City of Muncie
Request for Proposal Advertisement

Publishing Instructions:

This is to be ran in the Star Press twice, Weeks of 5/7/2025 and 5/14/2024

Advertisement:

City of Muncie
Invitation For Bid

The City of Muncie is soliciting bids for the City of Muncie Parks Restroom Construction 2025. Interested parties may contact the City Engineer at aleach@muncie.in.gov, copies of bid documents are available at the City Engineers office or on the City Website at www.muncie.in.gov -> Departments -> Public Works -> Public Notices .Bid submittals shall be due at the City of Muncie Clerks Office by 9am May, 28th 2025. This project is subject to federal funding requirements as a Community Development Block Grant project.

Legal Requirement:

IC 5-3-1-2-e: If the event is the receiving of bids, notice shall be published two (2) times, at least one (1) week apart, with the second publication made at least seven (7) days before the date the bids will be received.

City of Muncie
Invitation for Bid

Bid Requested For
Parks Restrooms Construction

Bid packet available at:
City of Muncie Website

Pre bid conference
a. Not Required
b. Will be held: May 22nd, 9am, Mayors Conference Room, 300 North High Street Muncie.

Response Due:
a. Wednesday, May 28th, at City of Muncie Clerks office no later than 9am.
b. Bid to be delivered in a sealed envelope with "Bid for Parks Restroom Construction" and contractor name on front of envelope.
c. Bids will be read aloud, entered into the record, then reviewed by the City Legal and Engineering teams after the meeting.
d. Award announcements will follow after review.

Primary Contact:
a. Adam Leach, City Engineer
b. aleach@muncie.in.gov
c. All official correspondence shall be via email

General Information

1. Introduction
The City of Muncie is soliciting bids for the construction of two 225 s.f. restroom facilities, one at Thomas Park and one at Riverview Park. Construction includes attendant site improvements including utility connections, sidewalk, general grading, and restoration.

2. Definitions and Abbreviations
N/A

3. Scope of Work
Per plan set construct restroom facilities at the both parks, install concrete to line and grade, connect utilities, and turn over functional facility to City.

Bid Information and Checklist

1. Bid Type and Content

Form 96, Project shall be bid per the included bid sheet with architectural work to be completed as a lump sum and civil work to include unit pricing. Please total and include only lump sum on form 96

2. References

a. Shall be provided on Form 96

3. Qualifications

a. Shall be provided on Form 96.
b. To be considered Qualified contractor or subcontractors shall have experience in the construction of small commercial structures and flat work.

4. Signed Contract

a. The Contract must be signed be an official authorized to represent the general contractor

b. Bid Bond

a. A surety from a financial institution authorized to do business in the state of Indiana of not less than 5% of the bid amount shall be provided.

5. Certificate of Non-Segregated Facilities

6. EEO Statement

7. Antidiscrimination Disclosure

8. E-Verify

a. Proof of E-Verify for the general contractor and any subcontractors Is required per Indiana Code, a signed letter on company letterhead with an authorized signatory declaring that the company participates in E-Verify per Indiana Code.

Contract Information

1. Form of Contract

a. City of Muncie Federal Construction Contract

2. Performance Bond

a. A surety from a financial institution authorized to do business in the state of Indiana of not less than 100% of the contract amount shall be provided by the selected contractor prior to award and notice to proceed

3. Compliance Requirements

a. This is a prevailing wage project, Davis-Bacon Wage Act shall be enforced
b. All federal and state laws shall be complied with per contract

4. Disbarment

a. Awarded contractor must not be debarred from federal work on the SAM.gov website at the time of award

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE
RIVERVIEW PARK
1800 BUNCH BLVD
MUNCIE, INDIANA 47303

ABBREVIATIONS

ADJ– ADJACENT
AFF– ABOVE FINISHED FLOOR
ALT– ALTERNATE
ALUM–ALUMINUM
BRG– BEARING
BS– BOTH SIDES
BTB– BACK TO BACK
CB– CIRCUIT BREAKER
CJ– CONTROL JOINT
CLG– CEILING
CMU– CONCRETE MASONRY UNIT
CO– CLEAN OUT
CONC– CONCRETE
CU– COPPER
CW– COLD WATER
D– DEEP/ DEPTH
DISC– DISCONNECT
DL– DEAD LOAD
DS– DOWN SPOUT
DWG– DRAWING (S)
EC– ELECTRICAL CONTRACTOR
ELEC– ELECTRIC(AL)
EQUP– EQUIPMENT
EW– EACH WAY
EWC– ELECTRIC WATER COOLER
FD– FLOOR DRAIN
FRP– FIBERGLASS REINFORCED PLASTIC
GC– GENERAL CONTRACTOR
GPM– GALLONS PER MINUTE
GB– GYPSUM BOARD (DRYWALL)
H– HIGH
HB– HOSE BIBB
HORIZ– HORIZONTAL
HT– HEIGHT
HVAC– HEATING, VENTILATION, & AIR CONDITIONING
HW– HOT WATER
INSUL– INSULATION
KB–KNEE BRACE
LL– LIVE LOAD
LLH– LONG LEG HORIZONTAL
LLV– LONG LEG VERTICAL
LVL– LAMINATED VENEER LUMBER
MAX– MAXIMUM
MBH– 1000 BTU/ HOUR
MC– MECHANICAL CONTRACTOR
MFR– MANUFACTURER
MIN– MINIMUM
NIC– NOT IN CONTRACT
OC– ON CENTER
OFCI– OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI– OWNER FURNISHED, OWNER INSTALLED
OTO– OUT–TO–OUT
PC– PLUMBING CONTRACTOR
ø– PHASE, DIAMETER
PLAM– PLASTIC LAMINATE
RO– ROUGH OPENING
ROW– RIGHT OF WAY
SIM– SIMILAR
S4S– SURFACED 4 SIDES
T&B– TOP & BOTTOM
T&G– TONGUE & GROOVE
TEMP– TEMPORARY
TYP–TYPICAL (THIS CONDITION OCCURS MANY TIMES)
UNO– UNLESS NOTED OTHERWISE
VCT– VINYL COMPOSITION TILE
VERT– VERTICAL
VTR– VENT THROUGH ROOF
W– WIDE/ WIDTH
WC– WATER CLOSET
W/– WITH
W/O– WITHOUT
WH– WATER HEATER
WT– WEIGHT
WWF– WELDED WIRE FABRIC

SYMBOLS

SECTION TAG
1 / A–3 ← SECTION NO. / SHEET NO.

DOOR TAGS
3 / A13 OR 4 / A ← DOOR NO. / ELEV. NO.
HARDWARE SET (IF SHOWN)

ELEVATION TAG
2 / A–2 ← ELEVATION NO. / SHEET NO.

WINDOW TAGS
1 ← ELEV. NO.

INTERIOR ELEVATION TAG
1 / A–5 / A ← ELEVATION NO. / SHEET NO. / VIEW

ROOM TAG
ENTRY ← ROOM NAME
101 ← ROOM NO.

DETAIL TAG
1 / A–4 ← DETAIL NO. / SHEET NO.

FINISH TAGS
1 A 2 ← FLOOR TYPE / WALL TYPE / CEILING TYPE

HEIGHT TAGS
100'–0" FIN. FLR. ← ELEVATION HEIGHT / DESCRIPTION
100'–0" BULKHEAD ← ELEVATION HEIGHT / DESCRIPTION

LIFE SAFETY

ALLOWABLE AREA

OCCUPANCY	B
TYPE OF CONSTRUCTION	VB
ACTUAL AREA	205 sf
BASIC ALLOWABLE AREA, At=	9000 sf
+506.2 FRONTAGE INCREASE, If=	0 sf
+506.3 SPRINKLER INCREASE, Is=	0 sf
ADJUSTED ALLOWABLE AREA, Aa=	9000 sf
USAGE FACTOR (ACT./ ALLOW.)	.022
TOTAL USAGE	.022 <1.0, OK

FIRE RESISTANCE

EXTERIOR NORTH	NONE
EXTERIOR SOUTH	NONE
EXTERIOR EAST	NONE
EXTERIOR WEST	NONE
FIRE SUPPRESSION SYSTEM	NONE
SEPARATION REQUIREMENTS	NONE
INCIDENTAL USE AREAS	NONE

EGRESS

OCCUPANT LOAD	AREA /FACTOR = OCC.		
REST ROOM AREAS	205sf	100	2

REQ'D WIDTH @.2"/ OCC.	.4"
PROVIDED WIDTH	36"
# OF EXITS REQ'D	1
# EXITS PROV'D	3

IN CODES

THIS PROJECT WAS DESIGNED UNDER, AND ALL WORK SHALL CONFORM WITH THE FOLLOWING:

BUILDING:	2014 INDIANA BUILDING CODE (2012 IBC)
ACCESSIBILITY:	2009 ICC A–117.1 ACCESSIBILITY STANDARD
ELECTRICAL:	2009 INDIANA ELECTRICAL CODE (2008 NFPA 70)
MECHANICAL:	2014 INDIANA MECHANICAL CODE (2012 IMC)
FUEL GAS:	2014 INDIANA FUEL GAS CODE (2012 IFGC)
PLUMBING:	2012 INDIANA PLUMBING CODE (2006 IPC)
ENERGY:	2010 INDIANA ENERGY CONSERVATION CODE (ASHRAE 90.1 2007)
FIRE CODE:	2014 INDIANA FIRE CODE (2012 IFC)

STRUCTURAL

BASIC LOADS (ASD METHOD)

ALLOWABLE SOIL BEARING (STRIP):	2,000psf NET
ALLOWABLE SOIL BEARING (MATT):	2,500psf NET
FLOOR LOAD:	20psf DL
	125psf LL (LIGHT STORAGE)
ROOF LOAD:	15psf DL
	0 psf CL (COLLATERAL)
	20psf LL
	25psf SL (AS DESIGNED)

SNOW PER ASCE–7

BASIC GROUND– Pg:	20psf
EXPOSURE FACTOR– Ce:	1.0
IMPORTANCE– Is:	1.0
THERMAL FACTOR– Ct:	1.0
FLAT ROOF LOAD– Pf:	20psf
(Pf =.7CeCtIsPg, 20psf min.)	
RAIN–ON–SNOW LOAD:	5psf
SNOW LOAD– SL:	25psf

WIND PER ASCE–7

BASIC WIND SPEED– V:	90mph
IMPORTANCE– Iw:	1.0
EXPOSURE CATEGORY:	"B"
HEIGHT & EXPOSURE COEF.– λ	1.0
METHOD 1 DESIGN PRESSURE, (Ps=λ IwPs30) MAIN WFRS– Ps:	+12.8 to –15.4psf
METHOD 1 DESIGN PRESSURE, COMPONENTS & CLADDING– Pnet:	+5.9 to –36.8psf

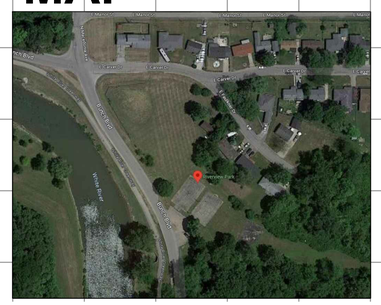
SEISMIC PER ASCE–7

BASIC FORCE RESIST. SYSTEM:	ORDINARY STEEL CONCENTRICALLY BRACED FRAME, ORDINARY MASONRY REINFORCED SHEAR WALLS
SEISMIC USE GROUP:	I
SITE CLASS:	C
DESIGN SPECTRAL RESPONSE– Sds:	.136
RESPONSE FACTOR –R:	2 & 5
STRUCTURAL ANALYSIS PROCEDURE:	9.5.4, SIMPLIFIED
DESIGN BASE SHEAR– V:	42.9k

FLOOD

THIS STRUCTURE IS NOT WITHIN A FLOOD INUNDATION ZONE

MAP



SHEET INDEX

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE RIVERVIEW PARK
1800 BUNCH BLVD
MUNCIE, INDIANA 47303
TITLE SHEET & DRAWING INDEX

US Architects
9200 W. SMITH STREET
YORKTOWN, INDIANA 47396
TELEPHONE 765–405–1220
FAX 765–405–1219
WEB usarchitectsmuncie.com

JERRY G. HOFFMAN, PARTNER
KEITH L. GARY, PARTNER

DRAWN:
CHECKED:
REVISIONS:

DATES
CD PHASE
START DATE: 09/26/23
FINISH DATE: 10/18/23

PLOT INFORMATION
FILE NAME: K23049_T1.dwg
PLOT DATE: 10/18/2023 3:54
CAD OPER.: KLG

SEAL
KEITH L. GARY REGISTERED No. AR00870124 STATE OF INDIANA ARCHITECT

SHEET
T–1

01 GENERAL PROJECT

1. All ideas, designs, arrangements and plans indicated by this drawing are property of US Architects and were created for use on and in connection with the specified project. None of the ideas, designs, arrangements or plans shall be used by or disclosed to any person, firm, or corporation for any purpose whatsoever without the written permission of US Architects.

2. Contractors shall verify and be responsible for all dimensions and conditions on the job. If a discrepancy should exist between a small scale drawing and an enlarged drawing, enlarged drawing governs. Details govern over plans. Written dimensions on these drawings shall have precedence over scale dimensions. Architectural drawings govern over engineering drawings. If discrepancies exist, request written clarification from the architect.

3. The contractor is responsible for checking all contract documents, field conditions and dimensions for accuracy and coordination. If there are any questions regarding these or other coordination questions, the contractor is responsible for obtaining a clarification from the architect before proceeding with work.

4. As a warrantee, the contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final payment.

5. Any damage to areas inside or outside of the project area caused by the contractor shall be repaired to the status prior to construction at no cost to owner.

6. All primary and subcontractors shall visit the site and familiarize themselves with the existing building and site conditions, the proposed work and the location of surrounding utilities, topography, plants and structures which may impact the execution of this project.

7. All trades are responsible for installing their work to allow ceiling heights, mechanical work, and light fixtures to be located as shown and for informing the architect in advance if heights or locations can not be achieved. Proceeding with non-coordinated work is with the understanding that any costs for corrective modifications will be the responsibility of the contractor. Trade priority shall be as follows unless directed otherwise by the architect:
a. Structure
b. Electrical lighting fixtures
c. Mechanical grilles and diffusers
d. Mechanical ductwork
e. Piping systems (including fire suppression)
f. Electrical conduit

8. All suppliers, primary, and subcontractors are responsible for field verifying as-built conditions prior to fabrication or assembly of building components. The general contractor shall be responsible for coordination between components produced by various suppliers, primary, and subcontractors.

9. Submit shop drawings and schedules to architect for approval for all cabinets, counters, millwork, hardware, glass, frames, and doors. Allow 5 business days for architectural review.

10. US Architects is not responsible for safety on the job site. Job safety is the responsibility of the general contractor. Shoring and demolition are ultra hazardous activities. US Architects recommends that the building not be occupied during these operations, except by the skilled personnel required. Design of shoring system shall be by the contractor.

11. The general contractor shall comply with all building code requirements of the state or local authority having jurisdiction and shall obtain and pay for all required permits, fees, and inspections. Any permits required for plumbing, heating, or electrical, shall be paid by the respective subcontractor, but included in total cost of construction.

12. It is the contractor's responsibility to keep the construction site neat and clear of excess debris as well as maintaining the adjacent public roads access the site clear of mud and construction materials.

13. Neither the final payment nor any provision in the contract documents nor partial or entire occupancy of the premises by the owner shall constitute an acceptance of work not done in accordance with the contract documents.

14. General conditions of the contract for construction shall be A.I.A. Document A201, 1987, and shall be considered in its entirety to be a part of these specifications

15. Whenever the contract, specifications, laws, ordinances, or public authority require any work to be specially inspected or approved, the contractor shall give the governing authority timely notice of its readiness for inspection and of the date for inspection

16. The architect's responsibility is limited to the items shown on the drawings. Obtain the architect's specific approval prior to deviating from the drawings. Follow the best trade and engineering practices for the items not specifically detailed and indicated.

17. All changes or deviations from the contract, including those for extra or additional work, must be submitted in writing for an approval of the architect. No verbal orders will be recognized.

18. These general specifications have not been composed for a specific project, rather they are a generalized set of notes intended to supplement the drawings to produce the best building possible for the owner. Some sections may not be applicable to this specific project.

19. These notes and the drawings may refer to participants in this building project which may not correspond precisely with the terminology set forth in the contracts between the various participants in this project; therefore owner, leasor, developer or "other" refers to the same party unless otherwise specified; contractor, builder refers to the same party unless otherwise specified; architect, designer, interior designer, or engineer refers to the same party unless otherwise specified.

20. At substantial completion, provide owner with Operations and Maintenance manuals for all equipment and systems in the project. This will be collected and organized into a binder and includes, but is not limited to: warranties, instructions, maintenance programs, and operational data for mechanical/ electrical/ plumbing equipment, installed equipment, elevators, roofing systems, etc.

ARCHITECTURAL

1. All dimensions are to the face of stud, structural center lines, or to face of masonry or concrete, unless noted otherwise.

2. Do not scale the drawings. If there are any coordination questions or dimensional discrepancies, the contractor is responsible for obtaining a clarification from the architect prior to proceeding.

3. Verify all critical dimensions relating to the existing structure; existing dimensions were determined by visual survey and existing drawings.

4. Dimensions and walls relating to existing steel columns are of highest importance; new walls are to be laid out from columns outward to ensure correct column placement within thickness of partitions

5. Architectural dimensions take precedence over engineering drawings for electrical device location. If a conflict arises between the architectural and engineering drawings immediately consult the architect

6. "Align" as used in these documents shall mean to accurately locate faces in the same plane.

7. All stud walls to have type-x 5/8" mold resistant drywall and full batt insulation U.N.O.

8. Fire rated wall designations are not shown through door openings for clarity purposes. Walls above doors are considered to have rating as related wall adjacent to door openings. Fireseal all penetrations in rated walls to maintain fire rating integrity.

DEMOLITION

1. Field verify all existing conditions, locations, and dimensions prior to commencing with demolition work. Prior to demolition, the contractor shall conduct appropriate field surveys and testing to determine the nature of the existing work to be removed. Due to the nature of renovation work, conditions may occur in the field that are not fully represented in these drawings, and the general contractor is to notify the architect if such conditions conflict with new work to be done.

2. The owner assumes no responsibility for the actual condition of structures to be demolished. Conditions existing at the time of inspection for bidding purposes will be maintained by the owner insofar as practical. However, variations within the structure may occur by owner's removal and salvage operations prior to the start of the demolition work.

3. The following activities shall take place only on days and time as approved by the owner:
a. coring or saw cutting of floors or cmu/concrete walls.
b. jack hammer work
c. work in rooms or floors other than as shown on the drawings.
d. interruption of power, water, data or other services to any part of the building.

4. Indication of new materials or equipment shall infer all removal or demolition and patching required of existing materials and substrates for proper installation of new work per industry standards.

5. At demolition areas, remove all materials completely leaving surfaces smooth and ready for new work. Saw cut where necessary. Use appropriate measures to assure clean, neat surfaces and to facilitate tie-ins for new work and refinishing existing work to remain. For wall elements and devices to remain in service on demolished walls, relocate to the nearest existing or new wall U.N.O. Confirm location with the architect before proceeding.

6. The contractor shall repair and patch all interior surfaces which will be exposed, where deterioration, cracks, damage, dents, holes or any other damage has occurred. Match adjacent materials if not noted.

7. Where walls or ceilings are removed all adjacent surfaces including walls, floors, or ceilings, which will remain exposed or provide a thermal, fire, tenant separation or acoustical barrier are to be repaired or replaced to like new condition. Match existing if not specified. All penetrations thru walls, floors, and ceiling deck shall be grouted/firestopped around each penetrating element as required by the local code enforcement agency.

8. Contractor shall ensure that dust and debris is prevented from entering non-work areas. Compartmentalize with temporary barriers as required, providing dust-proof enclosures over equipment such as computer, telephone service gear, and alarm system panels during construction. Coordinate closure and access with the owner's rep.

9. Reconnect/reroute or properly terminate existing utilities and services as required by new work. In demolition areas, removal of abandoned mechanical, electrical, and plumbing elements shall be to or below wall surface to allow specified new construction and finishes. Cap-off or terminate as required.

10. Each trade shall be responsible for cutting and patching in existing floors, walls and ceiling for their work where required by new construction. Before commencing with any cutting and patching, contractor shall have approval of the owner. The general contractor shall be ultimately responsible for all cutting, supporting, and patching, if not covered by a specific trade.

11. See site plan for extent of site demolition (i.e. Pole lights, concrete walks, curbs, and asphalt)

12. The general contractor shall be responsible for proper and timely disposal of all demolished materials. Provide proper waste receptacles and request approval on their location and use from the owner. Removal of debris shall be coordinated with the owner's representative with respect to transportation schedule and routing.

13. The contractor is to return salvageable materials (doors, frames, hardware, equipment, and lighting fixtures) to the owner and stockpile them in an approved construction area. Dispose of these materials after owner's review and approval, unless otherwise specified in the contract documents.

02 SITE WORK

1. All contractors working with the site in any aspect shall review all site related drawings and shall coordinate their work with the general contractor and/or other contractors.

2. Notify the architect immediately if there are questions regarding the drawings and/or the specifications, if unusual varying or wet soil conditions are discovered, or if there are any conflicts between the drawings and the existing conditions.

3. No contractor shall begin work until the utility companies have located and marked all underground utilities and disconnected any utilities that may potentially be a hazard to the workers or others.

4. Any underground and above ground utilities to be abandoned or removed shall be disconnected prior to the start of demolition/construction. These utilities shall then be completely removed. This is of particular importance regarding underground piping which could cause erosion and undermining of building footings of not completely removed.

5. Care shall be taken to protect adjacent properties neighboring the project against damage from construction traffic, work vehicles, and excess site drainage. Provide erosion and runoff control as required by governing agencies and good construction practice.

6. For structures & building slab, control soil compaction to provide the minimum percentage of density. Compact the top 12" of sub grade and each 9" layer of backfill or fill material at 95% max. dry density or 90% relative dry density when tested in accordance with ASTM D 1557 or ASTM D 2049 respectively.

7. Protect excavation bottom against freezing.

8. Do not back fill excavations until the structure is sufficiently complete to provide horizontal and vertical bracing to the areas of the foundation being back filled

9. All paved and graded areas must drain properly when complete. Work that does not drain correctly will be rejected until the work is corrected.

04 MASONRY

1. CMU shall be ASTM C-90 with type "S" mortar, running bond unless noted otherwise.

2. Reinforcing bars shall be grade 60 deformed billet.

3. Horizontal reinforcing shall be continuous ladder-type (DuraWall) @16" o.c. or as shown on drawings

4. Vertical reinforcing shall be #5 @48" o.c. or as shown on drawings, in fully grouted core. Provide vertical reinforcing at all jambs, corners, and ends.

5. Lap reinforcing splices 48 bar diameters. Ends shall have 4" hooks w/ 4" extensions.

03 CONCRETE

1. All concrete work shall, at minimum, conform to the most current ACI-301-99, standards specification for structural concrete and ACI-318-2002 building code requirements for reinforced concrete. Concrete compressive tests shall be performed in accordance with ASTM C39, with results forwarded to the architect. One set of specimens shall be taken for each day of pouring and each 100cyd. Each set shall include one specimen tested at 7 days, 2 tested at 28 days, and one retained in reserve. Protect cylinders from freezing.

2. Follow recommendations of ACI-305R-99 when placing concrete during hot weather and ACI-306R-99 during cold weather.

3. Form materials shall be contractor's choice and design responsibility, selected from standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances and for easy removal without damage to concrete. Form facing for exposed surfaces shall be steel UNO; release agents shall not adversely affect concrete or interfere with application of coatings. Do not remove bracing until the concrete has attained the specified compressive strength (F'c); for walls supporting soil loads, do not remove until after backfilling is complete.

4. Reinforcing bars shall be ASTM A615A/615M grade 60 deformed billet steel bars; welded wire fabric shall be ASTM A185, plain type, flat sheets, lapped 14" min.; tie wire shall be annealed, minimum 16ga wire; chairs, bolsters, bar supports, and spacers shall be sized and shaped for adequate support of reinforcement during placement. When installing reinforcement, comply with ACI-301, clean reinforcement of loose rust and mill scale and accurately position, support and secure to insure minimum coverage, install welded wire reinforcement in maximum possible lengths, offset laps in both directions and tie splice laps with tie wire. Lap all bar splices 30xbar diameter, lap all corner bars. Concrete cover for reinforcing shall be:
a. Footings: 3"
b. Walls: 2"
c. Piers: 1-1/2" @ ties
d. Slabs on grade: mid depth

5. Concrete mix design shall comply with ACI specification ACI-211.1-97, standard practice for selecting proportions for normal, heavyweight and mass concrete; admixtures to be added as recommended by ACI-211.1, at rates specified by the manufacturer; submit a list of admixtures and ratios to US Architects for review. Use the following minimum compressive strengths unless noted otherwise:
a. Footings and foundations: 3,000 psi @ 28 days
b. Interior slabs on grade: 4,000 psi @ 28 days
c. Exterior concrete: 4,000 psi @ 28 days, w/ air entrained
d. Lean concrete backfill: 1,200 psi @ 28 days

6. Vapor retarder shall be minimum 6 mil polyethylene below not less than 2" sand or compacted gravel fill to minimize slab curling; lap all seams minimum 6" and tape edges and ends.

7. Gravel placed below slabs shall be crushed stone or other acceptable fill as approved by architect. Under no circumstances shall pea gravel or other smooth round stones be placed below slabs.

8. Joint filler shall be compressible asphalt mastic with felt faces, complying with ASTM D994, 1/4" thick and 4" deep.

9. Connecting to existing concrete: Clean with a steel brush and apply bonding agent in accordance with manufacturer's instructions. Dowel to existing work with steel rods, sized as indicated on drawings, in drilled holes packed solid with non-shrink metallic grout.

10. Concrete finishing: Repair surface defects, including tie holes immediately after removing formwork. Rub down or chip off fins more than 1/4" tall. Saw cut joints 1/4 depth of slab spaced 30x slab thickness within 24 hours of placing.
a. Wood float surfaces to receive quarry tile, ceramic tile, and terrazzo with full bed systems.
b. Steel trowel surfaces to receive carpeting, resilient flooring, seamless flooring, or thin set tile.
c. Steel trowel surfaces to be left exposed and apply a chemical hardener after slab has cured. Apply in 3 diluted coats per manufacturer's instructions, allowing 24 hours between coats.
d. Light broom finish all exterior walking surfaces U.N.O., power floating is prohibited.

11. All footings are to bear on undisturbed soil or compacted engineered fill. Engineered fill beneath floor slabs and over footings should be compacted to a dry density of at least 95% of the standard proctor maximum dry density (ASTM D-698). This minimum compaction requirement should be increased to 100% for fill supporting footings. All compaction should be accomplished by placing the fill in 6" loose lifts and mechanically compacting each lift to at least the minimum specified dry density. Field density tests should be performed on each lift to ensure that adequate compaction is being achieved.

12. Foundations are designed for normal, stable soil with an assumed safe bearing pressure of 2,000psf unless otherwise noted on the structural drawings. Verify allowable soil bearing pressure at footing subgrade. Notify the architect if saturated or other abnormal conditions.

13. All footing elevations are to bottom of footing and are referenced to finished floor elevation 100'-0". Increase footing depths are required or directed by the architect.

14. Anchor bolt tolerances are 1/8" center to center, 1/4" group to group. These tolerances must be maintained for steel to "fit." It is advised that the GC check his subcontractor's work prior to pouring piers or footings. Verify size & location of sleeves, openings, embedded items, etc. and ensure they are in place prior to pour.

06 CABINETRY

1. Shop-fabricate cabinet units in accordance w/ AWI P-200 "premium" quality.
2. Field verify all dimensions prior to fabrication and installation of casework.

3. Countertops shall be 3-ply particleboard (masonite) w/ integral backsplash where shown.

4. Plastic laminate per schedule shall be installed on all exposed surfaces.

5. Cabinetry hardware:
a. shelf rests: formed steel, chromed, cut for rests @ 1" o.c.
b. shelf/counter brackets: sim. Stanley 796
c. drawer/door pulls: "U" shaped, steel w/ satin finish
d. catches: magnetic, sim. Stanley SP46
e. drawer slides: self-closing, epoxy-coated slide w/ ball bearings between tracks, sim. Blum 230M
f. hinges: concealed self-closing w/ 125° opening, US26 finish, sim. Blum clip125

6. Provide all other hardware as required for a complete installation.

7. Install cabinets plumb & level, w/ all blocking. Provide matching filler panels as req'd to fill existing spaces.

06 WOOD

1. All wood in contact with the concrete or masonry shall be pressure treated material suitable for this application. All sill plates must be true and level upon installation. Grout solid below sill plates installed on an out-of-level foundation or irregular surface.

2. Make all cuts true and square for full bearing at structural joints. Connect all framing securely together with nails, spikes, screws, or approved framing connectors as noted. Install any additional connectors if required by the local building official.

3. Beams and headers shall be constructed according to the drawings. All plywood specified shall be continuous and unbroken for the entire length of the beam or header, and shall be glued and nailed to the other members.

4. Beam and header bearing area and columns: beams and headers shall have double wall studs under each bearing point. This solid bearing material shall be continuous from the beam or header down to the foundation. Solid bearing shall be for the full width of the beam and shall bear on the full width of the side wall or column below. See the column schedule and structural details and elevations of beams that require special or increased bearing.

5. Provide full height structural studs at all corners, around doors, around borrowed light frames and behind all wall mounted equipment and casework.

6. Plywood roof sheathing shall be installed with "H" clips and the long side shall always run perpendicular to the framing members.

7. Draft stopping and fire stopping shall be installed as required by all local and state codes.

8. In noncumbustible construction, provide fire treated blocking as required for casework and accessories.

06 WOOD TRUSSES

1. Pre-engineered roof trusses shall be installed where shown on the roof framing plan. Trusses shall be designed by a professional engineer in the state where the building is being constructed. Shop drawings bearing the seal of said engineer shall be provided describing each individual truss, as well as a placement plan for the entire roof layout. Shop drawings shall bear the engineer's seal and signature. Provide and install all bracing, connectors, temporary bracing, blocking, etc. necessary for a complete and approved installation.

2. Camber all trusses of spans greater than 50' for anticipated dead load deflection. Limit live load deflection by design to l/360.

3. Design loads unless noted otherwise:
a. 25psf: min. top chord snow load
b. 20psf: top chord live/ construction load
c. 10psf: top chord dead load
d. 10psf: bottom chord dead load
e. Wind load - 115 mph exposure "B"
f. DriftloadS & Concentrated loads - see drawing

4. Do not fabricate any trusses until the general contractor and the architect have reviewed the shop drawings. Anticipate five working days for architects review.

5. Field modification of trusses shall not be permitted without first reviewing these changes with the architect and or the engineer and receiving their written approval.

6. For all trusses and engineered lumber, follow the manufacturer's details and specifications. If these details and specifications are in conflict with the architects or engineers drawings and specifications, the most restrictive condition shall govern. Contract the architect for written clarification.

7. The truss fabricator must supply to the architect with the shop drawings a copy of the BCSI Guide to Good Practice For Handling, Installing Restraining & Bracing of Metal Plate Connected Wood Trusses. This manual will be returned with reviewed shop drawings to the general contractor. It is the general contractor's responsibility to make sure that BCSI recommendations are followed as a minimum standard on this job. If the G.C. subcontracts erection of the trusses, the G.C. must ensure that all of his subcontractors understand and comply with BCSI recommendations.

8. All trusses this job shall have as a minimum Simpson H-1 truss anchors at each bearing end. See details for additional anchors.

15 MECHANICAL

1. The mechanical contractor shall, in a manner consistent with the best trade practices, perform all work and furnish all supplies and materials, machinery, equipment, facilities, and means necessary to perform all work required for the mechanical systems in the project. All work shall be in accordance with the provisions of the plans and the latest issue of the applicable codes, rules, and regulations of the local enforcement agency having jurisdiction.

2. All mechanical plans and ductwork layouts prepared by the architect are schematic only. Mechanical contractor is responsible for actual sizes, layouts, connection details, and verification of field conditions prior to fabrication.

3. Mechanical contractor shall be responsible for all field coordination with other trades to allow for the proper installation of all mechanical equipment, devices, and access panels. Undue installation costs shall not be approved due to a lack of work coordination with the related trades. Notify the architect of all modifications to the work that varies from the drawings.

4. Electrical specifications for all equipment shall be provided to the electrical contractor in a timely manner so that pre wiring and hook-ups may be made without delaying the progress of the job.

5. Controls, transformation, and wiring shall be furnished and installed for the complete operation of the heating and cooling air conditioning equipment. All control wiring shall be by mechanical contractor. Locate thermostats where shown on the drawings, mounted at 48" AFF.

6. Ductwork shall be constructed according to the latest SMACNA standards and the latest ASHRAE guide and data book. All seams in ducts shall be taped after mechanical connections are made.

7. Blank-off open ductwork during construction to prevent dust and debris from entering the mechanical system. At substantial completion, replace or clean filters in all equipment.

8. The HVAC contractor shall be responsible for balancing the system after installation. It is not necessary to provide a certified balance report unless called for elsewhere in the drawings, but the HVAC contractor shall send his balance report to the architect before acceptance of work.

9. Duct all exhaust fans to ridge vent or soffit vent. Install makeup air to the return air plenums as per code.

10. Low- efficiency vents shall be minimum 6" class 'B' type for combination furnace and water heater, and 4" for furnace only installation. Provide approved thimble at ceiling, insulation, and roof penetrations. Install combustion and relief air vents to the mechanical area. In general, venting and make-up air is to be per manufacture's requirements and applicable codes.

15 PLUMBING

1. All new work shall conform to current state and local building codes, national plumbing code, state sanitary code, county board of health regulations, and any other applicable codes or requirements. The plumbing contractor shall verify all existing underground utilities, acquire and pay for all permits, certifications, and inspections, and perform all work related to gas, water, and sewer utilities. Review permit fee cost with architect for approval.

2. Review all items of equipment supplied by others (i.e. Kitchen, laundry, bathing, etc.) to determine exactly what is being supplied and what hookup and accessories are required. It shall be the responsibility of the plumber to provide all labor and accessories (i.e. vvacuum breakers, back flow preventers, pressure reducers, unions, stops, traps, etc.) needed for a complete installation but not supplied with the equipment. Any areas in question shall be reviewed with the general contractor and the architect for clarification.

3. All hot and cold water supply lines shall be fully insulated and run concealed in chases, ceiling, or walls except as specifically noted as exposed piping. Supply piping shall not be run in an exterior wall, or on the surface of an exterior wall, or through an unheated space.

4. Water piping shall be secured tightly in all locations to prevent any rattling. If pressure is excessive, provide dead end air chambers/ water hammer arrestors above fixtures.

5. Provide unions and an upstream shutoff valve at pumps, water heaters, water meter, and other equipment to facilitate maintenance, replacement, or removal.

6. Provide dielectric union on all water heater connections. Final connections to faucets shall be with a union or compression fitting. All plumbing fixtures shall be provided with a stop unless otherwise noted.

7. All floor drains shall be set flush with floor level. Install metal pan under finish floor 12" around floor drain and seal all joints.

8. Provide trap primers where required by code and or local governing authorities

9. Provide steel sleeves where pipe penetrates masonry and concrete. Pack sleeves at completion of work to seal all gaps. Copper piping penetrating poured-in-place concrete shall be wrapped with armaflex at all penetrations.

10. Plumbing contractor shall be responsible for installing gas service. All piping, gas trains, valves, etc. shall be installed in accordance with NFPA 54 and the requirements of the local utility. Where not shown on drawings, determine a pipe route and pipe size for the service supply line to all gas fired equipment from the meter. All service lines shall be installed and concealed except where necessary equipment connections are made.

16 ELECTRICAL

1. The electrical contractor shall furnish all labor and material necessary to provide a complete installation of electric devices and wiring in work areas for all power and lighting and other services as indicated on drawings and as required; provide all splices, taps, wire pulling, equipment connections, and as required per NFPA 70.

2. The electrical contractor shall comply with the requirements of code enforcement agencies having jurisdiction, the National Electric Code (NFPA 70), the local utility company, and the electrical utility.

3. Electrical contractor shall be responsible for all field coordination with other trades relating to the installation of all electrical equipment and electrical devices.

4. Inform owner five days in advance of power shut-off periods or disruption of computer or communication lines.

5. All wiring, cabinets, and switchboards, motor controls and all other electrical equipment shall be permanently and effectively grounded. All grounding shall be in accordance with codes having jurisdiction and shall meet the approval of the local inspection department.

6. All current-limiting devices shall be rated for 42,000AIC minimum, unless otherwise noted or approved by architect in writing.

7. Electrician shall label existing and new breakers as to the function, in all panel boxes; provide cloth or tape type wire markers at panelboard gutters, pull boxes, outlet boxes and junction boxes, each load connection.

8. Contractor shall run wiring of the proper size and connect to all electrical appliances and equipment shown, specified, or required. Conductors shall be sized per table 310.16 and other NEC requirements in locations with more than (3) conductors in raceway, or ambient temperatures above 30'c, with minimum branch circuit sizes as follows:

20A	#12 Cu,	#12 ground
30A	#10 Cu,	#10 ground
40A	#8 Cu,	#10 ground
50A	#8 Cu,	#10 ground
60A	#6 Cu,	#10 ground

9. For all non-residential projects, general cabling shall be MC or better. If a free air return plenum is used in the project, use only plenum-rated cabling. Unless otherwise noted by architect, home runs shall be in EMT conduit, with copper conductors insulated THHN (dry locations), THWN (wet interior locations), or THW (outdoor/service locations). Install pullwire in each empty conduit over 10 feet in length or containing a bend.

10. For telephone, data and other communication service, pathways and wiring, install wire and cable in accordance with manufacturer's instructions and in accordance with TIA/EIA-568.

11. Wall boxes shall not be placed back-to-back (offset by mimimum 1 stud) and flush mounted boxes shall be installed with minimum 6" separation for acoustical privacy.

12. All electrical components shall be installed securely, at the appropriate elevation, square, level and plumb, as specified in NECA 1.

13. All lighting and mechanical fixtures to be centered in ceiling grid tiles unless noted otherwise.

14. The electrical contractor shall be responsible for all routing and connections at millwork. Verify locations with architect.

REQUIRED SHOP DRAWING SUBMITTALS

1. Provide the following shop drawings and/or product submittals to the Architect for review. Allow ten (10) business days for processing.
- -STRUCTURAL STEEL AND/OR WOOD TRUSSES
- -DOORS & DOOR HARDWARE
- -WINDOWS & STOREFRONT SYSTEMS
- -CABINETRY
- -PLUMBING FIXTURES
- -LIGHT FIXTURES
- -MECHANICAL UNITS
- -ANY PRODUCTS THAT ARE A SUBSTITUTION FOR THOSE SHOWN ON THE DRAWINGS

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE RIVERVIEW PARK
1800 BUNCH BLVD
MUNCIE, INDIANA 47303
GENERAL NOTES

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CHECKED:
REVISIONS:

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SHEET
T-2

Levee Centerline

Levee Toe

Levee 15' Boundary

Levee 50' Boundary

Levee Avoidance Boundary

Project Boundary

Restroom Location

943.50

943.50

943.18

943.50

942.66

943.50

943.18

CP1

White River

White River Greenway

Bunch Blvd

AeccDbSurfaceTin (AeccDand130)

1 SITE PLAN
SCALE: 1"=20'-0"

NEW RESTROOM FACILITY FOR:
CITY OF MUNCIE RIVERVIEW PARK
1800 BUNCH BLVD
MUNCIE, INDIANA 47303
SITE PLAN

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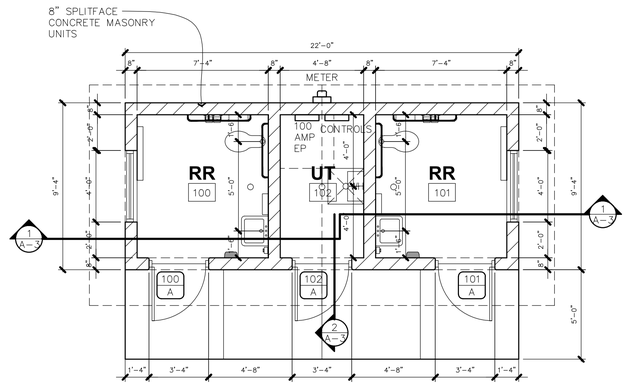
STATE OF INDIANA
ARCHITECT

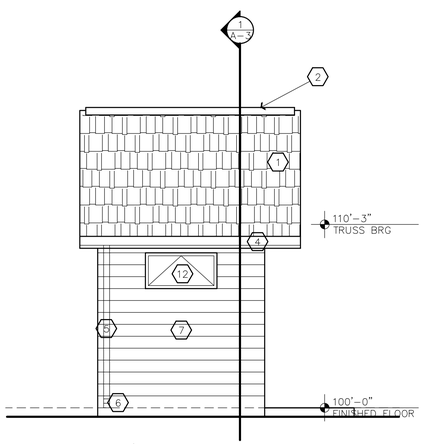
SHEET
C-1

ELEVATION NOTES

1. 30 YEAR GAF DIMENSIONAL SHINGLES OVER 30LB FELT (SLATE)
2. RIDGE VENT
3. ALUMINUM FASCIA (BLACK)
4. 5" OGEE ALUMINUM BOX GUTTER (BLACK)
5. 3"x4" ALUMINUM BOX DOWNSPOUT (BLACK)
6. CONCRETE SPLASH BLOCKS
7. SPLIT FACE CMU COLOR (MASOLITE NATURAL)
8. SMOOTH CMU COLOR (MASOLITE NATURAL)
9. METAL SIDING (WHITE VERTICAL)
10. INSULATED HOLLOW METAL DOOR (GRAY) AND FRAME (BLACK)
11. WALL PACK LIGHT
12. STOREFRONT FROSTED AWINING WINDOW
13. ADA SIGNAGE



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



4 WEST ELEVATION
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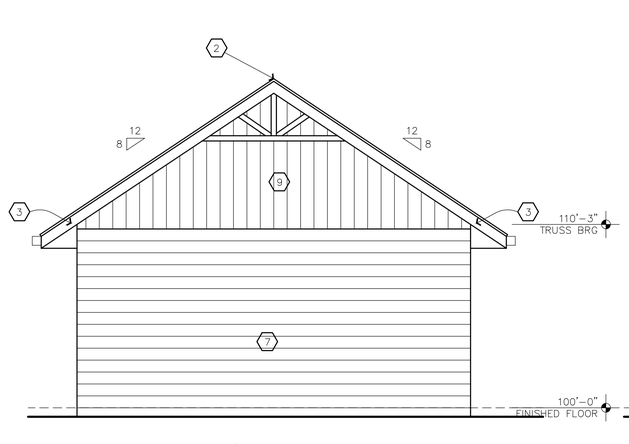

3 NORTH ELEVATION
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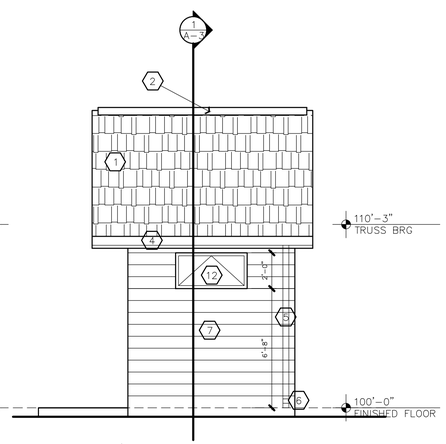

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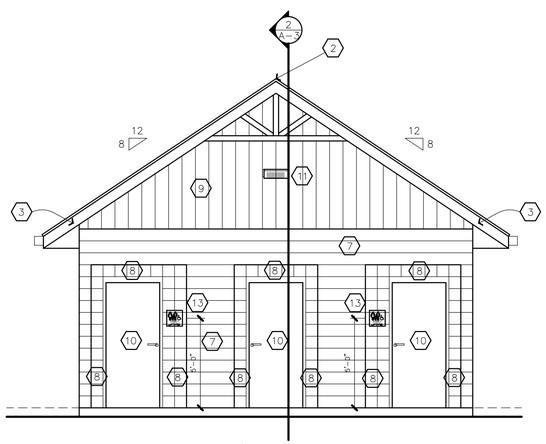

1 SOUTH ELEVATION
SCALE: 1/4"=1'-0"

NEW RESTROOM FACILITY FOR;

CITY OF MUNCIE RIVERVIEW PARK

1800 BUNCH BLVD

MUNCIE, INDIANA 47303

EXTERIOR ELEVATIONS

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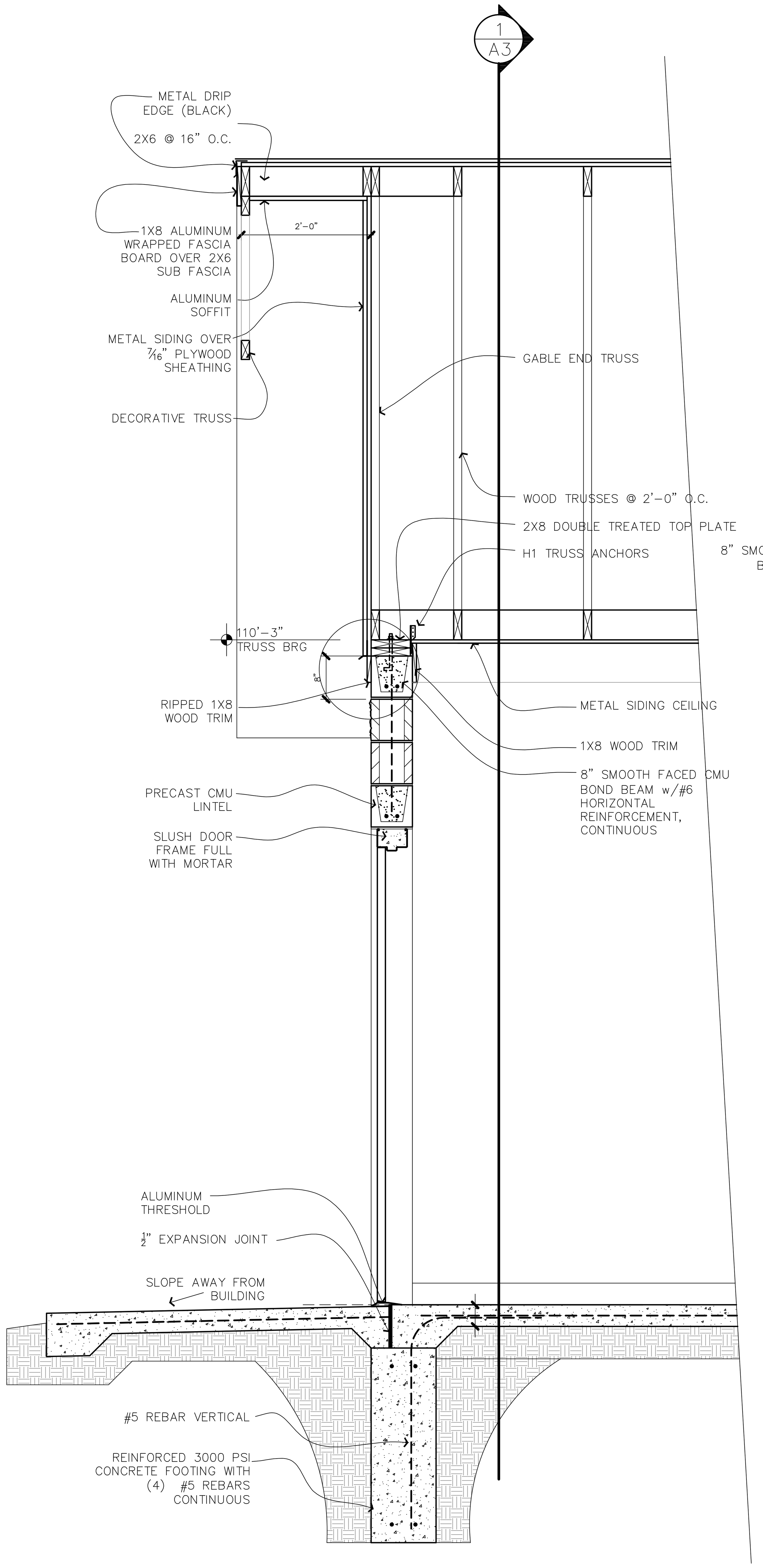
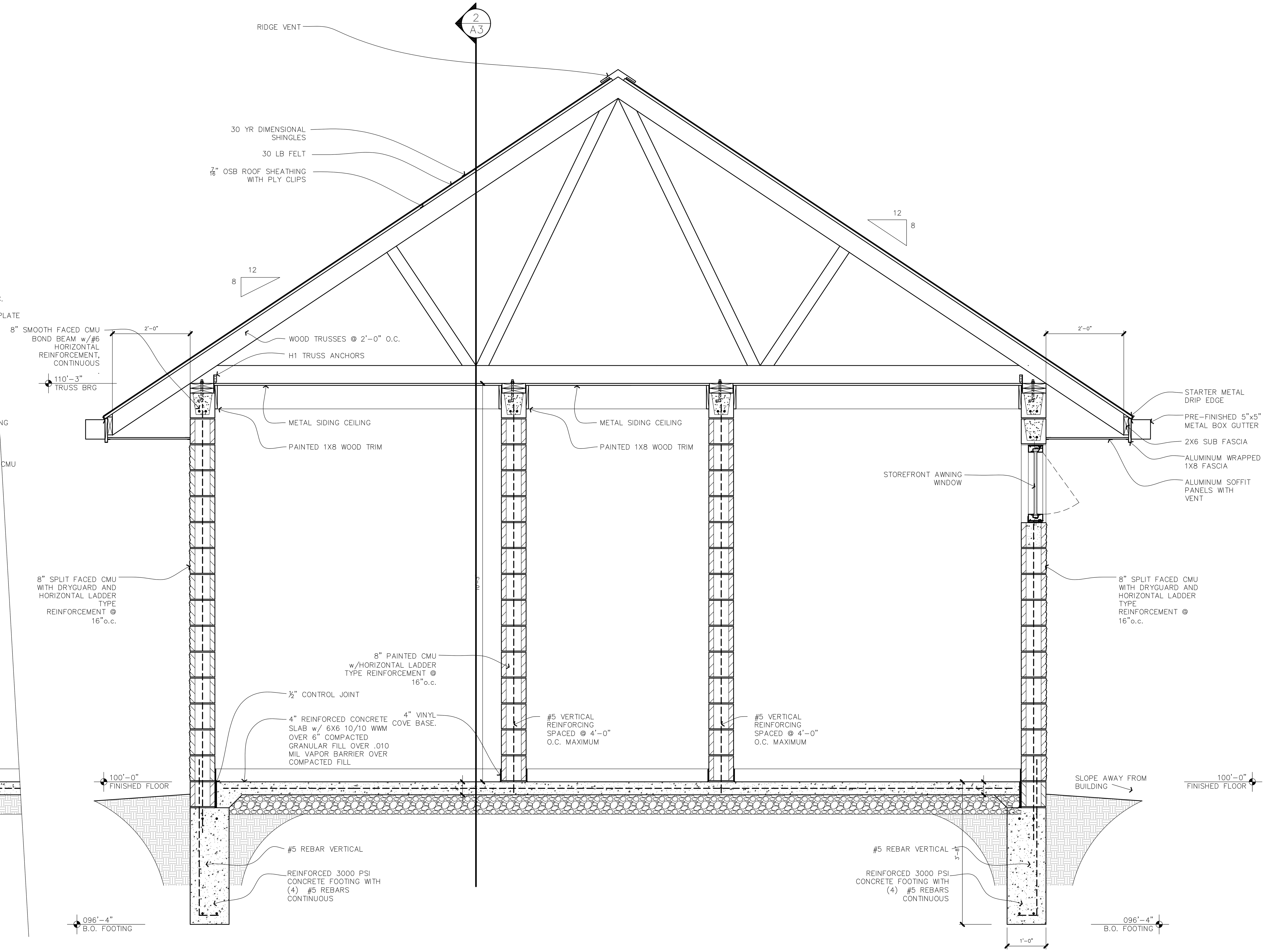
SHEET
A-1



2 GABLE END BUILDING WALL SECTION
SCALE: 3/4"=1'-0"



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

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE RIVERVIEW PARK
1800 BUNCH BLVD
MUNCIE, INDIANA 47303
BUILDING SECTION

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PRECAST CMU DOOR
HEADER
HOLLOW METAL
WELDED DOOR
FRAME SLUSHED
FULL WITH GROUT
WITH LOOSE TEE
MASONRY JAMB
ANCHORS PRIMED
AND PAINTED

DRAWN:

CHECKED:

REVISIONS:

DATES
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PLOT INFORMATION
FILE NAME: k23049_A3.dwg
PLOT DATE: 10/18/2023 3:10
CAD OPER.: KLG

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SHEET
A-3

DOOR / FRAME / GLAZING TYPES

PRIVACY SETS

HEADING #01 (SET #01)
FOR RR 100 & RR 101

1	SINGLE DOOR
3	BALL-BEARING HINGE SETS
1	DEADBOLT (KEYED BOTH SIDES)
1	YALE YPL02 SERIES PRIVACY LOCK SET WITH STATUS INDICATORS
1	CORE
1	SURFACE CLOSER
1	WEATHERSTRIP
1	ADA THRESHOLD
1	RAIN DRIP
1	PICK GUARD

ENTRY SETS

HEADING #02 (SET #01)
FOR UT 102

1	SINGLE DOOR
3	BALL-BEARING HINGE SETS
1	YALE 4700LN SERIES CYLINDRICAL LEVER ENTRY LOCK SET
1	CORE
1	SURFACE CLOSER
1	WEATHERSTRIP
1	ADA THRESHOLD
1	RAIN DRIP
1	PICK GUARD

DOOR TYPES

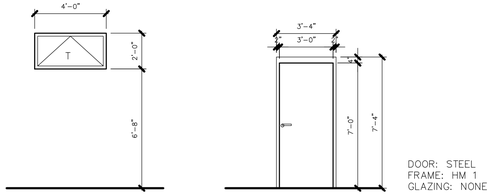
STEEL 1: INSULATED STEEL DOOR SLAB WITH WELDED HOLLOW METAL FRAME SLUSHED FULL WITH MORTAR AND LOOSE MASONRT TEES

FRAME TYPES

HM-1: WELDED HOLLOW METAL, PRIME & PAINT (2) COATS.

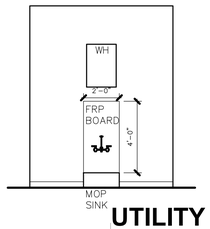
GLASS TYPES

TEMPERED (T): ¼" TEMPERED SAFETY FROSTED GLASS

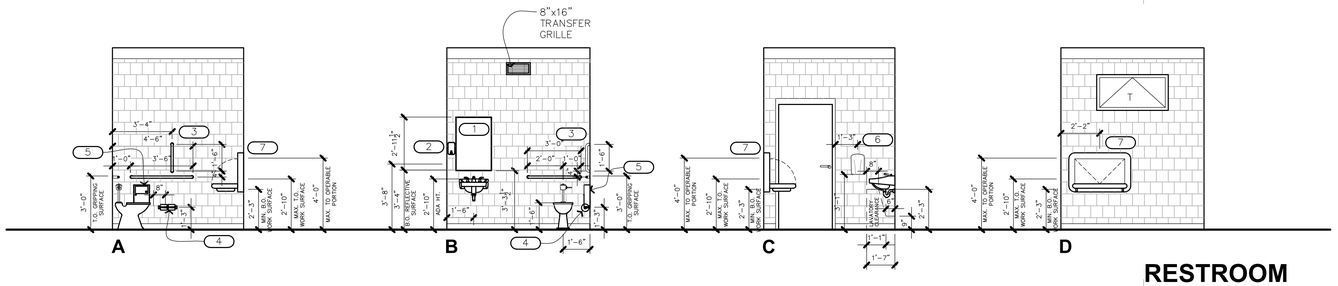


DOOR: STEEL
FRAME: HM 1
GLAZING: NONE

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



3 UTILITY CLOSET ELEVATION
SCALE: 1/4"=1'-0"



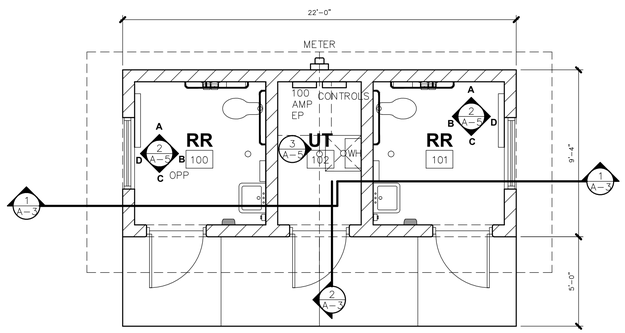
2 RESTROOM ELEVATIONS
SCALE: 1/4"=1'-0"

TOILET ACCESSORIES

1	BOBRICK STAINLESS STEEL WELDED FRAME MIRROR #B290 2436
2	BOBRICK SURFACE MOUNTED SOAP DISPENSER #B2111
3	BOBRICK CONCEALED MOUNTING GRAB BARS #B6806.99 36" & 42" AS PER ADA REQS 18" AS PER ANSI REQS
4	BOBRICK SURFACE MOUNTED TOILET PAPER HOLDER FOR 2 ROLLS #B7686
5	BOBRICK SURFACE MOUNTED SANITARY NAPKIN DISPOSAL #B254
6	ELECTRIC HAND DRYER
7	KOALA KARE HORIZONTAL WALL MOUNTED CHANGING TABLE #KB110-SSWM

*ALL ITEMS TO BE BOBRICK ClassicSeries U.N.O.

*ALL ITEMS TO BE SUPPLIED & INSTALLED BY G.C.



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

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE RIVERVIEW PARK
1800 BUNCH BLVD
MUNCIE, INDIANA 47303

INTERIOR ELEVATIONS/ DOOR SCHEDULE

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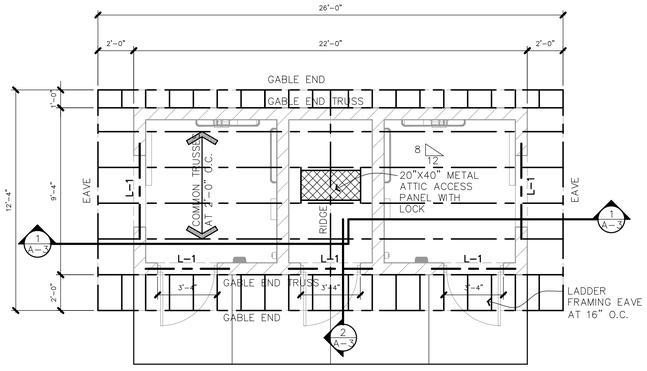
STATE OF INDIANA
ARCHITECT

SHEET
A-5

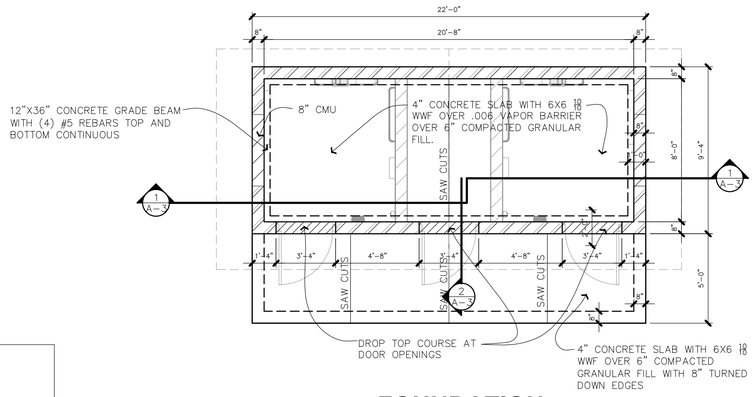


FRAMING FLOOR PLAN

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

LINTEL SCHEDULE

L-1	8" PRECAST CONCRETE LINTEL



FOUNDATION FLOOR PLAN

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

NEW RESTROOM FACILITY FOR;

CITY OF MUNCIE RIVERVIEW PARK

1800 BUNCH BLVD

MUNCIE, INDIANA 47303

FOUNDATION/FRAMING PLANS

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REVISIONS:

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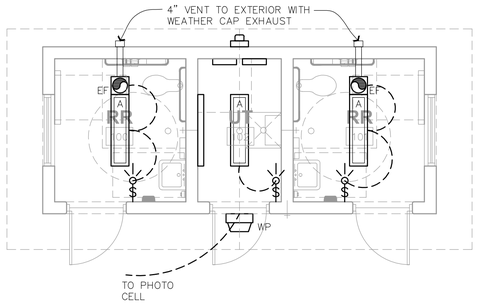
SHEET

S-1

LIGHT SCHEDULE

SYMBOL	LABEL	MANUFACTURER	MODEL #	LUMENS	WATTAGE
	A	LITHONIA	4' LED WRAPAROUND FIXTURE SIMILAR TO LITHONIA FML4W 48 5000LM	5000	53
	WP	LITHONIA	WALL PACK SIMILAR TO LITHONIA WPX1 LED P2 ALO 50K MVOLT PE DDBXD	2900	24
	WALL MOUNTED OCCUPANCY SENSOR SWITCH SIMILAR TO ACUITY CONTROLS WSX PDT, "D" INDICATES SENSOR w/ DIMMING FUNCTION				
	RESTROOM EXHAUST FAN SIMILAR TO PANASONIC WHISPERGREEN FV-05-11VK1 (SET TO 80 CFM) SUPPLIED, INSTALLED, & WIRED BY ELECTRICIAN				



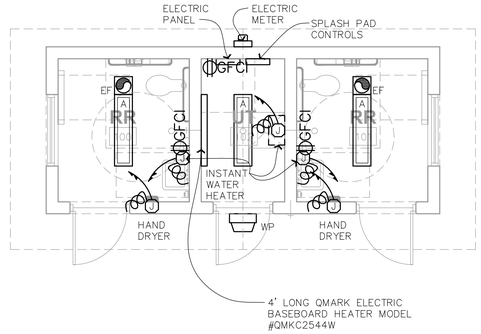
2 LIGHTING FLOOR PLAN
SCALE: 1/4"=1'-0"

ELECTRICAL LEGEND

- SPECIFICATION GRADE 120V 3-PRONG DUPLEX RECEPTACLE
  EXTERIOR RECEPTACLES @ 18" AFF, TYP.
  REFER TO PLAN FOR INTERIOR RECEPTACLE MOUNTING HEIGHTS
  GFCI = GND. FAULT CIRCUIT INTERRUPTER RECEPTACLE
  WP = GFCI RECEPTACLE w/ WATERPROOF ENCLOSURE SIMILAR TO THOMAS & BETTS OKPM-NG NON-METALLIC WEATHERPROOF WHILE-IN-USE OUTLET COVER
- WIRED ELECTRICAL CONNECTION w/ DISCONNECT
- WIRED ELECTRICAL CONNECTION w/ JUNCTION BOX
- ELECTRICAL PANEL

ELECTRIC HAND DRYER

ELECTRIC HAND DRYER SIMILAR TO
EXCEL THINAIR MODEL TA-SB
120V, 3.4A (NO HEAT)
INSTALLED w/ BOTTOM OF UNIT @ 37" AFF PER MFR. ACCESSIBILITY RECOMMENDATION



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

INTERIOR RECEPTACLE MOUNTING

SURFACE MOUNTED RECEPTACLES ARE ACCEPTABLE IN STORAGE ROOM ONLY - ALL OTHERS ARE TO BE RECESSED INTO CMU WALLS

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE RIVERVIEW PARK
1800 BUNCH BLVD
MUNCIE, INDIANA 47303

MECHANICAL/ELECTRICAL PLAN

US Architects
9200 W. SMITH STREET
YORKTOWN, INDIANA 47396
TELEPHONE 765-405-1220
FAX 765-405-1219
WEB usarchitectsmuncie.com

JERRY G. HOFFMAN, PARTNER
KEITH L. GARY, PARTNER

DRAWN:

CHECKED:

REVISIONS:

DATES
CD PHASE
START DATE: 09/26/23
FINISH DATE: 10/18/23

PLOT INFORMATION
FILE NAME: k23049_ME1.dwg
PLOT DATE: 10/18/2023 3:31
CAD OPER.: KLG

SEAL
KEITH L. GARY REGISTERED No. AR00870124 STATE OF INDIANA ARCHITECT

SHEET
ME-1

PLUMBING SCHEDULE:

ADA WC	**TOILET:** ZURN Z5665-BWL1 1.6GPF, WHITE w/ ZURN Z6000 MODEL AQUA FLUSH 1.6GPF WATER CLOSET FLUSH VALVE, POLISHED CHROME, & CENTOCO 500ST5CC-00 ELONGATED SEAT, WHITE
LAV-1	**LAVATORY:** ZURN Z5340 WALL MOUNTED SINK, WHITE, w/ WALL HANGER ZURN Z6915-XL AQUASENSE BATTERY POWERED DECK MOUNT FAUCET, POLISHED CHROME FINISH, .5 GPM LEAD-FREE ANGLE STOPS, SS BRAIDED CONNECTORS, OPEN GRID DRAIN w/ TAILPIECE, ZURN P-TRAP w/ FLANGE, & LAV GUARD UNDERSINK PIPING COVER
HB	**HOSE BIBB:** WOODFORD MODEL B67 WALL HYDRANT
WH-1	**ON DEMAND WATER HEATER :** EMAX INSTANT HEATER FOR EACH LAVATORY AND MOP SINK
TMV	**THERMOSTATIC MIXING VALVE:** ZURN AQUASENSE P6900-MV-XL SET MAXIMUM TEMPERATURE TO 110°F SYMMONS TEMPCONTROL 7-200
BFP	**BACKFLOW PREVENTER:** 2" WATTS SERIES LF919 REDUCED PRESSURE BACKFLOW PREVENTER w/ NRS GATE VALVES & AIR GAP KIT, DRAIN TO FLOOR DRAIN BELOW, VERIFY COMPLIANCE w/ WATER UTILITY
FD	**FLOOR DRAIN:** ZURN Z415 2" CAST IRON BODY FLOOR DRAIN w/ BOTTOM OUTLET, MEMBRANE CLAMP, ADJUSTABLE COLLAR w/ SEEPAGE SLOTS & 6" ZN400-6B-EZ1 ROUND NICKEL BRONZE STRAINER & TRAP PRIMER
CO	**CLEANOUT:** ZURN ZN1400-5BZ1 LEVEL-TROL 4" ADJUSTABLE FLOOR CLEANOUT
MOP	**MOP SINK:** MUSTEE 24"x24" MOLDED STONE MOP BASIN w/ ZURN Z843MI-RC FAUCET, HOSE BRACKET COMBO & MOP HANGER

WATER SUPPLY SCHEDULE

B.F.P.	2" CW
MOP SINK	3/4" CW & TEMP HW
WATER HEATER	3/4" CW & HW
LAVATORY	1/2" CW & TEMP HW
TOILET	1" CW FROM 2" MANIFOLD
WALL HYDRANT	3/4" CW
CLEAN OUT	--

PLUMBING NOTES

1. PLUMBING ROUTING IS SCHEMATIC; PLUMBER TO INSTALL ACTUAL LENGTHS AS REQUIRED IN FIELD. LOCATE SERVICES TO AVOID CONFLICTS

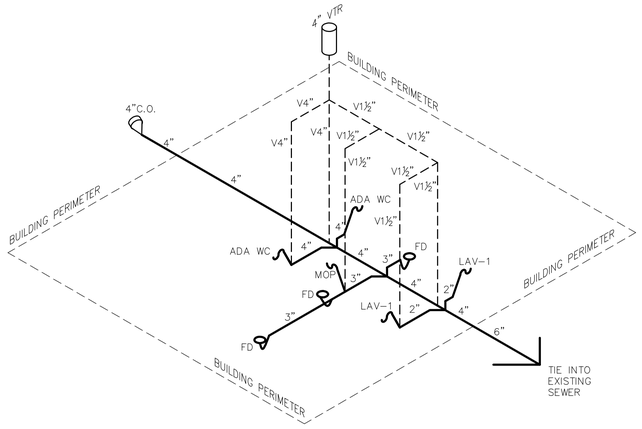
2. SLOPE ALL WASTE AND STORM PLUMBING ¼:12 MIN

3. INSULATE ALL HW, CW, AND STORM PLUMBING ABOVE GRADE. ABOVE GRADE COLD & HOT WATER TO BE SWEATED COPPER w/ R-4 INSULATION

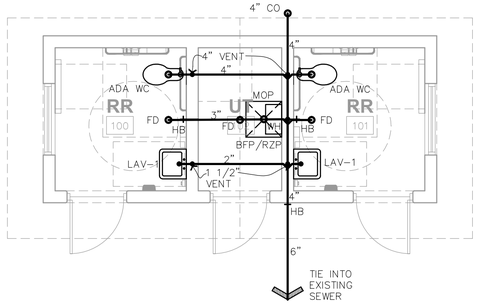
4. ALL WASTE DRAINAGE & VENTING TO BE SCHEDULE 40 PVC

PLUMBING LEGEND

- SANITARY SEWER SCHED. 40 PVC
- CW — COLD DOMESTIC WATER COPPER INSUL.
- HW — HOT DOMESTIC WATER COPPER INSUL.
- GAS — GAS LINE SCHED. 40 BLACK PIPE



2 PLUMBING ISOMETRIC
SCALE: NO SCALE



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

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE RIVERVIEW PARK
1800 BUNCH BLVD
MUNCIE, INDIANA 47303
PLUMBING PLAN

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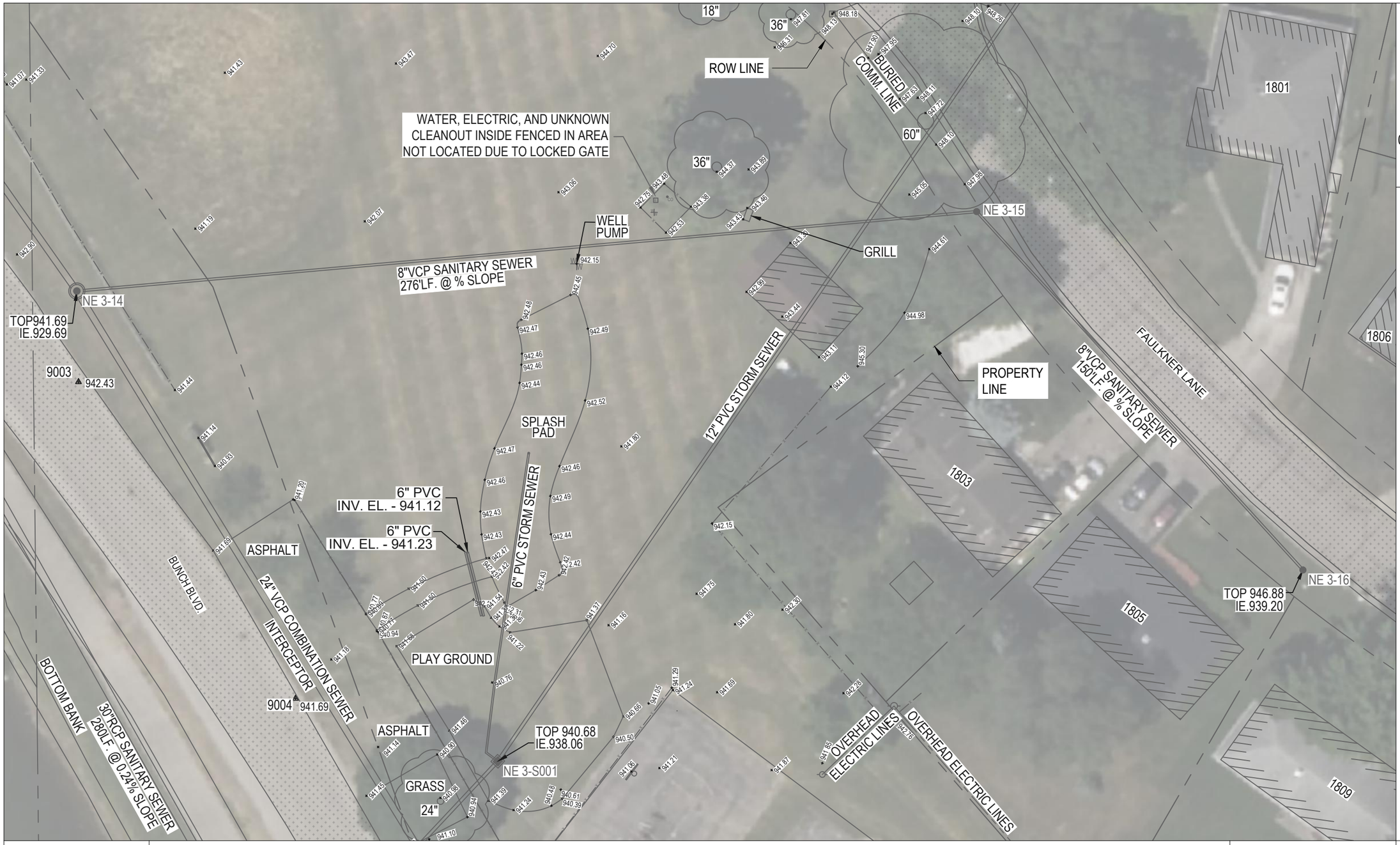
CAD OPER.: KLG

SEAL
KEITH L. GARY REGISTERED No. AR00870124 STATE OF INDIANA ARCHITECT

SHEET
P-1



LEGEND

- STRUCTURE
- FIRE HYDRANT
- VALVE
- AREA INLET
- FENCE
- TREE
- CONCRETE SURFACE
- ASPHALT SURFACE
- PROPOSED CONCRETE
- PROPOSED STRUCTURE
- PROPERTY LINE

ADAM KEITH LEACH
REGISTERED
No. 12200128
STATE OF
INDIANA
PROFESSIONAL ENGINEER

4/8/2025

MUNCIE PUBLIC WORKS

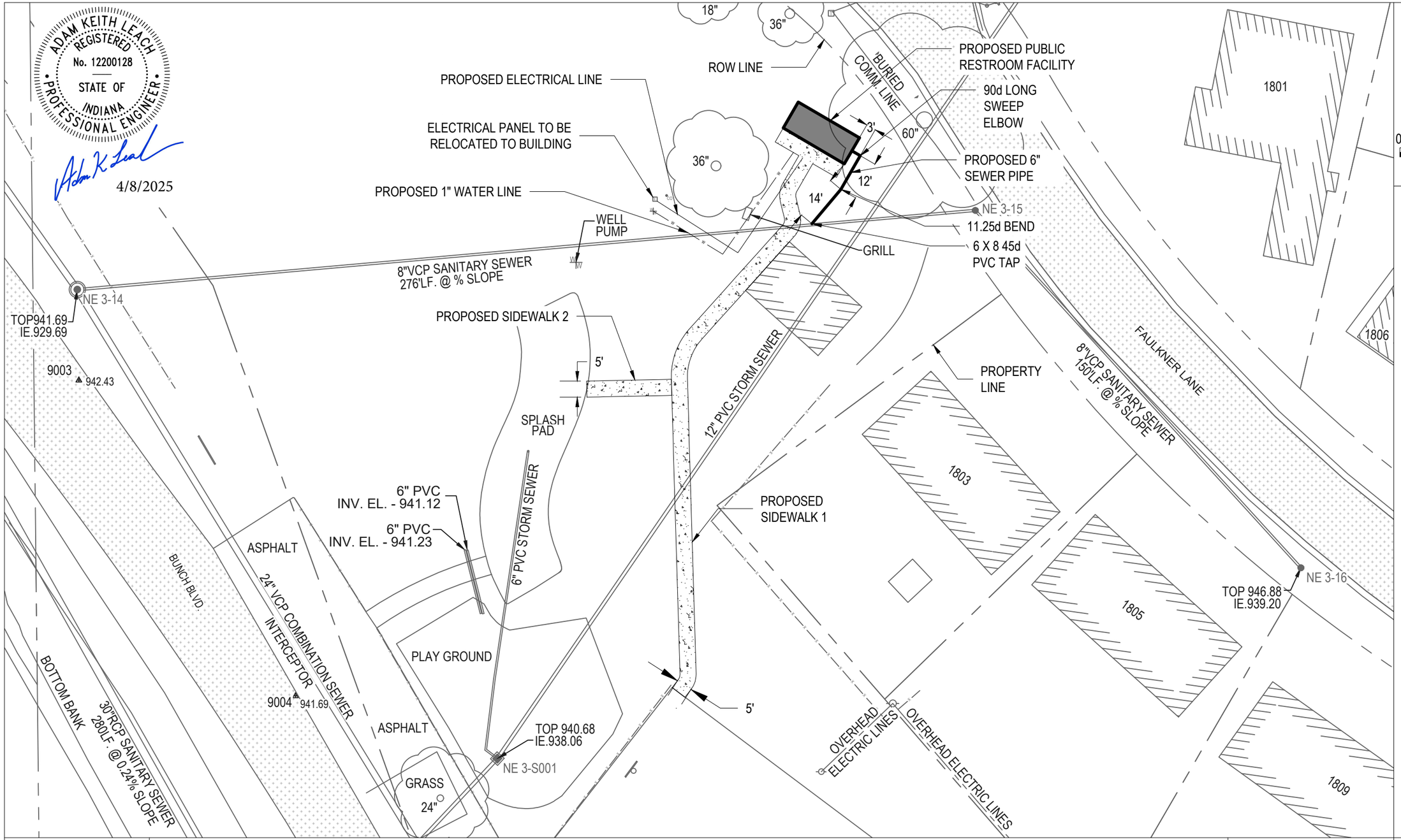
RIVERVIEW PARK EXISTING CONDITIONS

DRAWN: DNT
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 10/24/24

C-100

ADAM KEITH LEACH
REGISTERED
No. 12200128
STATE OF
INDIANA
PROFESSIONAL ENGINEER

4/8/2025



N

0 30' 60'

SCALE: 1"=30'

LEGEND

- STRUCTURE
- FIRE HYDRANT
- VALVE
- AREA INLET
- FENCE
- TREE
- CONCRETE SURFACE
- ASPHALT SURFACE
- PROPOSED CONCRETE
- PROPOSED STRUCTURE
- PROPERTY LINE

NOTES:

ALL ELEVATIONS SHOWN ARE TOP OF CONCRETE UNLESS OTHERWISE NOTED.

LANDSCAPE AREA TO BE GRADED AWAY FROM THE PROPOSED STRUCTURE AT MAX 5% WITH SEED/STRAW.

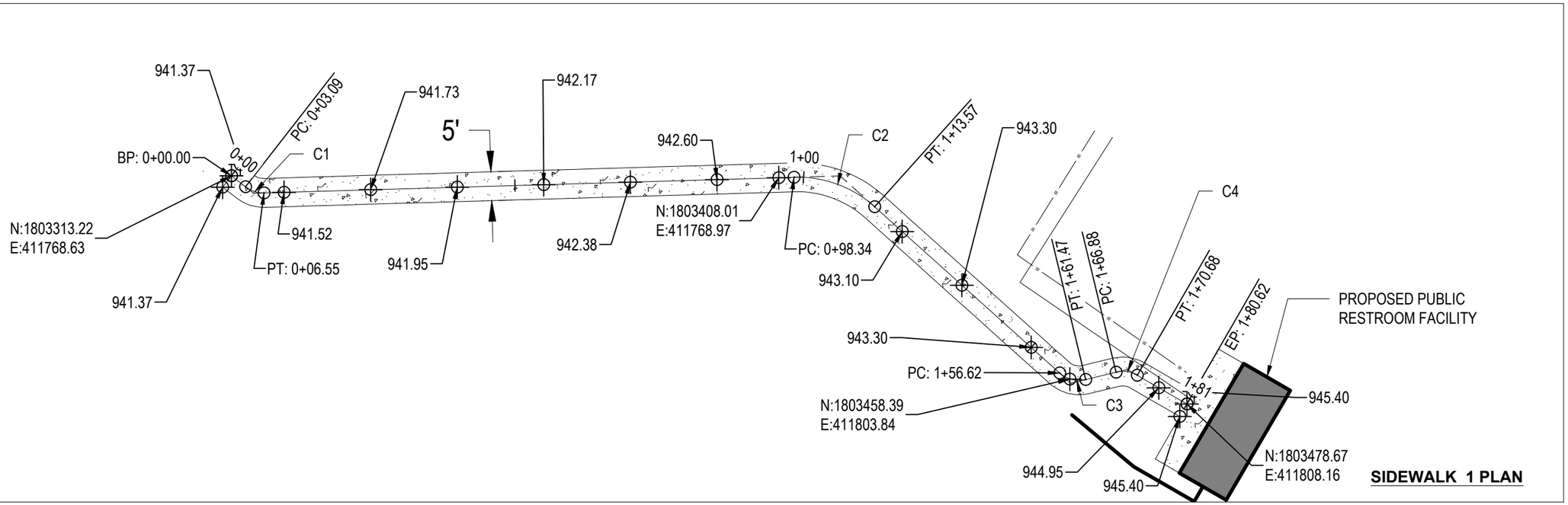
FIELD VERIFY WATER CONNECTION SIZING.

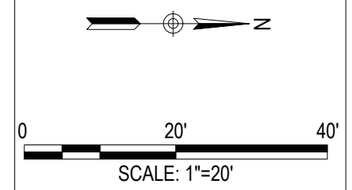
MUNCIE PUBLIC WORKS

RIVERVIEW PARK PROPOSED CONDITIONS

DRAWN: DNT
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 10/24/24

C-200

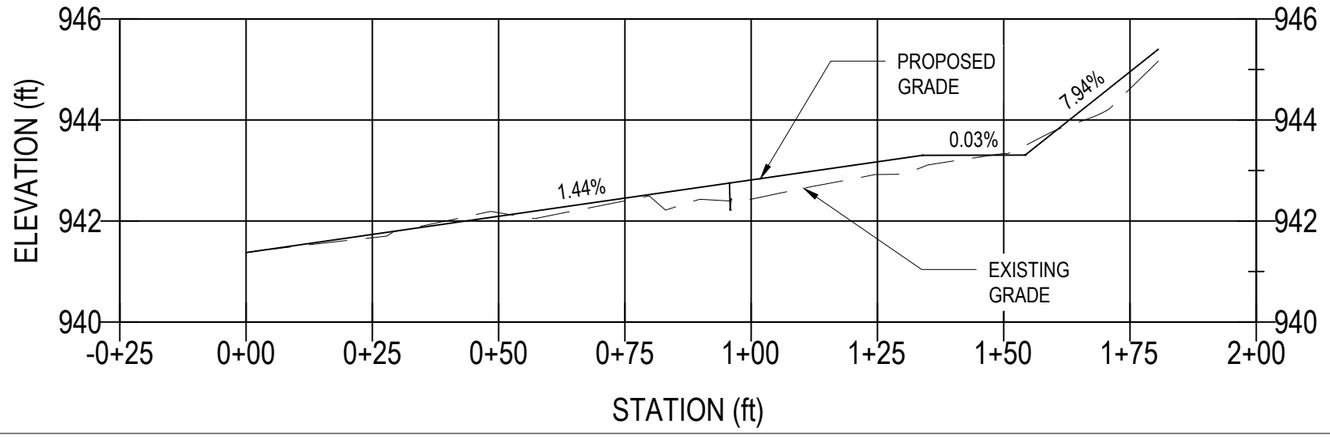




LEGEND

- STRUCTURE
- FIRE HYDRANT
- VALVE
- AREA INLET
- FENCE
- TREE
- CONCRETE SURFACE
- ASPHALT SURFACE
- PROPOSED CONCRETE
- PROPOSED STRUCTURE

SIDEWALK 1 PROFILE



SIDEWALK 1 PROFILE
SCALE: H: 1"=30', V: 1"=3'

NOTES:

ALL ELEVATIONS SHOWN ARE TOP OF CONCRETE UNLESS OTHERWISE NOTED.

LANDSCAPE AREA TO BE GRADED AWAY FROM THE PROPOSED STRUCTURE AT MAX 5% WITH SEED/STRAW.

ADAM KEITH LEACH
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PROFESSIONAL ENGINEER

4/8/2025

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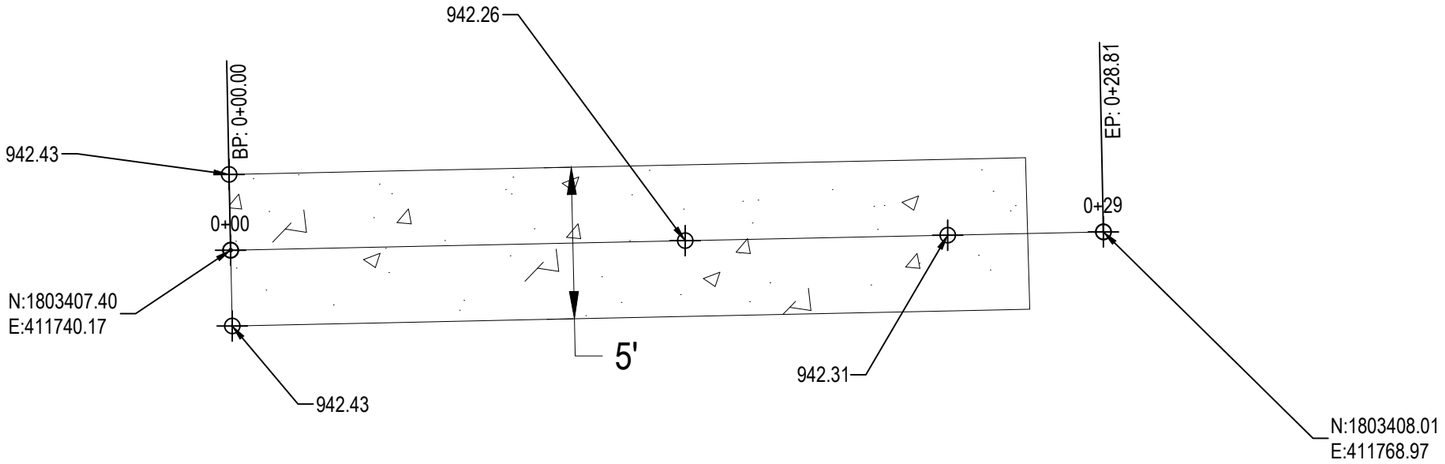
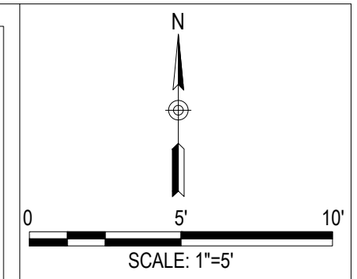
RIVERVIEW PARK SIDEWALK 1

DRAWN: DNT
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 10/24/24

C-300



SIDEWALK 2 PLAN



LEGEND

- STRUCTURE
- FIRE HYDRANT
- VALVE
- AREA INLET
- FENCE
- TREE
- CONCRETE SURFACE
- ASPHALT SURFACE
- PROPOSED CONCRETE
- PROPOSED STRUCTURE

ADAM KEITH LEACH
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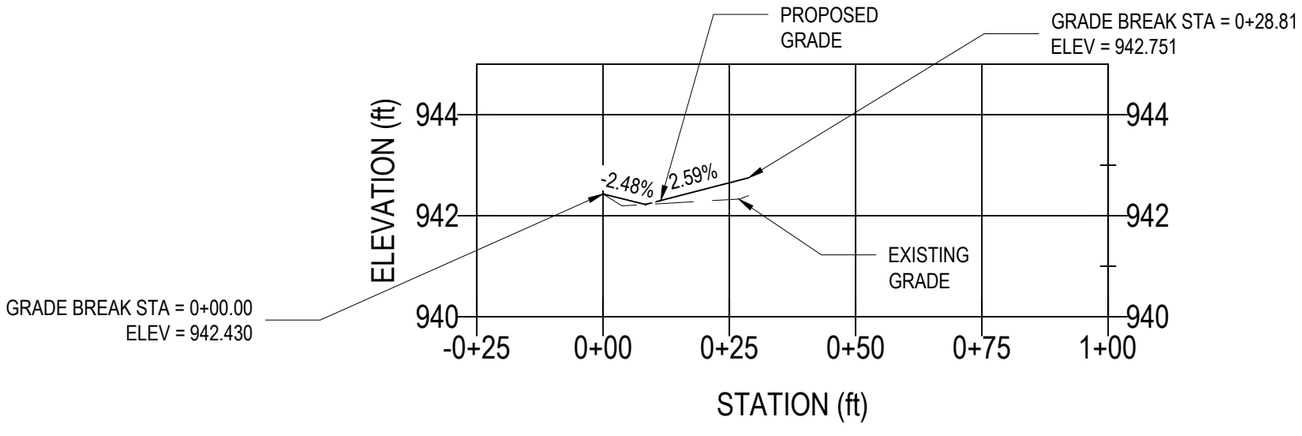
SIDEWALK 2 PROFILE



SIDEWALK 2 PROFILE
SCALE: H: 1"=30', V: 1"=3'

NOTES:

ALL ELEVATIONS SHOWN ARE TOP OF CONCRETE UNLESS OTHERWISE NOTED.

LANDSCAPE AREA TO BE GRADED AWAY FROM THE PROPOSED STRUCTURE AT MAX 5% WITH SEED/STRAW.

MUNCIE PUBLIC WORKS

RIVERVIEW PARK SIDEWALK 2

DRAWN: DNT
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 10/24/24

C-400

ADAM KEITH LEACH
REGISTERED
No. 12200128
STATE OF
INDIANA
PROFESSIONAL ENGINEER

4/8/2025

N

0 30' 60'

SCALE: 1"=30'

PROPOSED PUBLIC RESTROOM FACILITY

NE 3-15

NE 3-14
TOP941.69
IE.929.69

NE 3-16
TOP 946.88
IE.939.20

NE 3-S001
TOP 940.68
IE.938.06

9003 942.43

9004 941.69

36"

24"

BURIED COMM. LINE

FAULKNER LANE

BUNCH BLVD.

BOTTOM BANK

1801 1803 1805 1806 1809

941 942 943 944 945 946 947 948

LEGEND

- STRUCTURE
- FIRE HYDRANT
- VALVE
- AREA INLET
- FENCE
- TREE
- CONCRETE SURFACE
- ASPHALT SURFACE
- PROPOSED CONCRETE
- PROPOSED STRUCTURE
- PROPERTY LINE
- 950 EXISTING ELEVATION
- 948 PROPOSED ELEVATION

NOTES:

ALL ELEVATIONS SHOWN ARE TOP OF CONCRETE UNLESS OTHERWISE NOTED.

LANDSCAPE AREA TO BE GRADED AWAY FROM THE PROPOSED STRUCTURE AT MAX 5% WITH SEED/STRAW.

MUNCIE PUBLIC WORKS

RIVERVIEW PARK GRADING PLAN

DRAWN: DNT
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 10/24/24

C-500

Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	3.46	5.00	39.62	N18° 07' 48"E	3.39
C2	15.23	20.00	43.62	N20° 7' 23"E	14.86
C3	4.84	5.00	55.49	N14° 11' 21"E	4.66
C4	3.80	5.00	43.56	N8° 13' 17"E	3.71

ALIGNMENT TABLE: SIDEWALK 2

	STATION	NORTHING	EASTING	ELEVATION
BEGINING POINT	0+00	1803407.4047	411740.1747	942.4300
END POINT	0+28.81	1803408.0073	411768.9735	942.7500

ALIGNMENT TABLE: SIDEWALK 1

		STATION	NORTHING	EASTING	ELEVATION
	BEGINING POINT	0+00	1803313.223	411768.6352	941.3700
	END POINT	1+80.62	1803478.673	411808.1603	945.4000
C1	PC	0+03.09	1803315.658	411770.534	941.4200
	PI	1+04.82, 0.32FT RIGHT	1803317.079	411771.6414	941.4400
	PT	0+06.55	1803318.879	411771.5886	941.4700
C2	PC	0+98.34	1803410.635	411768.8964	942.7900
	PI	1+05.96,1.54FT LEFT	1803418.635	411768.6617	942.9000
	PT	1+13.57	1803424.588	411774.0099	943.0100
C3	PC	1+56.62	1803456.617	411802.7847	943.4900
	PI	1+59.05, 0.65FT RIGHT	1803458.574	411804.5425	943.6900
	PT	1+61.47	1803461.131	411803.9259	943.8800
C4	PC	1+66.88	1803466.39	411802.6579	944.3100
	PI	1+68.78, 0.38FT LEFT	1803468.332	411802.1896	944.4600
	PT	1+70.68	1803470.062	411803.1885	944.6100

ADAM KEITH LEACH
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No. 12200128
STATE OF
INDIANA
PROFESSIONAL ENGINEER

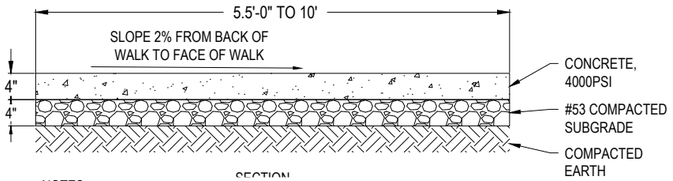
4/8/2025

MUNCIE PUBLIC WORKS

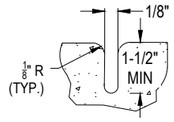
RIVERVIEW PARK CIVIL TABLE

DRAWN: DNT
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 10/24/24

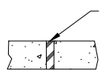
C-600



NOTES:
1. WHEN WALK IS ADJACENT TO A CURB CUT, MATCH THICKNESS AND REINFORCING WITH CURB CUT.
2. SIDEWALK SHALL HAVE A CROSS SLOPE OF 1.5% +/-0.5%.
3. RUNNING GRADE SHALL MATCH ROADWAY GRADE +/- 1%, BUT SHALL NOT EXCEED 8% FOR MORE THAN 20'.



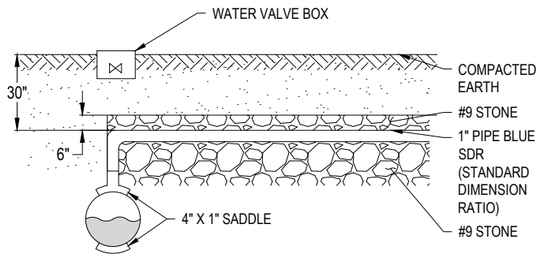
CONTRACTION OR WEAKNED PLANE JOINT



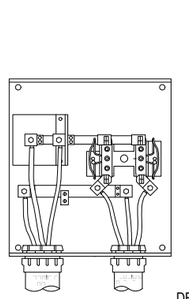
EXPANSION JOINT

NOTES:
1. IN GUTTER FLOWLINES RECESS EXPANSION JOINT 1/2" AND SEAL WITH FLEXIBLE SEALANT.
2. CONTRACTION JOINTS TO BE EVERY 5' EITHER SAW CUT WHILE GREEN OR TOOLED.
3. EXPANSION JOINT TO EXTEND FULL DEPTH OF CONCRETE EVERY 40'.

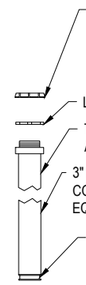
1 SIDEWALK
NOT TO SCALE



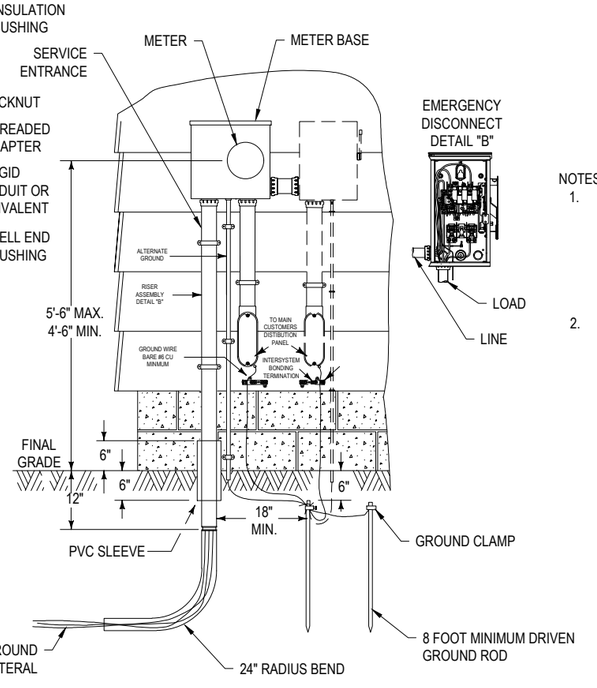
2 WATER MAIN CONNECTION
NOT TO SCALE



DETAIL "A" METER BASE



DETAIL "B" RISER ASSEMBLY



NOTES:
1. PLEASE REFERENCE AMERICAN ELECTRIC POWER COMPANY METER STANDARDS FOR CUSTOMER RESPONSIBILITIES, GENERAL CONDITION & GENERAL CONSTRUCTION NOTES.

NOTES:
1. OPERATING COMPANIES THAT REQUIRE GROUNDING IN THE EMERGENCY DISCONNECT OR MAIN SERVICE PANEL, SEE NOTES 7 IN AMERICAN ELECTRIC POWER COMPANY METER STANDARDS FOR SINGLE PHASE UNDERGROUND SERVICE METER INSTALLATION.
2. PREMISES WIRING SYSTEM SUPPLIED BY A GROUNDED.

3 SINGLE PHASE UNDERGROUND
NOT TO SCALE

ADAM KEITH LEACH
REGISTERED
No. 12200128
STATE OF INDIANA
PROFESSIONAL ENGINEER

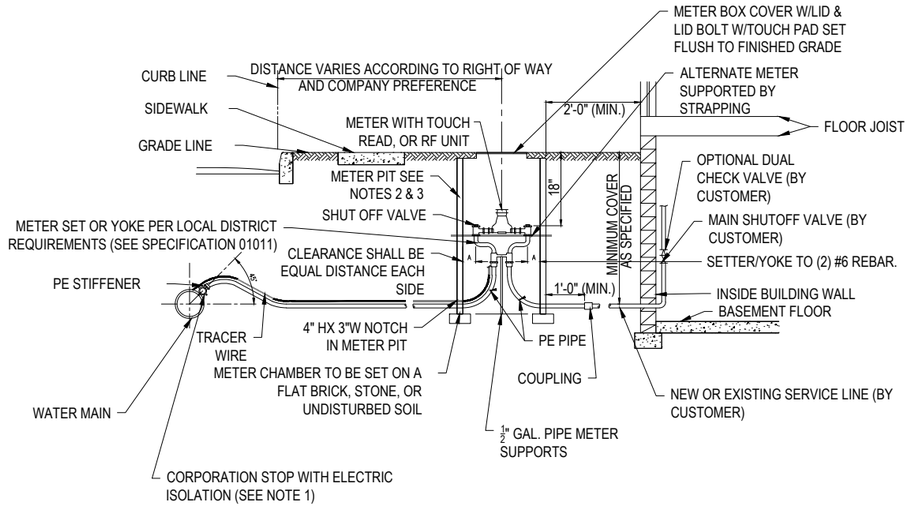
4/8/2025

MUNCIE PUBLIC WORKS

RIVERVIEW PARK DETAILS I

DRAWN: DNT
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 10/24/24

C-700



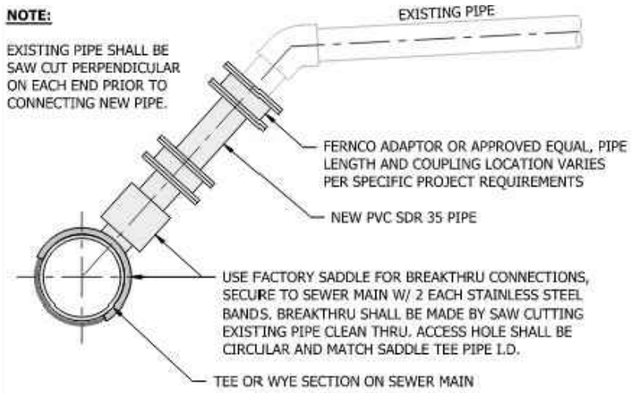
NOTES:

1. CORPORATION STOP WITH STRAIGHT COUPLING NUT. SERVICE SADDLES WILL BE USED FOR ALL TAPS IN A/C, PVC OR CONCRETE MAINS, SIDEWALL FUSED SADDLES FOR ALL TAPS ON HDPE MAINS.
2. METER PITS PER SPECIFICATION 15200.
3. METER PIT LOCATION TO BE DETERMINED BY LOCAL AUTHORITY AND INAWC.
4. SERVICE LINE AND METER PIT OWNERSHIP VARIES BY LOCAL TARIFF.
5. CONNECTIONS BETWEEN PIPE LENGTHS SHALL BE COMPRESSION OR FLARE AND MAY DEPEND ON LOCAL PLUMBING REQUIREMENT.
6. 1" WATER LINE TO BE BURIED 36" DEEP BELOW FINAL GRADE WITH #73 STONE BEDDING.

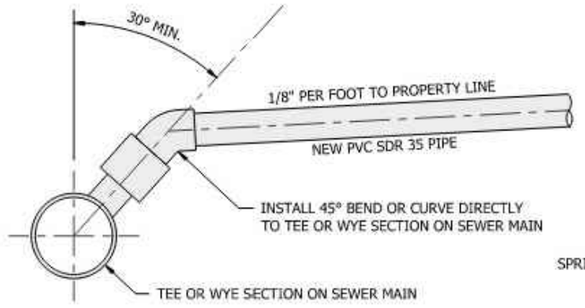
4 SINGLE WATER SERVICE
NOT TO SCALE

NOTE:

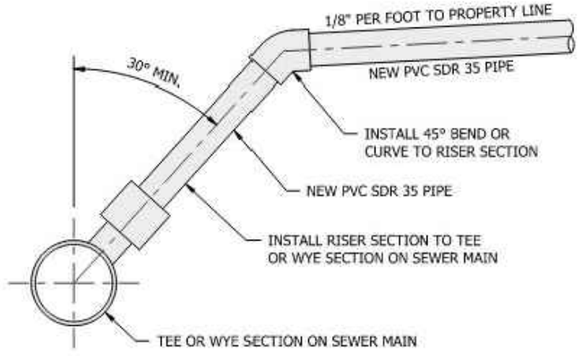
EXISTING PIPE SHALL BE SAW CUT PERPENDICULAR ON EACH END PRIOR TO CONNECTING NEW PIPE.



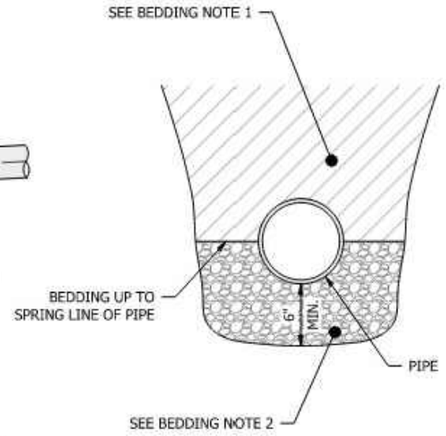
EXISTING SERVICE LATERAL REPAIR



SHALLOW SEWERS - NEW INSTALLATION



DEEP SEWERS - NEW INSTALLATION



BEDDING NOTES:

1. APPROVED BACKFILL AS PER INSTALLATION SPECIFICATIONS FOR PAVED OR NON-PAVED SURFACES
2. BEDDING MATERIAL SHALL BE CRUSHED STONE; MIN. NO. 11, MAX. NO. 5, AND SHALL BE HANDED TAMPED MECHANICALLY TO A COMPACTION OF 95% DRY DENSITY

SERVICE LATERAL BEDDING

5 SANITARY SERVICE LATERAL INSTALLATION
NOT TO SCALE

ADAM KEITH LEACH
REGISTERED
No. 12200128
STATE OF
INDIANA
PROFESSIONAL ENGINEER

4/8/2025

MUNCIE PUBLIC WORKS

RIVERVIEW PARK DETAILS II

DRAWN: DNT
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 10/24/24

C-800

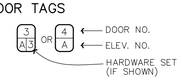
NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE
THOMAS PARK
1900 BLK W 13TH STREET
MUNCIE, INDIANA 47302

ABBREVIATIONS

ADJ– ADJACENT
AFF– ABOVE FINISHED FLOOR
ALT– ALTERNATE
ALUM–ALUMINUM
BRG– BEARING
BS– BOTH SIDES
BTB– BACK TO BACK
CB– CIRCUIT BREAKER
CJ– CONTROL JOINT
CLG– CEILING
CMU– CONCRETE MASONRY UNIT
CO– CLEAN OUT
CONC– CONCRETE
CU– COPPER
CW– COLD WATER
D– DEEP/ DEPTH
DISC– DISCONNECT
DL– DEAD LOAD
DS– DOWN SPOUT
DWG– DRAWING (S)
EC– ELECTRICAL CONTRACTOR
ELEC– ELECTRIC(AL)
EQUP– EQUIPMENT
EW– EACH WAY
EWC– ELECTRIC WATER COOLER
FD– FLOOR DRAIN
FRP– FIBERGLASS REINFORCED PLASTIC
GC– GENERAL CONTRACTOR
GPM– GALLONS PER MINUTE
GB– GYPSUM BOARD (DRYWALL)
H– HIGH
HB– HOSE BIBB
HORIZ– HORIZONTAL
HT– HEIGHT
HVAC– HEATING, VENTILATION, & AIR CONDITIONING
HW– HOT WATER
INSUL– INSULATION
KB–KNEE BRACE
LL– LIVE LOAD
LLH– LONG LEG HORIZONTAL
LLV– LONG LEG VERTICAL
LVL– LAMINATED VENEER LUMBER
MAX– MAXIMUM
MBH– 1000 BTU/ HOUR
MC– MECHANICAL CONTRACTOR
MFR– MANUFACTURER
MIN– MINIMUM
NIC– NOT IN CONTRACT
OC– ON CENTER
OFCI– OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI– OWNER FURNISHED, OWNER INSTALLED
OTO– OUT–TO–OUT
PC– PLUMBING CONTRACTOR
ø– PHASE, DIAMETER
PLAM– PLASTIC LAMINATE
RO– ROUGH OPENING
ROW– RIGHT OF WAY
SIM– SIMILAR
S4S– SURFACED 4 SIDES
T&B– TOP & BOTTOM
T&G– TONGUE & GROOVE
TEMP– TEMPORARY
TYP–TYPICAL (THIS CONDITION OCCURS MANY TIMES)
UNO– UNLESS NOTED OTHERWISE
VCT– VINYL COMPOSITION TILE
VERT– VERTICAL
VTR– VENT THROUGH ROOF
W– WIDE/ WIDTH
WC– WATER CLOSET
W/– WITH
W/O– WITHOUT
WH– WATER HEATER
WT– WEIGHT
WWF– WELDED WIRE FABRIC

SYMBOLS

SECTION TAG


DOOR TAGS


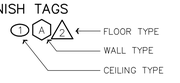
ELEVATION TAG


WINDOW TAGS


INTERIOR ELEVATION TAG


ROOM TAG


DETAIL TAG


FINISH TAGS


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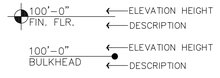

LIFE SAFETY

ALLOWABLE AREA

OCCUPANCY	B
TYPE OF CONSTRUCTION	VB
ACTUAL AREA	205 sf
BASIC ALLOWABLE AREA, At=	9000 sf
+506.2 FRONTAGE INCREASE, If=	0 sf
+506.3 SPRINKLER INCREASE, Is=	0 sf
ADJUSTED ALLOWABLE AREA, Aa=	9000 sf
USAGE FACTOR (ACT./ ALLOW.)	.022
TOTAL USAGE	.022 <1.0, OK

FIRE RESISTANCE

EXTERIOR NORTH	NONE
EXTERIOR SOUTH	NONE
EXTERIOR EAST	NONE
EXTERIOR WEST	NONE
FIRE SUPPRESSION SYSTEM	NONE
SEPARATION REQUIREMENTS	NONE
INCIDENTAL USE AREAS	NONE

EGRESS

OCCUPANT LOAD	AREA /FACTOR = OCC.		
REST ROOM AREAS	205sf	100	2

REQ'D WIDTH @.2"/ OCC.	.4"
PROVIDED WIDTH	36"
# OF EXITS REQ'D	1
# EXITS PROV'D	3

IN CODES

THIS PROJECT WAS DESIGNED UNDER, AND ALL WORK SHALL CONFORM WITH THE FOLLOWING:

BUILDING:	2014 INDIANA BUILDING CODE (2012 IBC)
ACCESSIBILITY:	2009 ICC A–117.1 ACCESSIBILITY STANDARD
ELECTRICAL:	2009 INDIANA ELECTRICAL CODE (2008 NFPA 70)
MECHANICAL:	2014 INDIANA MECHANICAL CODE (2012 IMC)
FUEL GAS:	2014 INDIANA FUEL GAS CODE (2012 IFGC)
PLUMBING:	2012 INDIANA PLUMBING CODE (2006 IPC)
ENERGY:	2010 INDIANA ENERGY CONSERVATION CODE (ASHRAE 90.1 2007)
FIRE CODE:	2014 INDIANA FIRE CODE (2012 IFC)

STRUCTURAL

BASIC LOADS (ASD METHOD)

ALLOWABLE SOIL BEARING (STRIP):	2,000psf NET
ALLOWABLE SOIL BEARING (MATT):	2,500psf NET
FLOOR LOAD:	20psf DL
	125psf LL (LIGHT STORAGE)
ROOF LOAD:	15psf DL
	0 psf CL (COLLATERAL)
	20psf LL
	25psf SL (AS DESIGNED)

SNOW PER ASCE–7

BASIC GROUND– Pg:	20psf
EXPOSURE FACTOR– Ce:	1.0
IMPORTANCE– Is:	1.0
THERMAL FACTOR– Ct:	1.0
FLAT ROOF LOAD– Pf:	20psf
(Pf =.7CeCtIsPg, 20psf min.)	
RAIN–ON–SNOW LOAD:	5psf
SNOW LOAD– SL:	25psf

WIND PER ASCE–7

BASIC WIND SPEED– V:	90mph
IMPORTANCE– Iw:	1.0
EXPOSURE CATEGORY:	"B"
HEIGHT & EXPOSURE COEF.– λ	1.0
METHOD 1 DESIGN PRESSURE, (Ps=λ IwPs30) MAIN WFRS– Ps:	+12.8 to –15.4psf
METHOD 1 DESIGN PRESSURE, COMPONENTS & CLADDING– Pnet:	+5.9 to –36.8psf

SEISMIC PER ASCE–7

BASIC FORCE RESIST. SYSTEM:	ORDINARY STEEL CONCENTRICALLY BRACED FRAME; ORDINARY MASONRY REINFORCED SHEAR WALLS
SEISMIC USE GROUP:	I
SITE CLASS:	C
DESIGN SPECTRAL RESPONSE– Sds:	.136
RESPONSE FACTOR –R:	2 & 5
STRUCTURAL ANALYSIS PROCEDURE:	9.5.4, SIMPLIFIED
DESIGN BASE SHEAR– V:	42.9k

FLOOD

THIS STRUCTURE IS NOT WITHIN A FLOOD INUNDATION ZONE

MAP

SHEET INDEX

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE THOMAS PARK
1900 BLK W 13TH STREET
MUNCIE, INDIANA 47302
TITLE SHEET & DRAWING INDEX

US Architects
9200 W. SMITH STREET
YORKTOWN, INDIANA 47396
TELEPHONE 765–405–1220
FAX 765–405–1219
WEB usarchitectsmuncie.com

JERRY G. HOFFMAN, PARTNER
KEITH L. GARY, PARTNER

DRAWN:
CHECKED:
REVISIONS:

DATES
CD PHASE
START DATE: 07–01–24
FINISH DATE: 09–26–24

PLOT INFORMATION
FILE NAME: K24035_T1.dwg
PLOT DATE: 9/26/2024 11:09
CAD OPER.: KLG

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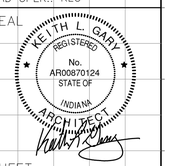

SHEET
T–1

01 GENERAL PROJECT

1. All ideas, designs, arrangements and plans indicated by this drawing are property of US Architects and were created for use on and in connection with the specified project. None of the ideas, designs, arrangements or plans shall be used by or disclosed to any person, firm, or corporation for any purpose whatsoever without the written permission of US Architects.

2. Contractors shall verify and be responsible for all dimensions and conditions on the job. If a discrepancy should exist between a small scale drawing and an enlarged drawing, enlarged drawing governs. Details govern over plans. Written dimensions on these drawings shall have precedence over scale dimensions. Architectural drawings govern over engineering drawings. If discrepancies exist, request written clarification from the architect.

3. The contractor is responsible for checking all contract documents, field conditions and dimensions for accuracy and coordination. If there are any questions regarding these or other coordination questions, the contractor is responsible for obtaining a clarification from the architect before proceeding with work.

4. As a warrantee, the contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final payment.

5. Any damage to areas inside or outside of the project area caused by the contractor shall be repaired to the status prior to construction at no cost to owner.

6. All primary and subcontractors shall visit the site and familiarize themselves with the existing building and site conditions, the proposed work and the location of surrounding utilities, topography, plants and structures which may impact the execution of this project.

7. All trades are responsible for installing their work to allow ceiling heights, mechanical work, and light fixtures to be located as shown and for informing the architect in advance if heights or locations can not be achieved. Proceeding with non-coordinated work is with the understanding that any costs for corrective modifications will be the responsibility of the contractor. Trade priority shall be as follows unless directed otherwise by the architect:
a. Structure
b. Electrical lighting fixtures
c. Mechanical grilles and diffusers
d. Mechanical ductwork
e. Piping systems (including fire suppression)
f. Electrical conduit

8. All suppliers, primary, and subcontractors are responsible for field verifying as-built conditions prior to fabrication or assembly of building components. The general contractor shall be responsible for coordination between components produced by various suppliers, primary, and subcontractors.

9. Submit shop drawings and schedules to architect for approval for all cabinets, counters, millwork, hardware, glass, frames, and doors. Allow 5 business days for architectural review.

10. US Architects is not responsible for safety on the job site. Job safety is the responsibility of the general contractor. Shoring and demolition are ultra hazardous activities. US Architects recommends that the building not be occupied during these operations, except by the skilled personnel required. Design of shoring system shall be by the contractor.

11. The general contractor shall comply with all building code requirements of the state or local authority having jurisdiction and shall obtain and pay for all required permits, fees, and inspections. Any permits required for plumbing, heating, or electrical, shall be paid by the respective subcontractor, but included in total cost of construction.

12. It is the contractor's responsibility to keep the construction site neat and clear of excess debris as well as maintaining the adjacent public roads access the site clear of mud and construction materials.

13. Neither the final payment nor any provision in the contract documents nor partial or entire occupancy of the premises by the owner shall constitute an acceptance of work not done in accordance with the contract documents.

14. General conditions of the contract for construction shall be A.I.A. Document A201, 1987, and shall be considered in its entirety to be a part of these specifications

15. Whenever the contract, specifications, laws, ordinances, or public authority require any work to be specially inspected or approved, the contractor shall give the governing authority timely notice of its readiness for inspection and of the date for inspection

16. The architect's responsibility is limited to the items shown on the drawings. Obtain the architect's specific approval prior to deviating from the drawings. Follow the best trade and engineering practices for the items not specifically detailed and indicated.

17. All changes or deviations from the contract, including those for extra or additional work, must be submitted in writing for an approval of the architect. No verbal orders will be recognized.

18. These general specifications have not been composed for a specific project, rather they are a generalized set of notes intended to supplement the drawings to produce the best building possible for the owner. Some sections may not be applicable to this specific project.

19. These notes and the drawings may refer to participants in this building project which may not correspond precisely with the terminology set forth in the contracts between the various participants in this project; therefore owner, leasor, developer or "other" refers to the same party unless otherwise specified; contractor, builder refers to the same party unless otherwise specified; architect, designer, interior designer, or engineer refers to the same party unless otherwise specified.

20. At substantial completion, provide owner with Operations and Maintenance manuals for all equipment and systems in the project. This will be collected and organized into a binder and includes, but is not limited to: warranties, instructions, maintenance programs, and operational data for mechanical/ electrical/ plumbing equipment, installed equipment, elevators, roofing systems, etc.

ARCHITECTURAL

1. All dimensions are to the face of stud, structural center lines, or to face of masonry or concrete, unless noted otherwise.

2. Do not scale the drawings. If there are any coordination questions or dimensional discrepancies, the contractor is responsible for obtaining a clarification from the architect prior to proceeding.

3. Verify all critical dimensions relating to the existing structure; existing dimensions were determined by visual survey and existing drawings.

4. Dimensions and walls relating to existing steel columns are of highest importance; new walls are to be laid out from columns outward to ensure correct column placement within thickness of partitions

5. Architectural dimensions take precedence over engineering drawings for electrical device location. If a conflict arises between the architectural and engineering drawings immediately consult the architect

6. "Align" as used in these documents shall mean to accurately locate faces in the same plane.

7. All stud walls to have type-x 5/8" mold resistant drywall and full batt insulation U.N.O.

8. Fire rated wall designations are not shown through door openings for clarity purposes. Walls above doors are considered to have rating as related wall adjacent to door openings. Fireseal all penetrations in rated walls to maintain fire rating integrity.

DEMOLITION

1. Field verify all existing conditions, locations, and dimensions prior to commencing with demolition work. Prior to demolition, the contractor shall conduct appropriate field surveys and testing to determine the nature of the existing work to be removed. Due to the nature of renovation work, conditions may occur in the field that are not fully represented in these drawings, and the general contractor is to notify the architect if such conditions conflict with new work to be done.

2. The owner assumes no responsibility for the actual condition of structures to be demolished. Conditions existing at the time of inspection for bidding purposes will be maintained by the owner insofar as practical. However, variations within the structure may occur by owner's removal and salvage operations prior to the start of the demolition work.

3. The following activities shall take place only on days and time as approved by the owner:
a. coring or saw cutting of floors or cmu/concrete walls.
b. jack hammer work
c. work in rooms or floors other than as shown on the drawings.
d. interruption of power, water, data or other services to any part of the building.

4. Indication of new materials or equipment shall infer all removal or demolition and patching required of existing materials and substrates for proper installation of new work per industry standards.

5. At demolition areas, remove all materials completely leaving surfaces smooth and ready for new work. Saw cut where necessary. Use appropriate measures to assure clean, neat surfaces and to facilitate tie-ins for new work and refinishing existing work to remain. For wall elements and devices to remain in service on demolished walls, relocate to the nearest existing or new wall U.N.O. Confirm location with the architect before proceeding.

6. The contractor shall repair and patch all interior surfaces which will be exposed, where deterioration, cracks, damage, dents, holes or any other damage has occurred. Match adjacent materials if not noted.

7. Where walls or ceilings are removed all adjacent surfaces including walls, floors, or ceilings, which will remain exposed or provide a thermal, fire, tenant separation or acoustical barrier are to be repaired or replaced to like new condition. Match existing if not specified. All penetrations thru walls, floors, and ceiling deck shall be grouted/firestopped around each penetrating element as required by the local code enforcement agency.

8. Contractor shall ensure that dust and debris is prevented from entering non-work areas. Compartmentalize with temporary barriers as required, providing dust-proof enclosures over equipment such as computer, telephone service gear, and alarm system panels during construction. Coordinate closure and access with the owner's rep.

9. Reconnect/reroute or properly terminate existing utilities and services as required by new work. In demolition areas, removal of abandoned mechanical, electrical, and plumbing elements shall be to or below wall surface to allow specified new construction and finishes. Cap-off or terminate as required.

10. Each trade shall be responsible for cutting and patching in existing floors, walls and ceiling for their work where required by new construction. Before commencing with any cutting and patching, contractor shall have approval of the owner. The general contractor shall be ultimately responsible for all cutting, supporting, and patching, if not covered by a specific trade.

11. See site plan for extent of site demolition (i.e. Pole lights, concrete walks, curbs, and asphalt)

12. The general contractor shall be responsible for proper and timely disposal of all demolished materials. Provide proper waste receptacles and request approval on their location and use from the owner. Removal of debris shall be coordinated with the owner's representative with respect to transportation schedule and routing.

13. The contractor is to return salvageable materials (doors, frames, hardware, equipment, and lighting fixtures) to the owner and stockpile them in an approved construction area. Dispose of these materials after owner's review and approval, unless otherwise specified in the contract documents.

02 SITE WORK

1. All contractors working with the site in any aspect shall review all site related drawings and shall coordinate their work with the general contractor and/or other contractors.

2. Notify the architect immediately if there are questions regarding the drawings and/or the specifications, if unusual varying or wet soil conditions are discovered, or if there are any conflicts between the drawings and the existing conditions.

3. No contractor shall begin work until the utility companies have located and marked all underground utilities and disconnected any utilities that may potentially be a hazard to the workers or others.

4. Any underground and above ground utilities to be abandoned or removed shall be disconnected prior to the start of demolition/construction. These utilities shall then be completely removed. This is of particular importance regarding underground piping which could cause erosion and undermining of building footings of not completely removed.

5. Care shall be taken to protect adjacent properties neighboring the project against damage from construction traffic, work vehicles, and excess site drainage. Provide erosion and runoff control as required by governing agencies and good construction practice.

6. For structures & building slab, control soil compaction to provide the minimum percentage of density. Compact the top 12" of sub grade and each 9" layer of backfill or fill material at 95% max. dry density or 90% relative dry density when tested in accordance with ASTM D 1557 or ASTM D 2049 respectively.

7. Protect excavation bottom against freezing.

8. Do not back fill excavations until the structure is sufficiently complete to provide horizontal and vertical bracing to the areas of the foundation being back filled

9. All paved and graded areas must drain properly when complete. Work that does not drain correctly will be rejected until the work is corrected.

04 MASONRY

1. CMU shall be ASTM C-90 with type "S" mortar, running bond unless noted otherwise.

2. Reinforcing bars shall be grade 60 deformed billet.

3. Horizontal reinforcing shall be continuous ladder-type (DuraWall) @16" o.c. or as shown on drawings

4. Vertical reinforcing shall be #5 @48" o.c. or as shown on drawings, in fully grouted core. Provide vertical reinforcing at all jambs, corners, and ends.

5. Lap reinforcing splices 48 bar diameters. Ends shall have 4" hooks w/ 4" extensions.

03 CONCRETE

1. All concrete work shall, at minimum, conform to the most current ACI-301-99, standards specification for structural concrete and ACI-318-2002 building code requirements for reinforced concrete. Concrete compressive tests shall be performed in accordance with ASTM C39, with results forwarded to the architect. One set of specimens shall be taken for each day of pouring and each 100cyd. Each set shall include one specimen tested at 7 days, 2 tested at 28 days, and one retained in reserve. Protect cylinders from freezing.

2. Follow recommendations of ACI-305R-99 when placing concrete during hot weather and ACI-306R-99 during cold weather.

3. Form materials shall be contractor's choice and design responsibility, selected from standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances and for easy removal without damage to concrete. Form facing for exposed surfaces shall be steel UNO; release agents shall not adversely affect concrete or interfere with application of coatings. Do not remove bracing until the concrete has attained the specified compressive strength (F'c); for walls supporting soil loads, do not remove until after backfilling is complete.

4. Reinforcing bars shall be ASTM A615A/615M grade 60 deformed billet steel bars; welded wire fabric shall be ASTM A185, plain type, flat sheets, lapped 14" min.; tie wire shall be annealed, minimum 16ga wire; chairs, bolsters, bar supports, and spacers shall be sized and shaped for adequate support of reinforcement during placement. When installing reinforcement, comply with ACI-301, clean reinforcement of loose rust and mill scale and accurately position, support and secure to insure minimum coverage, install welded wire reinforcement in maximum possible lengths, offset laps in both directions and tie splice laps with tie wire. Lap all bar splices 30xbar diameter, lap all corner bars. Concrete cover for reinforcing shall be:
a. Footings: 3"
b. Walls: 2"
c. Piers: 1-1/2" @ ties
d. Slabs on grade: mid depth

5. Concrete mix design shall comply with ACI specification ACI-211.1-97, standard practice for selecting proportions for normal, heavyweight and mass concrete; admixtures to be added as recommended by ACI-211.1, at rates specified by the manufacturer; submit a list of admixtures and ratios to US Architects for review. Use the following minimum compressive strengths unless noted otherwise:
a. Footings and foundations: 3,000 psi @ 28 days
b. Interior slabs on grade: 4,000 psi @ 28 days
c. Exterior concrete: 4,000 psi @ 28 days, w/ air entrained
d. Lean concrete backfill: 1,200 psi @ 28 days

6. Vapor retarder shall be minimum 6 mil polyethylene below not less than 2" sand or compacted gravel fill to minimize slab curling; lap all seams minimum 6" and tape edges and ends.

7. Gravel placed below slabs shall be crushed stone or other acceptable fill as approved by architect. Under no circumstances shall pea gravel or other smooth round stones be placed below slabs.

8. Joint filler shall be compressible asphalt mastic with felt faces, complying with ASTM D994, 1/4" thick and 4" deep.

9. Connecting to existing concrete: Clean with a steel brush and apply bonding agent in accordance with manufacturer's instructions. Dowel to existing work with steel rods, sized as indicated on drawings, in drilled holes packed solid with non-shrink metallic grout.

10. Concrete finishing: Repair surface defects, including tie holes immediately after removing formwork. Rub down or chip off fins more than 1/4" tall. Saw cut joints 1/4 depth of slab spaced 30x slab thickness within 24 hours of placing.
a. Wood float surfaces to receive quarry tile, ceramic tile, and terrazzo with full bed systems.
b. Steel trowel surfaces to receive carpeting, resilient flooring, seamless flooring, or thin set tile.
c. Steel trowel surfaces to be left exposed and apply a chemical hardener after slab has cured. Apply in 3 diluted coats per manufacturer's instructions, allowing 24 hours between coats.
d. Light broom finish all exterior walking surfaces U.N.O., power floating is prohibited.

11. All footings are to bear on undisturbed soil or compacted engineered fill. Engineered fill beneath floor slabs and over footings should be compacted to a dry density of at least 95% of the standard proctor maximum dry density (ASTM D-698). This minimum compaction requirement should be increased to 100% for fill supporting footings. All compaction should be accomplished by placing the fill in 6" loose lifts and mechanically compacting each lift to at least the minimum specified dry density. Field density tests should be performed on each lift to ensure that adequate compaction is being achieved.

12. Foundations are designed for normal, stable soil with an assumed safe bearing pressure of 2,000psf unless otherwise noted on the structural drawings. Verify allowable soil bearing pressure at footing subgrade. Notify the architect if saturated or other abnormal conditions.

13. All footing elevations are to bottom of footing and are referenced to finished floor elevation 100'-0". Increase footing depths are required or directed by the architect.

14. Anchor bolt tolerances are 1/8" center to center, 1/4" group to group. These tolerances must be maintained for steel to "fit." It is advised that the GC check his subcontractor's work prior to pouring piers or footings. Verify size & location of sleeves, openings, embedded items, etc. and ensure they are in place prior to pour.

06 CABINETRY

1. Shop-fabricate cabinet units in accordance w/ AWI P-200 "premium" quality.
2. Field verify all dimensions prior to fabrication and installation of casework.

3. Countertops shall be 3-ply particleboard (masonite) w/ integral backsplash where shown.

4. Plastic laminate per schedule shall be installed on all exposed surfaces.

5. Cabinetry hardware:
a. shelf rests: formed steel, chromed, cut for rests @ 1" o.c.
b. shelf/counter brackets: sim. Stanley 796
c. drawer/door pulls: "U" shaped, steel w/ satin finish
d. catches: magnetic, sim. Stanley SP46
e. drawer slides: self-closing, epoxy-coated slide w/ ball bearings between tracks, sim. Blum 230M
f. hinges: concealed self-closing w/ 125° opening, US26 finish, sim. Blum clip125

6. Provide all other hardware as required for a complete installation.

7. Install cabinets plumb & level, w/ all blocking. Provide matching filler panels as req'd to fill existing spaces.

06 WOOD

1. All wood in contact with the concrete or masonry shall be pressure treated material suitable for this application. All sill plates must be true and level upon installation. Grout solid below sill plates installed on an out-of-level foundation or irregular surface.

2. Make all cuts true and square for full bearing at structural joints. Connect all framing securely together with nails, spikes, screws, or approved framing connectors as noted. Install any additional connectors if required by the local building official.

3. Beams and headers shall be constructed according to the drawings. All plywood specified shall be continuous and unbroken for the entire length of the beam or header, and shall be glued and nailed to the other members.

4. Beam and header bearing area and columns: beams and headers shall have double wall studs under each bearing point. This solid bearing material shall be continuous from the beam or header down to the foundation. Solid bearing shall be for the full width of the beam and shall bear on the full width of the side wall or column below. See the column schedule and structural details and elevations of beams that require special or increased bearing.

5. Provide full height structural studs at all corners, around doors, around borrowed light frames and behind all wall mounted equipment and casework.

6. Plywood roof sheathing shall be installed with "H" clips and the long side shall always run perpendicular to the framing members.

7. Draft stopping and fire stopping shall be installed as required by all local and state codes.

8. In noncumbustible construction, provide fire treated blocking as required for casework and accessories.

06 WOOD TRUSSES

1. Pre-engineered roof trusses shall be installed where shown on the roof framing plan. Trusses shall be designed by a professional engineer in the state where the building is being constructed. Shop drawings bearing the seal of said engineer shall be provided describing each individual truss, as well as a placement plan for the entire roof layout. Shop drawings shall bear the engineer's seal and signature. Provide and install all bracing, connectors, temporary bracing, blocking, etc. necessary for a complete and approved installation.

2. Camber all trusses of spans greater than 50' for anticipated dead load deflection. Limit live load deflection by design to l/360.

3. Design loads unless noted otherwise:
a. 25psf: min. top chord snow load
b. 20psf: top chord live/ construction load
c. 10psf: top chord dead load
d. 10psf: bottom chord dead load
e. Wind load - 115 mph exposure "B"
f. DriftloadS & Concentrated loads - see drawing

4. Do not fabricate any trusses until the general contractor and the architect have reviewed the shop drawings. Anticipate five working days for architects review.

5. Field modification of trusses shall not be permitted without first reviewing these changes with the architect and or the engineer and receiving their written approval.

6. For all trusses and engineered lumber, follow the manufacturer's details and specifications. If these details and specifications are in conflict with the architects or engineers drawings and specifications, the most restrictive condition shall govern. Contract the architect for written clarification.

7. The truss fabricator must supply to the architect with the shop drawings a copy of the BCSI Guide to Good Practice For Handling, Installing Restraining & Bracing of Metal Plate Connected Wood Trusses. This manual will be returned with reviewed shop drawings to the general contractor. It is the general contractor's responsibility to make sure that BCSI recommendations are followed as a minimum standard on this job. If the G.C. subcontracts erection of the trusses, the G.C. must ensure that all of his subcontractors understand and comply with BCSI recommendations.

8. All trusses this job shall have as a minimum Simpson H-1 truss anchors at each bearing end. See details for additional anchors.

15 MECHANICAL

1. The mechanical contractor shall, in a manner consistent with the best trade practices, perform all work and furnish all supplies and materials, machinery, equipment, facilities, and means necessary to perform all work required for the mechanical systems in the project. All work shall be in accordance with the provisions of the plans and the latest issue of the applicable codes, rules, and regulations of the local enforcement agency having jurisdiction.

2. All mechanical plans and ductwork layouts prepared by the architect are schematic only. Mechanical contractor is responsible for actual sizes, layouts, connection details, and verification of field conditions prior to fabrication.

3. Mechanical contractor shall be responsible for all field coordination with other trades to allow for the proper installation of all mechanical equipment, devices, and access panels. Undue installation costs shall not be approved due to a lack of work coordination with the related trades. Notify the architect of all modifications to the work that varies from the drawings.

4. Electrical specifications for all equipment shall be provided to the electrical contractor in a timely manner so that pre wiring and hook-ups may be made without delaying the progress of the job.

5. Controls, transformation, and wiring shall be furnished and installed for the complete operation of the heating and cooling air conditioning equipment. All control wiring shall be by mechanical contractor. Locate thermostats where shown on the drawings, mounted at 48" AFF.

6. Ductwork shall be constructed according to the latest SMACNA standards and the latest ASHRAE guide and data book. All seams in ducts shall be taped after mechanical connections are made.

7. Blank-off open ductwork during construction to prevent dust and debris from entering the mechanical system. At substantial completion, replace or clean filters in all equipment.

8. The HVAC contractor shall be responsible for balancing the system after installation. It is not necessary to provide a certified balance report unless called for elsewhere in the drawings, but the HVAC contractor shall send his balance report to the architect before acceptance of work.

9. Duct all exhaust fans to ridge vent or soffit vent. Install makeup air to the return air plenums as per code.

10. Low- efficiency vents shall be minimum 6" class 'B' type for combination furnace and water heater, and 4" for furnace only installation. Provide approved thimble at ceiling, insulation, and roof penetrations. Install combustion and relief air vents to the mechanical area. In general, venting and make-up air is to be per manufacture's requirements and applicable codes.

15 PLUMBING

1. All new work shall conform to current state and local building codes, national plumbing code, state sanitary code, county board of health regulations, and any other applicable codes or requirements. The plumbing contractor shall verify all existing underground utilities, acquire and pay for all permits, certifications, and inspections, and perform all work related to gas, water, and sewer utilities. Review permit fee cost with architect for approval.

2. Review all items of equipment supplied by others (i.e. Kitchen, laundry, bathing, etc.) to determine exactly what is being supplied and what hookup and accessories are required. It shall be the responsibility of the plumber to provide all labor and accessories (i.e. vvacuum breakers, back flow preventers, pressure reducers, unions, stops, traps, etc.) needed for a complete installation but not supplied with the equipment. Any areas in question shall be reviewed with the general contractor and the architect for clarification.

3. All hot and cold water supply lines shall be fully insulated and run concealed in chases, ceiling, or walls except as specifically noted as exposed piping. Supply piping shall not be run in an exterior wall, or on the surface of an exterior wall, or through an unheated space.

4. Water piping shall be secured tightly in all locations to prevent any rattling. If pressure is excessive, provide dead end air chambers/ water hammer arrestors above fixtures.

5. Provide unions and an upstream shutoff valve at pumps, water heaters, water meter, and other equipment to facilitate maintenance, replacement, or removal.

6. Provide dielectric union on all water heater connections. Final connections to faucets shall be with a union or compression fitting. All plumbing fixtures shall be provided with a stop unless otherwise noted.

7. All floor drains shall be set flush with floor level. Install metal pan under finish floor 12" around floor drain and seal all joints.

8. Provide trap primers where required by code and or local governing authorities

9. Provide steel sleeves where pipe penetrates masonry and concrete. Pack sleeves at completion of work to seal all gaps. Copper piping penetrating poured-in-place concrete shall be wrapped with armaflex at all penetrations.

10. Plumbing contractor shall be responsible for installing gas service. All piping, gas trains, valves, etc. shall be installed in accordance with NFPA 54 and the requirements of the local utility. Where not shown on drawings, determine a pipe route and pipe size for the service supply line to all gas fired equipment from the meter. All service lines shall be installed and concealed except where necessary equipment connections are made.

16 ELECTRICAL

1. The electrical contractor shall furnish all labor and material necessary to provide a complete installation of electric devices and wiring in work areas for all power and lighting and other services as indicated on drawings and as required; provide all splices, taps, wire pulling, equipment connections, and as required per NFPA 70.

2. The electrical contractor shall comply with the requirements of code enforcement agencies having jurisdiction, the National Electric Code (NFPA 70), the local utility company, and the electrical utility.

3. Electrical contractor shall be responsible for all field coordination with other trades relating to the installation of all electrical equipment and electrical devices.

4. Inform owner five days in advance of power shut-off periods or disruption of computer or communication lines.

5. All wiring, cabinets, and switchboards, motor controls and all other electrical equipment shall be permanently and effectively grounded. All grounding shall be in accordance with codes having jurisdiction and shall meet the approval of the local inspection department.

6. All current-limiting devices shall be rated for 42,000AIC minimum, unless otherwise noted or approved by architect in writing.

7. Electrician shall label existing and new breakers as to the function, in all panel boxes; provide cloth or tape type wire markers at panelboard gutters, pull boxes, outlet boxes and junction boxes, each load connection.

8. Contractor shall run wiring of the proper size and connect to all electrical appliances and equipment shown, specified, or required. Conductors shall be sized per table 310.16 and other NEC requirements in locations with more than (3) conductors in raceway, or ambient temperatures above 30'c, with minimum branch circuit sizes as follows:

20A	#12 Cu,	#12 ground
30A	#10 Cu,	#10 ground
40A	#8 Cu,	#10 ground
50A	#8 Cu,	#10 ground
60A	#6 Cu,	#10 ground

9. For all non-residential projects, general cabling shall be MC or better. If a free air return plenum is used in the project, use only plenum-rated cabling. Unless otherwise noted by architect, home runs shall be in EMT conduit, with copper conductors insulated THHN (dry locations), THWN (wet interior locations), or THW (outdoor/service locations). Install pullwire in each empty conduit over 10 feet in length or containing a bend.

10. For telephone, data and other communication service, pathways and wiring, install wire and cable in accordance with manufacturer's instructions and in accordance with TIA/EIA-568.

11. Wall boxes shall not be placed back-to-back (offset by mimimum 1 stud) and flush mounted boxes shall be installed with minimum 6" separation for acoustical privacy.

12. All electrical components shall be installed securely, at the appropriate elevation, square, level and plumb, as specified in NECA 1.

13. All lighting and mechanical fixtures to be centered in ceiling grid tiles unless noted otherwise.

14. The electrical contractor shall be responsible for all routing and connections at millwork. Verify locations with architect.

REQUIRED SHOP DRAWING SUBMITTALS

1. Provide the following shop drawings and/or product submittals to the Architect for review. Allow ten (10) business days for processing.
- -STRUCTURAL STEEL AND/OR WOOD TRUSSES
- -DOORS & DOOR HARDWARE
- -WINDOWS & STOREFRONT SYSTEMS
- -CABINETRY
- -PLUMBING FIXTURES
- -LIGHT FIXTURES
- -MECHANICAL UNITS
- -ANY PRODUCTS THAT ARE A SUBSTITUTION FOR THOSE SHOWN ON THE DRAWINGS

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE THOMAS PARK
1900 BLK W 13TH STREET
MUNCIE, INDIANA 47302
GENERAL NOTES

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KEITH L. GARY, PARTNER

DRAWN:
CHECKED:
REVISIONS:

DATES
CD PHASE
START DATE: 07-01-24
FINISH DATE: 09-26-24

PLOT INFORMATION
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PLOT DATE: 9/26/2024 11:09
CAD OPER.: KLG

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KEITH L. GARY
REGISTERED
No. AR00870124
STATE OF INDIANA
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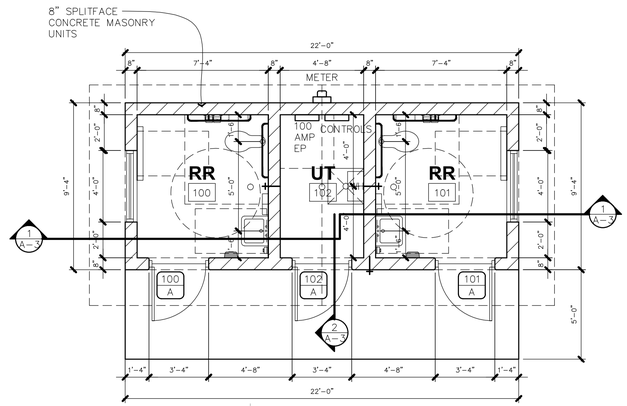
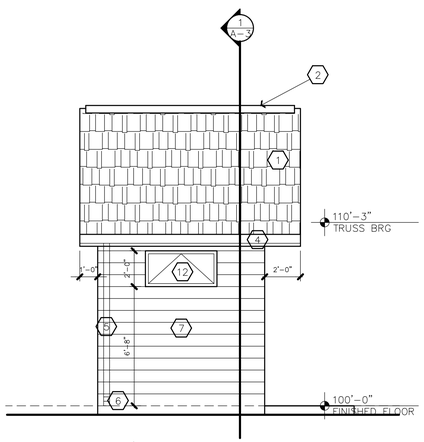
SHEET
T-2

ELEVATION NOTES

1. 30 YEAR GAF DIMENSIONAL SHINGLES OVER 30LB FELT (SLATE)
2. RIDGE VENT
3. ALUMINUM FASCIA (BLACK)
4. 5" OGEE ALUMINUM BOX GUTTER (BLACK)
5. 3"x4" ALUMINUM BOX DOWNSPOUT (BLACK)
6. CONCRETE SPLASH BLOCKS
7. SPLIT FACE CMU COLOR (MASOLITE NATURAL)
8. SMOOTH CMU COLOR (MASOLITE NATURAL)
9. METAL SIDING (WHITE VERTICAL)
10. INSULATED HOLLOW METAL DOOR (GRAY) AND FRAME (BLACK)
11. WALL PACK LIGHT
12. STOREFRONT FROSTED AWNING WINDOW
13. ADA SIGNAGE



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



4 SOUTH ELEVATION
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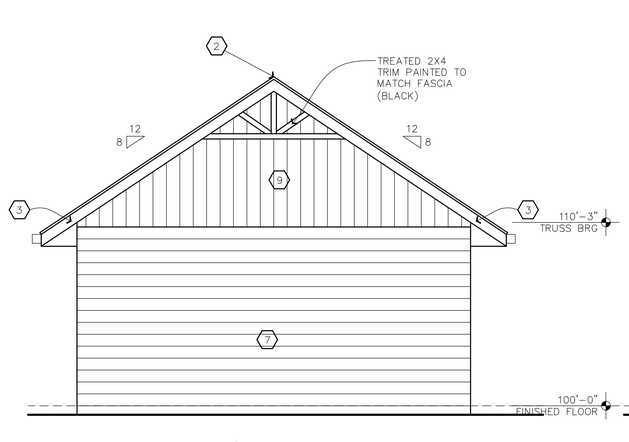

3 WEST ELEVATION
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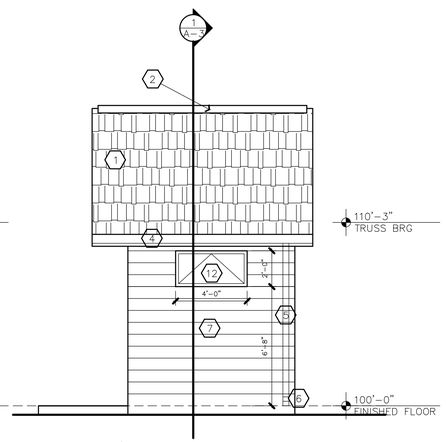

2 NORTH ELEVATION
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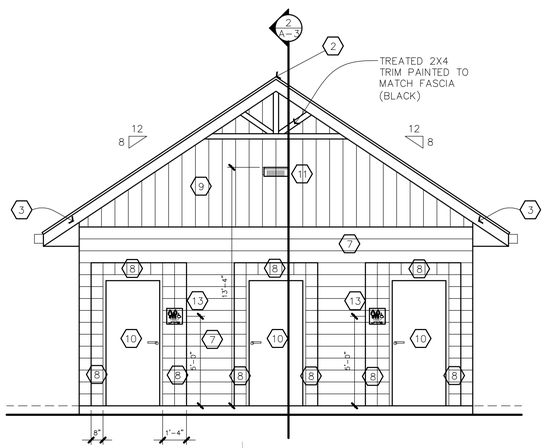

1 EAST ELEVATION
SCALE: 1/4"=1'-0"

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE THOMAS PARK
1900 BLK W 13TH STREET
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FLOOR PLAN/ EXTERIOR ELEVATIONS

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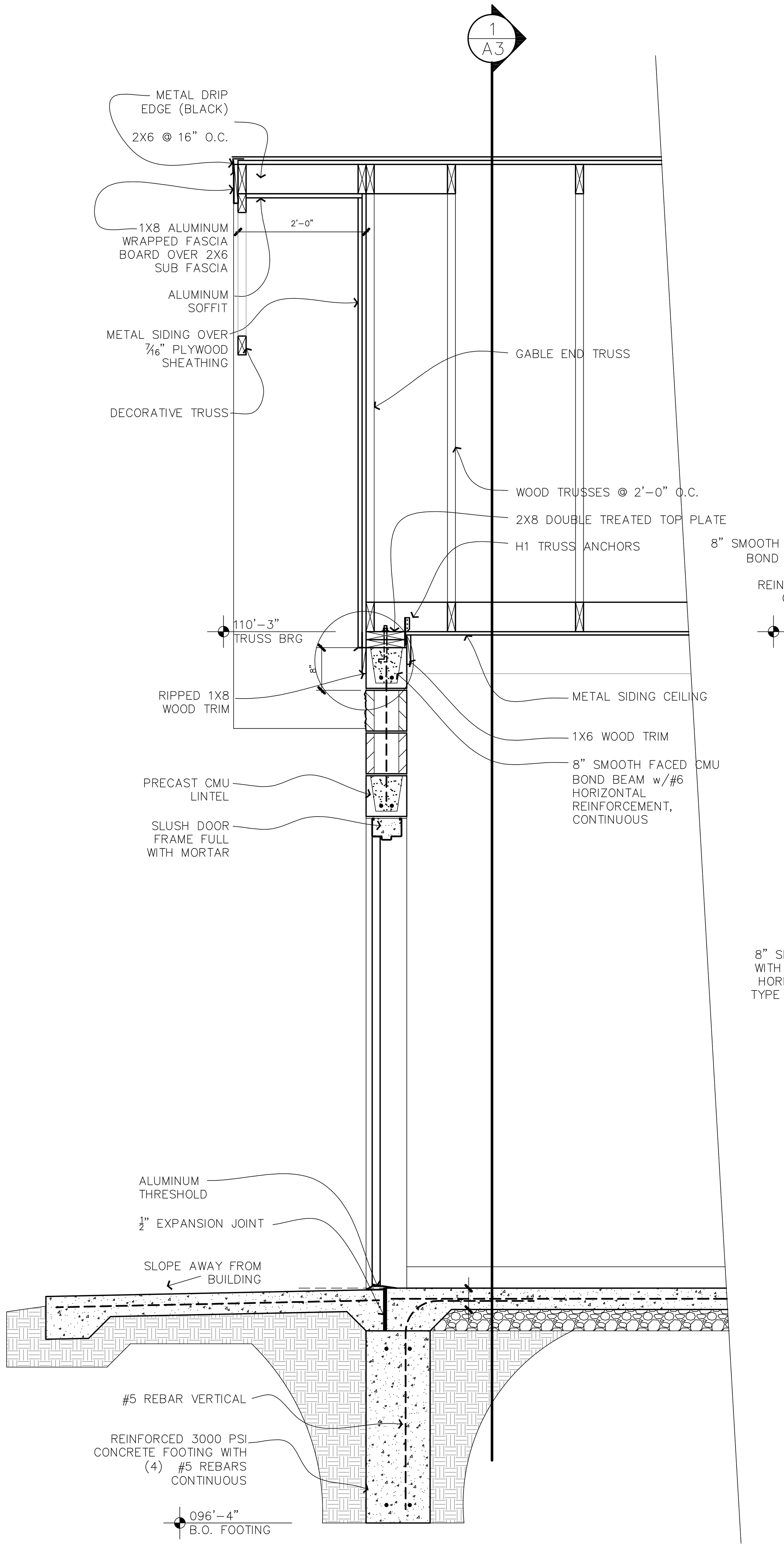
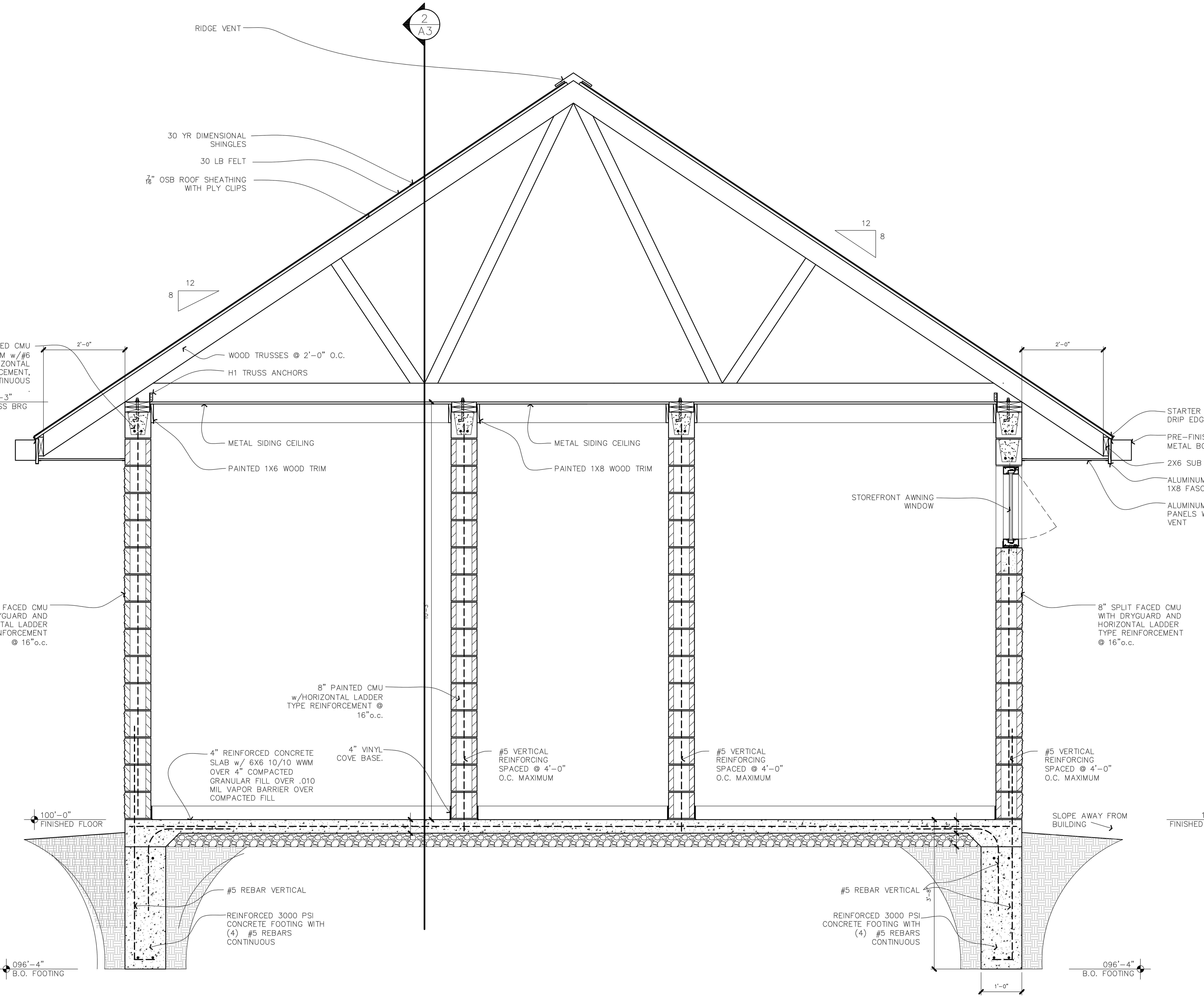
SHEET
A-1



2 GABLE END BUILDING WALL SECTION
SCALE: 3/4"=1'-0"



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

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE THOMAS PARK
1900 BLK W 13TH STREET
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BUILDING SECTIONS

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PRECAST CMU DOOR HEADER
HOLLOW METAL WELDED DOOR FRAME SLUSHED FULL WITH GROUT WITH LOOSE TEE MASONRY JAMB ANCHORS PRIMED AND PAINTED AKLYD

DRAWN:
CHECKED:
REVISIONS:

DATES
CD PHASE
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CAD OPER.: KLG

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STATE OF INDIANA
ARCHITECT

SHEET
A-3

DOOR / FRAME / GLAZING TYPES

PRIVACY SETS

HEADING #01 (SET #01)
FOR RR 100 & RR 101

1	SINGLE DOOR
3	BALL-BEARING HINGE SETS
1	DEADBOLT (KEYED BOTH SIDES)
1	YALE YPL02 SERIES PRIVACY LOCK SET WITH STATUS INDICATORS
1	CORE
1	SURFACE CLOSER
1	WEATHERSTRIP
1	ADA THRESHOLD
1	RAIN DRIP
1	PICK GUARD

ENTRY SETS

HEADING #02 (SET #01)
FOR UT 102

1	SINGLE DOOR
3	BALL-BEARING HINGE SETS
1	YALE 4700LN SERIES CYLINDRICAL LEVER ENTRY LOCK SET
1	CORE
1	SURFACE CLOSER
1	WEATHERSTRIP
1	ADA THRESHOLD
1	RAIN DRIP
1	PICK GUARD

DOOR TYPES

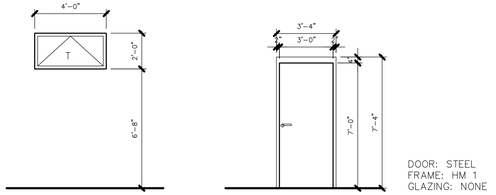
STEEL 1: INSULATED STEEL DOOR SLAB WITH WELDED HOLLOW METAL FRAME SLUSHED FULL WITH MORTAR AND LOOSE MASONRY TEES. PRIMED AND PAINTED (2 COATS)

FRAME TYPES

HM-1: WELDED HOLLOW METAL, PRIME & PAINT (2) COATS.

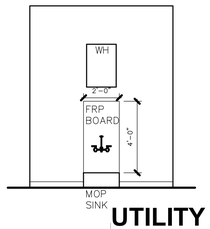
GLASS TYPES

TEMPERED (T): ¼" TEMPERED SAFETY FROSTED GLASS

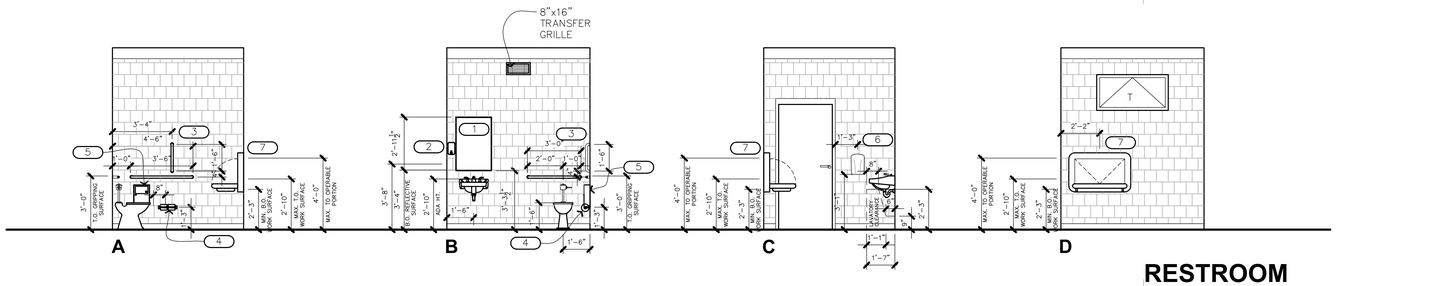


DOOR: STEEL
FRAME: HM 1
GLAZING: NONE

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



3 UTILITY CLOSET ELEVATION
SCALE: 1/4"=1'-0"



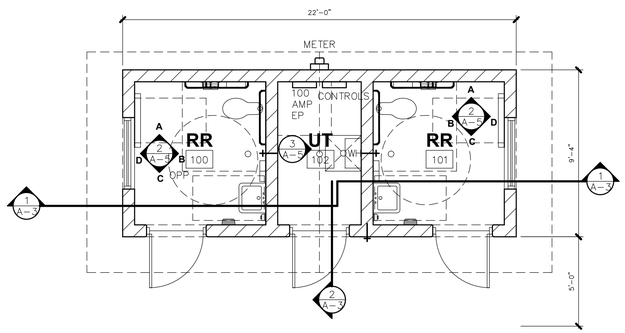
2 RESTROOM ELEVATIONS
SCALE: 1/4"=1'-0"

TOILET ACCESSORIES

1	BOBRICK STAINLESS STEEL WELDED FRAME MIRROR #B290 2436
2	BOBRICK SURFACE MOUNTED SOAP DISPENSER #B2111
3	BOBRICK CONCEALED MOUNTING GRAB BARS #B6806.99 36" & 42" AS PER ADA REQS 18" AS PER ANSI REQS
4	BOBRICK SURFACE MOUNTED TOILET PAPER HOLDER FOR 2 ROLLS #B7686
5	BOBRICK SURFACE MOUNTED SANITARY NAPKIN DISPOSAL #B254
6	ELECTRIC HAND DRYER
7	KOALA KARE HORIZONTAL WALL MOUNTED CHANGING TABLE #KB110-SSWM

*ALL ITEMS TO BE BOBRICK ClassicSeries U.N.O.

*ALL ITEMS TO BE SUPPLIED & INSTALLED BY G.C.



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

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE THOMAS PARK
1900 BLK W 13TH STREET
MUNCIE, INDIANA 47302

INTERIOR ELEVATIONS/ DOOR SCHEDULE

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REVISIONS:

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CAD OPER.: KLG

SEAL

KEITH L. GARY
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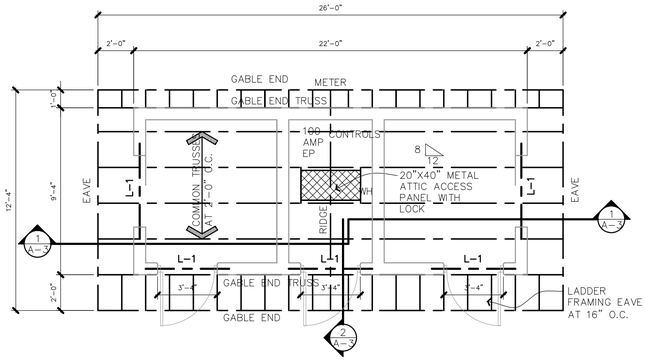
No. AR00870124
STATE OF INDIANA
ARCHITECT

SHEET
A-5

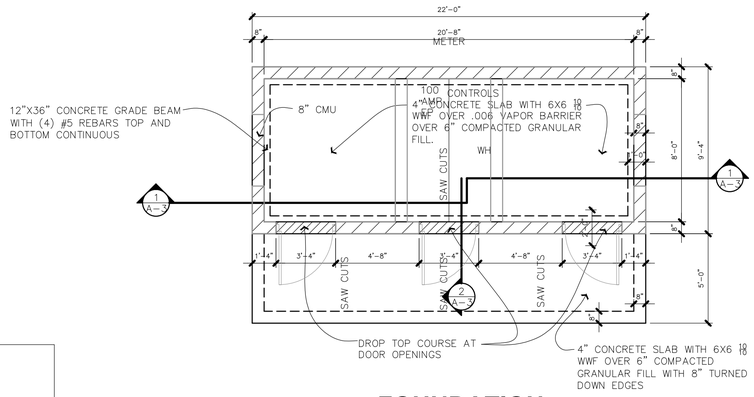


FRAMING FLOOR PLAN

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

LINTEL SCHEDULE

L-1	8" PRECAST CONCRETE LINTEL



FOUNDATION FLOOR PLAN

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

NEW RESTROOM FACILITY FOR;

CITY OF MUNCIE THOMAS PARK

1900 BLK W 13TH STREET

MUNCIE, INDIANA 47302

FOUNDATION/FRAMING PLANS

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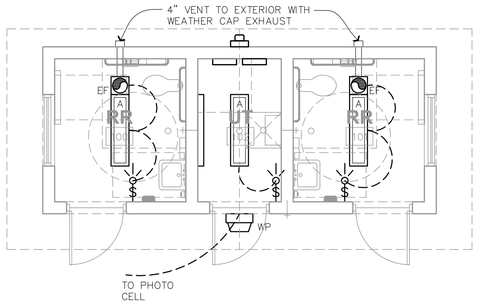
SHEET

S-1

LIGHT SCHEDULE

SYMBOL	LABEL	MANUFACTURER	MODEL #	LUMENS	WATTAGE
	A	LITHONIA	4' LED WRAPAROUND FIXTURE SIMILAR TO LITHONIA FML4W 48 5000LM	5000	53
	WP	LITHONIA	WALL PACK SIMILAR TO LITHONIA WPX1 LED P2 ALO 50K MVOLT PE DDBXD	2900	24
	WALL MOUNTED OCCUPANCY SENSOR SWITCH SIMILAR TO ACUITY CONTROLS WSX PDT, "D" INDICATES SENSOR w/ DIMMING FUNCTION				
	RESTROOM EXHAUST FAN SIMILAR TO PANASONIC WHISPERGREEN FV-05-11VK1 (SET TO 80 CFM) SUPPLIED, INSTALLED, & WIRED BY ELECTRICIAN				



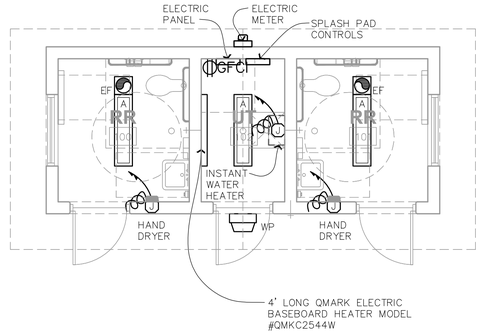
2 LIGHTING FLOOR PLAN
SCALE: 1/4"=1'-0"

ELECTRICAL LEGEND

- SPECIFICATION GRADE 120V 3-PRONG DUPLEX RECEPTACLE
  EXTERIOR RECEPTACLES @ 18" AFF, TYP.
  REFER TO PLAN FOR INTERIOR RECEPTACLE MOUNTING HEIGHTS
  GFCI = GND. FAULT CIRCUIT INTERRUPTER RECEPTACLE
  WP = GFCI RECEPTACLE w/ WATERPROOF ENCLOSURE SIMILAR TO THOMAS & BETTS OKPM-NG NON-METALLIC WEATHERPROOF WHILE-IN-USE OUTLET COVER
- WIRED ELECTRICAL CONNECTION w/ DISCONNECT
- WIRED ELECTRICAL CONNECTION w/ JUNCTION BOX
- ELECTRICAL PANEL

ELECTRIC HAND DRYER

ELECTRIC HAND DRYER SIMILAR TO
EXCEL THINAIR MODEL TA-SB
120V, 3.4A (NO HEAT)
INSTALLED w/ BOTTOM OF UNIT @ 37" AFF PER MFR. ACCESSIBILITY RECOMMENDATION



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

INTERIOR RECEPTACLE MOUNTING

SURFACE MOUNTED RECEPTACLES ARE ACCEPTABLE IN STORAGE ROOM ONLY - ALL OTHERS ARE TO BE RECESSED INTO CMU WALLS

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE THOMAS PARK
1900 BLK W 13TH STREET
MUNCIE, INDIANA 47302

MECHANICAL/ELECTRICAL PLAN

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CAD OPER.: KLG

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SHEET
ME-1

PLUMBING SCHEDULE:

ADA WC **TOILET:** ZURN Z5665-BWL1 1.6GPF, WHITE w/ ZURN Z6000 MODEL AQUA FLUSH 1.6GPF WATER CLOSET FLUSH VALVE, POLISHED CHROME, & CENTOCO 500STSCC-00 ELONGATED SEAT, WHITE

LAV-1 **LAVATORY:** ZURN Z5340 WALL MOUNTED SINK, WHITE, w/ WALL HANGER ZURN Z6915-XL AQUASENSE BATTERY POWERED DECK MOUNT FAUCET, POLISHED CHROME FINISH, .5 GPM LEAD-FREE ANGLE STOPS, SS BRAIDED CONNECTORS, OPEN GRID DRAIN w/ TAILPIECE, ZURN P-TRAP w/ FLANGE, & LAV GUARD UNDERSINK PIPING COVER

HB **HOSE BIBB:** WOODFORD MODEL B67 WALL HYDRANT

WH-1 **ON DEMAND WATER HEATER :** EMAX INSTANT HEATER FOR LAVATORIES AND MOP SINK

TMV **THERMOSTATIC MIXING VALVE:** ZURN AQUASENSE P6900-MV-XL SET MAXIMUM TEMPERATURE TO 110°F SYMMONS TEMPCONTROL 7-200

BFP **BACKFLOW PREVENTER:** 2" WATTS SERIES LF919 REDUCED PRESSURE BACKFLOW PREVENTER w/ NRS GATE VALVES & AIR GAP KIT, DRAIN TO FLOOR DRAIN BELOW, VERIFY COMPLIANCE w/ WATER UTILITY

FD **FLOOR DRAIN:** ZURN Z415 2" CAST IRON BODY FLOOR DRAIN w/ BOTTOM OUTLET, MEMBRANE CLAMP, ADJUSTABLE COLLAR w/ SEEPAGE SLOTS & 6" ZN400-6B-EZ1 ROUND NICKEL BRONZE STRAINER & TRAP PRIMER

CO **CLEANOUT:** ZURN ZN1400-5BZ1 LEVEL-TROL 4" ADJUSTABLE FLOOR CLEANOUT

MOP **MOP SINK:** MUSTEE 24"x24" MOLDED STONE MOP BASIN w/ ZURN Z843MI-RC FAUCET, HOSE BRACKET COMBO & MOP HANGER

WATER SUPPLY SCHEDULE

B.F.P.	2" CW
MOP SINK	3/4" CW & TEMP HW
WATER HEATER	3/4" CW & HW
LAVATORY	1/2" CW & TEMP HW
TOILET	1" CW FROM 2" MANIFOLD
WALL HYDRANT	3/4" CW
CLEAN OUT	--

PLUMBING NOTES

1. PLUMBING ROUTING IS SCHEMATIC; PLUMBER TO INSTALL ACTUAL LENGTHS AS REQUIRED IN FIELD. LOCATE SERVICES TO AVOID CONFLICTS

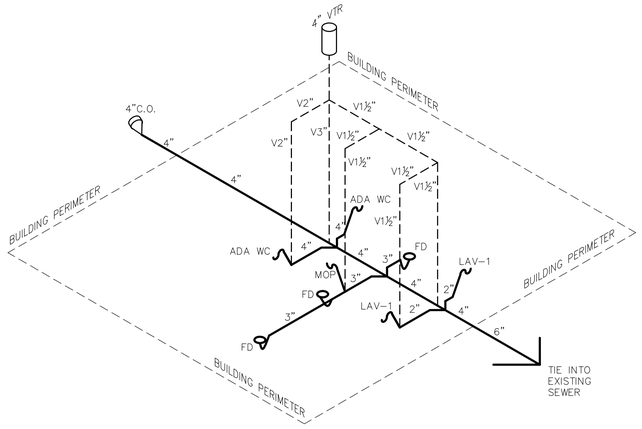
2. SLOPE ALL WASTE AND STORM PLUMBING ¼:12 MIN

3. INSULATE ALL HW, CW, AND STORM PLUMBING ABOVE GRADE. ABOVE GRADE COLD & HOT WATER TO BE SWEATED COPPER w/ R-4 INSULATION

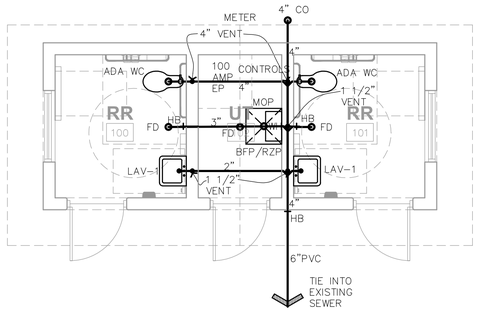
4. ALL WASTE DRAINAGE & VENTING TO BE SCHEDULE 40 PVC

PLUMBING LEGEND

- SANITARY SEWER SCHED. 40 PVC
- CW — COLD DOMESTIC WATER COPPER INSUL.
- HW — HOT DOMESTIC WATER COPPER INSUL.
- GAS — GAS LINE SCHED. 40 BLACK PIPE



2 PLUMBING ISOMETRIC
SCALE: NO SCALE



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

NEW RESTROOM FACILITY FOR;
CITY OF MUNCIE THOMAS PARK
1900 BLK W 13TH STREET
MUNCIE, INDIANA 47302
PLUMBING PLAN

US Architects
9200 W. SMITH STREET
YORKTOWN, INDIANA 47396
TELEPHONE 765-405-1220
FAX 765-405-1219
WEB usarchitectsmuncie.com

JERRY G. HOFFMAN, PARTNER
KEITH L. GARY, PARTNER

DRAWN:

CHECKED:

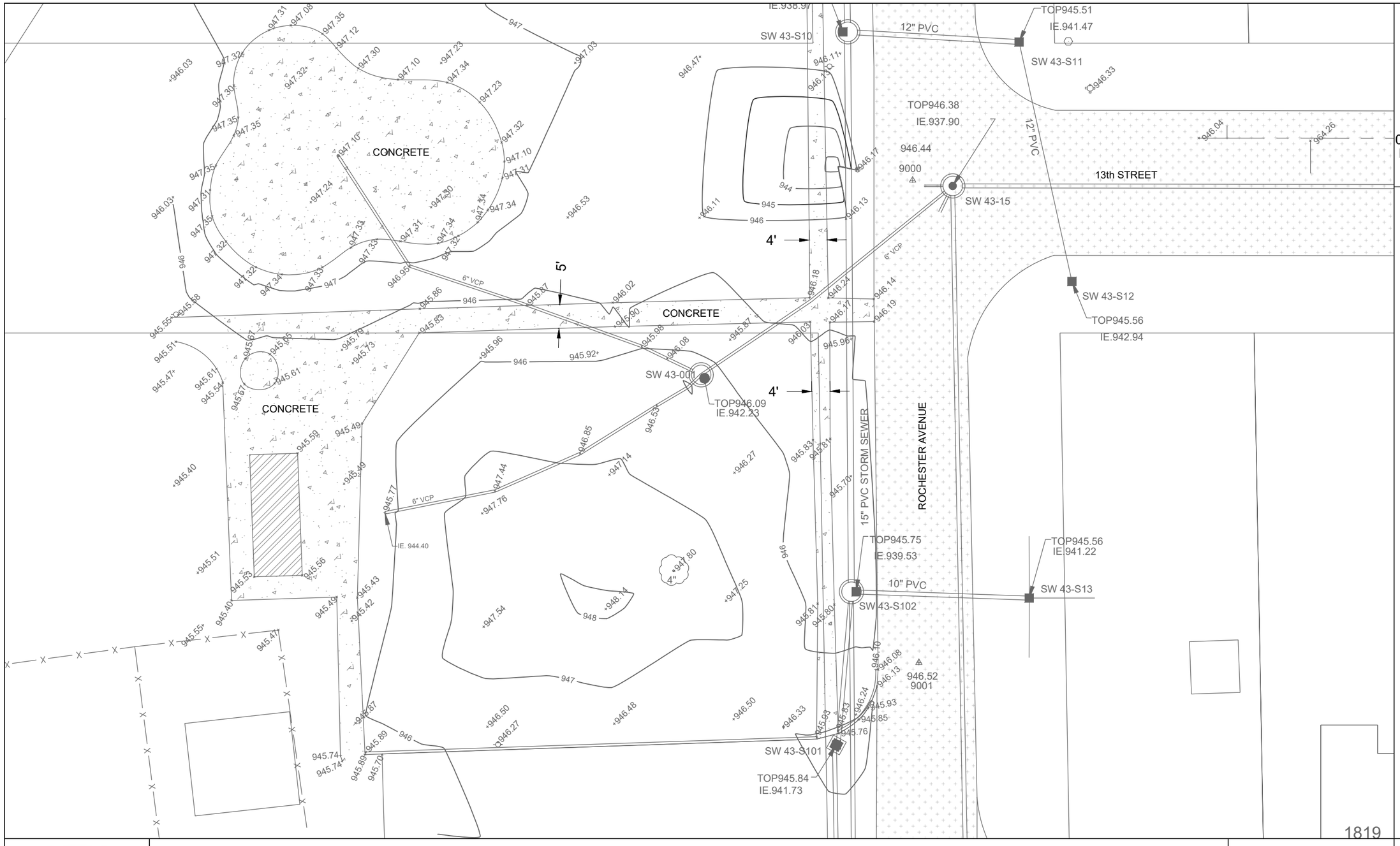
REVISIONS:

DATES
CD PHASE
START DATE: 07-01-24
FINISH DATE: 09-26-24

PLOT INFORMATION
FILE NAME: K24035_P1.dwg
PLOT DATE: 9/26/2024 11:06
CAD OPER.: KLG

SEAL
KEITH L. GARY REGISTERED No. AR00870124 STATE OF INDIANA ARCHITECT

SHEET
P-1



ADAM KEITH LEACH
REGISTERED
No. 12200128
STATE OF
INDIANA
PROFESSIONAL ENGINEER

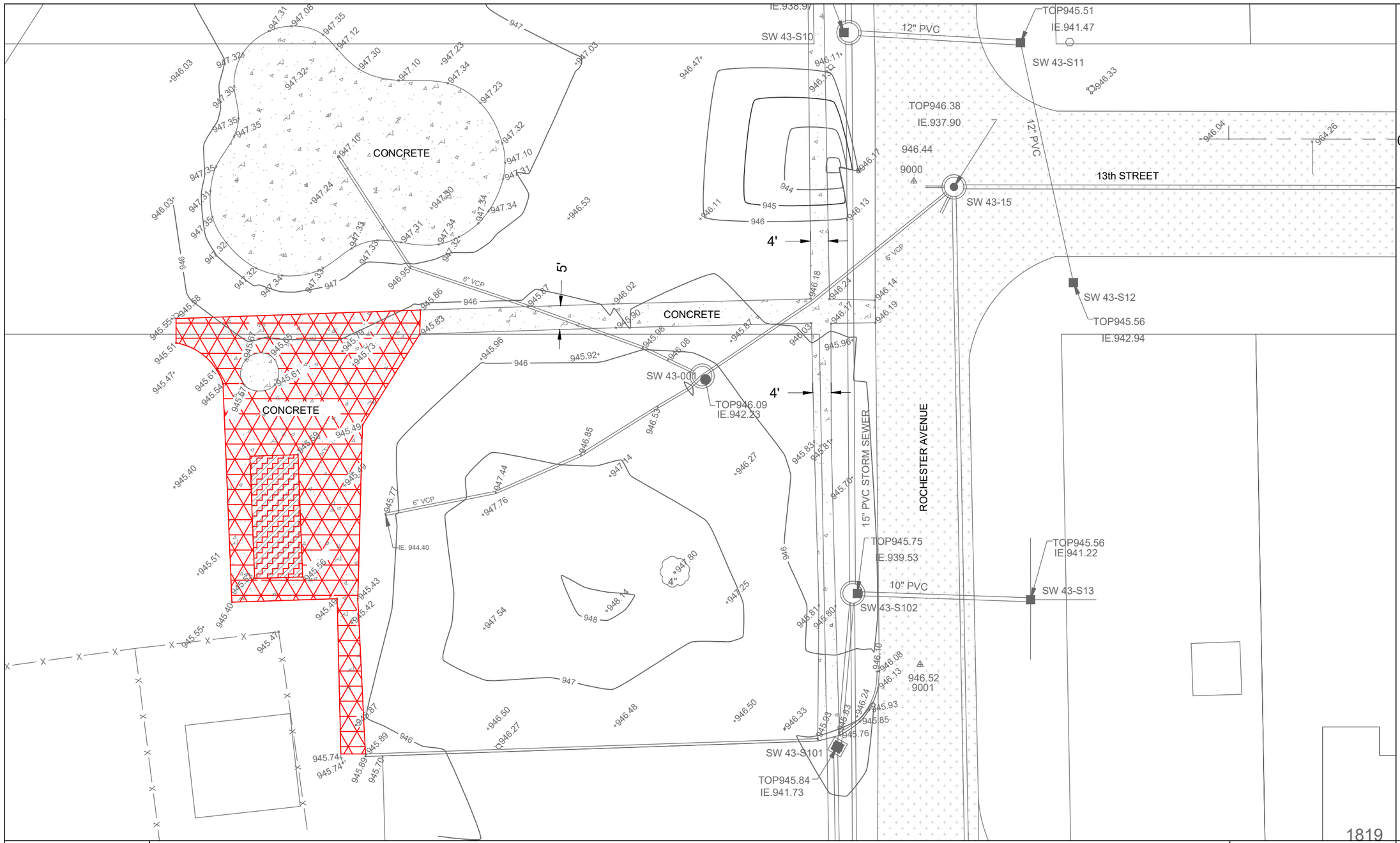
4/8/2025

MUNCIE PUBLIC WORKS

THOMAS PARK EXISTING CONDITIONS

DRAWN: AKL
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 9/12/24

C-100



N

0 20' 40'

SCALE: 1"=20'

LEGEND

- STRUCTURE
- FIRE HYDRANT
- VALVE
- AREA INLET
- FENCE
- TREE
- CONCRETE SURFACE
- ASPHALT SURFACE
- FLAT WORK DEMO
- STRUCTURAL DEMO

ADAM KEITH LEACH
REGISTERED
No. 12200128
STATE OF
INDIANA
PROFESSIONAL ENGINEER

4/8/2025

ENGINEERS QUANTITY ESTIMATION

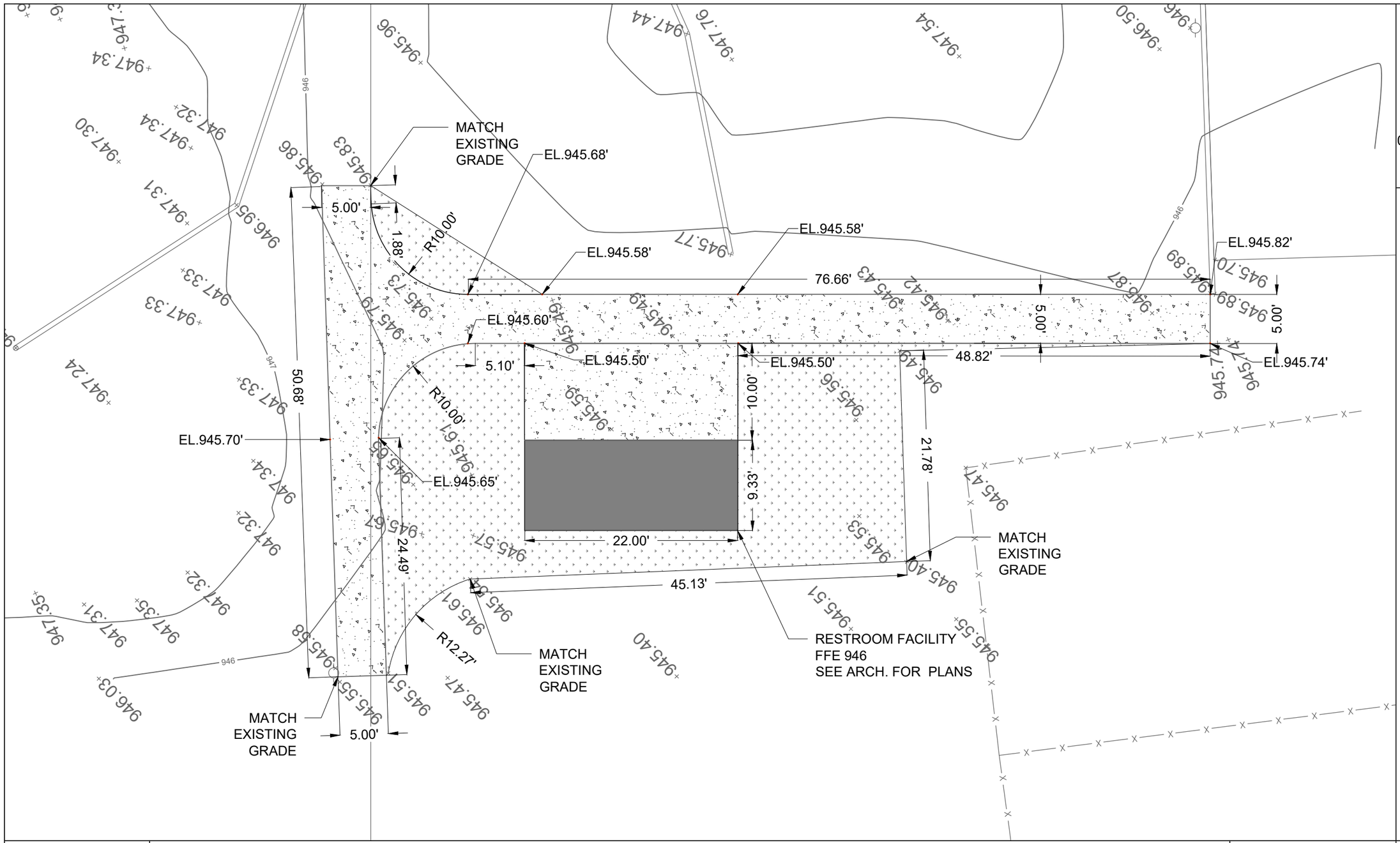
STRUCTURAL DEMO
251 SF
FLATWORK DEMO
1785 SF

MUNCIE PUBLIC WORKS

THOMAS PARK DEMOLITION PLAN

DRAWN: AKL
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 9/12/24

C-200



LEGEND

- STRUCTURE
- FIRE HYDRANT
- VALVE
- AREA INLET
- FENCE
- TREE
- CONCRETE SURFACE
- ASPHALT SURFACE
- PROPOSED CONCRETE
- PROPOSED STRUCTURE
- PROPOSED LANDSCAPE

ADAM KEITH LEACH
REGISTERED
No. 12200128
STATE OF
INDIANA
PROFESSIONAL ENGINEER

4/8/2025

NOTES:

ALL ELEVATIONS SHOWN ARE TOP OF CONCRETE UNLESS OTHERWISE NOTED.

LANDSCAPE AREA TO BE GRADED AWAY FROM THE PROPOSED STRUCTURE AT MAX 5% WITH SEED/STRAW.

MUNCIE PUBLIC WORKS

THOMAS PARK PROPOSED CONDITIONS

DRAWN: AKL
DESIGNED: AKL
CHECKED: AKL
REV: 0
DATE: 9/12/24

C-300

Civil Specifications for:

Parks Restroom Construction 2025

5/1/2025

Adam K. Leach, PE, CFM

Contents

Purpose and Intent

These specifications shall govern the general civil construction of restrooms at Thomas Park and Riverview Park in the City of Muncie, Indiana. The following specifications are not all inclusive, additional general specifications are covered by the City of Muncie 2024 Design Manual which is available on the City Public Works web site.

Referenced Specifications

AASHTO, A Policy on Geometric Design of Highways and Streets, 2018 (7th Edition)

American National Standards Institute/Illuminating Engineering Society Recommended Practice No. 8 (ANSI/IES RP-8)

AWWA C600 - Latest

AWWA C651 - Latest

AWWA C800 - Latest

ASTMC 828 - Latest

City of Muncie Sanitary District Standard Specifications

Indiana-American Water Pipeline Specifications (November-2019 or Latest Edition)

Indiana Department of Transportation, Standard Specifications for Road and Bridge Construction – (2024, or Latest Edition)

Indiana Department of Transportation, Indiana Design Manual – (2013, or Latest Edition)

National Electric Safety Code (NESC)

000 - Definitions and Terms

Active Construction - Construction sites are deemed active if measurable progress is being made on a regular basis toward substantial completion of the project, e.g. work valued at greater than $1000 per day is occurring.

Annual Exceedance Probability (AEP) - The probability that a storm event equal to or in excess of a particular magnitude will occur in any given year.

Asphalt - Liquid Bitumen used as a binding agent for mineral aggregate.

Asphaltic Concrete - Commonly referred to as “Asphalt,” asphaltic concrete contains graded aggregates and antistripping compounds in addition to liquid asphalt binder necessary for use in pavements.

Base Course - First layer of typical asphalt section composed of larger aggregates.

Best Management Practice (BMP) - Stormwater management techniques or measures that control the quantity and quality of stormwater runoff. BMPs can function independently or in series and can be structural, non-structural, or natural.

Binder Course - Second layer of typical asphalt section composed of medium aggregates that "binds" the base to the wearing/surface course.

Board of Public Works – The entity responsible for providing engineering and maintenance support of all public works within the City.

City Administrator - The designated person who is responsible for the implementation of all policies set by the Mayor.

City Building Official - The designated person who is responsible for the enforcement and oversight of the municipal ordinance and building codes.

City Engineer - The licensed professional engineer who is responsible for the review, approval, and supervision of all civil works within the City.

City - The City of Muncie, Indiana.

Construction Entrance/Exit - The point at which construction vehicles enter and exit a construction site constructed of large, crushed stone or shot rock.

Curve number (CN) - A parameter indicating stormwater runoff potential based on the Hydrologic Soil Group and land use.

Design Storm Event - A hypothetical discrete precipitation event characterized by a specific duration, temporal distribution, rainfall intensity, recurrence interval, and total depth of rainfall.

Drainage Area - The total upstream area from which flowing surface water converges to a common point. Similar terms include catchment, basin, and watershed.

Drainage Facilities - Ditches, open channels, closed conduits, stormwater storage systems, retention and detention systems, tiles, swales, sewers, and other natural or artificial means of draining stormwater from land.

Duration - The total time period of a precipitation event.

e.g. - For example.

Engineer - A licensed professional engineer in the state of Indiana.

Engineer of Record (Design Engineer) - The engineer who is responsible for the preparation of construction plans and documents and who has reviewed and stamped the construction plans and/or any subsequent revision or modifications. A registered professional engineer in the state of Indiana.

Engineer's Designee - Inspectors and other staff tasked with oversight of civil projects.

Excavatable Flowable Fill - Cementitious backfill with a compressive strength of not less than 150 PSI and not greater than 250 PSI.

Fill - Non-organic soils, sand, and gravel free of organic or other deleterious material used to increase the elevation of natural or cut grades.

Floodplain - The topographic area that will be inundated by the 1 percent AEP storm event, consisting of the floodway and flood fringe.

Flood Fringe - The portion of the floodplain outside the floodway that will be inundated by the 1 percent AEP storm event.

Floodway - The portion of the floodplain consisting of the channel of a waterway plus adjacent area that must be kept free from encroachment and obstructions to maintain the carrying capacity of the waterway. Serves as the primary conveyance for flood waters resulting from the 1 percent AEP storm event.

Flowable Fill - Cementitious backfill material with a compressive strength of not less than 1000 PSI but not greater than 1200 PSI.

Foreman - Construction professional in charge of a crew of workers typically responsible for a certain scope of work types, such as utility and grading, concrete, etc.

Furnish - Supply materials in regard to an item.

g.p.m. - Gallons per minute.

Grout - A high-strength mixture of sand, cement, and water used for sealing concrete joints and other repairs.

i.e. - In other words.

Impervious - A term applied to material through which water cannot pass, or through which passes with difficulty.

Indiana Department of Environmental Management (IDEM) - State department responsible for water, sewer, and stormwater oversight as well as other environmental concerns.

Inactive Construction - Construction sites are deemed inactive if no measurable progress has been made toward substantial completion within a 14 calendar day period, e.g. only maintenance of erosion control measures and minor work such as cleaning roadways, landscaping, or other activities that would not significantly advance the site for utilization.

Install - Place and fix indicated item in accordance with the specification so that it provides its intended function and is ready to use.

Land Alteration - Action taken relative to land which either: changes the contour; or increases the runoff rate; or changes the elevation; or changes the rate at which water is absorbed; or changes the drainage pattern; or creates or changes a drainage facility; or involves construction, enlargement, or location of any building on a permanent foundation; or involves a subdivision of land as regulated in the Delaware County Subdivision Ordinance or a planned unit.

Land Disturbance - Manmade changes of the land surface including but not limited to: removal of vegetative cover, excavating, filling, transporting, and grading.

Limits of Construction - The perimeter of the maximum extent of land that may be disturbed due to construction activities.

Maintenance - Cleaning out, removing obstructions from, spraying, or making minor repairs of a drainage facility so it will perform the function for which it was designed and constructed.

Non-Excavatable Flowable Fill - Cementitious backfill with a compressive strength greater than 500 PSI but less 1200 PSI.

PSI - Pounds per square inch – lbs./in^2.

Provide For - Supply the necessary materials and preparation necessary to install an item, such as providing a foundation for a headwall, bolts, grease, etc.

Regulated Drain - An open or tiled ditch, as defined by law, which is subject to the jurisdictional control of the Drainage Board of Delaware County, Indiana.

Release Rate - The amount of stormwater released from a drainage facility per unit of time.

Recurrence Interval - A statistical estimate of the average time between precipitation events. The inverse of the AEP (100-year storm event = 1 percent AEP storm event). Also called the return period or return frequency.

ROW - Right of Way.

Runoff Hydrograph - A graphical representation of the flow rate (or discharge) versus time.

Structural Fill - Non-organic soils, sand, and gravel free of organic or other deleterious material that meets required engineering parameters to support structures.

Sub Base - Stone placed on sub grade prior to paving.

Sub Grade - Natural ground graded and compacted that forms the lowest layer of a road cross section.

Superintendent - Construction professional in charge of a site, oversees multiple crews, and carries out a broad scope of work, first point of contact for site issues.

Time of Concentration - The duration required for runoff to travel from the hydraulically farthest point in the watershed to a specific point of interest within the same watershed.

Top Soil - The first 6 inches of undisturbed soil natural to the construction site; does not include past fill, stone, or any material that would inhibit the growth of soil-stabilizing vegetation.

Wearing or Surface Course - Final layer of typical asphalt section composed of a well grade aggregate with a high asphalt percentage to ensure a high-density mix.

100- General Notes and Requirements

101 Engineers Authority

A) The City Engineer or his/her designee(s) retains the right to stop work or request modification of work and/or plans if any of the following conditions are met:
   1) Deviation from approved plans such that structures or grading leave the Right of Way, Easement, or Limits of Construction.
   2) Deviation from approved plans such that structures or grading will not work as designed by the Engineer of Record.
   3) Deviation from the City of Muncie Design Manual, standards, and specifications.
   4) Field observation that design plan will not function as intended.
   5) Use of materials that are not suitable, defective, do not meet specification or are in other ways objectionable.
   6) Field observation that weather or other environmental factors prohibit work.
   7) If the work will unduly burden the public through interruption of service or delay of traffic.
   8) A conflict is found between the plans and site conditions that would cost more than $1000 to remediate, e.g. discovery of an unmarked utility service, karst, cave or other geological, ecological, or manmade feature that requires special care to properly address.
   9) Any condition that may result in the loss of life, limb, sight, hearing or that may cause a health hazard such as sewage leaks, chemical spill, or pollution to local waterway.

B) On City projects the City Engineer may stop work for any of the following in addition to all conditions stated in 101.A.
   1) Insufficient progress.
   2) Questions that arise from interpretation of plans and specifications.
   3) Quality of work.

102 Plans and Specifications

A) At least one complete set of City approved construction plans signed by the Engineer of Record must be kept on site during active construction, failure to produce construction plans at the request of the City Engineer or their designee may result in a stop work notice.

B) When there is a conflict between the plans and specifications the most stringent standard will apply.

C) When there is a conflict between calculated distances and scaled distances the calculated measurement shall govern.

D) Any modification to the plans that changes the construction cost by more than $1000 dollars, moves structures outside the right of way or easement, or changes the overall function, flow direction, or minimum capacity of an approved structure or facility must be submitted by an engineer, stamped by that engineer, and reviewed by the City Engineer or his/her authorized designee.

E) The standards and specifications in this document are the minimum acceptable standard; any work that is found to be non-conforming may be rejected by the city and must be replaced.

F) Alternative materials indicated as approved equal must be proven to be equivalent to the specifications in all aspects of mechanical and structural properties i.e. equivalent products must show the same material strength, capacity, and bearing characteristics as evidenced in product specifications provided by the manufacturer.

G) Interpretation of these specifications or any other City standard or criteria shall be at the discretion of the City Engineer.

H) If there is a disagreement regarding the decision of the City Engineer, it may be appealed to the Board of Public Works.

103 Safety

A) Site safety is the responsibility of the general contractor performing the work.

B) The following sections pertain to City Employees and Contractors performing work for the City: 106 Personal Protective Equipment and 107 Trench Safety.

C) The City Engineer or his/her designee will stop work or request modification of work practices if unsafe conditions are found, but assume no liability or responsibility for the work practices, means, and methods performed by forces other than the City's.

104 Removal and Disposal of Regulated Materials

A) The removal, testing, transportation and disposal of regulated materials, except for paint, shall be in accordance with applicable Federal, State and local laws, regulations and rules. These include, but are not limited to, the requirements of the Federal Toxic Substances Control Act, the Federal Resource Conservations Recovery Act, the Federal Comprehensive Environmental Response Compensation Liability Act, Occupational Safety and Health Administration, Indiana Department of Environmental Management and State rules requiring certification of underground storage tank removal firms.

B) Regulated materials are defined as follows:

1) Materials classified as a hazardous waste, hazardous substance or hazardous material by the regulations of the EPA or U.S. Department of Transportation.

2) Materials containing more than 1 percent asbestos and are friable or may become friable per 326 IAC 14-10.

C) All provisions of the *INDOT Standard Specifications,* Section 619 shall apply to paint removal.

105 Removal and Disposal of Non-Regulated Materials

A) All materials that do not qualify as regulated materials per 104 and are designated to be removed from the project shall become the property of the

Contractor. They shall be disposed of at the contractor's expense in a suitable landfill.

106 Personal Protective Equipment

A) Eye protection
   1) Will conform to ANSI/SEA Z87.1-2010 and is required when there exists a risk of flying material such as during rock breaking, weed eating, mowing, sawing, or other activity that presents a hazard of flying material.
   2) Appropriate filter lenses and shading must be worn when performing work that may result in eye damaging radiation such as welding, arc cutting, gas cutting, and soldering, appropriate shading to be determined by OSHA Standard 1910.133.

B) Head protection
   1) Will conform to ANSI Z89.1-2009 and is required when there exists a risk of falling objects that may cause injury such as trench excavation, swinging material, or working near multiple story structures.

C) Foot protection
   1) Will conform to ANSI Z41-1999 and is required when there exists a danger of foot injuries such as punctures, cuts, or crushing hazards.

D) High visibility outerwear
   1) Will Conform to ANSI/ISEA 107-2015 and will be a minimum a "level 2" rated garment. High visibility outerwear is required when working near active roadways of any speed and any site where visibility could be impaired due to lighting, weather conditions, dust or vegetation.

107 Trench Safety

A) Trenches deeper than 4 feet require trench protection.

B) Never enter an unprotected trench.

C) Store Materials at least 2 feet from trench edge.

D) Do not undermine or excavate within 10 feet of any structure without adequate support as determined by a registered professional engineer.

E) Work is not authorized in trenches in which standing or flowing water is present unless suitable precautions have been taken to ensure worker safety such as pumping, bracing, shoring, or other acceptable methods.

F) A stairway, ladder, ramp, or other safe means of egress shall be located in trench excavations greater than 4 feet in depth such that at no time is a worker more than 24 feet from safe egress.

G) Trench protection can be provided through bracing, shoring, benching or sloping.

H) Maximum allowable slopes:

Soil Type	Description	Max allowable slope for excavations less than 20 feet in depth
Stable Rock	Granite, Sandstone, Hard Limestone	Vertical - 90°
Type A	Clay	2V:1.5H 53°
Type B	Gravel, Silt	1V:1H 45°
Type C	Sand	3V:2H 34°
Type A Short-Term	Less than 24 hours	2V:1H 63°

1) Sloping or benching for excavations greater than 20 feet in depth shall be designed by a registered professional engineer.
2) When using trench shields or boxes the slope leading to the box shall not exceed 1V:1H or 45°.
3) When using trench shields or boxes the upper horizontal edge of the box or shield shall be at least 18 inches above the bottom edge of the slope.

106 Sanitation and Cleanliness

A) Site sanitation and cleanliness is the responsibility of the contractor performing the work.
   1) Job sites should be kept such that trash (e.g. food wrappers, cans, bottles, paper products) is deposited in on-site trash cans or dumpsters.
   2) Debris (e.g. lumber, steel, and pipe material) should be collected in central locations for disposal.
   3) Disposal of chemicals is the responsibility of the contractor, and any chemical shall be stored in accordance with the Material Safety Data Sheet for that product.

B) At a minimum every site will have at least one (1) dumpster for the disposal of refuse.

C) At a minimum every site will have at least one (1) portable toilet or access to an onsite toilet facility. Usage of offsite or public facilities will not be authorized in lieu of providing this requirement. Portable toilets will be serviced and maintained such that they remain safe, clean, and sanitary.

107 Work Hours

A) Weekday work hours shall be from 0700 to 1800 unless otherwise authorized.

B) Weekend work hours shall be from 0800 to 1800 unless otherwise authorized.

108 Inspections

A) Inspections shall be conducted in accordance with the City of Muncie Required Inspection Procedures.

B) The following work must be completed with a city inspector onsite:
   1) Placement of structural fill (road bed, foundations, piping).
   2) Testing required by the city, state, or federal codes, ordinances, or law.
   3) Concrete pours greater than 4 cubic yards (excluding home foundations and private driveways).
   4) Paving final lift of asphalt.
   5) Backfill of buried public utilities.
   6) All water lines and sewer lines must be tested as witnessed by a city inspector or utility inspector.

C) Inspections and testing require forty-eight (48) hours' notice, failure to provide notice may delay work. Weekend or off-day inspections may be performed at cost to the developer, calculated at 2.5 times the inspector's hourly rate at the discretion of the City Engineer.

D) All projects are subject to periodic inspection during and after completion of the project with and without warning. Inspection may consist of full-time on-site resident inspectors or part-time at the discretion of the City Engineer.

E) The absence or presence of an inspector does not relieve the contractor and/or developer from conformance with approved plans and specifications.

109 Work Schedule and Phasing

A) Work shall be phased in a logical manner such that it:
   1) Minimizes disturbed area.
   2) Minimizes traffic delays.
   3) Minimizes utility outages to other residents or businesses.

B) Contractor shall provide a phasing plan that clearly identifies the precedence and anticipated schedule of the following prior to beginning work:
   1) Initial erosion control.
   2) Utility Installation (per utility line).
   3) Traffic Control and Roadwork (per closure, traffic, etc).
   4) Storm Structures (per pond or other major detention, retention, facility).
   5) Completion.

C) Phasing schedule may be presented as a Gantt (bar chart), a list with commencement and completion dates, or a Pert Chart.

110 Licensing Requirements

A) All work performed within the city, unless undertaken by city, state, or federal employees shall be done under the supervision of a contractor licensed to perform that category of work in the state of Indiana.

111 Permits

A) The general contractor shall be responsible for obtaining any permits necessary to perform the work that were not obtained by the Engineer of Record.

B) Typical Permits
   1) Building
   2) Road Cut
   3) Blasting
   4) Sewer Tap

C) Permits for City-funded projects
   1) Fees for city permits shall be waived on city projects, however, the contractor is still responsible for obtaining said permits for record-keeping purposes by the City.

112 Notifications

A) All projects
   1) Prior to commencing construction, after obtaining the appropriate land disturbance permits, a completed Construction Start Notification shall be submitted to IDEM.

B) Water and Sewer Projects
   1) Prior to commencing construction after obtaining all other permits send a completed Construction Start Notification form to IDEM.

113 Surety

A) Adequate surety shall be provided for all public projects to ensure that once started work is completed in a satisfactory manner.

B) Forms of Surety
   1) Bond
   2) Letter of Credit
   3) Cash - A cash bond in the form of a cashier's check may be given as an acceptable bond. Upon receiving said cash bond, the city shall deposit it, and any interest accrued shall be returned, less banking fees, upon surrender of surety by the city following accepted work.

C) Surety Setting
   1) Surety for private construction by a developer of future city infrastructure shall be set by the planning commission in accordance with the City of Muncie subdivision regulations.
   2) Surety for public projects shall be determined by the City Engineer prior to project letting.

D) Surety Release
   1) Surety will be released upon project completion as evidenced by a completed punch list following substantial completion.

114 Submittals

A) Material and equipment submittals are required.

B) Items that are standard may be listed categorically indicating manufacturer, size, and quantity to be installed as part of the submittal.

C) Any items that are non-standard, as in not specifically identified in these specifications, must be submitted to the City Engineer for approval prior to installation.

115 Change Orders

A) A Change Order is required whenever field conditions materially differ, unforeseen conditions require changes to the plans, or differences in furnished materials require additional compensation or schedule time.

B) Report any condition that may require a change order immediately to the project engineer and inspector.

200- Existing Conditions and Site Preparation

201 Payment

A) Payment for site preparation and meeting the general requirements set forth in Section 100 shall be made under pay item 200- Site Preparation. This item will be site-specific and account for job trailers, site marking, surveying, and other items typically considered “overhead”. Site preparation will be paid at 50 percent when the job is initially prepared, and the remaining 50 percent will be paid when job is complete.

202 Job Board

A) All job sites will include a job board with the following items:
   1) Land Disturbance Permit as issued.
   2) SWPPP, if issued.
   3) Building permits as issued.
   4) Contact Sheet listing the owner/developer and site superintendent.
   5) Site address.
   6) Job board is to be placed as near as practical to the ROW at the planned construction entrance.

B) This item shall be paid for under item 200- Site Preparation

203 Construction Limits and Protection

A) The limits of construction will be marked at least every 200 feet utilizing high visibility markings such as fluorescent orange flagging, orange construction fence, or orange painted posts.

B) Silt fence can serve as appropriate delineation for the limits of construction.

C) In areas that are not to be disturbed, such as habitat, stream buffers will be delineated per the engineer’s plans or cordoned with fluorescent orange construction fence.

D) This item shall be paid for under item 200- Site Preparation

204 Utility Identification and Protection

A) Prior to any work, have utilities located by calling Indiana 811 and/or contacting any suspected utilities that may be in the area. Damage to utilities that have been located will be repaired at the contractor’s expense. If no one-call is placed, damage to utilities will be paid for at the contractor’s expense. If a call is placed and the utility has not been located within 72 hours (excluding holidays and weekends), damage to a city utility shall be repaired at utility’s expense provided a one-call ticket is provided verifying the request for location.

B) Once utilities have been located, they should be protected according to the following. Care should be taken to not damage the utility in the placing of rebar or t-post stakes. Staking is not required for paving work.

1) Water - Valve boxes, meter boxes, reverse pressure backflow preventers, irrigation controls, and other water-related vaults or appurtenance will be painted fluorescent blue and 3 to 4 stakes protruding not less than 3 feet from the ground surface will be placed in a triangular or rectangular arrangement, then roped with either caution tape or blue flagging for protection.
2) Sewer - Cleanouts, manholes, valve boxes, or other sewer-related vaults or appurtenance will be painted fluorescent green, and 3 to 4 stakes protruding not less than 3 feet from the ground surface will be placed in a triangular or rectangular arrangement, then roped with either caution tape or green flagging for protection.
3) Underground Electric - Vaults, pull boxes, and other electric-related appurtenance will be painted fluorescent red, and 3 to 4 stakes protruding not less than 3 feet from the ground surface will be placed in a triangular or rectangular arrangement, then roped with either caution tape or red flagging for protection.
4) Gas - Valves, Meters, and other gas-related appurtenance will be painted fluorescent yellow, and 3 to 4 stakes protruding not less than 3 feet from the ground surface will be placed in a triangular or rectangular arrangement, then roped with either caution tape or yellow flagging for protection.
5) Communications and Fiber - Vaults, pull boxes, and other communications-related appurtenance will be painted fluorescent orange, and 3 to 4 stakes protruding not less than 3 feet from the ground surface will be placed in a triangular or rectangular arrangement, then roped with either caution tape or orange flagging.

C) This item shall be paid for under item 200- Site Preparation.

205 Geological and Ecological Identification and Protection

A) Any area identified as having ecological or geological importance, such as a sinkhole, cave, or endangered species habitat, must be protected upon discovery.

1) Sinkholes shall be protected as described in Section 600.
2) Caves shall be fenced off with orange construction fencing and caution tape; the cave should be protected from stormwater pollution in a similar manner to sinkholes.
3) Habitat protections shall be installed and maintained per the instructions included in the plans; in the absence of instructions, a qualified ecologist should be consulted to determine the appropriate methods for protection.

B) Payment shall be made under item 200- Site Preparation.

206 Site Investigations

A) Site investigations such as geotechnical drilling, excavation pits, and survey clearing shall be conducted in such a manner as to have a minimum impact upon the site until such time as a land disturbance permit has been issued.

B) Geotechnical investigations performed via drilling shall be backfilled with drill tailings of local soil unless soil contamination is found.

(i) Drilling in roadways shall be backfilled with native material until the last 8 inches which will be filled with cold mix asphalt, hand compacted, and mounded not less than 1/4 inch above the road surface.

(ii) In addition to any soils information provided by explorations and reports included in the Contract Documents, the Contractor shall make all arrangements for and pay all costs involved for additional soil testing. These tests and reports shall be provided by accepted and qualified professionals.

(iii) If soil contamination is suspected, contact IDEM immediately to have the soil tested.

C) This item shall be paid for under item 200- Site Preparation.

207 Construction Surveying

A) Protect any surveyor located benchmarks, iron rods, or monuments from damage.

B) Provide sufficient stake out to identify the lines and grades indicated on approved lines prior to grading.

C) Payment for necessary construction staking will be under item 200- Site Preparation.

208 Mobilization

A) Transport, deliver, and set up the equipment necessary to perform the work.

B) Obtain necessary permits for oversized/overweight loads.

C) Mobilization will be paid as item 208 on a per-job basis; 50 percent of the item to be paid upon initial mobilization with the remaining 50 percent to be paid following job completion when all equipment, debris, and excess material has been removed from the site.

209 Dust Control

A) Provide for the adequate control of dust on active job sites.

B) Stabilize exposed soil as soon as possible to prevent dust from leaving the job site.

C) Utilize water sprayers, mulching, polymer, or fencing to control and contain dust to the job site.

D) Payment for dust control shall be part of item 200- Site Preparation.

210 Traffic Control

A) Provide adequate traffic control for operations as provided for in the Manual for Uniform Traffic Control Devices (MUTCD).

B) Traffic Control plans prepared by either an engineer or traffic control specialist shall be submitted to and approved by the City Engineer prior to work commencing on any road or lane closures.

C) Work that reduces a lane to less than 6 feet shall be considered a lane closure.

D) Lane diversions may be used for shoulder work assuming compliance with MUTCD.

E) Adequate signage shall be displayed to adequately warn traffic of impending road work.

F) Class 2 reflective vests are required for all work within 10 feet of the roadway.

G) Flaggers shall be equipped with a reflective stop and yield sign not less than 24 inches in width, conforming to MUTCD standards, a radio to communicate with other flaggers and site supervisor, and a class three reflective vest.

H) For roadway or lane closures message boards indicating the road or lane closure must be in place no less than 14 days prior to work beginning if the work is expected to take more than 2 days.

I) Detours signs must be in place and inspected by the City Engineer or their representative at least 3 days in advance of the detour routes becoming active.

J) For lane closures utilizing mobile traffic control signals, adequate signage, temporary stop bars, and a signal plan must be provided to and approved by the City Engineer prior to utilization.

K) Traffic Control shall be paid on a per-site basis. Cost shall include flagging, temporary striping, temporary signal, barricades, barrels, cones, temporary signs, message boards, labor, delivery, and any other costs associated with implementation of the traffic control plan.

400- Earthwork and Clearing

401 Clearing and Grubbing

A) Remove any living or dead trees, vegetation, stumps, and roots within the construction limits. Debris, dead vegetation, and invasive vegetation shall be removed within the right of way even if outside the construction limits.

B) Appropriately dispose of debris. Burning is not allowed. Haul to designated landfill or transfer station. Hauling and landfill charges will be included in this pay item; no additional compensation will be allowed for hauling and landfill fees.

C) Payment for Clearing and Grubbing shall be paid by the acre or as a Lump Sum item as indicated on the plans. Payment is for all materials, equipment, labor, and incidentals required to complete this work.

402 Removal of structures

A) Buildings

1) Raze, remove, and dispose of structure as indicated on plans.
2) Remove foundations as necessary. If foundation is removed, excavate not less than 1 foot in all directions around structure.
3) Rubbilize floors and basements so they do not retain water.
4) If voids are found under any portion of the structure to remain, fill with non-excavatable flowable fill.
5) If asbestos or lead is found or suspected, contact the City Engineer to provide for abatement plan and possible item price adjustment.
6) Utilities associated with structures to be removed shall be removed and/or capped per the requirements of the utility provider.
7) Underground storage tanks (USTs) shall be removed and disposed of per local ordinances and EPA requirements.
8) Payment to be made per building or as a lump sum for all included buildings includes all excavation, demolition, permits, haul off, labor, equipment, and disposal.

B) Pipes, Culverts, and drainage structures

1) Excavate and remove buried or covered pipes and culverts.
2) Cut or break pipe into manageable sections, then haul off/dispose of.
3) Excavate at least 6 inches in all directions of pipes, culverts, and drainage structures to remove old backfill.
4) Do not remove pipe, culvert, or boxes underneath roadways without an approved plan for traffic control and temporary trench protection.
5) Backfill road trenches per Muncie Standard Construction Details - EC 400 series.

6) Backfill all other trenches with clean fill material free of deleterious materials such as rocks greater than 6 inches in more than 2 dimensions, vegetative matter, or trash.
7) Payment to be made per linear foot of pipe or culvert removed or per each drainage structure removed. Cost includes all excavation, permits, backfill, haul off, trench protection, labor, and equipment.

C) Pavement

1) Concrete pavement, curbs, and sidewalk removed shall be disposed of per 105 or may be recycled by the Contractor at his own risk.
2) Brick pavement removed shall be disposed of per 105.
3) Asphalt pavement removed is classified as excavation per 404 and shall be disposed of per 105 or may be recycled by the Contactor at his own risk.

700- Erosion Control

703 Erosion Control

A) Purpose and Background

1) This section outlines key principles, techniques, and standards for stormwater management, pollution prevention, erosion control, and sediment control. Stormwater management aims to reduce the amount of water flowing over disturbed areas. Pollution prevention is intended to reduce the introduction of sediment, trash, biological waste, and external chemicals such as concrete washout and gasoline into the environment. Erosion control is intended to keep soil in place. Sediment control aims to capture sediment after it has been displaced and keep it out of waterways and pipes. This section will cover all such measures to be taken during construction, while Section 705 will cover post-construction.
2) As mentioned in Section 701, all land-altering projects are required to submit a Construction Site Sediment & Erosion Control Permit to the Muncie Sanitary District (MSD) Stormwater Inspector for review, regardless of the amount of land disturbance on the project site.
3) For land-altering projects with land disturbance of one acre or more, a Construction Stormwater General Permit (CSGP) approved by IDEM is also required. A SWPPP review by the MSD Stormwater Inspector is required as part of the CSGP process.
4) Applications for the Construction Site Sediment & Erosion Control Permit and SWPPP Review can be accessed at the MSD Stormwater Management website. Reference Figure 704-1 includes a flowchart outlining the permitting and SWPPP review process. Sections 704-B – 704-D provide additional

resources and information to assist with design of erosion and sediment control measures and SWPPP preparation.

B) References and Resources

1) MSD Construction Stormwater Resources

a) The Muncie Sanitary District provides updates on guidance related to stormwater and construction.

2) Indiana Storm Water Quality Manual

a) The Indiana Storm Water Quality Manual (ISWQM) provides guidelines and specific storm water quality measures for controlling soil erosion; controlling and treating the nonpoint source pollution associated with sediment-laden run-off; and the management and treatment of pollutants associated with post-construction land uses. Adhering to these guidelines and properly applying appropriate storm water quality measures will help minimize the adverse impacts that land disturbance, construction activity, and development can have on soil and water resources, and ultimately, the cost of those impacts to society as a whole. In addition to a variety of storm water quality measures, the manual also discusses the philosophy and planning procedures critical to developing an effective storm water pollution prevention plan.

3) INDOT Storm Water Management Field Guide

a) The INDOT Storm Water Management Field Guide provides guidance on the critical factors of management, understanding, setup, inspection, maintenance, and removal of storm water control features. The guide is organized to provide an effective process for use of BMPs for effective stormwater management, including communication, work management, stormwater management, erosion control, and sediment control.

C) Standard Measures and Details

1) This section includes summaries of standard stormwater management, pollution prevention, erosion control, and sediment control measures that are commonly used throughout the City of Muncie. Corresponding standard details are available for each standard measure. Standard details are available in Appendix A of this Manual.

2) Stormwater Management

a) Pump Around:

(i) A pump around should be used as a method of diverting water, typically from a surface stream, around a work area. Pump arounds are typically used when an existing stream or storm system is disturbed. By utilizing pumps, the excess water can be safely conveyed to an appropriate location around the construction site.

b) Diversion Channels:

(i) Diversion channels are berms and/or ditches that divert runoff from steep slopes or streambanks. Runoff is then discharged into a stable area or BMP. Standard side slopes and grades should be used similar to traditional ditches.

c) Temporary Slope Drains:

(i) Temporary slope drains are conduits that convey stormwater down disturbed slopes and prevent erosion. They typically also have outlet protection. They collect runoff from a large area at the top of the slope and discharge at the toe of the slope. Slope drains are typically piped rather than open.

d) Cofferdams:

(i) Cofferdams are temporary structures built to keep water and/or soil out of an excavation or construction site. Once enclosed, the area within the cofferdam is dewatered and a platform or foundation is typically built within it. Cofferdams must be impermeable and unable to erode.

3) Pollution Prevention

a) Concrete Washout:

(i) Concrete wastewater arises from various sources such as concrete truck washouts, road construction, sidewalk construction, and many more. To prevent potential environmental hazards, concrete washout areas are specifically designated zones that can either be prefabricated units or constructed measures. The primary purpose of these areas is to effectively confine and contain concrete slurry. It is crucial to note that uncured concrete and its associated liquids possess high alkalinity. Failure to properly contain these substances can result in leaching, potentially contaminating the soil and posing a risk to groundwater or nearby water bodies by causing elevated pH levels that are harmful. Additionally, heightened pH levels in the soil can impede the growth of vegetation. In addition to concrete slurry, concrete wash water such as water used to clean tools should also be stored in concrete washout containers.

b) Check Dams:

(i) A check dam is a temporary stone and geotextile barrier constructed across a ditch or channel. They reduce erosion by decreasing the velocity of channel flow. Check dams should be linearly spaced such that the weir of the downstream dam is level with the toe of the upstream dam. The weir should be placed in the center of the check dam.

c) Dewatering

(i) Dewatering is the process of removing water from an excavated area or material. This is typically done on many bridge, storm sewer, and pond

construction projects. Water that results from this process should be filtered and outletted in a stabilized area.

4) Erosion Control
   a) Turf Reinforcement Mat:
      (i) Turf reinforcement mats (TRMs) are synthetic, non-biodegradable mats used for permanent applications to prevent erosion and promote vegetation growth. TRMs can be made from a variety of materials including wood fiber, coconut fiber, straw, or synthetic materials.
   b) Erosion Control Blanket:
      (i) Erosion control blankets are a manufactured surface protection product that act as a specialized mulching material and are normally used on long or steep slopes and in concentrated flow channels. Erosion control blankets are used for temporary applications and can prevent erosion by protecting the soil from rainfall impact, overland water flow, concentrated runoff, or wind. The blankets may also be anchored with pins in critical areas.
   c) Temporary Seeding:
      (i) Temporary seeding can stabilize bare soil and is intended to last up to several months. This is one of the least expensive erosion control measures and can significantly reduce dust, mud, and sediment. As soon as possible, this should be replaced with permanent seeding.
   d) Outfall Protection:
      (i) Outfalls at the downstream end of culverts or pipes should have headwalls, riprap, or some other form of armoring to prevent erosion around them. Geotextile should be used under the riprap, which should be placed such that water flows through the middle of the armored area. Riprap should also not be placed so high that sediment will block the waterway.
   e) Sod:
      (i) Sod may also be used to establish grass growth in a disturbed area and prevent erosion. Sod is typically intended to be permanent. Permanent vegetation stabilizes areas and minimizes the need for maintenance. Gaps between sod edges should be minimized.
5) Sediment Control
   a) Construction Entrance:
      (i) A construction entrance serves as a designated access point to a construction site and is constructed using geotextile layered under stone. The primary objective of a construction entrance is to facilitate the movement of vehicles in and out of the site while minimizing the tracking of mud and sediment onto public roadways.

b) Silt Fence:
   (i) Silt fences are geotextiles or plastic sheets supported by posts. They are often used around the perimeter of a disturbed area to capture sheet flow and allow silt to deposit. They are only to be used in sheet flow conditions. They should be constructed in a J shape with the excess on the bottom facing upstream and entrenched.
c) Temporary Inlet Protection:
   (i) Inlet protection temporarily blocks or covers an inlet that leads to a storm sewer, preventing sediment from entering a storm system while land is disturbed. Inlet protection can take many forms, such as filter bags, rock rings, fiber mats, silt fences, block and gravel, filter socks, and more. Filter bags are textile bags that cover the top of the inlet. Rock rings are rocks that surround the inlet. Filter socks are defined above.
d) Culvert Inlet Protection:
   (i) Like other inlets, culverts must be protected from sediment to prevent it from entering waterways. Culvert inlet protection can include such practices as rock rings and filter socks.
e) Filter Sock:
   (i) Filter Socks are typically used as berms or perimeter protection. They consist of a mesh tube or coir roll filled with organic material such as straw and are attached to the ground. Their primary purpose is to effectively reduce the velocity of runoff water, filter sediment, and temporarily retain small volumes of water. They may be a practical alternative in situations where tree clearing or roots would hinder silt fences.
f) Sediment Traps:
   (i) Sediment traps reduce sediment release by allowing water to pool and sediment to settle out of it. Sediment traps should be placed near the downstream end of a construction site or just upstream of a waterway. Sediment traps typically hold runoff from up to 5 acres.
g) Dust Control
   (i) Wind erosion can also play a part in sediment release. It can be reduced by applying water, polymer, mulch, or seeding, or by street sweeping.
h) Buffers:
   (i) Vegetative buffers can be above or below a construction site and often consist of preexisting vegetation that has been preserved for this purpose. They can filter sediment, reduce runoff volume and velocity, and promote infiltration. They are most effective in flat areas.

D) Controls for Individual Lots and Parcels

1) Land altering projects taking place on individual lots or parcels are required to submit a Construction Site Sediment & Erosion Control Permit to the Muncie Sanitary District (MSD) Stormwater Inspector for review, regardless of the amount of land disturbance on the project site. Standard stormwater management, pollution prevention, erosion control, and sediment control measures outlined in previous sections shall apply regardless of development or lot size.
2) Construction sequences on individual lots and parcels shall be as follows:
   a) Clearly define areas that are to be undisturbed.
   b) Install all stormwater management, pollution prevention, erosion control, and sediment control measures ahead of disturbance activities.
   c) Perform grading and other land altering activities.
   d) Establish and maintain temporary seeding and mulch as necessary throughout construction.
   e) Establish final ground elevations.
   f) Install permanent seeding or sod.
   g) Remove erosion and sediment control measures after seed or sod has permanently established.

900-Sewer Installation

901 Sewer Line Backfill

A) Refer to details SS-913 through SS-915 for sewer line bedding and backfill information.

B) Granular Fill Material

1) Coarse crushed stone meeting the requirements of INDOT Standard Specifications Section 904, latest edition, shall apply with the following limits:

Sieve Size	No. 5 Percent Passing	No. 11 Percent Passing
1-1/2"	100	
1"	85-98	
3/4"	60-85	
1/2"	30-60	100
3/8"	15-45	75-95
No. 4	0-15	10-30
No. 8	0-10	0-10

2) In lieu of coarse crushed stone the material used between Class "B" Bedding and pavement replacement shown on the Muncie Standard Construction Details and for replacement of soft, yielding, or other unsuitable material encountered in trench bottoms shall be as follows: This material shall be of acceptable quality, free from large or frozen lumps, stones larger than 2 inches in any dimension, wood or other extraneous matter and shall be known as "B" BORROW. It shall consist of suitable sand, gravel, crushed stone, blast furnace slag, or other approved material. Unless otherwise specified; "B" BORROW shall conform to one of the following gradations.

Nominal Sizes

Percent Passing						
Sieve Sizes	**2"**	**1-1/2"**	**1"**	**1/2"**	**No. 4**	**No. 30**
2-1/2"	100					
2"		90-100	100			
1-1/2"	70-100	90-100	100	100		
1"	55-95	70-100	85-100			
3/4"	45-90	55-95	70-100			
1/2"	35-85	40-90	55-95	85-100	100	100
No. 4	20-65	20-70	25-75	45-85	90-100	
No. 8	10-50	10-55	15-60	25-75	75-100	
No. 30	3-35	3-35	3-35	5-45	15-70	70-100
No.200	0-8	0-8	0-8	0-8	0-8	0-8

C) Common Fill Material

1) Excavated subsoil free from stones larger than 3 inches, and debris, spongy, yielding, or frozen materials, stumps, roots, all or parts of trees, brush, weeds, and other perishable materials.

D) Payment for pipe backfill shall be made on a per ton basis for crushed stone backfill and an in-place cubic yard basis for select fill, the cost of deep installations shall be figured as a combination of the stone and fill. Cost shall include all necessary labor, material, equipment, hauling, and compaction necessary to furnish in place.

902 Sewer Line Trenching

A) Work Included

1) All open cut excavation for main sewers, laterals, manholes, and catch basins.

2) All applicable requirements of 29 CFR Part 1926 (Safety and Health Regulations for Construction) Subpart P – Excavations (Standard Number 1926.650).
3) All required dewatering.
4) All backfilling and compaction in addition to that called for by other sections.

B) Tests

1) In addition to any soils information provided by explorations and reports included in the Contract Documents, the Contractor shall be responsible for the determination of the angle of repose for the various soils encountered in the Work. These tests and reports shall be provided by accepted qualified professionals.

C) Protection

1) Notify Safety, Health, and Public Agencies. (See Section 100- General Notes and Requirements).
2) Walkways, runways, and sidewalks shall be kept clean of excavated material or other obstructions and no sidewalk shall be undermined unless shored to carry a minimum live load of 125 pounds per square foot.
3) If planks are used for raised walkways, runways, or sidewalks, they shall be laid parallel to the length of the walk and fastened together against displacement. Planks shall be uniform in thickness and all exposed ends shall be provided with beveled cleats to prevent tripping. Raised walkways, runways, and sidewalks shall be provided with plank steps on strong stringers.
4) When the excavation approaches the estimated location of underground installations (sewer, telephone, water, fuel, electric lines, field drains, etc.) the exact location shall be determined and when it is uncovered, proper supports shall be provided for the existing installation. (See also Section 204 under Existing Conditions and Site Preparation).
5) Trees, boulders, and other surface encumbrances, located so as to create a hazard to employees involved in excavation work or in the vicinity thereof at any time during operation, shall be removed or made safe before excavation has begun.
6) Notify the Engineer of unexpected subsurface conditions and discontinue work in affected area until notification to resume work. (See Section 200- Existing Conditions and Site Preparation).
7) Specific Trenching Requirements:
    (i) Where adjacent buildings and walls are endangered by excavation, shoring, bracing or underpinning shall be provided as necessary to ensure their safety. Such shoring, bracing, or underpinning shall be inspected daily and as conditions warrant by a competent and experienced representative of the Contractor.

(ii) Banks more than 5 feet high shall be shored, laid back to a stable slope, or some other equivalent means of protection shall be provided where employees may be exposed to moving ground or cave-ins. Refer to 29 CFR Part 1926 Subpart P, Appendix B (§ 1926.652(b)(2)) as a guide in sloping banks.

(iii) Trenches less than 5 feet in depth shall also be effectively protected when examination of the ground indicates hazardous ground movement may be expected.

(iv) Sides of trenches in unstable or soft material, 5 feet or more in depth shall be shored, braced, sloped, or otherwise supported by means of sufficient strength to protect the employees working within them. Refer to 29 CFR Part 1926 Subpart P, Appendices A through F.

(v) Sides of trenches in hard or compact soil, including embankments shall be shored or otherwise supported when the trench is more than 5 feet in depth and 8 feet or more in length.

(vi) Portable trench boxes or sliding trench shields may be used for protection of personnel in lieu of a shoring system or sloping. Where such trench boxes or shields are used, they shall be designed, constructed, and maintained in a manner that will provide protection equal to or greater than the sheeting or shoring required for the trench.

(vii) Materials used for sheeting and steel piling, bracing, shoring, and underpinning, shall be in good serviceable condition, and timbers used shall be sound and free from large or loose knots and shall be designed and installed so as to be effective to the bottom of the excavation.

(viii) Additional precautions by way of shoring and bracing shall be taken to prevent slides or cave-ins when excavations or trenches are made in locations adjacent to backfilled excavations, or where excavations are subject to vibrations from railroad or highway traffic, the operation of machinery, or any other source.

(ix) Backfilling and removal of trench supports shall progress together from the bottom of the trench. Jacks or braces shall be released slowly, and, in unstable soil, ropes shall be used to pull out the jacks or braces from above after employees have cleared the trench.

8) Support systems shall be planned and designed by a registered professional engineer or other duly licensed or recognized authority when the excavation is in excess of 20 feet in depth, adjacent to structures or improvements, or subject to vibration or ground water.

9) When employees are required to be in trenches 4 feet deep or more, an adequate means of exit, such as a ladder or steps, shall be provided and located so as to require no more than 25 feet of lateral travel.

10) Blasting and the use of explosives shall be performed in accordance with 29 CFR Part 1926, SubPart U (§1926.900) and all existing laws, ordinances, and regulations. All blasting shall be done under the direction of an authorized and qualified person to handle and use explosives.
11) Excavation or other material shall not be stored nearer than 4 feet from the edge of any excavation.
12) Diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. Water shall not be allowed to accumulate in an excavation.
13) All costs for the protection work described above shall be borne by the Contractor.

D) Granular Fill Materials
1) See Section 904 Sewer Line Backfill.

E) Common Fill Materials
1) Excavated subsoil free from stones larger than 3 inches, debris, spongy, yielding of frozen materials, stumps, roots, all or part of trees, brush, weeds, and other perishable materials.

F) Excavation
1) Trenches for pipe sewers, manholes, house connections, and other structures up to and including 33 inches internal diameter or width shall be excavated to a width that will provide for side clearance of not less than 6 inches nor more than 9 inches on each side of the pipe, manhole or structure. Trenches for pipes or structures larger than 33 inches internal diameter or width shall be excavated to a width that will provide for a side clearance of not less than 6 inches or more than 12 inches.
2) Unless otherwise directed or permitted by the Engineer in writing, not more than 100 feet of any trench shall be excavated in advance of the end of a completed sewer line. Unless approval to the contrary is given, a trench in dry ground shall be excavated within 6 inches of the required full depth for a distance of at least 30 feet in advance of pipe laying.
3) Side walls of pipe trenches shall be vertical from a point 6 inches below the required depth of the bottom of the pipe to a point 12 inches above the top of the pipe. No additional costs will be allowed for backfill where trenches are excavated beyond the limits described in these specifications and by the drawings.
4) Where soft, yielding, or other unsuitable material is encountered in trench bottoms, the unsuitable material shall be removed and the depression resulting from this removal shall be filled with satisfactory material and compacted to conform with the surrounding trench bottom surface.

Where rock is encountered in a trench, the Contractor shall open the trench to full depth for at least 50 feet in advance of completed sections of sewers. The minimum dimensions of the excavation in rock for a manhole, catch basin, or flush tank shall be those of a prism having a vertical depth 6 inches deeper and horizontal widths 12 inches wider than the smallest prism that will contain such structures centered therein. Rock shall be excavated 6 inches below the required depth of the bottom of sewer pipe. All completed sections of sewers shall be backfilled with at least 12 inches of granular material above the pipe prior to any blasting and the end of the completed sewer, together with as much of the barrel as cannot be conveniently covered with fill, shall be protected by sandbags to prevent damage.

1000- Materials

1001 Soils

A) The INDOT Standard Specifications Section 903 shall apply with the exceptions as noted herein. The current version of the INDOT Specifications, Recurring Special Provisions, and Supplemental Specifications are applicable.

B) Select Fill

1) Fine, sound, loose earth properly conditioned such that it may be compacted to not less than 95 percent maximum density.
2) Shall be free of all organic or otherwise objectionable material.
3) Shall not contain stone, concrete, or pavement that measures more than 5 inches in any given plane.

C) General Fill

1) Generally clean soil that may contain solid debris such as concrete, asphalt, soft crushed stone, or clay clods that can be compacted to not less than 90 percent of maximum density.
2) Shall not contain solid material greater than 8 inches in any given plane.
3) Shall be free of organic material greater than 2 inches in diameter.
4) Shall not be composed of more than 10 percent organic mulch or material if located within 10 feet of a structure or roadway.

1002 Hydraulic Cement

A) The INDOT Standard Specifications Section 901 shall apply with the exceptions as noted herein. The current version of the INDOT Specifications, Recurring Special Provisions, and Supplemental Specifications are applicable.

1003 Aggregates

A) The INDOT Standard Specifications Section 904 shall apply with the exceptions as noted herein. The current version of the INDOT Specifications, Recurring Special Provisions, and Supplemental Specifications are applicable.

1004 Concrete

A) The INDOT Standard Specifications Section 901 shall apply with the exceptions as noted herein. The current version of the INDOT Specifications, Recurring Special Provisions, and Supplemental Specifications are applicable.

1005 Concrete Joint Material

A) The INDOT Standard Specifications Section 901 shall apply with the exceptions as noted herein. The current version of the INDOT Specifications, Recurring Special Provisions, and Supplemental Specifications are applicable.

1006 Reinforcing Steel

A) The INDOT Standard Specifications Section 910 shall apply with the exceptions as noted herein. The current version of the INDOT Specifications, Recurring Special Provisions, and Supplemental Specifications are applicable.

1012 Sewer Pipe and Fittings

A) Reinforced Concrete Pipe ASTM C76 Class III or IV Wall B may be used for all sewers 12 inches in diameter and larger unless otherwise specified. Where 2 lines of steel reinforcement are required in reinforced concrete pipe, a single line placed elliptically shall not be accepted. Concrete pipe shall also meet the following requirements:

1) Concrete shall be steam cured and shall not be shipped for at least 5 days after having been cast.
2) Lift holes will not be permitted in reinforced concrete pipe.
3) Reinforced concrete pipe joints shall be one of the following:
    (i) O-ring rubber gasketed joint material and method of manufacture and jointing shall comply with ASTM C443. The O-ring rubber gasket shall be confined in a notch in the spigot end of the concrete joint and shall be the sole element depended upon to make the joint flexible and watertight.
    (ii) Joints for tongue and groove concrete pipe shall be sealed with rubber gaskets and an external pipe gasket. The rubber gasket shall be similar and equal to "Press Seal" or "Tylox" of the shape and size required. The joints of the pipe shall be made to close tolerances so the rubber gaskets are uniformly compressed around the periphery of each joint when the pipes are drawn together. The external pipe gasket shall consist of a special cold flow sealant coating on a ribbed butyl rubber extrusion and installed according to the manufacturer's recommendations.
4) For approved pipe designed for a mortar seal, Type I cement with an approved admixture shall be used. The admixture shall be "Pozzolith" as manufactured by Master Builders or approved equal.
5) Absorption shall not exceed 5 percent of the dry weight.
6) Pipe shall have a minimum laying length of 4 feet except as otherwise approved by the Engineer for closure or similar conditions.
7) The date of manufacture shall be clearly marked on the inside of the pipe at the grooved end by the use of metal marking dies in letters 3/4 inch high.
8) Variations of the position of reinforcement shall not exceed 1/2 inch from the position provided in the design and clear cover on the reinforcement shall not be less than 1 inch at any point.

B) PVC Type PSM SDR 35 conforming to ASTM D3034 for sizes 6 inches through 15 inches. Minimum laying length of 12.5 feet and maximum of 20 feet. Material shall be classified 12454-A, 12454-B, or 12454-C as defined in Tables 1 and 2 in ASTM D1784. Pipe to be clearly marked at intervals of 5 feet or less as follows:
   1) Manufacturer's name or trademark and code.
   2) Nominal pipe size.
   3) The PVC cell classification, for example 12454-B
   4) The legend "Type PSM SDR-35 PVC Sewer pipe, and,
   5) This designation is "Specification D-3034".

C) PVC plastic drain, waste, and vent pipe conforming to ASTM D2665 for diameters up to 6 inches. (Must have transition joint to use with PVC Type PSM SDR-35 ASTM D-3034).

D) PVC Plastic Pipe Schedules 40, 80, 120 ASTM D1785 for pressure sewers. Fittings shall conform with ASTM D2466 and ASTM D2467. Marking of the pipe shall include the following, spaced at intervals of not more than 5 feet:
   1) Nominal pipe size,
   2) Type of plastic pipe material in accordance with the designation code prescribed in 4.5 ASTM C1785,
   3) Schedule (40, 80, or 120 whichever is applicable) and the pressure rating in pounds per square inch for water at 73 degrees Fahrenheit shown as a number followed by PSI. When the indicated pressure rating is lower than that calculated in accordance with 4.4 ASTM D1785, this shall be indicated by placing a star after the pressure rating,
   4) ASTM designation D1785, with which the pipe complies, and
   5) Manufacturer's name (or trademark) and code.

E) PVC Pressure-Rated Pipe SDR 21 for Pressure Sewers ASTM D2241. Material shall be classified 12454-A, 12454-B, or 12454-C as defined in ASTM D1784. Pipe to be clearly marked at intervals of 5 feet or less as follows:
   1) Nominal pipe size.
   2) The outside diameter system (IPS or PIP) on sizes 14 inches and over.
   3) Type of plastic pipe material in accordance with the designation code given in 4.6 ASTM D2241.
   4) Standard thermoplastic pipe dimensions ratio in accordance with the designation code given in 4.2 ASTM D2241 (for example, SDR21), or the pressure rating in pounds per square inch for water at 73 degrees Fahrenheit shown as a number followed by PSI except that when intended for pressure applications the pressure rating shall be shown. When the indicated pressure is lower than that calculated in accordance with 4.5 ASTM D2241, the SDR shall also be included in the marking code.
   5) ASTM designation D2241, and

6) Manufacturer's name (or trademark) and code. Manufacturer's code to include year, month, day, shift, plant, and extruder of manufacturer.

F) Belled PVC Pressure Pipe. Pipe to be manufactured in accordance with ASTM D1785 or ASTM D2241.

G) PVC large-diameter plastic gravity sewer pipe and fittings conforming with ASTM F679 may be used for sewers having a diameter of 18 inches through 27 inches. The Contractor shall be responsible for furnishing actual loading capacity for the pipe. Actual load conditions shall not exceed loading capacity. Pipe is to be clearly marked at intervals of 5 feet or less as follows:

1) Manufacturer's name or trademark and code.
2) Nominal pipe size.
3) PVC minimum cell classification.
4) Pipe stiffness designation, and,
5) ASTM F679.
6) Fittings in compliance with this specification shall be clearly marked with the following information.
7) Manufacturer's name or trademark and code.
8) Nominal size,
9) Material designation: "PVC", and,
10) This designation: "ASTM F679".

H) PVC Corrugated Sewer Pipe with Smooth Interior and Fittings conforming with ASTM F949 may be used for sewers having a diameter of 4 inches through 8 inches. Pipe sizes of this type do not match sizes of other pipe. An approved transition shall be required if pipe types are mixed. Pipe in compliance with this specification shall be marked on the barrel at intervals not exceeding 5 feet with the following:

1) Manufacturer's name, trade name, or trademark.
2) Nominal pipe size.
3) This designation "ASTM F949".
4) Type of Plastic "PVC" and minimum cell classification, and,
5) Extrusion code, including date and location of manufacture.
6) Fittings in compliance with the specifications shall be marked with the following:
    (i) Manufacturer's name, trade name, and trademark.
    (ii) Nominal size.
    (iii) This designation "ASTM F949", and,
    (iv) Material designation "PVC".

I) PVC Large Diameter Ribbed Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter. (Not to be used without written approval - see 1.04

A. above). Pipe in compliance with this specification shall be marked by the producer per the following example at intervals of 5 feet or less:

1) Manufacturer's name, trade name or trademark, and code.
2) Nominal pipe size in inches.
3) The PVC minimum cell classification as listed in Table 1, specification D1784.
4) The legend "PS 46 PVC Sewer Pipe" or "PS 10 PVC Sewer Pipe", and,
5) This designation, “ASTM F794.”
6) Fittings in compliance with this specification shall be marked with the following:
   (i) Manufacturer's name or trademark and code.
   (ii) Nominal size in inches.
   (iii) The material designation "PVC", and,
   (iv) This designation, “ASTM F794.”
   (v) Manufacturer's code to include day, month, year, shift, plant, and extruder of manufacturer. The markings shall be applied to the pipe in such a manner that they remain legible after installation and inspection have been completed.

J) Ductile Iron Gravity Sewer Pipe

1) ASTM A746 Ductile Iron Gravity Sewer Pipe shall be used wherever the drawings or contract documents specify ductile iron pipe or the abbreviation D.I.P. except where specified as force main or pressure pipe.
2) Except where otherwise specified, joints for this type of material shall be of the rubber gasket push-on type conforming to ANSI specification A21.11 or AWWA C-111. Rubber gaskets of recognized proprietary designs such as the "Super Bell-Tite" and "Grip-Tite" joint may be used where provided by the manufacturer of the pipe and where approved by the Engineer.

K) Gray Iron and Ductile Iron Pressure Pipe

1) ASTM A377 Ductile Iron Pressure Pipe shall be used wherever specified or called for as Ductile Iron Force Main. Pipe furnished under this classification shall also conform to one of the following designations.
   (i) ANSI A21.51 Ductile Iron Pipe, or,
   (ii) AWWA C151 Ductile Iron Pipe.
2) Unless otherwise specified, joints for ductile iron pressure pipe shall be of the rubber gasket push-on type. Rubber gaskets of recognized proprietary designs such as the "Super Bell-Tite" and "Grip-Tite" joint may be used where provided by the manufacturer of the pipe and where approved by the Engineer as set forth under General Conditions, Section 6.7 “Substitutes and/or Equal" items.

L) HDPE (High Density Polyethylene) Sewer Pipe Type “S”, double-walled, smooth bore for sizes 12 inches to 30 inches. Triple-walled, smooth bore for sizes 36 inches to 60 inches.

1) HDPE Pipe called for as storm sewer to conform to ASTM F2306 for double- and triple-walled pipe with joints conforming to ASTM F477.

M) HDPE, DR 11 Pressure pipe shall conform to ASTM F714 for dimensions based on outside diameters of 90 mm (3.5 in) and larger. Pipe in compliance with this specification shall be marked by the producer per the following example at intervals of 5 feet or less:

1) Manufacturer's name, trade name or trademark, and code.
2) Nominal pipe outside diameter in inches in accordance with Table 5, Table 6, or Table 7, and the designated sizing system.
3) Pipe test category in accordance with Table 3.
4) Dimensional ratio, pressure rating, or both.
5) The letters PE followed by the cell classification number (D3350) of the raw material compound used.
6) This designation, “ASTM F714.”

N) All pipe shall be furnished new and in good condition.

O) Other materials as specified on Contract Documents.

Riverview Park Civil Bid Sheet

Bid Item	Specification	Detail #	Unit	Quantity	Bid price/unit	Ext. Price	Notes
Site Prep	100, 200		Per Site	1			Per Muncie Design Manual
Mobilization	100, 208		Per Site	1			
225 S.F. Restroom Buillding	Arch Plans		Per Plan	1			
Excavation (Common)	100, 402		Bank Cubic Yard	85			
Fill	100, 406		CCY in place	40			
Backfill #9 Stone	100, 901		CY in place	2			
Backfill #11 Stone	100, 901		CY in place	6			
Sidewalk- Concrete 4"	CM-504	1 C-700	Square Yard	130			
Electrical Panel(s) Relocation	per AEP	3 C-700	Per Site	1			includes coordinatation with AEP
Electrical Line 4 gauge AL	Per Arch		Linear Foot	70			laid underground per AEP 30" with Bury tape
1" blue SDR (HDPE) Water Line	INAW		Linear Foot	65			
4" x 1" Water line saddle tap	INAW	2 C-700	Per Unit	1			
6" PVC Sewer SDR 35	901, 902, 1013		Linear Foot	28			Lateral Installation
6" 90d PVC long sweep elblow	901, 902, 1013		Per Unit	1			
6" 45d PVC Bend	901, 902, 1013		Per Unit	1			
6" 22.5d PVC Bend	901, 902, 1013		Per Unit	1			Pricing only
6" 11.25d PVC Bend	901, 902, 1013		Per Unit	1			
6" x 8" 45d PVC Wye	901, 902, 1013	5 C-800	Per Unit	1			
Soil Stabilization	100,704		Square Yard	50			
					Total		

Thomas Park Civil Bid Sheet

Bid Item	Specification	Detail #	Unit	Quantity	Bid price/unit	Ext. Price	Notes
Site Prep	100,200		Per Site	1			Per Muncie Design Manual
Mobilization	100,208		Per Site	1			
Traffic Control	100,210		Per Day	1			Pricing only- none expected
225 S.F. Restroom Buillding	Arch Plans		Per Site	1			
Demolition of Ex. Facility	100, 402		Per Site	1			
Soil Stabilization	100, 704	DN 731	Square Yard	110			
Flat work demo 4"	100,402		Square Yard	225			
Sidewalk- Concrete 4"	CM-504	1 C-700	Square Yard	130			
					Total		

CONTRACTOR'S BID FOR PUBLIC WORK - FORM 96

State Form 52414 (R2 / 2-13) / Form 96 (Revised 2013)
Prescribed by State Board of Accounts

PART I
(To be completed for all bids. Please type or print)

Date *(month, day, year):*_____

1. Governmental Unit (Owner):_____
2. County :_____
3. Bidder (Firm):_____

   Address:_____

   City/State/ZIPcode:_____
4. Telephone Number:_____
5. Agent of Bidder *(if applicable):*_____

Pursuant to notices given, the undersigned offers to furnish labor and/or material necessary to complete the public works project of _____

(Governmental Unit) in accordance with plans and specifications prepared by _____

_____ and dated _____ for the sum of

_____ $_____

The undersigned further agrees to furnish a bond or certified check with this bid for an amount specified in the notice of the letting. If alternative bids apply, the undersigned submits a proposal for each in accordance with the notice. Any addendums attached will be specifically referenced at the applicable page.

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract if accepted by the governmental unit. If the bid is to be awarded on a unit basis, the itemization of the units shall be shown on a separate attachment.

The contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS
(If applicable)

I, the undersigned bidder or agent as a contractor on a public works project, understand my statutory obligation to use steel products made in the United States (I.C. 5-16-8-2). I hereby certify that I and all subcontractors employed by me for this project will use U.S. steel products on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

ACCEPTANCE

The above bid is accepted this _____ day of _____, _____, subject to the following conditions: _____

_____

Contracting Authority Members:

_____ _____

_____ _____

_____ _____

PART II

(For projects of $150,000 or more – IC 36-1-12-4)

Governmental Unit: _____

Bidder (Firm) _____

Date *(month, day, year):* _____

These statements to be submitted under oath by each bidder with and as a part of his bid. Attach additional pages for each section as needed.

SECTION I EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed for the period of one (1) year prior to the date of the current bid?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

2. What public works projects are now in process of construction by your organization?

Contract Amount	Class of Work	Expected Completion Date	Name and Address of Owner

3. Have you ever failed to complete any work awarded to you? _____ If so, where and why?

_____

_____

_____

4. List references from private firms for which you have performed work.

_____

_____

_____

_____

_____

SECTION II PLAN AND EQUIPMENT QUESTIONNAIRE

1. Explain your plan or layout for performing proposed work. *(Examples could include a narrative of when you could begin work, complete the project, number of workers, etc. and any other information which you believe would enable the governmental unit to consider your bid.)*

_____

_____

_____

_____

_____

2. Please list the names and addresses of all subcontractors *(i.e. persons or firms outside your own firm who have performed part of the work)* that you have used on public works projects during the past five (5) years along with a brief description of the work done by each subcontractor.

_____

_____

_____

_____

_____

3. If you intend to sublet any portion of the work, state the name and address of each subcontractor, equipment to be used by the subcontractor, and whether you will require a bond. However, if you are unable to currently provide a listing, please understand a listing must be provided prior to contract approval. Until the completion of the proposed project, you are under a continuing obligation to immediately notify the governmental unit in the event that you subsequently determine that you will use a subcontractor on the proposed project.

_____

_____

_____

_____

_____

4. What equipment do you have available to use for the proposed project? Any equipment to be used by subcontractors may also be required to be listed by the governmental unit.

_____

_____

_____

_____

_____

5. Have you entered into contracts or received offers for all materials which substantiate the prices used in preparing your proposal? If not, please explain the rationale used which would corroborate the prices listed.

_____

_____

_____

_____

_____

SECTION III CONTRACTOR'S FINANCIAL STATEMENT

Attachment of bidder's financial statement is mandatory. Any bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the contract must be specific enough in detail so that said governing body can make a proper determination of the bidder's capability for completing the project if awarded.

SECTION IV CONTRACTOR'S NON – COLLUSION AFFIDAVIT

The undersigned bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to include anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms, or corporation has, have or will receive directly or indirectly, any rebate, fee, gift, commission or thing of value on account of such sale.

SECTION V OATH AND AFFIRMATION

I HEREBY AFFIRM UNDER THE PENALTIES FOR PERJURY THAT THE FACTS AND INFORMATION CONTAINED IN THE FOREGOING BID FOR PUBLIC WORKS ARE TRUE AND CORRECT.

Dated at _____ this _____ day of _____, _____

_____
(Name of Organization)

By_____

_____
(Title of Person Signing)

ACKNOWLEDGEMENT

STATE OF _____)
) ss
COUNTY OF_____)

Before me, a Notary Public, personally appeared the above-named _____ and swore that the statements contained in the foregoing document are true and correct.

Subscribed and sworn to before me this _____ day of _____, _____.

_____
Notary Public

My Commission Expires:_____

County of Residence:_____

BID OF

_____
(Contractor)

_____
(Address)

_____

FOR

PUBLIC WORKS PROJECTS

OF

_____

_____

_____

Filed _____, _____

Action taken _____

_____

PUBLIC WORKS CONSTRUCTION SERVICES CONTRACT

THIS AGREEMENT ("Contract"), made and entered into this _____ day of _____, 20___, by and between the City of Muncie, Indiana ("City") and _____ ("Contractor"), collectively referred to as "Parties," is executed pursuant to the terms and conditions set forth herein and is governed by Ind. Code § 5-22 and § 36-1-12-1, *et seq*. In consideration of those mutual undertaking and covenants, the Parties agree as follows:

Article 1 - Definitions

1.1 Construction Schedule. The term "Construction Schedule" refers to that which is outlined in Article Seven (7).

1.2 Contract Documents. The term "Contract Documents" shall mean and include the following: this Contract, the Project Bid Package, the Public Work's Solicitation for Quotation, Bid Documentation, Pre-Contract Documents, General Conditions, Supplementary Conditions, Instructions to Bidders, Drawings, Specifications, Addenda, and any Change Orders issued by the City in connection with the Project. The term "Contract Documents" also includes the Contractor's Proposal and Response.

1.3 Contract Time. The term "Contract Time" refers to the time it will take for the Contractor to perform the Work contracted upon for the Project pursuant to the Construction Schedule.

1.4 Contractor's Proposal and Response. The term "Contractor's Proposal and Response" refers to any documentation submitted by the Contractor in response to the Project.

1.5 Engineer. The term "Engineer" refers to the City Engineer for the City of Muncie, Indiana, who will serve in an engineering capacity for this Project.

1.6 Project. The term "Project" refers to the Parks Restroom Construction 2025.

1.7 Total Contract Price. The term "Total Contract Price" shall have the meaning set forth in Section 3.1, herein.

1.8 Work. The term "Work" refers to the contracted upon subject of this Contract pursuant to the provisions specified in Article Five (5).

Article 2 - Contract

The Contract Documents form the Contract, which represents the entire and integrated agreement between the City and the Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral.

Article 3 - Cost

3.1 Not to Exceed. The total cost of the project shall not exceed the price identified as the base bid in the Contractor's Proposal and Response, plus any selected alternatives (hereinafter referred to as the "Total Contract Price"). If project is being bid as a lump sum, then the cost shall include all work identified in the scope, plans, and specifications. If project is being bid as a unit price contract, the combined aggregate cost of all unit work done shall not exceed the bid price and shall be done in conformance with the plans and specifications. Additional work discovered that is required for completion of the project due to differing site conditions or changes in scope shall be addressed by change orders, which must be approved by the City or the Engineer, as required by law.

3.2 Consideration. All payments provided herein are subject to appropriations made and funds allocated as provided by laws of the State of Indiana. The City shall pay the Contractor for performance of this Contract in current funds as follows:

BASE BID: $_____

ALTERNATE(S): _____

TOTAL CONTRACT PRICE: $_____

3.2(a) Bid Submittal Form 96. The Contractor shall submit a completed Form 96 (State Form 52414 – R2/2-13), as prescribed by the Indiana State Board of Accounts.

3.3 Acceptance of Cost. By executing this Contract, the Contractor represents and acknowledges that the Total Contract Price is reasonable compensation for all of the Work, that the Contract Time set forth in the Construction Schedule is adequate for the performance of the Work, and that Contractor has carefully examined the Contract Documents and the Project site, including any existing structures. The Contractor further represents and acknowledges that it has satisfied itself as to the nature, location, character, quality, and quantity of the Work, including the labor, materials, equipment, goods, supplies, work, services, other items to be furnished, and all other requirements of the Contract Documents, as well as the surface and subsurface conditions and other matters that may be encountered at the Project site or may

affect performance of the Work or the cost or difficulty thereof, including but not limited to those conditions and matters affecting: transportation, access, disposal, handling, and storage of materials, equipment, and other items; availability and quality of labor, water, electric power and utilities; availability and condition of roads; normal climatic conditions and seasons; physical conditions at the Project site and the surrounding locality; topography; and equipment and facilities needed preliminary to, and at all times during, the performance of the Work. The Contractor further acknowledges that no variation in the aforesaid site conditions from those observed, assumed, or contemplated by the Contractor shall form the basis for any claim of changed condition by the Contractor.

3.4 Additional Costs. The Contractor shall be responsible for:

3.4(a) Excess costs if the cost of the Work exceeds the Total Contract Price;

3.4(b) All costs related to subcontractor claims or charges;

3.4(c) The Contractor's failure to coordinate the Work it self-performs with Work of other subcontractors;

3.4(d) Delays in the Work caused by the Contractor or its subcontractors and suppliers;

3.4(e) Correction of Work not performed in accordance with the Contract Documents;

3.4(f) Correction of Work caused by the Contractor or its subcontractors and suppliers;

3.4(g) Schedule recovery costs, acts or omissions of the Contractor or its subcontractors and suppliers and related change orders;

3.4(h) Costs relating to the nonperformance of any subcontractor or supplier, including legal fees; and

3.4(i) Costs relating to bid protests and appeals.

3.5 Cost Reporting. The Contractor shall, together with any applicable provisions contemplated herein:

3.5(a) Prepare a detailed construction budget for the Project based on the documentation provided to the City, which shall be updated each month showing a complete, detailed, and current accounting for the actual cost of the Work;

3.5(b) Prepare a schedule of values for each subcontract;

3.5(c) Prepare and send a monthly progress report narrative, monthly earned value report, and monthly cost report to the City for review and approval;

3.5(d) Establish pay request procedures and prepare monthly applications for payment;

3.5(e) Track all requests for changes and City-issued change orders, prepare independent cost estimates for any subcontractor change orders, and document and track all change order payments; and

3.5(f) At the conclusion of the Project, prepare a final accounting of Project costs and prepare final subcontractor payment.

Article 4 - Compensation

4.1 Payment and Performance Bond. The Contractor shall deliver to the City an executed payment and performance bond for the Total Contract Price.

4.1(a) The payment and performance bond required pursuant to Section 4.1 shall:

4.1(a)(1) Be on a form deemed acceptable by the City; and

4.1(a)(2) Be signed by an approved Surety (Sureties) that is registered with the Indiana Department of Insurance and appears on the current List of Certified Companies licensed in the State of Indiana as published by the U.S. Bureau of the Fiscal Service.

4.2 Payments to Contractor.

4.2(a) All payments shall be made thirty-five (35) days in arrears by electronic funds transfer to the financial institution designated by the Contractor in writing unless otherwise agreed to by the parties. No payments will be made in advance of receipt of the goods or services that are the subject of this Contract except as permitted by law.

4.2(b) If the Contractor is being paid in advance as permitted by law, the Contractor agrees that if it fails to fully provide or perform under this Contract, it shall promptly refund the consideration paid, pro-rated through the date of non-performance.

4.3 Condition of Payment. All services provided by the Contractor under this Contract must be performed to the City's reasonable satisfaction, as determined at the discretion of the Engineer or their representative and in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations. The City shall not be required to pay for work found to be unsatisfactory, inconsistent with this Contract, or performed in violation of any federal, state, or local statute, ordinance, rule, or regulation.

Article 5 - Duties of Contractor

5.1 General. The Contractor will be responsible for the construction of the Project within the dollar limits of the Total Contract Price. The Contractor shall complete all of the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

5.2 Specific Duties. The Contractor shall coordinate with the Engineer and provide construction management ("CM") services throughout the Project, including, but not limited to:

5.2(a) Scheduling the project in logical steps and budget time required to meet project deadlines;

5.2(b) Determining labor requirements and dispatch workers on the construction site;

5.2(c) Inspecting and reviewing work to ensure compliance with safety codes and other regulations;

5.2(d) Obtaining the necessary permits and licenses, unless previously obtained by the Engineer or their representative;

5.2(e) Preparing subcontractor bid packages and contracts;

5.2(f) Negotiating subcontractor changes and revisions and handling subcontractor claims; and

5.2(g) Providing the services outlined in Article 6.

5.3 Compliance. Contractor and each of its employees, agents, and subcontractors performing work under this Contract shall comply with all applicable federal, state, county, and local laws, ordinances, regulations, and rules. Contractor shall comply with applicable prevailing wage laws and applicable nondiscrimination and equal employment requirements in accordance with the Contract Documents.

Article 6 - Construction Administration and Management

6.1 In addition to all other duties and obligations provided for herein, the Contractor shall:

6.1(a) Provide full general contracting services for construction of the Project in accordance with the requirements of this Contract;

6.1(b) Work collaboratively and proactively with the City to proceed with the planning, designing and development of the Work as contemplated herein;

6.1(c) Coordinate all on-site activities;

6.1(d) Prepare a detailed plan for the construction phases along with a plan managing any disruption to the general public;

6.1(e) Produce weekly progress reports to the City and conduct site tours for representatives of the City as requested by the City;

6.1(f) Implement an accident prevention program, develop a site specific safety plan and manage job site safety;

6.1(g) Administer and maintain a document tracking and filing system for the Project;

6.1(h) Participate in community meetings as requested by the City;

6.1(i) Ensure the City's representatives are afforded timely and appropriate access to the Work and provide any special inspections or reports required by regulatory agencies and building officials; and

6.1(j) Perform all work in compliance with building permit requirements.

Article 7 - Construction Schedule

7.1 The Contractor shall develop and keep current a master construction path schedule ("MCP") for the Project that includes design and construction activities as well as applicable regulatory agency, outside entity, and City activities and constraints.

7.1(a) The MCP shall identify all long-lead procurement items. In developing the activities for the MCP, the Contractor shall consult with the Engineer and the City to ensure that the responsibility for and duration of these activities is accurate.

7.1(b) The Contractor shall submit the MCP to the Engineer and the City for approval.

7.1(c) Based on the MCP, the number of "Working Days" acceptable to both the City and Contractor will be established.

7.2 In addition to the requirements stated in Section 7.1, above, the Contractor shall also:

7.2(a) Monitor construction progress and formally update the MCP every month;

7.2(b) Discuss any need for corrective action regarding the MCP with the Engineer and the City within one (1) week of discovery of the need for corrective action;

7.2(c) Prepare a six-week (6-week) look-ahead schedule each month for presentation to the Engineer and City; and

7.1(d) Develop and submit a Progress Schedule to the City within fourteen (14) days of execution of this Contract showing the sequence in which Contractor proposes to perform the Work and the dates on which Contractor plans to start and finish major portions of the Work, including dates for shop drawings and other submittals and acquiring materials and equipment.

Article 8 - Conflict of Interest

8.1 The definitions set forth in Ind. Code § 35-44.1-1-4 shall apply throughout this Article 8.

8.2 The Contractor covenants that it neither has, nor will it have, a direct or indirect pecuniary interest by way of an interested party in any other contract connected or associated with this Contract. The Contractor further represents and warrants that no public servant who is an interested party of the Contractor, or who serves as an officer, director, trustee, partner, or employee of the Contractor participated in any decision or vote of any kind in the award of this Contract. As such and by the execution of this Contract, the Contractor represents and warrants that the result of this Contract does not and will not be deemed a violation of Ind. Code § 35-44.1-1-1, *et seq*.

8.3 The City may cancel this Contract, without recourse by the Contractor, if violation of Ind. Code § 35-44.1-1-1, *et seq.,* has occurred.

8.4 The Contractor has an affirmative obligation under this Contract to disclose to the City when an interested party is or becomes a City employee.

Article 9 - Confidentiality

The Contractor understands and agrees that data, materials, and information disclosed to the Contractor may contain confidential and protected information. The Contractor covenants that data, material, and information gathered, based upon, or disclosed to the Contractor for the purpose of this Contract will not be disclosed to, or discussed with, third parties without the prior written consent of the City.

Article 10 - Licensing Standards

The Contractor and its employees and subcontractors shall comply with all applicable licensing standards, certification standards, accrediting standards, and any other laws, rules, or regulations

governing services to be provided by the Contractor pursuant to this Contract. The City shall not be required to pay the Contractor for any services performed when the Contractor, or any of its employees, agents, or subcontractors are not in compliance with such applicable standards, laws, rules, or regulations. If any licensure, certification, or accreditation expires or is revoked, or if disciplinary action is taken against the applicable licensure, certification, or accreditation, the Contractor shall notify the City immediately and the City, at its option, may terminate this Contract.

Article 11 - Debarment and Suspension

11.1 The Contractor certifies that, by entering into this Contract, neither it, nor its principals or any of its employees, agents, or subcontractors, are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from entering into this Contract by any federal agency or by any department, agency, or political subdivision of the State of Indiana. The term "principal" for purposes of this Contract means an officer, director, owner, partner, key employee, or other person with primary management or supervisory responsibilities, or a person who has a critical influence on, or substantive control over, the operations of the Contractor.

11.2 The Contractor certifies that it has verified the State and federal suspension and debarment status for all subcontractors receiving funds under this Contract and shall be solely responsible for any recoupment, penalties, or costs that might arise from use of a suspended or debarred subcontractor. The Contractor shall immediately notify the City if any subcontractor becomes debarred or suspended, and shall, at the City's request, take all steps required by the City to terminate its contractual relationship with the subcontractor for work to be performed under this Contract.

Article 12 – Default by the City

If the City, sixty (60) days after receipt of written notice from the Contractor, fails to correct or cure any material breach of this Contract, the Contractor may cancel and terminate this Contract and institute the appropriate measures to collect monies due up to an including the date of termination.

Article 13 - Disputes

13.1 Should any disputes arise with respect to his Contract, the Contractor and the City agree to act immediately to resolve such disputes informally. Time is of the essence in the resolution of disputes.

13.2 The Contractor agrees that, the existence of a dispute notwithstanding, it will continue without delay to carry out all of its responsibilities under this Contract that are not affected by the dispute. Should the Contractor fail to continue to perform its responsibilities regarding all non-disputed work without delay, any additional costs incurred by the City or the Contractor as a result of such failure to proceed shall be borne by the Contractor and the Contractor shall make no claim against the City for such costs.

13.3 If the parties are unable to informally resolve a contractual dispute after good faith attempts to do so, the parties agree to submit the dispute to arbitration. Such arbitration shall be binding upon the parties. The arbitrator shall be chosen by the City.

13.4 The City may withhold payments on disputed items pending resolution of the dispute. The unintentional nonpayment by the City to the Contractor of one or more invoices not in dispute in accordance with the terms of this Contract will not be cause for the Contractor to terminate this Contract.

Article 14 - Contractor's Certification

The Contractor certifies that all information and documentation in the Contractor's Proposal and Response is true, accurate, and complete as of the date of this Contract's effectiveness. The Contractor shall immediately notify the City of any material change to such information.

Article 15 - Drug-Free Workplace Certification

15.1 The Contractor certifies and agrees that it will provide a drug-free workplace by:

15.1(a) Publishing and providing to all of its employees a statement notifying them that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the Contractor's workplace, and specifying the actions that will be taken against employees for violations of such prohibition;

15.1(b) Establishing a drug-free awareness program to inform its employees of (a) the dangers of drug abuse in the workplace; (b) the Contractor's policy of maintaining a drug-free workplace; (c) any available drug counseling, rehabilitation and employee assistance programs; and (d) the penalties that may be imposed upon an employee for drug abuse violations occurring in the workplace;

15.1(c) Notifying all employees in the statement required by subparagraph 15.1(a), above, that, as a condition of continued employment, the employee will (a) abide by the terms of the statement; and (b) notify the Contractor of any criminal drug statute

conviction for a violation occurring in the workplace no later than five (5) days after such conviction;

15.1(d) Notifying the City in writing within ten (10) days after receiving notice from an employee under subsection 15.1(c), above, or otherwise receiving actual notice of such conviction;

15.1(e) Within thirty (30) days after receiving notice under subsection 15.1(c), above, of a conviction, imposing the following sanctions or remedial measures on an employee who is convicted of drug abuse violations occurring in the workplace; (a) taking appropriate personnel action against the employee, up to and including termination; or (b) requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state or local health, law enforcement, or other appropriate agency; and

15.1(f) Making a good faith effort to maintain a drug-free workplace through the implementation of subsections 15.1(a) through 15.1(e) above.

Article 16 - Employment Eligibility Verification

16.1 Pursuant to Ind. Code § 22-5-1.7-1, *et seq*., the Contractor swears or affirms under the penalties of perjury that the Contractor does not knowingly employ an unauthorized alien. The Contractor further agrees that the Contractor shall:

16.1(a) Enroll in and verify the work eligibility status of all his/her/its newly hired employees through the E-Verify program as defined in Ind. Code § 22-5-1.7-3. The Contractor is not required to participate should the E-Verify program cease to exist. Additionally, the Contractor is not required to participate if the Contractor is self-employed and does not employ any employees;

16.1(b) Not knowingly employ or contract with an unauthorized alien. The Contractor shall not retain an employee or contract with a person that the Contractor subsequently learns is an unauthorized alien; and

16.1(c) Require his/her/its subcontractors, who perform work under this Contract, to certify to the Contractor that the subcontractor does not knowingly employ or contract with an unauthorized alien and that the subcontractor has enrolled and is participating in the E-Verify program. The Contractor agrees to maintain this certification throughout the duration of the term of a contract with a subcontractor.

16.2 The City may terminate this Agreement if the Contractor fails to cure a breach of this provision no later than thirty (30) days after being notified by the City of such breach.

Article 17 - Force Majeure

In the event that either party is unable to perform any of its obligations under this Contract or to enjoy any of its benefits due to causes beyond their control and not occasioned by their fault or negligence, including floods, explosions, earthquakes, any act of government, acts of God, acts of terrorism, epidemics, or quarantine restrictions (hereinafter referred to as a "Force Majeure Event"), the party who has been so affected shall immediately give notice to the other party and shall do everything possible to resume performance. Upon receipt of such notice, all obligations under this Contract shall be immediately suspended. If the period of nonperformance exceeds thirty (30) days from the receipt of notice of the Force Majeure Event, the party whose ability to perform has not been so affected may, by giving written notice, terminate this Contract.

Article 18 - Indemnification

The Contractor agrees to indemnify, defend, and hold harmless the City, its agents, officials, and employees from all claims and suits, including court costs, attorney's fees, and other expenses, caused by any act or omission of the Contractor and/or its subcontractors, if any, in the performance of this Contract. The City shall not be obligated to provide such indemnification to the Contractor.

Article 19 - Independent Contractor; Workers' Compensation Insurance

The Contractor is performing as an independent entity under this Contract. No part of this Contract shall be construed to represent the creation of an employment, agency, partnership, or joint venture agreement between the parties. Neither party will assume liability for any injury (including death) to any persons, or damage to any property, arising out of the acts or omissions of the agents, employees or subcontractors of the other party. The Contractor shall provide all necessary unemployment and workers' compensation insurance for the Contractor's employees and shall provide the City with a Certificate of Insurance evidencing such coverage prior to starting any of the Work under this Contract.

Article 20 - Insurance

20.1 The Contractor and its subcontractors (if any) shall secure, and keep in force during the term of this Contract, the following insurance coverages (if applicable) covering the Contractor and the City as an additional insured for any and all claims of any nature which may in any manner arise out of or result from Contractor's performance under this Contract:

20.1(a) Commercial general liability, including contractual coverage, and products or completed operations coverage (if applicable), with minimum liability limits not less than $1,000,000 per person and $2,000,000 per occurrence unless additional coverage is required by the State of Indiana. The City is to be named as an additional insured on a primary, non-contributory basis for any liability arising directly or indirectly under, or in connection with, this Contract.

20.1(b) Automobile liability for owned, non-owned and hired autos with minimum liability limits of $1,000,000 per person and $2,000,000 per occurrence. The City is to be named as an additional insured on a primary, non-contributory basis.

20.2 The Contractor and its subcontractors (if any) shall provide proof of such insurance coverage by tendering to the undersigned City representative a certificate of insurance prior to the commencement of this Contract.

20.3 The Contractor's insurance coverage described herein shall also meet the following requirements:

20.3(a) The insurer must have a certificate of authority or other appropriate authorization to operate within the State in which the policy was issued;

20.3(b) Any deductible or self-insured retention amount or other similar obligation under the insurance policies shall be the sole obligation of the Contractor;

20.3(c) The City will be defended, indemnified, and held harmless to the full extent of any coverage actually secured by the Contractor in excess of the minimum requirements set forth above, provided, however, that the duty to indemnify the City under this Contract shall not be limited by the insurance required herein;

20.3(d) The insurance required in this Contract shall include, either within the policy document or in an endorsement thereto, a provision that neither the policy, nor any endorsement(s) thereto, may be cancelled or modified without thirty (30) days' prior written notice to the City.

20.3(e) The Contractor waives and agrees to require their insurer to waive their rights of subrogation against the City.

20.4 Failure to secure any insurance required pursuant to this Contract may be deemed a material breach entitling the City to immediately terminate this Contract. The Contractor shall furnish a certificate of insurance and all endorsements to the City before the commencement of the Work.

Article 21 - Merger & Modification

This Contract constitutes the entire agreement between the parties. No prior, contemporaneous, or subsequent understandings, agreements, or representations, whether oral or written, which are not otherwise specified within this Contract may be deemed valid provisions of this Contract. This Contract may not be modified, supplemented, or amended except by written agreement signed by all necessary parties.

Article 22 - Notice to Parties

22.1 Whenever any notice, statement, or other communication is required under this Contract, it will be sent by E-mail or first class U.S. mail service to the following addresses, unless otherwise specifically advised.

22.2 Notices to the City shall be sent to:

Board of Public Works and Safety, President
City of Muncie
5790 W. Kilgore Avenue
Muncie, IN 47304
cityeng@cityofmuncie.com

22.3 Notices to the Contractor shall be sent to:

[INSERT CONTRACTOR NAME]
[INSERT CONTRACTOR'S ADDRESS]
[INSERT CONTRACTOR'S CITY, STATE, ZIP]
[INSERT CONTRACTOR'S EMAIL]

Article 23 - Order of Precedence; Incorporation by Reference

23.1 Any inconsistency or ambiguity in this Contract shall be resolved by giving precedence in the following order: (1) this Contract and any Addenda and/or Change Orders approved by the City, (2) the Project Bid Package, (3) the General Conditions, (4) the Supplementary Conditions, (5) Specifications, (6) Drawings, (7) attachments prepared by the City, if any, (8) Contractor's Proposal and Response; and (9) attachments prepared by the Contractor, if any.

23.2 All documents referred to in this paragraph are hereby incorporated into this Contract by reference as if fully restated herein.

Article 24 - Ownership of Documents and Materials

24.1 All documents, records, programs, applications, data, algorithms, film, tape, articles, memoranda, and other materials (the "Materials") not developed or licensed by the Contractor prior to execution of this Contract, but specifically developed under this Contract, shall be considered "work for hire" and the Contractor hereby transfers and assigns any ownership claims to the City so that all Materials will be the sole property of the City. If ownership interest in the Materials cannot be assigned to the City, the Contractor grants the City a non-cancellable, perpetual, worldwide, royalty-free license to use the Materials and to use, modify, copy, and create derivative works of the Materials.

24.2 Use of the Materials, other than as necessary for the Contractor to perform its duties and obligations described in this Contract, without the prior written consent of the City is prohibited. During the performance of this Contract, the Contractor shall be responsible for any loss of or damage to the Materials developed for, or supplied by, the City and used to develop or assist in the services provided while the Materials are in the possession of the Contractor. Any loss or damage thereto shall be restored at the Contractor's expense. The Contractor shall provide the City full, immediate, and unrestricted access to the Materials and to Contractor's work product during the term of this Contract.

Article 25 - Renewal Option

[*INTENTIONALLY OMITTED*.]

Article 26 – Severability

The invalidity of any section, subsection, clause, or provision of this Contract shall not affect the validity of the remaining sections, subsections, clauses, or provisions of this Contract. In the event any section, subsection, clause, or provision of this Contract is found by a court of competent jurisdiction to be invalid, illegal, or unenforceable, the validity, legality, and enforceability of the remaining sections, subsections, clauses, and provisions of this Contract shall not be affected.

Article 27 - Substantial Performance

This Contract shall be deemed to be substantially performed only when fully performed according to the terms and conditions of this Contract, including any written amendments or supplements thereto. The Contractor shall notify the City in writing when the Project is substantially complete. If the City is in concurrence, a letter of substantial completion shall be

provided by the Engineer, along with a punch list of final items to be corrected, prior to the issuance of any final payments or the release of applicable bonds and/or retainages.

Article 28 – Taxes

The City shall not be responsible for any taxes levied on the Contractor as a result of this Contract.

Article 29 – Termination

29.1 Termination for Convenience. This Contract may be terminated, in whole or in part, by the City whenever and for any reason the City determines that such termination is in its best interest. Termination of services shall be effected by delivery to the Contractor of a written Termination Notice at least thirty (30) days prior to the effective date of the termination specifying the extent to which performance of services under such termination becomes effective. The Contractor shall be compensated for services properly rendered prior to the effective date of termination. The City will not be liable for services performed after the effective date of termination. The Contractor shall be compensated for services herein provided, but in no case shall the total payment made to the Contractor exceed the Total Contract Price, nor shall any price increase be allowed on individual line items if cancelled only in part prior to the original termination date.

29.2 Termination Upon Default of the Contractor.

29.2(a) With the provision of thirty (30) days' notice to the Contractor, the City may terminate this Contract in whole or in part if the Contractor fails to:

29.2(a)(i) Correct or cure any breach of this Contract within the time permitted or provided for herein; provided, however, that the time to correct or cure the breach may be extended beyond thirty (30) days if the City determines progress is being made and the extension is agreed to by the parties;

29.2(a)(ii) Deliver the supplies or perform the services within the time specified in this Contract or any extension(s) thereto;

29.2(a)(iii) Make progress so as to endanger performance of this Contract; or

29.2(a)(iv) Perform any of the other provisions of this Contract.

29.2(b) If the City terminates this Contract in whole or in part, it may acquire, under the terms and in the manner the City considers appropriate, supplies or services similar to those terminated, and the Contractor shall be liable to the City for any excess costs

incurred by the City for those supplies or services; provided, however, the Contractor shall continue the work not terminated.

29.2(c) The City shall pay the contract price for completed supplies actually delivered and services actually accepted by the City. The Contractor and the City shall agree on the amount of payment for manufacturing materials actually delivered and accepted and for the protection and preservation of the property. Disputes as to any payment(s) described in this Section 29.2(c) shall be resolved pursuant to Article 13. The City may withhold from these amounts any sum the City determines to be necessary to protect the City against loss due to outstanding liens or claims of current and/or former lien holders.

29.2(d) The rights and remedies of the City in this clause are in addition to any other rights and remedies provided by law or equity or under this Contract.

Article 30 – Equal Employment Opportunity and Segregated Facilities

30.1 Segregated Facilities Prohibited. The Contractor hereby swears and affirm that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform services at any location under its control where segregated facilities are maintained. The Contractor further certifies that it will not maintain or provide for its employees any segregated facilities at any of its establishments and that it will not permit control where segregated facilities are maintained. The Contractor agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from contracts with the City and/or its Department of Community Development. As used in this certification, the "segregated facilities" means any wait in rooms, work area, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Contractor agrees that, except where it has obtained identical certification from proposed subcontractors for specific time periods, it will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding $10,000.00 which are not exempt from the provisions of the Equal Opportunity clause, and that it will retain such certifications in its files.

30.2 Equal Employment Opportunity. Contractor hereby agrees to the comply with Executive Order 11246 of September 24, 1965, as amended, and the provisions pertaining to its employment practices with regard to submitting, and performing work, for the City of Muncie. The Contractor further agrees that it currently practices, and will continue to abide by, all of the following provisions:

30.2(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or

national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

30.2(b) The Contractor will, in all solicitations or advancements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

30.2(c) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

30.2(d) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under Sec. 202 of Executive Order No. 11246 of September 24, 1965, as amended, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

30.2(e) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

30.2(f) The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, as amended, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

30.2(g) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this Contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, as amended, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

30.2(h) The Contractor will include the provisions of subsections 30.2(a) through 30.2(h) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Sec. 204 of Executive Order No. 11246 of September 24, 1965, as amended, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Article 31 – HUD Section 3 Compliance

31.1 The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, codified at 12 USC §1701u ("Section 3"). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted developments covered by Section 3 shall, to the greatest extent feasible, be directed to low- and very low-income persons, including persons who are recipients of HUD assistance for housing, with a preference for both targeted workers living in the service area or neighborhood of the Project and YouthBuild participants, as defined in 24 CFR Part 75 ("Section 3 Regulations").

31.2 The Parties agree to comply with HUD's Section 3 Regulations, which implement Section 3. As evidenced by their execution of this Contract, the Parties certify that there are no contractual or other impediments that would prevent them from complying with the Section 3 Regulations.

31.3 The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this section of the Contract and will post copies of the notice in conspicuous places at the worksite where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference

and shall set forth the following: (i) minimum number and job titles subject to hire, (ii) availability of apprenticeship and training positions, (iii) qualifications for each, (iv) name and location of the person(s) taking applications for each of the positions, and (v) the anticipated date the work shall begin.

31.4 The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in Section 3 Regulations and agrees to take appropriate action, as provided in an applicable provision of the subcontractor in this Section 3 clause, upon a finding that the subcontractor violates the regulations in Section 3 Regulations. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the Section 3 Regulations.

31.5 The Contractor will certify that any vacant employment positions, including training positions, that are filled (i) after the Contractor is selected but before the Contract is executed, and (ii) with persons other than those to whom the Section 3 Regulations require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under Section 3 Regulations. Noncompliance with HUD's Section 3 Regulations may result in sanctions, termination of this Contract for default, and/or debarment or suspension from future HUD assisted contracts.

Article 32 – Buy American

32.1 In the performance of this Contract, Contractor shall, as appropriate and to the greatest extent practicable, purchase, acquire, and/or use goods, products, and materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirement stated herein shall be included in all subcontracts.

32.1(a) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

32.1(b) "Manufactured products" means items and construction materials composed in whole or in part of nonferrous metals such as aluminum; plastics and polymer- based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

Article 33 – Miscellaneous Provisions

33.1 Governing Law. This Contract, and any dispute arising out of, relating to, or in connection with this Contract, shall be governed by and construed in accordance with the Laws of the

State of Indiana, without giving effect to any choice or conflict of law provision or rule (whether of the State of Indiana or of any other jurisdiction) that would cause the application of the Laws of any jurisdiction other than the State of Indiana.

33.2 Waiver. No delay or omission by a party in exercising any right under this Contract will operate as a waiver of that, or any other, right. A waiver or consent given by a party hereto on any occasion is effective only on that occasion and not any other.

33.3 Assignment. Neither party may assign this Contract without the other party's prior written consent. This Contract shall be binding upon and shall inure to the benefit of the parties and their respective successors and permitted assignees.

33.4 Descriptive Headings. The descriptive headings herein are inserted for convenience of reference only and are not intended to be part of or to affect the meaning or interpretation of this Contract.

33.5 Counterparts. This Contract may be executed in counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same Contract. At the Closing, signature pages of counterparts may be exchanged by facsimile or by electronic transmittal of scanned images thereof, in each case subject to appropriate customary confirmations in respect thereof by the signatory for the party providing a facsimile or scanned image.

33.6 Corporate Authorization. The Contractor has the requisite corporate power and authority to execute and deliver this Contract and to consummate the transactions contemplated hereby and to perform its obligations hereunder. The execution, delivery, and performance by Contractor of this Contract, and the consummation by Contractor of the transactions contemplated hereby, have been duly and validly authorized by Contractor's governing body and no other corporate proceedings on the part of Contractor are necessary to authorize this Contract or to consummate the transactions contemplated hereby or to perform its obligations hereunder.

33.6 Warranty. Contractor shall warrant all work performed and equipment for a period of one year following substantial completion. Contractor is required to submit notice of substantial completion at 90% of completion as determined by the schedule of values based on either milestone or unit completion percentage. Equipment warranties shall be assigned to the City of Muncie by the contractor.

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IN WITNESS WHEREOF, the City and Contractor have, through duly authorized representatives, hereby executed and entered into this Contract. The parties, having read and understand the foregoing terms of this Contract, do by their respective signatures dated below hereby agree to the terms thereof.

[CONTRACTOR NAME]

_____
[NAME OF REPRESENTATIVE, POSITION]

_____
[NAME OF REPRESENTATIVE, POSITION]

MUNCIE BOARD OF PUBLIC WORKS

_____
Linda Gregory

_____
Lola Mauer

_____
Ted Baker

ATTEST:

_____
Lacey Jones, Recording Secretary

APPROVED BY:

_____
Dan Ridenour, Mayor – City of Muncie

City of Muncie
Antidiscrimination Agreement

Legal Requirement

Per IC 5-16-6-1 Section. 1. Every contract for or on behalf of the state of Indiana or any of the municipal corporations thereof, for the construction, alteration, or repair of any public building or public work in the state of Indiana shall contain provisions by which the contractor agrees.

Agreement

The Contractor Hereby agrees to abide by and follow the provisions set forth in IC 5-16-6-1 as follows:

1. That in the hiring of employees for the performance of work under this contract or any subcontract hereunder, no contractor, or subcontractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, religion, color, sex, national origin or ancestry, discriminate against any citizen of the state of Indiana who is qualified and available to perform the work to which the employment relates;
2. That no contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, religion, color, sex, national origin or ancestry;
3. That there may be deducted from the amount payable to the contractor by the state of Indiana or by any municipal corporation thereof, under this contract, a penalty of five dollars ($5.00) for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the contract; and
4. That this contract may be cancelled or terminated by the state of Indiana or by any municipal corporation thereof, and all money due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this section of the contract.

Acknowledgement

I, _____ (print name), a duly authorized representative of _____ (print Contractor name) agree to follow the provisions of IC 5-16-6-1 for the duration of the contract with the City of Muncie

Signature: Date:

City of Muncie

Contractor and Consultant

Equal Employment Opportunity Agreement

(Company Name) : _____ (Print)

hereby agrees to the comply with executive order 11246 and Its following provisions in regards to it's employment practices with regard to submitting for and performing work for the City of Muncie.

Contractor agrees that they practice and will abide by the following.

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
2. The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
3. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer,

advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

5. The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

6. The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

7. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

8. The contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Company _____

Authorized Authority for Company _____
(sign)

Authorized Authority Name and Title
_____(print)

Date: