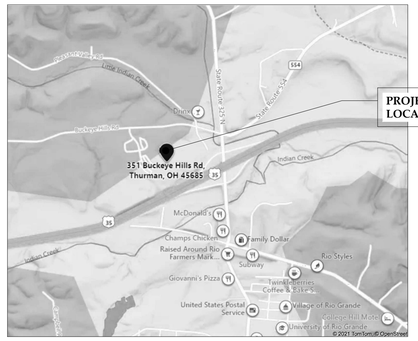
NEW DIESEL LAB BUILDING & CDL TRAINING COMPLEX at:

BUCKEYE HILLS CAREER CENTER

351 BUCKEYE HILLS RD. • RIO GRANDE, OHIO 45674

GENERAL PROJECT NOTES

1. COMPLETE SET. ALL CONTRACTORS AND SUBCONTRACTORS SHALL REVIEW COMPLETE SETS OF CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS ARE INTERCONNECTED AND SHALL NOT BE SEPARATED, READ, OR INTERPRETED SEPARATELY.
2. DISCREPANCY. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE NOTES, or WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.
3. DO NOT SCALE DRAWINGS. THE WRITTEN DIMENSION SHALL CONTROL ALL LOCATIONS. CONSULT WITH THE ARCHITECT FOR CLARIFICATION REGARDING ANY DISCREPANCIES.
   - 3.1. EXTERIOR DIMENSIONS ARE TO OUTSIDE FACE OF SHEATHING / OUTSIDE FACE OF FOUNDATION WALL.
   - 3.2. INTERIOR DIMENSIONS ARE TO FACE OF STUDS UNLESS NOTED OTHERWISE.
4. FIELD VERIFY. CONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS AND AREA ESTIMATES PRIOR TO COMMENCING WORK. SHOULD DIMENSIONAL DISCREPANCIES EXIST, OR IF NOTED DIMENSIONS DO NOT COORDINATE WITH SPACE REQUIREMENTS OF EQUIPMENT, ETC., IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING. OBTAIN WRITTEN RESPONSE FROM THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
5. SITE SURVEY. SITE BOUNDARY LINES, BOUNDARY DIMENSIONS, BOUNDARY DECLINATIONS, AND EXISTING GRADES ARE BASED UPON THE SITE SURVEY WHICH WAS PROVIDED BY THE OWNER FOR REFERENCE ONLY. THE CONTRACTORS SHALL BE DEEMED TO HAVE INSPECTED THE SITE AND SATISFIED THEMSELVES AS TO THE ACTUAL GRADES, LEVELS, DIMENSIONS AND DECLINATIONS AND THE TRUE CONDITIONS UNDER WHICH THE WORK SHALL BE PERFORMED.
6. CODES AND REGULATIONS. ALL CONSTRUCTION AND MATERIALS SHALL BE IN STRICT COMPLIANCE WITH THE MOST RECENT EDITIONS OF ALL LOCAL AND STATE BUILDING CODES AND REGULATIONS, AS WELL AS ALL OTHER SPECIFIC OR IMPLIED APPLICABLE REGULATIONS, INCLUDING HEALTH AND SAFETY REQUIREMENTS, AS MAY BE IMPLIED OR STATED WITH ISSUANCE OF THE BUILDING PERMIT.
7. SAFETY. THE ARCHITECT IS NOT ENGAGED IN, AND DOES NOT SUPERVISE, CONSTRUCTION. IT IS SOLELY THE RESPONSIBILITY OF EACH CONTRACTOR TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. INCLUDING THE POSTING OF REQUIRED SIGNAGE AND NOTICES.
8. REQUIRED MEANS OF EGRESS SHALL BE MAINTAINED AT ALL TIMES DURING DEMOLITION, CONSTRUCTION, REMODELING, ALTERATIONS. OR ADDITIONS TO ANY BUILDING. EXISTING MEANS OF EGRESS NEED NOT BE MAINTAINED WHERE APPROVED TEMPORARY MEANS OF EGRESS ARE PROVIDED.
9. CONSTRUCTION MEANS AND METHODS.
   - 9.1. THE ARCHITECT and OWNER SHALL HAVE THE RIGHT TO RELY ON A LEVEL OF SKILL AND COMPETENCY FROM ALL INVOLVED CONTRACTORS, CONSULTANTS, AND TRADES WHICH IS CONSISTENT WITH LOCALLY ACCEPTED INDUSTRY STANDARDS.
   - 9.2. THE ARCHITECT HAS NO EXPERTISE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR FOR JOB SITE SAFETY DURING CONSTRUCTION.
   - 9.3. PROCESSING AND/OR APPROVING SUBMITTALS MADE BY THE CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, SHALL NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY THE ARCHITECT OF ANY RESPONSIBILITY FOR CONSTRUCTION OR SAFETY PROCEDURES.
10. EXISTING CONDITIONS. ALL SUBCONTRACTORS SHALL VISIT THE PROJECT SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS, COMPARE AND CONFIRM THE CONTRACT DOCUMENTS, SUBSEQUENT REQUIREMENTS, AND ALL REGULATORY AGENCY REQUIREMENTS APPLICABLE FOR COMPLETION OF THE PROPOSED WORK. IF VARIATIONS OR DISCREPANCIES ARE FOUND, SAME INFORMATION SHALL BE FURNISHED IMMEDIATELY, IN WRITTEN FORMAT, TO THE ARCHITECT. OBTAIN WRITTEN RESPONSE FROM THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
11. ERRORS, INCONSISTENCIES, OMISSIONS. THE CONTRACTORS SHALL CONSULT WITH THE ARCHITECT FOR CLARIFICATION REGARDING ERRORS, OMISSIONS, OR DISCREPANCIES IN THE CONTRACT DOCUMENTS. IF THE CONTRACTORS PERFORM ANY CONSTRUCTION ACTIVITY KNOWING IT INVOLVES A RECOGNIZED ERROR, INCONSISTENCY OR OMISSION OR IS UNCLEAR IN THE CONTRACT DOCUMENTATION WITHOUT NOTIFYING THE ARCHITECT IN WRITING, AND WITHOUT THE ARCHITECT'S ANSWER IN WRITING, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR SUCH PERFORMANCE AND SHALL BEAR A FULL AMOUNT OF THE ATTRIBUTABLE COST FOR CORRECTION.
12. DETAILS and WALL SECTIONS ARE INTENDED TO SHOW A METHOD OF ACCOMPLISHING THE WORK. MODIFICATIONS MAY BE REQUIRED TO SUIT THE JOB DIMENSIONS AND CONDITIONS. WHERE DETAIL OR INFORMATION IS NOT PROVIDED, THE CONTRACTORS SHALL USE CONVENTIONAL ACCEPTED PRACTICE. CONDITIONS REQUIRING NON-CONVENTIONAL DETAILING OR ADDITIONAL INFORMATION SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION. OBTAIN WRITTEN RESPONSE FROM THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
13. ERECTION PROCEDURES. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER IT IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE, AND TO ENSURE THE STABILITY OF THE BUILDING AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF ANY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE DOWNS, WHICH MIGHT BE NECESSARY. SUCH MATERIALS ARE NOT SHOWN ON THE DRAWINGS. FOLLOWING THE COMPLETION OF THE PROJECT, REDISTRIBUTION OF SUCH MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. BLOCKING. PROVIDE SUFFICIENT BLOCKING, HANGERS, SUPPORTS, FITTINGS, ETC. FOR SECURING OF ALL ITEMS WHETHER FURNISHED BY THE OWNER OR CONTRACTORS, INCLUDING RAILINGS, GUARDS, GRAB BARS, COUNTERS, SHELVING, CASEWORK, FURNISHINGS, ETC.
15. MANUFACTURER'S and INDUSTRY STANDARDS OF INSTALLATION SHALL BE FOLLOWED FOR GYPSUM WALL BOARD AND STEEL STUD WALL SYSTEMS.
16. MECHANICAL, PLUMBING, ELECTRICAL: THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS, AND FOR INSTALLING ALL NECESSARY BLOCKING, FRAMING OR GENERAL CONSTRUCTION TO FACILITATE INSTALLATION OF THESE SYSTEMS.
17. UNDERGROUND UTILITIES. SUBCONTRACTORS SHALL VERIFY ALL UNDERGROUND UTILITIES AND CONDITIONS WITH THE OWNER AND THE PROPER AUTHORITIES. CALL OUPS AT 811, TWO DAYS BEFORE DIGGING.
18. SCOPE OF WORK. ALL CONTRACTORS AND MATERIALS, LABOR AND OTHER PROCESSES ARE REQUIRED TO COMPLETE ALL CATEGORIES OF THE WORK INDICATED BY ALL OF THE CONTRACT DOCUMENTS, OR THAT WORK WHICH MAY BE OTHERWISE REFERRED TO IN THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION.
19. PERMITS. PRIOR TO COMMENCEMENT OF WORK, ALL PERMITS SHALL BE APPLIED FOR AND OBTAINED BY EACH SUBCONTRACTOR AND ALL APPLICABLE FEES SHALL BE PAID BY THE SUBCONTRACTOR. SUBCONTRACTORS SHALL SECURE ALL PERMITS AND INSPECTIONS.
20. MATERIAL STORAGE. SUBCONTRACTORS SHALL COORDINATE ON-SITE MATERIAL STORAGE WITH THE GENERAL CONTRACTOR.
21. CLEAN-UP. SUBCONTRACTORS SHALL KEEP THE JOB SITE NEAT AND ORDERLY, REMOVE SCRAP MATERIAL DAILY AND SHALL CLEAN THE SITE AND THE WORK THOROUGHLY UPON COMPLETION.



VICINITY MAP

NOTE:
THESE DRAWINGS ARE BASED ON:
KIRBY BUILDING SYSTEMS
124 KIRBY DRIVE PORTLAND, TN 37148
(615) 325-4165

AVAILABLE THROUGH:
RIEDEL-WILKS BUILDING STRUCTURES, INC.
420 7th AVENUE G HUNTINGTON, WV 25702
(304) 523-5452

BUILDING CODE DATA

APPLICABLE CODES:

BUILDING CODE:	2017 OHIO BUILDING CODE	ENERGY CODE:	2012 INTERNATIONAL ENERGY CONSERVATION CODE
ELECTRICAL CODE:	2017 NATIONAL ELECTRIC CODE	FIRE CODE:	2017 OHIO FIRE CODE
MECHANICAL CODE:	2017 OHIO MECHANICAL CODE	ACCESSIBILITY:	ANSI A117.1-2009
PLUMBING CODE:	2017 OHIO PLUMBING CODE		

PROJECT SUMMARY:

PROJECT DESCRIPTION:
- PROPOSED CONSTRUCTION OF A NEW 9,256 S.F. 1-STORY BUILDING
- PROPOSED CONSTRUCTION OF A NEW CONCRETE LOT WITH DOCK FOR COMMERCIAL TRUCK DRIVER TRAINING.

BUILDING SUMMARY:

CONSTRUCTION TYPE:
- II B = CMU & STEEL FRAME EXTERIOR WALLS, STEEL FRAME INTERIOR WALLS, STEEL ROOF TRUSSES, CONCRETE SLAB-ON-GRADE.
- 1 STORY
- NON-SPRINKLERED

NON-SEPARATED USE GROUPS:
- E EDUCATION (HIGH SCHOOL & ADULT CAREER CENTER)
- S-1 DIESEL VEHICLE MOTOR REPAIR SHOP

IN LIEU OF A MANUAL FIRE ALARM SYSTEM, HEAT DETECTORS ARE LOCATED IN THE GARAGE AREA. SMOKE DETECTORS ARE LOCATED IN THE CLASSROOM AND OFFICE.

MAX ALLOWABLE BUILDING HEIGHT = 55':
- ACTUAL = 24'-5"

MAX ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE:
- E = 2 ACTUAL = 1
- S-1 = 2 ACTUAL = 1

MAX ALLOWABLE AREA PER STORY, NON-SPRINKLERED:
- E = 14,500 S.F. ACTUAL = 650 S.F.
- S-1 = 17,500 S.F. ACTUAL = 7,596 S.F.

EGRESS SUMMARY:

OCCUPANT LOAD:
- E = 27 OCCUPANTS
- S-1 = 39 OCCUPANTS
- TOTAL = 66 OCCUPANTS

EGRESS:
- MIN. NUMBER OF REQUIRED EXITS = 2 ACTUAL = 2
- MAX. EXIT ACCESS TRAVEL DISTANCE = 200' ACTUAL = 103'

PLUMBING FACILITIES

HISTORICAL DATA SHOWS THAT APPROX. 85% OF THE BUILDING OCCUPANTS ARE MALE. THE FOLLOWING QUANTITIES ARE ADJUSTED FOR THIS RATIO.

	USE GROUP	OCCUPANT LOAD	FORMULA	CALCULATION REQ'D.	CALCULATION TOTAL	PROVIDED
FEMALES	E	4	WC=1/50	0.08	= 0.13	1 WC
	S-1	5	WC=1/100	0.05		
	E	4	LAV=1/50	0.08	= 0.13	1 LAV
	S-1	5	LAV=1/100	0.05		
MALES	E	23	WC=1/50	0.46	= 0.8	1 WC
	S-1	34	WC=1/100	0.34		
	E	23	LAV-1/50	0.46	= 0.8	1 LAV
	S-1	34	LAV=1/100	0.34		
D.F.		62	DF=1/100	0.62	= 0.62	1 D.F.
SERVICE SINK			1	1	= 1	1

INDEX OF DRAWINGS

ATTACHMENTS :
- PRE-ENGINEERED BUILDING (PEB) PLANS BY OTHERS.
- MECHANICAL COMPLIANCE CERTIFICATE.
- INTERIOR LIGHTING COMPLIANCE CERTIFICATE.

DESIGN LOADS

DESIGN LIVE LOADS

E UNIFORM LIVE LOAD =	100 PSF
S1 UNIFORM LIVE LOAD (LIGHT) =	125 PSF

WIND DESIGN DATA

BUILDING CATEGORY	1
WIND EXPOSURE CATEGORY =	B
ULTIMATE DESIGN WIND SPEED =	115 MPH
NOMINAL DESIGN WIND SPEED =	90 MPH
WIND IMPORTANCE FACTOR =	1.0
TOPOGRAPHIC EFFECTS =	NO

ROOF SNOW DESIGN DATA

MINIMUM ROOF LIVE LOAD =	20 PSF
DESIGN ROOF LIVE LOAD =	25 PSF
GROUND SNOW LOAD =	20 PSF
FLAT ROOF SNOW LOAD =	20 PSF
LOW SLOPE ROOF LOAD =	22 PSF
SNOW EXPOSURE FACTOR Ce =	1.0
SNOW LOAD IMPORTANCE FACTOR =	1.0
THERMAL FACTOR Ct =	1.0

SEISMIC DESIGN DATA

SEISMIC RISK CATEGORY =	II
SEISMIC USE GROUP =	1
SEISMIC DESIGN CATEGORY	B
DESIGN SPECTRAL RESPONSE =	Sds = 0.177 Sdi = 0.1056
MAPPED SPECTRAL RESPONSE ACCEL.=	Ss = 0.166 +/- St = 0.066
SITE CLASS	D
ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE	
BASIC SEISMIC-FORCE RESISTING SYSTEM = LIGHT FRAMED WALLS SHEATHED W/ WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE.	

CLIMATE and GEOGRAPHIC DATA

CLIMATE ZONE =	5
WINTER DESIGN TEMPERATURE =	5° F
FROST LINE DEPTH =	32"
CONCRETE WEATHERING =	SEVERE
AIR FREEZING INDEX =	LESS THAN 1500
DECAY PROBABILITY	SLIGHT to MODERATE
TERMITE INFESTATION =	MODERATE TO HEAVY
ASSUMED SOIL BRG. CAPACITY =	2,000 PSF ASSUMED

I, THOMAS W. COFFEY, HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.

THOMAS W. COFFEY
ARCHITECT LICENSE # 09779
EXPIRATION DATE 12/31/2023

JCKL
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COVER SHEET
BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX
351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

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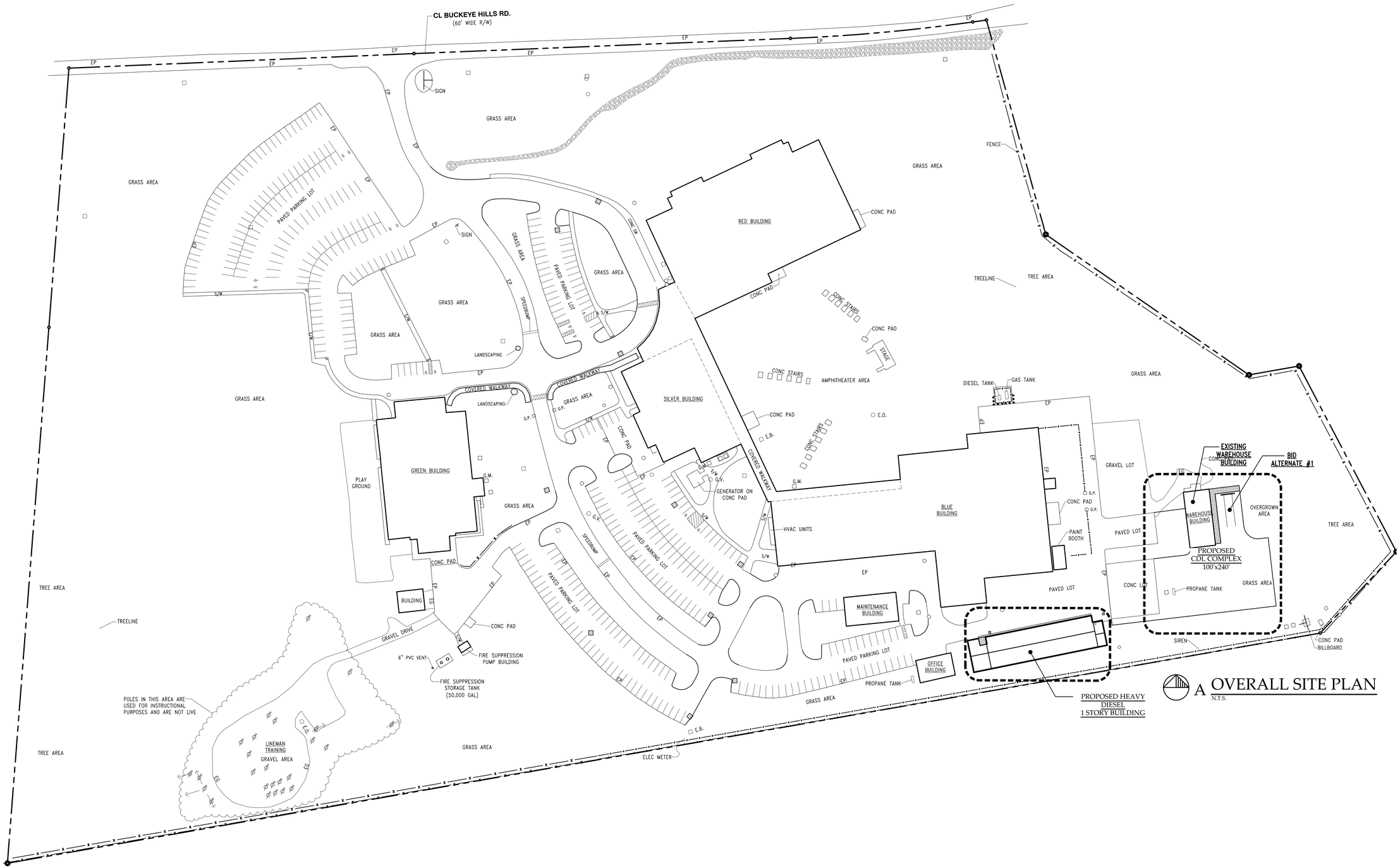

A OVERALL SITE PLAN
N.T.S.

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BUCKEYE HILLS CAREER CENTER

OVERALL SITE LAYOUT

DIESEL LAB & CDL TRAINING COMPLEX

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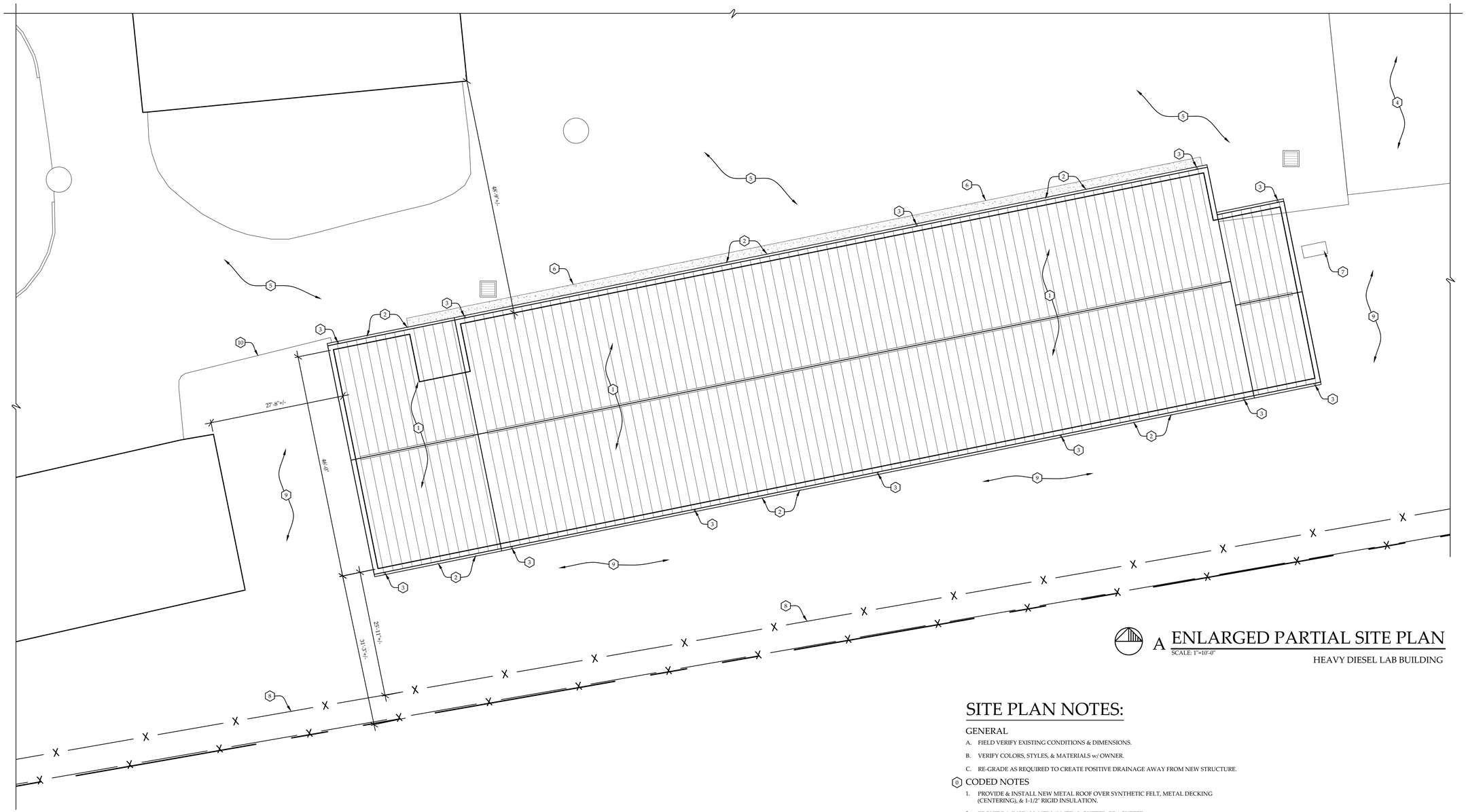

A ENLARGED PARTIAL SITE PLAN
SCALE: 1"=10'-0"

HEAVY DIESEL LAB BUILDING

SITE PLAN NOTES:

GENERAL

A. FIELD VERIFY EXISTING CONDITIONS & DIMENSIONS.

B. VERIFY COLORS, STYLES, & MATERIALS w/ OWNER.

C. RE-GRADE AS REQUIRED TO CREATE POSITIVE DRAINAGE AWAY FROM NEW STRUCTURE.

⓪ CODED NOTES

1. PROVIDE & INSTALL NEW METAL ROOF OVER SYNTHETIC FELT, METAL DECKING (CENTERING), & 1-1/2" RIGID INSULATION.
2. PROVIDE & INSTALL NEW 6" METAL GUTTER BRACKETED TO FASCIA AT 18" O.C.
3. PROVIDE & INSTALL NEW 3"x4" METAL DOWNSPOUT BRACKETED TO WALL AT 6'-0" O.C. WITH HEAVY-DUTY DOWNSPOUT BOOT w/ CLEAN OUT PORT. TIE TO UNDERGROUND DRAIN TILE.
4. EXISTING CONCRETE SLAB TO REMAIN.
5. EXISTING ASPHALT TO REMAIN. PATCH AS REQUIRED.
6. PROVIDE & INSTALL 5" DEEP CONCRETE APRON OVER 6" COMPACTED GRAVEL.
7. PROPOSED LOCATION FOR GREASE INTERCEPTOR. SEE CIVIL / PLUMBING PLANS.
8. EXISTING CHAIN LINK FENCE TO REMAIN.
9. EXISTING LAWN TO REMAIN. PATCH, REPAIR, & RESEED AS NEEDED DUE TO CONSTRUCTION.
10. EXISTING CURB TO REMAIN.

BASIS OF DESIGN:
BUILDING MATERIALS BASED UPON METAL BUILDING PROVIDED BY 'KIRBY BUILDING SYSTEMS' (124 KIRBY DR. PORTLAND, TN. 37148) & AVAILABLE THROUGH 'RIEDEL-WILKS BUILDING STRUCTURES INC.' (420 7th AVE. HUNTINGTON, WV 25702 PHONE:304-523-5453). FINAL COLORS TO BE SELECTED BY OWNER. FINAL BUILDING STRUCTURAL DESIGN TO BE COMPLETED WHEN CONTRACTOR IS SELECTED & ACTUAL BUILDING IS PURCHASED BY CONTRACTOR.

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ENLARGED BUILDING SITE LAYOUT

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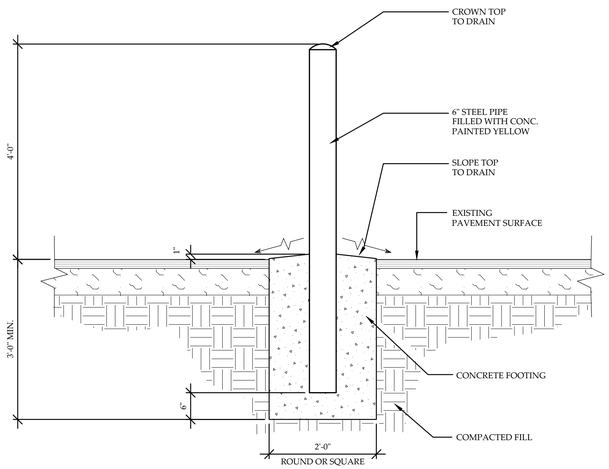


B BOLLARD DETAIL
SCALE: 3/4"=1'-0"

SITE PLAN NOTES:

GENERAL

A. VERIFY ALL FINISHES, MATERIALS, COLORS, & STYLES w/ OWNER.

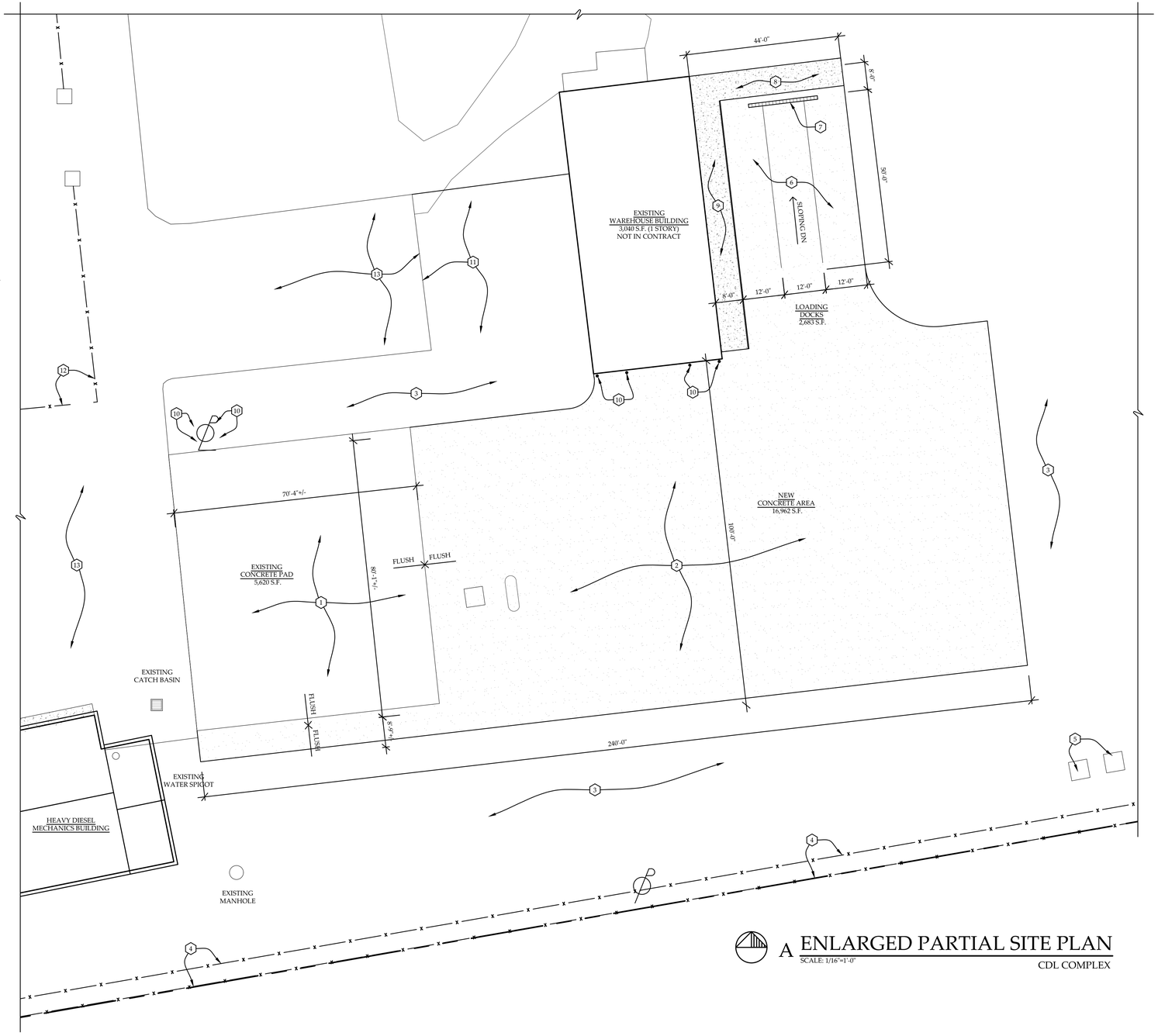
B. FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, & GRADING.

C. RE-GRADE AS REQUIRED TO CREATE POSITIVE DRAINAGE AWAY FROM NEW STRUCTURE.

D. SEE CIVIL PLANS FOR DETAILS & FURTHER INFORMATION.

SPECIFIC (#)

1. EXISTING CONCRETE PAD TO REMAIN.
2. PROVIDE & INSTALL NEW REINFORCED CONCRETE PAD. SEE CIVIL PLANS.
3. EXISTING LAWN AREA TO REMAIN.
4. EXISTING CHAIN LINK FENCE TO REMAIN.
5. EXISTING ELECTRIC TRANSFORMER & ELECTRIC METER FOR LARGE ADJACENT SITE SIGN TO REMAIN.
6. PROVIDE & INSTALL NEW RECESSED LOADING DOCK. SEE SHEET A0.4. BID ALTERNATE #1
7. PROVIDE & INSTALL RECESSED TRENCH DRAIN @ BOTTOM OF DOCK. BID ALTERNATE #1
8. PROVIDE & INSTALL CONCRETE LOADING DOCK FLUSH w/ EXISTING ADJACENT FINISH FLOOR OF WAREHOUSE. BID ALTERNATE #1
9. PROVIDE & INSTALL CONCRETE SURROUND / SIDEWALK FLUSH w/ EXISTING ADJACENT FINISH FLOOR OF WAREHOUSE. PROVIDE & INSTALL 42" TALL GUARDRAIL ALONG SIDES OF DOCK. BID ALTERNATE #1
10. PROVIDE & INSTALL NEW BOLLARD. SEE DETAIL B/C1.1
11. EXISTING GRAVEL LOT TO REMAIN.
12. EXISTING FENCE ENCLOSURE TO REMAIN.
13. EXISTING PAVED LOT TO REMAIN.



A ENLARGED PARTIAL SITE PLAN
SCALE: 1/16"=1'-0"
CDL COMPLEX

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CDL - ENLARGED SITE LAYOUT

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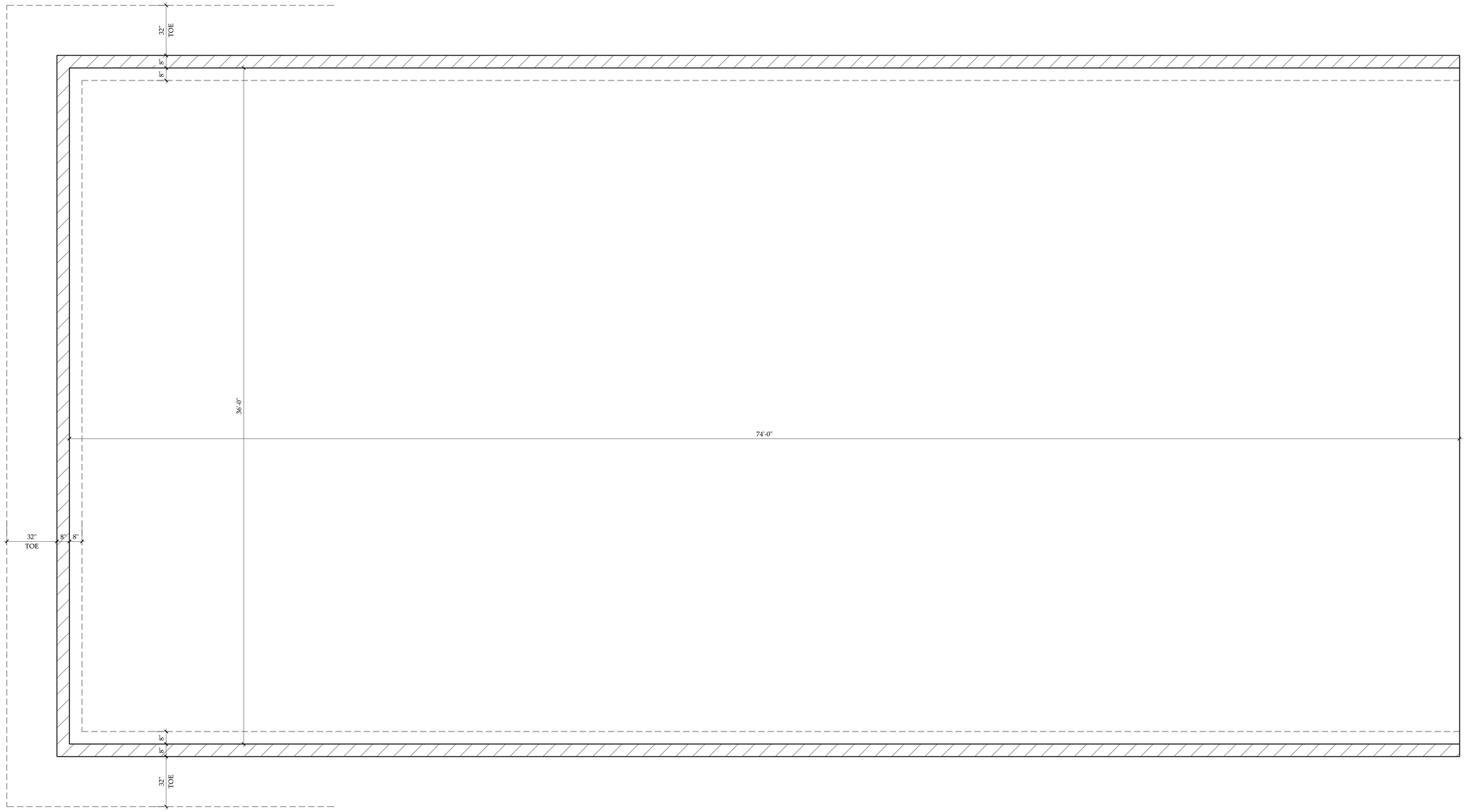

A LOADING DOCK FOUNDATION PLAN
SCALE: 3/8" = 1'-0"

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CDL - LOADING DOCK FOUNDATION PLAN

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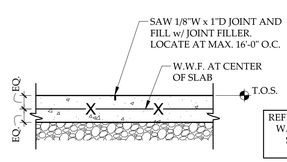
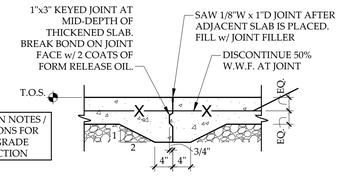
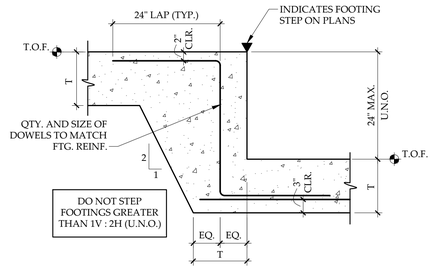


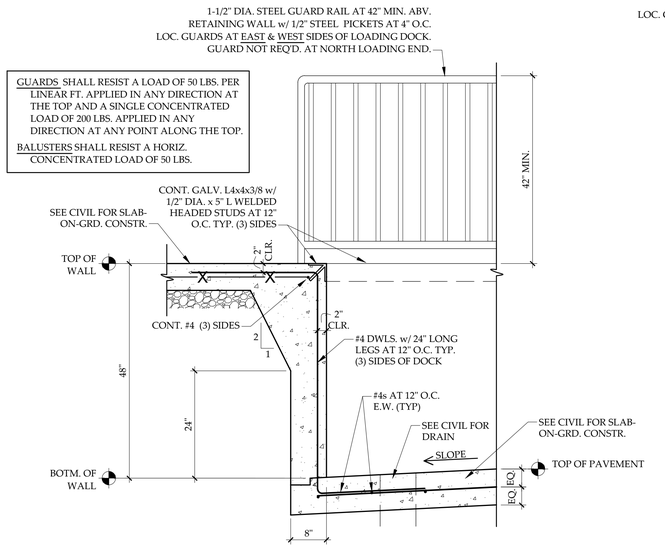
A TYP. CONTROL JOINT
SCALE: 3/4" = 1'-0"



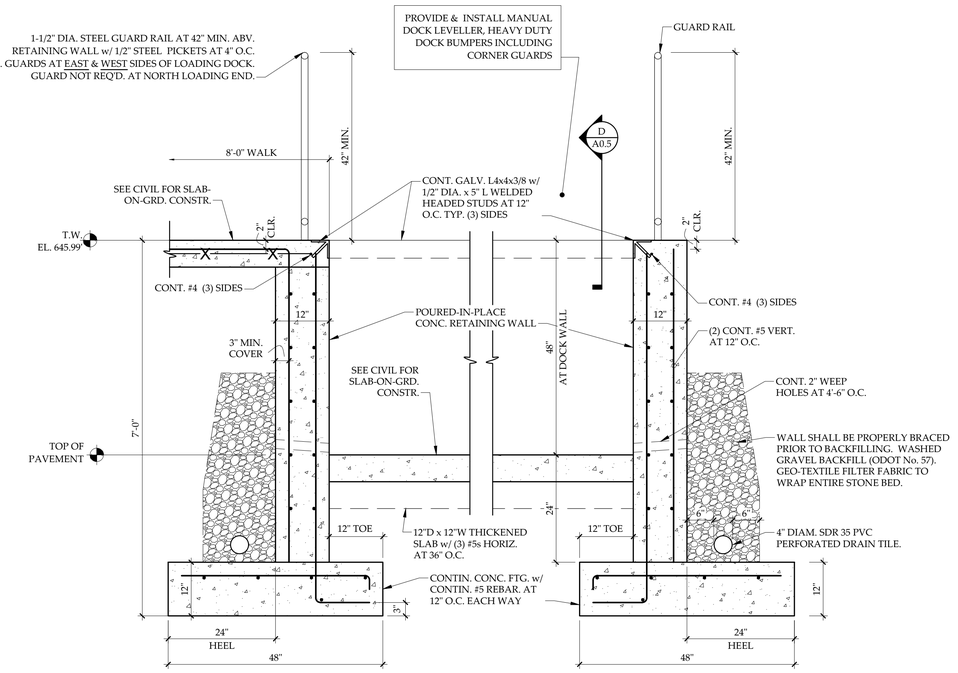
B TYP. CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"



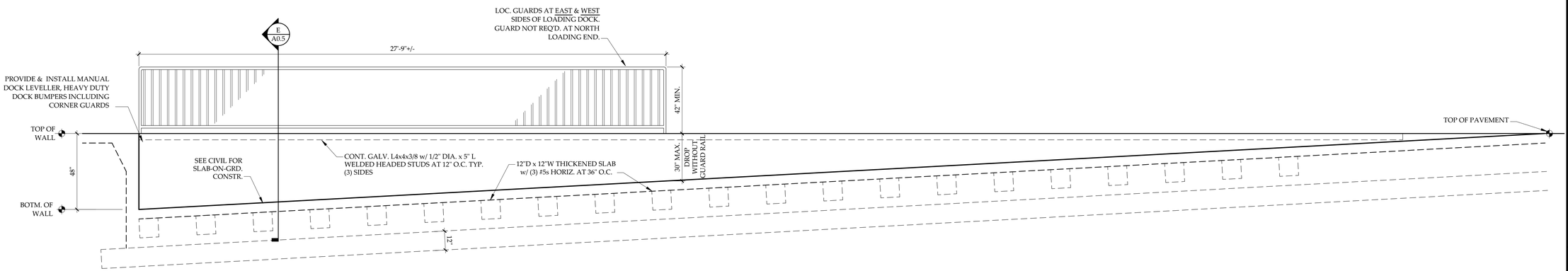
C TYP. STEPPED FOOTING
SCALE: 3/4" = 1'-0"



D SECTION AT LOADING DOCK
SCALE: 3/4" = 1'-0"



E SECTION AT LOADING DOCK
SCALE: 3/4" = 1'-0"



F LOADING DOCK PROFILE
SCALE: 3/8" = 1'-0"

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CDL - LOADING DOCK DETAILS

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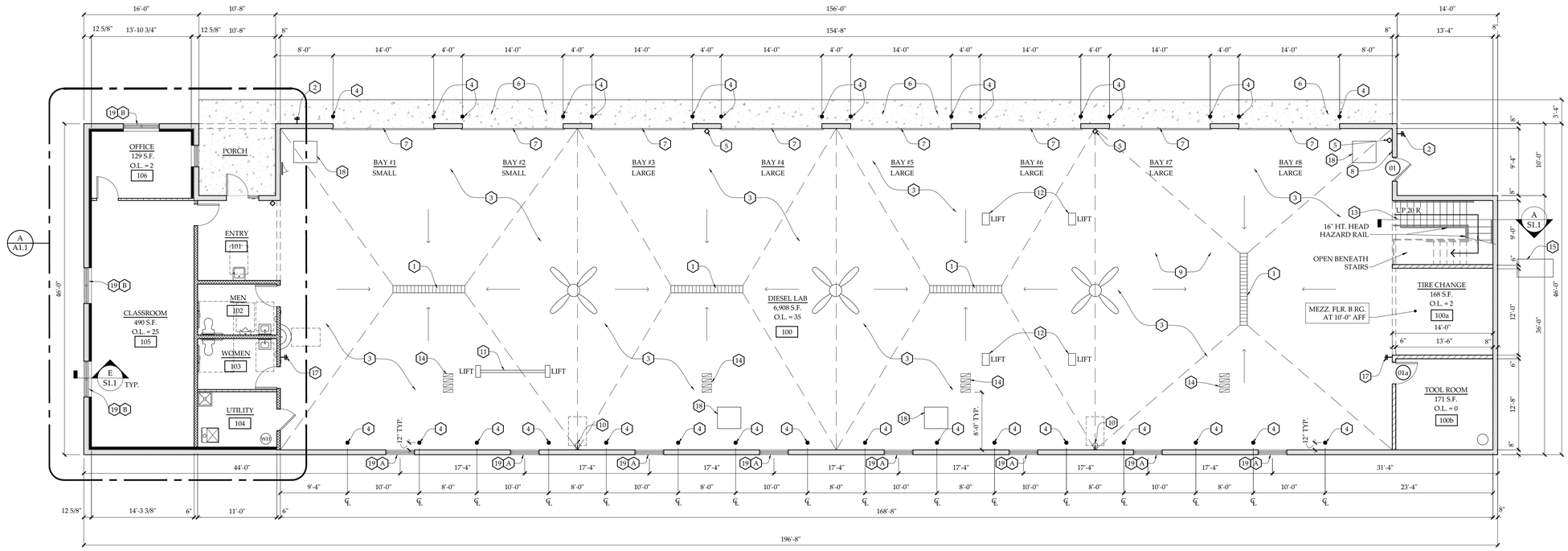
- ☐ REVISIONS:

A0.5



A FLOOR PLAN
SCALE: 1/8" = 1'-0"

WALL SCHEDULE:

NOTES:

PROVIDE & INSTALL MOISTURE RESISTANT GYPSUM BOARD IN BATHROOMS. LOCATE FRP AT INTERIOR SIDE OF ALL RESTROOM WALLS.

36" HT. ABV. GRADE, 8" DEEP REINFORCED POURED CONCRETE KNEE WALL. SEALED. PRE-ENGINEERED STEEL WALL PANEL ABOVE w/ R-19 INSUL. PREFIN. METAL FACING PANELS EACH SIDE. STYLES AND COLORS SELECTED BY OWNER. REFER TO PEB SET.

36" HT. REINFORCED POURED CONCRETE KNEE WALL. SEALED. PRE-ENGINEERED WALL PANEL ABV. (SEE NOTE ABOVE.) INTERIOR SIDE OF CONCRETE WALL SHALL HAVE 1" R-5 RIGID FOAM INSUL. 10'-6" HT. 3 5/8" STEEL STUDS AT 24" O.C. w/ R-13 BATT INSULATION w/ VAPOR BARRIER. (1) LAYER 5/8" GYPSUM WALL BD. AT INTERIOR SIDE. VINYL COVE BASE.

6" STEEL STUD WALL AT 16" O.C. w/ R-19 BATT INSUL. (1) LAYER 5/8" GYPSUM WALL BOARD EACH SIDE.

6" STEEL STUD WALL AT 16" O.C. w/ (1) LAYER 5/8" GYPSUM BOARD EACH SIDE.

3-5/8" STEEL STUD WALL AT 16" O.C. w/ 5/8" GYPSUM BOARD EACH SIDE.

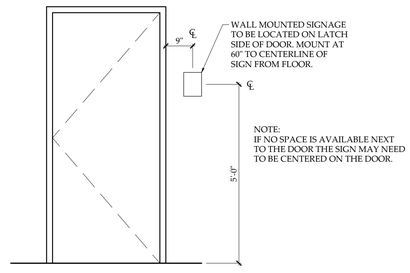
FLOOR PLAN NOTES:

GENERAL

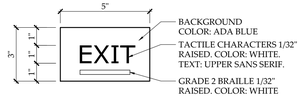
A. VERIFY COLORS, STYLES, & MATERIALS w/ OWNER.

CODED

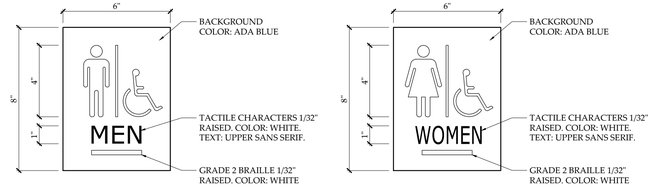
1. PROPOSED 1'-0" WIDE x 10'-0" LONG RECESSED FLUSH TRENCH DRAIN.
2. PROPOSED LOCATION FOR NEW FREEZE PROOF HOSE BIBB ON BUILDING. REROUTE EXISTING UNDERGROUND WATER LINE FROM EXISTING GARAGE.
3. PROVIDE & INSTALL NEW 6" DEEP CONCRETE SLAB OVER VAPOR BARRIER & 8" COMPACTED GRAVEL. SLOPE CONCRETE FLOOR TO DRAINS AS SHOWN. (TYPICAL OF DIESEL LAB FLOOR)
4. PROVIDE & INSTALL 6" DIAM. STEEL CONCRETE-FILLED BOLLARD w/ VINYL SLEEVE. ROYAL BLUE COLOR. SEE DETAIL B/A0.3
5. PROVIDE & INSTALL 10 LB. ABC FIRE EXTINGUISHER. EXACT LOCATION TO BE VERIFIED BY LOCAL FIRE INSPECTOR.
6. PROVIDE & INSTALL 6" DEEP CONCRETE APRON OVER COMPACTED GRAVEL.
7. PROVIDE & INSTALL 14'-0" WIDE x 14'-0" TALL INSULATED STEEL OVERHEAD GARAGE DOOR w/ VISION PANELS. CLOPLAY OR EQUAL. WALL MTD. DOOR OPENER.
8. PROVIDE & INSTALL EXIT TACTILE SIGN. SEE DETAIL C/A1.0
9. (OMITTED)
10. PROVIDE & INSTALL COMBINATION EYE WASH / EMERGENCY SHOWER.
11. PROVIDE & INSTALL VEHICLE LIFT (CAR / PICK-UP TRUCK). SECURE TO SLAB. VERIFY PLACEMENT w/ OWNER PRIOR TO INSTALLATION.
12. PROVIDE & INSTALL MOBILE HEAVY DUTY FOUR-POST HYDRAULIC VEHICLE LIFT. 14,000 LB. CAPACITY AND EXTENDED RUNWAY. BENDPAK HDS0-14P OR EQUAL
13. PROVIDE & INSTALL CONCRETE STEEL PAN STAIRS w/ 1-1/2" DIAM. METAL HANDRAIL AT 36" ABOVE NOSING w/ HANDRAIL EXTENSIONS AT TOP & BOTTOM. TREADS = 11" / RISERS = 7" MAX. MANUFACTURER TO PROVIDE SHOP DRAWINGS.
14. (4) OVERHEAD HOSE REELS w/ SPRING RETURNS. (SELECTED BY OWNER) MOUNT TO STRUCTURE. 8' HORIZ. CLEARANCE FROM ADJACENT WALL. EACH GROUPING INCLUDES: TWO 50' RETRACTABLE 120V ELECT. CORDS. TWO 25' MIN. RETRACTABLE AIR HOSES. 300 PSI. RATCHET TO LOCK HOSE AT DESIRED LENGTH.
15. BELOW-GROUND OIL AND SEDIMENT INTERCEPTOR w/ FLUSH GRATE. CONFIRM CAPACITY w/ OWNER.
16. 30 GAL AIR TANK. SULLAIR OR EQUAL.
17. WATER SPIGOT FOR BUCKET-FILLING AND HOSING FLOOR. (TYP. OF 2)
18. GAS-FUELED UNIT HEATER ABOVE (TYP. OF 4)
19. NARROW STILE, PRE-FIN., ALUMINUM-FRAMED STOREFRONT SYSTEM w/ THERMALLY-BROKEN, 1" DOUBLE GLAZING. LOW-E, U = 0.35. PROVIDE SAFETY GLAZING WHERE INDICATED. (BLACK FRAMES) 5/8" DRYWALL OPNG. AND SOLID SURFACE INTERIOR STOOL. A = 48"W x 40"H B = (2) 30"W x 60"H



D SIGNAGE ELEVATION
SCALE: 1/2"=1'-0"



C TACTILE EXIT SIGN
SCALE: 3"=1'-0"



B RESTROOM SIGNAGE
SCALE: 3"=1'-0"

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FLOOR PLAN AND DETAILS
BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX
351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

BUCKEYE HILLS CAREER CENTER

- ☐ PRELIMINARY 09-15-2022
- ■ BID SET 05-11-2023
- ☐ PERMIT SET
- ☐ REVISIONS:

A1.0

ROOM FINISH SCHEDULE: 000

SPACE DESIGNATION	DESCRIPTION	FLOORS: LVT RESILIENT	FLOORS: CONCRETE SLAB - SEALED	FLOORS: 100% FLAKE EPOXY	FLOORS: -	BASE: 6" VINYL COVE	BASE: 4" VINYL COVE	BASE: NONE	BASE: -	WALLS: 5/8" GYPSUM BD TAPE, PRIME, & PAINT	WALLS: POURED CONCRETE - PAINT	WALLS: INSULATED METAL WALL PANEL	WALLS: -	CEILING: EXPOSED STRUCTURE	CEILING: 2x4 ACOUSTICAL LAY-IN	CEILING: -	REMARKS
100	DIESEL LAV		●					●			●	●		●			
100a	TIRE CHANGE		●					●			●	●		●			
100b	TOOL ROOM		●					●			●	●		●			
101	ENTRY	●					●			●	●				●		
102	MEN'S RESTROOM			●		●				●					●		
103	WOMEN'S RESTROOM			●		●				●					●		
104	UTILITY		●					●		●					●		
105	CLASSROOM	●					●			●					●		
106	OFFICE	●					●			●					●		
200	MEZZANINE		●					●					●	●			

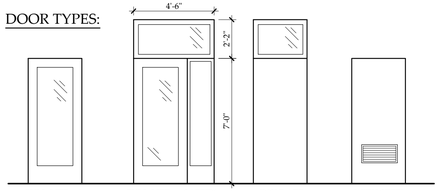
NOTES:

1. NEW VT TARTAN V5003 FLOORING IS TO BE 18"x72" PANELS. COLOR: STRAW #1016 / RUSH #1020. AVAILABLE THROUGH J&J FLOORING.

DOOR SCHEDULE: 00

DOOR TAG	DOOR SLAB SIZE. (CONFIRM ROUGH OPENING SIZE WITH MANUFACTURER.)	DOOR: TYPE	DOOR: COMP. FLUSH SOLID CORE WOOD	DOOR: COMP. INSULATED STEEL	DOOR: FINISH PAINTED	DOOR: FINISH PREFINISHED	FRAME: COMP. STEEL - WELDED	FRAME: COMP. STEEL - KNOCK-DOWN	FRAME: FINISH PAINTED	FRAME: FINISH PREFINISHED	HARDWARE: HARDWARE SET	HARDWARE: -	NOTES
01	3'-0" x 7'-0"	C		●		●	●			●	1		
01a	3'-0" x 7'-0"	D	●								4		NO LOUVER
02	3'-0" x 7'-0"	D	●		●	●		●		●	3		
03	3'-0" x 7'-0"	D	●		●	●		●		●	3		
04	3'-0" x 7'-0"	D	●		●	●		●		●	4		
05	3'-0" x 7'-0"	B		●		●	●			●	1		WITH INTEGRAL SIDELITE
06	3'-0" x 7'-0"	A	●		●	●		●		●	2		
07	3'-0" x 7'-0"	A	●		●	●		●		●	5		

DOOR TYPES:



HARDWARE SETS:

1 EXIT DOORS
(1) PUSH BAR EXIT DEVICE w/ EXTERIOR KEYED DEAD BOLT ANSI F97
(3) BUTT HINGES
(1) FLUSH CLOSER
(1) OVERHEAD STOP
(2) KICK PLATES
(1) ADA COMPLIANT THRESHOLD
(1) SWEEP
(1) WEATHERSTRIPPING
(1) TACTILE EXIT SIGN

2 CLASSROOM
(1) CLASSROOM LOCK ANSI F33
(1) LEVER HANDLE SET
(3) BUTT HINGES
(1) FLUSH CLOSER
(1) OVERHEAD STOP
(1) TACTILE ROOM NAME SIGN

3 PRIVATE RESTROOMS
(1) PRIVACY LATCH BOLT ANSI F22
(1) LEVER HANDLE SET
(3) BUTT HINGES
(1) OVERHEAD STOP
(1) TACTILE ROOM NAME SIGN
(2) 30"x18" CLEAR ACRYLIC KICK PLATES

4 UTILITY
(1) STOREROOM LOCK ANSI F07
(1) LEVER HANDLE SET
(3) BUTT HINGES
(1) OVERHEAD STOP
(1) TACTILE ROOM NAME SIGN

5 OFFICE
(1) PUSH BUTTON OFFICE LOCK ANSI F22
(1) LEVER HANDLE SET
(3) BUTT HINGES
(1) FLUSH CLOSER
(1) OVERHEAD STOP
(1) TACTILE ROOM NAME

DOOR HARDWARE GENERAL NOTES:

1. THIS HARDWARE SCHEDULE IS GENERIC. DETAILED INFORMATION AND SPECIFICATIONS SHALL BE PROVIDED BY CONTRACTOR.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING DOOR QUANTITIES, SWINGS, ETC. AND FOR PROVIDING A COMPLETE HARDWARE PACKAGE.
3. BALANCE OF HARDWARE NOT LISTED HERE SHALL BE PROVIDED BY DOOR SUPPLIER.
4. ALL HARDWARE SHALL BE ADA COMPLIANT.
5. COORDINATE KEYING SYSTEMS WITH OWNER.
6. OPTIONAL KEYCARD LOCK SYSTEM. COORDINATE WITH OWNER AND ELECTRIC PLANS.
7. HARDWARE FINISH AND STYLE TO BE SELECTED BY OWNER.
8. ADA COMPLIANT THRESHOLDS SHALL NOT EXCEED 1/2" HEIGHT. THRESHOLDS EXCEEDING 1/4" HEIGHT SHALL HAVE A MAX. 1:2 BEVEL.
9. EXIT SIGNS SHALL BE LOCATED AT ALL EXITS AND EXIT ACCESS DOORS (REFER TO ELECTRIC PLANS):
   - 9.1. SPACING = MAX. 100' BETWEEN. SIGNS.
   - 9.2. INTERNALLY ILLUMINATED AT ALL TIMES.
   - 9.3. BATTERY BACK-UP POWER FOR MIN. 90 MINUTES IN THE EVENT OF A POWER OUTAGE.

GENERAL DOOR NOTES:

1. ROUGH OPENINGS TO BE CONFIRMED WITH MANUFACTURER.
2. MAXIMUM EFFORT REQUIRED TO OPERATE DOORS SHALL NOT EXCEED:
   8.5 L.B.F. FOR EXTERIOR DOORS.
   5.0 L.B.F. FOR INTERIOR DOORS.
3. DOORS TO BE MIN. 3" (2 STUDS) FROM INTERSECTING WALLS UNLESS NOTED OTHERWISE.
4. FINISHES TO BE SELECTED BY OWNER.

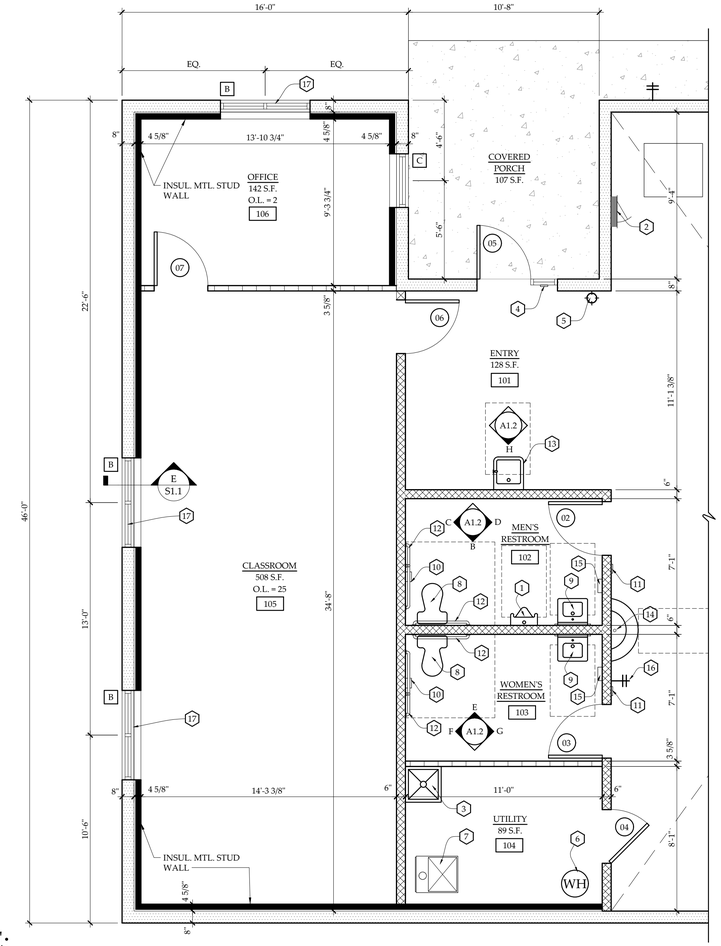
FLOOR PLAN NOTES:

GENERAL

A. VERIFY COLORS, STYLES, & MATERIALS w/ OWNER.

CODED 0

1. PROVIDE & INSTALL ADA COMPLIANT URINAL.
2. PROPOSED LOCATION FOR ELECTRIC PANEL.
3. PROVIDE & INSTALL MOP SINK & ACCESSORIES.
4. PROVIDE & INSTALL EXIT TACTILE SIGN. SEE DETAIL C/A1.0
5. PROVIDE & INSTALL 10 LB. ABC FIRE EXTINGUISHER. EXACT LOCATION TO BE VERIFIED BY LOCAL FIRE INSPECTOR.
6. PROPOSED LOCATION FOR NEW WATER HEATER.
7. PROPOSED LOCATION FOR NEW FURNACE.
8. PROVIDE & INSTALL NEW ADA COMPLIANT TOILET & ACCESSORIES.
9. PROVIDE & INSTALL WALL-HUNG ADA COMPLIANT SINK w/ LEVER HANDLES, FAUCET, & LAV GUARD.
10. PROVIDE & INSTALL ADA COMPLIANT TOILET PAPER DISPENSER. (CONTINUOUS PAPER FLOW)
11. PROVIDE & INSTALL RESTROOM DESIGNATION SIGNAGE. SEE DETAILS B/A1.0 & D/A1.0
12. PROVIDE & INSTALL STAINLESS STEEL ADA COMPLIANT GRAB BAR.
13. PROVIDE AND INSTALL WATER BOTTLE REFILLING STATION WITH SINGLE ADA COMPLIANT SPOUT. ELKAY # LZS8WSLK OR EQUAL. WITH CHILLER AND WATER FILTER. SPOUT HT. AT MAX. 36" A.F.F.
14. PROVIDE & INSTALL S.S. 36" DIAM. SEMI-CIRCULAR HAND WASH SINK w/ INTEGRAL BACK SPLASH. FOOT-OPERATED ACTIVATION. LIQUID SOAP DISPENSER.
15. PROVIDE & INSTALL AIR HAND DRYER. AUTOMATIC OR HAVE ADA COMPLIANT OPERABLE PARTS AT 42" A.F.F. MAX. 4" PROTRUSION FROM WALL.
16. WATER SPIGOT FOR BUCKET-FILLING AND HOSING FLOOR. (TYP. OF 2)
17. NARROW STILE, PRE-FIN., ALUMINUM-FRAMED STOREFRONT SYSTEM w/ THERMALLY-BROKEN, 1" DOUBLE GLAZING. LOW-E, U = 0.35. PROVIDE SAFETY GLAZING WHERE INDICATED. (BLACK FRAMES)
    5/8" DRYWALL OPNG. AND SOLID SURFACE INTERIOR STOOL.
    A = 48"W x 40"H B = (2) 30"W x 60"H

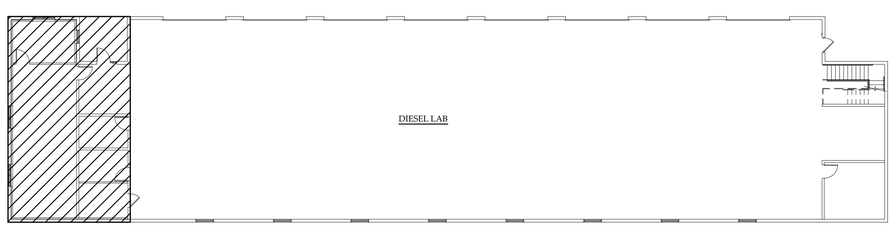


A ENLARGED PARTIAL FLOOR PLAN
SCALE: 1/4" = 1'-0"

WALL SCHEDULE:

NOTES:
PROVIDE & INSTALL MOISTURE RESISTANT GYPSUM BOARD IN BATHROOMS. LOCATE FRP AT INTERIOR SIDE OF ALL RESTROOM WALLS.

- 36" HT. ABV. GRADE, 8" DEEP REINFORCED POURED CONCRETE KNEE WALL SEALED. PRE-ENGINEERED STEEL WALL PANEL ABOVE w/ R-19 INSUL. PREFIN. METAL FACING PANELS EACH SIDE. STYLES AND COLORS SELECTED BY OWNER. REFER TO PEB SET.
- 36" HT. REINFORCED POURED CONCRETE KNEE WALL, SEALED. PRE-ENGINEERED WALL PANEL ABV. (SEE NOTE ABOVE.) INTERIOR SIDE OF CONCRETE WALL SHALL HAVE 1" R-5 RIGID FOAM INSUL. 10'-6" HT. 3 5/8" STEEL STUDS AT 24" O.C. w/ R-13 BATT INSULATION w/ VAPOR BARRIER. (1) LAYER 5/8" GYPSUM WALL BD. AT INTERIOR SIDE. VINYL COVE BASE.
- 6" STEEL STUD WALL AT 16" O.C. w/ R-19 BATT INSUL. (1) LAYER 5/8" GYPSUM WALL BOARD EACH SIDE.
- 6" STEEL STUD WALL AT 16" O.C. w/ (1) LAYER 5/8" GYPSUM BOARD EACH SIDE.
- 3-5/8" STEEL STUD WALL AT 16" O.C. w/ 5/8" GYPSUM BOARD EACH SIDE.



B KEY PLAN
SCALE: 1/16" = 1'-0"

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ENLARGED PARTIAL FLOOR PLAN & SCHEDULES
BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX
351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

BUCKEYE HILLS CAREER CENTER

- ☐ PRELIMINARY 09-15-2022
- ■ BID SET 05-11-2023
- ☐ PERMIT SET
- ☐ REVISIONS:

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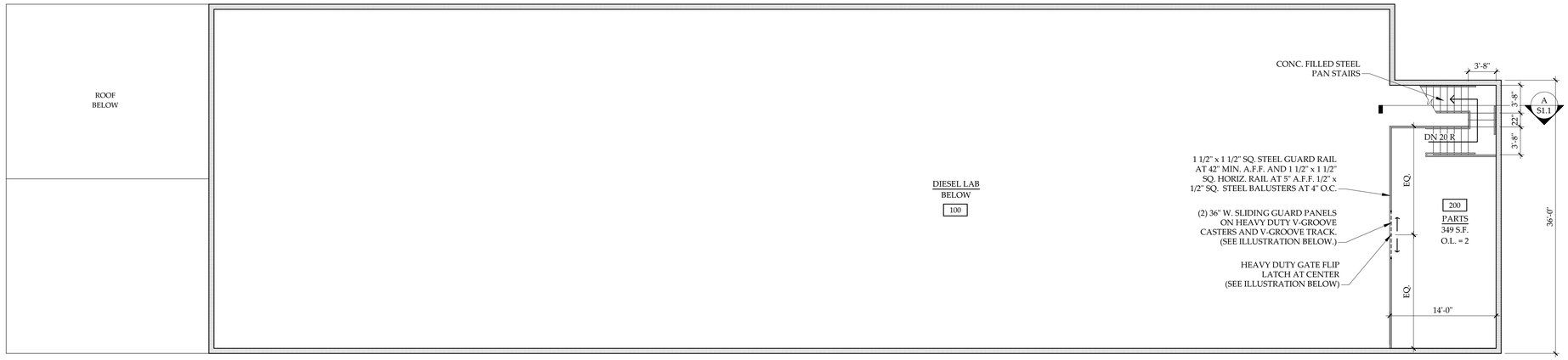

A MEZZANINE PLAN
SCALE: 1/8" = 1'-0"

B GATE CASTER DETAIL
SCALE: N.T.S.
SIMILAR

C GATE FLIP LATCH
SCALE: N.T.S.
SIMILAR

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BUCKEYE HILLS CAREER CENTER

MEZZANINE FLOOR PLAN

DIESEL LAB & CDL TRAINING COMPLEX

351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

- ☐ PRELIMINARY 09-15-2022
- ■ BID SET 05-11-2023
- ☐ PERMIT SET
- ☐ REVISIONS:

A1.2

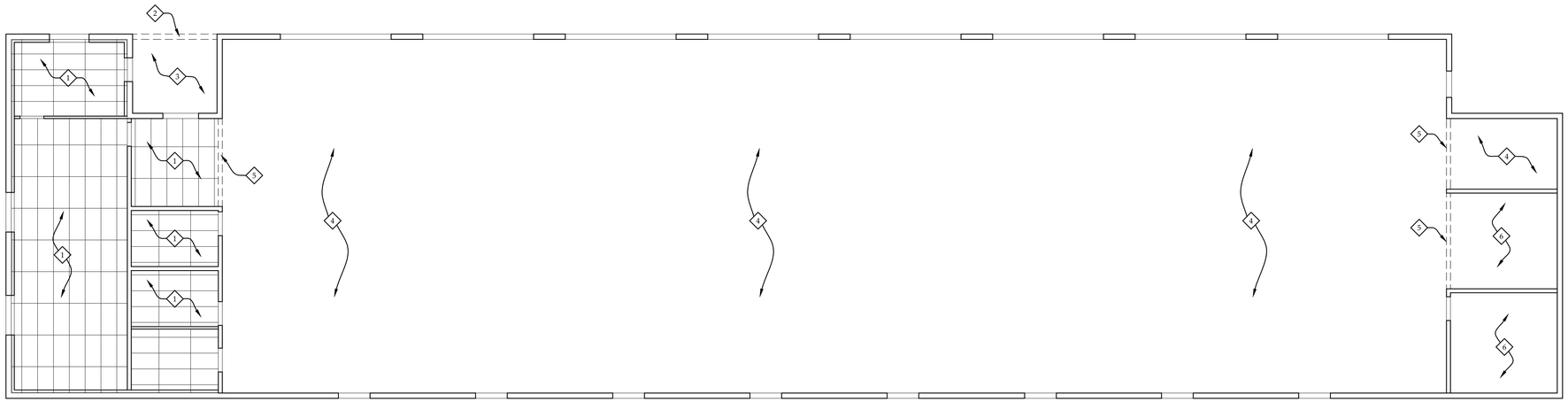
CEILING PLAN NOTES:

GENERAL

A. VERIFY COLORS, STYLES, & MATERIALS w/ OWNER.

CODED ◇

1. PROVIDE & INSTALL 2'x4' ACOUSTICAL CEILING TILE & GRID. BOTM. CLG. AT 10'-0"+/- A.F.F.
2. PROVIDE & INSTALL 12" HEADER WRAPPED w/ PRE-FIN. METAL.
3. PROVIDE & INSTALL HARDIE BOARD CEILING. PAINT.
4. EXPOSED ROOF INSULATION ABOVE.
5. PROVIDE & INSTALL HEADER w/ 5/8" GYPSUM BOARD (VERIFY w/ OWNER) OVER. TAPE, PRIME, & PAINT.
6. EXPOSED STRUCTURE ABOVE.



A CEILING PLAN
SCALE: 1/8" = 1'-0"

INTERIOR ELEVATION NOTES:

GENERAL

A. PROVIDE & INSTALL SOLID BLOCKING @ ALL WALL HUNG ITEMS & GRAB BARS.

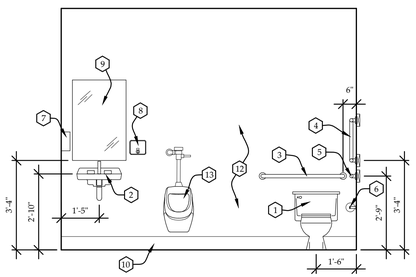
B. OWNER TO SELECT STYLES & COLORS OF ITEMS BELOW. SUBMIT CUT-SHEETS & SAMPLES WHERE APPLICABLE.

C. GRAB BARS MUST BE 1-1/4" - 2"Ø SHAPE, STAINLESS, STEEL, HAVE TEXTURED GRIPPING SURFACE, STRUCTURAL STRENGTH, FITTINGS, & ADA COMPLIANT INSTALLATION. MIN. 1-1/2" CLEARANCE BETWEEN FINISH WALL OR PARTITION @ ALL GRAB BARS.

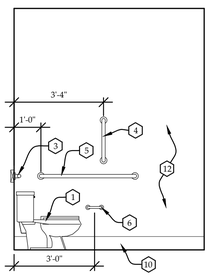
D. SEE PLUMBING SHEETS FOR FURTHER INFORMATION.

CODED ◇

1. WATER CLOSET, FLOOR-MOUNTED, TANK-STYLE VITREOUS CHINA TOILET. FLUSH CONTROL MUST HAVE AUTOMATIC OR ADA COMPLIANT OPERATION. HAND-OPERATED CONTROL MUST BE LOCATED ON THE OPEN SIDE OF TOILET. SEAT TO BE OPEN-FRONT, TOP AT 18" A.F.F. MIN. 60"x60" FLOOR SPACE.
2. PROVIDE & INSTALL WALL HUNG ADA COMPLIANT LAV. w/ FAUCET, ACCESSORIES, & LAV GUARD. FAUCET MUST BE AUTOMATIC OR HAVE ADA COMPLIANT LEVER HANDLE(S). INSULATE EXPOSED SUPPLY & DRAIN PIPES (NO SHARP OR ABRASIVE SURFACES UNDER LAVATORY)
3. PROVIDE & INSTALL 36" LONG STAINLESS STEEL ADA COMPLIANT GRAB BAR.
4. PROVIDE & INSTALL 18" LONG VERTICAL STAINLESS STEEL ADA COMPLIANT GRAB BAR.
5. PROVIDE & INSTALL 42" LONG STAINLESS STEEL ADA COMPLIANT GRAB BAR.
6. TOILET PAPER DISPENSER MUST HAVE ADA COMPLIANT OPERATION & CONTINUOUS PAPER FLOW.
7. AIR HAND DRYER TO BE AUTOMATIC OR HAVE ADA COMPLIANT OPERABLE PARTS AT 42" A.F.F. MAX. 4" PROTRUSION FROM WALL.
8. PROVIDE & INSTALL AUTOMATIC (OR ADA COMPLIANT OPERATION) SOAP DISPENSER. VERIFY w/ OWNER.
9. PROVIDE & INSTALL 24" WIDE x 36" TALL FRAMELESS PLATE GLASS MIRROR. MOUNT BOTTOM OF REFLECTIVE SURFACE @ 40" A.F.F.
10. PROVIDE & INSTALL 6" TALL COVED BASE.
11. PROVIDE & INSTALL NEW DOOR. REFER TO FLOOR PLAN & DOOR SCHEDULE ON SHEET A1.1 FOR FURTHER INFORMATION.
12. NON-ABSORBENT SURFACE SHALL BE LOCATED TO 4'-0" (MIN.) HEIGHT ON WALLS WHICH FALL WITHIN 2'-0" OF THE WATER CLOSET.
13. URINAL VITREOUS CHINA, ELONGATED. PROVIDE 30"W x 48" D CLEAR FLOOR SPACE CENTERED ON URINAL FOR FORWARD APPROACH. FLUSH CONTROL MUST HAVE AUTOMATIC OR ADA COMPLIANT OPERATION AT 44" MAX. A.F.F. FRONT RIM AT 17" MAX A.F.F.



B MEN'S RESTROOM
SCALE: 3/8"=1'-0"



C MEN'S R.R.
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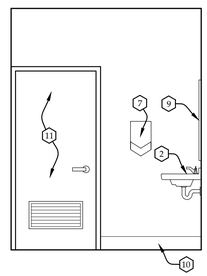

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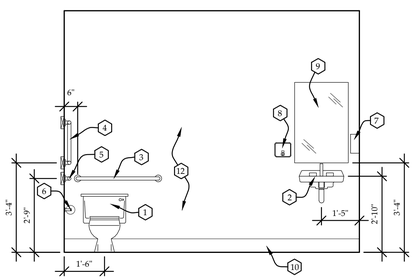
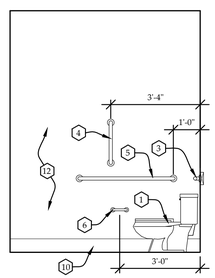
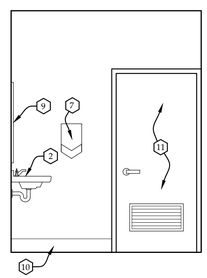


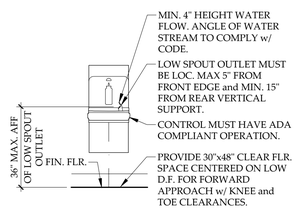
E WOMEN'S RESTROOM
SCALE: 3/8"=1'-0"



F WOMEN'S R.R.
SCALE: 3/8"=1'-0"



G WOMEN'S R.R.
SCALE: 3/8"=1'-0"



H ADA BOTTLE-FILLER / DF
SCALE: 3/8"=1'-0" WITH COOLER & WATER FILTER

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REFLECTED CEILING PLAN & INTERIOR ELEVS.

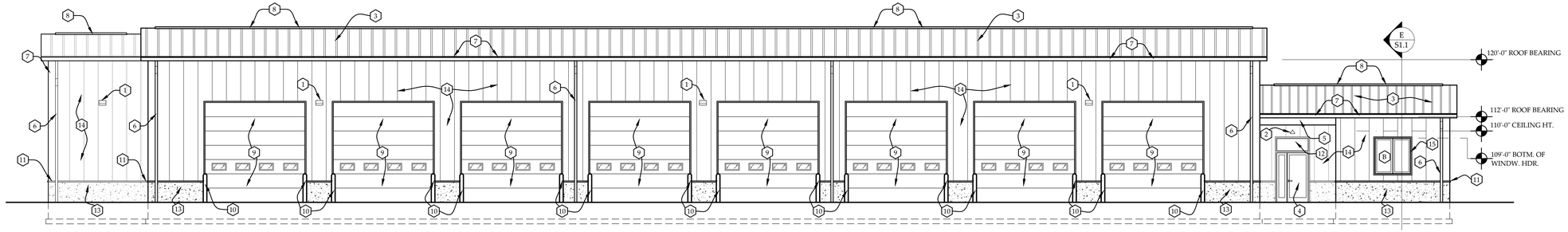
BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX

351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

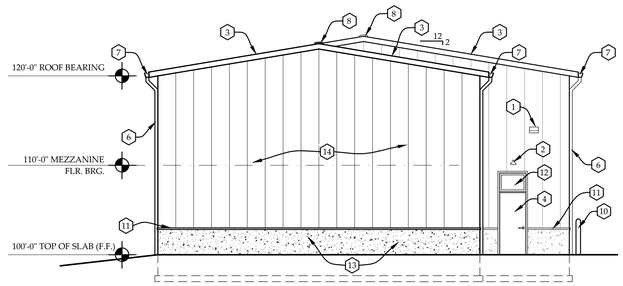
BUCKEYE HILLS CAREER CENTER

☐	PRELIMINARY	09-15-2022
■	BID SET	05-11-2023
☐	PERMIT SET	
☐	REVISIONS:	

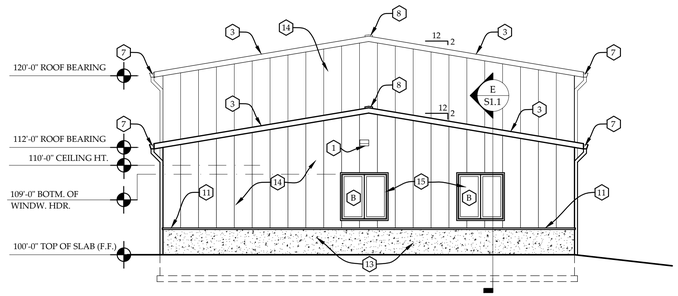
A1.3



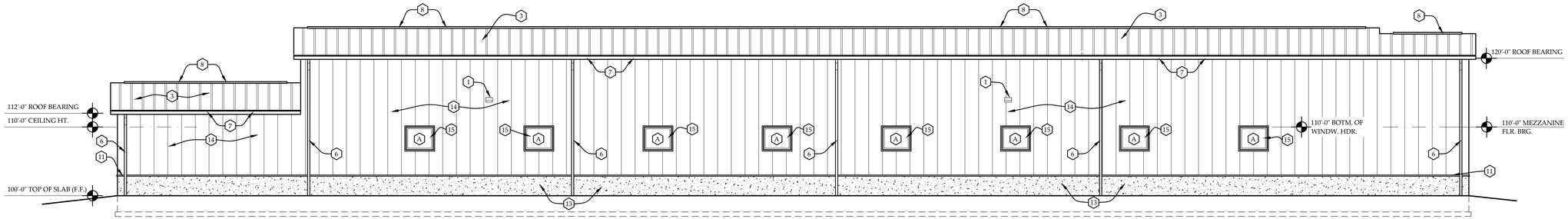
A FRONT ELEVATION (NORTH)
SCALE: 1/8" = 1'-0"



B LEFT SIDE ELEVATION (EAST)
SCALE: 1/8" = 1'-0"



C RIGHT SIDE ELEVATION (WEST)
SCALE: 1/8" = 1'-0"



D REAR ELEVATION (SOUTH)
SCALE: 1/8" = 1'-0"

EXTERIOR ELEVATION NOTES:

GENERAL ELEVATION NOTES

A. VERIFY COLORS, STYLES, & MATERIALS w/ OWNER.

CODED NOTES ⓪

1. PROPOSED LOCATION FOR LED WALL PACK.
2. PROPOSED LOCATION FOR EMERGENCY LIGHT WEATHER HEAD.
3. PROVIDE & INSTALL METAL ROOF. COLOR: SELECTED BY OWNER FROM STANDARD COLORS.
4. PROVIDE & INSTALL NEW INSULATED STEEL DOOR w/ SIDELITE WHERE SHOWN.
5. PROVIDE & INSTALL 12" HEADER WRAPPED w/ PRE-FINISHED METAL WRAP.
6. PROVIDE & INSTALL NEW 3"x4" METAL DOWNSPOUT BRACKETED TO WALL AT 6'-0" O.C. w/ HEAVY-DUTY, DOWNSPOUT BOOT w/ CLEAN OUT PORT. TIE TO UNDERGROUND DRAIN TILE BELOW.
7. PROVIDE & INSTALL NEW 6" METAL GUTTER. BRACKETED TO FASCIA AT 18" O.C.
8. PROVIDE & INSTALL CONTINUOUS METAL RIDGE VENT.
9. PROVIDE & INSTALL 14'-0"W x 14'-0"H INSULATED, OVERHEAD GARAGE DOOR w/ 24"W x 12"H VISION PANELS. CLOPLAY OR EQUAL. RIBBED DESIGN PANELS. PROVIDE & INSTALL WALL MTD. DOOR OPENER.
10. PROVIDE & INSTALL 6" DIAM. METAL CONCRETE-FILLED BOLLARD w/ VINYL SLEEVE. ROYAL BLUE COLOR. SEE DETAIL B/A0.3
11. PROVIDE & INSTALL PRE-FINISHED METAL DRIP EDGE & CAP. (GRAY TO MATCH WALL PANELS.)
12. PROVIDE & INSTALL FIXED, METAL-FRAMED, DOUBLE-GLAZED TRANSOM ABOVE DOOR. (BLACK FRAME)
13. PROVIDE & INSTALL POURED 8"W x 36"H REINF.CONCRETE KNEE WALL. SEALED.
14. PROVIDE & INSTALL RIBBED METAL SIDING.
15. NARROW STILE, PRE-FIN., ALUMINUM-FRAMED STOREFRONT SYSTEM w/ THERMALLY-BROKEN, 1" DOUBLE GLAZING. LOW-E, U = 0.35. PROVIDE SAFETY GLAZING WHERE INDICATED. (BLACK FRAMES)
    5/8" DRYWALL OPNG. AND SOLID SURFACE INTERIOR STOOL.
    A = 48"W x 40"H B = (2) 30"W x 60"H

BASIS OF DESIGN:
BUILDING MATERIALS BASED UPON METAL BUILDING PROVIDED BY 'KIRBY BUILDING SYSTEMS' (124 KIRBY DR. PORTLAND, TN. 37148) & AVAILABLE THROUGH 'RIEDEL-WILKS BUILDING STRUCTURES INC.' (420 7th AVE. HUNTINGTON, WV 25702 PHONE:304-523-5452). FINAL COLORS TO BE SELECTED BY OWNER. FINAL BUILDING STRUCTURAL DESIGN TO BE COMPLETED WHEN CONTRACTOR IS SELECTED & ACTUAL BUILDING IS PURCHASED BY CONTRACTOR.

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EXTERIOR ELEVATIONS
BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX
351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

BUCKEYE HILLS CAREER CENTER

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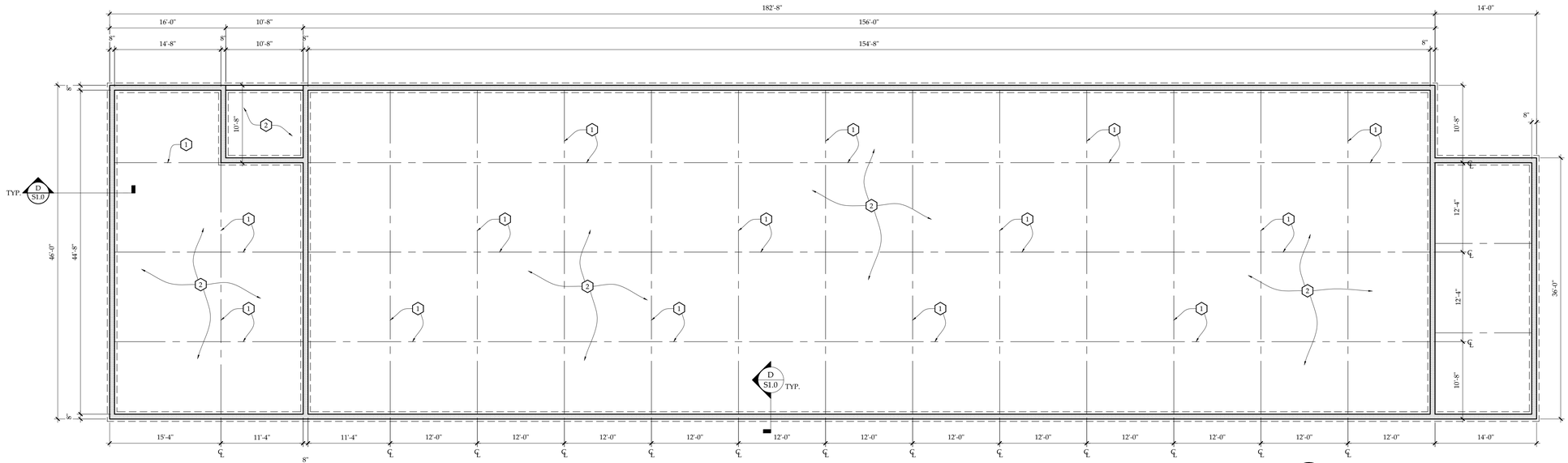
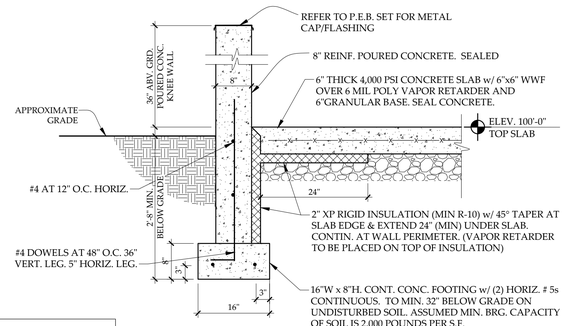


A FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



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

FOUNDATION WALL DESIGN WILL BE CONFIRMED WHEN THE P.E.B. IS DESIGNED.

FOUNDATION WALL SCHEDULE:

- 8" POURED CONCRETE WALL

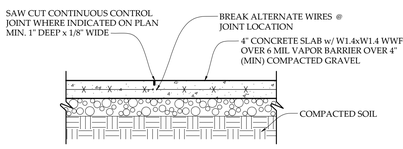
FOUNDATION PLAN NOTES:

GENERAL

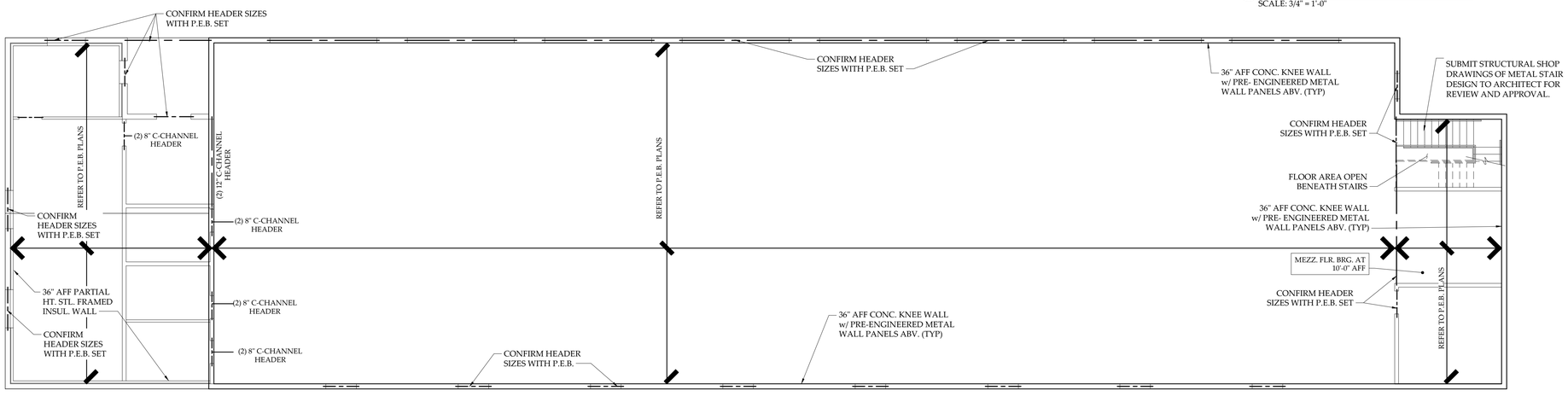
A. ALL WOOD IN CONTACT w/ MASONRY / CONCRETE IS TO BE PRESSURE TREATED.

CODED (0)

1. PROVIDE & INSTALL CONTROL JOINT w/ POLY URETHANE SEALANT. SEE DETAIL C/S1.0
2. PROVIDE & INSTALL NEW 4" DEEP CONCRETE SLAB w/ W1.4xW1.4 WWF OVER 6 MIL MOISTURE BARRIER OVER 4" (MIN) COMPACTED GRAVEL.



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



B FRAMING PLAN
SCALE: 1/8" = 1'-0"

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BUILDING FOUNDATION & FRAMING PLANS

BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX

351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

BUCKEYE HILLS CAREER CENTER

- ☐ PRELIMINARY 09-15-2022
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- ☐ REVISIONS:

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STAIRWAY GENERAL NOTES:

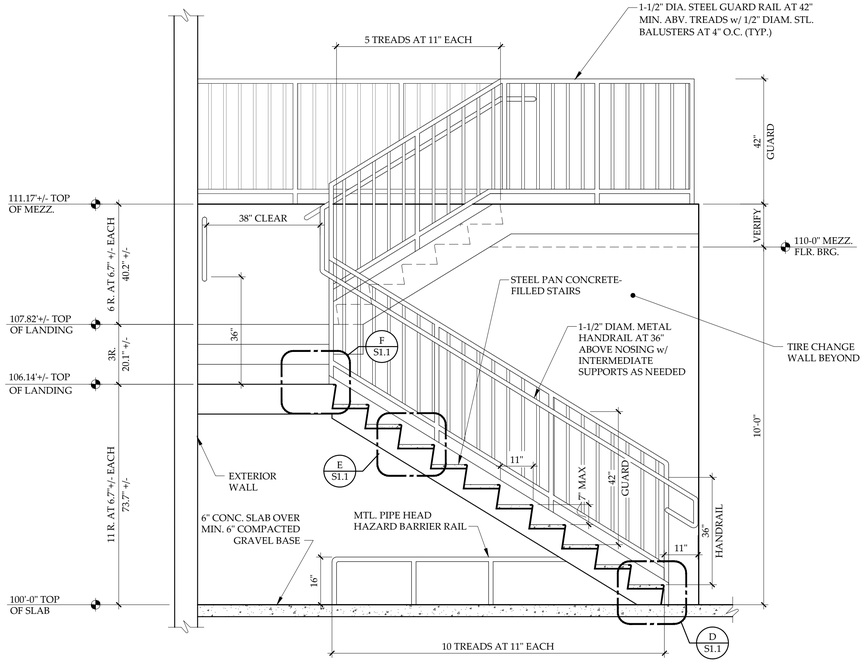
A. ACCESSIBILITY: NEW METAL STAIRWAY IS AN ADA COMPLIANT MEANS OF EGRESS.

B. METAL STAIRWAY SHALL BE FABRICATED BY OTHERS. SUBMIT SHOP DRAWINGS TO ARCHITECT FOR REVIEW. A "CERTIFICATE OF COMPLIANCE" SHALL BE PROVIDED BY THE FABRICATOR TO THE ARCHITECT AS REQ'D. BY OBC 1704.2.5.1.

C. FABRICATOR SHALL VERIFY FLOOR TO FLOOR ELEVATIONS PRIOR TO DESIGNING STAIRS.

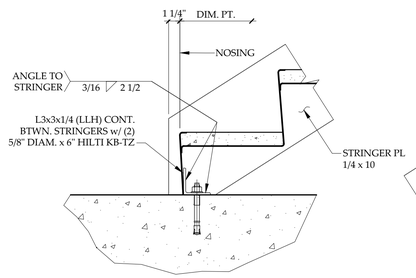
STAIRWAY DESIGN NOTES:

1. HEAD ROOM = MIN. 80".
2. RISERS = MAX. 7" HEIGHT. SOLID RISERS REQ'D. AT ACCESSIBLE STAIRS.
3. TREADS = MIN. 11" DEPTH WITH 1" NOSING. TREADS SHALL RESIST A UNIFORM LOAD OF 100 PSF AND A CONCENTRATED LOAD OF 300 LBS.
4. HANDRAILS ON EACH SIDE OF THE STAIRWAY SHALL BE TYPE I, 1-1/2" DIAM. CIRCULAR CROSS-SECTION WITH 1 1/2" MIN. CLEARANCE TO STRUCTURE.
5. HANDRAILS ARE LOCATED 34"-38" ABV. TREAD NOSINGS.
6. HANDRAILS ARE CONTINUOUS AND RETURN TO THE STRUCTURE OR CONTINUOUS TO THE ADJACENT FLIGHT.
7. HANDRAIL EXTENSIONS SHALL BE MIN. 12" HORIZONTAL BEYOND TOP RISER AND CONTINUE TO SLOPE FOR DEPTH OF ONE TREAD BEYOND BOTTOM RISER.
8. GUARDS ARE LOCATED 42" MIN. ABV. TREAD NOSINGS AND SHALL NOT ALLOW PASSAGE OF A 4" DIAM. SPHERE.
9. GUARDS AND HANDRAILS SHALL RESIST A LOAD OF 50 LBS. PER LINEAR FT. APPLIED IN ANY DIRECTION AT THE TOP AND A SINGLE CONCENTRATED LOAD OF 200 LBS. APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP.
10. BALUSTERS SHALL RESIST A HORIZ. CONCENTRATED LOAD OF 50 LBS.
11. HEAD HAZARD BARRIER SHALL BE LOCATED BENEATH THE STAIRS TO MAINTAIN MIN. 80" HEADROOM CLEARANCE. MOUNT HORIZONTAL RAIL ON THE STAIR STRINGER AT 16" HT. A.F.F.

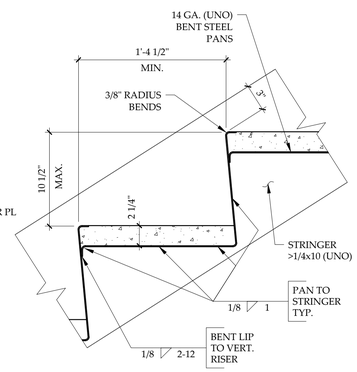


A AT FIRST FLOOR
SCALE: 1/2" = 1'-0"

NOTE:
SUBMIT STRUCTURAL SHOP DRAWINGS OF METAL STAIR DESIGN TO ARCHITECT FOR REVIEW AND APPROVAL.

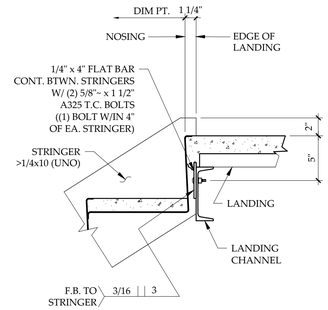


B CONNECTION TO SLAB
SCALE: 1 1/2" = 1'-0"

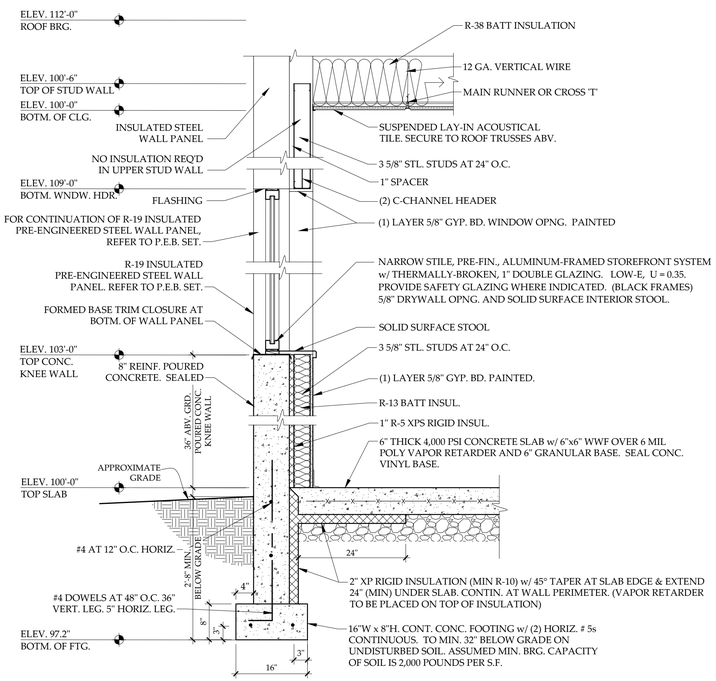


C TREAD & RISER CONSTRUCTION
SCALE: 1 1/2" = 1'-0"

NOTE: DETAILS MAY VARY PER FABRICATOR



D TOP CONNECTION TO STEEL LANDING
SCALE: 1 1/2" = 1'-0"



E EXTERIOR WALL SECTION
SCALE: 3/4" = 1'-0" AT CLASSROOM & OFFICE

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BUCKEYE HILLS CAREER CENTER

STAIR AND WALL SECTIONS

DIESEL LAB & CDL TRAINING COMPLEX

351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

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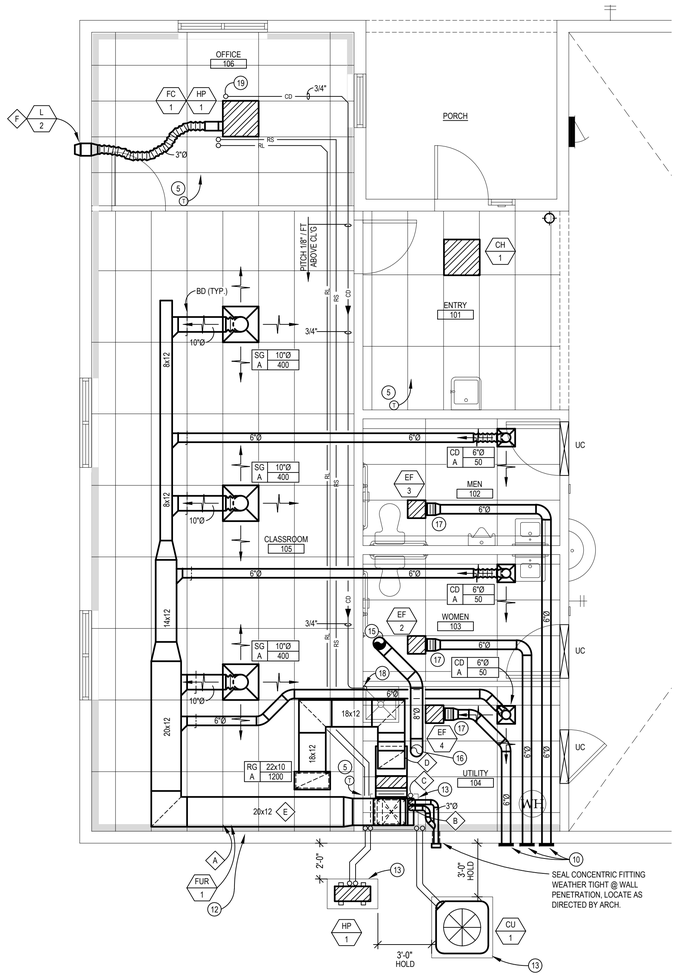
VENTILATION AIR REQUIREMENT

HVAC UNIT	AREA SERVED	ARCH SQ. FT.	OCCUPANT LOAD	REQUIRED VENTILATION	O.A. REQUIRED (CFM)	O.A. SUPPLIED (CFM)	REMARKS
FUR 1	CLASSROOM 105	508	35/1000 x 508 = 18	18(10) + (.12 x 508)	240	240	PER TABLE 403.4
	MEN 102	78	-	CODE EXHAUST	50	50	QUANTITIES EXHAUSTED
	WOMEN 103	78	-	CODE EXHAUST	50	50	QUANTITIES EXHAUSTED
	UTILITY 104	89	-	CODE EXHAUST	90	90	QUANTITIES EXHAUSTED
TOTAL						430 CFM	COMPLIES BY MECHANICAL VENTILATION THRU FUR-1
FC 1	OFFICE	142	5/1000 x 142 = 1	1(5) + (.06 x 142)	10	10	
TOTAL						10 CFM	COMPLIES BY MECHANICAL VENTILATION THRU FUR-1

NOTE:

BREATHING ZONE OUTDOOR AIR FLOW (CFM)
Vbz = RpPa + RaAz x 1.25
WHERE Az = ZONE FLOOR AREA
Pz = POPULATION
Rp = TABLE 403.3 OA / PERSON
Ra = TABLE 403.3 OA / AREA



ENLARGED MECHANICAL PLAN

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

MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
SA	SUPPLY AIR
EA	EXHAUST AIR
EF	EXHAUST FAN
CD	CEILING DIFFUSER
OA	OUTSIDE AIR
RA	RETURN AIR
RG	RETURN GRILLE
UC	UNDERCUT DOOR
FUR	FURNACE
HP	HEAT PUMP
CU	CONDENSING UNIT
UH	UNIT HEATER
PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
GC	GENERAL CONTRACTOR
T	THERMOSTAT
TOD	TOP OF DUCT
BOD	BOTTOM OF DUCT
	FLEXIBLE DUCT (10'-0" MAX. LENGTH)
S	SMOKE DETECTOR
	FLEXIBLE DUCT CONNECTOR
	DUCT W/ INTERNAL LINING
	MANUAL VOLUME DAMPER
FD	FIRE DAMPER
SD	SMOKE DAMPER
R	CHANGE IN ELEVATION RISE (R) OR DROP (D)
	ELBOW W/ DBL THICKNESS TURNING VANES
	FRESH/RETURN/EXHAUST AIR DUCT
	SUPPLY AIR DUCT
	CONNECT TO EXISTING
RS	REFRIGERANT SUCTION
RL	REFRIGERANT LIQUID

MECHANICAL CODED NOTES

A 18"x12" DROP AND TRANSITION TO CASED COIL 19"x16". PROVIDE FLEXIBLE CONNECTION IN DROP.

B 3" PVC FLUE AND 3" PVC COMBINATION AIR CONNECTION TO FURNACE WITH FLEXIBLE ADAPTER AND EXTEND TO CONCENTRIC VENT TERMINATION.

C PROVIDE 3/4" CONDENSATE DRAIN LINE CONNECTION TO COOLING COIL AND 3/4" CONNECTION TO HEATING SECTION WITH TRAPS AND COMBINE PIPES AND EXTEND 3/4" TO SPILL OVER MOP BASIN WITH AIR GAP.

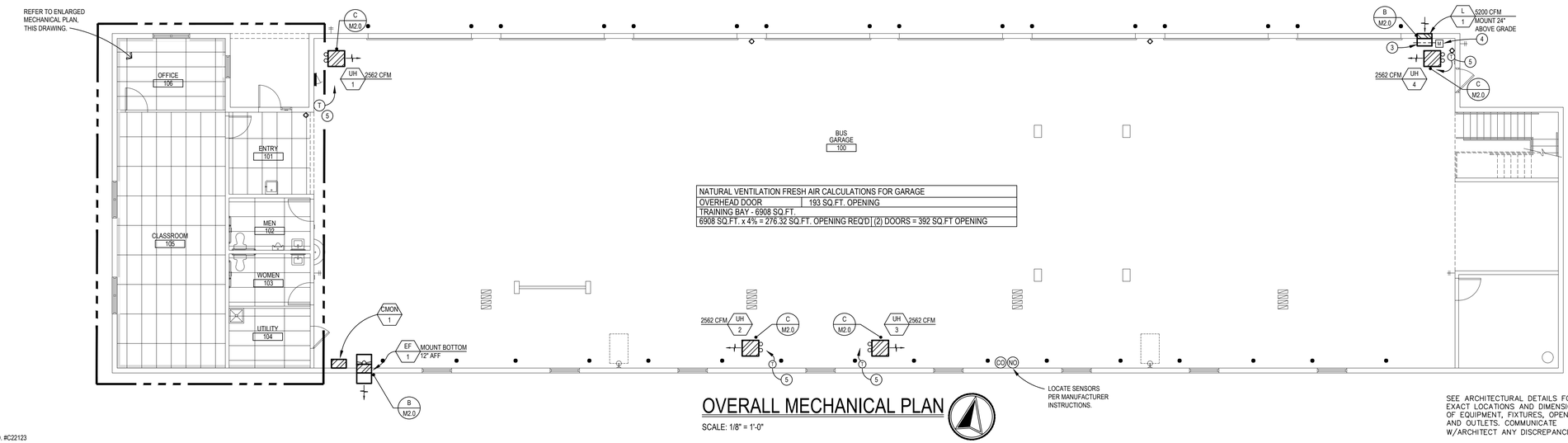
D 18"x12" DROP AND TRANSITION TO 21"x16" OPENING AT UNIT WITH FILTER RACK. PROVIDE FLEXIBLE CONNECTION IN DROP. LINE RETURN AIR FROM FILTER RACK TO 10 FEET UPSTREAM WITH 1/2" ACOUSTIC LINER.

E LINE SUPPLY AIR DUCT WITH 1/2" ACOUSTIC LINER FROM COOLING COIL CONNECTION TO 10 FEET DOWNSTREAM.

F TRANSITION FROM 3" DIAMETER INSULATED (R=8) FLEXIBLE DUCT TO WALL LOUVER, SEAL WALL LOUVER WEATHER TIGHT. INSULATE TRANSITION WITH 2" DUCT WRAP.

MECHANICAL CODED NOTES

1. NEW GAS FIRED UNIT HEATER TO BE SUSPENDED WITH ALL THREADED RODS AND NEOPRENE VIBRATION ISOLATORS FROM STRUCTURE FRAMING AS HIGH AS POSSIBLE. COORDINATE EXACT HEIGHT IN FIELD.
2. MECHANICAL CONTRACTOR SHALL EXTEND VERTICAL INTAKE AND EXHAUST PIPING THROUGH ROOF COMPLETE WITH CONCENTRIC TERMINATION KIT. INSTALL COMBUSTION AND VENT PIPING PER MANUFACTURER'S INSTALLATION REQUIREMENTS AND PIPE SIZES. SEAL ROOF PENETRATION WEATHERTIGHT.
3. INSTALL 12" PLENUM BEHIND LOUVER TO PLACE MOTORIZED DAMPER. COVER OPENING WITH 1"x1" WIRE MESH SCREEN.
4. INSTALL 120V MOTORIZED DAMPER IN LOUVER PLENUM BOX THAT WILL BE INTERLOCKED WITH EF-1.
5. THERMOSTAT FOR NEW UNIT HEATER TO BE MOUNTED AT 48" A.F.F.
6. MC TO PROVIDE AND INSTALL THERMOSTAT. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR. PROVIDE LOW VOLTAGE CONTROL WIRING AND MAKE SYSTEM FULLY FUNCTIONAL.
7. MC TO ROUTE REFRIGERANT LIQUID & SUCTION LINES FROM FURNACE (FUR). ROUTE PIPING TO EXTERIOR CONDENSING UNIT (CU) ON GROUND. MAKE FINAL CONNECTION AND TEST SYSTEM FOR REFRIGERANT FLOW. SEAL WALL PENETRATION WEATHER TIGHT. INSULATE SUCTION PIPING WITH 1" THICK BLACK ARMAFLEX INSULATION (TYPICAL) AND PAINT WITH TWO COATS OF UV RESISTANT PAINT.
8. 3/4" PVC CONDENSATE DRAIN FROM DX COIL AND DRAIN PAN TO BE ROUTED TO FLOOR DRAIN IN MECHANICAL ROOM AND TERMINATED WITH 2" AIR GAP. 3/4" CONDENSING FURNACE DRAIN ROUTED SIMILARLY.
9. FULL SIZE RETURN AIR DUCT CONNECTION AT FURNACE COMPLETE WITH FILTER RACK.
10. WALL EXHAUST CAP, COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS. ENSURE A MINIMUM 10'-0" CLEARANCE FROM ALL FRESH AIR INTAKES. COORDINATE WITH GC FOR SEALING WALL PENETRATION WEATHERTIGHT.
11. DOOR TO BE UNDER CUT 1". COORDINATE WITH GC.
12. MECHANICAL CONTRACTOR SHALL EXTEND REFRIGERANT PIPING THRU WALL (SEAL WALL PENETRATION WEATHER TIGHT) FROM CU AND CONNECT TO DX COOLING COIL ON FURNACE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND INSULATE SUCTION PIPING WITH 1" ARMAFLEX. FIELD PAINT ARMAFLEX WITH TWO (2) COATS OF ULTRA VIOLET RESISTANT FINISH.
13. 4" HIGH CONCRETE HOUSEKEEPING PAD BY MECHANICAL CONTRACTOR. MOUNT LEVEL IN ALL DIRECTIONS. NOTE: HOUSE KEEPING PAD TO BE A MINIMUM OF 6" LARGER THAN FUR / CU IN ALL DIRECTIONS. VERIFY EXACT MOUNTING LOCATION IN FIELD.
14. EXTEND COMBUSTION AIR AND VENT FROM FURNACE AND EXTEND THRU WALL COMPLETE WITH CONCENTRIC TERMINATION KIT. INSTALL COMBUSTION AND VENT PIPING PER MANUFACTURER'S INSTALLATION REQUIREMENTS AND PIPE SIZES. SEAL WALL PENETRATION WEATHERTIGHT.
15. 8"Ø INSULATED OUTSIDE AIR DUCT THROUGH ROOF WITH CAP AND SEAL ROOF PENETRATION WEATHER TIGHT, COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS. ENSURE A MINIMUM 10'-0" CLEARANCE FROM EXHAUST AIR.
16. 8"Ø OUTSIDE AIR CONNECTION TO RETURN DUCT OF FURNACE WITH MANUAL VOLUME DAMPER ABOVE MOTOR OPERATED DAMPER. ADJUST MANUAL DAMPER FOR OUTSIDE AIR REQUIRED AND WIRE MOTOR DAMPER TO OPEN WHEN FURNACE BLOWER RUNS.
17. TRANSITION TO EXHAUST FAN OUTLET SIZE AND PROVIDE FLEXIBLE CONNECTION.
18. 3/4" CONDENSATE DRAIN DROP ON WALL AND SPILL TO MOP SINK WITH AIR GAP.
19. 3/4" CONDENSATE DRAIN CONNECT TO CONDENSATE PUMP DISCHARGE AT UNIT AND RISE UP IN ORDER TO PITCH PIPE. INSTALL CONDENSATE DRAIN PER MANUFACTURER INSTRUCTIONS.
20. RUN REFRIGERANT SUCTION AND REFRIGERANT LIQUID PER MANUFACTURER INSTALLATION AND OPERATION MANUAL.
21. REFRIGERANT SUCTION AND REFRIGERANT LIQUID DROP ON WALL BEHIND FURNACE AND RUN THRU EXTERIOR WALL SLEEVE TO HP-1. SEAL WALL OPENING AT SLEEVE WEATHER TIGHT, INSULATE SAME AS NOTE 12.



NATURAL VENTILATION FRESH AIR CALCULATIONS FOR GARAGE	
OVERHEAD DOOR	193 SQ.FT. OPENING
TRAINING BAY - 6908 SQ.FT.	
6908 SQ.FT. x 4% = 276.32 SQ.FT. OPENING REQ'D [(2) DOORS = 392 SQ.FT OPENING	

OVERALL MECHANICAL PLAN

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

SEE ARCHITECTURAL DETAILS FOR EXACT LOCATIONS AND DIMENSIONS OF EQUIPMENT, FIXTURES, OPENINGS AND OUTLETS. COMMUNICATE W/ARCHITECT ANY DISCREPANCIES.

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PROFESSIONAL ENGINEER

BUCKEYE HILLS CAREER CENTER

MECHANICAL PLANS
BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX
351 BUCKEYE HILLS ROAD
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- ☐ PRELIMINARY
- ☐ BID SET
- ☒ PERMIT SET 04-17-2023
- ☐ REVISIONS:

M1.0

MECHANICAL GENERAL NOTES:

1. EQUIPMENT SHALL BE INSTALLED PER THE STATE CODE AND THE EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE MORE STRICT REQUIREMENT SHALL APPLY.
2. HANGERS, ANCHORS AND SUPPORTS SHALL SUPPORT THE PIPING AND THE CONTENT OF THE PIPING. HANGERS AND STRAPPING MATERIALS SHALL BE OF APPROVED MATERIALS THAT WILL NOT PROMOTE GALVANIC ACTION.
3. MECHANICAL VENTILATION WILL BE PROVIDED AS INDICATED ON THE VENTILATION SCHEDULE:
4. THE MECHANICAL VENTILATION SHALL OCCUR DURING OCCUPIED TIMES AND WILL BE BALANCED BY A CERTIFIED AIR BALANCING COMPANY TO ENSURE AIRFLOW RATES DESIGNED.
5. SUPPLY AIR DUCTWORK SHALL BE CLASSIFIED FOR 2" WC.
6. FLEXIBLE AIR DUCT SHALL BE TESTED IN ACCORDANCE WITH UL 181. FLEXIBLE DUCT SHALL NOT EXCEED 6 FEET IN LENGTH.
7. ALL DUCTWORK JOINTS SHALL BE SECURELY FASTENED AND SEALED WITH MASTICS.
8. DUCTWORK SHALL BE SUPPORTED AT MAXIMUM 8 FEET ON CENTERS. FLEXIBLE DUCTS SHALL BE SUPPORTED PER MANUFACTURER'S INSTALLATION MANUAL.
9. REGISTERS, GRILLES AND DIFFUSERS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. MECHANICAL CONTRACTOR TO FURNISH AND INSTALL BALANCING DAMPERS AT BOTH THE DIFFUSER AND AT THE BRANCH DUCT.
10. DUCT INSULATION SHALL HAVE FLAME INDEX OF 25 OR LESS AND SMOKE INDEX OF 50 OR LESS. EXTERNAL DUCT INSULATION FACTORY INSULATED FLEXIBLE DUCT SHALL HAVE IDENTIFIED THE MANUFACTURER, R-VALUE, FLAME AND SMOKE INDEX.
11. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE, THE MECHANICAL CONTRACTOR SHALL INCLUDE ALL NEEDED OFFSETS, CHANGES IN DIRECTION, TRANSITIONS, ETC. NEEDED FOR COMPLETE AND OPERATIONAL SYSTEMS.
12. PERFORM ALL WORK IN ACCORDANCE WITH THE, RULES & REGULATIONS OF THE APPROPRIATE STATE AND LOCAL BUILDING CODES AND SUBTITLES.
13. QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE ENGINEER PRIOR TO THE AWARDING OF THE CONTRACT. OTHERWISE THE ENGINEER'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.
14. IF CONFLICTS EXIST, PRIORITY OF LOCATION IN REFLECTED CEILING GRID SHALL BE AS FOLLOWS FROM HIGH TO LOW: LIGHTS, MECHANICAL.
15. THE MECHANICAL CONTRACTOR SHALL ACCURATELY COORDINATE THE SIZES AND LOCATION OF ALL DUCTWORK, PIPING, AND EQUIPMENT WITH THE LOCATION OF LIGHTING FIXTURES, STRUCTURAL MEMBERS, AND THE WORK OF ALL OTHERS TRADES TO PREVENT CONFLICT. DUCTWORK CONFLICTING WITH LIGHTING FIXTURE LOCATIONS SHALL BE MOVED AT THIS CONTRACTOR'S EXPENSE.
16. ALL DUCTWORK DIMENSIONS NOTED ON PLANS REFER TO THE CLEAR INSIDE OPENING REQUIRED.
17. MECHANICAL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR AND B.A.S. CONTRACTOR FOR FINAL EQUIPMENT BALANCING AND TESTING OF CONTROLS.
18. AIR BALANCE REPORT AND HVAC AUTOMATIC SHUTOFF TEST REPORT REQUIRED TO BE SUBMITTED TO INSPECTOR BY CONTRACTOR.
19. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE MOUNTED LEVEL IN ALL DIRECTIONS.

MISCELLANEOUS EQUIPMENT SCHEDULE

TAG	MANUFACTURER & MODEL	DESCRIPTION	REMARKS
CMON 1	CONSPE CN50 SERIES	DUAL GAS DETECTOR FOR CO & NO	• DETECTOR TO BE ETL & UL LISTED WITH DISPLAY SCREEN & AUDIBLE/VISUAL ALARM • AUDIBLE/VISUAL ALARM TO ACTIVATE IF CARBON MONOXIDE & NITROGEN DIOXIDE LEVELS EXCEED SET POINT LEVEL FOR LONGER THAN FIVE (5) MINUTES (ADJUSTABLE) • 120 / 60 /1 WITH TRANSFORMER TO 24V DC OPERATING VOLTAGE • PROVIDE ALL REQUIRED INTERLOCK RELAYS & INTERLOCK WIRING WHETHER 24 VOLT OR 120 VOLT TO CONNECT TO EF-1 AND L-1-MOTOR DAMPER • INSTALL UNIT PER MANUFACTURER INSTRUCTIONS • MOUNT AT 5 FEET ABOVE FINISH FLOOR • UNIT TO OPERATE GARAGE EXHAUST FAN ON LOW SPEED AND OPEN OUTSIDE MOTOR OPERATED DAMPER WHEN CARBON MONOXIDE LEVELS EXCEED 8 PPM & NITROGEN DIOXIDE LEVELS EXCEED 0.21 PPM (ADJUSTABLE). IF LOW SPEED DOES NOT REDUCE PPM'S THEN FAN TO MOVE TO HIGH SPEED UNTIL PPM LEVEL IS REDUCED. ONCE PPM'S ARE BELOW SET POINT FAN TO STOP & OUTSIDE AIR MOTOR OPERATED DAMPER TO CLOSE. • MOUNT DETECTOR SENSORS PER MANUFACTURERS I & O MANUAL • NEMA 4x ENCLOSURE (BRASCH BGS-CMO-1 AS EQUAL TO CONSPEC)

ELECTRIC HEATER SCHEDULE

TAG	MFGR. & MODEL #	TYPE	CFM	HEATING CAPACITY WATTS	HEATING CAPACITY BTU/HR	VOLTAGE	AMPS	REMARKS
CH 1	MARKEL F3483	CEILING	425	4 KW	10200	208 / 60 / 1	14.4	LOCATE IN DROP CEILING FRONT ENTRANCE

PROVIDE WITH FOLLOWING:
1. FAN DELAY TO DISAPATE HEAT
2. MANUAL RESET THERMAL LIMIT
3. ETL LISTED
4. TRANSFORMER WITH 24 VOLT RELAY AND WALL THERMOSTAT
5. DISCONNECT SWITCH
6. WHITE FINISH
7. WALL BOX ENCLOSING BACK SIDE OF UNIT

SIMILAR MANUFACTURER: Q-MARK, KING

SPLIT SYSTEM SCHEDULE

TAG	MANUFACTURER & MODEL NUMBER	CFM	ESP (IN.)	OUTDOOR AIR	WEIGHT (LBS)	HEATING CAPACITY INPUT (MBH)	HEATING CAPACITY OUTPUT (MBH)	HEATING CAPACITY EFF. %	MOTOR HP & VOLTAGE	FLA	MAX. FUSE (AMP)
FUR 1	BRYANT 926TB48080V17	1350	0.5	311	260	80 / 52	78 / 50	96.2	3 / 4 115V / 60 / 1	9.2	15

DX COOLING COIL DATA MODEL No.	TOTAL (MBH)	SENSIBLE (MBH)	E.A.T. (DB/WB)	AIR COOLED CONDENSING UNIT TAG	MODEL No.	NOM. TONNAGE	AMBIENT AIR TEMP.	SEER	VOLTAGE	MCA	MOCP	WEIGHT (LBS)	REMARKS
BRYANT CVPVA4217XMC	35.03	24.84	80/67	CU 1	BRYANT 127TAN03600W	3.0	95°	17.1	208 / 230V 1Ø	21.6	40	250	REFER TO NOTES BELOW

FURNISH WITH THE FOLLOWING:
1. PROGRAMMABLE HT/COOL T'STAT
2. FLUE AND COMBUSTION AIR CONCENTRIC VENT KIT (SCHEDULE 40 PVC) 2 SETS OF 1" THICK PLEATED
3. (MERV 8)THROWAWAY FILTERS
4. REFRIGERANT ACC. AND LINE SIZE KIT SUCTION LINE TO BE INSULATED
5. VARIABLE SPEED BLOWER AND COMPRESSOR
6. COMPRESSOR START ASSIST
7. SUPPORT FEET FOR OUTDOOR UNIT
8. CYCLE PROTECTION
9. EVAPORATOR FREEZE STAT
10. LOW AMBIENT PRESSURE SWITCH
11. ECO BER3, SMART THERMOSTAT
12. WINTER START CONTROL
13. PROVIDE FLASHING AND COUNTER FLASHING AT CONCENTRIC KIT
14. MAKE GAS CONNECTION TO UNIT WITH GAS COCK, UNION AND 6" DIRT LEG
15. AHRI CERTIFIED PERFORMANCE
16. 2 STAGE HEATING AND COOLING
17. ENERGY STAR LABEL

SIMILAR MANUFACTURER: JOHNSON/YORK, CARRIER, LENNOX

DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE

FC #	HP #	FAN COIL UNIT MANUFACTURER & MODEL NUMBER	HEAT PUMP MANUFACTURER & MODEL NUMBER	NOMINAL TONNAGE	ENERGY EFFICIENCY HSPF	ENERGY EFFICIENCY SEER	SUPPLY AIRFLOW (CFM)	HEATING CAPACITY AMBIENT (°FDB)	HEATING CAPACITY TOTAL (MBH)	HEATING CAPACITY EAT (°FDB)	COP
FC 1	HP 1	SAMSUNG AC009BNNDCH / AA	SAMSUNG AC009BXADCH / AA	.75	11.7	21	212 / 247 / 283	-13	2.9 TO 15.0	75	4.3

FC #	COOLING CAPACITY AMBIENT (°FDB)	COOLING CAPACITY TOTAL/SENS. (MBH)	COOLING CAPACITY EAT (°FDB/°FWB)	FAN COIL UNIT VOLTAGE	FAN COIL UNIT RLA	FAN COIL UNIT WEIGHT (LBS.)	HEAT PUMP VOLTAGE	HEAT PUMP MCA	HEAT PUMP MAX. BREAKER	HEAT PUMP WEIGHT (LBS.)	ACCESSORIES	NOTES
FC 1	95	9.1 / 6.8	80 / 67	208V-1PH	0.5	30	208V-1PH	9.1	15 AMP	110	1 - 3	1 - 16

ACCESSORIES (PROVIDED THROUGH MANUFACTURER)

1. CONDENSATE PUMP KIT (PUMP TO BE MOUNTED INTERIOR TO FAN COIL UNIT AND PROVIDE MINIMUM 29" OF CONDENSATE LIFT). (FAN COIL UNIT)
2. DRAIN PAN LEVEL SENSOR. (FAN COIL UNIT)
3. WIRED WIRELESS REMOTE CONTROLLER WITH FOLLOW ME OPTION.

NOTES

1. FAN COIL & HEAT PUMP DUCTLESS SPLIT SYSTEM HEAT PUMP TO PROVIDE HEATING AND COOLING TO LOW AMBIENT TEMPERATURES OF +23°F.
2. PROVIDE WIND BAFFLE, WIND FREE FASCIA PANEL.
3. FAN COIL UNIT RECEIVES POWER FROM HEAT PUMP THROUGH FIELD SUPPLIED INTERCONNECTED WIRING. 14 AWG x 3 POWER WIRING.
4. CONTRACTOR SHALL INSTALL ALL ACCESSORIES FURNISHED WITH UNIT.
5. R 410AREFRIGERANT PIPING SHALL BE SIZED AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS. REVIEW EXTENDED LENGTHS & SIZE PER MANUFACTURERS INSTALLATION MANUAL COMPLETE WITH ALL NECESSARY COMPONENTS. REFRIGERANT LINE SIZES/DIAMETERS TO BE SIZED SO THAT THERE IS NO COOLING OR HEATING CAPACITY LOSS, FINALIZE ROUTING LENGTHS AND RISES BEFORE ORDERING REFRIGERANT LINE SETS.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT(S).
7. REFER TO MECHANICAL SPECIFICATIONS FOR REFRIGERANT PIPING AND CONDENSATE DRAIN PIPING INSULATION REQUIREMENTS.
8. CONDENSATE HIGH WATER ALARM AT FAN COIL UNIT DRAIN PAN AND INTERLOCK TO FAN COIL TO SHUT DOWN ON ACTIVATION.
9. INVERTER COMPRESSOR
10. ELECTRONIC EXPANSION VALVE AT OUTDOOR UNIT TO CONTROL REFRIGERANT FLOW.
11. AUTO RESTART AFTER POWER LOSS.
12. BASE PAN HEATER EQUIPPED AS STANDARD.
13. KNOCK OUT FOR OUTSIDE AIR CAPACITY.
14. OUTDOOR UNIT SHALL HAVE SNOW ACCUMULATION PREVENTION OPTION TO PREVENT SNOW FROM DRIFTING AGAINST IDLE OUTDOOR UNIT.
15. ENERGY STAR, AHRI AND ETL LISTED OR LABELED.
16. 10 YEAR COMPRESSOR WARRANTY, 10 YEAR PARTS, 1 YEAR LIMITED LABOR.

GAS UNIT HEATER SCHEDULE

TAG	MANUFACTURER & MODEL NUMBER	TYPE	INPUT MBH	OUTPUT MBH	CFM	% EFF	FULL LOAD AMPS	MOCP	MOTOR HP & VOLTAGE	WEIGHT (LBS.)	VENT CONNECTION	COMBUSTION AIR INLET	REMARKS
UH 1	REZNOR UDAS-225	FAN TYPE	225	186.8	2882	83	7.5	15	1/4 HP 115V, 1Ø	250	5" ROUND	6" ROUND	SEE NOTES BELOW
UH 2	REZNOR UDAS-225	FAN TYPE	225	186.8	2882	83	7.5	15	1/4 HP 115V, 1Ø	250	5" ROUND	6" ROUND	SEE NOTES BELOW
UH 3	REZNOR UDAS-225	FAN TYPE	225	186.8	2882	83	7.5	15	1/4 HP 115V, 1Ø	250	5" ROUND	6" ROUND	SEE NOTES BELOW
UH 4	REZNOR UDAS-225	FAN TYPE	225	186.8	2882	83	7.5	15	1/4 HP 115V, 1Ø	250	5" ROUND	6" ROUND	SEE NOTES BELOW

NOTES: PROVIDE WITH THE FOLLOWING ITEMS:
1. VIBRATION ISOLATORS W / CEILING SUSPENSION KIT
2. TWO STAGE GAS VALVE
3. 115VOLT / 24VOLT CONTROL TRANSFORMER
4. FULL FAN GUARD
5. THERMOSTAT W / FAN SWITCH & GUARD
6. VENT & COMBUSTION AIR KIT W / CONCENTRIC ADAPTER
7. NATURAL GAS FIRED
8. PROVIDE MINIMUM 12" LONG STRAIGHT PIPE @ INLET & OUTLET CONNECTIONS
9. 409 STAINLESS STEEL HEAT EXCHANGER
10. TEFC MOTOR
11. REFER TO I & O MANUAL FOR INSTALLATION
12. BUILT IN DISCONNECT SWITCH

SIMILAR MANUFACTUREE: STERLING & TRANE

FAN SCHEDULE

TAG	MANUFACTURER & MODEL NUMBER	AREA SERVED	SERVICE	CFM	ESP " H2O	MOTOR HP & VOLTAGE	FLA	FAN RPM	FAN TYPE	WEIGHT (LBS.)	MAX. SOUND LEVEL	REMARKS
EF 1	GREENHECK AER-24-02-0320-VG	BUS GARAGE	VENTILATION EXHAUST	5200	0.6	2 HP 208 / 60 / 3	7.5	1545	WALL MTD.	300	23 SONES	1 THRU 4 AND 7 THRU 13
EF 2	GREENHECK SP-B110	103 WOMEN'S	TOILET EXHAUST	75	.375	80 WATTS 120V, 1PH	-	769	CLG MTD	-	1.0 SONES	1, 2, 3, 4 & 5
EF 3	GREENHECK SP-B110	102 MEN'S	TOILET EXHAUST	75	.375	80 WATTS 120V, 1PH	-	769	CLG MTD	-	1.0 SONES	1, 2, 3, 4 & 5
EF 4	GREENHECK SP-B110	104 UTILITY	GENERAL EXHAUST	75	.375	80 WATTS 120V, 1PH	-	769	CLG MTD	-	3.0 SONES	1, 2, 3, 4 & 5

NOTES: PROVIDE WITH THE FOLLOWING ITEMS:
1. DISCONNECT SWITCH.
2. VIBRATION ISOLATORS. (NEOPRENE)
3. AUTOMATIC BACKDRAFT DAMPER.
4. SOLID STATE SPEED CONTROL SWITCH (INTEGRAL MTD. FOR BALANCING ONLY)
5. SWITCH WITH LIGHT OPERATION.
6. WALL SWITCH.
7. WEATHERHOOD WITH BIRD SCREEN.
8. PROVIDE GREENHECK HOA CONTROLLER.
9. INTERLOCK EF-1 WITH L-1 MOTOR DAMPER AND CMON-1.
10. INLET OSHA GUARN.
11. ALUMINUM PROPELLER WITH VARI-GREEN MOTOR.
12. WALL SLEEVE.
13. FIELD FABRICATE FAN SUPPORT.

SIMILIAR MANUFACTURERS: COOK, PENNBARRY

DUCTWORK SCHEDULE

DUCT SYSTEM	SMACNA PRESSURE CLASS	SMACNA SEAL CLASS	DUCT MATERIAL	INSULATION
SUPPLY AIR DUCTWORK	2" W.C.	A	GALVANIZED STEEL	2" DUCT WRAP W / ASJ
OUTSIDE AIR DUCTWORK	1" W.C.	B	GALVANIZED STEEL	2" DUCT WRAP W / ASJ
RETURN AIR DUCTWORK	1" W.C.	B	GALVANIZED STEEL	1" DUCT LINER
EXHAUST AIR DUCTWORK	1" W.C.	C	GALVANIZED STEEL	NONE

NOTE: ALL DUCTWORK SIZES ARE AIRWAY DIMENSIONS

GRILLE, REGISTER AND DIFFUSER SCHEDULE

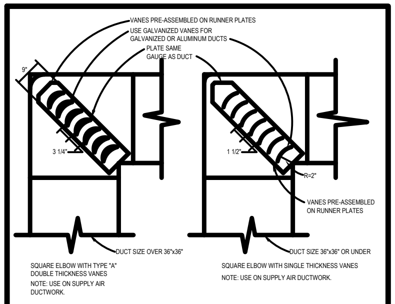
TAG	MANUFACTURER & MODEL NUMBER	CFM	AIR PATTERN	NECK SIZE	DAMPER	FRAME STYLE	PANEL SIZE	MAXIMUM NC LEVEL	FINISH	MATERIAL	REMARKS
CD A	PRICE SPD	AS NOTED	AS SHOWN	AS NOTED	OPPOSED BLADE	LAY-IN CEILING	24x24	30	WHITE	STEEL	TAG / NECK SIZE / CFM
CD B	PRICE SPD	AS NOTED	AS SHOWN	AS NOTED	OPPOSED BLADE	SURFACE MOUNTED	12x12	30	WHITE	STEEL	
RG A	PRICE 80D	AS NOTED	RETURN	AS NOTED	-	LAY-IN CEILING	24x24	30	WHITE	STEEL	
RG B	PRICE 80D	AS NOTED	RETURN	AS NOTED	-	LAY-IN CEILING	24x12	30	WHITE	STEEL	
SR A	PRICE 520D	AS NOTED	AS SHOWN	AS NOTED	OPPOSED BLADE	DUCT MOUNTED	NECK SIZE + 1-3/4"	30	WHITE	STEEL	

SIMILAR MANUFACTURERS: TITUS, KRUGER, HART & COOLEY, LIMA (VERIFY FRAME STYLES IN FIELD AND VERIFY WHERE RADIATION DAMPERS ARE REQUIRED.)

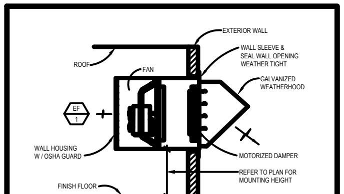
LOUVER SCHEDULE

TAG	MANUFACTURER & MODEL NUMBER	SERVICE	CFM	TOTAL SIZE	INLET VELOCITY (FPM)	AIR PRESS. DROP (IN.)	REMARKS
L 1	RUSKIN ELF6375DX	OUTSIDE AIR	5200	24"x24"	400	0.025" W.G.	SEE NOTES 1 THRU 6 BELOW.
L 2	RUSKIN L6375D	OUTSIDE AIR	10	12"x12"	<100	<0.01" W.G.	SEE NOTES 1, 3, 5 THRU 10 BELOW.

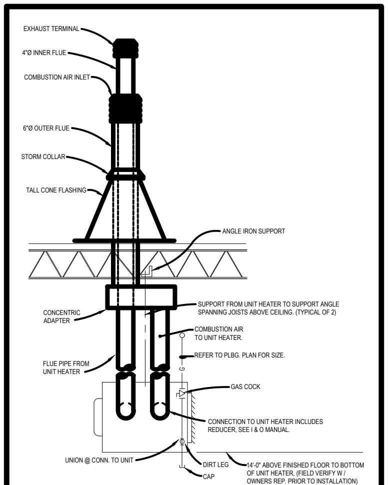
NOTES:
1. WITH 1/2" MESH ALUMINUM BIRDSCREEN AND 6" FRAME DEPTH.
2. PROVIDE WITH RUSKIN CD-50 MOTOR OPERATED DAMPER. INTERLOCK WITH RESPECTIVE EXHAUST FAN OPERATION.
3. FINISH SELECTED BY ARCHITECT.
4. EXTRUDED 6062T5 ALUMINUM CONSTRUCTION.
5. FIELD FAB SUPPORTS.
6. EXTENDED SILL
7. UNIVERSAL SLEEVE
8. 2" INSULATED BLANK OF PANEL 12"x6" SIZE.
9. GALVANIZED STEEL
10. 2" INSULATED ALUMINUM BLANK OFF PANEL 12"x6".



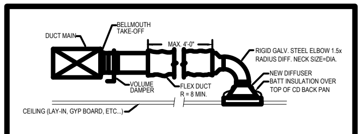
TURNING VANE DETAIL (A / M2.0)
NO SCALE



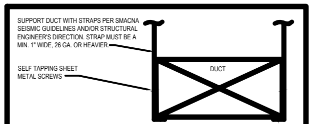
SIDE WALL EXHAUST FAN DETAIL (B / M2.0)
NO SCALE



GAS UNIT HEATER FLUE & COMBUSTION AIR DETAIL (C / M2.0)
NO SCALE



SUPPLY DUCT DETAIL (D / M2.0)
NO SCALE



STRAP SUPPORT DETAIL (E / M2.0)
NO SCALE

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MECHANICAL SCHEDULES & DETAILS

BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX

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RIO GRANDE, OHIO 45674

BUCKEYE HILLS CAREER CENTER

☐ PRELIMINARY
☐ BID SET
☒ PERMIT SET 04-17-2023
☐ REVISIONS:

MECHANICAL GENERAL

A. THE CONTRACTOR FOR THIS WORK IS REFERRED TO "INSTRUCTIONS TO BIDDERS" AND "GENERAL CONDITIONS" AND "SPECIAL CONDITIONS" AS PART OF THIS CONTRACT.

B. CONTRACTOR ALSO REFERRED TO ALL ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND OTHER OWNER DRAWINGS PERTAINING TO PROJECT. ALL OF ABOVE MENTIONED DRAWINGS, AS WELL AS THEIR RESPECTIVE SPECIFICATIONS, ARE A PART OF CONTRACT DOCUMENTS.

C. MECHANICAL DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER, FURNISH ANY MATERIAL OR LABOR CALLED FOR IN ONE EVEN THOUGH NOT SPECIFICALLY MENTIONED IN BOTH.

D. INSTALL AND CONNECT EQUIPMENT, SERVICES AND MATERIALS IN ACCORDANCE WITH BEST ENGINEERING PRACTICE AND ACCORDANCE WITH VARIOUS MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. FURNISH AND INSTALL COMPLETE AUXILIARY PIPING, VALVES, WATER SEALS, ELECTRICAL CONNECTIONS, ETC., RECOMMENDED BY MANUFACTURER OR REQUIRED FOR PROPER OPERATION.

E. FURNISH MATERIAL OR LABOR WHICH IS NEITHER SHOWN ON DRAWINGS OR CALLED FOR IN SPECIFICATIONS BUT WHICH IS OBVIOUSLY A COMPONENT PART OF AND NECESSARY TO COMPLETE WORK OF SIMILAR CHARACTER.

F. THIS CONTRACTOR SHALL PROCURE AND PAY FOR ALL PERMITS OR LICENSES REQUIRED TO CARRY OUT THIS WORK. HE SHALL PAY FOR ALL CHARGES MADE BY INSPECTION. NOTE: ALL CONTRACTORS SHALL BE LICENSED IN THE COUNTY, CITY, ETC. TO PERFORM ALL NEW WORK.

G. THIS CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES AND ALL LOCAL LEGAL REQUIREMENTS. ALL LAWS, RULES AND REGULATIONS OF STATE AND LOCAL GOVERNING AGENCIES SHALL BE CONSIDERED A PART OF THESE SPECIFICATIONS AS FULLY AS IF WRITTEN HEREIN. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY CHANGES NECESSARY FOR CODE COMPLIANCE REGARDLESS OF THE METHOD OF INSTALLATION SHOWN ON THE DRAWINGS OR SPECIFIED.

H. THIS CONTRACTOR SHALL TAKE OUT PERMIT WITH PROVISIONS OF INSPECTION BEFORE STARTING ANY WORK. FEE FOR SAME SHALL BE PART OF THIS CONTRACT.

I. WHEN WORK IS COMPLETED, THIS CONTRACTOR SHALL FURNISH TO THE ARCHITECT CERTIFICATES OF APPROVAL FROM THE RESPONSIBLE INSPECTION AGENCIES BEFORE FINAL PAYMENT OF CONTRACT WILL BE ALLOWED.

J. TESTING OF ALL WORK UNDER THIS CONTRACT SHALL BE DONE BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE. ALL APPARATUS, EQUIPMENT, FIXTURES, ETC., SHALL FULLY MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DRAWINGS.

K. THE BID SHALL CONTEMPLATE THE FURNISHING AND INSTALLING OF MATERIAL AND EQUIPMENT, EXACTLY AS SPECIFIED OR SHOWN AS SIMILAR BY THE CONTRACT DOCUMENTS. THE CONTRACTOR SUBMITTING ON SIMILAR EQUIPMENT WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH CHANGES IN ARCHITECTURAL, STRUCTURAL, MECHANICAL AND/OR ELECTRICAL TRADES DUE TO THE SIMILAR EQUIPMENT CHARACTERISTICS SUBMITTED. BIDS SUBMITTED SHALL LIST ANY ITEMS OF MATERIAL OR EQUIPMENT OTHER THAN SPECIFIED OR SIMILAR TO THE ONES CALLED FOR. SUBSTITUTIONS SHALL BE APPROVED SEVEN WORKING DAYS BEFORE BIDS ARE SUBMITTED; OTHERWISE, THIS CONTRACTOR SHALL COMPLY WITH SPECIFICATION REQUIREMENTS.

L. INSTALL FINAL APPLICATION OF LUBRICATION OIL, REFRIGERANT CHARGE, FILTERS (ETC...) AND ALL OTHER SUPPLIES NECESSARY TO PLACE THE EQUIPMENT IN OPERATION.

M. CONTRACTOR SHALL GUARANTEE HIS WORK TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.

N. ALL POWER WIRING OF MECHANICAL EQUIPMENT SHALL BE DONE BY THE ELECTRICAL CONTRACTOR. FURNISH THE ELECTRICAL CONTRACTOR WIRING DIAGRAMS FOR ALL ELECTRICALLY POWERED EQUIPMENT PROVIDED WITH THE CONTRACT WHICH SHALL INDICATE THE SERVICE REQUIRED AND ELECTRIC LOAD INVOLVED.

O. THIS CONTRACTOR SHALL VISIT SITE BEFORE SUBMITTING BID AND MAKE ALL NECESSARY OBSERVATIONS, MEASUREMENTS, AND NOTE CONDITIONS UNDER WHICH HIS WORK IS TO BE PERFORMED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO DO SO.

P. SUBMIT SHOP DRAWINGS, CATALOG SHEETS FOR EQUIPMENT, FIXTURES, DUCTWORK LAYOUT, WIRING DIAGRAMS, ETC., IN ONE PDF COPY TO THE ARCHITECT FOR REVIEW. EACH CONTRACTOR IS RESPONSIBLE TO DISTRIBUTE APPROVED SHOP DRAWINGS TO ALL OTHER TRADES AFFECTED BY HIS WORK, EQUIPMENT, ETC., FOR COORDINATION. PROFESSIONAL ENGINEER WILL NOT REVIEW SHOP DRAWINGS THAT DO NOT CARRY THE CONTRACTOR'S APPROVAL STAMP.

Q. ASSEMBLE AND SUBMIT TO THE ARCHITECT FOR SUBSEQUENT SUBMISSION TO THE OWNER, THREE (3) COMPLETE SETS OF OPERATIONS MANUALS AND MAINTENANCE REQUIREMENTS, COPY OF FIXTURE CUTS WITH MANUFACTURER'S NAME AND MODEL NUMBER, EQUIPMENT WARRANTIES, ETC., FOR EACH ITEM FURNISHED.

R. ALL CONTRACTORS MUST COORDINATE EACH PIECE OF EQUIPMENT WITH ALL OTHER TRADES (GENERAL CONTRACTOR, PLUMBING CONTRACTOR, MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR, ETC.) AFFECTED BY THAT PIECE OF EQUIPMENT (ROOF OPENINGS, WEIGHTS, POWER REQUIREMENTS, VOLTAGES, ETC.) PRIOR TO ORDERING EQUIPMENT AND AGAIN PRIOR TO INSTALLATION (ROOFTOP EQUIPMENT PRIOR TO LIFTING ONTO ROOF). NO EXTRA COMPENSATION WILL BE APPROVED IF COORDINATION IS NOT PERFORMED BY EACH RESPECTIVE CONTRACTOR AND SUBCONTRACTOR.

S. CONTRACTOR HAS EXAMINED THE CONTRACT DOCUMENTS AND REPRESENTS TO OWNER THAT THE CONTRACT DOCUMENTS ARE COMPLETE AND SUFFICIENT AND INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK FOR THE CONTRACT SUM. CONTRACTOR FURTHER REPRESENTS THAT THE CONTRACTOR HAS VISITED THE SITE AND HAS BECOME FAMILIAR WITH THE ACCESS REQUIREMENTS AND OTHER CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND HAS RECEIVED ALL CLARIFICATIONS NEEDED BY CONTRACTOR TO ASSURE ITSELF THAT THE WORK CAN BE PERFORMED FOR THE CONTRACT SUM. IF THERE IS ANY INCONSISTENCY IN THE QUALITY OR QUANTITY OF WORK REQUIRED UNDER THE CONTRACT DOCUMENTS, OR SHOULD THE DRAWINGS AND SPECIFICATIONS APPEAR TO BE IN DISAGREEMENT WITH EACH OTHER RELATIVE TO THE QUALITY OR QUANTITY OF WORK REQUIRED, THE CONTRACTOR SHALL PROVIDE THE BETTER QUALITY AND/OR GREATER QUANTITY UNLESS WRITTEN INSTRUCTIONS ARE OTHERWISE FURNISHED TO CONTRACTOR BY OWNER.

T. DEVIATIONS FROM THESE CONSTRUCTION DOCUMENTS WITHOUT WRITTEN OWNER OR ARCHITECT CONSENT WILL BE AT RISK TO THE G.C. ANY EFFORT MADE BY THE ARCHITECT AND/OR ENGINEER TO MODIFY THE CONSTRUCTION DOCUMENTS OR LETTERS OF RESPONSIBILITY FOR APPROVAL BY INSPECTORS DUE TO WORK PERFORMED BY CONTRACTOR OTHER THAN THE ORIGINAL DESIGN WILL BE BILLED TO CLIENT WHO WILL BACK CHARGE TO G.C. AS A DEDUCT FROM THEIR PAYMENTS.

U. NOTE: THE MECHANICAL AND PLUMBING CADD FILES OF THE CONSTRUCTION DOCUMENTS ARE THE INTELLECTUAL PROPERTY OF POINT ONE DESIGN, LLC, AND WILL NOT BE AVAILABLE FOR THE CONSTRUCTION PHASE UNLESS MET WITH A REDUCTION IN COST TO THE OWNER AND/OR PURCHASED AT A NOMINAL RATE PER DRAWING (TO BE NEGOTIATED).

HEATING, VENTILATING & AIR CONDITIONING SPECIFICATIONS

A. IN RESPECT TO ALL MATERIALS REQUIRED, THE CONTRACTOR SHALL FURNISH MATERIALS MEETING AIEE, NEMA, NELA, ASME AND ASTM SPECIFICATIONS. THE INSTALLATION OF ALL WORK SHALL CONFORM TO ASHRAE GUIDE AND SHEET METAL PROMOTION PLAN STANDARDS. THE MECHANICAL CONTRACTOR IS RESPONSIBLE TO PAY ALL FEES FOR PERMITS PRIOR TO STARTING WORK.

B. MATERIALS SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED, AND SHALL BE PROTECTED FROM ALL INJURY UNTIL FINAL ACCEPTANCE OF THE SYSTEM. MECHANICAL CONTRACTOR SHALL BE LICENSED IN THIS AREA TO PERFORM THE NEW WORK.

C. THIS CONTRACTOR SHALL REMOVE ALL TOOLS, SURPLUS MATERIALS AND DEBRIS OF ALL KINDS FROM HIS WORK AND LEAVE ALL IN A CLEAN, PERFECT CONDITION, FULLY SATISFACTORY TO THE ARCHITECT.

D. CONTRACTOR SHALL PROVIDE OWNER WITH ONE (1) SET OF "AS-BUILT" DRAWINGS.

E. FURNISH ALL MATERIALS, TRANSPORTATION, RIGGING, HOISTING, ETC. TO PROVIDE A COMPLETE AND OPERABLE HEATING, AIR CONDITIONING AND VENTILATING SYSTEM.

F. ALL EQUIPMENT IS TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, ACCORDING TO MANUFACTURERS RECOMMENDATIONS AND GOOD PRACTICES. COORDINATE ALL WORK WITH OTHER TRADES AND WITH THE GENERAL CONTRACTOR.

G. ALL TEMPERATURE CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR. THIS CONTRACTOR SHALL FURNISH ALL REQUIRED CONTROLS AND WIRING DIAGRAMS AND SHALL SUPERVISE INSTALLATION.

H. SYSTEM IS TO BE AIR BALANCED BY AN INDEPENDENT BALANCE COMPANY, TO INCLUDE DIFFUSER CFM, RETURN CFM AND EXHAUST CFM WITH THREE (3) REPORTS SUBMITTED TO THE OWNER AND THREE (3) MAINTENANCE MANUALS TURNED OVER TO OWNER BEFORE FINAL ACCEPTANCE. ALL SYSTEMS AND EQUIPMENT ARE TO BE GUARANTEED FOR PARTS AND LABOR FOR ONE YEAR (EXCEPT AIR CONDITIONING COMPRESSOR SHALL HAVE FIVE (5) YEAR WARRANTY).

I. SHEET METAL FABRICATION AND INSTALLATION SHALL BE AS FOLLOWS:

1. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH STANDARDS SET FORTH IN LATEST EDITION OF THE ASHRAE GUIDE AND SMACNA STANDARDS UNLESS MODIFIED HEREIN. REFER TO PRESSURE CLASS AND SEAL CLASS ON DRAWING.
2. DUCT DIMENSIONS ARE GROSS EXCEPT FOR LINED DUCTS WHERE DIMENSIONS ARE NET FREE AREA.
3. DUCT SIZES SHOWN ON THE PLANS ARE ACTUAL SHEET METAL INSIDE DIMENSIONS AND SHALL BE ADHERED TO UNLESS JOB CONDITIONS REQUIRE ALTERATIONS. REVISIONS TO DUCT SIZES SHALL BE BASED ON THE "EQUAL FRICTION" METHOD.
4. ALL ELBOWS IN THE DUCT SYSTEM SHALL BE MADE WITH CENTERLINE RADIUS OF ONE AND ONE-HALF (1 1/2) TIMES THE TURNING WIDTH OF THE DUCT. WHERE SPACE PROHIBITS THE SPECIFIED MINIMUM RADIUS, SQUARE ELBOWS WITH DOUBLE RADIUS TURNING VANES SHALL BE INSTALLED. CHANGES IN DUCT SIZES SHALL BE 15 DEG. DIVERGING AND 60 DEG. CONTRACTING, FLOW MAXIMUM ANGLES.
5. THE GENERAL ROUTE OF THE DUCTS IS SHOWN ON THE PLANS. THE EXACT ROUTE SHALL BE DETERMINED BY JOB CONDITIONS AND SHALL BE COORDINATED WITH ALL OTHER TRADES. ALL GRILLES, REGISTERS, DIFFUSERS, ETC., SHALL BE LOCATED SYMMETRICALLY WITH ELECTRIC LIGHT ARCHITECTURAL TREATMENT, ETC.
6. HANGERS TO BE 8 FT. CENTERS MAXIMUM WITH STRAPS FOR DUCTS (BENT UNDER BOTTOM OF DUCT AND ATTACHED). DUCTWORK SHALL BE SEALED.
7. INSTALL DUCTWORK TIGHT TO BOTTOM OF STRUCTURAL STEEL.
8. NO FIBERGLASS DUCTBOARD WILL BE PERMITTED.

J. FURNISH AND INSTALL ALL MANUAL SPLITTER DAMPERS AND DEFLECTORS INDICATED ON DRAWINGS OR NECESSARY TO PROPERLY DISTRIBUTE AND BALANCE AIR.

K. HVAC EQUIPMENT SHALL BE AS SCHEDULED ON DRAWING.

L. INSULATION SHALL BE AS FOLLOWS:

1. ALL INSULATION, VAPOR BARRIER, JACKETS AND ADHESIVE USED FOR APPLYING INSULATION SHALL HAVE FIRE AND SMOKE HAZARD RATINGS AS TESTED UNDER ASTM-84, NFPA-255, AND U.L. 723 NOT EXCEEDING A FLAME SPREAD 25 AND SMOKE DEVELOPED OF 50.
2. ALL NEW CONCEALED SUPPLY AIR DUCTWORK SHALL BE WRAPPED WITH OWENS-CORNING TYPE 150, 1-1/2" DUCT WRAP (6.0 R-VALUE). TAPE ALL SEAMS WITH MINIMUM 2" WIDE TAPE. RETURN AIR DUCTWORK SHALL BE LINED WITH 1" ACOUSTIC LINING, OWENS-CORNING TYPE 300.
3. DUCTS PASSING THRU ROOF SHALL BE PROVIDED WITH INSULATED ROOF CURB AND COUNTERFLASHING.
4. OTHER APPROVED MANUFACTURERS: MANSVILLE, KNAUF, CERTAINTEED.

M. PROVIDE WITH SPIN-IN TRUNK CONNECTIONS WITH AIR SCOOP AND VOLUME DAMPER.

N. FLEXIBLE CONNECTION AT THE INLET AND OUTLET OF THE AIR MOVING UNIT, EXHAUST FANS AND HVAC UNIT CONNECTED TO DUCTWORK. MATERIALS SHALL BE NON-COMBUSTIBLE TWELVE (12) OUNCES PER SQUARE YARD, NFPA-90A APPROVED.

O. FLEXIBLE INSULATED DUCT SHALL BE THERMAFLEX TYPE M-KE FACTORY ASSEMBLED DUCT CONSISTING OF COLD ROLLED FLAT STEEL SPRING, CONTINUOUS NON-PERFORATED INNER AIR SEAL LINER, 0.23 THERMAL CONDUCTANCE FIBERGLASS INSULATION, AND FIBERGLASS REINFORCED METALIZED FILM VAPOR BARRIER. DUCTS SHALL BE LISTED BY UL, CONFORM TO NFPA CLASS I WITH FLAME SPREAD RATING OF 25 OR LESS AND SMOKE DEVELOPMENT OF 50 OR LESS. R = 8.0 MIN.

GENERAL NOTES:

1. THE MECHANICAL CONTRACTOR SHALL ALSO ARRANGE THE FINAL INSPECTIONS BY THE BUILDING AUTHORITIES.
2. NO PIPING, HANGERS, DUCTWORK, ETC., SHALL BE SUSPENDED FROM ROOF DECK. ALL ITEMS SHALL BE SUSPENDED FROM STRUCTURAL STEEL.
3. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL SPLASHBLOCK ON ROOF FOR THE ROOFTOP CONDENSATE DRAIN LINE. COORDINATE WITH THE OWNER FOR EXACT REQUIREMENTS.
4. MECHANICAL CONTRACTOR TO MAINTAIN MINIMUM 10 FEET BETWEEN EXHAUST VENTS, FANS, ETC., AND OUTSIDE AIR INTAKES.
5. MECHANICAL CONTRACTOR SHALL VERIFY VOLTAGES WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING OF ANY AND ALL MECHANICAL EQUIPMENT.
6. MECHANICAL CONTRACTOR SHALL INSURE A MINIMUM 10'-0" WORKING CLEARANCE FROM EDGE OF BUILDING.

REFRIGERANT PIPING NOTES:

1. A/C CONDENSATE DRAIN PIPING SHALL BE TYPE 'L' HARD DRAWN COPPER TUBING (ASTM B-88 LATEST REVISION) WITH WROUGHT COPPER FITTING AND SOLDERED JOINTS WITH 95-5 TIN ANTIMONY.
2. CONNECTION BETWEEN COPPER PIPING AND FERROUS PIPING OR EQUIPMENT SHALL BE MADE WITH DIELECTRIC UNION.
3. REFRIGERANT PIPING SHALL BE TYPE 'L' HARD DRAWN COPPER (REFRIGERATION GRADE ARC), WROUGHT COPPER FITTINGS (LONG RADIUS ELBOWS). COPPER TO BRASS OR STEEL JOINTS SHALL BE MADE USING A 45% SILVER ALLOY SUCH AS 'EASY-FLO' WITH FLUX. INERT NITROGEN SHALL BE PASSED THROUGH THE PIPING DURING BRAZING OPERATIONS TO PREVENT OXIDATION. PIPING SHALL BE CUT USING TUBING CUTTER ONLY, HACKSAW CUTS ARE PROHIBITED.
4. AFTER THE INSTALLATION IS COMPLETE, LEAK TEST THE COMPLETE SYSTEM USING A MIXTURE OF NITROGEN AND SYSTEM REFRIGERANT PRESSURIZED TO 75 PSIG.
5. AFTER LEAK TESTING, THE ENTIRE PIPING SYSTEM SHALL BE EVACUATED TO 1,500 MICRONS.
6. AFTER EVACUATION, THE SYSTEM SHALL BE CHARGED WITH THE PROPER AMOUNT OF REFRIGERANT FOR DESIGNED OPERATION.
7. THE REFRIGERANT LINES MAY BE PRE-ENGINEERED SYSTEM BY UNIT MANUFACTURER INSTEAD OF MATERIAL LISTED ABOVE.
8. PIPING INSULATION
   A) REFRIGERANT PIPING SUCTION LINE TO BE INSULATED WITH 1" THICK ARMAFLEX PIPE INSULATION.
   B) CONDENSATE DRAIN LINE FROM AHU TO BE INSULATED WITH 1" THICK ARMAFLEX PIPE INSULATION.

PLUMBING SPECIFICATIONS

A. CONNECT SEWER, STORM, GAS, VENTS AND WATER LINES AS INDICATED ON THE PLUMBING PLANS. DETERMINE THE EXACT LOCATION OF ALL EXISTING SERVICE CONNECTIONS BEFORE STARTING THE INSTALLATION OF ANY WORK. COORDINATE ALL WORK WITH OTHER TRADES, THE GENERAL CONTRACTOR AND THE OWNER'S FIELD REPRESENTATIVE.

B. PLUMBING WORK SHALL CONFORM TO GOOD ENGINEERING PRACTICE AND BE IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES AND OWNER'S REQUIREMENTS. PLUMBING CONTRACTOR SHALL BE LICENSED IN THIS AREA TO PERFORM THE NEW WORK.

C. SANITARY SEWERS, VENTS AND STORM INSIDE OF THE BUILDING SHALL BE SERVICE WEIGHT, CAST IRON, NO HUB WITH COMPRESSION TYPE NEOPRENE JOINTS. ABS OR PVC SCHEDULE 40 PIPING SHALL BE AS APPROVED BY THE LOCAL AUTHORITY AND OWNER IN CONCEALED (UNDERFLOOR) LOCATIONS.

D. ALL COLD AND HOT WATER LINES SHALL BE TYPE 'L' COPPER WITH 98-2 TIN ANTIMONY (NO LEAD) SOLDER.

E. GAS PIPING ABOVE GROUND SHALL BE SCHEDULE 40 BLACK STEEL WITH 125 POUND BLACK MALLEABLE IRON SCREWED FITTINGS. GAS PIPING COMPOUND AT JOINTS SHALL BE PER NFPA BULLETIN #54 AND LOCAL CODES. GAS VALVES SHALL BE UL LISTED FOR GAS SERVICE SUCH AS DEZURICK MODEL S-425 FOR 2" AND LESS.

F. COMPRESSED AIR

1. COMPRESSED AIR PIPING

A. STEEL PIPE: ASTM A53 / A53M, SCHEDULE 40 BLACK.
   1. FITTINGS: ASME B16.3, MALLEABLE IRON, OR ASTM A234 / A234M, FORGED STEEL WELDING TYPE.
   2. JOINTS: THREADED FOR PIPE 2 INCH (50 MM) AND SMALLER; WELDED FOR PIPE 2-1/2 INCHES (65 MM) AND LARGER.

B. STEEL PIPE: ASTM A53 / A53M SCHEDULE 40, BLACK, ROLLED GROOVED ENDS.
   1. FITTINGS: ASTM A395 / A395M AND ASTM A536 DUCTILE IRON, GROOVED ENDS. VITAULIK OR EQUAL.
   2. JOINTS: GROOVED MECHANICAL COUPLINGS MEETING ASTM F1476.
      a. HOUSING CLAMPS: ASTM A395 / A395M AND ASTM A536 DUCTILE IRON, HOT DIPPED GALVANIZED, COMPATIBLE WITH STEEL PIPING SIZES, RIGID TYPE.
      b. GASKET: ELASTOMER COMPOSITION FOR OPERATING TEMPERATURE RANGE FROM 86°F TO 180°F.
      c. ACCESSORIES: STAINLESS STEEL BOLTS, NUTS, AND WASHERS. VITAULIK OR EQUAL.

C. COPPER TUBING: ASTM B88, TYPE L DRAWN.
   1. FITTINGS: ASME B16.18 CAST COPPER ALLOY OR ASME B16.22, WROUGHT COPPER AND BRONZE.
   2. JOINTS: ASTM B32, ALLOY GRADE Sn95 TIN-SILVER, LEAD FREE SOLDER.

2. COMPRESSED AIR BALL VALVES

A. TWO PIECE BRASS SAFET VENTED BALL VALVES WITH CHROMIUM PLATED BALL AND BLOW OUT PROOF STEM WITH LOCKING FEATURE ON HANDLE.
B. VALVE VENTS DOWN STREAM PER OSHA REG. #1910.147
C. APOLLO # TS-K7-100-SV OR NIBCO # T-580-70-SV OR DIXON # BBV 200 LV (SERIES).

G. INSULATE ALL NEW HOT AND COLD WATER PIPING WITH NONCOMBUSTIBLE ARMSTRONG "ARMAFLEX" TYPE II FOAM INSULATION WITH SEALED JOINTS OR WITH OWENS CORNING FIBERGLASS ASJ/SSL-II HEAVY DENSITY PIPE INSULATION WITH VAPOR BARRIER AND SEALED JOINTS. INSULATION THICKNESS SHALL BE AS FOLLOWS:

HOT & COLD WATER BRANCH PIPING UP TO 1"	1/2" THICKNESS
HOT & COLD WATER MAIN PIPING UP TO 1-1/2"	1" THICKNESS
HOT & COLD WATER MAIN PIPING 2" AND OVER	1-1/2" THICKNESS

ALL PIPING BELOW ROOF DECK TO BE INSULATED WITH NEXT SIZE PIPE THICKNESS.

H. PLUMBING CONTRACTOR SHALL INSTALL SHOCK ABSORBERS IN PIPING SYSTEM TO PREVENT NOISE AND DAMAGE DUE TO WATER HAMMER, WHERE NECESSARY. BRANCH PIPING SHALL HAVE ACCESSIBLE SERVICE VALVES. PROVIDE SHUT-OFF VALVES IN THE SUPPLY PIPING TO EVERY FIXTURE. (IE. FLUSH VALVES AND QUICK CLOSING VALVES.)

I. PLUMBING CONTRACTOR SHALL PROVIDE 1 SET OF 'RECORD' DRAWINGS TO THE OWNER.

J. CHLORINATION OF WATER PIPING: THE DOMESTIC WATER PIPING SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL CONTAMINATED WATER DOES NOT APPEAR AT THE OUTLET AND SHALL BE FILLED WITH A SOLUTION CONTAINING 50 PARTS PER MILLION OF CHLORINE AND ALLOWED TO STAND FOR A PERIOD (AS PRESCRIBED BY THE CODE) BEFORE FLUSHING. THE SYSTEM SHALL BE FLUSHED COMPLETELY WITH CLEAR WATER UNTIL ALL RESIDUAL CHLORINE CONTENT IS REMOVED. CHLORINATION SHALL BE PERFORMED AFTER ALL PIPING AND FINAL CONNECTIONS AND PRESSURE TESTING HAS BEEN COMPLETED. IF, AFTER THE PIPES HAVE BEEN CHLORINATED, THE PIPES HAVE TO BE DISMANTLED, THE CHLORINATION PROCESS MUST BE REPEATED.

K. LABOR SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY MECHANICS SKILLED IN THEIR PARTICULAR TRADE. PIPE AND EQUIPMENT SHALL BE INSTALLED SQUARE AND PLUMB AND ACCESSIBLE FOR PROPER OPERATION AND SERVICE.

L. CUTTING OR PATCHING NECESSARY TO PERMIT THE INSTALLATION OF ANY WORK UNDER THIS CONTRACT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.

M. PROVIDE ANY NECESSARY EXCAVATING AND BACKFILLING FOR THE INSTALLATION OF WORK SPECIFIED IN THIS DIVISION. AFTER THE PIPE HAS BEEN INSTALLED, TESTED AND APPROVED, THE TRENCHES SHALL BE BACKFILLED WITH BANK RUN SAND 12" AROUND PIPE AND WELL TAMPED IN 8" LIFT TO GRADE WITH APPROVED MATERIAL.

N. PIPING

1. ALL PIPING SHALL BE RUN CONCEALED EXCEPT WHERE SHOWN OTHERWISE ON DRAWINGS.
2. VALVES, TRAPS, CLEANOUTS AND OTHER APPARATUS SHALL BE INSTALLED IN AN EASILY ACCESSIBLE LOCATION.
3. SOIL WASTE, STORM, VENT, OFFSETS AND HOUSE DRAINS SHALL BE INSTALLED WITH A MINIMUM UNIFORM GRADE OF 1/8" TO THE FOOT FOR 3" THRU 6" PIPE AND 1/4" TO THE FOOT FOR 2-1/2" AND LESS.
4. HOT AND COLD WATER LINES SHALL BE AT LEAST 12" APART WHERE PIPING IS PARALLEL.
5. ESCUTCHEON PLATES SHALL BE PROVIDED WHERE ALL PIPE PASSES THROUGH A FINISHED WALL.
6. CONNECTIONS FROM STEEL TO COPPER PIPING SHALL BE MADE WITH DIELECTRIC TYPE UNIONS, EPCO OR OTHER APPROVED TYPE.

O. COPPER PIPING SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 7'-0" AND AT EACH CHANGE IN HORIZONTALS OF VERTICAL. HANGERS SHALL SUPPORT PIPING AT PIPE WITH INSULATION OVER TOP OR WITH METAL SLEEVE TO PROTECT INSULATION FROM BEING CRUSHED.

1. HANGER SHIELD: HANGERS FOR PIPING SHALL BE PLACED AROUND THE OUTSIDE OF THE INSULATION AND PROTECTIVE SHIELDS SHALL BE INSTALLED AT EVERY HANGER LOCATION. SHIELD SHALL NOT BE LESS THAN 2/3 THE CIRCUMFERENCE OF THE INSULATION AND WHERE SPEED CLIPS ARE USED, THE METAL SHIELD SHALL BE CONTINUOUS AROUND THE CIRCUMFERENCE OF THE PIPE INSULATION. SHIELDS SHALL BE FABRICATED OF THE FOLLOWING GAUGES:

NOMINAL PIPE SIZE	METAL GAUGE
0" - 1-1/2"	20
2" - 3"	16
3-1/2" AND UP	14

P. CLEAN OUT ALL LINES, ADJUST ALL VALVES AND CLEAN ALL PLUMBING FIXTURES AND EQUIPMENT. ROUT OUT ALL EXISTING SANITARY SEWERS BEING TIED INTO TO INSURE THE PROPER FLOW. PLUMBING CONTRACTOR TO FURNISH AND INSTALL CLEAR SILICONE CAULK AROUND PERIMETER OF PLUMBING FIXTURES.

Q. AFTER THE PLUMBING PIPING HAS BEEN INSTALLED, INSPECTED AND APPROVED, THE PIPING SYSTEM SHALL BE FLUSHED TO REMOVE ANY FOREIGN MATTER FROM THE PIPES.

R. ALL PARTS OF THE PLUMBING FIXTURES AND ASSOCIATED EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE GUARANTEE PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE BUILDING.

S. NOTE: ALL PIPE INSULATION (HOT AND COLD PIPE INSULATION, ROOF DRAIN SUMPS, STORM LEADERS AND DOWNSPOUTS) SHALL CONFORM TO THE FIRE AND SMOKE RATES BELOW:

FLAME SPREAD - 25 OR LESS
SMOKE DEVELOPED - 50 OR LESS

PLUMBING SPECIFICATIONS (CONTINUED)

T. GENERAL REQUIREMENTS OF PLUMBING FIXTURES AND TRIM:

1. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL STOPS, TRAPS, ESCUTCHEONS, CONNECTIONS, ETC., AS NECESSARY FOR A COMPLETE INSTALLATION.
2. TERMINATE ALL WATER ROUGH-INS WITH SHUT-OFF VALVES BEFORE CONNECTING EQUIPMENT AND FIXTURES.
3. PURGE ALL WATER LINES BEFORE MAKING FINAL CONNECTIONS.
4. FLASH AND COUNTERFLASH ALL OPENINGS THRU ROOFS WITH APPROVED ROOFING MATERIALS BUILT A MINIMUM OF 10" INTO THE ROOFING IN ALL DIRECTIONS FROM THE OUTSIDE OF THE PIPE.
5. WATER AND WASTE LINES TO BE ROUGHED INSIDE WALLS: EXTEND WATER AND WASTE LINES OUT OF WALLS TO EQUIPMENT AND FIXTURES.
6. WHERE THE WORD "FURNISH" OR "INSTALL" APPEARS FOR THE PLUMBING CONTRACT, IT SHALL BE INTERPRETED TO MEAN THE PLUMBING CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SUPPLIES NECESSARY TO INSTALL AND PLACE IN OPERATION CONDITION.
7. GENERAL WATER PRESSURE SHALL NOT EXCEED 60 PSI. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL PRESSURE REDUCING VALVES FOR WATER AS REQUIRED.

U. EXCAVATION AND BACKFILL

1. PERFORM ALL EXCAVATION AND BACKFILL NECESSARY FOR INSTALLATION OF WORK.
2. REFER TO DIVISION 2 - SITEWORK FOR ADDITIONAL SPECIFIC ITEMS OF EXCAVATION AND BACKFILL REQUIRED UNDER THE DIVISION.
3. ALL EXCAVATED MATERIALS IN BUILDING INTERIORS, SHALL BE LOADED ON TRUCKS IMMEDIATELY UPON DIGGING AND REMOVED FROM THE BUILDING. THE MATERIAL MAY BE DEPOSITED ON SITE IF AGREED TO BY THE GENERAL CONTRACTOR FOR HIS USE. IF NOT REQUIRED FOR SITE FILL, THEN EXCAVATED MATERIALS MUST BE REMOVED FROM THE SITE IMMEDIATELY.
4. EXISTING SUB-GRADE, BOTH INTERIOR AND EXTERIOR SHALL BE RESTORED AS A PART OF THIS WORK, UPON INSTALLATION OF UNDERGROUND WORK.
5. EXCAVATION FOR TRENCHES WITHIN 3 FT. OF THE EDGE OF ANY FOOTING AND BELOW THE ELEVATION OF BOTTOM OF FOOTING, SHALL BE BACKFILLED WITH 3000 LB. CONCRETE MIX TO THE LEVEL OF FOOTING.
6. SHORE OR SHEET PILE TRENCHES AS NECESSARY TO PREVENT CAVING. DO NOT ENDANGER WORK OF OTHER CONTRACTORS OR EXISTING STRUCTURES.
7. TRENCHES FOR UNDERGROUND SEWERS, INTERIOR AND EXTERIOR, SHALL BE EXCAVATED 4" BELOW GRADE AND DEPTH REQUIRED. PLACE 4" LAYER OF PEA GRAVEL (OR BANK RUN SAND) AND INSTALL PIPE. BACKFILL WITH PEA GRAVEL TO 12" ABOVE PIPE.
8. BACKFILL TO FINISH SUB-GRADE ON THE INTERIOR OF BUILDING, UNDER ALL PAVED AREAS AND SIDEWALKS WITH BANK-RUN GRAVEL. MECHANICALLY COMPACT IN LAYERS NOT TO EXCEED 8".
9. BACKFILL TO FINISH SUB-GRADE FOR EXTERIOR TRENCHES NOT UNDER PAVED AREAS OR SIDEWALK WITH SAND OR SELECT MATERIAL EXCAVATED TO 6" ABOVE FINISH SUB-GRADE.
10. PROVIDE, OPERATE PUMPING EQUIPMENT AS NECESSARY TO KEEP TRENCHES, OTHER EXCAVATIONS FREE OF WATER.
11. WHEN EXCAVATION IS NECESSARY IN AN EXISTING LAWN, RESOD TO MATCH EXISTING LAWN, AS APPROVED.
12. WHERE TRENCHES CROSS ROADS, WALKS OR PUBLIC THOROUGHFARES, PROVIDE SUITABLE BARRICADES AND BRIDGES ADEQUATELY PROTECTED BY SIGNS OR RED FLAGS DURING DAY AND LIGHTS AT NIGHT.
13. REPAVE ALL STREETS OR SIDEWALKS DISTURBED AT CONTRACTOR'S EXPENSE, TO SATISFACTION OF ARCHITECT AND AUTHORITIES HAVING JURISDICTION.
14. WHERE BUILDING SERVICE LINES ENTER OR LEAVE BUILDING SUCH AS WATER, SEWER, AND ARE INSTALLED ON FILLED EARTH, PROVIDE CONTINUOUS SUPPORT ON A REINFORCED CONCRETE BEAM FURNISHED AND INSTALLED AS A PART OF THIS WORK. SUPPORT BEAM ON BUILDING END WITH VERTICAL SUPPORT DOWN TO FOUNDATION FOOTING AND ON UNDISTURBED EARTH AT OTHER END.

V. DEWATERING:

1. PREVENT SURFACE WATER AND SUBSURFACE OR GROUND WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
2. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. REMOVE WATER TO PREVENT SOFTENING OF FOUNDATION BOTTOMS, UNDERCUTTING FOOTINGS, AND SOIL CHANGES DETRIMENTAL TO STABILITY OF SUBGRADES AND FOUNDATIONS. PROVIDE AND MAINTAIN PUMPS, WELL POINTS, SUMPS, SUCTION AND DISCHARGE LINES, AND OTHER DEWATERING SYSTEM COMPONENTS NECESSARY TO CONVEY WATER AWAY FROM EXCAVATIONS.
3. ESTABLISH AND MAINTAIN TEMPORARY DRAINAGE DITCHES AND OTHER DIVERSIONS OUTSIDE EXCAVATION LIMITS TO CONVEY RAIN WATER AND WATER REMOVED FROM EXCAVATIONS TO COLLECTING OR RUNOFF AREAS. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DRAINAGE DITCHES.

HEATING, VENTILATING & AIR CONDITIONING SPECIFICATIONS

AUTOMATIC TEMPERATURE CONTROL

A. SUBCONTRACTOR UNDER THIS HEADING, REFERRED TO AS TC CONTRACTOR, SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR COMPLETE INSTALLATION OF ELECTRIC / ELECTRONIC CONTROL SYSTEM. MECHANICAL CONTRACTOR MAY BE SAME AS TC CONTRACTOR.

B. CONTROL SYSTEM TO MATCH NEW HVAC EQUIPMENT MANUFACTURER'S UNITS.

C. AFTER COMPLETION OF INSTALLATION, ADJUST AND CALIBRATE ALL CONTROL COMPONENTS PROVIDED UNDER THIS CONTRACT. PLACE CONTROL SYSTEM IN COMPLETE OPERATING CONDITION AND INSTRUCT OPERATING PERSONNEL. PROVIDE FURTHER FIELD ADJUSTMENTS WHEN DIRECTED BY CONSULTING ENGINEER OR ARCHITECT.

D. CONTROL SYSTEM HEREIN SPECIFIED TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL UNDER NORMAL USE AND SERVICE. IF, WITHIN TWELVE (12) MONTHS FROM DATE OF ACCEPTANCE BY ARCHITECT, ANY EQUIPMENT HEREIN DESCRIBED IS PROVED DEFECTIVE IN WORKMANSHIP OR MATERIAL, IT WILL BE ADJUSTED, REPAIRED OR REPLACED FREE OF CHARGE BY THE TC CONTRACTOR.

E. ALL CABLING AND WIRING SHALL BE SHIELDED AND PLENUM RATED AND SHALL BE HUNG NEATLY USING SPLIT RING TYPE HANGERS. DROP CABLE IN EMT CONDUIT TO WALL BOXES FOR SENSORS, THERMOSTATS, ECT...

F. ALL CONTROLS TO HAVE ADJUSTABLE SETPOINTS.

G. DDC AND HVAC MECHANICAL EQUIPMENT CONTROLLER RESIDENT SOFTWARE FEATURES SHALL BE PROVIDED AS AN INTEGRAL PART OF DDC AND HVAC MECHANICAL EQUIPMENT CONTROLLERS AND SHALL NOT BE DEPENDENT ON ANY HIGHER LEVEL COMPUTER FOR EXECUTION.

H. USE EMT CONDUIT TO THERMOSTAT WALL BOX. EXTEND EMT CONDUIT TO 6" ABOVE TOP OF WALL. (SAME FOR WALL SENSORS.)

I. SPACE STATS: PROVIDED BY EQUIPMENT MANUFACTURER, LCD DISPLAY AND FAN SWITCH. MOUNT 48" AFF.

J. ALL ELECTRICAL CONTROL WIRING TO BE PROVIDED BY TC CONTRACTOR. ALL POWER WIRING TO BE PROVIDED BY ELECTRICAL CONTRACTOR.

K. COORDINATE ALL TEMPERATURE CONTROL WORK. (FIELD VERIFY)

SEQUENCE OF OPERATION FOR HVAC EQUIPMENT

A. DUCT LESS SPLIT - (FC-1 AND HP-1) PROGRAMMABLE THERMOSTAT SHALL CYCLE HEAT PUMP TO MAINTAIN SET POINT. FAN COIL FAN MAY CYCLE WITH HEAT PUMP OPERATION OR BE SET TO RUN CONTINUOUSLY.

B. TOILET EXHAUST
   1. CONTROL FROM LIGHT SWITCH

C. SPLIT SYSTEM: (FUR-1 AND CU-1)
   1. UNIT SHALL RUN CONTINUOUSLY WHEN BUILDING IS OCCUPIED. PROVIDE PROGRAMMABLE 24 HOUR, 7 DAY TIME CLOCK WITH EVENT SCHEDULE AND 2 HOUR OVERRIDE BUTTON FOR AFTER HOURS USE.
   2. CONTROL: THE NATURAL GAS HEATING AND THE DX COOLING WILL CYCLE TO MAINTAIN DISCHARGE TEMPERATURE SET POINT. (ADJUSTABLE)

D. ELECTRIC CEILING HEATER.
   1. THERMOSTAT ADJUSTABLE, SHALL CYCLE FAN AND HEATING COIL TO MAINTAIN SETPOINT.

E. GARAGE HEATING: (UH)
   1. THE FAN SHALL CYCLE WITH THE GAS HEAT SECTION TO MAINTAIN SET POINT.

F GARAGE VENTILATION:
   1. REFER TO SEQUENCE IN MISCELLANEOUS EQUIPMENT SCHEDULE, SEE DRAWING M2.0.

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MECHANICAL SPECIFICATIONS

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DIESEL LAB & CDL TRAINING COMPLEX
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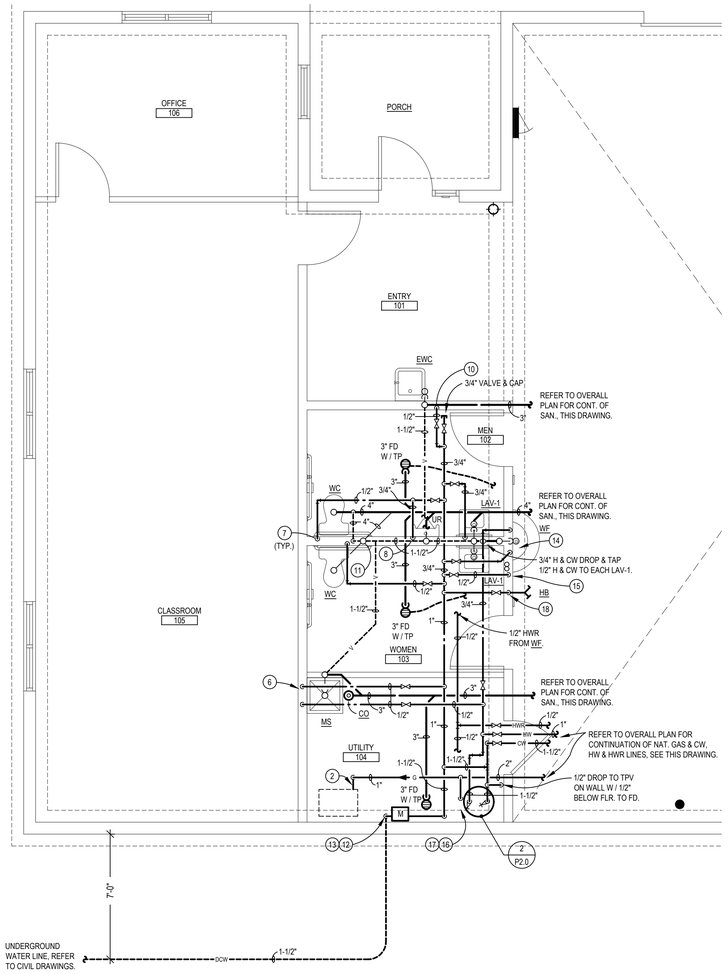
BUCKEYE HILLS CAREER CENTER

- ☐ PRELIMINARY
- ☐ BID SET
- ☒ PERMIT SET 04-17-2023
- ☐ REVISIONS:

M3.0



ENLARGED PLUMBING PLAN

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

PLUMBING CODED NOTES:

1. EXTEND AND CONNECT NATURAL GAS LINE TO UH COMPLETE WITH SHUT-OFF VALVE, UNION AND DIRT LEG. PROVIDE REDUCER AT CONNECTION.
2. EXTEND 1" GAS AND CONNECT GAS LINE TO FURNACE COMPLETE W/SHUT-OFF VALVE, UNION AND DIRT LEG. REDUCE FROM 1" TO 3/4" AT CONNECTION.
3. NEW GAS LINE UP WITH PRESSURE REGULATOR AND SHUT OFF VALVE. COORDINATE WITH LOCAL GAS COMPANY FOR ALL REQUIREMENTS. PIPE SIZE BY UTILITY.
4. 3" GAS LINE TO RISE UP HIGH AND THROUGH EXTERIOR WALL. RUN GAS PIPING HIGH IN SPACE.
5. 3/4" CW DROP IN WALL ON WARM SIDE OF INSULATION TO FPHB.
6. 1/2" H & CW DROP IN WALL TO "MS".
7. 1/2" CW DROP IN WALL TO "WC".
8. 3/4" CW DROP IN WALL TO "UR".
9. 1/2" CW DROP ON WALL TO 24" AFF TO TP. LOCATE SHUT-OFF VALVE 60" AFF. RUN 1/2" CW UNDER FLOOR TO FD-1.
10. 1/2" CW DROP IN WALL TO "EWC".
11. 4" VTR
12. BACKFLOW PREVENTOR AFTER METER SPILL RELIEF FULL SIZE TO FLOOR DRAIN.
13. 1-1/2" CW LINE UP THROUGH FLOOR WITH SHUT OFF VALVE. VERIFY IF METER OR SUB METER IS REQUIRED.
14. 1/2" HW, CW & 1/2" HWR DROP IN WALL AND CONNECT TO WF.
15. DROP 1/2" COLD WATER LINE TO TRAP PRIMER (TP). DROP 1/2" CW LINE FROM TP DISTRIBUTION UNIT DOWN INTO WALL TO BELOW FLOOR. RUN 1/2" CW LINE BELOW FLOOR AND CONNECT TO TRAP PRIMER CONNECTION AT FLOOR DRAIN COMPLETE WITH 1/2" THICK ARMAFLEX PIPE INSULATION.
16. EXTEND AND CONNECT NATURAL GAS LINE TO WATER HEATER COMPLETE W/SHUT-OFF VALVE AND DIRT LEG. REDUCE FROM 1-1/2" AT CONNECTION.
17. GAS WATER HEATER INTAKE AND EXHAUST PVC PIPING TO BE ROUTED TO NEAREST EXTERIOR WALL. INSTALL PER MANUFACTURER'S GUIDELINES AND SPECIFICATIONS. SEAL WALL PENETRATION WEATHER TIGHT. KEEP A MINIMUM OF 10' FROM ALL OUTSIDE AIR INTAKES.
18. 3/4" CW DROP IN WALL TO HB.

GAS PIPING NOTES:

1. PLUMBING CONTRACTOR TO NOTIFY THE AUTHORITY HAVING JURISDICTION WHEN THE INSTALLATION IS READY FOR INSPECTION (AT ROUGH-IN PRIOR TO COVERING AND FINAL).
2. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL MANUAL SHUT-OFF VALVE, DRIPS AND/OR SEDIMENT TRAPS AT EACH PIECE OF EQUIPMENT AND AT THE OUTLET OF THE METER. VALVES AND DRIPS SHALL BE READILY ACCESSIBLE TO PERMIT CLEANING, EMPTYING OR SERVICING.
3. GAS PIPING IS SIZED WITH LONGEST LENGTH METHOD AND BASED ON THE INTERNATIONAL FUEL GAS CODE; SCHEDULE 40 METALLIC PIPE TABLE 402.4(2).
4. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PRESSURE TESTING AND INSPECTION PRIOR TO ACCEPTANCE, PER NFPA 54. TEST PRESSURE SHALL BE NO LESS THAN 1-1/2 TIMES THE MAXIMUM WORKING PRESSURE, BUT NOT LESS THAN 3 PSI. TEST SHALL BE NOT LESS THAN 1/2 HOUR PER 500 CF OF PIPE VOLUME.
5. GAS PIPING ABOVE GROUND SHALL BE SCHEDULE 40 BLACK STEEL WITH 125 POUND BLACK MALLEABLE IRON SCREWED FITTINGS FOR 2" AND SMALLER. GAS PIPING COMPOUND AT JOINTS SHALL BE PER NFPA BULLETIN #54 AND LOCAL CODES. GAS VALVES SHALL BE UL LISTED FOR GAS SERVICE SUCH AS DEZURICK MODEL S-425 FOR 2" AND LESS AND MODEL F-425 FOR 2-1/2" AND LARGER. NOTE: WELDED PIPE TO BE WITH APPROVED WELD-O-LET FITTINGS.
6. ALL NEW EXTERIOR GAS PIPING IS TO BE PRIMED AND PAINTED WITH TWO (2) COATS OF RUST RESISTANT PAINT, COLOR AS SELECTED BY ARCHITECT AS REQUIRED BY SECTION 404 OF THE INTERNATIONAL FUEL GAS CODE.

NATURAL GAS DEMAND

FURANCE (FUR-1)	80.0 CFH
UNIT HEATER (UH-1)	225.0 CFH
UNIT HEATER (UH-2)	225.0 CFH
UNIT HEATER (UH-3)	225.0 CFH
UNIT HEATER (UH-4)	225.0 CFH
WATER HEATER (WH-1)	199.0 CFH
TOTAL GAS DEMAND	1179.0 CFH

NOTES:
1. PLUMBING CONTRACTOR SHALL VERIFY EXISTING GAS PRESSURE. GAS PIPING IS BASED ON 7" WC, IF HIGHER PRESSURE IS PROVIDED PC SHALL PROVIDE PRESSURE REGULATORS AT ALL GAS-FIRED EQUIPMENT AND ADJUST PIPE SIZING.
2. GAS PIPE SIZES ARE BASED ON THE INTERNATIONAL FUEL GAS CODE; TABLE 402.4(2) SCHEDULE 40 METALLIC PIPE; INLET PRESSURE OF LESS THAN 1 PSI; PRESSURE DROP OF 0.5" WC AND 200 FEET (TOTAL LENGTH OF PIPE).

PLUMBING GENERAL NOTES:

1. THE LOCATIONS OF PIPING AND EQUIPMENT AS SHOWN ON THE DRAWING ARE GENERAL ONLY. THE PLUMBING CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL PIPING AND EQUIPMENT IN THE FIELD PRIOR TO EXECUTING HIS WORK.
2. PLUMBING CONTRACTOR SHALL COORDINATE EXACT LOCATION OF SERVICES IN BUILDING PRIOR TO STARTING ANY WORK.
3. ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE THE ROOF. ALL VENTS SHALL BE A MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE.
4. ALL WATER PIPING TO RUN ON WARM SIDE OF THE BUILDING INSULATION. PLUMBING CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR.
5. THE PLUMBING CONTRACTOR TO COORDINATE ALL CUTTING OF ROOF, WALLS AND FLOORS WITH GENERAL CONTRACTOR PRIOR TO EXECUTING HIS WORK.
6. SEAL PENETRATIONS THRU FIRE-RATED WALLS WITH THE PROPER FIRE STOPPING MATERIAL TO MAINTAIN FIRE RATING.
7. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES (MECHANICAL, FIRE PROTECTION, ELECTRICAL, ETC.).
8. THE PLUMBING CONTRACTOR SHALL VERIFY EXISTING PLUMBING FIXTURES AND EQUIPMENT TO REMAIN ARE IN GOOD WORKING CONDITION. NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES.
9. REFER TO DWG. M3.0 FOR SPECIFICATIONS.

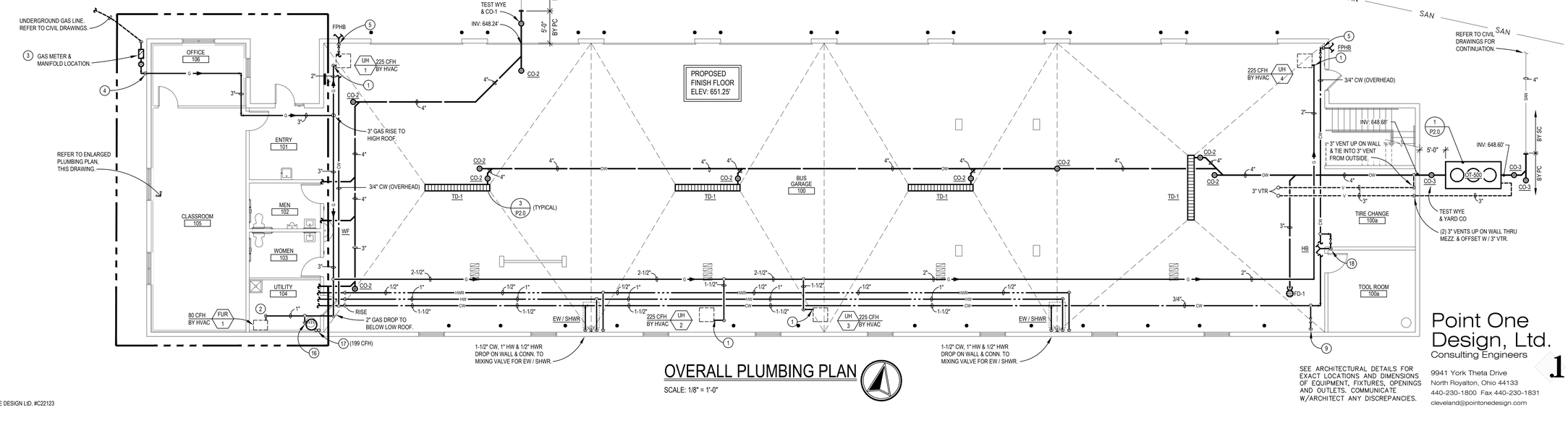
OHIO CODE SIZING FOR OIL INTERCEPTOR

	6908 SF AREA	
-	FIRST 100 SF	= 6 CU FT INTERCEPTOR CAPACACITY
=	6808 SF	
	6808 SFT	
	100 SF / CU FT CAP	= 68.1 CU FT CAP
	TOTAL CAP REQUIRED	= 74.1 CU FT
	CAP OF OT-500	= 75 CU FT CAP

PLUMBING LEGEND

SYMBOL	DESCRIPTION
	COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	SANITARY SEWER (BELOW GRADE)
SAN	SANITARY SEWER (EXTERIOR)
FD	FLOOR DRAIN
CO	FLOOR CLEANOUT
CO	HORIZONTAL CLEANOUT
V	SANITARY VENT PIPING
G	GAS PIPING-LOW PRESSURE
CA	COMPRESSED AIR
	CAP ON END OF PIPE
	SHUT-OFF VALVE
	CHECK VALVE
	DOUBLE CHECK BACKFLOW PREVENTOR
	WATER METER
	SHUT-OFF VALVE IN RISER
	GAS SHUT-OFF VALVE
	RISER DOWN (ELBOW)
	RISER UP (ELBOW)
	BRANCH-TOP CONNECTION
	BRANCH-BOTTOM CONNECTION
	TEE
	ELBOW
FPHB	FROSTPROOF HOSE BIBB
DCW	DOMESTIC COLD WATER
HB	HOSE BIBB
TP	TRAP PRIMER
WC	WATER CLOSET
UR	URINAL
LAV	LAVATORY
SS	SERVICE SINK
EWC	ELECTRIC WATER COOLER
PC	PLUMBING CONTRACTOR
SC	SITE CONTRACTOR
GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
A.F.F.	ABOVE FINISHED FLOOR
B.O.P.	BOTTOM OF PIPE
I.E.	INVERT ELEVATION
OW	OILY WASTE

NOTE:
PLUMBING CONTRACTOR TO OBTAIN A SET OF THE M-1, M-2 AND M-3 DRAWINGS. THE PLUMBING SPECIFICATIONS ARE LOCATED ON M-3.



OVERALL PLUMBING PLAN

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

SEE ARCHITECTURAL DETAILS FOR EXACT LOCATIONS AND DIMENSIONS OF EQUIPMENT, FIXTURES, OPENINGS AND OUTLETS. COMMUNICATE W/ARCHITECT ANY DISCREPANCIES.

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PLUMBING PLANS
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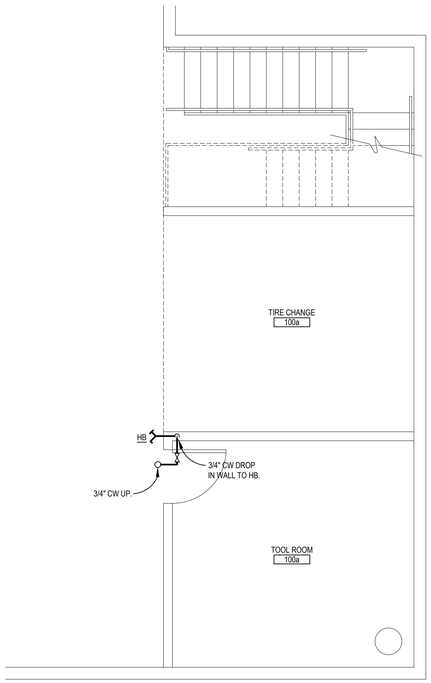
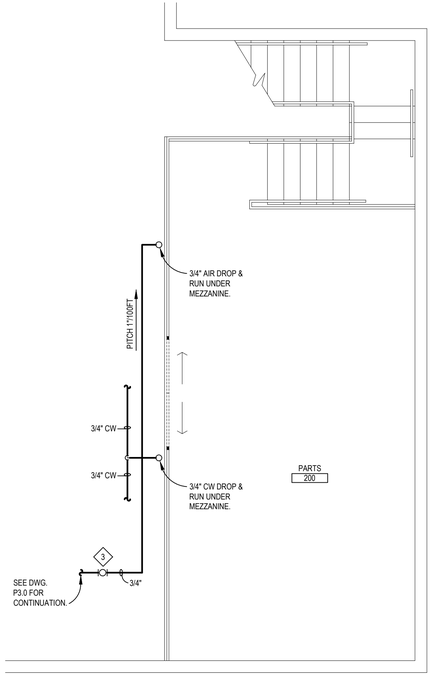


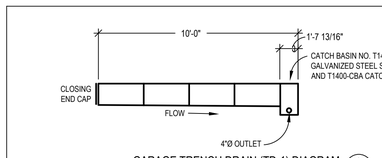
ENLARGED PLUMBING PLAN

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



ENLARGED MEZZANINE PLUMBING PLAN

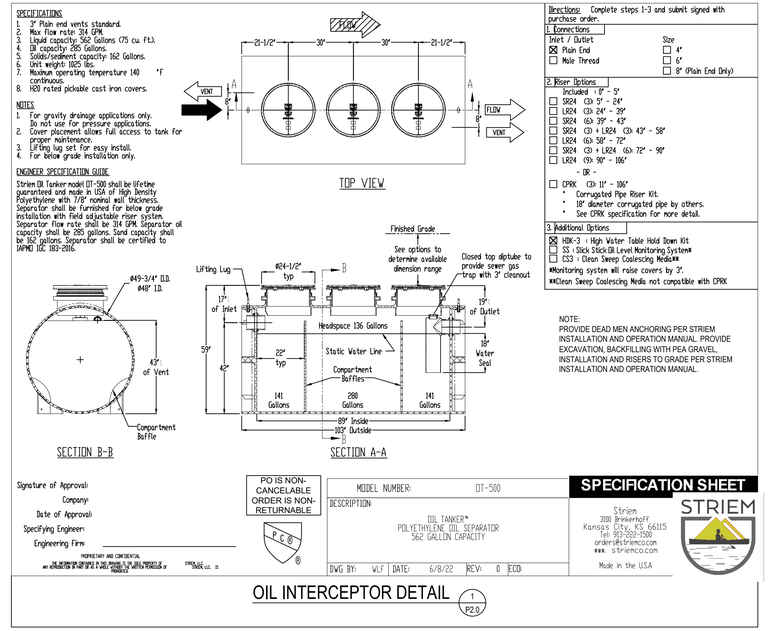
SCALE: 1/4" = 1'-0"



GARAGE TRENCH DRAIN (TD-1) DIAGRAM

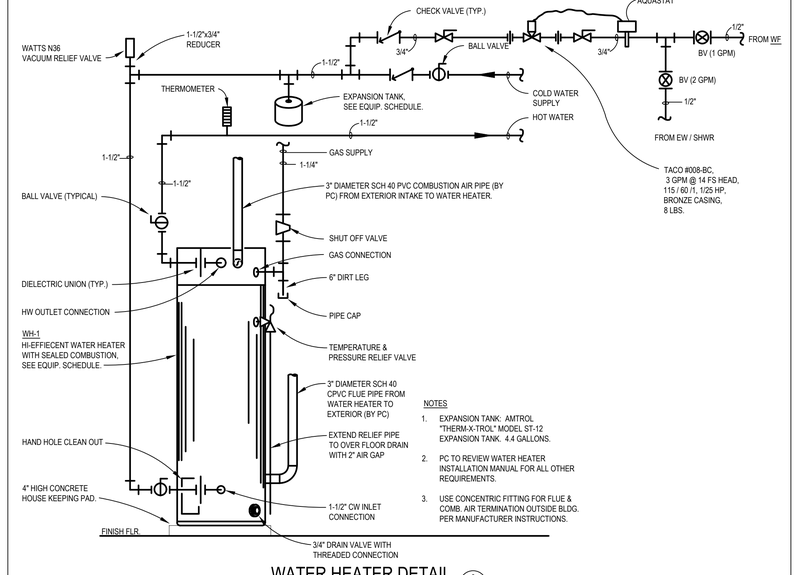
NO SCALE (3 / P2.0)

TRENCH DRAIN SYSTEM SHALL BE MIFAB "PROFORMER" SERIES T1400 6" WIDE PRESLOPED TRENCH DRAIN SYSTEM. POLYETHYLENE DRAIN BODY WITH INTEGRAL TOP FRAME AND 1/4" PER SECTION BOTTOM SLOPE. ANCHOR FLANGE WITH SLOTTED TABS EVERY 10" FOR REBAR TIE DOWN AND LEVELING. GRATE LOCKDOWN ASSEMBLY. BODY SUPPORT LETS. INTERLOCKING END AND RADIUSED BOTTOM. STANDARD WITH ANSI RATED "SPECIAL DUTY" LACQUERED DUCTILE IRON HEEL PROOF GRATES WITH A SAFE LIVE LOAD OF OVER 10,000 LBS. OTHER SIMILAR MANUFACTURERS: J.R. SMITH ENVIRO-FLO, MEJOSAM (MEADRAIN), ZURN (FLO-THRU)



OIL INTERCEPTOR DETAIL

(1 / P2.0)



WATER HEATER DETAIL

NO SCALE (2 / P2.0)

SEE ARCHITECTURAL DETAILS FOR EXACT LOCATIONS AND DIMENSIONS OF EQUIPMENT, FIXTURES, OPENINGS AND OUTLETS. COMMUNICATE W/ARCHITECT ANY DISCREPANCIES.

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☐ REVISIONS:

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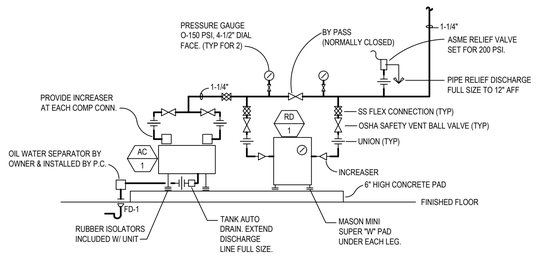
COMPRESSED AIR TAG NOTES:

1. 3/4" AIR DROP ON WALL TO 48" WITH SHUT-OFF SAFETY VENT VALVE. SEE DETAIL.
2. 3/4" AIR DROP ON WALL TO 48" WITH OSHA BALL VALVE AND CAP FOR FUTURE USE.
3. 3/4" CAPPED TEE WITH TEE IN UPRIGHT POSITIONS FOR FUTURE USE.
4. 1-1/4" AIR FROM DRYER. RISE ON WALL AND CONNECT TO OVERHEAD MAIN. PROVIDE FLEXX CONN. INCREASER, OSHA BALL VALVE & UNION AT CONNECTION.
5. MOUNT AIR COMPRESSOR ON 6" THICK CONCRETE HOUSEKEEPING PAD, LEVEL IN ALL DIRECTIONS (COORDINATE INSTALLATION OF CONCRETE HOUSEKEEPING PAD WITH THE GENERAL CONTRACTOR). NOTE: CONCRETE PAD TO BE 1" LARGER THAN AIR COMPRESSOR FOOTPRINT IN ALL DIRECTIONS.
6. MOUNT REFRIGERATED DRYER ON 6" THICK CONCRETE HOUSEKEEPING PAD, LEVEL IN ALL DIRECTIONS (COORDINATE INSTALLATION OF CONCRETE HOUSEKEEPING PAD WITH THE GENERAL CONTRACTOR). NOTE: CONCRETE PAD TO BE 1" LARGER THAN REFRIGERATED DRYER FOOTPRINT IN ALL DIRECTIONS.



AIR COMPRESSOR & REFRIG DRYER SCHEMATIC

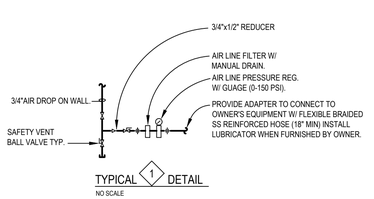
NO SCALE

AIR COMPRESSOR AND ACCESSORIES SPECIFICATION

SYMBOL	MANUFACTURER & MODEL NUMBER	DESCRIPTION	REMARKS
AC 1	CHAMPION HR7D-12	DUPLEX AIR COMPRESSOR	• 7-1/2 HP EACH COMPRESSOR, 208/60/3, 51.2 CFM DELIVERY @ 175 PSI. • WEIGHT = 1360 LBS • 120 GAL ASME STAMPED TANK W/ TANK MOUNTED COMPRESSIONS. • AUTOMATIC UNLOADERS, MAGNETIC STARTERS, AUTO TANK DRAIN, VIB ISOLATORS, LOW LEVEL MONITOR, NEMA 1. • DPR CONTROL PANEL W/ MAINTENANCE & SHUT DOWN ALARMS • POWER QUALITY MONITOR. 1 YEAR WARRANTY. • MOUNT UNIT ON 6" HIGH CONCRETE PAD. (3000 PSI) • INTAKE AIR FILTER & SILENCER, ENCLOSED BELT GUARD, HOUR METER KIT, OIL LEVEL SIGHT GLASS. PRESSURE REFLIEF VALVE, PRESSURE GUAGE. • SULLIAR OR INGERSOLL-RAND EQUAL. • OIL WATER SEPARATOR FURNISHED BY OWNER & INSTALLED BY PC.
RD 1	CHAMPION CGD-50A1	REFRIGERATED AIR DRYER	• 50 SCFM, 2.9 PSI DROP, 115/60/1 W/ WALL PLUG. • REFRIGERANT 134a • 18.6 AMP MOCP. • 3/4" CONNECTIONS • WEIGHT = 125 LBS. • SULLIAR OR HANKISON EQUAL.
HR 1	GRACO.COM SD-20	AIR HOSE REEL	• 50 FEET OF 3/8" DIA AIR HOSE, 300 PSI RATED. • RATCHET TO LOCK HOSE AT DESIRED LENGTH. • PROVIDE REINFORCED FLEX HOSE BETWEEN HARD PIPE & REEL CONNECTION. PROVIDE UNION AT CONNECTION (FIELD VERIFY CONN. SIZE) FIELD FAB SECURE MOUNTING. • (8) TOTAL UNITS. • WEIGHT = 375 LBS.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
	COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	SANITARY SEWER (BELOW GRADE)
SAN	SANITARY SEWER (EXTERIOR)
FD	FLOOR DRAIN
CO	FLOOR CLEANOUT
CO	HORIZONTAL CLEANOUT
V	SANITARY VENT PIPING
G	GAS PIPING-LOW PRESSURE
CA	COMPRESSED AIR
	CAP ON END OF PIPE
	SHUT-OFF VALVE
	CHECK VALVE
	DOUBLE CHECK BACKFLOW PREVENTOR
	WATER METER
	SHUT-OFF VALVE IN RISER
	GAS SHUT-OFF VALVE
	RISER DOWN (ELBOW)
	RISER UP (ELBOW)
	BRANCH-TOP CONNECTION
	BRANCH-BOTTOM CONNECTION
	TEE
	ELBOW
FPHB	FROSTPROOF HOSE BIBB
DCW	DOMESTIC COLD WATER
HB	HOSE BIBB
TP	TRAP PRIMER
WC	WATER CLOSET
UR	URINAL
LAV	LAVATORY
SS	SERVICE SINK
EWC	ELECTRIC WATER COOLER
PC	PLUMBING CONTRACTOR
SC	SITE CONTRACTOR
GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
A.F.F.	ABOVE FINISHED FLOOR
B.O.P.	BOTTOM OF PIPE
IE	INVERT ELEVATION
OW	OILY WASTE
CA	COMPRESSED AIR

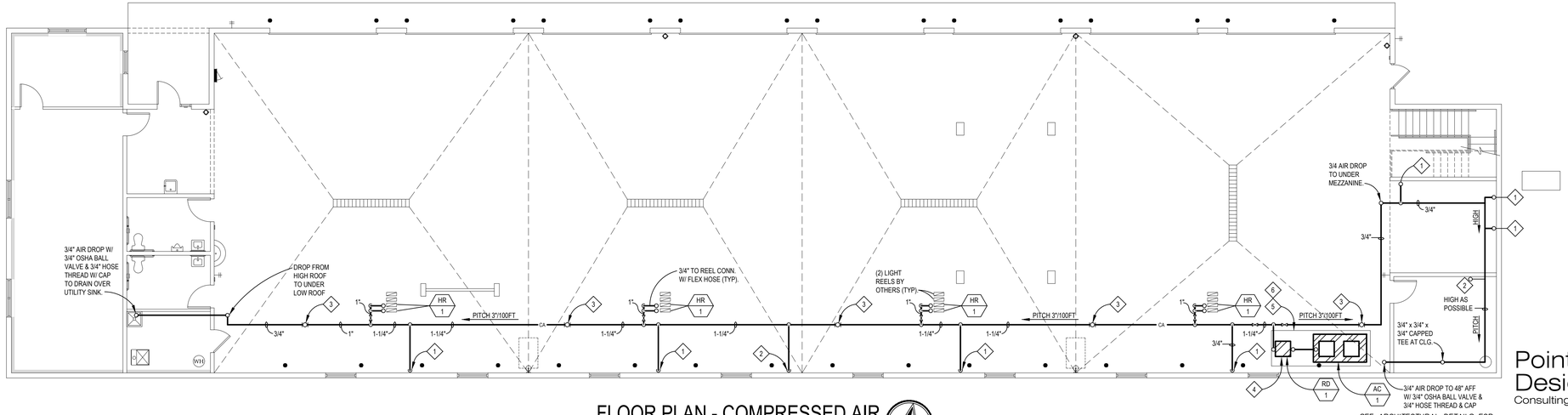


TYPICAL 1 DETAIL

NO SCALE

NOTE!
PIPE SIZE LISTED IN THE TABLE IS THE FINAL CONNECTION TO THE MACHINE OR EQUIPMENT SIZE. PROVIDE REDUCER FROM LINE SIZE TO CONNECTION SIZE AS REQUIRED. INCLUDE LINE SIZE UNION AND OSHA SAFETY VENT BALL VALVE AT EACH CONNECTION. FIELD FABRICATE ALL PIPE DROP SUPPORTS FROM UNISTRUT. COORDINATE DROP LOCATIONS WITH OWNER'S REPRESENTATIVE.

NOTE:
PLUMBING CONTRACTOR TO OBTAIN A SET OF THE M-1, M-2 AND M-3 DRAWINGS. THE PLUMBING SPECIFICATIONS ARE LOCATED ON M-3.



FLOOR PLAN - COMPRESSED AIR

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

SEE ARCHITECTURAL DETAILS FOR EXACT LOCATIONS AND DIMENSIONS OF EQUIPMENT, FIXTURES, OPENINGS AND OUTLETS. COMMUNICATE W/ARCHITECT ANY DISCREPANCIES.

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PLUMBING FIXTURE SCHEDULE								
MARK	ITEM	FIXTURE	FAUCET/VALVE	MTG. HT.	CW	HW	TRAP	ACCESSORIES
WC	WATER CLOSET (HANDICAP)	AM. STD. 215AA.004 CADET	--	16-1/2"	1/2"	--	INTEG.	NOTE-1
LAV-1	LAVATORY	AM.STD. 0356.015 LUCERNE	T & S B-0865-04-F12	WALL HUNG	1/2"	1/2"	1-1/2"	NOTE - 2 & 6
EW/SHWR	EYEWASH/SHOWER COMBINATION	HAWS 8300-8309	-	FLOOR MTD. PER ARCH.	1-1/4"	3/4"	1-1/2"	NOTE-7
MS	MOP SINK	MUSTEE 63M	MUSTEE 63.600A	FLOOR MTD	1/2"	1/2"	2"	NOTE-3
EWC	ELECTIC WATER COOLER	ELKAY LZS8WSLK	-	WALL MOUNTED (27" TO BOTTOM)	1/2"	-	1-1/2"	NOTE-4
UR	URINAL (HANDICAP)	AM. STD. 6501.511 WASHBROOK	SLOAN 186 (1.0 GPF)	15" TO RIM	3/4"	-	INTEG.	NOTE-5
HB	HOSE BIBB	T & S	B-0671 B-0692	NOZZLE (24" AFF)	1/2"	-	-	NOTE-8
WF	WASH FOUNTAIN	ACORN	INCLUDED	PER MANUFACTURER	1/2"	1/2"	2"	NOTE-9

NOTE-1
FLOOR MOUNTED, VITREOUS CHINA, ELONGATED BOWL, 1.6 GPF, SIPHON-ACTION-JET. FURNISH WITH CHURCH #9500C OPEN FRONT SEAT LESS COVER. TANK FLUSH LEVER TO BE INSTALLED OPPOSITE OF WALL SELECT TANK WHEN ORDERING. SUPPLY WITH STOP, CHROME FINISH.

NOTE-2
VITREOUS CHINA, SELF-RIMMING WALL HUNG, 20x18 LAVATORY WITH FAUCET LEDGE, WITH 3 HOLE PUNCHING ON 8" CENTERS AND FRONT OVERFLOW. CONFORMS TO ANSI A112.19.2., METAL LEVER HANDLES AND ANERICAN STANDARD NO. 7723.018 OFFSET GRID DRAIN, CHROME TRAP WITH CLEANOUT AND CHROME SUPPLIES WITH WHEEL STOPS. MOUNT AT ELEVATIONS INDICATED ON ARCHITECTURAL DRAWINGS. JR SMITH CARRIER WITH CONCEALED ARMS. PROVIDE BROCAR TRAP WRAP AND SUPPLY COVERS.

NOTE-3
FLOOR MOUNTED 24"x24" NOMINAL SIZE, DURASTONE. FURNISH WITH MUSTEE MODEL #67.2424 DURAGUARD WALL GUARDS, MODEL #63.401 VINYL BUMPER GUARDS, MODEL #65.700 HOSE AND BRACKET AND MODEL #65.600 MOP HANGER.

NOTE-4
WALL MOUNTED BARRIER FREE. FURNISH WITH WITH BOTTLE FILL STATION INCLUDING ELECTRONIC FILL SENSOR AND ELECTRONIC FRONT AND SIDE BUBBLER PUSHBAR AVTIVATION, VISUAL FILTER MONITOR, CERTIFIED NSF 42 AND 53 FILTER FOR LEAD, PARTICULATE, CHLORINE AND ODOR REDUCTION WITH 3000 GALLON FILTER CAPACITY, WASTE DRAIN WITH TRAP, SUPPLY AND STOP AND JR SMITH CARRIER FOR WALL HANGER MOUNTING. EXACT COLOR AND FINISH TO BE SELECTED BY ARCHITECT.

NOTE-5
WALL MOUNTED, VITREOUS CHINA, ELONGATED 14" RIM FROM FINISHED WALL, 3/4" TOP SPUD, 1.0 GPF, WASHOUT FLUSH ACTION AND THREADED 2" INSIDE OUTLET CONNECTION. FURNISH WITH WALL HANGER AND JR SMITH CARRIER. WASTE DRAIN AND TRAP. VERIFY EXACT MOUNTING HEIGHT OF FIXTURE WITH ARCHITECTURAL DRAWINGS.

NOTE-6
AMERICAN STANDARD FAUCET EQUAL TO T & S GOOSENECK AND WB FAUCET.

NOTE-7
EMERGENCY COMBINATION EYE/FACE WASH STATION/DRENCH SHOWER, STAINLESS STEEL BOWL, TAILPIECE & P-TRAP. PROVIDE WITH TEMPERING VALVE. TEMPERING VALVE SHALL COMPLY WITH ANSI Z358-1 AND BE ASSE 1071 CERTIFIED. STAINLESS STEEL PIPING

NOTE-8
CHICAGO EQUAL TO T & S

NOTE-9
BRADLEY EQUAL. PIPE HOT WATER RETURN DOWN IN WALL WITH HOT WATER AND CONNECT AFTER TEMPERING VALVE TAKE OFF, SEE DETAIL THIS DRAWING.

PLUMBING EQUIPMENT SCHEDULE:

WATER HEATER (WH-1):
AO SMITH MODEL NO. BTH-199, 97% THERMAL EFFICIENCY, 100-GALLON STORAGE CAPACITY, 199.0 MBH INPUT WITH A RECOVERY CAPACITY OF 261.0 GPH @ 90 DEG F TEMPERATURE RISE, 120V, 1 PHASE POWER SUPPLY. HEATER SHALL BE EQUIPPED WITH AN AUTOMATIC GAS SHUT-OFF DEVICE. FURNISH AND INSTALL AN ASME TEMPERATURE/PRESSURE RELIEF VALVE.

EXPANSION TANK (ET-1):
AMTROL "THERM-X-TROL" MODEL #ST-5, 2.1 GALLON TANK VOLUME, NON-ASME CONSTRUCTION, 3/4" SYSTEM CONNECTION (OR SIMILAR-OWNER APPROVED).

FLOOR DRAIN (FD)
J.R. SMITH MODEL 2010-A-P050 DUCO CAST IRON BODY WITH TRAP PRIMER CONNECTION AND ADJUSTABLE NICKEL BRONZE STRAINER HEAD AND ROUND TOP.

FLOOR DRAIN (FD-1)
J.R. SMITH MODEL 2350-3" CAST IRON FLOOR DRAIN WITH ADJ. NICKEL BRONZE TOP AND SEDIMENT BUCKET. TRAP PRIMER TAP

FLOOR CLEANOUT (CO)
J.R. SMITH MODEL NO. 4020 DUCO CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED NICKEL BRONZE TOP. NOTE: WHERE CLEANOUTS ARE INSTALLED IN CARPETED AREAS PROVIDE WITH CARPET CLAMPING FRAME (SUFFIX-X).

THERMOSTATIC TEMPERING VALVE (TTV)
SYMMONS "MAXLINE" MODEL 7-210-CK WITH A MINIMUM OF .5 GPM AND 2 GPM @ 10 PSI PRESSURE DIFFERENTIAL. TTV MAY BE USED FOR UP TO TWO (2) ADJACENT LAVATORIES. NOTE: TEMPERING VALVE SHALL BE LISTED TO ASSE 1070 STANDARD AND SHALL LIMIT THE TEMPERED WATER TO A MAXIMUM OF 110°F.

TRAP PRIMER (TP)
SHALL BE PRECISION PLUMBING PRODUCTS MODEL PR-500 PRESSURE DROP ACTIVATED BRASS TRAP SEAL PRIMER, WITH INLET OPENING OF 1/2" MALE N.P.T. AND OUTLET OPENING OF FEMALE 1/2" N.P.T. COMPLETE WITH FOUR VIEW HOLES AND REMOVABLE FILTER SCREEN.

CLEANOUT (CO-1):
J.R. SMITH # 4100 SERIES CAST CLEAN OUT WITH ADJUSTABLE TOP AND ABS CLOSURE PLUG. NICKEL BRONZE DOUBLE EXTRA HEAVY DUTY TOP.

CLEANOUT (CO-2):
J.R. SMITH # 4220 SERIES CAST CLEAN OUT WITH ADJUSTABLE DUCTILE IRON TOP AND ABS CLOSURE PLUG.

CLEANOUT (CO-3):
J.R. SMITH # 4250 SERIES CAST CLEAN OUT WITH ADJUSTABLE CAST IRON TOP AND ABS CLOSURE PLUG. SET HOUSING WITH CONCRETE RING TO STABILIZE FLANGED HOUSING.

TRENCH DRAIN (TD-1):
REFER TO DETAIL 3 ON DRAWING P2.0.

FROST PROOF HOSE BIBB (FPHB):
WOODFORD MODEL NO. 65 ANTI-SIPHON NON-FREEZE WALL HYDRANT WITH 3/4" HOSE CONNECTION. INTEGRAL VACUUM BREAKER, 3/4" INLET & LOOSE KEY TO OPERATE HYDRANT (OR SIMILAR-OWNER APPROVED).

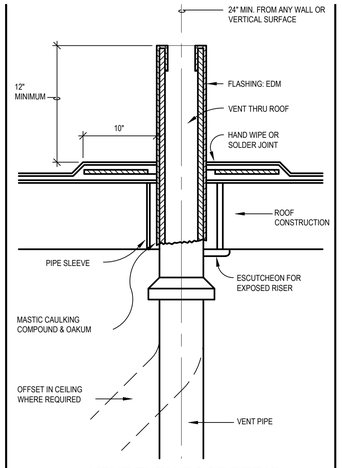
HOSE BIBB (HB)
T & S #B-0692 WITH #B-0671 POL. VALVE WITH LOOSE KEY HANDLE, VACUUM BREAKER, 6" SPOUT WITH PAIL HOOK AND WALL BRACE, MOUNT SECURELY, CHROME FINISH.

WASH FOUNTAIN (WF)
ACORN #3423-ES-ADA, SEMI CIRCULAR 3 STATION STAINLESS STEEL WASH FOUNTAIN WITH PEDESTAL BASE AND ELECTRONIC SENSOR OPERATION (120 / 60 / 1, 3 AMP) WITH TRANSFORMER AND SOLENOID VALVES, METERING LIQUID SOAP DISPENSER, ASSE 1070 TEMPERATURE AND PRESSURE BALANCED MIXING VALVE WITH INTEGRAL CHECKS FOR SINGLE TEMPERATURE, STAINLESS STEEL BACK SPLASH, ADJUSTABLE "P" TRAP, SUPPLIES WITH STOPS, 0.5 GPM SPRAY AT EACH STATION. INSTALL PER MANUFACTURER INSTRUCTIONS.

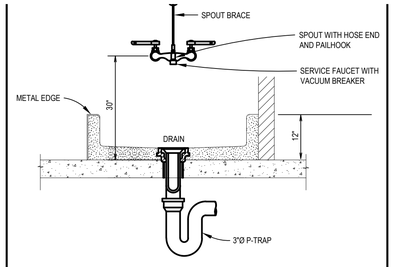
ELECTRIC WATER COOLER (EWC):
ELKAY NO. LZS8WSLK, ELECTRIC WATER COOLER WITH BOTTLE FILLER, JR SMITH CARRIER.

OT-500

STRIEM # OT-500, POLYETHYLENE OIL SEPARATOR, 562 GALLON LIGUID CAP (75 CUBIC FEET) 285 GALLON OIL CAPACITY, 162 GALLON SOLIDS CAPACITY. REFER TO DETAIL 1 ON P2.0. PROVIDE ADJUSTABLE RISERS TO GRADE WITH COVERS AND HIGH WATER TABLE HOLD DOWN KIT. INSTALL UNIT PER MANUFACTURERS INSTALLATION AND OPERATION MANUAL.



VENT THRU ROOF DETAIL
NO SCALE



MOP SINK DETAIL
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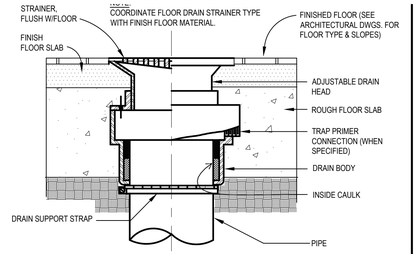

FLOOR DRAIN DETAIL
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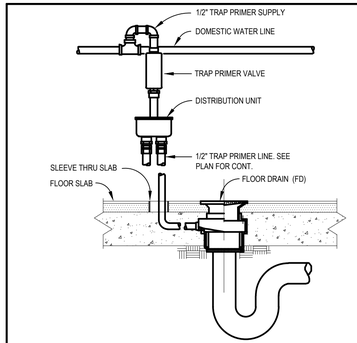

TRAP PRIMER (TP) DETAIL
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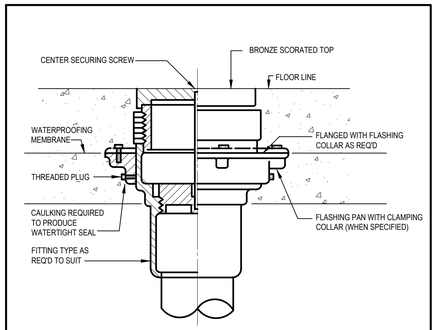

FLOOR CLEANOUT
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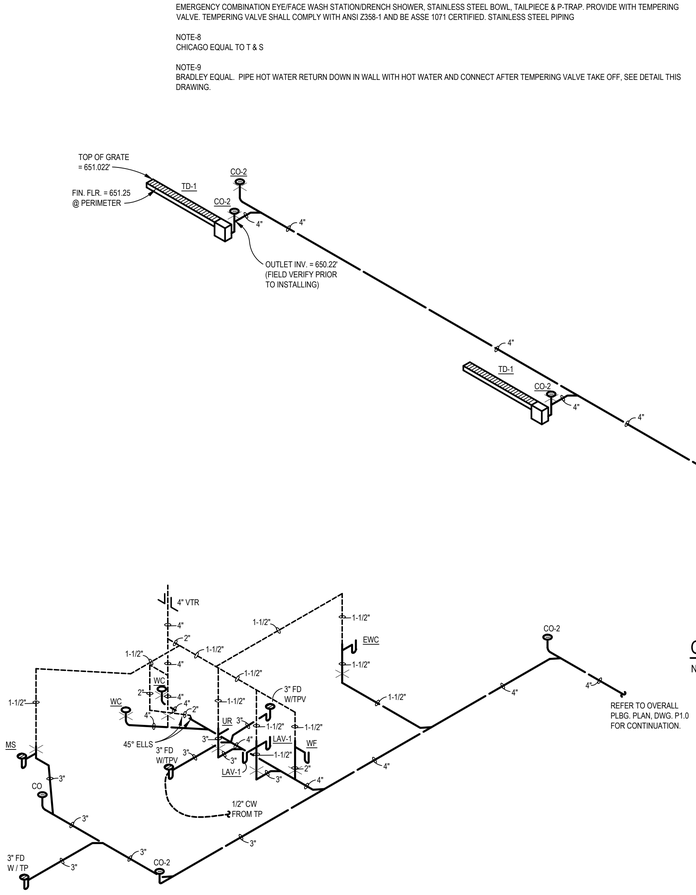
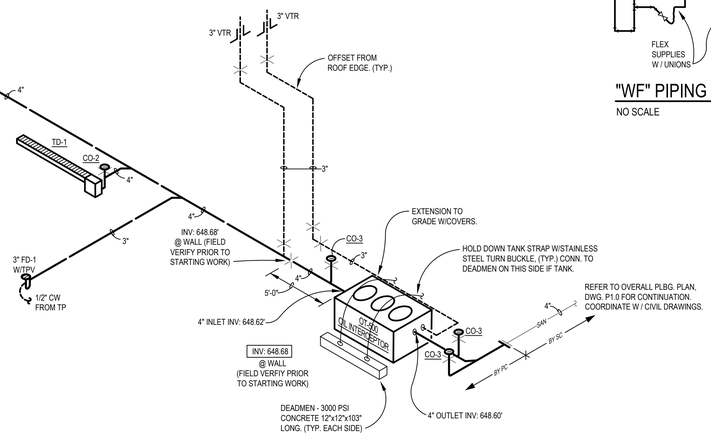
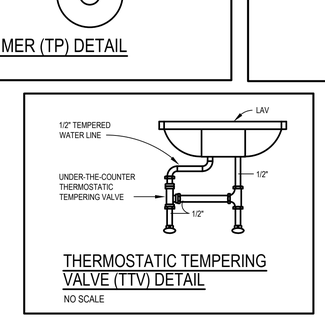


SANITARY SCHEMATIC
NO SCALE

GARAGE SANITARY SCHEMATIC
NO SCALE





THERMOSTATIC TEMPERING VALVE (TTV) DETAIL
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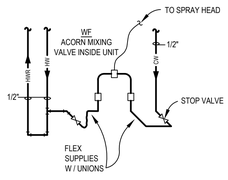
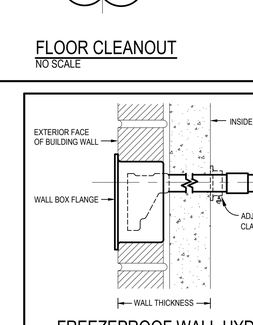
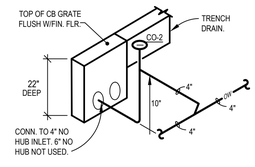


"WF" PIPING DIAGRAM
NO SCALE



FREEZEPROOF WALL HYDRANT
NO SCALE



TRENCH CB DETAIL
NO SCALE

SEE ARCHITECTURAL DETAILS FOR EXACT LOCATIONS AND DIMENSIONS OF EQUIPMENT, FIXTURES, OPENINGS AND OUTLETS. COMMUNICATE W/ARCHITECT ANY DISCREPANCIES.

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DIESEL LAB & CDL TRAINING COMPLEX
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RIO GRANDE, OHIO 45674

BUCKEYE HILLS CAREER CENTER

- ☐ PRELIMINARY
- ☐ BID SET
- ☒ PERMIT SET 04-17-2023
- ☐ REVISIONS:

P4.0

Panel ID: A | Voltage: 208 / 120 | Panel Type: NQOD OR EQUAL
Location: AS SHOWN | Phase: 3 | Encl. Type: NEMA-1
Mounting: SURFACE | Wire: 4 | AIC: 42,000 SB RATED
Main Type: M. L. | Bus Amperage: 225 Amps

All phases to be balanced to within 10% using actual connected loads.
E.C. to Provide a 225A panel with feed thru logs

CKT NO.	WIRE SIZE	BRANCH CIRCUIT DESCRIPTION	CKT BKR SIZE	CKT BKR OPTION	N.E.C. LOAD (KVA)	ACTUAL LOAD (KVA)	PHASE	ACTUAL LOAD (KVA)	N.E.C. LOAD (KVA)	CKT BKR OPTION	CKT BKR SIZE	BRANCH CIRCUIT DESCRIPTION	WIRE SIZE	CKT NO.
1	12	LIGHTING / EF	20/1		1.050	1.050	A	0.400	0.400	GF	20/1	EWC	12	2
3	12	LIGHTING / EF	20/1		1.425	1.425	B	1.200	1.200		20/1	FURNACE	12	4
5	12	LIGHTING / EF	20/1		1.140	1.140	C	1.800	1.800		40/2	CONDENSING UNIT	8	6
7	12	EXTERIOR LIGHTS	20/1		0.342	0.342	A	1.800	1.800		--	----	8	8
9	12	RECEPTACLES	20/1		0.720	0.720	B	0.760	0.760		15/2	HP-1 / FC-1	12	10
11	12	RECEPTACLES	20/1		0.720	0.720	C	0.760	0.760		--	----	12	12
13	12	RECEPTACLES	20/1		0.720	0.720	A	2.000	2.000		20/2	CUH-1	12	14
15	12	RECEPTACLES	20/1		0.540	0.540	B	2.000	2.000		--	----	12	16
17	12	RECEPTACLES	20/1		0.360	0.360	C	0.600	0.600		20/1	GAS UNIT HEATERS	12	18
19	12	RECEPTACLES	20/1		0.720	0.720	A	0.600	0.600		20/1	GAS UNIT HEATERS	12	20
21	12	RECEPTACLES	20/1		0.720	0.720	B	0.100	0.100		20/1	CMON DETECTOR	12	22
23	12	RECEPTACLES	20/1		0.900	0.900	C	0.900	0.900		15/3	EF-1	12	24
25	12	RECEPTACLES	20/1		0.720	0.720	A	0.900	0.900		--	----	12	26
27	12	RECEPTACLES	20/1		0.720	0.720	B	0.900	0.900		--	----	12	28
29	12	RECEPTACLES	20/1		0.720	0.720	C	2.880	2.880		30/3	AIR COMPRESSOR	10	30
31	12	RECEPTACLES	20/1		0.720	0.720	A	2.880	2.880		--	----	10	32
33	12	RECEPTACLES	20/1		0.720	0.720	B	2.880	2.880		--	----	10	34
35	12	RECEPTACLES	20/1		0.720	0.720	C	0.500	0.500		20/1	AIR DRYER	10	36
37	12	CORD REEL	20/1		0.180	0.180	A	2.880	2.880		30/3	HEAVEY DUTY LIFT	10	38
39	12	CORD REEL	20/1		0.180	0.180	B	2.880	2.880		--	----	10	40
41	12	CORD REEL	20/1		0.180	0.180	C	2.880	2.880		--	----	10	42
43	12	CORD REEL	20/1		0.180	0.180	A	1.664	1.664		20/2	VEHICLE LIFT	12	44
45	12	CORD REEL	20/1		0.180	0.180	B	1.664	1.664		--	----	12	46
47	12	CORD REEL	20/1		0.180	0.180	C	0.000	0.000			SPACE		48
49	12	CORD REEL	20/1		0.180	0.180	A	0.000	0.000			SPACE		50
51	12	CORD REEL	20/1		0.180	0.180	B	0.000	0.000			SPACE		52
53		SPARE	20/1		0.000	0.000	C	0.000	0.000			SPACE		54
55		SPARE	20/1		0.000	0.000	A	0.000	0.000			SPACE		56
57		SPARE	20/1		0.000	0.000	B	0.000	0.000			SPACE		58
59		SPARE	20/1		0.000	0.000	C	0.000	0.000			SPACE		60

Actual Load Panel Summary
Phase A: 17.9 KVA
Phase B: 17.8 KVA
Phase C: 15.2 KVA
Total: 50.9 KVA

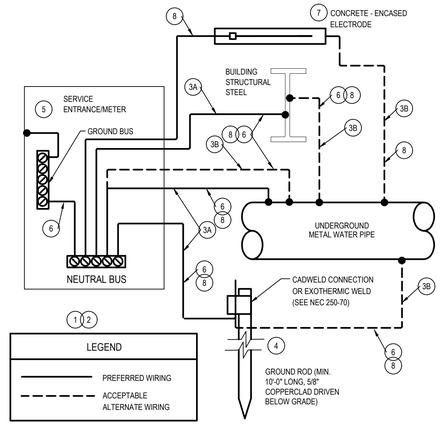
N.E.C. Load Panel Summary
Phase A: 17.9 KVA 149.5 AMPS
Phase B: 17.8 KVA 148.1 AMPS
Phase C: 15.2 KVA 127.0 AMPS
Total: 50.9 KVA 141.4 AMPS

Breaker Options (If Used):
GF - GROUND FAULT BREAKER

ELECTRICAL LEGEND

ELECTRICAL LEGEND NOTES:
1. MOUNTING HEIGHTS INDICATED ARE TO THE TOP OF THE DEVICE OR FIXTURE.
2. MOUNTING HEIGHTS ARE TYPICAL UNLESS NOTED OTHERWISE ON THE FLOOR PLANS.
3. REFER TO ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION ON EXACT DEVICE AND FIXTURE LOCATIONS, MOUNTING HEIGHTS AND COORDINATION WITH ARCHITECTURAL HARDWARE AND FIXTURES.
4. NOT ALL SYMBOLS APPLY.

LIGHTING SYMBOL	LIGHTING DESCRIPTION	POWER SYMBOL	POWER DESCRIPTION
$	WALL SWITCH @48" A.F.F. 20A, 120V		DUPLEX RECEPTACLE @20" A.F.F, 20A, 125V
$3	THREE-WAY SWITCH @48" A.F.F., 20A, 120V		DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER @20" A.F.F.; 20A, 125V
$D	WALL SWITCH @48" A.F.F. 20A, 120V	WP	DUPLEX RECEPTACLE WITH WEATHERPROOF WHILE-IN-USE COVER @18 A.F.F. OR A.F.G. 20A, 125V
OS	OCCUPANCY SENSOR WALL MOUNTED @48" A.F.F.		DOUBLE DUPLEX RECEPTACLE @ 20" A.F.F, 20A, 125V
OS	OCCUPANCY SENSOR CEILING MOUNTED		SPECIAL RECEPTACLE AMPERAGE, @20" A.F.F COORDINATE NEMA CONFIG. WITH EQUIPMENT FED.
	LIGHTING OUTLET, RECESSED OR SURFACE MOUNTED PER FIXTURE SCHEDULE.		JUNCTION BOX MOUNTED AS NOTED.
NL	LIGHT FIXTURE ON NIGHT LIGHT		SAFETY DISCONNECT SWITCH @60" A.F.F. TO TOP
	CEILING LIGHTING OUTLET, RECESSED OR SURFACE MOUNTED PER FIXTURE SCHEDULE		PANELBOARD, SURFACE MOUNTED @6'-0" A.F.F. TO TOP
	WALL LIGHTING OUTLET @ HEIGHT PER FIXTURE SCHEDULE OF ARCHITECTURAL ELEVATIONS.		PANELBOARD, FLUSH MOUNTED @6'-0" A.F.F. TO TOP
	EMERGENCY EXIT LIGHT, SINGLE FACE, CLG. MOUNTED.	EF	CEILING EXHAUST FAN BY M.C. WIRED BY (FURN E.C.) MAKE ALL CONNECTIONS AS INDICATED ON DRAWING.
	EMERGENCY EXIT LIGHT, SINGLE FACE, WALL MOUNTED		4" SQ. BOX W/G PLASTER RING @20" A.F.F. FOR DATA OUTLET. COVERPLATE WIRING & TERMINATION BY OWNER RUN 3/4"C. FROM BOX UP IN WALL TO ABOVE ACCESSIBLE CEILING
	COMBINATION EMERGENCY EXIT/EGRESS LIGHT, SINGLE FACE, CEILING MOUNTED		
	EMERGENCY EGRESS LIGHT @90° A.F.F WALL MOUNTED	OSD	COMBINATION OCCUPANCY DIMMER(ON)/SENSOR(OFF) @48" AFF
EMR	EMERGENCY REMOTE HEAD FOR EXIT DISCHARGE		



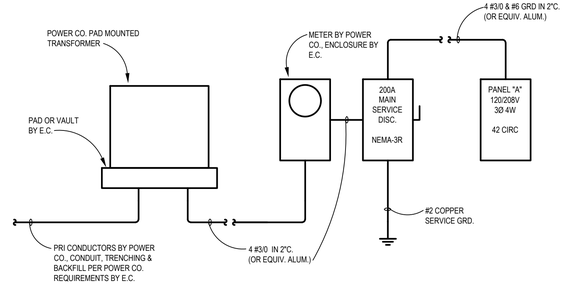
SERVICE ENTRANCE GROUNDING DETAIL

NO SCALE

CODED NOTES:

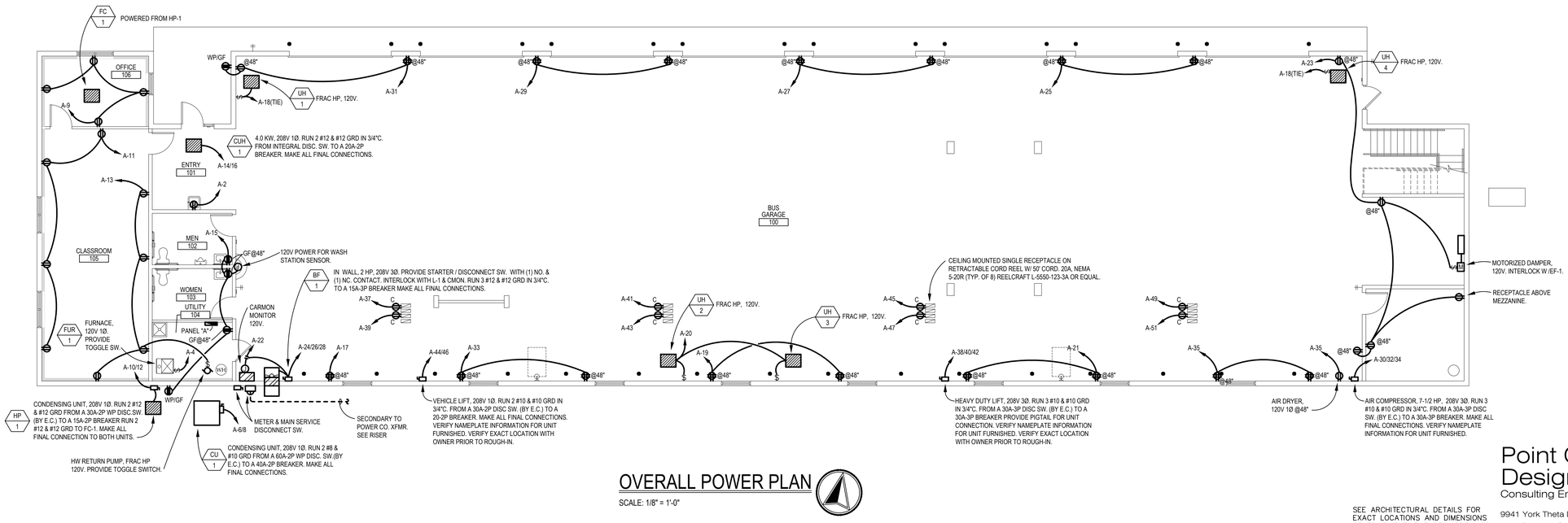
1. ALL GROUNDING AND BONDING MUST COMPLY WITH NEC ARTICLE 250 AND/ OR LOCAL ORDINANCES.
2. USE NEC TABLE 250-66 TO SIZE BONDING CONDUCTORS/JUMPERS, BONDING JUMPERS MUST BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 250-68.
3A. BOND GROUND ROD, METAL WATER PIPE, BUILDING STEEL OR METAL (WHERE EFFECTIVELY GROUNDED) AND CONCRETE-ENCASED ELECTRODE (SEE CODED NOTE 7). CONNECTION TO METAL WATER PIPE SHALL BE MADE WITHIN 5 FEET OF POINT OF ENTRANCE OF PIPE PER NEC 250.52 (A) (1).
3B. ALTERNATE BONDING SCHEME: BOND GROUND ROD, BUILDING STEEL OR METAL (WHERE EFFECTIVELY GROUNDED) AND CONCRETE-ENCASED ELECTRODE (SEE CODED NOTE 7) TO METAL WATER PIPE. CONNECTIONS TO METAL WATER PIPE SHALL BE MADE WITHIN 5 FEET OF POINT OF ENTRANCE OF PIPE PER NEC 250.52 (A) (1).
4. LOCATE GROUND ROD OUTSIDE BUILDING WALL NEAR SERVICE ENTRANCE. IF MEASURED RESISTANCE BETWEEN GROUND ROD AND EARTH IS 25 OHMS OR LESS, A SINGLE GROUND ROD IS REQUIRED. IF MEASURED RESISTANCE IS GREATER THAN 25 OHMS, INSTALL SUPPLEMENTAL ELECTRODE, NOT LESS THAN 6'-0" APART FROM ORIGINAL GROUND ROD, PER NEC 250.53 (A) (2) & (3).
5. PROTECT GROUNDING AND BONDING CONDUCTORS WHERE THEY PENETRATE CONCRETE FOUNDATIONS.
6. SIZE CONDUCTOR PER NEC TABLE 250.66 AND NEC ARTICLE 250.66.
7. CONCRETE-ENCASED ELECTRODE ENCASED WITHIN AT LEAST 2 INCHES OF CONCRETE, LOCATED WITHIN AND NEAR THE BOTTOM OF A CONCRETE FOUNDATION OR FOOTING IN DIRECT CONTACT WITH THE EARTH, MINIMUM 20 FOOT LENGTH OF ELECTRICALLY CONDUCTIVE MATERIAL. SEE NEC 250.52 (A) (3).
8. SEE ELECTRICAL RISER FOR MINIMUM SIZE AWG COPPER - PER NEC 250.52 (A) (3).

250.50 GROUNDING ELECTRODE SYSTEM - ALL GROUNDING ELECTRODES AS DESCRIBED IN 250.52(A)(1) THROUGH (A)(7) THAT ARE PRESENT AT EACH BUILDING OR STRUCTURE SERVED SHALL BE BONDED TOGETHER TO FORM THE GROUNDING ELECTRODE SYSTEM. WHERE NONE OF THESE GROUNDING ELECTRODES EXIST, ONE OR MORE OF THE GROUNDING ELECTRODES SPECIFIED IN 250.52(A)(4) THROUGH (A)(8) SHALL BE INSTALLED AND USED.



ELECTRICAL RISER DIAGRAM

SCALE: NTS



OVERALL POWER PLAN

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

SEE ARCHITECTURAL DETAILS FOR EXACT LOCATIONS AND DIMENSIONS OF EQUIPMENT, FIXTURES, OPENINGS AND OUTLETS. COMMUNICATE W/ARCHITECT ANY DISCREPANCIES.

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BUCKEYE HILLS CAREER CENTER

POWER PLANS

BUCKEYE HILLS CAREER CENTER
DIESEL LAB & CDL TRAINING COMPLEX

351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

- ☐ PRELIMINARY
- ☐ BID SET
- ☒ PERMIT SET 04-17-2023
- ☐ REVISIONS:

E1.0

ELECTRICAL SPECIFICATIONS

1. THE REQUIREMENTS AS SET FORTH UNDER GENERAL CONDITIONS, INSTRUCTIONS TO BIDDERS AND GENERAL REQUIREMENTS ARE A PART OF THIS CONTRACT. BIDS SHALL BE BASED ON A COMPLETE/FULL SET OF DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF WORK WITH WORK PERFORMED BY OTHER TRADES.

2. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS. FIELD VERIFY ALL EXISTING ELECTRICAL LOCATIONS, CONDITIONS ETC. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THE ELECTRICAL WORK. BEGINNING OF WORK INDICATES ACCEPTANCE OF EXISTING CONDITIONS.

3. FURNISH ALL LABOR, MATERIALS, TESTING, EQUIPMENT, INCIDENTALS AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND AS SUCH APPEAR ON THE UNDERWRITERS LABORATORIES LIST OF APPROVED ITEMS AND SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES, WHICHEVER ARE MORE STRINGENT.

4. ALL WORK IS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES. ALL ELECTRICAL EQUIPMENT & MATERIALS SHALL BE U.L. LABELED AND LISTED PER NEC 110.3.

5. SECURE AND PAY FOR ALL REQUIRED PERMITS, FEES, ASSESSMENTS AND INSPECTION CERTIFICATES THAT RELATE TO THE ELECTRICAL CONTRACT. FURNISH APPROVED CERTIFICATE OF FINAL INSPECTION, AND TURN OVER TO OWNER AT COMPLETION OF PROJECT.

6. THESE ELECTRICAL PLANS ARE DIAGRAMMATIC, NOT SHOWING EVERY ITEM IN EXACT LOCATION OR DETAIL. MEASUREMENTS AND LOCATIONS MUST BE FIELD-VERIFIED AND COORDINATED WITH ARCHITECTURAL, PLUMBING, HVAC, FIRE PROTECTION, STRUCTURAL AND OTHER BUILDING DRAWINGS.

7. THE ELECTRICAL CONTRACTOR SHALL FURNISH SHOP DRAWINGS, REVIEWED AND STAMPED APPROVED BY THE CONTRACTOR, FOR APPROVAL BY THE ARCHITECT AND ENGINEER, PRIOR TO ORDERING EQUIPMENT SUCH AS LIGHT FIXTURES, DISTRIBUTION EQUIPMENT, AND FIRE ALARM SYSTEM.

8. CONDUIT SHALL BE STANDARD STEEL RIGID OR EMT (THIN WALL) ACCORDING TO LOCAL CODE REQUIREMENTS. CONDUIT SHALL BE CONCEALED IN FINISHED AREAS, EXCEPT AS OTHERWISE APPROVED BY THE ARCHITECT. THE USE OF SURFACE RACEWAY EXCEPT AS CALLED FOR ON DRAWINGS SHALL REQUIRE APPROVAL OF THE ARCHITECT. EMT CONNECTIONS SHALL BE COMPRESSION OR SET- SCREW TYPE. FLEXIBLE CONDUIT OR TYPE MC CABLE SHALL BE APPROVED FOR CONCEALED BRANCH CIRCUITING AND FOR FINAL CONNECTIONS TO LIGHT FIXTURES, MOTORS AND VIBRATING EQUIPMENT AND WHERE SO USED TO BE GROUNDED WITH A SEPARATE FULL SIZED GREEN GROUNDING CONDUCTOR. EXPOSED FINAL TYPE MC/FLEX CONNECTIONS SHALL BE LIMITED TO 10'-0" IN LENGTH. ARRANGE CIRCUITS SO AS TO AVOID THE USE OF JUNCTION BOXES ABOVE DRYWALL CEILING AREAS, JUNCTION BOXES LOCATED ABOVE LAY-IN CEILINGS ARE ACCEPTABLE.

9. MINIMUM SIZES OF CONDUITS SHALL BE 1/2". ALL CONDUIT AND WIRING SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS.

10. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL WORK. ALL CORE DRILLING OR CUTTING OF FIRE-RATED FLOORS, SHAFTS AND WALLS SHALL BE FIRE-STOPPED PRIOR TO FINISH PATCHING. ALL PENETRATIONS SHALL BE FIRE SEALED TO MATCH THE FIRE RATING OF THE FLOOR, SHAFT OR WALL PENETRATED.

11. WIRE SHALL BE SINGLE CONDUCTOR COPPER WITH 600 VOLT INSULATION. MINIMUM WIRE SIZE SHALL BE #12 AWG, ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE BROUGHT TO THE SITE IN UNBROKEN PACKAGES. INCREASE CONDUCTOR BY ONE SIZE FOR EVERY 150' INCREMENT OF DISTANCE FROM THE PANEL BOARD FOR 120 VOLT CIRCUITS. GENERAL WIRING SHALL BE THW, THWN, THHN, OR XHHW. ALUMINUM CONDUCTORS ARE NOT PERMITTED.

12. FURNISH AND INSTALL A COMPLETE WIRED GROUNDING SYSTEM FOR ELECTRICAL SERVICE ENTRANCE, ELECTRICAL EQUIPMENT AND CIRCUITS AS SHOWN ON THE DRAWINGS AND REQUIRED PER N.E.C. ARTICLE 250. ALL GROUNDING CONDUCTORS SHALL BE GREEN, WHERE EXPOSED IN PANEL, OUTLETS, BOXES, ETC.

13. RECEPTACLES SHALL BE 20 AMP, 3-WIRE GROUNDING TYPE EQUAL TO HUBBELL 5362. WALL SWITCHES SHALL BE 20 AMP SPECIFICATION GRADE, RATED AT 120 VOLT OR 277 VOLT AS REQUIRED. ALL DEVICE COVERPLATES SHALL BE PASS AND SEYMOUR OR EQUAL.

14. PROVIDE BRANCH CIRCUIT PANELS WHICH SHALL BE OF THE BOLTED CIRCUIT BREAKER TYPE WITH SOLID COPPER BUSSING FULL SIZED NEUTRAL, 25% GROUND BUSSING, OVERALL HINGED/LOCKABLE DOOR, AND TYPEWRITTEN DIRECTORY INSIDE DOOR. ALL SERVICE ENTRANCE EQUIPMENT SHALL BEAR THE MANUFACTURER'S LABEL WHICH SHALL STATE THAT THE EQUIPMENT IS RATED FOR SERVICE ENTRANCE APPLICATION IN ACCORDANCE WITH N.E.C. #230-70. LOAD BALANCE ALL ELECTRICAL PHASES AT PANEL. TWO AND THREE POLE BREAKERS SHALL BE COMMON TRIP TYPE. SQUARE D OR EQUAL BY EATON, CUTLER-HAMMER, OR GENERAL ELECTRIC.

15. PROVIDE SAFETY AND DISCONNECT SWITCHES, FUSED OR NON-FUSED, AS CALLED FOR ON DRAWINGS AND AS REQUIRED BY CODE. FUSES AS MANUFACTURED BY BUSSMAN OR EQUAL. DISCONNECT SWITCHES THAT ARE INSTALLED AT AIR CONDITIONING EQUIPMENT, HEAT PUMPS, ETC SHALL BE FUSED IN ACCORDANCE WITH THE EQUIPMENT'S NAME PLATE REQUIREMENTS PER N.E.C. 440-21 & 110-3B. SWITCHES SHALL BE HEAVY DUTY, QUICK MAKE/QUICK BREAK TYPE. FUSIBLE OR NON-FUSIBLE. LOAD AND HORSEPOWER RATED AS MANUFACTURED BY SQUARE D, EATON, CUTLER HAMMER, OR GENERAL ELECTRIC, WEATHERPROOF WHERE APPLICABLE.

16. PROVIDE ARC-FLASH HAZARD WARNING LABELS ON ALL ELECTRICAL EQUIPMENT INCLUDING SWITCHBOARDS, PANELBOARDS, MOTOR CONTROLLERS, AND ANY OTHER EQUIPMENT LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE WHILE ENERGIZED. THE LABELS SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION.

17. OUTLET BOXES AND COVERS SHALL BE GALVANIZED, ONE-PIECE PRESSED STEEL KNOCKOUT. JUNCTION, PULL BOXES AND COVERS SHALL BE GALVANIZED STEEL. CODE GAUGE SIZE. INSTALL BOXES RIGIDLY ON BUILDING STRUCTURE AND SUPPORT INDEPENDENTLY OF THE CONDUIT SYSTEM. ALSO PROVIDE APPROPRIATE BOX EXTENSIONS TO EXTEND BOXES TO FINISHED FACES OF WALLS ETC. ALL OUTLET BOXES TO HAVE SUITABLE BLOCKING BEHIND THEM TO MINIMIZE THE DEFLECTION THAT OCCURS WHEN PLUGGING/UNPLUGGING INTO THESE DEVICES.

18. ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY SERVICE AND PROVIDE LIGHTING, POWER AND WIRING AS REQUIRED TO FACILITATE APPLICABLE TEMPORARY NEEDS FOR ALL TRADES. HE SHALL FURNISH EXTENSION CORDS FOR HIS OWN USE. ANY TEMPORARY WIRING, FUSES, ETC., SHALL BE REMOVED UPON COMPLETION OF THE PROJECT. PROVIDE GROUND FAULT PROTECTION AS REQUIRED BY N.E.C. AND LOCAL CODES.

19. PROVIDE ELECTRICAL SERVICE AS SHOWN ON THE DRAWINGS. FIELD VERIFY EXACT REQUIREMENTS PRIOR TO BIDS. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE OWNER OR POWER COMPANY SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. COORDINATE ENTIRE INSTALLATION WITH POWER COMPANY. PROVIDE EQUIPMENT THAT IS COMPATIBLE WITH AVAILABLE FAULT CURRENT LEVELS AND PROVIDE "CABLE LIMITERS" IF NECESSARY FOR SYSTEM COORDINATION. FIELD VERIFY EXACT TYPE, SIZE, LOCATION, ETC. OF EXISTING UTILITIES PRIOR TO BIDDING PROJECT.

20. ALL ELECTRIC WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS CHANNELS, RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK AND SHALL BE FASTENED TO BUILDING STEEL, CONCRETE OR MASONRY, BUT NOT PIPING OR DUCTWORK. ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. CONDUITS SHALL BE IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMN LINES OR BEAMS AND SEPARATED AT LEAST 3 INCHES FROM WATER LINES WHEREVER THEY RUN ALONGSIDE OR ACROSS SUCH LINES. ALL CONDUCTORS SHALL BE IN CONDUIT, DUCTS OR OTHER CODE APPROVED RACEWAYS.

21. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS APPEARING IN THAT PERIOD SHALL BE CORRECTED AT THE ELECTRICAL CONTRACTOR'S EXPENSE. FOR THE SAME PERIOD, ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY THE ELECTRICAL CONTRACTOR.

22. IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED.

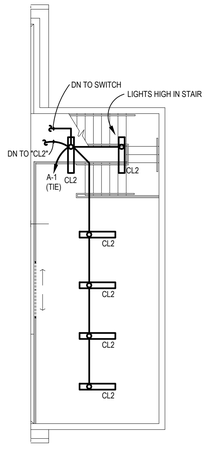
23. THE ELECTRICAL SERVICE SHOWN ON THE PLAN IS SHOWN FOR INTENT, ONLY. THE ELECTRICAL CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL COMMUNICATION AND COORDINATION WITH THE UTILITY COMPANY, INCLUDING THE EXACT LOCATION FOR CONNECTING TO THE INCOMING PRIMARY SERVICE AND THE REQUIREMENTS FOR PRIMARY ELECTRIC SERVICE. THE EXACT LOCATION OF THE TRANSFORMER AND CT ENCLOSURE, THE METER, GROUNDING REQUIREMENTS AND THE REQUIREMENTS FOR THE SECONDARY CONDUITS AND CONDUCTORS.

24. PROVIDE O & M MANUALS & AS-BUILT DRAWINGS TO THE OWNER WITH-IN 30 DAYS OF FINAL ACCEPTANCE.

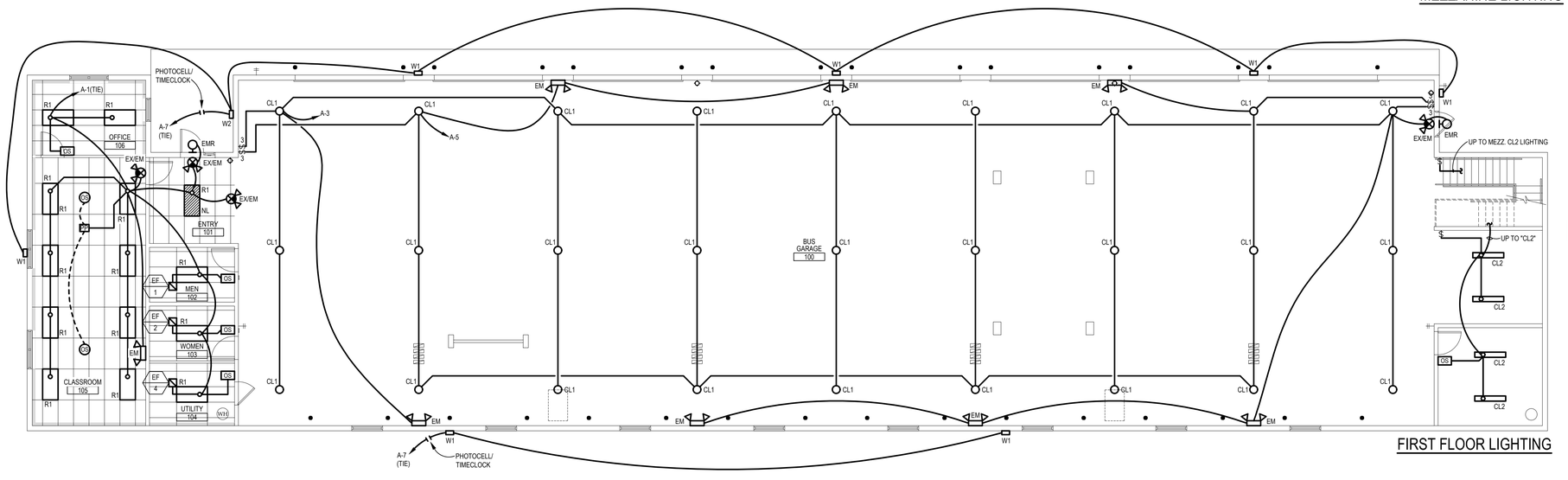
LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	VOLT	LAMP	MOUNT	MANUFACTURER
R1	2' X 4' RECESSED LED PANEL SATIN WHITE LENS	120	39.3 LED 4000 LUM 4000K	RECESSED LAYIN	LITHONIA CPX-2X4-4000LM-80CRI-40K-SW-MIN10-ZT-MVOLT
CL1	LED HIGHBAY	120	95W LED 13790 LUM 4000K	CEILING @ 18' A.F.F.	LITHONIA JEBL-12L-40K-80CRI-WH
CL2	4' LED STRIP	120	35.3 W LED 4298 LUM 4000K	CHAIN HANG	LITHONIA CSS-L48-4000LM-MVOLT-40K-80CRI
W1	EXTERIOR LED WALLPACK WET LOCATION LISTED	120	47W LED 6000 LUM 4000K	EXTERIOR WALL @ 18' A.F.G.	LITHONIA WPX2-LED-40K-MVOLT-DDBXD-M2
W2	EXTERIOR LED WALLPACK WET LOCATION LISTED	120	13W LED 1644 LUM 4000K	EXTERIOR WALL @ 8'-0" A.F.G.	LITHONIA WPXI-LED-ALO-SWW2-MVOLT-DDBXD
EX/EM	SELF CONTAINED EMERGENCY EXIT COMBO	120	LED FURNISH WITH UNIT	UNIVERSAL	LITHONIA QUANTUM SERIES "HO" ON (2) UNITS
EMR	EXIT DISCHARGE EMERGENCY REMOTE POWERED FROM EX/EM	LV	LED FURNISH WITH UNIT	EXTERIOR WALL ABOVE DOOR	LITHONIA ELA-1-QWP-L0309
EM	SELF CONTAINED EMERGENCY EGRESS LIGHT	120	LED FURNISH WITH UNIT	WALL @ 90"	LITHONIA EU2L

NOTES:
1. CONNECT ALL EXIT & EMERGENCY LIGHTS TO LOCAL AREA LIGHTING CIRCUIT AHEAD OF ANY SWITCHING AND AUTOMATIC CONTROLS.
2. EQUAL FIXTURES BY COOPER, HUBBELL, LSI, PHILLIPS OR LITHONIA.



MEZZANINE LIGHTING



FIRST FLOOR LIGHTING

OVERALL LIGHTING PLAN

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

SEE ARCHITECTURAL DETAILS FOR EXACT LOCATIONS AND DIMENSIONS OF EQUIPMENT, FIXTURES, OPENINGS AND OUTLETS. COMMUNICATE W/ARCHITECT ANY DISCREPANCIES.

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APPROVED PLANS: THE CIVIL/SITE DRAWINGS PREPARED BY SANDS DECKER FOR THIS PROJECT ARE NOT FOR CONSTRUCTION UNLESS AND UNTIL ALL APPLICABLE APPROVALS HAVE BEEN SECURED AND THE DRAWINGS ARE ISSUED FOR CONSTRUCTION. LAYOUT, FABRICATION OF MATERIALS, CONSTRUCTION, OR ANY CONSTRUCTION-RELATED ACTIVITIES ASSOCIATED WITH THESE DRAWINGS IS NOT TO PROCEED UNLESS EACH SHEET INCLUDES THE ISSUED FOR CONSTRUCTION LABEL.

GENERAL: THE CURRENT STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION & MATERIAL SPECIFICATIONS (ODOTCMS) TOGETHER WITH THE REQUIREMENTS OF GALLIA COUNTY, INCLUDING ALL SUPPLEMENTS THERETO, IN FORCE ON THE DATE OF CONTRACT, SHALL GOVERN ALL MATERIALS & WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS. WHEN THERE IS OR APPEARS TO BE A CONFLICT BETWEEN THE ABOVE REFERENCED SPECIFICATIONS & THESE PLANS, THE MOST STRINGENT REQUIREMENT SHALL GOVERN. UNLESS OTHERWISE SPECIFIED, ALL ITEM NUMBERS REFER TO ODOTCMS.

PROJECT LIMITS: THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT, THE EXISTING RIGHTS-OF-WAY, CONSTRUCTION EASEMENTS & PERMANENT EASEMENTS, & SHALL NOT TRESPASS UPON PRIVATE PROPERTY WITHOUT WRITTEN CONSENT OF THE PROPERTY OWNER.

PROTECTION OF SURVEY MONUMENTS: THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, PROPERTY CORNERS, REFERENCE POINTS, & ANY OTHER SURVEY MONUMENTS OR MARKERS. IF THE ACTIONS OF THE CONTRACTOR, HIS EMPLOYEES, OR HIS SUB-CONTRACTORS RESULT IN DESTRUCTION OF OR DAMAGE TO ANY OF THE ABOVE ITEMS, THOSE ITEMS SHALL BE ACCURATELY RESTORED, AT THE CONTRACTOR'S EXPENSE, BY A LICENSED SURVEYOR REGISTERED IN THE STATE OF OHIO.

MISCELLANEOUS WORK: ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR & THE COST OF SAME SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS.

PERMITS: THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS UNLESS OTHERWISE INDICATED IN THESE DOCUMENTS.

TRAFFIC CONTROL: THE CONTRACTOR SHALL USE ADEQUATE LIGHTS, SIGNS, FLAGGERS, & BARRICADES AS REQUIRED IN ITEM 614 TO SAFEGUARD THE TRAVELING PUBLIC AT ALL TIMES. ALL TRENCHES SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS. WHERE IT IS ANTICIPATED THAT WORK WILL CLOSE A ROAD OR STREET, THE CONTRACTOR SHALL INFORM THE RESIDENTS TO BE AFFECTED, THE LOCAL LAW ENFORCEMENT AGENCY, THE LOCAL FIRE DEPARTMENT, & THE ENGINEER AS TO THE EXTENT, NATURE, & THE TIME OF THE ANTICIPATED WORK. THE CONTRACTOR SHALL SUBMIT A PLAN & SCHEDULE FOR DETOURING TRAFFIC 10 DAYS PRIOR TO THE CLOSING OF ANY ROAD OR STREET TO THE ENGINEER & ROAD OWNER. DURING A CLOSING OF A ROAD OR STREET, THE CONTRACTOR SHALL PROVIDE ACCESS TO PROPERTIES FOR EMERGENCY VEHICLES & THE PROPERTY OWNERS. NO ROAD OR STREET SHALL BE CLOSED UNTIL THE SCHEDULE IS APPROVED BY THE AGENCY HAVING CONTROL OF THE ROAD.

SAFETY OF CONSTRUCTION: THE CONTRACTOR SHALL COMPLY WITH THE FEDERAL OCCUPATIONAL SAFETY & HEALTH ACT OF 1970 (OSHA) & ALL OTHER APPLICABLE FEDERAL, STATE, & LOCAL LAWS, REGULATIONS, FINDINGS & ORDERS RELATING TO SAFETY & HEALTH CONDITIONS ON THE WORK SITE. CONSTRUCTION METHODS FOR COMPLETING THE WORK DESCRIBED IN THESE CONTRACT DOCUMENTS SHALL BE CONSISTENT WITH THE OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) AMENDED CONSTRUCTION STANDARDS FOR EXCAVATIONS, 29 CFR PART 1926, SUB-PART P, EFFECTIVE MARCH 5, 1990.

EROSION & SEDIMENT CONTROL: PROJECTS DISTURBING ONE ACRE OR MORE (OR PROJECTS DISTURBING LESS THAN ONE ACRE BUT PART OF A LARGER COMMON PLAN OF DEVELOPMENT) ARE REQUIRED TO SUBMIT A NOTICE OF INTENT (NOI) TO THE OHIO EPA FOR COVERAGE UNDER THEIR GENERAL CONSTRUCTION STORM WATER PERMIT & ARE REQUIRED TO MAINTAIN AN APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWP3) ON SITE AT ALL TIMES. ALL PROJECT CONTRACTORS & SUBCONTRACTORS INVOLVED IN ACTIVITIES RELATED TO THE SWP3 OR OTHER STORM WATER PERMIT CONDITIONS ARE REQUIRED TO SUBMIT INDIVIDUAL CO-PERMITTEE NOI APPLICATIONS. ALL LAND DISTURBING ACTIVITIES SHALL COMPLY WITH THE CONDITIONS OF THE GENERAL PERMIT & THE DETAILS DESCRIBED IN THE SWP3.

BORROW MATERIAL & SURPLUS EXCAVATION: THE SITE SHALL BE CONSTRUCTED TO THE FINAL GRADES SHOWN ON THE PLANS. WHERE NECESSARY, THE CONTRACTOR SHALL OBTAIN SUITABLE BORROW MATERIAL ON-SITE OR OFF-SITE AS NEEDED TO COMPLETE THE SITE CONSTRUCTION AS DESCRIBED HEREIN. THE CONTRACTOR SHALL DISPOSE OF ALL SURPLUS EXCAVATION ON SITE &, IF NECESSARY, SHALL HAUL SURPLUS EXCAVATED MATERIAL AWAY FROM THE SITE & DISPOSE OF PROPERLY.

EXISTING UTILITIES: THE INFORMATION SHOWN CONCERNING EXISTING UTILITIES IS APPROXIMATE. THE LOCATION, SIZES, & OTHER INFORMATION SHOWN IS ONLY AS ACCURATE AS THAT PROVIDED ON THE EXISTING SITE SURVEY. THE EXISTING SITE SURVEY WAS PROVIDED BY OTHERS & SANDS DECKER CPS, LLC ASSUMES NO LIABILITY FOR ERRORS OR OMISSIONS THEREIN. THE CONTRACTOR IS RESPONSIBLE TO PHYSICALLY LOCATE & VERIFY, IN THE FIELD, THE HORIZONTAL & VERTICAL LOCATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL SUPPORT, PROTECT & RESTORE ALL EXISTING UTILITIES & THEIR ASSOCIATED ITEMS. THE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE SECTIONS OF THE OHIO REVISED CODE INCLUDING SECTIONS 153.64 & 3781.28. THE CONTRACTOR SHALL NOTIFY THE REGISTERED UTILITY PROTECTION SERVICE & ALL UTILITY OWNERS HAVING FACILITIES IN THE CONSTRUCTION AREA WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND UTILITY PROTECTION SERVICE. THE CONTRACTOR SHALL GIVE NOTIFICATION AS REQUIRED BY OHIO REVISED CODE, AT LEAST TWO (2) & NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS, EXCLUDING SATURDAYS, SUNDAYS, & LEGAL HOLIDAYS, & SHALL COORDINATE HIS WORK WITH THE UTILITY OWNERS UNTIL HIS WORK IS COMPLETED. THE CONTRACTOR SHALL KEEP THE UTILITY OWNERS APPRISED OF HIS SCHEDULE & REQUIREMENTS & SHALL PROVIDE THE PROJECT OWNER WITH EVIDENCE OF HAVING NOTIFIED THE UTILITIES & PROVIDED THEM WITH HIS WORK SCHEDULE PRIOR TO BEGINNING ANY WORK.

DRAINAGE TILE: ALL FARM DRAINS, ROADWAY DRAINS, & OTHER DRAINAGE TILE WHICH ARE ENCOUNTERED WITHIN THE CONSTRUCTION LIMITS DURING CONSTRUCTION SHALL BE PROVIDED WITH AN UNOBSTRUCTED OUTLET. EXISTING COLLECTOR TILES WHICH ARE LOCATED BELOW THE PROPOSED FINISHED ELEVATION & WHICH CROSS THE TRENCH SHALL BE REPLACED WITHIN THE TRENCH LIMITS BY ITEM 611 CONDUIT. THE LOCATION, TYPE, SIZE, & GRADE OF THE REQUIRED REPLACEMENT SHALL BE DETERMINED BY THE PROJECT ENGINEER OR HIS SITE REPRESENTATIVE DURING CONSTRUCTION. NECESSARY BENDS OR FITTINGS, COMPACTED GRANULAR BACKFILL, & ASSOCIATED ITEMS SHALL BE INCLUDED IN THE BID PRICE.

TEMPORARY PAVEMENT: TEMPORARY PAVEMENT REPLACEMENT SHALL BE PROVIDED ON PERMANENT PAVEMENT DAMAGED OR REMOVED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK. AS SOON AS THE TRENCH HAS BEEN BACKFILLED, TEMPORARY PAVEMENT SHALL BE INSTALLED. THE ENGINEER MAY REQUIRE THAT ALL MATERIALS & EQUIPMENT INCIDENTAL TO PROVIDING THE TEMPORARY PAVEMENT BE ON THE JOB SITE PRIOR TO REMOVING THE EXISTING PAVEMENT. TEMPORARY PAVEMENT SHALL CONSIST OF 2" OF BITUMINOUS COLD MIX PLACED UPON 6" OF COMPACTED ITEM 304, AGGREGATE BASE. TEMPORARY PAVEMENT SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL PERMANENT PAVEMENT IS INSTALLED.

PERMANENT PAVEMENT: WHERE DAMAGED OR REMOVED, THE PAVEMENT SHALL BE REPLACED BY FIRST REMOVING TEMPORARY PAVEMENT DOWN TO CLEAN GRANULAR MATERIAL & REMOVING EXISTING PAVEMENT FOR AT LEAST 12" BEYOND THE TRENCH LIMITS ON EACH SIDE. PAVEMENT TO BE REMOVED SHALL BE NEATLY SAWED NOT MORE THAN 72 HOURS PRIOR TO THE PLACING OF PERMANENT PAVEMENT MATERIALS. PERMANENT PAVEMENT REPLACEMENT MATERIALS & WORKMANSHIP SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS. ITEM 407, TACK COAT, SHALL BE APPLIED TO THE EXPOSED EXISTING PAVEMENT EDGES WHEN EITHER THE EXISTING OR NEW PAVEMENT IS BITUMINOUS MATERIAL. WHEN THE PERMANENT PAVEMENT IS BITUMINOUS MATERIAL, ITEM 407, TACK COAT SHALL BE APPLIED TO BITUMINOUS OR CONCRETE BASE MATERIAL PRIOR TO THE PLACING OF THE PERMANENT PAVEMENT.

NEW PAVEMENT DESIGN: A GEOTECHNICAL REPORT WITH PAVEMENT DESIGN RECOMMENDATIONS WAS NOT PROVIDED FOR THIS PROJECT. PAVEMENT DETAILS SHOWN HEREIN ARE BASED ON GENERALLY ACCEPTED ENGINEERING STANDARDS. SANDS DECKER CPS, LLC PROVIDES NO GUARANTEE AND ASSUMES NO LIABILITY FOR THE USEFUL LIFE AND/OR PERFORMANCE OF SAID DESIGN RECOMMENDATIONS.

INSTALLATION IN EMBANKMENT: WHERE UTILITIES ARE TO BE INSTALLED IN EMBANKMENT AREAS, THE EMBANKMENT SHALL BE PLACED & COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS, A MINIMUM OF 2' ABOVE THE PIPE BUT SUFFICIENTLY ABOVE THE PIPE TO PROTECT THE PIPE FROM DAMAGE DUE TO FURTHER CONSTRUCTION ACTIVITIES PRIOR TO THE INSTALLATION OF THE UTILITY.

CONFLICTS IN GRADE: IN ALL CONFLICTS IN GRADE BETWEEN THE WATER LINES OR WATER SERVICES & OTHER EXISTING UTILITIES, THE WATER LINE/SERVICE LINE SHALL BE LOWERED DURING CONSTRUCTION. A MINIMUM 18" VERTICAL & 10' HORIZONTAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER LINE & ANY SANITARY OR STORM SEWER; 12" MINIMUM VERTICAL CLEARANCE FOR OTHER UTILITIES. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AHEAD OF HIS CONSTRUCTION OPERATIONS TO ALLOW FOR ADJUSTMENTS IN GRADE TO THE WATER LINE THAT MAY BE REQUIRED AS A RESULT OF POTENTIAL CONFLICTS WITH AN EXISTING UTILITY. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR LOWERING THE WATER LINE TO AVOID CONFLICTS WITH EXISTING UTILITIES.

EXISTING DITCHES: WHERE IT BECOMES NECESSARY TO LOCATE A MAIN LINE VALVE, FIRE HYDRANT OR MANHOLE IN AN EXISTING DITCH, THE CONTRACTOR SHALL RELOCATE THE DITCH BEHIND THE PROPOSED VALVE, HYDRANT OR MANHOLE.

MANHOLE TOPS: WHERE MANHOLES ARE LOCATED WITHIN PUBLIC OR PRIVATE PAVEMENT, SIDEWALK, CONCRETE PAD OR PAVED SHOULDER, THE TOPS SHALL BE BUILT TO EXISTING PAVEMENT ELEVATIONS. ELSEWHERE MANHOLES SHALL BE BUILT OR SUBSEQUENTLY ADJUSTED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE MANHOLE. THE COST OF ADJUSTMENT IS TO BE INCLUDED IN THE PRICE BID FOR THE MANHOLE.

FINAL GRADING & CLEAN-UP: THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS & MATERIALS RESULTING FROM HIS OPERATION & RESTORE ALL SURFACES, STRUCTURES, DITCHES, SIGNS, MAILBOXES, FENCES, GUARDRAILS, OR OTHER PHYSICAL FEATURES OR PROPERTY DISTURBED OR DAMAGED DURING WORK UNDER THIS CONTRACT TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER. THE COST OF ALL SUCH WORK SHALL BE INCLUDED WITH THE VARIOUS RELATED ITEMS.

SEEDING & MULCHING: ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION & ELEVATION OR TO THE PROPOSED ELEVATIONS SHOWN ON THE DRAWINGS, & PROPER DRAINAGE SHALL BE PROVIDED. AFTER FINAL GRADING, THE SEED BED SHALL BE RAKED & ALL STONES, CLODS, LUMPS & OTHER FOREIGN MATERIAL GREATER THAN 1" IN DIAMETER SHALL BE REMOVED PRIOR TO SEEDING & MULCHING. ALL AREAS SHALL BE SEEDED PER ITEM 659.09, CLASS 1 FOR RESIDENTIAL AREAS OR CLASS 2 FOR RURAL ROADSIDE AREAS, UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL WATER, RE-SEED & MULCH AS NECESSARY UNTIL AN ACCEPTABLE STAND OF GRASS IS ACHIEVED.

STORM SEWER & CULVERT CONSTRUCTION: UNLESS SHOWN OTHERWISE ON THESE PLANS, STORM SEWER & CULVERT CONSTRUCTION SHALL CONFORM TO ODOT SPECIFICATIONS. PIPE SHALL BE CORRUGATED POLYETHYLENE SMOOTH LINED PIPE, ITEM 707.33, OR REINFORCED CONCRETE CIRCULAR PIPE, ITEM 706.02.

BEDDING & BACKFILL: STORM SEWERS UNDER EXISTING OR PROPOSED PAVEMENT LIMITS & DRIVES SHALL BE INSTALLED AS REQUIRED FOR TYPE B OR TYPE D CONDUIT, ITEM 611.02. BACKFILL SHALL BE ITEM 703.11, TYPE 1, UP TO THE PAVEMENT SUBGRADE OR WITHIN 6" OF FINISHED GRADE. THE PAVEMENT LIMITS SHALL BE 5' BEYOND THE EDGE OF PAVEMENT, PAVED SHOULDER OR BACK OF CURB. STORM SEWER OUTSIDE PAVEMENT LIMITS SHALL BE INSTALLED AS REQUIRED FOR TYPE C CONDUIT, ITEM 611.02, USING NATURAL BACKFILL. BEDDING FOR TYPE B, C OR D CONDUIT SHALL CONSIST OF NOS. 57, 6, 67, 7, 78, OR 8, ITEM 703, AS REQUIRED BY THE PIPE MANUFACTURER. ANY SETTLEMENT WHICH OCCURS DURING THE GUARANTEE PERIOD SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

UNDERDRAIN: WHERE DOWNSPOUTS FROM RESIDENTIAL DWELLINGS ARE TO CONNECT INTO THE STREET UNDERDRAIN SYSTEM, THE UNDERDRAIN SHALL BE 6" MINIMUM OR AS OTHERWISE SPECIFIED. 4" UNDERDRAINS ARE ACCEPTABLE WITHOUT DOWNSPOUT CONNECTIONS. PIPE USED FOR UNDERDRAINS SHALL CONFORM TO ITEM 707.31, CORRUGATED POLYETHYLENE DRAINAGE TUBING.

WATER LINE CONSTRUCTION: ALL PIPE, FITTINGS & METHODS OF CONSTRUCTION & WORKMANSHIP FOR WATER LINES & APPURTENANCES SHOWN ON THESE PLANS SHALL CONFORM TO THE REQUIREMENTS OF GALLIA COUNTY, IN FORCE ON THE DATE OF CONTRACT, UNLESS SUCH REQUIREMENTS ARE UPGRADED BY THE FOLLOWING SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

MATERIAL: ALL PIPE, FITTINGS, VALVES & METHODS OF CONSTRUCTION SHALL BE SUPPLIED WITH MATERIAL CONFORMING TO THE LATEST SPECIFICATIONS FOR THE FOLLOWING:

(1) DUCTILE IRON, CLASS 53 FOR SIZES 3" TO 10" & CLASS 54 FOR SIZES 12" & ABOVE, MANUFACTURED IN ACCORDANCE WITH AWWA C151, HAVING A BITUMINOUS COATED CEMENT LINING COMPLYING WITH AWWA C104 & AN OUTSIDE COATING OF BITUMASTIC ENAMEL OR APPROVED EQUIVALENT. ALL JOINTS SHALL CONFORM TO AWWA C111.

(2) POLYVINYL CHLORIDE PIPE, AWWA C905 DR18 FOR SIZES 14" & ABOVE, AWWA C900 DR18 FOR SIZES 4" TO 12".

(3) WATER LINE PIPE & FITTINGS SHALL BE AWWA C153, CEMENT LINED PER AWWA C104.

(4) VALVES SHALL HAVE A NON-RISING STEM, LEFT-HAND OPEN (COUNTER-CLOCKWISE) WITH DOUBLE O-RING STEM SEALS. VALVES SHALL HAVE END JOINTS CONFORMING TO AWWA C111. VALVES SHALL PASS A SEAT TEST AT 200 PSI WITHOUT LEAKAGE. THE VALVE SHELL SHALL PASS A SHELL TEST WITH THE VALVE IN THE OPEN POSITION AT 400 PSI WITHOUT LEAKAGE THROUGH METAL, FLANGED JOINTS OR STEM SEALS. ADDITIONALLY, THE VALVES SHALL CONFORM TO THE FOLLOWING:

AWWA C515 HAVING A SEALING MECHANISM THAT PROVIDES ZERO LEAKAGE AT THE WATER WORKING PRESSURE AGAINST LINE FLOW FROM EITHER DIRECTION. NO EXPOSED METAL SEAMS, EDGES, SCREWS, ETC. SHALL BE WITHIN THE WATERWAY IN THE CLOSED POSITION (ALL SURFACES 4DHALL BE RUBBER COVERED). THE RUBBER COVERED GATE SHALL NOT BE WEDGED IN A POCKET NOR SLIDE ACROSS THE SEATING SURFACE TO OBTAIN TIGHT CLOSURE. ALL INTERNAL & EXTERNAL FERROUS SURFACES, INCLUDING THE INTERIOR OF THE GATE, BOLT HOLES & FLANGE FACES, SHALL BE COATED, PRIOR TO ASSEMBLY OF THE VALVE, WITH EPOXY HAVING A MINIMUM THICKNESS OF 8 MILS. THERE SHALL BE AN O-RING SEAL ABOVE THE STORM COLLAR & AN O-RING SEAL BELOW THE STEM COLLAR WITH THE AREA BETWEEN THE O-RING SEALS FILLED WITH LUBRICANT. THERE SHALL BE ANTI-FRICTION WASHERS AT THE STEM COLLAR.

(5) SERVICE LINES SHALL BE:

(A) COPPER PIPE, TYPE K

(B) DRISCOPIPE 5100, ULTRA-LINE, ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE, AWWA C901, COPPER TUBE SIZE OD ASTM D-2737 SDR 9 (PE3408)

(C) WATER LINE PIPE MATERIAL

(6) CORPORATION STOPS SHALL BE EQUIVALENT TO MUELLER H-1 5000.

(7) CURB STOPS SHALL BE EQUIVALENT TO MUELLER H-15200 WITH A BOX EQUIVALENT TO MUELLER H-1 0350, SIZE 94E.

(8) TAPPING SLEEVES SHALL BE A MECHANICAL JOINT SLEEVE & SHALL PROVIDE FULL SUPPORT AROUND THE CIRCUMFERENCE OF THE PIPE, WITH SUFFICIENT WIDTH & BEARING TO NOT DISTORT THE PIPE WHEN TIGHTENED. LUGS OR RIDGES WHICH MAY SCRAPE OR CUT INTO PIPE ARE NOT ACCEPTABLE.

(9) TAPPING SADDLES SHALL BE EQUIVALENT TO FORD STYLE FS 101 FOR 3/4" & 1 " SERVICES, & FORD STYLE FS202 FOR 1-1/4" THROUGH 2-1/2" SERVICES.

(10) ALL JOINTS, FITTING, VALVES & APPURTENANCES SHALL BE FURNISHED WITH ALL ACCESSORIES.

CONNECTING WATER LINES: THE CONNECTION OF EXISTING WATER LINES & SERVICES TO PROPOSED WATER LINES SHALL BE DONE IN A MANNER THAT WILL CAUSE MINIMUM INCONVENIENCE TO THOSE WITH AFFECTED SERVICE. WORK CONCERNING THE DISCONNECTION & RECONNECTION OF EXISTING WATER LINES SHALL BE DONE BETWEEN THE HOURS OF 10:00 P.M. & 5:00 A.M., OR AS DIRECTED BY THE ENGINEER. NO SUCH WORK SHALL BEGIN UNTIL THE ENGINEER, THE LOCAL FIRE DEPARTMENT & THE AFFECTED CUSTOMERS ARE NOTIFIED OF THE EXTENT, NATURE & TIME OF THE ANTICIPATED WORK, & THE METHOD & SCHEDULE OF SUCH WORK HAS BEEN APPROVED BY THE LOCAL WATER COMPANY.

TAPS: A TAP PERMIT FOR EACH WATER SERVICE MUST BE OBTAINED FROM THE APPROPRIATE ENTITIES PRIOR TO CONNECTING ANY CUSTOMERS TO THE WATER LINE.

DEAD END LINES: ON DEAD END LINES, 2 ~ 3/4" TAPS SHALL BE INSTALLED WITHIN 2' OF THE END OF THE MAIN.

PLUG POLES: A 2" X 2" HARDWOOD POLE SHALL BE PLACED AT ALL END-OF-LINE STUBS AT THE THRUST BLOCK. EACH POLE SHALL HAVE A 1' MINIMUM LENGTH OF RE-BAR ATTACHED TO ITS TOP END. THE TOP OF THE POLE SHALL BE BURIED APPROXIMATELY 3" BELOW THE FINISHED GRADE.

MINIMUM DEPTH: WATER LINES SHALL BE LAID WITH A MINIMUM OF 4' FROM TOP OF PROPOSED OR FINISHED GRADE (OR TOP OF CURB) TO THE TOP OF THE WATER LINE.

LINE CROSSINGS: AT ALL POINTS OF CROSSING BETWEEN WATER MAINS & SEWERS, THE BACKFILL SHALL BE GRANULAR MATERIAL BETWEEN THE DEEPER & SHALLOWER PIPE, AS DIRECTED BY THE ENGINEER.

BACKFILLING WATER LINE TRENCHES: TRENCHES UNDER EXISTING OR PROPOSED PAVED AREAS OR DRIVES SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL FROM THE BOTTOM OF THE TRENCH TO THE PAVEMENT SUB-GRADE OR TO A PLANE 6" BELOW THE TOP OF THE GROUND, BETWEEN THE LIMITS OF 5' BEYOND THE EDGE OF PAVEMENT, PAVED SHOULDER OR BACK OF CURB. TRENCHES OUTSIDE PAVEMENT LIMITS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AS DEFINED IN THE INSTALLATION DETAILS.

DISINFECTION: ALL WATER MAINS SHALL BE DISINFECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL WATER COMPANY & THE APPLICABLE SECTIONS OF AWWA C651 (WATER MAINS), C652 (STORAGE FACILITIES), C653 (WATER PLANTS), & C654 (WELLS). ALL LABOR, MATERIAL & EQUIPMENT INCLUDING DISINFECTION TAPS & BLOW-OFF TAPS WILL BE FURNISHED & PAID FOR BY THE CONTRACTOR, INCLUDING TAPPING VALVES, SUFFICIENT TUBING OR PIPE TO EXTEND OUTSIDE THE TRENCH & AN OPERABLE VALVE ABOVE GROUND. BLOW-OFFS SHALL BE INSTALLED WHERE SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED IN THE FIELD. THE TIME & SECTION OF LINE (OR FACILITY) TO BE DISINFECTED SHALL BE APPROVED BY THE ENGINEER. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF AWWA C651, PARTICULARLY FOR FLUSHING & FOR DISINFECTING VALVES & FIRE HYDRANTS. ALL LABORATORY TESTS ASSOCIATED WITH VERIFYING PROPER DISINFECTION SHALL BE PAID FOR BY THE CONTRACTOR.

PRESSURE TESTING: A HYDROSTATIC TEST AS REQUIRED IN APPLICABLE SECTIONS OF AWWA C600 SHALL BE APPLIED TO THE WATER MAIN. IF THERE ARE INDICATIONS OF LEAKS UNDER THIS PRESSURE TEST, THE CONTRACTOR SHALL LOCATE & REPAIR THEM AT HIS COST UNTIL THE LEAKAGE IS WITHIN THE SPECIFIED ALLOWANCE. ALL BENDS, JOINT DEFLECTIONS & HYDRANTS SHALL HAVE APPROPRIATE THRUST BLOCKING.

WORKING PRESSURE: THIS PROJECT HAS BEEN DESIGNED SO THAT NORMAL WORKING PRESSURE WILL NOT BE LESS THAN 35 PSI. INDIVIDUAL BOOSTER PUMPS ARE PROHIBITED.

VALVE EXTENSIONS: IF THE TOP OF THE OPERATING NUT IS MORE THAN 36" BELOW FINISHED GRADE, AN EXTENSION STEM SHALL BE FURNISHED TO BRING THE TOP OF THE OPERATING NUT TO WITHIN 24" OF FINISHED GRADE.

SANITARY SEWER CONSTRUCTION: ALL PIPE, MANHOLES, FITTINGS & METHODS OF CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF GALLIA COUNTY, IN FORCE ON THE DATE OF CONTRACT, UNLESS SUCH REQUIREMENTS ARE UPGRADED BY THE FOLLOWING SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

MATERIAL: UNLESS OTHERWISE INDICATED ON THE PLANS, SEWERS & SERVICES SHALL BE SUPPLIED WITH MATERIAL CONFORMING TO THE LATEST SPECIFICATIONS FOR THE FOLLOWING:

GRAVITY SEWER PIPE:

(1) EXTRA STRENGTH CLAY PIPE, ASTM C700 WITH COMPRESSION JOINTS, ASTM C425;

(2) POLYVINYL CHLORIDE PIPE, ASTM D 3034, SDR 35, UP TO 15" IN DIAMETER, WITH JOINTS CONFORMING TO ASTM D 3212.

MANHOLES: MANHOLES SHALL BE PRE-CAST CONCRETE IN ACCORDANCE WITH ASTM C478.

SEWER PRESSURE PIPE:

(1) DUCTILE IRON PIPE & FITTINGS CONFORMING TO AWWA C151 & AWWA C153 WITH A MINIMUM WORKING PRESSURE OF 150 PSI & JOINTS CONFORMING TO AWWA C111.

(2) POLYVINYL CHLORIDE PIPE & FITTINGS, ASTM 2241, SDR 26.

SEWER TESTING: THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT & MATERIALS REQUIRED TO TEST THE SECTIONS OF SANITARY SEWER CONDUIT FOR TIGHTNESS. EITHER THE INFILTRATION TEST OR EXFILTRATION TEST WILL BE PERFORMED & ALL TESTS SHALL BE CONDUCTED UNDER SUPERVISION OF THE ENGINEER. TESTS FOR LEAKAGE SHALL INCLUDE ALL PORTIONS OF THE SANITARY SEWER SYSTEM INCLUDING SERVICE LINES THAT ARE INSTALLED BY THE CONTRACTOR. THE SEWER SHALL BE TESTED IN SECTIONS, EACH SECTION EXTENDING BETWEEN TWO CONSECUTIVE MANHOLES OR FROM THE END OF THE SEWER TO THE NEAREST MANHOLE. THE ALLOWABLE LEAKAGE SHALL NOT EXCEED 200 GALLONS PER DAY PER MILE OF PIPE PER INCH OF PIPE DIAMETER TESTED, OR THE COMPUTED EQUIVALENT FOR SHORTER PERIODS OF TIME. IN LIEU OF A HYDROSTATIC TEST, THE CONTRACTOR MAY USE AN AIR TEST. THE AIR TEST SHALL, AS A MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-828 FOR CLAY PIPE, ASTM C-924 FOR CONCRETE PIPE, ASTM F-1417 FOR PLASTIC PIPE, & FOR OTHER MATERIALS TEST PROCEDURES APPROVED BY THE REGULATORY AGENCY. IF THE SEWERS ARE TESTED UTILIZING AN AIR TEST, MANHOLES SHALL BE TESTED BY VACUUM.

WYE POLES: THE CONTRACTOR SHALL FURNISH & PLACE, AS DIRECTED, APPROVED WYE POLES MADE OF 2" X 2" LUMBER AT ALL WYE LOCATIONS, ENDS OF EXTENDED SERVICES OR AT THE END OF EACH RISER WHERE RISERS ARE REQUIRED. THE COST OF THESE POLES SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS SEWER ITEMS.

SERVICE CONNECTIONS: SERVICES OR HOUSE CONNECTIONS SHALL NOT BE CONNECTED TO THE LATERAL OR MAIN LINE SEWERS SHOWN HEREON UNTIL FULL APPROVAL OF SAID LATERAL OR MAIN LINE SEWER HAS BEEN RECEIVED.

STORM WATER CONNECTIONS: NO FOUNDATION DRAIN, ROOF DRAIN OR OTHER STORM WATER DRAIN OF ANY KIND WILL BE ALLOWED TO CONNECT INTO THE SANITARY SEWER.

BEDDING & BACKFILL: SANITARY SEWERS UNDER EXISTING OR PROPOSED PAVEMENT LIMITS & DRIVES SHALL BE INSTALLED AS REQUIRED FOR TYPE B CONDUIT, ITEM 611.02. BACKFILL SHALL BE ITEM 703.11, TYPE 1, UP TO THE PAVEMENT SUBGRADE OR WITHIN 6" OF FINISHED GRADE. THE PAVEMENT LIMITS SHALL BE 5' BEYOND THE EDGE OF PAVEMENT, PAVED SHOULDER OR BACK OF CURB. SANITARY SEWER OUTSIDE PAVEMENT LIMITS SHALL BE INSTALLED AS REQUIRED FOR TYPE C CONDUIT, ITEM 611.02, USING NATURAL BACKFILL. BEDDING FOR TYPE B OR C CONDUIT SHALL CONSIST OF NOS. 57, 6, 67, 7, 78, OR 8, ITEM 703, AS REQUIRED BY THE PIPE MANUFACTURER. ANY SETTLEMENT WHICH OCCURS DURING THE GUARANTEE PERIOD SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

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STATE OF OHIO
GLENN E. DECKER
57924
REGISTERED PROFESSIONAL ENGINEER

04-24-2023
Registered Engineer Date

GENERAL NOTES

BUCKEYE HILLS CAREER CENTER
CDL DRIVER TRAINING
351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

■	PRELIMINARY	04-21-2022
■	BID SET	04-24-2023
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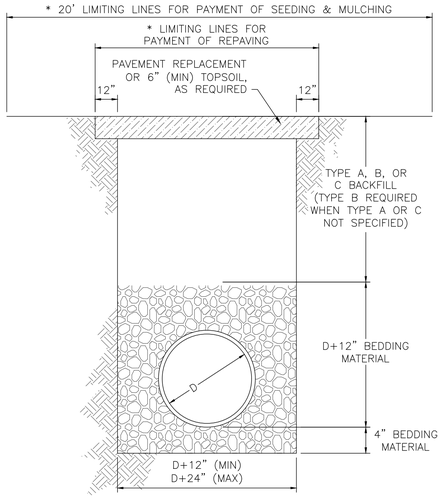
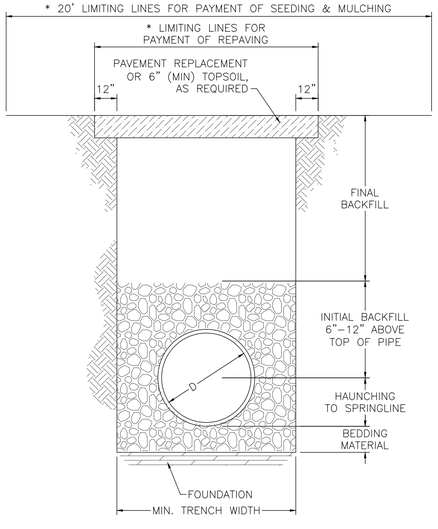


* LIMITING LINES FOR PAYMENT APPLY ONLY WHEN CONTRACT PROVIDES FOR UNIT PRICE PAYMENT OF PAVEMENT REPLACEMENT AND SEEDING & MULCHING.

TYP. TRENCH
FOR PVC
STORM & SANITARY PIPE (1)
NOT TO SCALE

NOTES:
1. ITEM NUMBERS REFER TO STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS.
2. AGGREGATE FOR BEDDING IS WASHED GRAVEL NO. 57, NO. 6, NO. 67, NO. 68, OR NO. 7, ITEM 703.
3. TYPE A BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL AS SPECIFIED IN ITEM 304, GRADE A. TYPE A BACKFILL SHALL BE USED WHEN THE TRENCH IS 5' OR LESS FROM ANY PAVED OR GRAVEL SURFACE, OR BENEATH THE PAVEMENT OR GRAVEL. COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 203.
4. TYPE B BACKFILL SHALL BE NATURAL SOIL FREE FROM STONES LARGER THAN 2" ACROSS THEIR GREATEST DIMENSION, TOPSOIL, VEGETATION, DEBRIS, RUBBISH, OR FROZEN MATERIAL, COMPACTED TO 95% OF ITS MAXIMUM LABORATORY DRY WEIGHT.
5. TYPE C BACKFILL SHALL BE NATURAL SOIL FREE FROM STONES LARGER THAN 6" ACROSS THEIR GREATEST DIMENSION, TOPSOIL, VEGETATION, DEBRIS, RUBBISH, OR FROZEN MATERIAL, COMPACTED TO 90% OF ITS MAXIMUM LABORATORY DRY WEIGHT. WHEN APPROVED BY THE ENGINEER, STONES NO LARGER THAN ONE CUBIC FOOT MAY BE DEPOSITED AT LEAST 3' ABOVE THE TOP OF THE PIPE.
6. THE EXCAVATED TRENCH WIDTH 12" ABOVE THE CONDUIT MAY BE INCREASED WITHOUT EXTRA COMPENSATION.
7. COVER OVER PIPE SHALL BE AS SPECIFIED ON PLANS. UNLESS OTHERWISE SPECIFIED, ROOF DRAINS SHALL HAVE 30" MIN. COVER AND SANITARY SEWER SERVICES SHALL HAVE 48" MIN. COVER.



* LIMITING LINES FOR PAYMENT APPLY ONLY WHEN CONTRACT PROVIDES FOR UNIT PRICE PAYMENT OF PAVEMENT REPLACEMENT AND SEEDING & MULCHING.

TYP. TRENCH
CORRUGATED PE PIPE (2)
NOT TO SCALE

NOTES:
1. FOUNDATION: WHERE TRENCH BOTTOM IS UNSTABLE, CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER & REPLACE WITH A FOUNDATION OF CLASS I OR II MATERIAL AS DEFINED IN ASTM D2321, "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR SEWER & OTHER GRAVITY–FLOW APPLICATIONS", LATEST EDITION. AS AN ALTERNATIVE & AT THE DISCRETION OF THE ENGINEER, TRENCH BOTTOM MAY BE STABILIZED USING WOVEN GEOTEXTILE FABRIC.
2. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III, & INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MIN. BEDDING THICKNESS SHALL BE 4" FOR 4"–24" & 42"–48" PIPE & 6" FOR 30"–36" PIPE.

3. HAUNCHING & INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III, & INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
4. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MIN. RECOMMENDED TRENCH WIDTHS SHALL BE AS FOLLOWS:

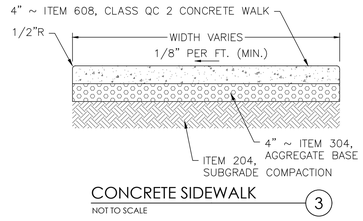
NOMINAL ⌀	MIN. WIDTH
4"	21"
6"	23"
8"	25"
10"	28"
12"	31"
15"	34"
18"	39"
24"	48"
30"	66"
36"	78"
42"	83"
48"	89"
60"	102"

5. THE EXCAVATED TRENCH WIDTH TWELVE INCHES (12") ABOVE THE CONDUIT MAY BE INCREASED WITHOUT EXTRA COMPENSATION.

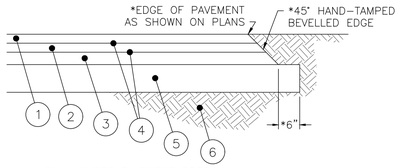
MINIMUM COVER: MIN. RECOMMENDED DEPTHS OF COVER FOR VARIOUS LIVE LOADING CONDITIONS ARE AS FOLLOWS. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE FROM TOP OF PIPE TO GROUND SURFACE.

SURFACE LIVE LOADING CONDITION	MIN. COVER
H25 (FLEXIBLE PAVEMENT)	12" **
H25 (RIGID PAVEMENT)	12"
E80 RAILWAY	24"
HEAVY CONSTRUCTION	48"

** TOP OF PIPE TO BOTTOM OF BITUMINOUS PAVEMENT SECTION.



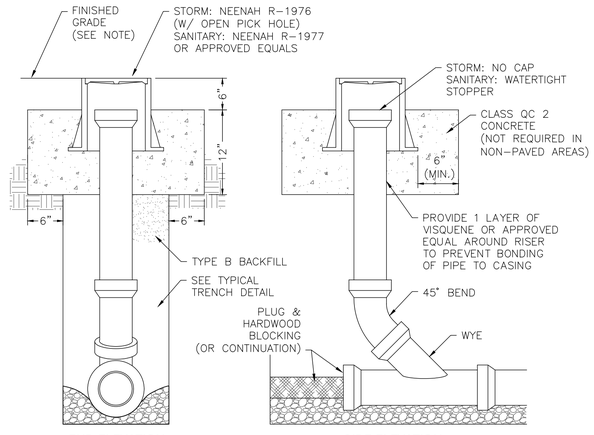
CONCRETE SIDEWALK (3)
NOT TO SCALE



* ONLY WHERE PAVEMENT DOES NOT ABUT CURB/SIDEWALK

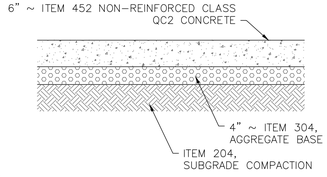
1. 1 1/2" ~ ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG64–22
2. 2" ~ ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448), PG64–22
3. 4" ~ ITEM 301, ASPHALT BASE COURSE.
4. ITEM 407, TACK COAT, 702.12, NON–TRACKING (0.10 GAL/SY) ~ TO BE APPLIED BETWEEN ASPHALT COURSES NOT PLACED WITHIN 24 HOURS OF EACH OTHER
5. 10" ~ ITEM 304, AGGREGATE BASE
6. ITEM 204, SUBGRADE COMPACTION

HEAVY DUTY PAVEMENT (4)
NOT TO SCALE



NOTE: CLEANOUT TOP OF CASTING SHALL BE SET FLUSH WITH FINISHED GRADE IN PAVEMENT AREAS OR 2" MIN. TO 4" MAX. ABOVE FINISHED GRADE IN NON–PAVED AREAS.

CLEANOUT (5)
NOT TO SCALE



NOTES:
- SEE STRUCTURAL PLANS FOR CONCRETE REINFORCEMENT FOR LOADING DOCK.
- SAWCUT CONTROL JOINTS PER ODOT ITEM 451. JOINTS SHALL BE PLACED AT A MAXIMUM OF 12' APART IN EACH DIRECTION AND SHALL BE ¼" OF THE THICKNESS OF THE CONCRETE.
- APPLY CURING PER ODOT ITEM 451.
- SEAL PER ODOT ITEM 512 EPOXY/URETHANE SEALER. THE 2ND COAT (URETHANE) SHALL INCLUDE 1.5 LB/SY SILICA SAND INTO THE SURFACE FOR SKID RESISTANCE.
- ASTM D994 BITUMINOUS IMPREGNATED FIBERBOARD JOINT FILLER , ½" THICK, SHALL BE PLACED ADJACENT TO ALL EXISTING BUILDING WALLS AND CONCRETE SLABS.
- PROVIDE COLD WEATHER PROTECTION PER ACI 306.1–90.

CONCRETE PAVEMENT (6)
NOT TO SCALE

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DETAILS

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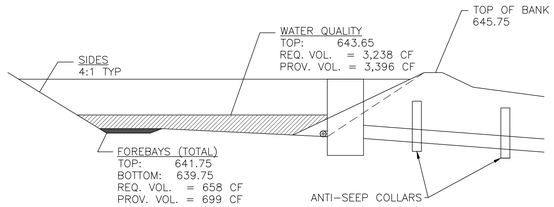
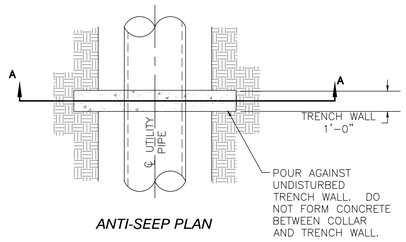
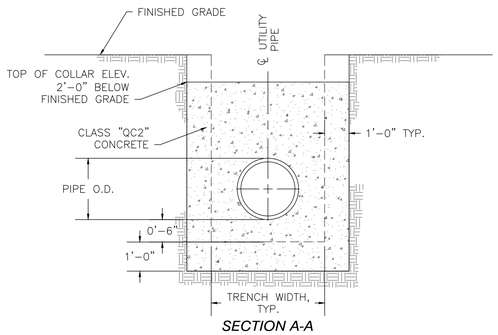


BASIN SECTION



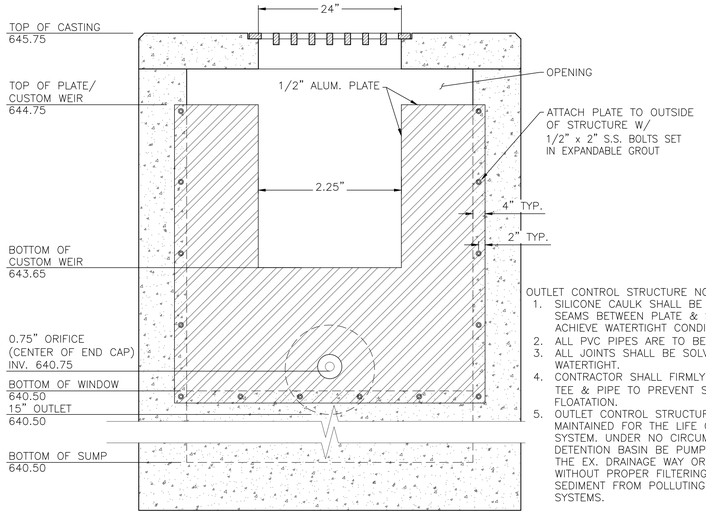
ANTI-SEEP PLAN



SECTION A-A

DETENTION BASIN SECTION & ANTI-SEEP COLLAR (1)

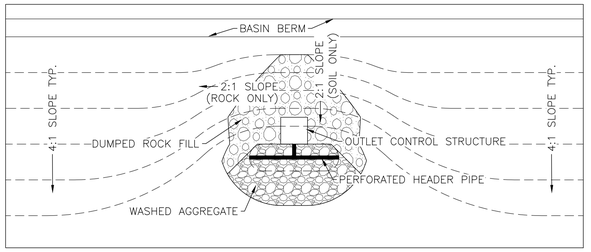
NOT TO SCALE



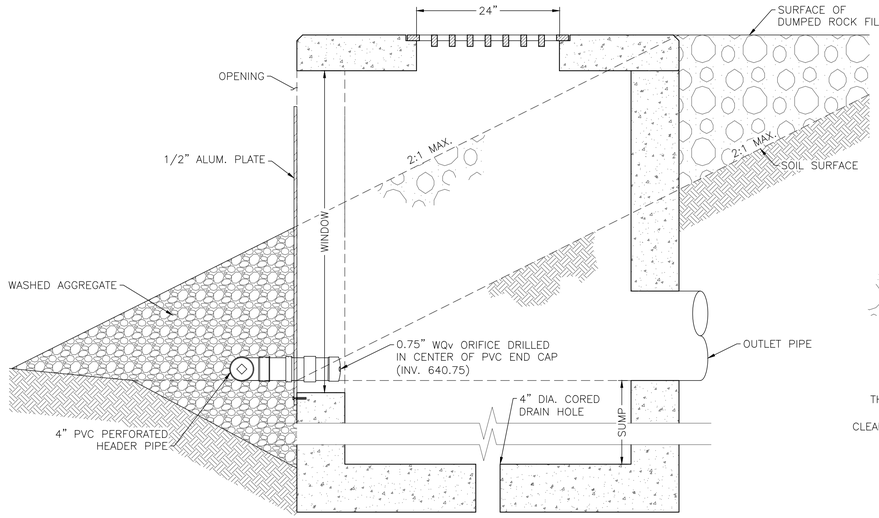
SECTION A

OUTLET CONTROL STRUCTURE NOTES:

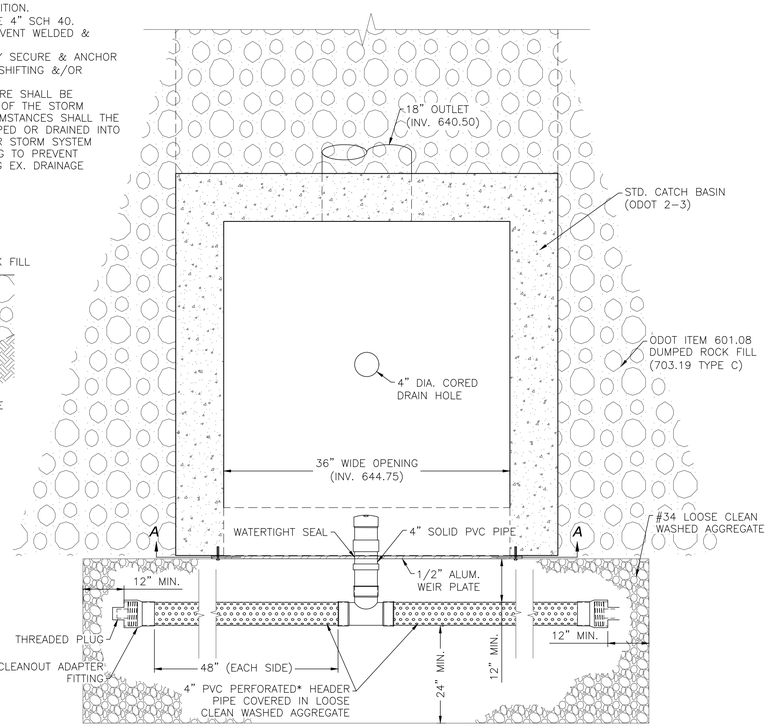
1. SILICONE CAULK SHALL BE APPLIED AT ALL SEAMS BETWEEN PLATE & STRUCTURE TO ACHIEVE WATERTIGHT CONDITION.
2. ALL PVC PIPES ARE TO BE 4" SCH 40.
3. ALL JOINTS SHALL BE SOLVENT WELDED & WATERTIGHT.
4. CONTRACTOR SHALL FIRMLY SECURE & ANCHOR TEE & PIPE TO PREVENT SHIFTING &/OR FLOATATION.
5. OUTLET CONTROL STRUCTURE SHALL BE MAINTAINED FOR THE LIFE OF THE STORM SYSTEM. UNDER NO CIRCUMSTANCES SHALL THE DETENTION BASIN BE PUMPED OR DRAINED INTO THE EX. DRAINAGE WAY OR STORM SYSTEM WITHOUT PROPER FILTERING TO PREVENT SEDIMENT FROM POLLUTING EX. DRAINAGE SYSTEMS.



GRADING DETAIL



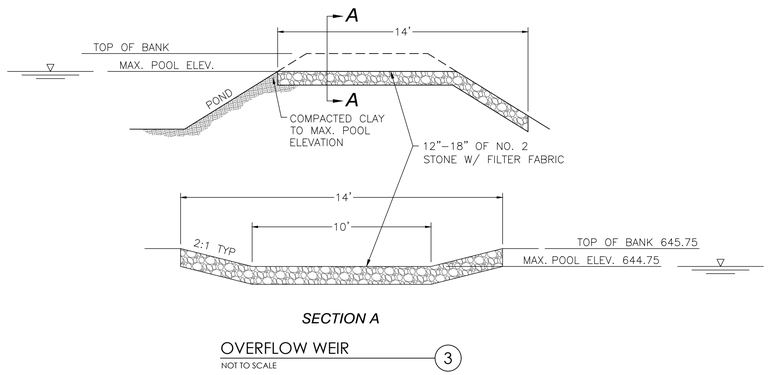
PROFILE



PLAN

OUTLET
CONTROL STRUCTURE (2)

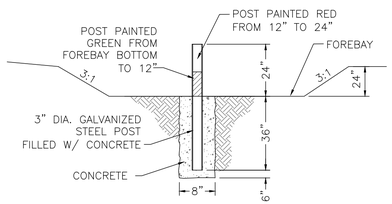
NOT TO SCALE



SECTION A

OVERFLOW WEIR (3)

NOT TO SCALE



NOTES:

- SEDIMENT LEVEL INDICATOR TO BE INSTALLED IN MIDDLE OF FOREBAY AWAY FROM NORMAL FLOW LINE OF INLET.
- 50% OF FOREBAY VOLUME = 12". SEDIMENT CONTAINED IN FOREBAY TO BE REMOVED & DISPOSED OF WHEN GREEN PAINT IS NO LONGER VISIBLE (12" DEEP).

SEDIMENT LEVEL INDICATOR (4)

NOT TO SCALE

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EROSION & SEDIMENT CONTROL NOTES

OEPA NOI PERMIT #: TBD

TIMING OF SEDIMENT–TRAPPING PRACTICES:

EROSION & SEDIMENT CONTROLS SHALL COMPLY WITH OHIO EPA PERMIT NO: OHC000005. ALL LAND DISTURBING ACTIVITIES SHALL BE SUBJECT TO INSPECTION & SITE INVESTIGATION BY FAIRFIELD COUNTY AND/OR THE OHIO EPA TO DETERMINE COMPLIANCE WITH CURRENT REGULATIONS, CORRECTIVE MEASURES OR MODIFICATIONS TO ON–SITE EROSION & SEDIMENT CONTROL PRACTICES SHALL BE MADE AT THE DIRECTION OF FAIRFIELD COUNTY OR OEPA OFFICIALS.

SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL THROUGHOUT EARTH–DISTURBING ACTIVITY.

PERIMETER CONTROLS & OTHER PRACTICES INTENDED TO TRAP SEDIMENT (INCLUDING THE TEMPORARY CONSTRUCTION ENTRANCE & CONCRETE WASHOUT AREA) SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING & WITHIN SEVEN DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UPSLOPE DEVELOPMENT AREA IS RESTABILIZED.

STABILIZATION OF DENUDED AREAS: DENUDED AREAS SHALL HAVE SOIL STABILIZATION APPLIED WITHIN SEVEN DAYS IF THEY ARE TO REMAIN DORMANT FOR MORE THAN FOURTEEN DAYS. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, & SHALL ALSO BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN TWENTY–ONE DAYS.

SEDIMENT BARRIERS: SHEET FLOW RUNOFF FROM DENUDED AREAS SHALL BE FILTERED OR DIVERTED TO A SETTLING FACILITY. SEDIMENT BARRIERS SUCH AS SEDIMENT FENCE OR DIVERSIONS TO SETTLING FACILITIES SHALL PROTECT ADJACENT PROPERTIES & WATER RESOURCES FROM SEDIMENT TRANSPORTED BY SHEET FLOW.

TEMPORARY EROSION CONTROL FEATURES SHALL BE ACCEPTABLY MAINTAINED & SHALL BE REMOVED OR REPLACED WHEN DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.

ALL CONCENTRATED WATER SOURCES SHALL DISCHARGE INTO A VIABLE SEDIMENT BASIN.

ALL WATER SOURCES SHALL DISCHARGE IN A NON–EROSIVE MANNER.

ALL SOIL STOCKPILES SHALL BE PROTECTED FROM EROSION BY PERIMETER CONTROL DEVICES SUCH AS STRAW BALE DIKES OR SILT FENCES. THESE PERIMETER CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.

PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL GROUND COVER IS ACHIEVED WHICH, IN THE OPINION OF THE ENGINEER, PROVIDES ADEQUATE COVER & IS MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY & TO SURVIVE ADVERSE WEATHER CONDITIONS.

INSPECTION SCHEDULE:

1. DIVERSION SWALE & STRUCTURAL PROTECTION – INSPECT EVERY 15 DAYS OR AFTER EACH RAINSTORM PRODUCING RUNOFF. REPAIR AS REQUIRED.
2. INLET PROTECTION – INSPECT FOR SEDIMENT ACCUMULATION AFTER EACH RAINFALL & DAILY DURING CONTINUED RAINFALL. REPAIR OR REPLACE WHEN WATER FLOW IS RESTRICTED BY SEDIMENT.
3. VEGETATIVE PLANTING – INSPECT AFTER SPROUTING OCCURS & REPLANT BARE AREAS. INSPECT ESTABLISHED COVER EVERY 15 DAYS FOR DAMAGE. REPLANT AS REQUIRED. MAINTAIN ESTABLISHED COVER AT 6" MAX. HEIGHT. IRRIGATE AS REQUIRED DURING DRY PERIODS TO MAINTAIN LIVE VEGETATION.

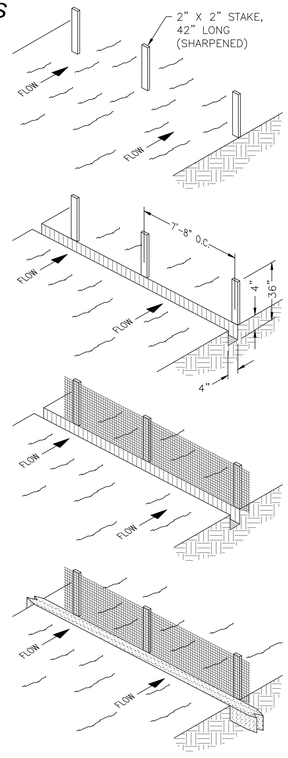
CONSTRUCTION SEQUENCE:

1. THE CONTRACTOR SHALL ESTABLISH A STABILIZED CONSTRUCTION ENTRANCE.
2. THE CONTRACTOR SHALL PLACE THE REQUIRED TEMPORARY SEDIMENT BASINS, SEDIMENT FENCE, AND OTHER PERIMETER CONTROLS.
3. THE CONTRACTOR SHALL ESTABLISH ALL SEDIMENT CONTROL STRUCTURES INCLUDING OUTLET STRUCTURES PRIOR TO DENUDING.
4. THE CONTRACTOR SHALL PERFORM SITE EARTHWORK OPERATIONS IN ACCORDANCE WITH THE PLAN DETAILS AND NOTES. PROVISIONS FOR INLET PROTECTION SHALL BE ESTABLISHED AS REFERENCED BY THE DETAILS SHOWN HEREIN. THE CONTRACTOR SHALL APPLY WATER OR DUST PALLIATIVE ON DISTURBED AREAS DURING CONSTRUCTION TO ALLEVIATE OR PREVENT DUST NUISANCE. DUST PALLIATIVE SHALL CONSIST OF CALCIUM CHLORIDE. THE WATER OR CALCIUM CHLORIDE SHALL BE SPREAD UNIFORMLY OVER THE SURFACE OF THE DISTURBED AREAS.
5. EXPOSED SLOPES SHALL BE STABILIZED AS SOON AS THEY ARE CONSTRUCTED.
6. THE CONTRACTOR SHALL PLACE SEEDING AND MULCHING AS NECESSARY TO STABILIZE ALL DENUDED AREAS. ALL DENUDED AREAS SHALL HAVE SOIL STABILIZATION APPLIED WITHIN SEVEN (7) DAYS OF DISTURBANCE IF THEY ARE TO BE SUBSTANTIALLY UNWORKED FOR MORE THAN 14 DAYS OR IF THEY ARE AT FINAL GRADE.
7. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF REMAINING EROSION CONTROL DEVICES ONLY AFTER ALL AREAS HAVE ESTABLISHED VEGETATIVE COVER.
8. AFTER REMOVAL OF EROSION CONTROL DEVICES, THE CONTRACTOR SHALL CLEAN ALL INLETS, STORM PIPES & DETENTION FACILITIES OF ALL SEDIMENT INCURRED DURING CONSTRUCTION.

EROSION CONTROL FABRIC: JUTE MATTING, EXCELSIOR MATTING OR A SIMILAR PRODUCT IS TO BE APPLIED ON SLOPES OF 2:1 OR GREATER. INSTALL MATTING PER MANUFACTURER AND INDUSTRY STANDARDS.

CONCRETE WASHOUT AREA: THE CONTRACTOR SHALL PROVIDE FOR AN ISOLATED CONCRETE WASHOUT AREA ONSITE. THIS LOCATION SHALL BE SHOWN ON THE CONSTRUCTION DRAWINGS OR, IF NOT SHOWN, THE LOCATION SHALL BE DETERMINED AT THE PRECONSTRUCTION CONFERENCE. NO CONCRETE DISPENSING VEHICLES SHALL BE PERMITTED TO DISCHARGE WASH WATER INTO A PRIVATE OR PUBLIC STORM SEWER SYSTEM.

ALL CONSTRUCTION AND DEMOLITION DEBRIS WASTE SHALL BE RECYCLED OR DISPOSED OF IN AN OHIO EPA APPROVED CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL AS REQUIRED BY OHIO REVISED CODE 3714.



SEDIMENT FENCE (1)
NOT TO SCALE

SILT FENCE: THIS BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRIC & IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.

1. HEIGHT OF BARRIER SHALL NOT EXCEED 36". HIGHER BARRIERS MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE STRUCTURE FAILURE.
2. FILTER FABRIC SHALL BE FROM A CONTINUOUS ROLL & CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FABRIC SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6" OVERLAP, & SECURELY SEALED.
3. POSTS SHALL BE SPACED AT 10' (MAX.) APART & DRIVEN SECURELY INTO THE GROUND 12" (MIN.). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT WIRE MESH SUPPORT, POST SPACING SHALL NOT EXCEED 6'.
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE & 4" DEEP ALONG THE LINE OF POSTS & UP–SLOPE FROM THE BARRIER.
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT SHALL BE FASTENED SECURELY TO THE UP–SLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1" LONG, TIE WIRES OR HOG RINGS. WIRE MESH SHALL EXTEND INTO THE TRENCH 2" (MIN.) & SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE.
6. STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE MESH & 8" OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. FABRIC SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
7. WHEN EXTRA STRENGTH FILTER FABRIC & CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT MAY BE ELIMINATED. IN SUCH CASE, FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6 APPLYING.
8. THE TRENCH SHALL BE BACKFILLED & SOIL COMPACTED OVER THE FILTER FABRIC.
9. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP–SLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

MAINTENANCE:

INSPECT IMMEDIATELY AFTER EACH RAINFALL & AT LEAST DAILY DURING PROLONGED RAINFALL. REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

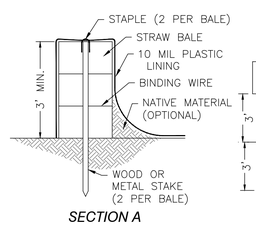
SHOULD THE FILTER FABRIC DECOMPOSE OR BECOME INEFFECTIVE WHILE THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER.

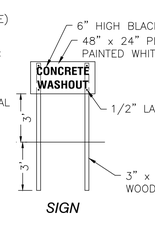
ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO EXISTING GRADE, PREPARED & SEEDED.

DESIGN CAPACITY CHART:

MAX. DRAINAGE AREA PER 100 LF OF BARRIER	RANGE OF SLOPE PER DRAINAGE AREA
0.5 AC.	<2%
0.25 AC.	≥2% BUT <20%
0.125 AC.	≥20% BUT <50%



SECTION A



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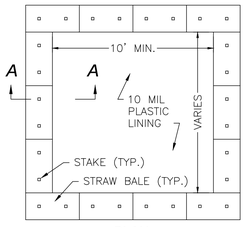
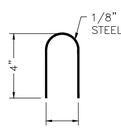


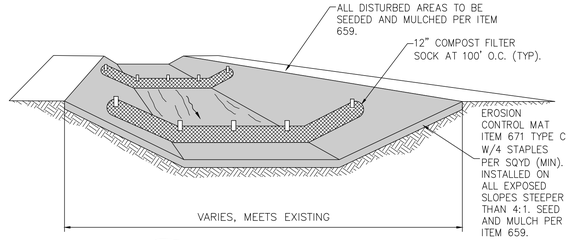
PLAN

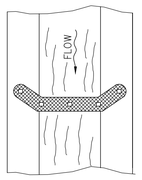


STAPLE

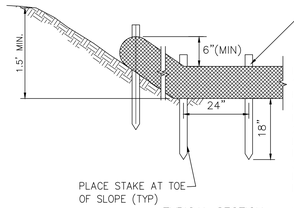
NOTES:
- ACTUAL LOCATION & LAYOUT SHALL BE DETERMINED IN THE FIELD.
- PIT CAN BE DUG INTO THE GROUND OR FORMED ABOVE GRADE.
- PLASTIC LINING SHALL BE MAINTAINED FREE OF TEARS OR HOLES.
- AFTER THE PIT IS USED & WASHWATER HAS EVAPORATED OR BEEN VACUUMED OFF, THE REMAINING HARDENED SOLIDS CAN BE BROKEN UP & REMOVED FROM THE PIT.
- IF DAMAGE OCCURS TO THE STRAW BALES OR PLASTIC LINING DURING THE REMOVAL OF SOLIDS, THE PIT SHALL BE REPAIRED & RELINED WITH NEW PLASTIC TO ACHIEVE A LEAK–PROOF SYSTEM.
- A PRE–FABRICATED PORTABLE VINYL WASHOUT CONTAINER WITH FILTER BAG OR METAL WASHOUT CONTAINER SERVICE MAY BE USED AS SUBSTITUTES FOR THE STRAW BALE & PLASTIC LINER PIT.

CONCRETE WASHOUT AREA (2)
NOT TO SCALE





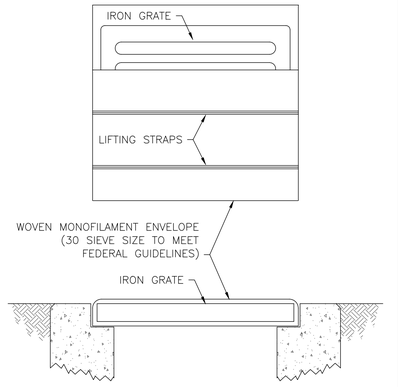
PLAN VIEW



TYPICAL SECTION

MAINTENANCE GUIDE
1. AFTER FIRST RAIN, REPLACE ANY MISSING ROCK AND DIRT AT LEADING EDGE.
2. INSPECT FILTER SOCK DITCH CHECK AFTER HEAVY RAINS.
3. REMOVE SEDIMENT DEPOSITS FROM FABRIC DITCH CHECK WHEN THE TOP OF SEDIMENT REACHES 75% OF FABRIC HEIGHT.

DITCH CHECK DETAIL (3)
NOT TO SCALE



TO INSPECT CATCH BASIN: REMOVE UNIT WITH GRATE INSIDE, INSPECT BASIN AND REPLACE UNIT.

MAINTENANCE: REMOVE DRIED SEDIMENT FROM SURFACE OF UNIT AS NEEDED WITH STIFF BROOM OR SQUARE SHOVEL. REMOVE FINE MATERIAL FROM INSIDE ENVELOPE AS NEEDED.

INLET PROTECTION (PAVEMENT AREAS) (4)
NOT TO SCALE

TEMPORARY STABILIZATION	
AREAS REQUIRING STABILIZATION	TIME FRAME
• ANY DISTURBED AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT A FINAL GRADE	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
• FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA
• DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER

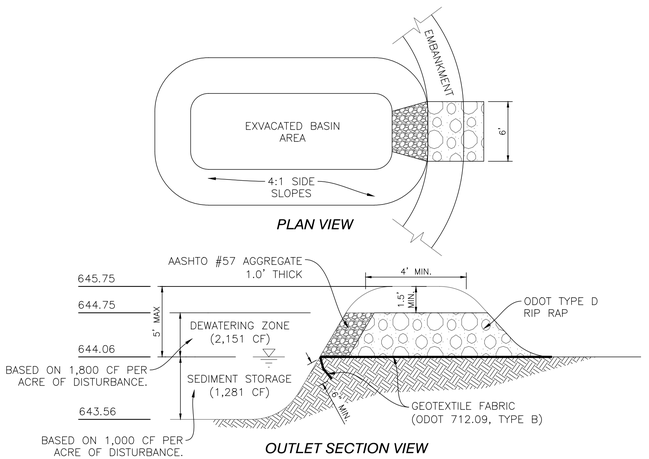
PERMANENT STABILIZATION	
AREAS REQUIRING STABILIZATION	TIME FRAME
• ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE
• ANY AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
• ANY OTHER AREAS AT FINAL GRADE	WITHIN 7 DAYS OF REACHING FINAL GRADE IN THAT AREA

POST–CONSTRUCTION EXTENDED DETENTION BASIN MAINTENANCE ACTIVITIES

MAINTENANCE ACTIVITY	*FREQUENCY*
CONDUCT ANNUAL VEGETATION MANAGEMENT DURING THE SUMMER, REMOVING WEEDS AND HARVESTING VEGETATION. REMOVE ALL GRASS CUTTINGS AND OTHER GREEN WASTE AND DISPOSE OF PROPERLY.	ONCE A YEAR
TRIM VEGETATION AT BEGINNING AND END OF WET SEASON TO PREVENT ESTABLISHMENT OF WOODY VEGETATION, AND FOR AESTHETICS AND MOSQUITO CONTROL.	TWICE A YEAR (SPRING AND FALL)
EVALUATE HEALTH OF VEGETATION AND REMOVE AND REPLACE ANY DEAD OR DYING PLANTS. REMOVE ALL GREEN WASTE AND DISPOSE OF PROPERLY.	TWICE A YEAR
CONDUCT REGULAR MOWING AND REMOVE ALL GRASS CUTTINGS. AVOID PRODUCING RUTS WHEN MOWING.	AT LEAST WEEKLY DURING GROWING SEASON OR MORE FREQUENTLY AS NEEDED.
REMOVE ACCUMULATED SEDIMENT FROM THE SUMP IN THE OUTLET CONTROL STRUCTURE.	EVERY TWO WEEKS OR MORE FREQUENTLY AS NEEDED.
REMOVE ACCUMULATED TRASH AND DEBRIS FROM EXTENDED DETENTION BASIN AND DISPOSE OF TRASH AND DEBRIS PROPERLY.	WEEKLY
INSPECT EXTENDED DETENTION BASIN USING INSPECTION CHECKLIST	QUARTERLY OR AS NEEDED
REMOVE ANY DEBRIS OR CLOGS FROM OUTLET ORIFICES AND UNDER–DRAINS.	AS NEEDED
MOSQUITO ABATEMENT	AS NEEDED

MAINTENANCE LOG NOTES:
THE PROPERTY OWNER, ITS ADMINISTRATORS, EXECUTORS, SUCCESSORS, HEIRS OR ASSIGNS SHALL MAINTAIN THE STORMWATER CONTROL FACILITY OR FACILITIES IN GOOD WORKING CONDITION ACCEPTABLE TO THE CITY AND IN ACCORDANCE WITH THE SCHEDULE OF LONG–TERM MAINTENANCE ACTIVITIES IN THE STORMWATER CONTROL FACILITY MAINTENANCE PLAN.

THE PROPERTY OWNER SHALL MAINTAIN COPIES OF COMPLETE, DATED AND SIGNED INSPECTION CHECKLISTS IN A MAINTENANCE INSPECTION LOG, ALONG WITH RECORDED DATES AND DESCRIPTIONS OF MAINTENANCE ACTIVITIES PERFORMED BY THE PROPERTY OWNER TO REMEDY THE DEFICIENCIES OBSERVED DURING PRIOR INSPECTIONS. THE MAINTENANCE INSPECTION LOG SHALL BE KEPT ON THE PROPERTY AND SHALL BE MADE AVAILABLE TO FAIRFIELD COUNTY UPON REQUEST.



NOTE: PROPOSED BASIN IS TO BE USED AS SEDIMENT TRAP DURING CONSTRUCTION. TRAP OUTLET WILL BE INSTALLED IN PROPOSED LOCATION OF THE BASIN'S PERMANENT EMERGENCY SPILLWAY. AFTER ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED, BASIN SHALL BE TRANSITIONED TO POST CONSTRUCTION DESIGN, SEDIMENT TRAP OUTLET REMOVED, & EMERGENCY SPILLWAY SHALL BE INSTALLED.

SEDIMENT TRAP (5)
NOT TO SCALE

SPECIFICATIONS:
1. WORK SHALL CONSIST OF THE INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL SEDIMENT TRAPS AT THE LOCATIONS DESIGNATED ON THE DRAWINGS.
2. SEDIMENT TRAPS SHALL BE CONSTRUCTED TO THE DIMENSIONS SPECIFIED ON THE DRAWINGS AND OPERATIONAL PRIOR TO UPSLOPE LAND DISTURBANCE.
3. THE AREA BENEATH THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF VEGETATION TO A MINIMUM DEPTH OF SIX INCHES. THE POOL SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT.
4. FILL USED FOR THE EMBANKMENT SHALL BE EVALUATED TO ASSURE ITS SUITABILITY AND IT MUST BE FREE OF ROOTS OR OTHER WOODY VEGETATION, LARGE ROCKS, ORGANICS, OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL SHALL BE PLACED IN SIX INCH LIFTS AND SHALL BE COMPACTED BY TRAVERSING WITH A SHEEPSFOOT OR OTHER APPROVED COMPACTION EQUIPMENT. FILL HEIGHT SHALL BE INCREASED FIVE PERCENT TO ALLOW FOR STRUCTURE/FOUNDATION SETTLEMENT. CONSTRUCTION SHALL NOT BE PERMITTED IF EITHER THE EARTHFILL OR COMPACTION SURFACE IS FROZEN.
5. THE MAXIMUM HEIGHT OF EMBANKMENT SHALL BE FIVE FEET. ALL CUT AND FILL SLOPES SHALL BE 2:1 (H:V) OF FLATTER.
6. A MINIMUM STORAGE VOLUME BELOW THE CREST OF THE OUTLET OF 67 CY FOR EVERY ACRE OF CONTRIBUTING DRAINAGE AREA SHALL BE ACHIEVED AT EACH LOCATION NOTED ON THE DRAWINGS WITH ADDITIONAL SEDIMENT STORAGE VOLUME PROVIDED BELOW THIS ELEVATION.
7. TEMPORARY SEEDING SHALL BE ESTABLISHED AND MAINTAINED OVER THE USEFUL LIFE OF THE PRACTICE.
8. THE OUTLET FOR THE SEDIMENT TRAP STRUCTURE SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN ON THE DRAWINGS.
9. THE OUTLET SHALL BE CONSTRUCTED USING THE MATERIALS SPECIFIED ON THE DRAWINGS. WHERE GEOTEXTILE IS USED, ALL OVERLAPS SHALL BE A MINIMUM OF TWO FEET OR AS SPECIFIED BY THE MANUFACTURER, WHICHEVER IS GREATER. ALL OVERLAPS SHALL BE MADE WITH THE UPPER MOST LAYER PLACED LAST. GEOTEXTILE SHALL BE KEYED IN AT LEAST SIX INCHES ON THE UPSTREAM SIDE OF THE OUTLET.
10. WARNING SIGNS AND SAFETY FENCE SHALL BE PLACED AROUND THE TRAPS AND MAINTAINED OVER THE LIFE OF THE PRACTICE.
11. AFTER ALL SEDIMENT–PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, THE STRUCTURE AND ALL ASSOCIATED SEDIMENT SHALL BE REMOVED. STABILE EARTH MATERIALS SHALL BE PLACED IN THE SEDIMENT TRAP AREA AND COMPACTED. THE AREA SHALL BE GRADED TO BLEND IN WITH ADJOINING LAND SURFACES AND HAVE POSITIVE DRAINAGE. THE AREA SHALL BE IMMEDIATELY SEEDED.

Know what's below. Call before you dig.

SANDS DECKER ENGINEERS & SURVEYORS

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DETAILS

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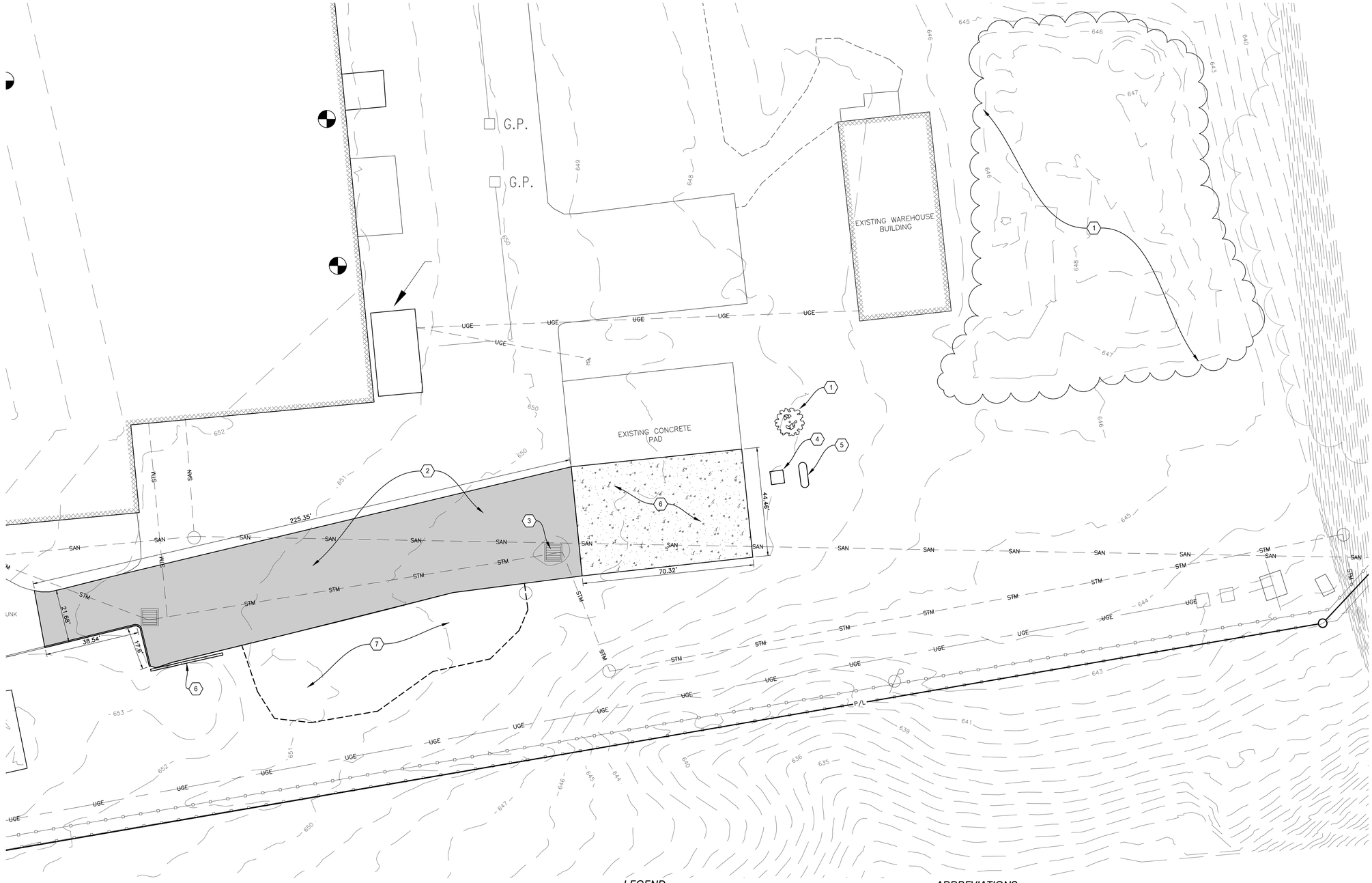

DEMO KEYNOTES

1. VEGETATION/TREES TO BE REMOVED.
2. ASPHALT TO BE REMOVED.
3. EXISTING STORM STRUCTURE ADJUSTED TO PROPOSED GRADE WITH RISERS, SEE GRADING PLAN.
4. ELECTRICAL BOX TO BE REMOVED.
5. UTILITY TANK TO BE REMOVED.
6. CONCRETE TO BE REMOVED.

MISC. NOTES

- ALL ITEMS NOTED FOR DEMOLITION SHALL BE REMOVED & DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL & LOCAL REGULATIONS, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- THE REMOVAL OF ANY ITEMS WHICH HAVE IN-GROUND FOUNDATIONS, BASES OR FOOTERS OF ANY KIND SHALL INCLUDE COMPLETE REMOVAL OF SAID FOUNDATIONS.
- UTILITIES MARKED "*" ARE DRAWN PER PLAN OR ARE IN AN ASSUMED LOCATION. SANDS DECKER ASSUMES NO LIABILITY FOR SAID UTILITY LOCATIONS.

SURVEYOR'S NOTE

THE EXISTING SURVEY INFORMATION SHOWN HEREON WAS PREPARED BY EXLINE SURVEYING, INC. ON 02/08/2022. SANDS DECKER CPS, LLC. ASSUMES NO LIABILITY FOR ANY ERRORS OR OMISSIONS THEREIN.

BASIS OF BEARINGS (FROM EXLINE)

NORTH IS ORIENTED TO THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, 1983.

ELEVATIONS WERE BASED ON NAVD 1988 DATUM AQUIRED FROM OHIO DOT VRS NETWORK.

LEGEND

P/L	PROPERTY LINE
	EASEMENT LINE
UGE	UNDERGROUND ELECTRIC LINE
OHEC	OVERHEAD ELECTRIC LINE
UGC	UNDERGROUND TELEPHONE LINE
W	WATER LINE
FIRE	FIRE WATER LINE
STM	STORM LINE
UD	UNDER DRAIN
SAN	SANITARY SEWER
G	GAS LINE
E/G	EDGE OF GRAVEL
	FENCE
	CATCH BASIN
	MANHOLE
	DOWNSPOUT
	CLEANOUT
	WATER VALVE
	FIRE HYDRANT
	GAS VALVE
FM	FIBER OPTIC MARKER
C	COMMUNICATIONS PEDESTAL
	LIGHT POLE
	TELEPHONE POLE
HVAC	HVAC UNIT
EM	ELECTRIC METER
PB	PULL BOX
	TREE LINE
	BOLLARD
	POST
	SIGN
(XX)	PARKING BLOCK W/ COUNT
X	FINISHED FLOOR
	BENCHMARK
	SAND
	BUILDING
	CONCRETE REMOVED
	ASPHALT REMOVED

ABBREVIATIONS

MH	MANHOLE
CB	CATCH BASIN
TC	TOP OF CASTING
FFL	FINISHED FLOOR
CNA	CANNOT ACCESS
TBM	TEMPORARY BENCHMARK

NORTH

GRAPHIC SCALE

20 10 0 20

1" = 20'

811 Know what's below. Call before you dig.

SANDS DECKER ENGINEERS & SURVEYORS

JCKL ARCHITECTS

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COLUMBUS, OHIO 43234
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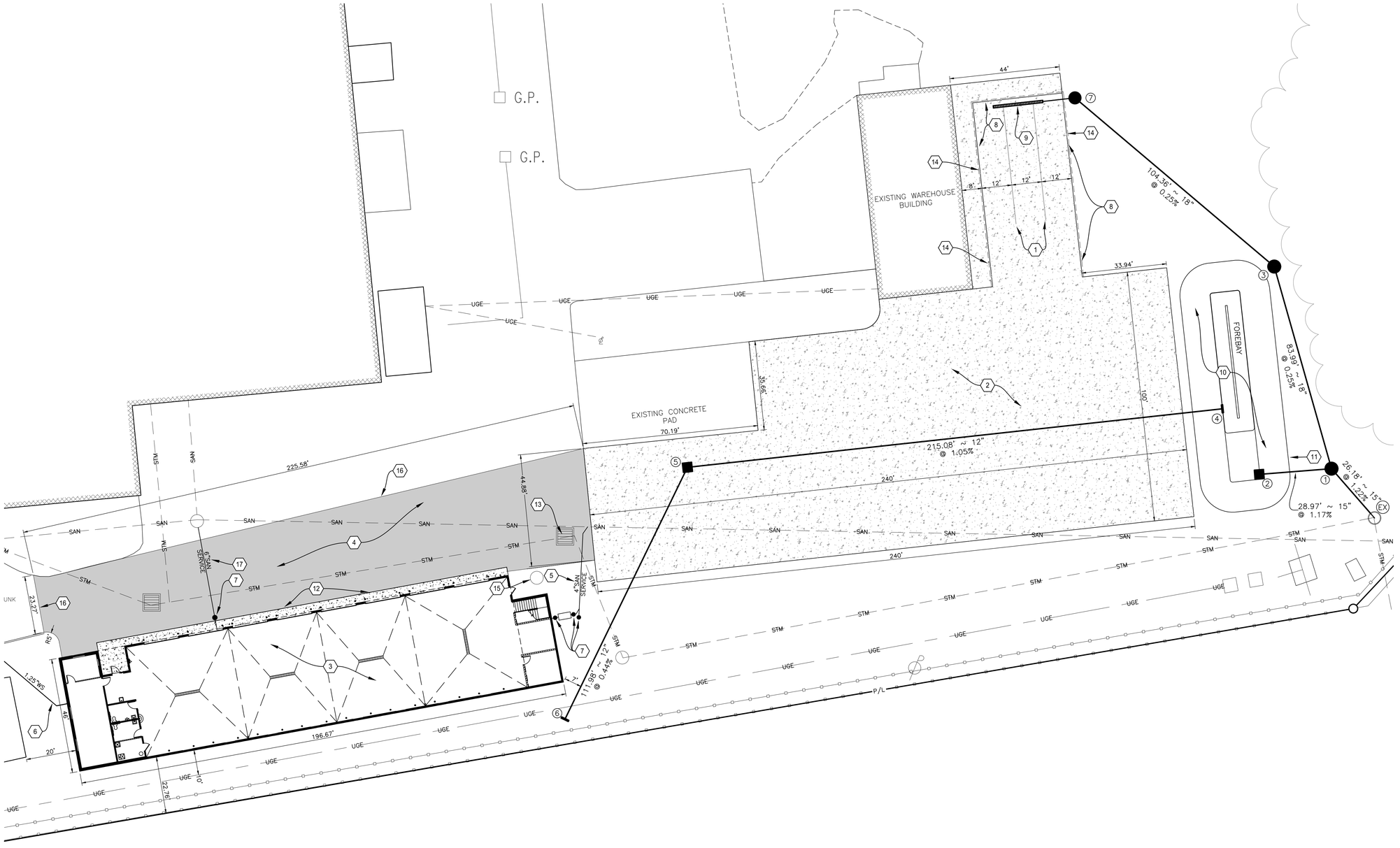
EXISTING SITE SURVEY & DEMOLITION PLAN

BUCKEYE HILLS CAREER CDL DRIVER TRAINING
351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

■	PRELIMINARY	04-21-2022
■	BID SET	04-24-2023
□		
□		

04-24-2023
BID SET

C5.0



SITE KEYNOTES

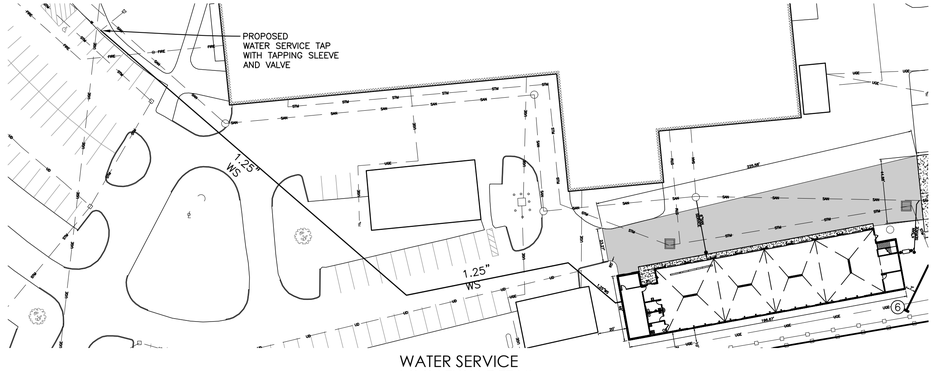
1. PAVEMENT MARKINGS PER ITEMS 641 & 642, TYP.
2. CONCRETE PAVEMENT (TYP.), SEE DETAIL.
3. PROPOSED DIESEL BUILDING, SEE ARCH. PLANS.
4. HEAVY DUTY ASPHALT PAVEMENT, SEE DETAIL.
5. 4" SANITARY SERVICE FROM OIL INTERCEPTOR TO WYE INTO SANITARY SEWER SYSTEM AS SHOWN. MIN. 2% SLOPE. SEE PLUMBING PLANS FOR DETAILS. VERIFY EXISTING SANITARY SEWER LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
6. 1.25" WATER SERVICE LINE, TO TAP INTO EXISTING WATERLINE AS SHOWN. (SEE DETAIL).
7. CLEANOUT (TYP.) FOR SANITARY SERVICE, SEE DETAIL.
8. CONCRETE WALLS FOR LOADING DOCK. SEE STRUCTURAL PLANS FOR DETAILS.
9. HEAVY DUTY TRAFFIC RATED 8" SLOTTED DRAIN, PER ODOT SCD DM 1.3.
10. DETENTION BASIN WITH OUTLET CONTROL STRUCTURE, SEE DETAILS.
11. OVERFLOW WEIR, SEE DETAIL.
12. CONCRETE WALK, SEE DETAIL.
13. ADD RISERS TO EXISTING CATCH BASIN TO MEET PROPOSED GRADE (SEE GRADING PLAN). REPLACE GRATE WITH HEAVY DUTY TRAFFIC RATED CLOSED/SOLID GRATE, AS TO NOT ALLOW SURFACE DRAINAGE TO ENTER.
14. HANDRAILS AROUND TRUCK DOCK RETAINING WALL, ON EAST & WEST SIDES ONLY. SEE ARCH. PLAN FOR DETAILS.
15. ADJUST EXISTING WATER SPIGOT TO EXISTING GRADE.
16. ALL EDGES TO BE NEATLY SAW CUT. APPLY ITEM 407 TACK COAT, 702.12, NON-TRACKING (0.10 GAL/SY) TO ALL EXPOSED SURFACES PRIOR TO PLACEMENT OF NEW PAVEMENT. SEAL JOINT WITH ITEM 705.04, HOT APPLIED JOINT SEALER.
17. 6" SANITARY SERVICE LINE AT 1.2% SLOPE MIN., TO TIE INTO EXISTING SANITARY MANHOLE WITH KOR-N-SEAL OR APPROVED EQUIVALENT. EXISTING SANITARY MANHOLE LOCATION AND DEPTH SHALL BE VERIFIED PRIOR TO CONSTRUCTION.

MISC. NOTES

- SEE ARCHITECTURAL, MECHANICAL, STRUCTURAL, & ELECTRICAL PLANS FOR ADDITIONAL DETAILS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE GROUND & REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE A/E.
- UTILITIES MARKED "*" ARE DRAWN PER PLAN OR ARE IN AN ASSUMED LOCATION. SANDS DECKER TAKES NO LIABILITY FOR SAID UTILITY LOCATIONS.
- CAUTION IS TO BE USED WHEN MILLING/EXCAVATING TO AVOID CONFLICT WITH UNDERGROUND UTILITIES. CONTRACTOR TO EXCAVATE AREA TO LOCATE UTILITY PRIOR TO CONSTRUCTION.

LEGEND

①	STORM STRUCTURE LABEL (SEE PROFILE)
	CONCRETE. SEE KEYNOTES & DETAILS.
	HEAVY DUTY ASPHALT PAVEMENT. SEE DETAILS.



WATER SERVICE LOCATION DETAIL ①
SCALE: 1"=50'

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NORTH

GRAPHIC SCALE
20 10 0 20
1" = 20'

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SITE DIMENSION & UTILITY PLAN
BUCKEYE HILLS CAREER CENTER
CDL DRIVER TRAINING
351 BUCKEYE HILLS ROAD
RIO GRANDE, OHIO 45674

■	PRELIMINARY	04-21-2022
■	BID SET	04-24-2023
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□		

04-24-2023
BID SET

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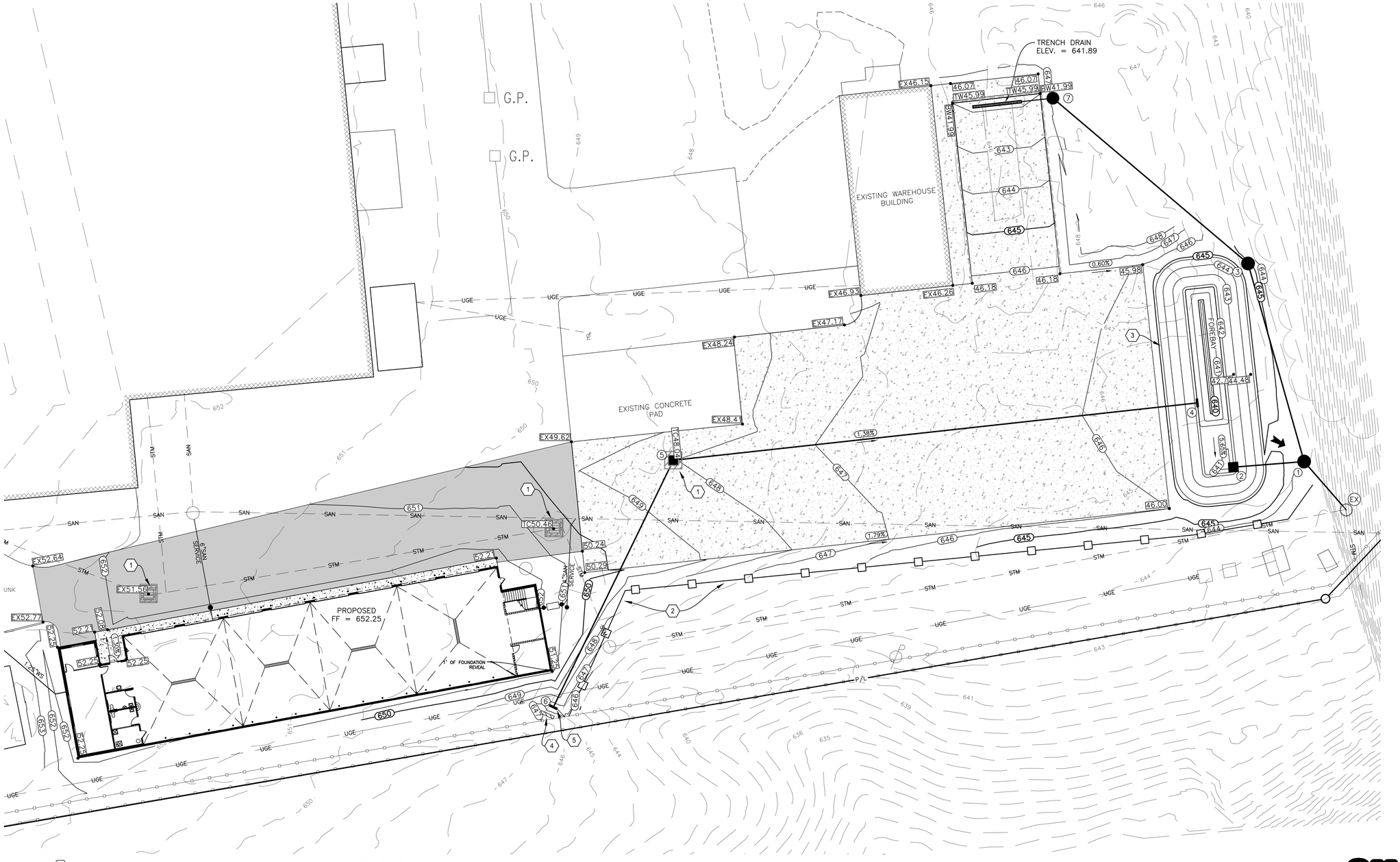

GRADING KEYNOTES

1. INLET PROTECTION (TYP.), SEE DETAIL.
2. SEDIMENT FENCE (TYP.), SEE DETAIL.
3. PROPOSED DETENTION BASIN SHALL BE USED AT A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION, SEE DETAIL.
4. DITCH CHECK (TYP), SEE DETAIL.
5. REGRADE EXISTING DITCH AS SHOWN TO ENTER THE PROPOSED HEADWALL.

MISC. NOTES

- CONTRACTOR SHALL PROVIDE A CONCRETE WASHOUT AREA PER DETAIL. LOCATION SHALL BE DETERMINED IN THE FIELD.
- GRADE BOXES HAVE BEEN TRUNCATED FOR LEGIBILITY. ADD 600 TO ALL SPOT ELEVATIONS.
- FOR SWP3 NOTES & DETAILS, SEE SHEET C4.
- UTILITIES MARKED "*" ARE DRAWN PER PLAN OR ARE IN AN ASSUMED LOCATION. SANDS DECKER TAKES NO LIABILITY FOR SAID UTILITY LOCATIONS.
- CAUTION IS TO BE USED WHEN MILLING/EXCAVATING TO AVOID CONFLICT WITH UNDERGROUND UTILITIES. CONTRACTOR TO EXCAVATE AREA TO LOCATE UTILITY PRIOR TO CONSTRUCTION.
- ALL SLOPES EQUAL TO OR STEEPER THAN 3:1 SHALL BE STABILIZED USING TEMPORARY EROSION CONTROL MATTING INSTALLED AND SECURED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR SHALL NOT ALLOW DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO A SEWER SYSTEM OR A RECEIVING STREAM OR POND.

LEGEND

1000	EXISTING CONTOUR
970	PROPOSED CONTOUR
11	STORM STRUCTURE NUMBER
	MAJOR STORM ROUTING
91.30	SPOT ELEVATION
TC91.46	TOP OF CASTING ELEVATION
EX91.54	EXISTING ELEVATION
BW91.38	BOTTOM OF WALL ELEVATION
TW91.38	TOP OF WALL ELEVATION
	PROPOSED ASPHALT
	PROPOSED CONCRETE WALK OR PAVEMENT
	INLET PROTECTION (TYP.)
	SEDIMENT FENCE (TYP.)
	DITCH CHECK (TYP.)

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20 10 0 20

1" = 20'

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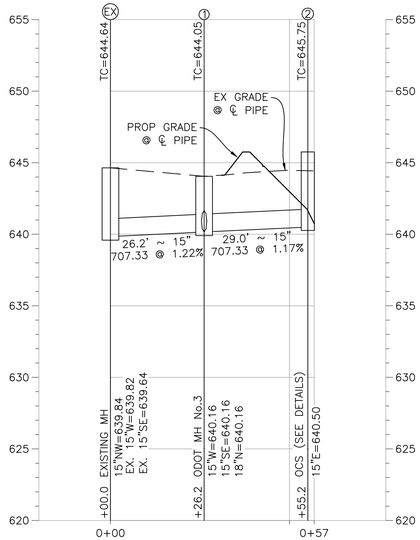
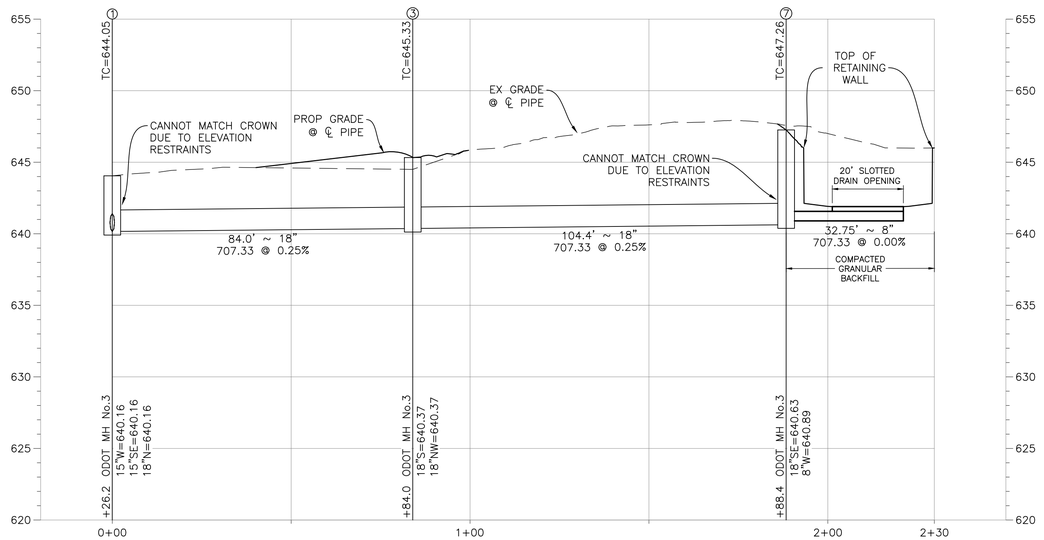
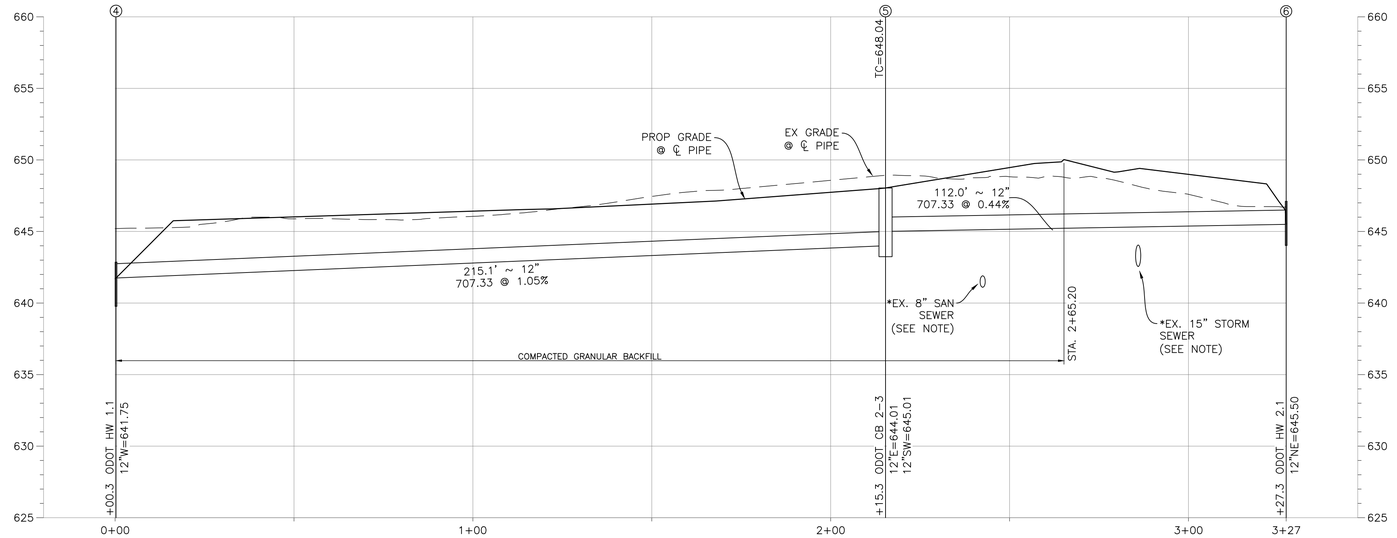


STORM PROFILES
STRUCTURES EX-2
V=1:5 H=1:20 (1)



STORM PROFILES
STRUCTURES 1-7
V=1:5 H=1:20 (2)



STORM PROFILES
STRUCTURES 4-6
V=1:5 H=1:20 (3)

NOTES:

– *SIZES AND ELEVATIONS OF EXISTING CROSSING PIPES SHOWN ON THE PROFILES ARE APPROXIMATE BASED ON SURVEYED INVERTS AND CALCULATED SLOPES. CONTRACTOR SHALL VERIFY EXISTING PIPE ELEVATIONS AND SIZES BEFORE PROCUREMENT OF ANY STORM MATERIALS (STRUCTURES, SEWERS, ETC.). IF THE CONTRACTOR'S FINDINGS CREATE A CONFLICT WITH THE PROPOSED PLANS, THEN THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ARCHITECT/ENGINEER OF THE CONFLICT.

JCKL
ARCHITECTS

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