Board of County Commissioners
Pete Gerken
President
Tina Skeldon Wozniak
Carol Contrada

Office of Support Services
Kelly Roberts
Director
Lynn DiPierro
Manager

Addendum #2 – Issued December 3, 2012

Regarding Bids for **Engineer Road Maintenance Building – MEP, Fire Protection, General Trades & Fueling System (ITB 12-032P)** for Lucas County Engineer Road Maintenance, bid opening scheduled for December 6, 2012 at 2:00 P.M. (local time).

This document becomes a fully incorporated part of the specifications, and this letter constitutes legal notice of this requirement.

The entire original Bid Packet including this addendum must be submitted prior to the Bid Opening Date and Time.

Please see attached documentation:

a) Questions and Answers
b) Drawing Updates (C-013)
c) Specification Updates (C-013)
d) Architect Write-up
e) Revised Pricing Sheet (Dated 12/3/2012)
f) Substitution Requests
g) Pre-Bid Meeting Sign-In Sheets

One Government Center • Suite 480 • Toledo, Ohio 43604-2259
(419) 213-4519 http://co.lucas.oh.us Fax: (419) 213-4533
An Equal Opportunity Employer

ADDENDUM NO. 02

Lucas County Road Maintenance Building
Bid Package #12-032P – Plumbing, Mechanical, Electrical, Fire Protection,
General Trades and Fueling Station Packages
Dated 12/3/2012

Bidders on the above bid package shall note and respond to the following:
Bidders shall review ALL Addendum Items listed below for possible impacts to their scope.

1. **Questions:**

a) (ALL) Question – Confirm each Bid Package is to furnish builders risk insurance for their work rather than CM or owner furnishing a blanket builders risk policy.

Answer: Owner is to furnish the Builders Risk Policy not the contractor.

b) (General Trades) Question – General Trades Painting Scope 6.5.11.4 says concrete sealer to be done by painter. Products specified are applied by the concrete contractor.

Answer: The three (3) products named in Section 099100 "PAINTING" are specifically noted by their manufacturers for use on new and old concrete. They are not curing sealers. The selected products manufacturer's requirements and recommendations must be followed. We see no reason why these should be applied "ASAP" as they all require the concrete to be fully cured before application.

c) (General Trades) Question – General Trades Scope 6.6.4 says to provide dumpsters for the project. Need more information on what is wanted.

Answer: Reference Scope of work and Addendum #1. General Trades Contractor is to provide general debris dumpsters for the duration of the project. No additional is available, each bidder is to provide sufficient dumpster size and number of pulls for general debris for the project.

d) (General Trades) Question – General Trades Scope 6.6.7 says to provide temporary heat. This should be an allowance figure so everyone bids the same.

Answer: Reference Addendum #1.

e) (General Trades) Question – Salt Barn Dome – Confirm all concrete work is by others.

Answer: Confirmed

f) (General Trades) Question – Scope 6.6.9 room high bay windows. Need size and Detail. Nothing on drawings. Only shown on south elevation drawing A3.01.

Answer: High Bay Windows are dimensioned on sheet A1.03 MEZZANINE PLAN, although the window openings are not currently visible and sheet A3.01 EXTERIOR ELEVATIONS indicates the head height. The window units are 36-inches in height. The PEMB Manufacturer and Contractor will provide framing for the sill and head support with appropriate shim space as coordinated with General Trades Contractor. Windows are set back from face of siding 1-inch and metal closure trim to match siding is to be provided by PEMB. Windows are aluminum and requirements specified in 084113 ALUMINUM-FRAMED PUNCHED WINDOW OPENINGS and 088000 GLAZING. Refer to Sketch SKA-05.

g) (General Trades) Question – Scope 6.6.10 makes it sound like general trades is to perform the fire protection work in the areas?

Answer: Reference Addendum #1.

h) (General Trades) Question – Need actual locker size wanted rather than scaling drawing. Confirm metal base 4" and sloped top wanted.

Answer: Metal locker base and continuous sloped top requirements are indicated in Section 105113 METAL LOCKERS. The lockers shall be 12-inches wide by 12-inches deep by 72-inches in height.

i) (General Trades) Question – Confirm Landscaping is not part of these bid packages.

Answer: confirmed

j) (General Trades) Question – Scope 6.6.3 – Interior Signage. Need Specification, schedule, quantity and locations.

Answer: Reference Addendum #1

k) (General Trades) Question – Shower Compartment – Drawing A1.11 Detail D6 needs Specification.

Answer: Shower unit specification is under the Plumbing Drawings. See sheet P0.02. Refer to Sketch SKA-06 issued with this Addendum for additional details for shower unit.

l) (General Trades) Question – Shower Curtain and Rod. Need Specification and who is to provide.

Answer: Shower curtain rod and curtain are standard provided items in the specified shower unit.

m) (General Trades) Question – Shower Grab Bar Sizes?

Answer: Shower grab bars are standard provided item in the specified shower unit.

n) (General Trades) Question – Confirm all misc. steel, stairs, highway guard rail, bumper posts, etc. are by others?

Answer: confirmed

o) (General Trades) Question – Solid Surface Window Sills. Confirm which windows get them. Need window schedule, plan, dimensions, profile/nosing.

Answer: All windows with the exception of the high bay windows in Garage 121 will receive a window stool as detailed on Sketch SKA-02 issued with Addendum 001.

p) (General Trades) Question – Scope 6.6.5 – Chain Link Fencing. Need site plan showing what is needed. Man gates, motorized gates, height, barb wire, etc.

Answer: Reference Specifications and Drawings (S05, S09 & FS drawings) included in Bid Documents.

q) (General Trades) Question – Is there any interior chain-linked fence?

Answer: No, Reference Drawings.

r) (General Trades) Question – Confirm all temporary closures at exterior wall openings is not part of the general trades package.

Answer: confirmed.

s) (General Trades) Question – Confirm Temp. Site Fencing/Security/Project Sign is all by others.

Answer: confirmed.

t) (General Trades) Question – Re-guarding out of town contractors and the labor agreement – how is this to be handled? Do they need to sign with local unions?

Answer: Reference Project Labor Agreement included in Bid Documents.

u) (General Trades) Question – Confirm all exterior masonry is not painted and any water repellant coating is by others.

Answer: Exterior masonry walls are to be painted (as part of the General Trades Base Bid Proposal) and reference specifications for water repellant coatings. Specification Section 099100, Part 3.7, Item B indicates exterior concrete unit masonry is to receive block filler and finish coats of paint by General Trades.

v) (General Trades) Question – Confirm all Alum. Doors by others

Answer: confirmed

w) (General Trades) Question – Confirm Office #103 and #104 window s are provided by others.

Answer: confirmed

x) (General Trades) Question – Guardrail posts detail A5/A1.01 are they painted or galvanized?

Answer: Guard rails are by others and noted on A1.01 as galvanized.

y) (General Trades) Question – Stair 112A – Confirm no ceiling, but you have 6" stud wall with 5/8 drywall. Both sides too? Why not a rated ceiling. Also is masonry wall between rooms 202 and 202 stop at Elevation 10'-4" and open to roof or closed off with stud wall?

Answer: Section A1 on sheet A4.13 indicates the stair to be enclosed with gypsum board from top of masonry to structure above. The masonry wall between STOR. MEZZANINE 202 and MECH. EQUIPMENT 203 is not included in the scope of the General Trades work.

z) (General Trades) Question – Concrete Room #122: Are exterior masonry wall insulated like the garage (2-1/2" rigid and ¾" plywood)?

Answer: The exterior walls of CONCRETE 122 are defined by Wall Section A6 on sheet A4.11.

aa) (General Trades) Question – East Wall of Garage, Bulk Oil / Compressor & Repairs #115 : Are exterior masonry wall insulated like the garage (2-1/2" rigid and ¾" plywood)?

Answer: Section A3 on sheet A4.13 shows XPS and plywood on exterior walls of the Repairs 115. Section B1 on sheet A4.13 indicates end wall conditions in Garage 121 including Bulk Oil/Compressor 125.

bb) (ALL) Question – Are we missing Drawing A4.12? Some Details call out this sheet but do not have.

Answer: Sheet A4.12 is included in Addendum 002

cc) (General Trades) Question – Need Specification on Rigid XPS insulation. Details Drawing A4.11

Answer: Extruded-Polystyrene Board Insulation shall be minimum type IV and 25 psi compressive strength complying with ASTM C 578 with a maximum flame-spread and smoke-developed indexes 75 and 450, respectively. Extruded-Polystyrene Board Insulation approved manufacturers are DiversiFoan Products, Dow Chemical Company, Owens Corning, or Pactiv Building Products. Secure Extruded-Polystyrene Board Insulation to concrete masonry units with adhesive recommended by insulation board manufacturer.

dd) (General Trades) Question – Confirm all Bid Packages do their own caulking.

Answer: Reference Bid Documents.

ee) (General Trades) Question – Confirm this project contains no drywall ceiling. Drywall ceiling are mentioned but I can't find any.

Answer: Reflected ceiling plans on sheets A7.11 and A7.12 indicated no drywall ceilings which will be required for this package.

ff) (General Trades) Question – Garage Area Wall Plywood Specification 061600.

1) What facing grade CDX or BC?
2) Does Plywood get painted?
3) If not painted does fire retardant need to be clear or is pinkish cast ok?
4) Exterior structural I sheathing is not readily available in this area should be jost regular exterior grade per Toledo Plywood.

Answer: Refer to Addendum 002 written narrative for revisions to interior plywood sheathing requirements. Plywood shall be painted color as noted on sheets A7.31 and A7.32. Exposed plywood sheathing that is not included as part of a designated fire-resistance-rated construction is not required to be fire-retardant-treated. See Addendum 001.

gg) (General Trades) Question – Confirm no access door at Plumbing chase between toilet rooms 107 and 108?

Answer: No access door at plumbing chase.

hh) (General Trades) Question – Fire Extinguishers and Cabinets. Confirm Sizes wanted. Also what specification do we use? Assume specs 104413 and 104416 and not section 210000.

Answer: Sections 104413 and 104416 will be deleted from this bid package. Refer to Section 21000 for requirements for fire extinguishers and related cabinets. Fire extinguisher cabinets shall be semi-recessed model with a minimum 3-inch and maximum 4-inch backbend depth similar to Potter-Roemer model 7023.

ii) (General Trades) Question – Project Labor Agreement Article II Item 2.2 – Off site labor is problem with subcontractors / material suppliers.

Answer: Reference Addendum #1.

jj) (General Trades and Fueling Station) Question – Confirm that General Trades Painter has nothing to do with fueling station painting. Examples: Horseshoe type steel bumpers, yellow plastic sleeves over bumpers posts.

Answer: All painting and plastic sleeves required at the fueling station is the responsibility of the fueling station contractor to furnish and install.

kk) (General Trades) Question – Painting Questions. Confirm no painting of walls in hall #105 and corridor #106. Confirm no painting of structure at cover storage #130.

Answer: Sheets A7.31 is included with Addendum 002 clarifying room finishes.

ll) (Mechanical) Question – The furnace condensing units are on the roof. The mechanical drawings calls for a structural base with rails and refers to the architectural drawings for details. I could not find any details on the architectural drawings. Please clarify who is responsible for this roof curb and provide a detail of what is required for it.

Answer: The support base for the roof located CU-1 and CU-2 condensing units are part of the Pre-engineered metal building package and the responsibility of that Contractor. Support framing is based on the basis-of-design units and weights.

mm) (General Trades) Question – Does the owner provided air compressor require a housekeeping pad?

Answer: The air compressor is not Owner provided. The air compressor is part of the Plumbing Contractor's equipment to be provided under the contract. This has been revised in the written narrative. Yes, a housekeeping pad is required and shall be furnished and installed by the contractor requiring the housekeeping pad.

nn) (General Trades) Question – We understand that we are to complete the entire spec book as our bid. What parts of the spec book need to be completed as our 2nd copy that is to be with our bid?

Answer: All documents that the bidder has put in information and also the Bid Bond.

oo) (X) Question – Addendum #1 Question dd. I have not been able to find the details for the condensers platform on the Architectural Drawings. Please review and give a drawing number. With this platform setting on the roof of an engineered building this should be provided by the Building Manufacturer due to load issues on the roof.

Answer: The support base for the roof located CU-1 and CU-2 condensing units are part of the Pre-engineered metal building package and the responsibility of that Contractor. Support framing is based on the basis-of-design units and weights.

pp) (Fire Protection) Question – Is earthquake protection required for this project? Specs. not clear.

*Answer: Earthquake protection of the fire protection system is **NOT** required.*

qq) (Fire Protection) Question – What are you doing for Fire Protection under outside garage canopy?

Answer: Covered Storage 131 is SP-3, dry-sprinkler system. Refer to Addendum 002 written narrative for additional specification items related to this area and the fire-protection system.

rr) (ALL) Question – Are we to assume that standard Purlin Clamps are acceptable for this building?

Answer: Clamps used for the support of any items from the Pre-engineered Metal Building Structure must not flatten or bend return flanges of the roof framing and purlins. The term "standard" fit too wide of an array of clamping devices to allow a direct approval other than the information provided.

ss) (Fire Protection) Question – What is the intent on drawing FPO.01 of the Automatic Air Release Detail?

Answer: Automatic Air Release has been deleted from the project. Refer to written narrative in Addendum 002.

tt) (General Trades and Fire Protection) Question – Does alt.#4 from Addendum #1 mean no painting by anyone? Standard black pipe is O-K?

Answer: Yes

uu) (Fire Protection) Question – Is Lucas County charging normal permit fees for there own building?

Answer: This project is in the Village of Holland, Ohio and the permitting of construction is arranged through the City of Maumee, Ohio.

vv) (General Trades) Question – The wire gauge is asking for 11 gauge fabric is this correct normally it is 9 gauge.

Answer: Refer to Addendum 002 written narrative for revisions to chain-link fencing.

ww) (General Trades) Question – The spec for top and bottom rail is listed as 2" od which should be 1 5/8" od, no fittings are available for 2" top rails.

Answer: Refer to Addendum 002 written narrative for revisions to chain-link fencing.

xx) (General Trades) Question – I do not see the fence layout drawing showing gates and fence locations.

Answer: Reference Item P

yy) (General Trades) Question – Which fence gates are motorized?

Answer: The South Gate is motorized, Reference Item P

zz) (General Trades) Question – Is domestic steel required for the fence materials?

Answer: No

aaa) (Electrical) Question – According to the lighting fixture schedule on drawing E0.01 fixture type F5 is to be pendent mounted. Would it be acceptable to utilize chain or aircraft cable to mount this fixture 17' A.F.F.?

Answer: No. Fixtures need solid mounting to prevent fixtures swaying due to truck wash down.

bbb) (Electrical) Question – The wiring device symbol legend on drawing E0.01 indicates that most if not all devices are to be flush mounted. However, specification 260000 article 2.03 (A) indicates that surface mounted deives in FS/FD boxes are acceptable. Is it acceptable to install surface mounted devices in the unfinished areas and flush mounted devices in the finished office area?

Answer: Yes, surface mount in unfinished areas and flush mount in all finished areas. Finished areas include offices, lockers, toilets, showers, conference, lunch, meeting spaces and enclosed stairs.

ccc) (Electrical) Question – Is the Repairs area being classified as a major or minor repair area per N.E.C. article 511, or is this area unclassified due to the number of air exchanges per article 511?

Answer: Minor repair garage with floor area unclassified due to ventilation.

ddd) (Electrical) Question – Is the garage area being considered a parking area only and is therefore unclassified as per N.E.C article 511?

Answer: Garage 121 is a parking area only.

eee) (Electrical) Question – Drawing E2.01 shows two 3-Way switching systems and a GTD controlling the on/off and emergency operation of fixture types F7 and F7X in the concrete room. Fixture type F7X has 2 ballast however fixture F7 only has one. Could you please clarify what fixtures are controlled by the 3-way switches?

Answer: Fixture type F7 shall be revised to have (2) 2-lamp ballasts for multi-level lighting in concrete room and repairs. Refer to Addendum 002 written narrative for additional information.

fff) (Electrical) Question – The office lighting detail drawing on E2.01 show two level switching for the F1 fixtures in this room. However, fixture type F1 is specified with only one ballast in each fixture making two level switching impossible. Can the switching requirements in this room be clarified.

Answer: Fixture types F1 and F1X have step dimming ballasts to provide 50% and 100% lamp operation utilizing two line voltage inputs. One input=50% operation, two inputs=100% lamp operation.

ggg) (General Trades) Question – Is there a door and frame schedule available.

Answer: Architectural drawing A2.01 is included in Addendum 002 for reference purposes only.

hhh) (General Trades) Question – There are multiple areas that do not show any finishes. Examples are Corridor 106-Rooms 113, 114 ,124, 125,. These areas show painted decks but no wall finishes. Could we get clarifications?

Answer: Architectural sheets A7.31 and A7.32 have been reissued with Addendum 002.

iii) (General Trades) Question – Some rooms show Conc. for the floors. There is not anything listed in the finishes legend for this. Please clarify.

Answer: Architectural sheets A7.31 and A7.32 have been reissued with Addendum 002.

jjj) (General Trades) Question – Which drawing is the General Trades contractor to use for the permanent chain link fence and gates?

Answer: Reference Item P

kkk) (ALL) Question – Which prime contractor does the final cleaning?

Answer: The General Trades contractor shall be responsible to furnish a $7,500 allowance for Final Cleaning as per the Final Cleaning Specification included with this addendum.

lll) (ALL) Question – What specification is the final cleaning under?

Answer: The General Trades contractor shall be responsible to furnish a $7,500 allowance for Final Cleaning as per the Final Cleaning Specification included with this addendum.

mmm) (ALL) Question – Is the general trades to apply joint sealants to all of the project or just the work under the general trades contract?

Answer: General trades contactor is responsible for joint sealant related to work under the general trades contract and adjacent work by others (door and window frames interior/exterior) located in gypsum board and concrete masonry. Joint sealants related to work by and within the pre-engineered metal building sytem including overhead doors, louvers and similar items not in concrete masonry are by the PEMB Contractor.

nnn) (General Trades) Question – What is the designation CONC for the flooring on the finish plans (A7.31 & A7.32)? Is this sealing of the concrete. If so, does the areas without a flooring designation receive any finish?

Answer: Architectural sheets A7.31 and A7.32 have been reissued with Addendum 002.

ooo) (General Trades) Question – Please refer to sheet A1.11. Toilet partitions are shown as non-standard height. Of 72" and urinal screens are non-standard height of 60" Are partitions and screens to height shown on plans or standard 58" height?

Answer: Industry-standard height panels for an overhead braced system are intended. Contractor shall utilize the industry-standard 58" high panels installed per manufacturer's standard requirements.

ppp) (General Trades) Question – What is the height of the perimeter fencing?

Answer: Reference Item P

qqq) (General Trades) Question – Is a bottom rail required? If not, is a bottom tension wire required?

Answer: Reference Item P

rrr) (General Trades) Question – Is barbed wire required at top of fence?

Answer: Reference Item P

sss) (General Trades) Question – Please refer to section 104413 Fire Protection Cabinets part 2.1.D. Specifications call for Semi-recessed cabinets, but do not indicate which walls are fire-rated. Please specify which walls are fire-rated.?

Answer: Sections 104413 and 104416 will be deleted from this bid package. Refer to Section 21000 for requirements for fire extinguishers and related cabinets. Fire extinguisher cabinets shall be semi-recessed model with a minimum 3-inch and maximum 4-inch backbend depth similar to Potter-Roemer model 7023. The wall construction around Stair 112A is one-hour fire-resistant construction.

ttt) (General Trades) Question – Please refer to section 104413 Fire protection cabinets part 2.1.D and 2.1.E Specifications call for Semi-recessed and surface mounted cabinets. Are fire extinguisher cabinets to be semi-recessed or surface mounted?

Answer: Sections 104413 and 104416 will be deleted from this bid package. Refer to Section 21000 for requirements for fire extinguishers and related cabinets. Fire extinguisher cabinets shall be semi-recessed model with a minimum 3-inch and maximum 4-inch backbend depth similar to Potter-Roemer model 7023.

uuu) (General Trades) Question – Please refer to section 104416 Fire Extinguishers part 2.2.B. Specifications call for multi-purpose dry chemical fire extinguishers in aluminum containers, which are unavailable. May we use multi-purpose dry chemical fire extinguishers in standard steel containers in place of the aluminum?

Answer: Sections 104413 and 104416 will be deleted from this bid package. Refer to Section 21000 for requirements for fire extinguishers and related cabinets. Fire extinguisher cabinets shall be semi-recessed model with a minimum 3-inch and maximum 4-inch backbend depth similar to Potter-Roemer model 7023.

vvv) (General Trades) Question – Who is responsible for providing the fire department "KNOX" lock box?

Answer: Fire department key box is NOT included in this bid package or scope of work.

www) (Plumbing and Electrical) New Alternate – The Plumbing Contractor and the Electrical Contractor shall furnish an alternate price to delete the required scope of the Wash Bay Equipment. The Plumbing Contractor shall provide an alternate to delete all piping and equipment for the wash bay equipment and the Electrical Contractor shall provide an alternate to delete the required power to the Wash Bay Equipment.

Answer: Reference Attached Revised Pricing Sheet.

2. Due Date:

a) No change to the Original Bid Package Due Date (***December 6, 2012 at 2:00 PM***)

3. Attachments Included in Addendum:

a) Drawing Updates (C-013)
b) Specification Updates (C-013)
c) Architect Write-up
d) Revised Pricing Sheet (Dated 12/3/2012)
e) Substitution Requests
f) Pre-Bid Meeting Sign-In Sheets

All other terms and conditions of to the original bid package remain in effect. Please sign and submit this addendum with the Pricing Sheet on the Bid Package Due Date.

ACCEPTED BY:

_____
Name of Contractor:

_____
By (Signature):

_____
Date

PRICING SHEET

REVISED – 12/3/2012

Lucas County Road Maintenance Building

Company Name_____

Street Address _____

City, State, Zip _____

Mailing Address_____
(If Different)

Contact Name_____

Phone No. _____

Fax No. _____

Email Address_____

DUE: December 6, 2012 @ 2:00 PM LOCAL TIME

TO: Lucas County Commissioners
One Government Center, Suite 480
Toledo OH 43604-2259

We, the undersigned, having carefully examined the Bid Documents agree to perform all work required by these documents heretofore submitted to bidder, as modified by any addenda listed herein.

1.0 BASE BID

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the drawings and specifications for the lump sum price of:

BID ITEM:

1.1 **Lucas County Road Maintenance Building – Plumbing Package:**

Base Bid Amount: _____

_____Dollars $:_____

1.2 **Lucas County Road Maintenance Building – Mechanical Package:**

Base Bid Amount: _____

_____Dollars $:_____

1.3 **Lucas County Road Maintenance Building – Electrical Package:**

Base Bid Amount: _____

_____Dollars $:_____

1.4 **Lucas County Road Maintenance Building – Fire Protection Package:**

Base Bid Amount: _____

_____Dollars $:_____

1.5 **Lucas County Road Maintenance Building – General Trades Package:**

Base Bid Amount: _____

_____Dollars $:_____

1.6 **Lucas County Road Maintenance Building – Fueling Station Package:**

Base Bid Amount: _____

_____Dollars $:_____

1.7 **COMBINED BID – Lucas County Road Maintenance Building:**

Base Bid Amount: _____

_____Dollars $:_____

Check ALL of the Packages that are included in the above Combined Bid Amount:

Plumbing Package	[ ]
Mechanical Package	[ ]
Electrical Package	[ ]
Fire Protection Package	[ ]
General Trades Package	[ ]
Fueling Station Package	[ ]

2.0 MANDATORY ALTERNATES

General Trades

2.1 General Trades Package – Alternate 1 - Furnish and Install a 50,000# 4 Post Vehicle Lift in lieu of the Parallelogram Lift in the Base Bid as per the drawings and specifications.

Alternate Bid Amount: _____

_____Dollars $:_____

2.2 General Trades Package – Alternate 2 - Furnish and Install a 75,000# 4 Post Vehicle Lift in lieu of the Parallelogram Lift in the Base Bid as per the drawings and specifications.

Alternate Bid Amount: _____

_____Dollars $:_____

2.3 General Trades, Mechanical and Plumbing Package – Alternate 3 - The Mechanical and Plumbing Contractors shall furnish all piping materials to the General Trades Contractor five (5) working days prior to installation, for on-site cleaning (performed by the General Trades Contractor) and painting (performed by the General Trades Contractor) of the piping materials as per the project specifications. Touch up painting of the piping material will be by the General Trades Contractor after installation.

Alternate Bid Amount: _____

_____Dollars $:_____

2.4 General Trades and Fire Protection Package – Alternate 4 – Eliminate the Painting of Fire Protection Piping. Piping Material will not be painted by another package and shall be furnished as a finished product.

Alternate Bid Amount: _____

_____Dollars $:_____

2.5 Plumbing and Electrical Package – Alternate 5 – The Plumbing Contractor and the Electrical Contractor shall furnish an alternate price to delete the required scope of the Wash Bay Equipment. The Plumbing Contractor shall provide an alternate to delete all piping and equipment for the wash bay equipment and the Electrical Contractor shall provide an alternate to delete the required power to the Wash Bay Equipment.

Alternate Bid Amount: _____

_____Dollars $:_____

3.0 CONTRACTOR'S FEE

After the signing of the contracts for the work included for this project, in the event it becomes necessary to authorize changes to the Scope of Work included in the Base Bid, the following "fees" shall apply.

a. For additional work performed by your own forces, a fee of eight percent (8) of the approved cost of the work.

b. For additional work performed by Subcontractors, a fee of five percent (5) of Subcontractor's approved cost of the work.

The "fee" stated above shall be the total amount to be added to the "approved cost" of the extra work and shall include "Profit and Overhead".

Cost shall be limited to the following: Cost of materials, including applicable tax and cost of delivery, cost of labor and applicable fringe benefits including Social Security, and Unemployment Insurance (labor cost may include a pro rata share of foreman's time; Workmen's Compensation and other applicable insurance); rental value of power tools and equipment.

Profit and Overhead shall include the following: travel, supervision, wages of timekeepers, watchmen and clerks, small tools, incidentals, general office expense and all other expenses not included in "Cost". The cost as used herein shall include all items of labor, materials, and equipment.

Fee shall include all profit and overhead and shall include the following: Travel other than required by Labor Agreement for trades directly involved in the work, supervision, wages of timekeepers, field engineers and clerks, small tools, incidentals, general field and main office expense and all other expenses not included in "Cost".

4.0 ADDENDA

In the event that addenda have been received during the bidding period covering changes to the bid documents, the undersigned bidder subscribes to the following statement:

The work described in the following addenda is included in this proposal:

Addendum No. _____, Dated _____ Addendum No. _____, Dated _____

Addendum No. _____, Dated _____ Addendum No. _____, Dated _____

5.0 TIME OF COMPLETION

The undersigned bidder agrees to complete the work in accordance with the project schedule, as outlined in the Bid Documents.

6.0 REJECTION OF BIDS

The undersigned bidder acknowledges that the Owner reserves the right to reject any or all proposals and to award the work to other than the low bidder.

All bids will be opened publicly.

7.0 SITE INSPECTION

The undersigned bidder acknowledges that bidder has been afforded the opportunity to inspect the jobsite to arrive at a clear understanding of the conditions under which the work is to be done; to compare the site with the drawings and specifications; to satisfy bidder as to the condition of the premises; existing obstructions; condition, location, and size and configuration of buildings and areas allocated for construction purposes; location and availability of roads; location and availability of utilities, including the electrical characteristics of the available power; proximity and nature of Owner's existing operations; and any other conditions affecting the performance of the work.

No allowances or extra consideration on behalf of the undersigned bidder will be allowed by Owner by reason of additional costs, damages or other difficulties incurred by the undersigned bidder that could have been avoided had an adequate site inspection been undertaken by him.

8.0 EEO AND MBE

The undersigned bidder agrees to comply with all applicable local, state, and federal EEO and MBE goals and additional goals as set forth in the bid documents. See attached MBE Affidavit of Compliance and Bidder MBE Utilization Forms.

9.0 PRICE GUARANTEE

The undersigned bidder agrees that this proposal will remain firm for a period of not less than sixty (60) days and a maximum of _____ days.

10.0 LEGAL STATUS AND SIGNATURE OF BIDDER

Check one of the following:

a. Bidder is an individual _____.
b. Bidder is a corporation _____.
c. Bidder is a partnership _____.

1) If Corporation -
State of Corporation _____

States in which qualified to do business -

_____

2) If partnership, list names of all partners.

_____

_____

_____

_____
Name of Contractor

_____
By (Signature)

_____
Title

_____
Address of Bidder

November 30, 2012

ADDENDUM NO. 002

To the Drawings and Specifications for:

Lucas County Road Maintenance Building
General Trades – MEP Package

106049

Lucas County Board of Commissioners

Prepared By:

THE COLLABORATIVE INC
Architects
Landscape Architects
Interior Designers
500 Madison Avenue
Toledo, Ohio 43604
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TO ALL BIDDERS:

This addendum supplements and amends the original drawings and specifications, and shall be taken into account in preparing proposals, and shall become a part of the contract documents. Receipt of this Addendum must be acknowledged in the Bid Form.

GENERAL

Questions:

A. Refer to bidder questions list published with this addendum from the Construction Manager.

Clarifications

A. Issuing Structural drawings for purposes of **REFERENCE ONLY**.
B. Issuing Architectural drawing A2.01 for purposes of **REFERENCE ONLY**.
C. Issuing Architectural drawing A4.12 for purposes of **REFERENCE ONLY**.

Specifications

Section 01 7701 FINAL CLEANING (New Section)
Item #1 New specification section for final cleaning requirements of building.

Section 09 9100 PAINTING (Not Re-issued)
Item #1 Part 2, Section 2.1, Paragraph B, add item 3 as approved manufacturer: PPG Architectural Finishes, Inc.

Section 10 4413 FIRE PROTECTION CABINETS
Item #1 Delete section in its entirety.

Section 10 4416 FIRE EXTINGUISHERS
Item #1 Delete section in its entirety.

Section 10 5113 METAL LOCKERS (Not re-issued)
Item #1 Under Paragraph 2.3, Item A add "List Industries, Inc., Superior 'Classmate' Lockers" as an approved manufacturer .

Section 11 1400 VEHICLE WASH SYSTEM (Newly Issued)
Item #1 Specifications for delegated-designed manual vehicle wash system with water recovery and recycling capabilities.

Section 32 3113 CHAIN LINK FENCES AND GATES (Re-issued)
Item #1 Multiple revisions to material and installation requirements throughout section. Revisions have been underlined.

Section 21 0000 FIRE PROTECTION SPECIFICATIONS (Not Re-issued)
Item #1 Item 2.02.A.1, Hangers and Supports: Earthquake protection is not required.
Item #2 Add Item 3.05, Specialty Valves.

F. Dry-Pipe Valves: UL 260; differential type; 175-psig (1200-kPa) working pressure; with cast-iron flanged inlet and outlet, bronze seat with O-ring seals and single-hinge pin and latch design. Include UL 1486, quick-opening devices, trim sets for air supply drain, primary level, alarm connections, ball drip valves, pressure gages, priming chamber attachment, and fill-line attachment.

1. Option: Grooved-end connections for use with keyed couplings.
2. Air-Pressure Maintenance Devices: Automatic device to maintain correct air pressure in piping. Include shutoff valves to

permit servicing without shutting down sprinkler piping, bypass valve for quick filling, pressure regulator or switch to maintain pressure, strainer, pressure ratings with 14- to 60-psig (95- to 410-kPa) adjustable range, and 175-psig (1200-kPa) maximum inlet pressure.

3. Air Compressor: Fractional horsepower, 120V ac, 60 Hz, single phase.

G. Manufacturers

1. Ames Co., Inc.
2. Cla-Val Co.
3. Hersey Products, Inc., Grinnel Corp.
4. Kennedy Valve Div., McWane Inc.
5. Viking Corp.
6. Watts Regulator Co.

Section 23 0000 MECHANICAL SPECIFICATIONS (Not Re-issued)
Item #1 Replace Section 3.05 "Energy Recovery Units" as follows:

A. Provide energy recovery unit with desiccant wheel. Casing to be of galvanized steel. Provide two blower/motor assembly with forward curved wheels mounted on neoprene isolators. Line housing with 1 inch, 3# density foil faced insulation. Provide single point power connection, rotation and wheel pressure drop sensors, outside air temperature sensor, frost control sequence with timer, energy wheel contactor, disconnect, control panel, motor starters and control transformer. Filters to be 2" MERV 8.
B. Accepted manufacturers:
   1. Greenheck
   2. Reznor
   3. Or equal

Drawings

Architectural Drawings

Drawing A1.11 "Enlarged Plans & Interior Elevations" – (Re-issued)
Item #1 Revised shower unit and room configuration for Shower 109.
Item #2 Revised elevation D6 on sheet A1.11 to reflect revised configuration.

Drawing A3.01 "Exterior Elevations" – (Re-issued)
Item #1 Added clarification note on exterior paint for exterior concrete masonry units.

Drawing A7.31 "First Floor Finish and Parking Layout Plan" – (Re-issued)
Item #1 Corrected room finishes; added paint, floor and base material designations.

Drawing A7.32 "Second Floor Finish Plan" – (Re-issued)
Item #1 Corrected room finishes; added paint, floor and base material designations.

Sketch SKA-05 “Section Through High Bay Windows”
Item #1 Sketch clarifies head, jamb and sill conditions at high windows in Garage 121.

Sketch SKA-06 “Shower Details”
Item #1 Sketch provides clarification on installation and end termination conditions at top, sides and floor level for pre-fabricated shower unit.

Fire Protection Drawings

Drawing FP0.01 Fire Protection Schedule, Legend & Details (drawing reissued):
Item #1 Revise Sprinkler Riser Detail, add dry riser and associated air compressor.
Item #2 Clarification: revise sprinkler head schedule, SP-3.
Item #3 Add water flow test information.
Item #4 Delete Automatic Air Valve and detail.

Drawing FP1.01 Overall First Floor Fire Protection Plan (drawing not reissued):
Item #1 Clarification: revise outdoor storage to SP-3, area shall be covered with dry sprinkler system.

Plumbing Drawings

Drawing P0.03 Plumbing Details (drawing reissued):
Item #1 Add Wash Bay piping detail and schematic.
Item #2 Clarification: Air compressor equal to Ingersoll-Rand model IRN25H shall be provided by plumbing contractor.

Drawing P1.01 First Floor Plan – Plumbing – Underground (drawing reissued):
Item #1 Add Wash Bay underground piping and notes.

Drawing P1.02 First Floor Plan – Plumbing – Aboveground (drawing reissued):
Item #1 Revise gas piping sizes. Gas piping sized @ 7”wc, 2 psi not available.
Item #2 Add Wash Bay aboveground piping and notes.

Drawing P1.03 Enlarged First Floor Plan – Plumbing (drawing reissued):
Item #1 Revise gas piping sizes. Gas piping sized @ 7”wc, 2 psi not available.

Mechanical Drawings

Drawing M1.02 Overall Mezzanine Plan - Mechanical (drawing not reissued):
Item #1 Delete Drawing Reference Note “3” from MUA-4. This unit is to be supported on the mezzanine floor system. Support framing and anchorage by Mechanical Contractor.

Electrical Drawings

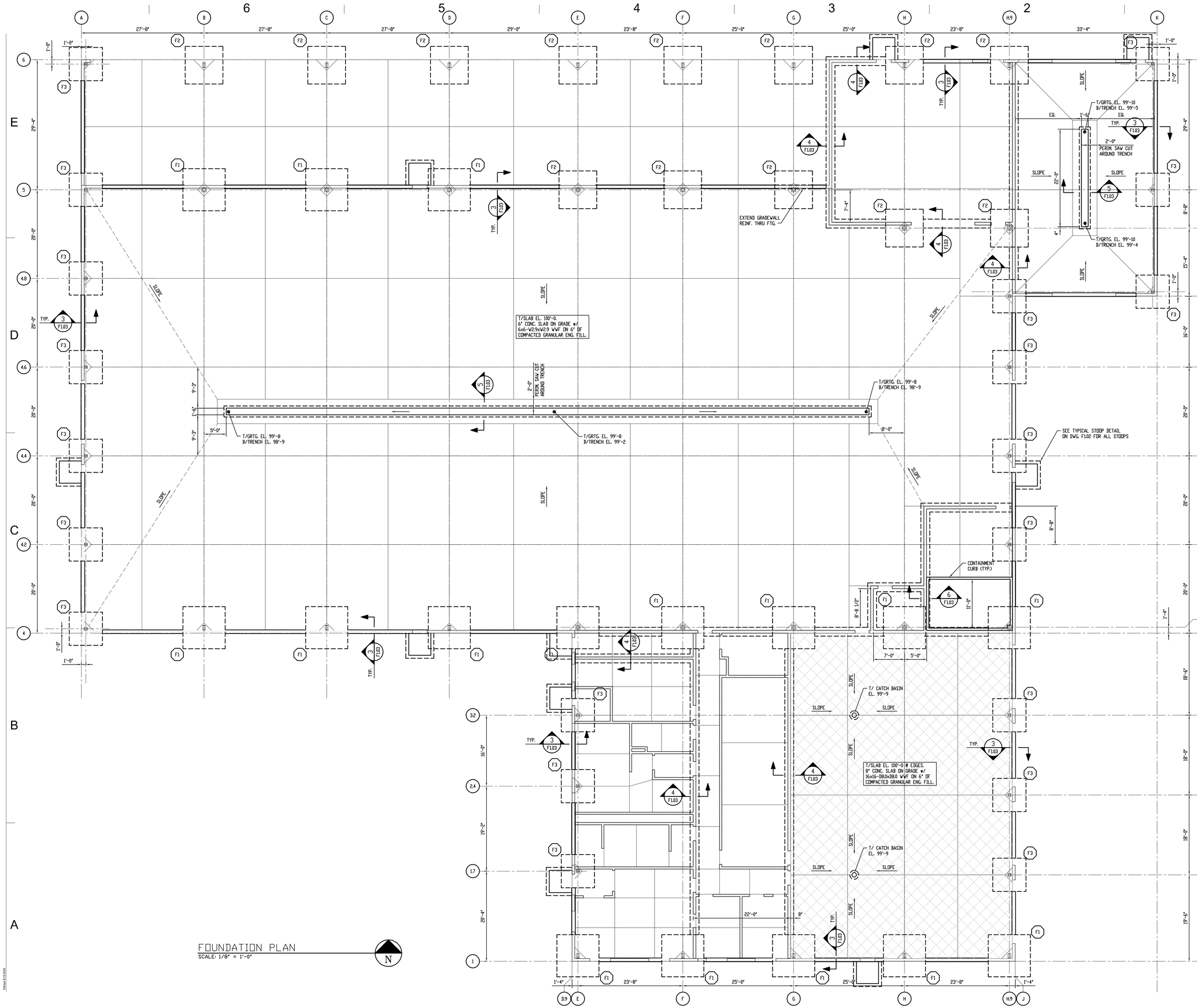
Drawing E0.01 Electrical Legends and Schedules (drawing reissued):
Item #1 Revised fixture type 'F7' to have (2) 2-lamp ballasts.
Item #2 Added note for wiring device installations.

Drawing E1.01 Overall Site Plan - Electrical (drawing reissued):
Item #1 Added direct-buried optical fiber cabling from existing Building C.

Drawing E3.01 First Floor Plan - Power (drawing reissued):
Item #1 Added receptacle for owner provided ice machine.

Item #2 Added note for E.C. required conduit at reclaim water system.
Item #3 Added disconnect and branch circuit for dry-pipe system air compressor.

Drawing E5.01 One Line Diagram and Panel Schedules (drawing reissued):
Item #1 Revised panel schedules RP:A and RP:C.



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

FOUNDATION NOTES

1. ALL ELEVATIONS ARE REFERENCED FROM TOP OF GROUND SLAB ELEVATION OF 100'-0= 636.00

2. BUILDING FOUNDATION BEARING SOILS SHALL BE PREPARED IN ACCORDANCE WITH THE RECOMMENDATIONS GIVEN BY "BOWSER MORNER", SOILS REPORT No. 159064-0812-3805.

3. SPREAD FOOTING DESIGN IS BASED ON AN ALLOWABLE BEARING CAPACITY OF 2000 PSF. IF UNSOUND CONDITIONS ARE ENCOUNTERED THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

4. SPREAD FOOTINGS AND PIERS ARE CENTERED ABOUT COLUMNS, UNLESS NOTED OTHERWISE. WALL STRIP FOOTINGS ARE CENTERED ABOUT FOUNDATION WALLS, U.N.O.

CONCRETE NOTES

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28 DAYS.

2. THE DETAILING, BENDING AND PLACEMENT OF REINFORCING STEEL AND CONCRETE SHALL BE IN ACCORDANCE WITH THE LATEST ACI STANDARD CODE.

3. ALL CONCRETE REINFORCING SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60.

4. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. LAP MESH SHEETS ONE SQUARE MESH PLUS 2 INCHES, MINIMUM.

5. CORNER BARS SHALL BE PROVIDED TO MATCH HORIZONTAL WALL AND FOOTING REINFORCEMENT AT ALL CORNERS. LAP 48 BAR DIAMETERS.

6. ALL CONCRETE SLABS ON GRADE SHALL HAVE CONTROL JOINTS SPACED AT 25'-0 c/c EACH WAY, MAXIMUM. SPACING ASPECT RATIO SHALL NOT EXCEED 2:1, SEE PLAN FOR SPECIFIC CONTROL JOINT (C.J) LOCATIONS.

7. PRIOR TO PLACING CONCRETE COORDINATE WITH ALL OTHER TRADES, SUCH AS MECHANICAL, ELECTRICAL AND PLUMBING, THE INSTALLATION OF ALL ANCHOR BOLTS, PIPE SLEEVES, CONDUITS AND ETC.

8. ALL CONCRETE WALLS SHALL BE SUPPORTED LATERALLY DURING BACKFILLING.

9. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED EDGES OF CONCRETE.

10. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH AN AIR CONTENT OF 5% ±1% OF THE VOLUME OF CONCRETE.

11. IN COLD WEATHER (LESS THAN 40°F) THE CONCRETE TEMPERATURE SHALL BE MAINTAINED BETWEEN 50°F & 70°F DURING CURING.

12. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, INTERFERENCE AND CONDITIONS PRIOR TO CONCRETE POUR AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

MASONRY NOTES

1. HOLLOW CONCRETE BLOCK MASONRY UNITS SHALL CONFORM WITH ASTM C-90 AND HAVE A MINIMUM UNIT STRENGTH OF 1900 PSI AND A ASSEMBLAGE DESIGN STRENGTH (f'm) OF 1500 PSI.

2. MORTAR SHALL BE TYPE "M" OR "S" AND CONFORM WITH ASTM C-270.

3. SPECIAL INSPECTION FOR MASONRY CONSTRUCTION SHALL BE PROVIDED PER THE OHIO BUILDING CODE.

4. GROUT SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI AND CONFORM WITH ASTM C-476.

5. THE CONTRACTOR IS RESPONSIBLE FOR THE SHORING OF MASONRY WALLS DURING CONSTRUCTION.

6. REFER TO ARCHITECTURAL DRAWINGS FOR MASONRY WALL LOCATIONS AND OPENING SIZES NOT GIVEN ON THESE DRAWINGS.

7. ALL VERTICAL WALL REINFORCEMENT SHALL SPAN FROM FOOTING TO PARAPET IN SOLID GROUTED CELLS, WITH 48 BAR DIA. LAPS. DOWEL WALLS TO FOOTINGS WITH MATCHING REINFORCEMENT.

8. ALL WALL CORNERS, ENDS AND OPENINGS LARGER THAN 2'-6 SHALL BE REINFORCED w/ #5 VERTICAL FOR HEIGHT OF FLIGHT.

9. REFER TO ARCHITECTURAL DRAWINGS FOR ANY ADDITIONAL VERTICAL OR HORIZONTAL REINFORCING NOT SHOWN ON THESE DRAWINGS.

10. ALL MASONRY WALLS SHALL BE HORIZONTALLY REINFORCED WITH 9 GAGE JOINT REINFORCEMENT (TRUSS OR LADDER TYPE) AT 16" C/C. LAP REINFORCEMENT 16 INCHES.

11. ALL MASONRY WALLS SHALL BE VERTICALLY REINFORCED WITH #5 @ 32" C/C.

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C-013 Dated 12/3/12

KEY PLAN
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Structural Design Systems, Inc.
13875 Eckel Jct. Rd., Suite A
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PROJECT TITLE
Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.5.12	ISSUED FOR PERMITS
09.28.12	ISSUED FOR BIDS

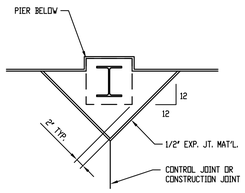
CHECKED DLW
APPROVED DLW

TCI JOB NO. 106049

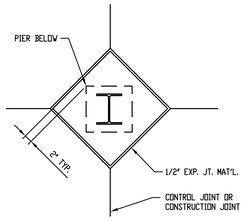
SHEET TITLE
FOUNDATION PLAN

BASE BID

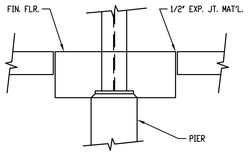
SHEET NO.
F1.01



PLAN - AT EXTERIOR COLUMNS



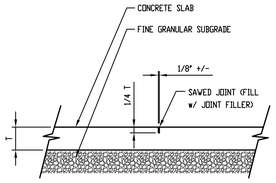
PLAN - AT INTERIOR COLUMNS



SECTION

TYP. ISOLATION JOINT DETAIL

SCALE: N.T.S.



TYP. SLAB CONTROL JOINT (CJ)

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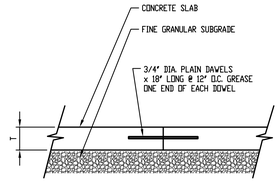
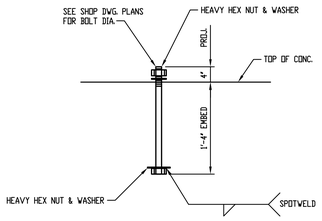


TYP. SLAB CONSTRUCTION JT. (CJ)

SCALE: N.T.S.

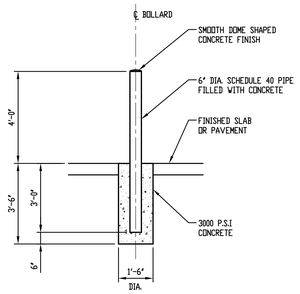
8 FOOTING AND PIER SCHEDULE						
	MARK	F1	F2	F3		
FOOTING	SIZE (WxLxD)	9'-6x9'-6x6'-4	8'-6x8'-6x6'-4	7'-6x7'-6x6'-4		
	B/FTG. EL.	93'-0	93'-0	93'-0		
	REINFORCING	10-#7 TOP & BOT. EA. WAY	9-#7 TOP & BOT. EA. WAY	8-#7 TOP & BOT. EA. WAY		
PIER	SIZE (A x B)	-	-	-		
	T/PIER ELEV.	-	-	-		
	REINFORCING	-	-	-		
	TIES	#4 @ 12" c/c	#4 @ 12" c/c	#4 @ 12" c/c		
ORIENTATION						
NOTES						

SEE ANCHOR BOLT LAYOUT FOR SIZE AND LOCATIONS



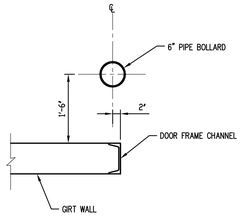
PRE-ENGR. BUILDING
TYPICAL ANCHOR BOLT DETAIL

SCALE: N.T.S.



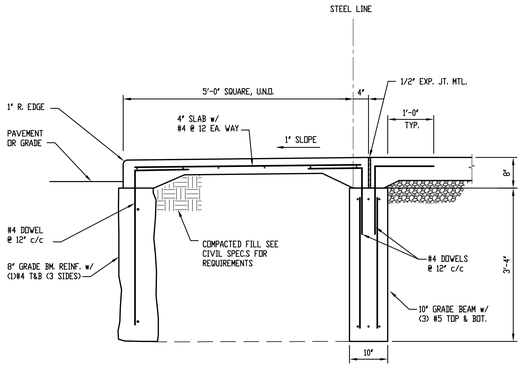
TYP. BOLLARD PLACEMENT

SCALE: 3/8"=1'-0



TYP. BOLLARD PLACEMENT

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



TYPICAL STOOP DETAIL

SCALE: 3/4"=1'-0

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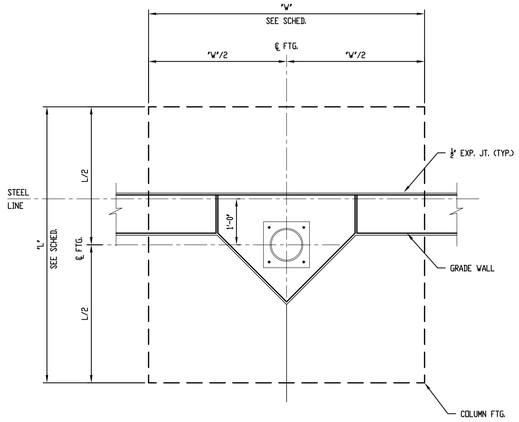
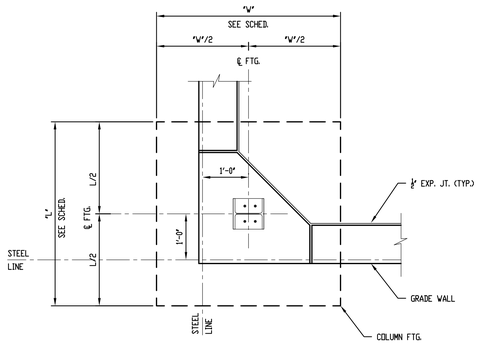
SHEET TITLE
FOOTING SCHEDULE; CONCRETE SECTIONS & DETAILS

BASE BID

SHEET NO.
F1.02



INTERIOR FOOTING DETAIL C
SCALE: 3/4"=1'-0



EXTERIOR FOOTING DETAIL B
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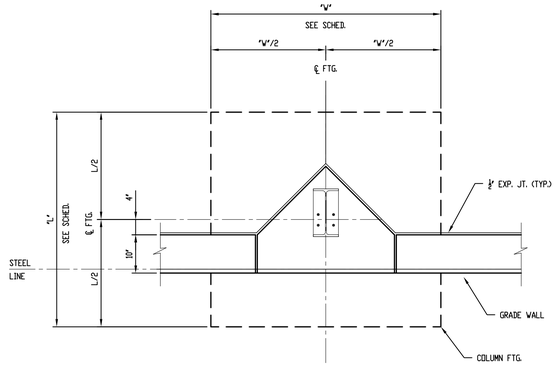
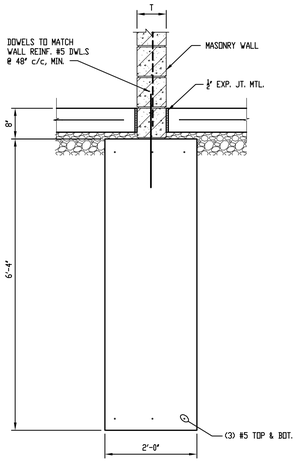
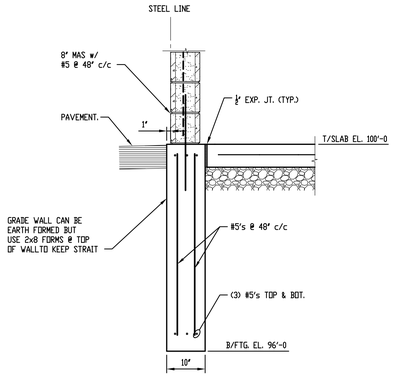


EXTERIOR FOOTING DETAILS A
SCALE: 3/4"=1'-0



SECTION 4 / F1.01
SCALE: 3/4" = 1'-0



SECTION 3 / F1.01
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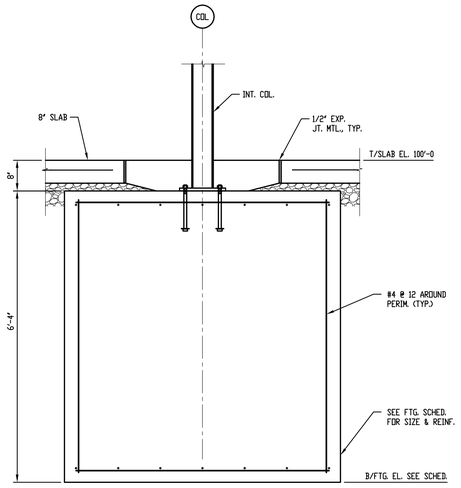

SECTION 2 / F1.03
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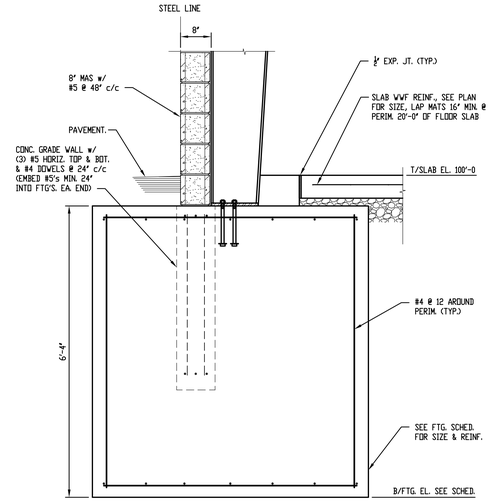
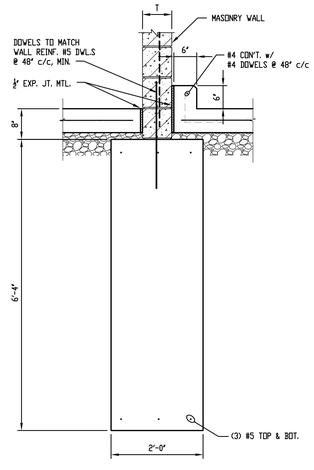
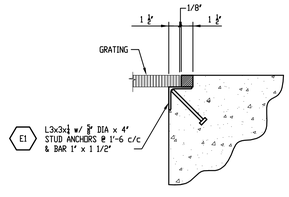
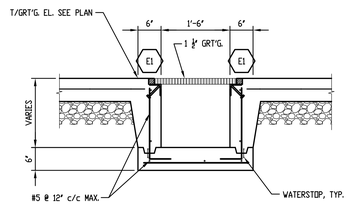


SECTION 1 / F1.03
SCALE: 3/4" = 1'-0



SECTION 6 / F1.01
SCALE: 3/4" = 1'-0





SECTION 5 / F1.01
SCALE: 3/4" = 1'-0

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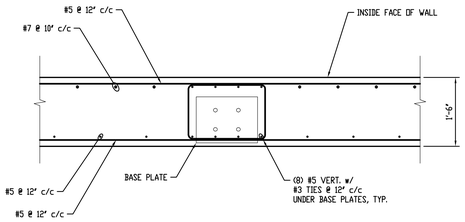
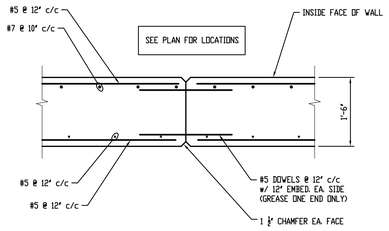
SHEET TITLE
CONCRETE SECTIONS & DETAILS

BASE BID

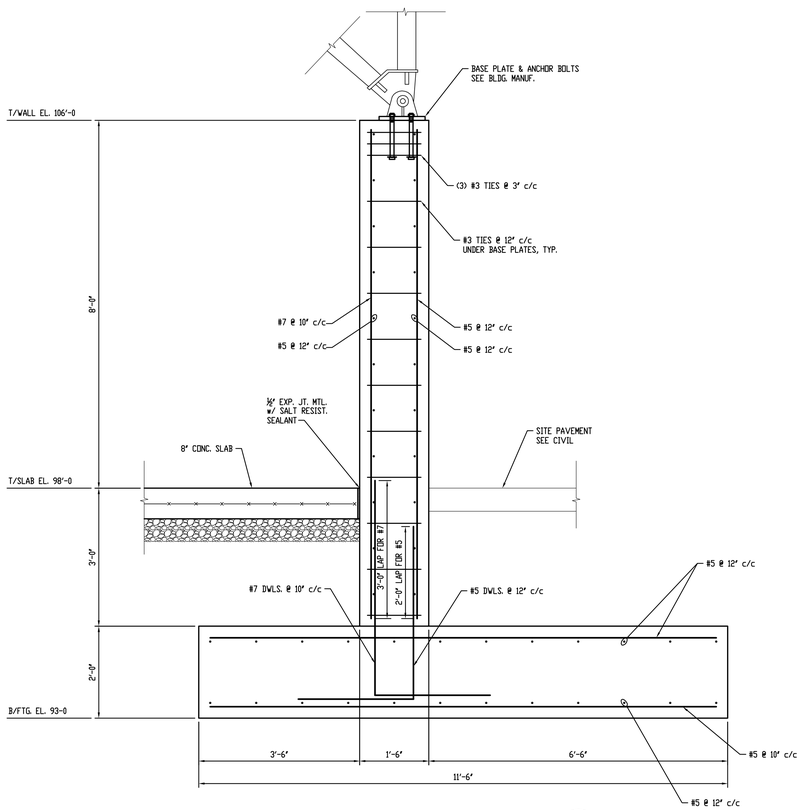
SHEET NO.
F1.03



SECTION 1/F1.04
SCALE: 3/4" = 1'-0



TYPICAL CONTROL JOINT DETAIL
SCALE: 3/4" = 1'-0



SECTION 2/F1.04
SCALE: 3/4" = 1'-0

CONCRETE NOTES:

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 4,000 PSI AT 28 DAYS.

2. THE DETAILING, BENDING AND PLACEMENT OF REINFORCING STEEL AND CONCRETE SHALL BE IN ACCORDANCE WITH THE LATEST ACI STANDARD CODE.

3. ALL CONCRETE REINFORCING SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60.

4. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. LAP MESH SHEETS ONE SQUARE MESH PLUS 2 INCHES, MINIMUM.

5. CORNER BARS SHALL BE PROVIDED TO MATCH HORIZONTAL WALL AND FOOTING REINFORCEMENT AT ALL CORNERS. LAP 48 BAR DIAMETERS.

6. ALL CONCRETE SLABS ON GRADE SHALL HAVE CONTROL JOINTS SPACED AT 25'-0 c/c EACH WAY, MAXIMUM. SPACING ASPECT RATIO SHALL NOT EXCEED 2:1, SEE PLAN FOR SPECIFIC CONTROL JOINT (CJ) LOCATIONS.

7. PRIOR TO PLACING CONCRETE COORDINATE WITH ALL OTHER TRADES, SUCH AS MECHANICAL, ELECTRICAL AND PLUMBING, THE INSTALLATION OF ALL ANCHOR BOLTS, PIPE SLEEVES, CONDUITS AND ETC.

8. ALL CONCRETE WALLS SHALL BE SUPPORTED LATERALLY DURING BACKFILLING.

9. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED EDGES OF CONCRETE.

10. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH AN AIR CONTENT OF 5% ±1% OF THE VOLUME OF CONCRETE.

11. IN COLD WEATHER (LESS THAN 40°F) THE CONCRETE TEMPERATURE SHALL BE MAINTAINED BETWEEN 50°F & 70°F DURING CURING.

12. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, INTERFERENCE AND CONDITIONS PRIOR TO CONCRETE POUR AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

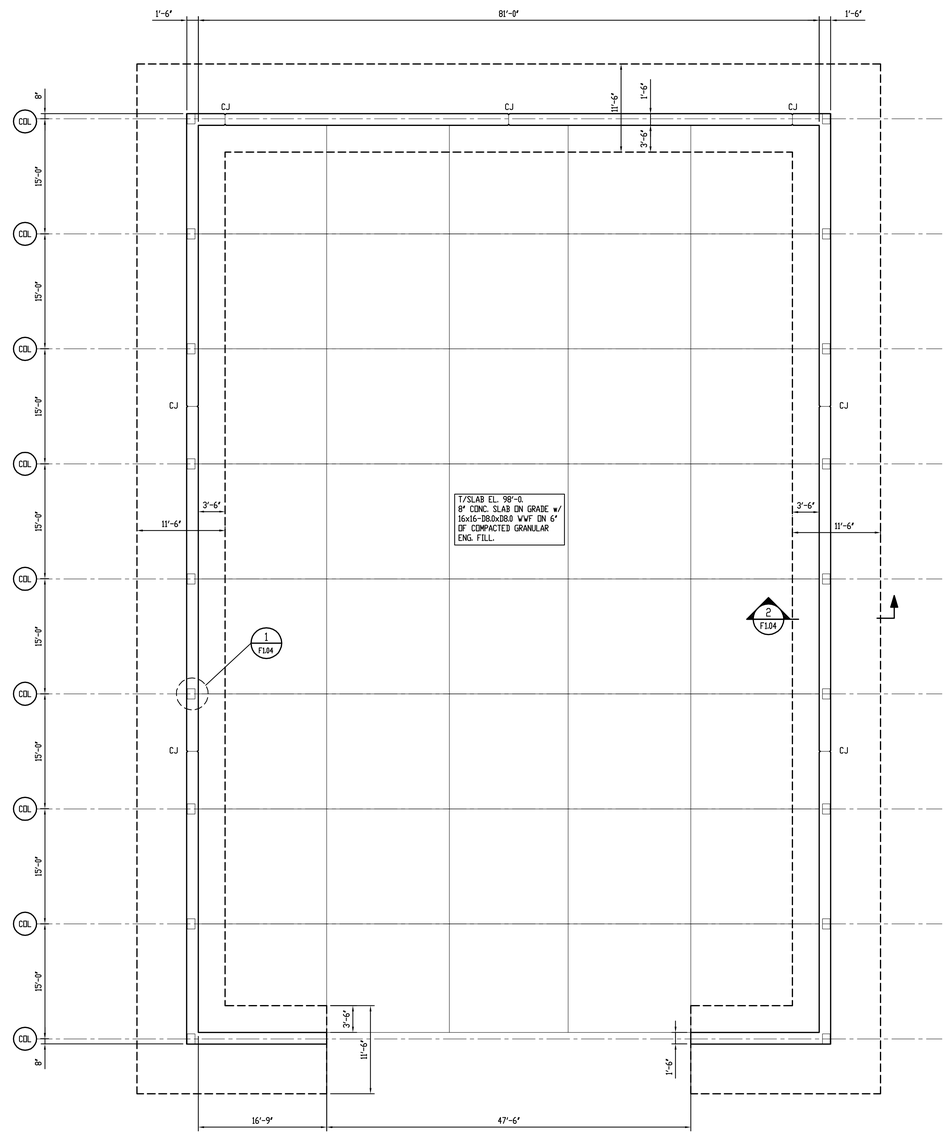
13. SEAL CONCRETE AND CONTROL JOINTS WITH SALT RESISTANT CURING COMPOUND. SEE OWNER RECOMMENDATION FOR PRODUCT INFORMATION.

FOUNDATION NOTES:

1. ALL ELEVATIONS ARE REFERENCED FROM TOP OF GROUND SLAB ELEVATION OF 98'-0 = 634.00

2. BUILDING FOUNDATION BEARING SOILS SHALL BE PREPARED IN ACCORDANCE WITH THE RECOMMENDATIONS GIVEN BY "BROWSER MORNER", SOILS REPORT No. 159064-0812-3805.

3. RETAINING WALL FOOTING DESIGN IS BASED ON AN ALLOWABLE BEARING CAPACITY OF 2000 PSF. IF UNSOUND CONDITIONS ARE ENCOUNTERED THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.



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

500 Madison Ave
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tci@thecollaborativeinc.com

the COLLABORATIVE inc

ARCHITECTS
LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS

ISSUED FOR REFERENCE ONLY
ADDENDUM 002, GENERAL TRADES
AND MEP BID PACKAGE
NOVEMBER 30, 2012

C-013 Dated 12/3/2

KEY PLAN
N.T.S.

Structural Design Systems, Inc.
13676 Eckel Jct. Rd., Suite A
Perrysburg, Ohio 43551
Phone: (419) 872-7103
Fax: (419) 872-7104

PROJECT TITLE
Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.5.12	ISSUED FOR PERMITS
10.11.12	ADD - 001

BID PACKAGE:
SHELL PACKAGE

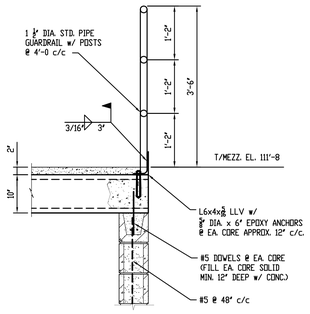
CHECKED DLW
APPROVED DLW

TCI JOB NO. 106049

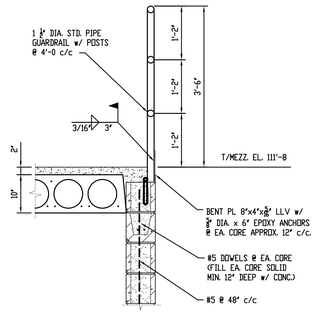
SHEET TITLE
SALT BUILDING FOUNDATION PLAN & DETAILS

BASE BID

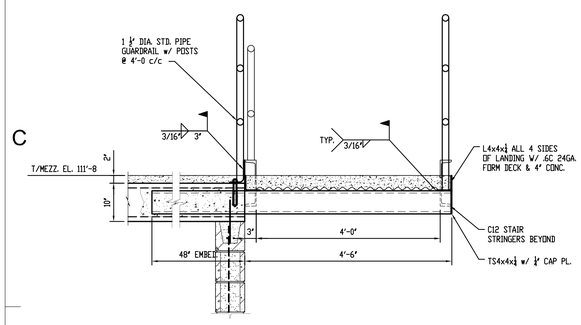
SHEET NO.
F1.04



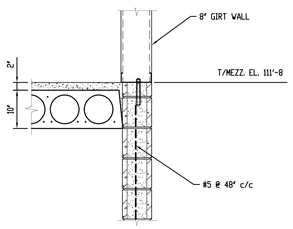
SECTION 1 / S1.01
SCALE: 3/4" = 1'-0



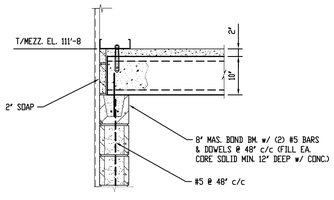
SECTION 2 / S1.01
SCALE: 3/4" = 1'-0



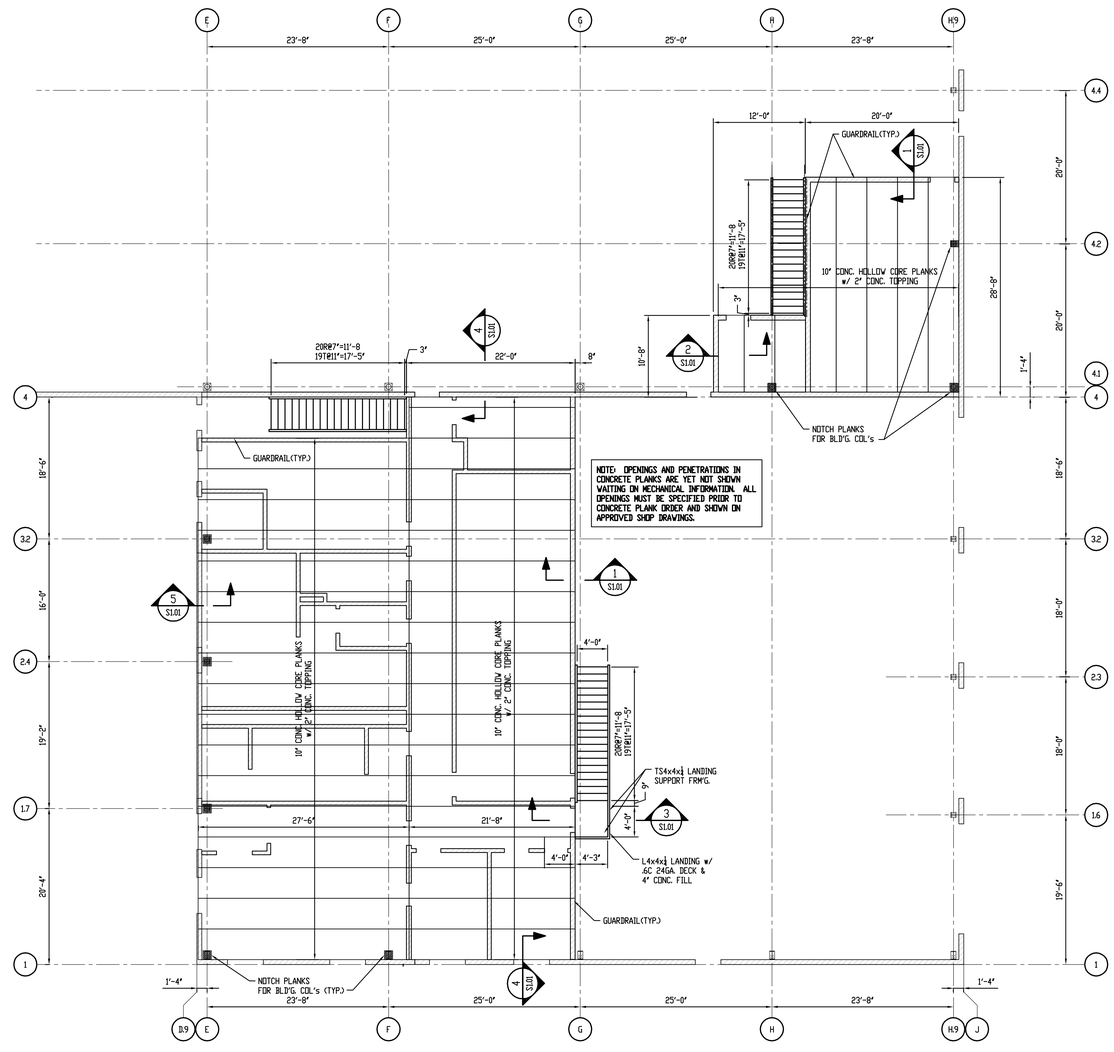
SECTION 3 / S1.01
SCALE: 3/4" = 1'-0



SECTION 4 / S1.01
SCALE: 3/4" = 1'-0



SECTION 5 / S1.01
SCALE: 3/4" = 1'-0



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

MEZZANINE LOADING	
PLANK LOADING:	
LIVE LOAD	125 PSF
PLANK LOAD w/ 2" TOPPING	65 PSF

500 Madison Ave
Toledo, OH 43604
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ADDENDUM 002, GENERAL TRADES AND MEP BID PACKAGE
NOVEMBER 30, 2012

C-013 Dated 12/3/

KEY PLAN
N.T.S.

Structural Design Systems, Inc.
12875 Eckel Jct. Rd., Suite A
Perrysburg, Ohio 43551
Phone: (419) 872-7103
Fax: (419) 872-7104

PROJECT TITLE
Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.5.12	ISSUED FOR PERMITS
10.11.12	ADD - 001
09.28.12	ISSUED FOR BIDS

BID PACKAGE:
SHELL PACKAGE

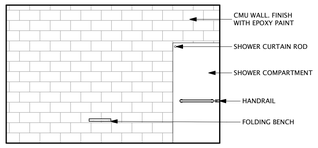
CHECKED DLW
APPROVED DLW

TCI JOB NO. 106049

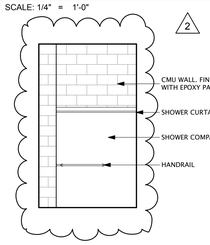
SHEET TITLE
MEZZANINE PLAN

BASE BID

SHEET NO.
S1.01



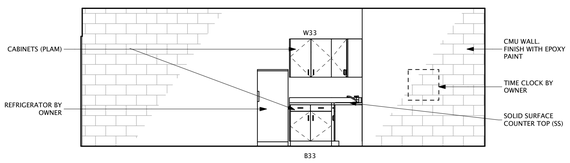
E6 A1.11 SHOWER 109
SCALE: 1/4" = 1'-0"



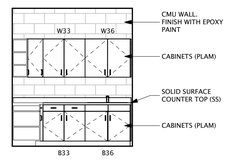
D6 A1.11 SHOWER 109
SCALE: 1/4" = 1'-0"

TOILET ROOM ACCESSORIES SCHEDULE				
	ITEM	MANUFACTURER	MODEL #	MOUNTING HGT
A	TOILET PAPER DISPENSER @ ADA STALLS	BOBRICK	# B-2888	MINIMUM OF 15" TO DISPENSER OUTLET
B	TOILET PAPER DISPENSER	BOBRICK	# B-2888	MINIMUM OF 15" TO DISPENSER OUTLET
C	PAPER TOWEL DISPENSER		BY OWNER	REFER TO SHEET A0.22 FOR MOUNTING HEIGHT
D	SOAP DISPENSER	BOBRICK	# B-2111	REFER TO SHEET A0.22 FOR MOUNTING HEIGHT
E	MOP/BROOM HOLDER	BOBRICK	# B-223 x 36	REFER TO SHEET A0.22 FOR MOUNTING HEIGHT
F	SANITARY NAPKIN RECEPTACLE	BOBRICK OR EQUAL	# B-270	REFER TO SHEET A0.22 FOR MOUNTING HEIGHT
G	GARMENT HOOKS	BOBRICK	# B-211	REFER TO SHEET A0.22 FOR MOUNTING HEIGHT
H	MIRROR –FRAMED W/O SHELF	BRADLEY CORP. OR EQUAL	#780 (SEE DWGS. FOR SIZE)	40" ABOVE FINISH FLOOR
J	STAINLESS STEEL GRAB BARS; 36" & 42"	BRADLEY CORP. OR EQUAL	# 812	34" ABOVE FINISH FLOOR
K	WASTE RECEPTACLE	BRADLEY CORP.	# 3251–11	SURFACE MOUNTED
L	STAINLESS STEEL 18" VERTICAL GRAB BAR	BRADLEY CORP. OR EQUAL	# 812	SEE ELEVATIONS FOR MOUNTING LOCATION
M	REVERSIBLE PHENOLIC SHOWER SEAT	BRADLEY CORP. OR EQUAL	# 9569	REFER TO SHEET A0.22 FOR MOUNTING HEIGHT
N	DRYING AREA BENCH – FOLDING	BRADLEY CORP.	# 9559	REFER TO SHEET A0.22 FOR MOUNTING HEIGHT

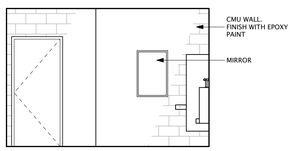
E4 A1.11 Toilet Accessory Schedule
SCALE: 1/4" = 1'-0"



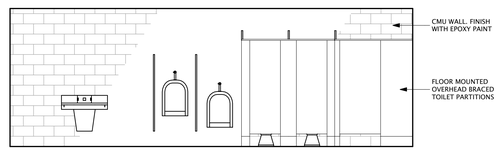
D5 A1.11 CREW ROOM
SCALE: 1/4" = 1'-0"



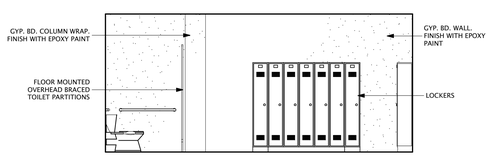
D4 A1.11 CREW ROOM
SCALE: 1/4" = 1'-0"



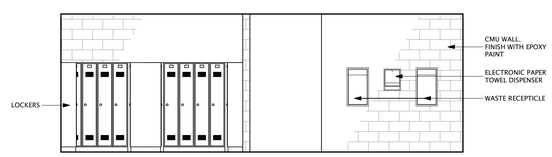
C6 A1.11 MEN 110
SCALE: 1/4" = 1'-0"



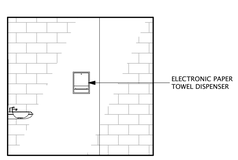
C4 A1.11 MEN 110
SCALE: 1/4" = 1'-0"



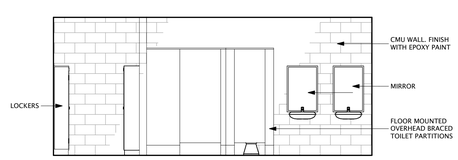
B7 A1.11 MEN 110
SCALE: 1/4" = 1'-0"



B6 A1.11 MEN 110
SCALE: 1/4" = 1'-0"



A7 A1.11 WOMEN 109
SCALE: 1/4" = 1'-0"



A4 A1.11 WOMEN 109
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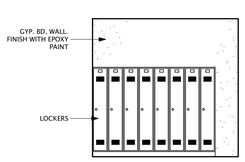
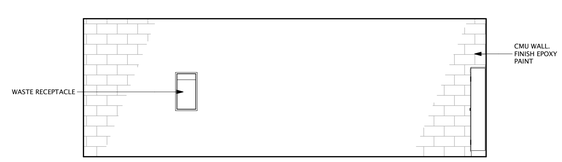
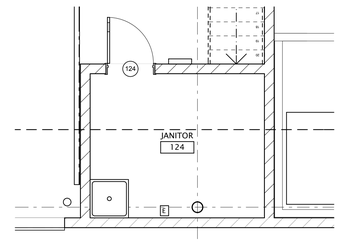


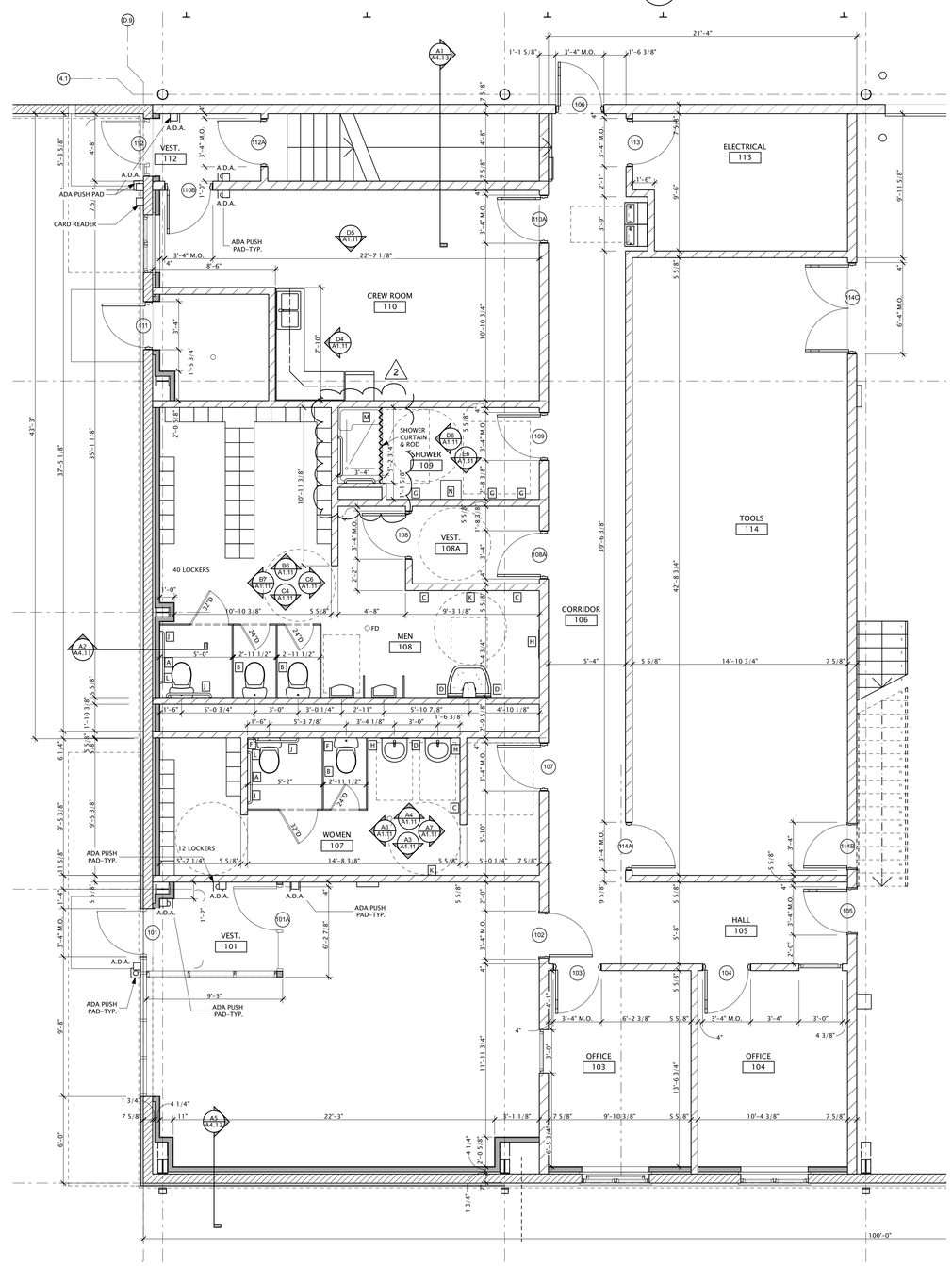
A6 A1.11 WOMEN 109
SCALE: 1/4" = 1'-0"



A3 A1.11 WOMEN 109
SCALE: 1/4" = 1'-0"



E1 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



A1 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

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the COLLABORATIVE inc

ARCHITECTS
LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS

STATE OF OHIO MICHAEL MUSE 14595 REGISTERED ARCHITECT

Michael Muse, License #14595
Expiration Date 12/31/2013

C-013 Dated 12/3/2012

PROJECT TITLE
Lucas County Road Maintenance Building
1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 002
10.25.2012	BIDDING

BID PACKAGE:
GENERAL TRADES/MEP

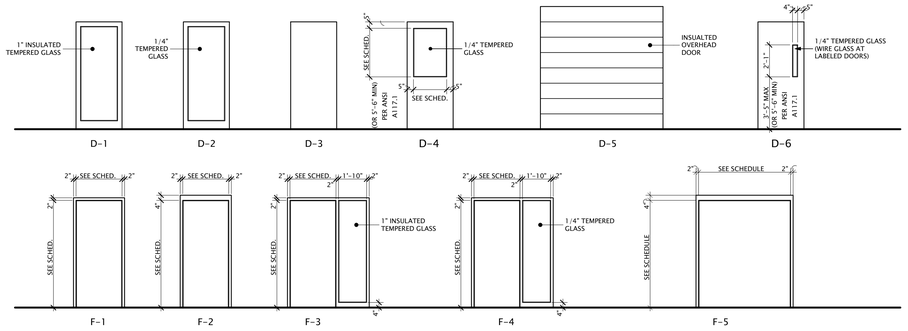
CHECKED ARB
APPROVED AB

TCI JOB NO. 106049

SHEET TITLE
Enlarged Plans & Interior Elevations

SHEET NO.
A1.11

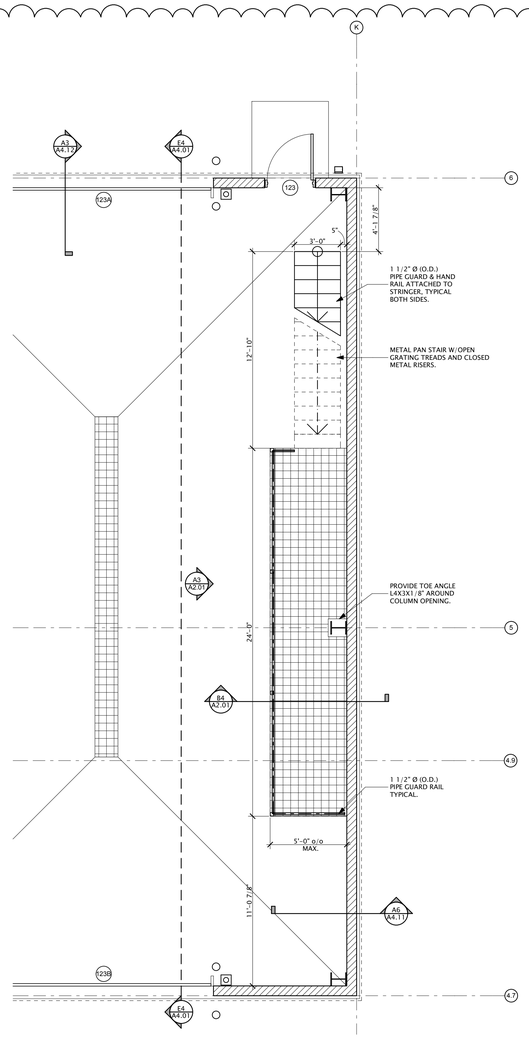
Revised 12/11/2012



DOOR TYPES & FRAMES

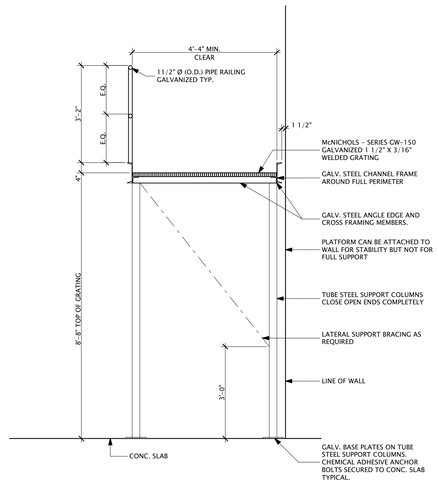
SCALE: 1/4" = 1'-0"

DOOR SCHEDULE														
No.	SIZE		Door			FRAME					HDW SET	FIRE RATING	REMARKS
	W	HT	EL	MATL	FN	EL	H	J	MATL	FIN			
101	3'-0"	7'-0"	D-1	ALUM		F-2		J-4	ALUM		011		
101A	3'-0"	7'-0"	D-1	ALUM		F-2		J-4	ALUM		013		
102	3'-0"	7'-0"	D-6	HM	PT	F-2		J-1	HM	PT	004		
103	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	001		
104	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	001		
105	3'-0"	7'-0"	D-4	HM	PT	F-2		J-1	HM	PT	004		
106	3'-0"	7'-0"	D-6	HM	PT	F-2		J-1	HM	PT	004		
107	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	005		
108	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	012		
108A	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	005		
109	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	006		
110A	3'-0"	7'-0"	D-4	HM	PT	F-2		J-1	HM	PT	005		
110B	3'-0"	7'-0"	D-4	HM	PT	F-2		J-1	HM	PT	005		
111	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	008		
112	3'-0"	7'-0"	D-1	ALUM		F-2		J-4	ALUM		009		
112A	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	002		
113	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	003		
114A	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	002		
114B	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	002		
114C	6'-0"	7'-0"	D-3	HM	PT	F-5		J-1	HM	PT	007		
115	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
115A	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
115B	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
115C	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
115D	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	010		
115E	15'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
121	14'-0"	14'-0"		-		D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
121A	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	008		
121B	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	008		
121C	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
121D	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	008		
122	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
122A	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
122B	3'-0"	7'-0"	D-6	HM	PT	F-2		J-1	HM	PT	004		
122C	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	008		
123	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	008		
123A	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
123B	14'-0"	14'-0"		-	-	D-5		J-2	MTL	PT			INSULATED OVERHEAD DOOR
124	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	003		
125	6'-0"	7'-0"	D-3	HM	PT	F-5		J-1	HM	PT	007		
130	3'-0"	7'-0"	D-3	HM	PT	F-2		J-1	HM	PT	008		
201	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	002		
203A	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	002		
203B	3'-0"	7'-0"	D-3	HM	PT	F-2		J-3	HM	PT	002		



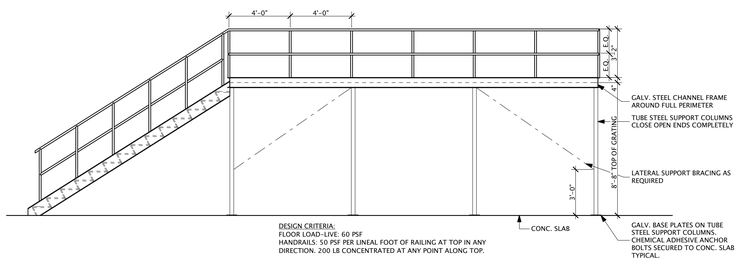
A5 A2.01 WALKWAY PLATFORM - PLAN

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



B4 A2.01 WALKWAY PLATFORM - SECTION

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



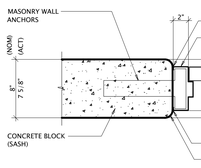
DESIGN CRITERIA:
FLOOR LOAD-LIVE: 60 PSF
HANDRAILS: 50 PSF PER LINEAL FOOT OF RAILING AT TOP IN ANY DIRECTION. 200 LB CONCENTRATED AT ANY POINT ALONG TOP.

A3 A2.01 WALKWAY PLATFORM - ELEVATION

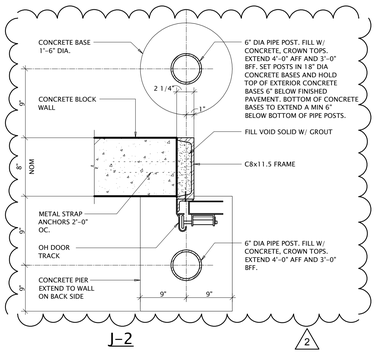
SCALE: 1/4" = 1'-0"

2

DELEGATED - DESIGN WALKWAY PLATFORM: TYPICAL OF TWO



J-1



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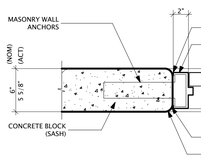

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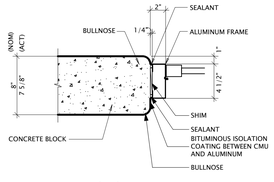

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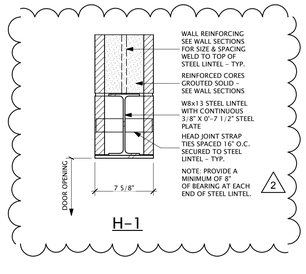

H-1

2

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the COLLABORATIVE inc

ARCHITECTS
LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS

C-013 Dated 12/3/2012

PROJECT TITLE
Lucas County Road Maintenance Building

1049 S. McCord Rd. Holland, Ohio

Prepared for the Lucas Co. Board of Commissioners

10.23.2012	ADD - 002
10.11.2012	ADD - 001
09.28.2012	BIDDING

BID PACKAGE:
SHELL PACKAGE

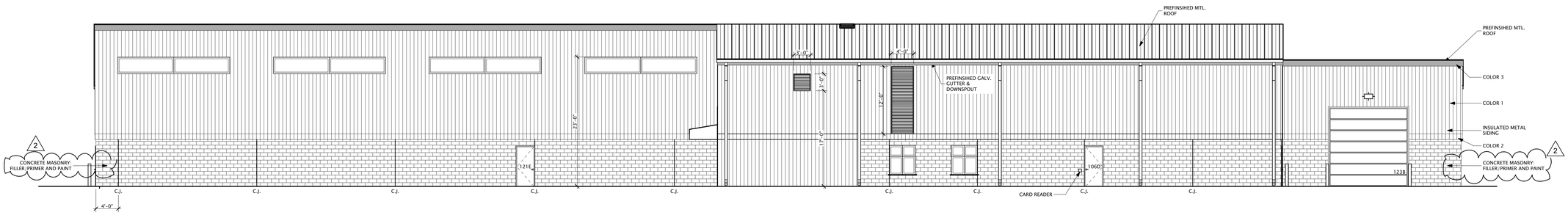
CHECKED ARB
APPROVED AB

TCI JOB NO. 106049

SHEET TITLE
Door Schedules

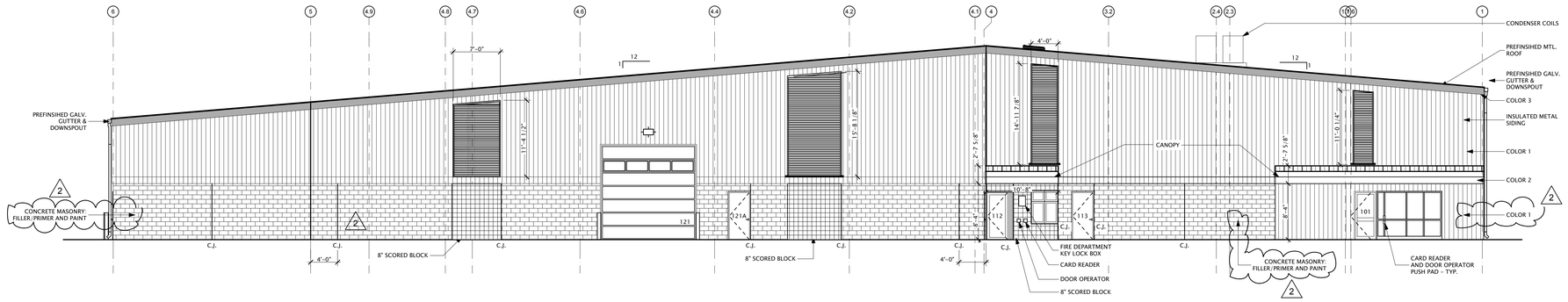
SHEET NO.
A2.01

Revised 10.23.2012



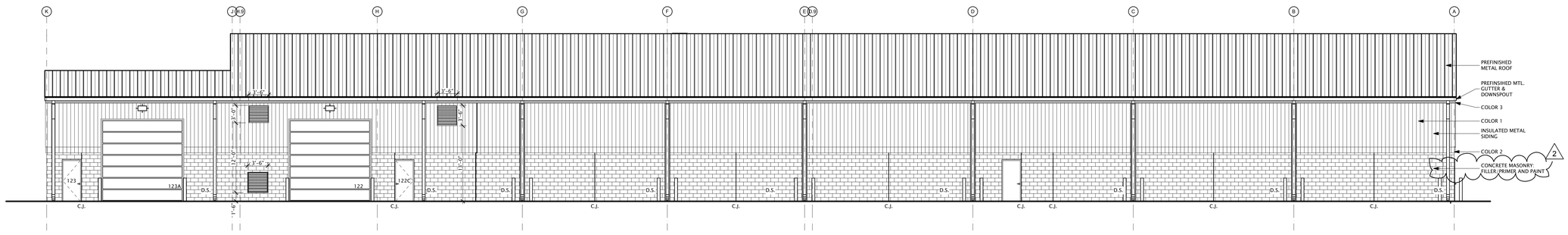
E1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

ALL LOUVERS PROVIDED BY PEB CONTRACTOR



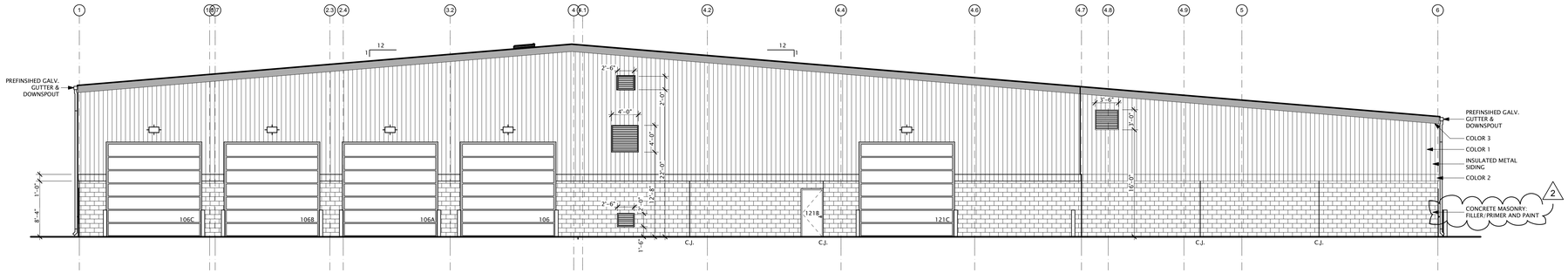
C1 WEST ELEVATION
SCALE: 1/8" = 1'-0"

ALL LOUVERS PROVIDED BY PEB CONTRACTOR



B1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

ALL LOUVERS PROVIDED BY PEB CONTRACTOR



A1 EAST ELEVATION
SCALE: 1/8" = 1'-0"

ALL LOUVERS PROVIDED BY PEB CONTRACTOR

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the COLLABORATIVE inc

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STATE OF OHIO
MICHAEL MUSE
14595
REGISTERED ARCHITECT

Michael Muse, License #14595
Expiration Date 12/31/2013

C-013 Dated 12/3/2012

PROJECT TITLE
Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 002
10.25.2012	BIDDING

BID PACKAGE:
GENERAL TRADES/MEP

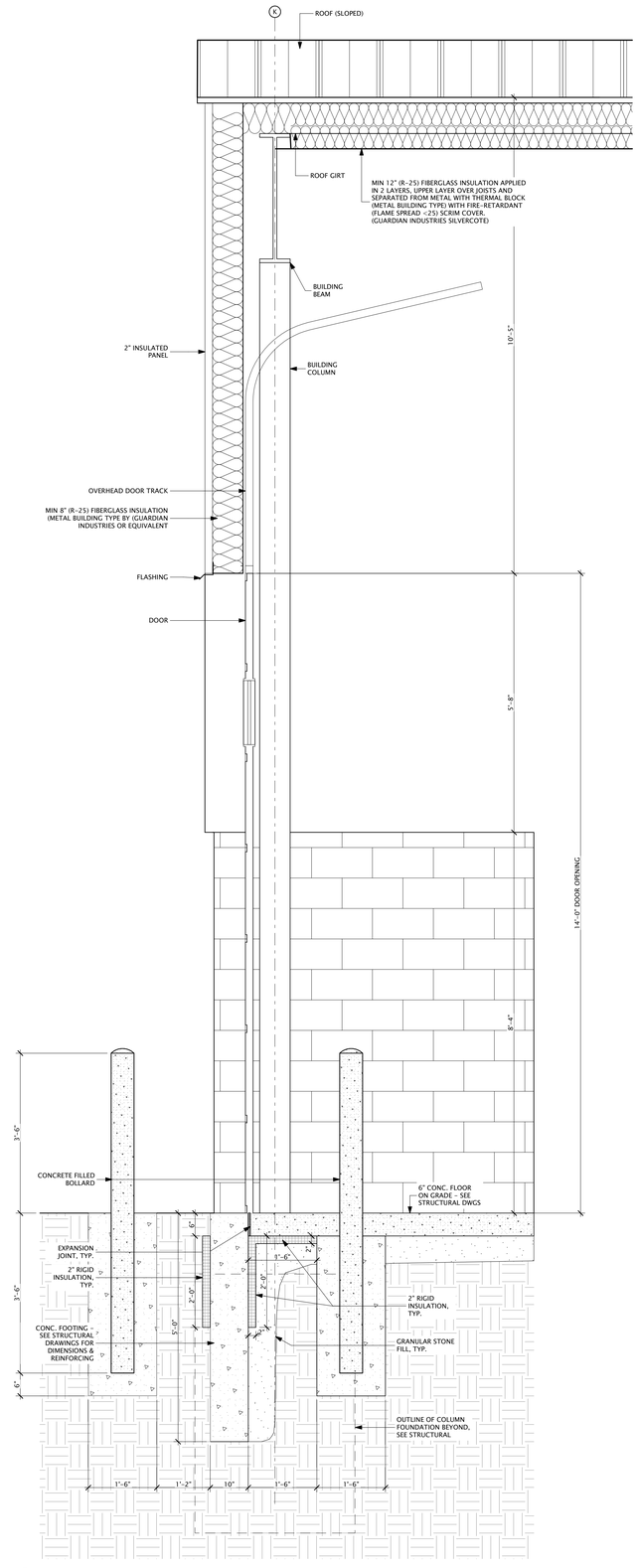
CHECKED ARB
APPROVED AB

TCI JOB NO. 106049

SHEET TITLE
Exterior Elevations

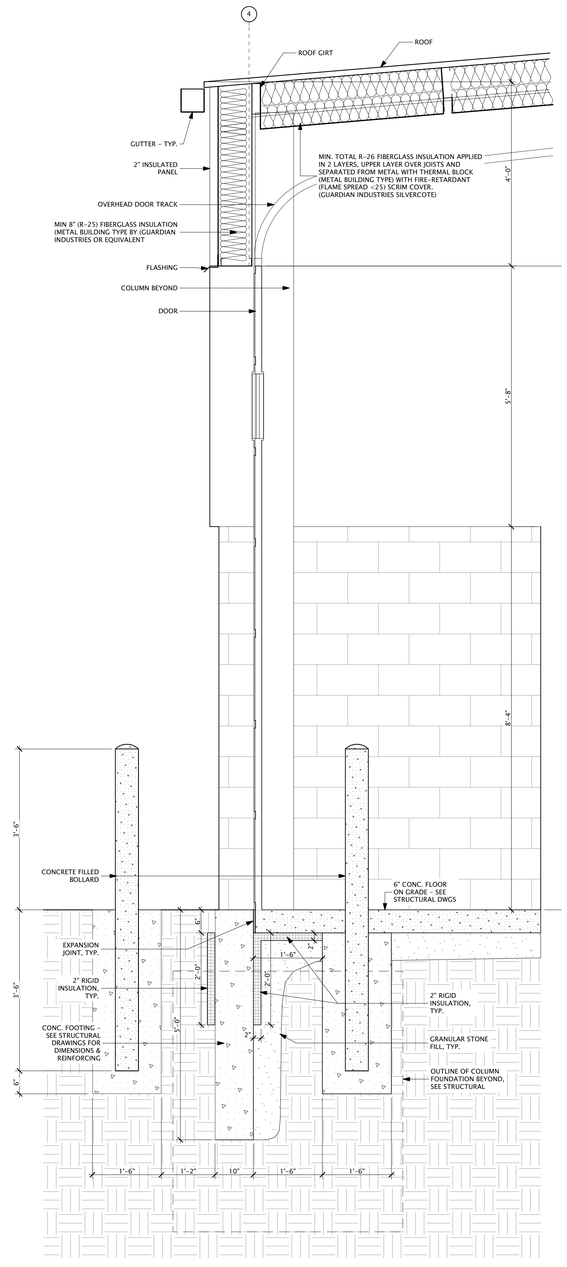
SHEET NO.
A3.01

Printed 11.30.2012



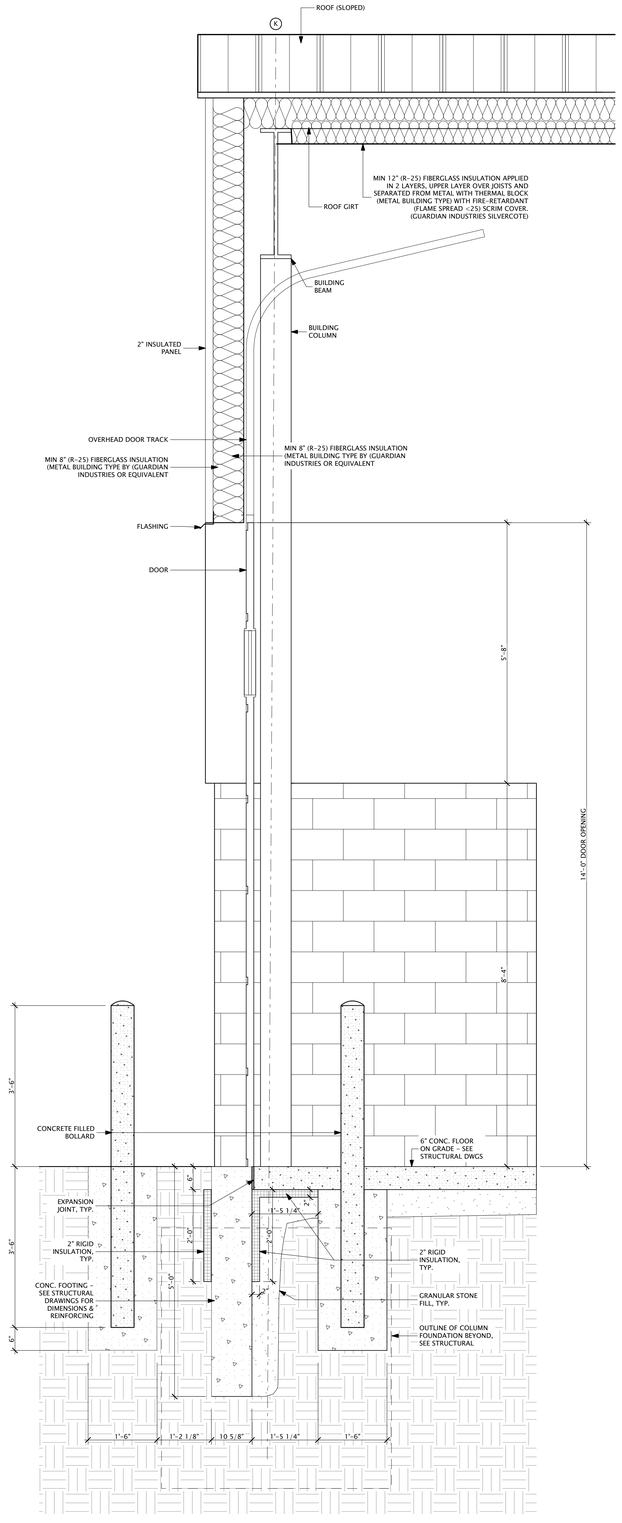
A5 / A4.12 WALL SECTION

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



A3 / A4.12 WALL SECTION

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



A1 / A4.12 WALL SECTION

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

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INTERIOR DESIGNERS
PLANNERS

ISSUED FOR REFERENCE ONLY
ADDENDUM 002, GENERAL TRADE AND MEP BID PACKAGE
NOVEMBER 30, 2012

C-013 Dated 12/3/2

PROJECT TITLE

Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 002
10.25.2012	BIDDING

BID PACKAGE:

GENERAL TRADES/MEP

CHECKED ARB

APPROVED AB

TCI JOB NO. 106049

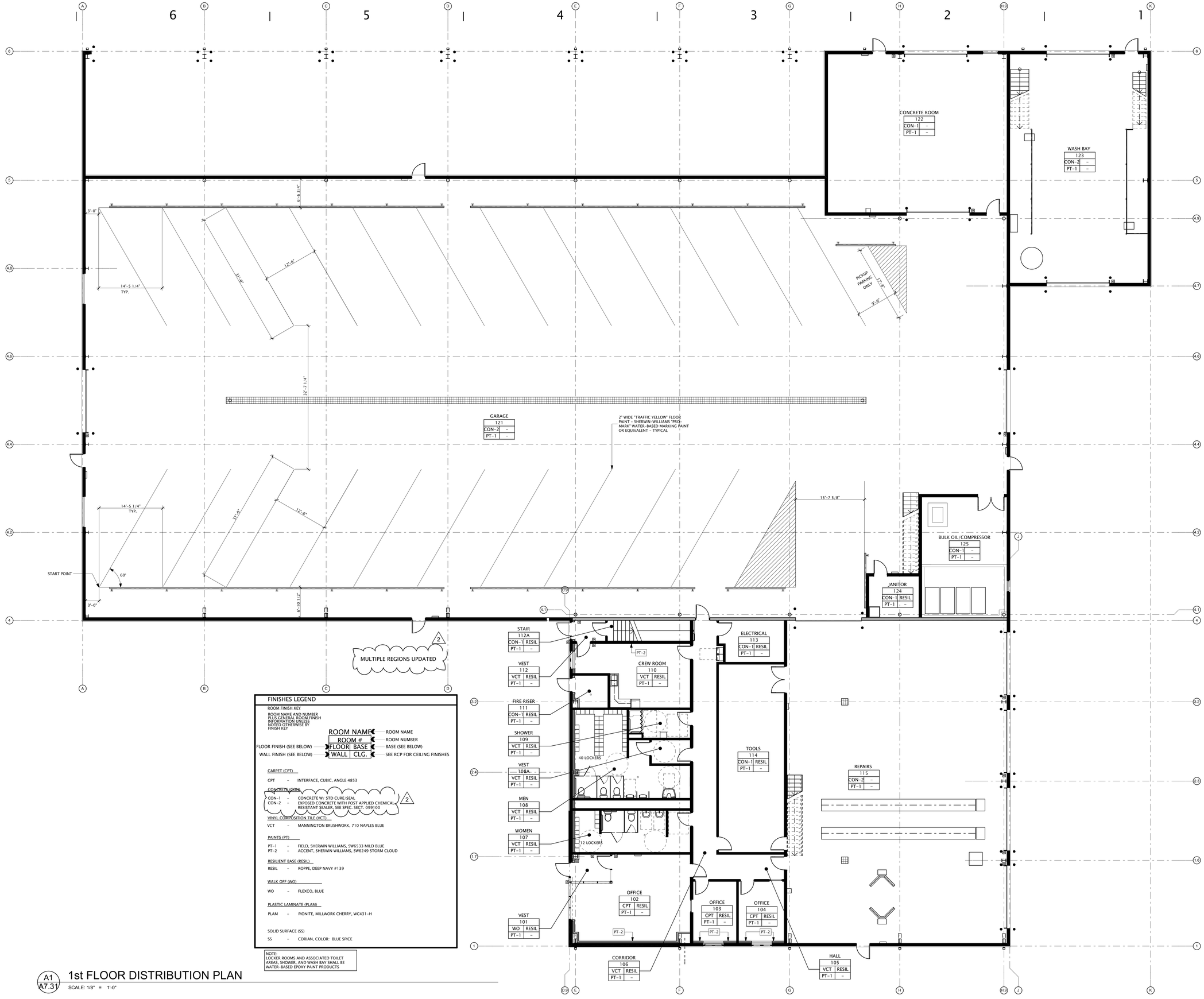
SHEET TITLE

Wall Sections

SHEET NO.

A4.12

Printed 11.29.2012



FINISHES LEGEND

ROOM FINISH KEY

ROOM NAME AND NUMBER PLUS GENERAL ROOM FINISH INFORMATION UNLESS NOTED OTHERWISE BY FINISH KEY

ROOM NAME		ROOM NAME
ROOM #		ROOM NUMBER
FLOOR (SEE BELOW)	FLOOR / BASE	BASE (SEE BELOW)
WALL (SEE BELOW)	WALL / CLG.	SEE RCP FOR CEILING FINISHES

CARPET (CPT)

CPT – INTERFACE, CUBIC, ANGLE 4853

CONCRETE (CON)

CON-1 – CONCRETE W/ STD CURE/SEAL
CON-2 – EXPOSED CONCRETE WITH POST APPLIED CHEMICAL RESISTANT SEALER. SEE SPEC. SECT. 099100

VINYL COMPOSITION TILE (VCT)

VCT – MANNINGTON BRUSHWORK, 710 NAPLES BLUE

PAINTS (PT)

PT-1 – FIELD, SHERWIN WILLIAMS, SW6533 MILD BLUE
PT-2 – ACCENT, SHERWIN WILLIAMS, SW6249 STORM CLOUD

RESILIENT BASE (RESIL)

RESIL – ROPPE, DEEP NAVY #139

WALK OFF (WO)

WO – FLEXCO, BLUE

PLASTIC LAMINATE (PLAM)

PLAM – PIONITE, MILLWORK CHERRY, WC431-H

SOLID SURFACE (SS)

SS – CORIAN, COLOR: BLUE SPICE

NOTE:
LOCKER ROOMS AND ASSOCIATED TOILET AREAS, SHOWER, AND WASH BAY SHALL BE WATER-BASED EPOXY PAINT PRODUCTS

A1 / A7.31 **1st FLOOR DISTRIBUTION PLAN**

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

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ARCHITECTS
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PLANNERS

STATE OF OHIO
MICHAEL MUSE
14595
REGISTERED ARCHITECT

Michael Muse, License #14595
Expiration Date 12/31/2013

C-013 Dated 12/3/2012

PROJECT TITLE

Lucas County Road Maintenance Building

1049 S. McCord Rd. Holland, Ohio

Prepared for the Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 002
10.25.2012	BIDDING

BID PACKAGE:

GENERAL TRADES/MEP

CHECKED ARB

APPROVED AB

TCI JOB NO. 106049

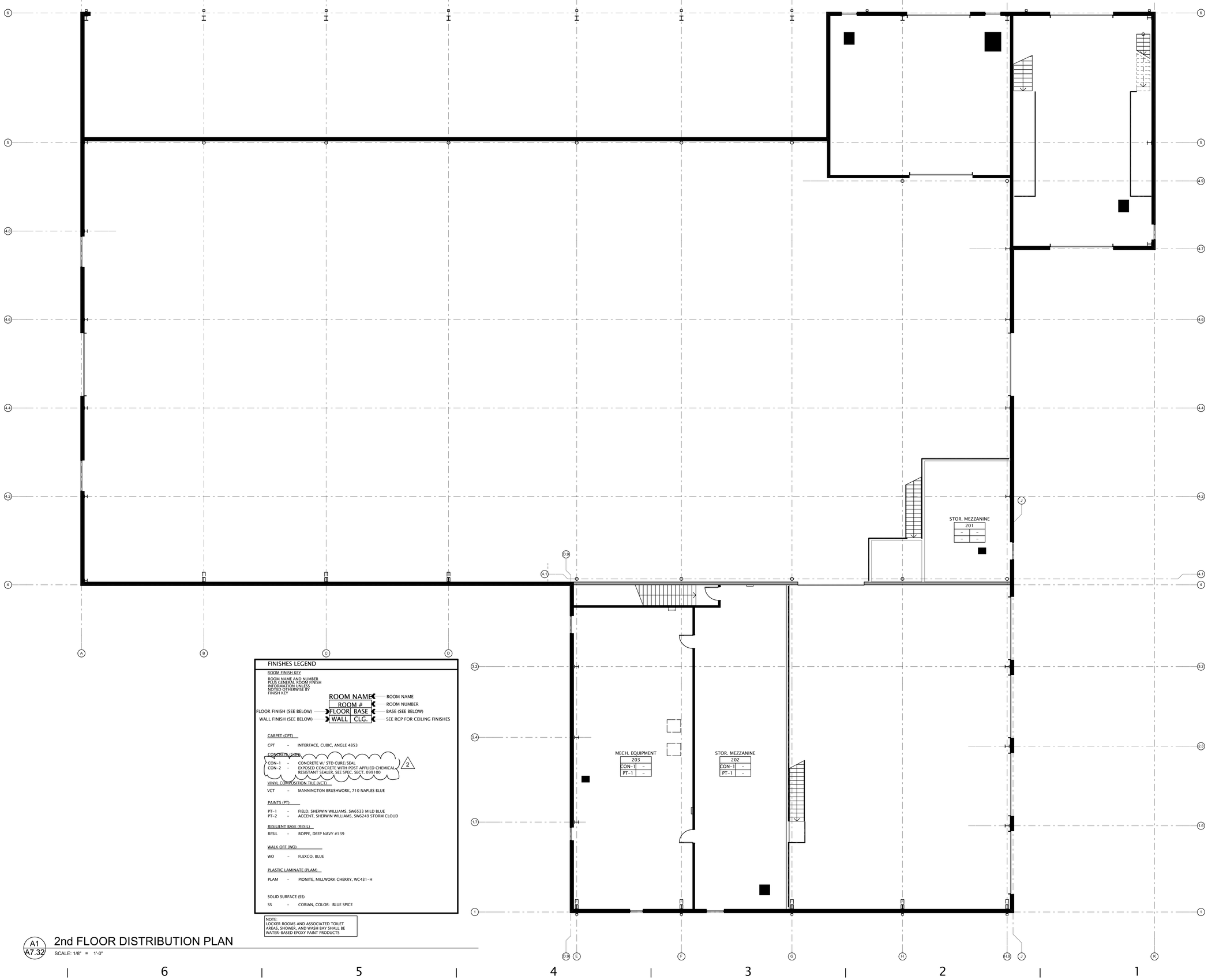
SHEET TITLE

First Floor Finish and Parking Layout Plan

SHEET NO.

A7.31

Printed 11.30.2012



FINISHES LEGEND

ROOM FINISH KEY

ROOM NAME AND NUMBER PLUS GENERAL ROOM FINISH INFORMATION UNLESS NOTED OTHERWISE BY FINISH KEY

	ROOM NAME		← ROOM NAME
	ROOM #		← ROOM NUMBER
FLOOR FINISH (SEE BELOW) →	FLOOR	BASE	← BASE (SEE BELOW)
WALL FINISH (SEE BELOW) →	WALL	CLG.	← SEE RCP FOR CEILING FINISHES

CARPET (CPT)

CPT – INTERFACE, CUBIC, ANGLE 4853

CONCRETE (CON)

CON-1 – CONCRETE W/ STD CURE/SEAL
CON-2 – EXPOSED CONCRETE WITH POST APPLIED CHEMICAL RESISTANT SEALER. SEE SPEC. SECT. 099100

2

VINYL COMPOSITION TILE (VCT)

VCT – MANNINGTON BRUSHWORK, 710 NAPLES BLUE

PAINTS (PT)

PT-1 – FIELD, SHERWIN WILLIAMS, SW6533 MILD BLUE
PT-2 – ACCENT, SHERWIN WILLIAMS, SW6249 STORM CLOUD

RESILIENT BASE (RESIL)

RESIL – ROPPE, DEEP NAVY #139

WALK OFF (WO)

WO – FLEXCO, BLUE

PLASTIC LAMINATE (PLAM)

PLAM – PIONITE, MILLWORK CHERRY, WC431-H

SOLID SURFACE (SS)

SS – CORIAN, COLOR: BLUE SPICE

NOTE:
LOCKER ROOMS AND ASSOCIATED TOILET AREAS, SHOWER, AND WASH BAY SHALL BE WATER-BASED EPOXY PAINT PRODUCTS

A1
A7.32

2nd FLOOR DISTRIBUTION PLAN

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

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PLANNERS

STATE OF OHIO
MICHAEL MUSE
14595
REGISTERED ARCHITECT

Michael Muse, License #14595
Expiration Date 12/31/2013

C-013 Dated 12/3/2012

PROJECT TITLE

Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 002
10.25.2012	BIDDING

BID PACKAGE:

GENERAL TRADES/MEP

CHECKED ARB

APPROVED AB

TCI JOB NO. 106049

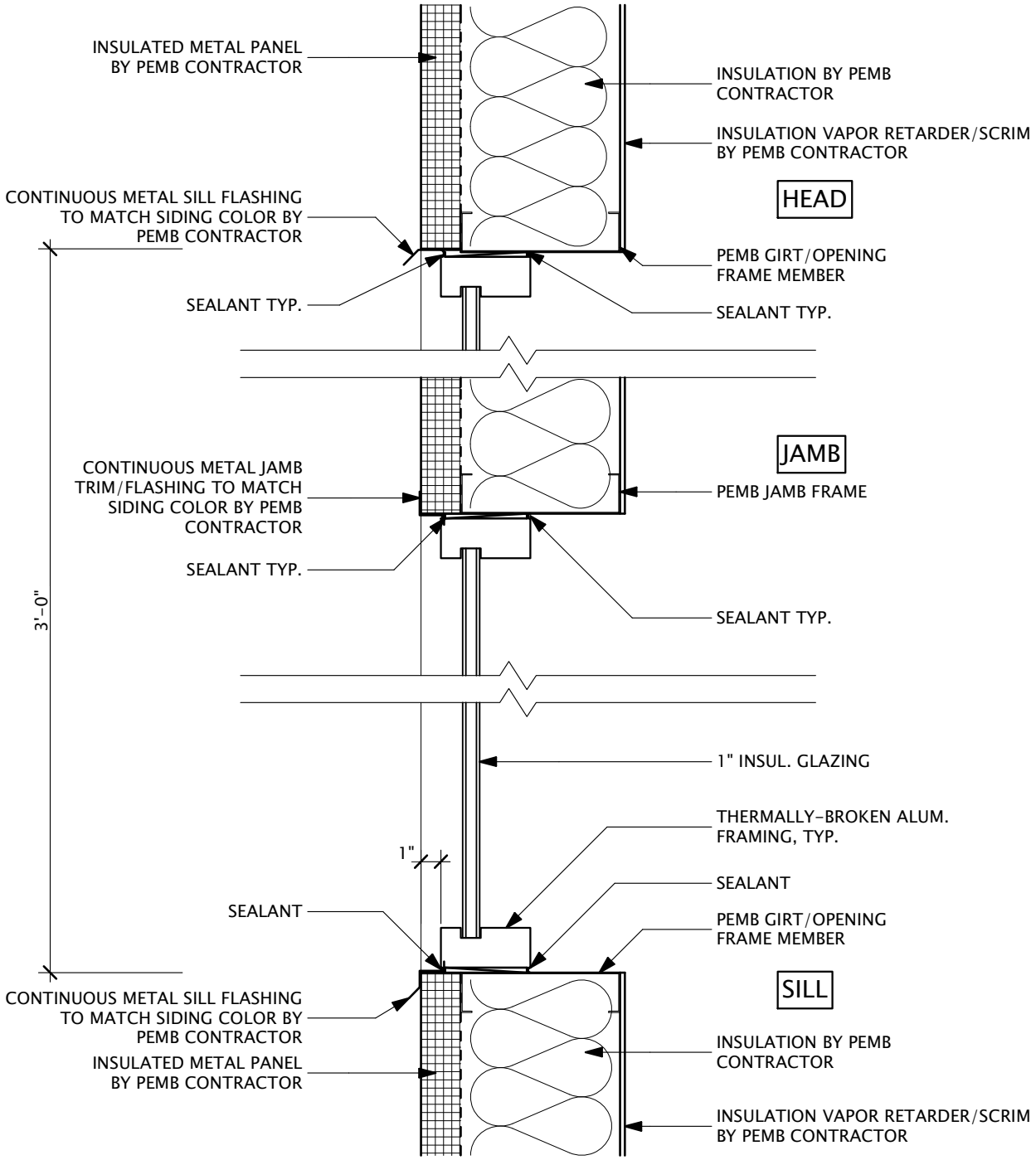
SHEET TITLE

Second Floor Finish Plan

SHEET NO.

A7.32

Printed 11.30.2012



1
SKA-05

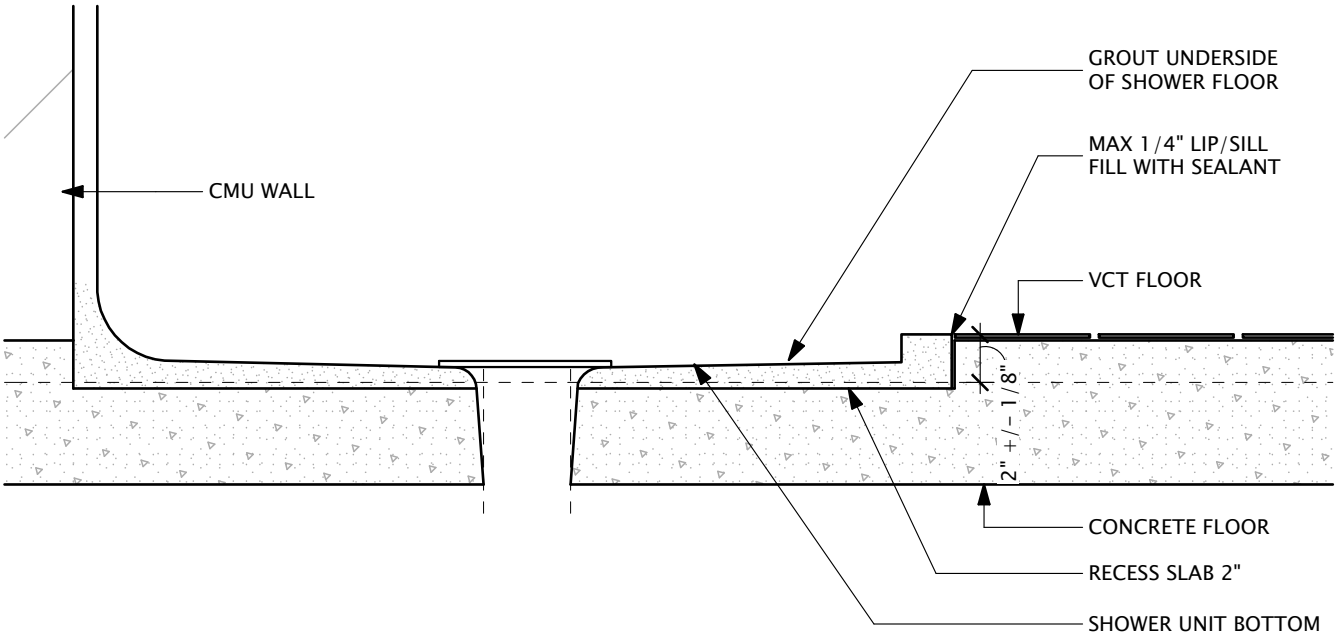
SECTION THROUGH HIGH BAY WINDOW

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

C-013 Dated 12/3/2012

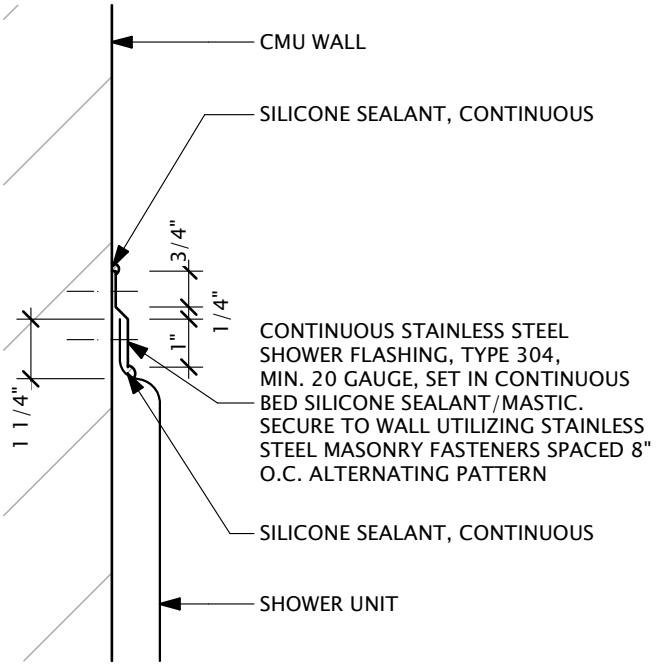
Printed 11/30/2012

SHEET NO.	SHEET TITLE	PROJECT TITLE	
SKA-05	Section Through High Bay Window	Lucas Co Engineer Bid Pack 03 Addendum 002	the COLLABORATIVE inc 500 Madison Ave Toledo, OH 43604 419.242.7405 tel 419.242.7400 fax www.thecollaborativeinc.com tci@thecollaborativeinc.com ARCHITECTS LANDSCAPE ARCHITECTS INTERIOR DESIGNERS PLANNERS



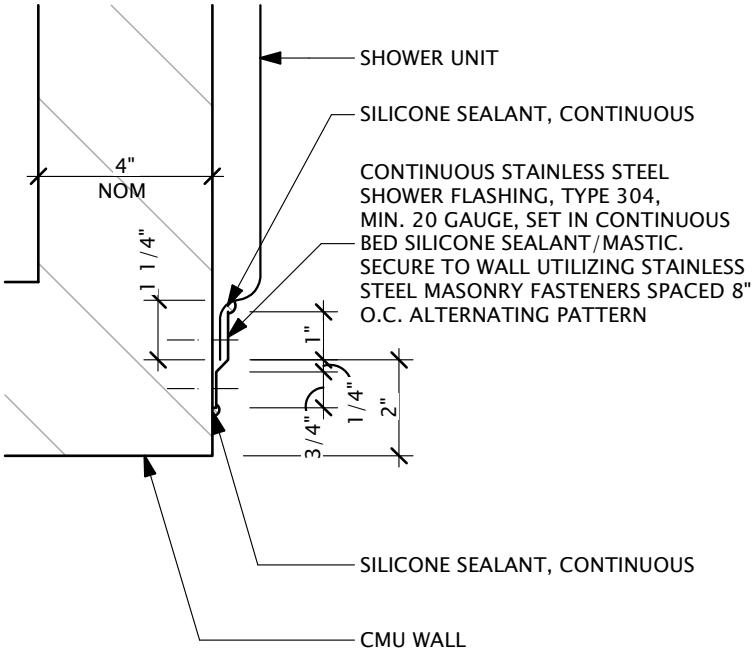
1 SKA-06 SHOWER BASE DETAIL

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



2 SKA-06 TOP / SHOWER

SCALE: 3" = 1'-0"



3 SKA-06 JAMB / SHOWER

SCALE: 3" = 1'-0"

C-013 Dated 12/3/2012

Printed 12/1/2012

SHEET NO.	SHEET TITLE	PROJECT TITLE	
SKA-06	Shower Details	**Lucas Co Engineer** Bid Pack 03 Addendum 002	the COLLABORATIVE inc 500 Madison Ave Toledo, OH 43604 419.242.7405 tel 419.242.7400 fax www.thecollaborativeinc.com tci@thecollaborativeinc.com ARCHITECTS LANDSCAPE ARCHITECTS INTERIOR DESIGNERS PLANNERS

FIRE SEALANT SCHEDULE – NON-INSULATED PIPING

PIPING TYPE	FIRE RATING	HILTI PRODUCT	UL SYSTEM NUMBER	SEALANT DEPTH
METAL PIPE THROUGH CONCRETE				
MAX. 10" STEEL, 4" COPPER, STEEL CONDUIT, EMT PIPE	2-HOUR	FS-ONE, CP 601S, OR CP 606	CAJ 1149	1/2"
MAX. 30" STEEL, CAST IRON, MAX 6" COPPER CONDUIT OR MAX. 4" EMT PIPE	2-HOUR	FS-ONE	CAJ 1291	1/2"
MAX. 10" STEEL, CAST IRON, MAX. 4" COPPER, CONDUIT OR EMT PIPE	3-HOUR	FS-ONE	CAJ 1184	1"
MAX. 20" STEEL, CAST IRON, MAX. 6" COPPER, CONDUIT OR 4" EMT PIPE	3-HOUR	FS-ONE	CAJ 1155	1/2"
MAX. 6" STEEL, COPPER, STEEL CONDUIT, MAX. 4" EMT PIPE	4-HOUR	FS-ONE	WJ 1068	1 1/2"
PLASTIC AND GLASS PIPE IN CONCRETE				
MAX. 4" ABS, NOM. 6" FRPP	2-HOUR	CP 680	FA 2065	N/A
MAX 2" PVC OR CPVC	2-HOUR	FS-ONE	CAJ 2167	2"
MAX. 4" ABS, NOM 6" FRPP	3-HOUR	CP 680	FA 2066	N/A
MAX 2" PVC, CPVC, FRPP, OR ABS	3-HOUR	FS-ONE	CAJ 2220	2 1/2"
MAX 6" PVC, CPVC, FRPP, OR ABS	3-HOUR	CP 642/643	CAJ 2109	N/A
MAX 6" GLASS PIPE	3-HOUR	FS-ONE	CAJ 2118	3/4"
PLASTIC PIPE IN WOOD				
MAX. 4" PVC, CPVC, ABS, OR FRPP	1 OR 2-HOUR	CP 643	FC 2025	N/A
METAL PIPE THROUGH GYPSUM				
MAX 8" STEEL, CAST IRON, MAX. 6" CONDUIT MAX. 4" COPPER OR EMT	1 OR 2-HOUR	FS-ONE	WL 1205	1"
PLASTIC PIPE IN GYPSUM				
MAX 6" PVC, CPVC, ABS OR FRPP	1 OR 2-HOUR	CP 642/643	WL 2078	N/A

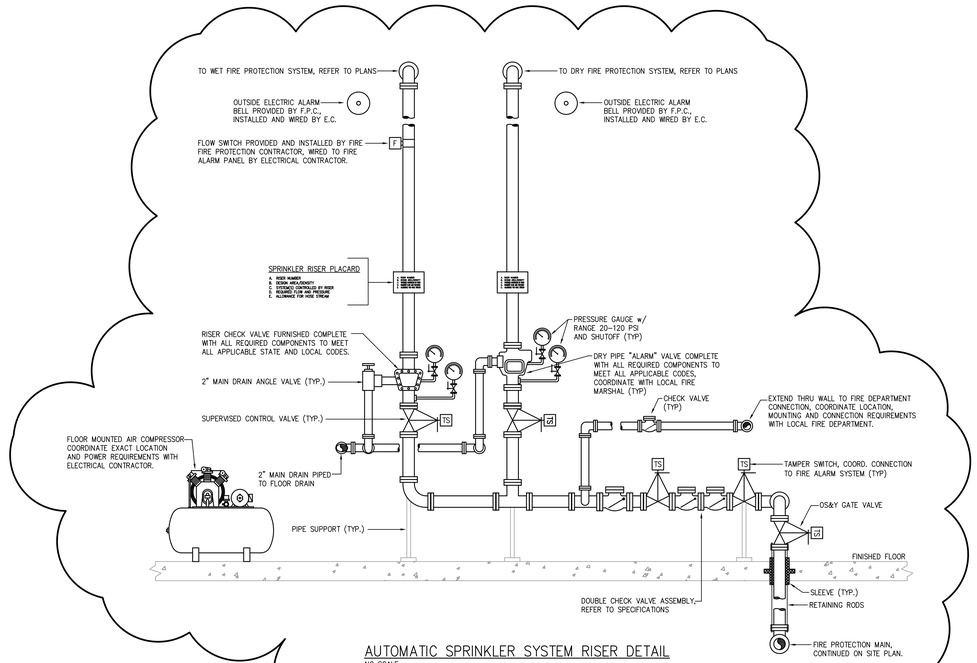
FIRE SEALANT SCHEDULE – INSULATED PIPING

PIPING TYPE	FIRE RATING	HILTI PRODUCT	UL SYSTEM NUMBER	SEALANT DEPTH
INSULATED METAL PIPES THROUGH CONCRETE				
MAX. 4" STEEL OR COPPER PIPE w/ MAX. 2" THICK GLASS FIBER INSULATION	2-HOUR	CP 680	FA 5017	N/A
MAX. 12" STEEL, MAX. 6" COPPER PIPE w/ MAX. 2" GLASS FIBER INSULATION	2-HOUR	FS-ONE	CAJ 5091	1/2"
MAX. 4" STEEL, COPPER, CONDUIT OR EMT PIPE w/ MAX. 3/4" AB/PVC INSULATION	3-HOUR	FS-ONE	CAJ 5090	1/4"
MAX. 6" STEEL, COPPER, CONDUIT OR EMT PIPE w/ MAX. 1 1/2" GLASS FIBER INSULATION	4-HOUR	FS-ONE	WJ 5028	2"
INSULATED METAL PIPES IN WOOD				
MAX. 2" COPPER OR STEEL PIPE w/ MAX. 1 1/2" GLASS FIBER INSULATION	1-HOUR	FS-ONE	FC 5036	N/A
INSULATED METAL PIPES IN GYPSUM				
MAX. 12" STEEL, 6" COPPER, 4" CONDUIT OR EMT PIPE w/ MAX. 2" GLASS FIBER INSULATION	1 OR 2-HOUR	FS-ONE	WL 5029	5/8"

SPRINKLER HEAD SCHEDULE

TAG	DESCRIPTION	CEILING	HAZARD DESIGN	DESIGN DENSITY * GPM	DESIGN DENSITY * SQ. FT.	HOSE ALLOWANCE	HEAD TYPE	TEMPERATURE RATING	FINISH	REMARKS
SP1	OFFICES/COMMON SPACE	YES	LIGHT	.10	1500	250 gpm	RECESSED	ORDINARY (155°F)	WHITE	WITH WHITE ESCUTCHEON
SP2	MECHANICAL/ELECTRICAL	NO	ORDINARY 1	.15	1500	250 gpm	UPRIGHT	ORDINARY (155°F)	BRASS	
SP3	OUTDOOR STORAGE	NO	ORDINARY 1	.15	1500	250 gpm	PENDENT	*	BRASS	DRY
SP4	ATTIC	NO	ORDINARY 1	.15	1500	250 gpm	UPRIGHT	ORDINARY (155°F)	BRASS	
SP5	GARAGE/WASH BAY	NO	ORDINARY 1	.15	1500	250 gpm	UPRIGHT	*	BRASS	
SP6	LUBE/OIL STORAGE	NO	ORDINARY 2	.20	1500	500 gpm	UPRIGHT	*	BRASS	
SP7	STAIRWELL	---	*	.15	1500	250 gpm	UPRIGHT	*	BRASS	
SP8	OVERHEAD DOORS	NO	ORDINARY 1	.15	1500	250 gpm	SIDEWALL	*	BRASS	

* SEE NFPA-13



AUTOMATIC SPRINKLER SYSTEM RISER DETAIL

NO SCALE

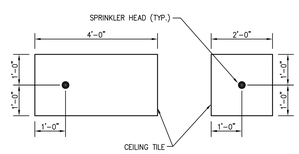
NOTES:

1. COORDINATE MOUNTING HEIGHTS WITH FIRE DEPARTMENT AUTHORITIES.
2. E.C. TO WIRE ALARM DEVICES TO FIRE ALARM SYSTEMS.
3. FIRE PROTECTION CONTRACTOR SHALL DESIGN FOR ADEQUATE WATER SUPPLY.
4. FIRE PROTECTION CONTRACTOR SHALL DESIGN SYSTEM FOR ADEQUATE WATER SUPPLY, AND SHALL VERIFY ALL PIPE SIZES IN FINAL DESIGN OF SYSTEM.

FIRE PROTECTION DESIGN NOTES:

1. AREA(S) COVERED BY HYDRAULICALLY DESIGNED WET PIPE SPRINKLER SYSTEM:
   a. ENTIRE BUILDING (NEW CONSTRUCTION)
2. REGULATORY REQUIREMENTS FOR FIRE PROTECTION SYSTEM DESIGN AND INSTALLATION:
   a. DIVISION 13 SPECIFICATIONS
   b. NFPA-13
   c. STATE BUILDING CODE
   d. LOCAL AUTHORITY HAVING JURISDICTION
   e. OWNERS INSURANCE UNDERWRITER:
3. INITIATE SYSTEM INSTALLATION ONLY AFTER SUBMITTALS HAVE BEEN APPROVED BY:
   a. ARCHITECT/ENGINEER
   b. LOCAL FIRE DEPARTMENT AUTHORITY/ FIRE MARSHAL
   c. OWNERS INSURANCE UNDERWRITER
4. COORDINATE THE LAYOUT AND INSTALLATION OF SPRINKLER PIPING AND EQUIPMENT WITH STRUCTURAL, MECHANICAL, ELECTRICAL, AND ALL OTHER TRADES PRIOR TO FABRICATION AND/OR INSTALLATION OF WORK. INCLUDE:
   a. INSPECTOR'S TEST CONNECTION
   b. SYSTEM MAIN AND AUXILIARY DRAINS
   c. COVERAGE OVER AND UNDER LARGE DUCTS/ OBSTRUCTIONS/EQUIPMENT
   d. FIRE ALARM SYSTEM
   e. ROUTING OF MAINS THRU BUILDING
   f. LOCATION OF SITE FIRE PROTECTION WATER MAINS
5. WATER SERVICE HAS NOT BEEN EXTENDED TO THE SITE YET SO NO FLOW TEST IS AVAILABLE AT THIS TIME. PERFORM HYDRANT FLOW TEST PRIOR TO SYSTEM DESIGN. ANTICIPATED SYSTEM STATIC PRESSURE TO BE AROUND 50 PSI.
6. ALL SPRINKLER SYSTEM HYDRAULIC CALCULATIONS SHALL BE DESIGNED TO MAINTAIN A 5 PSI SAFETY FACTOR, INCLUDING HOSE DEMAND.
7. IN DESIGNING THE SPRINKLER HYDRAULIC AREA, THE DIMENSION OF THE DESIGN AREA PARALLEL TO THE BRANCH LINES SHOULD BE EQUAL TO 1.4 TIMES THE SQUARE ROOT OF THE DESIGN AREA.
8. AVOID RUNNING SPRINKLER PIPING OVER ELECTRICAL PANELS.
9. WATER FLOW INFORMATION:
   DATA SOURCE:

   FLOW HYDRANT LOCATION: McCORD ROAD & KIPLING DRIVE
   STATIC PRESSURE: 75 PSI
   RESIDUAL PRESSURE: 72 PSI
   FLOW: 1126 GPM



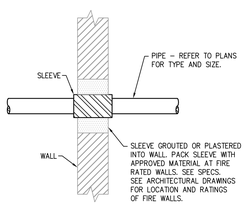
SPRINKLER HEAD PLACEMENT DETAIL

NO SCALE

FIRE PROTECTION GENERAL NOTES:

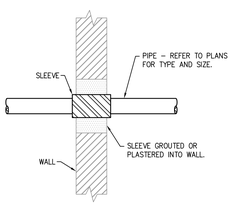
1. CONTRACTOR SHALL REVIEW ALL DESIGN DOCUMENTS FOR CONDITIONS THAT MAY AFFECT THE WORK.
2. CONTRACT SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS, ETC., FOR A COMPLETE AND OPERABLE INSTALLATION. ALL MATERIALS SHALL BE NEW, SPECIFICATION GRADE, AND U.L. LISTED PRODUCTS, UNLESS NOTED OTHERWISE.
3. COORDINATE ALL WORK AND SCHEDULES WITH OWNER, CONSTRUCTION MANAGER, OTHER CONTRACTORS AND APPROPRIATE UTILITY COMPANIES.
4. STORE MATERIALS WHERE DIRECTED. PROTECT STORED MATERIALS AND INSTALLED WORK FROM DAMAGE. REPAIR ALL DAMAGE.
5. REMOVE DIRT, DEBRIS AND UNUSED MATERIALS FROM SITE REGULARLY. AND DISPOSE OF BY PROPER AND LEGAL METHODS.
6. SCHEDULE ALL FIRE PROTECTION SYSTEM INTERRUPTIONS WITH OWNER AND OTHER CONTRACTORS 72 HOURS PRIOR TO INTERRUPTION.
7. PATCH AND FINISH CONSTRUCTION DAMAGED DURING THE COURSE OF FIRE PROTECTION SYSTEM INSTALLATION. SEALS & FIRE STOPPING AT ALL WALL AND FLOOR PENETRATIONS.
8. PERFORM TESTING AND MAKE FINAL ADJUSTMENTS TO VERIFY PROPER PERFORMANCE OF ALL SYSTEMS AND EQUIPMENT.
9. MAINTAIN "AS BUILT" RECORDS OF ALL INSTALLED ITEMS AND PROVIDE TO CONSTRUCTION MANAGER AT PROJECT COMPLETION.

NOTE: THESE NOTES ARE GENERAL IN NATURE. SPECIFIC MEANS, METHODS AND MATERIALS ARE DETAILED IN THE SPECIFICATIONS AND CONTRACTOR IS DIRECTED TO THOROUGHLY REVIEW THE FULL SPECIFICATION. CONTRACT SPECIFICATIONS SHALL GOVERN IN CASE OF CONFLICT.



PIPE THRU FIRE WALL DETAIL

NO SCALE



PIPE THRU WALL DETAIL

NO SCALE

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the COLLABORATIVE inc

ARCHITECTS
LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS

STATE OF OHIO
LARRY SCHARF
E-69956
REGISTERED
PROFESSIONAL ENGINEER

C-013 Dated 12/3/2012

PROJECT TITLE

Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 2
11.05.2012	PERMITS
10.25.2012	BIDDING

BID PACKAGE:
GENERAL TRADES & MEP PACKAGES

CHECKED MJK
APPROVED RJY

TCI JOB NO. 106049

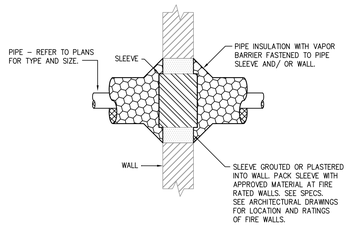
SHEET TITLE

Fire Protection Schedules, Legend & Details

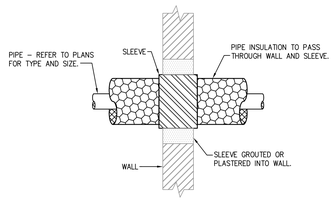
SHEET NO.

FP0.01

mda engineering, inc.
Mechanical and Electrical Engineers
1415 Holland Road
Maumee, Ohio 43537
Phone: (419) 893-3141
Fax: (419) 893-0687
mda # 12097



INSULATED PIPE THRU FIRE WALL DETAIL
NO SCALE



INSULATED PIPE THRU WALL DETAIL
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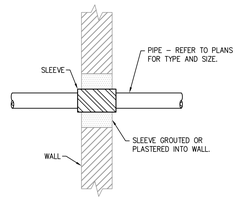
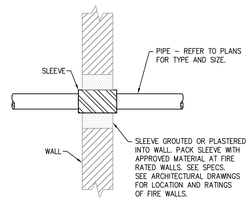
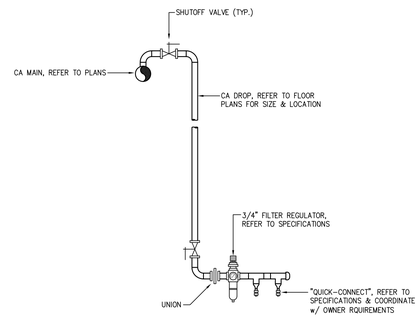


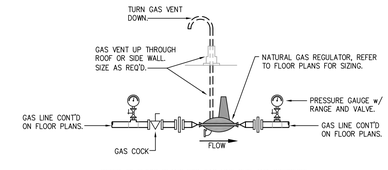
PIPE THRU WALL DETAIL
NO SCALE



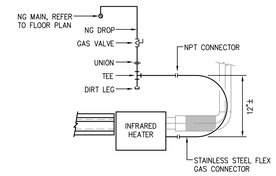
PIPE THRU FIRE WALL DETAIL
NO SCALE



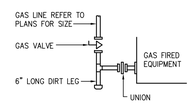
TYPICAL COMPRESSED AIR DROP DETAIL
NO SCALE



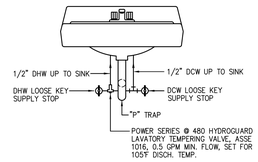
TYPICAL GAS REGULATOR DETAIL
NO SCALE



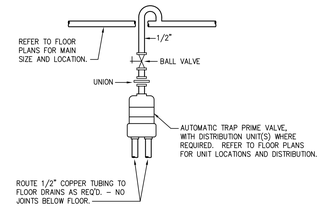
INFRARED HEATER NATURAL GAS CONNECTION DETAIL
NO SCALE



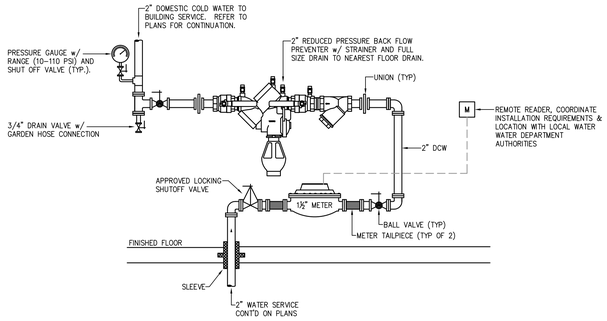
TYPICAL GAS CONNECTION DETAIL
NO SCALE
NOTE: REFER TO FLOOR PLANS FOR GAS LINE SIZE



LAVATORY/HAND SINK TEMPERING VALVE DETAIL
NO SCALE

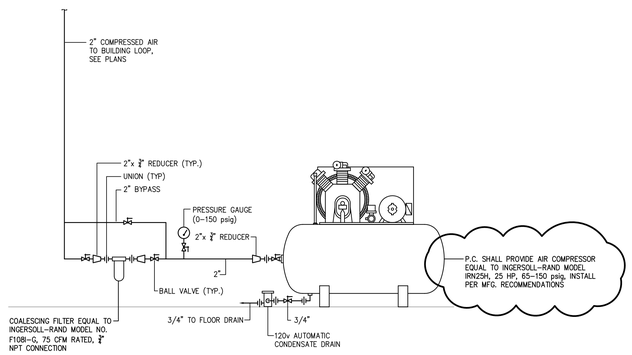


AUTOMATIC TRAP PRIMER DETAIL
NO SCALE
NOTE: TRAP PRIMERS SHALL BE LOCATED IN CEILINGS AND UNFINISHED AREAS ONLY.

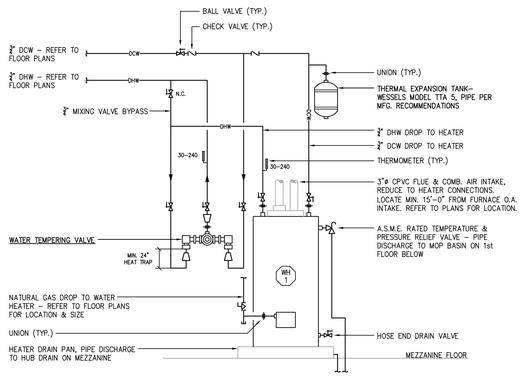


DOMESTIC WATER SERVICE AND METER DETAIL
NO SCALE

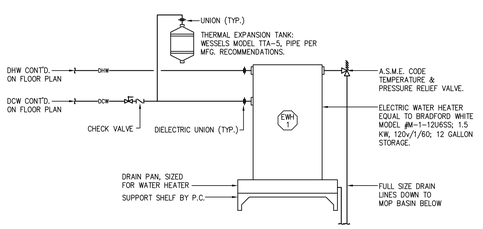
NOTES:
1. SUPPORT METER AND BACKFLOW PREVENTOR FROM WALL OR FLOOR AS REQUIRED.
2. BACKFLOW PREVENTOR SHALL NOT BE MOUNTED ABOVE 60" FROM FINISHED FLOOR.
3. EXACT DIMENSIONS OF METER SETTING TO BE DETERMINED DURING FIELD FABRICATION.
4. METER SETTING AND BACKFLOW PREVENTION SHALL COMPLY WITH ALL CITY OF TOLEDO STANDARDS.



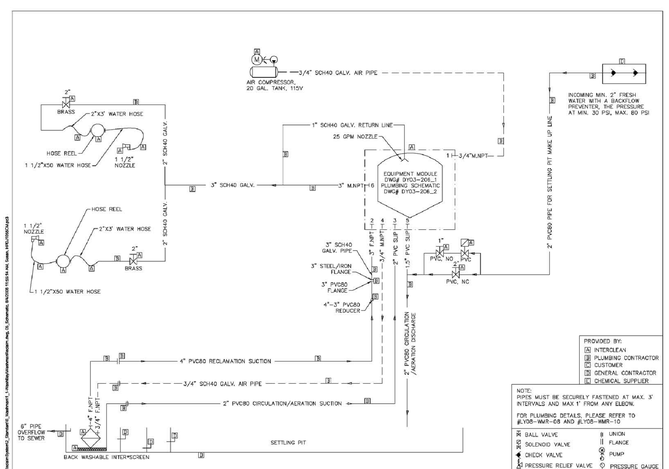
AIR COMPRESSOR PIPING DIAGRAM
NO SCALE

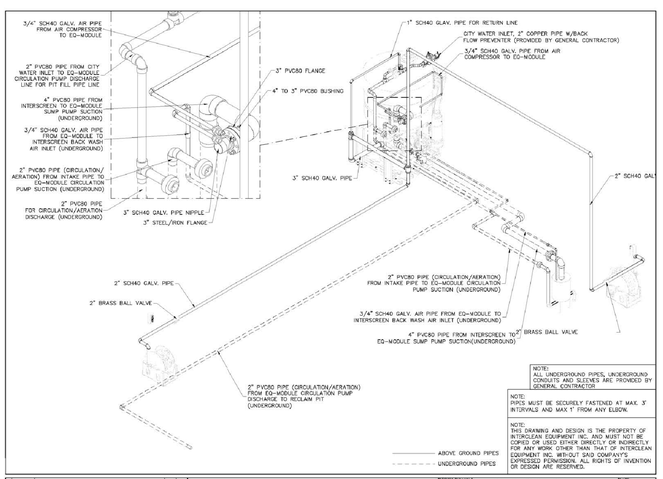


GAS FIRED WATER HEATER DETAIL
NO SCALE



ELECTRIC WATER HEATER DETAIL
NO SCALE





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LARRY SCHARF
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C-013 Dated 12/3/2012

PROJECT TITLE

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11.30.2012	ADDENDUM 2
11.20.2012	ADDENDUM 1
10.25.2012	BIDDING

BID PACKAGE:
GENERAL TRADES & MEP PACKAGES

CHECKED MJK
APPROVED RJY

TCI JOB NO. 106049

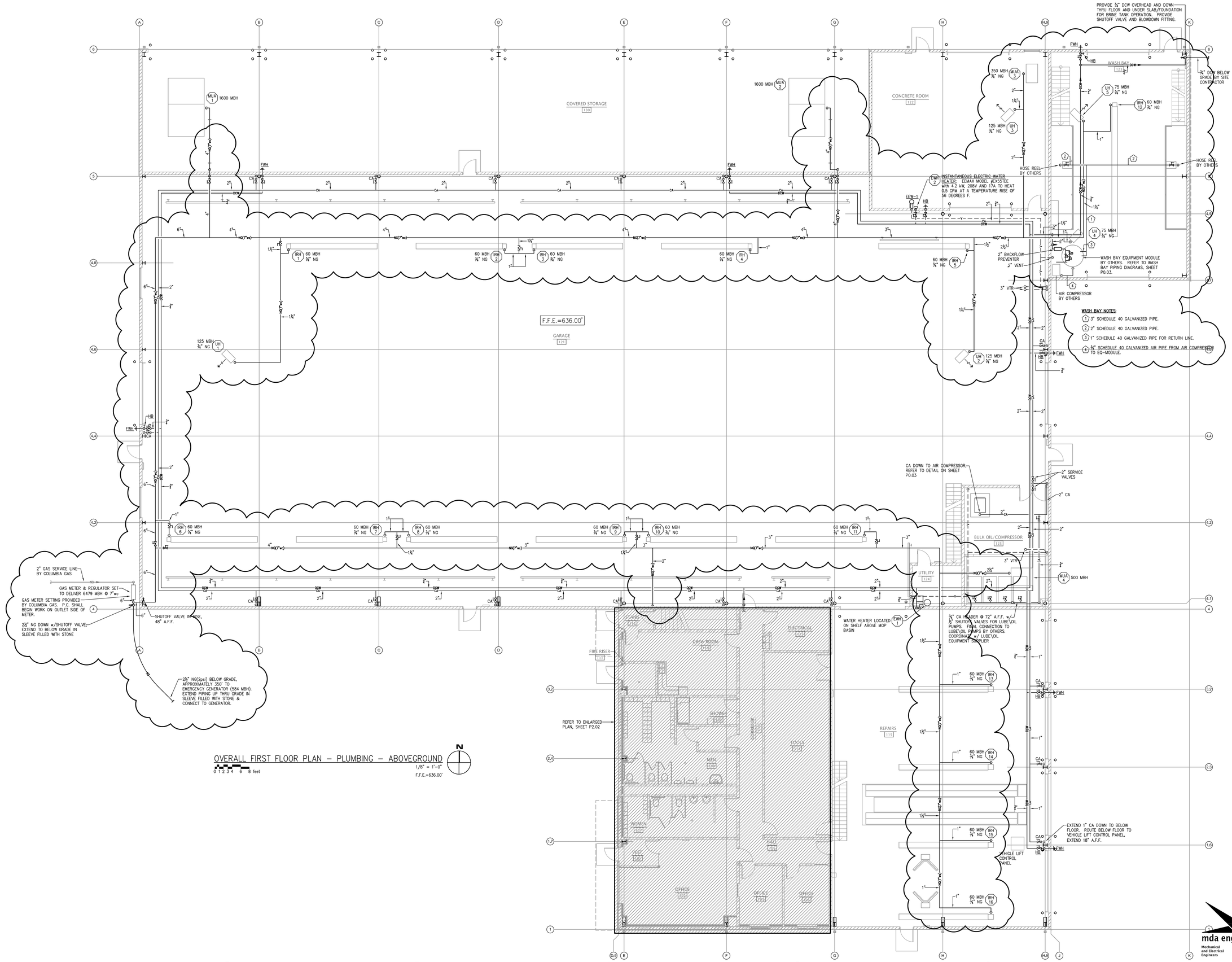
SHEET TITLE

Plumbing Details

SHEET NO.

P0.03

mda engineering, inc.
Mechanical and Electrical Engineers
1415 Holland Road
Maumee, Ohio 43537
Phone: (419) 893-3141
Fax: (419) 893-0687
mda #12097



OVERALL FIRST FLOOR PLAN – PLUMBING – ABOVEGROUND

1/8" = 1'-0"

F.F.E.=636.00'

0 1 2 3 4 6 8 feet

N

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C-013 Dated 12/3/2012

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BID PACKAGE:

GENERAL TRADES & MEP PACKAGES

CHECKED MJK

APPROVED RJY

TCI JOB NO. 106049

SHEET TITLE

Overall First Floor Plan Plumbing Aboveground

SHEET NO.

P1.02

mda engineering, inc.
Mechanical and Electrical Engineers
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Maumee, Ohio 43537
Phone: (419) 893-3141
Fax: (419) 893-0687
mda # 12097

PLAN SYMBOL LEGEND

SYMBOL	DESCRIPTION
	INDICATES CONDUIT ABOVE GRADE, SURFACE MOUNTED OR CONCEALED INSIDE THE BUILDING SURFACE. EXPOSED CONDUIT ON THE BUILDING EXTERIOR WILL NOT BE ACCEPTED.
	INDICATES CONDUIT BELOW GRADE OR UNDER FLOOR.
	RACEWAY/CABLE TURNED UP, RACEWAY/CABLE TURNED DOWN.
	INDICATES CONDUCTOR IN CONDUIT, QUANTITY AS SHOWN.
	INDICATES PHASE, NEUTRAL AND GROUND CONDUCTORS IN CONDUIT.
	INDICATES (2) PHASE, NEUTRAL AND GROUND CONDUCTORS IN CONDUIT.
	INDICATES (3) PHASE, NEUTRAL AND GROUND CONDUCTORS IN CONDUIT.
	HOME RUN TO SOURCE PANELBOARD OR CONTROL PANEL.
J	JUNCTION BLOCK BLANK COVER.
CP	EQUIPMENT CONTROL PANEL. WIRING TO LINE TERMINALS BY E.C.
MSP	PACKAGED MOTOR STARTER PANEL FURNISHED WITH EQUIPMENT. WIRING TO LINE TERMINALS BY E.C.
MSP	PACKAGED MOTOR STARTER PANEL FURNISHED WITH EQUIPMENT, BUILT-IN SAFETY DISCONNECT. WIRING TO LINE TERMINALS BY E.C.
	MOTOR, HORSEPOWER AND VOLTAGE AS SCHEDULED.
	MANUAL MOTOR SAFETY DISCONNECT SWITCH, HORSEPOWER RATED.
	MANUAL MOTOR STARTER SWITCH, HORSEPOWER RATED WITH OVERLOADS, PILOT LIGHTED, ENGRAVED NAMEPLATE, FLUSH MOUNTED FINISHED SPACE, SURFACE MOUNTED UNFINISHED SPACE; 48" A.F.F. U.N.O.
SZ	INDOOR FUSIBLE SAFETY DISCONNECT SWITCH WITH SIZE AS INDICATED, NEMA 1 ENCLOSURE, NON-FUSED UNLESS NOTED OTHERWISE. FUSED UNITS WILL SHOW FUSE SIZE AS INDICATED WITH REJECTION STYLE FUSE CLIPS
SZ	OUTDOOR FUSIBLE SAFETY DISCONNECT SWITCH WITH SIZE AS INDICATED, NEMA 3R ENCLOSURE, NON-FUSED UNLESS NOTED OTHERWISE. FUSED UNITS WILL SHOW FUSE SIZE AS INDICATED WITH REJECTION STYLE FUSE CLIPS
	COMBINATION MAGNETIC MOTOR STARTER, FVNR, NEMA 1 ENCLOSURE, FUSIBLE, HORSEPOWER RATED, NEMA SIZE AS NOTED, FUSED CONTROL TRANSFORMER, H-O-A MAINTAINED SELECTOR SWITCH, P.T.T. PILOT LIGHT.
	REMOTE OPERATOR STATION, FURNISHED AND INSTALLED BY OTHERS.
RP	RECEPTACLE OR COMBINATION LIGHTING CIRCUIT BREAKER PANELBOARD; 120/208V-3ø-4W; SEE PANELBOARD SCHEDULE.
RP	EMERGENCY RECEPTACLE OR COMBINATION LIGHTING CIRCUIT BREAKER PANELBOARD; 120/208V-3ø-4W; SEE PANELBOARD SCHEDULE
MDP	MAIN DISTRIBUTION PANEL, CIRCUIT BREAKER TYPE; 120/208V-3ø-4W; SEE ONE LINE DIAGRAM.
ATS	AUTOMATIC TRANSFER SWITCH. SEE SPECIFICATIONS/ONE LINE DIAGRAM.
	3/4" DIA. X 10'-0" LONG COPPER CLAD GROUND ROD WITH EXOTHERMIC CABLE CONNECTIONS.
	#3/0 BARE SEVEN-STRAND COPPER GROUND WIRE 2'-6" BELOW GRADE U.N.O.
	CABLE TO BUILDING STEEL EXOTHERMIC CONNECTION
	TELECOMMUNICATIONS GROUND BUS, COPPER BUS, 1/4"x4"x12" MINIMUM, MOUNT ON INSULATED STANDOFFS.
OH	OVERHEAD DOOR OPERATOR, 1HP-208V-3ø, F.B.D.E.S.
	REMOTE DOOR OPERATOR STATION, NUMBER OF OPERATORS AS SHOWN AND SPECIFIED, F.B.D.E.S.
D.B.B.	DOOR BAR BOTTOM LIMIT SWITCH, F.B.D.E.S.
P	ADA DOOR OPERATOR PUSHPAD, M.H. 36" A.F.F., FURNISHED AND INSTALLED BY G.C., POWER, CONTROL WIRING AND RACEWAY BY E.C.
DR	ADA DOOR OPERATOR, 120V, FURNISHED AND INSTALLED BY G.C., POWER, CONTROL WIRING AND RACEWAY BY E.C.
X X	EQUIPMENT SCHEDULE ITEM, SEE SCHEDULE.
X	FEEDER SCHEDULE ITEM, SEE SCHEDULE.
X	PLAN NOTE ITEM.
X	RISER NOTE ITEM.

WIRING DEVICE SYMBOL LEGEND

SYMBOL	DESCRIPTION
$	SINGLE POLE WALL SWITCH, 20A-120/277V, FLUSH MOUNTED; M.H. 48" A.F.F. U.N.O.
$3	3-WAY WALL SWITCH, 20A-120/277V, FLUSH MOUNTED; M.H. 48" A.F.F. U.N.O.
$4	4-WAY WALL SWITCH, 20A-120/277V, FLUSH MOUNTED; M.H. 48" A.F.F. U.N.O.
S	LOW VOLTAGE LIGHTING CONTROL WALL SWITCH, 4-BUTTON, FLUSH MOUNTED; M.H. 48" A.F.F. U.N.O.; SENSOR SWITCH #SPOD 2P OR EQUAL.
S	LOW VOLTAGE LIGHTING CONTROL WALL SWITCH, 2-BUTTON, FLUSH MOUNTED; M.H. 48" A.F.F. U.N.O.; SENSOR SWITCH #SPOD 3X OR EQUAL.
O	WALL PLATE OCCUPANCY SENSOR, INFRA-RED TECHNOLOGY, 800W-120V, FLUSH MOUNTED; M.H. 48" A.F.F. U.N.O., TIME DELAY OFF SET AT 10 MINUTES; SENSOR SWITCH #WSD OR EQUAL.
O2	WALL PLATE OCCUPANCY SENSOR, INFRA-RED TECHNOLOGY, 2-POLE, 800W-120V, FLUSH MOUNTED; M.H. 48" A.F.F. U.N.O., TIME DELAY OFF SET AT 10 MINUTES; SENSOR SWITCH #WSD 2P OR EQUAL.
CO	CEILING MOUNTED OCCUPANCY SENSOR, DUAL TECHNOLOGY, 800W-120V, STANDARD RANGE/EXTENDED RANGE AS REQUIRED, TIME DELAY OFF SET AT 10 MINUTES. SENSOR SHALL BE COVERAGE TYPE APPROPRIATE FOR THE APPLICATION/MOUNTING HEIGHTS. INCREASE QUANTITY AS REQUIRED TO INSURE PROPER COVERAGE. SUBMIT MANUFACTURER DESIGN DRAWINGS FOR REVIEW; SENSOR SWITCH #CMR PDT 9 (STANDARD) #CMR PDT 10 (EXTENDED) OR EQUAL.
CO1	CEILING MOUNTED OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY, STANDARD RANGE, TIME DELAY OFF SET AT 10 MINUTES. SENSOR SHALL BE COVERAGE TYPE APPROPRIATE FOR THE APPLICATION/MOUNTING HEIGHTS. INCREASE QUANTITY AS REQUIRED TO INSURE PROPER COVERAGE. SUBMIT MANUFACTURER DESIGN DRAWINGS FOR REVIEW; SENSOR SWITCH #CM PDT 9 OR EQUAL.
CO2	CEILING MOUNTED OCCUPANCY SENSOR, LOW VOLTAGE, INFRA-RED TECHNOLOGY, HIGH BAY TYPE, TIME DELAY OFF SET AT 10 MINUTES. SENSOR SHALL BE COVERAGE TYPE APPROPRIATE FOR THE APPLICATION/MOUNTING HEIGHTS. INCREASE QUANTITY AS REQUIRED TO INSURE PROPER COVERAGE. SUBMIT MANUFACTURER DESIGN DRAWINGS FOR REVIEW; SENSOR SWITCH #CM 6 OR EQUAL.
PP	LOW VOLTAGE LIGHTING CONTROL POWER PACK, BUILT-IN LOW VOLTAGE TRANSFORMER AND LINE VOLTAGE RELAY; SENSOR SWITCH #PP20 OR EQUAL.
SP	LOW VOLTAGE LIGHTING CONTROL SLAVE PACK, BUILT-IN LINE VOLTAGE RELAY; SENSOR SWITCH #SP20 OR EQUAL.
GTD	GENERATOR TRANSFER DEVICE TO PERMIT SWITCHING OF EGRESS LIGHTING FIXTURES WITH NORMAL LIGHTING FIXTURES; BODINE #GTD20A OR EQUAL FOR SWITCHING OF MULTIPLE LIGHT FIXTURES WITHIN THE SAME ROOM; BODINE #GTD OR EQUAL FOR SINGLE LIGHT FIXTURE SWITCHING.
PC	DUSK ON/DAWN OFF SPST PHOTOELECTRIC CELL, 120V, MOUNT AT ROOF LINE FACING NORTH AND WIRE TO LIGHTING CONTACTOR. TORK #EPC1 OR ENGINEER APPROVED EQUAL.
LCP	LIGHTING CONTROL PANEL, SEE WIRING DIAGRAM SHEET E2.02, REFER TO SPECIFICATIONS FOR DETAILS.
	DUPLEX OR DOUBLE DUPLEX RECEPTACLE, GROUNDING TYPE, NEMA 5-20R, 20A-120V, FLUSH MOUNTED; M.H. 18" A.F.F. U.N.O.
	GROUND FAULT INTERRUPTER OR GFI PROTECTED DUPLEX OR DOUBLE DUPLEX RECEPTACLE, GROUNDING TYPE, NEMA 5-20R, 20A-120V, FLUSH MOUNTED; M.H. 18" A.F.F. U.N.O.
	DUPLEX OR DOUBLE DUPLEX RECEPTACLE, WIRED TO NORMAL/EMERGENCY (N/E) SUPPLY; RED RECEPTACLE, NEMA 5-20R, 20A-120V, FLUSH MOUNTED, M.H. 18" A.F.F. U.N.O. (GFI DENOTES GROUND FAULT INTERRUPTER OR GFI PROTECTED RECEPTACLE)
E	ELECTRIC WATER COOLER RECEPTACLE, GROUND FAULT INTERRUPTER OR GFI PROTECTED, GROUNDING TYPE, NEMA 5-20R, 20A-125V; 18" A.F.F.; FLUSH MOUNTED FINISHED SPACE, SURFACE MOUNTED UNFINISHED SPACE.
	WEATHERPROOF GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE, LISTED WEATHER RESISTANT TYPE, GROUNDING TYPE, NEMA 5-20R, 20A-120V, FLUSH MOUNTED; M.H. 18" A.F.F. U.N.O., CAST "WHILE IN USE" COVER.
WP	WELDING RECEPTACLE, FLANGE MOUNTED TO FUSED SAFETY SWITCH, 60 AMP, 3-WIRE, 4-POLE-208V-GROUNDED, FUSED AT 50 AMPS. PROVIDE 6'-0" CORD AND MATCHING PLUG TO OWNER. VERIFY RECEPTACLE AND PLUG TYPE WITH OWNER.
FB1	SMALL FULLY RECESSED FLOOR BOX, MULTI SERVICE, 1-20A DUPLEX RECEPTACLE, BRUSHED ALUMINUM COVER ASSEMBLY WITH CUTOUT FOR CARPET INSERTS, PROVIDE COMMUNICATIONS BRACKET AND 1-RJ45 CAT 5e BLUE MODULAR JACK; WIREMOLD RFB4 SERIES OR EQUAL.
	VOICE/DATA OUTLET, 2 1/2" DEEP, 4"SQUARE BOX WITH 1-GANG PLASTER RING. STUB 1"C ABOVE LAY-IN CEILING OR INTO BUILDING STEEL JOIST SPACE WITH 90° ELBOW AND INSULATED BUSHING, FLUSH MOUNTED, M.H. 18" A.F.F. U.N.O. INSTALL BLANK COVER PLATES ON ALL UNUSED OPENINGS TO MATCH WIRING DEVICE COVER PLATES.
(W)	TELEPHONE OUTLET, 1-GANG BOX, STUB 1"C ABOVE LAY-IN CEILING OR INTO BUILDING BUILDING STEEL JOIST WITH 90° ELBOW AND INSULATED BUSHING, FLUSH MOUNTED, M.H. 18" A.F.F. U.N.O. INSTALL BLANK COVER PLATES ON ALL UNUSED OPENINGS TO MATCH WIRING DEVICE COVER PLATES. (W=WALL MOUNT PHONE OUTLET, M.H. 54" A.F.F. U.N.O., P=PAYPHONE OUTLET, M.H. 48" A.F.F. U.N.O.)
DD	DUCT TYPE SMOKE DETECTOR WITH SAMPLING TUBE AND AUXILIARY CONTACTS WIRED FOR UNIT SHUTDOWN AND WIRED TO SSAP.
F	ALARM PULLSTATION, ADDRESSABLE, SINGLE ACTION; M.H. 48" A.F.F. U.N.O.
CO AI	ALARM COMBINATION VISUAL SIGNAL AND AUDIBLE SIGNAL; M.H. 80" A.F.F. U.N.O.
TS	FIRE PROTECTION SPRINKLER RISER TAMPER SWITCH, F.B.F.P., 2#14-1/2"C (SEALTITE) TO AM.
AM	SUPERVISORY ADDRESSABLE MODULE, MOUNT IN JUNCTION BOX.
FS	FIRE PROTECTION SPRINKLER RISER WATER FLOW SWITCH, F.B.F.P., 2#14-1/2"C (SEALTITE) TO AM.
B	ELECTRIC FIRE ALARM BELL, F.B.F.P., INSTALLED BY E.C.
SD	SMOKE DETECTOR, ADDRESSABLE, CEILING MOUNTED, PHOTOELECTRIC TYPE.
SSAP	SMOKE/SPRINKLER ALARM PANEL, SURFACE MOUNTED.
SEC	SECURITY SYSTEM CONTROL PANEL, FURNISHED AND INSTALLED BY OTHERS.
CR	ACCESS CONTROL CARD READER; SINGLE GANG BOX WITH BLANK COVER, M.H. 48" A.F.F., FLUSH MOUNTED. STUB 3/4"C TO ABOVE ACCESSIBLE CEILING OR INTO STEEL JOIST SPACE WITH 90° ELBOW AND INSULATED BUSHING.

LIGHTING FIXTURE SCHEDULE

SYMBOL	LAMP DATA	BALLAST DATA	DESCRIPTION: HOUSING	REFLECTOR ASSEMBLY	LENS/REFRACTOR	USE LOCATION	MOUNTING	LINE VOLT.	MANUFACTURER: BASE SPECIFICATION	APPROVED EQUAL	NOTES
	1-13W DTT 3500K –	(1) 1-LAMP ELECTRONIC –	STEEL HOUSING 6" DIAMETER –	ALUMINUM –	DROP OPAL ACRYLIC –	SHOWER DOWNLIGHT –	RECESSED –	120	LITHONIA #LTX13D-120-GMF-7LD1 –	OMEGA PRESCOLITE –	–
B	WHITE LED 4100K –	INTERNAL DRIVER –	POLYCARBONATE/STEEL WHITE FINISH –	SYMMETRIC OPTICAL CONTROL FILM –	CLEAR POLYCARBONATE SEALED AND GASKETED –	EXTERIOR INDUSTRIAL WET LOCATION –	SURFACE MOUNT TO UNDERSIDE OF BEAM –	120	LITHONIA #VAP-39LED-STM-MVOLT-WLFEND2 –	DAYBRITE COLUMBIA –	–
BX	WHITE LED 4100K –	INTERNAL DRIVER –	POLYCARBONATE/STEEL WHITE FINISH –	SYMMETRIC OPTICAL CONTROL FILM –	CLEAR POLYCARBONATE SEALED AND GASKETED –	EXTERIOR INDUSTRIAL WET LOCATION –	SURFACE MOUNT TO UNDERSIDE OF BEAM –	120	LITHONIA #VAP-39LED-STM-MVOLT-WLFEND2 –	DAYBRITE COLUMBIA –	2
	WHITE LED 4000K –	INTERNAL DRIVER 530mA –	DIE-CAST ALUMINUM DARK BRONZE FINISH –	WIDE FLOOD DISTRIBUTION – –	TEMPERED GLASS SEALED AND GASKETED –	FLOOD LIGHT WET LOCATION –	SURFACE MOUNT TO BEAM ABOVE DOORWAY –	120	LITHONIA #DSXF2 LED-4-A530/40K-WFL-MVOLT-SF-DDBXD-CR –	GARDCO KIM –	6
D	WHITE LED 4000K –	INTERNAL DRIVER 700mA –	DIE-CAST ALUMINUM DARK BRONZE FINISH –	TYPE III DISTRIBUTION – –	TEMPERED GLASS SEALED AND GASKETED –	WALL PACK WET LOCATION –	WALL MOUNT 16'-0" A.F.F. TO BOTTOM –	120	LITHONIA #WST LED-2-10A700/40K-SR3-MVOLT-SF-DDBXD –	GARDCO KIM –	–
DX	WHITE LED 4000K –	INTERNAL DRIVER 700mA –	DIE-CAST ALUMINUM DARK BRONZE FINISH –	TYPE III DISTRIBUTION – –	TEMPERED GLASS SEALED AND GASKETED –	WALL PACK WET LOCATION –	WALL MOUNT 16'-0" A.F.F. TO BOTTOM –	120	LITHONIA #WST LED-2-10A700/40K-SR3-MVOLT-SF-DDBXD –	GARDCO KIM –	2
	RED LED – –	N/A – –	POLYCARBONATE WHITE FINISH –	SINGLE FACE – –	RED STENCIL LETTERS ARROWS AS SHOWN –	EMERGENCY EXIT – –	WALL/CEILING WITH MATCHING CANOPY –	120	LITHONIA #LQM-S-W-3-R-120/277 –	MCPHILBEN DUAL-LITE –	1
F1	2-32W T8 3500K –	(1) 2-LAMP ELECTRONIC STEP DIMMING –	STEEL HOUSING WHITE FINISH –	98% REFLECTIVE ALANOD MIRO SILVER –	LINEAR FACETED ACRYLIC –	GRID TROFFER – –	LAY-IN – –	120	LITHONIA #2RT8S-2-32-MVOLT-BSNP-LP735 –	DAYBRITE COLUMBIA –	–
F1X	2-32W T8 3500K –	(1) 2-LAMP ELECTRONIC STEP DIMMING –	STEEL HOUSING WHITE FINISH –	98% REFLECTIVE ALANOD MIRO SILVER –	LINEAR FACETED ACRYLIC –	GRID TROFFER – –	LAY-IN – –	120	LITHONIA #2RT8S-2-32-MVOLT-BSNP-LP735 –	DAYBRITE COLUMBIA –	2
F2	2-32W T8 3500K –	(1) 2-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	98% REFLECTIVE ALANOD MIRO SILVER –	LINEAR FACETED ACRYLIC –	GRID TROFFER – –	LAY-IN – –	120	LITHONIA #2RT8S-2-32-MVOLT-GEB10PS-LP735 –	DAYBRITE COLUMBIA –	–
F2X	2-32W T8 3500K –	(2) 1-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	98% REFLECTIVE ALANOD MIRO SILVER –	LINEAR FACETED ACRYLIC –	GRID TROFFER – –	LAY-IN – –	120	LITHONIA #2RT8S-2-32-MVOLT-GEB10PS-LP735 –	DAYBRITE COLUMBIA –	3
F3	2-32W T8 3500K –	(1) 2-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	WHITE PAINTED – –	0.125" THICK ACRYLIC PRISMATIC –	GRID TROFFER – –	LAY-IN – –	120	LITHONIA #2GTB-2-32-A12125-MVOLT-GEB10PS –	DAYBRITE COLUMBIA –	–
F3X	2-32W T8 3500K –	(2) 1-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	WHITE PAINTED – –	0.125" THICK ACRYLIC PRISMATIC –	GRID TROFFER – –	LAY-IN – –	120	LITHONIA #2GTB-2-32-A12125-MVOLT-GEB10PS –	DAYBRITE COLUMBIA –	3
F4	2-32W T8 3500K –	(1) 2-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	WHITE PAINTED – –	WIRE GUARD – –	INDUSTRIAL – –	SURFACE/CHAIN HUNG 10'-0" A.F.F. –	120	LITHONIA #LUSA-2-32-MVOLT-GEB10PS –	DAYBRITE COLUMBIA –	–
F4X	2-32W T8 3500K –	(1) 2-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	WHITE PAINTED – –	WIRE GUARD – –	INDUSTRIAL – –	SURFACE/CHAIN HUNG 10'-0" A.F.F. –	120	LITHONIA #LUSA-2-32-MVOLT-GEB10PS –	DAYBRITE COLUMBIA –	2
F5	4-32W T8 3500K –	(2) 2-LAMP ELECTRONIC PROGRAM START –	FIBERGLASS/POLYESTER WHITE FINISH –	WHITE PAINTED – –	CLEAR ACRYLIC SEALED AND GASKETED –	WASHBAY WET LOCATION –	PENDANT MOUNT 17'-0" A.F.F. –	120	LITHONIA #TDMW-2-32-MVOLT-GEB10PS-WLF –	DAYBRITE COLUMBIA –	–
F5X	4-32W T8 3500K –	(2) 2-LAMP ELECTRONIC PROGRAM START –	FIBERGLASS/POLYESTER WHITE FINISH –	WHITE PAINTED – –	CLEAR ACRYLIC SEALED AND GASKETED –	WASHBAY WET LOCATION –	PENDANT MOUNT 17'-0" A.F.F. –	120	LITHONIA #TDMW-2-32-MVOLT-GEB10PS-WLF –	DAYBRITE COLUMBIA –	4
F6	2-32W T8 3500K –	(1) 2-LAMP ELECTRONIC PROGRAM START –	FIBERGLASS/POLYESTER WHITE FINISH –	WHITE PAINTED – –	CLEAR ACRYLIC SEALED AND GASKETED –	WASHBAY WET LOCATION –	SURFACE MOUNT BELOW WALKWAY –	120	LITHONIA #DMW-2-32-MVOLT-GEB10PS-WLF –	DAYBRITE COLUMBIA –	–
F7	4-32W T8 3500K –	(2) 2-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	WHITE PAINTED WIDE DISTRIBUTION –	WIRE GUARD – –	HIGH BAY – –	CHAIN HUNG 20'-0" A.F.F. (REPAIRS) 16'-0" A.F.F. (CONCRETE) –	120	LITHONIA #IBZ-432-WD-GEB10PS-WGX –	DAYBRITE COLUMBIA –	–
F7X	4-32W T8 3500K –	(2) 2-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	WHITE PAINTED WIDE DISTRIBUTION –	WIRE GUARD – –	HIGH BAY – –	CHAIN HUNG 20'-0" A.F.F. (REPAIRS) 16'-0" A.F.F. (CONCRETE) –	120	LITHONIA #IBZ-432-WD-GEB10PS-WGX –	DAYBRITE COLUMBIA –	4
F8	6-32W T8 3500K –	(2) 3-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	WHITE PAINTED WIDE DISTRIBUTION –	WIRE GUARD – –	HIGH BAY – –	CHAIN HUNG 20'-0" A.F.F. –	120	LITHONIA #IBZ-632-WD-GEB10PS-WGX –	DAYBRITE COLUMBIA –	–
F8X	6-32W T8 3500K –	(2) 3-LAMP ELECTRONIC PROGRAM START –	STEEL HOUSING WHITE FINISH –	WHITE PAINTED WIDE DISTRIBUTION –	WIRE GUARD – –	HIGH BAY – –	CHAIN HUNG 20'-0" A.F.F. –	120	LITHONIA #IBZ-632-WD-GEB10PS-WGX –	DAYBRITE COLUMBIA –	5
G	WHITE LED 4100K –	INTERNAL DRIVER – –	DIE-CAST ALUMINUM WHITE FINISH –	WHITE PAINTED – –	WHITE POLYCARBONATE SEALED AND GASKETED –	CANOPY LIGHT WET LOCATION –	SURFACE MOUNT – –	120	LITHONIA #VGR1C-50LED-41-MVOLT-DWHG –	GARDCO BEGA –	–
GX	WHITE LED 4100K –	INTERNAL DRIVER – –	DIE-CAST ALUMINUM WHITE FINISH –	WHITE PAINTED – –	WHITE POLYCARBONATE SEALED AND GASKETED –	CANOPY LIGHT WET LOCATION –	SURFACE MOUNT – –	120	LITHONIA #VGR1C-50LED-41-MVOLT-DWHG –	GARDCO BEGA –	2
H	WHITE LED 4000K –	INTERNAL DRIVER 700mA –	DIE-FORMED ALUMINUM WHITE FINISH –	WIDE DISTRIBUTION – –	SEMI-DIFFUSE ACRYLIC – –	HIGH BAY – –	CHAIN HUNG 20'-0" A.F.F. –	120	LITHONIA #IBL-12L-WD-SD125-LP740 DLC –	DAYBRITE COLUMBIA –	–
HX	WHITE LED 4000K –	INTERNAL DRIVER 700mA –	DIE-FORMED ALUMINUM WHITE FINISH –	WIDE DISTRIBUTION – –	SEMI-DIFFUSE ACRYLIC – –	HIGH BAY – –	CHAIN HUNG 20'-0" A.F.F. –	120	LITHONIA #IBL-12L-WD-SD125-LP740 DLC –	DAYBRITE COLUMBIA –	2
S1	WHITE LED 4000K –	INTERNAL DRIVER 530mA –	DIE-CAST ALUMINUM DARK BRONZE FINISH –	TYPE III DISTRIBUTION – –	TEMPERED GLASS SEALED AND GASKETED –	AREA LIGHT WET LOCATION –	POLE MOUNTED, SEE POLE BASE DETAIL, SHEET E1.01	208	LITHONIA #DSX1 LED-2-30B530-SR3-MVOLT-SPA-DDBXD –	BETA LED GARDCO SPAULDING –	–
S2	WHITE LED 4000K –	INTERNAL DRIVER 530mA –	DIE-CAST ALUMINUM DARK BRONZE FINISH –	TYPE IV DISTRIBUTION – –	TEMPERED GLASS SEALED AND GASKETED –	AREA LIGHT WET LOCATION –	POLE MOUNTED, SEE POLE BASE DETAIL, SHEET E1.01	208	LITHONIA (2) #DSX1 LED-2-30B530-SR4-MVOLT-SPA-DDBXD –	BETA LED GARDCO SPAULDING –	–
S3	WHITE LED 4000K –	INTERNAL DRIVER 530mA –	DIE-CAST ALUMINUM DARK BRONZE FINISH –	TYPE IV DISTRIBUTION – –	TEMPERED GLASS SEALED AND GASKETED –	AREA LIGHT WET LOCATION –	POLE MOUNTED, SEE POLE BASE DETAIL, SHEET E1.01	208	LITHONIA #DSX1 LED-2-30B530-SR4-MVOLT-SPA-DDBXD –	BETA LED GARDCO SPAULDING –	–
	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–	– – –	– – –	–
	– – –	– – –	– – –	– – –	– – –	– – –	– – –	–	– – –	– – –	–

LIGHTING FIXTURE SCHEDULE NOTES - GENERAL

A. SPECIFICATION NUMBERS ARE MANUFACTURERS SERIES NUMBERS ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/EQUIPMENT SUPPLIER TO COMPLETE CATALOG NUMBERS TO MATCH THE FIXTURE DESCRIPTION, COMPLIANCE WITH SPECIFICATIONS AND INSTALLATION REQUIREMENTS.

B. ALL FLUORESCENT LIGHTING FIXTURES SHALL BE PROVIDED WITH INTERNAL BALLAST DISCONNECT.

LIGHTING FIXTURE SCHEDULE NOTES - SPECIFIC

1. WIRE ENTIRE FIXTURE TO NORMAL/EMERGENCY (N/E) BRANCH CIRCUIT FOR CONTINUOUS NIGHT LIGHT AND EMERGENCY OPERATION.
2. WIRE ENTIRE FIXTURE TO NORMAL/EMERGENCY (N/E) BRANCH CIRCUIT FOR NORMAL SWITCHED OPERATION AND EMERGENCY OPERATION UPON LOSS OF POWER.
3. WIRE 1-LAMP TO NORMAL/EMERGENCY (N/E) BRANCH CIRCUIT FOR NORMAL SWITCHED OPERATION AND EMERGENCY OPERATION UPON LOSS OF POWER.
4. WIRE 2-LAMPS TO NORMAL/EMERGENCY (N/E) BRANCH CIRCUIT FOR NORMAL SWITCHED OPERATION AND EMERGENCY OPERATION UPON LOSS OF POWER.
5. WIRE 3-LAMPS TO NORMAL/EMERGENCY (N/E) BRANCH CIRCUIT FOR NORMAL SWITCHED OPERATION AND EMERGENCY OPERATION UPON LOSS OF POWER.
6. FIXTURE MANUFACTURER TO PROVIDE ENHANCED CORROSION RESISTANT COATING ON FIXTURE HOUSING DUE TO SALT STORAGE ENVIRONMENT.

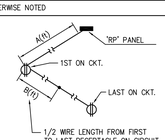
ABBREVIATIONS

E.C.	ELECTRICAL CONTRACTOR	A.F.G.	MOUNTING HEIGHT ABOVE FINISHED GRADE
F.P.	FIRE PROTECTION CONTRACTOR	U.G.	BELOW GRADE (UNDERGROUND)
G.C.	GENERAL CONTRACTOR	NF	NON-FUSED SAFETY DISCONNECT AND/OR COMBINATION STARTER
C.M.	CONSTRUCTION MANAGER	NIC	WORK NOT IN CONTRACT
M.C.	MECHANICAL CONTRACTOR	WIC	WORK IN CONTRACT
T.C.	TELECOMMUNICATIONS CONTRACTOR	EM	EMERGENCY CIRCUIT FOR CONTINUOUS OPERATION; PROVIDE BREAKER LOCKING STRAP IN "ON" POSITION
T.C.C.	TEMPERATURE CONTROL CONTRACTOR		
F.B.XX	FURNISHED BY "XX", INSTALLED BY ELECTRICAL CONTRACTOR	NL	NIGHT LIGHT CIRCUIT FOR CONTINUOUS OPERATION; PROVIDE BREAKER LOCKING STRAP IN "ON" POSITION
D.E.S.	DOOR EQUIPMENT SUPPLIER		
F.B.O.	FURNISHED BY OWNER, INSTALLED BY ELECTRICAL CONTRACTOR	U.N.O.	UNLESS NOTED OTHERWISE
EWC	ELECTRIC WATER COOLER	V.I.	VERIFY LOCATION WITH OWNER
GFI	GROUND FAULT INTERRUPTER	WP	WEATHERPROOF ITEM OR DEVICE
L.A.D.	LOCATE AS DIRECTED	E.G.C.	EQUIPMENT GROUNDING CONDUCTOR
M.H.	MOUNTING HEIGHT, FLOOR TO BOTTOM OF ITEM	R.G.S.	RIGID GALVANIZED STEEL CONDUIT.
A.F.F.	MOUNTING HEIGHT ABOVE FINISHED FLOOR	E.M.T.	ELECTRICAL METALLIC TUBING.

BRANCH CIRCUIT WIRE SIZING TABLE

FOR 120V-20A BRANCH CIRCUITS ONLY, UNLESS OTHERWISE NOTED

IF DISTANCE A+B IN FEET IS: (SEE DIAGRAM AT RIGHT)	USE COPPER WIRE IN METALLIC CONDUIT, AWG SIZE AS FOLLOWS ON ENTIRE CIRCUIT AND SIZE CONDUIT ACCORDINGLY:
0' TO 100'	# 12 (MIN.)
100' TO 175'	# 10
175' TO 300'	# 8
300' TO 450'	# 6 (MAX.)



NOTE:
ALL WIRING DEVICES SHALL BE FLUSH MOUNTED IN FINISHED SPACES AND SURFACE MOUNTED IN UNFINISHED SPACES PER THE SPECIFICATIONS.

BRANCH CIRCUIT DESIGNATION LEGEND

DESIGNATION: x-xx
- BREAKER NUMBER (1, 2, 3, ETC.)
- PANEL DESIGNATOR (RP: A, RP: B ETC.)

EXAMPLE: A-14
- BREAKER NUMBER 14
- PANEL RP: A

PANEL DESIGNATIONS

A-x = RP: A
B-x = RP: B
C-x = RP: C
E-x = RP: EM
S-x = RP: SB
F-x = RP: F

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the COLLABORATIVE inc

ARCHITECTS
LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS

STATE OF OHIO
RONALD S. TIMKO
E-65132
REGISTERED PROFESSIONAL ENGINEER

C-013 Dated 12/3/2012

PROJECT TITLE

Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 002
11.05.2012	PERMITS
10.25.2012	BIDDING

CHECKED RSK
APPROVED RST

TCI JOB NO. 106049

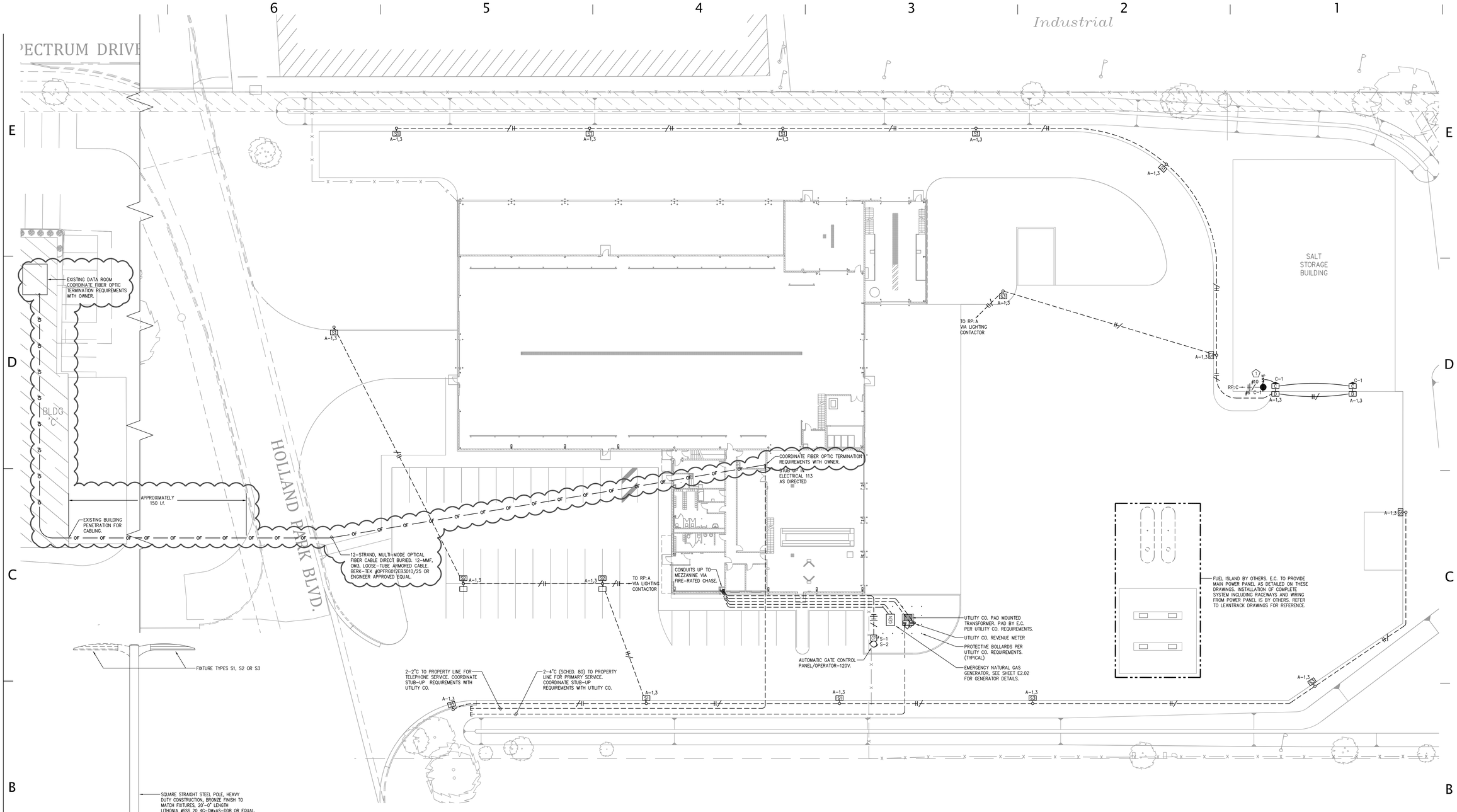
SHEET TITLE

Electrical Legends and Schedules

SHEET NO.

E0.01

mda engineering, inc.
Mechanical and Electrical Engineers
1415 Holland Road
Maumee, Ohio 43537
Phone: (419) 893-3141
Fax: (419) 893-0687
mda # 120507

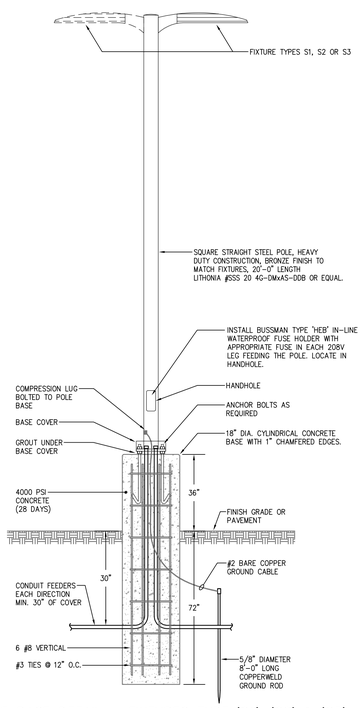


OVERALL SITE PLAN – ELECTRICAL

1" = 20'-0"

0 5 10 15 20 feet

N



POLE BASE DETAIL – FIXTURES TYPE 'S1', 'S2' & 'S3'

NO SCALE

FLOOR PLAN NOTES:

1. WEATHERPROOF SWITCH FOR INTERIOR FLOOD LIGHTS AND RECEPTACLE MOUNTED TO SUPPORT POST. FIELD COORDINATE LOCATION. SWITCH M.H.=48" A.F.G., RECEPTACLE M.H.=24" A.F.G. ALL EXPOSED CONDUIT AND BOXES SERVING SWITCH, RECEPTACLE AND FLOOD LIGHTS SHALL BE SCHEDULE 40 PVC.

GENERAL NOTES:

A. ALL SITE LIGHTING AND POWER CONDUITS SHALL BE A MINIMUM OF 1" SCHEDULE 40 PVC U.N.O.

B. ALL SITE LIGHTING AND POWER CONDUCTORS SHALL BE A MINIMUM OF #10AWG (CU) U.N.O.

C. ALL 120V BRANCH CIRCUITS SHALL HAVE AN INDIVIDUAL NEUTRAL FOR EACH PHASE. EACH NEUTRAL SHALL BE IDENTIFIED AT ALL JUNCTION BOXES AND TERMINALS THE SAME AS ITS CORRESPONDING BRANCH CIRCUIT NUMBER.

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TCI JOB NO. 106049

SHEET TITLE

Overall Site Plan
Electrical

SHEET NO.

E1.01

mda engineering, inc.
Mechanical and Electrical Engineers
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Maumee, Ohio 43537
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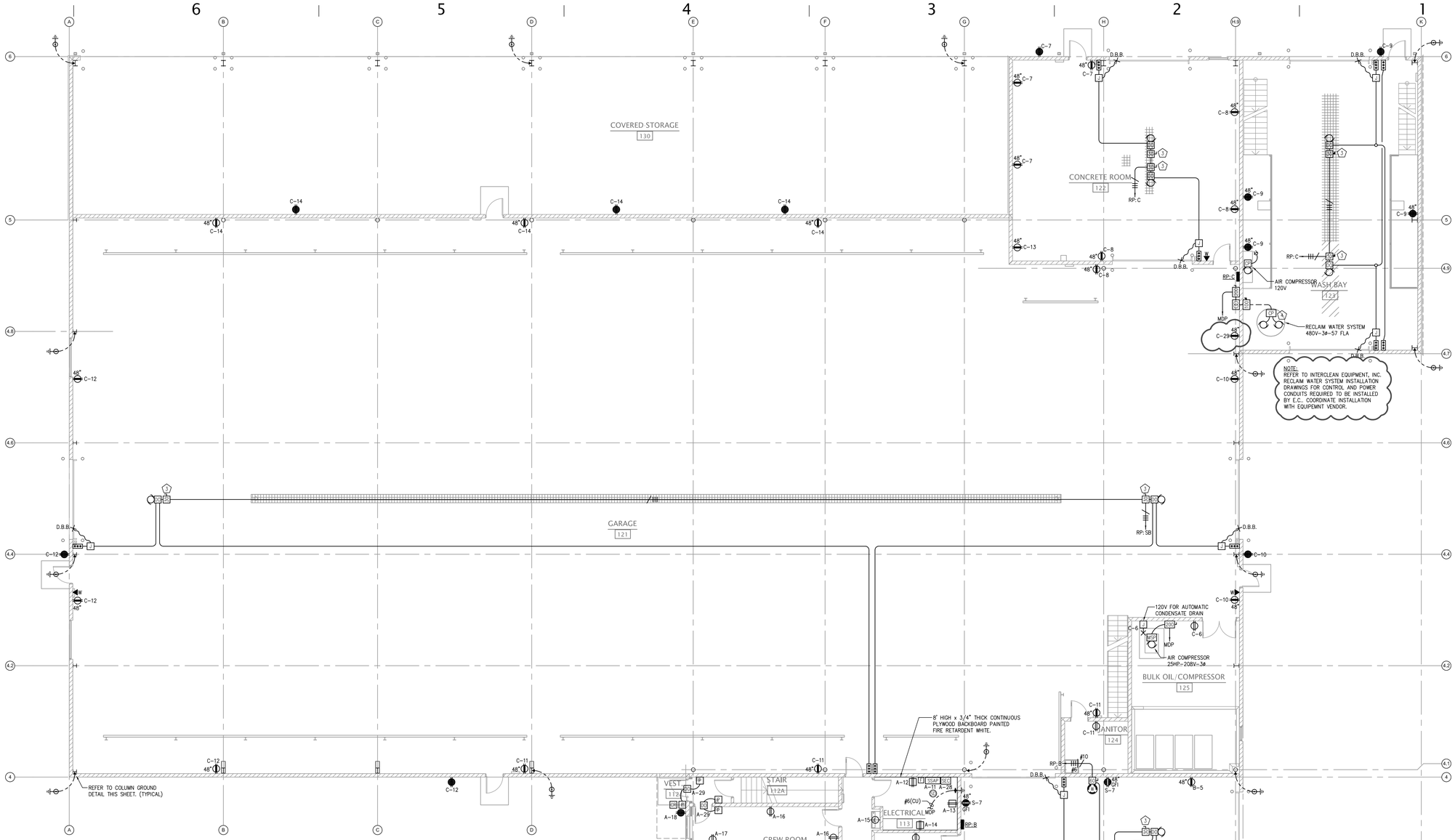
mda #12097



FIRST FLOOR PLAN – POWER

1/8" = 1'-0"

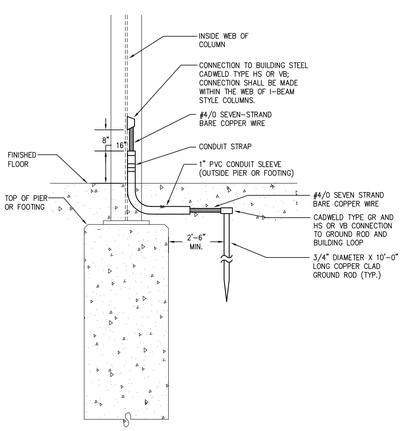
0 1 2 3 4 6 8 feet

FLOOR PLAN NOTES:

1. UNDERGROUND CONDUITS FROM LIFT CONTROL PANEL TO LIFT FOR POWER FEED, CONTROLS AND LIGHTING. COORDINATE QUANTITY AND STUB-UP LOCATIONS WITH APPROVED LIFT SHOP DRAWINGS. ALL CONDUITS, INCLUDING MAIN POWER FEED, TO BE UNDERGROUND.
2. PROVIDE 2-120V BRANCH CIRCUITS TO LIFT CONTROL PANEL FOR CONTROLS AND LIFT LIGHTS.
3. PROVIDE FUSING TO MATCH MOTOR NAME PLATE RATING.
4. REFER TO INTERCLEAN EQUIPMENT, INC. INSTALLATION DRAWINGS FOR ADDITIONAL E.C. REQUIREMENTS FOR RACEWAY, FEEDER AND EQUIPMENT CONNECTIONS.

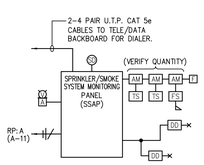
GENERAL NOTES:

A. ALL 120V BRANCH CIRCUITS SHALL HAVE AN INDIVIDUAL NEUTRAL FOR EACH PHASE. EACH NEUTRAL SHALL BE IDENTIFIED AT ALL JUNCTION BOXES AND TERMINALS THE SAME AS ITS CORRESPONDING BRANCH CIRCUIT NUMBER.



TYPICAL GROUND ROD ELECTRODE CONNECTION TO BUILDING COLUMN

NO SCALE



SSAP RISER DIAGRAM

NO SCALE

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TCI JOB NO. 106049

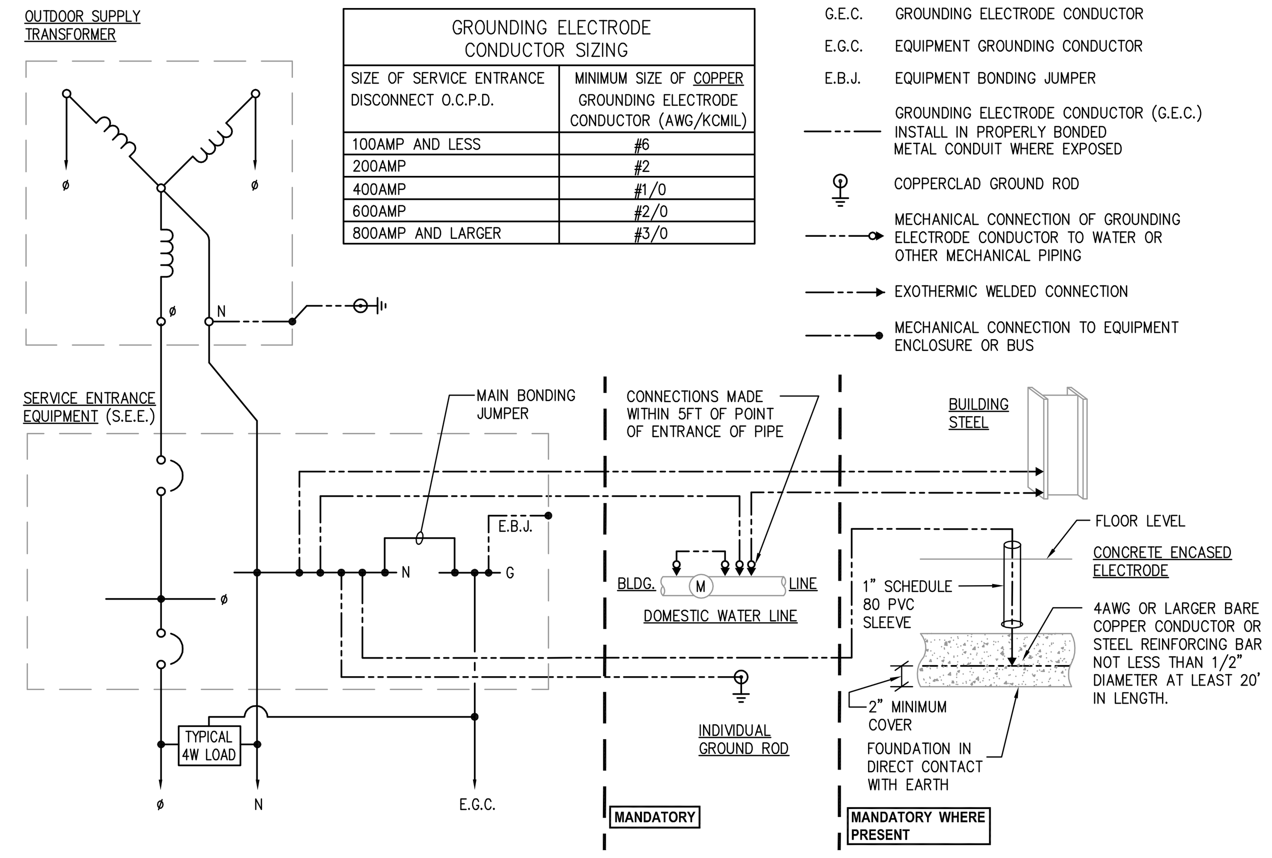
SHEET TITLE

First Floor Plan
Power

SHEET NO.

E3.01

mda engineering, inc.
Mechanical and Electrical Engineers
1415 Holland Road
Maumee, Ohio 43537
Phone: (419) 893-3141
Fax: (419) 893-0687
mda #120097



GROUNDING ELECTRODE CONDUCTOR SIZING	
SIZE OF SERVICE ENTRANCE DISCONNECT O.C.P.D.	MINIMUM SIZE OF COPPER GROUNDING ELECTRODE CONDUCTOR (AWG/KCMIL)
100AMP AND LESS	#6
200AMP	#2
400AMP	#1/0
600AMP	#2/0
800AMP AND LARGER	#3/0

G.E.C. GROUNDING ELECTRODE CONDUCTOR

E.G.C. EQUIPMENT GROUNDING CONDUCTOR

E.B.J. EQUIPMENT BONDING JUMPER

GROUNDING ELECTRODE CONDUCTOR (G.E.C.) INSTALL IN PROPERLY BONDED METAL CONDUIT WHERE EXPOSED

COPPERCLAD GROUND ROD

MECHANICAL CONNECTION OF GROUNDING ELECTRODE CONDUCTOR TO WATER OR OTHER MECHANICAL PIPING

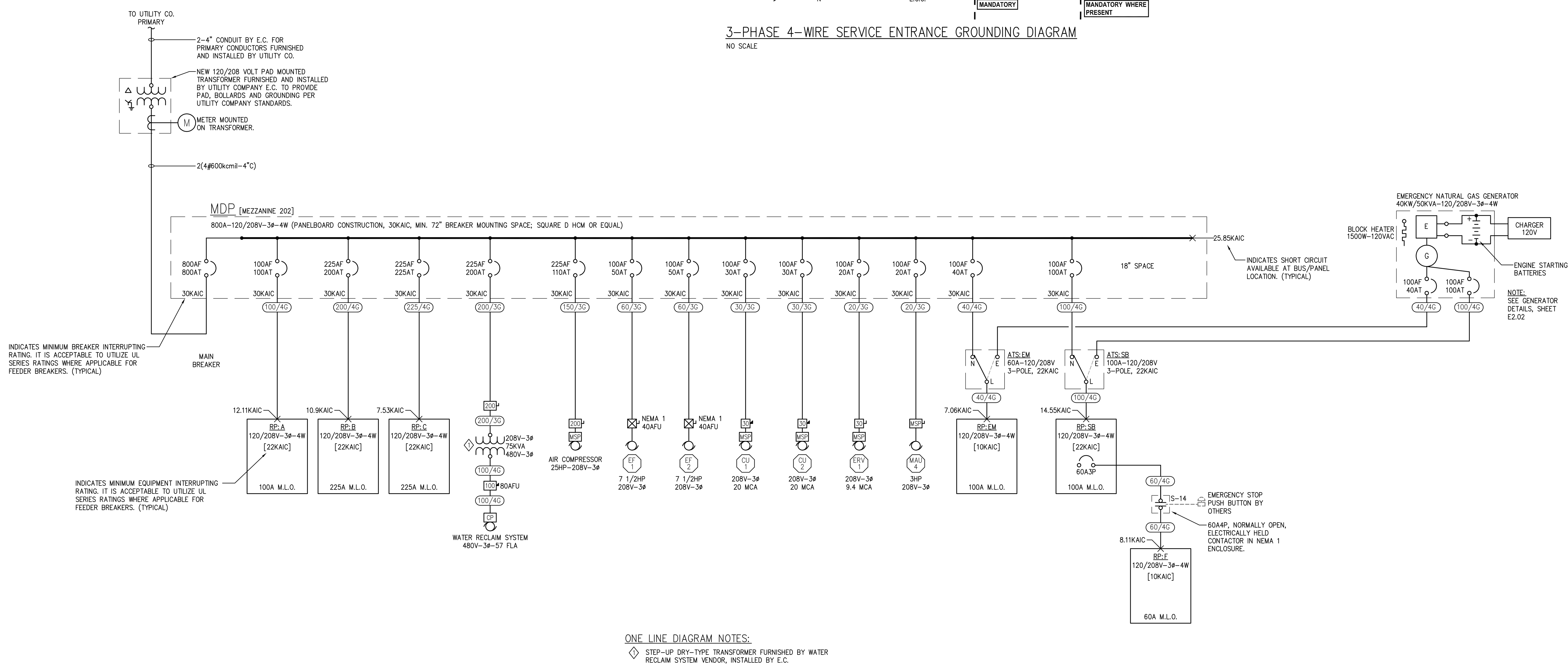
EXOTHERMIC WELDED CONNECTION

MECHANICAL CONNECTION TO EQUIPMENT ENCLOSURE OR BUS

3-PHASE 4-WIRE SERVICE ENTRANCE GROUNDING DIAGRAM

NO SCALE

FEEDER SCHEDULE			
	1 PHASE/3 PHASE – 3W + E.G.		3 PHASE – 4W + E.G.
20/3G	3#12 & 1#12G–1/2"C	20/4G	4#12 & 1#12G–1/2"C
30/3G	3#10 & 1#10G–1/2"C	30/4G	4#10 & 1#10G–1/2"C
40/3G	3#8 & 1#10G–3/4"C	40/4G	4#8 & 1#10G–3/4"C
60/3G	3#6 & 1#10G–3/4"C	60/4G	4#6 & 1#10G–1"C
70/3G	3#4 & 1#8G–1"C	70/4G	4#4 & 1#8G–1 1/4"C
100/3G	3#2 & 1#8G–1 1/4"C	100/4G	4#2 & 1#8G–1 1/4"C
150/3G	3#1/0 & 1#6G–1 1/2"C	150/4G	4#1/0 & 1#6G–2"C
200/3G	3#3/0 & 1#6G–2"C	200/4G	4#3/0 & 1#6G–2"C
225/3G	3#4/0 & 1#4G–2"C	225/4G	4#4/0 & 1#4G–2 1/2"C
250/3G	3#250kcmil & 1#4G–2"C	250/4G	4#250kcmil & 1#4G–2 1/2"C
300/3G	3#350kcmil & 1#4G–2 1/2"C	300/4G	4#350kcmil & 1#4G–3"C
400/3G	3#500kcmil & 1#2G–3"C	400/4G	4#500kcmil & 1#2G–3 1/2"C
1200/3G	3(3#600kcmil & 1#3/0G–3"C)	1200/4G	3(4#600kcmil & 1#3/0G–3 1/2"C)



ONE LINE DIAGRAM NOTES:

1. STEP–UP DRY–TYPE TRANSFORMER FURNISHED BY WATER RECLAIM SYSTEM VENDOR, INSTALLED BY E.C.

PANEL: RP:A — LOCATION: MEZZANINE 202

NOTES	LOAD DESCRIPTION	CIRCUIT BREAKER	øA	øB	øC	BRANCH CIRCUIT No.	BRANCH CIRCUIT No.	øA	øB	øC	CIRCUIT BREAKER	LOAD DESCRIPTION	NOTES
2	SITE LIGHTING	20A2P	1001			1	2	864			20ASP	LTG–BLDG EXTERIOR	2
				1001		3	4		1132		20ASP	LTG–OFFICE/MEZZANINE	
	LTG–OFFICE	20ASP			1044	5	6			812	20ASP	LTG–OFFICE	
	WH–1, EF–6	20ASP	1000			7	8	1656			20ASP	F–1	
	F–2	20ASP		1656		9	10		500		20ASP	FIRE RISER BELL	1
1	SSAP	20ASP			500	11	12			500	20ASP	REC'P–IT ROOM	1
1	REC'P–IT ROOM	20ASP	500			13	14	500			20ASP	REC'P–IT ROOM	1
	EWC	20ASP		800		15	16		540		20ASP	REC'P–CREW	
	REC'P–CREW	20ASP			360	17	18			669	20ASP	REC'P–FIRE RISE/SHOWER, EF–5	
	REC'P–MEN/WOMEN	20ASP	540			19	20	720			20ASP	REC'P–CORRIDOR/TOOL	
	REC'P–OFFICE	20ASP		540		21	22		360		20ASP	REC'P–OFFICE	
	REC'P–OFFICE	20ASP			360	23	24			360	20ASP	REC'P–OFFICE	
	REC'P–OFFICE	20ASP	360			25	26	1500			20ASP	VESTIBULE HEATER	
	REC'P–MEZZANINE	20ASP		720		27	28		500		20ASP	SECURITY PANEL	1
	ADA DOOR OPERATORS	20ASP			800	29	30			800	20ASP	ADA DOOR OPERATORS	
	STAIR HEATER	20ASP	1500			31	32	1500			20ASP	VESTIBULE HEATER	
	UH–6, 7	20ASP		1000		33	34		800		20ASP	DRY–PIPE SYSTEM AIR COMP.	
	SPARE	20ASP				35	36				20ASP	SPARE	
		SPACE				37	38				SPACE		
		SPACE				39	40				SPACE		
		SPACE				41	42				SPACE		
	SUB–TOTAL PER ø		4901			øA		6740			TOTAL PER ø	11641	
				5717		øB			3832			9549	
					3064	øC				3141		6205	

MOUNTING	SURFACE	TOTAL CONNECTED (VA)	27395
LUGS OR CIRCUIT BREAKER	100A M.L.O.	TOTAL CONNECTED (AMPS)	76.0
BUS RATING (AMPERES) & TYPE	100A – CU	FEEDER: SEE ONE LINE DIAGRAM	
VOLTAGE	120/208V–3ø–4W	OPTIONS:	

PANEL: RP:B — LOCATION: REPAIRS 115

NOTES	LOAD DESCRIPTION	CIRCUIT BREAKER	øA	øB	øC	BRANCH CIRCUIT No.	BRANCH CIRCUIT No.	øA	øB	øC	CIRCUIT BREAKER	LOAD DESCRIPTION	NOTES
	LTG–REPAIR NORTH	20ASP	1385			1	2	1441			20ASP	LTG–REPAIR NORTH	
	LIFT CONTROLS	20ASP		800		3	4		400		20ASP	LIFT LIGHTING	
	REC'P–REPAIRS	20ASP			360	5	6			360	20ASP	REC'P–REPAIRS	
	REC'P–REPAIRS	20ASP	540			7	8	540			20ASP	REC'P–REPAIRS	
	REC'P–REPAIRS	20ASP		540		9	10		1200		20ASP	VEHICLE EXHAUST	
	VEHICLE EXHAUST	20ASP			1200	11	12			1200	20ASP	VEHICLE EXHAUST	
	VEHICLE EXHAUST	20ASP	1200			13	14	1200			20ASP	IRH–13, 14	
	IRH–15, 16	20ASP		1200		15	16				20ASP	SPARE	
	SPARE	20ASP				17	18				20ASP	SPARE	
		SPACE				19	20				SPACE		
		SPACE				21	22				SPACE		
		SPACE				23	24				SPACE		
			937			25	26				SPACE		
	EF–4	15A3P		937		27	28				SPACE		
					937	29	30				SPACE		
			1321			31	32	1729					
	LIFT	20A3P		1321		33	34		1729		20A3P	DOOR OPERATORS–REPAIRS	
					1321	35	36			1729			
			4611			37	38	5400					
	WELDERS	60A3P		4611		39	40		5400		60A3P	LIFT	
					4611	41	42			5400			
	SUB–TOTAL PER ø		9994			øA		10310			TOTAL PER ø	20304	
				9409		øB			8729			18138	
					8429	øC				8689		17118	

MOUNTING	SURFACE	TOTAL CONNECTED (VA)	55560
LUGS OR CIRCUIT BREAKER	225A M.L.O.	TOTAL CONNECTED (AMPS)	154.2
BUS RATING (AMPERES) & TYPE	225A – CU	FEEDER: SEE ONE LINE DIAGRAM	
VOLTAGE	120/208V–3ø–4W	OPTIONS:	

PANEL: RP:C — LOCATION: GARAGE 121

NOTES	LOAD DESCRIPTION	CIRCUIT BREAKER	øA	øB	øC	BRANCH CIRCUIT No.	BRANCH CIRCUIT No.	øA	øB	øC	CIRCUIT BREAKER	LOAD DESCRIPTION	NOTES
	LTG & REC'P–SALT STORAGE	20ASP	338			1	2	840			20ASP	LTG–CONCRETE	
	LTG–WASH BAY	20ASP		904		3	4		1072		20ASP	LTG–GARAGE WEST	
	LTG–GARAGE EAST/MEZZANINE	20ASP			1460	5	6			1144	20ASP	REC'P–BULK OIL, SF–2	
	REC'P–CONCRETE	20ASP	720			7	8	720			20ASP	REC'P–CONCRETE	
	REC'P–WASH BAY	20ASP		540		9	10		720		20ASP	REC'P–GARAGE EAST/MEZZANINE	
	REC'P–GARAGE SOUTH/JANITOR	20ASP			770	11	12			900	20ASP	REC'P–GARAGE SOUTH/WEST	
	CONCRETE MIXER	20ASP	1200			13	14	1080			20ASP	REC'P–GARAGE NORTH	
	IRH–1, 2	20ASP		1200		15	16		1200		20ASP	IRH–3, 4	
	IRH–5, 12	20ASP			1200	17	18			500	20ASP	UH–1	
	IRH–6, 7	20ASP	1200			19	20	1200			20ASP	IRH–8, 9	
	IRH–10, 11	20ASP		1200		21	22		2100		30A2P	EWH–2	
	EWH–1	20ASP			1500	23	24			2100			
	UH–2	20ASP	1176			25	26	1176			20ASP	UH–3	
	UH–4, 5	20ASP		1728		27	28		1500		20ASP	AIR COMPRESSOR	
	ICE MACHINE	20ASP			800	29	30				20ASP	SPARE	
	SPARE	20ASP				31	32				20ASP	SPARE	
	SPARE	20ASP				33	34				20ASP	SPARE	
	SPARE	20ASP				35	36				20ASP	SPARE	
		SPACE				37	38				SPACE		
		SPACE				39	40				SPACE		
		SPACE				41	42				SPACE		
		SPACE				43	44				SPACE		
		SPACE				45	46				SPACE		
		SPACE				47	48				SPACE		
			937			49	50	582					
	MAU–3	15A3P		937		51	52		582		15A3P	EF–3	
					937	53	54			582			
			829			55	56	576					
	SF–1	15A3P		829		57	58		576		20A3P	DOOR OPERATORS–CONCRETE	
					829	59	60			576			
			1667			61	62	1153					
	UNIT HEATER–BULK OIL	20A3P		1667		63	64		1153		20A3P	DOOR OPERATORS–WASH BAY	
					1667	65	66			1153			
			3867			67	68	3867					
	MAU–1	60A3P		3867		69	70		3867		60A3P	MAU–2	
					3867	71	72			3867			
	SUB–TOTAL PER ø		11934			øA		11194			TOTAL PER ø	23128	
				12872		øB			12770			25642	
					13030	øC				10822		23852	

MOUNTING	SURFACE	TOTAL CONNECTED (VA)	72622
LUGS OR CIRCUIT BREAKER	225A M.L.O.	TOTAL CONNECTED (AMPS)	201.6
BUS RATING (AMPERES) & TYPE	225A – CU	FEEDER: SEE ONE LINE DIAGRAM	
VOLTAGE	120/208V–3ø–4W	OPTIONS:	

PANEL: RP:SB — LOCATION: MEZZANINE 202

NOTES	LOAD DESCRIPTION	CIRCUIT BREAKER	øA	øB	øC	BRANCH CIRCUIT No.	BRANCH CIRCUIT No.	øA	øB	øC	CIRCUIT BREAKER	LOAD DESCRIPTION	NOTES
	GATE CONTROLS	20ASP	150			1	2	800			20ASP	GATE OPERATOR	
	SECURITY CAMERAS	20ASP		200		3	4		800		20ASP	MICROWAVE	
	COFFEE	20ASP			1200	5	6			800	20ASP	REFRIGERATOR	
	REC'P–REPAIRS	20ASP	540			7	8	360			20ASP	REC'P–OFFICE	
	REC'P–OFFICE	20ASP		360		9	10		360		20ASP	REC'P–OFFICE	
	REC'P–OFFICE	20ASP			360	11	12			1500	20ASP	BLOCK HEATER	
	BATTERY CHARGER	20ASP	500			13	14	200			20ASP	EMERGENCY STOP CONTROL POWER	
	SPARE	20ASP				15	16				20ASP		
	SPARE	20ASP				17	18				20ASP		
		SPACE				19	20	1153					
		SPACE				21	22		1153		20A3P	DOOR OPERATORS–CONCRETE	
		SPACE				23	24			1153			
			2968			25	26	1153					
	RP:F	60A3P		1750		27	28		1153		20A3P	DOOR OPERATORS–WASH BAY	
					1018	29	30			1153			
	SUB–TOTAL PER ø		4158			øA		3666			TOTAL PER ø	7824	
				2310		øB			3466			5776	
					2578	øC				4606		7184	

MOUNTING	SURFACE	TOTAL CONNECTED (VA)	20784
LUGS OR CIRCUIT BREAKER	100A M.L.O.	TOTAL CONNECTED (AMPS)	57.7
BUS RATING (AMPERES) & TYPE	100A – CU	FEEDER: SEE ONE LINE DIAGRAM	
VOLTAGE	120/208V–3ø–4W	OPTIONS:	

PANEL: RP:F — LOCATION: MEZZANINE 202

NOTES	LOAD DESCRIPTION	CIRCUIT BREAKER	øA	øB	øC	BRANCH CIRCUIT No.	BRANCH CIRCUIT No.	øA	øB	øC	CIRCUIT BREAKER	LOAD DESCRIPTION	NOTES
	LTG–FUEL ISLAND	15ASP	800			1	2	1250			25A2P	DIESEL PUMP (2HP)	
	FUEL LEVEL MANAGER	15ASP		300		3	4		1250				
	UPS–FUEL SYSTEM	15ASP			200	5	6			718	20A2P	GASOLINE PUMP (3/4HP)	
	FUEL LEVEL ALARM STATION	15ASP	100			7	8	718					
	DISPENSER D1/D2	15ASP		100		9	10				20A2P	SPARE	
	DISPENSER D3/G4	15ASP			100	11	12						
	DISPENSER D5/D6	15ASP	100			13	14				20A2P	SPARE	
	DISPENSER D7/D8	15ASP		100		15	16						
	SPARE	15ASP				17	18				20ASP	SPARE	
		SPACE				19	20				SPACE		
		SPACE				21	22				SPACE		
		SPACE				23	24				SPACE		
	SUB–TOTAL PER ø		1000			øA		1968			TOTAL PER ø	2968	
				500		øB			1250			1750	
					300	øC				718		1018	

MOUNTING	SURFACE	TOTAL CONNECTED (VA)	5736
LUGS OR CIRCUIT BREAKER	60A M.L.O.	TOTAL CONNECTED (AMPS)	15.9
BUS RATING (AMPERES) & TYPE	60A – CU	FEEDER: SEE ONE LINE DIAGRAM	
VOLTAGE	120/208V–3ø–4W	OPTIONS:	

PANEL: RP:EM — LOCATION: MEZZANINE 202

NOTES	LOAD DESCRIPTION	CIRCUIT BREAKER	øA	øB	øC	BRANCH CIRCUIT No.	BRANCH CIRCUIT No.	øA	øB	øC	CIRCUIT BREAKER	LOAD DESCRIPTION	NOTES
	LIGHTING CONTROL PANEL	20ASP	500			1	2	468			20ASP	LTG–BLDG EXTERIOR (NL)	3
	LTG–BLDG INTERIOR	20ASP		1478		3	4		1508		20ASP	LTG–BLDG INTERIOR	
	LTG–BLDG INTERIOR	20ASP			1292	5	6			0	20ASP	SPARE	
	SPARE	20ASP				7	8				20ASP	SPARE	
		SPACE				9	10				SPACE		
		SPACE				11	12				SPACE		
		SPACE				13	14				SPACE		
		SPACE				15	16				SPACE		
		SPACE				17	18				SPACE		
	SUB–TOTAL PER ø		500			øA		468			TOTAL PER ø	968	
				1478		øB			1508			2986	
					1292	øC				0		1292	

MOUNTING	SURFACE	TOTAL CONNECTED (VA)	5246
LUGS OR CIRCUIT BREAKER	60A M.L.O.	TOTAL CONNECTED (AMPS)	14.6
BUS RATING (AMPERES) & TYPE	60A – CU	FEEDER: SEE ONE LINE DIAGRAM	
VOLTAGE	120/208V–3ø–4W	OPTIONS:	

PANEL SCHEDULE NOTES:

1. PROVIDE CIRCUIT BREAKER LOCK–ON STRAP.
2. LIGHTING CONTROL: PHOTOCELL ON/TIMED OFF.
3. LIGHTING CONTROL: PHOTOCELL ON/PHOTOCELL OFF.

GENERAL NOTE:

A. ALL PANELBOARD DIRECTORIES ARE TO BE TYPED.

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Mechanical and Electrical Engineers
1415 Holland Road
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the COLLABORATIVE inc

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LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS

STATE OF OHIO
RONALD S. TIMKO
E-65132
REGISTERED PROFESSIONAL ENGINEER

C-013 Dated 12/3/2012

PROJECT TITLE

Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 002
11.05.2012	PERMITS
10.25.2012	BIDDING

CHECKED RSK

APPROVED RST

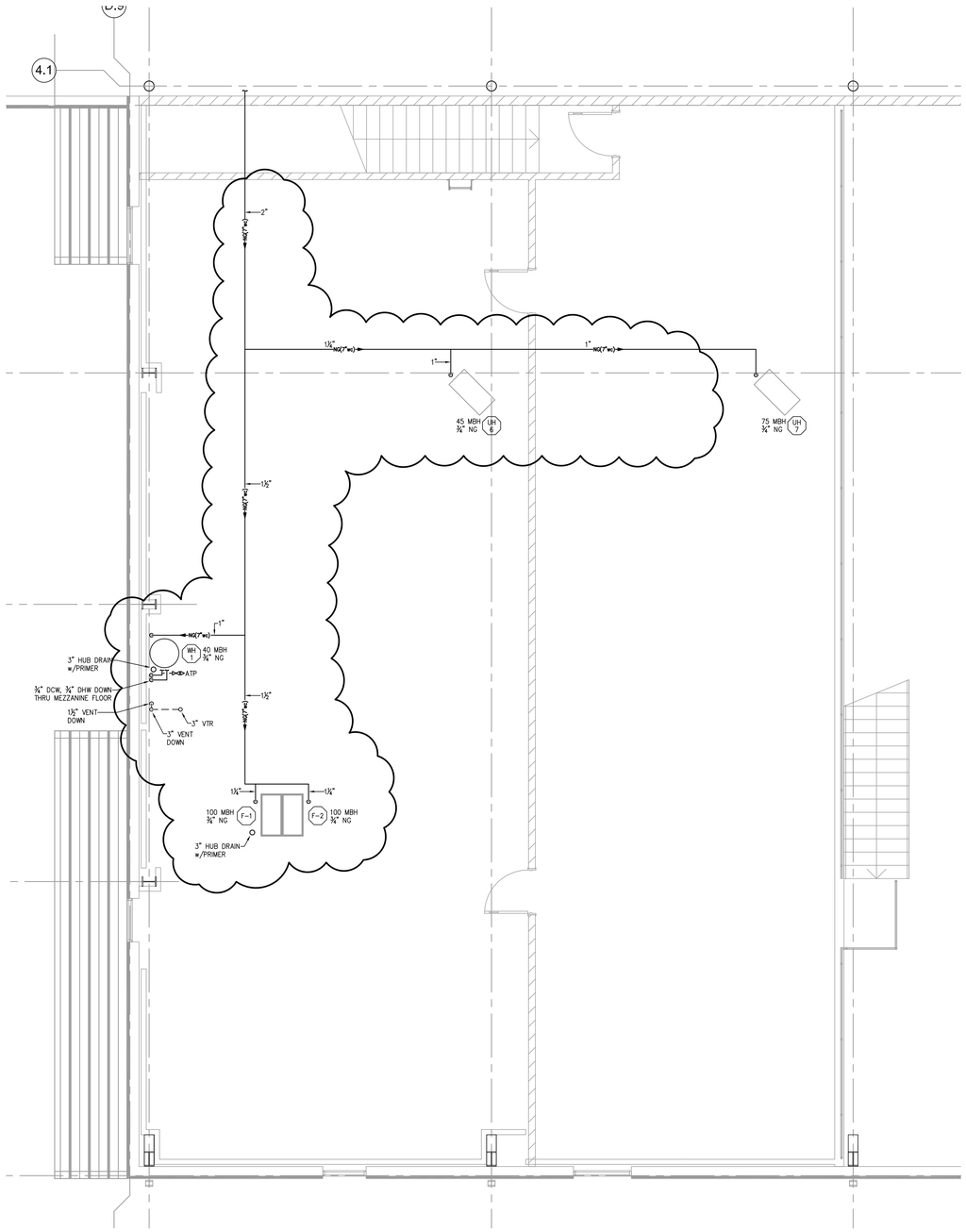
TCI JOB NO. 106049

SHEET TITLE

One Line Diagram and Panel Schedules

SHEET NO.

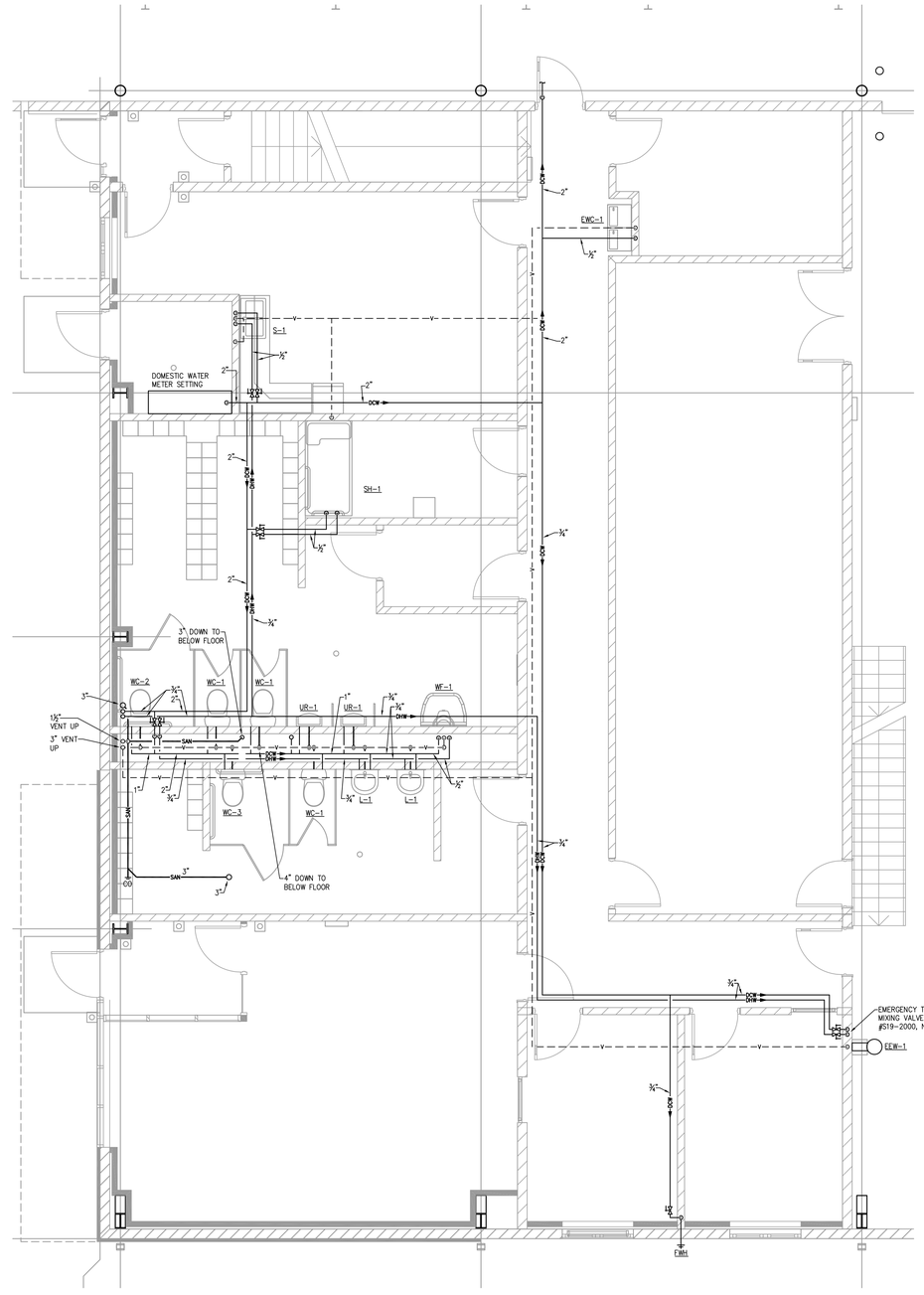
E5.01



ENLARGED MEZZANINE PLAN – PLUMBING

1/4" = 1'-0"

0 1 2 3 4 feet



ENLARGED FIRST FLOOR PLAN – PLUMBING

1/4" = 1'-0"

0 1 2 3 4 feet

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C-013 Dated 12/3/2012

PROJECT TITLE

Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 2
11.20.2012	ADDENDUM 1
11.05.2012	PERMITS
10.25.2012	BIDDING

BID PACKAGE:
GENERAL TRADES & MEP PACKAGES

CHECKED MJK
APPROVED RJY

TCI JOB NO. 106049

SHEET TITLE

Enlarged Floor Plans Plumbing

SHEET NO.

P1.03

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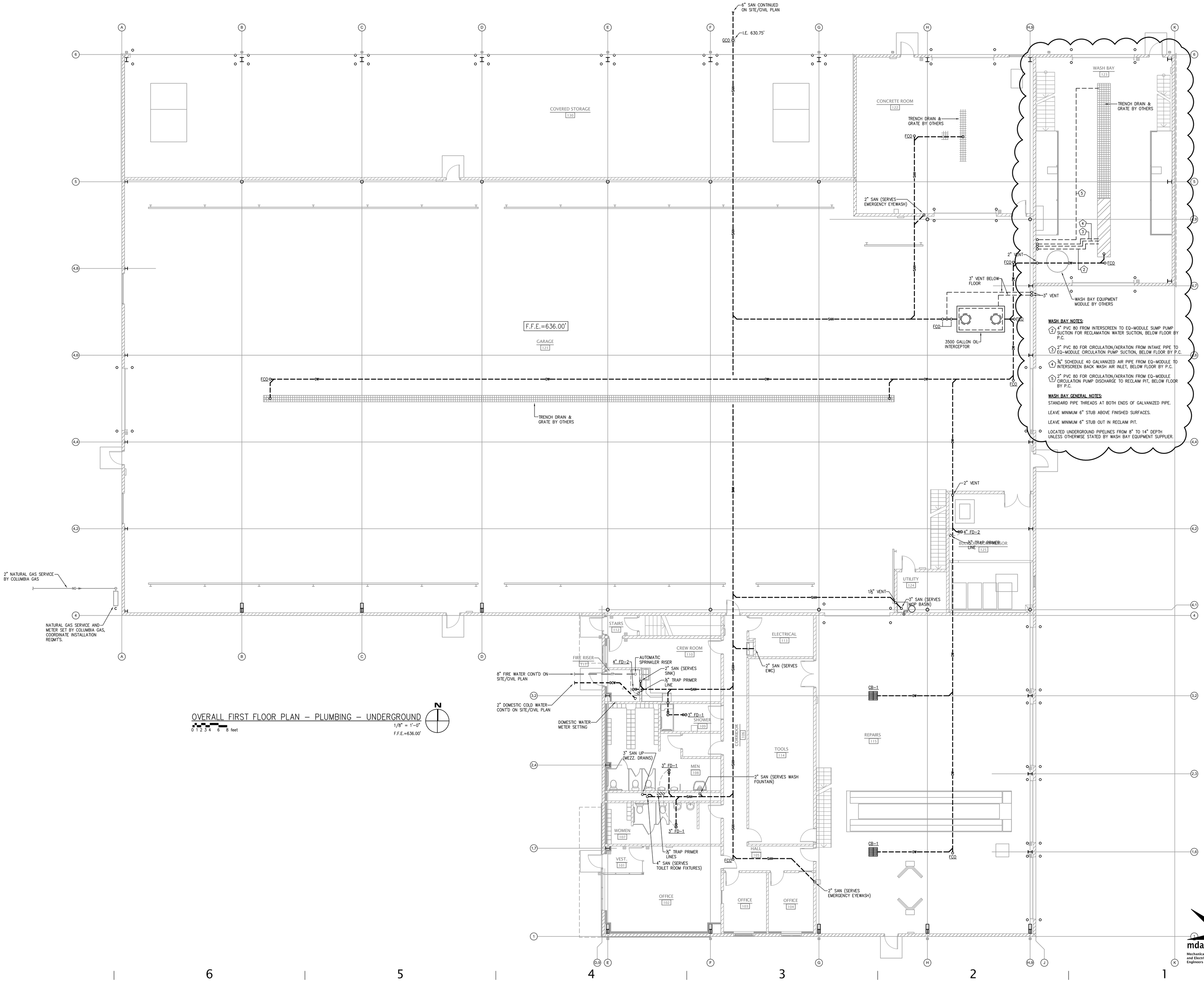

OVERALL FIRST FLOOR PLAN – PLUMBING – UNDERGROUND

1/8" = 1'-0"

0 1 2 3 4 6 8 feet

F.F.E.=636.00'

WASH BAY NOTES:

(2) 4" PVC 80 FROM INTERSCREEN TO EQ-MODULE SUMP PUMP SUCTION FOR RECLAMATION WATER SUCTION, BELOW FLOOR BY P.C.

(3) 2" PVC 80 FOR CIRCULATION/AERATION FROM INTAKE PIPE TO EQ-MODULE CIRCULATION PUMP SUCTION, BELOW FLOOR BY P.C.

(4) ¾" SCHEDULE 40 GALVANIZED AIR PIPE FROM EQ-MODULE TO INTERSCREEN BACK WASH AIR INLET, BELOW FLOOR BY P.C.

(5) 2" PVC 80 FOR CIRCULATION/AERATION FROM EQ-MODULE CIRCULATION PUMP DISCHARGE TO RECLAIM PIT, BELOW FLOOR BY P.C.

WASH BAY GENERAL NOTES:

STANDARD PIPE THREADS AT BOTH ENDS OF GALVANIZED PIPE.

LEAVE MINIMUM 6" STUB ABOVE FINISHED SURFACES.

LEAVE MINIMUM 6" STUB OUT IN RECLAIM PIT.

LOCATED UNDERGROUND PIPELINES FROM 8" TO 14" DEPTH UNLESS OTHERWISE STATED BY WASH BAY EQUIPMENT SUPPLIER.

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PLANNERS

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LARRY SCHARF
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REGISTERED PROFESSIONAL ENGINEER

C-013 Dated 12/3/2012

PROJECT TITLE

Lucas County Road Maintenance Building

1049 S. McCord Rd.
Holland, Ohio

Prepared for the
Lucas Co. Board of Commissioners

11.30.2012	ADDENDUM 2
11.05.2012	PERMITS
09.25.2012	BIDDING

BID PACKAGE:
GENERAL TRADES & MEP PACKAGES

CHECKED MJK
APPROVED RJY

TCI JOB NO. 106049

SHEET TITLE

Overall First Floor Plan Plumbing Underground

SHEET NO.

P1.01

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SECTION 017701 – FINAL CLEANING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Final cleaning.

1.3 ACTION SUBMITTALS

A. Product Data: For cleaning agents.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:

    a. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    b. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    c. Sweep concrete floors broom clean in unoccupied spaces.
    d. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
    e. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
    f. Remove labels that are not permanent.
    g. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
    h. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
    i. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
    j. Leave Project clean and ready for occupancy.

END OF SECTION 017700

SECTION 11 1400 – VEHICLE WASH SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Manual Interior Wash System with water recycle equipment and reclaim system

B. Related Sections:

1. Division 03 Section "Cast-in-Place Concrete" for concrete work for pits, curbs and flat work.
2. Division 22, 26 and 31 for plumbing, electrical and site improvement work.

1.3 QUALITY ASSURANCE

A. The system shall be produced by a manufacturer of established reputation with a minimum of five (5) years experience supplying specified equipment in similar applications.

B. Installation: Provide a qualified manufacturer's representative to supervise work related to equipment installation, check out and start-up.

C. The wash system, high pressure cleaning systems, pumping stations and all electrical controls shall be designed and provided by a single vendor.

D. Training: Provide technical representative to train Owner's maintenance personnel in operation and maintenance of specified equipment.

1.4 SUBMITTALS

A. Product Data: For manual interior wash system and the following:

1. Electrical switches, disconnects, step-up or down transformers.
2. Water recycle and reclaim charts in Gallons per Minutes.

B. Delegated-Design Submittal: For Manual Interior Wash System, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

C. Shop Drawings: Site specific drawings shall be prepared and submitted for the Manual Interior Wash System for the following drawings:

1. Plan View with dimensions, required clearances, connections and components identified.
2. Side View/Section through pit indicating dimensions of equipment, clearances and connections to be made in field.
3. End View/Section through pit indicating dimensions of equipment, clearances and connections to be made in field.
4. Wash System plumbing schematic coordinated with Project Plumbing Drawings noting all variations from project plumbing drawings.
5. Electrical layout including diagrams for power, signal and control wiring.
6. Underground Piping Layouts coordinated with Project Plumbing Drawings noting all variations from Project Plumbing Drawings.
7. Underground Conduit Layouts coordinated with Project Electrical Drawings noting all variations from Project Electrical Drawings.
8. Provide UL listing card or equivalent document of Nationally Recognized Testing Laboratories from the company building the electrical panel(s) and attach with the electrical drawings indicating that the electrical panels will be built to the required standards (see section 11.10 Electric Control Panel).
9. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
10. Rated capacities for system including gallons-per-minute and pressure at nozzle in pounds-per-square inch.

D. Operation and Maintenance Manual

1. Provide copies of the proposed system Operations and Maintenance Manuals with the shop drawing submittal.

2. Provide three (3) copies of final approved Operations and Maintenance Manuals at project closeout.

1.5 DEVIATIONS FROM SPECIFICATIONS

A. These specifications are not designed to limit the competition or to limit the equipment to any specific bidder. The system specifications may be exceeded or modified from the system specifications as follows:

1. All specified GPM (Gallons-Per-Minute) and PSI (Pounds-Per-Inch) are listed as minimum and must be met or exceeded.
2. All specified materials are minimums and must be met or exceeded.
3. The number of equipment packages, number of pumps, monitors and all other components listed herein must be met or exceeded.
4. All wash equipment performance functions are minimum that must be met or exceeded. All deviations from the specified equipment performance must be fully documented with the shop drawings.

B. The Manual Interior Wash System manufacture and supplier are solely responsible for the performance of the supplied equipment to comply with these specifications.

1.6 WARRANTY

A. Warranty work specified herein is for one (1) year from substantial completion against defects in materials and in labor and workmanship.

1. Defects and failures include, but are not limited to, the following:

a. Operation: noisy, rough or substandard operations.
b. Parts: loose, damaged and missing parts.
c. Finish: abnormal deterioration.
d. Leaking fittings, connections, tanks and similar items.
e. Deterioration of hoses and piping.

B. Manufacturer / supplier shall provide a two (2) year warranty from substantial completion against defects in materials and in labor and workmanship for the following:

a. Pumps including bearings and seals.
b. Water reclamation equipment including pumps, controls, tanks, filtration devices, separators and similar parts and features.

PART 2 - PRODUCTS

2.1 MANUFACTURERS, GENERAL

A. Source Limitations: Obtain manual interior wash system from single source and single manufacturer.

1. Obtain controls, pumps and operators from interior wash system manufacturer.

B. MANUAL INTERIOR WASH SYSTEM

1. Basis-of-Design Product: Heavy Duty Vehicle Wash Systems as designed and manufactured by InterClean Equipment, Inc., 3939 Bestech Road, Ypsilanti, Michigan 48197. Phone: (734) 975-2967. Subject to compliance with requirements, provide product indicated or comparable product by one of the following:

a. Truck Wash TechnologiesInc.
b. Westmatic Corporation

2.2 PERFORMANCE REQUIREMENTS

A. General Performance: Manual Interior Wash System shall comply with the requirements specified without failure due to defective manufacture, fabrication, installation, or other defects in construction.

B. Wash System Performance Requirements:

1. System shall provide wash water flow rate for the following conditions:

a. Up to ten (10) trucks with dump beds per twenty-four hour period.

2. High-pressure pump for wash system capable of producing pressures up to 120 PSI with maximum flow of 240 GPM.
3. Wash Reel and Nozzle shall be designed for high-pressure washing and cleaning applications. Spray nozzle and volume shall be adjustable by the spray nozzle.
4. System Storage Capacity: System shall have water capacity between wash bay trench, storage tanks and separators shall be at least two thousand (2,000) gallons.
5. Wash water storage capacity shall be determined by manufacturer/supplier to provide output volume required.

2.3 MECHANICAL INTERCONNECTING PIPING

A. All field plumbing and mechanical work inside the container will be done by the bidder and connections between the container and the monitor will be by others. All utilities up to and connecting to the Equipment Container shall be by others.

2.4 ELECTRICAL INTERCONNECTING WIRING

A. All field wiring and connections inside the container will be done by the bidder and connections between the container and the monitor will be by others. All utilities up to and connecting to the Equipment Container shall be by others.

2.5 HIGH-PRESSURE PUMPS

A. The high-pressure pump is of the centrifugal ITT Gould, Peerless or engineer approved equal, capable of producing pressures up to 120PSI. Each pump shall deliver a maximum flow of 240 GPM .

B. Impellers: The impellers are of the enclosed single suction type, hydraulically balanced to minimize axial thrust loads. Each impeller is individually keyed to the shaft. Impeller is bronze.

C. Shaft: The shaft is standard carbon steel adequately sized for loads transmitted.

D. Bearing: The bearings are designed for a average life of 100,000 hours. The outboard bearing is a deep groove type; the in board bearings are of the radial roller type with grease fittings.

E. Base: A steel base plate contains the mounting of the pump and motor, which are carefully aligned and bolted in place prior to shipment. Final alignment will be checked and certified after installation and prior to operation by the user.

F. Coupling: The pumping module has a flexible coupling of a Woods type S or equal including coupling guard.

2.6 ELECTRIC MOTOR

A. The electric motor shall be of the squirrel cage induction type suitable for across the line starting. Motor shall operate on 460 Volt, 3-phase, 60 cycle and be ODP with a 1.15 service factor.

B. The motor shall be sized so as not to exceed the name plate horse power during operation. The motor should be a minimum of 30 HP.

C. The motor shall be certified by the manufacturer for 30 activations per hour.

2.7 ELECTRIC CONTROL PANEL AND COMPONENTS

A. The Industrial Control Panel shall be manufactured and evaluated in accordance with the Underwriters Laboratories, Inc. (UL) standard 508A (Industrial Control Panels). In addition, the panel shall be evaluated for high-capacity short circuit withstand and shall bear the appropriate UL marks including the short circuit withstand value mark as part of the official UL label.

B. The industrial Control Panel shall be designed for operation on a 460 Volt, 3 phase, 60 Hertz system, with a short circuit capacity of 25,000 amperes RMS Symm. available at the incoming line terminals of the control panel.

C. The Industrial Control Panel shall be designed to meet the requirements of the National Electric Code (NEC) Articles 430 and 670, also the National Fire Protections Association (NFPA) Standard 79 (Industrial Machinery).

D. The monitor shall have start/stop push button station location by the monitor

E. Electric Panels that are not UL approved are not acceptable.

F. Each activator shall be pre-mounted and wired to a water tight junction box equipped with built-in drainage holes.

2.8 WASH REEL AND HOSE

A. Floor mounted reel assembly with self-locking and release mechanism provided by manufacturer.

B. Nozzle with adjustable spray volume control.

C. High-pressure hose, 1-1/2 inches in diameter, minimum 50-feet in length. Provide connections at each end for hose reel water supply and wash nozzle.

D. The monitor shall have both vertical and horizontal axis independent movements and horizontal axis movement being equipped with a quick locking mechanism. The vertical axis movement shall be by gear driven control wheel.

E. The monitor shall be equipped with an automatic self draining system after the deactivation of the pressure pump.

PART 3 - EXECUTION

3.1 INSTALLATION, START-UP, TRAINING AND SERVICE

A. Install equipment in accordance with manufacturers' supplied installation drawings.

B. Equipment supplier shall undertake the commissioning of the system and make all required adjustments to ensure proper operation.

C. The equipment manufacturer shall start-up the system. The owner shall have all operating personnel present during the start-up and equipment training.

D. The supplier shall arrange adequate amount of detergent and disinfectant for the performance testing.

E. The owner’s personnel shall be trained for a minimum of 5 hours in the system operation and maintenance.

F. The supplier shall provide the owner the names and the addresses of all local service and maintenance personnel to assist in future service.

END OF SECTION 11 1400

SECTION 323113 - CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Chain-link fences.
2. Gates: Motor operated, horizontal slide and manual swing.

1.3 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design chain-link fences and gates, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

B. Structural Performance: Chain-link fence and gate framework shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to ASCE/SEI 7 :

1. Minimum Post Size: Determine according to ASTM F 1043 for framework up to 12 feet (3.66 m) high, and post spacing not to exceed 10 feet (3 m) for Group IA.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

1. Fence and gate posts, rails, and fittings.
2. Chain-link fabric, reinforcements, and attachments.
3. Gates and hardware.
4. Gate operators, including operating instructions.
5. Motors: Show nameplate data, ratings, characteristics, and mounting arrangements.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Show accessories, hardware, gate operation, and operational clearances.

1. Gate Operator: Show locations and details for installing operator components, switches, and controls. Indicate motor size, electrical characteristics, drive arrangement, mounting, and grounding provisions.
2. Wiring Diagrams: For power, signal, and control wiring.

1.5 INFORMATIONAL SUBMITTALS

A. Warranty: Sample of special warranty.

1.6 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Emergency Access Requirements: Comply with requirements of authorities having jurisdiction for gates with automatic gate operators serving as a required means of access.

C. Preinstallation Conference: Conduct conference at Project site.

1. Inspect and discuss electrical roughing-in, equipment bases, and other preparatory work specified elsewhere.
2. Review sequence of operation for each type of gate operator.
3. Review coordination of interlocked equipment specified in this Section and elsewhere.
4. Review required testing, inspecting, and certifying procedures.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which Installer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.

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

a. Faulty operation of gate operators and controls.
b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CHAIN-LINK FENCE FABRIC

A. General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist. Comply with CLFMI Product Manual and with requirements indicated below:

1. Fabric Height: As indicated on Drawings.
2. Steel Wire Fabric: Wire shall be minimum of 9 gauge.

a. Mesh Size: 2 inches (50 mm).
b. Zinc-Coated Fabric: ASTM A 392, Type II, Class 1, 1.2 oz./sq. ft. (366 g/sq. m) with zinc coating applied after weaving.

3. Selvage: Knuckled at both selvages.

2.2 FENCE FRAMING

A. Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 based on the following:

1. Fence Height: 96 inches (2440 mm).
2. Horizontal Framework Members: top and bottom rails complying with ASTM F 1043.

a. Top Rail: 1-5/8 inches O.D.
b. Bottom Rail: 1-5/8 inches O.D.

3. Brace Rails: Comply with ASTM F 1043.
4. Metallic Coating for Steel Framing:

a. Type A, consisting of not less than minimum 2.0-oz./sq. ft. (0.61-kg/sq. m) average zinc coating per ASTM A 123/A 123M or 4.0-oz./sq. ft. (1.22-kg/sq. m) zinc coating per ASTM A 653/A 653M.

2.3 SWING GATES

A. General: Comply with ASTM F 900 for gate posts and double swing gate types.

1. Gate Leaf Width: As indicated.
2. Gate Fabric Height: More than 72 inches (1830 mm).

B. Pipe and Tubing:

1. Zinc-Coated Steel: Comply with ASTM F 1043 and ASTM F 1083; protective coating and finish to match fence framing.
2. Gate Posts: Round tubular steel.
3. Gate Frames and Bracing: Round tubular steel.

C. Frame Corner Construction: Welded.

D. Hardware:

1. Hinges: 180-degree inward swing.
2. Latches permitting operation from both sides of gate with provision for secure locking accessible to emergency personnel from both sides of gate.

2.4 HORIZONTAL-SLIDE GATES

A. General: Comply with ASTM F 1184 for gate posts and single sliding gate types. Provide automated vehicular gates that comply with ASTM F 2200.

1. Classification: Type II Cantilever Slide, Class 1 with external roller assemblies.

a. Gate Frame Width and Height: As indicated.

B. Pipe and Tubing:

1. Zinc-Coated Steel: Protective coating and finish to match fence framing.
2. Gate Posts: Comply with ASTM F 1184. Provide round tubular steel posts.
3. Gate Frames and Bracing: Round tubular steel.

C. Frame Corner Construction: Welded.

D. Hardware:

1. Hangers, roller assemblies, and stops fabricated from galvanized steel.

2.5 FITTINGS

A. General: Comply with ASTM F 626.

B. Post Caps: Provide for each post.

1. Provide line post caps with loop to receive tension wire or top rail.

C. Rail and Brace Ends: For each gate, corner, pull, and end post.

D. Rail Fittings: Provide the following:

1. Top Rail Sleeves: Pressed-steel or round-steel tubing not less than 6 inches (152 mm) long.
2. Rail Clamps: Line and corner boulevard clamps for connecting bottom rails in the fence line-to-line posts.

E. Tie Wires, Clips, and Fasteners: According to ASTM F 626.

1. Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, complying with the following:

a. Hot-Dip Galvanized Steel: minimum 9 gauge wire; galvanized coating thickness matching coating thickness of chain-link fence fabric.

F. Finish:

1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. (366 g /sq. m) zinc.

2.6 GATE OPERATORS

A. General: Provide factory-assembled automatic operating system designed for gate size, type, weight, and operation frequency. Provide operation control system with characteristics suitable for Project conditions, with remote-control stations, safety devices, and weatherproof enclosures; coordinate electrical requirements with building electrical system.

1. Provide operator designed so motor may be removed without disturbing limit-switch adjustment and without affecting auxiliary emergency operator.
2. Provide operator with UL approval.
3. Provide electronic components with built-in troubleshooting diagnostic feature.
4. Provide unit designed and wired for both right-hand/left-hand opening, permitting universal installation.

B. Comply with NFPA 70.

C. UL Standard: Fabricate and label gate operators to comply with UL 325.

D. Motor Characteristics: Sufficient to start, accelerate, and operate connected loads at designated speeds, within installed environment, with indicated operating sequence, and without exceeding nameplate rating or considering service factor. Comply with NEMA MG 1 and the following:

1. Voltage: 120 V NEMA standard voltage selected to operate on nominal circuit voltage to which motor is connected.
2. Horsepower: 1.0.
3. Enclosure: Manufacturer's standard.
4. Duty: Continuous duty at ambient temperature of 105 deg F (40 deg C) and at altitude of 3300 feet (1005 m) above sea level.
5. Service Factor: 1.15 for open dripproof motors; 1.0 for totally enclosed motors.
6. Phase: One.

E. Gate Operators: Equipment base/pad mounted and as follows:

1. Mechanical Slide Gate Operators:

a. Duty: Heavy duty, commercial/industrial.
b. Gate Speed: Minimum 45 feet (13.7 m) per minute.
c. Maximum Gate Weight: 2,000 lbs.
d. Frequency of Use: Continuous duty.
e. Operating Type: Roller chain, with manual release.
f. Drive Type: Enclosed worm gear and chain-and-sprocket reducers, roller-chain drive.

F. Remote Controls: Electric controls separated from gate and motor and drive mechanism, with NEMA ICS 6, Type 4 enclosure for equipment base/pad pedestal mounting and with space for additional optional equipment. Provide the following remote-control device(s):

1. Card Reader: Functions only when authorized card is presented. Programmable, magnetic multiple-code system ; face-lighted unit fully visible at night.

a. Reader Type: Proximity.
b. Features: Capable of monitoring and auditing gate activity.

G. Obstruction Detection Devices: Provide each motorized gate with automatic safety sensor(s). Activation of sensor(s) causes operator to immediately function as follows:

1. Action: Stop gate in opening cycle and reverse gate in closing cycle and hold until clear of obstruction.
2. Internal Sensor: Built-in torque or current monitor senses gate is obstructed.

H. Limit Switches: Adjustable switches, interlocked with motor controls and set to automatically stop gate at fully retracted and fully extended positions.

1. Type: Integral fail-safe release, allowing gate to be pushed open without mechanical devices, keys, cranks, or special knowledge.

I. Operating Features:

1. Digital Microprocessor Control: Electronic programmable means for setting, changing, and adjusting control features with capability for monitoring and auditing gate activity. Provide unit that is isolated from voltage spikes and surges.
2. System Integration: With controlling circuit board capable of accepting any type of input from external devices.
3. Automatic Closing Timer: With adjustable time delay before closing.

J. Accessories:

1. Warning Module: Audio,-light alarm sounding three to five seconds in advance of gate operation and continuing until gate stops moving; compliant with the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines.
2. Equipment Bases/Pads: Cast-in-place or precast concrete, depth 6 to 12 inches (150 to 300 mm) below frost line or detail on Drawings, dimensioned and reinforced according to gate-operator component manufacturer's written instructions and as indicated on Drawings.

2.7 GROUT AND ANCHORING CEMENT

A. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.

B. Post-setting Concrete: Type I Portland Cement with aggregate not to exceed ¾" diameter. Concrete shall conform to ASTM C 94 having a minimum compressive strength of 3,000 psi at 28 days.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.

1. Do not begin installation before final grading is completed unless otherwise permitted by Architect.

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

3.2 PREPARATION

A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet (152.5 m) or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

3.3 INSTALLATION, GENERAL

A. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated.

1. Install fencing on established boundary lines inside property line.

3.4 CHAIN-LINK FENCE INSTALLATION

A. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.

B. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.

1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

a. Concealed Concrete: Top 2 inches (50 mm) above grade and sloped to direct water away from posts.

C. Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 15 degrees or more.

D. Line Posts: Space line posts uniformly at 10 feet (3 m) o.c. maximum.

E. Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Diagonally brace terminal posts to adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.

1. Locate horizontal braces at mid-height of fabric 72 inches (1830 mm) or higher, on fences with top rail and at two-third fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.

F. Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.

G. Intermediate and Bottom Rails: Install and secure to posts with fittings.

H. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 1 inch (25.4 mm) between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.

I. Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches (380 mm) o.c.

J. Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

1. Maximum Spacing: Tie fabric to line posts at 12 inches (300 mm) o.c. and to braces at 24 inches (610 mm) o.c.

K. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.5 GATE INSTALLATION

A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

3.6 GATE OPERATOR INSTALLATION

A. General: Install gate operators according to manufacturer's written instructions, aligned and true to fence line and grade.

B. Excavation for Equipment Bases/Pads: Hand-excavate holes for bases/pads, in firm, undisturbed soil to dimensions and depths and at locations as required by gate-operator component manufacturer's written instructions and as indicated.

C. Comply with NFPA 70 and manufacturer's written instructions for grounding of electric-powered motors, controls, and other devices.

3.7 ADJUSTING

A. Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

B. Automatic Gate Operator: Energize circuits to electrical equipment and devices. Adjust operators, controls, safety devices, alarms, and limit switches.

1. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.

2. Test and adjust controls, alarms, and safeties. Replace damaged and malfunctioning controls and equipment.

C. Lubricate hardware, gate operator, and other moving parts.

3.8 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's personnel to adjust, operate, and maintain chain-link fences and gates.

END OF SECTION 323113

SUBSTITUTION REQUEST FORM

TO: Lucas County Purchasing

One Government Center
Suite 480
Toledo, Ohio

PROJECT: New Road Maintenance Facility for the Lucas County Engineer
Lucas County Board of Commissioners
Holland, Ohio

A/E Project Number: 106049

Date: 11/29/12

Submitted for consideration is the following product instead of the specified item for the above-noted Project.

Specification Section and Paragraph: SECTION 105113 – ALL

Drawings and Details affected: A1.01 AND A1.11

Proposed Substitution Description: SUPERIOR "CLASSMATE" WELDED LOCKER

Manufacturer's Name: LIST INDUSTRIES INC.

WHY IS SUBSTITUTION BEING SUBMITTED? (Select one of the following):

X	Pre-Bid Substitution (Prior Approval): Include detailed analysis comparing proposed substitution against the specified product(s), including redlined specification sections showing differences.
	Specified Product is not or no longer available. Explain in detail in attached letter.
	Cost Savings to Owner. Indicate comparative cost analysis as attachment.
	Other. Explain in attachment to this substitution request.

EFFECTS OF PROPOSED SUBSTITUTION
(Attach complete explanations and technical data, including laboratory test, if applicable.)
Include complete information changes to Drawings and/or Specifications that proposed substitution would require for its proper installation. Fill in the blanks below.

- Does the substitution affect dimensions shown on Drawings? (No) Yes
  will the undersigned pay for changes to building design, including Engineering and detailing costs caused by the requested substitution? (No) Yes — NONE REQUIRED
- What affect does substitution have on other trades? NONE
- What are the differences between the proposed and specified items? SEE NOTES IN ATTACHED SPECIFICATION
- Manufacturer's guarantees of proposed and specified item? (Same) Different
  (If different, provide explanation on separate attachment.)
- Manufacturer's dimensions of proposed and specified item? (Same) Different
  (If different, provide explanation on separate attachment.)
- Manufacturer's weight of proposed and specified item? (Same) Different

(If different or not applicable, provide explanation on separate attachment.)

The undersigned states that function, appearance, finish, size, weight and quality of the proposed substitution are equivalent or superior to the specified item unless clearly stated as different on included attachments.

SUBMITTED BY:
(Include name, address, telephone, and contact person of manufacturer/supplier of proposed substitution.)

GREG SLUSS, REGIONAL SALES MANAGER
LIST INDUSTRIES INC.
903 EAST MAIN ST.
LOUISVILLE, OH 44641
PHONE: 330-875-5289

For Design Team Use:

X	Accepted			Accepted As Noted
	Not Accepted			Received too late to review
	Incomplete Information			
	No Substitution Allowed for specified item			

Reviewed by: Audie Bates
Date: 11-30-2012
Comments: None

For Construction Manager's Use:

Reviewed by and Date: _____

END OF SUBSTITUTION FORM

THE CLASSMATE™ UNIBODY ALL-WELDED CORRIDOR LOCKERS

Our unique double frame, unibody all-welded design provides a durable locker with a classic appearance that is backed by our life-time warranty.

What is Unibody All-Welded?

- Superior unibody all-welded corridor lockers include our double vertical frame design adding strength, integrity, durability and visual appeal.
- First we start with prime grade cold rolled sheet steel. 16 gauge for all body components except backs which are 18 gauge. Doors are heavy 14 gauge.
- Sides are formed to be an integral part of the front vertical locker frame which locks into the bottom for precise alignment and added strength.
- We MIG weld an additional channel shaped vertical frame member between doors providing a continuous door strike at both the hinge and latch side of the door.
- The top and bottom are flanged downward at the front to form a 1-1/2" high channel shaped top and bottom horizontal frame member continuous across the multiple column unit up to 60" wide.
- The base is a full 1-1/2" high keeping locker contents away from moisture on the floor and/or wood/concrete base.
- Front-to-back channel stiffeners are welded into the base under each side panel providing a strong anchor bearing surface for installation and increasing overall unit strength.
- Horizontal tier dividers for double and triple tier models project through to the face of the locker forming a horizontal cross member between doors for maximum strength.
- Guaranteed in writing by our lifetime warranty.

upgrade

Integral Slope Top is fabricated of heavy 16 gauge steel, runs continuous across a multiple column unit and is MIG welded at the factory replacing welded locker unit flat top. Sides are sloped at top providing rigid support beneath the slope top between each locker column.

FEATURES

BODY CONSTRUCTION: All-welded unibody construction, 16 gauge solid sides integral with frame, 16 gauge continuous top, 18 gauge solid back, 16 gauge bottom

DOORS: 14 gauge louvered doors are standard. Plain, Security-Plus, Safety-View and diamond perforated door styles are optional

HANDLE: Deep-drawn seamless stainless steel recessed handle

DOOR STRIKE: Continuous vertical door strike at both hinge and latch side

LATCHING: 12 gauge latch hooks MIG welded to frame. Gravity lift-type multi-point spring loaded latching:
- 3-point latching for openings 48" high and higher
- 2-point latching for openings 20" high thru 36" high

HINGES: 16 gauge continuous piano type
HOOKS: 2-single hooks and 1-double hook is standard. 1-double hook only for triple tier and 1-double and 1-single hook for 9" wide openings 30" and higher

SHELVES: 16 gauge hat shelf for single tier openings 60" and 72" high, 16 gauge intermediate shelves

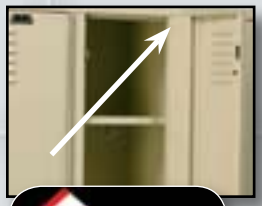
WARRANTY: Lifetime

SIZES: See page 12 for standard sizes

STANDARD
Deep-drawn stainless steel recessed handle with gravity lift-type latching

STANDARD
12 gauge latch hook is welded to frame

STANDARD
16 gauge continuous piano hinge



upgrade

Premier Series Classmate which includes a 3" wide 18 gauge full height door stiffener spot welded to the inner door face and MIG welded to the hinge side as well as to the top and bottom door flanges providing a rigid torque-free door. A 1-1/2" wide stiffener will be furnished for 9" wide Premier doors. 18" and 24" all-welded lockers are only available in Premier Series.

THE CLASSMATE LOCKER SPECIFICATIONS

General: Lockers shall Be "Superior Classmate Unibody All-Welded Corridor Lockers" as manufactured by List Industries Inc. or approved equal. All lockers shall be factory-assembled, of all MIG welded construction, in multiple column units to meet job conditions. Assembly of locker bodies by means of bolts, screws, or rivets will not be permitted. Welding of knockdown locker construction is not acceptable. Grind exposed welds and metal edges flush and make safe to touch.

Finishing: All locker parts to be cleaned and coated after fabrication with a seven stage zinc/iron phosphate solution to inhibit corrosion, followed by a coat of high grade custom blend powder electrostatically sprayed and baked at 350 degrees Fahrenheit for a minimum of 20 minutes to provide a tough durable finish. Color to be selected from manufacturer's standard list of colors.Two-tone color combination shall be at no additional cost with the locker body, frame and trim chosen from one color and the doors may be one of any other color chosen from manufacturer's standard selection.

Classmate Wardrobe Doors: Doors 20" high and over are to be fabricated from single sheet prime 14 gauge steel with single bends at top and bottom and double bends at the sides. The channel formed by the double bend at the latch side is designed to fully conceal the lock bar. Lock bar shall be hot dip galvanized and installed after locker is painted to ensure proper paint coverage and lock operation. The latching mechanism shall be finger lift control type constructed of 14 gauge (minimum) steel with a nylon cover that has a generous finger pull. Spring activated nylon slide latches shall be completely enclosed in the lock channel allowing doors to close with the lock in the locked position. Locking device shall be designed for use with either built-in combination locks or padlocks. Latch hooks shall be 12 gauge (minimum) with riveted bumpers and shall be MIG welded to vertical frame member. Provide three latch hooks for doors 48" and over and two for doors under 48". Doors to be louvered. Doors 18" and 24" wide shall include a 3" wide 18 gauge full height channel door stiffener MIG welded to the hinge side of the door as well as to the top and bottom door return bends and spot welded to the inside of door face and to form a rigid torque-free box reinforcement for the door.

Seamless Drawn Stainless Steel Recessed Locker Handle: All locker doors shall have a seamless drawn not less than 304 stainless steel recessed handle shaped to receive a padlock or built-in combination lock. The recess pan shall be deep enough to have the lock be completely flush with the outer door face. A finger lift/padlock hasp shall protrude through the top of the handle for easy opening of the locker door.

Latching: The latching mechanism shall be finger lift control type constructed of 14 gauge (minimum) steel with a nylon cover that has a generous finger pull. Spring activated nylon slide latches shall be completely enclosed in the lock channel allowing doors to close with the lock in the locked position. Lock bar shall be hot dip galvanized and installed after door is painted to ensure proper paint coverage and lock bar operation. Locking device shall be designed for use with either built-in combination locks or padlocks. Latch hooks shall be 12 gauge (minimum) and shall be MIG welded to vertical frame member. Provide three latch hooks for doors 48" and over and two for doors under 48".

Hinges: Hinges shall not be less than16 gauge continuous piano type riveted to frame and welded to the door. All doors shall be right hand side hinged.

Twin-Frame / Vertical Side Panels: Shall be of integral frame and side wall construction manufactured from solid 16 gauge sheet steel. The one-piece side/frame shall be formed to provide a continuous door strike on the hinge side. An additional continuous vertical door strike shall be achieved at the latch side by MIG welding a 16 gauge full height channel frame member to the integral locker side producing a rigid torque-free welded locker body. The frame shall include a tab which engages a slot in the base locking the side panel and frame into position.

Integral Frame Locker Base: 16 gauge formed sheet steel with double return flanges at the front and rear. A full depth horizontal channel shall be MIG welded under the locker bottom front-to-back at the left and right side of each welded locker unit as well as beneath each vertical side panel for maximum rigidity.

Flat Tops: Shall be formed of one piece of 16 gauge cold rolled sheet steel and shall be an integral part MIG welded to each vertical side panel frame member and be continuous to cover the full width of a multiple locker unit. Integral slope tops are optional.

Hat Shelves, Intermediate Shelves And Bottoms: Shall be 16 gauge sheet steel, have double bends at front and shall be MIG welded to the sides.

Backs: Shall be 18 gauge cold rolled sheet steel, be continuous to cover a multiple twin-framed unit and be welded to each vertical side panel.

Locks (If Required): Shall be master keyed to one system for the entire project. (Go to www.ListIndustries.com for lock use chart and suggested lock application).

Equipment: Openings 60" and 72" shall include one hat shelf. One double hook and two single hooks are standard with the following exceptions:

- Openings 20" and 24" high: One double hook only at 12" wide and wider.
- Openings 9" wide: Two single hooks only.

Lifetime Warranty: Superior unibody all-welded lockers are covered against all defects in materials and workmanship excluding finish, damage resulting from deliberate destruction and vandalism under this section for the lifetime of the facility.

SUPERIOR®
AMERICA'S MOST COMPLETE LOCKER LINE®

C-013 Dated 12/3/2012

METAL LOCKER AND CUBBIE COLOR SELECTOR

24 Designer Powder Coat Colors for Production Lockers

Enhance your decor with two-tone color combinations, doors one color and frame a second color,

AT NO ADDITIONAL COST.

List Industries Inc.® does not recommend color selection from electronic media as monitor and/or printer settings may affect color appearance.

For a more accurate color selection, contact our customer service department to request a color selector or to request actual painted metal samples of colors you are considering.

All surfaces shall be thoroughly cleaned with a seven stage hot-spray washing process and coated with an insoluble iron phosphate film. A high grade custom blended powder is applied by a computer controlled, highly efficient electrostatic paint system. The product is cured for 20 minutes at 350 degrees through a continuous baking oven to provide maximum paint adhesion, tough durability and a smooth paint finish.

NOTE: All body components of production KD lockers will be painted our standard neutral color, currently Parchment (choice of Parchment or Hallowell Gray for HDV body components only).

LIST INDUSTRIES INC.®

(954) 429-9155 Fax: (954) 428-3843

1-800-776-1342

401 Jim Moran Blvd., P. O. Box 9601
Deerfield Beach, FL 33442

www.ListIndustries.com

714 Snow White	710 Sandstone	708 Midnight Ebony
736 Sport Silver	729 Parchment	713 Sand Beige
711 Platinum	706 Heather	725 Hallowell Gray
738 Charcoal	723 Trophy	728 Hoop
737 Forest Gold	721 Relay Red	727 Maroon
722 Tidal Wave	731 Denim	720 Pep Rally
707 Marine Blue	717 Grand Slam	719 Jersey
705 Green Mist	735 Basil	704 Evergreen

List Industries Inc. reserves the right to modify its designs and/or make changes in specifications or colors without prior notice.

C-013 Dated 12/3/2012

Lightning Lockers
1119 Water Street Toledo, Ohio 43604
P: 419-725-1914 F: 419-725-1915

1119 Water Street
Toledo, Ohio 43604

To:	Lucas County Purchasing	**FAX:**	419-213-4533
From:	Todd Williams	**Date:**	11/28/2012
Re:	Lucas County Maintenance Facility	**Pages:**	7
CC:			

☐ Urgent x For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Locker Substitution Request for the Holland /Lucas County Road Maintenance Facility

1-800-497-6895 EXT. 1184

C-013 Dated 12/3/2012

1119 Water Street
Toledo, Ohio 43604
Toll free 1-800-497-6895

Nov. 27, 2012

Re: ***Holland / Lucas County Road Maintenance Facility***

To whom it may concern:

I appreciate your time in considering our locker as an approved equal for the Holland / Lucas County Road Maintenance Facility. We are a Toledo based company and have been in business since 1998. Lightning Lockers has been specified as a locker manufacturer by SSOE Toledo Ohio, MKC Associates Inc Mansfield OH, and Crabtree Rohrbaugh and Associates Mechanicsburg PA . We have recently been approved as equal for specific projects designed by Allied Toledo architects, Freytag and Associates, Garman Miller and Associates, and DNK architects. We are an approved locker supplier for Chrysler, Sunoco Refineries, Coca Cola, NASA, Exxon, and Honda (we supplied 3200 lockers for Honda's new Greenburg facility in Indiana) as well as the sole source of lockers for Publix grocery stores, Whole Foods, and Cirque De Soleil. Locally we are an approved manufacturer for the Toledo Public schools projects and have supplied lockers for Larchmont K-8, Jones Middle School, East Broadway K-8, Scott High School, Beverly K-8, Birmingham K-8, Ottawa and Glandorf schools and the Toledo Charter Schools. Other local projects have included the new West Toledo YMCA, Faurecia Exhaust and Chrysler's last large addition several summers ago. We assemble and install using only our own employees – all of whom have been specifically trained for locker work.

Currently we stock more than five thousand new lockers in Toledo and as we begin to think green and local, an ever changing inventory of used and refurbished lockers for which we have found a very enthusiastic customer base. Our website is available for your review at www.lightninglockers.com .

I am attaching our standard specifications and a comparison spreadsheet for your perusal. I am more than happy to discuss any of this with you via phone or in person. Obviously, our specifications and submittals for this school project would be tailored to your published requirements.

I look forward to working with you.
Sincerely,
Todd Williams

C-013 Dated 12/3/2012

SUBSTITUTION REQUEST FORM

TO: Lucas County Purchasing

One Government Center
Suite 480
Toledo, Ohio

PROJECT: New Road Maintenance Facility for the Lucas County Engineer
Lucas County Board of Commissioners
Holland, Ohio

A/E Project Number: 106049

Date: 11-27-12

Submitted for consideration is the following product instead of the specified item for the above-noted Project.

Specification Section and Paragraph: 105113 2.1 Manufacturers

Drawings and Details affected: Locker Room Drawings

Proposed Substitution Description: Lightning Lockers All Welded Metal Lockers

Manufacturer's Name: Lightning Lockers LLC

WHY IS SUBSTITUTION BEING SUBMITTED? (Select one of the following):

X	Pre-Bid Substitution (Prior Approval): Include detailed analysis comparing proposed substitution against the specified product(s), including redlined specification sections showing differences.
	Specified Product is not or no longer available. Explain in detail in attached letter.
	Cost Savings to Owner. Indicate comparative cost analysis as attachment.
	Other. Explain in attachment to this substitution request.

EFFECTS OF PROPOSED SUBSTITUTION
(Attach complete explanations and technical data, including laboratory test, if applicable.)
Include complete information changes to Drawings and/or Specifications that proposed substitution would require for its proper installation. Fill in the blanks below.

- Does the substitution affect dimensions shown on Drawings? (No) Yes
  will the undersigned pay for changes to building design, including Engineering and detailing costs caused by the requested substitution? No Yes
- What affect does substitution have on other trades? None
- What are the differences between the proposed and specified items? Name
- Manufacturer's guarantees of proposed and specified item? (Same) Different
  (If different, provide explanation on separate attachment.)
- Manufacturer's dimensions of proposed and specified item? (Same) Different
  (If different, provide explanation on separate attachment.)
- Manufacturer's weight of proposed and specified item? (Same) Different

C-013 Dated 12/3/2012

(If different or not applicable, provide explanation on separate attachment.)

The undersigned states that function, appearance, finish, size, weight and quality of the proposed substitution are equivalent or superior to the specified item unless clearly stated as different on included attachments.

SUBMITTED BY:
(Include name, address, telephone, and contact person of manufacturer/supplier of proposed substitution.)

Todd Williams
Lightning Lockers LLC
1119 Water St.
Toledo OH 43604
419-725-1914

For Design Team Use:

	Accepted			Accepted As Noted
X	Not Accepted			Received too late to review
	Incomplete Information			
	No Substitution Allowed for specified item			

Reviewed by: Audie Bates
Date: 11-30-2012
Comments: Specifications required 14 ga. steel doors and submitted item is 16 ga.

For Construction Manager's Use:

Reviewed by and Date: _____

END OF SUBSTITUTION FORM

Specifications

Lightning Plus Collection

PART 1: GENERAL

1.01 Work Included
A. The lockers shall be powder-coated steel as by Lightning Lockers, Toledo, Ohio.
B. Furnish all labor and materials for completion of work in this section as shown in the approved drawings and specified herein.

PART 2: PRODUCT
2.01 Material - All major steel parts shall be of mild cold rolled commercial quality steel.

2.02 Finish - All material shall be power washed and phosphate treated for maximum finish color adhesion. All components shall be finished with a 2 mm hybrid epoxy/ polyester powder, electrostatically applied to ensure uniform thickness and baked to cure.

2.03 Construction - All lockers shall be built on a unit principle with common intermediate uprights separating units.

2.04 Door Frames - Shall be 16 gauge formed in a channel shape. Vertical members shall have additional flange to provide a continuous door strike. Cross frame members shall also be 16 gauge channel shaped, including intermediate cross frames on double and triple tier lockers.

2.05 Doors - Shall be 16 gauge, channel shaped on both the lock and hinge side, with angle formations across the top and bottom. 15" wide and wider Single Tier locker doors shall have a 16 gauge full height reinforcement channel. Doors shall be louvered for required ventilation. Single, Double and Triple Tier Doors shall have louvers at top and bottom of door. Six Tier doors shall have one set of louvers located in the center of each door.

2.06 Body - Tops, bottoms, sides, backs and shelves shall be 24 gauge steel. Rivet spacing shall not exceed 9"on center –except where necessary for ganging.

2.07 Hinges - Shall be full length 16 gauge continuous piano type riveted to both door and frame, or 5 knuckle hinges welded to door and attached to door frame with not less than two factory- installed rivets per hinge that are completely concealed and tamper-resistant when door is closed.

2.08 Handles - Shall be one-piece 20 gauge deep drawn stainless steel cup designed to accommodate locks.

2.09 Latching - Single, double and triple tier lockers shall have an 11 gauge frame hook secured to the frame. The frame shall have a padlock hasp protruding through the recessed handle. A rubber silencer shall be firmly secured to the frame at two locations. Doors shall be able to be locked with padlocks or built-in locks.

2.10 Interior Equipment - Single tier lockers 48"or higher shall have a shelf. If under 18" deep, locker shall have two wall hooks. Single and Double tier lockers 18"deep or more shall have a coat rod in addition to two wall hooks. Triple and Six tier lockers do not receive hooks.

2.11 Number Plates - Each locker shall have a polished aluminum number plate riveted to door face with black numerals ½"high.

2.12 Color - Doors and exposed body parts shall be as chosen from manufacturer's full range of colors.

2.13 Assembly - All locker components shall be assembled by use of rivets.

PART 3: EXECUTION
3.01 Installation - Lockers shall be installed in accordance with Lightning Lockers' installation instructions and shall be level and plumb with flush surfaces and rigid attachment to anchoring surfaces.

Lifetime Guarantee: Products are guaranteed to be free from defects in workmanship and material for the lifetime of the product. Any products returned under this guarantee will be repaired or replaced at no charge. Guarantee does not cover abuse or neglect.

Illustrations and descriptions herein are applicable to production as of the date of this catalog. The manufacturer reserves the right to make changes and improvements in designs and dimensions at any time.

Lightning Lockers LLC

Lifetime Limited Warranty

Lightning Lockers shall warrant their locker for the life of the product. Warranty shall include all defects in material and workmanship, excluding finish, vandalism, and improper installation.

Warranty covers original owner and is non-transferable.

C-013 Dated 12/3/2012

PHIL LEAK COMPANY

P.O. Box 379 Norwalk, Ohio 44857

FAX: (419) 663-5010 **PHONE:** (800) 847-2696

FACSIMILE TRANSMISSION

Page 1 of 5

TO: BOARD OF LUCAS COUNTY COMMISSIONER Fax # 419-213-4533
Company Name

ATTN: LYNN DiPIERRO-SUPPORT SERVICES MGR Date 11-29-12

MESSAGE: PER THE REQUEST OF AUDIE BATES OF THE COLLABORATIVE HERE IS OUR SUBSTITUTION FORM COVERING THE HEAVY DUTY LIFT FOR PROJECT #106049 HOLLAND, OHIO

FAXED
FAXED NOV 29 2012 FAXED
BY: 8:36 AM

SINCERELY;

Signed: Patrick L. Spino

PHIL LEAK COMPANY
1-800-847-2696
PATRICK L. SPINO
SALES MANAGER

SUBSTITUTION REQUEST FORM

TO: Lucas County Purchasing
One Government Center
Suite 480
Toledo, Ohio

PROJECT: New Road Maintenance Facility for the Lucas County Engineer
Lucas County Board of Commissioners
Holland, Ohio

A/E Project Number: 106049

Date: 11-28-12

Submitted for consideration is the following product instead of the specified item for the above-noted Project.

Specification Section and Paragraph: SECT 111400, PART 2-PRODUCTS, 2.1

Drawings and Details affected: NONE

Proposed Substitution Description: OMER # K-350-9 FM

Manufacturer's Name: OMER NORTH AMERICA

WHY IS SUBSTITUTION BEING SUBMITTED? (Select one of the following):

X	Pre-Bid Substitution (Prior Approval): Include detailed analysis comparing proposed substitution against the specified product(s), including redlined specification sections showing differences.
	Specified Product is not or no longer available. Explain in detail in attached letter.
	Cost Savings to Owner. Indicate comparative cost analysis as attachment.
	Other. Explain in attachment to this substitution request.

EFFECTS OF PROPOSED SUBSTITUTION

(Attach complete explanations and technical data, including laboratory test, if applicable.)
Include complete information changes to Drawings and/or Specifications that proposed substitution would require for its proper installation. Fill in the blanks below.

- Does the substitution affect dimensions shown on Drawings? (No) Yes
  will the undersigned pay for changes to building design, including Engineering and detailing costs caused by the requested substitution? (No) Yes
- What affect does substitution have on other trades?
  NONE
- What are the differences between the proposed and specified items?
  MORE MODERN DESIGN- PANTOGRAPH VERSUS OLDER PARRELOGRAM
- Manufacturer's guarantees of proposed and specified item? Same [Different]
  (If different, provide explanation on separate attachment.)
  SEE ATTACHED PAGE
- Manufacturer's dimensions of proposed and specified item? [Same] Different
  (If different, provide explanation on separate attachment.)
- Manufacturer's weight of proposed and specified item? Same Different
  #17500 LBS

ATTACHMENT #1

- Manufacturer's guarantees of proposed and specified item? (If different, provide explanation on separate attachment.)

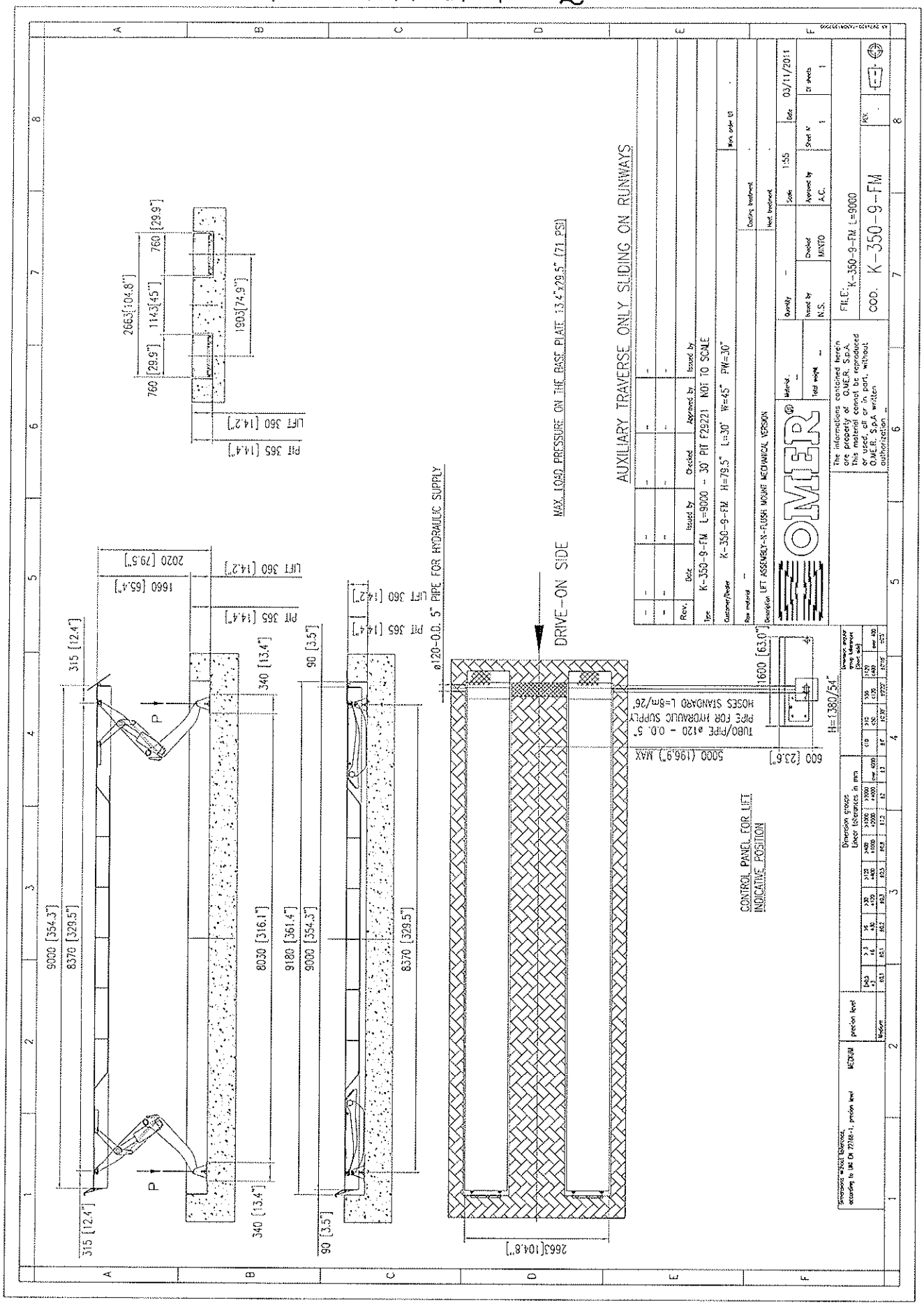
  Two (2) years on all parts plus one year on site labor

  Ten Years on structure

  Ten years on hydraulic parts

C-013 Dated 12/3/2012

ATTACHMENT #2



(If different or not applicable, provide explanation on separate attachment.)

The undersigned states that function, appearance, finish, size, weight and quality of the proposed substitution are equivalent or superior to the specified item unless clearly stated as different on included attachments.

SUBMITTED BY:
(Include name, address, telephone, and contact person of manufacturer/supplier of proposed substitution.)

PHIL LEAK Co
P.O. Box 379
NORWALK, OH 44857
PH. 800-847-2696
PATRICK L. SPINO SLS. MGR.

For Design Team Use:

	Accepted			Accepted As Noted
X	Not Accepted			Received too late to review
X	Incomplete Information			
	No Substitution Allowed for specified item			

Reviewed by: Audie Bates
Date: 11-30-2012
Comments: See note to right

Submitted information does not verify submitted unit can support and provide required additional accessory items (axle lifts/lighting)

For Construction Manager's Use:

Reviewed by and Date: _____

END OF SUBSTITUTION FORM

MANDATORY PRE-BID CONFERENCE

C-013 Dated 12/3/2012

DATE: November 27, 2012

TIME: 10:00 AM (local time)

PROJECT: 12-032P – Engineer Road Maintenance Building – MEP, Fire Protection, General Trades & Fueling System

LOCATION: Parties are to meet at 1049 S McCord Road, Holland, OH 43528

PLEASE PRINT LEGIBLY

COMPANY NAME AND ADDRESS	REPRESENTATIVE NAME	TELEPHONE AND FAX NUMBERS	E-MAIL ADDRESS
Clearspan Fabric Structures 1395 John Fitch Blvd. S. Windsor Ct.	Brad Williams	800-663-4445 X241	Bwilliams@clearspan.com
DALMATIAN FIRE 7719 GRAPHICS WAY, SUITE G LEWIS Center, OH 43035	Curt SHANE	740-549-4509 fax 740-549-4586	CSHANE@DALMATIANFIRE.NET
ET Electric 5500 Alger Dr ~~Toledo~~ Sylvania, OH	Tyler McCormack	419-810-5193	MikeM@ET-Elect.com TylerM@ET-Electric.com
Wurner Mech. 1609 Dickinson St. Fremont Ohio	Lucas Fackler	419-332-7116	lfackler@warnermech.com
DIMECH 5555 Enterprise Blvd Toledo, OH 43613	Dick Schock	419-727-0111	rschock@dimech.com
BAY, INC 7414 PONDEROSA PERRYSBURG OH 43551	BILL BAUER	419 661 3933 3733	
VM Systems Inc. 3125 Hill Ave Toledo OH	Justin Limmy	419 535-1044	Justin L@VMsystems.com
HENSON PH HEATING 104 Bridge ST WOODVILLE OHIO	CHUCK Henson	419-849-3401	HensonPH@bis.cc
MIDWEST CONTRACTORS 1422 ALBON Holland, OH	RUBEN FUERST	419-866-4560 P 4570 F	RUBEN.FUERST@MIDWEST-CONTRACTORS.COM
LANDCARE NETWORK 2930 GRATIWOHL TOLEDO, OH 43617	BRIAN KILLIAN	419-351-5829	BRIANKILLIAN@LANDCARENETWORK.NET

MANDATORY PRE-BID CONFERENCE

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PLEASE PRINT LEGIBLY

COMPANY NAME AND ADDRESS	REPRESENTATIVE NAME	TELEPHONE AND FAX NUMBERS	E-MAIL ADDRESS
KAR LIFT SOLUTIONS 2465 STATE Rd FINDLAY OHIO	TOM BIESINDA	330-960-0941	TBIESINDA@NEO.RR.COM
H.T. Schobert & Associates	GREG CHRISTIAN	419-933-6666 419-933-4528	GREGCHT@AI.NET
LEANTRAK, INC	JEFF CLAUSIUS	419-482-0797	JEFFCLAUSIUS@LEANTRAK.COM
MARLIN P WHITE & SONS INC	JOHN WHITE	419-332-3631 419-332-7376	JAWIII@MARLINWHITEANDSONS.COM
REGENT ELECTRIC	KEVIN MCCARTHY	419 476 8333 419 476 0179	kmccarthy@regentelectric.com
LAIBE ELECTRIC	MIKE DEATON	419-724-8200 419-531-5809	MIKEDEATON@LAIBE.COM
Rudco Fire Protection Inc. 444 W. Laskey rd. Suite 5 Toledo, OH 43612	Richard Cle	419-476-0102 419-476-0401	rudcofire@aim.com
S.A. COMUNALE CO. INC	ROBERT WASKIELIS	419-334-3541 419-334-4734	ROBERT.WASKIELIS@COMUNALE.com
M & M HEATING AND COOLING	Will Garcia	419 243-3003 419 243-0754	mmheatingwill@yahoo.com
Bryson Tucker Elec 50 Elmdale Toledo Ohio 43607	Andrew Bryson	419-536-2293 419-536-2799	A@brysontucker.com

MANDATORY PRE-BID CONFERENCE

C-013 Dated 12/3/2012

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PROJECT: 12-032P – Engineer Road Maintenance Building – MEP, Fire Protection, General Trades & Fueling System

LOCATION: Parties are to meet at 1049 S McCord Road, Holland, OH 43528

PLEASE PRINT LEGIBLY

COMPANY NAME AND ADDRESS	REPRESENTATIVE NAME	TELEPHONE AND FAX NUMBERS	E-MAIL ADDRESS
LaRoy Plumbing and Heating Inc PO Box 552 Sylvania	Steve ph LaRoy FAX	419-476-1500 734-854-4402	laroyplumbing@frontier.com
Border Fire Protection Inc 6334 Millbrook Rd Maumee OH 43537	Jeff Kennelly	419 866 5944 5939	BFP@roadrunner.com
~~MARC~~ TRANSTAR CORP 676 WAREHOUSE RD TOLEDO, OH 43615	MARY GREGOR	419-704-0637	MARYG@TRANSTARCORP.COM
VANEX FIRE SYSTEMS 10447 S. HAROLD DR. LUNA PIER, MI 48157	CARY GILLEAN	734-848-5000 734-848-5033	cary@vanexfire.com
BRUT ELECTRIC INC 7825 W. CENTRAL AVE TOLEDO, OH	Curtis Rose	419-841-3326	[illegible]
OSCAR W. LARSON 10100 DIXIE HWY CLARKSTON, MI.	MATT KOZIEL	248-620-0070 EXT. 158	MKOZIEL@LARSONCO.COM
ACCEL FIRE SYSTEMS 3365 SILICA RD. SYLVANIA, OH 43560	ALAN BARNHIZER	419-843-7756 419-843-9581	alan@accelfiresystem.com
WESTPHAL ELECTRIC 6401 Hamilton DR E HOLLAND OHIO 43528	DON WESTPHAL	419 865 8888 419 865 8800	[illegible]
Dotson Company P.O. Box 2429 Whitehouse, O 43571	Fritz Kunz	419-877-5176 F-419-877-0736	COLLEEN@DOTSONCOMPANY.COM
hph Mech Vents PCB & HTG CO. 2000 the Bluffs Toledo Ohio 43615	MARK NOWAKOWSKI	419-843-2222 F. 419 843-2717	hph1@Access toledo.com

MANDATORY PRE-BID CONFERENCE

C-013 Dated 12/3/2012

DATE: November 27, 2012

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PROJECT: 12-032P – Engineer Road Maintenance Building – MEP, Fire Protection, General Trades & Fueling System

LOCATION: Parties are to meet at 1049 S McCord Road, Holland, OH 43528

PLEASE PRINT LEGIBLY

COMPANY NAME AND ADDRESS	REPRESENTATIVE NAME	TELEPHONE AND FAX NUMBERS	E-MAIL ADDRESS
Northwest Electrical Contractors 6529 Angola Rd. Holland, OH 43528	Jim Rogers	419-865-4757 419-865-4722 (F)	jrogers@nwelectric.com
Absolute Fire Protection 23561 Ford Meigs Rd suite H Perrysburg OH	Bill Jacques	586-773-2138 419-874-1044	bill@absolutefire
Romanoff Electric 5570 Enterprise Blvd. Toledo, OH 43612	Anne-Marie Weimer	419-726-2627 419-726-5466	anne.weimer@ romanoffelectric.com
MOSSER CONSTRUCTION, INC 132 S. WILSON AVE FREMONT, OH 43420	CONNIE MOORE	419-334-3801 419-881-3110	CMOORE@ MOSSERCRP.com
Westfield Electric, Inc P.O. Box 93 2995 S.R. 51 Gibsonburg OH 43431	Monica Haney	419.862.0578 419.862.0579	bfreeman@westfieldgroup.com
LR Babcock, INC 387 Freedom Drive Napoleon, OH 43545	EVAN TIRABY	419 579 4097 419 592 4142	evant@LRBabcock.com
PHIL LEAK Co PO Box 379 NORWALK, OH 44857	PAT SPINO	419-668-3713 419 663-0010	pspino@philleakco.com
Lake Erie Electric	Mickey Drear	419-352-7141 419-373-1940	mdrear@ lakeerieelectric.com
GENESIS CONTRACTING 6505 ANGOLA ROAD HOLLAND OH 43528	RYAN WHITE	419 302 3889	rwhite@genesis-contracting.com