 Section: 07 53 23 - "EPDM Thermoset Single-Play Roofing" (not reissued)

A. Roofing to have a 1" Hail Warranty rather than 2" Hail Warranty.

ADD/DEDUCT: \$ (2,120.00)

ITEM NO. 2: Bearing Wall Foundation

Sheet: S101 – Foundation Plan (reissued)

A. Modify turn down slab to be wall foundation as noted.

ADD/DEDUCT: \$ 18,537.26

BULLETIN
PAGE 2 OF 2

ITEM NO. 3: Waterproofing clarifications

Sheet: S101 – Foundation Plan (reissued)
S301 – Sections and Details (reissued)
S303 – Sections and Details (reissued)

Specification: 07 13 00 – Waterproofing (issued)

- A. Clarification added to drawings showing extent of previously noted waterproofing and protection board.
- B. Waterproofing specification issued in response to RFI 3.

ADD \$15,359.50

~~CLARIFICATION~~

ITEM NO. 4: Baseplate Modifications

Sheet: S003 – Typical Details (reissued)
S101 – Foundation Plan (reissued)

- A. Reduce size of baseplates as noted.

ADD/DEDUCT: \$ 0.00

ITEM NO. 5: Modify Pipe Gallery Beam Connection

Sheet: S003 – Typical Details (reissued)
S301 – Sections and Details (reissued)

- A. Modify pipe gallery beam attachments as noted.

ADD/DEDUCT: \$ \$20,544.89

ITEM NO. 6: Modify Steel Reinforcement

Sheet: S301 – Sections and Details (reissued)

- A. Add steel reinforcing as noted.

ADD/DEDUCT: \$ \$819.72

Contractor: RK Davis, Inc.



Signature

Peter C. Elzinga, P.E., Project Manager

Name and Title of Signatory

06/16/2023

Date

END OF BULLETIN

Peter Elzinga

From: Jim Sickles <jsickles@roofinginnovations.com>
Sent: Monday, March 27, 2023 12:05 PM
To: Peter Elzinga
Subject: RE: Grand Ledge Iron Removal Plant

Peter,

If we change the 90 mil to 60 mil EPDM, we can deduct \$2,120.00 from the base bid amount and get 1" hail coverage.

Let me know if you need me to write it up.

Thanks,

Jim Sickles



14500 S. U.S. Hwy. 27, DeWitt, MI 48820

Office: (517) 482-2409

Mobile: (517) 896-3617

Fax: (517) 482-0400

www.roofinginnovations.com



From: Peter Elzinga <pelzinga@rkdavis.us>
Sent: Monday, March 6, 2023 12:43 PM
To: Jim Sickles <jsickles@roofinginnovations.com>
Subject: Grand Ledge Iron Removal Plant

Jim:

This job bid on December 1st and we did not receive any EPDM roofing bids and we'd like to get a quote from you. It's shown on sheet A801 on the right hand side of the page. It 43'-4" x 17'-4".

Make sure you include wage rates.

Please let me know if you need any additional information.

Peter Elzinga, P.E.

RK Davis, Inc.

4457 40th Street SE

Slager Restoration & Sealants, INC.

“WE ARE THE PROFESSIONALS!”

Date: 12/01/2022- Revised 05/18/2023

RE: Grand Ledge Iron Removal Plant
Addendums #1&2 Noted

SRS, Inc. is pleased to provide the following quote:

SCOPE OF WORK

Caulking of the following:

- Hollow metal frames
- Casework
- Countertops/back splashes
- Exterior concrete walks to building only
- Louver perimeters (int/exterior)
- Masonry control joints (Int/ext)
- Masonry rake joints
- Window perimeters (int/ext)

Lump Sum Bid: \$15,485.00

Caulking of the precast core planks to the masonry wall and plank/plank:

Lump Sum Bid: \$1,480.00

Caulking of the gypsum ceiling perimeters to the masonry walls:

Lump Sum Bid: \$5,890.00

Caulking of the pressure filter to the steel plate (int/ext):

Lump Sum Bid: \$3,465.00

Installing of the below grade waterproofing to the foundation walls (detention basin/front wall of process area-based on Carlisle's MriDri 860/861 and a fanfold protection course):

Lump Sum Bid: \$19,385.00 Revised for fanfold and labor

Installing of the below grade waterproofing on underside of floor(on mud slab at detention basin - based on Carlisle's MriClay)

Lump Sum Bid: \$5,675.00 No cost change

If you have any questions, please give me a call.

16011 Hoffman Street
Vandalia, MI 49095

Phone: 269-207-7879
Email:slagclp@yahoo.com

Slager Restoration & Sealants, INC.

“WE ARE THE PROFESSIONALS!”

Date: 12/01/2022

RE: Grand Ledge Iron Removal Plant
Addendums #1&2 Noted

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If you have any questions, please give me a call.

Sincerely,

Dan Slager

Dan Slager
269-207-7879

16011 Hoffman Street
Vandalia, MI 49095

Phone: 269-207-7879
Email:slagclp@yahoo.com

Peter Elzinga

From: Rob Kaliniak <rob@davisconstruction.us>
Sent: Monday, March 6, 2023 10:26 AM
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Subject: FW: Grand Ledge Iron Removal Plant
Attachments: grand ledge iron removal.doc

From: slagclp@yahoo.com

Sent: Thursday, December 1, 2022 2:27 PM

To: Rob Kaliniak

Subject: Grand Ledge Iron Removal Plant

Please see attached

Dan Slager
Slager Restoration & Sealants, Inc.
269-207-7879

Advanced Metals

A Division of Perdok Enterprises, Inc.
12958 Christopher Drive
Lowell, Michigan 49331
616-897-7149 Fax 616-897-7465

PROPOSAL

Saturday, May 6, 2023

Mr. Peter Elzinga
RK Davis Construction
4457 40th. Street SE
Kentwood, Michigan 49512

Project: **GRAND LEDGE IRON REMOVAL**
Due: **May 19, 2023**

BULLETIN NO. 2

ITEM NO. 4: Baseplate Modifications.

Sheets: S003 & S101

Breakdown:

Materials	\$	
Detailing	\$400.00	
Total		\$400.00

ITEM NO. 5: Modify Pipe Gallery Beam Connection.

Sheets: S003 & S301

Breakdown:

Materials	\$1320.00	
Fasteners	\$1498.40	
Profit on Above 10%	\$ 281.84	
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Detailing	\$ 750.00	
Installation	\$8690.00	
Weldments	\$ 701.21	
Tax	\$1093.89	
Total		\$19,325.00

Respectfully Submitted,

H. Michael Perdok
Estimator

Excludes: Testing & Inspections; Mech. Panels; Grout; Power washing & Cleaning of Steel; Installation UNO; AISC Certification; P.E. Stamps; Flashings; Any Steel under 10 Ga. UNO; Bollard Covers, Fasteners for other Trades; Ladder Safety Posts; Temporary Shoring; Demolition; Any Item not Specifically included.

Grand Ledge City Council Resolution # _____ of 2023

A Resolution to Approve Changer Order No. 3 to the Iron Removal Facility Project.

A resolution adopted by the Grand Ledge City Council, at a regular meeting held on Monday, 26 June 2023, in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

Whereas, the City of Grand Ledge, Michigan (“City”) is a municipal corporation organized under the provisions of the Home Rule City Act, Public Act 279 of 1909, as amended, and is governed by the provisions of the Grand Ledge City Charter adopted 07 August 2018, as amended (“Charter”); and

Whereas, Charter §13.1A provides:

“The power to make and to authorize the making of contracts on behalf of the City is vested in the City Council and shall be exercised in accordance with the provisions of law”; and

Whereas, the City previously approved a proposal and authorized a contract for construction services for the Iron Removal Facility Project from Fishbeck; and

Whereas, Fishbeck has submitted Change Order No. 3 for the Iron Removal Facility Project;

Now, Therefore, It Is Resolved:

1. The City approves Changer Order No. 3 to the Iron Removal Facility Project, as attached.
2. The City directs the City Manager and Finance Director / Treasurer to appropriate the funds necessary to implement said change order.
3. The City Manager, or their duly authorized agent or representative, is authorized and directed to implement said change order on behalf of the City; to do any other act(s) or thing(s) which shall be necessary to implement said change order on behalf of the City; to preserve and protect the rights, duties and obligations of the City thereunder; and to do any act or thing required by statute, Charter, ordinance, rule, regulation or other provision of law in order to implement said change order.

Motion by

Second by

Ayes:

Nays:

Absent:

Approved:

Keith O. Mulder, Mayor

I, Gregory L. Newman, Grand Ledge City Clerk, certify this is Resolution #_____ of 2023, adopted by the Grand Ledge City Council at a regular meeting held on Monday, 26 June 2023; in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

Gregory L. Newman, City Clerk

June 20, 2023
Project No. 210262

Adam Smith
City Manager
City of Grand Ledge
310 Greenwood Street
Grand Ledge, MI 48837

Bulletin 3 – City of Grand Ledge Iron Removal Plant, Description, and Impact

The following is a description of the items for Bulletin 3 of the Grand Ledge Iron Removal Plant Project:

Contract Modifications from Bulletin

- Original Contract Price – \$17,338,148
- Contract Price following previous Bulletins – \$17,176,389.37
- Modification to Contract Price through Bulletin 3 – \$14,477.84
- Modification to Contract Price from all Bulletins – (\$147,280,79)
- Revised Contract Price – \$17,190,867.21

Table 1 – Bulletin 3 Monetary Impact Breakdown

Item No.	Item Description	Contract Modification	Cumulative Contract Price
1	Lower Grading and Structure Elevations in the Stormwater Detention Basins (NOT SELECTED)	\$0.00	\$17,176,389.37
2	Louver Size Increase, Damper Size Changes, and Location Changes	\$1,782.00	\$17,178,171.37
3	EF-114 and EF-103 Fan Locations	\$0.00	\$17,178,171.37
4	Schedule Corrections	\$0.00	\$17,178,171.37
5	Fan Controller Note Added	\$0.00	\$17,178,171.37
6	Louver Relocations	\$0.00	\$17,178,171.37
7	EF-113-2 Electrical Changes	\$12,695.84	\$17,190,867.21
8	Masonry Openings for Louvers in Exterior Walls	\$0.00	\$17,190,867.21

Narrative Description of Bulletin

Bulletin 3 included mechanical items from review of detailed shop drawings and a civil item for revision of the Outlet Control Structures which will not be accepted but will be revised in Bulletin 4.

The items are as follows:

ITEM NO. 1

- Lower Grading and Structure Elevations in the Stormwater Detention Basins
 - The Outlet Control Structures were called out too tall for the Detention Basins. A proposed solution was to excavate an additional foot of materials from the basins. However, this approach is more expensive than purchasing new structures. Therefore, this item is not applicable, and the purchase of new structures will be addressed in Bulletin 4.

ITEM NO. 2

- Louver Size Increase, Damper Size, and Location Change
 - Louver and Damper sizes were adjusted based on review of shop drawings. These changes were deemed necessary to meet the relevant Mechanical Code requirements by the Mechanical Engineer.

ITEM NO. 3

- Switch positions of EF-114 and EF-103
 - Modified the position of the exhaust fans for the Mechanical/Electrical Room and Bathroom. This was a clarification made through shop drawing review.

ITEM NO. 4

- Schedule Corrections
 - These were corrections made to a Damper and Louver Schedule for clarification.

ITEM NO. 5

- Note added to locate fan controllers outside of corrosive rooms
 - This is a clarification for the Contractor.

ITEM NO. 6

- Louver Relocations
 - This is a clarification of the elevation of the louvers along the exterior wall.

ITEM NO. 7

- EF-113-2 changed from 120 Volt single phase power to 460 Volt three phase power
 - The size of the exhaust fan necessitated the change from 120V to 460V power at the recommendation of the Electrical Engineer. This resulted in the need to upsize all the electrical equipment upstream of the Exhaust Fan, which represents the majority of the cost in this change.

ITEM NO. 8

- Masonry Openings for Louvers
 - This was a further clarification of the elevation of louvers.

Impact to Project

The items within this Bulletin were mainly clarifications on the HVAC equipment with some louver size changes and the modification of power to EF-113-2 resulting in additional cost to the project. These changes are necessary to meet Mechanical Code requirements.

If you have any questions or require additional information, please contact me at 616.464.3825 or cmccorkle@fishbeck.com.

Sincerely,



Colin G. McCorkle, PE

Senior Water and Wastewater Engineer

Attachments

By email

Copy: Dave Pawley – City of Grand Ledge
Kurt Ristow – City of Grand Ledge
Dave Baar, PE – Fishbeck
John Willemin, PE – Fishbeck

BULLETIN
PAGE 1 OF 3

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B3
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	N/A
SHEETS:	C301, C401, C502, A301, M501, M701, M901, E201, E401, E504, E601
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Phil Parker – E.T. Mackenzie Jodie Ross, PE – Fishbeck John Willemin, PE – Fishbeck
<p>The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.</p> <p>This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.</p> <p>Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.</p> <p>Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.</p> <p>Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.</p> <p>Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.</p>	

BULLETIN
PAGE 2 OF 3

ITEM NO. 1: Grading Modifications to accommodate Outlet Control Structures

Sheet: C301 – Site Grading Plan (reissued)
C401 – Sit Utility Plan (reissued)
C502 – Details (reissued)

- A. Lower Grading and Structure Elevations in the Detention Basins.
- B. Adjust grading on South Detention Pond to expand further north and increase north Side Slope to 4:1.
- C. Update Outlet Control Structure Detail Elevations to match new Grading.
- D. Add Swale with Riprap for pond Drainage and add standard detail.

ADD/DEDUCT: \$ _____

ITEM NO. 2: Louver size increase, damper size, and location change

Sheet: M701 – Sections (reissued)
M901 – Schedules (reissued)

- A. Louver L-114I increased from 40x24 to 40x40.
- B. Louver L-112I increased from 32x32 to 32x40.
- C. Louver L-110I decreased from 76x24 to 70x20.
- D. Damper MD-112I increased from 32x12 to 32x24
- E. Damper MD-114I increased from 40x16 to 40x32
- F. Damper MD-BLWRI decreased from 32x20 to 32x16
- G. Damper MD-110I-1 decreased from 66x24 to 61x20
- H. Switch locations of MD-BCI and MD-114I within louver L-114I

ADD/DEDUCT: \$ _____

ITEM NO. 3: EF-114 and EF-103 Fan Locations

Sheet: M501 – First Floor Mechanical Sheet Metal Plan (reissued)
M701 – Sections (reissued)

- A. Switch positions of EF-114 and EF-103 and associated dampers within louver.
- B. Increase EF-103 ductwork size.

ADD/DEDUCT: \$ _____

ITEM NO. 4: Schedule Corrections

Sheet: M901 – Schedules (reissued)

- A. Motorized Damper Schedule:
 - 1. MD-110E-1 changed from 470 to 2415 CFM
 - 2. MD-110I-1 changed from 470 to 2415 CFM
 - 3. MD-110E-2 changed from 470 to 75 CFM
 - 4. MD-110I-2 changed from 470 to 75 CFM
 - 5. MD-112E changed from 300 to 780 CFM
 - 6. MD-113I changed from 900 to 990 CFM
 - 7. Corrected MD-103E and MD-114E tags. Tags were erroneously swapped.
 - 8. Fixed damper location graphics.
- B. Louver Schedule:
 - 1. L-110E changed from 2415 to 2490 CFM
 - 2. L-110I changed from 2415 to 2490 CFM
 - 3. L-112E changed from 300 to 780 CFM
 - 4. L-113E changed from 900 to 990 CFM
 - 5. L-113I changed from 900 to 990 CFM

CLARIFICATION

ITEM NO. 5: Fan Controller note added

Sheet: M901 – Schedules (reissued)

- A. Note added to locate fan controllers outside of corrosive rooms.

CLARIFICATION

BULLETIN
PAGE 3 OF 3

ITEM NO. 6: Louver Relocations

Sheet: M501 – First Floor Mechanical Sheet Plan (reissued)

- A. L-110I relocated per Keynote 23.
- B. L-114I relocated to 11'4" AFF
- C. L-114E relocated to 11'4" AFF

CLARIFICATION

ITEM NO. 7: EF-113-2 Electrical Changes

Sheet: M901 – Schedules (reissued)
E201 – Power Plans (reissued)
E401 – One Line Diagram (reissued)
E504 – Wiring Diagrams (reissued)
E601 – Panelboard Schedules (reissued)

- A. EF-113-2 changed from 120/1 to 460 voltage/3 phase.

ADD/DEDUCT: \$ _____

ITEM NO. 8: Masonry Openings for Louvers in Exterior Walls Revised for Coordination with Louver Changes.

Sheet: A301 – Exterior Elevations (reissued)

CLARIFICATION

Contractor:

Signature

Name and Title of Signatory

Date

END OF BULLETIN

BENCH MARKS

BENCH MARK A ELEVATION: 848.36
 FOUND INLANDS SPIKE IN NORTHWEST FACE OF
 WEST SIDE OF INTERSECTION OF
 AND 13 FEET WEST OF WATER TREATMENT PLANT
 DRIVEWAY

BENCH MARK B ELEVATION: 853.53
 FOUND INLANDS SPIKE IN WEST SIDE OF
 INTERSECTION OF WEST SIDE OF
 HUNTING LANE AND WEST SIDE OF
 INTERSECTION OF EASTERN ROAD DRIVEWAY
 OF MISCELL SITE

BENCH MARK C ELEVATION: 857.27
 FOUND INLANDS SPIKE IN WEST SIDE OF
 ROAD LOCATED EAST OF DRIVE AND WEST OF
 SOUTH SIDE CORNER OF BUILDING NEAR CENTER OF
 INTERSECTION OF EASTERN ROAD DRIVEWAY
 OF MISCELL SITE

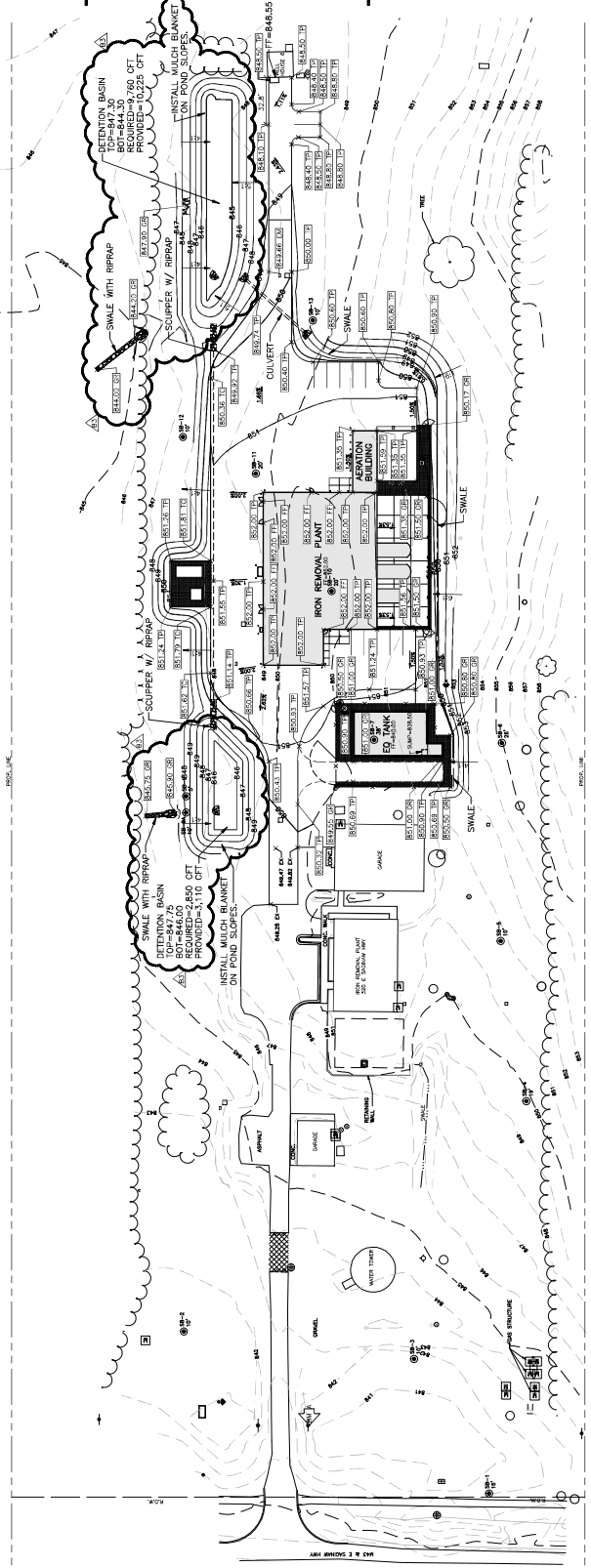
BENCH MARK D ELEVATION: 856.27
 FOUND INLANDS SPIKE IN WEST SIDE OF
 12" DIA. CULVERT EAST OF DRIVE OF
 INTERSECTION OF EASTERN ROAD DRIVEWAY
 OF MISCELL SITE NEAR NORTHWEST
 CORNER OF SURVEY AREA

SYMBOL LEGEND

- 706 EXISTING MAJOR CONTOUR
- 706 EXISTING MAJOR CONTOUR
- 723 PROPOSED MAJOR CONTOUR
- 724 PROPOSED MAJOR CONTOUR
- (L) LANDING (2% MAX. SLOPE ALL DIRECTIONS)
- (R) RAMP
- (2)24.5(2)24.5 SPIRT ELEVATION
- EM EDGE OF METAL
- EM EDGE OF METAL
- FF FINISH FLOOR
- GP GUTTER PAN
- GP GUTTER PAN
- HP HIGH POINT
- LP LOW POINT
- TC TOP OF CURB
- TP TOP OF PAVEMENT
- TM TOP OF WALL

NOTES

1. FINISH GRADE OF SOIL EDGES AND PAVEMENT TO MATCH EDGE OF PAVEMENT.
2. STOP AND STORABLE TYPICAL FROM GRADING AREAS. USE EXISTING GRADE UNLESS OTHERWISE NOTED AS REVISION FOR SURFACE RESTORATION.
3. GRADING SHALL BE ACCORDANT WITH ALL APPLICABLE REGULATIONS AND STANDARDS OF THE LOCAL GOVERNMENT AND THE DEPARTMENT OF TRANSPORTATION.
4. DISCONTINUOUS AREAS NOT TO EXCEED 2:00 SLOPE IN ALL ADJACENT AREAS.
5. GRASS AREAS AT SITE PERIMETER TO MATCH GRASSES OF ADJACENT PARCELS.
6. PROVIDE TEMPORARY GRADING FEATURES SUCH AS BERM, SWALE, AND CURB TO MAINTAIN PROTECTION OF PROPERTIES IN ACCORDANCE WITH APPLICABLE REGULATIONS.
7. PROVIDE TEMPORARY GRADING FEATURES SUCH AS BERM, SWALE, AND CURB TO MAINTAIN PROTECTION OF PROPERTIES IN ACCORDANCE WITH APPLICABLE REGULATIONS. TEMPORARY GRADING SHALL BE ACCORDANT WITH ALL APPLICABLE REGULATIONS AND STANDARDS OF THE LOCAL GOVERNMENT AND THE DEPARTMENT OF TRANSPORTATION.



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 1-800-487-7171
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BENCH MARKS

- BENCH MARK A ELEVATION: 843.56
 FOUND BOUNDARY CORNER IN NORTHWEST CORNER OF
 13.5 FEET WEST OF WALKWAY TREATMENT PLANT
- BENCH MARK B ELEVATION: 843.31
 CENTERLINE X ON WESTERN FLANGE, 20' 20"
 SOUTHWEST CORNER OF BUILDING NEAR CENTER
 OF WALKWAY
- BENCH MARK C ELEVATION: 843.71
 12" F.E.S. ON SOUTHWEST SIDE OF WALKWAY, 10' 00"
 FROM SOUTHWEST CORNER OF BUILDING NEAR CENTER
 OF WALKWAY
- BENCH MARK D ELEVATION: 846.27
 12" CMP CULVERT, EAST END OF PILE ON
 CORNER OF SURVEY AREA, 100' NORTHWEST
 CORNER OF SURVEY AREA

SYMBOL LEGEND

- 8" SAN SAWHAY SEWER & MANHOLE
- WYE & LEAD
- RISER & LEAD
- STANDARD SINKER CLEANOUT
- BACKSIPHON WASTE
- 12" STORM
- STORM SEWER & MANHOLE
- CATCH BASIN
- UNDERDRAIN
- POPPABLE WETWATER MAN
- RAW WATER MAN
- WAVE & BOX
- VALVE & CHAMBER
- METER
- PLUS
- STANDARD FIVE VELOCITY ASSURANCE
- CURB STOP & BOX
- GAS MAN
- ELECTRIC
- TELEPHONE/FIBER OPTIC

NOTES

1. EXISTING UTILITIES LOCATIONS SHOWN ARE APPROXIMATE.
2. VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES BY FIELD SURVEY.
3. PROTECT AND MAINTAIN SERVICE OF EXISTING UTILITIES AT ALL TIMES.
4. DO NOT COMMIT TO ANY WORK TO PUMPATION EXCEPT AS SHOWN ON THIS PLAN.
5. END SECTIONS ARE INCLUDED IN PIPE LENGTHS SHOWN.
6. PROVIDE RAMP AT ALL END SECTIONS UNLESS OTHERWISE NOTED.
7. PROVIDE MINIMUM 1% SLOPE AT ALL SLOTTED BASKIN INLET MANHOLES.
8. STORM SEWER PIPING TO BE RCP UNLESS OTHERWISE NOTED.
9. WATER MAIN TO HAVE A MINIMUM OF 3.0 FEET OF COVER, UNLESS OTHERWISE NOTED.
10. FIRE HYDRANTS LOCATED IN CURB ISLAND OR OPEN SPACE SHALL BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT (TYP.).
11. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE BETWEEN THE WATER MAIN AND ALL SANITARY AND STORM SEWERS.
12. PLACE NOTICES OF SITE FIRE HYDRANTS TOWARD BUILDING, UNLESS OTHERWISE NOTED.
13. ADJUST ALL GROUNDING SYSTEMS TO MEET ALL LOCAL CODES.
14. VERIFY ALL ELECTRICAL LOADS, TRANSFORMERS, TRANSFORMER, SWITCHGEAR, AND RECORDING STATION.

NO.	DATE	DESCRIPTION
1	10/20/23	ISSUED FOR PERMIT
2	10/20/23	ISSUED FOR PERMIT
3	10/20/23	ISSUED FOR PERMIT
4	10/20/23	ISSUED FOR PERMIT
5	10/20/23	ISSUED FOR PERMIT
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17	10/20/23	ISSUED FOR PERMIT
18	10/20/23	ISSUED FOR PERMIT
19	10/20/23	ISSUED FOR PERMIT
20	10/20/23	ISSUED FOR PERMIT

REVISIONS

Drawn By: []
 Designer: []
 Reviewer: []
 Manager: []

PROJECT INFO

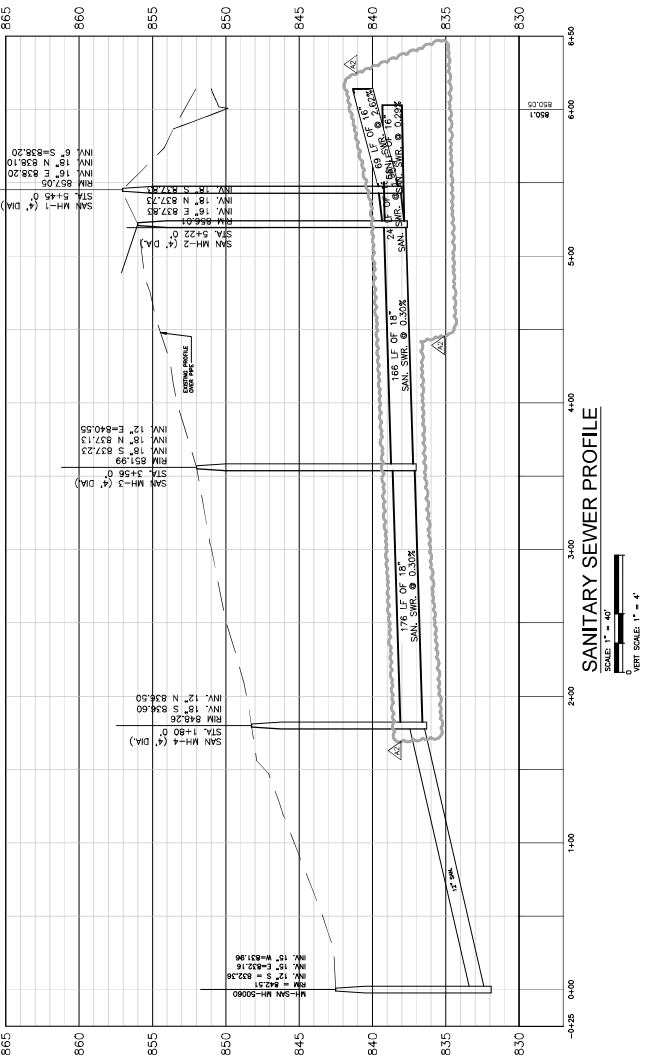
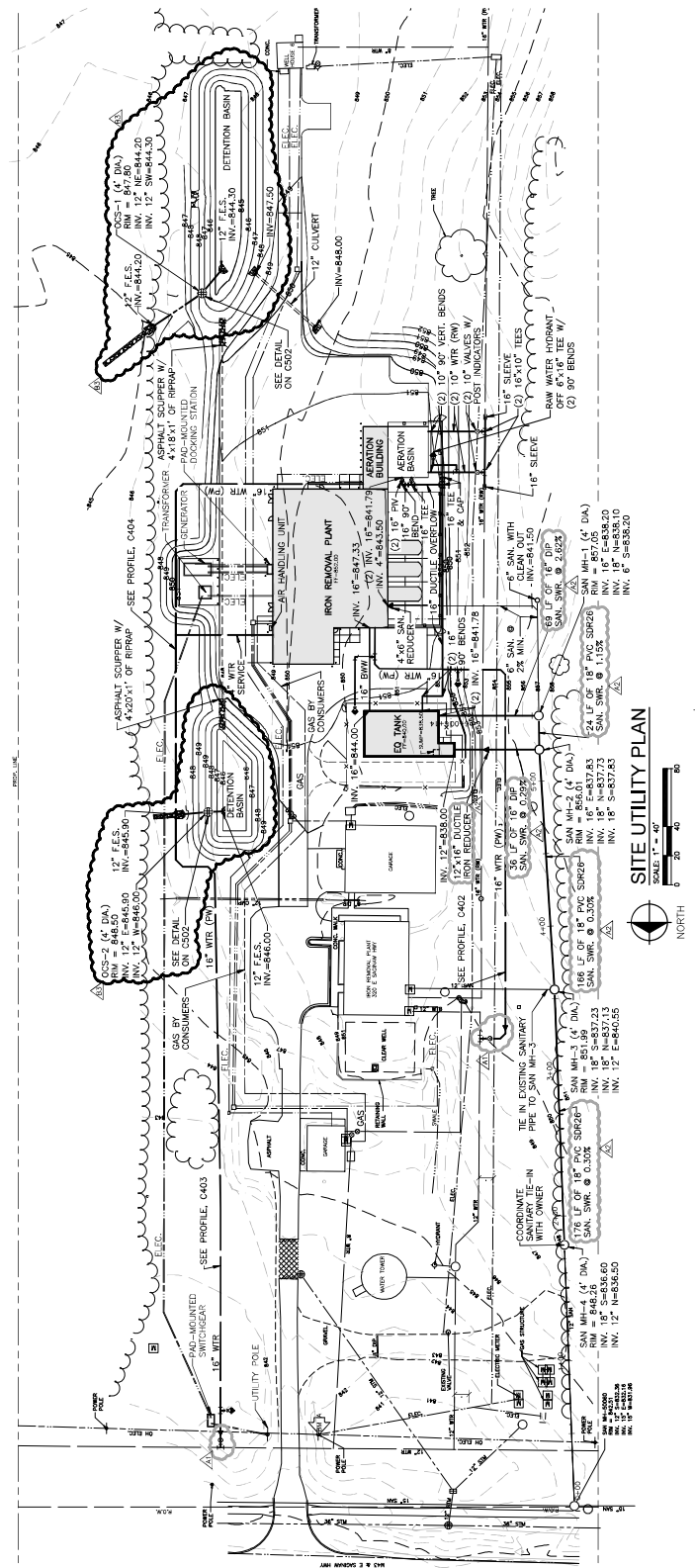
PROJECT NO. 210282
 SHEET NO. C401

City of Grand Ledge
 Eaton County, Michigan

Iron Removal Plant

C401

DATE PLOTTED: 10/20/23
 PLOT BY: []

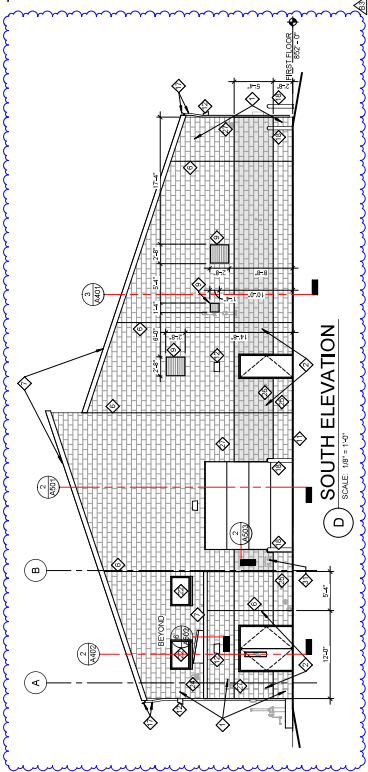


GENERAL NOTES

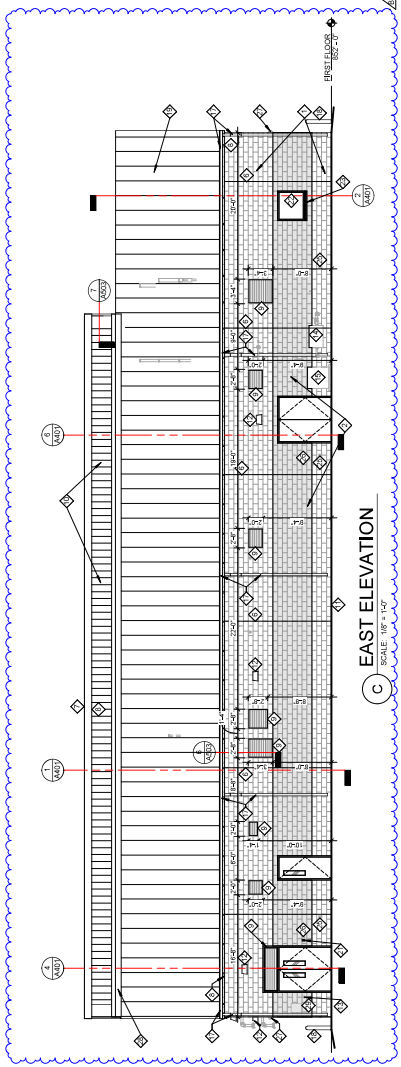
1. REFER TO ARCHITECTURAL SPECIFICATIONS WITH THE SHIP FACE GROUT VENEER AND TO BE INSTALLED IN SMOOTH FACE GROUT VENEER WITH INTEGRAL COLOR. DO NOT EXPOSE JOINTS HORIZONTALLY OR VERTICALLY.

KEY NOTES

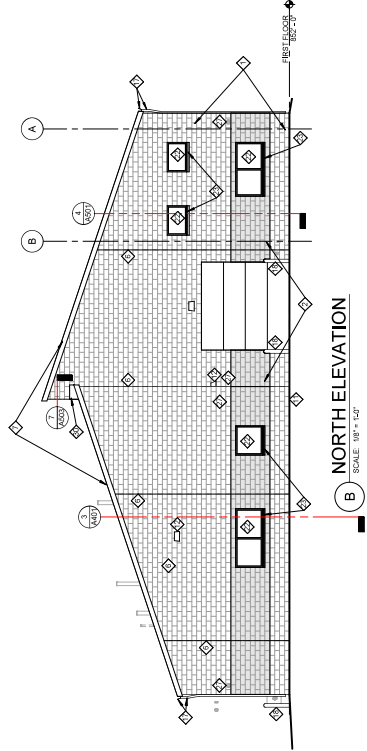
1. CMU 1/2 SMOOTH FACE CMU VENEER WITH INTEGRAL COLOR TC.
2. CMU 1/2 SMOOTH FACE CMU VENEER WITH INTEGRAL COLOR 2 (SHOWN SHADING).
3. CMU 1/2 SMOOTH FACE CMU VENEER WITH INTEGRAL COLOR 3 (SHOWN SHADING).
4. CMU 1/2 SMOOTH FACE CMU VENEER WITH INTEGRAL COLOR 4 (SHOWN SHADING).
5. CMU 1/2 SMOOTH FACE CMU VENEER WITH INTEGRAL COLOR 5 (SHOWN SHADING).
6. CONTROL JOINT: REFER TO DETAIL 25400.
7. MECHANICAL: REFER TO DETAIL 25400.
8. MECHANICAL: REFER TO DETAIL 25400.
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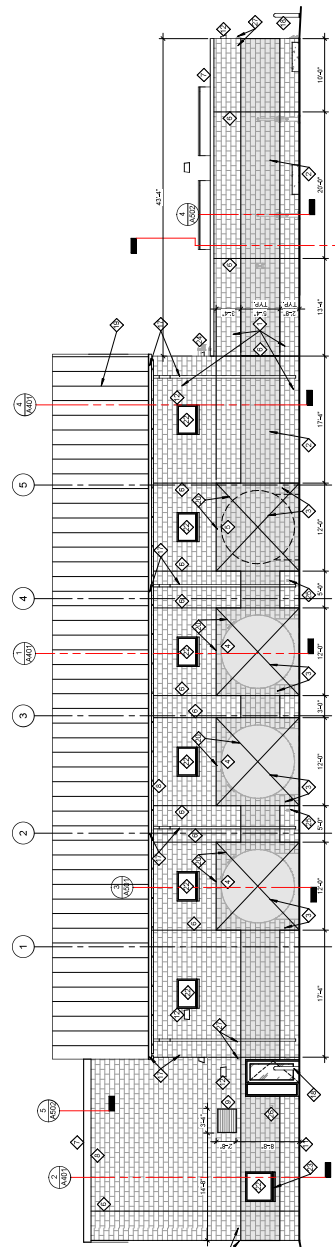
SOUTH ELEVATION
 SCALE: 1/8" = 1'-0"



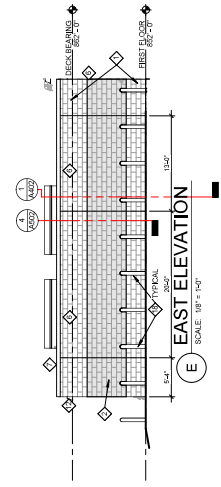
EAST ELEVATION
 SCALE: 1/8" = 1'-0"



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



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

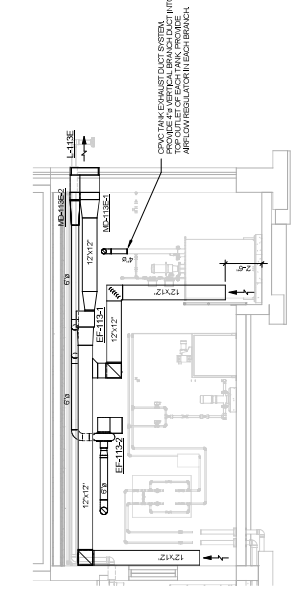


EAST ELEVATION (E)
 SCALE: 1/8" = 1'-0"

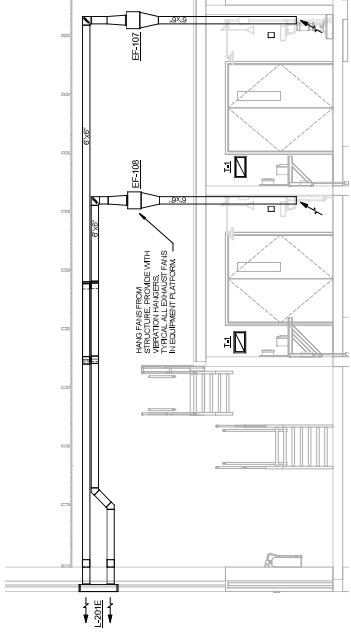
REVISIONS	DATE	BY	DESCRIPTION
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Drawn By: ABE
 Designer: ABE
 Reviewer: OAL
 Maximize: CS
 Date: 05/21/2023
 Project No: 210262
 Sheet No: M701
 Title: Iron Removal Plant

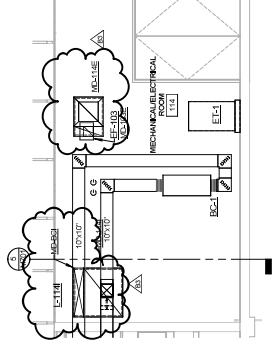
PROJECT NO. 210262
 SHEET NO. M701
 TITLE: Iron Removal Plant
 DATE: 05/21/2023



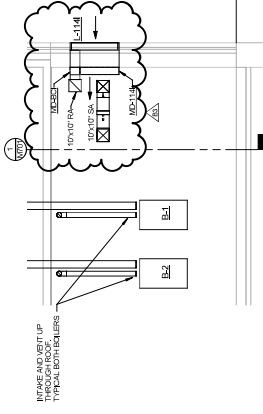
SECTION 4
 SCALE: 1/4" = 1'-0"



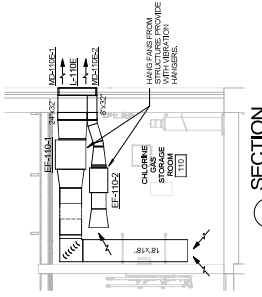
SECTION 3
 SCALE: 1/4" = 1'-0"



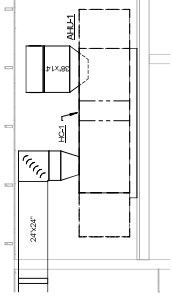
SECTION 1
 SCALE: 1/4" = 1'-0"



SECTION 5
 SCALE: 1/4" = 1'-0"



SECTION 2
 SCALE: 1/4" = 1'-0"



SECTION 6
 SCALE: 1/4" = 1'-0"

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

PROJECT NO.	210262
SHEET NO.	E201

Drawn By: JTB
Designer: TDB
Reviewer: JAC
Manager: CS

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PROJECT NO. 210262
SHEET NO. E201

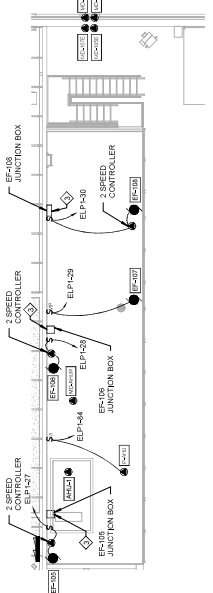
E201

NOTES

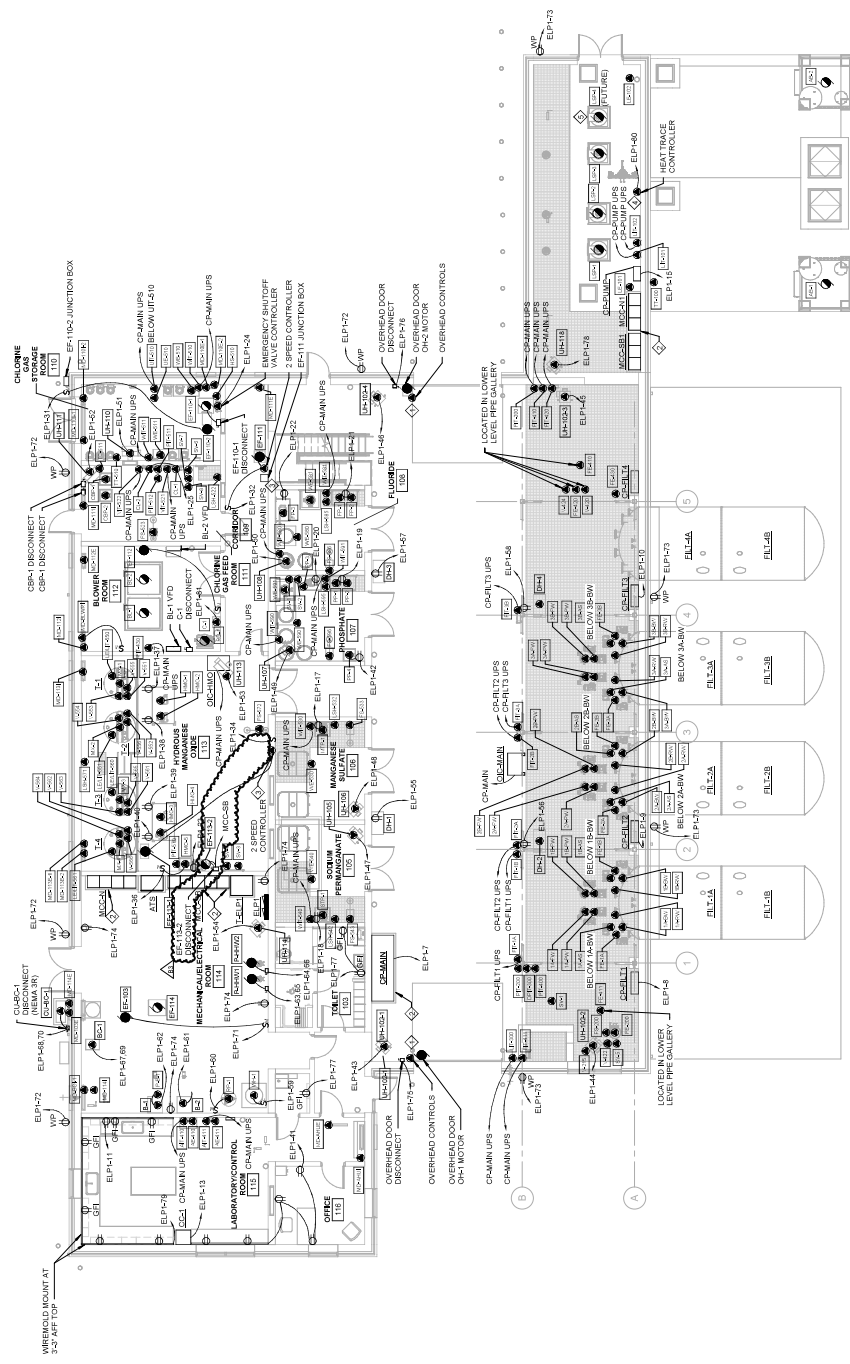
- SEE 6003 FOR AREA CLASSIFICATIONS.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF GRAND LEDGE SPECIFICATIONS AND STANDARDS. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF GRAND LEDGE SPECIFICATIONS AND STANDARDS. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF GRAND LEDGE SPECIFICATIONS AND STANDARDS.

KEY NOTES

- SEE SHEET E200 FOR OVERHEAD DOOR AND OVERHEAD DOOR CONTROL SYSTEM, INCLUDING ALL CONTROLS, COORDINATE WITH MANUFACTURER.
- SEE SHEET E200 FOR OVERHEAD DOOR AND OVERHEAD DOOR CONTROL SYSTEM, INCLUDING ALL CONTROLS, COORDINATE WITH MANUFACTURER.
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- SEE SHEET E200 FOR OVERHEAD DOOR AND OVERHEAD DOOR CONTROL SYSTEM, INCLUDING ALL CONTROLS, COORDINATE WITH MANUFACTURER.



EQUIPMENT PLATFORM POWER PLAN
SCALE: 1/8" = 1'-0"
NORTH

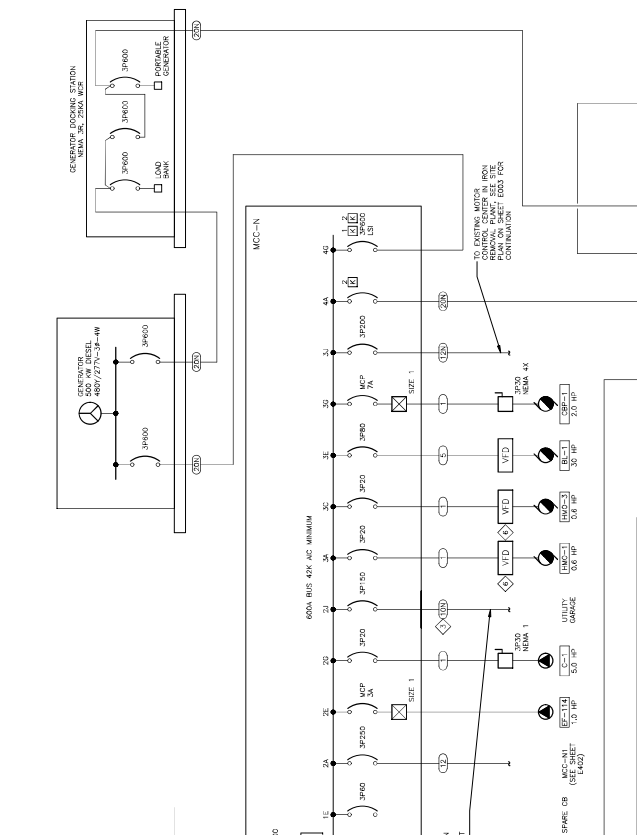


FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"
NORTH

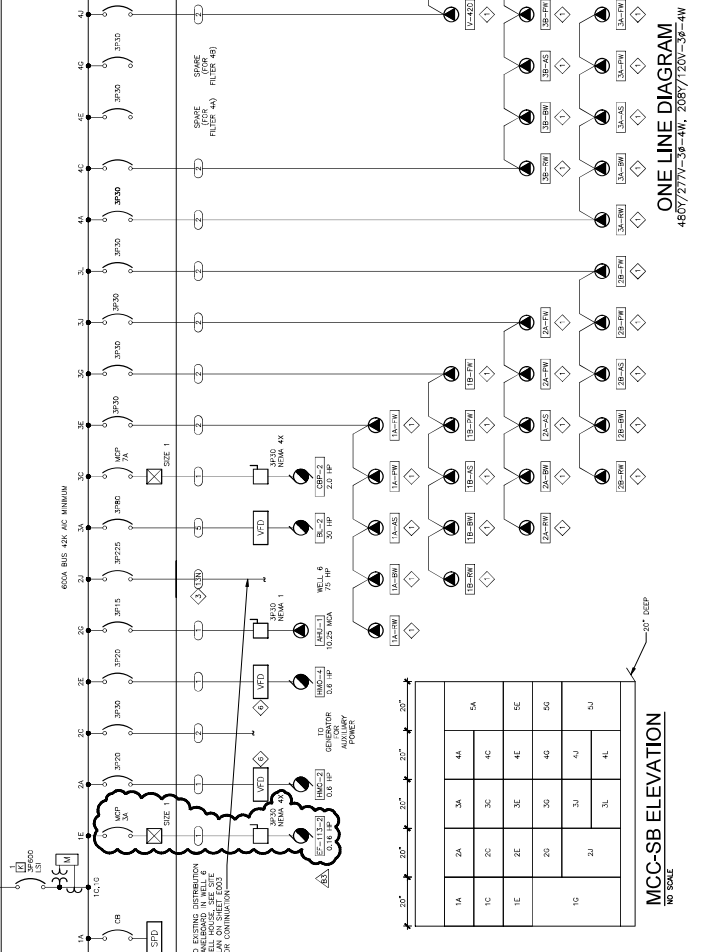
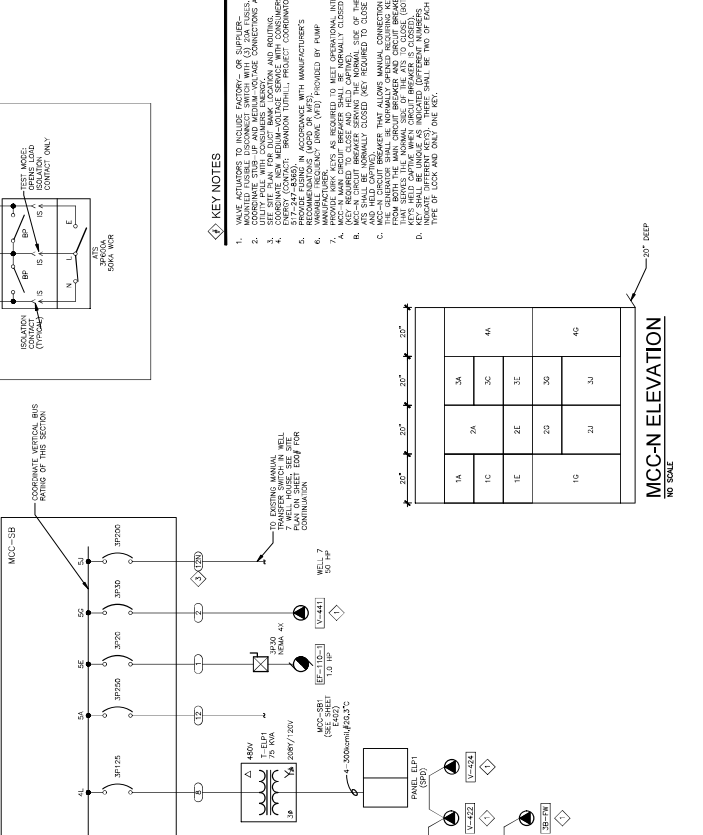
REVISIONS
NO. DATE BY DESCRIPTION
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Drawn By: JAC
 Designer: JAC
 Reviewer: JAC
 Manager: JAC

PROJECT NO.: 210282
 SHEET NO.: E401



NO.	DESCRIPTION	UNIT	DESCRIPTION	QUANTITY
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7	480V/277V	1	480V/277V	1
8	480V/277V	1	480V/277V	1
9	480V/277V	1	480V/277V	1
10	480V/277V	1	480V/277V	1
11	480V/277V	1	480V/277V	1
12	480V/277V	1	480V/277V	1
13	480V/277V	1	480V/277V	1
14	480V/277V	1	480V/277V	1
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16	480V/277V	1	480V/277V	1
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49	480V/277V	1	480V/277V	1
50	480V/277V	1	480V/277V	1



- KEY NOTES**
1. MAKE SURE TO INCLUDE FACTOR OF SAFETY (FOS) IN ALL CALCULATIONS.
 2. CONSULT WITH THE SUPPLIER FOR THE MINIMUM WIRE SIZE AND CONDUCTOR TYPE.
 3. SITE SPECIFICATIONS FOR THE LOCATION AND ROUTING OF THE CONDUCTORS.
 4. PROVIDE ADEQUATE CLEARANCE FROM ALL OBSTACLES AND STRUCTURES.
 5. PROVIDE ADEQUATE CLEARANCE FROM ALL OBSTACLES AND STRUCTURES.
 6. PROVIDE ADEQUATE CLEARANCE FROM ALL OBSTACLES AND STRUCTURES.
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 9. PROVIDE ADEQUATE CLEARANCE FROM ALL OBSTACLES AND STRUCTURES.
 10. PROVIDE ADEQUATE CLEARANCE FROM ALL OBSTACLES AND STRUCTURES.

MCC-N ELEVATION
NO SCALE

1A	2A	3A	4A
1C	2C	3C	4C
1E	2E	3E	4E
1G	2G	3G	4G
1I	2I	3I	4I

30" DEEP

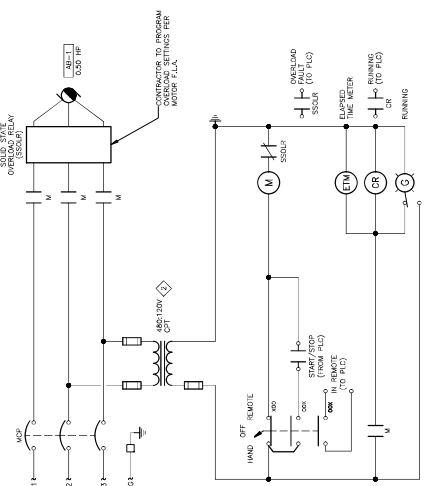
MCC-SB ELEVATION
NO SCALE

1A	2A	3A	4A
1C	2C	3C	4C
1E	2E	3E	4E
1G	2G	3G	4G
1I	2I	3I	4I

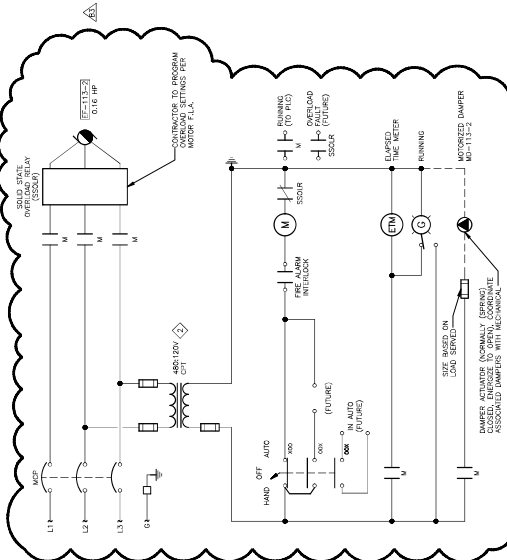
30" DEEP

KEY NOTES

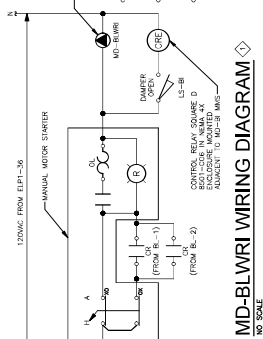
1. PUMP MOTORS ARE GEARED AND PROVIDED IN CASE PUMP MOTORS ARE EXHAUSTED BY THE MANUFACTURE / MODEL OF EQUIPMENT BELONGING TO THE MANUFACTURE / MODEL OF EQUIPMENT.
2. CONTROL POWER TRANSFORMER SHALL BE SIZED TO ACCOMMODATE LOADS INDICATED.



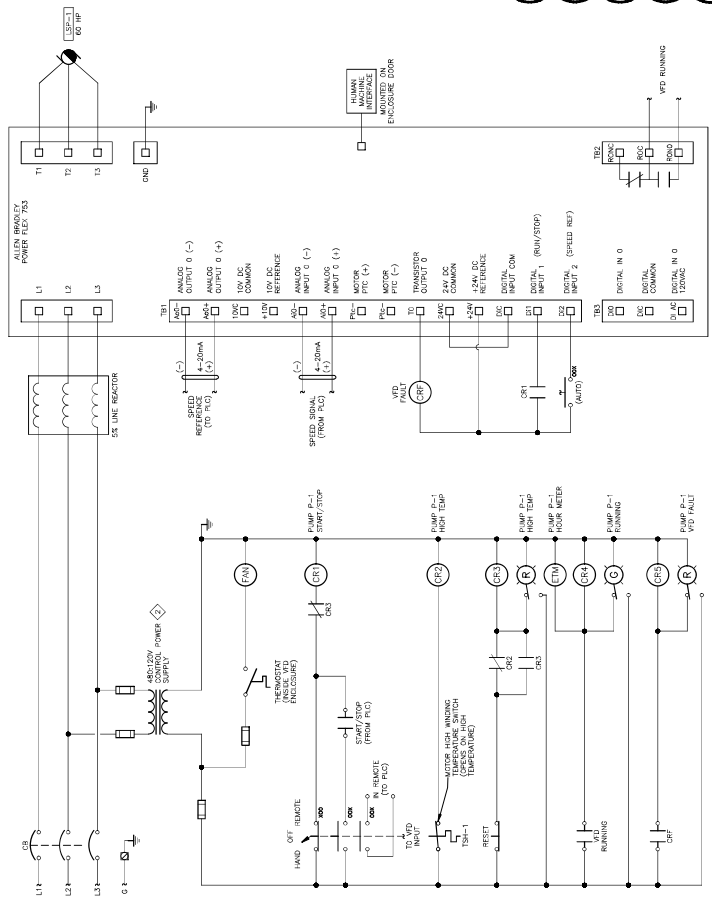
AB-1 WIRING DIAGRAM
TYPICAL FOR AB-2
NO SCALE



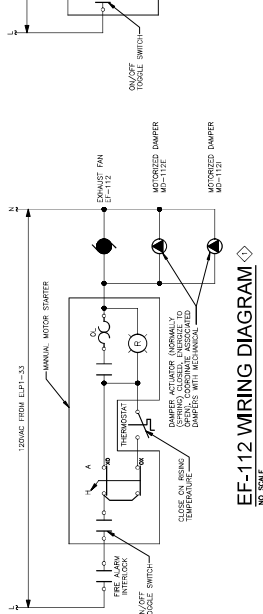
EF-112 WIRING DIAGRAM
TYPICAL FOR EF-113
NO SCALE



MD-BLW1 WIRING DIAGRAM
TYPICAL FOR EF-2 AND USP-3
NO SCALE

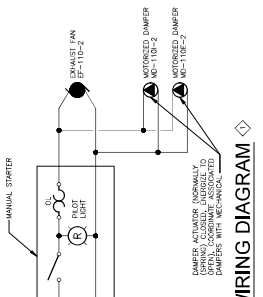


PUMP LSP-1 VFD PANEL WIRING DIAGRAM
TYPICAL FOR LSP-2 AND USP-2
NO SCALE



EF-113-2 WIRING DIAGRAM
TYPICAL FOR EF-110-2
NO SCALE

TYPICAL UNIT HEATER WIRING DIAGRAM
NO SCALE



EF-110-2 WIRING DIAGRAM
TYPICAL FOR EF-110-2
NO SCALE

Having copy is required to be made of this drawing. Any changes indicated on this drawing shall only be made by the original author.

PANEL DESCRIPTION												
MCC-N1												
Location: PUMP ROOM 113												
Supply From: MCC-A												
Voltage: 480/277 V/576 V												
Phase: 3												
Main Type: MAIN LUGS												
Enclosure: Type 3R												
CT	NO	DESC	Circuit Description	Phase	Rating	Motor Controller	Comments	Phase A	Phase B	Phase C	TOTAL LOAD	TOTAL AMP
1	1	1	PUMP MOTOR	3	300 A	3000 VA	3000 VA	300 A	300 A	300 A	3000 VA	300 A
2	2	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
3	3	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
4	4	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
5	5	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
6	6	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
7	7	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
8	8	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
9	9	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
10	10	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
11	11	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
12	12	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
13	13	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
14	14	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
15	15	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
16	16	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
17	17	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
18	18	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
19	19	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
20	20	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
Cost Classification Connected Load: 10000 VA Demand Factor: 1.00 Total Connected Load: 10000 VA Total Connected Current: 100 A Total NEC C.M. Load: 10000 VA Total NEC C.M. Current: 100 A												

PANEL DESCRIPTION												
MCC-N1												
Location: MECHANICAL/ELECT.												
Supply From: TRANSFORMER T-1												
Voltage: 480/277 V/576 V												
Phase: 4												
Main Type: MAIN LUGS												
Enclosure: Type 1												
CT	NO	DESC	Circuit Description	Phase	Rating	Motor Controller	Comments	Phase A	Phase B	Phase C	TOTAL LOAD	TOTAL AMP
1	1	1	PUMP MOTOR	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
2	2	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
3	3	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
4	4	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
5	5	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
6	6	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
7	7	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
8	8	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
9	9	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
10	10	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
11	11	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
12	12	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
13	13	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
14	14	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
15	15	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
16	16	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
17	17	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
18	18	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
19	19	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
20	20	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
Cost Classification Connected Load: 10000 VA Demand Factor: 1.00 Total Connected Load: 10000 VA Total Connected Current: 100 A Total NEC C.M. Load: 10000 VA Total NEC C.M. Current: 100 A												

PANEL DESCRIPTION												
ELP1												
Location: MECHANICAL/ELECTRICAL ROOM												
Supply From: MCBP												
Voltage: 480/277 V/576 V												
Phase: 3												
Main Type: MAIN BREAKER												
Enclosure: Type 1												
CT	NO	DESC	Circuit Description	Phase	Rating	Motor Controller	Comments	Phase A	Phase B	Phase C	TOTAL LOAD	TOTAL AMP
1	1	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
2	2	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
3	3	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
4	4	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
5	5	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
6	6	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
7	7	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
8	8	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
9	9	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
10	10	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
11	11	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
12	12	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
13	13	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
14	14	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
15	15	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
16	16	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
17	17	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
18	18	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
19	19	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
20	20	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
21	21	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
22	22	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
23	23	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
24	24	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
25	25	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
26	26	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
27	27	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
28	28	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
29	29	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
30	30	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
31	31	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
32	32	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
33	33	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
34	34	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
35	35	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
36	36	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
37	37	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
38	38	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
39	39	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
40	40	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
41	41	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
42	42	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
43	43	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
44	44	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
45	45	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3000 VA	30 A
46	46	1	120V AC	3	30 A	3000 VA	3000 VA	30 A	30 A	30 A	3	

BULLETIN
PAGE 1 OF 3

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B3
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	N/A
SHEETS:	C301, C401, C502, A301, M501, M701, M901, E201, E401, E504, E601
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Phil Parker – E.T. Mackenzie Jodie Ross, PE – Fishbeck John Willemin, PE – Fishbeck

The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.

This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.

Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.

Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.

Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.

Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.

BULLETIN
PAGE 2 OF 3

ITEM NO. 1: Grading Modifications to accommodate Outlet Control Structures

Sheet: C301 – Site Grading Plan (reissued)
C401 – Sit Utility Plan (reissued)
C502 – Details (reissued)

- A. Lower Grading and Structure Elevations in the Detention Basins.
- B. Adjust grading on South Detention Pond to expand further north and increase north Side Slope to 4:1.
- C. Update Outlet Control Structure Detail Elevations to match new Grading.
- D. Add Swale with Riprap for pond Drainage and add standard detail.

ADD/DEDUCT: \$ 24,401.48

ITEM NO. 2: Louver size increase, damper size, and location change

Sheet: M701 – Sections (reissued)
M901 – Schedules (reissued)

- A. Louver L-114I increased from 40x24 to 40x40.
- B. Louver L-112I increased from 32x32 to 32x40.
- C. Louver L-110I decreased from 76x24 to 70x20.
- D. Damper MD-112I increased from 32x12 to 32x24
- E. Damper MD-114I increased from 40x16 to 40x32
- F. Damper MD-BLWRI decreased from 32x20 to 32x16
- G. Damper MD-110I-1 decreased from 66x24 to 61x20
- H. Switch locations of MD-BCI and MD-114I within louver L-114I

ADD/DEDUCT: \$ 1,782.00

ITEM NO. 3: EF-114 and EF-103 Fan Locations

Sheet: M501 – First Floor Mechanical Sheet Metal Plan (reissued)
M701 – Sections (reissued)

- A. Switch positions of EF-114 and EF-103 and associated dampers within louver.
- B. Increase EF-103 ductwork size.

ADD/DEDUCT: \$ 0.00

ITEM NO. 4: Schedule Corrections

Sheet: M901 – Schedules (reissued)

- A. Motorized Damper Schedule:
 - 1. MD-110E-1 changed from 470 to 2415 CFM
 - 2. MD-110I-1 changed from 470 to 2415 CFM
 - 3. MD-110E-2 changed from 470 to 75 CFM
 - 4. MD-110I-2 changed from 470 to 75 CFM
 - 5. MD-112E changed from 300 to 780 CFM
 - 6. MD-113I changed from 900 to 990 CFM
 - 7. Corrected MD-103E and MD-114E tags. Tags were erroneously swapped.
 - 8. Fixed damper location graphics.
- B. Louver Schedule:
 - 1. L-110E changed from 2415 to 2490 CFM
 - 2. L-110I changed from 2415 to 2490 CFM
 - 3. L-112E changed from 300 to 780 CFM
 - 4. L-113E changed from 900 to 990 CFM
 - 5. L-113I changed from 900 to 990 CFM

CLARIFICATION

ITEM NO. 5: Fan Controller note added

Sheet: M901 – Schedules (reissued)

- A. Note added to locate fan controllers outside of corrosive rooms.

CLARIFICATION

BULLETIN
PAGE 3 OF 3

ITEM NO. 6: Louver Relocations

Sheet: M501 – First Floor Mechanical Sheet Plan (reissued)

- A. L-110I relocated per Keynote 23.
- B. L-114I relocated to 11'4" AFF
- C. L-114E relocated to 11'4" AFF

CLARIFICATION

ITEM NO. 7: EF-113-2 Electrical Changes

Sheet: M901 – Schedules (reissued)
E201 – Power Plans (reissued)
E401 – One Line Diagram (reissued)
E504 – Wiring Diagrams (reissued)
E601 – Panelboard Schedules (reissued)

- A. EF-113-2 changed from 120/1 to 460 voltage/3 phase.

ADD/DEDUCT: \$ 12,695.84

ITEM NO. 8: Masonry Openings for Louvers in Exterior Walls Revised for Coordination with Louver Changes.

Sheet: A301 – Exterior Elevations (reissued)

CLARIFICATION

Contractor: RK Davis, Inc.



Signature

Peter C. Elzinga, P.E.

Name and Title of Signatory

May 26, 2023

Date

END OF BULLETIN



Equal Opportunity Employer

E.T. MacKenzie Company - Grand Ledge

One of The MacKenzie Companies

4248 West Saginaw Highway

Grand Ledge, MI 48837

Phone: (517) 627.8408 Fax: (517) 627.4470

www.mackenzieco.com










































Cost Detail

Project Name: GL IRP Basin & OCS Redesign	Customer: RK Davis
Job Number:	Billing Address: 4457 40th St. SE
Bid As:	Kentwood, MI 49512
Estimator:	Phone: 616-456-0059
Project Address:	Contact:
Completion Date:	

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
D 1 - Survey & Layout	1.00	LS	\$785.00	\$785.00
Surveying Technician, 1 Man (10.00 LS/DY, 0.10 DY)	1.00	LS	\$170.00	\$170.00
Engineering Technician	1.00	HR	\$170.00	\$170.00
Surveying Crew, 1 Man (3.33 LS/DY, 0.30 DY)	1.00	LS	\$615.00	\$615.00
Pickup Truck	3.00	HR	\$35.00	\$105.00
Surveyor	3.00	HR	\$170.00	\$510.00
D 2 - Strip Topsoil	56.00	BCY	\$10.07	\$564.00
Topsoil Respread, 950 (560.00 BCY/DY, 0.10 DY)	56.00	BCY	\$10.07	\$564.00
CAT 950 Loader	1.00	HR	\$127.50	\$127.50
CAT D4 Dozer	1.00	HR	\$81.50	\$81.50
Pickup Truck	1.00	HR	\$35.00	\$35.00
Foreman	1.00	HR	\$120.00	\$120.00
Operator [2]	1.00	HR	\$100.00	\$200.00
D 3 - Cut To Fill, Export Excess	191.00	BCY	\$28.98	\$5,535.38
Cut To Fill	56.00	BCY	\$10.07	\$564.00
Topsoil Respread, 950 (560.00 BCY/DY, 0.10 DY)	56.00	BCY	\$10.07	\$564.00
CAT 950 Loader	1.00	HR	\$127.50	\$127.50
CAT D4 Dozer	1.00	HR	\$81.50	\$81.50
Pickup Truck	1.00	HR	\$35.00	\$35.00
Foreman	1.00	HR	\$120.00	\$120.00
Operator [2]	1.00	HR	\$100.00	\$200.00
Load & Haul Excess To MSP	135.00	BCY	\$36.83	\$4,971.38
Brokered Export, Trench Spoils (E.T. MacKenzie Company)	162.00	CY	\$2.50	\$405.00
Removal / Export, 336 (400.00 CYT/DY, 0.41 DY)	162.00	CYT	\$12.44	\$2,014.88
CAT 336 Excavator	4.05	HR	\$216.00	\$874.80
Operator [2]	4.05	HR	\$100.00	\$810.00
CAT D4 Dozer	4.05	HR	\$81.50	\$330.08
Train, Operated (3 EA) (400.00 CYT/DY, 0.41 DY)	162.00	CYT	\$15.75	\$2,551.50
Train [3]	4.05	HR	\$110.00	\$1,336.50

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
<i>(Item 3 - Cut To Fill, Export Excess continued)</i>				
 Truck Driver [3]	4.05	HR	\$100.00	\$1,215.00
D 4 - Replace & Fine Grade Topsoil	56.00	BCY	\$15.10	\$845.50
 Topsoil Respread, 950 (560.00 BCY/DY, 0.10 DY)	56.00	BCY	\$10.07	\$564.00
 CAT 950 Loader	1.00	HR	\$127.50	\$127.50
 CAT D4 Dozer	1.00	HR	\$81.50	\$81.50
 Pickup Truck	1.00	HR	\$35.00	\$35.00
 Foreman	1.00	HR	\$120.00	\$120.00
 Operator [2]	1.00	HR	\$100.00	\$200.00
 Fine Grade Topsoil	340.00	SY	\$0.83	\$281.50
 Grading, D4 W/ Laborer, 1 (3,400.00 SY/DY, 0.10 DY)	340.00	SY	\$0.83	\$281.50
 Laborer	1.00	HR	\$100.00	\$100.00
 Operator	1.00	HR	\$100.00	\$100.00
 CAT D4 Dozer	1.00	HR	\$81.50	\$81.50
D 5 - Additional 12" CLIV RCP	14.00	LF	\$275.19	\$3,852.61
 12" C76 CLIV RCP, RJ (Northern Concrete Pipe)	16.40	LF	\$18.39	\$301.61
 Sand, Class II (TN), Delivered (Utility Bedding) (E.T. MacKenzie Company)	7.00	TON	\$8.00	\$56.00
 Brokered Export, Trench Spoils (E.T. MacKenzie Company)	6.00	CY	\$2.50	\$15.00
 Pipe Crew, Mainline, 336 (46.67 LF/DY, 0.30 DY)	14.00	LF	\$248.57	\$3,480.00
 CAT 336 Excavator	3.00	HR	\$216.00	\$648.00
 CAT 950 Loader	3.00	HR	\$127.50	\$382.50
 CAT D4 Dozer	3.00	HR	\$81.50	\$244.50
 6' Roller	3.00	HR	\$55.00	\$165.00
 Pickup Truck	3.00	HR	\$35.00	\$105.00
 Job Trailer w/Misc. Tools	0.30	DY	\$250.00	\$75.00
 Operator [3]	3.00	HR	\$100.00	\$900.00
 Laborer	3.00	HR	\$100.00	\$300.00
 Pipe Layer	3.00	HR	\$100.00	\$300.00
 Foreman	3.00	HR	\$120.00	\$360.00
D 6 - Rip Rap Drainage Swales	64.00	LF	\$177.66	\$11,370.00
 Rip Rap, MDOT, Plain (TN), Delivered (E.T. MacKenzie Company)	48.00	TON	\$135.00	\$6,480.00
 MDOT Geotextile Separator (Ferguson Waterworks (Lansing))	500.00	SY	\$0.80	\$397.50
 Excavator, CAT 336, Operated (128.00 LF/DY, 0.50 DY)	64.00	LF	\$24.69	\$1,580.00
 CAT 336 Excavator	5.00	HR	\$216.00	\$1,080.00
 Operator	5.00	HR	\$100.00	\$500.00
 Loader, CAT 950, Operated (128.00 LF/DY, 0.50 DY)	64.00	LF	\$17.77	\$1,137.50
 CAT 950 Loader	5.00	HR	\$127.50	\$637.50
 Operator	5.00	HR	\$100.00	\$500.00
 Foreman W/ Truck (128.00 LF/DY, 0.50 DY)	64.00	LF	\$12.11	\$775.00
 Pickup Truck	5.00	HR	\$35.00	\$175.00
 Foreman	5.00	HR	\$120.00	\$600.00
 Laborers (2 Each) (128.00 LF/DY, 0.50 DY)	64.00	LF	\$15.63	\$1,000.00
 Laborer [2]	5.00	HR	\$100.00	\$1,000.00

Direct Cost Totals

	Amount	Percent of Direct Cost
Labor:	\$8,325.00	36.27%
Equipment Owned:	\$6,972.38	30.38%
Equipment Rented:	\$0.00	0.00%
Materials Owned:	\$0.00	0.00%
Materials Purchased:	\$5,559.11	24.22%
Subcontracted:	\$0.00	0.00%
Trucking Owned:	\$0.00	0.00%
Trucking Hired:	\$2,096.00	9.13%
Miscellaneous:	\$0.00	0.00%
Plug:	\$0.00	0.00%
Direct Cost:	<u>\$22,952.49</u>	

Pay Item Summary

	Amount	Percent of Bid Price
Total Direct Cost:	\$22,952.49	100.00%
Total DC Adds/Cuts:	\$0.00	0.00%
Total Indirect Cost:	\$0.00	0.00%
Total Bond:	\$0.00	0.00%
Total Overall Cost:	\$22,952.49	100.00%
Total Overhead:	\$0.00	0.00%
Total Profit:	\$0.11	0.00%
Total Margin:	\$0.11	0.00%
Total Bid Price:	<u>\$22,952.60</u>	

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FIG# 23-010-11-X 3

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B3
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	N/A
SHEETS:	C301, C401, C502, A301, M501, M701, M901, E201, E401, E504, E601
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Phil Parker – E.T. Mackenzie Jodie Ross, PE – Fishbeck John Willemin, PE – Fishbeck
<p>The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.</p> <p>This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed. Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.</p> <p>Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.</p> <p>Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.</p> <p>Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.</p>	

BULLETIN
PAGE 2 OF 3

ITEM NO. 1: Grading Modifications to accommodate Outlet Control Structures

Sheet: C301 – Site Grading Plan (reissued)
C401 – Sit Utility Plan (reissued)
C502 – Details (reissued)

- A. Lower Grading and Structure Elevations in the Detention Basins.
- B. Adjust grading on South Detention Pond to expand further north and increase north Side Slope to 4:1.
- C. Update Outlet Control Structure Detail Elevations to match new Grading.
- D. Add Swale with Riprap for pond Drainage and add standard detail.

ADD/DEDUCT: \$ B.O.

ITEM NO. 2: Louver size increase, damper size, and location change

Sheet: M701 – Sections (reissued)
M901 – Schedules (reissued)

- A. Louver L-114I increased from 40x24 to 40x40.
- B. Louver L-112I increased from 32x32 to 32x40.
- C. Louver L-110I decreased from 76x24 to 70x20.
- D. Damper MD-112I increased from 32x12 to 32x24
- E. Damper MD-114I increased from 40x16 to 40x32
- F. Damper MD-BLWRI decreased from 32x20 to 32x16
- G. Damper MD-110I-1 decreased from 66x24 to 61x20
- H. Switch locations of MD-BCI and MD-114I within louver L-114I

ADD/DEDUCT: \$ 1580⁰⁰

ITEM NO. 3: EF-114 and EF-103 Fan Locations

Sheet: M501 – First Floor Mechanical Sheet Metal Plan (reissued)
M701 – Sections (reissued)

- A. Switch positions of EF-114 and EF-103 and associated dampers within louver.
- B. Increase EF-103 ductwork size.

ADD/DEDUCT: \$ No Chg.

ITEM NO. 4: Schedule Corrections

Sheet: M901 – Schedules (reissued)

- A. Motorized Damper Schedule:
 - 1. MD-110E-1 changed from 470 to 2415 CFM
 - 2. MD-110I-1 changed from 470 to 2415 CFM
 - 3. MD-110E-2 changed from 470 to 75 CFM
 - 4. MD-110I-2 changed from 470 to 75 CFM
 - 5. MD-112E changed from 300 to 780 CFM
 - 6. MD-113I changed from 900 to 990 CFM
 - 7. Corrected MD-103E and MD-114E tags. Tags were erroneously swapped.
 - 8. Fixed damper location graphics.
- B. Louver Schedule:
 - 1. L-110E changed from 2415 to 2490 CFM
 - 2. L-110I changed from 2415 to 2490 CFM
 - 3. L-112E changed from 300 to 780 CFM
 - 4. L-113E changed from 900 to 990 CFM
 - 5. L-113I changed from 900 to 990 CFM

CLARIFICATION

ITEM NO. 5: Fan Controller note added

Sheet: M901 – Schedules (reissued)

- A. Note added to locate fan controllers outside of corrosive rooms.

CLARIFICATION

BULLETIN
PAGE 3 OF 3

ITEM NO. 6: Louver Relocations

Sheet: M501 – First Floor Mechanical Sheet Plan (reissued)

- A. L-110I relocated per Keynote 23.
- B. L-114I relocated to 11'4" AFF
- C. L-114E relocated to 11'4" AFF

CLARIFICATION

ITEM NO. 7: EF-113-2 Electrical Changes

Sheet: M901 – Schedules (reissued)
E201 – Power Plans (reissued)
E401 – One Line Diagram (reissued)
E504 – Wiring Diagrams (reissued)
E601 – Panelboard Schedules (reissued)

- A. EF-113-2 changed from 120/1 to 460 voltage/3 phase.

ADD/DEDUCT:

*\$ No Change - F&C
Elect - By Others*

ITEM NO. 8: Masonry Openings for Louvers in Exterior Walls Revised for Coordination with Louver Changes.

Sheet: A301 – Exterior Elevations (reissued)

CLARIFICATION

Contractor:

F&C

Signature

D. K. [Signature]

Name and Title of Signatory

5/16/23

Date

END OF BULLETIN

PROJECT NAME: Grand Ledge Iron Removal
 QUOTED TO: RK Davis
 DESCRIPTION: Bulletin: 3
Item: 2 Louver/damper changes

DATE: 05/16/23
 FHC JOB # 23-0010-11
 FHC X# 3
 SM X# _____

DESCRIPTION	MATERIAL W/OUT TAX	SUBS	FAB	FIELD	DETAILING
Louver / damper changes	\$1,014.00			2	
SUB TOTALS	\$1,014.00	\$0.00	0.0	2.0	0.0

TOOLING					\$8.24
EQUIPMENT RENTAL					\$4.00
PROJECT MANAGEMENT HOURS					1.0
FIELD FOREMAN					0.1
FAB SHOP FOREMAN					0.0
DELIVERY					0.0

	HOURS	RATE	COST	MARK UP	PRICE
MATERIALS including sales tax			\$1,074.84	\$161.23	\$1,236.07
SUBCONTRACTORS			\$0.00	\$0.00	\$0.00
SHOP JOURNEYMAN	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FABRICATION SHOP FEE	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FIELD JOURNEYMAN	2.0	\$91.55	\$183.10	\$27.47	\$210.57
DETAILING	0.0	\$75.00	\$0.00	\$0.00	\$0.00
TOOLING			\$8.24	\$1.24	\$9.48
EQUIPMENT RENTAL			\$4.00	\$0.60	\$4.60
PROJECT MANAGEMENT	1.0	\$94.55	\$94.55	\$14.18	\$108.73
FIELD FOREMAN	0.1	\$94.55	\$9.46	\$1.42	\$10.87
FAB SHOP FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
DELIVERY	0.0	\$65.00	\$0.00	\$0.00	\$0.00
TOTAL THIS QUOTATION:					\$1,580

Time extension required (days) **0.1**

Quoted by: dr Date: 5/16/2023

We are pleased to quote the following per your request:

MAP Reference #

PGR2300538 BULL 3



Item # 02 Louver & damper size changes. * note Per Jake no flanges on MODS.

Total Price.....ADD.....\$ 1,014.00

Note : R2 replaces R1NO CHANGE
EF113-2 Voltage change.....NO CHANGE

*** SEE SUBMITTALS ATTACHED (Not requested by for coordination) Should be good.

FOB Factory Freight Allowed / Sales Tax Not Included / Quotation Valid 30 Days / Complete Terms and Conditions

Accepted

By: _____ Company: _____ Date: _____ PO: _____

Thank you for considering Michigan Air Products,

BULLETIN
PAGE 1 OF 3

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B3
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	N/A
SHEETS:	C301, C401, C502, A301, M501, M701, M901, E201, E401, E504, E601
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Phil Parker – E.T. Mackenzie Jodie Ross, PE – Fishbeck John Willemin, PE – Fishbeck
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- H. Switch locations of MD-BCI and MD-114I within louver L-114I

ADD/DEDUCT: \$ N/A

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M701 – Sections (reissued)

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ADD/DEDUCT: \$ No Change

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BULLETIN
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E401 – One Line Diagram (reissued)
E504 – Wiring Diagrams (reissued)
E601 – Panelboard Schedules (reissued)

- A. EF-113-2 changed from 120/1 to 460 voltage/3 phase.

ADD DEDUCT: \$ 11,942.00

ITEM NO. 8: Masonry Openings for Louvers in Exterior Walls Revised for Coordination with Louver Changes.

Sheet: A301 – Exterior Elevations (reissued)

CLARIFICATION

Centennial Electric, LLC

Contractor

Signature

Name and Title of Signatory

Date

END OF BULLETIN

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
B3- No 7- Deduct	(\$663.98)	100.00%	(\$663.98)	-3.47	100.00%	-3.47

Top Sheet

Raw Cost	(\$963.68)	Sales per Month	\$0.00
Tax	(\$39.84)	Return per Month	\$0.00
Raw Cost with Tax	(\$1,003.52)	Price per Square Foot	\$0.00
Overhead	\$0.00	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$0.00	Job Months	0.00
Total Return %	0.00%	Hours per Week	0.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	86.47
Price	(\$1,003.52)	Workers per Day	0.00
Bond	\$0.00	Total Hours	-3.47
Sell Price	(\$1,003.52)	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	Yes

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	100.00%	(3.47)	\$86.47	\$0.00	0.00%	(\$299.71)
Foreman Local 665	0.00%	0.00	\$99.44	\$0.00	0.00%	\$0.00
General Foreman Local 665	0.00%	0.00	\$108.09	\$0.00	0.00%	\$0.00
Totals	100.00%	(3.47)	\$86.47	\$0.00	0.00%	(\$299.71)

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT
	Total	%	Amount	%	Amount
Materials	(\$663.98) +	0.00%	(\$663.98) +	0.00%	(\$663.98)
Labor	(\$299.71) +	0.00%	(\$299.71) +	0.00%	(\$299.71)
Supplier Quotes	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
SubContractors	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
Direct Job Expense	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
Equipment Rental	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
Fixtures Quotes	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
Totals	(\$963.68)	0.00%	(\$963.68)	0.00%	(\$963.68)

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	(\$663.98)	6.00%	(\$39.84)
Labor	(\$299.71)	0.00%	\$0.00
Supplier Quotes	\$0.00	6.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	6.00%	\$0.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	(\$39.84)

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: B3- No 7- Deduct

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
Label Set: Combined, Combined, Combined, Combined, Combined											
CCode: < none >											
60,060	WP Cover	-1.00	\$18.00	E	(\$103.00)			-3.47		100%	100%
60,066	MMS	-1.00	\$85.00	E	(\$85.00)	0.25	E	-1.00		15.51%	28.85%
CCode: Branch Rough											
4,234	3/4 GRC/PVC COATED	-24.00	\$1,218.79	C	(\$292.51)	0.75	E	-0.25		44.05%	55.4%
CCode: Straps											
4,846	3/4 GRC/PVC 1H STRAP	-2.40	\$30.61	E	(\$184.70)	8.00	C	-1.92	cb	27.82%	2.77%
4,872	3/4 GRC/PVC CLAMP BACK	-2.40	\$46.35	E	(\$73.46)	4.00	C	-0.10	cs		
CCode: Branch Wire											
41	12 THHN CU STRANDED	-75.00	\$1,116.88	M	(\$111.24)	0.00	C	0.00	cs	12.62%	12.98%
					(\$83.77)			-0.45	wb		
					(\$663.98)			-0.45	wb		
					(\$663.98)			-3.47			

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
B3- No 7- Add	\$1,418.38	100.00%	\$1,418.38	9.93	100.00%	9.93

Top Sheet

Raw Cost	\$11,083.05	Sales per Month	\$0.00
Tax	\$85.10	Return per Month	\$0.00
Raw Cost with Tax	\$11,168.15	Price per Square Foot	\$0.00
Overhead	\$1,662.46	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$1,662.46	Job Months	0.00
Total Return %	12.84%	Hours per Week	0.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	86.47
Price	\$12,830.60	Workers per Day	0.00
Bond	\$115.48	Total Hours	9.93
Sell Price	\$12,946.08	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	Yes

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	100.00%	9.93	\$86.47	\$0.00	0.00%	\$858.67
Foreman Local 665	0.00%	0.00	\$99.44	\$0.00	0.00%	\$0.00
General Foreman Local 665	0.00%	0.00	\$108.09	\$0.00	0.00%	\$0.00
Totals	100.00%	9.93	\$86.47	\$0.00	0.00%	\$858.67

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT
	Total	%	Amount	%	Amount
Materials	\$1,418.38	+ 15.00%	\$1,631.13	+ 0.00%	\$1,631.13
Labor	\$858.67	+ 15.00%	\$987.47	+ 0.00%	\$987.47
Supplier Quotes	\$8,806.00	+ 15.00%	\$10,126.90	+ 0.00%	\$10,126.90
SubContractors	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00
Direct Job Expense	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00
Equipment Rental	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00
Fixtures Quotes	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00
Totals	\$11,083.05	15.00%	\$12,745.50	0.00%	\$12,745.50

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	\$1,418.38	6.00%	\$85.10
Labor	\$858.67	0.00%	\$0.00
Supplier Quotes	\$0.00	6.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	6.00%	\$0.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	\$85.10

Supplier Quotes					
Name	Supplier	Tax (6.0%)	Unit Cost	Mult	Amount
MCC Bucket Change	Eaton	No	\$8,806.00	1.00	\$8,806.00
Totals:					\$8,806.00

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: B3- No7- Add

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
Label Set: Combined, Combined, Combined, Combined, Combined											
CCode: <undefined>											
60,083	Disconnect Rack	1.00	\$185.00 E		\$185.00	1.50 E		1.50		100%	100%
CCode: Branch Rough											
4,234	3/4 GRC/PVC COATED	46.88	\$1,218.79 C		\$571.33	8.00 C		3.75 cb			
5,346	1/2 FLEX STEEL	5.00	\$232.63 C		\$11.63	4.00 C		0.20 cb			
5,402	1/2 FLEX 2 SCREW CONN	1.00	\$5.82 E		\$5.82	0.12 E		0.12 cb			
5,438	1/2 FLEX 90 1 SCREW CONN	1.00	\$9.22 E		\$9.22	0.14 E		0.14 cb			
CCode: Straps											
4,846	3/4 GRC/PVC 1H STRAP	4.69	\$30.61 E		\$143.49	4.00 C		0.19 cs			1.89%
4,872	3/4 GRC/PVC CLAMP BACK	4.69	\$46.35 E		\$217.27	0.00 C		0.00 cs			
CCode: Disc/Safety Switches											
10,665	30A 250V 1PH N4X NF SW	1.00	\$0.00 Q		\$0.00	2.00 E		2.00 sd		0%	20.14%
CCode: Lugs/Termination/Ground											
5,736	12 GA TERMINATION	4.00	\$0.00 X		\$0.49	0.14 E		0.56 sl		0.03%	5.64%
5,837	RED 3M WIRE NUT	4.00	\$12.37 C		\$0.49	0.00 C		0.00 sl			
CCode: Branch Wire											
41	12 THHN CU STRANDED	245.43	\$1,116.88 M		\$274.11	6.00 M		1.47		19.33%	14.83%
					\$274.11			1.47 wb			
					\$1,418.38			9.93			



Detail Bill of Material

Project Name: Grand Ledge Iron Removal Plant
General Order No: LGR0033681

Negotiation No: LN041116X2K1
Alternate No: 0003

Delete existing spare 20/3 feeder breaker bucket

Item No.	Qty	Product	Description
	1	MCC Aftermarket	MCC plug-in unit base price includes operating handle, bus stabs, door and all mounting hardwareCatalog: FZF1B12 # Freedom/F2100 Vintage, 480V.
		Catalog No	FZF1B12
		Designation	SPARE
	Qty	List of Materials	
	1	FREEDOM 2100 20A Feeder Breaker Unit 12"	

Add new Sz1 starter and loose disconnect

Item No.	Qty	Product	Description
	1	MCC Aftermarket	MCC plug-in unit base price includes operating handle, bus stabs, door and all mounting hardwareCatalog: FZ206AEASC12O21C15P15P57S10S31M15 # ,0.25 HP Freedom/F2100 Vintage, 480V, FVNR size 1-5.
		Catalog No	FZ206AEASC12O21C15P15P57S
		Designation	EF-113-2
	Qty	List of Materials	
	1	F2100 MCC, HMCP Combination size 1 FVNR Starter, with CPT, 12"	
	1	C440 w/GF (Specify FLA in Special Mods Tab)	
	1	Extra 50 VA for CPT	
	1	Red 'Run' Push-to-Test Light	
	1	HAND-OFF-AUTO' Selector Switch	
	1	1NO Starter Aux Contacts	
	1	3NO-1NC Starter Aux Contacts	
	1	Panel Elapsed Time Meter	

Item No.	Qty	Product	Description
	1	Safety Switches	SSW2
		Catalog No	DH361UWK
		Designation	EF-113-2
Catalog No	Qty	List of Materials	
DH361UWK	1	Heavy Duty Switch - Non-Fusible, 3-Pole, 600 VAC, 30 A, NEMA 4X (304 Stainless)	

Lot Price: \$8,806.00

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Seller shall not be responsible for any failure to perform, or delay in performance of, its obligations resulting from the COVID-19 pandemic or any future epidemic, and Buyer shall not be entitled to any damages resulting thereof.

CHANGE ORDER
PAGE 1 OF 1

CONTRACT FOR: City of Grand Ledge Iron Removal Plant
OWNER: City of Grand Ledge
310 Greenwood Street
Grand Ledge, MI 48837
CONTRACTOR RK Davis, Inc.
4457 40th Street, SE
Kentwood, MI 49512
ENGINEER: Fishbeck
1515 Arboretum Drive, SE
Grand Rapids, MI 49546
ATTACHMENTS: Bulletin No. 3 with pricing response from the Contractor.

Contractor shall indicate approval of Change Order through signing of this document and returning to Engineer. Engineer will forward to Owner, who shall indicate approval of Change Order through signing of this document and returning to Engineer. Upon receipt of fully executed (all signatures) Change Order, Engineer will distribute to all parties.

YOU ARE DIRECTED TO MAKE THE FOLLOWING CHANGES IN THE CONTRACT DOCUMENTS:

The following items changing the contract documents were chosen by the Owner from Bulletin 2 for execution:

ITEM NO. 1: Louver size increase, damper size, and location change

Sheet: M701 - Sections (reissued)
M901 - Schedules (reissued)

- A. Louver L-114I increased from 40x24 to 40x40.
- B. Louver L-112I increased from 32x32 to 32x40.
- C. Louver L-110I decreased from 76x24 to 70x20.
- D. Damper MD-112I increased from 32x12 to 32x24.
- E. Damper MD-114I increased from 40x16 to 40x32.
- F. Damper MD-BLWRI decreased from 32x20 to 32x16.
- G. Damper MD-110I-1 decreased from 66x24 to 61x20.
- H. Switch locations of MD-BCI and MD-114I within louver L-114I.

ADD: \$1,782.00

ITEM NO. 2: EF-114 and EF-103 Fan Locations

Sheet: M501 - First Floor Mechanical Sheet Metal Plan (reissued)
M701 - Sections (reissued)

- A. Switch positions of EF-114 and EF-103 and associated dampers within louver.
- B. Increase EF-103 ductwork size.

NO COST CHANGE

ITEM NO. 3: Schedule Corrections

Sheet: M901 - Schedules (reissued)

- A. Motorized Damper Schedule:
 - 1. MD-110E-1 changed from 470 to 2415 CFM.
 - 2. MD-110I-1 changed from 470 to 2415 CFM.
 - 3. MD-110E-2 changed from 470 to 75 CFM.
 - 4. MD-110I-2 changed from 470 to 75 CFM.
 - 5. MD-112E changed from 300 to 780 CFM.
 - 6. MD-113I changed from 900 to 990 CFM.
 - 7. Corrected MD-103E and MD-114E tags. Tags were erroneously swapped.
 - 8. Fixed damper location graphics.
- B. Louver Schedule:
 - 1. L-110E changed from 2415 to 2490 CFM.
 - 2. L-110I changed from 2415 to 2490 CFM.

CHANGE ORDER
PAGE 2 OF 1

3. L-112E changed from 300 to 780 CFM.
4. L-113E changed from 900 to 990 CFM.
5. L-113I changed from 900 to 990 CFM.

NO COST CHANGE

ITEM NO. 5: Louver Relocations

Sheet: M501 – First Floor Mechanical Sheet Plan (reissued)

- A. L-110I relocated per Keynote 23.
- B. L-114I relocated to 11'4" AFF.
- C. L-114E relocated to 11'4" AFF.

NO COST CHANGE

ITEM NO. 6: EF-113-2 Electrical Changes

Sheet: M901 – Schedules (reissued)
E201 – Power Plans (reissued)
E401 – One Line Diagram (reissued)
E504 – Wiring Diagrams (reissued)
E601 – Panelboard Schedules (reissued)

- A. EF-113-2 changed from 120/1 to 460 voltage/3 phase.

ADD: \$12,695.84

ITEM NO. 8: Masonry Openings for Louvers in Exterior Walls Revised for Coordination with Louver Changes.

Sheet: A301 – Exterior Elevations (reissued)

NO COST CHANGE

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES: N/A
Original Contract Price:	Original Contract time: <u>March 7, 2023</u>
<u>\$17,338,148.00</u>	Substantial Completion: <u>January 16, 2025</u>
	Ready for final payment: <u>February 17, 2025</u>
Previous Change Order No.: 1, 2	Net change from previous Change Orders:
<u>(\$161,758.63)</u>	<u>0 Days</u>
Contract Price prior to this Change Order:	Contract Time prior to this Change Order:
<u>\$17,176,389.37</u>	Substantial Completion: <u>January 16, 2025</u>
	Ready for final payment: <u>February 17, 2025</u>
Net increase of this Change Order:	Net change of this Change Order:
<u>\$14,477.84</u>	<u>0 Days</u>
Contract Price with all approved Change Orders:	Contract Time with all approved Change Orders:
<u>\$17,190,867.21</u>	Substantial Completion: <u>January 16, 2025</u>
	Ready for final payment: <u>February 17, 2025</u>

CHANGE ORDER
PAGE 3 OF 1

RECOMMENDED

APPROVED

APPROVED

By: Colin McCorkle
Engineer

By: _____
Contractor

By: _____
Owner

Colin G. McCorkle, PE,
Sr. Water/Wastewater Engineer

Name and Title of Signatory

Name and Title of Signatory

Date: June 19, 2023

Date: _____

Date: _____

END OF CHANGE ORDER

BULLETIN
PAGE 1 OF 3

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B3
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	N/A
SHEETS:	C301, C401, C502, A301, M501, M701, M901, E201, E401, E504, E601
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Phil Parker – E.T. Mackenzie Jodie Ross, PE – Fishbeck John Willemin, PE – Fishbeck

The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.

This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.

Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.

Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.

Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.

Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.

BULLETIN
PAGE 2 OF 3

ITEM NO. 1: Grading Modifications to accommodate Outlet Control Structures

Sheet: C301 – Site Grading Plan (reissued)
C401 – Sit Utility Plan (reissued)
C502 – Details (reissued)

- A. Lower Grading and Structure Elevations in the Detention Basins.
- B. Adjust grading on South Detention Pond to expand further north and increase north Side Slope to 4:1.
- C. Update Outlet Control Structure Detail Elevations to match new Grading.
- D. Add Swale with Riprap for pond Drainage and add standard detail.

ADD/DEDUCT: \$ 24,401.48

ITEM NO. 2: Louver size increase, damper size, and location change

Sheet: M701 – Sections (reissued)
M901 – Schedules (reissued)

- A. Louver L-114I increased from 40x24 to 40x40.
- B. Louver L-112I increased from 32x32 to 32x40.
- C. Louver L-110I decreased from 76x24 to 70x20.
- D. Damper MD-112I increased from 32x12 to 32x24
- E. Damper MD-114I increased from 40x16 to 40x32
- F. Damper MD-BLWRI decreased from 32x20 to 32x16
- G. Damper MD-110I-1 decreased from 66x24 to 61x20
- H. Switch locations of MD-BCI and MD-114I within louver L-114I

ADD/DEDUCT: \$ 1,782.00

ITEM NO. 3: EF-114 and EF-103 Fan Locations

Sheet: M501 – First Floor Mechanical Sheet Metal Plan (reissued)
M701 – Sections (reissued)

- A. Switch positions of EF-114 and EF-103 and associated dampers within louver.
- B. Increase EF-103 ductwork size.

ADD/DEDUCT: \$ 0.00

ITEM NO. 4: Schedule Corrections

Sheet: M901 – Schedules (reissued)

- A. Motorized Damper Schedule:
 - 1. MD-110E-1 changed from 470 to 2415 CFM
 - 2. MD-110I-1 changed from 470 to 2415 CFM
 - 3. MD-110E-2 changed from 470 to 75 CFM
 - 4. MD-110I-2 changed from 470 to 75 CFM
 - 5. MD-112E changed from 300 to 780 CFM
 - 6. MD-113I changed from 900 to 990 CFM
 - 7. Corrected MD-103E and MD-114E tags. Tags were erroneously swapped.
 - 8. Fixed damper location graphics.
- B. Louver Schedule:
 - 1. L-110E changed from 2415 to 2490 CFM
 - 2. L-110I changed from 2415 to 2490 CFM
 - 3. L-112E changed from 300 to 780 CFM
 - 4. L-113E changed from 900 to 990 CFM
 - 5. L-113I changed from 900 to 990 CFM

CLARIFICATION

ITEM NO. 5: Fan Controller note added

Sheet: M901 – Schedules (reissued)

- A. Note added to locate fan controllers outside of corrosive rooms.

CLARIFICATION

BULLETIN
PAGE 3 OF 3

ITEM NO. 6: Louver Relocations

Sheet: M501 – First Floor Mechanical Sheet Plan (reissued)

- A. L-110I relocated per Keynote 23.
- B. L-114I relocated to 11'4" AFF
- C. L-114E relocated to 11'4" AFF

CLARIFICATION

ITEM NO. 7: EF-113-2 Electrical Changes

Sheet: M901 – Schedules (reissued)
E201 – Power Plans (reissued)
E401 – One Line Diagram (reissued)
E504 – Wiring Diagrams (reissued)
E601 – Panelboard Schedules (reissued)

- A. EF-113-2 changed from 120/1 to 460 voltage/3 phase.

ADD/DEDUCT: \$ 12,695.84

ITEM NO. 8: Masonry Openings for Louvers in Exterior Walls Revised for Coordination with Louver Changes.

Sheet: A301 – Exterior Elevations (reissued)

CLARIFICATION

Contractor: RK Davis, Inc.



Signature

Peter C. Elzinga, P.E.

Name and Title of Signatory

May 26, 2023

Date

END OF BULLETIN



Equal Opportunity Employer

E.T. MacKenzie Company - Grand Ledge

One of The MacKenzie Companies

4248 West Saginaw Highway

Grand Ledge, MI 48837

Phone: (517) 627.8408 Fax: (517) 627.4470

www.mackenzieco.com










































Cost Detail

Project Name: GL IRP Basin & OCS Redesign	Customer: RK Davis
Job Number:	Billing Address: 4457 40th St. SE
Bid As:	Kentwood, MI 49512
Estimator:	Phone: 616-456-0059
Project Address:	Contact:
Completion Date:	

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
D 1 - Survey & Layout	1.00	LS	\$785.00	\$785.00
Surveying Technician, 1 Man (10.00 LS/DY, 0.10 DY)	1.00	LS	\$170.00	\$170.00
Engineering Technician	1.00	HR	\$170.00	\$170.00
Surveying Crew, 1 Man (3.33 LS/DY, 0.30 DY)	1.00	LS	\$615.00	\$615.00
Pickup Truck	3.00	HR	\$35.00	\$105.00
Surveyor	3.00	HR	\$170.00	\$510.00
D 2 - Strip Topsoil	56.00	BCY	\$10.07	\$564.00
Topsoil Respread, 950 (560.00 BCY/DY, 0.10 DY)	56.00	BCY	\$10.07	\$564.00
CAT 950 Loader	1.00	HR	\$127.50	\$127.50
CAT D4 Dozer	1.00	HR	\$81.50	\$81.50
Pickup Truck	1.00	HR	\$35.00	\$35.00
Foreman	1.00	HR	\$120.00	\$120.00
Operator [2]	1.00	HR	\$100.00	\$200.00
D 3 - Cut To Fill, Export Excess	191.00	BCY	\$28.98	\$5,535.38
Cut To Fill	56.00	BCY	\$10.07	\$564.00
Topsoil Respread, 950 (560.00 BCY/DY, 0.10 DY)	56.00	BCY	\$10.07	\$564.00
CAT 950 Loader	1.00	HR	\$127.50	\$127.50
CAT D4 Dozer	1.00	HR	\$81.50	\$81.50
Pickup Truck	1.00	HR	\$35.00	\$35.00
Foreman	1.00	HR	\$120.00	\$120.00
Operator [2]	1.00	HR	\$100.00	\$200.00
Load & Haul Excess To MSP	135.00	BCY	\$36.83	\$4,971.38
Brokered Export, Trench Spoils (E.T. MacKenzie Company)	162.00	CY	\$2.50	\$405.00
Removal / Export, 336 (400.00 CYT/DY, 0.41 DY)	162.00	CYT	\$12.44	\$2,014.88
CAT 336 Excavator	4.05	HR	\$216.00	\$874.80
Operator [2]	4.05	HR	\$100.00	\$810.00
CAT D4 Dozer	4.05	HR	\$81.50	\$330.08
Train, Operated (3 EA) (400.00 CYT/DY, 0.41 DY)	162.00	CYT	\$15.75	\$2,551.50
Train [3]	4.05	HR	\$110.00	\$1,336.50

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
<i>(Item 3 - Cut To Fill, Export Excess continued)</i>				
 Truck Driver [3]	4.05	HR	\$100.00	\$1,215.00
D 4 - Replace & Fine Grade Topsoil	56.00	BCY	\$15.10	\$845.50
 Topsoil Respread, 950 (560.00 BCY/DY, 0.10 DY)	56.00	BCY	\$10.07	\$564.00
 CAT 950 Loader	1.00	HR	\$127.50	\$127.50
 CAT D4 Dozer	1.00	HR	\$81.50	\$81.50
 Pickup Truck	1.00	HR	\$35.00	\$35.00
 Foreman	1.00	HR	\$120.00	\$120.00
 Operator [2]	1.00	HR	\$100.00	\$200.00
 Fine Grade Topsoil	340.00	SY	\$0.83	\$281.50
 Grading, D4 W/ Laborer, 1 (3,400.00 SY/DY, 0.10 DY)	340.00	SY	\$0.83	\$281.50
 Laborer	1.00	HR	\$100.00	\$100.00
 Operator	1.00	HR	\$100.00	\$100.00
 CAT D4 Dozer	1.00	HR	\$81.50	\$81.50
D 5 - Additional 12" CLIV RCP	14.00	LF	\$275.19	\$3,852.61
 12" C76 CLIV RCP, RJ (Northern Concrete Pipe)	16.40	LF	\$18.39	\$301.61
 Sand, Class II (TN), Delivered (Utility Bedding) (E.T. MacKenzie Company)	7.00	TON	\$8.00	\$56.00
 Brokered Export, Trench Spoils (E.T. MacKenzie Company)	6.00	CY	\$2.50	\$15.00
 Pipe Crew, Mainline, 336 (46.67 LF/DY, 0.30 DY)	14.00	LF	\$248.57	\$3,480.00
 CAT 336 Excavator	3.00	HR	\$216.00	\$648.00
 CAT 950 Loader	3.00	HR	\$127.50	\$382.50
 CAT D4 Dozer	3.00	HR	\$81.50	\$244.50
 6' Roller	3.00	HR	\$55.00	\$165.00
 Pickup Truck	3.00	HR	\$35.00	\$105.00
 Job Trailer w/Misc. Tools	0.30	DY	\$250.00	\$75.00
 Operator [3]	3.00	HR	\$100.00	\$900.00
 Laborer	3.00	HR	\$100.00	\$300.00
 Pipe Layer	3.00	HR	\$100.00	\$300.00
 Foreman	3.00	HR	\$120.00	\$360.00
D 6 - Rip Rap Drainage Swales	64.00	LF	\$177.66	\$11,370.00
 Rip Rap, MDOT, Plain (TN), Delivered (E.T. MacKenzie Company)	48.00	TON	\$135.00	\$6,480.00
 MDOT Geotextile Seperator (Ferguson Waterworks (Lansing))	500.00	SY	\$0.80	\$397.50
 Excavator, CAT 336, Operated (128.00 LF/DY, 0.50 DY)	64.00	LF	\$24.69	\$1,580.00
 CAT 336 Excavator	5.00	HR	\$216.00	\$1,080.00
 Operator	5.00	HR	\$100.00	\$500.00
 Loader, CAT 950, Operated (128.00 LF/DY, 0.50 DY)	64.00	LF	\$17.77	\$1,137.50
 CAT 950 Loader	5.00	HR	\$127.50	\$637.50
 Operator	5.00	HR	\$100.00	\$500.00
 Foreman W/ Truck (128.00 LF/DY, 0.50 DY)	64.00	LF	\$12.11	\$775.00
 Pickup Truck	5.00	HR	\$35.00	\$175.00
 Foreman	5.00	HR	\$120.00	\$600.00
 Laborers (2 Each) (128.00 LF/DY, 0.50 DY)	64.00	LF	\$15.63	\$1,000.00
 Laborer [2]	5.00	HR	\$100.00	\$1,000.00

Direct Cost Totals

	Amount	Percent of Direct Cost
Labor:	\$8,325.00	36.27%
Equipment Owned:	\$6,972.38	30.38%
Equipment Rented:	\$0.00	0.00%
Materials Owned:	\$0.00	0.00%
Materials Purchased:	\$5,559.11	24.22%
Subcontracted:	\$0.00	0.00%
Trucking Owned:	\$0.00	0.00%
Trucking Hired:	\$2,096.00	9.13%
Miscellaneous:	\$0.00	0.00%
Plug:	\$0.00	0.00%
Direct Cost:	<u>\$22,952.49</u>	

Pay Item Summary

	Amount	Percent of Bid Price
Total Direct Cost:	\$22,952.49	100.00%
Total DC Adds/Cuts:	\$0.00	0.00%
Total Indirect Cost:	\$0.00	0.00%
Total Bond:	\$0.00	0.00%
Total Overall Cost:	\$22,952.49	100.00%
Total Overhead:	\$0.00	0.00%
Total Profit:	\$0.11	0.00%
Total Margin:	\$0.11	0.00%
Total Bid Price:	<u>\$22,952.60</u>	

BULLETIN
PAGE 1 OF 3

FIG # 23-010-11-X 3

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B3
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	N/A
SHEETS:	C301, C401, C502, A301, M501, M701, M901, E201, E401, E504, E601
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Phil Parker – E.T. Mackenzie Jodie Ross, PE – Fishbeck John Willemin, PE – Fishbeck
<p>The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.</p> <p>This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed. Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.</p> <p>Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.</p> <p>Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.</p> <p>Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.</p>	

BULLETIN
PAGE 2 OF 3

ITEM NO. 1: Grading Modifications to accommodate Outlet Control Structures

Sheet: C301 – Site Grading Plan (reissued)
C401 – Sit Utility Plan (reissued)
C502 – Details (reissued)

- A. Lower Grading and Structure Elevations in the Detention Basins.
- B. Adjust grading on South Detention Pond to expand further north and increase north Side Slope to 4:1.
- C. Update Outlet Control Structure Detail Elevations to match new Grading.
- D. Add Swale with Riprap for pond Drainage and add standard detail.

ADD/DEDUCT: \$ B.O.

ITEM NO. 2: Louver size increase, damper size, and location change

Sheet: M701 – Sections (reissued)
M901 – Schedules (reissued)

- A. Louver L-114I increased from 40x24 to 40x40.
- B. Louver L-112I increased from 32x32 to 32x40.
- C. Louver L-110I decreased from 76x24 to 70x20.
- D. Damper MD-112I increased from 32x12 to 32x24
- E. Damper MD-114I increased from 40x16 to 40x32
- F. Damper MD-BLWRI decreased from 32x20 to 32x16
- G. Damper MD-110I-1 decreased from 66x24 to 61x20
- H. Switch locations of MD-BCI and MD-114I within louver L-114I

ADD/DEDUCT: \$ 1580⁰⁰

ITEM NO. 3: EF-114 and EF-103 Fan Locations

Sheet: M501 – First Floor Mechanical Sheet Metal Plan (reissued)
M701 – Sections (reissued)

- A. Switch positions of EF-114 and EF-103 and associated dampers within louver.
- B. Increase EF-103 ductwork size.

ADD/DEDUCT: \$ No Chg.

ITEM NO. 4: Schedule Corrections

Sheet: M901 – Schedules (reissued)

- A. Motorized Damper Schedule:
 - 1. MD-110E-1 changed from 470 to 2415 CFM
 - 2. MD-110I-1 changed from 470 to 2415 CFM
 - 3. MD-110E-2 changed from 470 to 75 CFM
 - 4. MD-110I-2 changed from 470 to 75 CFM
 - 5. MD-112E changed from 300 to 780 CFM
 - 6. MD-113I changed from 900 to 990 CFM
 - 7. Corrected MD-103E and MD-114E tags. Tags were erroneously swapped.
 - 8. Fixed damper location graphics.
- B. Louver Schedule:
 - 1. L-110E changed from 2415 to 2490 CFM
 - 2. L-110I changed from 2415 to 2490 CFM
 - 3. L-112E changed from 300 to 780 CFM
 - 4. L-113E changed from 900 to 990 CFM
 - 5. L-113I changed from 900 to 990 CFM

CLARIFICATION

ITEM NO. 5: Fan Controller note added

Sheet: M901 – Schedules (reissued)

- A. Note added to locate fan controllers outside of corrosive rooms.

CLARIFICATION

BULLETIN
PAGE 3 OF 3

ITEM NO. 6: Louver Relocations

Sheet: M501 – First Floor Mechanical Sheet Plan (reissued)

- A. L-110I relocated per Keynote 23.
- B. L-114I relocated to 11'4" AFF
- C. L-114E relocated to 11'4" AFF

CLARIFICATION

ITEM NO. 7: EF-113-2 Electrical Changes

Sheet: M901 – Schedules (reissued)
E201 – Power Plans (reissued)
E401 – One Line Diagram (reissued)
E504 – Wiring Diagrams (reissued)
E601 – Panelboard Schedules (reissued)

- A. EF-113-2 changed from 120/1 to 460 voltage/3 phase.

ADD/DEDUCT:

*\$ No Change - F&C
Elect - By Others*

ITEM NO. 8: Masonry Openings for Louvers in Exterior Walls Revised for Coordination with Louver Changes.

Sheet: A301 – Exterior Elevations (reissued)

CLARIFICATION

Contractor:

FHC

Signature

D. K. [Signature]

Name and Title of Signatory

5/16/23

Date

END OF BULLETIN

PROJECT NAME: Grand Ledge Iron Removal
 QUOTED TO: RK Davis
 DESCRIPTION: Bulletin: 3
Item: 2 Louver/damper changes

DATE: 05/16/23
 FHC JOB # 23-0010-11
 FHC X# 3
 SM X# _____

DESCRIPTION	MATERIAL W/OUT TAX	SUBS	FAB	FIELD	DETAILING
Louver / damper changes	\$1,014.00			2	
SUB TOTALS	\$1,014.00	\$0.00	0.0	2.0	0.0

TOOLING					\$8.24
EQUIPMENT RENTAL					\$4.00
PROJECT MANAGEMENT HOURS					1.0
FIELD FOREMAN					0.1
FAB SHOP FOREMAN					0.0
DELIVERY					0.0

	HOURS	RATE	COST	MARK UP	PRICE
MATERIALS including sales tax			\$1,074.84	\$161.23	\$1,236.07
SUBCONTRACTORS			\$0.00	\$0.00	\$0.00
SHOP JOURNEYMAN	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FABRICATION SHOP FEE	0.0	\$91.55	\$0.00	\$0.00	\$0.00
FIELD JOURNEYMAN	2.0	\$91.55	\$183.10	\$27.47	\$210.57
DETAILING	0.0	\$75.00	\$0.00	\$0.00	\$0.00
TOOLING			\$8.24	\$1.24	\$9.48
EQUIPMENT RENTAL			\$4.00	\$0.60	\$4.60
PROJECT MANAGEMENT	1.0	\$94.55	\$94.55	\$14.18	\$108.73
FIELD FOREMAN	0.1	\$94.55	\$9.46	\$1.42	\$10.87
FAB SHOP FOREMAN	0.0	\$94.55	\$0.00	\$0.00	\$0.00
DELIVERY	0.0	\$65.00	\$0.00	\$0.00	\$0.00
TOTAL THIS QUOTATION:					\$1,580

Time extension required (days) 0.1

Quoted by: <u>dr</u>	Date: <u>5/16/2023</u>
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We are pleased to quote the following per your request:

MAP Reference #

PGR2300538 BULL 3



Item # 02 Louver & damper size changes. * note Per Jake no flanges on MODS.

Total Price.....ADD.....\$ 1,014.00

Note : R2 replaces R1NO CHANGE
EF113-2 Voltage change.....NO CHANGE

*** SEE SUBMITTALS ATTACHED (Not requested by for coordination) Should be good.

FOB Factory Freight Allowed / Sales Tax Not Included / Quotation Valid 30 Days / Complete Terms and Conditions

Accepted

By: _____ Company: _____ Date: _____ PO: _____

Thank you for considering Michigan Air Products,

BULLETIN
PAGE 1 OF 3

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B3
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	N/A
SHEETS:	C301, C401, C502, A301, M501, M701, M901, E201, E401, E504, E601
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Phil Parker – E.T. Mackenzie Jodie Ross, PE – Fishbeck John Willemin, PE – Fishbeck
<p>The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.</p> <p>This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.</p> <p>Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.</p> <p>Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.</p> <p>Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.</p> <p>Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.</p>	

BULLETIN
PAGE 2 OF 3

ITEM NO. 1: Grading Modifications to accommodate Outlet Control Structures

Sheet: C301 – Site Grading Plan (reissued)
C401 – Sit Utility Plan (reissued)
C502 – Details (reissued)

- A. Lower Grading and Structure Elevations in the Detention Basins.
- B. Adjust grading on South Detention Pond to expand further north and increase north Side Slope to 4:1.
- C. Update Outlet Control Structure Detail Elevations to match new Grading.
- D. Add Swale with Riprap for pond Drainage and add standard detail.

ADD/DEDUCT: \$ N/A

ITEM NO. 2: Louver size increase, damper size, and location change

Sheet: M701 – Sections (reissued)
M901 – Schedules (reissued)

- A. Louver L-114I increased from 40x24 to 40x40.
- B. Louver L-112I increased from 32x32 to 32x40.
- C. Louver L-110I decreased from 76x24 to 70x20.
- D. Damper MD-112I increased from 32x12 to 32x24
- E. Damper MD-114I increased from 40x16 to 40x32
- F. Damper MD-BLWRI decreased from 32x20 to 32x16
- G. Damper MD-110I-1 decreased from 66x24 to 61x20
- H. Switch locations of MD-BCI and MD-114I within louver L-114I

ADD/DEDUCT: \$ N/A

ITEM NO. 3: EF-114 and EF-103 Fan Locations

Sheet: M501 – First Floor Mechanical Sheet Metal Plan (reissued)
M701 – Sections (reissued)

- A. Switch positions of EF-114 and EF-103 and associated dampers within louver.
- B. Increase EF-103 ductwork size.

ADD/DEDUCT: \$ No Change

ITEM NO. 4: Schedule Corrections

Sheet: M901 – Schedules (reissued)

- A. Motorized Damper Schedule:
 - 1. MD-110E-1 changed from 470 to 2415 CFM
 - 2. MD-110I-1 changed from 470 to 2415 CFM
 - 3. MD-110E-2 changed from 470 to 75 CFM
 - 4. MD-110I-2 changed from 470 to 75 CFM
 - 5. MD-112E changed from 300 to 780 CFM
 - 6. MD-113I changed from 900 to 990 CFM
 - 7. Corrected MD-103E and MD-114E tags. Tags were erroneously swapped.
 - 8. Fixed damper location graphics.
- B. Louver Schedule:
 - 1. L-110E changed from 2415 to 2490 CFM
 - 2. L-110I changed from 2415 to 2490 CFM
 - 3. L-112E changed from 300 to 780 CFM
 - 4. L-113E changed from 900 to 990 CFM
 - 5. L-113I changed from 900 to 990 CFM

CLARIFICATION

ITEM NO. 5: Fan Controller note added

Sheet: M901 – Schedules (reissued)

- A. Note added to locate fan controllers outside of corrosive rooms.

CLARIFICATION

BULLETIN
PAGE 3 OF 3

ITEM NO. 6: Louver Relocations

Sheet: M501 – First Floor Mechanical Sheet Plan (reissued)

- A. L-110I relocated per Keynote 23.
- B. L-114I relocated to 11'4" AFF
- C. L-114E relocated to 11'4" AFF

CLARIFICATION

ITEM NO. 7: EF-113-2 Electrical Changes

Sheet: M901 – Schedules (reissued)
E201 – Power Plans (reissued)
E401 – One Line Diagram (reissued)
E504 – Wiring Diagrams (reissued)
E601 – Panelboard Schedules (reissued)

- A. EF-113-2 changed from 120/1 to 460 voltage/3 phase.

ADD DEDUCT: \$ 11,942.00

ITEM NO. 8: Masonry Openings for Louvers in Exterior Walls Revised for Coordination with Louver Changes.

Sheet: A301 – Exterior Elevations (reissued)

CLARIFICATION

Centennial Electric, LLC

Contractor

Signature

Name and Title of Signatory

Date

END OF BULLETIN

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
B3- No 7- Deduct	(\$663.98)	100.00%	(\$663.98)	-3.47	100.00%	-3.47

Top Sheet

Raw Cost	(\$963.68)	Sales per Month	\$0.00
Tax	(\$39.84)	Return per Month	\$0.00
Raw Cost with Tax	(\$1,003.52)	Price per Square Foot	\$0.00
Overhead	\$0.00	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$0.00	Job Months	0.00
Total Return %	0.00%	Hours per Week	0.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	86.47
Price	(\$1,003.52)	Workers per Day	0.00
Bond	\$0.00	Total Hours	-3.47
Sell Price	(\$1,003.52)	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	Yes

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	100.00%	(3.47)	\$86.47	\$0.00	0.00%	(\$299.71)
Foreman Local 665	0.00%	0.00	\$99.44	\$0.00	0.00%	\$0.00
General Foreman Local 665	0.00%	0.00	\$108.09	\$0.00	0.00%	\$0.00
Totals	100.00%	(3.47)	\$86.47	\$0.00	0.00%	(\$299.71)

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT
	Total	%	Amount	%	Amount
Materials	(\$663.98) +	0.00%	(\$663.98) +	0.00%	(\$663.98)
Labor	(\$299.71) +	0.00%	(\$299.71) +	0.00%	(\$299.71)
Supplier Quotes	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
SubContractors	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
Direct Job Expense	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
Equipment Rental	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
Fixtures Quotes	\$0.00 +	0.00%	\$0.00 +	0.00%	\$0.00
Totals	(\$963.68)	0.00%	(\$963.68)	0.00%	(\$963.68)

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	(\$663.98)	6.00%	(\$39.84)
Labor	(\$299.71)	0.00%	\$0.00
Supplier Quotes	\$0.00	6.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	6.00%	\$0.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	(\$39.84)

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: B3- No 7- Deduct

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
Label Set: Combined, Combined, Combined, Combined, Combined											
CCode: < none >											
60,060	WP Cover	-1.00	\$18.00	E	(\$103.00)			-3.47		100%	100%
60,066	MMS	-1.00	\$85.00	E	(\$18.00)	0.25	E	-1.00		15.51%	28.85%
CCode: Branch Rough											
4,234	3/4 GRC/PVC COATED	-24.00	\$1,218.79	C	(\$85.00)	0.75	E	-0.25			
CCode: Straps											
4,846	3/4 GRC/PVC 1H STRAP	-2.40	\$30.61	E	(\$292.51)			-1.92	cb	44.05%	55.4%
4,872	3/4 GRC/PVC CLAMP BACK	-2.40	\$46.35	E	(\$184.70)			-0.10		27.82%	2.77%
CCode: Branch Wire											
41	12 THHN CU STRANDED	-75.00	\$1,116.88	M	(\$73.46)	4.00	C	-0.10	cs		
					(\$111.24)	0.00	C	0.00	cs	12.62%	12.98%
					(\$83.77)			-0.45			
					(\$83.77)	6.00	M	-0.45	wb		
					(\$663.98)			-3.47			

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
B3- No 7- Add	\$1,418.38	100.00%	\$1,418.38	9.93	100.00%	9.93

Top Sheet

Raw Cost	\$11,083.05	Sales per Month	\$0.00
Tax	\$85.10	Return per Month	\$0.00
Raw Cost with Tax	\$11,168.15	Price per Square Foot	\$0.00
Overhead	\$1,662.46	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$1,662.46	Job Months	0.00
Total Return %	12.84%	Hours per Week	0.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	86.47
Price	\$12,830.60	Workers per Day	0.00
Bond	\$115.48	Total Hours	9.93
Sell Price	\$12,946.08	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	Yes

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	100.00%	9.93	\$86.47	\$0.00	0.00%	\$858.67
Foreman Local 665	0.00%	0.00	\$99.44	\$0.00	0.00%	\$0.00
General Foreman Local 665	0.00%	0.00	\$108.09	\$0.00	0.00%	\$0.00
Totals	100.00%	9.93	\$86.47	\$0.00	0.00%	\$858.67

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT
	Total	%	Amount	%	Amount
Materials	\$1,418.38	+ 15.00%	\$1,631.13	+ 0.00%	\$1,631.13
Labor	\$858.67	+ 15.00%	\$987.47	+ 0.00%	\$987.47
Supplier Quotes	\$8,806.00	+ 15.00%	\$10,126.90	+ 0.00%	\$10,126.90
SubContractors	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00
Direct Job Expense	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00
Equipment Rental	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00
Fixtures Quotes	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00
Totals	\$11,083.05	15.00%	\$12,745.50	0.00%	\$12,745.50

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	\$1,418.38	6.00%	\$85.10
Labor	\$858.67	0.00%	\$0.00
Supplier Quotes	\$0.00	6.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	6.00%	\$0.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	\$85.10

Supplier Quotes					
Name	Supplier	Tax (6.0%)	Unit Cost	Mult	Amount
MCC Bucket Change	Eaton	No	\$8,806.00	1.00	\$8,806.00
Totals:					\$8,806.00

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: B3- No7- Add

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours	
Label Set: Combined, Combined, Combined, Combined, Combined												
CCode: <undefined>												
60,083	Disconnect Rack	1.00	\$185.00 E		\$185.00	1.50 E		1.50		100%	100%	
CCode: Branch Rough												
4,234	3/4 GRC/PVC COATED	46.88	\$1,218.79 C		\$571.33	8.00 C		3.75 cb				
5,346	1/2 FLEX STEEL	5.00	\$232.63 C		\$11.63	4.00 C		0.20 cb				
5,402	1/2 FLEX 2 SCREW CONN	1.00	\$5.82 E		\$5.82	0.12 E		0.12 cb				
5,438	1/2 FLEX 90 1 SCREW CONN	1.00	\$9.22 E		\$9.22	0.14 E		0.14 cb				
CCode: Straps												
4,846	3/4 GRC/PVC 1H STRAP	4.69	\$30.61 E		\$143.49	4.00 C		0.19 cs			1.89%	
4,872	3/4 GRC/PVC CLAMP BACK	4.69	\$46.35 E		\$217.27	0.00 C		0.00 cs				
CCode: Disc/Safety Switches												
10,665	30A 250V 1PH N4X NF SW	1.00	\$0.00 Q		\$0.00	2.00 E		2.00 sd		0%	20.14%	
CCode: Lugs/Termination/Ground												
5,736	12 GA TERMINATION	4.00	\$0.00 X		\$0.49	0.14 E		0.56 sl		0.03%	5.64%	
5,837	RED 3M WIRE NUT	4.00	\$12.37 C		\$0.49	0.00 C		0.00 sl				
CCode: Branch Wire												
41	12 THHN CU STRANDED	245.43	\$1,116.88 M		\$274.11	6.00 M		1.47		19.33%	14.83%	
					\$274.11			1.47 wb				
					\$1,418.38			9.93				



Detail Bill of Material

Project Name: Grand Ledge Iron Removal Plant
General Order No: LGR0033681

Negotiation No: LN041116X2K1
Alternate No: 0003

Delete existing spare 20/3 feeder breaker bucket

Item No.	Qty	Product	Description
	1	MCC Aftermarket	MCC plug-in unit base price includes operating handle, bus stabs, door and all mounting hardwareCatalog: FZF1B12 # Freedom/F2100 Vintage, 480V.
		Catalog No	FZF1B12
		Designation	SPARE
	Qty	List of Materials	
	1	FREEDOM 2100 20A Feeder Breaker Unit 12"	

Add new Sz1 starter and loose disconnect

Item No.	Qty	Product	Description
	1	MCC Aftermarket	MCC plug-in unit base price includes operating handle, bus stabs, door and all mounting hardwareCatalog: FZ206AEASC12O21C15P15P57S10S31M15 # ,0.25 HP Freedom/F2100 Vintage, 480V, FVNR size 1-5.
		Catalog No	FZ206AEASC12O21C15P15P57S
		Designation	EF-113-2
	Qty	List of Materials	
	1	F2100 MCC, HMCP Combination size 1 FVNR Starter, with CPT, 12"	
	1	C440 w/GF (Specify FLA in Special Mods Tab)	
	1	Extra 50 VA for CPT	
	1	Red 'Run' Push-to-Test Light	
	1	HAND-OFF-AUTO' Selector Switch	
	1	1NO Starter Aux Contacts	
	1	3NO-1NC Starter Aux Contacts	
	1	Panel Elapsed Time Meter	

Item No.	Qty	Product	Description
	1	Safety Switches	SSW2
		Catalog No	DH361UWK
		Designation	EF-113-2
Catalog No	Qty	List of Materials	
DH361UWK	1	Heavy Duty Switch - Non-Fusible, 3-Pole, 600 VAC, 30 A, NEMA 4X (304 Stainless)	

Lot Price: \$8,806.00

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Seller shall not be responsible for any failure to perform, or delay in performance of, its obligations resulting from the COVID-19 pandemic or any future epidemic, and Buyer shall not be entitled to any damages resulting thereof.