THE SEED ACADEMY LAKE CUMBERLAND REGIONAL AGRITECH CENTER RUSSELL SPRINGS, KENTUCKY



Building Code: 2018 Kentucky Building Code, Second Edition

Project: Seed Academy - Russell Springs AgriTech

Project Site Address: 531 French Valley Rd., Russell Springs, KY 42642.

Brief Description: New Construction Agriculture Technology Education Facility, with an Auditorium,

1 training classrooms, 4 training lab/classrooms, Administrative area, including livestock barn adjacent to Auditorium, and a greeenhouse.

Use Group: Business Group B (Training and Skill Development)

Heights and Areas: Table 504.3 Allowable Building Height in Feet above grade plane

Table 504.3 Construction Type II-B fully sprinklered 75 feet allowed. 25 feet actual height.

Table 504.4 Allowable number of stories above grade plane 3 stories allowed. 1 story actual.

Table 506.2 Allowable Area Factor Type II-B (S1) 92,000 SF allowed. 19,147 SF actual.

Section 1004 Occupant Load:

Training & Skill Development Areas -

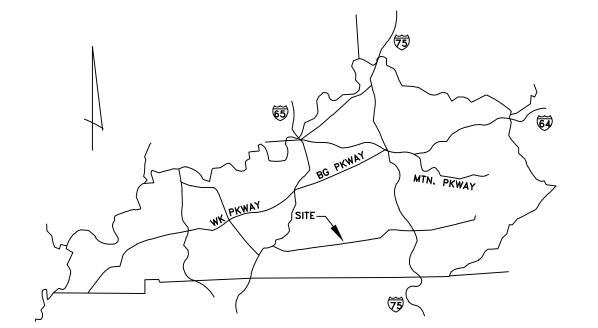
Training & Skill Development Areas - Classroom area: 20 net
Shops & Vocational areas: 50 net

Per Table 1006.2.1 Maximum Common Path of Egress Travel is 100 feet.

6,210 SF of Training Lab/Classrooms = divided by 20 net = 312 Occupants.

Accessibility Codes:

i. American's with Disabilities Act (ADA) 2010.ii. Architectural Barriers Act Accessibility Standards (ABAAS) 2015.





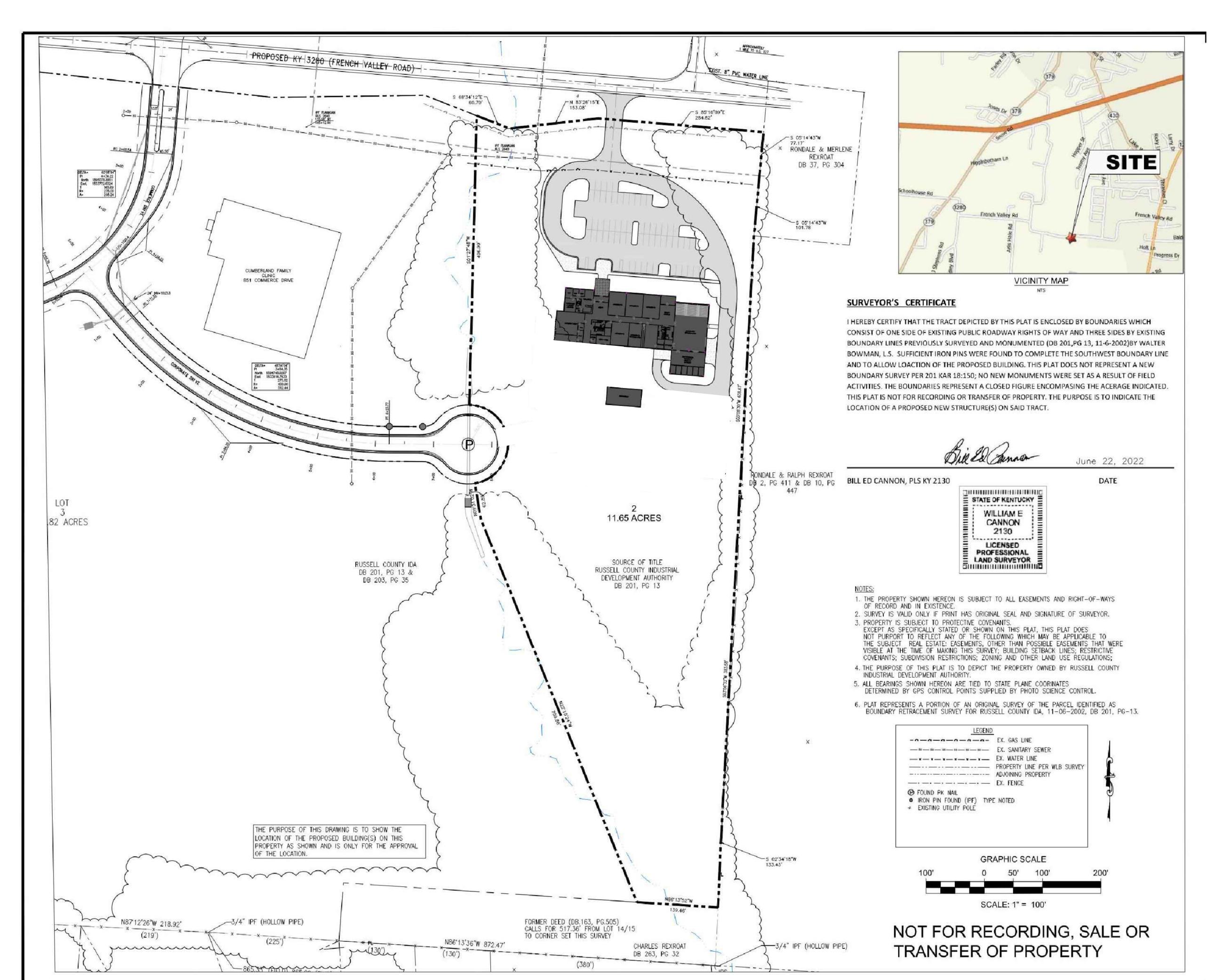
DATE: AUGUST 2024

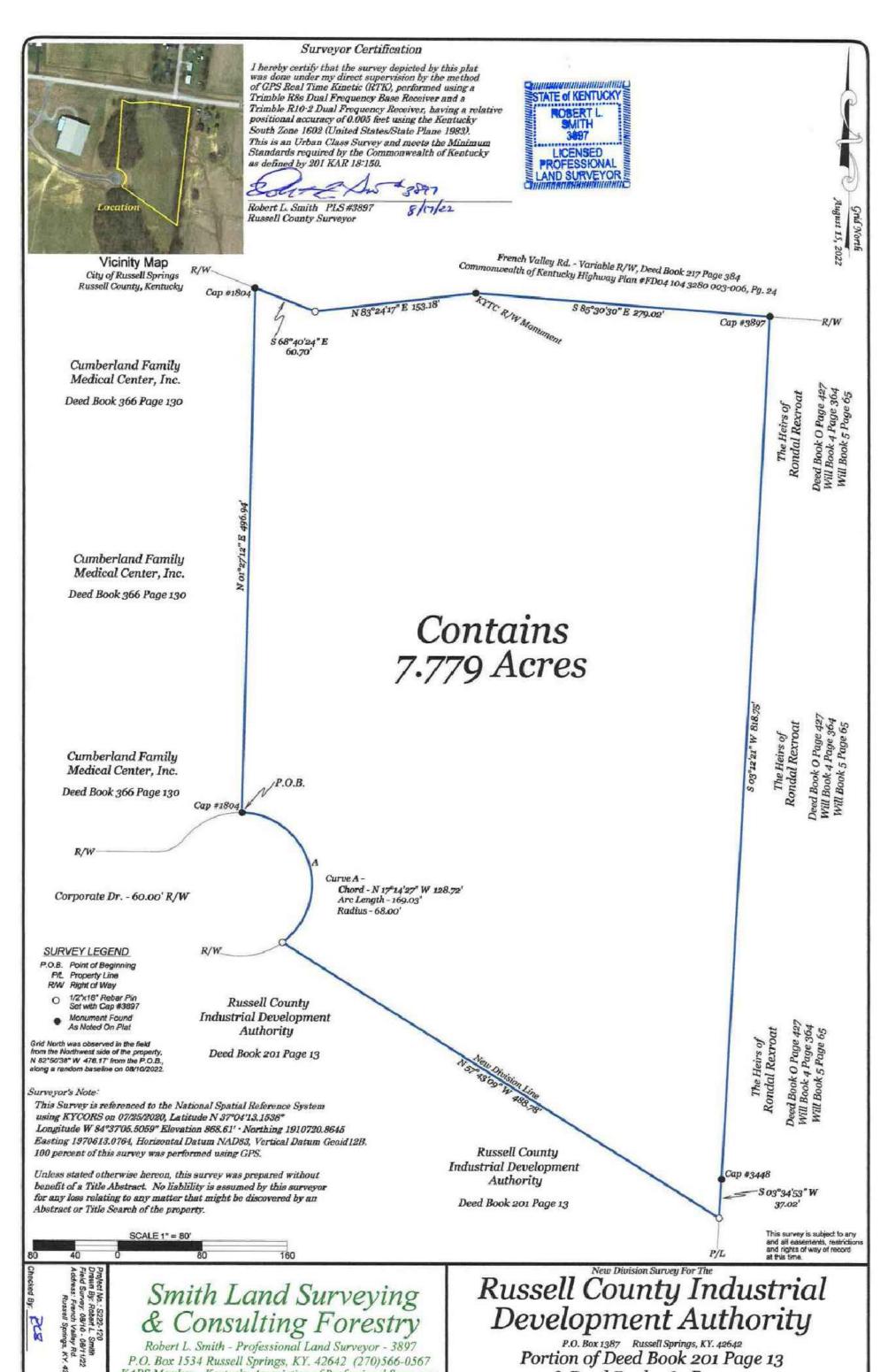
SCHEDULE OF DRAWINGS

GENERAL NOTES	• GEN • EC-1 • EC-2 • C-1 • C-2 • C-3
GENERAL NOTES	. s1
FLOOR PLAN EXTERIOR ELEVATIONS WALL SECTIONS WALL SECTIONS DOOR & WINDOW SCHEDULES DOOR & WINDOW DETAILS INTERIOR ELEVATIONS FINISH SCHEDULE & DETAILS	- A-2 - A-3 - A-4 - A-5 - A-6 - A-7 - A-8
HVAC FLOOR PLAN	. M-2 . UM-1 . P-1 . P-2 . FP-1 . FP-2 . E-1 . E-2 . E-3 . E-4

SET NO.

DRAWING NO.





& Deed Book 263 Page 35

P.O. Box 1534 Russell Springs, KY. 42642 (270)566-0567

KAPS Member - Kentucky Association of Professional Surveyors

2. CONTRACTOR TO MARK AND PROTECT ALL UNDERGROUND UTILITIES AND OVERHEAD OBSTRUCTIONS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS NOTING THE OWNER HAS OBTAINED AND PROVIDED THE KY TRANSPORTATION CABINET ENCROACHMENT PERMIT. SEE OWNER PERMIT DOCUMENTS IN DIVISION 0 OF THE PROJECT MANUAL WHICH SPECIFIC REQUIREMENTS WHICH THE CONTRACTOR MUST FOLLOW. THE CONTRACTOR WILL BE REQUIRED TO COMPLETE AND SUBMIT A NOTICE ON INTENT (NOI) FOR STORMWATER DISCHARGE WITH THE KENTUCKY DEPARTMENT OF WATER PRIOR TO ANY CONSTRUCTION ACTIVITY. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A NOTICE OF TERMINATION (NOT) TO THE KENTUCKY DIVISION OF WATER. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COPY OF ALL PERMITS OBTAINED BY THE CONTRACTOR.

4. VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE "KENTUCKY BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES" DATED AUGUST 1994 AS PREPARED BY THE DIVISION OF CONSERVATION AND DIVISION OF WATER, NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET AND/OR THE KENTUCKY TRANSPORTATION CABINET (KYTC) STANDARDS. CONTRACTOR SHALL USE THE "KENTUCKY EROSION PREVENTION AND SEDIMENT CONTROL FIELD GUIDE" AS THE DEFINITION OF REQUIREMENTS FOR CONSTRUCTION ACTIVITY.

5. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN AND MUST BE PROPERLY MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY OWNER OR THE GOVERNING AGENCY. CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RUN-OFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MADE IMMEDIATELY WITHIN 24 HOURS.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING CONSTRUCTION ENTRANCES AND SHALL KEEP ALL ROADS AND STREETS FREE ROM MUD. DIRT AND DEBRIS.

7. THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND THE KENTUCKY DEPARTMENT OF HIGHWAYS GUIDANCE MANUAL.

8.THE CONTRACTOR MUST MAINTAIN ACCESS TO EXISTING BUSINESSES AND EXISTING ROADS.

9. IN ADDITION TO PREVENTING SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION, THE CONTRACTOR MUST MINIMIZE OR ELIMINATE THE POTENTIAL FOR CHEMICAL CONTAMINANTS TO ENTER THE SOIL OR BE CARRIED ACROSS THE SITE BY STORM WATER. POTENTIAL CONTAMINANTS NORMALLY ASSOCIATED WITH CONSTRUCTION ACTIVITY INCLUDE GASOLINE AND DIESEL FUEL, OIL, GREASE, ANTIFREEZE, TERMITE SOIL TREATMENT CHEMICALS, FERTILIZER, ASPHALT OILS, EMULSIONS AND SMALL PARTICLE SIZE CONSTRUCTION DEBRIS. THE CONTRACTOR MUST EMPLOY VARIOUS BEST MANAGEMENT PRACTICES TO ELIMINATE OR MINIMIZE THE POTENTIAL FOR THESE CONTAMINANTS TO REACH THE SOIL AND/OR DRAINAGE SYSTEMS.

10. ALL SURFACE RUNOFF SHALL BE DIRECTED AWAY FROM ROADWAYS AND BUILDINGS AND DIRECTED TO DRAINAGE STRUCTURES, DITCHES OR SWALES.

11. CONTRACTOR SHALL ACCURATELY RECORD ALL UTILITIES CONSTRUCTED OR ENCOUNTERED ON "AS-BUILT" DRAWINGS AND PROVIDE TO OWNER AND ENGINEER.

12. MATERIALS AND METHODS OF CONSTRUCTION FOR GRADING AND DRAINAGE STRUCTURES INCLUDING PIPING AND HEADWALLS SHALL BE IN ACCORDANCE WITH KENTUCKY TRANSPORTATION CABINET (KYTC) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.

13. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY AREAS WHERE UNACCEPTABLE SOILS, SINKHOLES, WET AREAS OR OTHER CONDITIONS ARE ENCOUNTERED WHICH MAY ADVERSELY AFFECT THE SITE. IF DIRECTED BY ENGINEER, REMOVE UNSUITABLE SOILS AND REPLACE THEM WITH ACCEPTABLE SOILS.

14. EARTH AND ROCK WORK IS UNCLASSIFIED. NO EXTRA PAYMENT WILL BE MADE FOR ROCK EXCAVATION.

15. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS IN GRADING PLAN AS NECESSARY TO PROVIDE FOR SMOOTH TRANSITION FOR EXISTING ENTRANCES.

16. ALL SPOT ELEVATIONS INDICATE FINISH GRADE OF SURFACE. CONTRACTOR SHALL MAKE ADJUSTMENTS TO ESTABLISH GRADES OF SUB-BASE OR SUBGRADE.

17. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE EARTHWORK (EXCAVATION AND EMBANKMENT) QUANTITIES.

18. AREAS TO BE FILLED, EXCAVATED, LANDSCAPED, OR REGRADED SHALL BE STRIPPED OF ALL VEGETATION AND TOPSOIL. ALL TOPSOIL SHALL BE STOCKPILED FOR REDISTRIBUTION. STOCKPILE AREAS SHALL HAVE SOIL EROSION PROTECTION IN THE FORM OF SILT FENCING INSTALLED AROUND THE PERIMETER OR OTHER SUCH ACCEPTABLE MEASURES.

19. ALL SOIL FILL MATERIAL PLACED ON THIS PROJECT SHOULD BE COMPACTED WITH APPROPRIATE EQUIPMENT IN UNIFORM LAYERS TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) AS RECOMMENDED IN THE GEOTECHNICAL REPORT FOR THIS PROJECT.

20. FILL MATERIAL SHALL BE PROPERTY MONITORED USING FIELD DENSITY TEST CHECKS. IN ACCORDANCE WITH SPEC SECTION 01410, ALL TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PROVIDED BY A QUALIFIED INDEPENDENT TESTING AGENCY. SHOULD REPORTS INDICATE SPECIFIED COMPACTION IS NOT ACHIEVED, THE CONTRACTOR SHALL REMOVE MATERIAL, REPLACE, AND RETEST AT NO ADDITIONAL COST TO THE OWNER UNTIL ACCEPTABLE RESULTS ARE ACHIEVED. COPIES OF TEST REPORTS SHALL BE PROVIDED TO THE ENGINEER.

21. CONTRACTOR SHALL PROVIDE REDISTRIBUTION OF STOCKPILED OR IMPORT TOPSOIL AS REQUIRED OVER ALL FINISHED GRADE SOIL ARES TO A MINIMUM OF 12 INCHES AND PROVIDE FINAL SITE GRADING TO INSURE POSITIVE DRAINAGE AWAY FROM ROADWAYS AND BUILDINGS. AFTER FINAL GRADING, ANY LOW SPOTS WHICH ALLOW WATER TO POND SHALL MAKE ANY NECESSARY MINOR GRADE ADJUSTMENTS AS REQUIRED TO BEST FIT THE ACTUAL SITE CONDITIONS. CONTRACTOR SHALL PROVIDE BORROW MATERIAL AS REQUIRED FOR FILLING EXCAVATIONS, HOLES AND OTHER SUCH OPENINGS.

22. ALL EARTH GRADED AREAS SCARRED OR DENUDED BY THE CONSTRUCTION ACTIVITY SHALL BE SEEDED AND PROTECTED IN ADDITION TO THE PROVISIONS OF OTHER EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED.

23. ALL SURPLUS AND WASTE MATERIALS SHALL BE TRANSPORTED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AND CODES UNLESS OTHERWISE APPROVED BY OWNER. NO BURNING OR BURYING OF TREES, BRUSH, CONSTRUCTION DEBRIS, RUBBISH, ETC. SHALL BE ALLOWED ON SITE UNLESS OWNER APPROVAL IS OBTAINED. THESE REGULATIONS INCLUDE BUT ARE NOT LIMITED TO KENTUCKY DIVISION FOR AIR QUALITY REGULATION 401 KAR 63:010 FUGITIVE EMISSIONS STATES THAT NO PERSON SHALL CAUSE, SUFFER, OR ALLOW ANY MATERIAL TO BE HANDLED, PROCESSED, TRANSPORTED. OR STORED WITHOUT TAKING REASONABLE PRECAUTION TO PREVENT PARTICULATE MATTER FROM BECOMING AIRBORNE. ADDITIONAL REQUIREMENTS INCLUDE THE COVERING OF OPEN BODIED TRUCKS, OPERATING OUTSIDE THE WORK AREA TRANSPORTING MATERIALS LIKELY TO BECOME AIRBORNE, AND THAT NO ONE SHALL ALLOW EARTH OR OTHER MATERIAL BEING TRANSPORTED BY TRUCK OR EARTH MOVING EQUIPMENT TO BE DEPOSITED ONTO A PAVED STREET OR ROADWAY. ALL SOLID WASTE GENERATED BY THIS PROJECT MUST BE DISPOSED AT A PERMITTED FACILITY.

24. NO BURNING OR BURYING OF TREES, BRUSH, CONSTRUCTION DEBRIS, RUBBISH, ETC. SHALL BE ALLOWED ON SITE UNLESS OWNER APPROVAL IS OBTAINED. KENTUCKY DIVISION FOR AIR QUALITY REGULATION 401 KAR 63:005 STATES THAT OPEN BURNING IS PROHIBITED. OPEN BURNING IS DEFINED AS THE BURNING OF ANY MATTER IN SUCH A MANNER THAT THE PRODUCTS OF COMBUSTION RESULTING FROM THE BURNING ARE EMITTED DIRECTLY INTO THE ATMOSPHERE WITHOUT PASSING THROUGH A STACK OR CHIMNEY.

25. IF UNDERGROUND STORAGE TANKS ARE ENCOUNTERED, THEY MUST BE PROPERLY ADDRESSED. IF ASBESTOS, LEAD PAINT, AND/OR OTHER CONTAMINANTS ARE ENCOUNTERED DURING THIS PROJECT, THEY MUST BE PROPERLY ADDRESSED. PLEASE ARCHITECT/ENGINEER IMMEDIATELY IF ANY O F THESE ARE ENCOUNTERED TO COORDINATE THESE BEING PROPERLY ADDRESSED.

STORM DRAINAGE FACILITIES NOTES

1. STORM SEWER PIPE SHALL BE AS DESIGNATED ON THE APPROVED CONSTRUCTION PLANS, AND SHALL CONFORM TO THE GENERAL SPECIFICATIONS.

2. BEDDING AND BACKFILL SHALL CONSIST OF THE FOLLOWING: A. WHEN THE TRENCH EXCAVATION IS IN ROCK, THE PIPE SHALL BE BEDDED ON AT LEAST 6 INCHES OF NO. 9 OR NO. 68 CRUSHED STONE, AND SHALL BE BACKFILLED WITH NO. 9 OR NO. 68 CRUSHED STONE FOR A MINIMUM OF 12 INCHES ABOVE THE TOP OF THE PIPE. BACKFILL ABOVE THIS CUSHION SHALL NOT CONTAIN PIECES OF ROCK LARGER THAN 12 INCHES IN ANY DIMENSION. B. WHEN THE TRENCH EXCAVATION IS IN SOIL, THE PIPE SHALL BE BEDDED ON AT LEAST 6 INCHES OF NO. 9 OR NO. 68 CRUSHED STONE, AND SHALL BE BACKFILLED WITH NO. 9 OR NO. 68 CRUSHED STONE TO THE SPRINGLINE OF THE PIPE. THE REMAINING PORTION OF THE TRENCH, NOT LOCATED WITHIN A STREET, CAN BE

C. WHEN THE TRENCH EXCAVATION IS WITHIN A STREET (I.E., BACK OF CURB TO BACK OF CURB), THEN THE ENTIRE TRENCH SHALL BE BACKFILLED WITH NO. 9 OR NO. 68 CRUSHED STONE.

BACK FILLED WITH SELECT SOIL CONTAINING ROCKS NO LARGER

THAN 1 1/2 INCH IN SIZE.

3. MANHOLES SHALL BE CONSTRUCTED OF PRECAST CONCRETE AND SHALL CONFORM TO THE GENERAL SPECIFICATIONS. ALL MANHOLE TOPS SHALL BE ECCENTRIC IN DESIGN. CONICAL TOPS SHALL BE USED FOR ALL MANHOLES WITH DEPTHS SUFFICIENT FOR THEIR USE. MINOR GRADE ADJUSTMENTS (THROUGH THE USE OF GRADE RINGS) TO THE RIM ELEVATION SHALL NOT EXCEED 12 INCHES. NO MORE THAN 2 GRADE RINGS SHALL BE PERMITTED. BITUMINOUS MASTIC SEALANT SHALL BE USED AT EACH JOINT OF THE MANHOLE AND BETWEEN ALL GRADE RINGS AND/OR CASTINGS. NON-SHRINK (HYDRAULIC) GROUT SHALL BE REQUIRED INSIDE THE MANHOLES WHERE THE PIPES ENTER AND EXIT.

4. HEADWALLS AND OTHER CONCRETE STRUCTURES SHALL BE AS DESIGNATED ON THE APPROVED CONSTRUCTION PLANS, AND SHALL CONFORM TO THE GENERAL SPECIFICATIONS.

5. DRAINAGE SWALES SHALL CONFORM TO THE GENERAL SPECIFICATIONS. DRAINAGE SWALES SHALL BE SODDED OR HAVE VEGETATION BLANKETS USED TO THE ELEVATION OF THE 25-YEAR FREQUENCY STORM.

6. MINIMUM 3 FOOT HIGH CHAIN LINK FENCING SHALL BE REQUIRED ALONG THE PERIMETER OF THE HEADWALL IF THE DISTANCE FROM THE PIPE INVERT TO THE TOP OF THE HEADWALL EXCEEDS 3.5 FEET.

UTILITY CONSTRUCTION WITHIN ROADWAY AREA

NO ADDITIONAL FUNDS WILL BE PAID TO CONTRACTOR FOR SPECIAL CONSTRUCTION NECESSARY TO COMPLY WITH THE FOLLOWING REQUIREMENTS:

UTILITY CONTRACTOR SHALL INSURE THAT FINISHED PIPELINES, BOTH WATER AND SEWER, HAVE SPECIFIED DEPTH OF COVER FROM FINISHED GRADES, INCLUDING ROADWAY AND ROADWAY DITCHES. CAREFUL ATTENTION SHALL BE PAID TO AVOID CONFLICT WITH PROPOSED DITCHES, STORM DRAINS AND ROADWAY EXCAVATION. BACKFILL IN PIPELINES WITHIN THE ROADWAY LIMITS (PAVEMENT AND SHOULDERS) SHALL BE CRUSHED STONE AS SPECIFIED. UTILITY CONTRACTORS SHALL INCLUDE EXTRA DEPTH TRENCHING IF NECESSARY TO YIELD REQUIRED COVER AFTER ROADWAY EXCAVATION AND USE CRUSHED STONE TO THE ELEVATION NECESSARY TO YIELD A CRUSHED STONE TRENCH BACKFILL UNDER PAVEMENT AND SHOULDERS.

ROADWAY CONSTRUCTION NOTES

1. SUBGRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GENERAL SPECIFICATIONS. COMPACTION TESTS AT SPECIFIED INTERVALS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO PLACING THE FIRST LIFT OF STONE.

2. CONCRETE CURB SHALL CONFORM TO THE DETAILS IN THE GENERAL SPECIFICATIONS. CONSTRUCTION JOINTS SHALL BE INSTALLED AT 500 FOOT INTERVALS AND CONTROL JOINTS SHALL BE SAWED TRANSVERSELY AT 25 FOOT INTERVALS TO A MINIMUM DEPTH OF 2 INCHES. DGA BACKFILL SHALL BE PLACED BEHIND THE CURB PRIOR TO PAVING ROADWAY.

SPECIFICATIONS FOR GEOTEXTILE FABRIC

GRAB TENSILE STRENGTH 220 LBS. (MIN.) (ASTM D1682) ELONGATION FAILURE 60% (MIN.) (ASTM D1682) MULLEN BURST STRENGTH 430 LBS. (MIN.) (ASTM D3768) PUNCTURE STRENGTH 125 LBS. (MIN.) (ASTM D751) (MODIFIED) EQUIVALENT OPENING SIZE 40-80 (US STD SIEVE) (CW-02215)

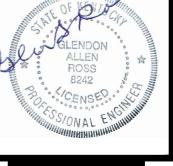
1. A STABILIZED ENTRANCE PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.

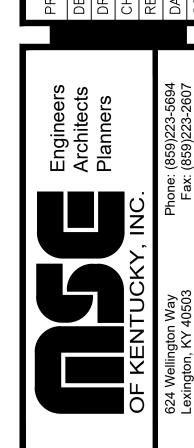
2. SOIL STABILIZATION FABRIC SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.

3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEAN OUT OF ANY MEASURES USED TO TRAP

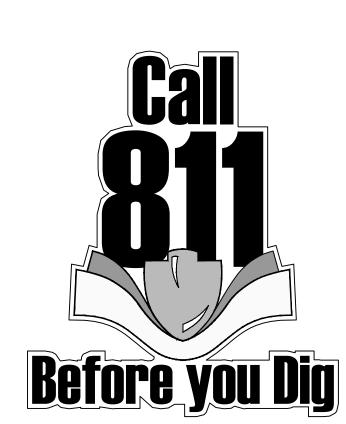
4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.





GEN



EC-

(| 호 | 호 | 호 | 호 | 6

EROSION CONTROL NOTES:

THE EROSION CONTROL MEASURES NOTED BELOW ARE MINIMUMS AND DO NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR COMPLIANCE WITH ANY AND ALL U.S. EPA, KENTUCKY DIVISION OF WATER AND/OR LOCAL REQUIREMENTS.

CONTRACTOR SHALL ESTABLISH EROSION CONTROL MEASURES BEFORE DISTURBING SITE.

ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.

ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION, IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETED AND THE SITE IS STABILIZED.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT EROSION ONTO ADJACENT PROPERTY. ANY REMEDIAL MEASURES REQUIRED TO CORRECT DAMAGE CREATED BY EROSION SHALL BE AT THE CONTRACTOR'S EXPENSE.

TOPSOIL STOCKPILES THAT ARE NOT BEING UTILIZED FOR A PERIOD OF 14 DAYS TO BE SURROUNDED BY SILT FENCE.

SILT FENCES TO BE CLEANED OUT WHEN THEY BECOME ONE-THIRD FULL.

WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED, UNTIL SUCH TIME AS CONDITIONS PERMIT.

ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. A FIELD LOG OF INSPECTIONS SHALL BE MADE AND A COPY GIVEN TO THE OWNER.

ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL SOIL STABILIZATION HAS BEEN OBTAINED.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT NO MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PART OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED UNLESS THAT ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN 21 DAYS.

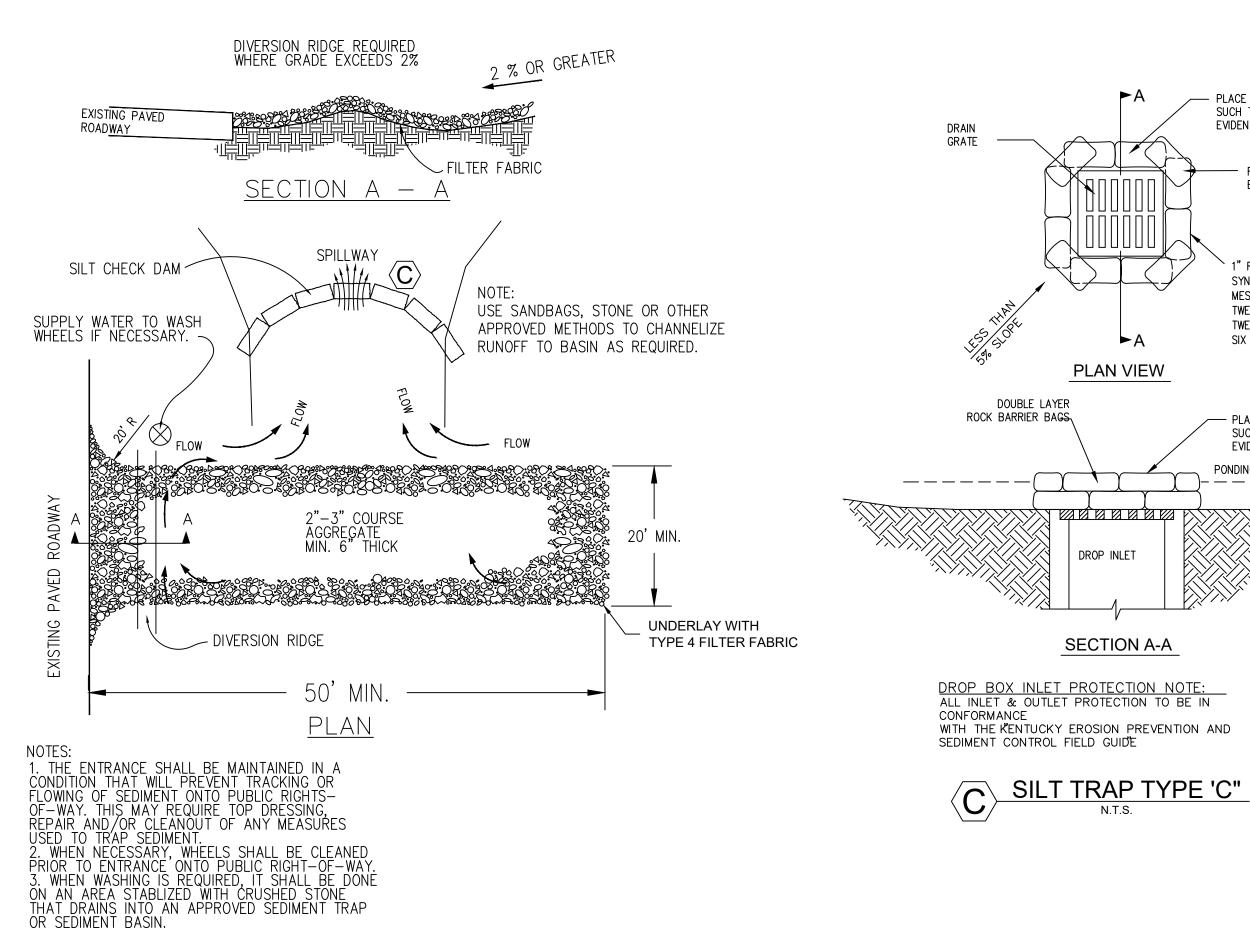
THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE TRACKING OF MUD ONTO PAVED ROADWAY FROM CONSTRUCTION AREAS. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED

PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND THE KENTUCKY DEPARTMENT OF HIGHWAYS **GUIDANCE MANUAL.**

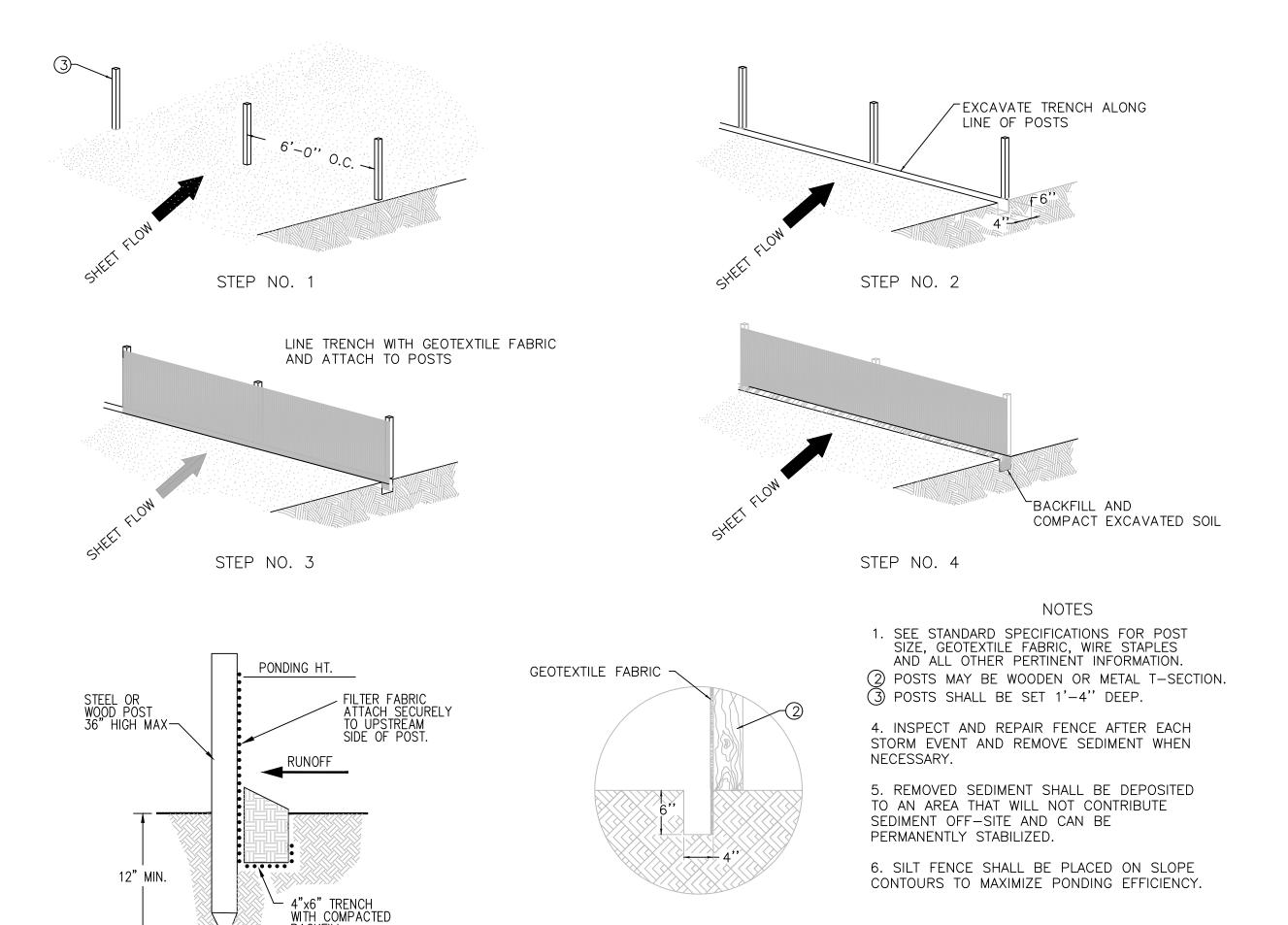
MAINTAIN ACCESS TO EXISTING BUSINESSES AND EXISTING ROADS.

ALL EARTHWORK TO COMPLY WITH KENTUCKY DEPT. OF HIGHWAYS (KY-DOH SECTION 400) SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, EDITION OF 2000 AND ANY AMENDMENTS.

THE CONTRACTOR SHALL SHALL LIMIT ACCESS TO THE SITE TO THE CONSTRUCTION ENTRANCES. THE LOCATION OF THE CONSTRUCTION ENTRANCES SHALL BE APPROVED BY THE ENGINEER AND DESIGNATED ON THE SWPPP. THE CONTRACTOR SHALL INSTALL STONE SURFACE AT THE LOCATION WHERE CONSTRUCTION TRAFFIC LEAVES AND ENTERS THE SITE. THESE ACCESS POINTS SHALL BE MIN. 20' WIDE, 50' LONG, 0.5' DEEP AND USE NO 7 STONE OVER GEOTEXTILE FABRIC. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS AND PARKING AREAS FREE FORM MUD, DIRT, DEBRIS, AND ROCK. DUST SHALL BE KEPT TO A MINIMUM BY UTILIZING SPRINKLING, CALCIUM CHLORIDE, VEGETATIVE COVER, SPRAY ON ADHESIVES OR OTHER APPROVED METHODS. THIS ENTRANCE SHALL BE MAINTAINED UNTIL THE STREET HAS BEEN CONSTRUCTED.

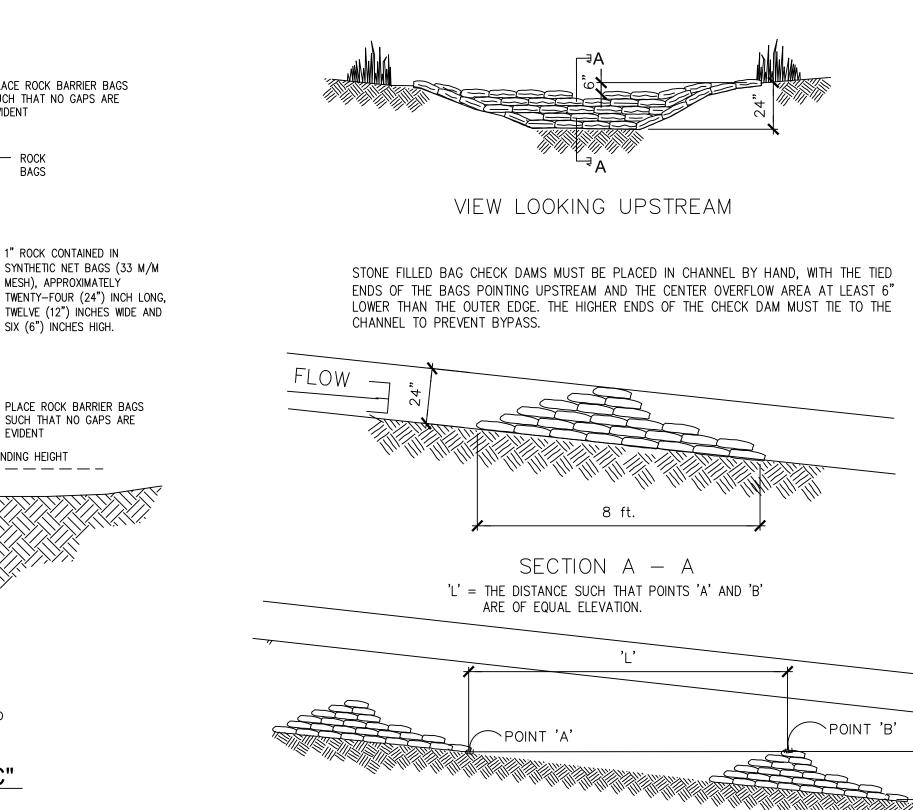


TEMPORARY GRAVEL CONSTRUCTION **ENTRANCE/EXIT**



TEMP. SILT FENCE DETAILS

SECTIONAL DETAIL



PLACE ROCK BARRIER BAGS SUCH THAT NO GAPS ARE

1" ROCK CONTAINED IN

MESH), APPROXIMATELY

SIX (6") INCHES HIGH.

- PLACE ROCK BARRIER BAGS

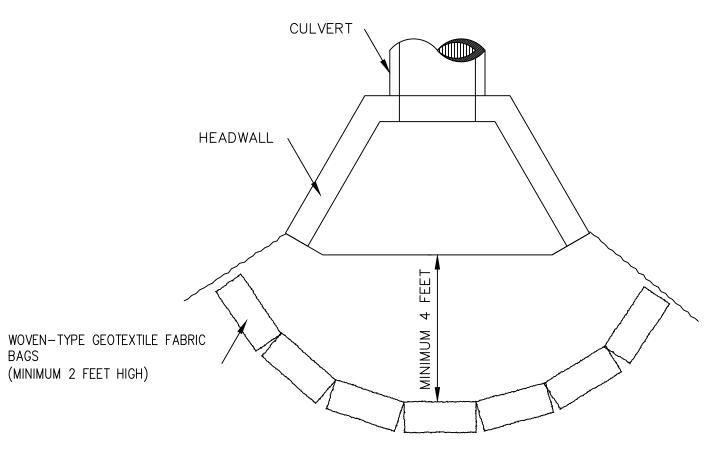
SUCH THAT NO GAPS ARE

EVIDENT

DROP INLET

SPACING BETWEEN CHECK DAMS

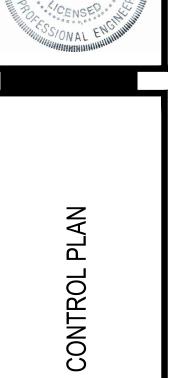
SILT CHECK DAM TYPE "D"



CULVERT INLET SEDIMENT BARRIER TYPE "B"





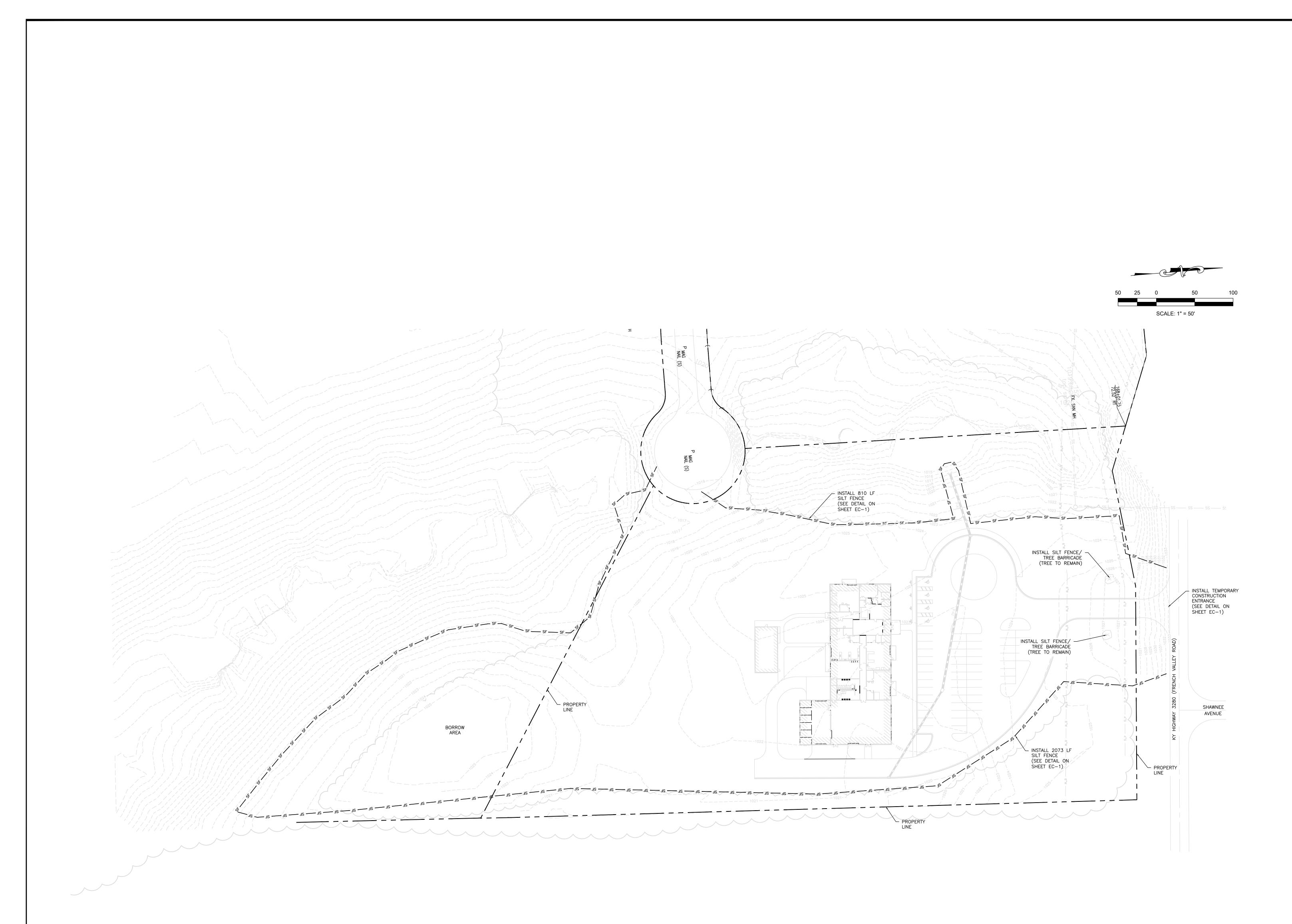




ВУ					om failure		n which nsfer any	erein to
DATE					DESIGN DOCUMENTS: The design professional waves any and all responsibility and liability for problems which arise from failure to follow those plans energinations and the design intent than convey.	COPYRIGHT.	This document discloses subject matter considered confidential by MSE of Kentucky, Inc. and on which MSE of Kentucky, Inc. has property rights. Neither receipt nor possession thereof confers or transfer any	rights to reproduce the document of any part thereof, or to disclose any information contained therein to others, or to use it for any purpose without the written permission of MSE of Kentucky, Inc.
1	8-54	 22 47	N	۰.۱۷۱۰	4.R.	4.R.	, 2024	ID.

DAIE REVISION				DESIGN DOCUMENTS: The design professional waves any and all responsibility and liability for	to follow these plans, specifications and the design intent they convey.	COPYRIGHT ©		rights to reproduce the document or any part thereor, or to disclose any others or to use it for any purpose without the written permission of MS
JECT NO.2078-34	CNFD BY G A R	 Ma	0.11.191.	CKED BY G.A.R.		EWED BY G.A.R.	JANUARY 2024	OTED
NO.	ر م	WN BY		D BY		D BY	JANU	F AS NOTED
EC.	JAC.	Z	-	쏬		EWE		 L

				교투 ţ	⊇ ပိ	두 쫄 :	<u> </u>
1	PROJECT NO.2078-54	G.A.R.	J.R.M.	G.A.R.	G.A.R.	JANUARY 2024	OTED
	Š N	D BY	ВУ	Э ВҮ	D BY	JANU	N S V
	PROJECT	DESIGNED BY G.A.R.	DRAWN BY	CHECKED BY G.A.R.	REVIEWED BY G.A.R.	DATE	CLAIF AS NOTED
	eers	ects	ers			3-5694	3-2007







	DATE	REVISION
). 2018-34	7/23	HC AREA REVISIONS
\ \ \ \		
J.R.M.		
r G.A.R.	DESIGN DOCUMENTS: The design professional	DESIGN DOCUMENTS: The design professional waves any and all responsibility and liability for problems which arise from the design professional waves any and all the design professional waves and all the design professional waves any and all the design professional waves and all the design professional waves any and all the design professional waves any and all the design professional waves any and all the design professional waves and the design professional waves and the design professional waves are the design professional waves and the design professional waves are the design professional waves and the design professional waves are the design professional waves and the design professional waves are the design professional waves and the design professional waves are the design professional waves and the design professional waves are the design professional waves and the design professional waves are the design professional waves and the design professional waves are the design professional waves and the design professional waves are the design professio
Y G.A.R.	COPYRIGHT ©	to blow trees plans, specifications and the design filterit they convey. COPYRIGHT ©
NARY 2024	This document dis: MSE of Kentucky,	This document discloses subject matter considered confidential by MSE of Kentucky, Inc. and on v MSE of Kentucky, Inc. has property rights. Neither receipt nor possession thereof confers or trans
	rights to reproduce	rights to reproduce the document or any part thereof, or to disclose any information contained then

PROJECT NO. 2078-34 DESIGNED BY G.A.R. CHECKED BY G.A.R. REVIEWED BY G.A.R. DATE JANUARY 2024	-34 7/23 HC AI				to follow these plans, specifications and the d		rights to reproduce the document or any part
PROJECT DESIGNET DRAWN E CHECKET REVIEWET	NO. 2078	DBY G.A.F	3Y J.R.N	BY G.A.F	BY G.A.F	JANUARY	
	PROJECT	DESIGNE	DRAWN	CHECKED	REVIEWE	DATE	

Engineers PROJECT NO. 2018	Architects DESIGNED BY G.A.	Planners DRAWN BY J.R.	CHECKED BY G.A.	REVIEWED BY G.A.	39)223-5694 DATF DAN DEST
Eng	Arci	Plar		·	Phone: (859)223-5694

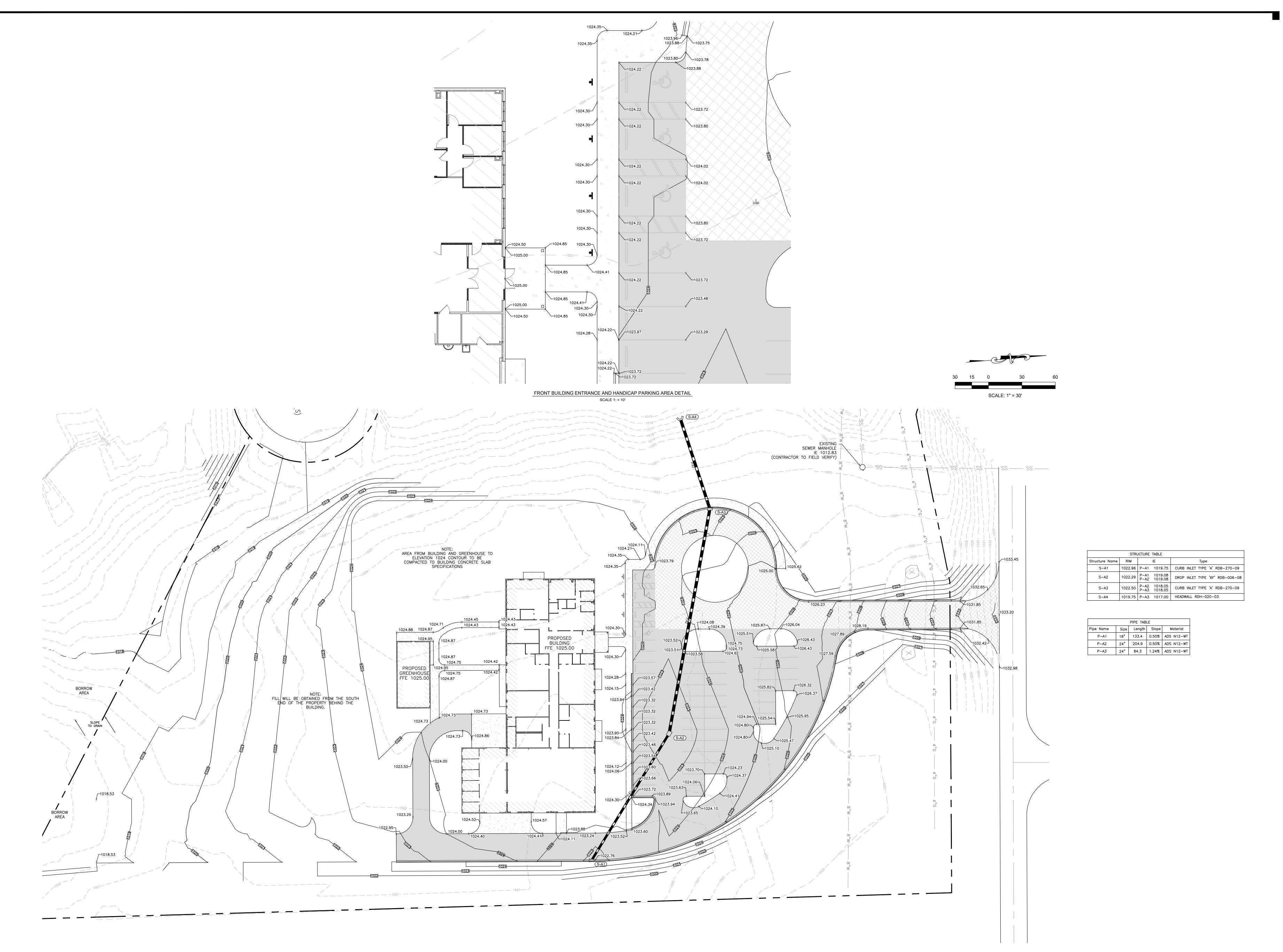
DRAWING NO.

EXISTING SEWER MANHOLE IE 1012.83 (CONTRACTOR TO FIELD VERIFY) PROPOSED BUILDING FFE 1025.00 27.50'---

NOTES:
1. ALL PARKING LOT STRIPING TO BE PLACED AS SHOWN, SEE DETAIL SHEET FOR HANDICAP PARKING DETAILS.
2. ALL DISTURBED AREAS TO BE SEEDED PER THE 03296 SPECIFICATION.

HEAVY DUTY PAVEMENT LIGHT DUTY PAVEMENT

CONCRETE PAVEMENT





The Seed Academy
Lake Cumberland Regional AgriTech Center

DESIGN DOCUMENTS:
The design professional waves any and all responsibility and liability for problems which arise from failure to follow these plans, specifications and the design intent they convey.

COPYRIGHT ©
This document discloses subject matter considered confidential by MSE of Kentucky, Inc. and on which MSE of Kentucky, Inc. has property rights. Neither receipt nor possession thereof confers or transfer any rights to reproduce the document or any part thereof, or to disclose any information contained therein to others, or to use if for any purpose without the written permission of MSE of Kentucky, Inc.

PROJECT NO. 2078–34

DESIGNED BY G.A.R.

DRAWN BY J.R.M.

CHECKED BY G.A.R.

REVIEWED BY G.A.R.

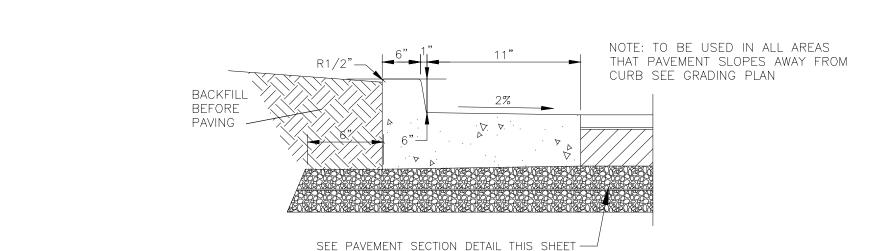
DATE JANUARY 2024

rights to reproduce the stora to use it for a

Engineers
Architects
Architects
Planners
Fex. (859)223-5694
Fex: (859)223-2607

OF KE

C-2



STANDARD CURB & GUTTER DETAIL

MEDIUM BROOM FINISH /

1/2" WIDE TOOLED JOINT, (1/3)

1/4" RADIUS ON TOP EDGES OF

JOINT

DRAWING OTHERWISE

NOTE: DEPTH OF ALL JOINTS SHALL TOOLED JOINTS SHALL BE

EQUAL 1/3 THICKNESS OF PAVEMENT PERPENDICULAR TO CONCRETE

MIN. SAW CUT ADDITIONAL DEPTH AS PAVEMENT UNLESS SHOWN ON THE

CONCRETE WALK / TOOLED CONTROL JOINT

NOTE: TOOL EXPOSED EDGES OF

WALK 1/4" RADIUS.

COMPACTED

NECESSARY.

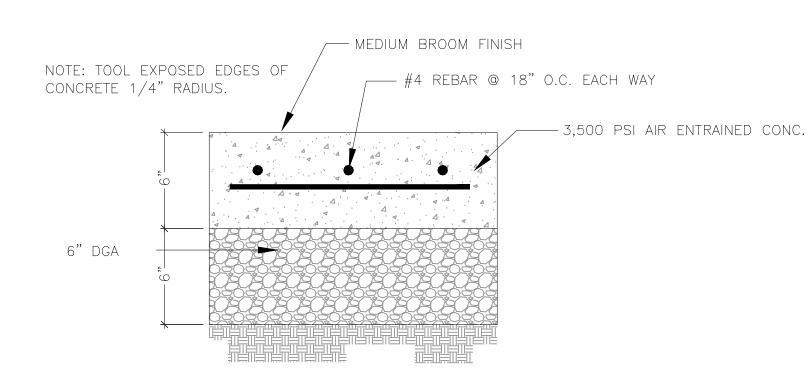
- FURNISH SAMPLE FOR ÉNGINEERS APPROVAL

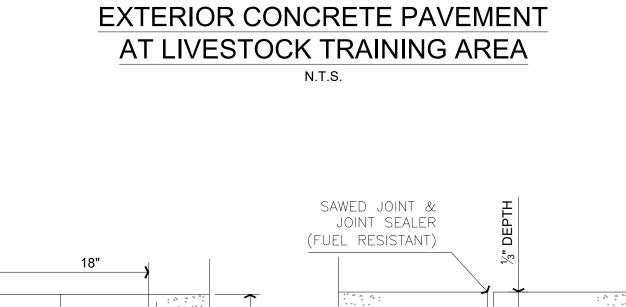
3,500 PSI AIR ENTRAINED CONC.

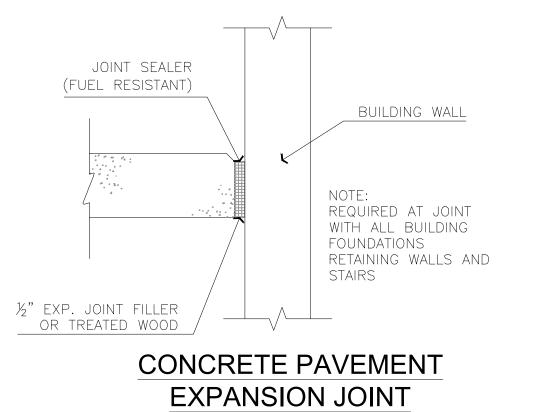
SEE PAVEMENT SECTION DETAIL THIS SHEET —

ALTERNATE CURB & GUTTER DETAIL

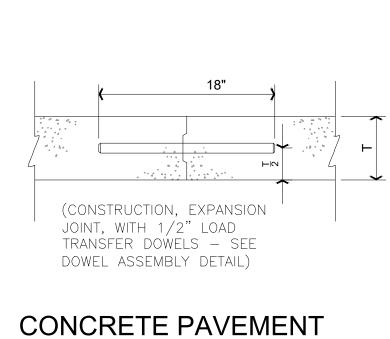
ALL MATERIALS AND INSTALLATION TO COMPLY WITH KENTUCKY DEPT. OF HIGHWAYS (KY-DOH SECTION 400) SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, EDITION OF 2000 AND ANY





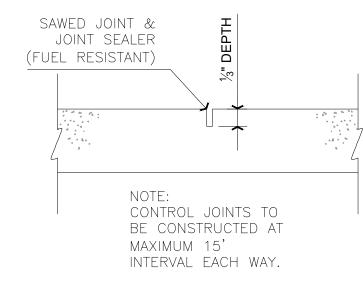


N.T.S.

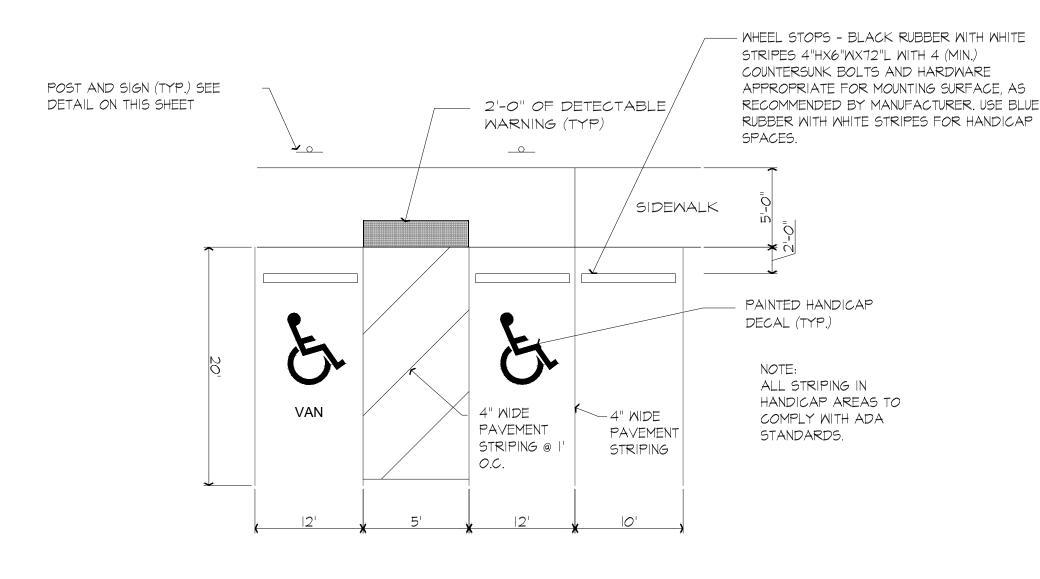


CONTROL JOINT

N.T.S.

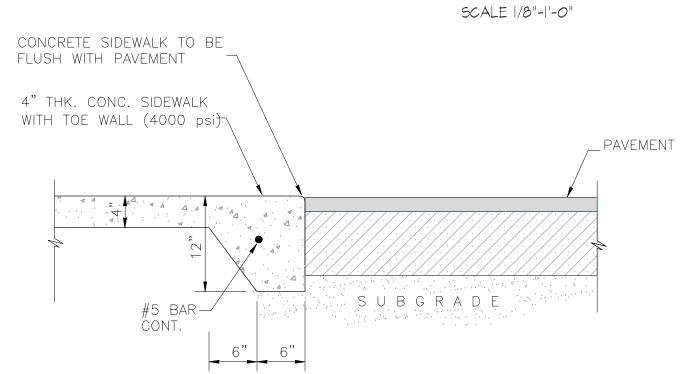


CONCRETE PAVEMENT TRANSVERSE JOINT

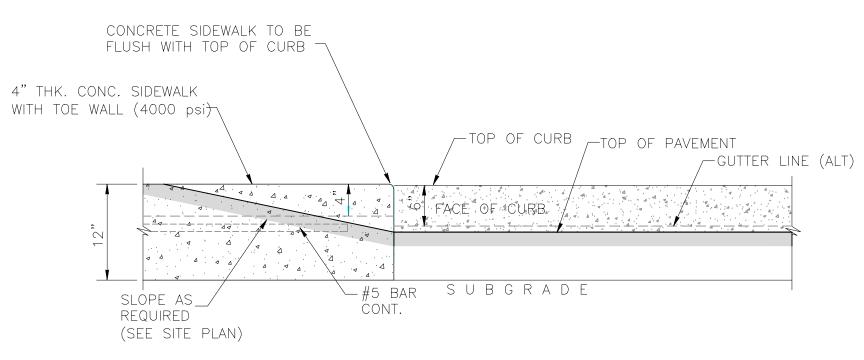




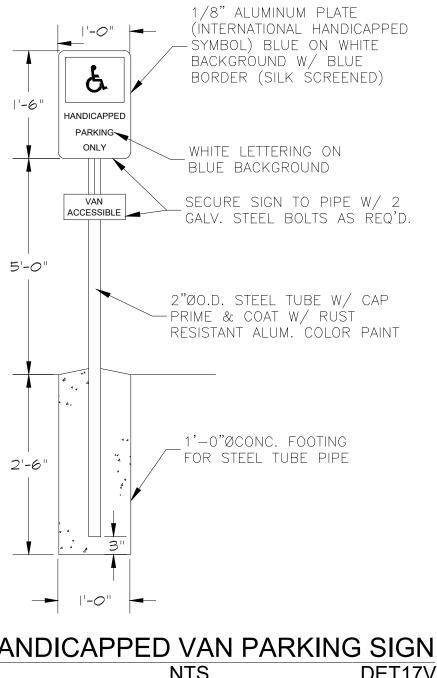
A HANDICAP PARKING STRIPING DETAILS



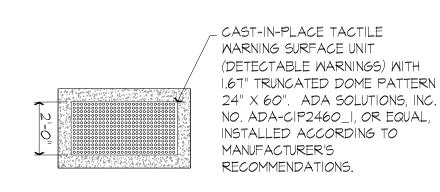
HANDICAP AREA SIDEWALK TRANSITION TO ASPHALT DETAIL



[△] HANDICAP AREA SIDEWALK TRANSITION TO CURB & GUTTER DETAIL (TYP)







DETECTABLE (TACTILE) WARNINGS

TOE OF SLOPES:

b. 2:1

a. STEEPER THAN 2:1

c. FLATTER THAN 2:1

ALL MATERIALS AND INSTALLATION TO COMPLY WITH KENTUCKY DEPT. OF HIGHWAYS (KY-DOH SECTION 400) SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, EDITION OF 2000 AND ANY AMENDMENTS.

PAVEMENT REQUIREMENTS

~2" BITUMINOUS BASE

-COMPACTED EARTH

──8" DGA OR CSB

LIGHT DUTY PAVEMENT SECTION

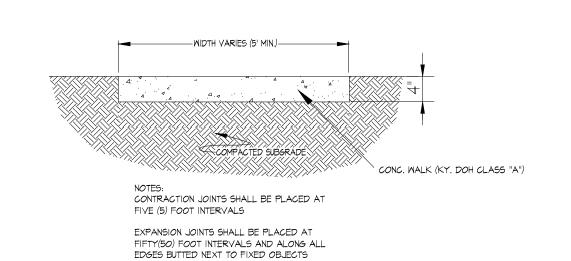
-3" BITUMINOUS BASE

─10" DGA OR CSB - COMPACTED EARTH

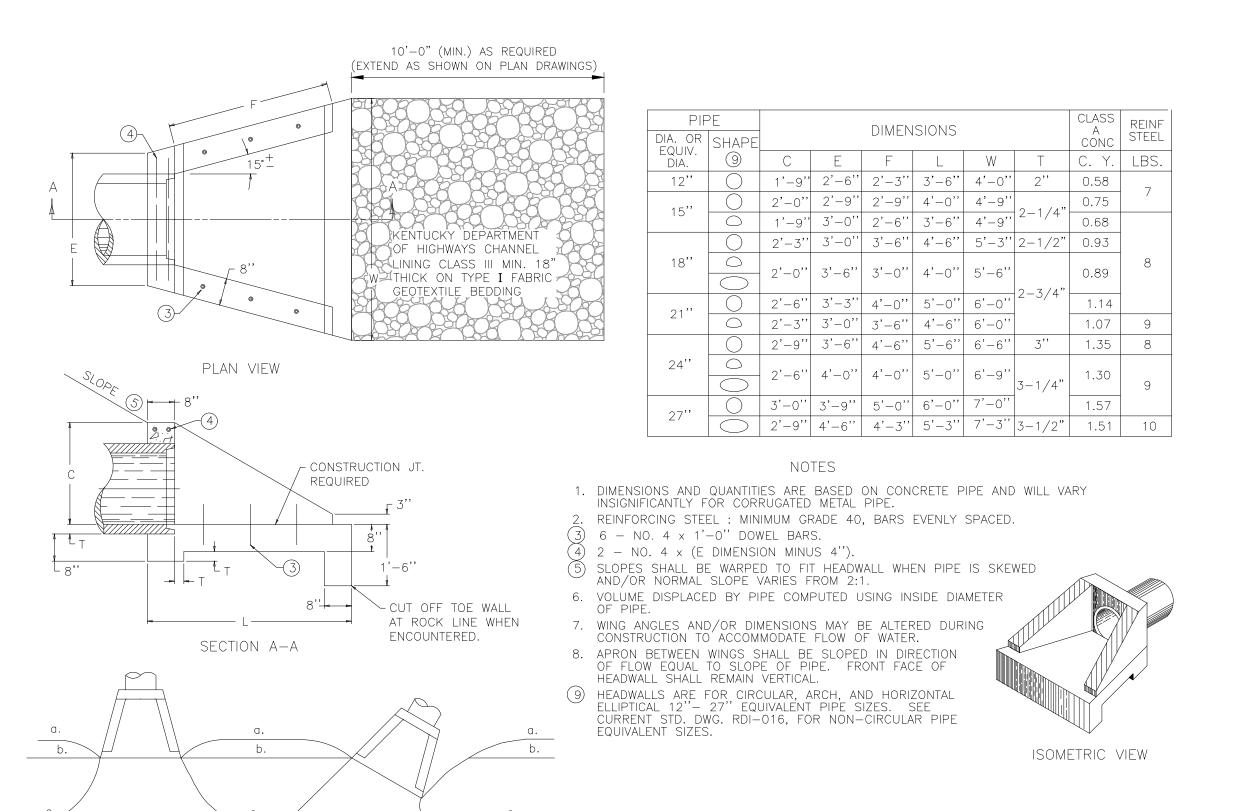
HEAVY DUTY PAVEMENT SECTION

—1" BITUMINOUS SURFACE CLASS "I"

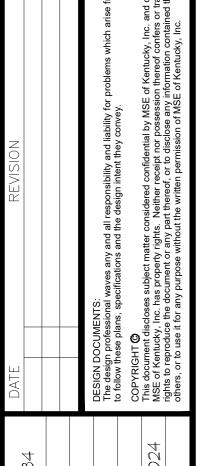
-1" bituminous surface class "I"



CONCRETE WALK DETAIL



SLOPED & FLARED HEADWALLS FOR 12" TO 27" PIPE DOH STD. DWG#: RDH-020-03



BID ITEM AND UNIT TO BID CURB BOX INLET TYPE A \triangle EACH \triangle (B) = BOTTOM PHASE ONLY, \triangle (T) = TOP PHASE ONLY NO SUFFIX INDICATES COMPLETE INLET.

END OF GUTTER FACING INCOMING FLOW OF WATER SHALL BE 3'-0" TO PROVIDE FOR A 2" DRAWDOWN.

 $\sim 1\!\!/_2$ " PREMOLDED EXPANSION \sim GUTTER

EXTEND TO WITHIN 3"

OF OUTSIDE FACE LENGTH = "X" PLUS 10"

(REQ'D. WHEN "Y" DIM.

IS 3'-6" OR GREATER) —

JOINT MATERIAL. USED

IN CONJUNCTION WITH

JOINT REQ'D. (TYP.)

CONCRETE PAVEMENT.

LID TYPE 17

 $\sqsubseteq_{\triangleright} B$

 $X = \frac{3'-0''}{5'-0''} \frac{MIN}{MAX}.$

PLAN VIEW

L=5',10',15',20'

VARIABLE

SECTION A-A

- 2'-0" --

1/3" PREMOLDED

EXPANSION JOINT

MATERIAL (TYP.)

RISER

CHAMBER

PHASE

BOTTOM PHASE

1. INLET SHALL BE CONSTRUCTED IN TWO PHASES (BOTTOM AND TOP)

2. SEE CUR. STD. DWGS.RDB-271, RDB-272, RDB-273, RDB-400, RDB-410
AND RDB-420 FOR STEEL PATTERN, DIMENSIONS AND QUANTITIES.

3. ALL WALLS, SLABS AND GUTTERS ARE 8" THICK UNLESS OTHERWISE INDICATED.

5 SPALLS OR CRUSHED STONE AROUND END OF 4" OR 6" PIPE FOR SUBGRADE DRAINAGE.

) LID MAY BE RAISED OR LOWERED IF APPROVED BY THE ENGINEER.

FLOW LINE (2" BELOW NORMAL GUTTERLINE ELEVATION).

10 SEE CUR. STD. DWG. RDM-100 FOR FRAME AND LID TYPE 1.

(3) CHAMBER MAY BE SHIFTED TO ROADWAY SIDE OF BOX PROVIDED THERE IS 1'-O" MINIMUM COVER BETWEEN SUBGRADE ELEVATION AND TOP OF PIPE.

_ MATCH ADJACENT CURB

(SEE CUR. STD. DWG.RDB-271 FOR CURB DETAILS)

RISER

CU. YDS. CONC. PER FT. HT.

USE WITH CUR. STD. DWGS. RDB-271 RDB-272 RDB-273 RDB-400 RDB-410 RDB-420

KENTUCKY

DEPARTMENT OF HIGHWAYS

CURB BOX INLET

TYPE A(DETAIL DRAWING) NDARD DRAWING NO. RDB-270-09

DRITTED DIRECT DIVISION OF DESIGN
DATE
12-01-15
DATE
12-01-15
DATE

11. "†" IS CONCRETE PIPE WALL THICKNESS OR METAL PIPE CORRUGATION DEPTH.

4 2'-0" DESIRED COVER, 1'-0" MINIMUM COVER.

| MINIMUM HEIGHTS | H = Z + 1'-8" FOR STANDARD CURB | H = Z + 1'-10" FOR ISLAND CURB | H = Z + 1'-5" FOR BARRIER CURB

6) 2" MINIMUM DRAWDOWN. GUTTER CROSS SLOPE.

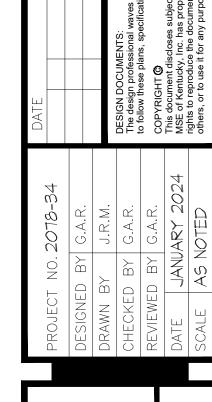
3′−4″ →

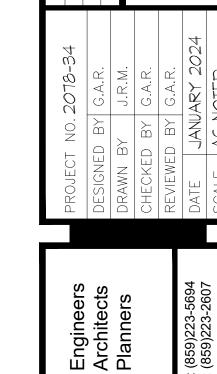
5'-0" MAX.

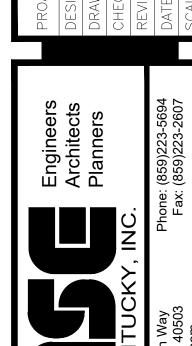
SECTION B-B

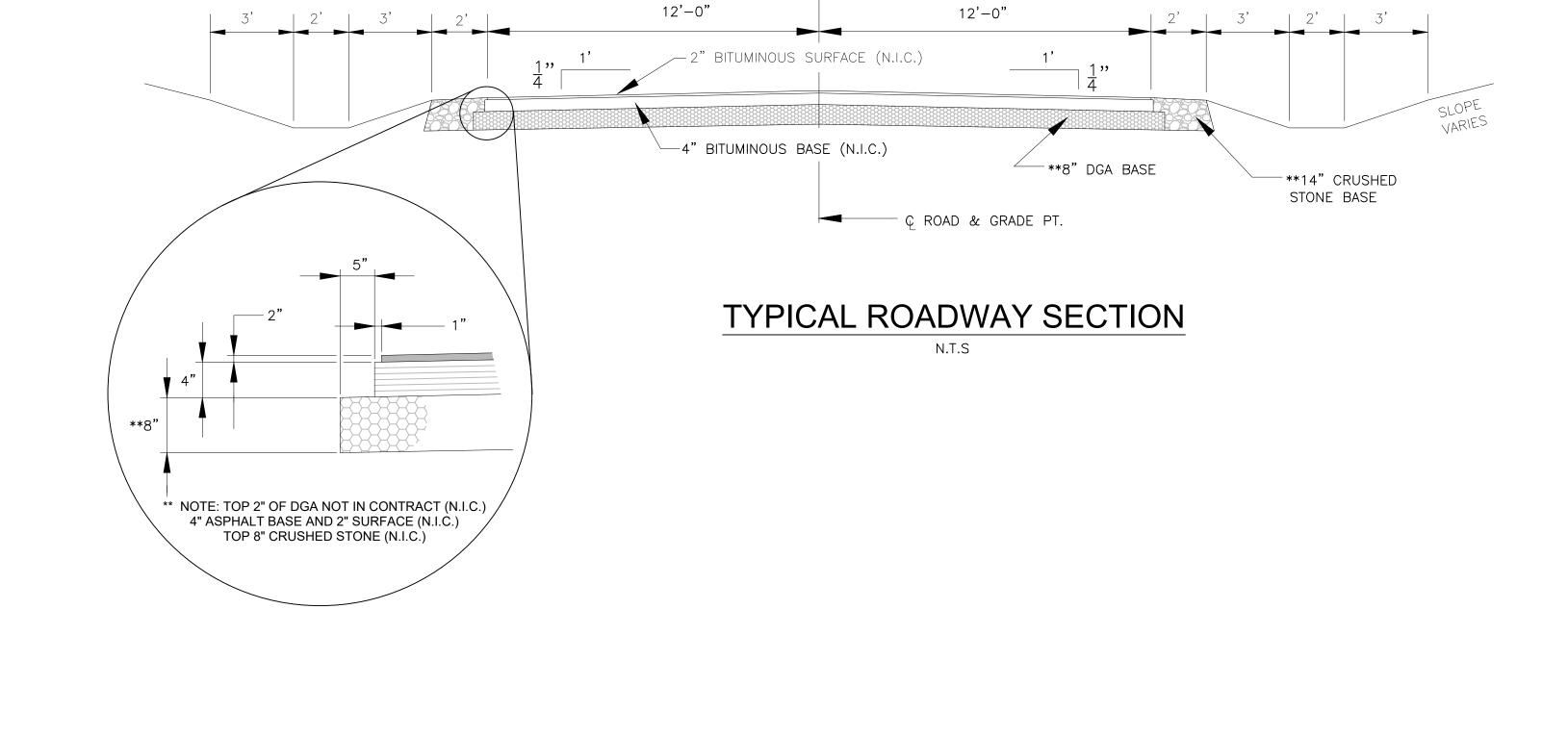
TOP CROSS SLOPE TO MATCH

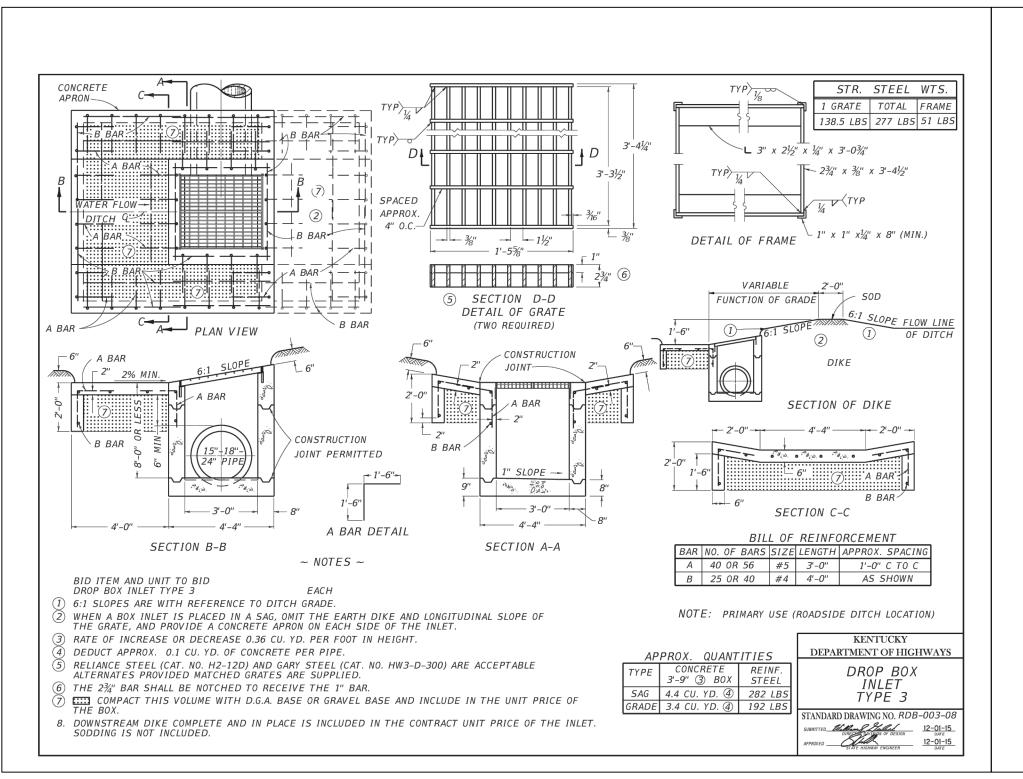
4"x4" BEVEL

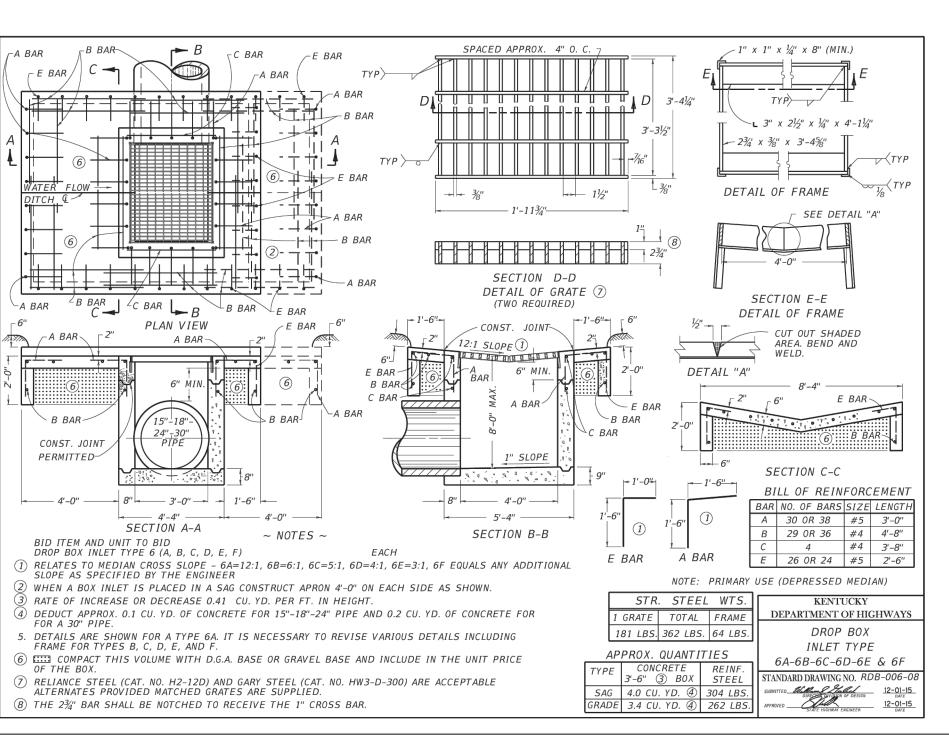












B BAR CONST. JOINT PERMITTED SECTION A-A NOTES ~ SECTION B-B BILL OF REINFORCEMENT BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #4 4-8" C 4-4" SECTION B-B DROP BOX INLET TYPE 6 (A, B, C, D, E, F) RELATES TO MEDIAN CROSS SLOPE - 68-12:1, 6B-6:1, 6C-5:1, 6D-4:1, 6E-3:1, 6F EQUALS ANY ADDITIONAL SLOPE AS SPECIFIED BY THE ENGINEER WHEN A BOX INLET IS PLACED IN A SAG CONSTRUCT APRON 4'-0" ON EACH SIDE AS SHOWN. RATE OF INCREASE OR DECREASE 0.41 CU. YD. PER FT. IN HEIGHT. DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FRAME FOR TYPES B, C, D, E, AND F. ETIS COMPACT THIS VOLUME WITH D.G.A. BASE OR GRAVEL BASE AND INCLUDE IN THE UNIT PRICE OF THE BOX. RELIANCE STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. B BAR 2-0" SECTION C-C BILL OF REINFORCEMENT BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #4 4-8" C 4 4 #4 3-8" C 4 4 #4 3-8" C 4 4 #4 3-8" C 5 4 #4 3-8" C 5 A BAR DROP BOX INLET TYPE CONCRETE TOTAL FRAME IBI IBS, 362 LBS, 64 LBS, APPROX. QUANTITIES TYPE CONCRETE REINF. STANDARD DRAWNON. OR DB-006-08	
E BAR C D D D D D D D D D D D D D D D D D D	A RAR 5B BAR - B 6 RAR 5 - T - T - SPACED APPROX. 4" 0. C. 7 - (1" x 1" x ½" x 8" (MIN.)
B BAR B	C BAR CE BAR
A BAR OF BAR B BAR CONST. JOINT PERMITTED DETAIL OF FRAME B BAR CONST. JOINT PERMITTED B BAR	
BAR B BAR COBAT DETAIL OF FRAME B BAR B BAR COBAT B B BAR B	3" x 2½" x ¼" x 4'-1¼"
DETAIL OF FRAME SECTION D-D DETAIL OF FRAME SECTION D-D DETAIL OF FRAME SECTION E-E DETAIL OF FRAME SECTION E-B DETAIL OF FRAME CUT OUT SHADED MRELD SECTION E-B DETAIL OF FRAME CUT OUT SHADED MRELD SECTION E-B DETAIL OF FRAME CUT OUT SHADED MRELD SECTION E-B DETAIL OF FRAME SECTION E-B DETAIL OF FRAME CUT OUT SHADED MRELD SECTION E-B BBAR CONST. JOINT PERMITTED BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR NO. OF BASSISTEEL ENGTH A BOOR BB \$5' 3-0' BRILL OF REINFORCEMENT BBAR BBAR A BAR SECTION D-B DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WICH D BOOR BB BAR BBAR BBAR BBAR BBAR CONST. JOINT J'-O' BBILL OF REINFORCEMENT BBAR BBAR BBAR BBAR CONST. JOINT BBAR BBAR BBAR BBAR CONST. JOINT J'-O' BBILL OF REINFORCEMENT BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR BBAR B	
B BAR B BAR C BAR B B BAR B BAR C BAR B B BAR B BAR B BAR C BAR B B BAR B BAR C BAR BAR C BAR B BAR C BAR B BAR C BAR B BAR BAR C BAR B BAR C BAR B BAR BAR C BAR B BAR BAR C BAR B BAR BAR B BAR BAR B BAR BAR BAR B	WATER FLOW - 1½" DETAIL OF FRAME 11.113" DETAIL OF FRAME 11.113"
A BAR B BAR C BAR B B BAR C BAR B B BAR C BAR B B BAR C CONST. JOINT DETAIL OF GRATE (TWO RECUIRED) B BAR C BAR B BAR C BAR B B BAR C CONST. JOINT DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. TO BE BAR C BAR B BAR C BAR BEND AND WELD. DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. THE BAR NO. OF BARS SIZE LENGTH A 30 OR 30 #5 3-0" A 30 OR 30 #5 3-0" A 30 OR 30 #5 3-0" A 4-0" DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. BE BAR C BAR BBAR C BAR SIZE LENGTH A 30 OR 30 #5 3-0" A 30 OR 30 #5 3-0" A 4-0" DETAIL OF FRAME CUT OUT SHADED AREA BEND AND WELD. BE BAR C BAR BBAR C BAR SIZE LENGTH A 30 OR 30 #5 3-0" A 30 OR 30 #5 3-0" A 4-0" DETAIL OF FRAME CONST. JOINT PERMITED FOR A 30" TO BE BAR C BAR BDD AND WELD. BE BAR A BAR C BAR SIZE LENGTH A 30 OR 30 #5 3-0" A 4-0" BBD JTEM AND UNIT TO BID SECTION C-C BILL OF REINFORCEMENT A 30 OR 30 #5 3-0" B 29 OR 30 #4 4-0" B 29 OR 30 #5 3-0" A 30 OR 30 #5 3-0" A 40 OR 40 #5 40 *4 *5 *5 *5 *5 *5 *5 *5 *5 *5 *5 *5 *5 *5	1" A BAR
DETAIL OF GRATE © SECTION E-E DETAIL OF FRAME OF A BAR PLAN VIEW A BAR B BAR F B	
DETAIL OF FRAME DETAIL OF FRAME CUNST. JOINT PAREL BAR ONST. JOINT PERMITTED DETAIL OF FRAME CONST. JOINT B BAR CONST. JOINT PERMITTED DETAIL "A" B BAR CONST. JOINT B BAR CONST. JOINT PERMITTED DETAIL "A" B BAR C BAR DETAIL OF FRAME CUT OUT SHADED AREA. BENDAND WELD. B E BAR C BAR A 30 OR 38 #5 3-0" B E 290 R36 #4 4-8" C C 4 #4 3-9" E BAR A 30 OR 38 #5 3-0" B E 290 R36 #4 4-8" C C 4 #4 3-9" E BAR A 30 OR 38 #5 3-0" B E 290 R36 #4 4-8" C C 4 #4 3-9" E BAR A BAR NOTE: PRIMARY USE (DEPRESSED MEDIAN) STR. STEEL WTS. I GRATE TOTAL FRAME DEPARTMENT OF HIGHWAYS TYPE BO. (1) ROW, DO. (1) CU. YD. OR DAY STEEL (CAT. NO. HV3-L7D) AND GARY STEEL (CAT. NO. H	DETAIL OF GRATE 7
B BAR CONST. JOINT PIPE (A, B, C, D, E, F) RECTION A-A NOTES ~ SECTION B-B BID ITEM AND UNIT TO BID DORD BOX INLET TYPE 6 (A, B, C, D, E, F) RELATES TO MEDIAN GROSS SLOPE - 6A=12:1, 6B=6:1, 6C=5:1, 6D=4:1, 6E=3:1, 6F EQUALS ANY ADDITIONAL SUPERAL STORED BY THE ENGINEER WHEN A SON INLET IS PLACED IN A SAG CONSTRUCT APRON 4-0" ON EACH SIDE AS SHOWN. RATE OF INCREASE OR DECREASE 0.41 CU, YD. PER FT. IN HEIGHT. DETAIL 'A" BAR BAR 2-0" BE BAR A BAR CONSTRUCT APRON 4-0" ON EACH SIDE AS SHOWN. STR. STEEL WTS DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FRAME FOR YIPES B, C, D, E, AND F. BEAR A BAR CONSTRUCT APRON 4-0" ON EACH SIDE AS SHOWN. STR. STEEL WTS I GRATE TOTAL FRAME FOR TYPES B, C, D, E, AND F. SECTION B-B B BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4-8" C 4 #4 43-9" E BAR A BAR E BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 2-0" SECTION B-B B 29 OR 36 #4 4-8" E BAR A BAR E BAR A BAR E BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 2-0" SECTION C-C BILL OF REINFORCEMENT BRAIN NO. OF BARS SIZE LENGTH A 30 OR 38 #5 2-0" B 29 OR 36 #4 4-8" E BAR A BAR E BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 2-0" B 29 OR 36 #4 4-8" E BAR A BAR E BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 2-0" B 29 OR 36 #4 4-8" E BAR BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 2-0" B 29 OR 36 #4 4-8" B 26 OR 24 #5 2-0" SECTION C-C BILL OF REINFORCEMENT BRAIN NO. OF BARS SIZE LENGTH A 30 OR 38 #5 2-0" B 29 OR 36 #4 4-8" B 29 OR 36 #4 4-8" B 26 OR 24 #5 2-0" SECTION C-C BILL OF REINFORCEMENT BRAIN NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4-8" B 29 OR 36 #4 4-8" B 26 OR 24 #5 2-0" SECTION C-C BILL OF REINFORCEMENT BRAIN NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4-8" D 10 F OR 30 F OR	$C \longrightarrow C \longrightarrow B \longrightarrow $
B BAR CONST. JOINT PERMITTED A '-0" SECTION A-A NOTES ~ SECTION B-B BID ITEM AND UNIT TO BID DROP BOX INLET TYPE 6 (A, B, C, D, E, F) RELATES TO MEDIAN CROSS SLOPE - 6A-12:1, 6B-6:1, 6C-5:1, 6D-4:1, 6E-3:1, 6F EQUALS ANY ADDITIONAL SLOPE AS SPECIFIED BY THE ENGINEER WHEN A BOX INLET TYPE 6 (A, B, C, D, E, F) BEAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4-8" C 4 4 #4 3-8" E 26 OR 24 #5 2-6" MOTE: PRIMARY USE (DEPRESSED MEDIAN) STR. STEEL WTS. BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4-8" E 26 OR 24 #5 2-6" SECTION C-C BILL OF REINFORCEMENT BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4-8" E 26 OR 24 #5 2-6" STR. STEEL WTS. BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4-8" E 26 OR 24 #5 2-6" STR. STEEL WTS. STR. STE	A BAR 2" A REA. BEND AND WELD
B BAR CONST. JOINT PERMITTED 4'-0" B'' 3'-0" FIFE SECTION A-A NOTES ~ SECTION B-B BILL OF REINFORCEMENT BARN NO. OF BARS SIZE LENGTH BARN NO. OF BARS SIZE LENGTH BARN NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4'-8" C 4 #4 3'-8" C 5 RATE OF INCREASE OR DECREASE O.41 CU. YD. PER FT. IN HEIGHT. 3 RATE OF INCREASE OR DECREASE O.41 CU. YD. PER FT. IN HEIGHT. 4 DEDUCT APPROX. 0.1 CU. YD. OF CONCRETE FOR FOR A 30" PIPE. 5 DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FAMME FOR TYPES B, C, D, E, AND F. 6 EIGH COMPACT THIS VOLUME WITH D.G.A. BASE OR GRAVEL BASE AND INCLUDE IN THE UNIT PRICE OF THE BOX. 7 RELIANCE STEEL (CAT. NO. H2-12D) AND GARY STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. 5 CONCRETE REINF. STR. STEEL WTS. 181 LBS, 362 LBS. 64 LBS. TYPE CONCRETE REINF. STR. STEEL WTS. SCOTION C-C BBILL OF REINFORCEMENT BARN NO. OF BARS SIZE LENGTH BARN NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4'-8" C 4 #4 3'-8" C 4 #4 3'-8" C 4 #4 13'-8" C A BAR NOTE: PRIMARY USE (DEPRESSED MEDIAN) STR. STEEL WTS. 1 GRATE TOTAL FRAME BIBL 1BS, 362 LBS. 64 LBS. TYPE CONCRETE REINF. SCOTION C-C SECTION C-C BBLUANCE STREEL (CAT. NO. H2-12D) AND GARY STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED.	6" MIN HE BAR
CONST. JOINT PERMITTED 1" SLOPE 1" SLOPE 1" SLOPE 1" SECTION C-C SECTION C-C BILL OF REINFORCEMENT BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3-0" B 29 OR 36 #4 4"-8" C 4 #4 3-8" E 26 OR 24 #5 2-6" WHEN A BOX INLET TYPE 6 (A, B, C, D, E, F) WHEN A BOX INLET SPLACED IN A SAG CONSTRUCT APRON 4"-0" ON EACH SIDE AS SHOWN. A RATE OF INCREASE OR DECREASE 0.41 CU. YD. PER FT. IN HEIGHT. DEDUCT APPROX. 0.1 CU. YD. OF CONCRETE FOR 15" 18"-24" PIPE AND 0.2 CU. YD. OF CONCRETE FOR FOR A 30" PIPE. E BAR A BAR NOTE: PRIMARY USE (DEPRESSED MEDIAN) STR. STEEL WTS. I GRATE TOTAL FRAME IBI LBS 362 LBS. 64 LBS. APPROX. QUANTITIES APPRO	B BAR 2-0" B BAR 2-0"
SECTION C-C BILL OF REINFORCEMENT BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3'-0" B 29 OR 36 #4 4'-6" D ROPD BOX INLET TYPE 6 (A, B, C, D, E, F) WHEN A BOX INLET IS PLACED IN A SAG CONSTRUCT APRON 4'-0" ON EACH SIDE AS SPECIFIED BY THE ENGINEER WHEN A BOX INLET IS PLACED IN A SAG CONSTRUCT APRON 4'-0" ON EACH SIDE AS SHOWN. RATE OF INCREASE OR DECREASE 0.41 CU. YD. PER FT. IN HEIGHT. DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FRAME FOR TYPES B, C, D, E, AND F. RELIANCE STEEL (CAT. NO. H2-12D) AND GARY STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. SECTION C-C BILL OF REINFORCEMENT BAR NO. OF BARS SIZE LENGTH A 30 OR 38 #5 3'-0" B 29 OR 36 #4 4'-6" C 4 #4 3'-8" E 26 OR 24 #5 2'-6" STR. STEEL WTS. I GRATE TOTAL FRAME IBI LBS. 362 LBS. 64 LBS. APPROX. QUANTITIES CAPCROCRETE REINF. TYPE CONCRETE REINF. 3-6" 3 BOX STEEL STANDARD DRAWING NO. RDB-006-08 ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. SIANDARD DRAWING NO. RDB-006-08 S	CONST. JOINT PERMITTED C BAR
## A 1-0" ## A 30 OR 38 #5 3-0" BID ITEM AND UNIT TO BID DROP BOX INLET TYPE 6 (A, B, C, D, E, F) SECTION B-B ITEM AND UNIT TO BID SLOPE AS SPECIFIED BY THE ENGINEER WHEN A BOX INLET IS PLACED IN A SAG CONSTRUCT APRON 4'-0" ON EACH SIDE AS SHOWN. RATE OF INCREASE OR DECREASE 0.41 CU. YD. PER FT. IN HEIGHT. DEDUCT APPROX. 0.1 CU. YD. OF CONCRETE FOR FOR A 30" PIPE. DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FRAME FOR TYPES B, C, D, E, AND F. RELIANCE STEEL (CAT. NO. H2-12D) AND GARY STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. ### A 30 OR 38 #5 3'-0" B 29 OR 36 #4 4'-8" C 4 ## 33-8" E BAR A BAR FE BAR A BAR FE BAR A BAR NOTE: PRIMARY USE (DEPRESSED MEDIAN) **NOTE: PRIMARY USE (DEPRESSED MEDIAN	9" SECTION C-C
SECTION A-A NOTES ~ SECTION B-B BID ITEM AND UNIT TO BID DROP BOX INLET TYPE 6 (A, B, C, D, E, F) EACH RELATES TO MEDIAN CROSS SLOPE - 6A=12:1, 6B=6:1, 6C=5:1, 6D=4:1, 6E=3:1, 6F EQUALS ANY ADDITIONAL SLOPE AS SPECIFIED BY THE ENGINEER WHEN A BOX INLET IS PLACED IN A SAG CONSTRUCT APRON 4'-0" ON EACH SIDE AS SHOWN. RATE OF INCREASE OR DECREASE 0.41 CU. YD. PER FT. IN HEIGHT. DEDUCT APPROX. 0.1 CU. YD. OF CONCRETE FOR 15"-18"-24" PIPE AND 0.2 CU. YD. OF CONCRETE FOR FOR A 30" PIPE. DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FRAME FOR TYPES B, C, D, E, AND F. RELIANCE STEEL (CAT. NO. H2-12D) AND GARY STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. SECTION B-B B 29 OR 36 #4 4-8" C 4 #4 3'-8" E BAR A BAR FE 26 OR 24 #5 2'-6" STANDARD DRAWING NO. BARN BE 20-6" STANDARD DRAWING NO. RDB-006-08 SIMULTI TES FOR A 30" PIPE. 1 GRATE TOTAL FRAME 181 LBS. 362 LBS. 64 LBS. APPROX. QUANTITIES FOR CONCRETE REINF. STANDARD DRAWING NO. RDB-006-08 STANDARD DRAWING NO. RDB-006-08 SIMULTED LABEL AND ALBERT A	8" \ 4'-0" \ \ 8" \ \ 4'-0" \ \ \ A 30 0R 38 \ #5 3'-0"
1 RELATES TO MEDIAN CROSS SLOPE - 6A=12:1, 6B=6:1, 6C=5:1, 6D=4:1, 6E=3:1, 6F EQUALS ANY ADDITIONAL SLOPE AS SPECIFIED BY THE ENGINEER 2 WHEN A BOX INLET IS PLACED IN A SAG CONSTRUCT APRON 4'-0" ON EACH SIDE AS SHOWN. 3 RATE OF INCREASE OR DECREASE 0.41 CU. YD. PER FT. IN HEIGHT. 4 DEDUCT APPROX. 0.1 CU. YD. OF CONCRETE FOR 15"-18"-24" PIPE AND 0.2 CU. YD. OF CONCRETE FOR FOR A 30" PIPE. 5. DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FRAME FOR TYPES B, C, D, E, AND F. 6 ETTAILS OF THE BOX. 7 RELIANCE STEEL (CAT. NO. H2-12D) AND GARY STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. E BAR A BAR E 26 OR 24 #5 2'-6" NOTE: PRIMARY USE (DEPRESSED MEDIAN) E DAR BAR E 26 OR 24 #5 2'-6" SEMILIANCE STEEL WTS. 1 GRATE TOTAL FRAME 181 LBS. 362 LBS. 64 LBS. APPROX. QUANTITIES 6 A-6B-6C-6D-6E & 6F STANDARD DRAWING NO. RDB-006-08 STANDARD DRAWING NO. RDB-006-08 SUMMITTED MATCHED GRATES ARE SUPPLIED.	SECTION A-A BID ITEM AND UNIT TO BID PROPEROY IN LET TYPE 6 (A B C D E E) SECTION B-B SECTION B-B OF A B C D E E) FACE FOR B 29 OR 36 #4 4'-8" C 4 #4 3'-8"
WHEN A BOX INLET IS PLACED IN A SAG CONSTRUCT APRON 4-0" ON EACH SIDE AS SHOWN. 3 RATE OF INCREASE OR DECREASE 0.41 CU. YD. PER FT. IN HEIGHT. 4 DEDUCT APPROX. 0.1 CU. YD. OF CONCRETE FOR 15"-18"-24" PIPE AND 0.2 CU. YD. OF CONCRETE FOR FOR A 30" PIPE. 5 DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FRAME FOR TYPES B, C, D, E, AND F. 6 EIII COMPACT THIS VOLUME WITH D.G.A. BASE OR GRAVEL BASE AND INCLUDE IN THE UNIT PRICE OF THE BOX. 7 RELIANCE STEEL (CAT. NO. H2-12D) AND GARY STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. STR. STEEL WTS. 1 GRATE TOTAL FRAME 181 LBS. 362 LBS. 64 LBS. APPROX. QUANTITIES 6A-6B-6C-6D-6E & 6F STANDARD DRAWING NO. RDB-006-08 SIMULTED WTS. 1 GRATE TOTAL FRAME 181 LBS. 362 LBS. 64 LBS. STANDARD DRAWING NO. RDB-006-08	1 RELATES TO MEDIAN CROSS SLOPE - 6A=12:1, 6B=6:1, 6C=5:1, 6D=4:1, 6E=3:1, 6F EQUALS ANY ADDITIONAL SLOPE AS SPECIFIED BY THE ENGINEER NOTE: PRIMARY USE (DERRESSED MEDIAN)
FOR A 30" PIPE. 5. DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING FRAME FOR TYPES B, C, D, E, AND F. 6. COMPACT THIS VOLUME WITH D.G.A. BASE OR GRAVEL BASE AND INCLUDE IN THE UNIT PRICE OF THE BOX. 7. RELIANCE STEEL (CAT. NO. H2-12D) AND GARY STEEL (CAT. NO. HW3-D-300) ARE ACCEPTABLE ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. DROP BOX INLET TYPE 6A-6B-6C-6D-6E & 6F STANDARD DRAWING NO. RDB-006-08 STANDARD DRAWING NO. RDB-006-08 SUMMITTED LIBITATION STANDARD DRAWING NO. RDB-006-08 SUMMITTED	3 RATE OF INCREASE OR DECREASE 0.41 CU. YO. PER FT. IN HEIGHT. STR. STEEL WTS. STR. STEEL WTS. STR. STEEL WTS.
GETTIC COMPACT THIS VOLUME WITH D.G.A. BASE OR GRAVEL BASE AND INCLUDE IN THE UNIT PRICE OF THE BOX. TYPE CONCRETE REINF. 3'-6" 3 BOX STEEL ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. TANDARD DRAWING NO. RDB-006-08 SUMMITTED. SAG 4.0 CU. YD. 4 304 LBS. SUMMITTED.	FOR A 30" PIPE. 5. DETAILS ARE SHOWN FOR A TYPE 6A. IT IS NECESSARY TO REVISE VARIOUS DETAILS INCLUDING 181 LBS. 362 LBS. 64 LBS. DROP BOX
ALTERNATES PROVIDED MATCHED GRATES ARE SUPPLIED. SAG 4.0 CU. YD. 4 304 LBS. SUBMITTED LICENSESSION AND SACRET AND SAN STELL (CAT. NO. 11W3-D-3500) AND SAN STE	6 COMPACT THIS VOLUME WITH D.G.A. BASE OR GRAVEL BASE AND INCLUDE IN THE UNIT PRICE OF THE BOX. APPROX. QUANTITIES 6A-6B-6C-6D-6E & 6F TYPE CONCRETE REINF.
VO) THE Z/4 DAN SHALL DE MOTCHED TO NECETAL THE I CHOSS DAN. 10 ADEL 3.4 CU. 10. (4) I ZOZ LD3.11 MYRAND - 1. ADE	(7) NELIANCE STELL (CAT. NO. 112-12D) AND OART STELL (CAT. NO. 11WS-D-300) ARE ACCEPTABLE

DRAWING NO.

GENERAL NOTES

DESIGN DATA:

a.) Applicable Code: 2018 Kentucky Building Code

b.) Design Loads

 Roof Loads Self Weight (min) 5 psf 8 psf Collateral - Primary 8 psf Collateral - Secondary

Reference M-Sheets for suspended Mechanical Loads.

16 psf

Live Load 2. Elevated Floor Loads Not Applicable

3. Wind Loads:

115 mph Basic Wind Speed 1.00 Wind Importance Factor (Iw) Building Occupancy Category Wind Exposure Class Internal Pressure Coefficient (GCpi) <u>+</u>0.18

Components and Cladding (Non-Professional Design) Mind Pressure - Walls -39.2 psf -40.6 psf Corner Wind Pressure - Roof -39.2 psf Edge -44.6 psf Corner -44.6 psf

4. Seismic:

Seismic Importance Factor (Ie) Seismic Use Group Mapped Spectral Response Accelerations 0.1969 0.1069 Spectral Response Coefficients 0.1879 0.101q Site Class Seismic Design Category Basic Seismic-Force-Resisting System OSMF Design Base Shear 0.046 x Dead Load Seismic Response Coefficient (Cs) 0.046 3.5 Response Modification Factor (R) Analysis Procedure Equivalent Lateral

5. Roof Snow:

Force

Ground Snow Load (Pa) 15 psf 15.0 psf Flat Roof Snow Load (Pf) 0.09 Snow Exposure Factor (Ce) Snow Load Importance Factor (Is) Thermal Factor (Ct)

6. Rain Loads: Water Depth

> The water depth is defined as the depth of water above the roof surface at the location of the primary roof drains. Increased water depth resulting from member deflection has been considered in the structural design.

SOIL PROPERTIES:

a.) Geotechnical Data: Allowable pressures for design.

Allowable Bearing Pressure Columns 2,000 psf Allowable Bearing Pressure Walls 2,000 psf

b.) Modulus of Subgrade Reaction (k value) 100 psi/in c.) The Frost Depth of the project site area is 24 inches.

CONCRETE:

- Concrete at interior slabs on grade shall have a minimum compressive strength of 3,500 psi at 28 days unless noted. All other concrete shall have a minimum compressive strength of 3,000 psi at 28 days unless
- Design and construction shall conform to the "Building Code Requirements" for Structural Concrete - ACI 318-056 - Strength Design Method" and details shall conform to the "Manual of Standard Practive for Detailing Reinforced Concrete Structures" both the lastest editions by the American Concrete Institute unless otherwise shown or specified.
- Concrete subject to freezing and thawing shall have maximum water cement (WC) ratio of 0.50.
- Concrete for interior slabs-on-grade shall have coarse aggregates graded such that not more than 18 percent or less than 8 percent of the total aggregate is retained on the $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{8}$ and number 4 sieves.

REINFORCING STEEL:

- a.) All reinforcing steel to be ASTM A615 Grade 60.
- b.) All reinforcing steel shall conform with CRSI Standards.
 - Reinforcing in concrete steel shall have development lengths and splice lengths as shown in the following tables unless otherwise shown on the

Bar Size	Developr Length	ment S _l Len	olice gth	4,000 psi (Developme Length (inches)	nt Splice Length
3	12		2	. 16	,
4	13	23	12	20	
5	7	28	15	24	
6	20	34	17	29	
7	33	55	28	48	
8	41	70	36	60	
	Size 3 4 5 6 7	Bar Developed Size Length (inches) 3 12 4 13 5 17 6 20 7 33	Bar Development Specific Sp	Size Length (inches) Length (inches) 3 12 17 12 4 13 23 12 5 17 28 15 6 20 34 17 7 33 55 28	Bar Development Splice Developme Size Length Length Length (inches) (inches) (inches) 3 12 17 12 16 4 13 23 12 20 5 17 28 15 24 6 20 34 17 29 7 33 55 28 48

STRUCTURAL STEEL:

- a.) All wide flange structural steel to be ASTM A992, grade 50. All other structural steel, plates and bars to be ASTM A36, unless noted otherwise, Bolts A325.
- Design and construction shall conform to the "Specifications for the Design, Fabrication, and Erection of Structural Steel for Buildings" of the AISC unless otherwise shown or specified.
- Connections: Unless otherwise detailed shall be standard connections using $\frac{3}{4}$ diameter fasteners made in accordance with the latest edition of
- Steel Construction Manual of the American Institute of Steel Construction. Unless otherwise detailed all bolted connections shall contain pre-tensioned bolts.

Shop Connections: May be welded or high tensile bolted, ASTM A325. Field Connections: Shall be bolted with high tensile bolts, ASTM A325.

Bolted connections shall be assembled and inspected in accordance with RCSC-2004 (Specification for Structural Joints using ASTM A325 or ASTM A490 Bolts).

- d.) All bolted connections are to be pre-tensioned unless noted otherwise.
- e.) All structural steel tubing to be ASTM A500, grade B.
- f.) All welded connections shall satisfy the requirements of AWS DI.I.I/D.I.M and shall be made with low hydrogen ETOXX electrodes.

POST INSTALLED ANCHORS

- a.) Post-installed anchors and rebar secured with adhesive shall only be used where specified on the construction documents. The Contractor shall obtain approval from the architect or engineer of record prior to installing post-installed anchors in place of missing or misplaced cast-in-place anchors.
- b.) Acceptable post installed anchor products are listed below. Anchor products specified on the structural drawings must be used unless an alternate product is approved by the architect or engineer of record.

I. Adhesive to Concrete a. Adhesive Anchors

> (1) Hilti HIT-RE 500-SD Epoxy Adhesive Anchoring System with HAS-E Threaded Rod. (2) Simpson Strong-Tie SET-XP with Threaded Rod

b. Mechanical Anchors (1) Hilti Kwik Bolt-TZ Expansion Anchors (2) Simpson Strong-Tie Strong Bolt

2. Rebar Doweling into Concrete a. Hilti RÉ 500-SD Epoxy Adhesive Anchoring System with continuously deformed rebar. b. Simpson Strong-Tie SET-XP with continuously deformed rebar.

c.) Substitution requests for alternate products must be approved in writing by the architect or structural engineer of record prior to use. Contractor shall provide calculations demonstrating that the substituted capable of achieving the performance values of the specified Substitutions will be evaluated by their having ICC ESR showing product. with the relevant building code for seismic uses, load resistance, installation category, and availability of comprehensive installation instructions. Adhesive anchor evaluation will also consider creep,

d.) Post installed anchors must be installed in accordance with the manufacturer's printed installation instructions.

e.) The Contractor shall arrange an anchor manufacturer's representative to provide onsite installation training for all of their anchoring products specified unless installer provides proof of prior training. The Contractor must receive documented confirmation that all personnel who install anchors are trained prior to the commencement of installing anchors.

in-service temperature and installation temperature.

Anchor capacity is dependent upon spacing between adjacent anchors and proximity of anchors to edge of concrete. Install anchors in accordance with spacing and edge clearances indicated on the drawings.

Existing reinforcing bars in concrete structure may conflict with specific anchor locations. Unless noted on the drawings that the bars can be cut, the Contractor shall review the existing structural drawings and shall undertake to locate the position of the reinforcing bars at the locations of the concrete anchors, by GPR, X-Ray, chipping or other means.

Adhesive Anchor Requirements . Anchors must not be installed until concrete is 21 days of age. 2. Concrete temperature during anchor installation must not exceed IIOF

(short term) and 80F (long term). 3. Concrete must be dry at the time of anchor installation. 4. Holes must be drilled with a hammer drill and carbide bit. 5. For horizontal, upwardly inclined and overhead installations, installer must be certified by an ACI/CRSI Adhesive Anchor Installer Certification Program or equivalent.

GENERAL:

- a) All high strength bolted connections are to contain pre-tensioned bolts unless noted. Connections of joists to joist girders and joist girders to columns do not require pre-tensioned bolts and need only be snug tight.
- b) The use of Alternate Design Fasteners is required, use the type that shears the splined end to indicate adequate tightness. Each fastener shall be tightened until the splined end shears off. Fasteners with splined ends intact are not acceptable.
- c) All bolts must be manufactured in North America.
- d) All bolts must be installed. No empty bolt holes are permitted unless directed by the design engineer.
- e) All high strength bolts (A325 and A490) require hardened washers under the turned element.
- Bolt tensioning verification is required through the use of a Skidmore direct tension-indicating device or equivalent. This verification must be accomplished prior to tensioning the bolts in the building. This verification must be performed by the same persons as those who will tension the bolts in the structure.
- A bazooka level furnished by the erector will be required at the jobsite be utilized by the erector in the verification that columns are plumb. The level is to be made available to the special steel inspector.

- h) The enlarging of holes or modification of members is permitted only with the documented direction of the design engineer.
- i) Burning to create new holes or enlarge existing holes is not permitted.
- All X-bracing must be straight
- k) Temporary bracing of the building is required. Temporary bracing to remain in place until all permanent bracing and roof deck is installed and all connections are completed including roof deck fastening. The bracing sizes and locations are the responsibility of the erector.
- Fastening of steel roof deck shall provide resistance to design wind loads through diaphragm action and shall conform with Steel Roof Deck Institute Design Manual including side lap fastening.
- m) The structure has been designed to meet the deflection criteria specified in "Serviceability Design Considerations for Low-Rise Buildings" published by American Institute of Steel Construction, Inc.
- n) All structural welded joints shall conform to the provisions of AWS DI.I Structural Welding Code by the American Welding Society.
- o) Check mechanical and electrical drawings for exact location and size of openings for equipment.

SPECIAL INSPECTIONS:

- Engaging the Special Inspectors The Owner and/or Architect must engage special inspectors to perform special inspections.
- Steel Fabricator The steel fabricator shall maintain written procedural and quality control manuals. The steel fabricator must be engaged with an approved special inspection agency that is performing periodic audits of the steel fabricator's operations. Upon completion of the fabrication, the fabricator must submit a "certificate of compliance" to the building official stating that the work was performed in accordance with approved construction documents.
- Special Steel Inspector The special steel inspector must be a AWS DI.1 Certified Welding (CMI) and a ASNT TCIA Level Two Certified Technician.
- d) Submittal of Field Welding Information The steel erector must submit the welding materials, welding procedures, and welder qualifications to the special inspector for his approval. This approval must be made prior to any steel erection.
- e) Periodic Inspection of Field Welds The special steel inspector must provide periodic inspection of: 10% of all field welds First 10% of all metal deck welds 10% of all field welds of cold formed steel members

Should any welds, other than deck welds, be found to be inadequate, then 100% of all similar welds must be inspected at the expense of the subcontractor.

Continuous Inspection of Field Welds The special inspector must be present and provide continuous inspection All fillet welds exceeding $\frac{5}{6}$ " size.

All complete and partial penetration welds

Continuous inspections shall be visual inspections unless noted on drawings or specifications.

High Strength Bolts (A325 or A490) The erector shall provide a "tension measuring device" (Skidmore or equal) and schedule the bolting technique verification with special inspector.

All multi-pass fillet welds

The special inspector shall observe the pre-installation testing and calibration procedures. The erector shall use the turn-of-the-nut method with "matchmarking" techniques, direct tension indicator washers, or alternate design fasteners to tension the bolts. During this pre-installation testing, the steel inspector shall obtain calibrated torque wrench values for later

The Special Inspector must utilize a calibrated torque wrench to inspect the following: 10% of all bolted connection (of all bolts).

Concrete Inspector Requirements The Special Concrete Inspector must be an ACI Level I technician.

Concrete Foundations The Special Concrete Inspector shall inspect all foundations. This inspection shall include: Confirmation of adequate soil condition Verification of the use of the design mix Sample fresh concrete as indicated in the specifications

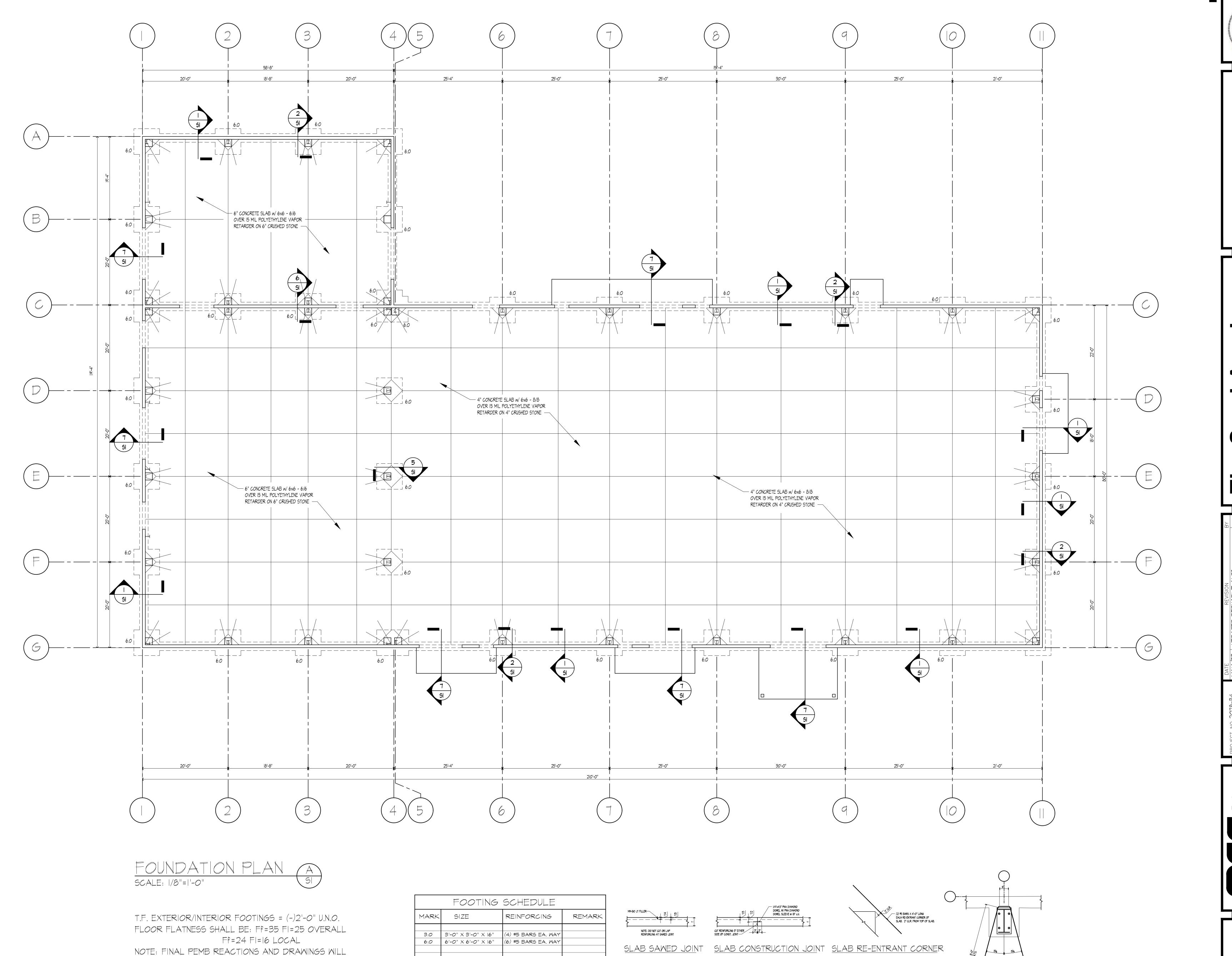
Slabs on Grade The Special Concrete Inspector shall inspect all slabs on grade. This inspection shall include: Verification of adequate soil condition by observation of proof rolling Verification of the use of the design mix Sample fresh concrete as indicated in the specifications

Adhesive Anchors All horizontal, upwardly inclined and overhead adhesive anchor installations must be continuously inspected for compliance with the adhesive system manufacturer's printed installation instructions (MPII).

 Contractor's Statement of Responsibility The Contractors responsible for any work requiring special inspection

shall submit in a written statement to the prime design professional for submittal to the code officials: Acknowledging the awareness of special requirements Acknowledging that control will be exercised to obtain conformance with

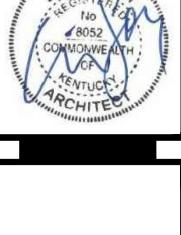
construction documents. Defining procedures for exercising control. Identifying the persons exercising control and stating their qualifications.

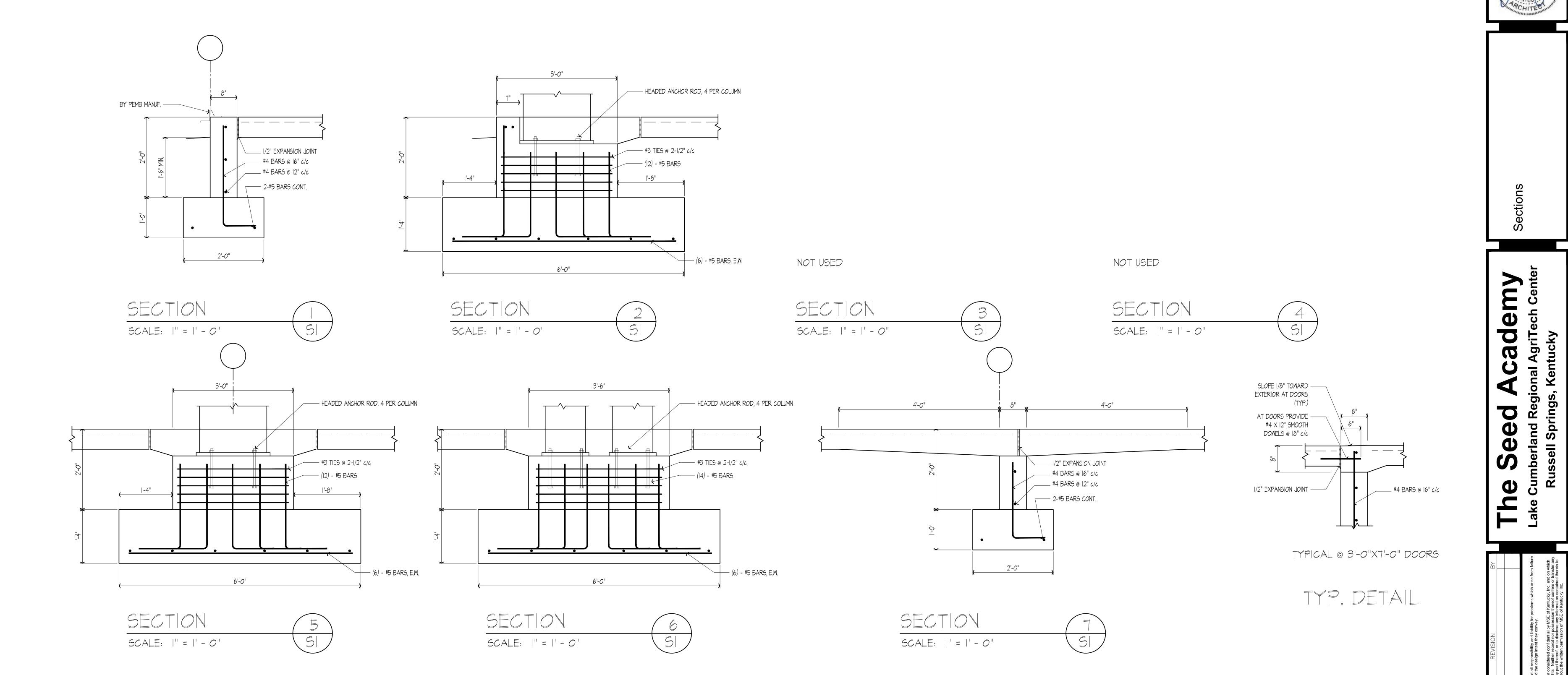


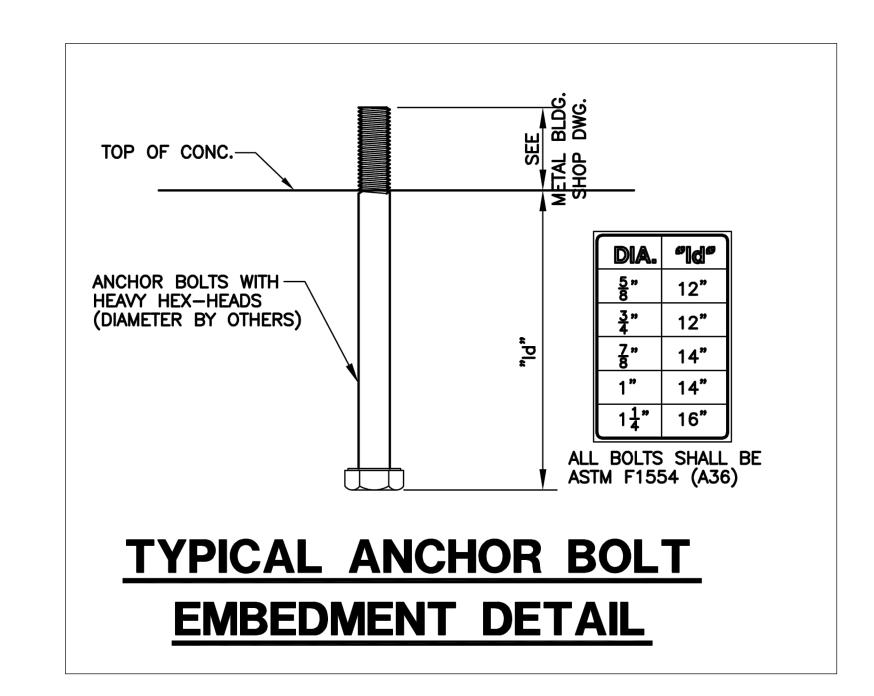
DICTATE ACTUAL FOOTING SIZE, PIER SHAPE AND LAYOUT.

DRAWING NO.

SHEET OF









S2

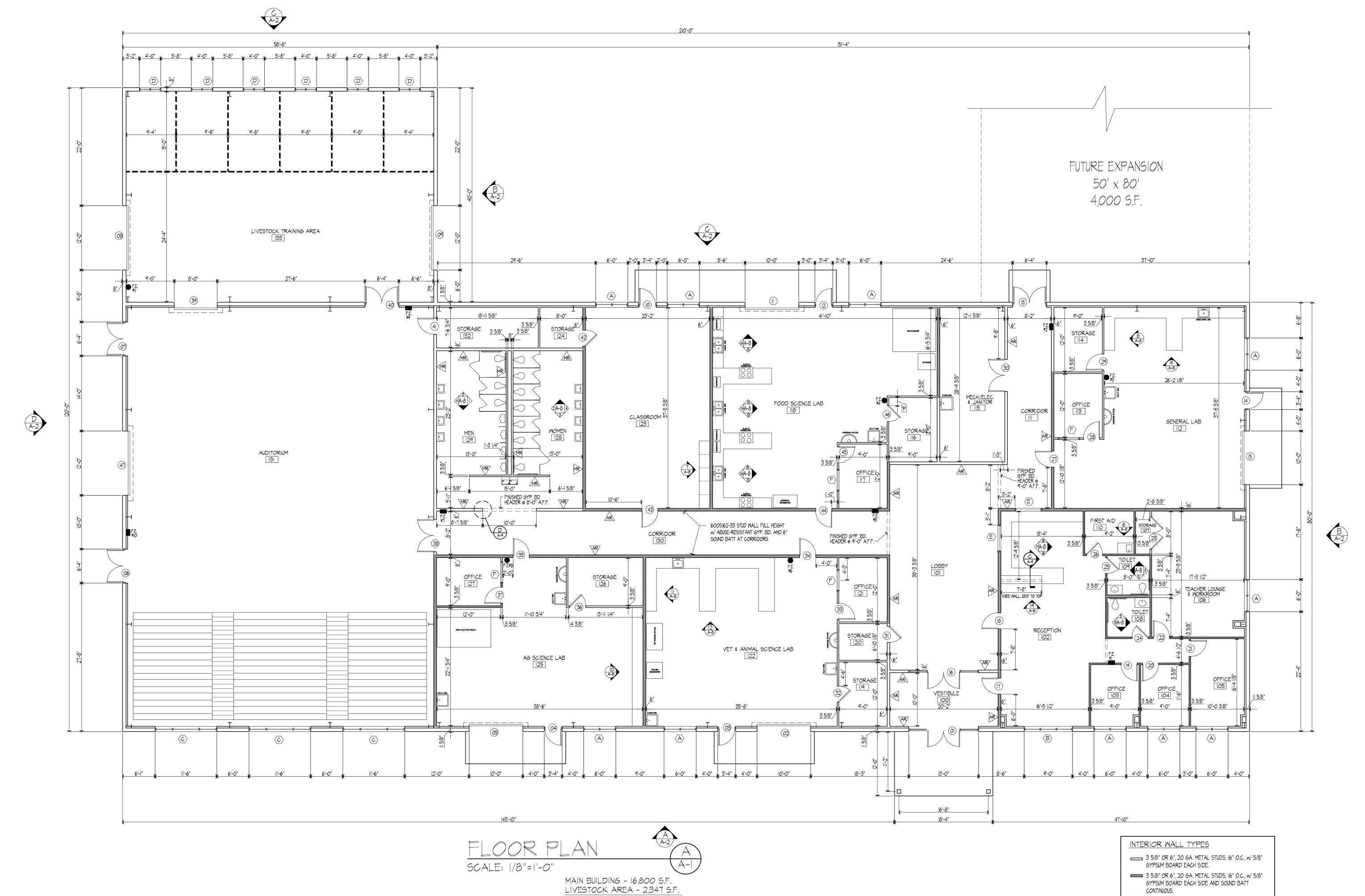
DRAWING NO.

A-1

3 5/8" OR 6", 20 GA. METAL STUDS, 16" O.C., w/ 5/8"

GYPSUM BOARD - ABUSE-RESISTANT (AR) OR

MOISTURE- RESISTANT (MR) ON SIDE INDICATED.



MAIN BUILDING - 16,800 S.F. LIVESTOCK AREA - 2,347 S.F. TOTAL AREA - 19,147 S.F.

EXTERIOR BUILDING FINISHES

WALL PANELS - 26 GA. STEEL SIDING PANELS, COLOR "TERRA COTTA"

• ROOF PANELS - 24 GA. STEEL ROOF PANELS,

DOWNSPOUTS - COLOR "TERRA COTTA"

• ROOF TRIM AND GUTTERS - COLOR "SURREY BEIGE"

STEEL OVERHEAD DOORS/FRAMES - "DARK BRONZE"

ALUMINUM DOOR/WINDOW FRAMES - DARK BRONZE

HOLLOW METAL DOORS/FRAMES - PAINTED SEMI-GLOSS ENAMEL TO MATCH "DARK BRONZE"

EXTERIOR STEEL COLUMNS AND FRONT CANOPY STRUCTURE - PAINTED SEMI-GLOSS ENAMEL TO MATCH

NOTE: Finish colors noted are brand specific and may be substituted with architect approved equal.

METAL VENTS AND LOUVERS - DARK BRONZE

COLOR "DARK BRONZE"

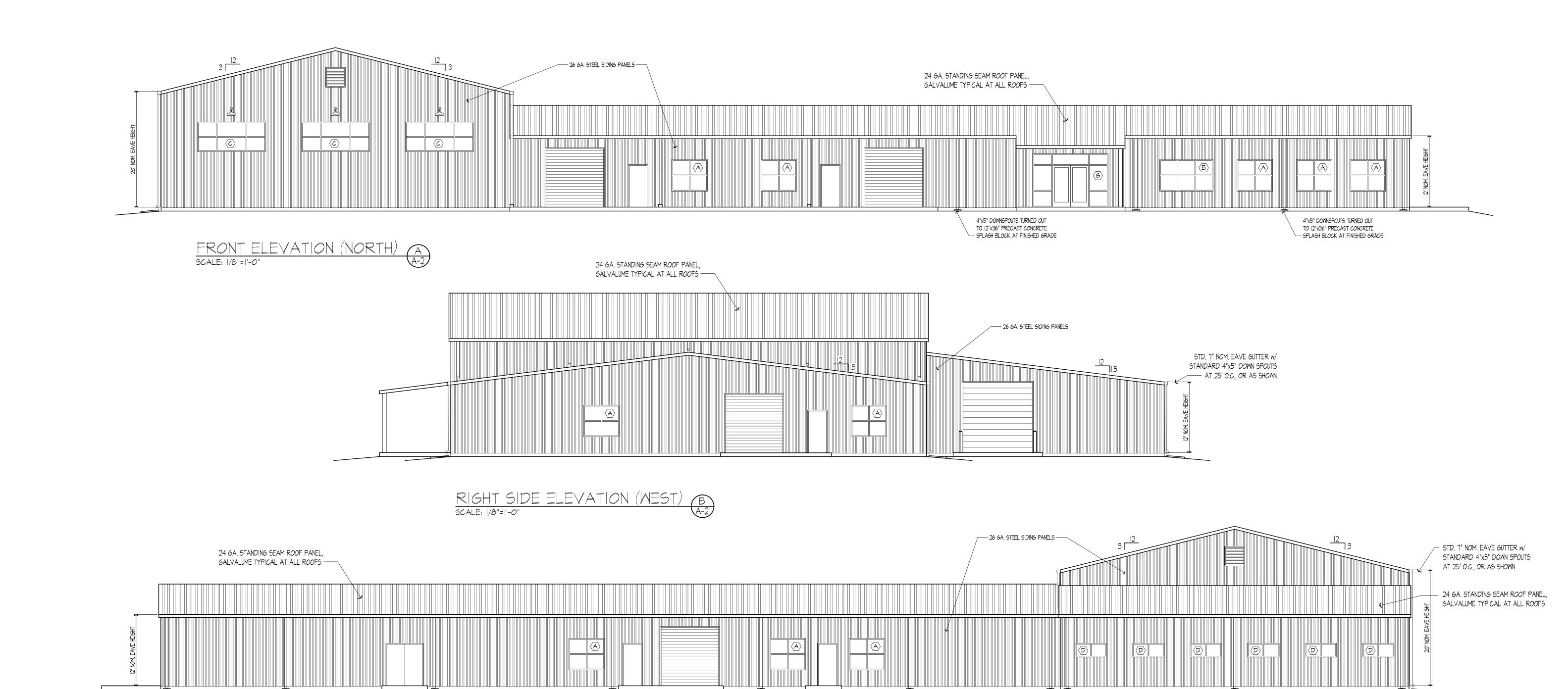
"DARK BRONZE"

DRAWING NO.

REAR ELEVATION (SOUTH) C SCALE: 1/8"=1'-0" 24 GA. STANDING SEAM ROOF PANEL, GALVALUME TYPICAL AT ALL ROOFS ——— STD. 7" NOM. EAVE GUTTER w/ STANDARD 4"x5" DOWN SPOUTS 26 GA. STEEL SIDING PANELS ---AT 25' O.C., OR AS SHOWN 4"x5" DOWNSPOUTS TURNED OUT
TO 12"x36" PRECAST CONCRETE
SPLASH BLOCK AT FINISHED GRADE CONNECT DOWNSPOUT TO PVC BOOT
AND DIRECT TO DAYLIGHT AT
CONCRETE SLAB LOCATIONS, TYPICAL LEFT SIDE ELEVATION (EAST)

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

A-2

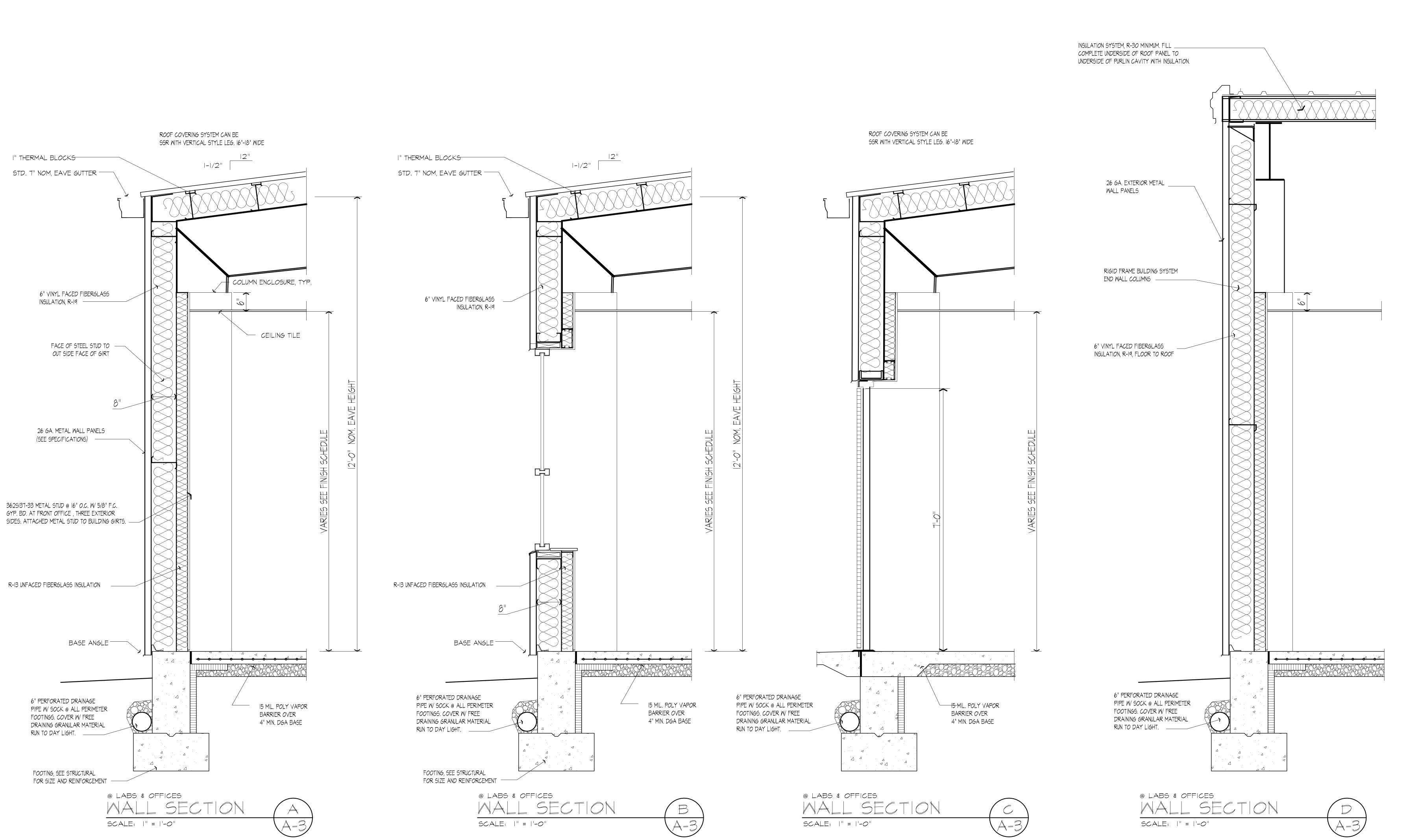


4"x5" DOWNSPOUTS TURNED OUT TO 12"x36" PRECAST CONCRETE

SPLASH BLOCK AT FINISHED GRADE

STD. 1" NOM. EAVE GUTTER W/ STANDARD 4"x5" DOWN SPOUTS AT 25' O.C., OR AS SHOWN





The Seed Academy

Ike Cumberland Regional AgriTech Center

DESIGN DOCUMENTS:

The design professional waves any and all responsibility and liability for problems which arise from failure to follow these plans, specifications and the design intent they convey.

COPYRIGHT ©

This document discloses subject matter considered confidential by MSE of Kentucky, Inc. and on which MSE of Kentucky, Inc. and part thereof, or to disclose any information contained therein to others, or to use it for any purpose without the written permission of MSE of Kentucky, Inc.

PROJECT NO. 2078–34

DESIGNED BY ENL/BLL

DRAWN BY BLL

CHECKED BY

REVIEWED BY

REVIEWED BY

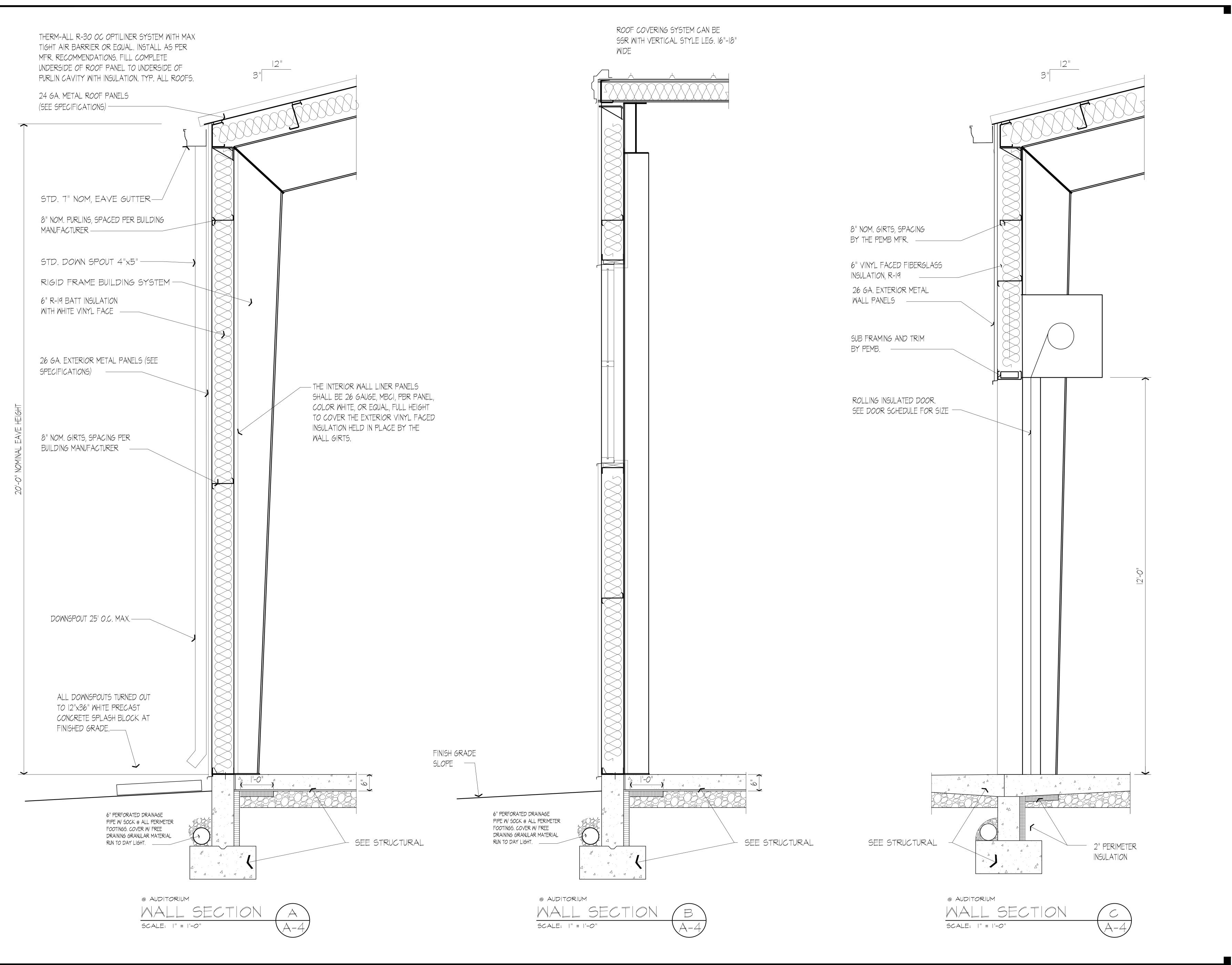
COPYRIGH

CO

Engineers
Architects
Architects
Planners
Planners
24 Wellington Way
exington, KY 40503
Fax: (859)223-2607
ww.mselex.com

DRAWING NO.

A-3



CONTROL OF THE PROPERTY OF THE

ECTIONS

The Seed Academ, ake Cumberland Regional AgriTech Cen

DESIGN DOCUMENTS:

The design professional waves any and all responsibility and liability for problems which arise from to follow these plans, specifications and the design intent they convey.

COPYRIGHT ©

This document discloses subject matter considered confidential by MSE of Kentucky, Inc. and on w MSE of Kentucky, Inc. and on w injuly to reproduce the document on any part Hereof, or to disclose any information contained there others, or to use it for any purpose without the written permission of MSE of Kentucky, Inc.

DESIGNED BY ENL/BLL
DRAWN BY BLL
CHECKED BY
REVIEWED BY
DATE
DATE
JANUARY 2024
MSE
rights
AS NOTED
other

Engineers
Architects
Architects
Planners
OF KENTUCKY, INC.

624 Wellington Way
Phone: (859)223-5694

DRAWING NO.

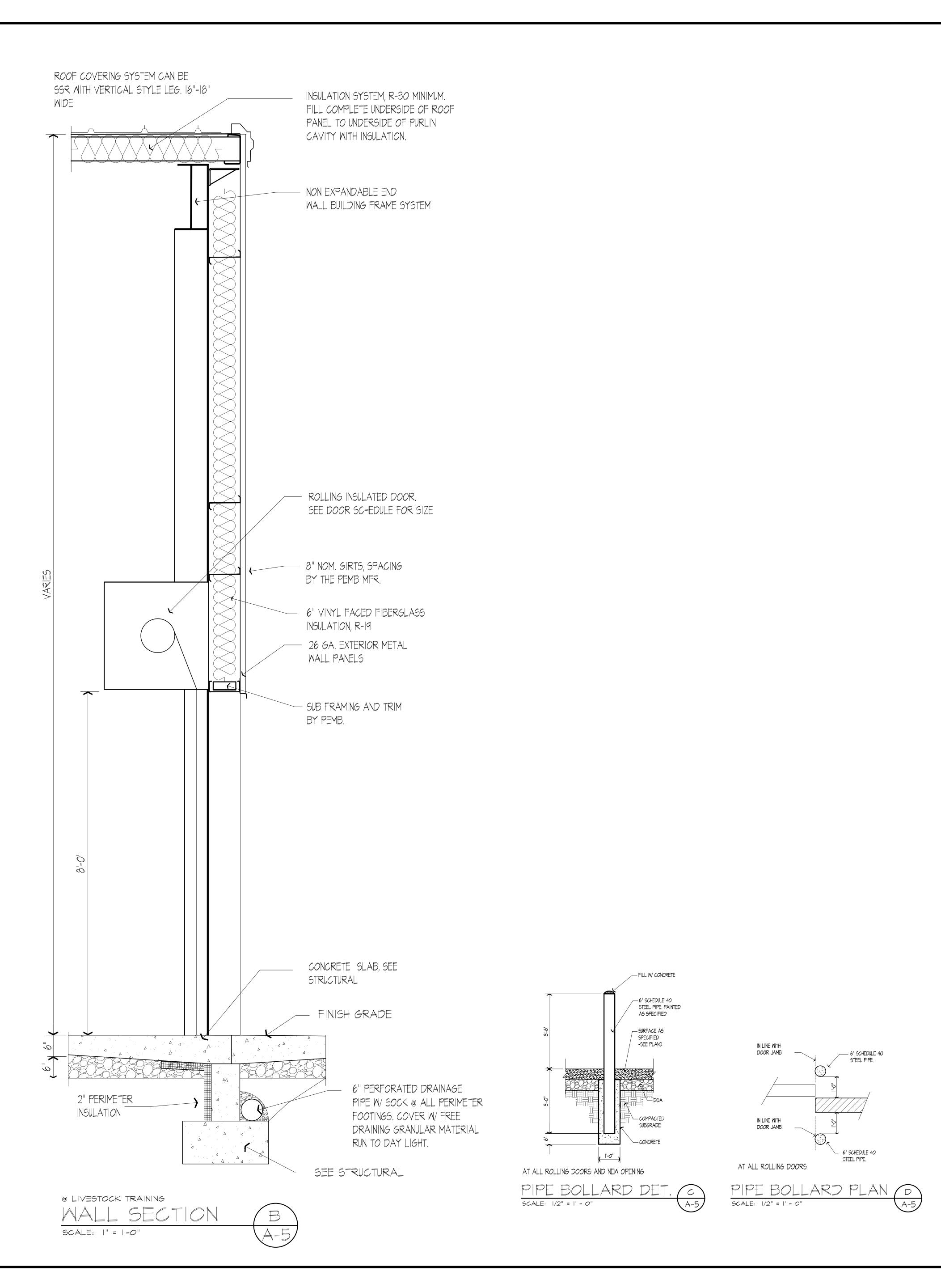
SHEET OF

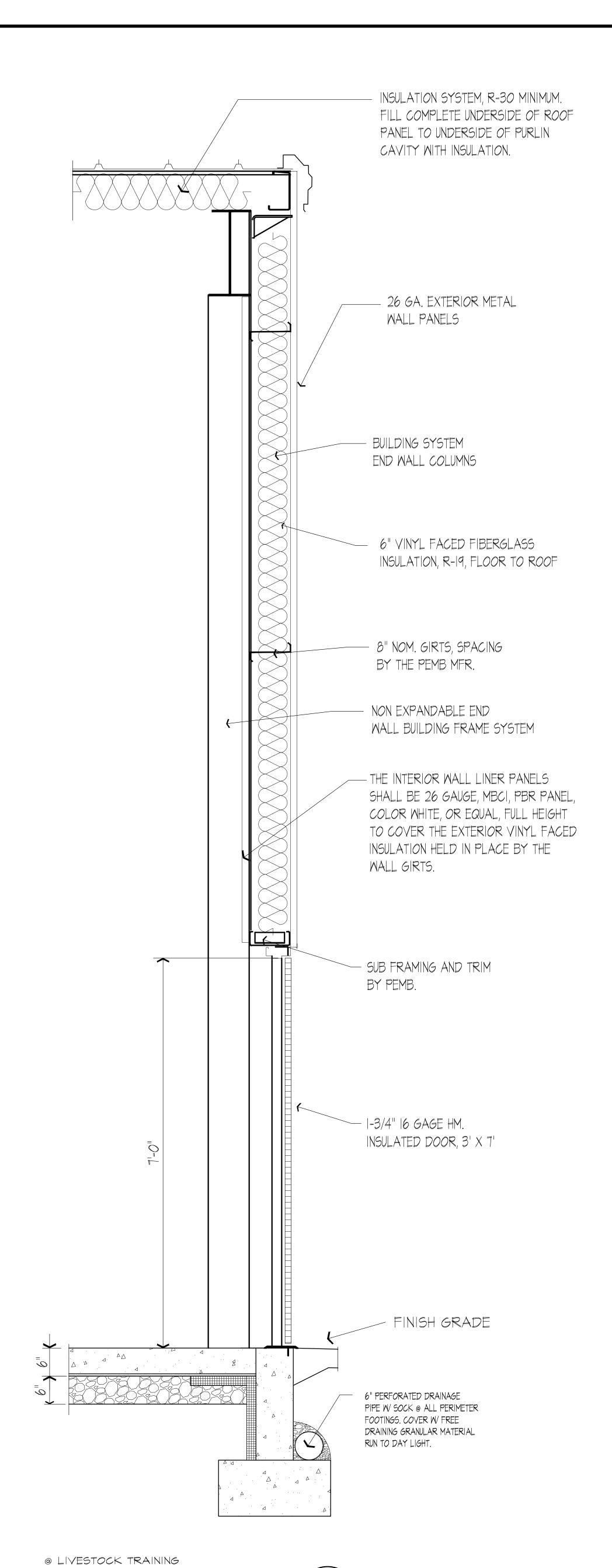


66 **(7)**

DRAWING NO. **A-5**

SHEET OF

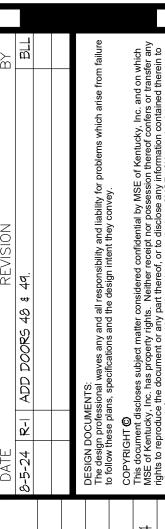




MALL SECTION

SCALE: |" = |'-0"





DOOR SCHEDULE SEE SPEC. SECTION 08710 FOR HARDWARE SETS REMARKS THICK. TYPE HEAD JAMB SILL TYPE MATERIAL STEEL SECT. 1 3/4" HM INSUL. STEEL SECT 6 PR. HM INSUL. 3'-0" HM INSUL. 12'-0" HM INSUL. 3'-0" 10'-0" HM INSUL. 13 PR. HM INSUL. HM INSUL. 3'-0" 7'-0" 1 3/4" STEEL SECT 10'-0" 16 PR. 7'-0" STORE FRONT "G" ALUM. 7'-0" SCM 3'-0" 7'-0" SCW 3'-0" 3'-0" 7'-0" SCM 20 3'-0" 7'-0" SCW

| 3/4"

1 3/4"

1 3/4"

I 3/4"

---- -| 3/4" | 3/4"

| U | R | G | G |

HARDWARE SET 4 HARDWARE SET 4

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

8'-0" 7'-0"

7'-0"

7'-0"
7'-0"
7'-0"
12'-0"
7'-0"
7'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

8'-0"

3'-0"

3'-0"

3'-0" 3'-0" 3'-0" 3'-0" 12'-0" 3'-0" 3'-0"

SCM

SCW

SCM

SCM

SCM

SCM

SCM

SCM SCW

SCM

SCW

SCW SCM

SCM

SCM SCM

SCM

SCM

SCM

SCM SCM

SCM
SCM
STEEL SECT.
HM INSUL.
HM INSUL.

STEEL SECT.

HM INSUL.

23 PR.

30 PR.

38 PR.

40 PR.

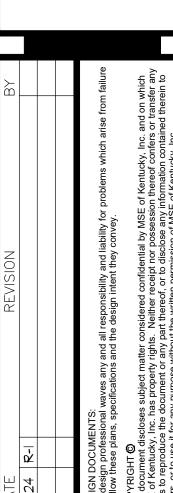
OOR TYPES: ALE 1/4"" = 1' - 0"					
TYPE "A" 3'-0"	TYPE "B" 3'-0" EXTERIOR HOLLOW		TYPE "E" 3'-0" NTERIOR FLUSH	INTERIOR I 3/4"SOLID CORE WOOD DOOR W/	
ALUMINUM DOOR, INSULATED GLASS w/ SAFETY GLAZING	METAL INSULATED DOOR, 18 GA.	AZING E "H"	I 3/4" SOLID CORE WOOD DOOR	I/4" TEMPERED GLAZING W METAL VISION PANEL TYPE "J" 12'-0"	
	TYPE "6" 8'-0"		12'-0"		
φ 					

SCALE 1/4"" = 1' - 0"	DOOR FRAMES SHALL BE GALVANIZED.			
TYPE "I"	TYPE "2"	TYPE "3"	TYPE "4"	TYPE "5"
3'-4" 3'-4" 4-7	6'-4" A-7	3'-4"	3'-4" X	6'-4"
EXTERIOR HOLLOW METAL FRAME, 16 GA. 5-3/4" WELDED	EXTERIOR HOLLOW METAL FRAME, 16 GA. 5-3/4" WELDED	INTERIOR HOLLOM METAL FRAME, 16 GA., 5 T/8" DW FRAME	INTERIOR HOLLOM METAL FRAME, 16 GA., 8 1/4" DW FRAME	INTERIOR HOLLOW METAL FRAME, 16 GA., 8 1/4" DW FRAME

MINDOMS & STOREFRONTS: SCALE 1/4"" = 1' - 0"			
	A-7	-6 3'-0 4'- 0 3'-0	5'-4" 2'-5" 2'-5" 2'-5" 4-7 A-7 A-7
5'-0" 2'-3" 2'-3" 2'-3" 10 10 10 10 10 10 10 10 10 10	4'-O" 4'-2"	15'-O" 6'-O" 4'-2" A-7 FRONT D REAR	

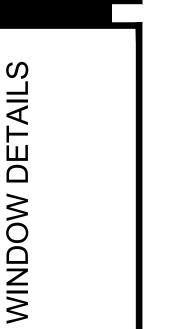
ALUMINUM STOREFRONT

2'-8" AFF. 5'-4" 2'-5" 2'-5" 2'-5"	2'-8" AFF. 5'-4" 2'-7" 2'-5" 4'-4" AFF. 5'-0"	4-10" AFF 2'-4"
5'-0" 2'-3" 2'-3" A-7 A-7	4'-0" 3'-0" 4'-2" 4'-2" 6'-0" A-T FRONT A-T FRONT FRONT FRONT FRONT FRONT PRONT PRONT	4'-2" REAR

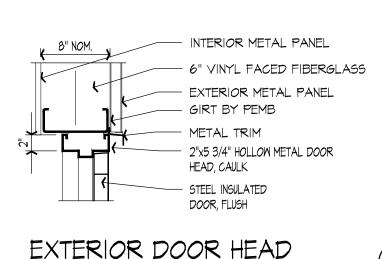


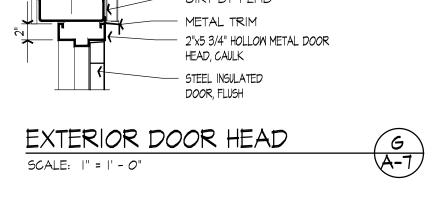
DRAWING NO. **A-7**

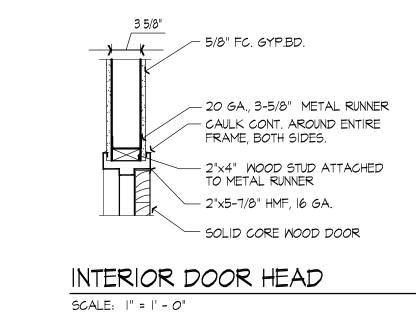
SHEET OF

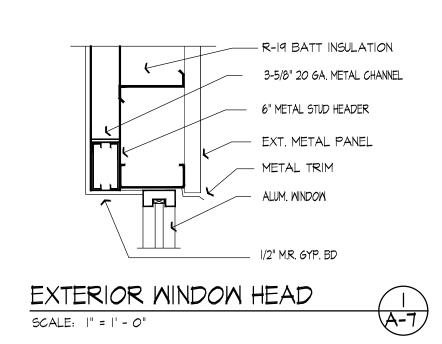


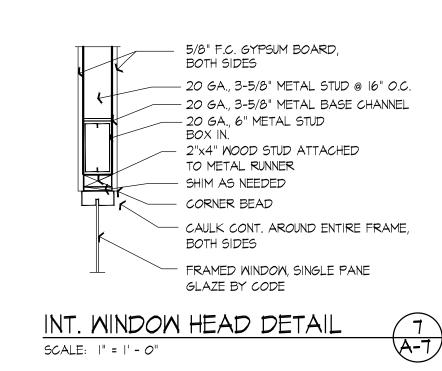


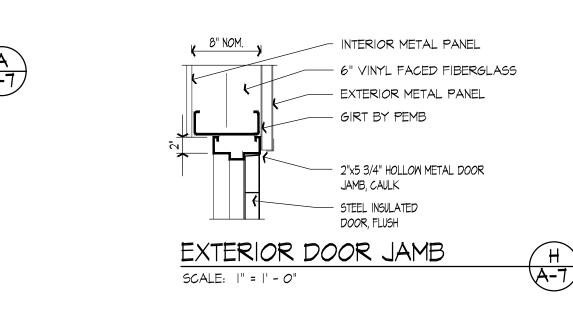


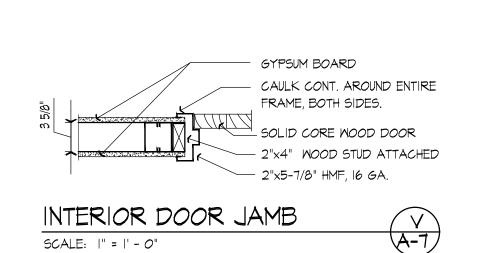


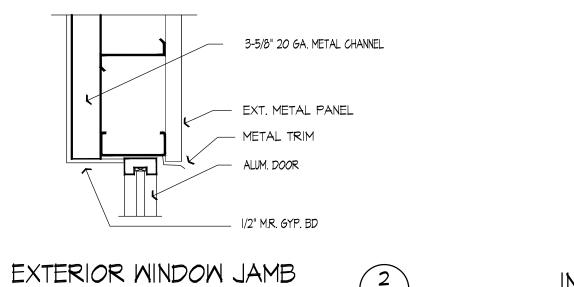


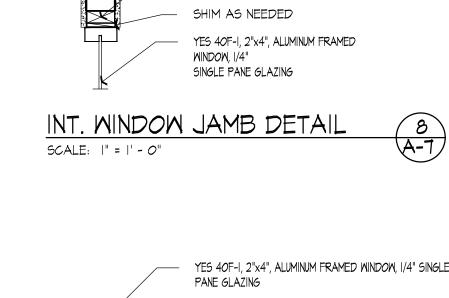








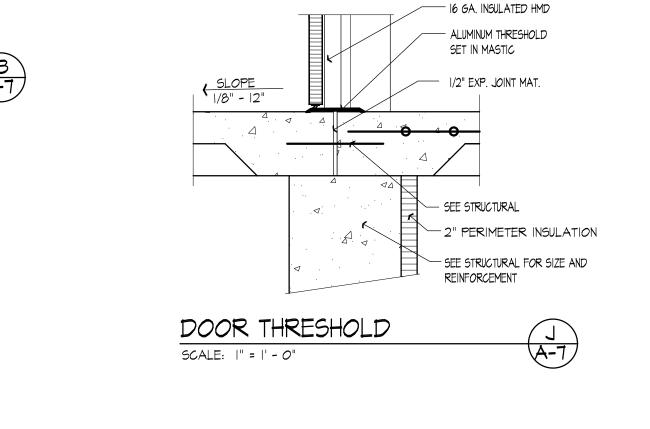


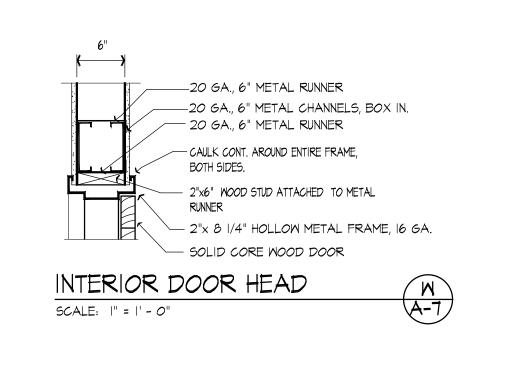


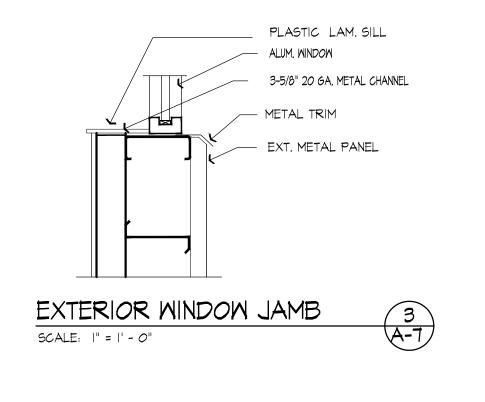
20 GA. DOUBLE 3-5/8" METAL STUDS

___ 2"x4" WOOD STUD ATTACHED

TO METAL RUNNER



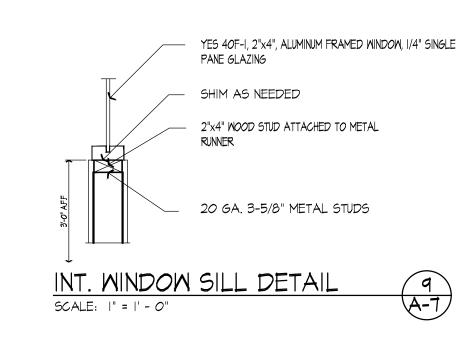


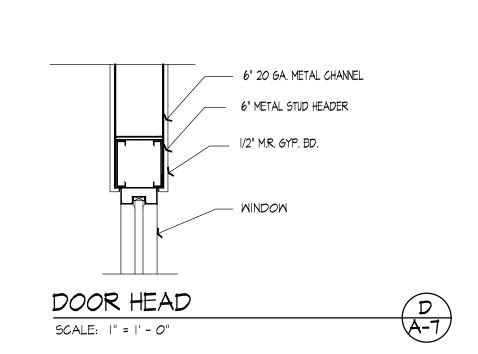


SCALE: |" = |' - 0"

SCALE: |" = |' - 0"

SCALE: |" = |' - 0"





---- 6" METAL STUD HEADER

--- EXT. METAL PANEL

- METAL TRIM

____ 1/2" M.R. GYP. BD

ALUM. DOOR/WINDOW

EXTERIOR DOOR HEAD

EXTERIOR DOOR JAMB

DOOR THRESHOLD

SCALE: |" = |' - 0"

SCALE: |" = |' - 0"

SCALE: |" = |' - 0"

3-5/8" 20 GA. METAL CHANNEL

— R-19 BATT INSULATION

— 3-5/8" 20 GA. METAL CHANNEL

— ALUMINUM THRESHOLD SET IN MASTIC

- 1/2" EXP. JOINT MAT.

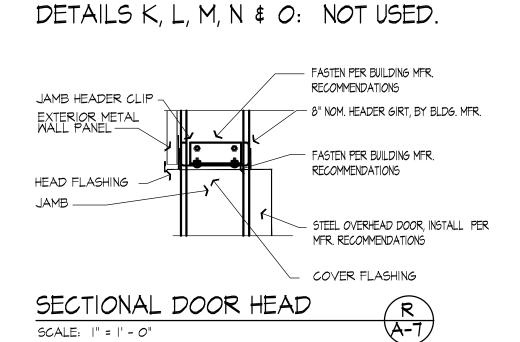
#4x 24" SMOOTH

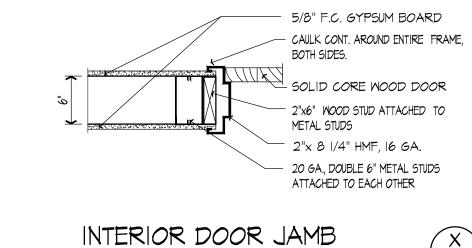
REBAR @ 18" O.C.

—— 6" METAL STUD HEADER

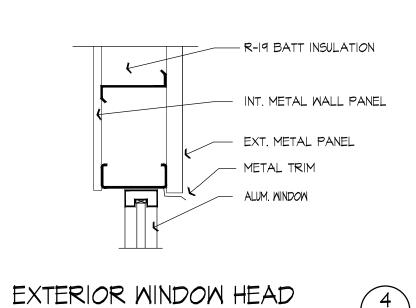
- EXT. METAL PANEL

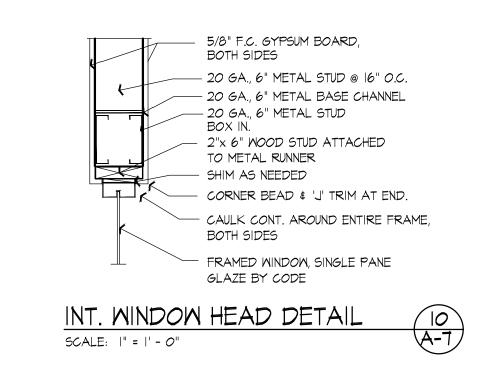
ALUM. DOOR/WINDOW

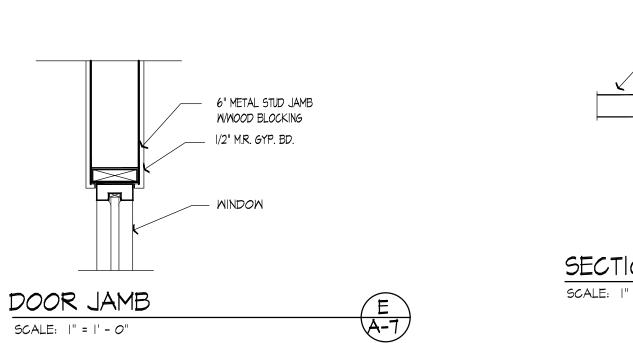


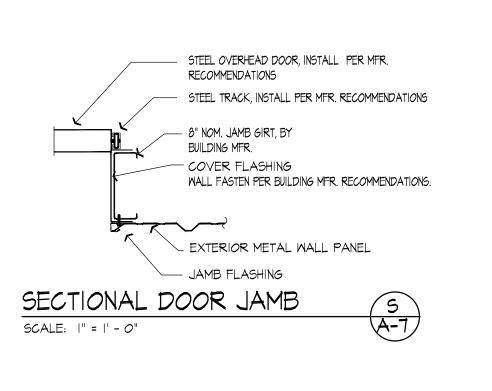


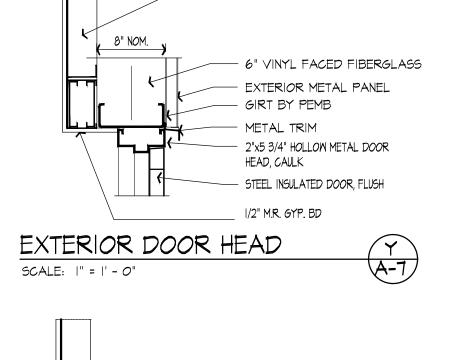
SCALE: |" = |' - 0"



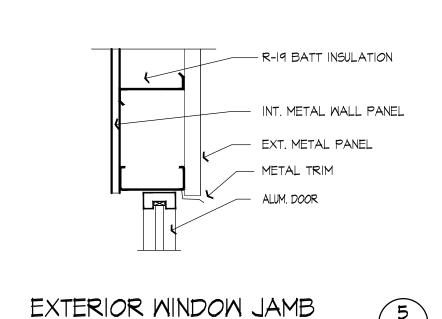


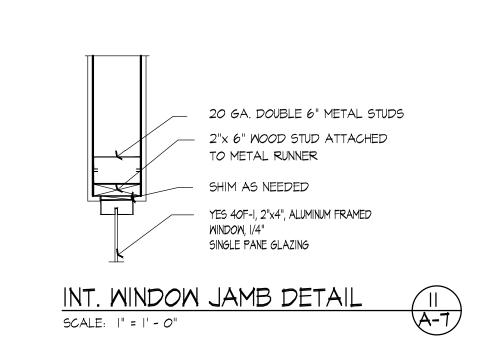


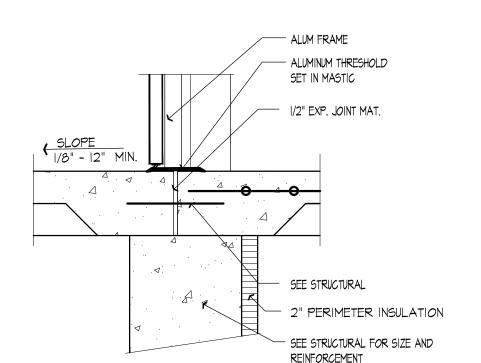


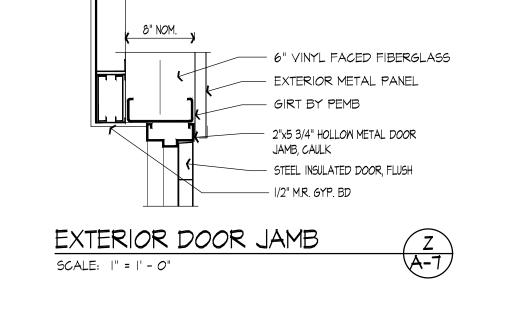


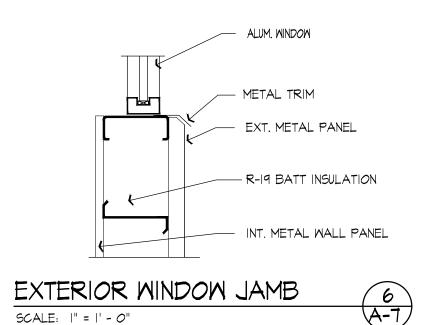
3-5/8" 20 GA. METAL CHANNEL

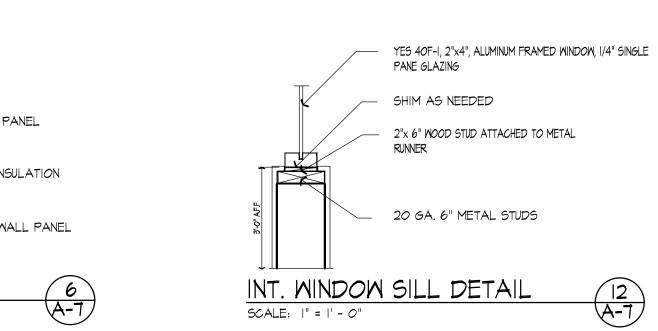


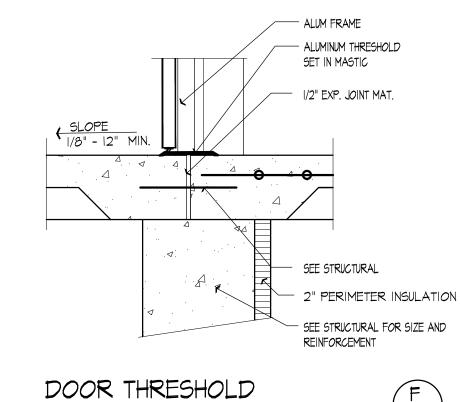




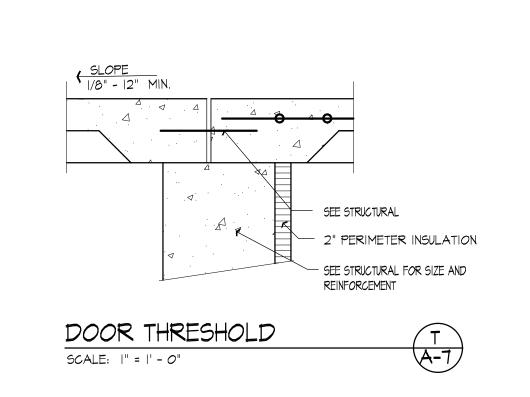


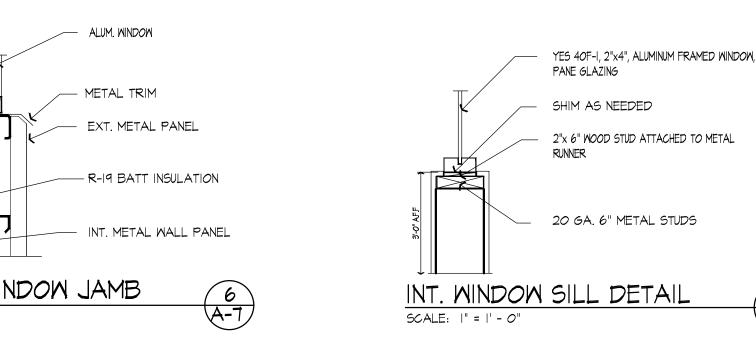






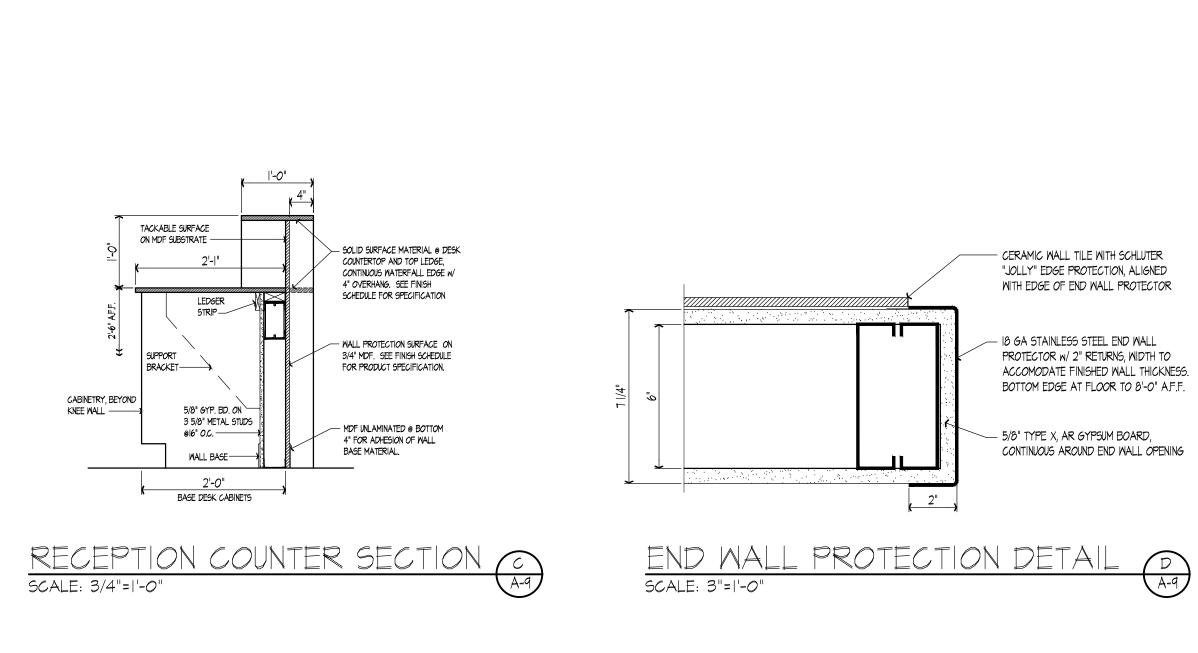
SCALE: |" = |' - 0"

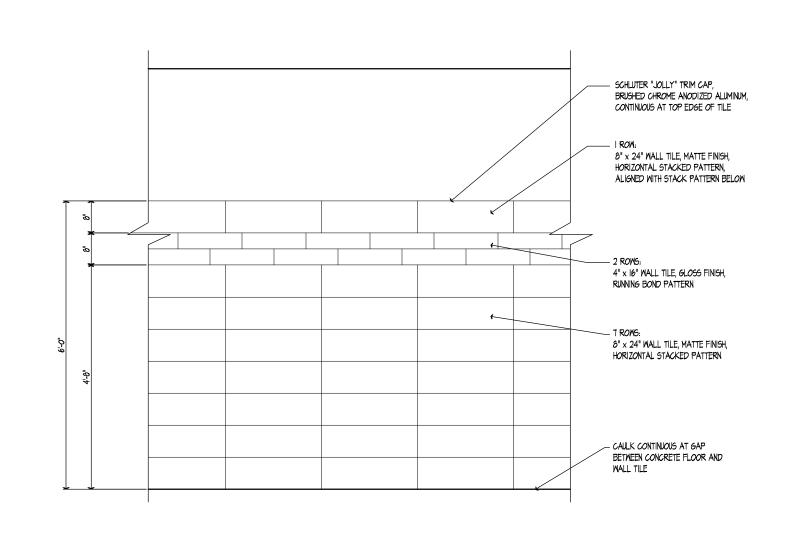






INTERIOR





- V-GRADE LAMINATE AT ALL VERTICAL SURFACES

- 4" LAMINATED BACKSPLASH, EXCEPT WHERE PORCELAIN TILE BACKSPLASH IS

- H.P. LAMINATE ON 3/4" 45# DENSITY

BACKSPLASH, CAULK CONT. AT WALL

FOR SCRIBING TO WALL)

- BACK PANEL & INTERIOR OF

WHITE MELAMINE (MCP)

- CONCEALED HINGE (TYP.)

- EPOXY-COVERED

DRAWER RUNNER,

SELF-CLOSING

TYPICAL LAMINATE CABINETRY (A-9)

ADJ. SHELF

4" SUB BASE

PARTICLEBOARD SUBSTRATE AT COUNTER &

PERIMETER (PROVIDE EDGE @ BACKSPLASH

— CONT. BACKSPLASH @

EXPOSED EDGES

& UNDER LAV

BRACKET, TYP.

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

- SOLID SURFACE BACKSPLASH, FRONT,

SIDES AND COUNTERTOP - EASE ALL

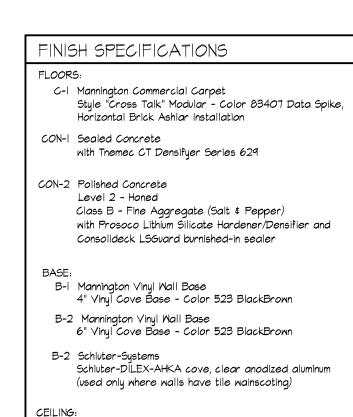
— SOLID SURFACE SUPPORT

- 3/4" MELAMINE ADJ. SHELF (TYP.)

- WIRE PULL (TYP.)



200M #	ROOM NAME	FLC	OR		BAS	5E		1	NALL	.5				MISC	Ź.	CL	<u>.</u> G.		CLG.
		CARPET	SEALED CONCRETE	POLISHED CONCRETE	4" VINYL COVE BASE	6" VINYL COVE BASE	ALUMINUM TRANSITION	LATEX EGGSHELL MALL PAINT	LATEX SEMI-GLOSS WALL PAINT	LATEX SEMI-GLOSS ACCENT WALL PAINT	SCUFFMASTER PAINT	DRY-FALL PAINT @ EXPOSED STR. STEEL	PORCELAIN TILE	COUNTERTOP	CABINETRY	PAINTED GYP. BD.	2' x 2' ACOUSTICAL CEILING TILE	DRY-FALL PAINT @ EXPOSED STR. STEEL	
100	VESTIBULE			CON-2		B-2		P-2 H			P-10						A-2		9'-6
101	LOBBY			CON-2		B-2		P-2 H			P-10						A-I		11'-0
102	RECEPTION			CON-2	B-I			P-4						SS-I	L-5 L-7 K		A-2		9'-0
103	OFFICE	C-I			B-I			P-8									A-2		9'-0
104	OFFICE	C-I			B-I			P-8									A-2		9'-0'
105	OFFICE	C-I			B-I			P-8									A-2		9'-0
106	TEACHER'S LOUNGE/MORKROOM	C-I			B-I			P-8									A-2		9'-0
107	STORAGE		CON-I		B-I			P-6									A-2		8'-0
108	TOILET		CON-I		B-I			P-5						L-6			A-2		8'-0
109	TOILET		CON-I		B-I			P-5						L-6			A-2		8'-0
110	FIRST AID		CON-I		B-I			P-8						L-6	L-5		A-2		8'-0
III	CORRIDOR			CON-2		B-2		P-2 H			P-10						A-I		9'-0
112	GENERAL LAB		CON-I		B-I			P-6		P-7 J		P-9		L-2	L-3			P-9	
113	OFFICE		CON-I		B-I			P-8									A-2		9'-0
114	STORAGE		CON-I		B-I			P-6									A-2		9'-0
115	MECH/ELEC/JANITOR		CON-I		B-I			P-6				P-9						P-9	
116	STORAGE		CON-I		B-I			P-6									A-2		9'-0
117	OFFICE		CON-I		B-I			P-8									A-2		9'-0
118	FOOD SCIENCE LAB		CON-I		B-I			P-6		P-7 J		P-9	PT-3 ^G	L-2	L-3			P-q	
119	STORAGE		CON-I		B-I			P-6									A-2		9'-0'
120	STORAGE		CON-I		B-I			P-6									A-2		9'-0'
121	OFFICE		CON-I		B-I			P-8									A-2		9'-0'
122	VET & ANIMAL SCIENCE LAB		CON-I		B-I			P-6		P-7 J		P-9		L-2	L-3				
123	CLASSROOM			CON-2	B-I			P-3						L-4	L-5		A-I		9'-0
124	STORAGE		CON-I		B-I			P-6									A-2		9'-0
125	AG SCIENCE LAB		CON-I		B-I			P-6		P-7 J		P- q		L-2	L-3			P-9	
126	STORAGE		CON-I		B-I			P-6									A-2	•	9'-0
127	OFFICE		CON-I		B-I			P-8									A-2		9'-0
128	MOMEN		CON-I				B-3		P-5 D				PT-1 E PT-2				A-I		8'-9
129	MEN		CON-I				B-3		P-5 D				PT-1 E PT-2				A-I		8'-9
130	CORRIDOR			CON-2		B-2		P-2 H			P-10 1						A-I		9'-0
131	AUDITORIUM		CON-I									P-9							
132	STORAGE		CON-I		B-I			P-6				P-9						P-9	
133	LIVESTOCK TRAINING AREA		CON-I					 				P-9						P-9	



B-2 Schluter-Systems Schluter-DILEX-AHKA cove, clear anodized aluminum (used only where walls have tile wainscoting) A-1 Armstrong "Fine Fissured - High NRC" #1754, Square Lay-in, 24"x 24"x 7/8", color White (WH) with Prelude XL 15/16" Exposed Tee grid system, color White (WH)

A-2 Armstrong "Fine Fissured" #1728, Square Lay-in, 24"x 24"x 5/8", White (WH) tiles with White grid

CABINETS & COUNTERTOPS:

L-2 Wilsonart #4947-38 Raw Cotton L-3 Wilsonart #4943-38 Classic Linen L-4 Wilsonart #4813-60 Nickel EV L-5 Wilsonart #5887-NT Millennium Oak

PT-l America Olean

PT-2 America Olean

PT-3 America Olean

L-I Formica #6314-58 Neo Cloud

WALLS:

P-1 Sherwin-Williams #SW7069 Iron Ore

P-2 Sherwin-Williams #SW7006 Extra White

P-3 Sherwin-Williams #SW6197 Aloof Gray

P-4 Sherwin-Williams #SM6206 Oyster Bay

P-5 Sherwin-Williams #SW6059 Interface Tan

P-6 Sherwin-Williams #SW7632 Modern Gray

P-10 ScuffMaster "Ambient Design" #custom color

"Color Story - Wall", Color - Matte Stable 0052,

 $8" \times 24"$, Horizontal Stacked Pattern, field tile

"Color Story - Wall", Color - Stable 0055 (gloss), 4" x 16", Running Bond Pattern, accent row

"Color Story - Wall", Color - Ice White 0025 (gloss),

3" x 6", Running Bond Pattern @ Food Scienc Lab 118 backsplash

P-9 Sherwin-Williams #SW7006 Extra White (Dry-fall @ Exposed Steel)

P-7 Sherwin-Williams #SW9129 Jade Dragon P-8 Sherwin-Williams #SW1015 Skyline Steel

L-6 Wilsonart #7264-58 Lime Stone L-7 Wilsonart #3707-58 Patine Bronze SS-1 Wilsonart Solid Surface #9110CS Paris Fog

NOTES: A) All interior plastic laminated window stools to be finished with plastic laminate finish L-1. B) All interior hollow metal door frames to be painted with finish P-1, Alkyd Semi-Gloss. C) All interior wood doors to be manufacturer pre-finished plain-sliced Oak with walnut finish. D) Painted finish above tile wainscot, from 6'-0" a.f.f. to top of wall.

E) Porcelain tile wainscot to 6'-0" a.f.f. at walls of toilet rooms. Schluter "DILEX" aluminum cove trim at bottom edge, and Schluter "JOLLY" straight trim at top. See detail E/A-9 for wall tile pattern.

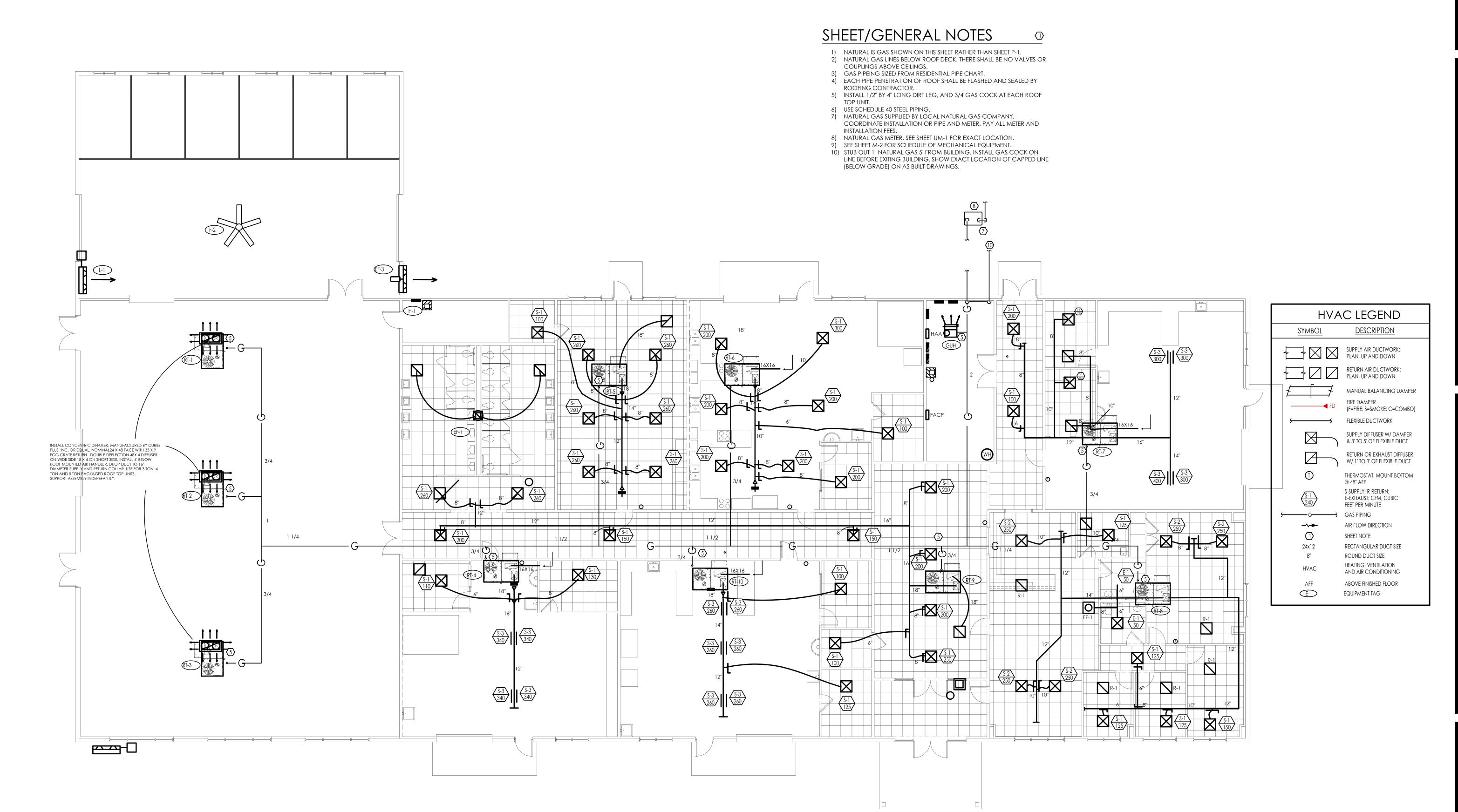
G) Wall tile backsplash above countertops at Food Science Lab 122. Schluter "JOLLY" at exposed ends. H) Latex Eggshell finish paint above, from 6'-0" a.f.f. to top of wall.

1) ScuffMaster painted finish below, from floor to 6'-0" a.f.f. J) Lab side walls of the Office and Storage rooms to be painted with accent color in Latex Semi-Gloss. K) Front surface of reception counter to be plastic laminate P-7.

706 WESTLAND DRIVE
LEXINGTON, KENTUCKY 40504
PHONE (859) 255-4437

SHEET

AFA ENGINEERING, LLC
CONSULTING ENGINEERING
HVAC - PLUMBING - ELECTRICAL



HVAC FLOOR PLAN

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

AFA ENGINEERING, LLC
CONSULTING ENGINEERING
HVAC - PLUMBING - ELECTRICAL

706 WESTLAND DRIVE LEXINGTON, KENTUCKY 40504 PHONE (859) 255-4437

E	Center	

The Seed Academy Lake Cumberland Regional AgriTech Cen	Russell Springs Kentucky
--	--------------------------

	DATE REVISION
18-34	
3	
ζ	
	DESIGN DOCUMENTS: The design professional waves any and all responsibility and liability for problems which arise
	to follow these plans, specifications and the design intent they convey.
	COPYRIGHT®
r 2024	This document discloses subject matter considered confidential by MSE of Kentucky, Inc. and MSE of Kentucky, Inc. has property rights. Neither receipt nor possession thereof confers or

DRAWING NO. M-2

SHEET OF

				REGISTE	RS, GRIL	LES, AND	DIFFUSE	R SCHE	DULE				
MARK	MFGR.	MODEL	ТҮРЕ	MAX FLOW (CFM)	NOMINAL SIZE	LEAD IN SIZE	MOUNTING	STATIC PRESSURE MAX	NC MAX	THROW AT 100 FPM	Opposed Blade Damper	FINISH	REMARKS
R-1	PRICE	60	AIRFOIL RETURN GRILLE	1000	24" X 24"	SEE PLANS	LAY-IN	0.036	25	-	NO	CHOSEN BY ARCHITECT	2
S-1	PRICE	SPD	SQUARE PLAQUE DIFFUSER	400	24" X 24"	NECK,DUCT SIZE	LAY-IN	0.023	-	4'	YES	CHOSEN BY ARCHITECT	1,2
S-2	PRICE		DUCT MOUNTED, 4 CFM/LINEAI			DUCT DIAMETER	DUCT	0.024	19	5'	-	CHOSEN BY ARCHITECT	1,2

1. PROVIDE DUCT TRANSITION TO GRILLE/DIFFUSER AS REQUIRED.

2. IF ARCHITECT DOES NOT CHOOSE A COLOR, THEN COLOR SHALL BE OFF-WHITE OR AS INDICATED ON PLANS.

3. PROVIDE MARGINS TO FINISH AS A 48" X 18" LAY-IN. 4. PROVIDE PLENUM BOX, FULL SIZE OF AIR DEVICE, 12" DEEP. DUCT TO TAP INTO SIDE, WHEN THE INSIDE OF PLENUM BOXES ARE VISIBLE FROM THE FLOOR, THEY SHALL BE PAINTED FLAT

5. PROVIDE MANUFACTURERS INTEGRAL BALANCING DAMPER IN DEVICE TO ALLOW BALANCING OF AIR DEVICE THROUGH FACE OF DEVICE.

6. BLADES PARALLEL TO THE LONG DIMENSION.

TAG	QTY	RUSKIN MODEL	WIDTH (in)	HEIGHT (in)	DEPTH (in)	AIR FLOW (cfm)	FLOW DIR.	MATERIAL	PRESSURE DROP (w.g.)	REMARK
L-1	1	ELF6375DX	28	33	6	2100	ļ	ALUMINUM	0.06	1,2,3

					VENTILA	TING FAN	S					
MARK	ITEM NO.	MANUF.	MOUNTING	FUNCTION	CFM	FAN DATA DRIVE	E.S.P.	SONES	ELECTRIC DATA AMPS VOLTS/ø		REMARKS	
EF-1	VEDK 8	CARNES	ROOF/CURB EXHAUST AIR		700	DIRECT	0.25	9.5	0.5	120/1	1,2,4,5	
EF-2	AER-24-02-0625-VG	GREENHECK	SIDEWALL	EXHAUST AIR AIR	2075	DIRECT	0.0	2.8	0.7	120/1	1,2,5,6,7	
EF-3	DC-5-7-13LV-X-QD	GREENHECK	CEILING	HIGH VOLUME LOW SPEED	15100	DIRECT	0.0	x.x	1.9	120/1	2,3,8	
1. PROV 2. PROV 3. SPEC	REMARKS: 1. PROVIDE WITH DISCONNECT SWITCH. 2. PROVIDE WITH SPEED CONTROLLER. 3. SPECIFY 1 FT DROP LENGTH. 4. PROVIDE WITH BACKDRAFT DAMPER. 5. PROVIDE WITH DISCHARGE GRAVITY DAMPER. 6. PROVIDE WITH WALL BOX/SLEAVE. 7. PROVIDE WITH OSHA MOTOR GUARD. 8. PROVIDE WITH CHAIN EMERGENCY FAN SHACKLE.											

		FAN	FORCED	ELECTRIC V	VAII HFA	TFR (H-	1)		
		.,,,,,	1 011023			· ·	TRICAL	751.40	
MARK	MFGR.	MODEL	SERIES	STYLE	KW/BTUs	FLA	VOLTS/PH	DLTS/PH RISE REM	
EH-1	RAYWALL	-	-	FAN FORCED WALL HEATER	1.5/5120	12.5	120	27 °F	1,2,3,4
REMARKS:			-			-		-	
1		FI	JRNISH WITH L	JL LISTED AND NE	C COMPLIANT I	DISCONNEC	T MEANS.		
2		PI	ROVIDE MANUI	ACTURER'S INTE	GRAL TAMPER F	ROOF THEF	RMOSTAT.		
3			COORDINATE	COLOR SELECTIO	N WITH ARCHIT	ECT AND O	WNER.	•	
4			HEATERS TO H	IAVE INTEGRAL T	HERMAL OVERL	OAD PROTE	CTION.		

		FAN FO	RCED NA	TURAL GAS	UNIT HE	ATER (GUH)				
						ELEC	TRICAL	TEMP			
MARK	MFGR.	MODEL	SERIES	STYLE	BTUs	FLA	VOLTS/PH	RISE	REMARKS		
GUH	REZNOR	UDX	30	FAN FORCED UNIT HEATER	30,000	1.9	120	52 °F	1,2,3,4		
REMARKS:						-		-			
1			4" STAINI	ESS STEEL VENT,	FLASH AND CO	UNTER FLAS	н.				
2			LOW VOLTAG	E WALL MOUNT	THERMOSTAT. I	MOUNT 28"	AFF.				
3		DIRECT SPARK IGNITION									
4				450 CFM CIR	CULATION FAN.						

MARK		МОМ			/MOTC			ОА		IG (MBH)		ting (btu)	EER	SEER		CTRIC	_	PHYSICAL DATA		REMARKS	MEDIUM		CTRICA	
7717 (1(1)	MODEL NUMBER	TONS	CFM	E.S.P.	RPM	BHP	STATIC	CFM	TOTAL	SENS	INPUT	OUTPUT	LLIK	OLLIK	VOLTS	MCA	MOCP			ICEIVII (ICRO	GAS HEAT	VOLTS	MCA	MOC
RTU-1	48KC**05	4	1,600	0.41	-	0.69	DD-STD	-	48.7	37.5	90	73.5	12.0	14.0	208/3	26	30	74-3/8" x 46-5/8"	x 597 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	26	30
RTU-2	48KC**05	4	1,600	0.41	-	0.69	DD-STD	-	48.7	37.5	90	73.5	12.0	14.0	208/3	30	50	74-3/8" x 46-5/8"	x 597 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	26	30
RTU-3	48KC**06	5	2,000	0.41	-	1.01	DD-STD	-	61.8	46.2	120	98	12.0	14.1	208/3	26	30	74-3/8" x 46-5/8"	x 725 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	29	40
RTU-4	48KC**05	4	1,600	0.41	-	0.69	DD-STD	-	48.7	37.5	90	73.5	12.0	14.0	208/3	26	30	74-3/8" x 46-5/8"	x 597 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	26	30
RTU-5	48KC**05	4	1,600	0.41	Ξ	0.69	DD-STD	Ξ	48.7	37.5	90	73.5	12.0	14.0	208/3	26	30	74-3/8" x 46-5/8"	x 597 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	26	30
RTU-6	48KC**05	4	1,600	0.41	-	0.69	DD-STD	-	48.7	37.5	90	73.5	12.0	14.0	208/3	26	30	74-3/8" x 46-5/8"	x 597 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	26	30
RTU-7	48KC**06	5	2,000	0.41	-	1.01	DD-STD	-	61.8	46.2	120	98	12.0	14.1	208/3	30	50	74-3/8" x 46-5/8"	x 725 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	29	40
RTU-8	48KC**06	5	2,000	0.41	-	1.01	DD-STD	-	61.8	46.2	120	98	12.0	14.1	208/3	30	50	74-3/8" x 46-5/8"	x 725 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	29	40
RTU-9	48KC**05	4	1,600	0.41	-	0.69	DD-STD	-	48.7	37.5	90	73.5	12.0	14.0	208/3	26	30	74-3/8" x 46-5/8"	x 544 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	26	30
RTU-10	48KC**05	4	1,600	0.41	-	0.69	DD-STD	-	48.7	37.5	90	73.5	12.0	14.0	208/3	26	30	74-3/8" x 46-5/8"	x 597 LBS	1,2,3,4,5,6,7,8,9,10,11	90/73.5	208/3Ø	26	30

1. FURNISH UNIT WITH 7-DAY PROGRAMMABLE THERMOSTAT. . FURNISH UNIT WITH 100% ECONOMIZER (ENTHALPY-CONTROLLED WITH BAROMETRIC RELIEF).

4. FURNISH WITH SMOKE DETECTOR. 5. FURNISH UNIT WITH HAIL GUARDS.

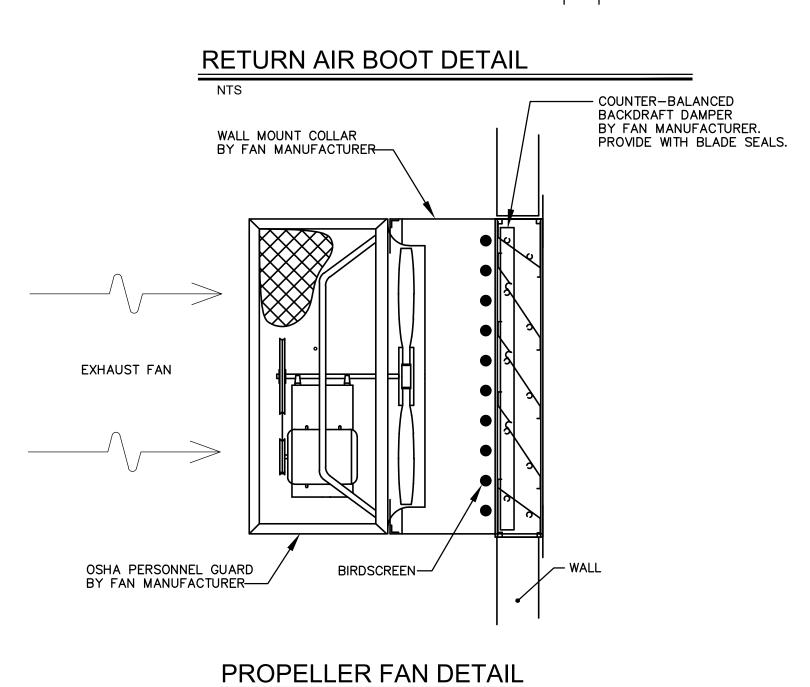
6. FURNISH WITH NON-FUSED DISCONNECT. 7. FURNISH UNIT WITH THRU-THE-BASE ELECTRICAL CONNECTION.

8. FURNISH WITH FAN WITH (VFD). 9. FURNISH UNIT WITH POWERED GFI/WP CONVENIENCE OUTLET. 10. FURNISH WITH 14-INCH ROOF CURB.

11. FURNISH UNIT WITH CO2 SENSOR. (USE FOR ECONOMIZER DAMPER TO CONTROL CO2 LEVELS)

BASIS OF DESIGN MANUFACTURER IS CARRIER. ADDITIONAL ACCEPTABLE MANUFACTURES ARE AAON, MCQUAY, TRANE, JOHNSON CONTROLS, OR EQUAL.

R/A (TRANSFER) BOOT SCHEDULE R/A DEVICE A (LENGTH) B (HEIGHT) WIDTH 24 X 8 RETURN GRILL AT WALL CEILING $R/A \rightleftharpoons$ ~ R/A DEVICE



HVAC SCHEDULES

N.T.S.

NOT TO SCALE

MECHANICAL GENERAL NOTES

2. ALL OFFSETS, TURNS, FITTINGS, TRIM—, DETAIL, ETC., MAY NOT BE INDICATED, BUT SHALL BE PROVIDED AS REQUIRED. ADDITIONAL ALLOWANCES SHALL BE INCLUDED FOR SAME IN EACH PROPOSERS

3. INSTALL NO PIPING, CONDUITS, ETC., IN A LOCATION OR IN A MANNER WHICH WILL ALLOW FREEZING AND THE COLLECTION OF CONDENSATION THEREON CONDENSATION THEREON.

6. UNLESS OTHERWISE SPECIFIED OR INDICATED, INSTALL DIFFUSERS, REGISTERS, GRILLES, SMOKE DETECTORS AND OTHER CEILING MOUNTED APPURTENANCES IN A SYMMETRICAL PATTERN. UNLESS SPECIFICALLY INDICATED OTHERWISE, REFER TO THE ARCHITECT'S REFLECTED CEILING PLAN AS APPLICABLE.

IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING WARRANTY OR INTEGRIT IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING WARRANTY OR INTEGRIT IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING WARRANTY OR INTEGRIT IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING WARRANTY OR INTEGRIT IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING WARRANTY OR INTEGRIT IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING MANUFACTURER.

4. CONTRACTOR TO PROVIDE TURNING VANES IN ALL MAIN DUCT 45\90 DEGREE TURNS. THIS APPLIES TO ALL S.A. & R.A. DUCTS.

 EACH CONTRACTOR, PROPOSER, SUPPLIER AND/OR MANUFACTURER SHALL REFER TO ALL DOCUMENTS PERTAINING TO THIS PROJECT AND COORDINATE ACCORDINGLY SO AS TO ENSURE ADEQUACY OF FIT, COMPLIANCE WITH SPECIFICATIONS, PROPER VOLTAGE AND CURRENT CHARACTERISTICS TO AVOID CONFLICT WITH ANY OTHER BUILDINGS SYSTEMS. 8. DEVIATIONS IN SIZES, CAPACITIES, FIT, FINISH, ETC., FOR EQUIPMENT FROM THAT PRIME SPECIFIED SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMODATE A DEVIATION, SHALL BE THE RESPONSIBILITY OF THE DIRECTOR OF THE PURCHASER. 9. DO NOT SCALE FROM DRAWINGS, AS PRINTING DISTORTS SCALE. WORK SHALL BE LAID OUT FROM DIMENSIONED DRAWINGS, OR DIMENSIONS SUPPLIED TO THE CONTRACTOR.

10. ALL ELECTRICAL COMPONENTS OR EQUIPMENT SHALL BE LABELED BY UNDERWRITER'S LABORATORIES, OR OTHER APPROVED LISTING AGENCY.

COOLING CAPACITIES ARE BASED ON 80°/67°F EAT AND 95°F OA.

HEATING CAPACITIES ARE BASED ON 70°F EAT AND 0°F OA.

11. ALL SUPPORT FOR EQUIPMENT, DEVICES OR FIXTURES SHALL BE UNIQUE, FROM THE BUILDING STRUCTURE. DO NOT SUPPORT WORK FROM OTHER TRADES OR EQUIPMENT. HOLD ALL ABOVE CEILING EQUIPMENT TIGHT TO STRUCTURAL SUPPORTING ROOF DECK. OBSERVE ALL APPLICABLE CODES, RULES, AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNCIL, LOCAL, FEDERAL, MUNICIPALITY, UTILITY COMPANY, OSHA, COMMONWEALTH OF KENTUCKY, ETC.) 12. WHERE INTERRUPTING AN EXISTING UTILITY OR SERVICE DELIBERATELY OR ACCIDENTALLY, THE RESPONSIBLE CONTRACTOR SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME

 UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL EQUIPMENT AND/OR MATERIALS WITHIN OCCUPIED SPACES OR EXPOSED TO VIEW ON THE BUILDING EXTERIOR SHALL BE PRIMED AND FINISHED WITH COLOR AS CHOSEN BY ARCHITECT. 13. WHERE PENETRATING ROOFING MEMBRANE OR OTHER MATERIALS USED FOR WEATHERPROOFING THE BUILDING, MAKE SUCH PENETRATIONS IN A WAY THAT WILL NOT VOID OR DIMINISH THE ROOFING WARRANTY OR INTEGRITY IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING

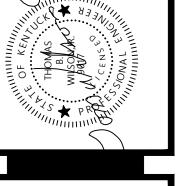
7. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTORS' EXPENSE.

RECTANGULAR MAIN DUCT. ATTACH SPIN-IN WITH SCREWS SPACED A PROVIDE EXTERNAL INSULATION MAXIMUM 4" APART (5 SCREWS MINIMUM PER ON ALL SUPPLY AIR DUCTS SPIN-IN). (INCLUDING RUNOUTS TO DIFFUSERS).— — ROUND VOLUME DAMPER. -RIGID ROUND DUCT. (LENGTH AS REQUIRED) THE MAX. LENGTH OF FLEX
DUCTWORK SHALL NOT
EXCEED 14'-0". (FROM MAIN) PROVIDE TRANSITION
 WHERE REQUIRED.

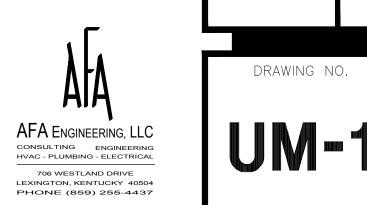
DIFFUSER RUNOUT DETAIL

NOTE: SOME SYMBOLS SHOWN IN NECESSARILY BE USED FO	
SS	EXISTING SOIL AND WASTE PIPIN
SAN	NEW SOIL AND WASTE PIPING
	SUMP PUMP DISCHARGE
	DOMESTIC COLD WATER PIPING (WATER PIPING
FP	FIRE PROTECTION PIPING
—G——G——G—	NATURAL GAS PIPING
CNDWR	CONDENSER WATER RETURN
CNDWS	CONDENSER WATER SUPPLY
ECO	EXTERIOR CLEAN OUT
. •	CONNECT TO EXISTING
8	POWER TO POLE LIGHTS
ТВ 🕟	THRUST BLOCK
1024	EXISTING CONTOUR LINE WITH ELEVATION
1024	NEW CONTOUR LINE WITH ELEVATION
<u> </u>	STORM WATER HEADWALL









FLOOR DRAIN.

SLAB (PEX).

CONTRACTOR.

1-5/8" DIA SSTL.

"J" SPOUT WITH

SSTL. BOWL

34 PROOF HYDRANT

OPERATOR,

#NP-75-SDB, PEDAL

NEOPRENÉ WASHERS,

NOT TO SCALE

BACK SPOUT AND SANITARY DRAIN BASE

12) WET SPRINKLER SYSTEM VALVE. 13) DRY SPRINKLER SYSTEM VALVE.

14) DRY SPRINKLER AIR COMPRESSOR.

HOUSEKEEPING PAD.

BE INSULATED WITH 1/2"ARMAFLEX.

NATURAL GAS PIPING IS SHOWN ON SHEET M-1.

TERMINATE IN ALUMINUM DRYER VENT CAP.

6) 4" HOUSE MAIN INTO BUILDING.

3) RESIDENTIAL STYLE 50 GALLON, 4.5 KW WATER HEATER. PLACE ON 4"

4) ALL HOT WATER PIPING, AND, ALL WATER LINES BELOW SLAB SHALL

5) WATER PIPING MAY BE INSTALLED OVERHEAD (CU), OR BELOW

) 4" ALUMINUM DRYER VENT, UP TO 8' AFF, TAKE TO WALL AND

GREENHOUSE BUILDING AND SET A FPPH AT LOCATION SELECTED BY

FREEZE PROOF SINK "P-12"

- PAINT GREEN TO MATCH HYDRANT

INTERNAL 250 WATT THERMOSTATIC HEATER

FIELD MOUNTED IN ARM, BOTTOM ACCESS

— 1/2" SUPPLY AND GROMET

ACCESS COVER

- 1/2" NEOPRENE

HOSE WITH
THREADED ENDS,
CUT TO FIT

FINISHED FLOOR

THROUGH

9) FREEZE PROOF WALL HYDRANT, 16" ABOVE FINISHED GRADE, INSTALL BALL VALVE BEHIND 12 X 12 ACCESS DOOR AT FLOOR

10) EXTEND 1" WATER LINE (APPROXIMATELY 150') TO FUTURE

11) SPRINKLER ENTRANCE TO BUILDING, SIZED BY SPRINKLER

DRAWING NO.

P-1

SHEET

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

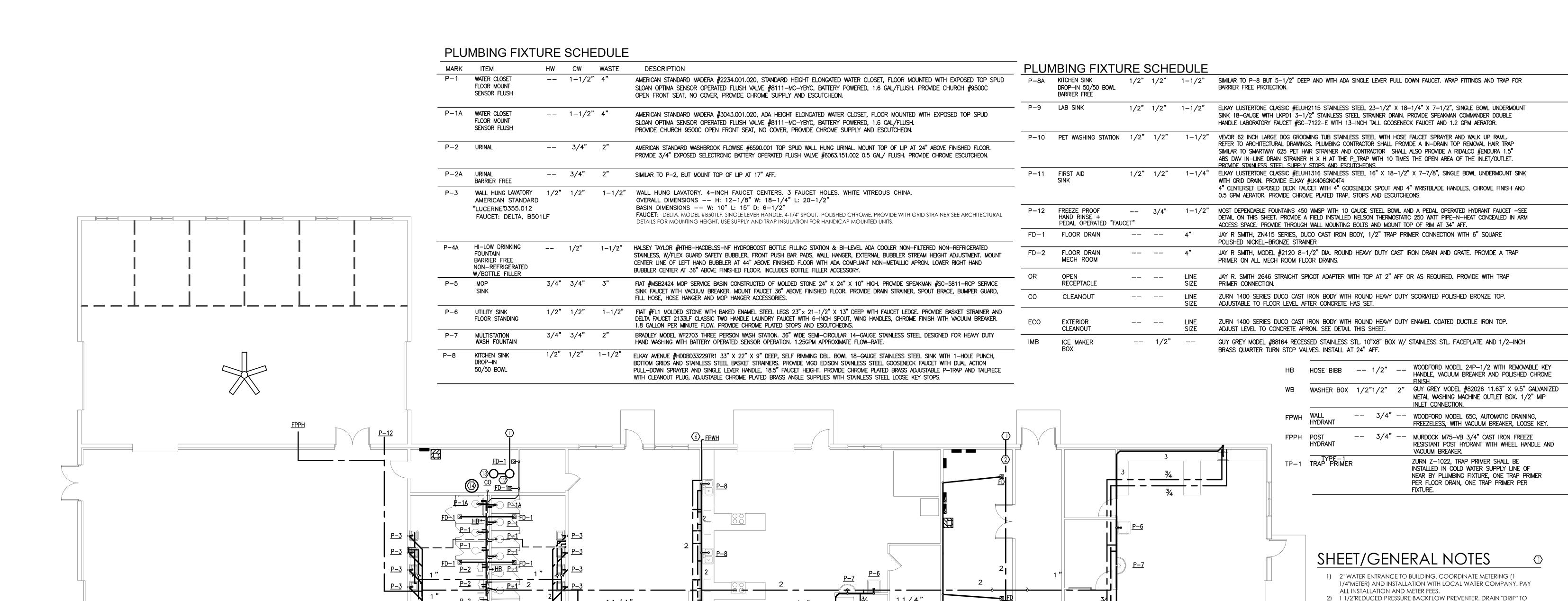
<u>P-2</u>

<u>P-6</u>

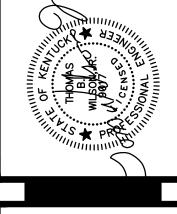
PET WASH STATION.

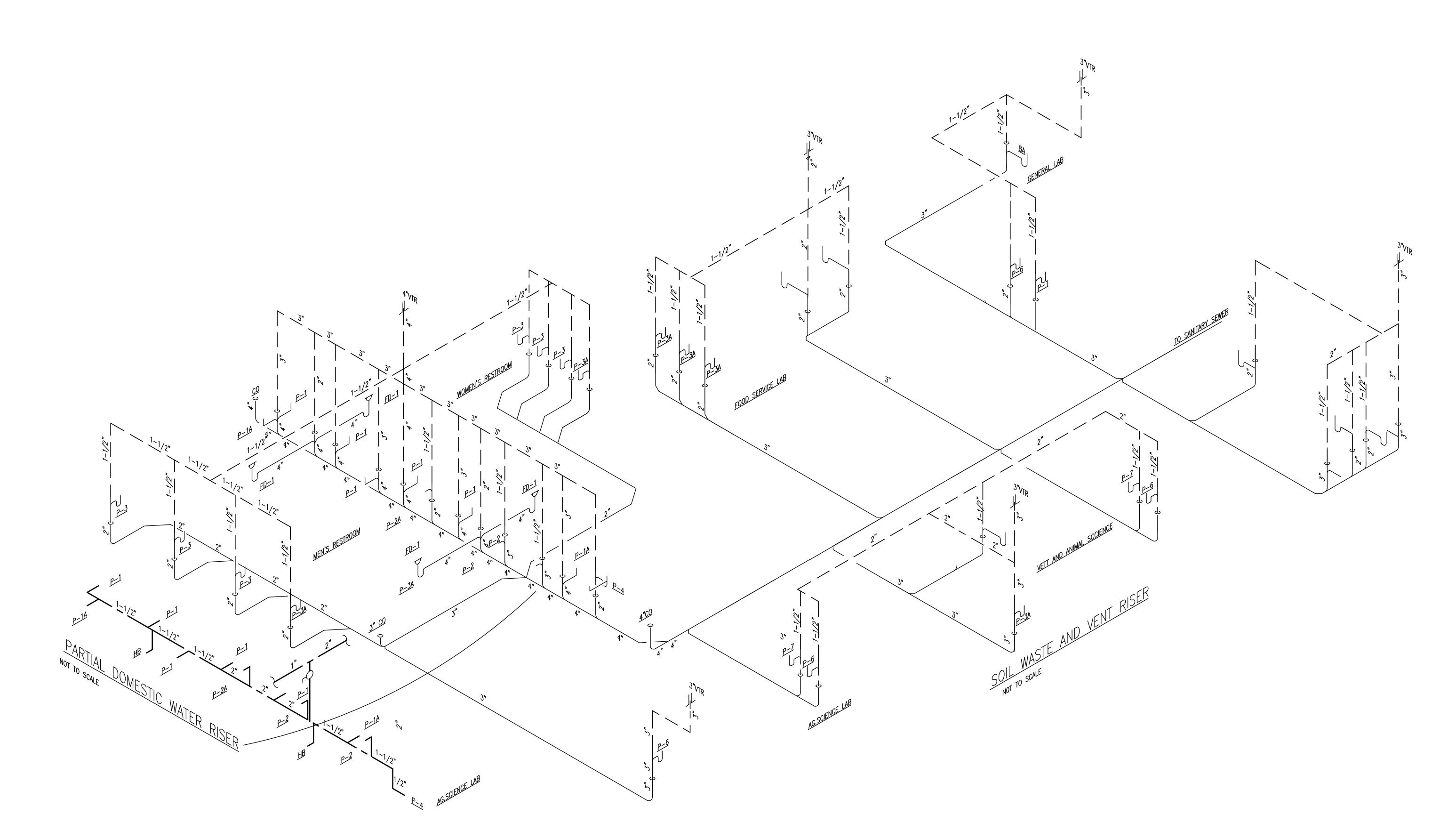
WB STACKED WASHER/DRYER

FPWH (8)



<u>P-6</u>





PLUMBING RISER DIAGRAM

SCALE: NTS



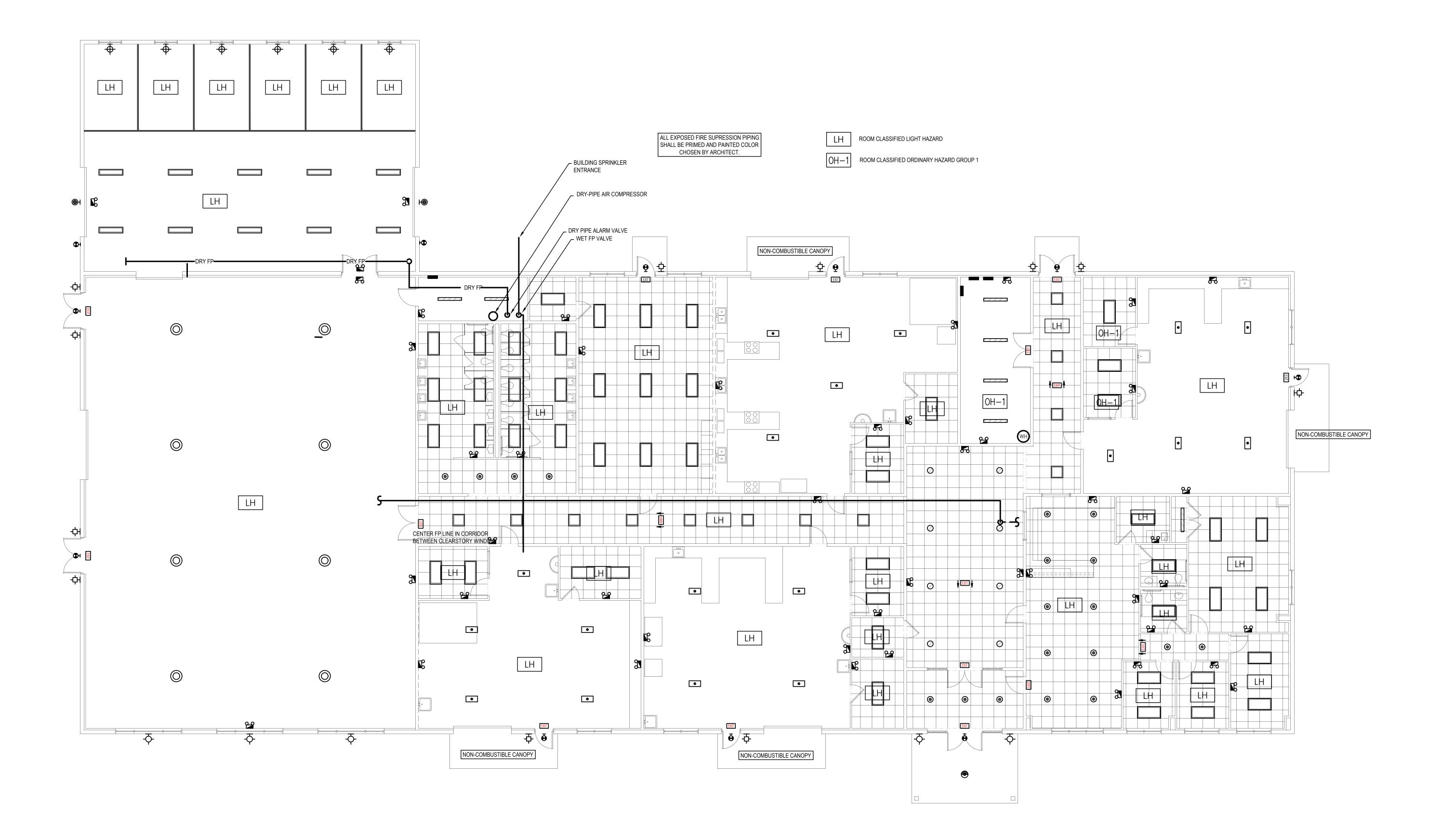
SHEET OF

DRAWING NO.

SHEET OF

AFA ENGINEERING, LLC
CONSULTING ENGINEERING
HVAC - PLUMBING - ELECTRICAL

706 WESTLAND DRIVE
LEXINGTON, KENTUCKY 40504
PHONE (859) 255-4437

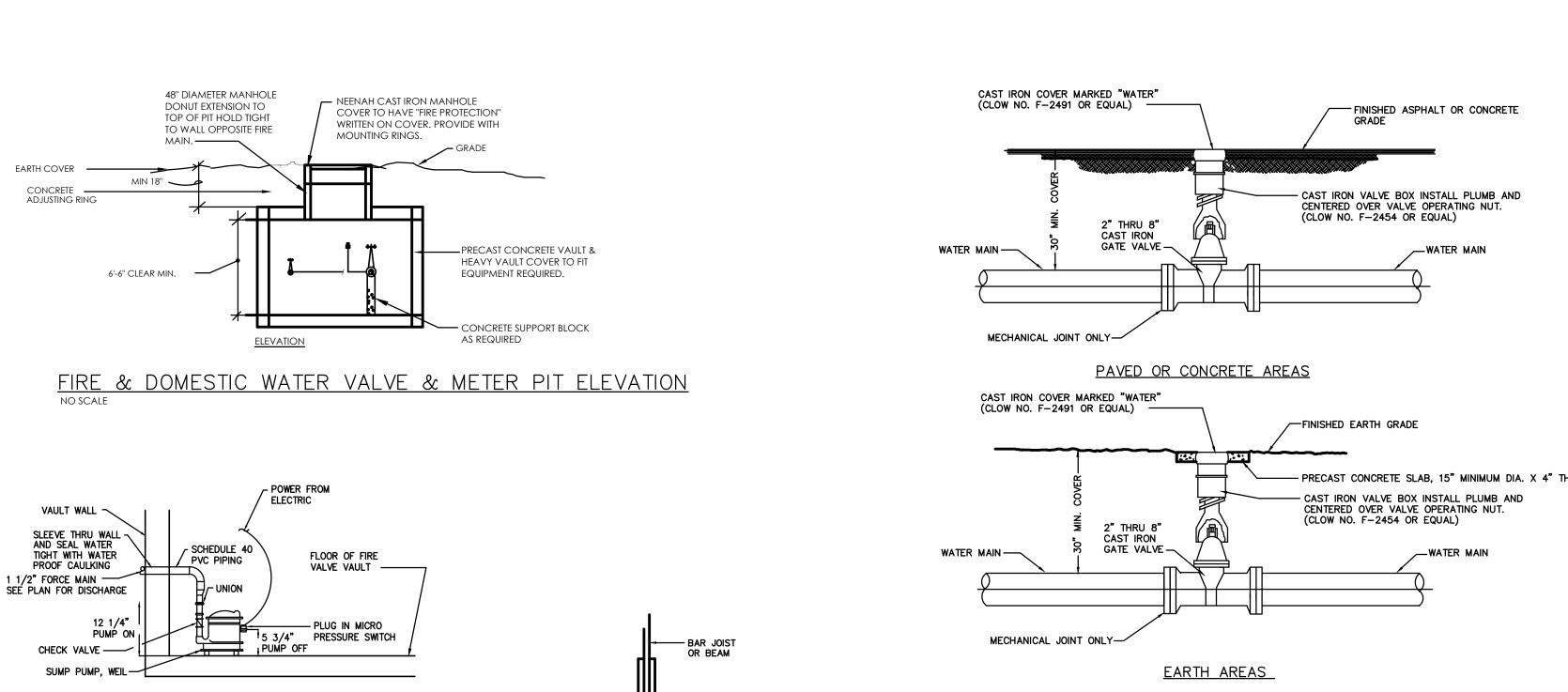


FIRE PROTECTION FLOOR PLAN

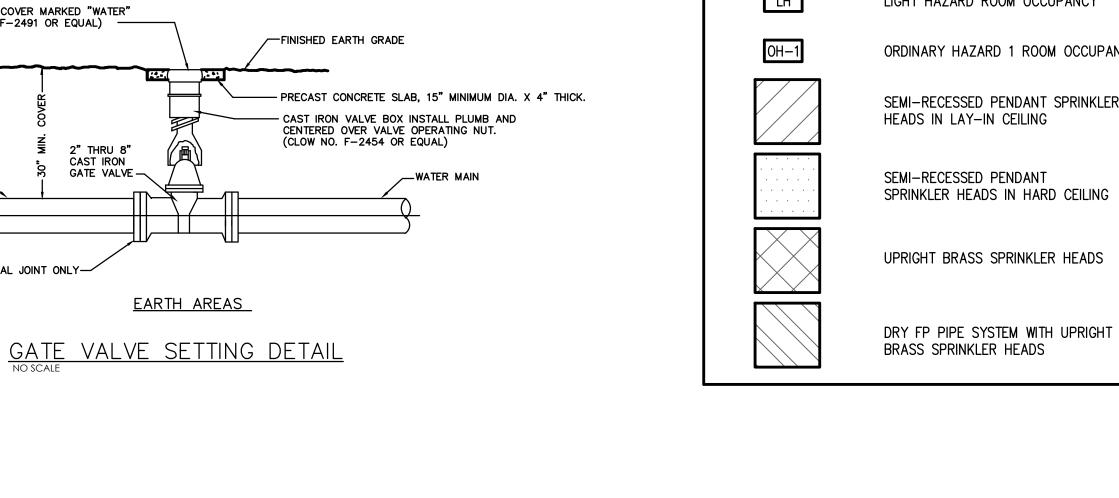
AFA

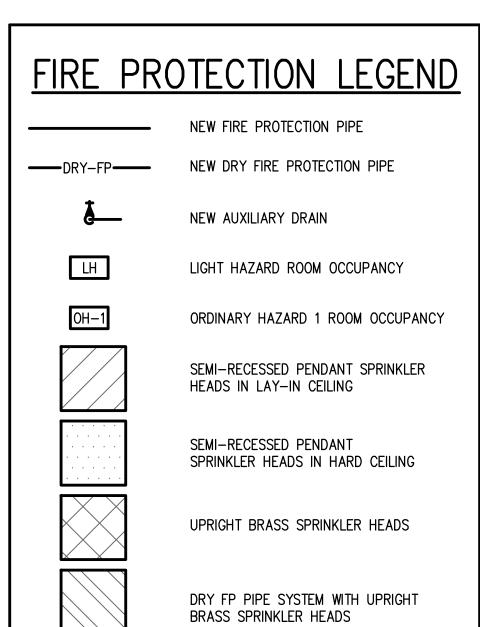
CONSULTING ENGINEERING HVAC - PLUMBING - ELECTRICAL 706 WESTLAND DRIVE LEXINGTON, KENTUCKY 40504

AFA ENGINEERING, LLC SHEET



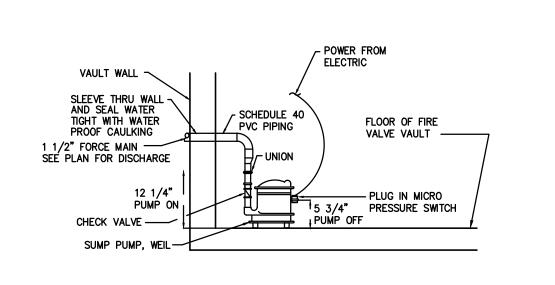
HANGER DETAIL



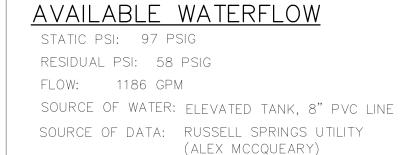


GENERAL FIRE PROTECTION NOTES: 1. INDICATED SPACES SHALL BE PROTECTED 100% BY A WET PIPE FIRE SUPPRESSION SYSTEM DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA-13, THE KENTUCKY BUILDING CODE AND THE PROJECT SPECIFICATIONS.

- 2. ALL FIRE PROTECTION PIPE SIZES SHALL BE HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA-13.
- 3. ALL PIPING TO INDIVIDUAL SPRINKLER HEADS, REGARDLESS OF TYPE OF HEAD SHALL BE 1", UNLESS OTHERWISE NOTED.
- 4. PIPING IN ROOMS WITH SUSPENDED CEILINGS SHALL BE ABOVE CEILING UNLESS OTHERWISE NOTED.
- 5. LOCATIONS OF PIPING AND EQUIPMENT ARE APPROXIMATE AND SUBJECT TO ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE DRAWINGS.
- 6. ALL OFFSETS IN PIPING ARE NOT NECESSARY SHOWN, PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY.
- 7. COORDINATE WITH HVAC, PLUMBING, AND ELECTRICAL EQUIPMENT TO AVOID INTERFERENCE WITH PIPING, DUCTS, AND CONDUIT.
- 8. INSTALL PIPING AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS, NFPA-13, K.B.C. ETC...
- 9. SEAL AIRTIGHT AROUND ALL PIPING PENETRATIONS THROUGH WALLS, FLOOR AND ROOF. FIRE STOP PROPERLY WHERE REQUIRED BY CODE.
- 10. PROVIDE DRAINS AT LOW POINTS PER NFPA-13.
- 11. USE MANUFACTURED FITTINGS OR MECHANICAL TEES, ELLS, ETC. (SEE SPECIFICATIONS). WELDOLETS, SIMILAR WELDED CONNECTIONS AND WELDED PIPING ARE NOT ACCEPTABLE.
- 12. PITCH ALL SPRINKLER PIPING TO MAIN. IF PIPING CANNOT BE PITCHED TO MAIN, PROVIDE AUXILIARY DRAINS AT LOW POINTS.
- 13. REFER TO ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR EXACT LOCATION OF CEILINGS, CEILING TYPES AND LIGHT FIXTURES.
- 14. ALL EXPOSED FIRE SUPPRESSION PIPING SHALL BE PRIMED AND PAINTED COLOR CHOSEN BY ARCHITECT.



SUMP PUMP DETAIL NO SCALE



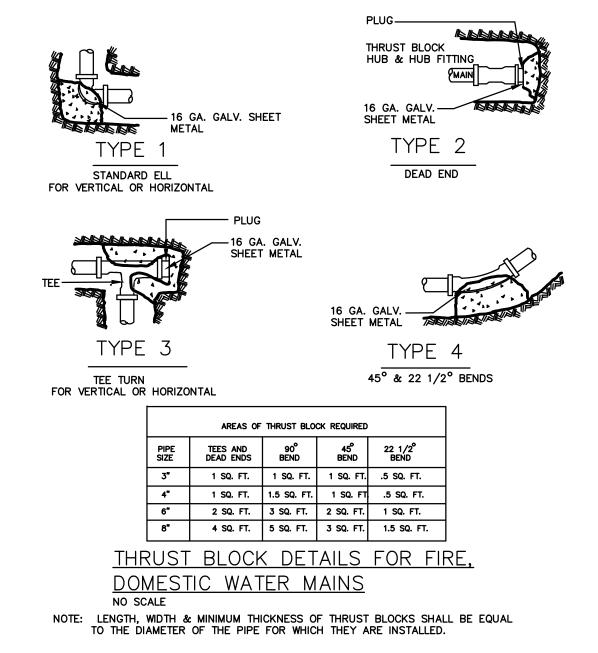
REQUIRED DURATION: 60 MINUTES DATE OF TEST: 09/14/2022

DESIGN REQUIREMENTS:

HAZARD: LIGHT HAZARD WITH SOME ORDINARY GROUP I HAZARD AREAS OCCUPANCY OF BUILDING: BUSINESS TRAINING/SKILL DEVELOPMENT

GPM REQUIRED: 315 GPM PRESSURE REQUIRED: 62 PSIG MIN.

(INCLUDE 5% SAFETY FACTOR IN HYDRAULIC CALCULATIONS)



FOUNDATION WALL, SEAL

FIRE SUPPRESSION RISER WITH DRAIN LINE

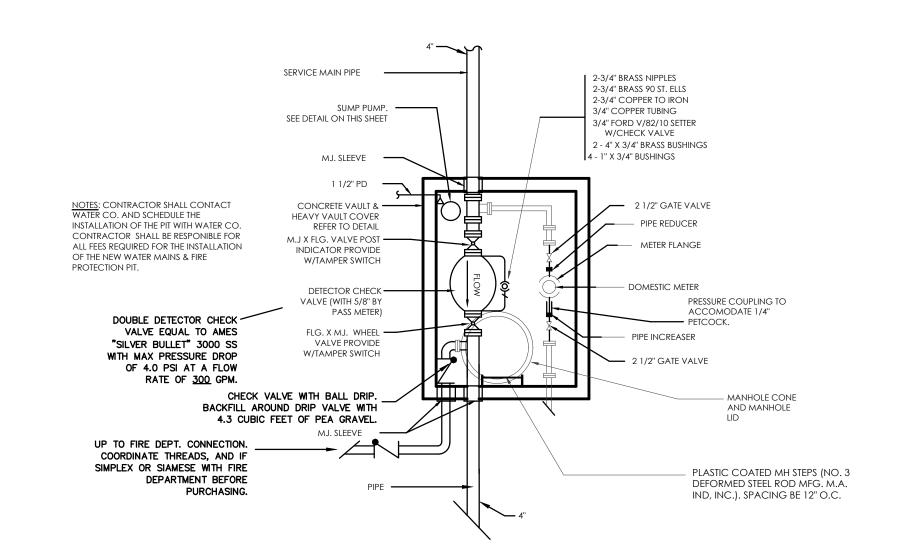
WATER TIGHT

SUMP PUMP DETAIL NO SCALE

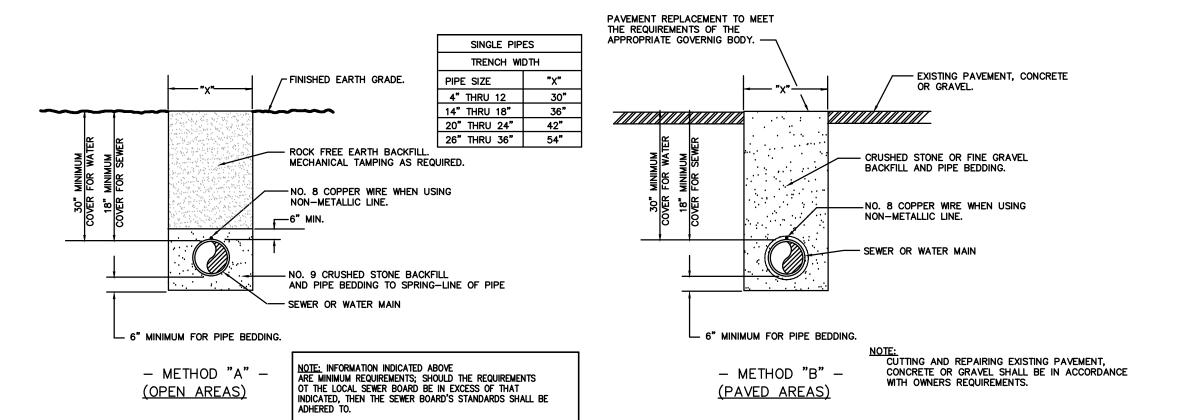
ROOF



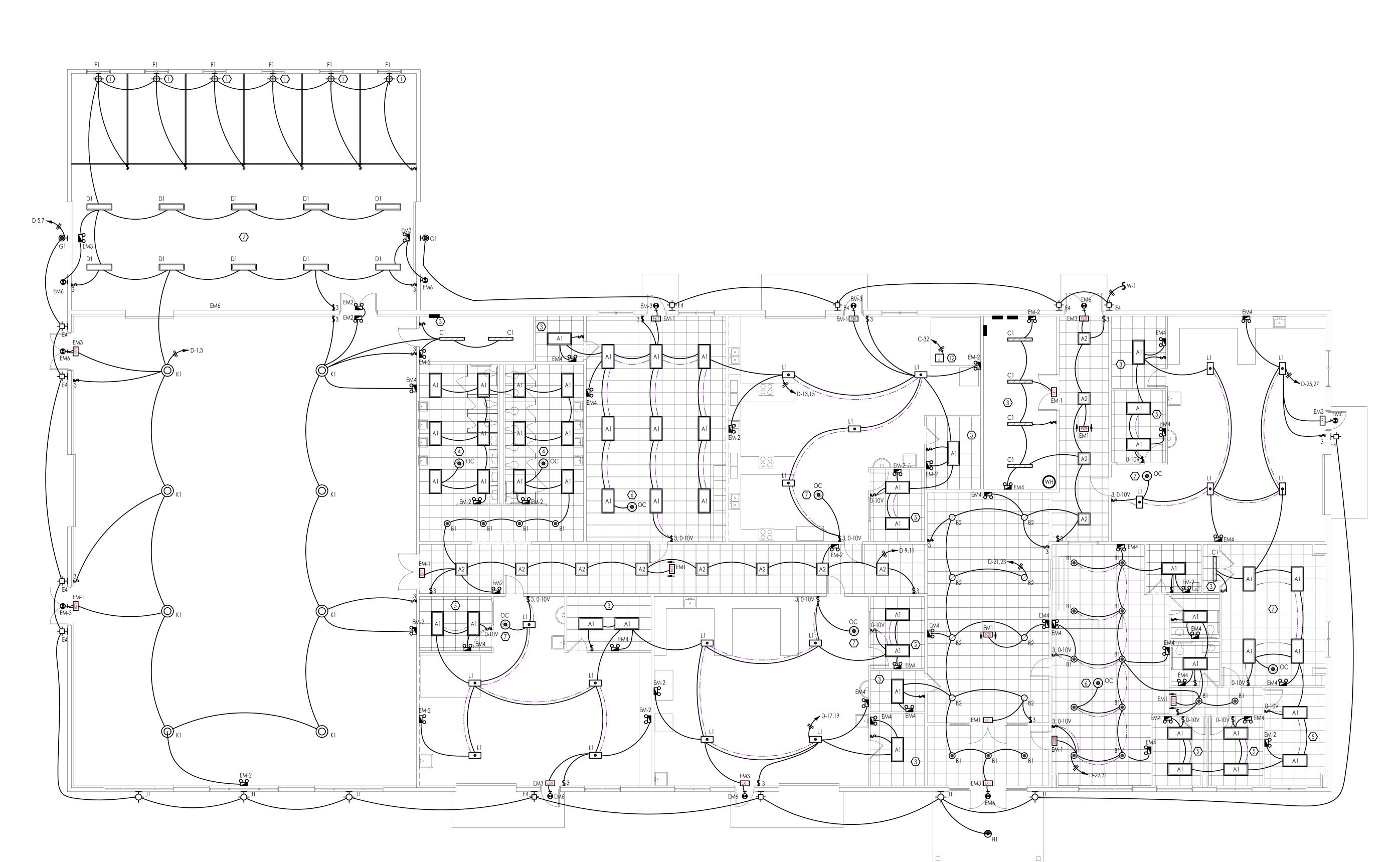
SCALE: NTS



FIRE & DOMESTIC WATER VALVE & METER PIT



TRENCHING AND BACKFILLING NO SCALE



SHEET NOTES O

- LIGHTS IN STALLS CONTROLLED WITH MANUAL SWITCHES. CIRCUIT WITH STALL RECEPTACLES. PROVIDE SURFACE MOUNTED CONDUIT FROM SWITCH UP STALL POST AND TRAVEL OVERHEAD TO WALL MOUNTED
- 2. LIGHTING IN THIS AREA CONTROLLED WITH MANUAL **SWITCHES**
- LIGHTING IN THIS AREA CONTROLLED WITH MANUAL ON, PUSH BUTTON, LOW VOLTAGE, VACANCY SENSOR
- AT DOOR. 4. LIGHTING IN THIS AREA CONTROLLED WITH CEILING
- MOUNTED OCCUPANCY SENSORS. 5. LIGHTING IN THIS AREA CONTROLLED WITH MANUAL ON
- PUSH BUTTON, LOW VOLTAGE, VACANCY SENSOR, DIMMING SWITCH AT THE DOOR. 6. LIGHTING IN THIS AREA CONTROLLED WITH MANUAL ON PUSH BUTTON, LOW VOLTAGE, DIMMING SWITCH AT DOOR. PROVIDE DUAL TECH, CEILING MOUNTED VACANCY SENSOR IN CEILING.
- 7. LIGHTING IN THIS AREA CONTROLLED WITH MANUAL ON PUSH BUTTON, LOW VOLTAGE, DIMMING SWITCH AT DOOR. PROVIDE DUEL TECH, CEILING MOUNTED
- VACANCY SENSOR IN CEILING. SWITCHES AT DOOR CONTROL LIGHTS IDENTIFIED WITH SAME SUBSCRIPT 8. LIGHTING IN CORRIDORS CONTROLLED WITH TIME PROGRAMMABLE CLOCK. TIMER SWITCHES IN CORRIDOR PROVIDE 2 HR ON OV; AND OF LIGHTS AFTER
- LIGHTING IN THIS AREA CONTROLLED WITH DIMMER SWITCHES AT DOORS. SWITCHES CONTROL LIGHTS

IDENTIFIED WITH SAME SUBSCRIPT.

10. LIGHTING CONTROLLED WITH TIME CLOCK AND EXTERIOR PHOTOCELL MOUNTED TO NORTH SIDE OF BUILDING,

LOCATION AND ELECTRICAL CHARACTERISTICS WITH

11. LIGHTING TIME CLOCK AND CONTACTS. 12. ELECTRICAL CONNECTION FOR COOLER LIGHTING AND MISCELLANEOUS DEVICES. COORDINATE EXACT

GENERAL NOTES

- 1) CIRCUITING SHOWN IS SCHEMATIC IN NATURE. COORDINATE EXACT ROUTING AND POLE NUMBER IN IDENTIFIED PANEL IN FIELD TO BE MOST
- 2) DIM SWITCH WIRING SHOWN AS DOTTED WIRE. SEE ELECTRICAL LEGEND ON E-2 FOR MORE DETAILS.

LIGHTING PLAN

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



AFA ENGINEERING, LLC
CONSULTING ENGINEERING
HVAC - PLUMBING - ELECTRICAL

706 WESTLAND DRIVE
LEXINGTON, KENTUCKY 40504
PHONE (859) 255-4437 SHEET OF

ELECTRICAL LEGEND

HOMERUN TO PANEL AND CIRCUIT NUMBER
A-1 "A-1" INDICATES PANEL "A", CIRCUIT #1

3 PHASE HOMERUN TO PANEL AND CKT #
"A-1,3,5" = PANEL "A", CIRCUITS #1,3,5

0-10V DIMMING WIRING (PURPLE/GRAY)

\$ DIM DIMMING LIGHT SWITCH (LINE VOLTAGE)

\$ 0-10V DIMMING LIGHT SWITCH (0-10V) OCCUPANCY SENSOR TYPE SWITCH

30A/2P, OR 40A/2P RECEPTACLE FOR DRYER OR RANGE AS NOTED

(1) REFERENCE NUMBER TO SHEET NOTE.

TV ROUGH-IN (SEE ARCH PLANS FOR HEIGHT)

Q EQUIPMENT SPECIFIC OUTLET

VOICE / DATA ROUGH-IN

GFI GROUND-FAULT INTERRUPTER MANUAL FIRE ALARM SWITCH.

A/V FIRE ALARM W/ HORN & STROBE.

ELECTRICAL PANEL MOTOR OR EQUIPMENT

WP WEATHER PROOF

FIRE ALARM HORN.

SMOKE DETECTOR

TRANSFORMER

● EPO

CIRCUIT, CONDUIT OR WIRING CONDUIT BELOW FLOOR

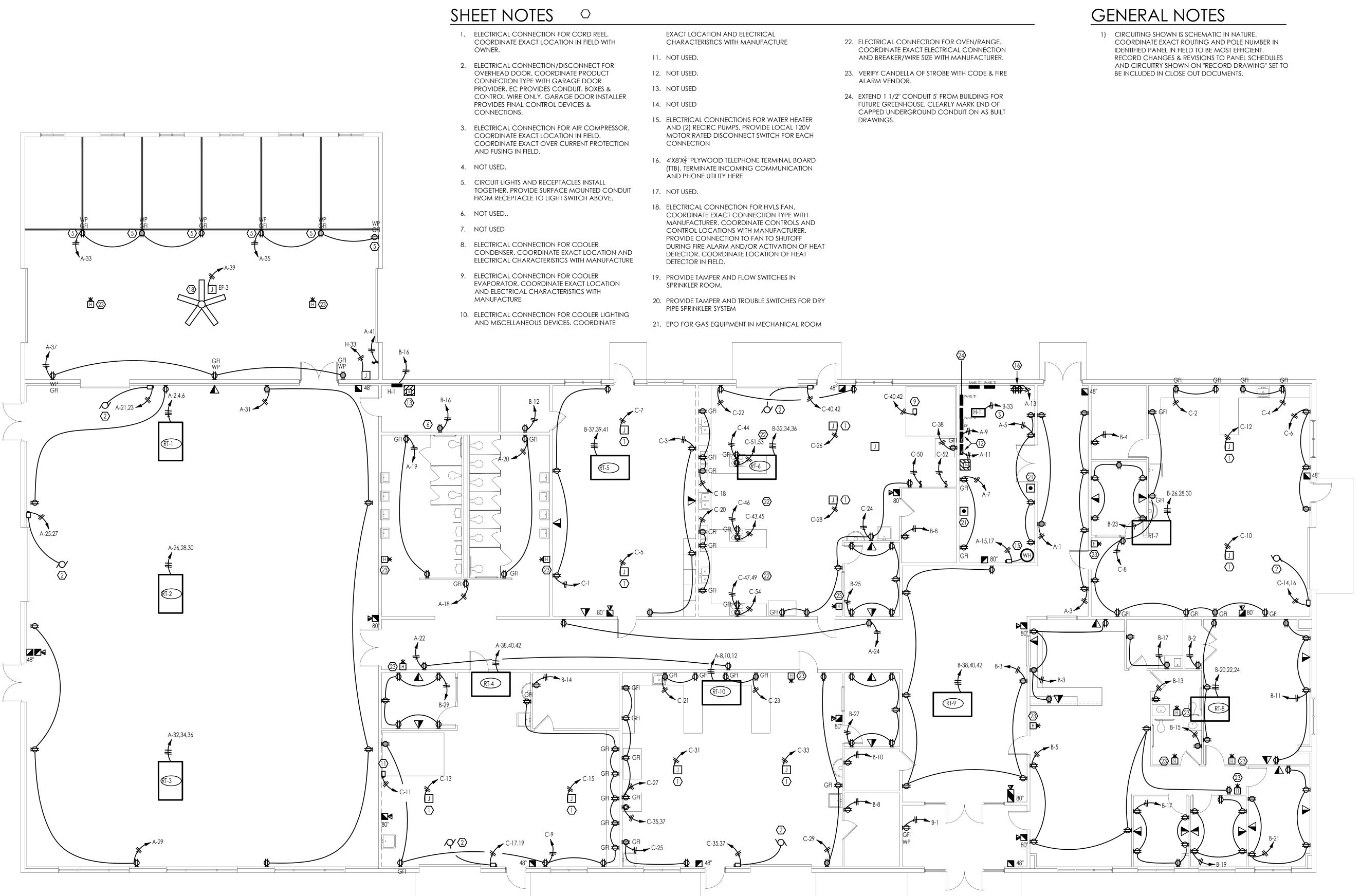
—O → CONDUIT TURNED: UP, DOWN ——— CAPPED CONDUIT/WIRE

J JUNCTION BOX

\$ LIGHT SWITCH

DISCONNECT SWITCH

♠ DUPLEX RECEPTACLE **₫** USB RECEPTACLE WITH USB ♣ QUAD RECEPTACLE



POWER PLAN

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

AFA ENGINEERING, LLC
CONSULTING ENGINEERING
HVAC - PLUMBING - ELECTRICAL 706 WESTLAND DRIVE LEXINGTON, KENTUCKY 40504 PHONE (859) 255-4437

DRAWING NO.

			DATE REVISION
PROJECT	<u>.</u>	PROJECT NO. 2018-34	
DESIGNED BY TBM	BY C	TBM	
	1		
DRAWN BY		TBM	
снескер ву	BY (DESIGN DOCUMENTS: The design professional waves any and all responsibility and liability for probler to follow the constructions and the design intent they have
REVIEWED BY) BY		to follow tress plans, specifications and the design intentities convey. COPYRIGHT ©
)ATE	JANU	JANUARY 2024	This document discloses subject matter considered confidential by MSE of Ken MSE of Kentucky, Inc. has property rights. Neither receipt nor possession there
SCALE 1	AS N	AS NOTED	rights to reproduce the document of any part thereof, of to disclose any information of the any purpose without the written permission of MSE of Kei

DATE	DAIL			DESIGN DOCUMENT The design profession	COPYRIGHT®	This document disclos MSE of Kentucky, Inc.	rights to reproduce the
	PROJECT NO. 2018-34	TBM	TBM			JANUARY 2024	שוניי
	NO.	ED BY		D BY	D BY	N Y Y Y Y Y Y Y Y Y Y	N 24
	PROJEC	DESIGNED BY TBM	DRAWN BY	да дэхээнэ	REVIEWED BY	DATE	CATON SA TIMES
	gineers	chitects	anners			39)223-5694 0)223-5694	9)223-2001

SHEET OF

AFA ENGINEERING, LLC
CONSULTING ENGINEERING
HVAC - PLUMBING - ELECTRICAL

706 WESTLAND DRIVE
LEXINGTON, KENTUCKY 40504
PHONE (859) 255-4437

			· · · · · · · · · · · · · · · · · · ·		-				5 MAIN CKT BRKR: 225 A LECTRICAL RM AIC: 20,000			
KT#	CB / POLE	WIRE SIZE	LOAD SERVED	KVA	A	LOAD B	С	KVA	LOAD SERVED	WIRE SIZE	CB / POLE	CKT#
1	20		111 NORTH CORRIDOR	0.5	2.0			1.5				2
3	20		111 NORTH CORRIDOR	0.5		2.0		1.5	RTU-1		30/3	4
5	20		115 MECH/ELECTRICAL	2.0			3.5	1.5				6
7	20		115 MECH/ELECTRICAL	2.0	3.5			1.5				8
9	20		115 HVAC CONTROLLERS	0.5		2.0		1.5	RTU-10		30/3	10
11	20		115 HVAC CONTROLLERS	0.5			2.0	1.5				12
13	20		115 TELEPHONE TERMINAL	0.4	0.4			0.0	SPARE		20	14
5	20/2		115 WATER HEATER	1.0		1.0		0.0	SPARE		20	16
7	20/2		113 WATER HEATER	1.0			1.5	0.5	WATER FOUNTAINS		20	18
19	20		129 MEN'S RR	0.5	1.0			0.5	128 WOMEN'S RR		20	20
21	20/2		131 OVERHEAD DOOR	1.2		1.9		0.7	130 WEST CORRIDOR RECEPTACLES		20	22
23	20/2		131 OVERHEAD DOOR	1.2			1.9	0.7	130 WEST CORRIDOR RECEPTACLES		20	24
25	20/2		131 OVERHEAD DOOR	1.2	2.7			1.5				26
27	20/2		131 OVERHEAD DOOR	1.2		2.7		1.5	RTU-2		30/3	28
29	20		131 AUDITORIUM RECEPTACLES	1.0			2.5	1.5				30
31	20		131 AUDITORIUM RECEPTACLES	1.0	2.8			1.8				32
33	20		133 LIVESTOCK STALLS	1.0		2.8		1.8	RTU-3		50/3	34
35	20		133 LIVESTOCK STALLS	1.0			2.8	1.8				36
37	20		133 LIVESTOCK GEN. RECEP.	1.0	2.5			1.5				38
39	20		133 EF-2	0.1		1.6		1.5	RTU-4		30/3	40
41	20		133 EF-3	0.6			2.1	1.5				42
			TOTAL CONNECTED 45.2	V\/	14.9	14.0	16.3					

			' 						5 MAIN CKT BRKR: 225 A LECTRICAL RM AIC: 20,000			
CKT#	CB / POLE	WIRE SIZE	LOAD SERVED	KVA	A	LOAD B	С	KVA	LOAD SERVED	WIRE SIZE	CB / POLE	CKT
1	20		100 VESTIBULE	1.0	1.5			0.5	107 STORAGE		20	2
3	20		101 LOBBY	1.2		1.7		0.5	114 STORAGE		20	4
5	20		102 RECEPTION	1.5			2.0	0.5	116 STORAGE		20	6
7	20		102 RECEPTION	1.5	2.0			0.5	119 STORAGE		20	8
9	20		106 TEACHER'S LOUNGE	1.0		1.5		0.5	120 STORAGE		20	10
11	20		106 TEACHER'S LOUNGE	1.0			1.5	0.5	124 STORAGE		20	12
13	20		108 RESTROOM	0.5	1.0			0.5	126 STORAGE		20	14
15	20		109 RESTROOM	0.5		1.0		0.5	132 STORAGE		20	16
17	20		110 FIRST AID	1.0			1.0	0.0	SPARE		20	18
19	20		103 OFFICE	1.5	3.0			1.5				20
21	20		104 OFFICE	1.5		3.0		1.5	RTU-8		20	22
23	20		105 OFFICE	1.5			3.0	1.5				24
25	20		113 OFFICE	1.5	3.0			1.5				26
27	20		117 OFFICE	1.5		3.0		1.5	RTU-7		20	28
29	20		121 OFFICE	1.5			1.5	1.5				30
31	20		127 OFFICE	1.5	3.0			1.5				32
33	20		H-1	1.5		3.0		1.5	RTU-6		20	34
35	20		GUH	.2			1.7	1.5				36
37	20			1.5	3.0			1.5				38
39	20		RTU-5	1.5		3.0		1.5	RTU-9		20	40
41	20			1.5			3.0	1.5				42

POLE MOUNTED TRANSFORMER(S)

AL-600-4W

CT CABINET & METER

POWER DISTRIBUTION
PANEL MD
120/208 volt

600 AMP BUSSING

SQUARE D "I" LINE

NOT TO SCALE

CKT#	CB / POLE	WIRE	TYPE: <u>SQUARE D, NQOD</u> M LOAD SERVED	KVA		LOAD		KVA	LOAD SERVED	WIRE	CB /	CKT
1	20	SIZE	123 RECEPTACLES	1.5	2.5	В	С	1.0	112 SINK RECEPTACLES	SIZE	POLE 20	2
3	20		123 RECEPTACLES	1.5	2.5	2.5		1.0	112 SINK RECEPTACLES		20	4
5	20		123 JUNCTION BOX	0.2		2.5	0.7	0.5	112 EXIT RECEPTACLES		20	6
7	20		123 JUNCTION BOX	0.2	1.7		0.7	1.5	112 RECEPTACLES		20	8
9	20		125 RECEPTACLES	1.5	1./	1.7		0.2	112 JUNCTION BOX		20	10
11	20		125 PAINT BOOTH FAN	1.0		1./	1.2	0.2	112 JUNCTION BOX		20	1:
13	20		125 JUNCTION BOX	0.2	1.4		1.2	1.2	112 JOINCHOIN BOX		20	14
15	20		125 JUNCTION BOX	0.2	1.4	1.4		1.2	112 OVERHEAD DOOR		20/2	1
17	20		123 JUNCTION BOX	1.2		1.4	2.2	1.2	118 SINK RECEPTACLES		20	18
19	20/2		125 OVERHEAD DOOR	1.2	2.2		2,2	1.0	118 SINK RECEPTACLES		20	20
21	20		122 SINK RECEPTACLES	1.0	2,2	2.0			118 EXIT RECEPTACLES	_	20	2:
23	20		122 SINK RECEPTACLES			2.0	0.5	1.0			20	2
25 25	20			0.5	0.7		2.5	1.5 0.2	118 RECEPTACLES 118 JUNCTION	_	20	2
	1		122 EXIT RECEPTACLES		0./	1 7						_
27	20		122 RECEPTACLES	1.5		1.7	1 5	0.2	118 JUNCTION		20	28
29	20		122 RECEPTACLES	1.5	0.7		1.5	0.0	SPARE		20	30
31	20		122 JUNCTION	0.2	0.7	1.4		0.5	118 COOLER LIGHTING		20	32
33	20		122 JUNCTION	0.2	-	1.4	0.4	1.2	118 COOLER EVAPORATOR		20/2	34
35	20/2		122 OVERHEAD DOOR	1.2	0.0		2.4	1.2	110 FOURDATENT DECEDIAGUE		00	30
37	00		CDARE	1.2	2.2	1.0		1.0	118 EQUIPMENT RECEPTACLE		20	38
39	20		SPARE	0.0		1.2	1.0	1.2	118 OVERHEAD DOOR		20/2	40
41	20		SPARE	0.0	0.5		1.2	1.2	110 0) (5) DEOEDT 0) 5		00	42
43	40/2		118 OVEN EQUIPMENT RECEPTACLE	1.5	2.5	0.5		1.0	118 OVEN RECEPTACLE		20	44
45				1.5		2.5	0.5	1.0	118 OVEN RECEPTACLE		20	4
47	40/2		118 OVEN EQUIPMENT RECEPTACLE	1.5	1.5		2.5	1.0	118 OVEN RECEPTACLE		20	48
49				1.5	1.5				SPARE		20	50
51	40/2		118 OVEN EQUIPMENT RECEPTACLE	1.5		1.5		-	SPARE		20	52
53	20			1.5			1.5	-	SPARE		20	54
55				-	-				SPARE		20	5
57	20			-		-		-	SPARE		20	58
59	20			-			-	-	SPARE		20	61

AL-225-4W-G AL-225-4W-G AL-225-4W-G AL-225-4W-G

ONE LINE ELCTRICAL DIAGRAM

TRANSIENT VOLTAGE SUPRESSION

<u>PANEL A</u> 120/208 V

MLO 225A BUSSING

MLO 225A BUSSING

PANEL C

120/208 V

MLO 225A BUSSING

PANEL D

120/208 V

MLO 225 AMP BUSSING

			VOLTAGE: 1 <u>20/208</u> PHA TYPE: <u>SQUARE D, NQOD</u>		•				5 MAIN CKT BRKR: 225 LECTRICAL RM AIC: 20,000		
CKT#	CB / POLE	WIRE SIZE	LOAD SERVED	KVA	A	LOAD B	С	KVA	LOAD SERVED	WIRE SIZE	CB / POLE
1	20		LIVESTOCK & AUDITORIUM LTS	2.0	2.0			0.0	SPARE		20
3	20		LIVESTOCK & AUDITORIUM ETS	2.0		2.0		0.0	SPARE		20
5	20		OUTDOOR LIGHTS	1.7			1.7	0.0	SPARE		20
7	20		OUDOOK LIOHIS	1.7	1.7			0.0	SPARE		20
9	20		BATHROOM & CORRIDOR LTS	1.5		1.5		0.0	SPARE		20
11	20		DATTIKOOM & CORRIDOR EIS	1.5		_	1.5	0.0	SPARE		20
13	20		CLASSROOM 123 & LAB LTS	1.5	1.5			0.0	SPARE		20
15	20		CLASSICOM 125 & LAB E15	1.5		1.5		0.0	SPARE		20
17	20		SCIENCE & VET LAB LTS	1.5			1.5	0.0	SPARE		20
19	20		SCIENCE & VEI LAB EIS	1.5	1.5			0.0	SPARE		20
21	20		MECH, LOBBY & CORRIDOR LTS	1.5		1.5		0.0	SPARE		20
23	20		MECH, LODDI & CORRIDOR EIS	1.5			1.5	0.0	SPARE		20
25	20		LOUNGE, LAB & OFFICE LTS	1.5	1.5			0.0	SPACE		20
27	20		LOUNGE, EAD & OTTICE EIS	1.5		1.5		0.0	SPACE		20
29	20		RECEPTION, AID & TOILET LTS	1.5			1.5	0.0	SPACE		20
31	20		RECEPTION, AID & TOILLT ETS	1.5	1.5			0.0	SPACE		20
33	20		FREEZE PROOF WATER HYDRANT	0.25		0.0		0.0	SPACE		20
35	20		SPACE	0.0			0.0	0.0	SPACE		20
37	20		SPACE	0.0	0.0			0.0	SPACE		20
39	20		SPACE	0.0		0.0		0.0	SPACE		20
41	20		SPACE	0.0			0.0	0.0	SPACE		20
	•			•	9.7	8.0	7.7			•	

PANEL FOR BUILDING EXPANSION

ELECTRICAL SCHEDULES

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

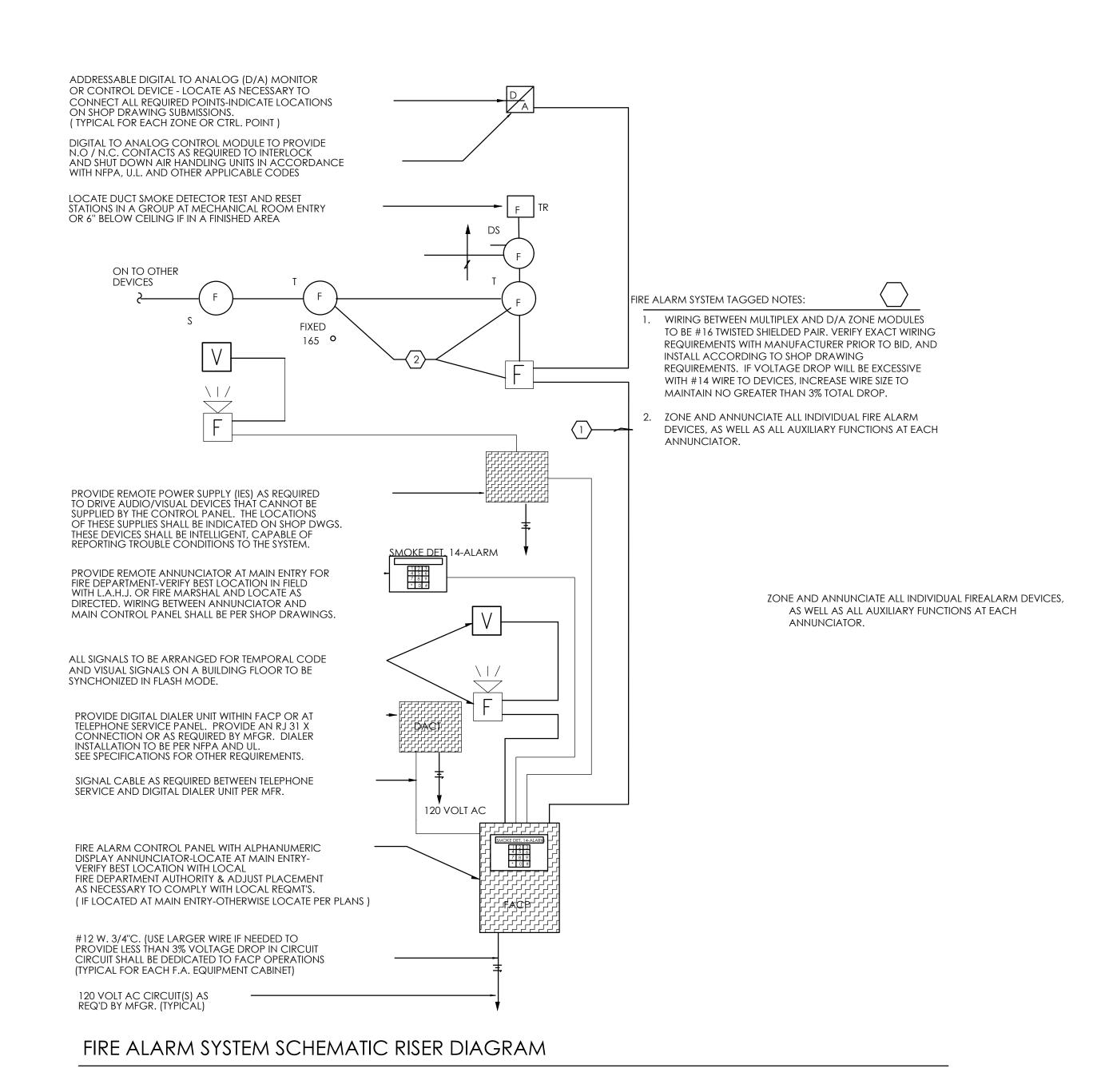
E-4

706 WESTLAND DRIVE LEXINGTON, KENTUCKY 40504 PHONE (859) 255-4437

LIGHTING FIXTURE SCHEDULE LAMP | VOLTAGE | LUMENS | WATTS/FIXTURE MANUFACTURER DESCRIPTION / CATALOG # NOTES PANEL AT LAY-IN CEILING, SELECTABLE LUMENS, 2' x 4' LED FLAT PANEL, #PL24-50WPCTS-D TOPAZ LED 5600 208 40 COORDINATE EXACT LUMEN/WATTAGE LEVEL IN FIELD PANEL AT LAY-IN CEILING, SELECTABLE LUMENS, 2' x 2' FLAT PANEL, #PL22-30WPCTS-D LED TOPAZ 208 4200 COORDINATE EXACT LUMEN/WATTAGE LEVEL IN FIELD 6" RECESSED DOWNLIGHT, RECESSED IN LAY-IN CEILING NICOR LED 208 3800 38 #CDA6HS2A-CDALE2038U408-CDA6TR240SCWH 8" RECESSED DOWNLIGHT, RECESSED IN LAY-IN CEILING NICOR LED 208 5500 50 #CDA8HS2A-CDALE2050U408-CDA8TR260SCWH SELECTABLE CCT & OUTPUT LINEAR LED STRIP, CABLE HUNG LED NICOR 208 5500 4' STRIP LIGHT, #LSCS-4-U / ACML110 40 TO MINIMUM 9'-0" A.F.F. (WALL MOUNT @ STORAGE 107) 4' VAPOR TIGHT, POWER & CCT SELECTABLE VAPOR TIGHT LINEAR STRIP, CABLE TOPAZ LED 50 7250 #LVT4-50PCS / F-LED-CABLE-2PK HUNG AT 12'-6' A.F.F. COORDINATE NUMBER OF FACES AND ARROWS WITH DRAWINGS LED EXIT SIGN, #73152 **MORRIS** 208 COORDINATE NUMBER OF FACES AND ARROWS WITH DRAWINGS LED **MORRIS** EXIT SIGN w/ EMERGENCY LIGHTS, #73040 208 COORDINATE NUMBER OF FACES AND ARROWS WITH DRAWINGS, EXIT SIGN w/ EMERGENCY LIGHTS, **MORRIS** LED 208 ENSURE BATTERY HAS CAPACITY FOR REMOTE HEADS REMOTE CAPABLE, #73054 1286 AC WALL MOUNTED AT 9'-0" A.F.F. EM4 **MORRIS EMERGENCY EGRESS, #73301** LED 208 12 350 DC 76 PER 208 SURFACE MOUNTED ABOVE FRONT ENTRY **MORRIS** REMOTE EMERGENCY LIGHT, 2-HEAD, #73127 LED HEAD LED VAPOR TIGHT JELLY JAR, #72108A 208 WALL-MOUNTED 12" ABOVE WINDOWS **MORRIS** LED 2632 23 LED 120 WALL-MOUNTED 12" ABOVE OVERHEAD DOORS **MORRIS** BARN LIGHT, #71333C / 71305B MOUNTING ARM 208 13870 RECESSED UNDER FRONT CANOPY, EMERGENCY BATTERY BACKUP 8" RECESSED DOWNLIGHT FOR WET LOCATION, LED NICOR 208 38 3800 #CDA8H2SAE1-CDALE2038U508-CDATR240SCWH - 90 MIN. WALL-MOUNTED 24" ABOVE WINDOWS AT AUDITORIUM, **MORRIS** LED 35 GOOSENECK EXTERIOR FLOODLIGHT, #75119B 208 4824 WALL-MOUNTED 8' A.F.F. AND 1'-4" TO SIDES OF FRONT ENTRY LED 208 200 BOTTOM OF FIXTURE AT 18' A.F.F., POWER SELECTABLE AUDITORIUM HIGH BAY, #HBC-200W-PCTS-WH TOPAZ 30,500 CABLE MOUNTED, BOTTOM OF FIXTURE AT 10' A.F.F., CCT & **NICOR** LAB HIGH BAY. #HML3150SUSAS / ACMK110 LED 208 L1 POWER SELECTABLE 120 SURFACE MOUNTED ON BUILDING, BRONZE, 5K, WITH PHOTOCELL LED 208 M1 **MORRIS** EXTERIOR WALL PACK, #OWG4100SUNVSBZ 15,721 LED AREA LIGHT; OAL350SUNVSBZ3/OAL3STRAIGHT POLE MOUNTED, 10kA SURGE PROTECTION, 5K, 80 CRI. LED 208 150 15,721 NICOR ARMBZ, TYPE III OPTICS. LED AREA LIGHT; OAL350SUNVSBZ3/OAL3STRAIGHT POLE MOUNTED, 10kA SURGE PROTECTION, 5K, 80 CRI. LED OL3 208 15,721 150 NICOR ARMBZ, TYPE V OPTICS. STEEL STEEL POWDER COATED 4.5" BY 20', FOR MOUNTING OF OL-2 & OL-3 4.5", 20' ROUND POLE. OLP4S 1 RD 20 C BZ

CONTRACTORS WISHING TO USE ALTERNATE FIXTURES SHALL SUBMIT SHOP DRAWING QUALITY MANUFACTURES INFORMATION 14 DAYS BEFORE BID OPENING. SUBMITTAL SHALL BE TO THE ARCHITECT.

SHEET



FIRE ALARM SYSTEM RISER DIAGRAM GENERAL NOTES:

- A. WIRE SIZING SELECTIONS FOR AUDIBLE/VISUAL UNITS SHALL BE CALCULATED AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. RISER DIAGRAM FOR FIRE ALARM SYSTEM IS FOR BID PURPOSES ONLY. SYSTEM SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH WIRING DIAGRAMS OBTAINED FROM MANUFACTURER, AND THAT HAVE BEEN APPROVED BY THE STATE FIRE MARSHAL'S OFFICE OR THE LOCAL AUTHORITY HAVING JURISDICTION, AS APPLICABLE.
- C. AUTOMATIC FIRE ALARM DETECTORS SHALL BE LOCATED SO AS TO PREVENT SHIELDING BY DUCTWORK, EQUIPMENT AND PIPING ON CEILING. SPACING BETWEEN DETECTORS SHALL BE IN ACCORD WITH MANUFACTURER'S RECOMMENDATIONS, IN ANY CASE. ADDITIONAL DETECTORS SHALL BE PROVIDED IF NEEDED TO INSURE COMPLETE COVERAGE OF THE INDICATED SPACE.
- D. END-OF-LINE-RESISTOR (IF REQUIRED BY MANUFACTURER) BOXES SHALL BE 4" SQUARE AND SHALL BE FLUSH-MOUNTED IN ALL FINISHED AREAS, WITH RED LABELED PLATE.
- E. ALL CONDUIT IN FIRE ALARM SYSTEM SHALL BE 3/4" SIZE EXCEPT AS OTHERWISE NOTED. PROVIDE LARGER IF REQUIRED TO MAINTAIN CONDUCTORS AT 40% MAXIMUM FILL.
- F. FIRE ALARM MANUAL STATIONS SHALL BE DOUBLE-ACTION TYPE, POSITIVE VISUAL INDICATION OF OPERATION, KEY RESET, ALL KEYED ALIKE. G. FIRE ALARM SIGNALING DEVICES SHALL BE SEMI-FLUSH TYPE AUDIBLE, WITH FLASHING LAMP MOUNTED ON SAME PLATE. SURFACE-MOUNTED UNITS MAY BE USED IN UNFINISHED AREAS.
- H. NO SMOKE DETECTORS SHALL BE LOCATED CLOSER THAN 36" TO SUPPLY, RETURN OR EXHAUST AIR OPENINGS, NOR CLOSER THAN 12" TO WALL/CEILING INTERSECTIONS.
- I. AVOID PLACEMENT OF HEAT DETECTORS CLOSE TO HEAT-PRODUCING EQUIPMENT WHERE RATE-OF-RISE WILL DEGRADE DETECTOR PERFORMANCE OR PRODUCE NUISANCE ALARMS. USE FIXED TEMPERATURE (165 DEG F TO 190 DEG F) DEVICES IN SUCH AREAS.
- J. THE SENSITIVITY OF SMOKE DETECTORS SHALL BE ADJUSTED FOR THE SERVICE DUTY IN THE AREA INDICATED, TO SUIT BUILDING OPERATIONAL CONDITIONS.
- K. VERIFY THAT THE FINAL ROOM NAME AND NUMBERING SCHEME USED FOR ENUNCIATOR LEGENDS IS IN ACCORD WITH THE ACTUAL ROOM NAMES AND NUMBERS FINALLY CHOSEN BY THE
- L. ALL ENUNCIATOR LEGEND WORDING AND/OR ALPHANUMERIC DISPLAY LEGENDS SHALL BE APPROVED BY THE ENGINEER, OWNER AND LOCAL FIRE DEPARTMENT AUTHORITY, AS APPLICABLE. SUBMIT THIS INFORMATION WITH SHOP DRAWINGS.
- M. TO PROVIDE FOR MAXIMUM FLEXIBILITY IN INITIAL SYSTEM SET-UP, ZONE ARRANGEMENTS, OPERATOR CODE PATTERNS, ETC., THE SYSTEM SUPPLIER SHALL PROVIDE INITIAL PROGRAMMING OF SYSTEM IN ACCORD WITH THE OWNER'S DIRECTION ON SYSTEM CONFIGURATION. THE SUPPLIER SHALL ALSO ANTICIPATE THE NEED FOR SYSTEM REPROGRAMMING IN HIS BID TO MODIFY THE SYSTEM AS NEEDED TO SUIT CHANGING REQUIREMENTS UP TO THE TIME OF SUBSTANTIAL COMPLETION WITHOUT ADDITIONAL COST TO THE OWNER.
- N. THE ENTIRE FIRE ALARM SYSTEM INSTALLATION SHALL BE IN FULL ACCORD WITH THE CURRENT EDITION OF THE AMERICANS WITH DISABILITIES ACT AND ALL OTHER APPLICABLE CODES.
- O. PROVIDE ONE YEAR OF FIRE ALARM SYSTEM MONITORING BY A U.L. APPROVED CENTRAL MONITORING SERVICE.
- P. PROVIDE LIGHTNING ARRESTORS ON ALL EXTERIOR FIRE ALARM SIGNAL CIRCUITS.
- Q. FIRE ALARM SUPPLIER SHALL PREPARE PLANS, SPECS., & SHOP DRAWINGS TO MEET REQUIRED LIFE SAFETY CODES & SUBMIT TO AUTHORITY HAVING JURISDICTION FOR APPROVAL BEFORE BEGINNING ANY ROUGH-IN WORK OF THE FIRE ALARM SYSTEM.
- R. FIRE ALARM SUPPLIER SHALL SUBMIT WITH CAD FILE "APPROVED" FIRE ALARM SUBMITTAL, ALONG INDICATING LOCATIONS & WIRING CONNECTIONS TO ALL COMPONENTS OF THE SYSTEM, INCLUDING SPRINKLER RISER MONITORING DEVICES. FIRE ALARM VENDOR SHALL PROVIDE CERTIFICATION OF THE COMPLETED, INSTALLED SYSTEM BY A "CERTIFIED FIRE ALARM INSPECTOR" LICENSED BY THE COMMON WEALTH OF KENTUCKY.