MSKTD
& Associates

ARCHITECTURE ENGINEERING INTERIOR DESIGN
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ADDENDUM NO. 1

FORT WAYNE CHILDREN'S ZOO
VELDT BARN REPLACEMENT
MSKTD Project No. 8063
Wednesday, September 11, 2024

This addendum is issued as a supplement to the drawings and specifications and shall be considered an integral part of the same.

ITEM	LOCATION	DESCRIPTION
1.1	Prebid Meeting Notes	See attached Prebid Meeting Notes.
1.2	Supplementary Bid Form	See the attached, revised Supplementary Bid Form.
1.3	General Note	Contracts will be entered into with the apparent bidder within 90 days after receiving bids. Substantial Completion to be October 1, 2025.
1.4	Bidder Questions	See attached list.
1.5	Specifications Section 012300	Change Alternate No. A2 to read as follows: B. Alternate No. A2: Delete west section of the building and all clerestory. 1. Base Bid: Construct the first floor as indicated on Drawing A201. 2. Alternate: Delete the west section of the building as indicated on Drawing A201c and no clerestory.
1.6	Specifications Section 012300	Add to Section 012300, 3.1, C to read as follows: C. Alternate No. A3: Delete the west section of the building. 1. Base Bid: Construct the first floor as indicated on Drawing A201. 2. Alternate: Delete the west section of the building as indicated on Drawing A201c. Construct the clerestory on both the high and remaining low roof.
1.7	Specifications Section 055000	Metal Fabrications – Change 27,A,1 to 18 gauge.
1.8	Specifications Sections 074113.16, 074213, 074293	Change the color to "as selected by Architect from the manufacturer's standard colors."

ITEM	LOCATION	DESCRIPTION
1.9	Specifications Section 074113.16	Standing-Seam Metal Roof Panels – IMETCO is an approved manufacturer for the standing seam metal panels, subject to complying with all specifications and requirements.
1.10	Specifications Section 074213.13	Formed Metal Wall Panels – IMETCO is an approved manufacturer for the metal wall panels, subject to complying with all specifications and requirements.
1.11	Specifications Section 074293	Soffit Panels - Change the panels to .032 perforated aluminum panels with 20 years warranted Kynar finish. Soffit Panels – IMETCO is an approved manufacturer for the soffic panels, subject to complying with all specifications and requirements.
1.12	Specifications Section 084515	Top-Hinged Window System - Add this specification to the project manual. These windows are for the clerestory as shown on the plans and exterior elevations. See attachment.
1.13	Specifications Section 329100	Planting Soil Revise Paragraph 1.10 Submittals, Item D 1d to read: "All soil testing will be at the expense of the Owner. Coordination to be by the G.C."
1.14	Drawing Sheet G100	Change the following sheets to read as follows: C101 Demolition Site Plan – North C102 Demolition Site Plan – South & East C402 Enlarged Site Plan
1.15	Drawing Sheet C201	Revise Grading & Utility Notes, Note 2 to read: Contractor shall coordinate all utility work with utility agencies. The new gas service line cost is to be coordinated for payment by the Owner directly to the utility. Contractor shall pay all other fees and cost charged by all other utility agencies to complete new construction.
1.16	Drawing Sheet C401	Change Site Plan Key Notes 6 and 7 Perimeter Fence items from "BY OWNER" to G.C. scope.
1.17	Drawing Sheet C402	Change Site Plan Key Notes 6 and 7 Perimeter Fence items from "BY OWNER" to G.C. scope. Change Site Gate schedule to reflect perimeter Gate 101G shift from "By Owner" scope to "By G.C." scope. Change Gate 101G, Cantilevered entry gate operation function from powered automatic to manual slide & change corresponding hardware package from Package H to Package J Change Gate 105G, Cantilevered Animal Transfer Gate function from manual crank operation to manual slide operation & change corresponding hardware package from Package A to Package J Change Gate 125G, Cantilevered Animal Transfer Gate function from manual crank operation to manual slide operation & change corresponding hardware package from Package A to Package J. Change Site Gate Hardware Schedule to reflect elimination of Package H Hardware for automatic slide gates and the addition of Package J Hardware for manually operated gates slide gates with no remote crank.
1.18	Drawing Sheet C501	Change Detail 9/C501 to reflect switch from "By Owner" Scope to "By G.C." scope. Change Detail 10/C501 to reflect switch from "By Owner" Scope to "By G.C." scope. and switch from powered, remote-controlled operation to manual slide operation.

ITEM	LOCATION	DESCRIPTION
1.19	Drawing Sheet C502	Change Detail 5/C502 to refer to C402 for Site Gate Schedule and to Site Gate Hardware & Accessory Schedule for manual crank requirement.
1.20	Drawing Sheet A201a	The east wall of RR105 is 4" CMU and the west wall is 8" CMU. Office 102 to have windows in the north wall as shown on A201b and as detailed on 3/A501. Wire mesh to be installed by GC; see specifications.
1.21	Drawing Sheet A401	Material for Notes E2, E5, E9, and R2 to be as specified in Spec Section 074113.13.
1.22	Drawing Sheet A501	RC3 to be welded wire mesh fabric per Spec Section 055000. Provide additional support as required by manufacturer.
1.23	Drawing Sheets P201 & P501	Provide revised floor drainage and trench drain covers to accommodate splitting the cast trench in the floor as shown on the attached, revised sheets.
1.24	Drawing Sheet P301	Relocate a hose bibb marked HB-1 from the southwest corner of Zebra Herd Pen 111 to Impala Ram 113 as shown on the attached, revised sheet.
1.25	Drawing Sheet E201	Added Power Plan Note P14 to clarify MAU-1 circuit sizes for Base Bid and Alternate A2.
1.26	Drawing Sheet E202	Added circuits for motorized dampers near EF-1 & EF-3.
1.27	Drawing Sheet E501	On Detail 1 Structure Grounding: See revised grounding size.
1.28	Drawing Sheet E502	On Luminaire Schedule: Clarified Fluorescent Light FL-1 to be 2-lamp fixture. Electrical Riser Diagram: See revised feeder size.

Respectfully submitted,

MSKTD & ASSOCIATES, INC.

Richard S. Rambo, Architect

RSR/jf

Attachments:

- Prebid Meeting Notes
- Revised Supplementary Bid Form
- Bidder Questions
- Spec Section 084515
- Drawing Sheets C201, C401, C402, C501, C502
- Drawing Sheets P201, P301, P501
- Drawing Sheets E201, E202, E501, E502

cc: Eastern Engineering
Casie Shoaf (Casie.Shoaf@kidszoo.org)

MSKTD & Associates

VELDT REPLACEMENT BARN
FORT WAYNE CHILDREN'S ZOO
MSKTD Project No: 8063

PREBID MEETING MINUTES
Wednesday, September 4, 2024, 12:30 p.m.

THOSE IN ATTENDANCE:

See the attached list.

ISSUES DISCUSSED:

The following recorded items are intended to be a summary of the items discussed at the Prebid Meeting. The items discussed were condensed from the plans and specifications and are not in any way intended to be all inclusive of the requirements by the contractors. The items discussed were intended to clarify regular items necessary during the bidding process.

INTRODUCTIONS:

OWNER'S REPRESENTATIVES

Casie Shoaf – Director of Capital Projects and Facilities
Joining for the Site Walk: Mike Ryan – Maintenance Manager

ARCHITECT'S REPRESENTATIVES – MSKTD & Associates, Inc.

Rick Rambo – Architect
Laura Kukelhan – Landscape Architect
Ashley McCoy – Civil Engineering Designer

BIDDING PROCEDURES

1. Bids due at 1:00 p.m. (local time), September 25, 2024, at the office of MSKTD & Associates, 1715 Magnavox Way, Fort Wayne, IN 46804.
2. Bid forms must be filled out in their entirety, including lump sum bid, list of subcontractors, alternate proposals, unit pricing, completion date, and acknowledgement of all addenda.
3. Other documents that are a part of the bid include:
    a. 5% bid bond.
4. Base bid valid for 90 calendar days. Bids may not be withdrawn for 60 days.
5. Project is tax exempt.
6. Any bid that is incomplete may be rejected by the Owner. Owner reserves the right to reject any and all bids and to waive any informality or irregularity in any bid.

7. For evaluation, the apparent low bidder to submit within 48 hours the requested information in the Bid Form concerning supplemental subcontractors and product lists.

GENERAL ITEMS

1. Bidding documents are available at Eastern Engineering, 260-426-3119.
2. All plan holders of full set of bid documents will receive addenda directly from Eastern Engineering.
3. MSKTD will only provide construction documents interpretations submitted in writing. Send inquiries to the respective disciplines contact as listed on the drawing set cover and in the Supplemental Instructions to Bidders.
4. Last day of request for substitutions to be accepted is September 15, with last addendum to be issued no later than September 23. CSI Form 13.1A shall accompany all requests.
5. Article 11 of the General Conditions and Article 9 of the Supplementary General Conditions outline insurance coverage requirements.

SUCCESSFUL BIDDER AND AWARD OF CONTRACT

1. E-Verify affidavits.
2. Performance and Payment Bond in 100% of the contract price.
3. Escrow Agreement for Retainage.

GENERAL BIDDER QUESTIONS

1. Bidders are to submit all questions regarding the site, project scope, drawings or bidding requirements to the architect in written format for response and distribution.

SITE VISIT

1. Northeast parcel, beginning in the vicinity of the new entrance and temporary construction access to the general vicinity of the proposed manure bunker.
2. South half of the site beginning just north of the old veldt barn, down through the area both outside and inside the proposed animal corridor and north past the garage and bird habitat to be demolished for construction of the detention basin.

Respectfully submitted,

MSKTD & ASSOCIATES, INC.

Rick Rambo, Architect

Attachment: Prebid Attendance Lists

cc: All plan holders

MSKTD & Associates

Zoo PREBID

RICK KAMBO	MSKTD	RSK@MSKTD.COM
Jim Merkler	Ley Excavating	jmerkler@leyexcavating.co
Urban Ley	Ley Excavating	uley@leyexcavating.com
Jared Archer	O'Neal excavating	Jared@Onealexc.com
Joel Barker	Shawnee Construction	Jbarker@Shawneeconstruction.co
Clayton Woodworth	Hagerman	cwoodworth@hagermanco.c
Jeremy [illegible]	Crosby Excavating	[illegible]@crosbyexcavating.com
Joe [illegible]	[illegible]	
Taylor Tobe	Hagerman	Ttobe hagermange.com
Tim Schenkel	Schenkel Const.	tschenkel@SCIBuild.co
Justin Swing	T-E INC	justin@t-einc.com
Austin Wilburn	J&A Fad TreeCare	Austin.jafordtreecare@gmail.com
ZACH STRASSER	HAGERMAN	ZSTRASSER@HAGERMANGC.C
Case Shoaf	FWCZ	Case.Shoaf@kidszoo.org
Laura Kukelhan	MSKTD	LAK@MSKTD
Ashley McCoy	MSKTD	anm@MSKTD.com

SUPPLEMENTARY BID FORM **(Revised Addendum No. 1)**
(To be submitted in duplicate)

TO: Fort Wayne Children's Zoo
Fort Wayne, Indiana

FROM: _____ (Bidder's Name)

_____ (Address)

_____ (City and State)

_____ (Telephone and Email)

FOR: Veldt Barn Replacement

Notice is hereby given that the Fort Wayne Children's Zoo will be accepting bids for the Veldt Barn Replacement project, Fort Wayne, IN. Bids shall be submitted no later than 1:00 p.m., local time, Wednesday, September 25, 2024, at which time bids will be privately opened. Bids received after the 1:00 p.m. deadline will be returned unopened. Submit bids to the following location:

MSKTD & Associates, Inc.
1715 Magnavox Way
Fort Wayne, Indiana 46804

BASE BID

The undersigned bidder, with a complete understanding of existing conditions at the Project Site and a complete understanding of the Bidding Documents, including any Addenda acknowledged hereinafter, in accordance with plans and specifications prepared by MSKTD & Associates, Inc.,

_____ hereby proposes to complete the Veldt Barn Replacement project, Fort Wayne, IN in full and complete accordance with the requirements of the Bidding Documents, for the following:

Lump Sum Bid Price:

_____ Dollars $_____
(numerals)

UNIT PRICES

Unit Price No. 1 - Unsuitable Soils _____ per cubic yard

Unit Price No. 2 - Lean Concrete Over Unsuitable Soils _____per cubic yard

Unit Price No. 3 - Keeper Door _____ each

ALTERNATES

Alternate No. A1 - Delete Clerestory Add / Deduct _____

Alternate No. A2 - Delete West Section of Building and All Clerestory Add / Deduct _____

Alternate No. A3 – Delete West Section of the Building Add / Deduct _____

REQUIRED DOCUMENTS (to be submitted with bid)

- ☐ Bid Security - Attach to Bid Form, in the amount indicated in the Instructions to Bidders.
- ☐ Indiana Form 96, along with current Financial Statement
- ☐ Supplementary Bid Form

ADDENDA

The following Addenda have been received by the undersigned Bidder and all costs resulting from these Addenda have been included in the preparation of this Bid Form.

Addendum No. _____, Dated _____

Addendum No. _____, Dated _____

Addendum No. _____, Dated _____

SIGNATURES

Date: _____ By _____
(President)

Firm Name _____

Address _____

_____

Telephone _____

Attest: _____

CORPORATE SEAL (Secretary)

Bidder Questions

8-30-2024 Question Set

1. *Who is responsible for material and soil testing?*
   Response: Owner

2. *When is the anticipated Notice To Proceed? When is the anticipated substantial completion date?*
   Response: anticipated notice to Proceed: To be determined. Anticipated Substantial completion: October 1, 2025

3. ***Spec Section 074293*** *– Soffit Panels: Section refers to using V-groove soffit panels but the basis of design is a flush panel by DMI. Can the architect please confirm which profile is required – Flush Panel or V-groove?*
   Response: See Specifications.

4. ***Spec Section 074293*** *– Soffit Panels: Section refers to using .028" metallic-coated steel sheet for soffit materials. Note RC4 on page A901 calls out fully perforated aluminum soffits. Which material is to be used for the soffits – Aluminum or Steel?*
   Response: See Addendum Item # 1.11

5. ***Drawing page A401****: There is no call outs for material/window type for the windows located in the clerestory. Can the architect provide elevations and/or call outs for what type of windows these are?*
   Response: See Addendum Item # 1.21

6. ***Specification Section 074213.13*** *– Formed Metal Wall Panels: Is Dimensional Metals, Inc. (DMI) 7.2 Panel WP72 an acceptable manufacturer for this specification section?*
   Response: This can be considered post bid. Base bid per documents.

7. ***Specification Sections 074113.16, 074213.13, &074293****: These three specification sections state that the metal panels (roof, siding, & soffits) are to be "As selected by Architect from manufacturer's full range". Colors outside of the manufacturer's standard colors typically have high-cost implications. Can the architect please provide potential colors that may be selected based upon each specification sections BOD to help control cost for the Owner?*
   Response: See Addendum Item # 1.8

9-04-2024 Question Set

8. ***Drawing page C101 & C102****, Note 1: Can the architect confirm the intent of this note? Is all brush/trees within the grey shaded area to be cleared and removed? If all brush is not to be removed, how is tree removal to occur?*
   Response: Note 1: YES, Remove ALL vegetation, including trees and brush, complete with rootballs, in the grey toned "forested" areas as required for proper compaction and permanent stability of the building pad.

9. ***Drawing Page S401****: This page shows 12x12 & 12x14 rafters and columns. Are these true timber posts or are glu-lams acceptable? What species of wood can be used for these?*
   Response: Glulam is acceptable and will be considered post bid. Base bid per documents.

10. ***Drawing Page S201, S401****: Will the A/E be issuing foundation & framing plans for Alternate A2?*
    Response: No. West wall construction of base bid will be maintained if Alternate is accepted.

11. ***Detail 8/S301*** *Typ.: Can the foundation wall in this detail, and similar details, be formed and placed 16" taller than shown so the 12"x12" timber is not buried in the floor slab? There are longevity concerns that this post will decay prematurely if the slab is poured around the 12"x12" posts with the zookeepers continually spraying the floors down in these areas.*
    Response: This can be considered post bid. Base bid per documents.

12. ***Detail 14/S501:*** *Where does this detail occur?*
    Response: See section 13/S501

13. ***Drawing page A201****: This page shows 2 separate trench drains in Hall #2 but the structural (S201) & plumbing (P201) plans show one continuous trench drain. Which detail is correct?*
    Response: A201 is correct.

14. ***Specification Section 061200*** *– Structural Insulated Panels: Detail 7/A704 calls for 5/8" plywood on top layer of SIP. Specifications call for 5/8" OSB as top layer. Which material is to be provided? If plywood is required as the top layer, is the bottom side to be plywood as well?*
    Response: Either are acceptable if the sheathing is APA rated and meets design requirements.

15. ***Specification Section 061200*** *– Structural Insulated Panels: Does the SIP roof assembly need to be 1-hour fire rated? If so, the details/products specified do not meet this rating. Refer to section 2.1 PERFORMANCE REQUIREMENTS, ITEM C: FIRE RESISTANT ASSEMBLIES*.
    Response: A fire rating is not required.

16. ***Bid Form:*** *Are the alternates supposed to stack (i.e. Only if Alternate A1 is accepted, Alternate A2 may be accepted). If Alternate A2 is able to be accepted by itself, would the clerestory remain on the East portion of the building? Please advise.*
    Response: No stacking. Alternate A2 includes clerestory on both the higher & lower sections of roof.

17. ***Bid Form:*** *The bid form lists Unit Price No. 3 – Keeper Door. Is this applicable to the GC's scope of work? If so, which doors are considered keeper doors?*
    Response: This would apply to any man doors added to the perimeter fence. Perimeter fence has been moved to G.C. scope to facilitate coordination of security & demo.

18. ***Drawing Page C202:*** *Is the new gas line coming off Sherman Blvd. being furnished & installed by the utility company?*
    Response: Gas line to be coordinated by the GC with the utility company for service installation. The Owner to be billed directly by the utility company for contract costs.

9-05-2024 Question Set

19. ***Specification Section 074213.13*** *– Formed Metal Wall Panels: Is IMETCO's 7.2 Rib exposed fastener wall panel an acceptable manufacturer for this specification section? See attached substitution request.*
    Response: See Addendum Item # 1.10

20. ***Specification Section 074113.13*** *– Standing Seam Metal Roof Panels: Is IMETCO's Twin Lok standing seam metal roof panel an acceptable manufacturer for this specification section? See attached substitution request.*
    Response: See Addendum Item # 1.10

21. ***Specification Section 074293****– Soffit Panels: Is IMETCO's SP-120 soffit panel an acceptable manufacturer for this specification section? See attached substitution request.*
    Response: See Addendum Item # 1.11

9-09-2024 Question Set

22. *Is there a project schedule or any milestone/start/completion dates for the project?* ***011000-1.8.C*** *references "003113 Preliminary Schedules" but I couldn't find that section in the specs.*
    Response: See Addendum Item # 1.3 Balance of Schedule to be determined.

23. *The* ***"Grouting Detail Low Lift" detail on S002*** *has a note calling to fully grout all masonry cores solid. Please confirm if the intent is for the grout to occur only at CMU cells with reinforcing or if all cells are to be grouted solid regardless of the presence of reinforcing.*
    Response: Grout cells receiving reinforcement only.

24. ***Details 1/S301 and 1-4 on S402*** *show 2x framing anchored to the top of CMU below. Is the intent for these to be attached with anchor bolts embedded in CMU or with post-installed fasteners drilled after masonry installation?*
    Response: Either is acceptable.

25. *Please confirm the partition types for the east and west walls of Restroom 105. I could not find any p-type designations on the floor plans for these two walls.*
    Response: See Addendum Item # 1.20

9-10-2024 Question Set

26. ***Specification Section 074113.13*** *– Standing Seam Metal Roof Panels: Specification section states Flashing/Trim, Gutters, Downspouts to be formed out of the same material as roof panels (22-gauge steel). Drawing page A401, Notes E2, E5, E9, & R2 reference aluminum trims for the flashing/trims, gutters, and downspouts. Can the A/E please confirm which material is to be used?*
    Response: See Addendum Item # 1.21

27. ***Drawing page C401:*** *Has the clearance of the overhead power and communication lines at the proposed entrance off Wells Street been confirmed or defined? Code clearances may be an issue with the height of these lines and the concrete drive/apron.*
    Response: Contractor to coordinate with the utility company for access.

28. ***Drawing page A201a:*** *The floor plan for area A on this page does not indicate there are windows in the North wall of Office 102. Following the cut section 3/A501 indicates windows in this wall section. The Alternate 2 floor plan on drawing page A201b indicates windows in this wall section. Are windows in this office to be included in the base bid? Please clarify.*
    Response: See Addendum Item # 1.20

29. ***Specification Section 072713*** *– Self-Adhering Sheet Air Barrier: Can PolyGlass USA's VertWrap NPL be used as the air barrier in lieu of the specified self-adhering sheets? See attached substitution request form.*
    Response: NO

30. ***Specification Section 072713*** *– Self-Adhering Sheet Air Barrier: Can Carlisle's Barritech NP be used as the air barrier in lieu of the specified self-adhering sheets? See attached substitution request form.*
    Response: NO

31. ***Drawing page A301:*** *Partition labels are not shown for West & East restroom walls in detail 1 on this page.*
    Response: See Addendum Item # 1.20

32. ***Drawing page S501****: Are the brackets shown in detail 9, 10, & 15 galvanized, raw plate steel, or powder coated?*
    Response: Deferred to Addendum 02

33. ***Drawing page A201a:*** *Note A6 references wire mesh enclosure on top of 8" CMU and says see details. Where are these details located? Is this enclosure by the GC?*
    Response: See Addendum Item #1.20

34. ***Drawing page A501:*** *Note RC3 calls out bird netting. Is there a specification for this netting that should be quoted?*
    Response: See Addendum Item # 1.8 & 1.22

    Specification Section 087100: *What level of Primus locks are required? Are the owner's providing cores?* Deferred to Addendum 02

SECTION 084515 – TOP-HINGED WINDOW SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

A. The design and manufacture of an aluminum-framed top-hinged or fixed window system, glazed with insulated glazing.

B. All anchors, brackets, and hardware attachments necessary to complete the specified assembly, when included within project scope.

C. Weatherability and water-tightness performance as specified.

D. All flashings up to adjoining work are also required as part of the system and shall be included, unless specifically noted as being supplied by others.

E. Installation of the system.

1.2 RELATED SECTIONS

A. Metal Fabrications: Division 05
B. Wood, Plastics, and Composites: Division 06
C. Roofing: Division 07
D. Sealants: Division 07
E. Flashing and Sheet Metal: Division 07
F. Glazing: Division 08

1.3 SYSTEM DESCRIPTION

A. An aluminum-framed, fully-gasketed window system that is glazed with insulated glass, top-hinged.

B. Top-hinged, the system operating system to be electrical.

C. Design Requirements:

1. The gasketing shall be mechanically connected to the framing via gasket races extruded into the framing.
2. Whenever possible, fasteners shall be concealed.
3. System shall be dry glazed. Wet sealing of the glazing is not permitted.
4. Bottom edges of glazing panels shall rest on continuous setting ledges, which are designed to allow atmospheric air to reach the bottom edges of the cellular glazing. Both ends of setting blocks, or any other support methods that would tend to restrict the flow of air through the panels is not acceptable.

5. Unrestricted thermal movement of the glazing panels shall be allowed to occur within the framing system without compromising its weathertightness.
6. The rabbet depth of all framing members shall, at a minimum, be based on a ¾" (.75") engagement of the glazing panel, plus 1/8" (.125") cutting tolerance, plus .005 x the glazing dimension (in inches) that affects that rabbet.
7. Window units shall have a continuous extruded aluminum head section that nests with a continuous extruded aluminum hinge bar the full length of the window run. Assembly shall be self-flashing to prevent any opening at the top of the window unit in a closed or open position. Installation and removal of the window unit from the opening shall be accomplished only by rotating the window to 90 degrees to the plane of the window opening. This will allow engagement or disengagement from the continuous hinge bar.
8. The system, in an open or closed position, shall shed water over the integral head/hinge bar assembly, thus keeping water away from the hinge(s).
9. The system shall gasketed at all perimeter flanges with a double row of low friction compressive gaskets. These gaskets shall be affixed to the framing via gasket races extruded into the framing.
10. The system shall be operated electrically via a drive rack and pinion system utilizing horizontal pipe drive shafts (minimum 1-¼" OD) bearing shaft supports, toothed steel rack arms, and pinions with a floating yoke. A system of cast iron articulated arms may be an alternative if so specified. Four bar hinges and/or adjustable friction blocks are not permitted.
11. All components of the operating system shall receive a primer and a finish coat of polyester or urethane enamel, medium gray color.
12. System shall allow for replacement of glazing panels by removal of the lower sash sill.
13. Sash sills shall include an integral condensate trough.
14. Sash units shall be factory assembled.
15. All fasteners used in these assemblies, whether exposed or not, shall be 305 or 316 stainless steel.
16. Insect screens are required.

D. Performance Requirements:

Show test reports evidencing testing as follows:

1. Air Infiltration: Not to exceed 0.09 cfm/sq. ft. of glazing area when tested at a pressure of 6.24 psf (0.03 kPa) in accordance with ASTM E-283.
2. Water Resistance: No leakage when tested at 6.24 psf (0.03 kPa) in accordance with ASTM E-547.
3. Structural Performance: The system shall be capable of supporting the design loading for this project as listed below:

    a. See drawings for loading.
    b. Testing by certified independent testing laboratory, in accordance with ASTM E-330, shall evidence this. In addition, the deflection of all framing members oriented normal to the glazing plane shall not exceed L/175.

1.4 SUBMITTALS

A. Submit three (3) each of the following to the Architect for review at the same time the Shop Drawings are submitted:

1. Each aluminum frame section – 6” long.
2. Samples of aluminum illustrating the specified finish.
3. Glazing gaskets – 6” long – each type.
4. Samples of glazing, each minimum 6” x 6”, in specified color.
5. Test reports.
6. Product Data.
7. Samples of the operating hardware as follows:

    a. 6” long piece of pipe shafting.
    b. A shaft bearing with bracket.
    c. A cast iron pinion gear.
    d. A 30” toothed steel rack arm.
    e. A cast iron shaft coupling

B. Shop Drawings:

1. Shall include plans and/or elevations and details of the system and its installation. Flashings, sealants, and anchorage shall be clearly indicated.
2. Shall note gauges of brake metal, the finish(es) on the framing members, and any other information necessary to properly describe and install the system.

1.5 QUALITY ASSURANCE

A. Materials and Products shall be manufactured by a company continuously and regularly employed in the manufacture of glazing systems using cellular polycarbonate panel systems for a period of at least ten (10) years. Manufacturers shall provide a list of at least ten (10) projects having been in place a minimum of five (5) years.

B. Erection shall be by the manufacturer or an installer experienced in erection of systems of the type specified.

C. The manufacturer shall be responsible for the configuration and fabrication of the complete system and will ensure that it fully meets all requirements of this specification.

D. Approved Manufacturers: All manufacturers acceptable for use on this project under this section must be approved prior to bid. Manufacturers must submit evidence of compliance with all performance criteria specified herein. Any exceptions taken to this specification must be noted on the approval request. If approval is granted and non-compliance is subsequently discovered, the previously given approval will be invalidated and use of the product on the project will be disallowed. Requests for approval, with all test reports, submittals, and samples as specified herein, must be received no less than twelve (12) days prior to bid date. A list of all approved manufacturers and products will be issued by addendum. No verbal approvals will be given.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the jobsite in the manufacturer's original and unopened containers and bearing labels as to type of material and manufacturer's name. Delivered materials shall be identical to approved samples.

B. Store materials under cover in a dry, clean location, off the ground. Remove from the jobsite any materials that are damaged or otherwise not suitable for installation and replace with acceptable materials.

1.7 WARRANTY

A. The Manufacturer shall provide a written warranty certifying that if, within one (1) year from the shipment date of the system, the system experiences water leakage owing to defects in fabrication or materials, the Manufacturer will, in a timely manner, furnish (only) new components to replace all of those found to be defective.

B. The above warranty does not apply in the cases of structural movement of the building(s), negative air pressure inside the building(s), acts of God, alteration or abuse of the products, or unreasonable use.

C. The liability of the Warrantor shall be limited to the above and shall not include incidental or consequential damages of any kind.

D. These additional written warranties will also be provided:

1. The framing finish applicator's warranty as specified below:

a. Fluoropolymer Finish: Five (5) years from date of application against peeling, checking, cracking, chalking, and fading.

PART 2 PRODUCTS

2.1 MANUFACTURER AND PRODUCT

A. EXTECH/Exterior Technologies, Inc., 200 Bridge Street, Pittsburgh, PA 15223; Phone (800) 500-8083, Fax (800) 500-8012, website www.extechinc.com or approved equal.

B. Series #5300 Top-Hinged or Fixed Polycarbonate Window/Skylight System.

2.2 MATERIALS

A. Framing:

1. Shall be extruded aluminum of 6063-T5, 6005-T5 or 6105-T5 alloy and temper. All sections shall be formed true to detail and free from defects impairing appearance, strength or durability.
2. Thermally broken perimeter aluminum framing members.

B. Glazing Gaskets:

1. Shall be elastomeric, having low friction surfaces where they contact the glazing.
2. Shall be tested for chemical compatibility with the glazing, and test reports evidencing same shall be presented to the Architect.

C. Fasteners:

1. Where exposed, shall be stainless steel, 300 Series, with stainless steel backed neoprene washers.
2. Concealed fasteners they may be stainless or zinc-plated steel in accordance with ASTM Specifications A165-55 or A164-55.
3. Bolts, anchors and other fastening devices shall be as required for the strength of the connections and shall be suitable for conditions encountered. Washers shall be of the same metals as fasteners.

D. Flashing:

1. Minimum 0.040 thick Aluminum painted finish: 3105-H14.
2. Factory formed to required profile(s) in 10-ft lengths, whenever practical, to allow for field trimming to suit as-built conditions.
3. The finish on this metal shall match as closely as possible that which is on the extruded aluminum framing members.

E. Glazing:

1. See Section 088000 “Glazing”

F. Attachment:

1. System shall be fastened to substrate with fasteners that are designed and installed by the installer.
2. Fasteners to penetrate through one-piece perimeter extrusions, and through base extrusions of intermediate mullions.
3. Any shims or appurtenances required to facilitate system mounting and isolation shall be provided and installed by the installer.

G. Operating Hardware:

1. The power for the operating system shall be via EXTECH Series EC 1400 transmissions, electrically operated by ¾ horsepower motors and sealed electronic service boxes, including sealed electrical motor starters and push button switches with open, close and stop buttons. Contractor is responsible for the setting of limit switches to assure tight closing of the vent panels.
2. A motor/transmission/service box shall be placed (nominally) no more than every 50' Power wiring to those boxes, including wiring to the push button stations and warning systems, shall be by others.
3. Transmissions will deliver power through standard 1" Schedule 40 pipe shafting.
4. The specified shafting and all other steel or cast-iron hardware components shall be painted with a steel primer followed by Polane urethane finish coat, standard color.
5. The pipe shafting shall be supported by bearing brackets spaced maximum 5' o.c. These brackets shall contain brass roller bearings.
6. Power to the vents will be delivered via cast iron pinion gears which engage toothed steel rack arms, both of which will be held in position by steel yokes.
7. The rack arms deliver power to the vents via their placement within the vent mullions. There they are connected by 5/16" stainless steel bolts and held in position via vinyl spacers.
8. Where shafting sections are to be joined, they shall be joined using cast iron clamping devices that feature a minimum of 4 bolts articulated arm and cam handle

2.3 FABRICATION

A. Construct window(s) using extruded aluminum members.

B. Carefully and accurately design, fabricate and assemble work with proper provision for thermal contraction and expansion. Work shall conform to profiles and sections noted on the shop drawings. Work shall be assembled with joints in a neat and finished manner.

C. All framing members shall be factory fabricated and assembled to the greatest degree possible, including the following:

a. Cutting members to length.
b. Installation of glazing gaskets, to be glued within extruded gasket tracks.

c. Drilling straight and countersunk mounting holes, fastener access holes, and weep holes.
d. Fabricating miter joints with concealed joint reinforcements and joint gaskets.
e. Installation of non-metallic thermal isolation spacers.
f. Removal of extrusion portions to accommodate tight over-lapping joinery and connections, including coped ends, mid-span notches, etc.
g. Fabrication and installation of splice plates at jointed connections.

2.4 FINISHES

A. Exposed surfaces of the aluminum framing members shall be finished as follows:

1. High-Performance Organic Coatings:

a. Pigmented organic coatings: Fluoropolymer, 2-Coat 70% KYNAR 500 complying with AAMA 2605. Color manufacturer's standard.

PART 3 – EXECUTION

3.1 EXAMINATION

A. All submitted opening sizes, dimensions and tolerances are to be field verified by the installer unless otherwise stipulated.

B. Installer to examine site conditions to verify readiness. Notify general contractor or owner about any defects requiring correction, including but not limited to improperly sloping sill substrates and uneven planar substrates. Do not work until conditions are satisfactory.

3.2 INSTALLATION

A. Install components in strict accordance with manufacturer's instructions and approved shop drawings. Use proper fasteners and hardware for material attachments as specified.

B. Use methods of attachment to structure which include provisions for thermal movement.

C. Glazing shall be installed in accordance with panel and system manufacturer's guidelines.

D. Remove all protective coverings on polycarbonate panels during or immediately after installation.

E. Installation shall be performed by a company with ten (10) years continuous experience in commercial construction.

F. Protect contact points between unprotected dissimilar metals (except stainless steel) using continuous separators of FRP, PVC tape (or approved equal)

3.3 CLEANING AND PROTECTION

A. During installation, protect exposed surfaces against accumulation of paint, caulking, disfiguration and damage.

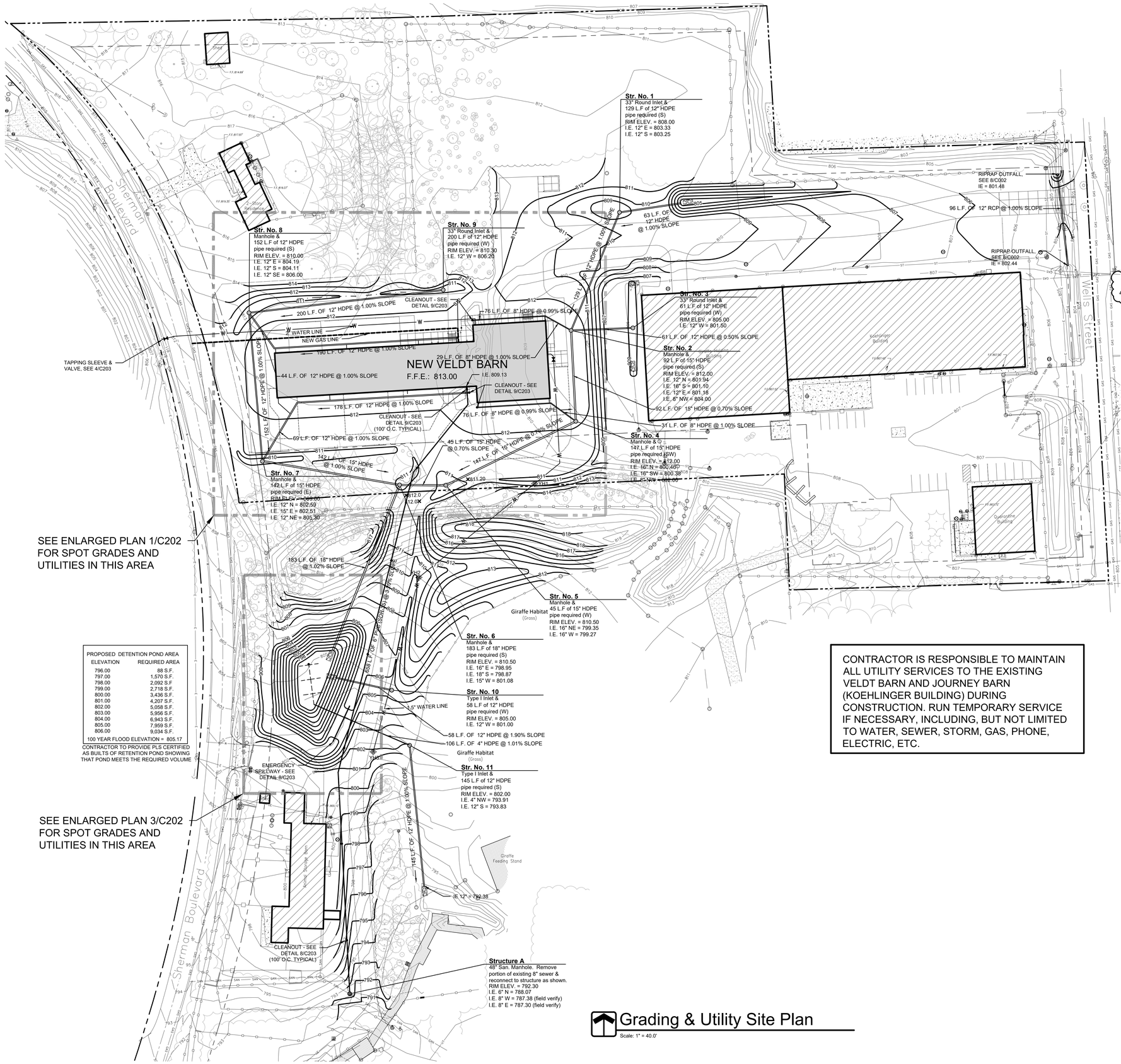
B. Interior glazing surfaces shall be cleaned as the panels are being installed. The exterior shall be cleaned as each phase of the work is completed.

C. Follow panel manufacturer instructions when cleaning exposed panel surfaces. Clean polycarbonate and frame at time of installation.

D. Follow panel manufacturer's guidelines when removing foreign substances from panel surfaces. Use only solvents that are deemed acceptable for use.

E. Before final acceptance, repair and/or replace any defective materials or work.

END OF SECTION



Grading & Utility Site Plan

Scale: 1" = 40.0'

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For technical questions concerning the drawings or project, contact:
Kerry Schoeph
MSKTD & Assoc.
(260) 432-9337

SANITARY SEWER NOTES:

1. ALL MATERIAL AND WORKMANSHIP SHALL MEET THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF FORT WAYNE OR AS OTHERWISE NOTED.
2. SANITARY SEWER PIPE SHALL BE PVC SDR-35 MEETING ASTM D3034 WITH 'PUSH ON TYPE' JOINTS MEETING ASTM D3212 & CONFINED ELASTOMERIC SEAL MEETING ASTM F477.
3. THE SEWER TRENCH WIDTH SHALL NOT EXCEED THE OUTSIDE DIAMETER OF THE PIPE PLUS 30" BELOW A POINT WHICH IS ONE FOOT ABOVE THE TOP OF THE PIPE. THE TAP TRENCH WIDTH SHALL NOT EXCEED 18".
4. SANITARY SEWER PIPES SHALL BE LAID USING CLASS F BEDDING IN ACCORDANCE WITH THE CITY OF FORT WAYNE. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95% SPD (SEE DETAIL)
5. ALL TRENCH BACKFILL UNDER PAVED AREAS SHALL BE COMPACTED #73 STONE TO 95% SPD FROM TOP OF BEDDING TO FINISHED SUBGRADE.

GRADING & UTILITY NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION AND REPORT ANY VARIATION TO THE DESIGN ENGINEER BEFORE PROCEEDING WITH WORK.
2. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK WITH UTILITY AGENCIES. THE NEW GAS SERVICE LINE COST IS TO BE COORDINATED FOR PAYMENT BY THE OWNER DIRECTLY TO THE UTILITY. CONTRACTOR SHALL PAY ALL OTHER FEES & COST CHARGED BY ALL OTHER UTILITY AGENCIES TO COMPLETE NEW CONSTRUCTION.
3. ADJUST ALL LIDS, PLATES & COVERS TO FINAL FINISHED GRADE.
4. MINIMUM 18" CLEARANCE BETWEEN CROSSING OF WATER & SANITARY, WATER & STORM, STORM & SANITARY, CENTER PIPE SECTIONS AT POINTS PIPES CROSS SO THAT JOINTS ARE AT MAXIMUM DISTANCE APART.
5. ALL MATERIAL AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS.
6. CONTRACTOR SHALL INSTALL WARNING TAPE FOR ALL UTILITIES.
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR SPECIFICATIONS OF ALL REQUIRING MATERIALS BEFORE BEGINNING TO THE DESIGN ENGINEER FOR APPROVAL.
8. PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION & REPAIR ANY DAMAGE THAT MAY OCCUR AT CONTRACTOR COST.
9. COMPACT ALL FILL MATERIAL IN 8" MAX. LIFTS COMPACTED TO 95% S.P.D. PER ASTM D 1557

1.5"Ø & 2"Ø WATER MAIN NOTES:

HDPE TUBING

Restrictions on use:

- HDPE tubing is allowed for service sizes 1", 1.5" and 2" (not 2½")
- HDPE tubing may be used for the entire service length between the water main and structure being served. HDPE tubing cannot be used for spot repair on an existing service that is copper, lead or any other non-HDPE material.
- All piping downstream of the meter must be rigid or restrained against deflection regardless of piping upstream of the meter. If a sag or deflection in the piping is observed after the meter is set support will be required. All meter sets must continue to be installed per City Utilities Development Criteria/Standards Manual, Exhibit IV-3-2 and Exhibit IV-3-3
- HDPE tubing is prohibited for use as a service to any facility where there is a high risk of potential petroleum or potential chemical contamination (i.e. facilities with nearby underground tanks, etc.).

HDPE Tubing Specifications:

- Polyethylene compounds per PE-3408 with min. cell classification 345444C
  - Copper tubing size, CTS, outside diameter controlled.
  - SDR 9, 200 psi working pressure rated @ 73.4 F. with ability to maintain 300 psi to 1000 hours @ 73.4 F.
  - Meet requirements of ASTM D-2737, ASTM D-3350, NSF-14, NSF-61, AWWA C-901
  - Color - solid blue exterior tubing or black tubing with blue striping.
  - Tubing shall be labeled (printed, not stamped) at minimum with manufacturer, diameter, outside diameter control, working pressure rating, ASTM specifications and NSF approval.

Constuction - Additional Materials Requirements:

- All connections with HDPE tubing must utilize a stiffening insert. Insert shall be:
  - 304 stainless steel material, seamless (not split).
  - Properly sized diameter for CTS, SDR 9 200 psi HDPE tubing and length that does not extend beyond the end of the compression fitting.
  - One end flared to ensure proper seating into end of HDPE tubing.
  - Designed for use with compression style connections.
- All connections and joints shall utilize brass mechanical compression fittings that are designed and specified for use with HDPE tubing.
  - Gripping band type restraint shall be used (i.e. Mueller C110 Compression Connection, Ford Quick Joint.
- The current approved City Utilities' style of corporation stop and curb stop/valves shall remain the same, with the exception that all joints shall be compression type and specified for use with HDPE tubing.
- All HDPE tubing shall have a required insulated #10 solid copper tracing wire installed atop the service.
- All tracing wire connections and splices shall be made with a waterproof direct bury device designed for use with underground tracing wire (3M-DBR, DryConn DBSR, DryConn Direct Bury Lug)

Constuction - Installation Requirements:

- All HDPE services shall be buried five (5) feet below finished grade.
- All HDPE services shall be constructed in a 12" minimum trench width.
- HDPE services shall be bedded in sand, B-Borrow or other material that is ¾" of less in diameter and free from rocks, sharp objects or debris and per ASTM D2774. HDPE tubing shall have a minimum of 2" of bedding material around pipe.
- All HDPE services located in public right-of-way shall be installed perpendicular to the right-of-way line from the water main and have the curb stop located within four (4) feet of side property line, and seven (7) feet off the right-of-way line.
- HDPE services shall be continuous pipe (no joints) from the corporation to the curb stop, and from the curb stop to the meter of copper transition. No pipe joints will be allowed unless made by butt fusion.
- No pipe lubrications or compounds shall be used at any joint or fitting.
- If HDPE tubing is cut or gouged greater that 5% of wall thickness, the entire length shall be removed and discarded.
- HDPE tubing shall be laid in trench with minor horizontal weaving/snaking (do not stretch tightly) to provide minimum of 12" of slack per 100' to allow expansion and contraction of tubing and minimize stress in pipe and pull out force at the connections.
- The minimum radius for HDPE tubing shall be 30 diameters when bending with the coil, and no more than straight when bending against the coil. No bends shall be made with 10 diameters of a fitting.
- HDPE tubing may be softened by immersing in hot water per Manufacturer's recommendations to improve workability in cold weather. HDPE may not be heated with any type of heat source.
- All HDPE services shall have tracing wire running from the water main to curb stop, and from curb stop to meter. Tracing wire shall be zip tied to service line every ten (10) feet if installed by open trench. Contractor shall test continuity of tracing wire after backfilling.
  - Connection details - water main to curb stop.
    1. At water main, tracing wire shall be properly connected/spliced into the tracing wire running along pipe
    2. At curb stop, tracing wire shall be brought to surface and 6" of wire wrapped around top of curb box.
  - Connection details - curb stop to meter.
    1. At curb stop, tracing wire shall be brought to surface and spliced into tracing wire from water main.
    2. At meter, 18" of wire shall be wrapped around HDPE tubing.

Fort Wayne City Utilities reserves the right to deny water service to any property utilizing HDPE tubing installation work does not meet the above noted requirements. This includes, but is not limited to inadequate depth, failure to have continuity in tracing wire, or improper service location in the public right-of-way.

No electrical systems may be grounded to the incoming water service piping or tracing wire.

If you have questions on utilizing HDPE tubing, please contact Engineering Support Services at 427-5065.

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Veldt Barn Replacement
Fort Wayne Children's Zoo
3411 Sherman Boulevard
Fort Wayne, Indiana 46808

PROJECT NO. 8063
DATE 08-28-2024

REV.		DATE
1	Addendum 01	09-10-2024

SET DESCRIPTION
Bid Set

SHEET TITLE
Grading & Utility Site Plan

SHEET NUMBER
C201

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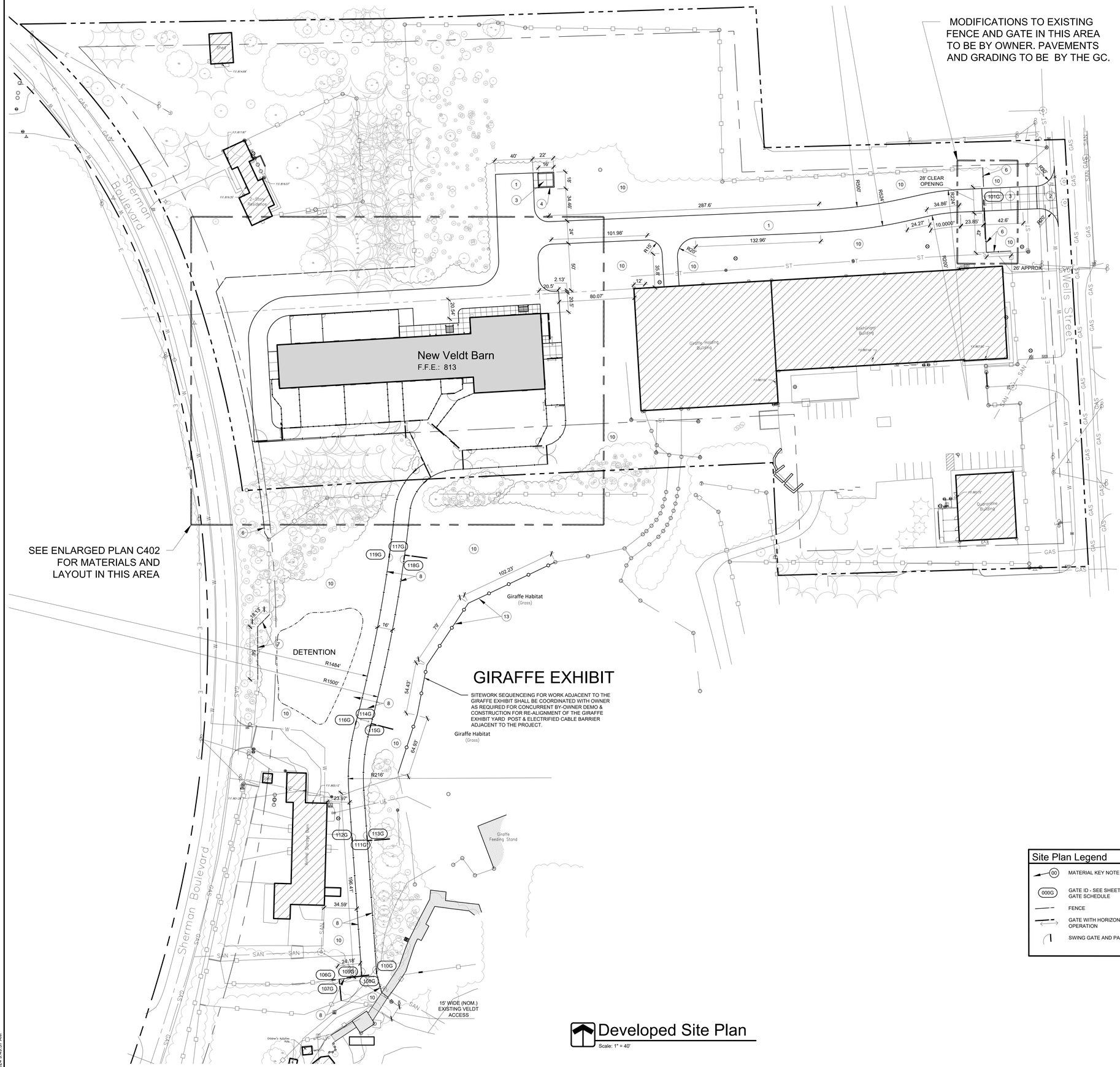

Developed Site Plan

Scale: 1" = 40'

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General Site Plan Notes

1. ALL DIMENSIONS ARE TO FACE OF CURB, EDGE OF PAVEMENT, RADIUS POINTS, OR PAVEMENT MARKINGS, AS SHOWN.
2. SAWCUT ALL EXISTING PAVEMENT TO BE REMOVED FOR NEW CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, ISLANDS, CURBS, WALKS, DRIVES, & UTILITIES.
3. WHERE NEW CURBS, WALKS, & PAVING MEET EXISTING, THEY SHALL BE ALIGNED BOTH VERTICALLY & HORIZONTALLY.
4. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING CONSTRUCTION & REPORT ANY VARIATION TO THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
5. PATCH ALL EXISTING ASPHALT WHERE ITEMS SUCH AS POLES, SIGNS, UTILITY TRENCHES, ETC., NECESSARY FOR NEW CONSTRUCTION CAUSE DAMAGE OR LEAVE HOLES IN EXISTING PAVEMENT TO REMAIN.
6. ADJUST ALL PLATES, LIDS, GRATES, ETC. FLUSH WITH NEW FINISHED GRADE.
7. FINAL GRADE ALL DISTURBED AREAS & SEED ALL AREAS EXCEPT WHERE NOTED TO RECEIVE PLANTING BEDS.
8. COMPACT ALL FILL AREAS N 8" LIFTS TO 95% MIN. DENSITY PER ASTM D 1557.
9. ALL CONCRETE SHALL BE 4000 PSI.
10. DOWEL ALL WALKS TO FOUNDATION & ENTRANCES WITH 1/2" SMOOTH STEEL BAR @ 2' O.C. (SIMILAR TO S/C501)
11. ALL PAVING SHALL BE FLUSH WITH FINISHED FLOOR AT ENTRANCES, EXCEPT AT LOADING DOCKS OR WHERE NOTED OTHERWISE.
12. CONTACT DESIGN ENGINEER IF ADDITIONAL DIMENSIONS OR COORDINATES ARE NEEDED FOR SITE LAYOUT.

Sequencing Notes

1. THE CONTRACTOR SHALL MAINTAIN ONGOING COMMUNICATIONS WITH THE ZOO TO COORDINATE CONSTRUCTION ACTIVITIES WITH THE ZOO'S ANIMAL CARE TO MINIMIZE STRESS ON ANIMALS ADJACENT TO THE WORK. THIS INCLUDES BUT IS NOT LIMITED TO PRE-NOTIFICATION OF ANTICIPATED CONSTRUCTION NOISE EVENTS, DUST, & VISUAL CHANGES IN WORK AREAS ADJACENT TO IN-USE ANIMAL CONTAINMENT AREAS THAT MAY CAUSE SUDDEN FLIGHT REFLEX. THIS MAY IMPACT USE OF FLAGS, TRAFFIC CONES, ETC. ADJACENT TO ANIMAL TRANSFER AREAS, ETC. AND NECESSITATE IN-BARN CONTAINMENT OF ANIMALS DURING SOME CONSTRUCTION ACTIVITIES.
   ZOO CONTACT:
2. CONSTRUCTION GATES ARE TO BE KEPT CLOSED DURING CONSTRUCTION EXCEPT AS REQUIRED FOR SHORT DURATION ACCESS
3. SECURED PERIMETER FENCE CONTAINMENT MUST BE IN PLACE PRIOR TO BREACHING THE ZOO'S EXISTING PERIMETER FENCE AND THROUGHOUT CONSTRUCTION.
4. WHERE CHANGE TO THE EXISTING PERIMETER FENCE CONTAINMENT IS REQUIRED, TEMPORARY PERIMETER FENCE MUST BE IN PLACE PRIOR TO BREACHING THE EXISTING PERIMETER.
5. WHERE WORK OF THE PROJECT PREVENTS EARLY OR COMPLETE INSTALLATION OF PERMANENT PERIMETER FENCE WITH BELOW GRADE BURY, TEMPORARY 8' PERIMETER FENCE WITH WIRE MESH EXTENDING TO GRADE MUST BE IN PLACE PRIOR TO DEMOLITION. BELOW GRADE MESH EXTENSION IS NOT REQUIRED FOR TEMPORARY FENCE.
6. COORDINATE WITH OWNER FOR SCHEDULING OF CONSTRUCTION ACTIVITY IN THE VICINITY OF THE GIRAFFE EXHIBIT YARD FOR CLEARING, EARTHWORK, INSTALLATION OF UNDERGROUND UTILITIES, FENCE & GATE INSTALLATION OR CHANGES, AND FOR COORDINATION OF ADJACENT BY-OWNER IMPROVEMENTS.

Site Plan Legend

- 00 — MATERIAL KEY NOTE
- 000G — GATE ID - SEE SHEET C402 FOR GATE SCHEDULE
- FENCE
- GATE WITH HORIZONTAL OPERATION
- SWING GATE AND PATH

Site Plan Key Notes

1. GRAVEL DRIVE - SEE DETAIL 1/C501
2. COMMERCIAL DRIVE APPROACH - SEE DETAIL 7/C501
3. 8" CONCRETE DRIVE PAVEMENT - SEE DETAIL 3/C501
4. MANURE BUNKER - SEE DETAIL 1/C503
5. 4" CONCRETE WALK PAVEMENT - SEE DETAIL 6/C501
6. 8' ZOO PERIMETER FENCE - SEE DETAIL 9/C501
7. MATCH EXISTING 10' ADJACENT PERIMETER FENCE, SIMILAR TO 9/C501
8. **BY OWNER** - 8' CHAIN LINK FENCE - SEE DETAIL 1/C502
9. **BY OWNER** - 8' CHAIN LINK FRAMED PANEL FENCE - SEE DETAIL 2/C502
10. PLANTING AREA OR TURF - SEE SHEET L001
11. STEEL BOLLARD - SEE DETAIL 8/C501
12. **BY OWNER** - GATE STOP BOLLARD - SEE DETAIL 6/C502
13. **BY OWNER** - POST & ELECTRIFIED CABLE GIRAFFE BARRIER
14. MECHANICAL EQUIPMENT PAD WITH FOUNDATION - COORDINATE PAD SIZE AND PAD STRUCTURAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER. - SIMILAR TO DETAIL 5/C503

SEE C402 FOR GATE SCHEDULE
SEE C402 FOR ALTERNATE A2 SITE ITEMS

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SET DESCRIPTION
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SHEET TITLE
Developed Site Plan

SHEET NUMBER
C401

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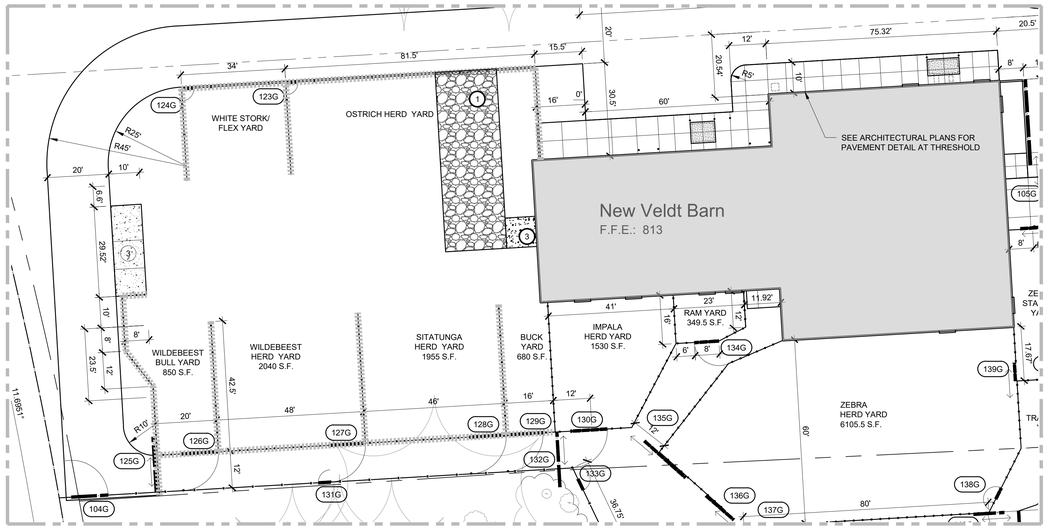
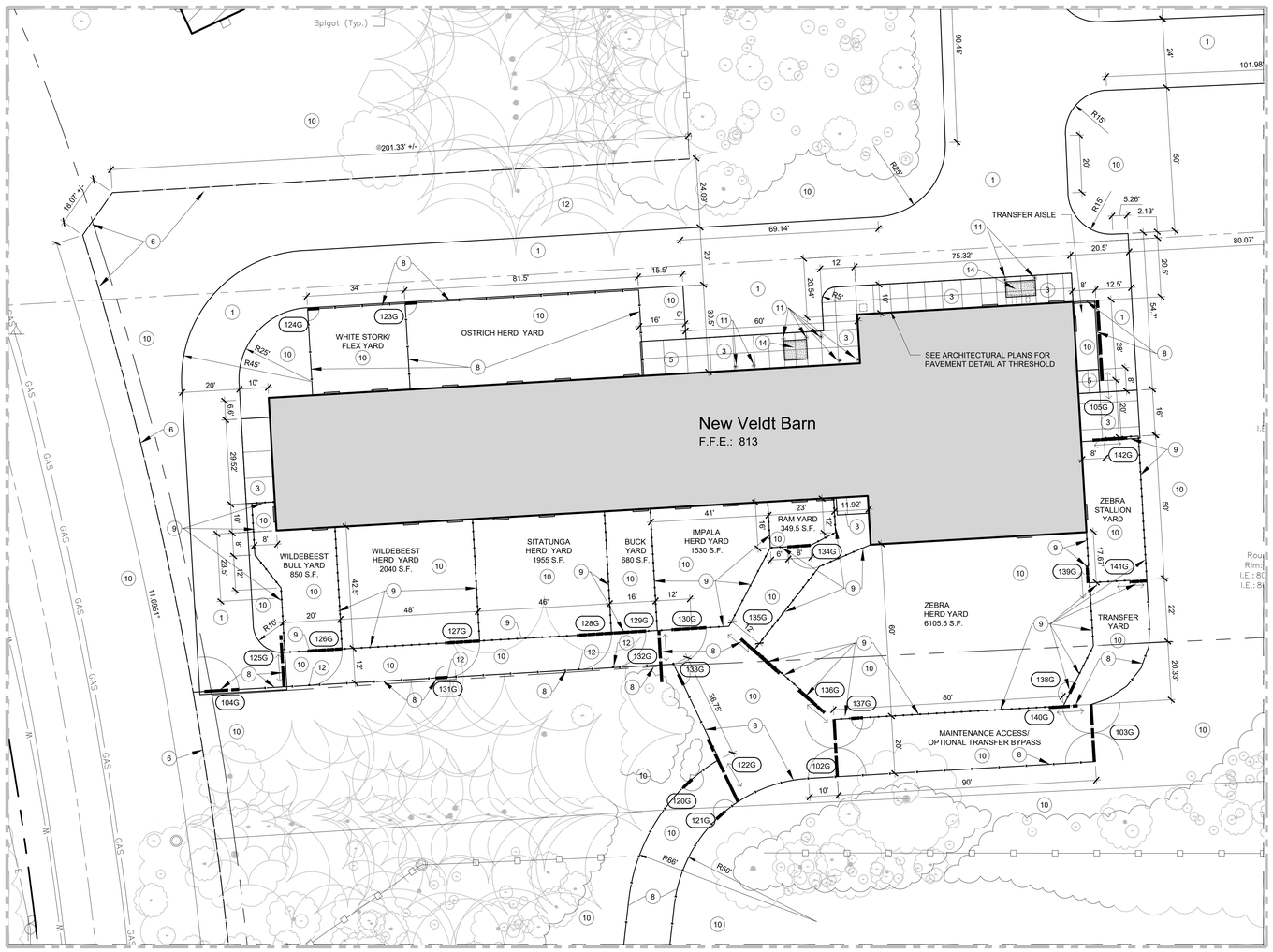


Alternate A2 Building Reduction - Site Items

Scale: 1" = 20'

Alternate A2 Site Items Legend

- BUILDING SCOPE UNDER REDUCTION ALTERNATE A2 - SEE ARCHITECTURAL
- (3) OMIT 8" CONCRETE PAVEMENT
- OMIT FENCE & ASSOCIATED GATES
- ALTERNATE A2 CONDITIONAL ITEM - GRAVEL DRIVE PAVEMENT - SEE DETAIL 1/C-1
- (3) ALTERNATE A2 CONDITIONAL ITEM - NEW 8" CONCRETE PAVEMENT - SEE DETAIL 3/C501



Developed Site Plan Detail - Base Bid

Scale: 1" = 20'

Site Gate Hardware & Accessory Schedule

PACKAGE A: CANTILEVERED ANIMAL TRANSFER GATE
MOUNTING POSTS
CUSTOM MANUAL CRANK CONTROLLER
ALL REQUIRED MOUNTING HARDWARE FOR INSTALLATION & OPERATION
GUIDE ROLLERS
BOLLARD PROTECTED RECEIVER SLOT & STOPS
PADLOCK EYES FOR SECURED CLOSURE

PACKAGE B: SWING GATE - ZOO INTERIOR - KEEPER ACCESS MANGATE
DOUBLE SIDED YOLK LATCH
PADLOCK EYES FOR SECURED CLOSURE
HINGE SET

PACKAGE C: SWING GATE - ANIMAL TRANSFER CORRIDOR
DOUBLE SIDED SLAM LATCH
PADLOCK EYES FOR SECURED CLOSURE
(1) GATE END SUPPORT WHEEL
(1) GATE STOP POST IN AISLE - SEE DETAIL 6/C502 OR AS APPROVED.
HINGE SET AS REQUIRED FOR GATE WEIGHT

PACKAGE D: SWING GATE - MAINTENANCE ACCESS
DOUBLE ARM GATE LATCH
PADLOCK EYES FOR SECURED CLOSURE
(1) GATE END SUPPORT WHEEL
HINGE SET AS REQUIRED FOR GATE WEIGHT

PACKAGE E SWING GATE PAIR - ANIMAL TRANSFER CORRIDOR
DOUBLE SIDED SLAM LATCH
PADLOCK EYES FOR SECURED CLOSURE
(2) GATE END SUPPORT WHEEL
(2) GATE STOP POST
(1) CANE BOLT - LEAF PER OWNER PREFERENCE
(2) HINGE SETS, AS REQUIRED FOR GATE WEIGHT, 180° SWING

PACKAGE F: SWING GATE PAIR - ANIMAL TRANSFER CORRIDOR / MAINTENANCE ACCESS
DOUBLE SIDED SLAM LATCH
PADLOCK EYES FOR SECURED CLOSURE
(2) GATE END SUPPORT WHEEL
(2) GATE STOP POST
(2) CANE BOLT
(2) HINGE SETS, AS REQUIRED FOR GATE WEIGHT, 180° SWING

PACKAGE G: TOP-HUNG ANIMAL TRANSFER HORIZONTAL GATE
TOP MOUNTED TROLLEYS
OVERHEAD MOUNTING FRAME & GATE TRACK
COMPLETE PULLEY & WIRE ROPE PACKAGE, HARDWARE & LENGTH AS REQ'D
CRANK BOX & HANDLE
OPERATOR MOUNTING POST
ALL REQUIRED MOUNTING HARDWARE FOR INSTALLATION & OPERATION
GUIDE ROLLERS
BOLLARD PROTECTED RECEIVER SLOT & STOPS
LATCH CLOSURE WITH PADLOCK EYES FOR SECURED CLOSURE

PACKAGE H: ~~CANTILEVERED POWER SLIDE ENTRY GATE~~
~~COMPLETE VARIABLE SPEED POWER DRIVEN, AUTOMATIC SLIDE GATE~~
~~OPERATOR SYSTEM WITH MANUAL OVERRIDE~~
~~CANTILEVER ROLLER ASSEMBLIES~~
~~CANTILEVER ROLLER SAFETY COVERS~~
~~GATE RECEIVER & FAIL-SECURE GATE LOCK~~
~~POST MOUNTED CARD READER & KEY PAD BY OWNER~~
~~AUTOMATIC EXIT SENSOR~~
~~ELECTRIC SAFETY EYE STOP~~
~~ELECTRIC SERVICE BY OWNER~~

PACKAGE I PVC SWING GATE PAIR - MANURE BUNKER
(SEE DETAIL 4/C503)

PACKAGE J CANTILEVERED GATE - MANUAL SLIDE OPERATION
MOUNTING POSTS
ALL REQUIRED MOUNTING HARDWARE FOR INSTALLATION & OPERATION
GUIDE ROLLERS
BOLLARD PROTECTED RECEIVER SLOT & STOPS
PADLOCK EYES FOR SECURED CLOSURE

Site Gate Schedule - By Owner **Except as Noted**

GATE NO.	SEE C401 FOR LOCATION	CLEAR OPENING	CONFIGURATION	GATE LENGTH (NOMINAL)	HEIGHT	TYPE	Security	ACCESSORY PACKAGE	NOTES	Reference Detail
101G	√	28'w x NA	Single	42'	8'	Cantilevered Slide	Padlock	J	**BY G.C.**	SEE DETAIL 10/C501
102G		20'w x NA	Pair	10' each	8'	Swing	Padlock	E		SEE DETAIL 3/C502
103G		20'w x NA	Pair	10' each	8'	Swing	Padlock	F		SEE DETAIL 3/C502
104G		12'wx8'h	Single	12'	8'	Swing	Padlock	D		SEE DETAIL 4/C502
105G		20'w x NA	Single	30'	8'	Cantilevered Slide	Padlock	J		SEE DETAIL 5/C502
106G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
107G	√	22'w x NA	Single	22'	8'	Swing	Padlock	C		SEE DETAIL 4/C502
108G	√	16'w x NA	Single	24'	8'	Cantilevered Slide	Padlock	A		SEE DETAIL 5/C502
109G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
110G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
111G	√	16'w x NA	Single	24'	8'	Cantilevered Slide	Padlock	A		SEE DETAIL 5/C502
112G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
113G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
114G	√	16'w x NA	Single	24'	8'	Cantilevered Slide	Padlock	A		SEE DETAIL 5/C502
115G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
116G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
117G	√	16'w x NA	Single	24'	8'	Cantilevered Slide	Padlock	A		SEE DETAIL 5/C502
118G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
119G	√	4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
120G		4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
121G		4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
122G		16'w x NA	Single	24'	8'	Cantilevered Slide	Padlock	A		SEE DETAIL 5/C502
123G		4'w x NA	Single	4'	8'	Swing	Padlock	B	OMIT UNDER ALTERNATE A2	SEE DETAIL 4/C502
124G		4'w x NA	Single	4'	8'	Swing	Padlock	B	OMIT UNDER ALTERNATE A2	SEE DETAIL 4/C502
125G		12'w x NA	Single	18'	8'	Cantilevered Slide	Padlock	J	OMIT UNDER ALTERNATE A2	SEE DETAIL 5/C502
126G		12'w x NA	Single	12'	8'	Swing	Padlock	C	OMIT UNDER ALTERNATE A2	SIMILAR TO DETAIL 4/C502
127G		12'w x NA	Single	12'	8'	Swing	Padlock	C	OMIT UNDER ALTERNATE A2	SIMILAR TO DETAIL 4/C502
128G		12'w x NA	Single	12'	8'	Swing	Padlock	C	OMIT UNDER ALTERNATE A2	SIMILAR TO DETAIL 4/C502
129G		12'w x NA	Single	12'	8'	Swing	Padlock	C	OMIT UNDER ALTERNATE A2	SIMILAR TO DETAIL 4/C502
130G		12'w x NA	Single	12'	8'	Swing	Padlock	C		SIMILAR TO DETAIL 4/C502
131G		4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
132G		12'w x NA	Single	18'	8'	Cantilevered Slide	Padlock	A		SEE DETAIL 5/C502
133G		4'w x NA	Single	4'	8'	Swing	Padlock	B		SEE DETAIL 4/C502
134G		8'w x NA	Single	8'	8'	Swing	Padlock	C		SIMILAR TO DETAIL 4/C502
135G		12'w x NA	Single	18'	8'	Cantilevered Slide	Padlock	A		SEE DETAIL 5/C502
136G		8'w x 8'h	Single	8'	8'	Top Truck Hung	Padlock	G		SIMILAR TO DETAIL 5/C502
137G		4'w x NA	Single	4'	8'	Swing	Padlock	B		SIMILAR TO DETAIL 4/C502
138G		4'w x NA	Single	4'	8'	Swing	Padlock	B		SIMILAR TO DETAIL 4/C502
139G		6'w x 8'h	Single	6'	8'	Top Truck Hung	Padlock	G		SIMILAR TO DETAIL 5/C502
140G		10'w x 8'h	Single	10'	8'	Top Truck Hung	Padlock	G		SEE DETAIL 5/C502
141G		6'w x 8'h	Single	6'	8'	Top Truck Hung	Padlock	G		SIMILAR TO DETAIL 5/C502
142G		8'w x 8'h	Single	8'	8'	Top Truck Hung	Padlock	G		SIMILAR TO DETAIL 5/C502
143G		6'w x 6'h	Pair	8'	6'	Swing	Padlock	I		SEE DETAIL 4/C503

Site Plan Legend

- 00 — MATERIAL KEY NOTE
- 000G — GATE ID - SEE SCHEDULE
- FENCE
- GATE WITH HORIZONTAL OPERATION
- SWING GATE AND PATH

Site Plan Key Notes

1. GRAVEL DRIVE - SEE DETAIL 1/C501
2. COMMERCIAL DRIVE APPROACH - SEE DETAIL 7/C501
3. 8" CONCRETE DRIVE PAVEMENT - SEE DETAIL 3/C501
4. MANURE BUNKER - SEE DETAIL 1/C503
5. 4" CONCRETE WALK PAVEMENT - SEE DETAIL 6/C501
6. 8' ZOO PERIMETER FENCE - SEE DETAIL 9/C501
7. MATCH EXISTING 10' ADJACENT PERIMETER FENCE, SIMILAR TO 9/C501
8. **BY OWNER** - 8' CHAIN LINK FENCE - SEE DETAIL 1/C502
9. **BY OWNER** - 8' CHAIN LINK FRAMED PANEL FENCE - SEE DETAIL 2/C502
10. PLANTING AREA OR TURF - SEE SHEET L001
11. STEEL BOLLARD - SEE DETAIL 8/C501
12. **BY OWNER** - GATE STOP BOLLARD - SEE DETAIL 6/C502
13. **BY OWNER** - POST & ELECTRIFIED CABLE GIRAFFE BARRIER
14. MECHANICAL EQUIPMENT PAD WITH FOUNDATION - COORDINATE PAD SIZE AND PAD STRUCTURAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER. - SIMILAR TO DETAIL 5/C503

SEE C401 FOR GENERAL SITE PLAN NOTES

MSKTD & Associates
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Veldt Barn Replacement
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3411 Sherman Boulevard
Fort Wayne, Indiana 46808

PROJECT NO. 8063
DATE 08-28-2024

REV.	DATE
1 Addendum 1	09-10-2024

SET DESCRIPTION
Bid Set

SHEET TITLE
Enlarged Site Plan

SHEET NUMBER
C402

9/9/2024 1:17:29 PM

For technical questions concerning the drawings or project, contact:
Kerry Schoeph
MSKTD & Assoc.
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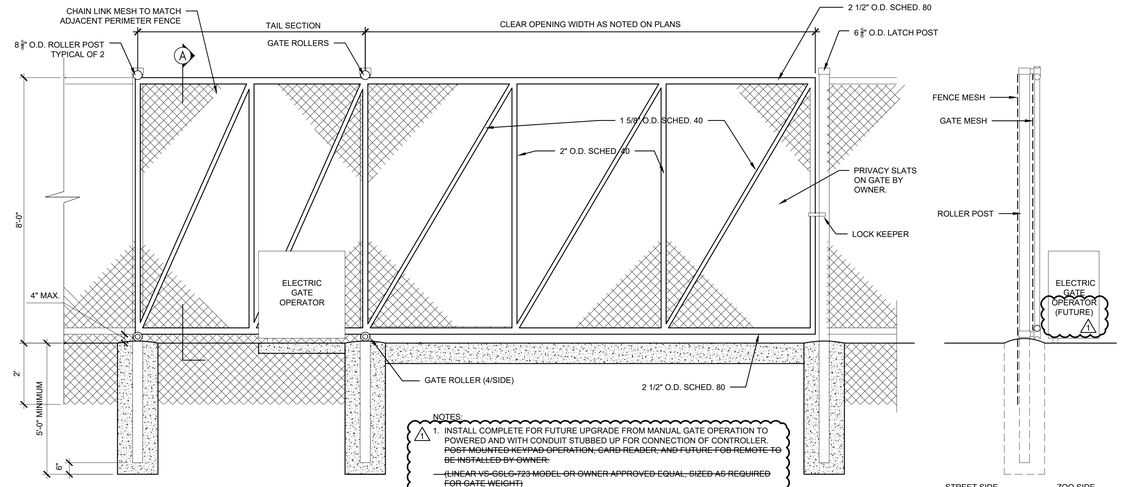
Site Fencing General Notes

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING CONSTRUCTION & REPORT ANY VARIATION TO THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
2. GATE MANUFACTURER IS TO DESIGN AND DETAIL GATE COMPLETE WITH ACCESSORY ITEMS REQUIRED FOR NORMAL OPERATION INCLUDING, BUT NOT LIMITED TO, POSTS & FOUNDATIONS, FRAME & MATERIAL SIZES, BRACES, TRACKS, HANGERS, STOPS, OPERATORS, RECEIVERS, HINGES, LATCHES, HARDWARE, ETC.
3. WHERE MANUAL CRANK GATE OPERATORS ARE REQUIRED, INSTALL COMMERCIALLY AVAILABLE CRANK OPERATORS AND ACCESSORIES APPROPRIATE TO THE GATE TYPE, WEIGHT, AND LENGTH OF TRAVEL REQUIRED FOR OPERATION. WHERE NO COMMERCIAL GRADE OPERATORS ARE SUITED FOR THE REQUIRED GATES AND OPERATION, DESIGN, FABRICATE & INSTALL A SAMPLE PROTOTYPE ON SITE FOR TESTING AND APPROVAL BY THE OWNER BEFORE PROCEEDING WITH FABRICATION OF THE REMAINING UNITS. THE APPROVED PROTOTYPE MAY REMAIN IN PLACE AS PART OF THE COMPLETED WORK. SEE GATE SCHEDULE AND HARDWARE PACKAGES ON SHEET C402
4. PROVIDE SUPPLEMENTAL POSTS AND ACCESSORIES AS REQUIRED FOR COMPLETE ANIMAL TRANSFER SYSTEM OPERATION INCLUDING, BUT NOT LIMITED TO, GATE STOPS IN TRANSFER CORRIDOR FOR PEN SWING GATES, POST MOUNTED GUIDE ROLLERS FOR CANTILEVERED GATES, GATE RECEIVERS TO PREVENT GATE PUSH-OUT BY ANIMALS, GATE END SUPPORT WHEELS FOR SWING GATES, & SUPPLEMENTAL GUARD STRIPS WHERE NECESSARY TO ACHIEVE GAP TOLERANCE.
   CONTAINMENT GAP TOLERANCES:
   - VERTICAL GAP OF 2" MAX FOR ALL FENCES & GATES
   - 1" GAP TYPICAL BELOW CHAIN LINK FENCE
   - 2" MAX GAP BELOW SWING GATES
   - 2" GAP TYPICAL BELOW CANTILEVER GATE
5. STOP BAR AND LATCHES MUST BE PROTECTED FROM INCIDENTAL CONTACT BY ANIMAL THRU-TRAFFIC OR BE OTHERWISE FABRICATED WITH NO SHARP OR PROTRUDING CORNERS OR EDGES WHEN GATE IS IN THE OPEN POSITION
6. PROVIDE PADLOCK EYE FOR LOCKABLE CLOSURE - 2 REQUIRED EACH GATE
7. ALL POSTS, FRAMING AND ACCESSORIES ARE TO COORDINATE WITH CHAIN LINK FABRIC COLOR EXCEPT AS OTHERWISE APPROVED BY OWNER.
8. CHAIN LINK FABRIC IS TO BE 9 GAUGE, BLACK PVC COATED GALVANIZED STEEL WIRE OR AS OTHERWISE APPROVED BY THE OWNER.
9. ALL FENCING & GATES ARE TO BE GROUNDED.
10. GATES TO BE SECURED PADLOCK SECURABLE. PADLOCKS BY OWNER

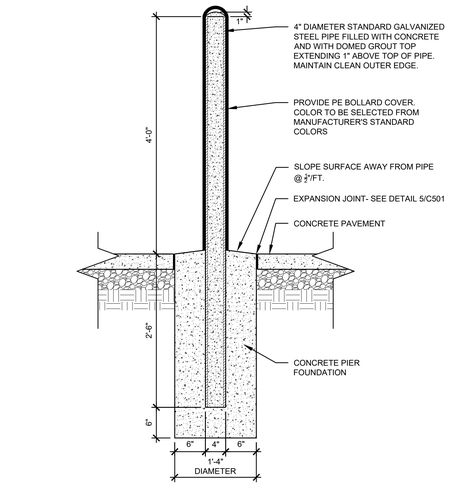


Elevation - Zoo Face

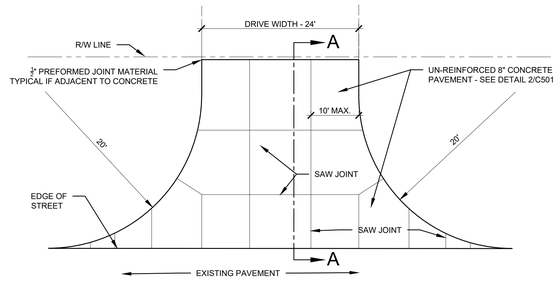
Section A

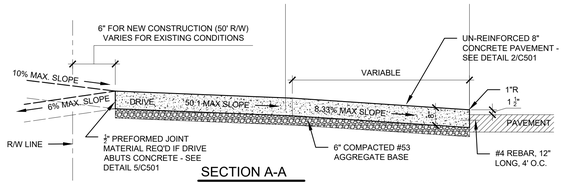
NOTES:
1. INSTALL COMPLETE FOR FUTURE UPGRADE FROM MANUAL GATE OPERATION TO POWERED AND WITH CONDUIT STUBBED UP FOR CONNECTION OF CONTROLLER. ~~POST MOUNTED KEYPAD OPERATION, CARD READER, AND FUTURE FOB REMOTE TO BE INSTALLED BY OWNER.~~
   ~~(LINEAR VS-GSLG-723 MODEL OR OWNER APPROVED EQUAL, SIZED AS REQUIRED FOR GATE WEIGHT)~~
2. ~~FENCE CONTRACTOR TO INSTALL AUTOMATIC EXIT SENSOR.~~
3. ~~OWNER TO INSTALL ELECTRIC SAFETY EYE STOP ON CLOSURE.~~
4. GATE CONTRACTOR TO INSTALL ADDITIONAL END GUARDS AS NEEDED TO MINIMIZE GAP BETWEEN FENCE & GATE WHEN IN CLOSED POSITION
5. WELD ALL PIPE GATE FRAME CONNECTIONS. WHERE GALVANIZED STEEL PIPE COATING IS CUT OR COMPROMISED, PROVIDE ZINC-RICH PAINT PROTECTION AT RAW EDGES AND WELDS. CLEAN & PREP GALVANIZED FINISH AND PAINT WITH 2 COATS PAINT TO MATCH CHAIN LINK COATING COLOR.
6. PROVIDE MATCHING CAPS ON ALL STEEL PIPE POSTS.
7. PVC COATING FINISH TYPICAL FOR POSTS, RAILS, FABRIC, FENCE FITTINGS, & WIRE OR MATCH EXISTING OWNER STANDARD. PVC COATING IS NOT REQUIRED ON GATE FRAME
8. PVC COATING COLOR: BLACK
9. PROVIDE SHOP DRAWINGS FOR REVIEW BY ARCHITECT.
10. WHERE GALVANIZED STEEL PIPE IS CUT OR COMPROMISED, PROVIDE ZINC-RICH PAINT PROTECTION AT RAW EDGES AND WELDS. CLEAN & PREP GALVANIZED FINISH AND PAINT WITH 2 COATS PAINT TO MATCH CHAIN LINK COATING.

10 Perimeter Fence Cantilevered Gate - BY G.C.
Not to Scale

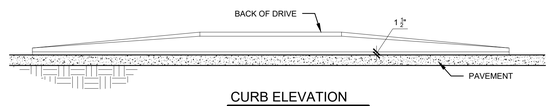


8 4"Ø Steel Bollard with Cover
Not to Scale



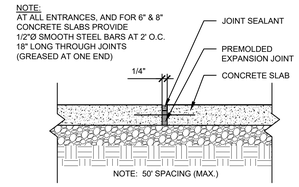


SECTION A-A

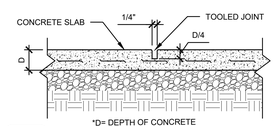


CURB ELEVATION

7 Commercial Drive Approach - Uncurbed
Not to Scale

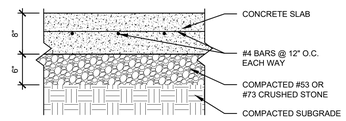


5 Expansion Joint
Not to Scale

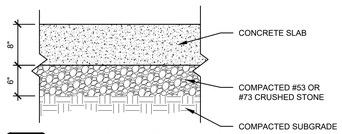


SLAB THICKNESS	JOINT DEPTH
4"	1"
5"	1 ¼"
6"	1 ½"
8"	2"
9"	2 ¼"
10"	2 ½"

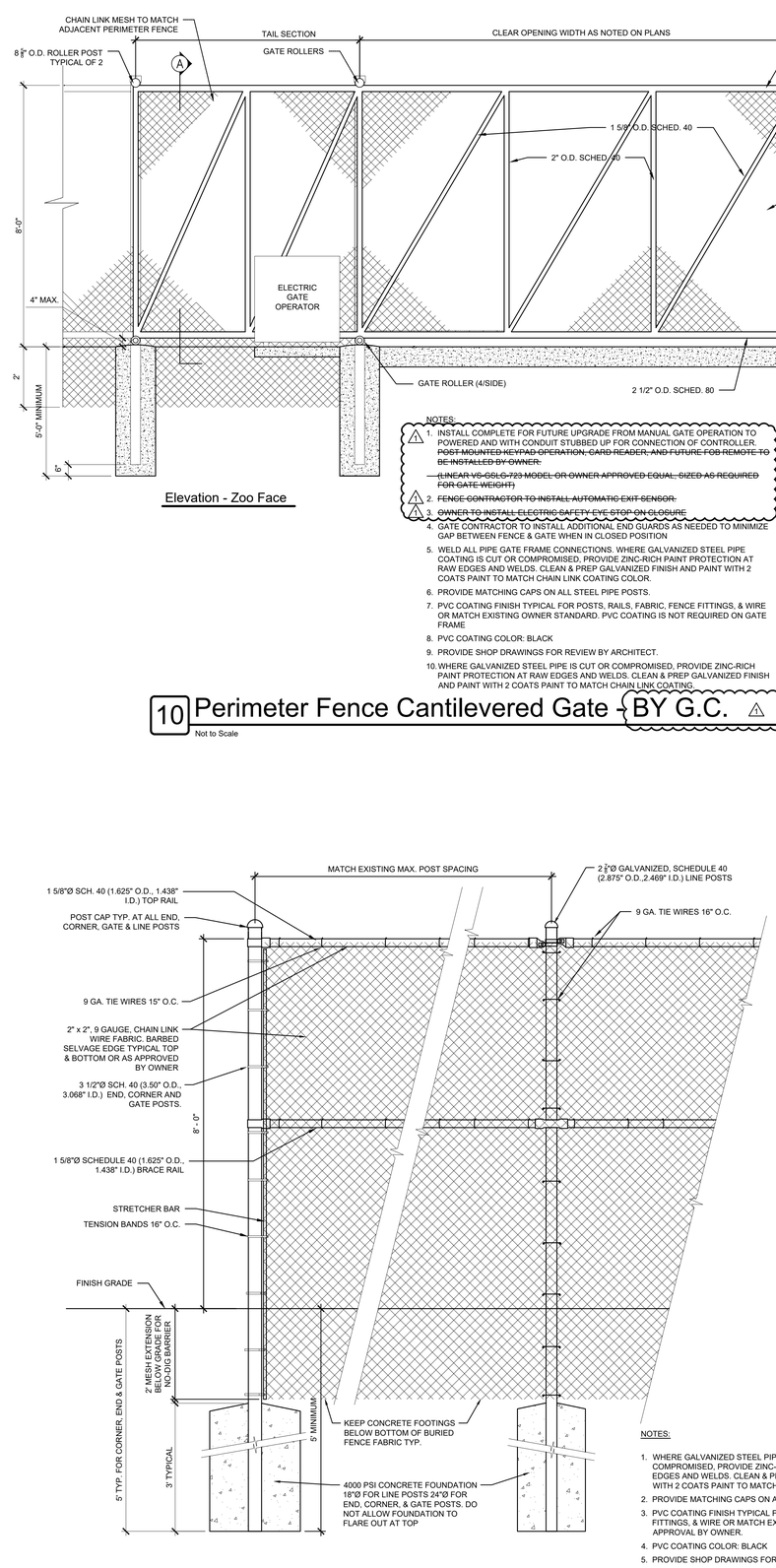
4 Contraction Joint
Not to Scale — See Layout of Joints on Developed Site Plan



3 8" Concrete Paving
Not to Scale

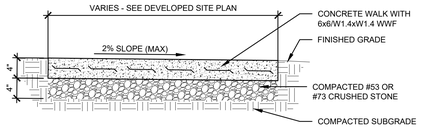


2 Un-Reinforced 8" Concrete
Not to Scale

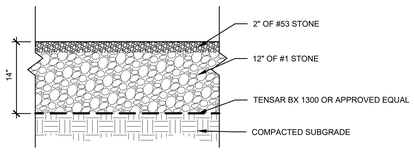


NOTES:
1. WHERE GALVANIZED STEEL PIPE COATING IS CUT OR COMPROMISED, PROVIDE ZINC-RICH PAINT PROTECTION AT RAW EDGES AND WELDS. CLEAN & PREP GALVANIZED FINISH AND PAINT WITH 2 COATS PAINT TO MATCH CHAIN LINK COATING COLOR.
2. PROVIDE MATCHING CAPS ON ALL STEEL PIPE POSTS.
3. PVC COATING FINISH TYPICAL FOR POSTS, RAILS, FABRIC, FENCE FITTINGS, & WIRE OR MATCH EXISTING ADJACENT FENCE WITH APPROVAL BY OWNER.
4. PVC COATING COLOR: BLACK
5. PROVIDE SHOP DRAWINGS FOR REVIEW BY ARCHITECT.

9 Zoo Perimeter Chain Link Fence with Below Grade Bury - BY G.C.
Not to Scale



6 4" Concrete Walk Pavement
Not to Scale



1 Stone Pavement Detail
Not to Scale — Install Per INDOT Standards

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PROJECT NO. 8063
DATE 08-28-2024

REV.	DATE
1 Addendum 1	09-10-2024

SET DESCRIPTION
Bid Set

SHEET TITLE
Site Details

SHEET NUMBER
C501

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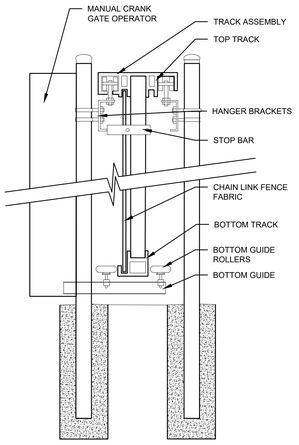
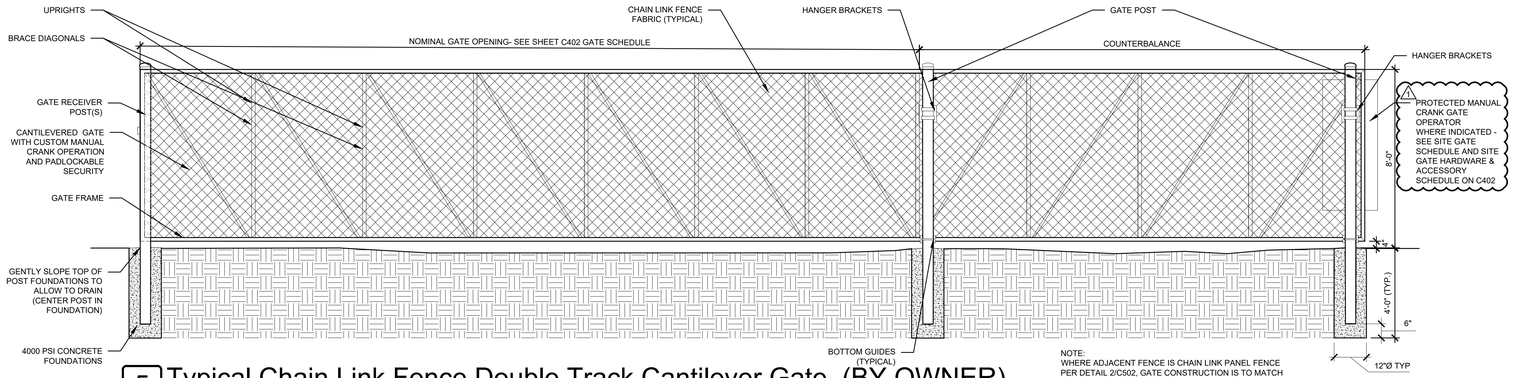


SLIDE GATE TYPICAL TRACK SECTION



5 Typical Chain Link Fence Double Track Cantilever Gate (BY OWNER)

Not to Scale

NOTE:
WHERE ADJACENT FENCE IS CHAIN LINK PANEL FENCE PER DETAIL 2/C502, GATE CONSTRUCTION IS TO MATCH WITH SIMILAR FRAMED PANEL CHAIN LINK INFILL.

For technical questions concerning the drawings or project, contact:
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MSKTD & Assoc.
(260) 432-9337

Site Fencing General Notes

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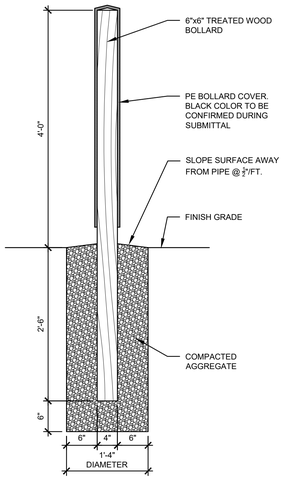
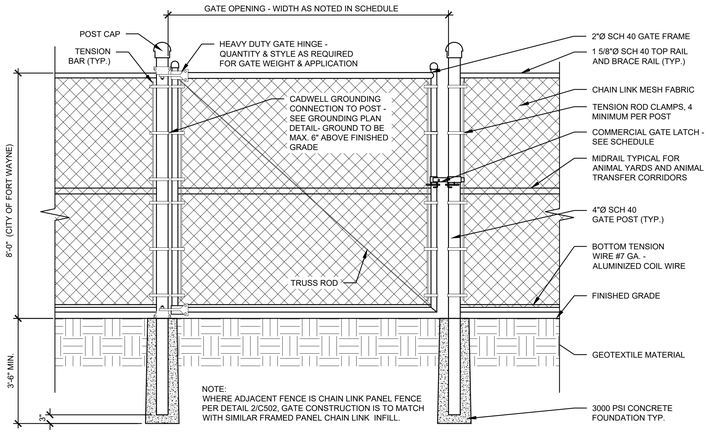
3. WHERE MANUAL CRANK GATE OPERATORS ARE REQUIRED, INSTALL COMMERCIALLY AVAILABLE CRANK OPERATORS AND ACCESSORIES APPROPRIATE TO THE GATE TYPE, WEIGHT, AND LENGTH OF TRAVEL, REQUIRED FOR OPERATION. WHERE NO COMMERCIAL GRADE OPERATORS ARE SUITED FOR THE REQUIRED GATES AND OPERATION, DESIGN, FABRICATE & INSTALL A SAMPLE PROTOTYPE ON SITE FOR TESTING AND APPROVAL BY THE OWNER BEFORE PROCEEDING WITH FABRICATION OF THE REMAINING UNITS. THE APPROVED PROTOTYPE MAY REMAIN IN PLACE AS PART OF THE COMPLETED WORK. SEE GATE SCHEDULE AND HARDWARE PACKAGES ON SHEET C402
4. PROVIDE SUPPLEMENTAL POSTS AND ACCESSORIES AS REQUIRED FOR COMPLETE ANIMAL TRANSFER SYSTEM OPERATION INCLUDING, BUT NOT LIMITED TO, GATE STOPS IN TRANSFER CORRIDOR FOR PEN SWING GATES, POST MOUNTED GUIDE ROLLERS FOR CANTILEVERED GATES, GATE RECEIVERS TO PREVENT GATE PUSH-OUT BY ANIMALS, GATE END SUPPORT WHEELS FOR SWING GATES, & SUPPLEMENTAL GUARD STRIPS WHERE NECESSARY TO ACHIEVE GAP TOLERANCE.
   CONTAINMENT GAP TOLERANCES:
   - VERTICAL GAP OF 2" MAX FOR ALL FENCES & GATES
   - 1" GAP TYPICAL BELOW CHAIN LINK FENCE
   - 2" MAX GAP BELOW SWING GATES
   - 2" GAP TYPICAL BELOW CANTILEVER GATE
5. STOP BAR AND LATCHES MUST BE PROTECTED FROM INCIDENTAL CONTACT BY ANIMAL THRU-TRAFFIC OR BE OTHERWISE FABRICATED WITH NO SHARP OR PROTRUDING CORNERS OR EDGES WHEN GATE IS IN THE OPEN POSITION
6. PROVIDE PADLOCK EYE FOR LOCKABLE CLOSURE - 2 REQUIRED EACH GATE
7. ALL POSTS, FRAMING AND ACCESSORIES ARE TO COORDINATE WITH CHAIN LINK FABRIC COLOR EXCEPT AS OTHERWISE APPROVED BY OWNER.
8. CHAIN LINK FABRIC IS TO BE 9 GAUGE, BLACK PVC COATED GALVANIZED STEEL WIRE OR AS OTHERWISE APPROVED BY THE OWNER.
9. ALL FENCING & GATES ARE TO BE GROUNDED.
10. GATES TO BE SECURED PADLOCK SECURABLE. PADLOCKS BY OWNER
11. CHAIN LINK FABRIC TO BE 2X2" MESH, 9 GAUGE PVC COATED, GALVANIZED STEEL WIRE, KNUCKLED SELVAGE TOP & BOTTOM.



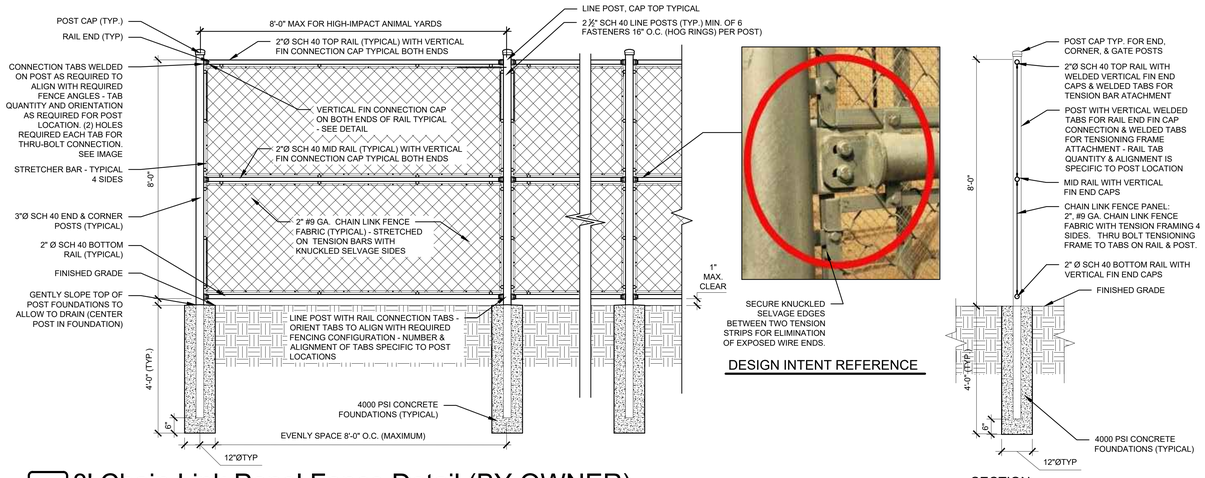
6 Gate Stop Post

Not to Scale



4 Chain Link Fence Swing Gate (BY OWNER)

Not to Scale



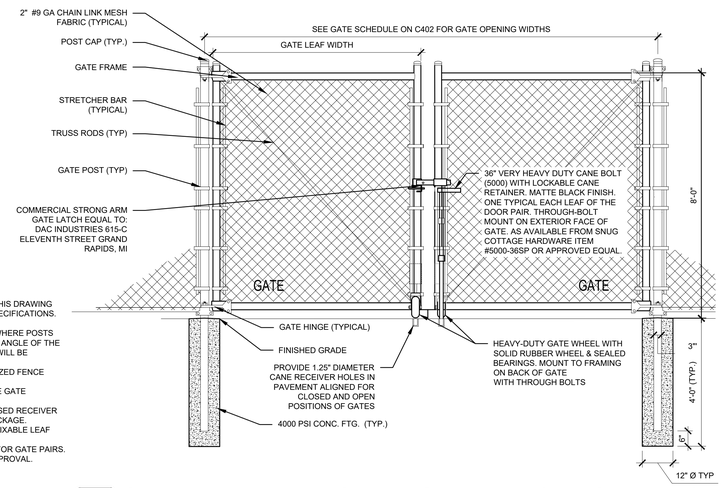
2 8' Chain Link Panel Fence Detail (BY OWNER)

Not to Scale

GATE FRAME MEMBERS SIZE AND WEIGHT		
GATE FRAME	OUTSIDE DIMENSIONS, INCHES	WEIGHT LBS./LIN. FT.
ROUND	1.66	1.66
* ROUND	1.66	1.66
* GRADE B HIGH STRENGTH STEEL		

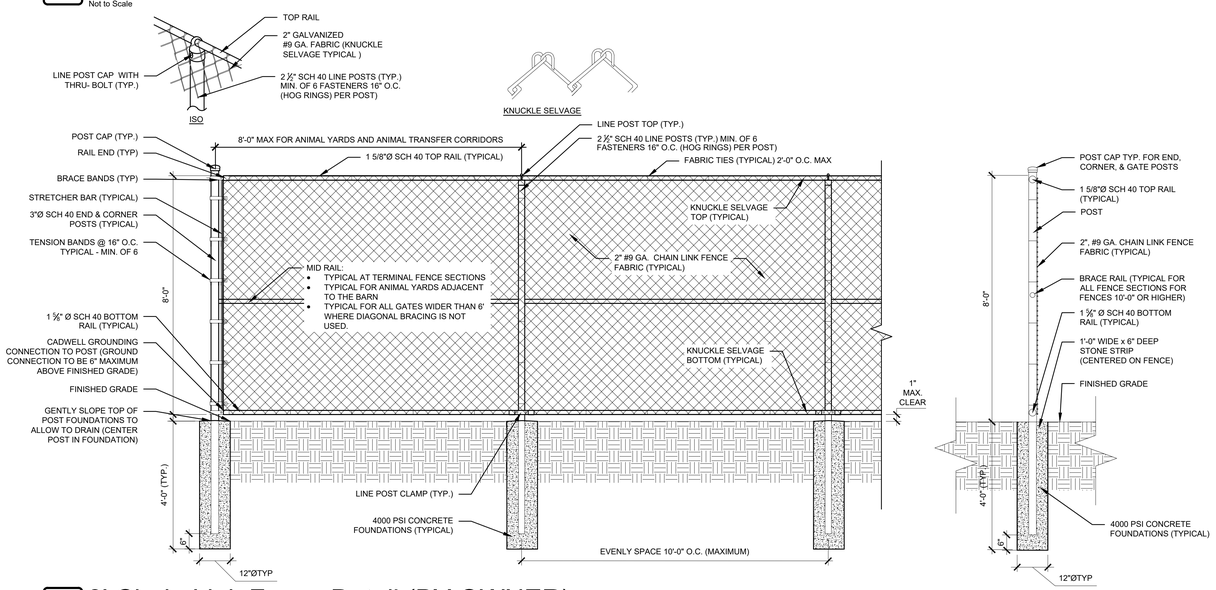
GATE POST SIZE AND WEIGHT		
GATE LEAF WIDTH OF 6' OR LESS	OUTSIDE DIMENSIONS, INCHES	WEIGHT LBS./LIN. FT.
ROUND	2.875	5.79
* ROUND	2.875	4.64
* GRADE B HIGH STRENGTH STEEL		

NOTES:
1. MATERIALS & WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.
2. SUBMIT SHOP DRAWINGS FOR APPROVAL.
3. ALL POSTS SHALL BE INSTALLED VERTICALLY. WHERE POSTS ARE INSTALLED ON AN INCLINED SURFACE, THE ANGLE OF THE POST SHALL BE ADJUSTED SO THAT THE POST WILL BE VERTICAL.
4. THE FENCE MESH SHALL BE #9 GAUGE GALVANIZED FENCE FABRIC, BLACK PVC COATED 2" CHAIN LINK
5. PROVIDE GATE STOP WHERE INDICATED ON THE GATE SCHEDULE
6. PROVIDE HEAVY DUTY CANE BOLT WITH RECESSED RECEIVER PER SCHEDULE AND INDICATED HARDWARE PACKAGE. COORDINATE WITH OWNER FOR LOCATION OF FIXABLE LEAF
7. GATE WHEELS TYPICAL.
8. SLAM LATCH WITH 2-WAY OPERATION TYPICAL FOR GATE PAIRS.
9. COORDINATE WITH OWNER FOR HARDWARE APPROVAL.



3 Chain Link Fence Swing Gate Pair (BY OWNER)

Not to Scale



1 8' Chain Link Fence Detail (BY OWNER)

Not to Scale

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1 Addendum 1	09-10-2024

SET DESCRIPTION
Bid Set

SHEET TITLE
Site Details

SHEET NUMBER
C502

9/9/2024 11:23:26 AM

Alternates

DEDUCT ALTERNATE - A1 - PROVISION OF THE CLERESTORY

BASE BID:
AS PART OF THE BASE BID, A CLERESTORY SHALL BE PROVIDED ON THE BUILDING (SEE ARCHITECTURAL PLANS). ROUTE THE DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING HIGH UP IN THE CLERESTORY.

ALTERNATE:
ALTERNATE A1 REMOVES THE CLERESTORY FROM THE BUILDING. FOR ALTERNATE A1, ROUTE THE DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING TIGHT TO THE ROOF RIDGE.

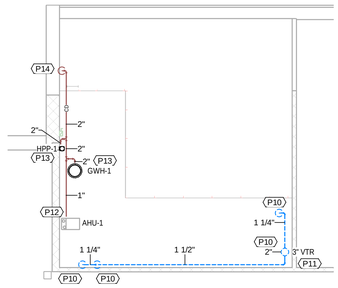
DEDUCT ALTERNATE - A2 - REDUCED BUILDING FOOTPRINT

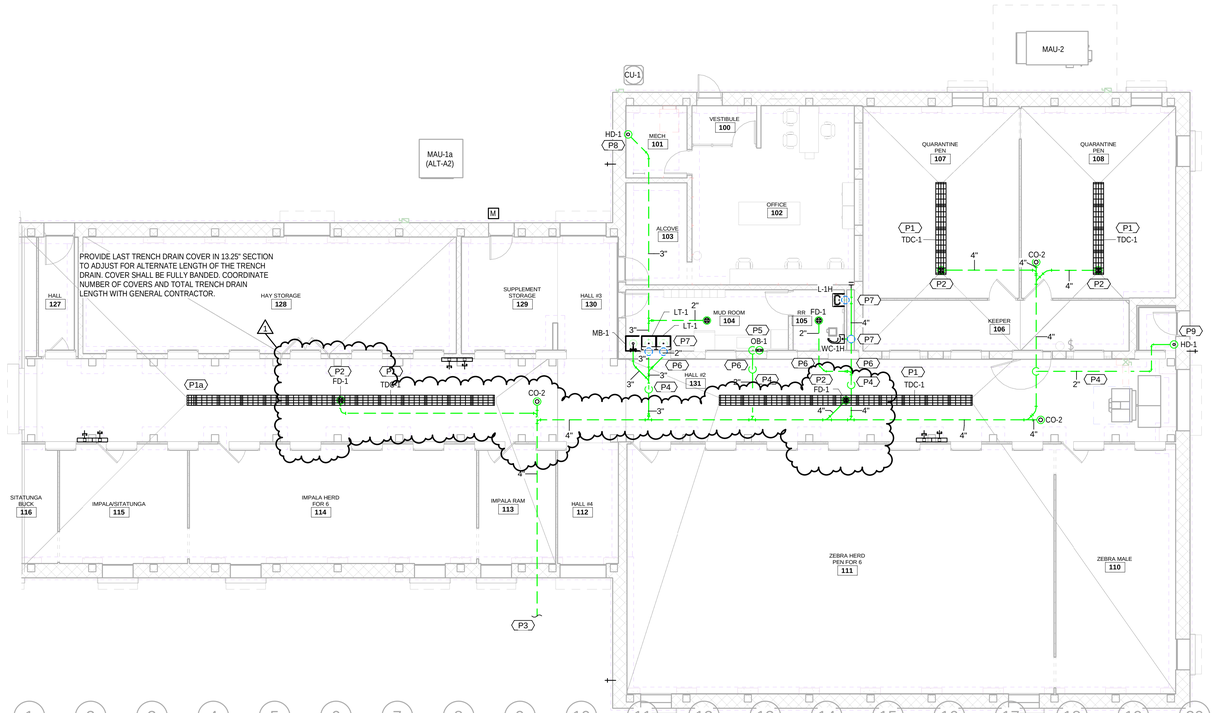
BASE BID:
AS PART OF THE BASE BID, THE FULL FOOTPRINT OF THE BUILDING SHALL BE BUILT.

ALTERNATE:
ALTERNATE A2 REMOVES PART OF THE FOOTPRINT FROM THE BUILDING. FOR ALTERNATE A2, THE WALL HYDRANT MARKED HB-1 ON THE WEST WALL, ONE HOSE STATION MARKED HS-1, AND ONE HOSE STATION MARKED HS-2 FROM THE SCOPE OF WORK. REVISE THE LENGTH OF DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING ACCORDINGLY. REDUCE THE NUMBER OF TRENCH DRAIN COVER SECTIONS FOR THE SHORTER LENGTH OF TRENCH DRAIN. REVISE SIZE OF THE GAS LINE FEEDING MAKE-UP AIR UNIT MAU-1 TO THE SIZE SHOWN FOR ALTERNATE MAKE-UP AIR UNIT MAU-1a.

Specific Plan Notes

P1	PROVIDE TRENCH DRAIN COVER IN 36" SECTIONS. COVER SHALL BE FULLY BANDED. COORDINATE NUMBER OF COVERS AND TOTAL TRENCH DRAIN LENGTH WITH GENERAL CONTRACTOR.
P1a	PROVIDE LAST TRENCH DRAIN COVER IN 13.25" SECTION TO ADJUST FOR ALTERNATE LENGTH OF THE TRENCH DRAIN. COVER SHALL BE FULLY BANDED. COORDINATE NUMBER OF COVERS AND TOTAL TRENCH DRAIN LENGTH WITH GENERAL CONTRACTOR.
P2	PROVIDE FLOOR DRAIN IN LOW SPOT OF TRENCH FOR DRAINAGE OF TRENCH. COORDINATE LOCATION WITH GENERAL CONTRACTOR.
P3	SEE CIVIL SHEETS FOR CONTINUATION AND INVERT. VERIFY INVERT REQUIREMENTS WITH SITE CONTRACTOR AND GENERAL CONTRACTOR. ADJUST INVERT AS REQUIRED FOR RUN OUT TO TRENCH DRAIN.
P4	ROUTE DRAIN LINE SHALLOW TO RUN ABOVE FOOTER THEN TURN DOWN TO RUN UNDER TRENCH DRAIN AND TIE INTO SANITARY MAIN.
P5	SURFACE MOUNT OUTLET BOX ON MASONRY WALL BEHIND WASHING MACHINE. ROUTE DRAIN LINE DOWN AND PROVIDE EXPOSED P-TRAP BELOW OUTLET BOX TO KEEP IT OUT OF THE WALL UNDER SLAB. TURN PIPE DOWN AND ROUTE THROUGH WALL.
P6	PROVIDE DUCTILE IRON SLEEVE FOR ALL PIPING ROUTED THROUGH WALL.
P7	SANITARY VENT UP TO MECHANICAL LEVEL ABOVE. SEE MECHANICAL LEVEL DRAINAGE PLAN THIS SHEET FOR CONTINUATION.
P8	PROVIDE HUB DRAIN TO COLLECT DRAIN FROM BACKFLOW PREVENTER BFP-2, HIGH PRESSURE WASHDOWN PUMP HPP-1, GAS FIRED WATER HEATER GWH-1, AND CONDENSATE DRAIN FROM AHU-1. PROVIDE AIR GAP AT HUB DRAIN BETWEEN HUB DRAIN AND DRAIN LINE. DRAIN LINE CONTINUES UP TO MECHANICAL LEVEL ABOVE. SEE MECHANICAL LEVEL DRAINAGE PLAN THIS SHEET FOR CONTINUATION.
P9	PROVIDE HUB DRAIN TO COLLECT DRAIN FROM BACKFLOW PREVENTER BFP-1
P10	SANITARY VENT UP FROM FIRST FLOOR. SEE FIRST FLOOR DRAINAGE PLANS THIS SHEET FOR CONTINUATION.
P11	ROUTE COMBINED 2" VENT UP TO 3" VENT THROUGH ROOF.
P12	CONNECT CONDENSATE DRAIN TO AHU-1 FURNACE AND COOLING COIL.
P13	PROVIDE DRAIN PAN UNDER GAS FIRED WATER HEATER GWH-1 AND HIGH PRESSURE WASHDOWN PUMP HPP-1. CONNECT DRAIN LINE INTO DRAIN PAN.
P14	ROUTE DRAIN LINE DOWN TO HUB DRAIN ON FIRST FLOOR BELOW. SEE FIRST FLOOR DRAINAGE PLANS FOR CONTINUATION.





3 Mechanical Level Drainage Plan
1/8" = 1'-0"

2 Alternate A2 First Floor Drainage Plan
1/8" = 1'-0"

1 Base Bid First Floor Drainage Plan
1/8" = 1'-0"

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Veldt Barn Replacement
Fort Wayne Children's Zoo
3411 Sherman Boulevard
Fort Wayne, Indiana 46808

PROJECT NO. 8063
DATE 03-13-2024

REV. 1 Addendum 01
DATE 09-10-24

SET DESCRIPTION

SHEET TITLE
Sanitary Drainage Plans

SHEET NUMBER
P201

9/11/2024 10:03:49 AM

Alternates

DEDUCT ALTERNATE - A1 - PROVISION OF THE CLERESTORY

BASE BID:
AS PART OF THE BASE BID, A CLERESTORY SHALL BE PROVIDED ON THE BUILDING (SEE ARCHITECTURAL PLANS). ROUTE THE DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING HIGH UP IN THE CLERESTORY.

ALTERNATE:
ALTERNATE A1 REMOVES THE CLERESTORY FROM THE BUILDING. FOR ALTERNATE A1, ROUTE THE DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING TIGHT TO THE ROOF RIDGE.

DEDUCT ALTERNATE - A2 - REDUCED BUILDING FOOTPRINT

BASE BID:
AS PART OF THE BASE BID, THE FULL FOOTPRINT OF THE BUILDING SHALL BE BUILT.

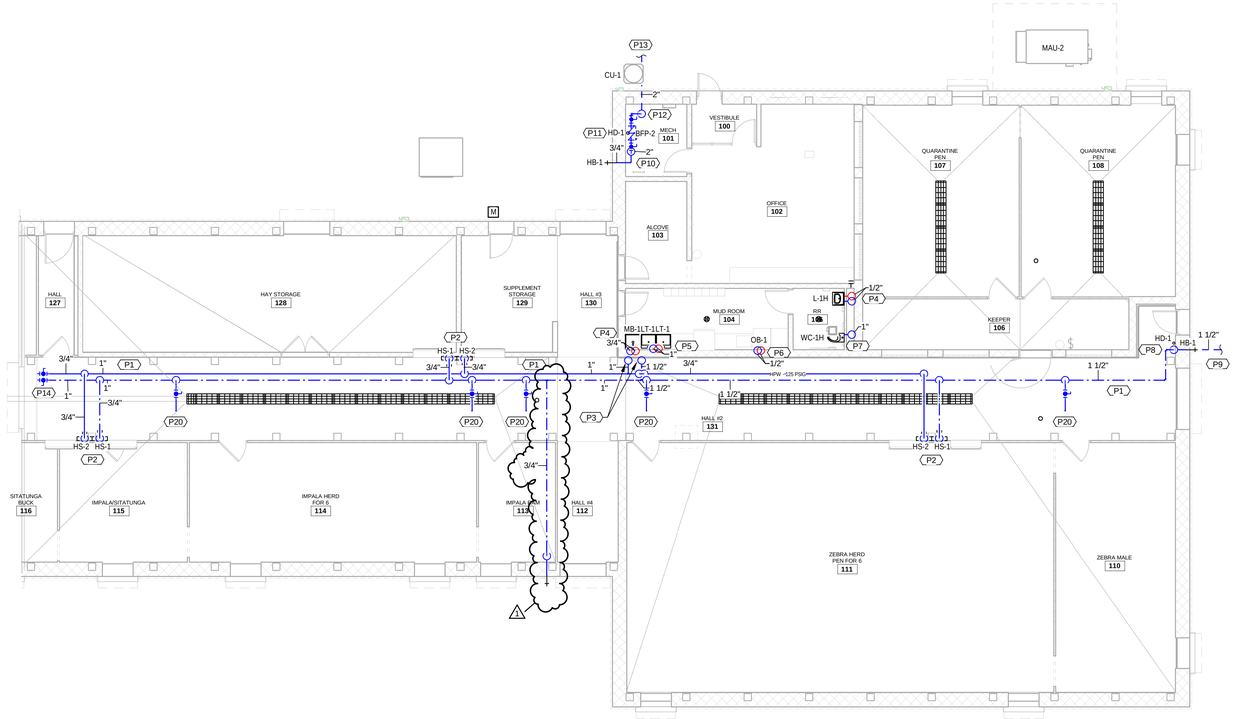
ALTERNATE:
ALTERNATE A2 REMOVES PART OF THE FOOTPRINT FROM THE BUILDING. FOR ALTERNATE A2, THE WALL HYDRANT MARKED HB-1 ON THE WEST WALL, ONE HOSE STATION MARKED HS-1, AND ONE HOSE STATION MARKED HS-2 FROM THE SCOPE OF WORK. REVISE THE LENGTH OF DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING ACCORDINGLY. REDUCE THE NUMBER OF TRENCH DRAIN COVER SECTIONS FOR THE SHORTER LENGTH OF TRENCH DRAIN. REVISE SIZE OF THE GAS LINE FEEDING MAKE-UP AIR UNIT MAU-1 TO THE SIZE SHOWN FOR ALTERNATE MAKE-UP AIR UNIT MAU-1a.

Specific Plan Notes

P1	ROUTE DOMESTIC WATER AND HIGH PRESSURE WASHDOWN PIPING IN CLERESTORY.
P2	MOUNT HOSE RACK HS-1 AND HOSE RACK HS-2 TO COLUMN APPROXIMATELY 4 FEET ABOVE FINISHED FLOOR. COORDINATE MOUNTING HEIGHT WITH OWNER. RACKS ARE SHOWN OFFSET FOR DRAWING CLARITY. PROVIDE BALL VALVE FOR SHUTOFF AND QUICK CONNECT TERMINATION OF PIPING. OWNER SHALL PROVIDE HOSES.
P3	HIGH PRESSURE WASHDOWN AND DOMESTIC WATER PIPING FEED FROM MECHANICAL LEVEL. SEE MECHANICAL LEVEL DOMESTIC WATER PLAN THIS SHEET FOR CONTINUATION.
P4	DOMESTIC HOT AND COLD WATER DOWN FROM MECHANICAL LEVEL ABOVE TO FEED FIXTURE. SEE MECHANICAL LEVEL DOMESTIC WATER PLAN THIS SHEET FOR CONTINUATION.
P5	DOMESTIC HOT AND COLD WATER DOWN FROM MECHANICAL LEVEL ABOVE TO FEED FIXTURE. SEE MECHANICAL LEVEL DOMESTIC WATER PLAN THIS SHEET FOR CONTINUATION. PROVIDE TEE IN PIPING TO FEED BOTH LAUNDRY TUBS.
P6	DOMESTIC HOT AND COLD WATER DOWN FROM MECHANICAL LEVEL ABOVE TO FEED FIXTURE. SEE MECHANICAL LEVEL DOMESTIC WATER PLAN THIS SHEET FOR CONTINUATION. SURFACE MOUNT OUTLET BOX ON MASONRY WALL BEHIND WASHING MACHINE.
P7	DOMESTIC COLD WATER DOWN FROM MECHANICAL LEVEL ABOVE TO FEED FIXTURE. SEE MECHANICAL LEVEL DOMESTIC WATER PLAN THIS SHEET FOR CONTINUATION.
P8	ROUTE DOMESTIC COLD WATER FEED DOWN TO FEED WALL HYDRANT HB-1. PROVIDE TEE TO SUPPLY BACKFLOW PREVENTER BFP-1. BACKFLOW PREVENTER BFP-1 SHALL FEED THE UNDERGROUND SUPPLY TO YARD HYDRANTS.

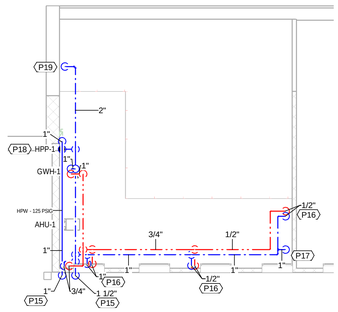
Specific Plan Notes

P9	SEE CIVIL SHEETS FOR CONTINUATION AND INVERT. VERIFY INVERT REQUIREMENTS WITH SITE CONTRACTOR AND GENERAL CONTRACTOR.
P10	DOMESTIC WATER FEED UP TO MECHANICAL LEVEL ABOVE. SEE MECHANICAL LEVEL DOMESTIC WATER PLAN THIS SHEET FOR CONTINUATION.
P11	ROUTE DRAIN LINE FOR BACKFLOW PREVENTER BFP-2 TO HUB DRAIN HD-1. SEE SHEET P201.
P12	DOMESTIC COLD WATER UP THROUGH FLOOR SLAB TO FEED BUILDING. PROVIDE MECHANICAL LINK SEAL TO SEAL PENETRATION THROUGH SLAB.
P13	SEE CIVIL SHEETS FOR CONTINUATION AND INVERT.
P14	PROVIDE VALVE AND CAP FOR FUTURE EXPANSION.
P15	DOMESTIC COLD WATER AND HIGH PRESSURE WASHDOWN FEED TO FACILITY. SEE FIRST FLOOR DOMESTIC WATER PLANS THIS SHEET FOR CONTINUATION.
P16	DOMESTIC HOT AND COLD WATER FEED TO FIXTURES BELOW. SEE FIRST FLOOR DOMESTIC WATER PLANS THIS SHEET FOR CONTINUATION.
P17	DOMESTIC COLD WATER FEED TO FIXTURE BELOW. SEE FIRST FLOOR DOMESTIC WATER PLANS THIS SHEET FOR CONTINUATION.
P18	PROVIDE PRESSURE TRANSDUCER IN DISCHARGE PIPING OF HIGH PRESSURE WASHDOWN PUMP HPP-1. PROVIDE SPEED CONTROLLER TO CONTROL SPEED OF PUMP BASED ON THAT PRESSURE TRANSDUCER. SEE SEQUENCE(S) OF OPERATION SHEET P001.
P19	DOMESTIC COLD WATER FEED FROM BACKFLOW PREVENTER BFP-2 BELOW. SEE FIRST FLOOR DOMESTIC WATER PLANS THIS SHEET FOR CONTINUATION.
P20	PROVIDE 1/2" BRANCH PIPE WITH VALVE AND CAP FOR FUTURE CONNECTION TO ANIMAL WATERER.



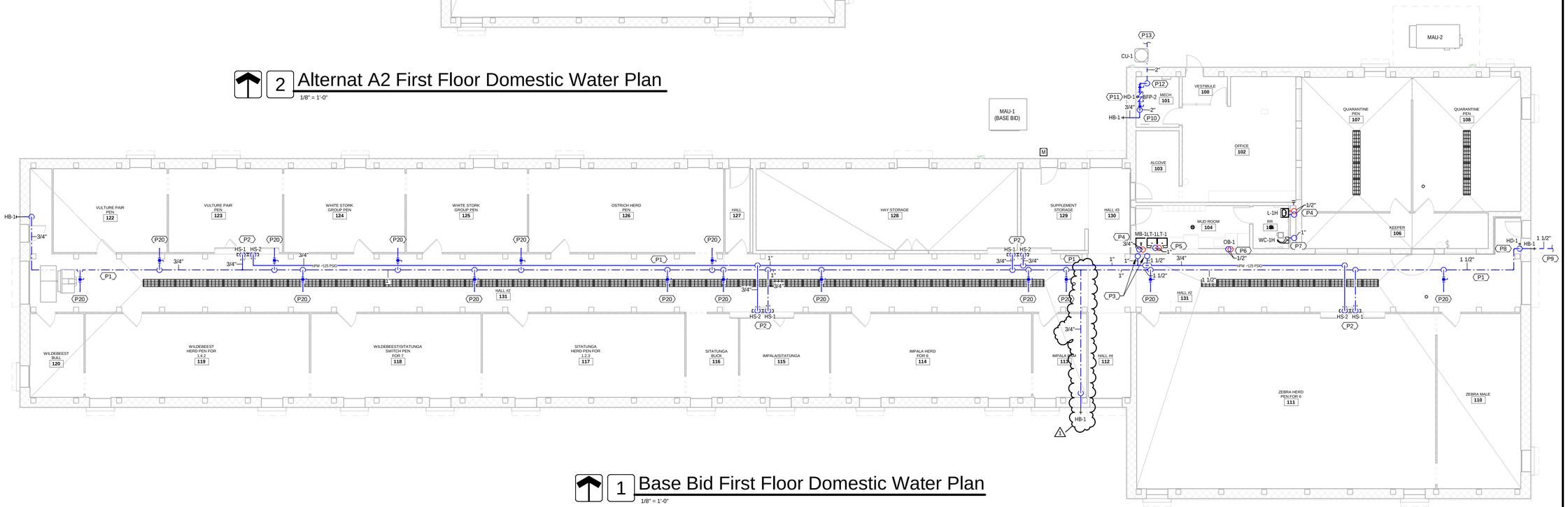
2 Alternat A2 First Floor Domestic Water Plan

1/8" = 1'-0"



3 Mechanical Level Domestic Water Plan

1/8" = 1'-0"



1 Base Bid First Floor Domestic Water Plan

1/8" = 1'-0"

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PRELIMINARY NOT FOR CONSTRUCTION

Veldt Barn Replacement
Fort Wayne Children's Zoo

3411 Sherman Boulevard
Fort Wayne, Indiana 46808

PROJECT NO.	DATE
8063	03-13-2024

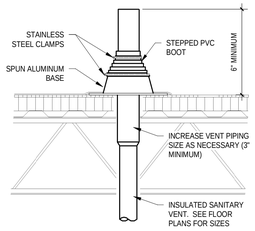
REV.		DATE
1	Addendum 01	09-10-24

SET DESCRIPTION

SHEET TITLE
Domestic Water Plans

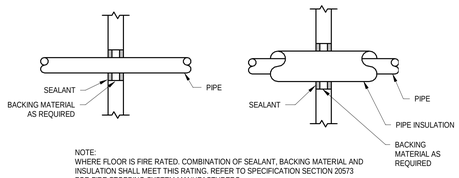
SHEET NUMBER
P301

9/11/2024 10:50:25 AM



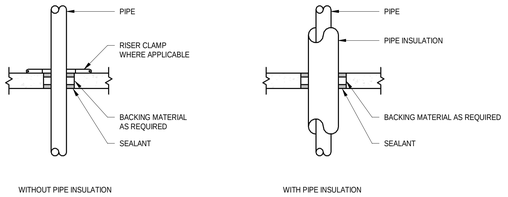
10 Sanitary Vent Roof Penetration

Not to Scale



9 Pipe Thorough Interior Wall

Not to Scale



8 Pipe Thorough Floor

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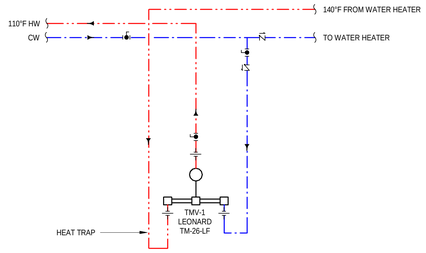

7 Thermostatic Mixing Valve

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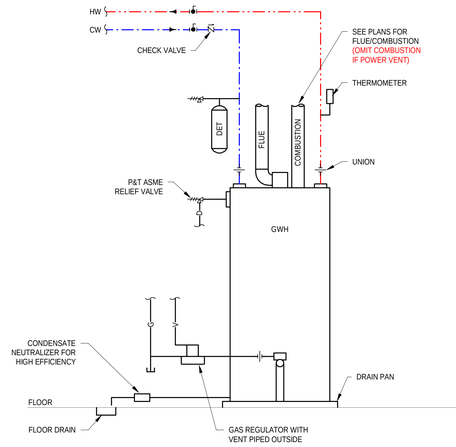

6 Gas Water Heater (Direct Vent/Condensing)

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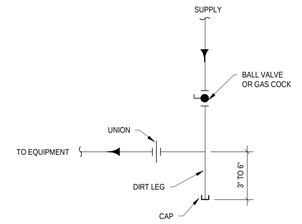

5 Gas Fired Unit Piping (Typ.)

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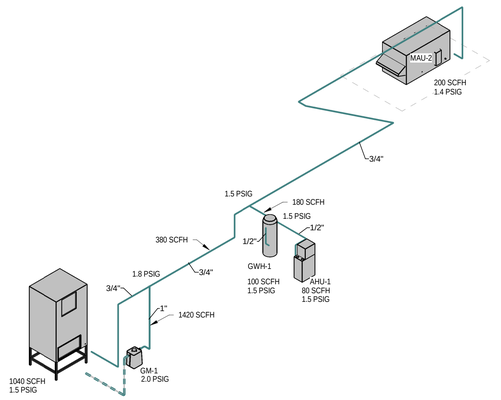
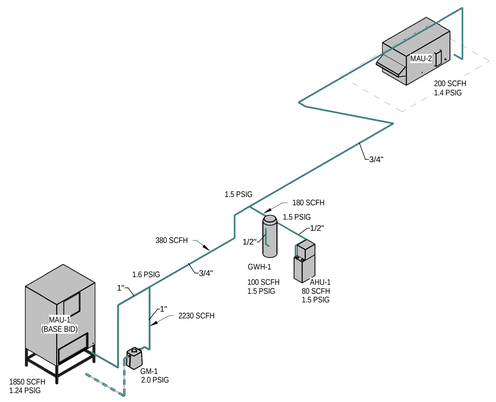


4 Alternate A2 Natural Gas Isometric

Not to Scale



3 Base Bid Natural Gas Isometric

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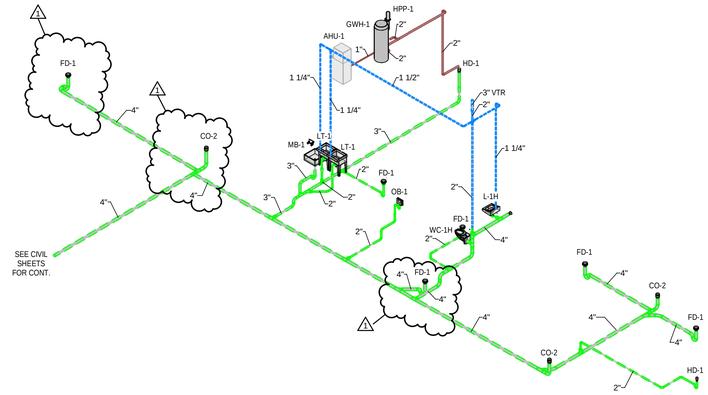
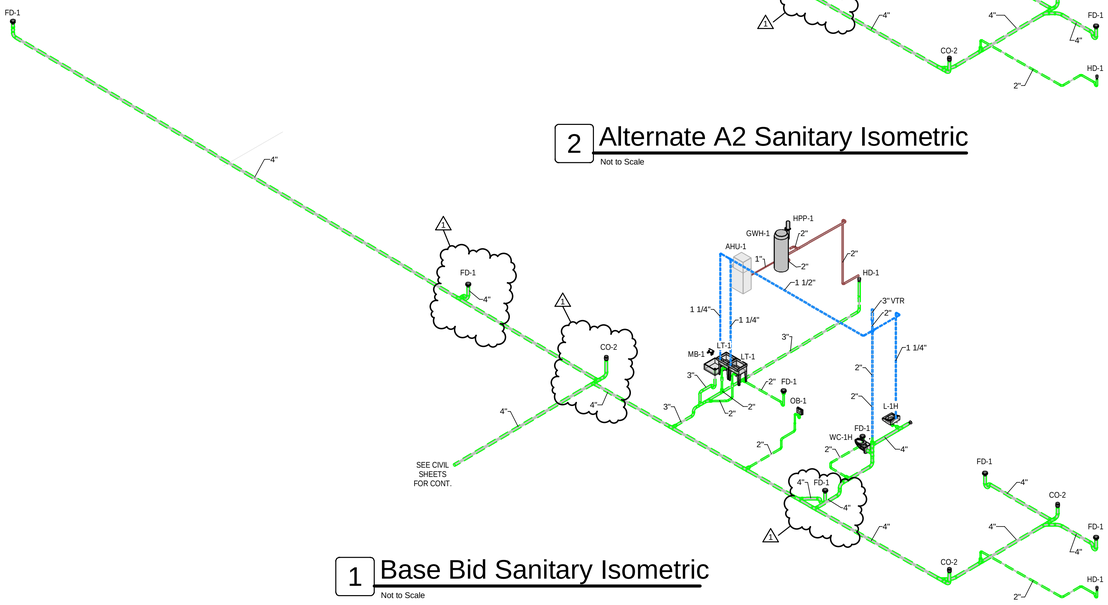


2 Alternate A2 Sanitary Isometric

Not to Scale



1 Base Bid Sanitary Isometric

Not to Scale

Alternates

DEDUCT ALTERNATE - A1 - PROVISION OF THE CLERESTORY

BASE BID:
AS PART OF THE BASE BID, A CLERESTORY SHALL BE PROVIDED ON THE BUILDING (SEE ARCHITECTURAL PLANS). ROUTE THE DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING HIGH UP IN THE CLERESTORY.

ALTERNATE:
ALTERNATE A1 REMOVES THE CLERESTORY FROM THE BUILDING. FOR ALTERNATE A1, ROUTE THE DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING TIGHT TO THE ROOF RIDGE.

DEDUCT ALTERNATE - A2 - REDUCED BUILDING FOOTPRINT

BASE BID:
AS PART OF THE BASE BID, THE FULL FOOTPRINT OF THE BUILDING SHALL BE BUILT.

ALTERNATE:
ALTERNATE A2 REMOVES PART OF THE FOOTPRINT FROM THE BUILDING. FOR ALTERNATE A2, THE WALL HYDRANT MARKED HB-1 ON THE WEST WALL, ONE HOSE STATION MARKED HS-1, AND ONE HOSE STATION MARKED HS-2 FROM THE SCOPE OF WORK. REVISE THE LENGTH OF DOMESTIC COLD AND HIGH PRESSURE WASHDOWN SUPPLY PIPING ACCORDINGLY. REDUCE THE NUMBER OF TRENCH DRAIN COVER SECTIONS FOR THE SHORTER LENGTH OF TRENCH DRAIN. REVISE SIZE OF THE GAS LINE FEEDING MAKE-UP AIR UNIT MAU-1 TO THE SIZE SHOWN FOR ALTERNATE MAKE-UP AIR UNIT MAU-1a.

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PRELIMINARY NOT FOR CONSTRUCTION

Veldt Barn Replacement
Fort Wayne Children's Zoo
3411 Sherman Boulevard
Fort Wayne, Indiana 46808

PROJECT NO. 8063
DATE 03-13-2024

REV.		DATE
1	Addendum 01	09-10-24

SET DESCRIPTION

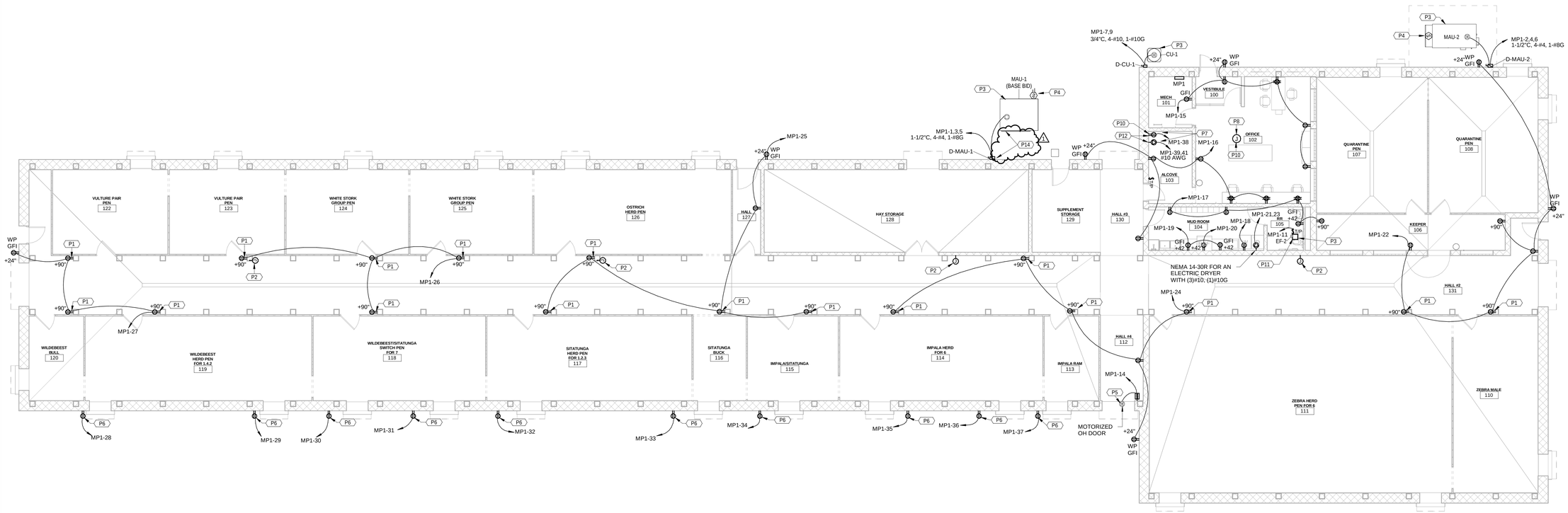
SHEET TITLE
Plumbing Isometrics and Details

SHEET NUMBER
P501

9/11/2024 10:03:54 AM

Power Plan Notes

P1	PROVIDE RECEPTACLE SURFACE MOUNTED ON COLUMN AT 90" A.F.F. ROUTE ASSOCIATED CONDUIT SURFACE MOUNTED VERTICALLY ON COLUMN.
P2	FUTURE WAP. PROVIDE 4 11/16" SQUARE BOX WITH BLANK COVER SURFACE MOUNTED AT +10' A.F.F. RUN 1-1/4" C FROM J-BOX TO IDF RACK LOCATION. PROVIDE PULL STRING IN CONDUIT.
P3	EQUIPMENT FURNISHED AND INSTALLED BY MC. COORDINATE LOCATION, ROUGH-IN AND ELECTRICAL REQUIREMENTS WITH MC AND APPROVED SHOP DRAWINGS PRIOR TO ROUGH-IN.
P4	ELECTRICIAN SHALL WIRE MC PROVIDED/INSTALLED DUCT MOUNTED SMOKE DETECTORS IN THE RETURN DUCTS. WIRE SUCH THAT UPON ALARM, ALL UNITS SHUT DOWN.
P5	OVERHEAD DOOR MOTOR, ELECTRIC EYES & CONTROLLER PROVIDED AND INSTALLED BY OTHERS. CONTRACTOR SHALL WIRE AND INTERLOCK ELECTRIC EYES AND CONTROLLER.
P6	PROVIDE GFCI DUPLEX RECEPTACLE WITH IN-USE WEATHER PROOF COVER ON EXTERIOR WALL AT 10'-5" AFF FOR FUTURE OWNER INFRARED HEATERS. HOMERUN THROUGH INFRARED HEATER RECEPTACLE CONTROLS, SEE DETAIL #5 ON SHEET E501
P7	ELECTRICIAN SHALL PROVIDE (1) 20A DUPLEX RECEPTACLE AND (1) 30A SPECIAL RECEPTACLE FOR OWNER INSTALLED IDF RACK LOCATION. VERIFY NEMA CONFIGURATION WITH OWNER PRIOR.
P8	FUTURE WAP. PROVIDE 4 11/16" SQUARE BOX WITH BLANK COVER FLUSH IN CEILING. RUN 1-1/4" C FROM J-BOX TO IDF RACK LOCATION. PROVIDE PULL STRING IN CONDUIT. COORDINATE LOCATION OF WAP WITH OWNER IT DEPARTMENT.
P10	T-COMM RACK IN IDF INCLUDING ALL HORIZONTAL DATA CABLING, FIBER OPTIC CABLING, PATCH PANELS, TERMINATIONS, TESTING WILL BE FURNISHED AND INSTALLED BY THE OWNER. COORDINATE FINAL LOCATION FOR ASSOCIATED RECEPTACLES WITH THE OWNER PRIOR TO INSTALLATION.
P11	REFER TO LIGHTING PLAN FOR INTERLOCKING EF-2 WITH LOCAL RESTROOM OCCUPANCY SENSOR.
P12	DUPLEX RECEPTACLE AND SPECIAL RECEPTACLE SHALL BE MOUNTED AT +96" AFF FOR FUTURE OWNER IDF RACK. COORDINATE EXACT LOCATION WITH THE OWNER PRIOR TO INSTALLATION.
P14	BASE BID MAU-1 IS 20HP AND SHALL HAVE 80A/3P BREAKER IN PANEL MP1, 80A FUSES AT DISCONNECT AND FEEDER SIZE 1-1/2"C, 4-#4, 1-#8G. UNDER ALTERNATE A2 MAU-1 IS 7.5HP AND SHALL HAVE 35A/3P BREAKER IN PANEL MP1, 35A FUSES AT DISCONNECT AND FEEDER SIZE 3/4"C. 4-#8, 1-#10G.



Electrical Power Plan

1/8" = 1'-0"

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3411 Sherman Boulevard
Fort Wayne, Indiana 46808

PROJECT NO. 8063

DATE 08-28-2024

REV.		DATE
1	Addendum 01	09-10-2024

SET DESCRIPTION
Bid Set

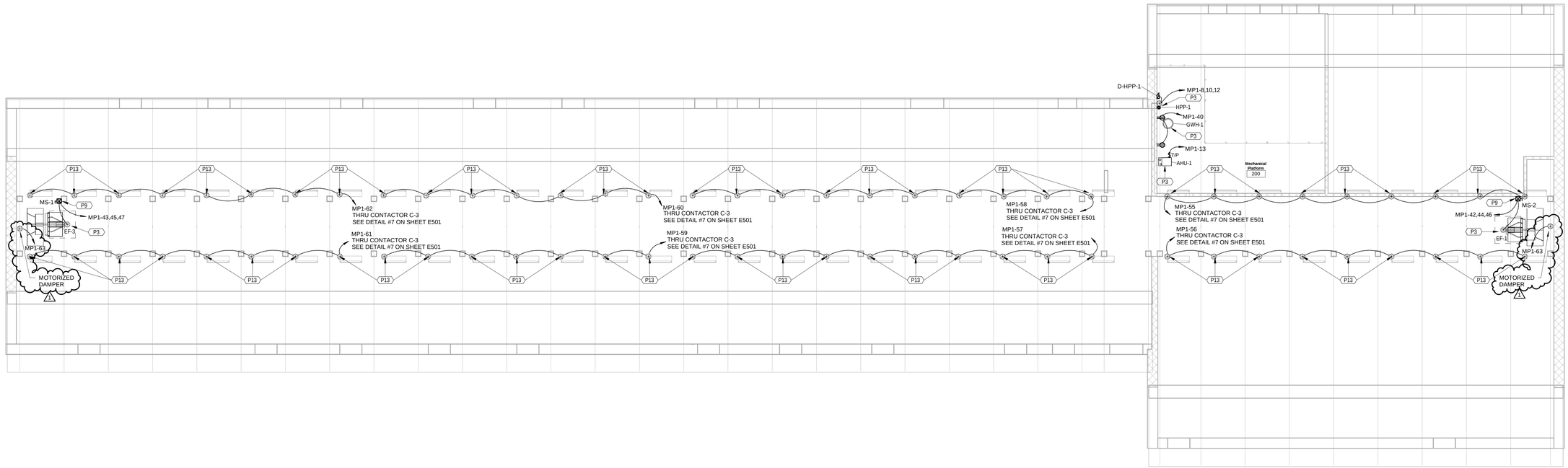
SHEET TITLE
Electrical Power Plan

SHEET NUMBER
E201

9/10/2024 12:08:46 PM

Power Plan Notes

P3	EQUIPMENT FURNISHED AND INSTALLED BY MC. COORDINATE LOCATION, ROUGH-IN AND ELECTRICAL REQUIREMENTS WITH MC AND APPROVED SHOP DRAWINGS PRIOR TO ROUGH-IN.
P9	REFER TO MOTOR STARTER SCHEDULE FOR FURTHER INFORMATION.
P13	CONNECT AWNING ACTUATOR, VERIFY EXACT REQUIREMENTS WITH SUPPLIER.



Mechanical Level Electrical Plan

1/8" = 1'-0"

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PROJECT NO. 8063

DATE 08-28-2024

REV. 1 Addendum 01

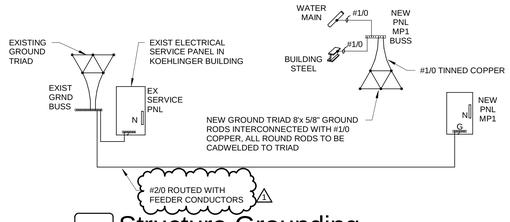
DATE 09-10-2024

SET DESCRIPTION
Bid Set

SHEET TITLE
Mechanical Level Electrical Plan

SHEET NUMBER
E202

9/10/2024 12:08:46 PM



1 Structure Grounding

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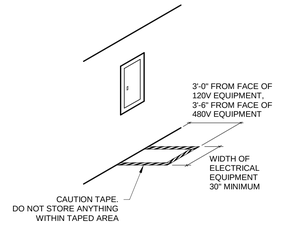

3 Panel Clearance Detail

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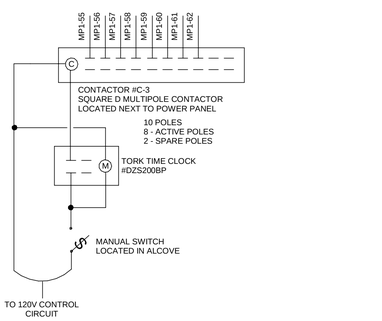
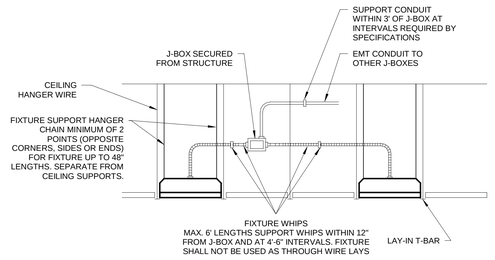


7 Awning Window Control Wiring

12" = 1'-0"



4 Lay-In Fixture Detail

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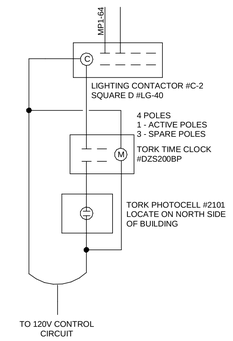
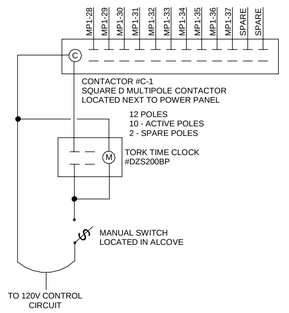


6 Ext Bdg Lighting Control Diagram

Not to Scale



5 Infrared Recept Htrs Control

Not to Scale

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Veldt Barn Replacement
Fort Wayne Children's Zoo

3411 Sherman Boulevard
Fort Wayne, Indiana 46808

PROJECT NO.	DATE
8063	08-28-2024

REV.		DATE
1	Addendum 01	09-10-2024

SET DESCRIPTION
Bid Set

SHEET TITLE
Electrical Details

SHEET NUMBER
E501

9/10/2024 12:08:47 PM

ABBREVIATIONS

A	AMPERE	GRC	GALVANIZED RIGID CONDUIT
AFF	ABOVE FINISHED FLOOR	IG	ISOLATED GROUND
AFG	ABOVE FINISHED GRADE	N/L	NIGHT LIGHT
AHU	AIR HANDLING UNIT	PVC	CONDUIT
BSI	BUILDING SYSTEM INTEGRATION	P	PHOTO-ELECTRIC DETECTOR
C	CONDUIT	R	REMOVE
CUH	CABINET UNIT HEATER	RL	LOW VOLTAGE RELAY
EMT	ELECTRICAL METALLIC TUBING	RTU	ROOF TOP UNIT
EF	EXHAUST FAN	TEL	TELEPHONE
EWC	ELECTRIC WATER COOLER	TV	TELEVISION
EWH	ELECTRIC WATER HEATER	WC	WATER COOLER
FA	FIRE ALARM	WG	WIRE GUARD
FMC	FLEXIBLE METALLIC TUBING	WP	WEATHERPROOF
GFCI	GROUND FAULT CIRCUIT INTERRUPTER		

GENERAL ELECTRICAL SPECIFICATIONS

THE ENTIRE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. GROUNDING CONDUCTORS AND GROUNDING RODS SHALL BE COPPER.

CONDUIT SHALL BE EMT OR RIGID OF 3/4" MINIMUM TRADE SIZE.

EMT FITTINGS SHALL BE STEEL OF THE SET SCREW TYPE.

EXPOSED CONDUIT ON THE EXTERIOR OF THE BUILDING SHALL BE RIGID CONDUIT WITH THREADED FITTINGS. THIS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION AND ACCEPT TO A MINIMUM.

ALL WIRE SHALL BE COPPER WITH TYPE THW, THHN, THWN, OR XHHW INSULATION.

PANELBOARDS, DISCONNECTS, TVSS, CONTACTORS AND REMOTE DRIVERS SHALL HAVE PLASTIC LAMINATE ENGRAVED LABEL ATTACHED WITH STAINLESS STEEL SHEETMETAL SCREWS.

RECEPTACLES SHALL BE 120 VOLT, 20 AMPERE, P & S 5262-I, LEVITON 5362A, OR EQUAL BY, HUBBELL, SIERRA, AND ARROWHART. COLOR BY ARCHITECT.

SWITCHES SHALL BE 120/277 VOLT, 20 AMPERE, HUBBELL #1221 I OR EQUAL. COLOR BY ARCHITECT.

LED FIXTURES SHALL BE AS SCHEDULED.

ALL BOXES SHALL BE PRESSED STEEL, SINGLE PIECE (NON-GANGABLE) TYPE.

ALL COVER PLATES SHALL BE EQUAL TO STAINLESS STEEL IN FINISHED AREAS, GALVANIZED IN UNFINISHED AREAS.

ALL COVER PLATES ON ALL DEVICES SHALL HAVE CIRCUIT NUMBERS LABELED ON THE BACK SIDE WITH INDELIBLE INK MARKER. JUNCTION BOXES SHALL ALSO BE LABELED.

GENERAL NOTES - APPLY TO ALL ELECTRICAL SHEETS:

- INSTALLATIONS SHALL CONFORM WITH FEDERAL, STATE, AND LOCAL LAWS, CODES, ORDINANCES, RULES, AND REGULATIONS WHICH ARE HEREBY MADE A PART OF THESE CONTRACT DOCUMENTS THE SAME AS IF REPEATED HEREIN.
- CONTRACTOR SHALL INCLUDE IN BID/PROPOSAL COST REQUIRED TO COMPLETELY AND PROPERLY INSTALL WORK REQUIRED FOR THE PROJECT.
- CONTRACTOR SHALL INCLUDE IN BID/PROPOSAL COST FOR CUTTING AND PATCHING AS REQUIRED TO INSTALL NEW OR EXISTING WORK, EQUIPMENT OR SYSTEMS.
- CLEARANCES INDICATED ARE BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY PIPING, DUCTWORK, ROUTING, AND STRUCTURAL DETAILS PRIOR TO SUBMITTING A BID/PROPOSAL AND INCLUDE SUCH COSTS AS REQUIRED TO INSTALL WORK AS SHOWN AND INTENDED.
- VERIFY ALL DIMENSIONS FROM ARCHITECTURAL PLANS.
- ALL LIGHT FIXTURES INSTALLED IN ACOUSTICAL TILE SHALL BE ON ONE FOOT MODULE. FIXTURES INSTALLED IN GRID CEILING SHALL BE EQUIPPED WITH SAFETY CHAIN (FROM TWO CORNERS) CONNECTED TO STRUCTURAL MEMBER ABOVE THE CEILING.
- DIMENSIONS SHOWN ON OUTLET BOXES SHALL BE TO THE CENTER OF THE BOX.
- CONDUIT TO LIGHTS IS SHOWN TO INDICATE SWITCHING AND DOES NOT INDICATE QUANTITY OR EXACT LOCATION.
- PROVIDE PLASTER RINGS WHERE REQUIRED BY CEILING CONSTRUCTION.
- VERIFY LOCATION OF LIGHTS IN ROOMS CONTAINING EXPOSED DUCTWORK AND PIPING WITH MECHANICAL CONTRACTOR AND RELOCATE AS NECESSARY AND/OR AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL THOROUGHLY EXAMINE THE WORK OF OTHER CONTRACTORS PRIOR TO SUBMITTING A BID/PROPOSAL.
- CONTRACTOR SHALL COORDINATE AND ASSURE THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN, EITHER, OR PASS THROUGH ELECTRICAL SPACES OR ROOMS PER NEC ARTICLE 408.
- ALL POWER OUTAGES SHALL BE COORDINATED AND SCHEDULED IN ADVANCE WITH THE OWNER.
- WHEREAS PLANS GENERALLY SHOW INDIVIDUAL HOME RUN SINGLE PHASE BRANCH CIRCUITS, CONTRACTOR MAY RUN UP TO THREE (3) SUCH CIRCUITS IN A RACEWAY.
- WIRE SIZES: BRANCH CIRCUIT WIRE SIZES SHALL BE BASED ON THE VALUES INDICATED BELOW
  1. 120/208V CABLING FROM PANEL TO THE ELECTRICAL LOAD SHALL BE ADJUSTED AS FOLLOWS UNLESS SPECIFICALLY NOTED OTHERWISE.
     - A. 0 TO 100FT: #12AWG MINIMUM
     - B. 100 TO 200FT: #10AWG MINIMUM
     - C. 200 TO 250FT: #8AWG MINIMUM
- VERIFY TYPES OF CEILING AND DIMENSIONS BEFORE PLACING ORDER FOR LIGHT FIXTURES.
- CIRCUIT NUMBERS SHOWN FOR EXISTING PANELS ARE BASED ON EXISTING DRAWINGS, SCHEDULES, AND FIELD SURVEY. FIELD VERIFY AS REQUIRED.
- LIGHT FIXTURES TO BE REUSED SHALL BE CLEANED AND RELAMPED. BALLASTS SHALL BE REPLACED TO MATCH NEW FIXTURES.
- REFER TO SITE PLAN FOR ADDITIONAL ELECTRICAL WORK.
- CONTRACT DOCUMENTS CONSIST OF BOTH PROJECT MANUAL AND DRAWINGS AND BOTH ARE MEANT TO BE COMPLEMENTARY. ANYTHING APPEARING ON EITHER MUST BE EXECUTED THE SAME AS IF SHOWN ON BOTH.
- SOME ELECTRICAL WORK MAY BE REQUIRED TO BE PERFORMED OFF REGULAR WORK HOURS. COST FOR PREMIUM TIME SHALL BE INCLUDED IN THE BID/PROPOSAL.
- VERIFY LOCATION OF ALL OUTLETS IN EQUIPMENT AND BUILT-IN FURNITURE WITH EQUIPMENT SUPPLIER PRIOR TO ROUGHING-IN.
- VERIFY LOCATION OF ALL OUTLETS AT COUNTER TOPS AND CABINETS WITH ARCHITECTURAL ELEVATION DRAWINGS PRIOR TO ROUGHING-IN.
- ALL EXISTING EQUIPMENT THAT IS TO REMAIN IS INTENDED TO BE OPERATIONAL AT THE COMPLETION OF THE JOB. THIS CONTRACTOR SHALL RECIRCUIT WHERE NECESSARY TO ENSURE THIS CONTINUED OPERATION.

POWER SYMBOLS

- PANELBOARD; SEE SCHEDULE FOR DETAILS
- VARIABLE FREQUENCY DRIVE
- COMBINATION STARTER; SEE SCHEDULE FOR DETAILS
- NONFUSED DISCONNECT; SEE SCHEDULE FOR DETAILS
- FUSED DISCONNECT; SEE SCHEDULE FOR DETAILS
- MANUAL STARTER W/ PILOT & THERMAL
- DUPLEX RECEPTACLE - EMERGENCY
- QUADPLEX RECEPTACLE
- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE; HORIZONTAL MOUNT
- DUPLEX RECEPTACLE W/USB; SEE SPECS
- DUPLEX RECEPTACLE, ISOLATED GROUND
- DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPT
- SPECIAL RECEPTACLE; SEE DRAWINGS
- JUNCTION BOX
- MOTOR/EQUIPMENT CONNECTION

FIRE ALARM SYMBOLS

- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR PANEL
- F — MANUAL PULL STATION
- FIRE ALARM SPEAKER/STROBE - WALL MOUNTED
- FIRE ALARM HORN/STROBE - WALL MOUNTED
- FIRE ALARM STROBE - WALL MOUNTED
- SD — SMOKE DETECTOR - DUCT MOUNTED
- SW — SMOKE DETECTOR - CEILING MOUNTED
- HEAT DETECTOR - CEILING MOUNTED
- GAS DETECTOR - CEILING MOUNTED
- FLAME DETECTOR - CEILING MOUNTED
- S_F — FIRE ALARM SPEAKER - CEILING MOUNTED
- SD$_M$ — MOTORIZED SMOKE DAMPER
- CF — FIRE ALARM BELL
- FLOW DETECTOR
- TAMPER DETECTOR
- H — DOOR HOLD OPEN

NOTE SYMBOLS

- Dx — ELECTRICAL DEMOLITION PLAN NOTES
- Px — POWER PLAN NOTES
- Lx — LIGHTING PLAN NOTES
- Tx — TECHNOLOGY PLAN NOTES

LIGHTING SYMBOLS

- LIGHT FIXTURES; SEE SCHEDULE FOR DETAILS
- EMERGENCY LIGHT - WALL MOUNTED
- UNIVERSAL MOUNT EXIT SIGN - SINGLE FACE
- UNIVERSAL MOUNT EXIT SIGN - DOUBLE FACE
- EMERGENCY LIGHT / EXIT SIGN COMBO
- S_a — SINGLE POLE LIGHT SWITCH; 'a' IS SWITCH LEG
- S_3 — THREE-WAY LIGHT SWITCH
- S_4 — FOUR-WAY LIGHT SWITCH
- S_D — DIMMER SWITCH
- S_K — KEY OPERATED SWITCH
- S_M — MOMENTARY SWITCH
- S_{LV} — LOW VOLTAGE SWITCH
- S_P — SINGLE POLE SWITCH WITH PILOT LIGHT
- S_{OS} — WALL MOUNTED OCCUPANCY SENSOR
- OS — CEILING MOUNTED OCCUPANCY SENSOR

COMMUNICATION SYMBOLS

- COMMUNICATIONS OUTLET (4" SQ BOX W/SINGLE GANG RING); 1" C TO ABOVE CEILING
- WIRELESS ACCESS POINT (4" SQ BOX W/SINGLE GANG RING); 1" C TO ABOVE CEILING
- COMMUNICATIONS OUTLET FLOOR BOX; 1" C TO ABOVE CEILING
- CEILING MOUNTED PROJECTOR PLATE
- C — CEILING MOUNTED CLOCK
- C — WALL MOUNTED CLOCK
- V — VOLUME CONTROL; MOUNT AT +48" AFF
- S — CEILING MOUNTED SPEAKER
- WALL MOUNTED SPEAKER
- INPUT JACK
- IC$_M$ — INTERCOM STATION; 'M' INDICATES MASTER STATION

NOT ALL SYMBOLS MAY BE USED

Branch Panel: MP1

Location: MECH 101 | **Supply From:** | **Mounting:** Surface | **Enclosure:** Type 1 | **Manufacturer:** Square D

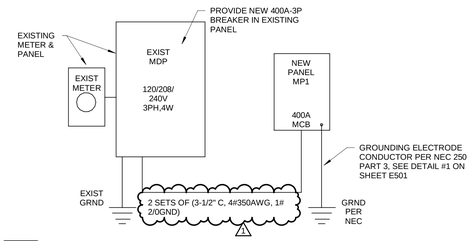
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4 | **Model:** NQ

A.I.C. Rating: 22,000 | **Mains Type:** Breaker | **Mains Rating:** 400 A | **MCB Rating:** 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	MAU-1	80 A	3	7367	4933					3	80 A	MAU-2	2
3	--	--	--			7367	4933			--	--	--	4
5	--	--	--					7367	4933	--	--	--	6
7	CU-1	35 A	2	3100	1133					3	15 A	HPP-1	8
9	--	--	--			3100	1133			--	--	--	10
11	EF-2	20 A	1					250	1133	--	--	--	12
13	AHU-1	15 A	1	1680	0					1	20 A	OVERHEAD DOOR	14
15	RECEPTACLE ROOM 102, 10...	20 A	1			1260	1440			1	20 A	RECEPTACLE ROOM 102, 103	16
17	RECEPTACLE ROOM 102, 10...	20 A	1					1080	180	1	20 A	RECEPTACLE MUD ROOM 104	18
19	RECEPTACLE MUD ROOM 104	20 A	1	360	180					1	20 A	RECEPTACLE MUD ROOM 104	20
21	ELEC DRYER	30 A	2			0	1260			1	20 A	RECEPTACLE ROOM 106, 111	22
23	--	--	--					0	1080	1	20 A	RECEPTACLE ROOM 111, 112	24
25	RECEPTACLE ROOM 111, 130	20 A	1	1080	720					1	20 A	RECEPTACLE HALL #1 111	26
27	RECEPTACLE HALL #1 111	20 A	1			720	1500			1	20 A	INFRARED HTR OUTLET	28
29	INFRARED HTR OUTLET	20 A	1					1500	1500	1	20 A	INFRARED HTR OUTLET	30
31	INFRARED HTR OUTLET	20 A	1	1500	1500					1	20 A	INFRARED HTR OUTLET	32
33	INFRARED HTR OUTLET	20 A	1			1500	1500			1	20 A	INFRARED HTR OUTLET	34
35	INFRARED HTR OUTLET	20 A	1					1500	1500	1	20 A	INFRARED HTR OUTLET	36
37	INFRARED HTR OUTLET	20 A	1	1500	180					1	20 A	RECEPTACLE	38
39	RECEPT IDF RACK ALCOVE	30 A	2			0	360			1	20 A	RECEPT GWH-1	40
41	--	--	--					0	1133	3	20 A	EF-1	42
43	EF-3	20 A	3	1133	1133					--	--	--	44
45	--	--	--			1133	1133			--	--	--	46
47	--	--	--					1133	1664	1	20 A	LIGHTING NW	48
49	LIGHTING WEST CORR	20 A	1	1024	1664					1	20 A	LIGHTING SW	50
51	LIGHTING NE	20 A	1			512	512			1	20 A	LIGHTING NE	52
53	LIGHTING SE	20 A	1					700	450	1	20 A	LIGHTING OFFICE AREA	54
55	AWNING WIND NE	20 A	1	2160	2160					1	20 A	AWNING WIND SE	56
57	AWNING WIND SE	20 A	1			2400	2400			1	20 A	AWNING WIND NE	58
59	AWNING WIND SW	20 A	1					1680	1680	1	20 A	AWNING WIND NW	60
61	AWNING WIND SW	20 A	1	1920	1920					1	20 A	AWNING WIND NW	62
63	POWER	20 A	1			480	0			1	20 A	OTHER	64
65	SPARE	20 A	1					0	0	1	20 A	SPARE	66
67	SPARE	20 A	1	0	0					1	20 A	SPARE	68
69	SPARE	20 A	1			0	0			1	20 A	SPARE	70
71	SPARE	20 A	1					0	0	1	20 A	SPARE	72
73	SPARE	20 A	1	0	0					1	20 A	SPARE	74
75	SPARE	20 A	1			0	0			1	20 A	SPARE	76
77	SPARE	20 A	1					0	0	1	20 A	SPARE	78
79	SPARE	20 A	1	0	0					1	20 A	SPARE	80
81	SPARE	20 A	1			0	0			1	20 A	SPARE	82
83	SPARE	20 A	1					0	0	1	20 A	SPARE	84
		Total Load:		35761 VA		33636 VA		28173 VA					
		Total Amps:		305 A		287 A		235 A					

Panel Modifications:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	72030 VA	100.00%	72030 VA		
Lighting	6281 VA	100.00%	6281 VA	**Total Conn. Load:**	97539 VA
HVAC	0 VA	0.00%	0 VA	**Total Est. Demand:**	90105 VA
Other	0 VA	0.00%	0 VA	**Total Conn. Current:**	271 A
Receptacle	24900 VA	70.08%	17450 VA	**Total Est. Demand Current:**	250 A



6 Electrical Riser Diagram

12" = 1'-0"

Luminaire Schedule

Type	Mount	Fixture Description	Lamp Description	Input Wattage	Basis of Design	Approved Manufacturer 1	Approved Manufacturer 2
L1	RECESS	SPECIFICATION GRADE RECESSED LENSED TROFFER, 2'X4'; GRID MOUNT. FLUSH STEEL DOOR. #12 PATTERN ACRYLIC LENS. .125" THICK. DIMMABLE.	LED; 4800 LUMENS; 3500°K; 80CRI.	37 VA	LITHONIA EPANL 2X4 4800LM 80CRI 40K MIN10 ZT MVOLT	METALUX	COLUMBIA
L1E	RECESS	SPECIFICATION GRADE RECESSED LENSED TROFFER, 2'X4'; GRID MOUNT. FLUSH STEEL DOOR. #12 PATTERN ACRYLIC LENS. .125" THICK. DIMMABLE WITH EM BATTERY.	LED; 4800 LUMENS; 3500°K; 80CRI.	37 VA	LITHONIA EPANL 2X4 4800LM 80CRI 40K MIN10 ZT MVOLT	METALUX	COLUMBIA
L2	CHAIN	STEEL CHANNEL STRIPLIGHT; FROSTED LENS.	LED; 5000 LUMENS; 3500°K; 80CRI.	32 VA	LITHONIA CLX L48 5000LM SEF FDL MVOLT GZ10 40K 80CRI WH	METALUX	COLUMBIA
L2E	CHAIN	STEEL CHANNEL STRIPLIGHT; FROSTED LENS. WITH EM BATTERY	LED; 5000 LUMENS; 3500°K; 80CRI.	32 VA	LITHONIA CLX L48 5000LM SEF FDL MVOLT GZ10 40K 80CRI WH	METALUX	COLUMBIA
L3	CHAIN	STEEL CHANNEL STRIPLIGHT; FROSTED LENS.	LED; 10000 LUMENS; 3500°K; 80CRI.	70 VA	LITHONIA CLX L48 10000LM FST MVOLT 40K 80CRI WH	METALUX	COLUMBIA
LB1	Wall	ARCHITECTURAL EXTERIOR WALL SCONCE; DIE CAST ALUMINUM HOUSING; INTERNAL HEAT SINKS; NIGHTTIME FRIENDLY; TYPE IV DISTRIBUTION. WITH OCCUPANCY SENSOR, INCLUDE INTEGRAL EMERGENCY BATTERY BACKUP.	LED	40 VA	LITHONIA MRW LED P3 40K SR3 120 PE E10WH DDBXD	METALUX	COLUMBIA
LF-1	CHAIN	STEEL CHANNEL STRIPLIGHT; FLUORESCENT LIGHT, 2-32W T-8, 3500 K COLOR	2900 LUMENS; 3500°K; 80CRI.	64 VA	4' LENSED FLUORESCENT 2 LAMP FIXTURE, SURFACE MNT	METALUX	COLUMBIA

Exit/Emergency Luminaire Schedule

Type	Mount	Fixture Description	Lamp Description	Wattage	Basis of Design	Approved Manufacturer 1	Approved Manufacturer 2
EX1	SURFACE	COMBINATION EXIT/EMERGENCY UNIT; WHITE THERMOPLASTIC HOUSING; 2 EMERGENCY HEADS; NI-CAD BATTERY.	LED (Incl.)	5 VA	LITHONIA LHQM LED * HO M6	METALUX	COLUMBIA

Disconnect Schedule

Tag	Type	NEMA Rating	Fused	Fuse Class	Accessories: Key Ilck	Accessories: GND Kit	Accessories: Neut Kit	Fuse Size	Comments
D-CU-1	240V - Non-Fusible 30A 2	Type 3R			Yes	Yes	Yes		
D-HPP-1	240V - Fusible 30A	Type 1	Yes	RK5	Yes	Yes	Yes	30 A	3 PHASE
D-MAU-1	240V - Fusible 100A	Type 3R	Yes	RK5	Yes	Yes	Yes	80 A	3 PHASE
D-MAU-2	240V - Fusible 100A	Type 3R	Yes	RK5	Yes	Yes	Yes	80 A	3 PHASE

Motor Starter Schedule

Tag	Load	Speed	NEMA Size	HP	N.O.C.	N.C.C.	Control	Fuse Size	Remarks
MS-1	EF-3	1	1	3	1	1	H.O.A.	20	1,2,3,4,5,6
MS-2	EF-1	1	1	3	1	1	H.O.A.	20	1,2,3,4,5,6

REMARKS:

1. HAND-OFF AUTO SELECTION
2. GREEN LED "RUN LIGHT
3. SOLID STATE OVERLOADS
4. PROVIDE INTERLOCKS
5. LED'S PER SPECIFICATIONS
6. VOLTAGE SENSING PHASE FAILURE RELAY

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PROJECT NO. 8063 | DATE 08-28-2024

REV. 1 Addendum 01 | DATE 09-10-2024

SET DESCRIPTION: Bid Set

SHEET TITLE: Electrical Schedules

SHEET NUMBER: E502

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