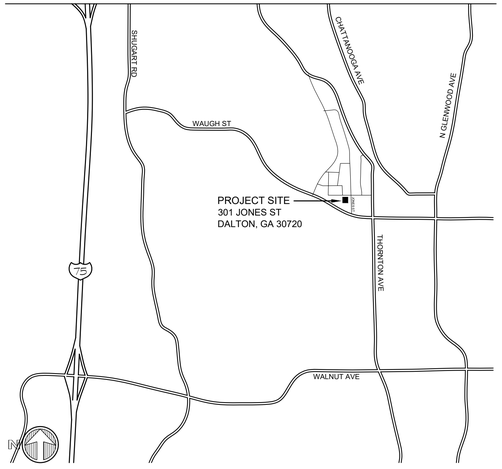
A NEW BUILDING
FOR DALTON POLICE DEPARTMENT

301 JONES ST,
DALTON, GA 30720

SITE LOCATION MAP



BUILDING INFORMATION

OWNER:	POLICE SERVICES CENTER 301 JONES ST, DALTON, GA. 30720
CONSTRUCTION TYPE:	IBC-TYPE II B
OCCUPANCY TYPE:	BUSINESS
NUMBER OF STORIES:	TWO
BUILDING SPRINKLERED:	YES
BUILDING SQUARE FOOTAGE:	4,279 S.F. GROSS MAIN LEVEL 2,983 S.F. GROSS UPPER LEVEL 7,262 S.F. GROSS TOTAL

CODE INFORMATION

ALL WORK IN RENOVATED AREAS SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES:

2018 LIFE SAFETY CODE (LSC) - INCLUDING THE GA 120-3-3 RULES & REGULATIONS OF THE STATE FIRE COMMISSIONER

2018 INTERNATIONAL BUILDING CODE (IBC) - 2020 GEORGIA AMENDMENTS

2018 INTERNATIONAL FIRE CODE (IFC)

2018 INTERNATIONAL MECHANICAL CODE (IMC) - 2020 GEORGIA AMENDMENTS

2018 INTERNATIONAL PLUMBING CODE (IPC) - 2020 GEORGIA AMENDMENTS

2018 INTERNATIONAL FUEL GAS CODE - 2020 GEORGIA AMENDMENTS

2020 NATIONAL ELECTRIC CODE (NEC)

2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) - 2020 GEORGIA AMENDMENTS

2010 A.D.A. STANDARDS FOR ACCESSIBLE DESIGN - INCLUDING GA. ACCESSIBILITY STANDARDS 120-3-20

ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND REGULATIONS

INDEX OF DRAWINGS

KRH ARCHITECTS INCORPORATED

ARCHITECTURAL
KRH ARCHITECTS, INC.
855 ABUTMENT RD., STE. 4
DALTON, GA 30721
TEL. 706.529.5895

CIVIL
PWH ENGINEERING, INC.
2900 DELK RD., STE. 700 #318
MARIETTA, GA 30067
TEL. 770.433.8190

STRUCTURAL
WILLIAM J. PELTIER AND ASSOCIATES
270 LANGLEY DR.
LAWRENCEVILLE, GA 30046
TEL. 770.963.0654

MECHANICAL
JORDAN MEP
225 REFORMATION PKWY., STE 200
CANTON, GA 30114
TEL. 770.751.0773

ELECTRICAL
LUNDY ENGINEERING GROUP, LLC.
229 LAND ROAD
WALESKA, GA 30183
TEL. 678. 634. 6941

PROJECT NUMBER
23-021

FACILTY CODE
-

DRAWING REVISIONS

NO.	TYPE	DATE

- PRELIMINARY REVIEW
- CHECKSET REVIEW
- FINAL SET REVIEW
- FOR CONSTRUCTION

DATE
12/01/23

SHEET INDEX
T1.1

DEMOLITION NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR ALL LOCATION, VERIFICATION, PROTECTION, MAINTENANCE, RELOCATION, REMOVAL OR RENOVATION OF ALL EXISTING UTILITIES, SITE IMPROVEMENTS, STRUCTURES, OBJECTS, OR CONSTRUCTION ELEMENTS REQUIRED TO COMPLETE THE WORK SHOWN ON THE PLANS, NOTES, SPECIFICATIONS, AND CONTRACT DOCUMENTS, WHETHER SHOWN ON THE PLANS OR NOT. ITEMS SHOWN AS [DE], [TR], [TBR], OR OTHERWISE [ ] DESIGNATED ARE SHOWN FOR GENERAL REFERENCE ONLY, AND ARE NOT ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS TO BE REMOVED [TBR], ALL ITEMS TO REMAIN [TR], AND ALL ITEMS REQUIRING DEMOLITION [DE], RELOCATION, ALTERATION, AND PROTECTION WHETHER DESIGNATED ON THE PLANS OR NOT. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING IMPROVEMENTS AND SITE CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE AND VERIFY ALL DEMOLITION, REMOVAL, AND ASSOCIATED WORK WITH THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
3. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR EXISTING AND PROPOSED BUILDING DEMOLITION, REMOVAL, AND RENOVATION.
4. CONTRACTOR SHALL:
CONTACT UPC (UTILITIES PROTECTION CENTER) FOR LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. UTILITIES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AND MAY NOT BE ACCURATE. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON PLANS. OBTAIN APPROVAL FROM ALL LOCAL UTILITY AUTHORITIES AND LOCATE, VERIFY, AND COORDINATE ALL REQUIRED CONSTRUCTION FOR ALL UTILITIES WITHIN THE WORK AREA. MAINTAIN UTILITY SERVICE(S) AT ALL TIMES, COORDINATE CONSTRUCTION SEQUENCE ACCORDINGLY. PROVIDE OWNER/ENGINEER COMPLETE RESULTS OF ALL UTILITY LOCATION(S) PRIOR TO CONSTRUCTION.

5. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL IMPROVEMENTS, INCLUDING LANDSCAPING, NOT REQUIRING REMOVAL. DAMAGED IMPROVEMENTS SHALL BE RESTORED AT CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL HAVE PROPERTY CORNERS, RIGHT-OF-WAY, AND BOUNDARY MARKED AND LOCATED. DO NOT ENCROACH ON ADJACENT PROPERTIES.
7. CONTRACTOR SHALL COORDINATE ALL DEMOLITION ADJACENT TO STRUCTURES OR FOUNDATION ELEMENTS WITH THE ARCHITECT AND STRUCTURAL ENGINEER TO ENSURE THAT NO DAMAGE OR DEGRADATION WILL OCCUR.
8. CONTRACTOR SHALL BLEND NEW CONSTRUCTION INTO EXISTING IMPROVEMENTS. ALL JUNCTIONS, COMMON POINTS, JOINTS, ETC. SHALL BE BLENDED FOR A SMOOTH TRANSITION. ALL DAMAGED IMPROVEMENTS SHALL BE RESTORED BY THE CONTRACTOR TO ORIGINAL CONDITION AT NO EXPENSE TO OWNER.
9. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF THE PUBLIC AND ALL OTHER PERSONS ONSITE AT ALL TIMES. CONTRACTOR SHALL CONFORM TO ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS AND REGULATIONS.

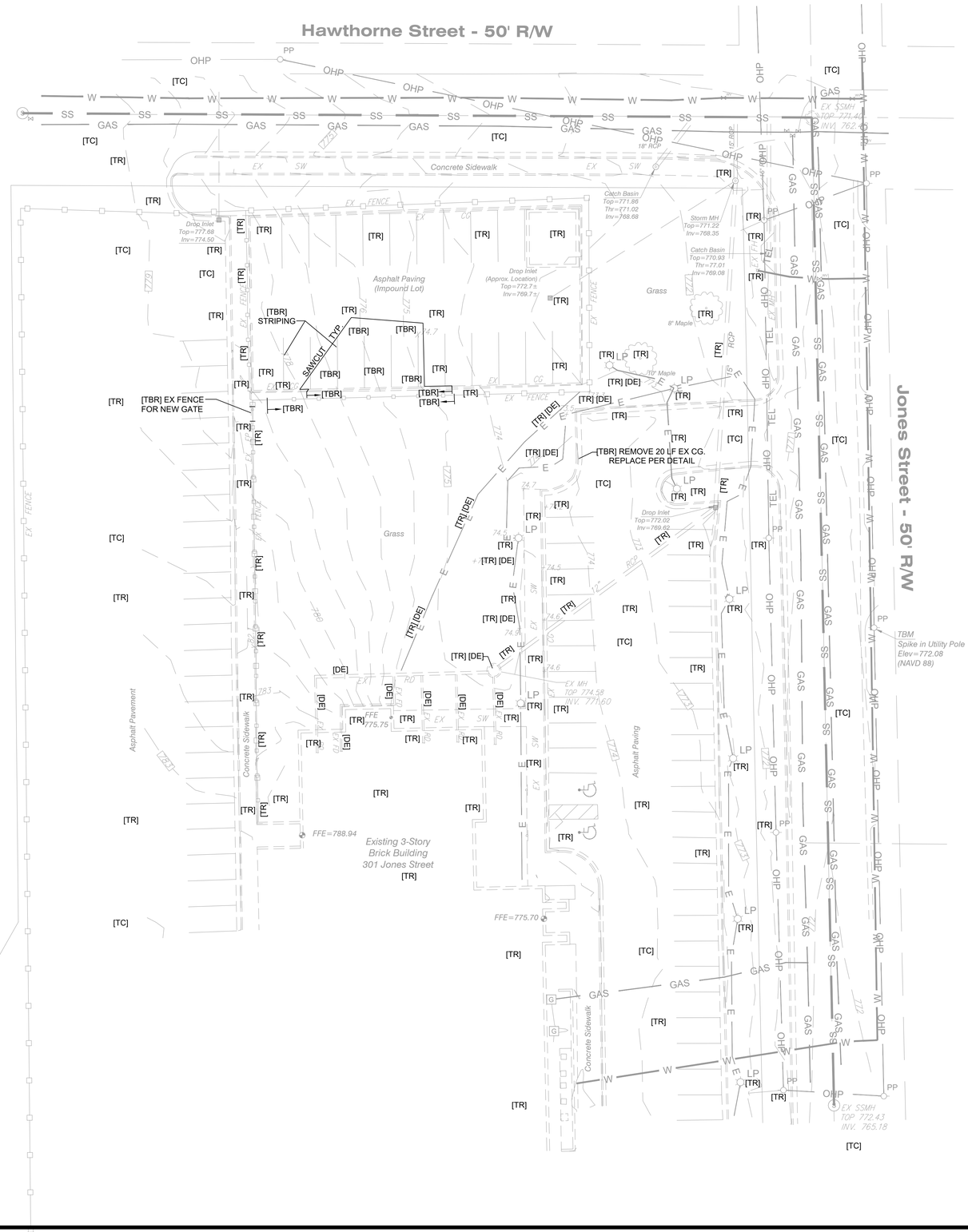
DEMOLITION LEGEND:

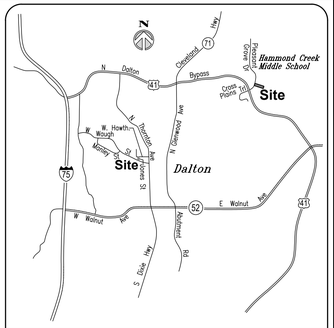
[TR] TO REMAIN:
EXISTING IMPROVEMENT OR ITEM TO REMAIN. LOCATE, VERIFY, MARK, AND PROTECT FROM DAMAGE BY ALL NECESSARY MEANS. FOR UTILITIES, MAINTAIN SERVICE AT ALL TIMES.

[TBR] TO BE REMOVED:
EXISTING IMPROVEMENT OR ITEM TO BE REMOVED. LOCATE, VERIFY, AND REMOVE. DISPOSE OF OFF SITE IN A LEGAL MANNER. FOR UTILITIES, MAINTAIN SERVICE AT ALL TIMES. COORDINATE ALL UTILITY REMOVAL OR ALTERATION WITH APPROPRIATE UTILITY AUTHORITY.

[CU] COORDINATE UTILITIES:
CONTACT UTILITY LOCATION AUTHORITY AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. COORDINATE ALL EXISTING AND PROPOSED UTILITY CONSTRUCTION, REMOVAL, ALTERATION, RENOVATION, OR RELOCATION REQUIRED TO COMPLETE THE WORK WITH THE APPROPRIATE UTILITY AUTHORITY. RESOLVE ALL CONFLICTS, OMISSIONS, OR DISCREPANCIES PRIOR TO CONSTRUCTION.

[DE] DEMOLITION REQUIRED:
DEMOLITION OR PARTIAL REMOVAL REQUIRED. CONFORM TO APPLICABLE ARCHITECTURAL AND/OR RELATED ENGINEERING PLANS AND SPECIFICATIONS. COORDINATE UTILITIES WITH APPROPRIATE AUTHORITY.





LOCATION MAP

EXISTING	+ 70.93 EXISTING SPOT ELEVATION
PROPOSED	• 54.3 PROPOSED SPOT ELEVATION
AC–ACRES	PB–PLAT BOOK
BC–BACK OF CURB	PG–PAGE
BL–BUILDING SETBACK	PL–PROPERTY LINE
CB–CATCH BASIN	POB–POINT OF BEGINNING
CG–CURB & GUTTER	PP–POWER POLE
CH–CHORD	PS–PARKING SPACE
CL–CENTERLINE	PTC–PRIOR TO CONSTRUCTION
CMP–CORR. METAL PIPE	R–RADIUS
DB–DEED BOOK	RCP–REINFORCED CONC. PIPE
DE–DRAINAGE EASEMENT	RD–ROOF DRAIN
DI–DROP INLET	RR–RAILROAD
EP–EDGE PAVEMENT	R/W–RIGHT OF WAY
EX–EXISTING	SD–STORM DRAIN
FH–FIRE HYDRANT	SF–SQUARE FEET
G–GAS LINE	SS–SANITARY SEWER
HW–HEADWALL	SSE–SAN. SEWER EASEMENT
HD–HEAVY DUTY	SSMH–SAN. SEWER MANHOLE
IPP–IRON PIN PLACED	SW–CONCRETE SIDEWALK
IPF–IRON PIN FOUND	TB–THRUST BLOCK
JB–JUNCTION BOX	TBR–TO BE REMOVED
L–ARC LENGTH	TC–TOP OF CURB
LOC–LIMIT OF CLEARING	TELE–TELEPHONE
LP–LIGHT/LAMP POST	TR–TO REMAIN
MH–MANHOLE	TW–TOP OF WALL
N/F–NOW OR FORMERLY	W–WATER
OHP–OVERHEAD POWER	WV–WATER VALVE

LEGEND

GENERAL NOTES:

1. SEE SHEET C2.1 FOR IMPORTANT NOTES.

Know what's below. Call before you dig.

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE

FACILITY CODE

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

PWH engineering
CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA
ISSUE DATE: 02-15-24 SCALE: 1" = 20'
JOB No. 22280

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

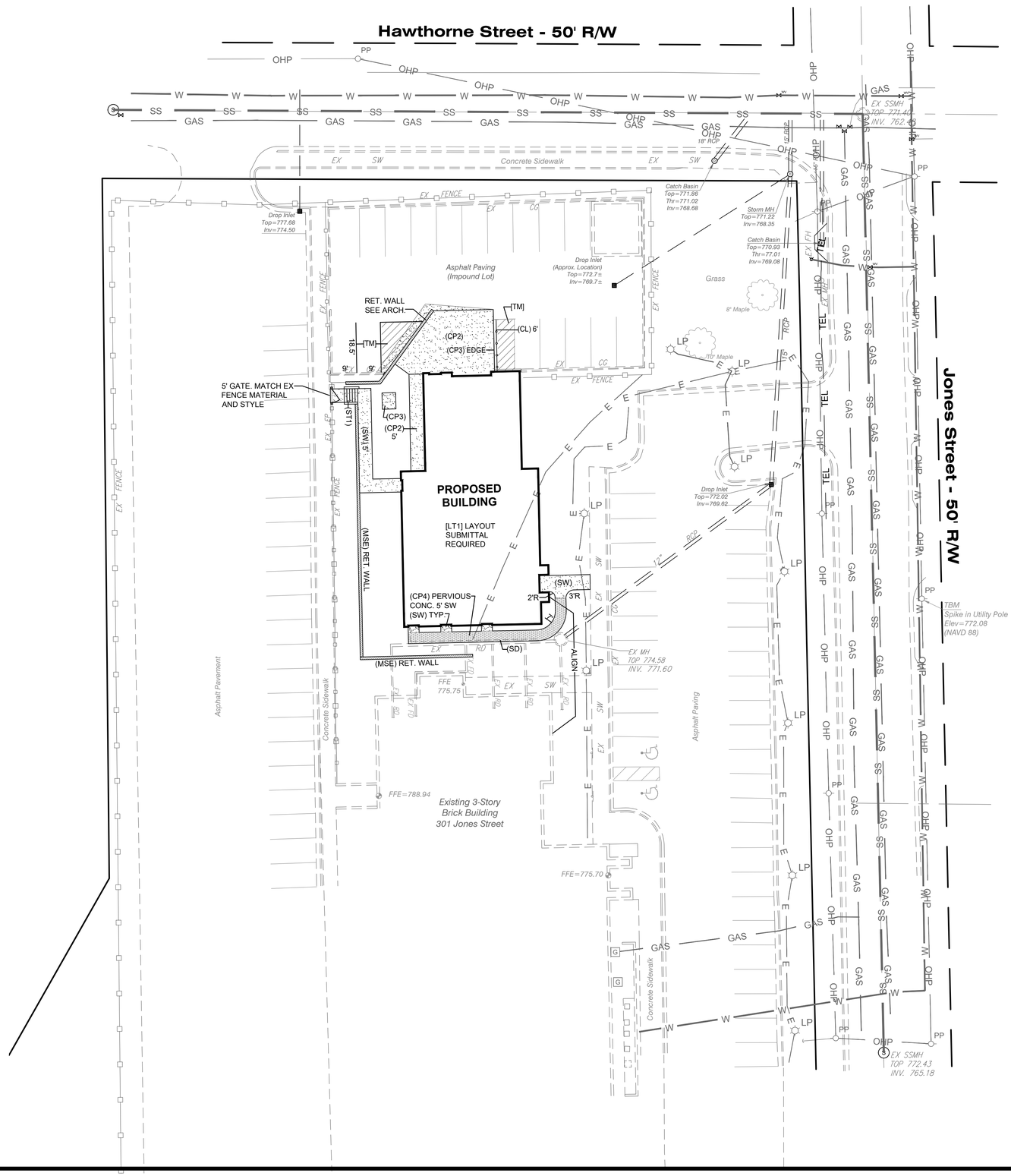
GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY
GSWCC LEVEL II - 0000008686

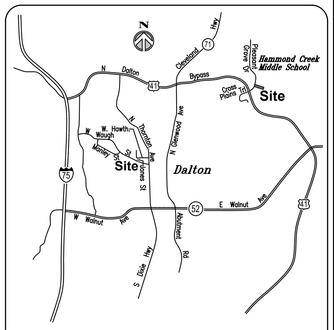
SHEET INDEX

EXISTING CONDITIONS DEMOLITION PLAN

SHEET INDEX

C1





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GENERAL NOTES:

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SUITE FOUR
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GSWCC LEVEL II - 0000008686

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SITE PLAN

SHEET INDEX

C2

CONSTRUCTION LEGEND:

[AT] STRUCTURE TOP ADJUSTMENT:
RAISE, LOWER, MOVE, ALTER, ADD OR ADJUST EXISTING MANHOLE OR OTHER STRUCTURE TOP, BOX, RING AND COVER AS REQUIRED FOR PROPOSED CONSTRUCTION. REFERENCED STANDARDS, DETAILS, AND SPECIFICATIONS APPLY AS MINIMUM REQUIREMENTS. STRUCTURE TOPS SHALL BE EVEN WITH FINISHED PAVEMENT IN PAVED AREAS AND RATED FOR TRAFFIC IN TRAFFIC AREAS. STRUCTURE TOPS SHALL BE 6 INCHES ABOVE FINISHED GRADE IN UNPAVED AREAS.

[CA] CONTROLLED ACCESS:
PROVIDE CONTROLLED ACCESS TO PROJECT SITE USING GATES, TRAFFIC CONTROL [TC], AND PERSONNEL TO MONITOR ACCESS AND PROHIBIT UNAUTHORIZED ENTRY TO THE SITE. PROVIDE ALL WARNING, INSTRUCTIONAL, AND DIRECTIONAL SIGNAGE TO INFORM PUBLIC AND MAINTAIN SAFE CONTROLLED ACCESS AT ALL TIMES. ALL GATES SHALL BE LOCKED AT ALL TIMES EXCEPT FOR AUTHORIZED ENTRY. PROVIDE TEMPORARY FENCING TO PROHIBIT AND CONTROL ACCESS. COORDINATE WITH OWNER AND MAINTAIN SAFE ACCESS FOR NORMAL OPERATION AND FUNCTION. CONTROLLED ACCESS POINTS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL FINAL RELEASE BY OWNER.

[CM] CONCRETE MEDIAN:
INSTALL 6 INCH THICK CONCRETE MEDIAN (INTEGRAL) PER GDOT 9032B STANDARD DETAIL, TYPE 2 6" HEIGHT CURB, WITH TIE BARS.

[CS] CRITICAL SLOPE:
SLOPE SHOWN IS LESS THAN 1 FOOT PER 100 FEET (1.0%). CONTRACTOR SHALL USE LASER GUIDED EQUIPMENT AND PROVIDE ALL NECESSARY MEASURES TO ENSURE FINAL GRADE IS ESTABLISHED AS DESIGNED. CONSTRUCTION TOLERANCE IS NOT ALLOWED FOR CRITICAL SLOPES OR GRADES. NO PONDING OR DEPRESSED AREAS ALLOWED.

[CT] CURB TAPER:
CONTRACTOR SHALL: TAPER CURB HEIGHT FROM STANDARD HEIGHT TO 0" HEIGHT FOR LENGTH SHOWN ON PLANS. END OF TAPER SHALL BLEND SMOOTH INTO PROPOSED FINISH GRADES SO THAT 0" (ZERO INCHES) CURB HEIGHT WILL MATCH ADJACENT PAVEMENT, IMPROVEMENTS, AND/OR FINISH GRADES. PROVIDE EXPANSION JOINT AT INTERFACE. ALL SIDEWALKS ADJACENT TO CURB TAPERS (CT) SHALL BE TAPERED TO MATCH CURB TAPER(S).

[DF] DROP FOOTING:
DROP THE BUILDING FOOTING BEARING SURFACE AS REQUIRED FOR PROPOSED GRADES AT BUILDING PERIMETER TO ACCEPT BUILDING FINISH PER ARCHITECTURAL PLANS WITHOUT EXPOSING FOOTING. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS AND SPECIFICATIONS. COORDINATE PTC.

[DR] DUMPSTER DRAIN:
SLOPE DUMPSTER PAD TO DRAIN TO CENTER AS SHOWN. DO NOT ALLOW ANY FLOW INTO DUMPSTER DRAIN EXCEPT FOR DUMPSTER PAD ONLY. INSTALL 12" DIAMETER HEAVY DUTY TRAFFIC RATED GRATE AND FRAME WITH TRAP. CONNECT TO SANITARY SEWER LINE WITH MINIMUM 6" DIAMETER DUCTILE IRON PIPE AT 1/4 INCH PER FOOT SLOPE MINIMUM.

[DW] DETECTABLE WARNING:
CONTRACTOR SHALL: INSTALL DETECTABLE WARNING IN COMPLIANCE WITH GEORGIA A.D.A. CODE CHAPTER 120-3-20, VERIFY AND OBTAIN APPROVAL FROM LOCAL AUTHORITY PTC. COLOR, TYPE, AND FINISH SHALL BE APPROVED BY OWNER AND ARCHITECT PTC. SEE DETAIL.

[EXB] EXISTING BUILDING / UNDER CONSTRUCTION:
CONTRACTOR SHALL: VERIFY EXISTING BUILDINGS AND STRUCTURES ONSITE. PROTECT FROM DAMAGE BY ALL NECESSARY MEANS. ANY DAMAGE, ALTERATION, DISCOLORATION, STAINING, DISLODGING, ENCROACHMENT, OR OTHER DEGRADATION OF EXISTING BUILDINGS SHALL BE RESTORED, REPAIRED, OR REPLACED AT CONTRACTOR'S EXPENSE. COORDINATE ALL PHASES AND TYPES OF CONSTRUCTION WITH EXISTING BUILDINGS ACCESS AND MAINTENANCE. MAINTAIN SAFE AND CLEAR ACCESS TO EXISTING BUILDINGS AT ALL TIMES. MAINTAIN UTILITY SERVICE(S) TO EXISTING BUILDINGS AT ALL TIMES. DO NOT DISRUPT OR IMPEDE ACCESS OR USE OF EXISTING BUILDINGS, COORDINATE ALL PHASES OF CONSTRUCTION ACCORDINGLY.

[FJ] FLUSH JOINT:
CONTRACTOR SHALL: PROVIDE FLUSH JOINT ALONG DESIGNATED LENGTH. ELEVATIONS SHALL MATCH EQUALLY ALONG ENTIRE LENGTH FROM ONE SURFACE TO ADJACENT SURFACES. PROVIDE EXPANSION JOINT ALONG ENTIRE LENGTH OF PAVEMENT OR CURB EDGES. CROSS SLOPE SHALL BE LEVEL ACROSS GUTTER WIDTH. FLUSH JOINT SHALL BE INSTALLED TO PROVIDE SMOOTH, LEVEL CROSS SLOPE, AND EVEN TRANSITION FROM ONE SURFACE TO ANOTHER ALONG ENTIRE LENGTH. BUMPS, DIPS, RAISED OR LOWERED EDGES, OR OTHER ELEVATION DIFFERENCES WILL NOT BE ALLOWED.

[GP] GROUT PIPE:
CONTRACTOR SHALL: EXCAVATE, VERIFY, AND CONFIRM EXISTING STORM SEWER PIPE SIZE, TYPE, INVERT ELEVATION, CONDITION, AND LOCATION. REPORT ALL INFORMATION TO ENGINEER PRIOR TO CONSTRUCTION. FILL EXISTING STORM SEWER WITH HIGH STRENGTH CONCRETE GROUT FOR ENTIRE LENGTH EXTENDING PAST END(S) OF PIPE MINIMUM 12 INCHES EACH SIDE. FILL PIPE COMPLETELY WITH NO VOIDS OR POCKETS. PIPE AND EACH END OF PIPE MUST BE COMPLETELY FILLED AND PERMANENTLY SEALED TO PROHIBIT WATER ENTRY.

CONSTRUCTION LEGEND:

[GR] GUARDRAIL:
CONTRACTOR SHALL: INSTALL GUARDRAIL PER GADOT DETAILS AND SPECIFICATIONS WITH THE FOLLOWING EXCEPTIONS:
DO NOT INSTALL OFFSET BLOCKS BETWEEN POSTS AND RAILING.
POSTS SHALL BE TYPE D STEEL W BEAM POSTS.
POST SPACING SHALL BE 4.0 FEET CENTER TO CENTER MAXIMUM.
DO NOT INSTALL END ANCHORAGE.

[LT1] LAYOUT SUBMITTAL:
CONTRACTOR SHALL: SUBMIT FOUNDATION AND BUILDING LAYOUT TO ARCHITECT AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION, CERTIFIED BY SURVEYOR REGISTERED IN STATE OF PROJECT LOCATION, BASED ON PROJECT SURVEY. LAYOUT MUST INCLUDE HORIZONTAL AND VERTICAL COORDINATES FOR ALL PROPOSED STRUCTURES, EXISTING STRUCTURES, IN ALL AREAS WHERE EXISTING AND PROPOSED IMPROVEMENTS OR STRUCTURES INTERFACE OR CONNECT. SUBMITTAL SHALL INCLUDE SUFFICIENT INFORMATION TO DEMONSTRATE FULL COMPLIANCE WITH DESIGN INTENT AND LAYOUT AS SHOWN ON THE PLANS.

[ME] MATCH EXISTING:
MATCH EXISTING FINISH GRADE. VERIFY IN FIELD PRIOR TO CONSTRUCTION (PTC).
VERIFY POSITIVE SLOPE TO PROVIDE FLOW AS INDICATED.

[RA] CURB RAMP:
PROVIDE CURB RAMP CONFORMING TO CURRENT GEORGIA ADA CODE. VERIFY ALL REQUIREMENTS, DIMENSIONS, SLOPES, AND CONSTRUCTION PTC. PROVIDE 5' CURB TAPER [CT] AT EACH SIDE OF ADJOINING CURBS.

[RD] ROOF DRAIN:
CONNECT ALL ROOF DOWNSPOUTS TO STORM SEWER OR CHANNEL AS SHOWN. PIPE SIZE AND MATERIAL SHOWN ON PLANS. MINIMUM COVER: 1.0 FEET UNPAVED AREAS, 3.0 FEET PAVED AREAS. MINIMUM PIPE SLOPE: 1/8"/FT (1.0%). USE DUCTILE IRON PIPE IN PAVED AREAS. PROVIDE CLEANOUTS AT ALL LINE DEFLECTIONS. LONG SWEEP RADIUS REQUIRED FOR ALL ELBOWS AND PIPE LINE DEFLECTIONS. PIPE CONNECTION TO DOWNSPOUTS PER ARCHITECTURAL OR PLUMBING DETAILS.

[SF] SHEET FLOW:
PROVIDE UNIFORM SHEET FLOW FOR FINISHED GRADES. NO FLOW CONCENTRATION ALLOWED.

[SW] SIDEWALK, RAMP OR STEPS:
CONCRETE SIDEWALK WITH FINISH PER ARCHITECT. SIDEWALK WIDTHS AND DIMENSIONS AT DOORS OR ENTRANCE/EXITS SHALL BE PER ARCHITECTURAL PLANS, MINIMUM WIDTH IS DOOR WIDTH PLUS 1.0 FEET EACH SIDE. PROVIDE POSITIVE SLOPE AWAY FROM DOOR THRESHOLDS OF 1/8 INCH PER FOOT (1.0%) MINIMUM. SIDEWALK SLOPES GREATER THAN 1:20 (0.05 FT./FT.) WILL BE CONSIDERED RAMPS. MAXIMUM SLOPE FOR SIDEWALKS IS 1:12 (0.083 FT./FT.). MAXIMUM SIDEWALK CROSS SLOPE IS 1/4 INCH PER FOOT. SIDEWALKS SHALL BE INSTALLED WITH MINIMUM 6X6 10 GAUGE WWF REINFORCEMENT, 1.5 INCHES FROM BOTTOM. HANDRAILING SHALL BE INSTALLED ON BOTH SIDES OF SIDEWALK RAMPS PER ADA CODE. CONTRACTOR SHALL INSTALL STEPS AND RAILING PER LOCAL CODE(S) AND CONSTRUCTION DETAILS. CONSULT WITH ARCHITECT REGARDING SIDEWALK AND RAILING DETAILS PRIOR TO CONSTRUCTION. MINIMUM RAILING DETAIL REQUIREMENT(S) SHALL COMPLY WITH GEORGIA D.O.T. 9031R OR AS SHOWN ON PLANS AND SPECIFICATIONS. CANOPIES SHALL BE INSTALLED PER ARCHITECTURAL PLANS AND SPECIFICATIONS. COORDINATE AND VERIFY ALL SIDEWALK LAYOUT, WIDTH, LOCATION AND FINISH WITH ARCHITECT PRIOR TO CONSTRUCTION.

[TC] TRAFFIC CONTROL:
CONTRACTOR SHALL: PROVIDE 24 HOUR TRAFFIC CONTROL FOR ALL PUBLIC RIGHT-OF-WAY, ROADWAYS, PRIVATE DRIVES, [CA] CONTROLLED ACCESS AREAS, AND ALL AREAS REQUIRING ACCESS. PROVIDE TRAFFIC PLATES OR OTHER APPROVED METHODS FOR ALL AREAS REQUIRING TEMPORARY ACCESS WHICH MAY BE OBSTRUCTED DUE TO REQUIRED UTILITY TRENCH CUTS OR OTHER OBSTRUCTIONS. TRAFFIC CONTROL SHALL CONFORM TO GEORGIA D.O.T STANDARDS AND SPECIFICATIONS, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND LOCAL AUTHORITY STANDARDS AND SPECIFICATIONS. TRAFFIC CONTROL SHALL INCLUDE, BUT NOT BE LIMITED TO: WARNING SIGNS AND DEVICES, LIGHTED DEVICES/SIGNALS FOR NIGHT CONDITIONS, BARRICADES, QUALIFIED FLAGMEN, AND ALL OTHER MEASURES TO INSURE THE SAFETY OF PEDESTRIAN AND VEHICULAR TRAFFIC AND WORKMEN, AND TO PROTECT THE WORK. MAINTAIN ALL TRAFFIC CONTROL MEASURES IN GOOD REPAIR, CLEAN AND VISIBLE FOR DAY AND NIGHT OPERATION. ALL LANE CLOSURES SHALL BE COORDINATED WITH AND APPROVED BY THE LOCAL AUTHORITY PRIOR TO CONSTRUCTION.

[TF] TEMPORARY FENCE:
INSTALL TEMPORARY FENCE <u>PER PROJECT SPECIFICATIONS.</u> TEMPORARY FENCE [TF] SHOWN ON PLANS IS IN ADDITION TO TEMPORARY FENCE REQUIRED BY THE SPECIFICATIONS.
MINIMUM HEIGHT IS SIX FEET (6'). TEMPORARY FENCE MUST BE INSTALLED VERTICAL (PLUMB), RIGID AND STABLE, AND WITHOUT GAPS TO PROHIBIT UNAUTHORIZED ENTRY OR REMOVAL. IN PAVED AREAS TO REMAIN [TR] WHERE [TF] IS REQUIRED PORTABLE FENCING MAY BE USED. PORTABLE FENCING MUST BE HEAVY DUTY GRADE COMPLYING WITH PROJECT SPECIFICATIONS AT A MINIMUM, SECTIONS SHALL BE CONNECTED AND ATTACHED SECURELY, VERTICAL (PLUMB), STABLE AND RIGID TO PROHIBIT UNAUTHORIZED ENTRY OR REMOVAL. PROVIDE WEIGHTED BOTTOM RAIL OR OTHER MEANS TO PREVENT HORIZONTAL DISPLACEMENT OR MOVEMENT. GATES OR ACCESS POINTS MUST BE MONITORED, SECURED, AND LOCKED [CA]. DO NOT ALLOW ANY UNAUTHORIZED ACCESS AT ANY TIME. WHERE DRIVEN POSTS ARE USED IN AREAS TO REMAIN [TR], PAVEMENTS MUST BE CUT AND PATCHED FOR FULL DEPTH AND ALL IMPROVEMENTS MUST BE RESTORED TO MATCH INDUSTRY STANDARD OR EXISTING CONDITION, WHICHEVER IS GREATER. TEMPORARY FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL FINAL RELEASE BY OWNER/ARCHITECT.
INSPECT, REPAIR AND MAINTAIN TEMPORARY AND PORTABLE FENCING DAILY TO PROHIBIT UNAUTHORIZED ENTRY. SUBMIT ALL MANUFACTURER DETAILS AND SPECIFICATIONS FOR [TF] TEMPORARY FENCE AND PORTABLE FENCE APPROVAL PRIOR TO CONSTRUCTION (PTC).

[VC] VERIFY & COORDINATE:
VERIFY ALL EXISTING IMPROVEMENTS. PROTECT BY ALL MEANS NECESSARY ALL EXISTING IMPROVEMENTS TO REMAIN. COORDINATE RELOCATION, REMOVAL, STORAGE, OR DEMOLITION WITH OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

GRADING NOTES:

1. SEE <u>GENERAL CONSTRUCTION NOTES</u> FOR FURTHER INFORMATION RELATING TO SITE DEVELOPMENT AND GRADING IMPROVEMENTS.
2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LOCAL AUTHORITIES HAVING JURISDICTION (LAHJ). ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE. SEE EROSION CONTROL PLAN FOR DETAILS.
3. THIS SITE IS NOT WITHIN A 100 YEAR FLOOD HAZARD PER FEMA F.I.R.M. MAP **13057C0261 D**, DATED 09-29-2006.
4. ALL UTILITIES SHOWN ON THE PLANS ARE SHOWN ACCORDING TO THE INFORMATION AVAILABLE, AND MAY NOT BE ACCURATE HORIZONTALLY OR VERTICALLY. GAS LINES SHALL BE LOCATED AND VERIFIED WITH GAS AUTHORITY PRIOR TO CONSTRUCTION. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, ORIGIN, VERIFICATION, PROTECTION, AND MAINTENANCE OF ALL UTILITIES AND UTILITY EASEMENTS WHICH EXIST ONSITE. CONTRACTOR SHALL HAVE ALL UTILITIES FIELD LOCATED BY THE APPROPRIATE AUTHORITY AND COORDINATE ALL EXISTING OR PROPOSED UTILITY CONSTRUCTION, RELOCATION, TAPS OR OTHER ASSOCIATED WORK WITH THE APPROPRIATE UTILITY AUTHORITY. RESOLVE ALL CONFLICTS OR PROBLEMS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL UNDERGROUND UTILITIES FOR PROPOSED CONSTRUCTION WITH OWNER AND UTILITY AUTHORITY, INCLUDING BUT NOT LIMITED TO: GAS LINES, POWER LINES, CABLE TV OR TELEPHONE, IT LINES, IRRIGATION LINES, AND OTHER ASSOCIATED UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. RESOLVE ALL CONFLICTS OR PROBLEMS PRIOR TO CONSTRUCTION.
5. ALL CUT AND FILL GRADING OPERATIONS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS AND REQUIREMENTS OF THE GEOTECHNICAL/SOILS ENGINEER. SUBSURFACE SOIL CONDITIONS WHICH MAY BE ENCOUNTERED, SUCH AS UNDERGROUND SPRINGS, HIGH WATER TABLE, ROCK OR UNSUITABLE SOILS, SHALL BE RESOLVED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER. IN THE ABSENCE OF A QUALIFIED SOILS ENGINEER, THE CONTRACTOR IS RESPONSIBLE FOR ALL SOILS AND CONSTRUCTION SELECTED FOR ANY USE IN COMPLETING THE WORK.
6. PWH ENGINEERING, INC., IS NOT RESPONSIBLE FOR SUITABILITY, STRUCTURAL INTEGRITY, COMPACTION, CUT OR FILL QUANTITY OF ANY SOILS SELECTED OR REQUIRED FOR USE IN THE COMPLETION OF THE WORK.
7. <u>MINIMUM</u> COMPACTION FOR ALL FILL IS 95% MAXIMUM DRY DENSITY PER ASTM D698, OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER, OR AS SPECIFIED IN THE GEOTECHNICAL SOILS SUBSURFACE EVALUATION ANALYSIS AND REPORT, WHICHEVER IS GREATER.
8. MAXIMUM CUT OR FILL SLOPE IS 2H:1V UNLESS SPECIFIED OTHERWISE.
9. MINIMUM FLOOR ELEVATIONS SHOWN ARE BASED UPON EXISTING CONDITIONS, PROPER FUNCTIONING OF CHANNELS, DRAINAGE COURSES, AND STORM DRAIN SYSTEMS. ANY RESTRICTIONS OR ALTERATIONS TO THESE ELEMENTS MAY CAUSE FLOODING ABOVE THE STATED MINIMUM FLOOR ELEVATIONS.
10. CONTRACTOR SHALL PROVIDE POSITIVE SLOPE AWAY FROM ALL BUILDINGS, FINISHED FLOORS, AND STRUCTURES WHICH MAY BE DAMAGED BY WATER INTRUSION FOR A MINIMUM OF 5.0 FEET HORIZONTALLY.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY DEVICES, PROCEDURES, PRECAUTIONS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK. NO PERSON SHALL ENTER ANY MANHOLE OR OTHER UNDERGROUND STRUCTURE, WITHOUT PROTECTIVE BREATHING APPARATUS, AND AT LEAST ONE OTHER PERSON PRESENT FOR SAFETY. ALL TRENCHES, GRADING, EXCAVATION, AND EARTHWORK SHALL CONFORM TO OSHA STANDARDS FOR SAFETY, SHORING, AND BRACING.
12. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ADJACENT PROPERTY OR EXISTING UTILITIES OR IMPROVEMENTS DUE TO CONSTRUCTION REQUIRED TO COMPLETE THE WORK. ALL DAMAGED PROPERTY SHALL BE RESTORED TO ORIGINAL CONDITION BY CONTRACTOR.
13. LINE OF SIGHT DISTANCE AT INTERSECTIONS SHALL BE MAINTAINED PERMANENTLY FREE AND CLEAR OF ALL OBSTRUCTION.
14. FINISHED GRADES LESS THAN 1.0% (1 FT. PER 100 FT.) MAY BE REQUIRED DUE TO SITE CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS NECESSARY TO PROVIDE GRADES WITHOUT PONDING OR DEPRESSED AREAS.
15. FLOW ARROWS AND SPOT ELEVATIONS SHOWN DETERMINE DESIGN INTENT. WHERE CONFLICTS OCCUR BETWEEN FLOW ARROWS AND SPOT ELEVATIONS NOTIFY ENGINEER IMMEDIATELY AND RESOLVE PRIOR TO CONSTRUCTION.
16. CONTRACTOR SHALL ESTABLISH PERMANENT GRASSING ON ALL DISTURBED AREAS PRIOR TO FINAL RELEASE, WHETHER SHOWN ON THE PLANS OR NOT.
17. OWNER IS RESPONSIBLE FOR COMPLIANCE WITH CLEAN WATER ACT, USACE WETLANDS AND SECTION 404 PERMITTING.
18. THE CONTRACTOR SHALL PROVIDE STORM WATER DISCHARGE MONITORING, DOCUMENTATION, AND REPORTING, AND FULLY COMPLY WITH THE CURRENT GEORGIA NPDES PERMIT CONDITIONS AND REQUIREMENTS. CONTRACTOR SHALL PROVIDE COPIES OF ALL REPORTING AND DOCUMENTATION TO OWNER IMMEDIATELY AND THROUGHOUT CONSTRUCTION. **CONTRACTOR SHALL SIGN, CERTIFY, AND SUBMIT THE NOTICE OF INTENT (NOI) USING REGISTERED MAIL, AND ANY OTHER RELATED NOTICE(S), APPLICATIONS, OR CERTIFICATIONS REQUIRED FOR FULL COMPLIANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS. CONTRACTOR SHALL PROVIDE COPIES OF ALL REPORTING AND DOCUMENTATION TO OWNER IN A TIMELY MANNER THROUGHOUT CONSTRUCTION.**
19. ALL SOILS USED FOR FILL IN EARTHEN DAMS OR WATER IMPOUNDMENT AREAS SHALL BE ML OR CL LOW PLASTICITY CLAYS PER THE UNIFIED SOIL CLASSIFICATION, APPROVED BY THE GEOTECHNICAL ENGINEER. ALL ORGANICS, TOPSOIL, OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ENTIRE FILL AREA. ALL FILL SHALL BE PLACED IN MAXIMUM 6 INCH LIFTS, MINIMUM COMPACTION IS 95% OF STANDARD MAXIMUM DENSITY. NO GRAVEL, AGGREGATE OR GRAVEL PIPE BEDDING, OR ANY PERVIOUS MATERIAL SHALL BE PLACED IN THE DAM OR FILL AREA(S). SCARIFY EXISTING SUBGRADE PRIOR TO PLACING FILL.
20. ALL STORM SEWER STRUCTURES, PIPING, AND APPURTENANCES SHALL BE COMPLETELY CLEANED AND FREE OF ALL TRASH, DEBRIS, SEDIMENT, SILT, OR OTHER UNSUITABLE MATERIALS.
21. EXISTING STORM SEWER CAPACITY AND SERVICE LEVEL WILL NOT BE INCREASED OR ENHANCED BY PROPOSED DESIGN.

GENERAL CONSTRUCTION NOTES:

1. LAHJ = **LOCAL AUTHORITIES HAVING JURISDICTION**.
2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM, AT A MINIMUM, TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LAHJ. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL CURRENT APPLICABLE STANDARDS, SPECIFICATIONS, AND DETAILS OF THE LAHJ. ALL DISCREPANCIES BETWEEN THESE STANDARDS AND THE CONSTRUCTION PLANS AND SPECIFICATIONS SHALL BE REPORTED IMMEDIATELY FOR RESOLUTION PRIOR TO CONSTRUCTION.
WHEN ANY CONSTRUCTION, MATERIALS, OR SPECIFICATIONS FOR THE SAME OR SIMILAR ITEM(S) OR REQUIREMENTS ARE SHOWN IN MORE THAN ONE PLACE IN THE CONSTRUCTION DOCUMENTS, PLANS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY <u>AS DETERMINED BY THE ENGINEER</u>.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL FEDERAL, STATE, OSHA, AND LOCAL SAFETY REGULATIONS, LAWS, CODES OR ORDINANCES WHICH MAY APPLY.
4. THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS FOR ERRORS, OMISSIONS, DISCREPANCIES, OR CONFLICTS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY ERRORS OR OMISSIONS IN THE PLANS, OR BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS, IMMEDIATELY. ANY WORK DONE AFTER SUCH DISCOVERY, WITHOUT APPROVAL, IS AT THE CONTRACTOR'S RISK.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND FROM THE SITE AT ALL TIMES. UTILITY SERVICES SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE ANY TEMPORARY INTERRUPTION OF ACCESS OR UTILITIES WITH THE OWNER PRIOR TO THE INTERRUPTION.
6. ALL MATERIALS TO BE REMOVED SHALL BE DISPOSED OF OFFSITE IN A LEGAL MANNER.
7. ALL UTILITIES SHOWN ON THE PLAN ARE SHOWN ACCORDING TO INFORMATION AVAILABLE, AND MAY NOT BE ACCURATE HORIZONTALLY OR VERTICALLY. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, ORIGIN, VERIFICATION, PROTECTION AND MAINTENANCE OF ALL UTILITIES WHICH EXIST ONSITE OR MAY BE IMPACTED BY THE WORK. CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED AND MARKED BY THE APPROPRIATE AUTHORITIES AND COORDINATE ALL UTILITY CONSTRUCTION, TAPS, OR OTHER ASSOCIATED WORK WITH THE APPROPRIATE UTILITY AUTHORITY. RESOLVE ANY CONFLICTS OR ERRORS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CLEARLY MARK AND MAINTAIN PROPERTY CORNERS, BOUNDARY, MONUMENT, AND BENCHMARKS THROUGHOUT CONSTRUCTION.
8. CONTRACTOR SHALL REVIEW ALL SITE IMPROVEMENTS, WALKS, PARKING, PAVEMENT, BUILDINGS, STRUCTURES, OR OTHER IMPROVEMENTS SHOWN ON THESE PLANS FOR CONFORMITY WITH THE CURRENT APPROVED ARCHITECTURAL AND RELATED ENGINEERING PLANS. RESOLVE ALL CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.
9. CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNS, LIGHTS, OR OTHER DEVICES FOR THE SAFETY AND PROTECTION OF ALL PERSONS ON THE SITE. FOR TRAFFIC SAFETY, IN THE ABSENCE OF SPECIFIC TRAFFIC REQUIREMENTS OF THE LAHJ, THE MANUAL FOR UNIFORM TRAFFIC SAFETY CONTROL DEVICES SHALL BE USED.
10. PROPOSED BUILDING AND STRUCTURE LOCATIONS ARE SHOWN BASED ON ARCHITECTURAL PLANS PROVIDED. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL BUILDING DIMENSIONS, EXISTING AND PROPOSED, JUNCTIONS, COMMON POINTS, AND LAYOUT GEOMETRY AS REQUIRED FOR COMPLETION OF THE WORK.
11. MINIMUM PIPE BEDDING FOR ALL PIPING SHALL CONFORM TO GEORGIA D.O.T. STANDARDS AND SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE. UNSUITABLE, WET, SPONGY, OR SOFT SOILS WILL REQUIRE ADDITIONAL BEDDING DESIGN AND CONSTRUCTION, AND SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER FOR RESOLUTION PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
12. BOUNDARY, TOPOGRAPHIC, VERTICAL AND HORIZONTAL SURVEY DATA PROVIDED BY OTHERS. PWH ENGINEERING, INC. IS NOT RESPONSIBLE FOR ERRORS, OMISSIONS, OR OTHER DEFECTS ARISING FROM OR RELATED TO ANY INFORMATION OR DATA PROVIDED BY OTHERS.
13. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION AND COORDINATION WITH THE LAHJ FOR START OF CONSTRUCTION AND INSPECTION PROCEDURES.
14. ALL CONSTRUCTION DETAILS SHOWN ON THE PLANS ARE FOR REFERENCE ONLY. CONTRACTOR SHALL REVIEW AND VERIFY ALL CONSTRUCTION DETAILS FOR COMPLIANCE WITH CURRENT REFERENCED STANDARDS AND THE LAHJ.
15. THE CONTRACTOR, AND ANY SUBCONTRACTORS, ARE RESPONSIBLE FOR ALL SAFETY DEVICES AND EQUIPMENT REQUIRED FOR COMPLETION OF THE WORK. NO PERSON SHALL ENTER ANY MANHOLE, OR UNDERGROUND STRUCTURE, WITHOUT PROTECTIVE BREATHING APPARATUS, AND AT LEAST ONE OTHER PERSON PRESENT FOR SAFETY. ALL TRENCHES, GRADING, AND EXCAVATION SHALL CONFORM TO OSHA STANDARDS FOR SHORING AND BRACING.
16. MINIMUM FINISHED FLOOR ELEVATIONS WHICH MAY BE SHOWN ARE BASED UPON EXISTING CONDITIONS AND PROPER FUNCTION OF CHANNELS, DRAINAGE COURSES, AND STORM DRAIN SYSTEMS. ANY RESTRICTION, DAMAGE, OR ALTERATION TO THESE ELEMENTS, EXISTING OR PROPOSED, MAY CAUSE FLOODING ABOVE THE STATED MINIMUM FLOOR ELEVATIONS.
17. CONTRACTOR SHALL ESTABLISH PERMANENT GRASSING ON ALL DISTURBED AREAS PRIOR TO FINAL RELEASE, WHETHER SHOWN ON THE PLANS OR NOT.
18. THE CONTRACTOR SHALL PROVIDE STORM WATER DISCHARGE MONITORING, DOCUMENTATION, AND REPORTING, AND FULLY COMPLY WITH THE CURRENT GEORGIA NPDES PERMIT CONDITIONS AND REQUIREMENTS. **CONTRACTOR SHALL SIGN, CERTIFY, AND SUBMIT THE NOTICE OF INTENT (NOI) USING REGISTERED MAIL, AND ANY OTHER RELATED NOTICE(S), APPLICATIONS, OR CERTIFICATIONS REQUIRED FOR FULL COMPLIANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS. CONTRACTOR SHALL PROVIDE COPIES OF ALL REPORTING AND DOCUMENTATION TO OWNER IN A TIMELY MANNER THROUGHOUT CONSTRUCTION.**
19. NO PARKING FOR CONTRACTORS OR SUBCONTRACTORS WILL BE ALLOWED ON PUBLIC STREETS OR RIGHT OF WAY.
20. ALL CUTS IN PAVEMENT AND PAVEMENT EDGES ADJOINING NEW PAVEMENT SHALL BE SAW CUT.
21. ALL PARKING AREAS AND ADA SPACES SHALL BE STRIPED ACCORDING TO MUTCD, ADA AND LOCAL AUTHORITY STANDARDS. ALL PAINT, MATERIALS, AND CONSTRUCTION SHALL CONFORM, AT A MINIMUM, TO GDOT SPECIFICATIONS.
22. **CONTRACTOR SHALL COORDINATE WITH AUTHORIZED REPRESENTATIVE FOR OWNER AND CONFIRM AND OBTAIN APPROVAL PTC FOR ALL DAILY CONSTRUCTION ACTIVITIES SCHEDULED AND ANY IMPACT ON REQUIRED OWNER ACTIVITIES, EVENTS, NORMAL OPERATIONS, OR ACCESS WHICH MAY BE AFFECTED IN ANY WAY. DO NOT ALLOW PEDESTRIANS, PUBLIC, VISITORS, OR OTHER UNAUTHORIZED PERSON(S) TO ENTER WORK AREAS. WORK AND STORAGE AREA(S) SHALL BE FENCED [TF] AND SECURE [CA] AT ALL TIMES FOR ALL PHASES OF CONSTRUCTION. FOUL OR OFFENSIVE LANGUAGE, IMPROPER OR REVEALING CLOTHING OR ATTIRE, ALCOHOL, FIREARMS, DRUGS, OR OTHER INAPPROPRIATE BEHAVIOR AS DETERMINED BY OWNER IS STRICTLY PROHIBITED. ANY INTERACTION OR CONTACT WITH STAFF, EMPLOYEES, OR VISITORS IS STRICTLY PROHIBITED AT ALL TIMES. ALL COORDINATION AND COMMUNICATION SHALL BE THROUGH THE DESIGNATED OWNER AUTHORIZED REPRESENTATIVE. CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL OWNER REQUIREMENTS, STANDARDS, POLICIES, RULES AND SPECIFICATIONS FOR OWNER'S PROPERTY.**
NO PARKING IN THE RIGHT OF WAY IS ALLOWED. ALL CONSTRUCTION TRAFFIC MUST BE COORDINATED WITH [TC] AT ALL TIMES WITH NO INTERRUPTION OF ACCESS FOR OWNER ACITIVITIES OPERATIONS.
23. DESIGN IS BASED ON SURVEY INFORMATION PROVIDED BY OTHERS. ENGINEER IS NOT RESPONSIBLE FOR ERRORS OR OMISSIONS IN ANY INFORMATION PROVIDED BY OTHERS.

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE

FACILITY CODE

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

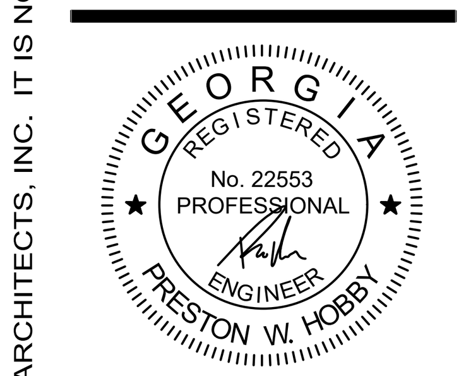
PWH ENGINEERING
CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190

301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA

ISSUE DATE: 02-15-24
JOB No. 22280
SCALE: 1" = 20'

0 10 20 40 60

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720



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SHEET INDEX

PROJECT NOTES

SHEET INDEX

C2.1

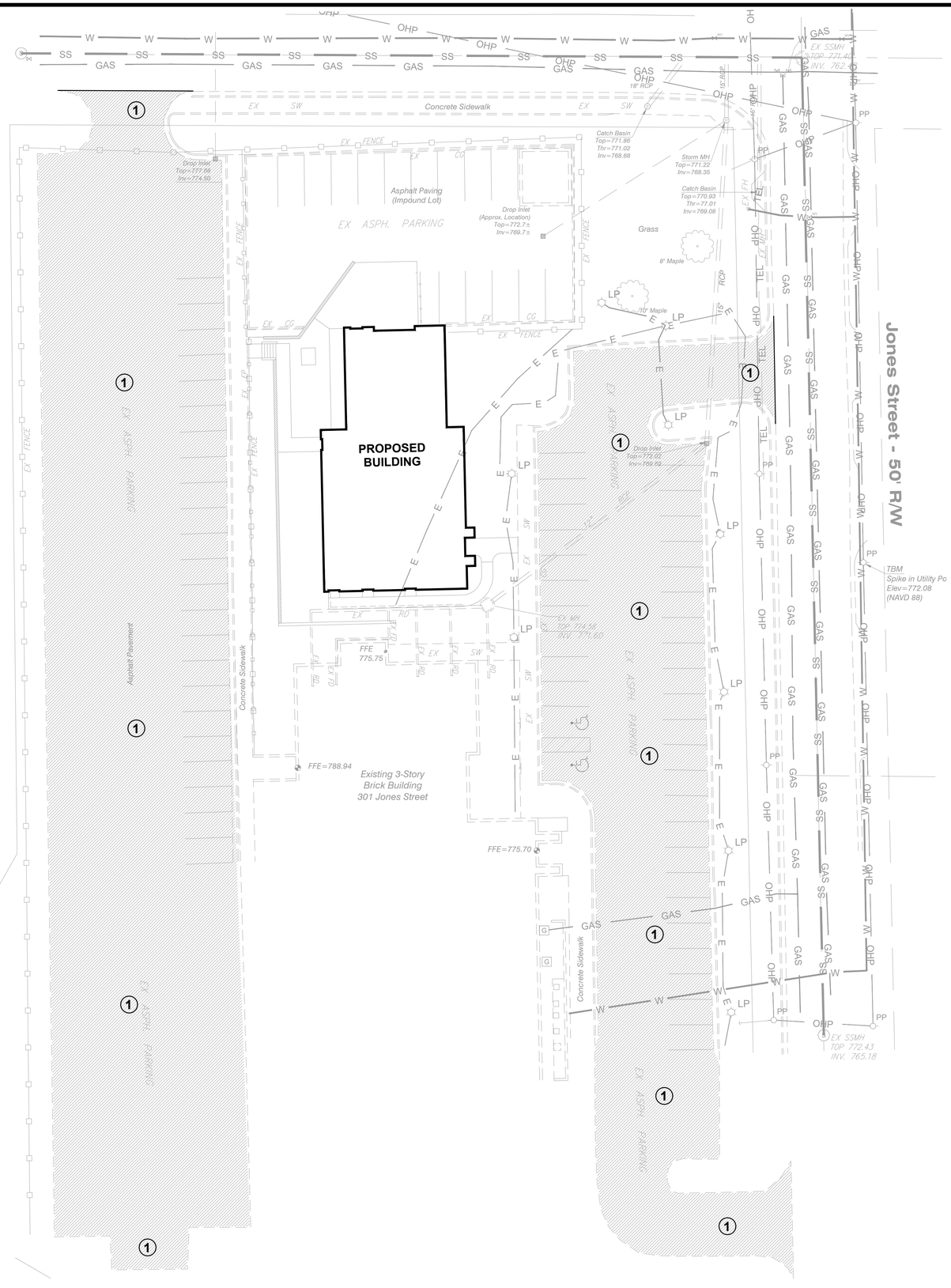
LEGEND:

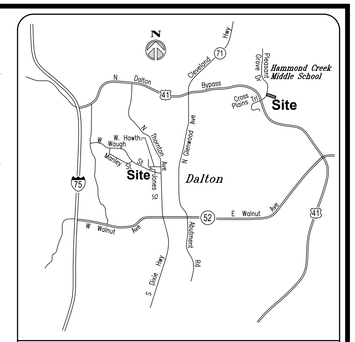
(1) VERIFY EXISTING UTILITIES AND PAVEMENT DEPTHS PTC. TO AVOID CONFLICTS. MILL AND REMOVE 2.0" OF EXISTING ASPHALT/CONCRETE AND HAUL OFF SITE. VERIFY EXISTING BASE MATERIAL AND SUBGRADE PER GEOTECHNICAL ENGINEER (GEOTECH) TO MEET SPECIFICATIONS.
TRIM EXCESS MATERIAL AND HAUL OFF SITE.
REPAIR ALL DEFECTS IN BASE OR SUBGRADE TO MEET SPECIFICATIONS PER GEOTECH.
PRPARE AREA TO BE PAVED FOR OVERLAY PER SPECIFICATIONS AND GDOT STANDARDS.
INSTALL 2.0" 9.5mm SUPERPAVE ASPHALTIC CONCRETE PER GDOT CURRENT SPECIFICATIONS.

PHASING:
ALL WORK IN THIS SCOPE TO BE DONE AFTER ALL OTHER SITE IMPROVEMENTS ARE FULLY COMPLETED, ACCEPTED, AND APPROVED BY OWNER AND LOCAL AUTHORITIES. COORDINATE WITH OWNER EACH AREA PRIOR TO CONSTRUCTION. PAVEMENT CONSTRUCTION SHALL NOT EXCEED 25% OF ANY ONE CONTIGUOUS AREA AT A TIME, AND ALL WORK AREAS MUST BE COMPLETED PRIOR TO THE START OF A NEW AREA. ENTRANCES MUST BE COMPLETED WITHIN 48 HOURS OF START OF CONSTRUCTION. NO MORE THAN ONE ENTRANCE AT A TIME MAY BE DISTURBED. PROVIDE ALL [TC] TRAFFIC CONTROL FOR EACH AREA AND COORDINATE TRAFFIC ISSUES WITH OWNER'S REP DAILY. DO NOT INTERRUPT OR IMPACT OWNER'S DAILY OPERATIONS.

PAVING NOTES:

1. REFER TO SPECIFICATIONS FOR FURTHER DETAILS AND REQUIREMENTS.
2. ALL CONNECTIONS TO EXISTING ASPHALT SHALL BE SAWCUT. ALL CONNECTIONS TO EXISTING PAVEMENT(S) SHALL MATCH EXISTING PAVEMENT(S) FINISH ELEVATION.
3. ALL NEW PAVEMENT CONSTRUCTION, RECLAMATION, REPAIR OR OVERLAY FINISH ELEVATION SHALL MATCH EXISTING FINISH ELEVATION FOR ALL STRUCTURES, INCLUDING BUT NOT LIMITED TO: RAMPS OR OTHER FLUSH TRANSITIONS, GUTTER, MANHOLES, STORM INLETS, FRAMES, UTILITY BOXES, CLEANOUTS, OR OTHER STRUCTURES.
4. ALL SOFT OR UNSUITABLE AREAS OF BASE MATERIAL OR SUBGRADE AS DETERMINED BY GEOTECHNICAL ENGINEER MUST BE REPAIRED TO MEET GEOTECHNICAL ENGINEER STANDARDS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL REVIEW AND VERIFY WITH OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE IN THE FIELD PRIOR TO BIDDING THE EXTENT(S) OF EACH AREA SHOWN ON THE PLANS FOR EACH SCOPE OF WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF AREA(S) FOR EACH SCOPE OF WORK PRIOR TO BIDDING.
6. ALL EXISTING SIGNAGE, STRIPING OR OTHER PAVEMENT MARKING SHALL BE RESTORED TO MATCH EXISITNG PER GADOT AND PROJECT SPECIFICATIONS. CONTRACTOR TO DOCUMENT EXISTING STRIPING PRIOR TO CONSTRUCTION (PTC). SUBMIT STRIPING / MARKING PLAN FOR APPROVAL.
7. ALL AREAS TO RECEIVE PAVEMENT SHALL BE THOROUGHLY CLEANED AND PREPPED PER GADOT STANDARDS AND SPECIFICATIONS PRIOR TO PAVEMENT INSTALLATION. ALL JOINTS AND CRACKS SHALL BE SEALED PER CURRENT GDOT SECTION 407 SPECIFICATIONS AND AS NOTED ABOVE PRIOR TO ASPHALT INSTALLATION.
8. REMOVE ALL FOREIGN OBJECTS OR UNSUITABLE MATERIALS FOR FULL PAVEMENT SECTION DEPTH, INCLUDING BUT NOT LIMITED TO: GATE POST STUBS, EXPOSED CONDUITS, DEAD METER VALVES, OUT OF SERVICE UTILITY BOXES, DEAD LINES OR CLEANOUTS, OR ANY OTHER OBJECTS WHICH ARE NOT PART OF THE STANDARD PAVEMENT SECTION. ALL DEPRESSED AREAS MUST BE BROUGHT BACK TO ADJACENT FINISH GRADE(S) WITH DEFECTIVE PAVEMENT REMOVED, AND STANDARD PAVEMENT SECTION INSTALLED. MAINTAIN MINIMUM 1.0% (1 FT. / 100 FT.) POSITIVE SLOPE FOR DRAINAGE





LOCATION MAP

EXISTING	+ 70.93 EXISTING SPOT ELEVATION
PROPOSED	• 54.3 PROPOSED SPOT ELEVATION
AC–ACRES	PB–PLAT BOOK
BC–BACK OF CURB	PG–PAGE
BL–BUILDING SETBACK	PL–PROPERTY LINE
CB–CATCH BASIN	POB–POINT OF BEGINNING
CG–CURB & GUTTER	PP–POWER POLE
CH–CHORD	PS–PARKING SPACE
CL–CENTERLINE	PTC–PRIOR TO CONSTRUCTION
CMP–CORR. METAL PIPE	R–RADIUS
DB–DEED BOOK	RCP–REINFORCED CONC. PIPE
DE–DRAINAGE EASEMENT	RD–ROOF DRAIN
DI–DROP INLET	RR–RAILROAD
EP–EDGE PAVEMENT	R/W–RIGHT OF WAY
EX–EXISTING	SD–STORM DRAIN
FH–FIRE HYDRANT	SF–SQUARE FEET
G–GAS LINE	SS–SANITARY SEWER
HW–HEADWALL	SSE–SAN. SEWER EASEMENT
HD–HEAVY DUTY	SSMH–SAN. SEWER MANHOLE
IPP–IRON PIN PLACED	SW–CONCRETE SIDEWALK
IPF–IRON PIN FOUND	TB–THRUST BLOCK
JB–JUNCTION BOX	TBR–TO BE REMOVED
L–ARC LENGTH	TC–TOP OF CURB
LOC–LIMIT OF CLEARING	TELE–TELEPHONE
LP–LIGHT/LAMP POST	TR–TO REMAIN
MH–MANHOLE	TW–TOP OF WALL
N/F–NOW OR FORMERLY	W–WATER
OHP–OVERHEAD POWER	WV–WATER VALVE

LEGEND

GENERAL NOTES:

1. SEE SHEET C2.1 FOR IMPORTANT NOTES.

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

PROJECT NUMBER
23-021

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12/01/23

REVISIONS

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FACILITY CODE

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

PWH engineering
CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA
ISSUE DATE: 02-15-24 SCALE: 1" = 20'
JOB No. 22280

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY
GSWCC LEVEL II - 0000008686

SHEET INDEX

PAVEMENT PLAN

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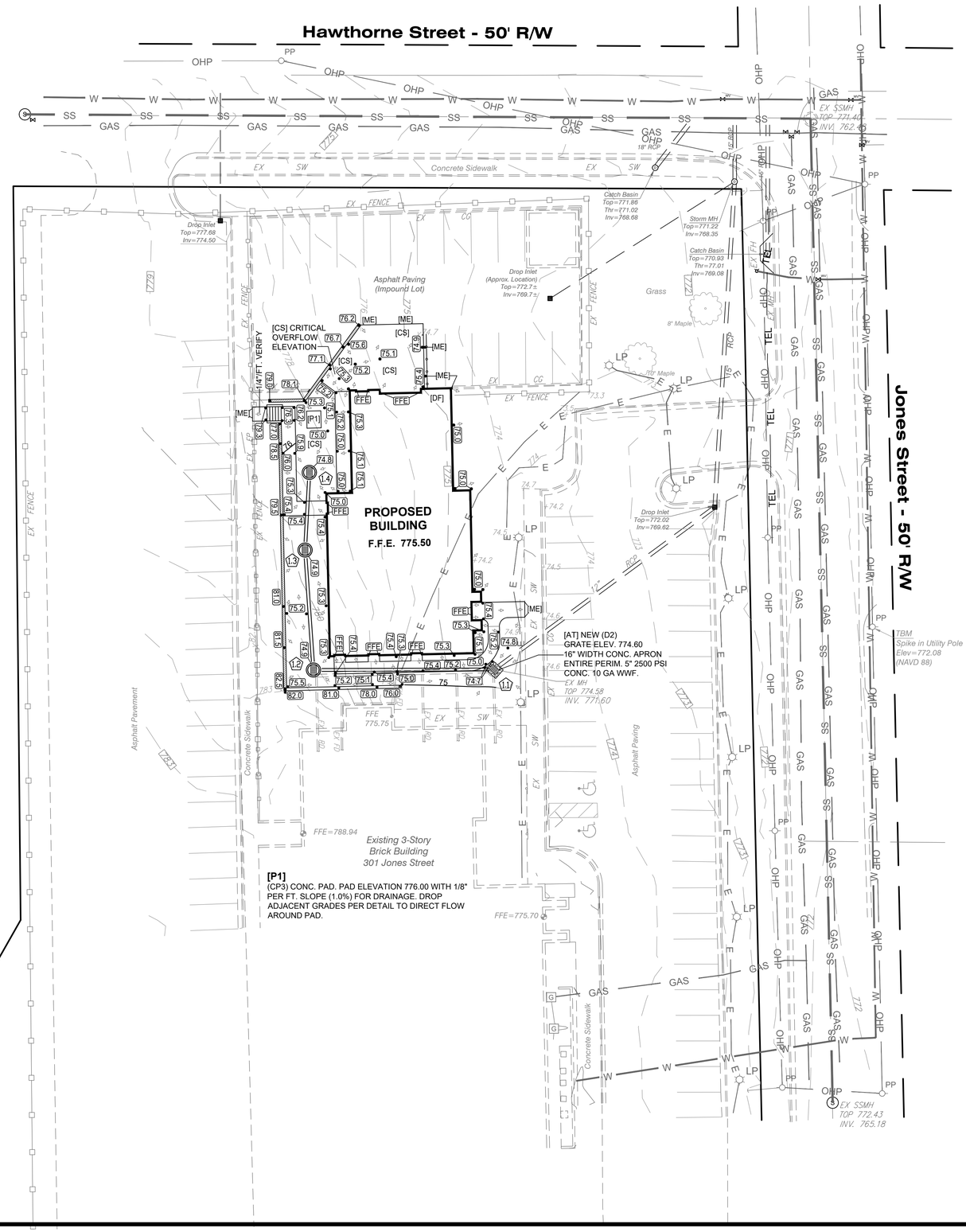
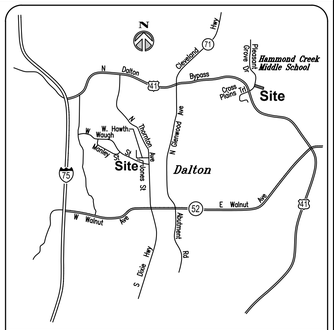
C2.2





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KRH ARCHITECTS INCORPORATED
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SUITE FOUR
DALTON, GA 30721
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WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HERBY
GSWCC LEVEL II - 0000008686

SHEET INDEX

GRADING PLAN

SHEET INDEX

C3

UTILITY CONSTRUCTION LEGEND:

[CU] COORDINATE UTILITIES:
CONTACT UTILITY LOCATION CENTER, LOCATE AND VERIFY **ALL UTILITIES PRIOR TO CONSTRUCTION**. COORDINATE ALL EXISTING AND PROPOSED UTILITY TAPS, CONSTRUCTION, REMOVAL, ALTERATION, OR RELOCATION REQUIRED TO COMPLETE THE WORK WITH APPROPRIATE UTILITY AUTHORITY. RESOLVE ALL CONFLICTS, OMISSIONS, OR DISCREPANCIES PRIOR TO CONSTRUCTION.

[CMEP] COORDINATE PROPOSED UTILITIES:
COORDINATE AND VERIFY SITE UTILITIES WITH MECHANICAL, ELECTRICAL, PLUMBING (MEP) AND/OR OTHER ENGINEERING DISCIPLINES PLANS AND SPECIFICATIONS. VERIFY LOCATION, SIZE, MATERIAL, AND DEPTH/INVERT OF ALL UTILITIES ON SITE AND MEP ENGINEERING PLANS. FOR FUTURE CONSTRUCTION, PLUG LINES PER APPLICABLE CODE(S) AND MARK IN FIELD WITH 2" PVC PIPE AT LINE TERMINATION EXTENDED 18" ABOVE FINISH GRADE. RESOLVE ANY DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION.

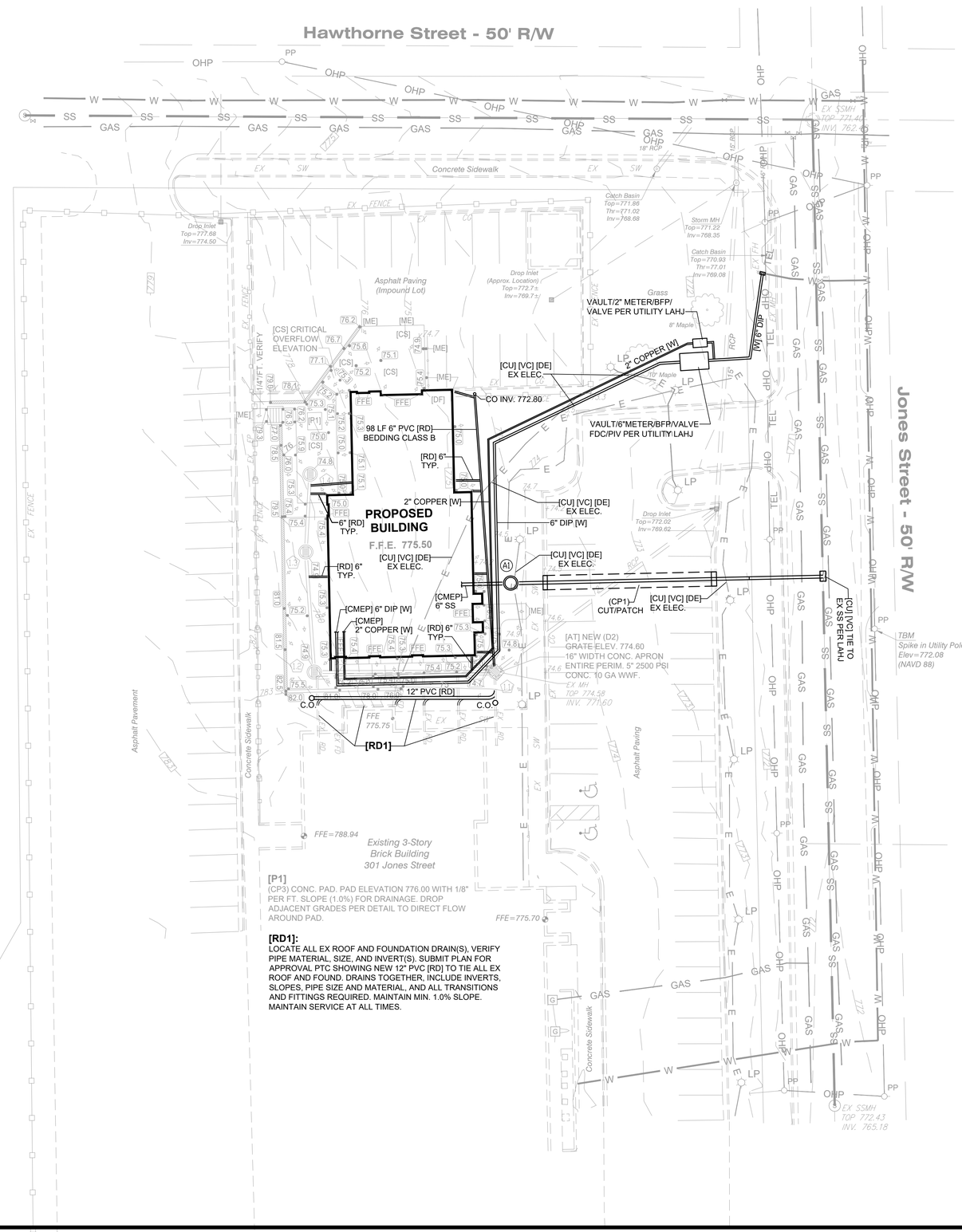
[TP] TAPPING UTILITIES:
CONTRACTOR SHALL:
PROVIDE WATER AND SEWER UTILITY TAPS PER LOCAL UTILITY AUTHORITY STANDARDS, DETAILS, AND SPECIFICATIONS. VERIFY ALL REQUIREMENTS PRIOR TO CONSTRUCTION (PTC). COORDINATE AND VERIFY SANITARY SEWER FORCE MAIN TAP ELEVATION PER SEWER PROFILE LINE A. WATER TAPS SHALL INCLUDE ALL VAULTS, METERS, METER BOXES, CHECK VALVE(S), FDC, POST INDICATOR VALVE, AND BACKFLOW PREVENTION DEVICES PER LOCAL UTILITY AUTHORITY.
PROVIDE BACKFLOW PREVENTION DEVICES FOR DOMESTIC AND FIRE LINES PER LOCAL AUTHORITY STANDARDS AND SPECIFICATIONS. PROVIDE POST INDICATOR VALVE (PIV) AND FIRE DEPARTMENT CONNECTION (FDC - WITH CHECK VALVE) PER LOCAL AUTHORITY STANDARDS AND SPECIFICATIONS. LOCATION OF FDC AND PIV SHALL BE VERIFIED AND APPROVED BY LOCAL AUTHORITY.

[VC] VERIFY & COORDINATE:
VERIFY ALL EXISTING IMPROVEMENTS. PROTECT BY ALL MEANS NECESSARY ALL EXISTING IMPROVEMENTS TO REMAIN. COORDINATE RELOCATION, REMOVAL, STORAGE, OR DEMOLITION WITH OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

[W] WATER LINE:
INSTALL WATER LINE ACCORDING TO LOCAL AUTHORITY STANDARDS AND PROJECT SPECIFICATIONS. MAINTAIN **MINIMUM 4.0 FEET COVER OVER TOP OF PIPE, EXCEPT IN FUTURE BUILDING ADDITION AREA MAINTAIN MINIMUM 5.0 FEET COVER OVER TOP OF PIPE**. INSTALL CONCRETE THRUST BLOCKS AT ALL TURNS, TEES, OR BENDS PER LOCAL AUTHORITY STANDARDS AT A MINIMUM. RESOLVE ALL CONFLICTS PRIOR TO CONSTRUCTION.

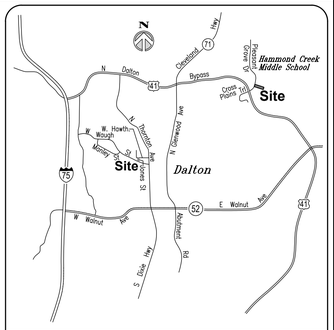
UTILITY CONSTRUCTION NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LOCAL AUTHORITY HAVING JURISDICTION STANDARDS AND SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO: FIRE HYDRANTS, WATER LINES, VALVES, JUNCTIONS AND OTHER UTILITY RELATED STRUCTURES OR IMPROVEMENTS.
2. ALL UTILITY TAP(S) PROCEDURES SHALL CONFORM TO THE LOCAL AUTHORITY HAVING JURISDICTION STANDARDS AND SPECIFICATIONS.
3. MAINTAIN ALL EXISTING UTILITY SERVICE(S) AT ALL TIMES.
4. PROVIDE TRAFFIC CONTROL [TC] FOR ALL WORK IN RIGHT-OF-WAY AND WORK WHICH IMPACTS TRAFFIC FLOW. COORDINATE AND COMPLY WITH THE LOCAL AUTHORITY HAVING JURISDICTION STANDARDS AND SPECIFICATIONS.
5. OWNER/DEVELOPER IS RESPONSIBLE FOR VERIFICATION OF ADEQUATE WATER PRESSURE FOR THE PROPOSED CONSTRUCTION.
6. DO NOT OPEN CUT ANY ROAD WITHOUT WRITTEN PERMISSION FROM THE LOCAL AUTHORITY HAVING JURISDICTION.
7. TESTING, FLUSHING, AND CLEANING OF ALL LINES SHALL BE CONTRACTOR'S RESPONSIBILITY PER LOCAL AUTHORITY REQUIREMENTS AT A MINIMUM.
8. **DO NOT INTERRUPT EXISTING FIRE LINE(S) FLOW EXCEPT IN STRICT ACCORDANCE WITH THE LOCAL FIRE DEPT. AUTHORITY. CONTRACTOR IS RESPONSIBLE FOR FULL COMPLIANCE AND NOTIFICATION. DO NOT DISTURB OR IMPACT NORMAL OPERATIONS. VERIFY AND COORDIANTE PTC.**



[P1]
(CP3) CONC. PAD. PAD ELEVATION 776.00 WITH 1/8" PER FT. SLOPE (1.0%) FOR DRAINAGE. DROP ADJACENT GRADES PER DETAIL TO DIRECT FLOW AROUND PAD.

[RD1]:
LOCATE ALL EX ROOF AND FOUNDATION DRAIN(S), VERIFY PIPE MATERIAL, SIZE, AND INVERT(S). SUBMIT PLAN FOR APPROVAL PTC SHOWING NEW 12" PVC [RD] TO TIE ALL EX ROOF AND FOUND. DRAINS TOGETHER, INCLUDE INVERTS, SLOPES, PIPE SIZE AND MATERIAL, AND ALL TRANSITIONS AND FITTINGS REQUIRED. MAINTAIN MIN. 1.0% SLOPE. MAINTAIN SERVICE AT ALL TIMES.



LOCATION MAP

EXISTING	+ 70.93 EXISTING SPOT ELEVATION
PROPOSED	• 54.3 PROPOSED SPOT ELEVATION
AC–ACRES	PB–PLAT BOOK
BC–BACK OF CURB	PG–PAGE
BL–BUILDING SETBACK	PL–PROPERTY LINE
CB–CATCH BASIN	POB–POINT OF BEGINNING
CG–CURB & GUTTER	PP–POWER POLE
CH–CHORD	PS–PARKING SPACE
CL–CENTERLINE	PTC–PRIOR TO CONSTRUCTION
CMP–CORR. METAL PIPE	R–RADIUS
DB–DEED BOOK	RCP–REINFORCED CONC. PIPE
DE–DRAINAGE EASEMENT	RD–ROOF DRAIN
DI–DROP INLET	RR–RAILROAD
EP–EDGE PAVEMENT	R/W–RIGHT OF WAY
EX–EXISTING	SD–STORM DRAIN
FH–FIRE HYDRANT	SF–SQUARE FEET
G–GAS LINE	SS–SANITARY SEWER
HW–HEADWALL	SSE–SAN. SEWER EASEMENT
HD–HEAVY DUTY	SSMH–SAN. SEWER MANHOLE
IPP–IRON PIN PLACED	SW–CONCRETE SIDEWALK
IPF–IRON PIN FOUND	TB–THRUST BLOCK
JB–JUNCTION BOX	TBR–TO BE REMOVED
L–ARC LENGTH	TC–TOP OF CURB
LOC–LIMIT OF CLEARING	TELE–TELEPHONE
LP–LIGHT/LAMP POST	TR–TO REMAIN
MH–MANHOLE	TW–TOP OF WALL
N/F–NOW OR FORMERLY	W–WATER
OHP–OVERHEAD POWER	WV–WATER VALVE

LEGEND

GENERAL NOTES:

1. SEE SHEET C2.1 FOR IMPORTANT NOTES.

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

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE

FACILITY CODE

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

PWH engineering
CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA
ISSUE DATE: 02-15-24 SCALE: 1" = 20'
JOB No. 22280

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

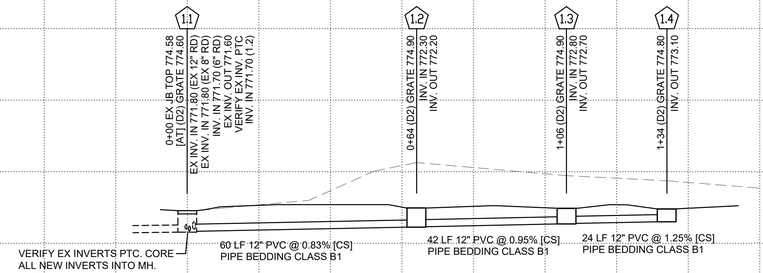
GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY
GSWCC LEVEL II - 0000008686

SHEET INDEX

UTILITY PLAN

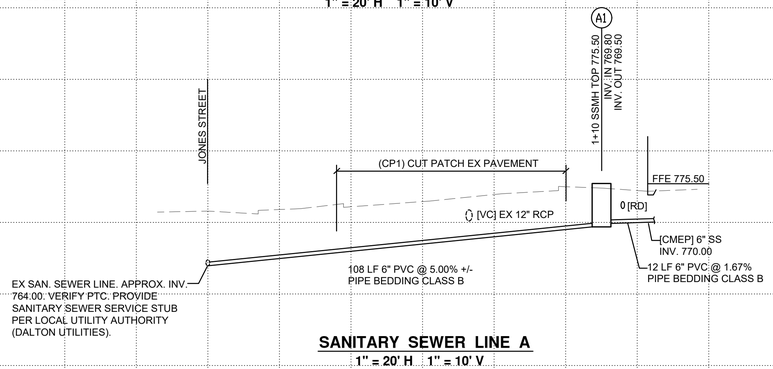
SHEET INDEX

C4



STORM SEWER LINE 1

1" = 20' H 1" = 10' V



SANITARY SEWER LINE A

1" = 20' H 1" = 10' V

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE

FACILITY CODE

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

CIVIL ENGINEERING
SITE DEVELOPMENT
PWH engineering
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190

301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA

ISSUE DATE: 02-15-24
JOB No. 2228D
SCALE: 1" = 20'

0 10 20 40 60

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY

GSWCC LEVEL II - 0000008686

SHEET INDEX

PROFILES

SHEET INDEX

C5

LOCAL AUTHORITY EROSION CONTROL NOTES:

1. ALL MATERIALS, CONSTRUCTION, AND VEGETATIVE PRACTICES SHALL CONFORM TO THE "MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA", CURRENT EDITION.
2. THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE PAD (CO) AT ALL TIMES IN A CONDITION WHICH WILL PREVENT THE TRACKING OR FLOW OF MUD OR SILT ONTO PUBLIC STREETS OR RIGHT-OF-WAY.
3. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF ALL EROSION CONTROL MEASURES AND PRACTICES AS SHOWN ON THE PLANS PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
4. THIS SITE IS NOT WITHIN A 100 YEAR FLOOD HAZARD PER FEMA F.I.R.M. MAP **13313C130D & 13313C135D**, DATED 04-17-2012.
5. OWNER / DEVELOPER:
DALTON POLICE DEPARTMENT
301 JONES STREET
DALTON, GA 30720
PHONE: 706-278-9085
24 HOUR CONTACT:
6. EXISTING LAND USE:
THE SITE IS CURRENTLY UNDEVELOPED WITH GRASSED, OPEN AND WOODED AREAS. GROUND COVER IS SOIL, GRASS, SMALL BRUSH, WITH PARTIAL WOODED AREAS. THE SITE IS LOCATED IN LAND LOT 275, 276, 301, 11TH DISTRICT, 3RD SECTION, WHITFIELD COUNTY, GEORGIA. PROPOSED CONSTRUCTION IS A NEW MIDDLE SCHOOL, DRIVES, PARKING, GRADING, STORM SEWER, UTILITIES, AND RENOVATIONS WITH ASSOCIATED IMPROVEMENTS AS SHOWN.
7. ADDITIONAL EROSION CONTROL MEASURES OR DEVICES MAY BE REQUIRED BY THE LOCAL AUTHORITY OR THE ENGINEER.
8. THE CONTRACTOR SHALL MAINTAIN AND INSPECT EROSION CONTROL MEASURES ON A DAILY BASIS, AND AFTER EACH STORM EVENT. ALL EROSION CONTROL DEVICES SHALL BE CLEANED OF SEDIMENT AS REQUIRED FOR PROPER FUNCTION AND ALL SEDIMENT SHALL BE REMOVED FROM EVERY DEVICE **AFTER EACH RAINFALL EVENT.**
9. ALL DISTURBED AREAS SHALL BE TEMPORARILY AND PERMANENTLY GRASSED OR LANDSCAPED USING VEGETATIVE PRACTICES AS SHOWN ON THE PLANS AND SPECIFICATIONS. TEMPORARY GRASSING NOT MEETING PERMANENT GRASSING SPECIFICATION SHALL BE COMPLETELY REMOVED AND ERADICATED PRIOR TO INSTALLATION OF PERMANENT GRASSING.
10. THE CONTRACTOR SHALL NOT ENCROACH OR DISTURB IN ANY WAY THE STATE AND LOCAL DESIGNATED STREAM OR CREEK BUFFERS WHETHER SHOWN ON THE PLANS OR NOT. ALL STATE WATERS SHALL HAVE A MINIMUM 25 FOOT UNDISTURBED BUFFER AREA FROM THE TOP EDGE OF THE CREEK BANK ON EACH SIDE. LOCAL AUTHORITIES MAY HAVE BUFFER WIDTHS GREATER THAN 25 FEET. CONTRACTOR SHALL VERIFY BUFFER WIDTH WITH LOCAL AUTHORITY PTC AND MAINTAIN BUFFER AT ALL TIMES.
11. SEE EROSION CONTROL DETAILS FOR DETAILS OF EROSION CONTROL MEASURES AND DEVICES.
12. LOCAL AUTHORITY LAND DISTURBANCE PERMIT MUST BE DISPLAYED ON SITE AT ALL TIMES AND IN PLAIN VIEW FROM A ROAD OR STREET.
13. INSTALL EROSION CONTROL MATS OR EQUIVALENT MATERIALS ON SLOPES EQUAL TO OR GREATER THAN 4H:1V AND 10 FOOT VERTICAL.
14. STABILIZE SLOPES, INSTALL (MB) MATTING AND BLANKETS AND VEGETATIVE COVER AS SOON AS FINAL GRADE IS COMPLETE.
15. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED DAILY, AFTER EACH RAIN, AND REPAIRED AND CLEANED AS NECESSARY.
16. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY AFTER ON-SITE INSPECTION.
17. SILT FENCE SHALL MEET THE REQUIREMENTS OF SECTION 171 - TYPE C TEMPORARY SILT FENCE, OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 1993 EDITION.
18. NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A MINIMUM 25 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS, AS MEASURED HORIZONTALLY FROM FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, EXCEPT WHERE THE DIRECTOR HAS GRANTED A VARIANCE, OR WHERE A DRAINAGE STRUCTURE OR ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PLANS AND IMPLEMENTED.
NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 50 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS CLASSIFIED AS TROUT STREAMS, AS MEASURED HORIZONTALLY FROM FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, EXCEPT WHERE THE DIRECTOR HAS GRANTED APPROVAL FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WITH O.C.G.A. 12-7-6, OR WHERE A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PLANS AND IMPLEMENTED.
19. THE PROFESSIONAL WHO SEALS THIS PLAN CERTIFIES UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY THE PROFESSIONAL OR THE PROFESSIONAL'S AUTHORIZED AGENT, UNDER THE PROFESSIONAL'S DIRECT SUPERVISION.

NPDES MONITORING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR FULL COMPLIANCE WITH ALL NPDES NOTIFICATION, MONITORING, DOCUMENTATION, RECORD KEEPING, AND PERMIT REQUIREMENTS. COPY OWNER IMMEDIATELY ON ALL DOCUMENTATION REQUIRED.

EROSION CONTROL LEGEND

- (Sd1) Sediment Barrier (Silt Fence)
- (Co) Construction Entrance/Exit
- (Cd) Check Dam
- (Sd3) Sediment Basin
- (Sd2) Inlet Sediment Trap
- (Rt) Retrofitting
- (St) Storm Drain Outlet Protection
- (Mb) Matting and Blankets
- (Di) Diversion
- (Cw) Concrete Washdown
- (Tst) Temporary Sediment Trap
- [Ds1] Disturbed Area Stabilization (Mulching Only)
- [Ds2] Disturbed Area Stabilization (Temporary Seeding)
- [Ds3] Disturbed Area Stabilization (Permanent Seeding)
- [Du] Dust Control

CONSTRUCTION SCHEDULE

ACTIVITY	MONTHS												
	5/24	7/24	9/24	11/24	1/25	3/25	5/25	7/25	9/25	11/25	1/26	3/26	5/26
INITIAL / PERIMETER BMP'S													
SED. STORAGE BMP'S													
E & SC MAINTENANCE													
Ds1 / Ds2 TEMP. STABILIZATION													
CLEARING & GRUBBING													
GRADING													
BUILDING (S)													
UTITLITIES													
STORM / SAN. SEWER													
PAVEMENT													
LANDSCAPING													
Ds3 FINAL STABILIZATION													

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SOILS LEGEND

MoF	Montevallo very channery loam, 30 to 60 percent slopes
MtE	Montevallo-Townley complex, 15 to 30 percent slopes

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE CONSTRUCTION PROJECTS

SWCD:_____

Project Name:_____ **Address:**_____
Local Issuing Authority:_____ **Date on Plans:**_____
Name & Email of person filling out checklist:_____

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
		1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted. (The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)
		2 Level II certifcation number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and Level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)
		3 Limits of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the GAEPD District Office. If GAEPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist and the GAEPD approval letter. * (A copy of the written approval by GAEPD must be attached to the plan for the Plan to be reviewed.)
		4 The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.
		5 Provide the name, address, email address, and phone number of primary permittee.
		6 Note total and disturbed acreages of the project or phase under construction.
		7 Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
		8 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
		9 Description of the nature of construction activity and existing site conditions.
		10 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
		11 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
		12 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on **Part IV page 19** of the permit.
		13 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on **Part IV page 19** of the permit. *
		14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with **Part IV.A.5 page 25** of the permit. *
		15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."
		16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
		17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hycraulic component must be certified by the design professional." *
		18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *
		19 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."
		20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."
		21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
		22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of a Biota Impaired Stream Segment must comply with Part III. C. of the permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *
		23 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in Item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. *
		24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited. *
		25 Provide BMPs for the remediation of all petroleum spills and leaks.
		26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. *
		27 Description of practices to provide cover for building materials and building products on site. *
		28 Description of the practices that will be used to reduce the pollutants in storm water discharges. *
		29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
		30 Provide complete requirements of Inspections and record keeping by the primary permittee. *
		31 Provide complete requirements of Sampling Frequency and Reporting of sampling results. *
		32 Provide complete details for Retention of Records as per Part IV.F. of the permit. *
		33 Description of analytical methods to be used to collect and analyze the samples from each location. *
		34 Appendix B rationale for NTU values at all outfall sampling points where applicable. *
		35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged. *
		36 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all of the BMPs into a single phase. *
		37 Graphic scale and North arrow.
		38 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Map Scale	Ground Slope	Contour Intervals, ft.
1 inch = 100ft or larger scale	Flat 0 - 2%	0.5 or 1
	Rolling 2 - 8%	1 or 2
	Steep 8% +	2,5 or 10

		39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by GAEPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov.
		40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *
		41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
		42 Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.
		43 Delineation and acreage of contributing drainage basins on the project site.
		44 Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions. *
		45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
		46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
		47 Soil series for the project site and their delineation.
		48 The limits of disturbance for each phase of construction.
		49 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual included for structural BMPs and all calculations used by the storage design professional to obtain the required sediment when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the Plan.
		50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
		51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
		52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of the year that seeding will take place and for the appropriate geographic region of Georgia.

* If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream, the * checklist items would be N/A.

Effective January 1, 2024

EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES:
(NOTES CORRESPOND TO STANDALONE CHECKLIST)

4. 24 HR. LOCAL CONTACT: CONTRACTOR:_____
5. PRIMARY PERMITTEE:
CONTRACTOR:_____
_____
6. TOTAL ACREAGE: 60.25 ACRES DISTURBED ACREAGE: 15.00 ACRES
9. PROPOSED CONSTRUCTION IS A NEW ATHLETIC STADIUM WITH SIDEWALKS, PARKING, DRIVES, FENCES, GRADING, SEWER, UTILITIES, AND ASSOCIATED IMPROVEMENTS AS SHOWN.
12. I CERTIFY UNDER THE PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY DIRECT SUPERVISION.

PRESTON W. HOBBY 8686 02-08-24
Certified By *Printed Name* *GSWCC LEVEL II* *Date*

13. I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA", (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS MEETS THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT No. GAR 100001.

Certified By 02-08-24
Date

14. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs WITHIN 7 DAYS AFTER INSTALLATION.
15. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50 FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25 FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
16. NO BUFFER VARIANCE IS REQUIRED.
17. AMENDMENTS / REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
18. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
19. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
20. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASUES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
21. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
24. CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES SHALL BE DONE IN DESIGNATED CONCRETE WASHOUT (Cw) AS SHOWN ON PLANS. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.
33. **STORMWATER SAMPLING:**
SAMPLE ANALYSIS:
STORM WATER SAMPLES SHALL BE ANALYZED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 AND THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.
STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT SAMPLING LOCATION (S) SHOWN OR DESIGNATED ON THE APPROVED E&SC PLANS. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING **50 NTU**, THE VALUE THAT WAS SELECTED FROM APPENDIX B IN PERMIT No. GAR100001. THE NTU IS BASED UPON SITE ACREAGE OF 20.10 ACRES TOTAL FOR THE PROJECT SITE, THE SURFACE DRAINAGE AREA OF **0-4.99** SQUARE MILES, AND RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES.
25. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS.
SPILL CLEANUP AND CONTROL PRACTICES:
FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER) THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
FOR SPILLS LESS THAN THAT 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.
THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.
26. TEMPORARY SEDIMENT TRAPS, RETROFITS, OR SEDIMENT BASINS WILL BE INSTALLED AS SHOWN TO CONTROL SEDIMENT. WATER QUALITY DEVICE(S) AND WQv VOLUME WILL BE INSTALLED /PROVIDED TO TREAT IMPERVIOUS AREAS POST CONSTRUCTION.
27. PLASTIC SHEETING, TARPS, AND TEMPORARY ROOFS WILL BE INSTALLED TO COVER TRASH, BUILDING MATERIALS OR PRODUCTS, CONSTRUCTION WASTES, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, CLEANING MATERIALS, SANITARY WASTES, AND ALL OTHER SUCH MATERIALS OR SUBSTANCES TO MINIMIZE EXPOSURE TO PRECIPITATION AND DISCHARGE TO STORMWATER.
28. PRODUCT SPECIFIC PRACTICES:
PETROLEUM BASED PRODUCTS -
BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.
PAINTS/FINISHES/SOLVENTS -
WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
FERTILIZER/HERBICIDES -
MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OD THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.
BUILDING MATERIALS -
ALL SUCH MATERIAL WILL BE DISPOSED OF USING PROPER WASTE DISPOSAL PROCEDURES.
36. APPROPRIATE CONTROLS AND MEASURES WILL INCLUDE: INITIAL SEDIMENT STORAGE AND PERIMETER CONTROLS AS SHOWN ON SHEET C6.2 WITH MINIMUM DISTURBANCE, INTERMEDIATE CONTROLS WILL INCLUDE TEMPORARY SEDIMENT STORAGE, TEMPORARY AND PERMANENT STABILIZATION, AND STORM OUTLET PROTECTION AS SHOWN ON SHEET C6.3. FINAL STABILIZATION INCLUDES (Ss) SLOPE STABILIZATION, LANDSCAPING, AND ESTABLISHMENT OF PERMANENT GRASSING ON ALL DISTURBED AREAS AS SHOWN ON SHEET C6.4.
41. ALL STATE WATERS LOCATED ON OR WITHIN 200 FEET OF THE PROJECT SITE ARE SHOWN.
42. ALL WETLANDS AND STATE WATERS LOCATED ON OR WITHIN 200 FEET OF THE PROJECT SITE ARE SHOWN.
44. HYDROLOGY STUDY AND STORMWATER MANAGEMENT PROPOSED, COPY OF HYDRO STUDY ATTACHED WITH SUBMITTAL.
45. RUNOFF COEFFICIENT:
WEIGHTED PRE-CONSTRUCTION CN CURVE NUMBER: **78**
WEIGHTED POST-CONSTRUCTION CN CURVE NUMBER: **91**
49. SEDIMENT STORAGE:
FLOATING SKIMMER IS INFEASIBLE. A PERMANENT RI RETROFIT AND FILTRATION DEVICE (#57 STONE) WILL PROVIDE INCREASED INFILTRATION WITH GREATER CAPACITY FOR HIGHER STORM FREQUENCIES.

PROJECT NUMBER
23-021
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12/01/23
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NO. DATE
FACILITY CODE

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

Pitts Engineering
CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA
ISSUE DATE: 02-15-24 SCALE: 1" = 20'
JOB No. 22280

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY
GSWCC LEVEL II - 0000008686

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EROSION CONTROL CHECKLIST

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(3). Off-site vehicle tracking of dirt, soils, and sediments and the generation of dust shall be minimized or eliminated to the maximum extent practical. The Plan shall include the best management practice to be implemented at the site or construction activity.

(4). Nothing in this permit relieves a permittee from any obligation to comply with all applicable State and local regulations of waste disposal, sanitary sewer, septic and petroleum storage systems.

(5). The Plan shall include best management practices for the remediation of all petroleum spills and leaks as appropriate.

(6). The Plan shall include best management practices for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of vehicles. Washout of the drum at the construction site is prohibited. Additional information about best management practices for concrete washout is available at the USEPA website.

(7). All permittees are required to minimize the discharge of pollutants from dewatering trenches and excavations. Discharges are prohibited unless managed by appropriate controls.

4. Inspections.

a. Permittee requirements.

(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted.

(2). Measure and record rainfall within disturbed areas of the site that have not met final stabilization once every 24 hours except any non-working Saturday, non-working Sunday and non-working Federal holiday. The data collected for the purpose of compliance with this permit shall be representative of the monitored activity. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by the primary permittee) shall inspect the following at least ~~once~~ twice every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any non-working Saturday, non-working Sunday or

any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the primary permittee's construction site; (b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted.

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination has been submitted) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.

(6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction site that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents, the inspection report shall contain a certification that the best management practices are in compliance with the Erosion,

Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2. of this permit.

5. Maintenance. The Plan shall include a description of procedures to ensure the timely maintenance of vegetation, erosion and sediment control measures and other protective measures identified in the site plan.

6. Sampling Requirements. This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit. This paragraph shall not apply to any land disturbance associated with the construction of single-family homes which are not part of a subdivision or planned common development unless five (5) acres or more will be disturbed. The following procedures constitute EPD's guidelines for sampling turbidity.

a. *Sampling Requirements* shall include the following:

(1). A USGS topographic map, a topographic map or a drawing (referred to as a topographic map) that is a scale equal to or more detailed than a 1:24000 map showing the location of the site or the stand alone construction; (a) the location of all perennial and intermittent streams and other water bodies as shown on a USGS topographic map, and all other perennial and intermittent streams and other water bodies located during mandatory field verification, into which the stormwater is discharged and (b) the receiving water and/or outfall sampling locations. When the permittee has chosen to use a USGS topographic map and the receiving water(s) is not shown on the USGS topographic map, the location of the receiving water(s) must be hand-drawn on the USGS topographic map from where the stormwater(s) enters the receiving water(s) to the point where the receiving water(s) combines with the first blue line stream shown on the USGS topographic map;

(2). A written narrative of site specific analytical methods used to collect, handle and analyze the samples including quality control/quality assurance procedures. This narrative must include precise sampling methodology for each sampling location;

(3). When the permittee has determined that some or all outfalls will be sampled, a rationale must be included on the Plan for the NTU limit(s) selected from Appendix B. This rationale must include the size of the construction site, the calculation of the size of the surface water drainage area, and the type of receiving water(s) (i.e., trout stream or supporting warm water fisheries); and

(4). Any additional information EPD determines necessary to be part of the Plan. EPD will provide written notice to the permittee of the information necessary and the time line for submittal.

b. *Sample Type.* All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD.

(1). Sample containers should be labeled prior to collecting the samples.

(2). Samples should be well mixed before transferring to a secondary container.

(3). Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.

(4). Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers must be collected no later than the next business day after their accumulation, unless flow through automated analysis is utilized. If automatic sampling is utilized and the automatic sampler is not activated during the qualifying event, the permittee must utilize manual sampling or rising stage sampling during the next qualifying event. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter. Samples are not required to be cooled.

(5). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E.

c. *Sampling Points*.

(1). For construction activities the primary permittee must sample all receiving water(s), or all outfall(s), or a combination of receiving water(s) and outfall(s). Samples taken for the purpose of compliance with this permit shall be representative of the monitored activity and representative of the water quality of the receiving water(s) and/or the stormwater outfalls using the following minimum guidelines:

(a). The upstream sample for each receiving water(s) must be taken immediately upstream of the confluence of the first stormwater discharge from the permitted activity (i.e., the discharge farthest upstream at the site) but downstream of any other stormwater discharges not associated with the permitted activity. Where appropriate, several upstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the upstream turbidity value.

(b). The downstream sample for each receiving water(s) must be taken downstream of the confluence of the last stormwater discharge from the permitted activity (i.e., the discharge farthest downstream at the site) but upstream of any other stormwater discharge not associated with the permitted activity. Where appropriate, several downstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the downstream turbidity value.

(c). Ideally the samples should be taken from the horizontal and vertical center of the receiving water(s) or the stormwater outfall channel(s).

(d). Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall stormwater channel.

(e). The sampling container should be held so that the opening faces upstream.

(f). The samples should be kept free from floating debris.

(g). Permittees do not have to sample sheet flow that flows onto undisturbed natural areas or areas stabilized by the project. For purposes of this section, stabilized shall mean, for unpaved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures as defined in the Manual (excluding a crop of annual vegetation and a seeding of target crop perennials appropriate for the region).

(h). All sampling pursuant to this permit must be done in such a way (including generally accepted sampling methods, locations, timing, and frequency) as to accurately reflect whether stormwater runoff from the construction site is in compliance with the standard set forth in Parts III.D.3. or III.D.4., whichever is applicable.

d. *Sampling Frequency*.

(1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any stormwater discharge to a monitored receiving water and/or from a monitored outfall location within in forty-five (45) minutes or as soon as possible.

(2). However, where manual and automatic sampling are impossible (as defined in this permit), or are beyond the permittee's control, the permittee shall take samples as soon as possible, but in no case more than twelve (12) hours after the beginning of the stormwater discharge.

(3). Sampling by the permittee shall occur for the following qualifying events:

(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a stormwater discharge that occurs during normal business hours as defined in this permit after all clearing and grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the sampling location;

(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a stormwater discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented within two (2) business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are properly designed, installed and maintained;

(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the permittee, in accordance with Part IV.D.4.a.(6), must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above; and

(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b). Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

*Note that the permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for sampling at any time of the day or week.

7. Non-stormwater discharges. Except for flows from fire fighting activities, sources of non-stormwater listed in Part III.A.2. of this permit that are combined with stormwater discharges associated with construction activity must be identified in the Plan. The Plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge.

E. Reporting.

1. The applicable permittees are required to submit the sampling results to the EPD at the address shown in Part II.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any stormwater discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed in accordance with Part V.G.2. Sampling reports must be submitted to EPD using the electronic submittal service provided by EPD. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.

2. All sampling reports shall include the following information:

a. The rainfall amount, date, exact place and time of sampling or measurements;
b. The name(s) of the certified personnel who performed the sampling and measurements;
c. The date(s) analyses were performed;
d. The time(s) analyses were initiated;
e. The name(s) of the certified personnel who performed the analyses;
f. References and written procedures, when available, for the analytical techniques or methods used;
g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results;
h. Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU;" and
i. Certification statement that sampling was conducted as per the Plan.

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with Part VI.

F. Retention of Records.

1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:

a. A copy of all Notices of Intent submitted to EPD;
b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
d. A copy of all sampling information, results, and reports required by this permit;
e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and
g. Daily rainfall information collected in accordance with Part IV.D.4.a.(2). of this permit.

2. Copies of all Notices of Intent, Notices of Termination, inspection reports, sampling reports (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) or other reports requested by the EPD, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the NOT is submitted in accordance with Part VI. of this permit. These records must be maintained at the permittee's primary place of business or at a designated alternative location once the construction activity has ceased at the permitted site. This period may be extended by request of the EPD at any time upon written notification to the permittee.

Part V. STANDARD PERMIT CONDITIONS

A. Duty to Comply.

1. Each permittee must comply with all applicable conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. §§12-5-20, et seq.) and is grounds for enforcement action; for permit termination; or for denial of a permit renewal application. Failure of a primary permittee to comply with any applicable term or condition of this permit shall not relieve any other primary permittee from compliance with their applicable terms and conditions of this permit.

2. Each permittee must document in their records any and all known violations of this permit at his/her site within seven (7) days of his/her knowledge of the violation. A summary of these violations must be submitted to EPD by the permittee at the addresses shown in Part II.C. within fourteen (14) days of his/her discovery of the violation.

APPENDIX B

Nephelometric Turbidity Unit (NTU) TABLES

Trout Streams

Site Size, acres \ Surface Water Drainage Area, square miles	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	25	50	75	150	300	500	500	500
10.01-25	25	25	50	75	150	200	500	500
25.01-50	25	25	25	50	75	100	300	500
50.01-100	20	25	25	35	59	75	150	300
100.01+	20	20	25	25	25	50	60	100

Waters Supporting Warm Water Fisheries

Site Size, acres \ Surface Water Drainage Area, square miles	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	75	150	200	400	750	750	750	750
10.01-25	50	100	100	200	300	500	750	750
25.01-50	50	50	100	100	200	300	750	750
50.01-100	50	50	50	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100

To use these tables, select the size (acres) of the construction site. Then, select the surface water drainage area (square miles). The NTU matrix value arrived at from the above tables is the one to use in Part III.D.4.

Example 1: For a site size of 12.5 acres and a "trout stream" drainage area of 37.5 square miles, the NTU value to use in Part III.D.4. is 75 NTU.

Example 2: For a site size of 51.7 acres and "waters supporting warm water fisheries" drainage area of 72 square miles, the NTU value to use in Part III.D.4. is 100 NTU.

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KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA

ISSUE DATE: 02-15-24
JOB No. 22280
SCALE: 1" = 20'
0 10 20 40 60

A NEW BUILDING FOR:
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GSWCC LEVEL II - 0000008686

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EROSION CONTROL NOTES

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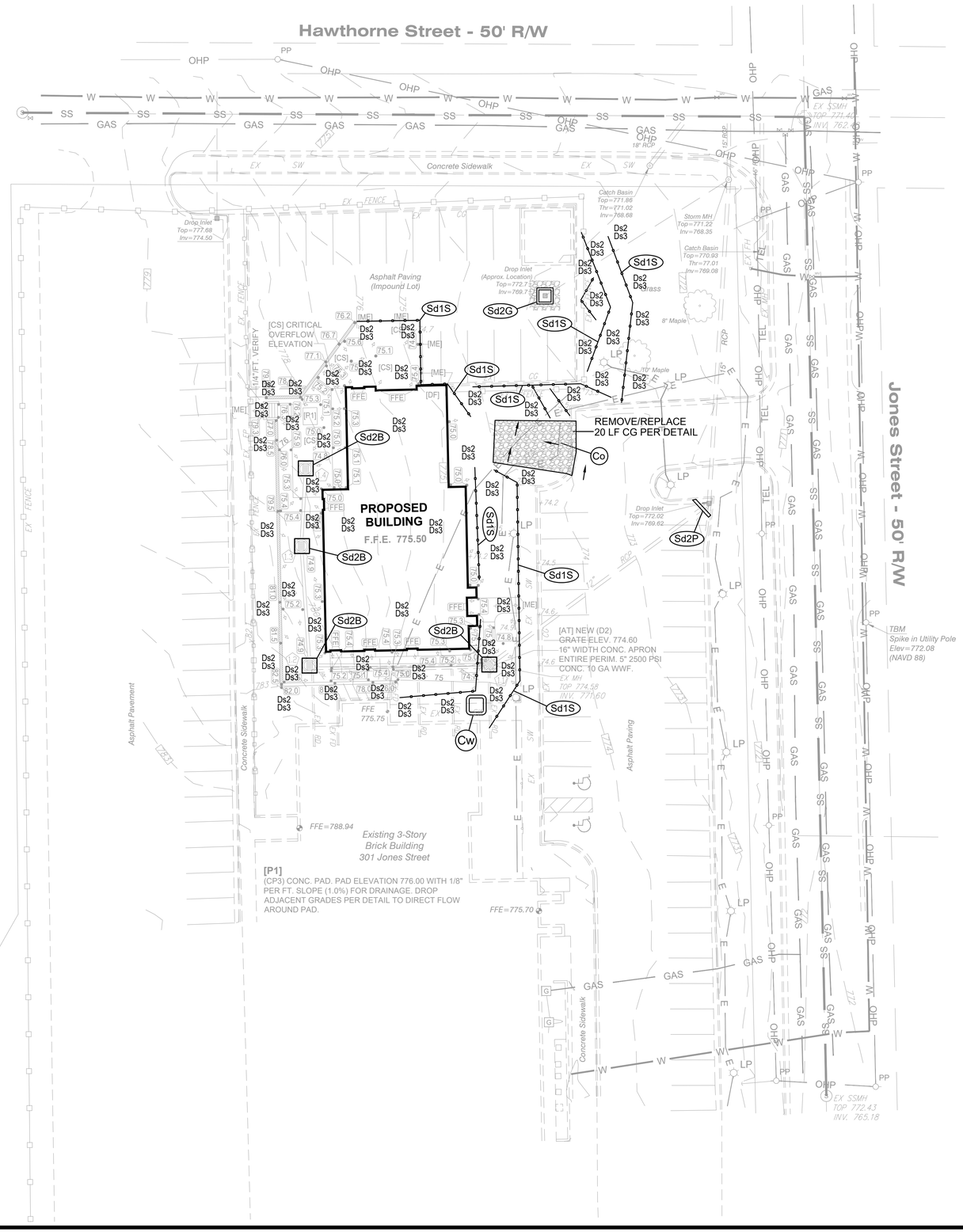
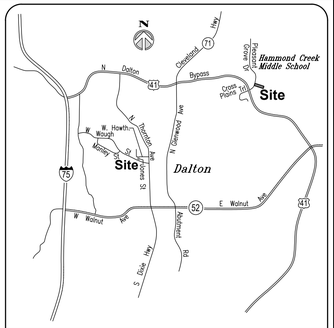
C6.1





LOCATION MAP

EXISTING	+ 70.93 EXISTING SPOT ELEVATION
PROPOSED	• 54.3 PROPOSED SPOT ELEVATION
AC–ACRES	PB–PLAT BOOK
BC–BACK OF CURB	PG–PAGE
BL–BUILDING SETBACK	PL–PROPERTY LINE
CB–CATCH BASIN	POB–POINT OF BEGINNING
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CH–CHORD	PS–PARKING SPACE
CL–CENTERLINE	PTC–PRIOR TO CONSTRUCTION
CMP–CORR. METAL PIPE	R–RADIUS
DB–DEED BOOK	RCP–REINFORCED CONC. PIPE
DE–DRAINAGE EASEMENT	RD–ROOF DRAIN
DI–DROP INLET	RR–RAILROAD
EP–EDGE PAVEMENT	R/W–RIGHT OF WAY
EX–EXISTING	SD–STORM DRAIN
FH–FIRE HYDRANT	SF–SQUARE FEET
G–GAS LINE	SS–SANITARY SEWER
HW–HEADWALL	SSE–SAN. SEWER EASEMENT
HD–HEAVY DUTY	SSMH–SAN. SEWER MANHOLE
IPP–IRON PIN PLACED	SW–CONCRETE SIDEWALK
IPF–IRON PIN FOUND	TB–THRUST BLOCK
JB–JUNCTION BOX	TBR–TO BE REMOVED
L–ARC LENGTH	TC–TOP OF CURB
LOC–LIMIT OF CLEARING	TELE–TELEPHONE
LP–LIGHT/LAMP POST	TR–TO REMAIN
MH–MANHOLE	TW–TOP OF WALL
N/F–NOW OR FORMERLY	W–WATER
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LEGEND

GENERAL NOTES:

1. SEE SHEET C2.1 FOR IMPORTANT NOTES.

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

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23-021

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KRH ARCHITECTS INCORPORATED

855 ABUTMENT ROAD
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DALTON, GA 30721
TEL. 706.529.5895

CIVIL ENGINEERING
SITE DEVELOPMENT
PWH engineering
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA
ISSUE DATE: 02-15-24 SCALE: 1" = 20'
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EROSION CONTROL PLAN

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C6.2

LANDSCAPING NOTES:

1. CONTRACTOR SHALL PROVIDE PROFESSIONAL LANDSCAPE CONTRACTOR EXPERIENCED IN LANDSCAPING, GRASS, SOD, AND LAWN INSTALLATION. LANDSCAPER MUST BE APPROVED BY OWNER AND ENGINEER. SEE SPECIFICATIONS.

2. ALL DISTURBED AREAS SHALL RECEIVE GRASS SOD PER SPECIFICATIONS. VERIFY SOD TYPE AND SPECIES WITH OWNER PRIOR TO CONSTRUCTION. SOD SHALL BE ANCHORED ON SLOPES GREATER THAN 6H:1V. ALL SLOPES SHALL HAVE MATTING AND BLANKETS (Mb) AND ANCHORED MULCH, AND PERMANENT GRASS ESTABLISHED IMMEDIATELY AFTER SLOPE IS CREATED. MATTING AND BLANKETS SHALL BE TEMPORARY TYPE MADE FROM ORGANIC MATERIAL.

3. ALL SLOPES SHALL BE TEMPORARILY STABILIZED WITH MULCH AND TEMPORARY SEEDING AS REQUIRED UNTIL FINAL STABILIZATION. CONTRACTOR SHALL ESTABLISH PERMANENT GRASS ON SLOPES AS SOON AS GRADE IS ESTABLISHED.

4. CONTRACTOR IS SOLELY RESPONSIBLE FOR PLANTING DATES FOR GRASS SPECIES SPECIFIED. CONTRACTOR SHALL SCHEDULE CONSTRUCTION, GRADING, AND GRASSING TO ACHIEVE AND ESTABLISH PERMANENT GRASS A MINIMUM OF 60 DAYS PRIOR TO FINAL RELEASE. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL GRASS/SOD PER SPECIFICATIONS.

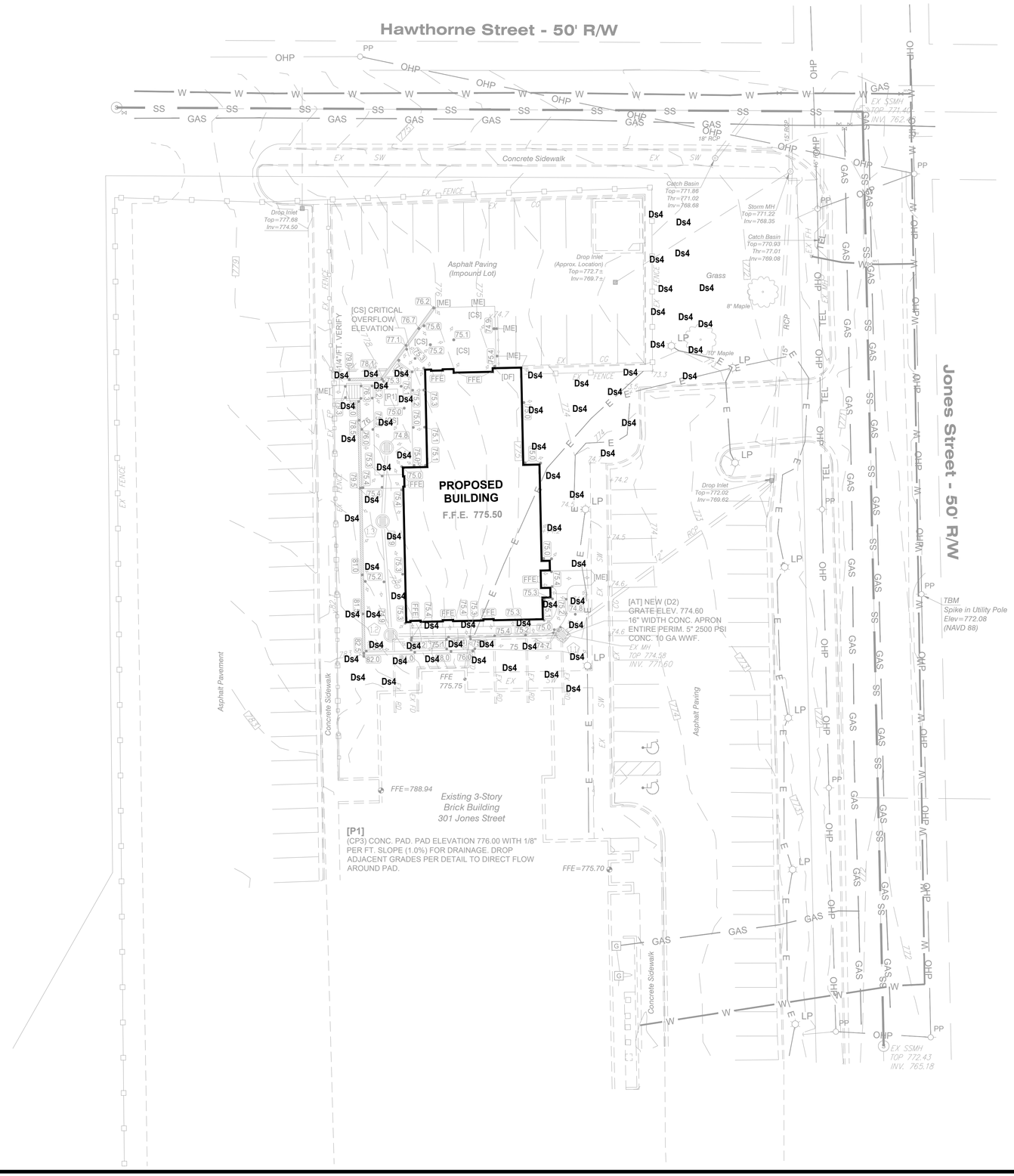
5. ALL TEMPORARY GRASS OR GRASS MIXTURES USED FOR TEMPORARY STABILIZATION SHALL BE FULLY AND COMPLETELY TILLED UNDER AND REMOVED PRIOR TO INSTALLATION OF PERMANENT GRASS. CONTRACTOR IS RESPONSIBLE FOR COMPLETE PREPARATION AND SOIL AMENDMENTS ON ALL SUCH AREAS PER SPECIFICATIONS.

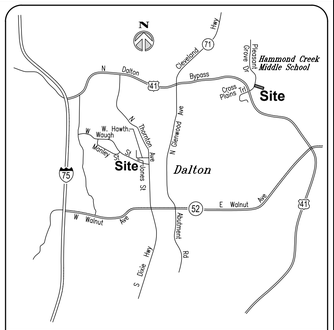
6. GRASSED AREAS WHICH DO NOT GROW OR MEET SPECIFICATIONS SHALL BE REMOVED IMMEDIATELY AND RE-INSTALLED.

7. ALL AREAS NOT RECEIVING PREPARATION, SOIL AMENDMENTS, TOPSOIL, FERTILIZER, AND OTHER MEASURES PER SPECIFICATIONS AND REQUIRED SOILS TEST(S) WILL BE REJECTED.

8. MAINTENANCE OF ALL GRASS AND LANDSCAPED AREAS WILL INCLUDE TRIMMING, WEEDING AND WEED REMOVAL. CONTRACTOR SHALL APPLY WEED CONTROL AND FERTILIZER AS RECOMMENDED BY SOILS TEST(S) OR REFERENCED STANDARDS THROUGHOUT CONSTRUCTION AND MAINTENANCE PERIOD.

9. CONTRACTOR SHALL PROVIDE MAINTENANCE, MOWING, WATERING, WEEDING, AND PROTECTION OF ALL GRASS, SOD, AND LANDSCAPED AREAS THROUGHOUT CONSTRUCTION AND PER SPECIFICATIONS UNTIL FINAL RELEASE BY OWNER.





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EROSION CONTROL FINAL PLAN

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C6.3

SPECIES	Rate per 1000 S.F.	Rate per Acre	PLANTING DATES		
			Mountain	Piedmont	Coastal
Bermuda, Common Unhulled Seed	0.2 LB	10 LB	NO	10/1–3/1	11/1–2/1
Bermuda, Common Hulled Seed	0.2 LB	10 LB	NO	3/1–8/1	2/15–8/1
Lespedeza, Sericea Unscarified	1.7 LB	75 LB	1/1–12/1	1/1–12/1	1/1–12/1
Lespedeza Unscarified	1.7 LB	75 LB	1/1–12/1	1/1–12/1	1/1–12/1
Lovegrass, Weeping	0.1 LB	4.0 LB	3/15–6/15	3/1–6/15	2/1–6/15
Fescue, Tall	1.1 LB	50 LB	8/1–11/1	8/15–11/1	NO
Switchgrass	1.0 lb	40 lb	3/15–6/1	3/15–6/1	3/15–6/1
Bahia	1.4 lb	60 lb	1/1–12/1	1/1–12/1	1/1–12/1

SPECIES	Rate per 1000 S.F.	Rate per Acre	PLANTING DATES		
			Mountain	Piedmont	Coastal
RYE	3.9 LB	168 LB	8/1–12/1	9/1–1/1	10/1–3/1
Ryegrass, Annual	1.0 LB	40 LB	8/1–5/1	8/1–4/1	9/1–4/1
Millet, Browntop	1.0 lb	40 lb	4/1–6/1	4/1–7/1	4/1–7/1
Lovegrass, Weeping	0.1 lb	4.0 lb	3/1–6/1	3/1–6/1	2/1–6/1
Lespedeza, Annual	1.0 LB	40 LB	2/1–5/1	2/1–5/1	1/1–3/15
WHEAT	4.1 LB	180 LB	9/1–12/1	9/1–12/1	9/15–2/1
Millet, Pearl	1.1 lb	50 lb	5/1–7/1	4/15–9/1	4/1–9/1
BARLEY	3.3 LB	144 LB	8/15–11/15	8/15–12/15	9/1–12/1

FERTILIZER REQUIREMENTS

SPECIES	YEAR	ANALYSIS OR EQUIVALENT N–P–K	RATE	N TOP DRESSING RATE
Cool season grasses	First Second Maintenance	6–12–12 6–12–12 10–10–10	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	50–100 lbs/ac 1/2/ – 30–100 lbs/ac
Cool season grasses and legumes	First Second Maintenance	6–12–12 0–10–10 0–10–10	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	50–100 lbs/ac 1/ – –
Ground covers	First Second Maintenance	10–10–10 10–10–10 10–10–10	1300 lbs/ac 3/ 1300 lbs/ac 3/ 1100 lbs/ac	– – –
Pine seedlings	First	20–10–5	one 21–gram pellet per seedling placed in closing hole	–
Shrub Lespedeza	First Maintenance	0–10–10 0–10–10	700 lbs/ac 700 lbs/ac 4/	–
Temporary cover crops seeded alone	First	10–10–10	500 lbs/ac	30 lbs/ac 5/
Warm season grasses	First Second Maintenance	6–12–12 6–12–12 10–10–10	1500 lbs/ac 800 lbs/ac 400 lbs/ac	50–100 lbs/ac 2/6/ 50–100 lbs/ac 2/ 30 lbs/ac
Warm season grasses and legumes	First Second Maintenance	6–12–12 0–10–10 0–10–10	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	50 lbs/ac 6/

LIME RATES AND ANALYSIS:

1. WHERE PERMANENT VEGETATION IS TO BE ESTABLISHED, AGRICULTURAL LIME SHALL BE APPLIED AS INDICATED BY SOIL TESTS OR AT THE RATE OF 1–2 TONS PER ACRE. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.
2. LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE CALCITIC OR DOLOMITIC GROUND LIMESTONE GROUND SO THAT 90% OF THE MATERIAL WILL PASS THROUGH A 10–MESH SIEVE, NOT LESS THAN 50% WILL PASS THROUGH A 50–MESH SIEVE, AND NOT LESS THAN 25% WILL PASS THROUGH A 100–MESH SIEVE.
3. LIME SPREAD BY HYDRAULIC SEEDING SHALL BE CALCITIC OR DOLOMITIC "FINELY GROUND LIMESTONE", GROUND SO THAT 98% OF THE MATERIAL WILL PASS THROUGH A 20–MESH SIEVE, AND NOT LESS THAN 70% WILL PASS THROUGH A 100–MESH SIEVE.
4. IT IS DESIRABLE TO USE DOLOMITIC LIMESTONE IN THE SAND HILLS, SOUTHERN COASTAL PLAIN, AND ATLANTIC COAST FLATWOODS MLRA'S.

MULCHING RATES:

1. USE MULCH ON ALL SLOPES STEEPER THAN 3 PERCENT; WHERE SEEDLINGS ARE MADE SO LATE IN THE FALL AND WINTER THAT GERMINATION CANNOT BE EXPECTED UNTIL SPRING; IN THE BOTTOM OF SPILLWAYS, AND ON ROADBANKS.
2. USE DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS. DRY STRAW WILL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY WILL BE APPLIED AT THE RATE OF 2 1/2 TONS PER ACRE; OR,
3. FOR HYDRAULIC SEEDING, USE WOOD CELLULOSE MULCH OR WOOD PULP FIBER AT THE RATE OF 500 POUNDS PER ACRE, AND DRY STRAW OR DRY HAY AT THE RATE LISTED ABOVE; OR,
4. USE THREE TONS PER ACRE OF SERICEA LESPEDEZA HAY CONTAINING MATURE SEED; OR,
5. APPLY PINE STRAW OR PINE BARK AT A THICKNESS OF 3 INCHES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED; OR,
6. SOIL RETENTION BLANKETS, EROSION CONTROL NETTING, OTHER MANUFACTURED MATERIALS, OR BLOCK SOD MAY BE REQUIRED IN ADDITION TO MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS.

Ds3 DISTURBED AREA STABILIZATION (PERMANENT SEEDING)

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS, LIME & FERTILIZER RATES, AND SPECIFICATIONS.

LIME AND FERTILIZER:

1. AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION.
2. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS, FERTILIZER IS NOT REQUIRED. FOR SOILS OF VERY LOW FERTILITY, USE 500 TO 700 POUNDS OF 10–10–10 FERTILIZER OR THE EQUIVALENT PER ACRE (12–16 LBS./1000 SQ. FT.). FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIP, OR CHISEL.

MULCHING:

1. TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. SEE Ds1, DISTURBED AREA STABILIZATION (MULCHING ONLY).

Ds2 DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS, LIME & FERTILIZER RATES, AND SPECIFICATIONS.

FOR TEMPORARY PROTECTION OF CRITICAL AREAS:

MULCHING MATERIALS:

1. Dry straw or hay–spread at a rate of 2 1/2 tons per acre.
2. Wood waste, chips, sawdust or bark–spread 2 to 3 inches deep (about 6 to 9 tons per acre.)
3. Erosion control matting or netting, such as excelsior, jute, textile and plastic mating and netting–applied in accordance with manufacturer's specifications.
4. Polyethylene film–secured over banks or stockpiled soil material for temporary protection.

APPLYING AND ANCHORING MULCH:

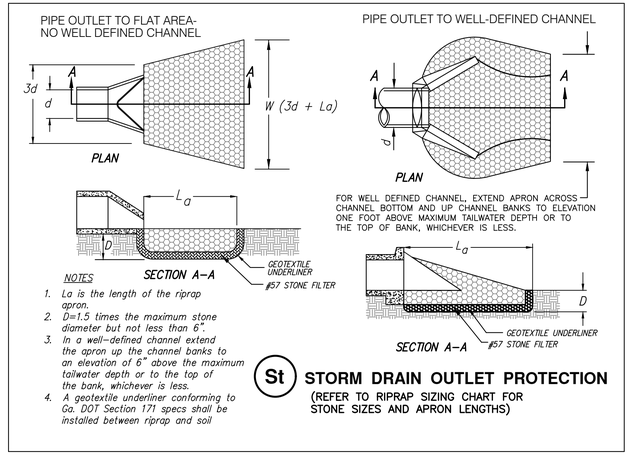
1. Apply straw or hay mulch uniformly or by hand or mechanically. Anchor as appropriate and feasible. It may be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." The disk may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position.
2. Spread wood waste uniformly on slopes that are 3:1 or flatter. No anchoring is needed.
3. Commercial matting and netting: Follow manufacturer's specification included with the material.
4. Apply asphalt so area has uniform appearance (do not use in pedestrian traffic areas.)

TO CONSERVE MOISTURE AND CONTROL WEEDS:

1. Grain straw or grass hay: 6" to 10" depth
2. Pine needles: 4" to 6" depth
3. Wood waste: 4" to 8" depth
4. Shredded residues: 4" to 8" depth
   When using organic mulches, apply 20–30 pounds of nitrogen in addition to the normal amount needed for plant growth to offset the tie up of N by the decomposition of mulch.

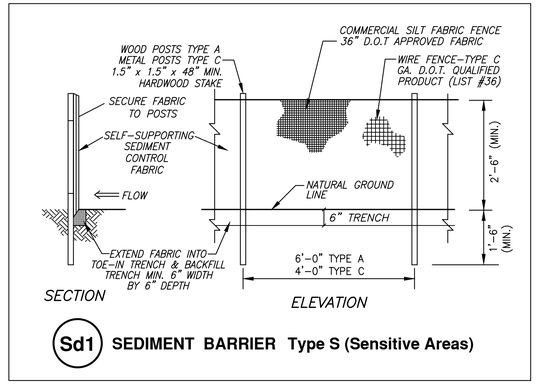
Ds1 DISTURBED AREA STABILIZATION (MULCHING ONLY)

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS, LIME & FERTILIZER RATES, AND SPECIFICATIONS.

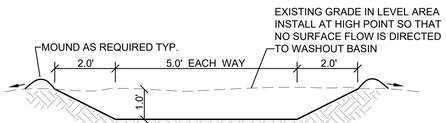


St STORM DRAIN OUTLET PROTECTION

(REFER TO RIPRAP SIZING CHART FOR STONE SIZES AND APRON LENGTHS)



Sd1 SEDIMENT BARRIER Type S (Sensitive Areas)

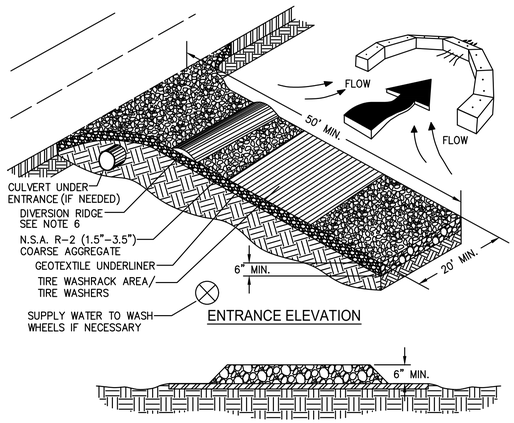


NOTES:
WASHOUT IS FOR TOOLS, HOPPERS, REAR OF VEHICLES AND CHUTES ONLY.
WARNING: DRUM WASHOUT IS NOT ALLOWED.
CLEAN ALL WASHOUT DEBRIS AND SEDIMENT EACH DAY.
DISPOSE OF DEBRIS AND SEDIMENT OFFSITE IN A LEGAL MANNER.
DO NOT ALLOW DEBRIS AND SEDIMENT TO ENTER STATE WATERS.

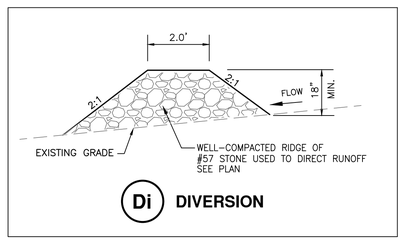
Cw CONCRETE WASHOUT

Co CRUSHED STONE CONSTRUCTION EXIT

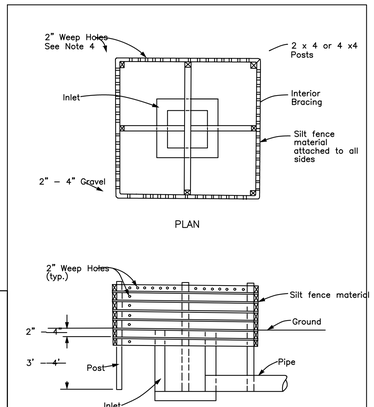
EXIT DIAGRAM



NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R–2 (1.5"–3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%..
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS–OF–WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

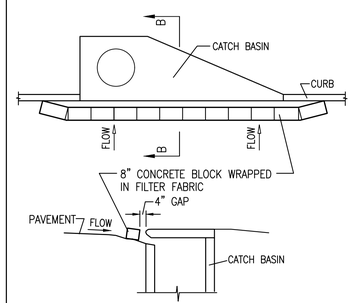


Di DIVERSION



BAFFLE BOX
Figure 6–21.2

Sd2-B INLET SEDIMENT TRAP



SECTION B–B

NOTE:
INSTALL FILTER AFTER ANY PAVEMENT INSTALLATION

CURB INLET FILTER
"PIGS IN BLANKET"

Sd2-P INLET SEDIMENT TRAP

Sd2 MAINTENANCE:
INSPECT DAILY AND AFTER EACH RAIN EVENT. REMOVE SEDIMENT IMMEDIATELY FROM CURB INLET PROTECTION. REPAIR AS REQUIRED FOR PROPER FUNCTION.

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EROSION CONTROL NOTES

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C6.4

Table C-1 Graded Rip-Rap Stone

Flow Velocity (ft./sec.)	N.S.A. No.[1]	Size Inches (Sq. Opening) Max.	Avg.[2]	Min.	Filter Stone N.S.A. No.[1]
2.5	R-1	1 1/2	3/4	No. 8	FS-1
4.5	R-2	3	1 1/2	1	FS-1
6.5	R-3	6	3	2	FS-2
9.0	R-4	12	6	3	FS-2
11.5	R-5	18	9	5	FS-2
13.0	R-6	24	12	7	FS-3
14.5	R-7	30	15	12	FS-3

[1] National Stone Association

[2] At least 50% of the individual stone particles must be equal or larger than this listed size

Table C-2. Fitter Bedding Stone

N.S.A. No[1]	Size Inches (Sq. opening) Max.	Avg.[2]	Min.[3]
FS-1	3/8	#30 mesh	#100 mesh
FS-2	2	#4	#100 mesh
FS-3	6 1/2	2 1/2	#16

GSWCC (Amended - 2013) C-2

[1] National Stone Association

[2] At least 50% of the individual stone particles must be equal or larger than this listed size

[3] 85 - 100% of the individual stone particles may be less than listed size

Table C-3. Graded Rip-Rap Stone

D.O.T. No.[1]	Size inches (Sq. opening) Max.	Avg.	Min.	Common Uses
Type 3	12	9	5	Creek Banks Pipe Outlets
Type 1	24	12	7	Lakes & Shorelines Rivers
Georgia Department of Transportation				

Table C-4. Filter Bedding Stone

D.O.T. No.[1]	Nominal Sizes (inches)
3	2" - 1"
4	1 1/2" - 3/4"
5	1" - 1/2"
6	3/4" - 3/8"
57	1" - No. 4
Georgia Department of Transportation	

GSWCC (Amended - 2013) C-3

Table C-1
Graded Rip-Rap Stone

C-4 GSWCC (Amended - 2013)

Dust Control on Disturbed Areas

Du

DEFINITION

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

PURPOSE

- To prevent surface and air movement of dust from exposed soil surfaces.
- To reduce the presence of airborne substances that may be harmful or injurious to human health, welfare, or safety, or to animals or plant life.

CONDITIONS

This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHOD AND MATERIALS

A. Temporary Methods

Mulches. See standard Ds1 - Disturbed Area Stabilization (With Mulching Only). Synthetic resins may be used instead of asphalt to bind mulch material. Refer to specification Tae - Tackifiers. Resins should be used according to manufacturer's recommendations.

Vegetative Cover. See specification Ds2 - Disturbed Area Stabilization (With Temporary Seeding).

Spray-on Adhesives. These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to specification Tac - Tackifiers.

Tillage. This practice is designed to roughen and bring clods to the surface. It is an emergency measure that should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.

Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

Barriers. Solid board fences, snowfences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

Calcium Chloride. Apply at rate that will keep surface moist. May need retreatment.

B. Permanent Methods

Permanent Vegetation. See specification Ds3 -Disturbed Area Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford valuable protection if left in place.

Topsoiling. This entails covering the surface with less erosive soil material. See specification Tp - Topsoiling.

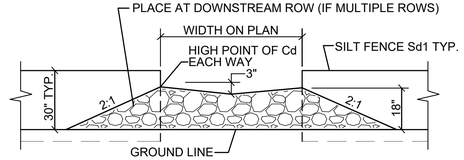
Stone. Cover surface with crushed stone or coarse gravel. See specification Cr-Construction Road Stabilization.

GSWCC 2016 Edition

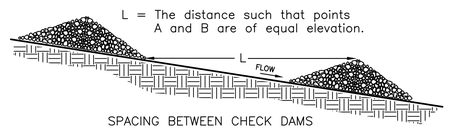
Du DUST CONTROL

5-55

INSTALL SILT FENCE AT CL Cd
EXTEND Cd STONE INTO SILT FENCE EACH SIDE
PLACE AT DOWNSTREAM ROW (IF MULTIPLE ROWS)

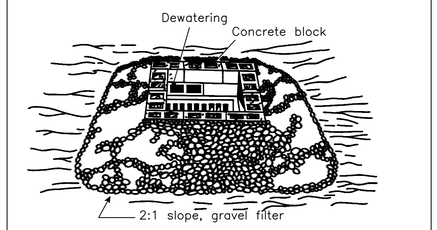


Cd1 CHECK DAM AT SILT FENCE ELEVATION TYP.



1. CFS IN THE CHANNEL / DITCH THE CHECK DAM IS BEING USED IN: 4-8 CFS
2. ABOVE 2.0 CFS: YES X NO
3. IF YES, LIST BMP'S BEING USED IN CONJUNCTION WITH CHECK DAMS: St, Sd1-S, Baffle, Di, Ds1, Ds2, Ds3

Cd CHECK DAM



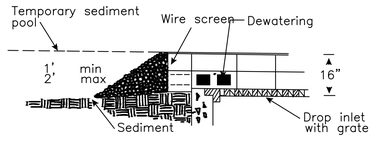
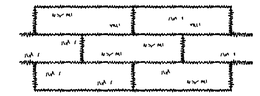


Figure 6–21.3 – Block and Gravel Drop Inlet Protection

Sd2-G INLET SEDIMENT TRAP



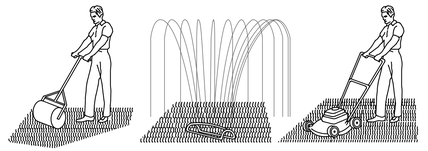
BUTTING –ANGLED ENDS CAUSED BY THE AUTO – MATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

INCORRECT

CORRECT

LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE P

SODDING

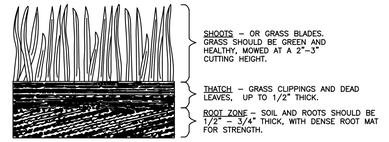


ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL

WATER DAILY TO A DEPTH OF 1" FOR FOUR WEEKS MINIMUM. WATER AS NEEDED THEREAFTER TO MAINTAIN GRASS HEALTH

MOW WHEN THE SOD IS ESTABLISHED – IN 2–3 WEEKS. SET THE MOWER HIGH (2"–3").

APPEARANCE OF GOOD SOD



SHOOTS – OR GRASS BLADES. GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"–3" CUTTING HEIGHT.

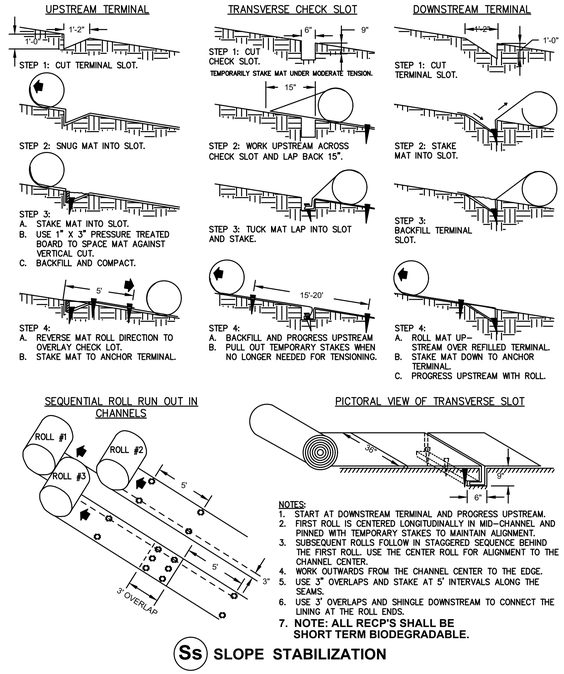
THATCH – GRASS CLIPPINGS AND DEAD LEAVES, UP TO 1/2" THICK.

ROOT ZONE – SOIL AND ROOTS SHOULD BE 1/2" – 3/4" THICK, WITH DENSE ROOT MAT FOR STRENGTH.

Ds4 SODDED GRASS

TYPICAL INSTALLATION GUIDELINES FOR ROLLED EROSION CONTROL PRODUCTS (RECP)

BLANKET AND MATTING CROSS-SECTIONS



NOTES:
1. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
2. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID–CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
3. SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO THE CHANNEL CENTER.
4. WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE.
5. USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE SEAMS.
6. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT THE LINING AT THE ROLL ENDS.
7. **NOTE: ALL RECP'S SHALL BE SHORT TERM BIODEGRADABLE.**

Ss SLOPE STABILIZATION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE

FACILITY CODE

KRH INCORPORATED ARCHITECTS

855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
Civil Engineering
Site Development

301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA

ISSUE DATE: 02-15-24 | SCALE: 1" = 20'
JOB No. 22280

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY

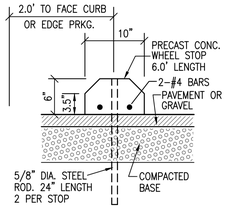
GSWCC LEVEL II - 0000008686

SHEET INDEX

EROSION CONTROL NOTES

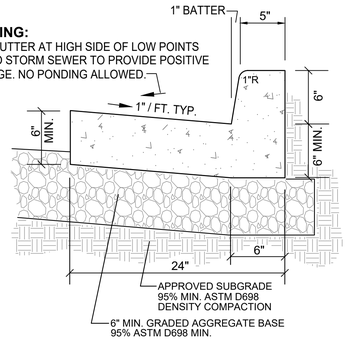
SHEET INDEX

C6.5



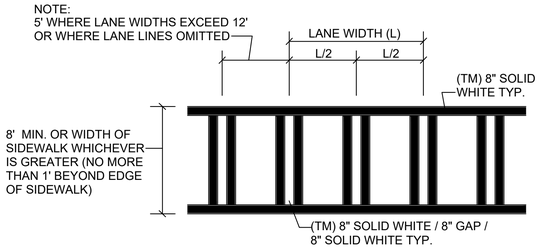
(WS) WHEEL STOPS

WARNING:
WARP GUTTER AT HIGH SIDE OF LOW POINTS WITH NO STORM SEWER TO PROVIDE POSITIVE DRAINAGE. NO PONDING ALLOWED.

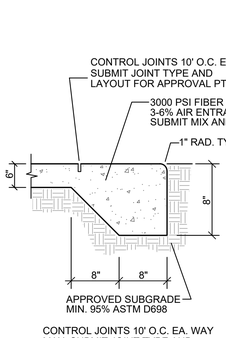


1/2" PREFORMED EXPANSION JOINTS REQUIRED AT TANGENT POINTS OF RADIUS RETURNS. CONSTRUCTION JOINTS REQUIRED AT MAXIMUM SPACING OF 12.0 FEET ON CENTER.

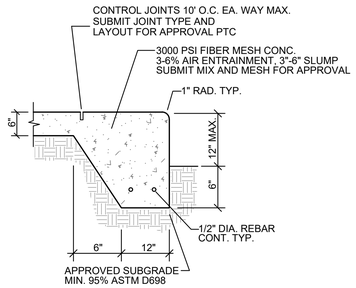
(CG) VERTICAL FACE CURB



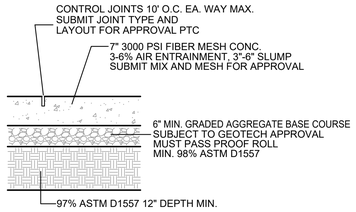
(CW) CROSSWALK



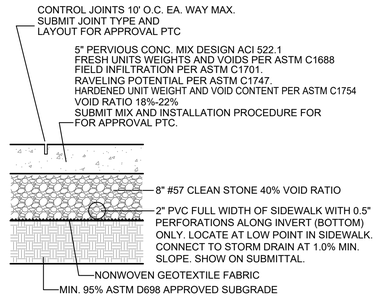
(CP2) CONCRETE PAD



(CP3) CONCRETE PAD

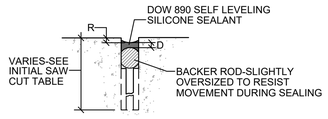


(CP1) CONCRETE PAVEMENT



NRMCA PERVIOUS CONCRETE CONTRACTOR CERTIFICATION REQUIRED.
PREPLACEMENT MEETING REQUIRED WITH OWNER'S REP AND ENGINEER.
5' X 5' MOCKUP SECTION REQUIRED FOR PREPLACEMENT MEETING.

(CP4) PERVIOUS CONCRETE PAVEMENT

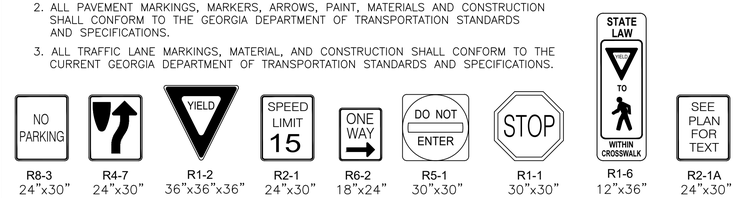


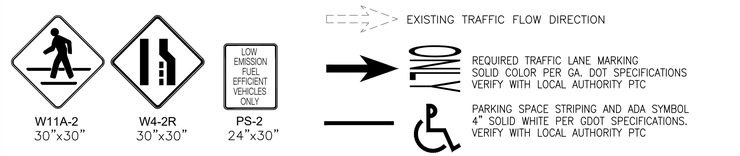
SEE GDOT SECT. 833.2.06 FPR SPECIFICATIONS OF JOINT FILLERS, SEALERS, AND BACKER ROD.

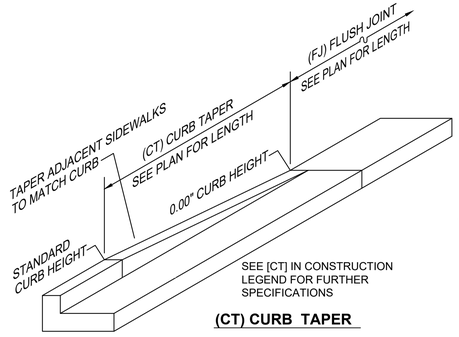
JOINT SEALANT DETAIL

(TM) SIGN AND PAVEMENT TRAFFIC MARKING LEGEND

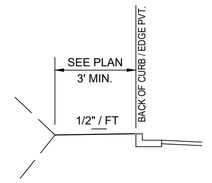
1. ALL MATERIALS, COLORS, AND CONSTRUCTION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS, SECTION 636, AND RELATED SECTIONS.
2. ALL PAVEMENT MARKINGS, MARKERS, ARROWS, PAINT, MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
3. ALL TRAFFIC LANE MARKINGS, MATERIAL, AND CONSTRUCTION SHALL CONFORM TO THE CURRENT GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.



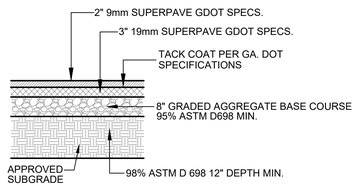




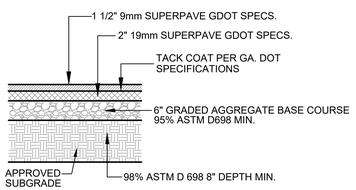
(CT) CURB TAPER



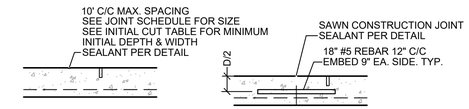
(SH) TYPICAL SHOULDER SECTION
NON RIGHT-OF-WAY ONLY



(AP2) HEAVY DUTY ASPHALT PAVEMENT



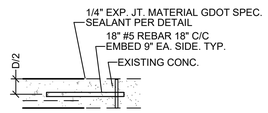
(AP1) ASPHALT PAVEMENT



SAWN CONTROL JOINTS

FORMED CONSTRUCTION JOINT ADJOINING EXISTING CONCRETE

REQUIRED MINIMUM FOR ALL INITIAL SAW CUTS		
DEPTH OF PAVEMENT	DEPTH OF CUT	WIDTH OF CUT
6"	1 7/8"	1/8"
7"	2"	1/8"
8"	2 1/4"	1/8"
8 1/2"	2 3/8"	1/8"
9"	2 1/2"	1/8"
10"	2 3/4"	1/8"
11"	3"	1/8"
12"	3 1/4"	1/8"

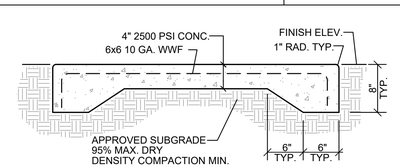


NEW CONCRETE ADJOINING EXISTING CONCRETE

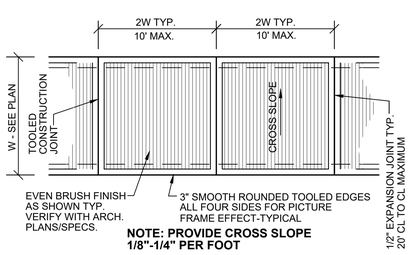
JOINT SCHEDULE			
TYPE	W	D	R
SAWN CONTROL JOINT	1/4"	1/4"-3/8"	3/8"-1/2"
FORMED CONSTRUCTION JOINT ADJOINING EXISTING CONCRETE	1/4"	1/4"-3/8"	3/8"-1/2"
NEW CONCRETE ADJOINING EXISTING CONCRETE	1/4"	1/4"-3/8"	3/8"-1/2"

NOTE:
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO CURRENT GDOT STANDARDS AND SPECIFICATIONS.
2. SUBMIT JOINT LAYOUT FOR APPROVAL PRIOR TO CONSTRUCTION.

CONCRETE JOINT DETAILS



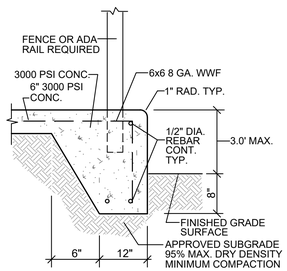
TYPICAL SECTION



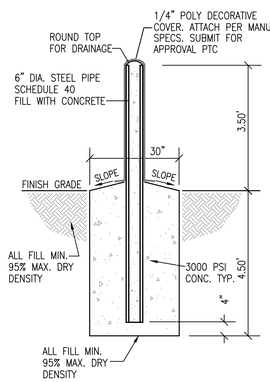
NOTE: PROVIDE CROSS SLOPE 1/8"-1/4" PER FOOT

PLAN

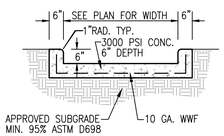
(SW) SIDEWALK DETAILS



(SD) SIDEWALK DROP



(BO) PIPE BOLLARD DETAILS



(CF) CONCRETE FLUME

PROJECT NUMBER
23-021
DATE
12/01/23
REVISIONS
NO. DATE

FACILITY CODE

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA

ISSUE DATE: 02-15-24
JOB No. 22280
SCALE: 1" = 20'

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

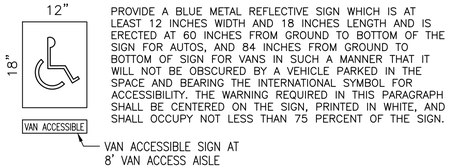
GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY
GSWCC LEVEL II - 0000008686

SHEET INDEX

CONSTRUCTION DETAILS

SHEET INDEX

C7

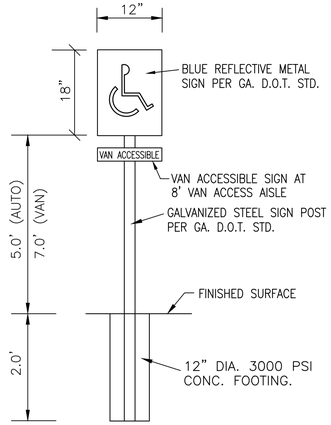


PROVIDE A BLUE METAL REFLECTIVE SIGN WHICH IS AT LEAST 12 INCHES WIDTH AND 18 INCHES LENGTH AND IS ERECTED AT 60 INCHES FROM GROUND TO BOTTOM OF THE SIGN FOR AUTOS, AND 84 INCHES FROM GROUND TO BOTTOM OF SIGN FOR VANS IN SUCH A MANNER THAT IT WILL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE AND BEARING THE INTERNATIONAL SYMBOL FOR ACCESSIBILITY. THE WARNING REQUIRED IN THIS PARAGRAPH SHALL BE CENTERED ON THE SIGN, PRINTED IN WHITE, AND SHALL OCCUPY NOT LESS THAN 75 PERCENT OF THE SIGN.

VAN ACCESSIBLE SIGN AT
8' VAN ACCESS AISLE

HANDICAP SIGN DETAILS

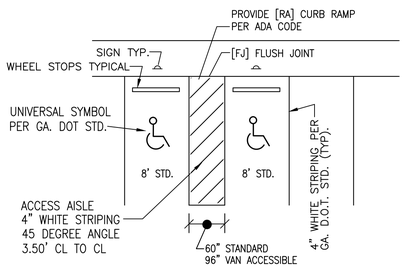
N.T.S.



GENERAL NOTES:

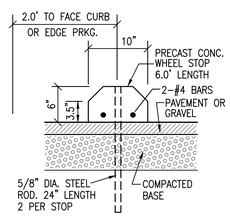
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE GEORGIA D.O.T. STANDARDS AND SPECIFICATIONS LATEST EDITION OR APPROVED EQUAL. APPROVED EQUAL SHALL BE AS DEFINED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
2. THE COLOR FOR THE HANDICAP SIGN(S) SHALL BE A REFLECTIVE BLUE COLOR WITH WHITE LETTERING OR SYMBOL.
3. CONSTRUCT ALL SIGNS A MINIMUM OF TWO FEET (2.0') BEHIND THE BACK OF CURBS OR EDGE OF PARKING SPACES. DO NOT OBSTRUCT ACCESSIBLE ROUTE OR SIDEWALK WITH SIGNS.

SIGN DETAILS



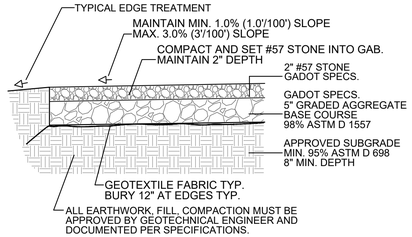
STRIPING DETAILS

N.T.S.

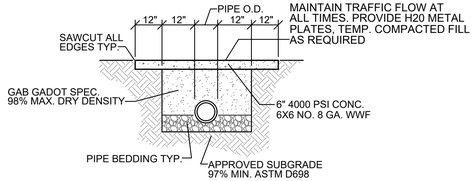


WHEEL STOPS

(ADA) HANDICAP PARKING DETAILS



(GR1) GRAVEL PAVEMENT

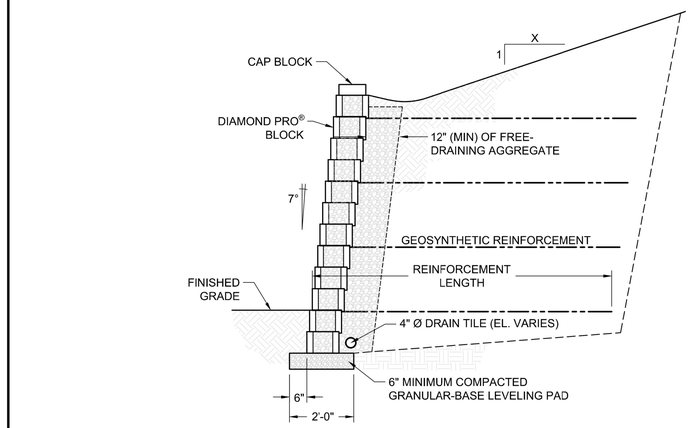


NOTE: REPLACE SIDEWALKS, CURB & GUTTER TO MEET PROJECT DETAILS / SPECS.

MAINTAIN TRAFFIC AND PROVIDE [TC] AT ALL TIMES. PROVIDE H20 METAL PLATES AS REQUIRED

DO NOT CUT ANY PAVEMENT IN RIGHT OF WAY WITHOUT APPROVAL FROM LOCAL AUHTORITY.

(CP1) PAVEMENT CUT & PATCH



ANCHOR® BUILD SOMETHING BEAUTIFUL

This drawing is for illustrative purposes only and should not be used for construction without the signature of a registered professional engineer.

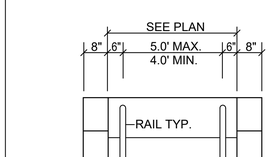
Diamond Pro® Straight Face Retaining Wall System

Typical Cross Section with Crest Slope

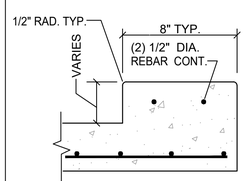
Scale:	3/8" = 1'-0"	Drawn by:	SB
Date:	1/19/2016	Drawing number:	DPST15

PROVIDE COMPLETE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASE. SUBMITTAL MUST INCLUDE SOLID CAPS, GEOGRID REINFORCEMENT, DRAIN PIPE, DRAINING AGGREGATE, AND TYPICAL SECTIONS REFLECTING ACTUAL SITE CONDITIONS. CONTRACTOR SHALL CONFIRM WITH MANUFACTURER THAT PRODUCT SELECTED AND CONSTRUCTION DETAILS AS SUBMITTED WILL PROVIDE ADEQUATE SUPPORT INCLUDING SAFETY FACTOR FOR PROPOSED INSTALLATION.

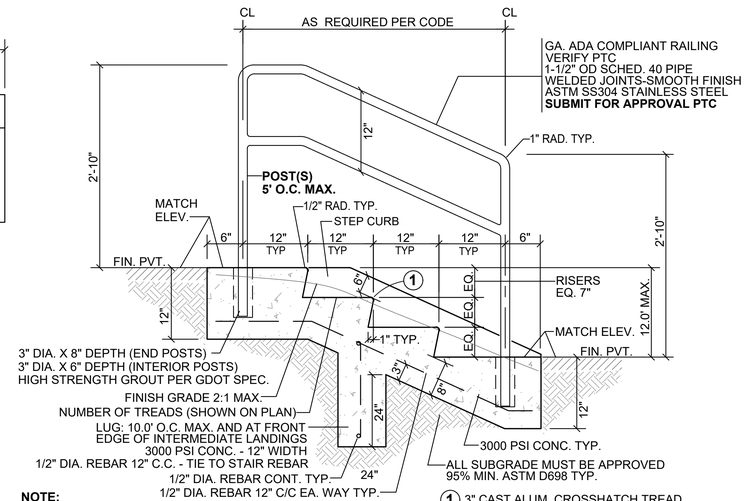
(MSE) RETAINING WALL



PLAN



STEP CURB DETAIL



NOTE:
SUBMIT COMPLETE SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION
COMPLY WITH ALL APPLICABLE CODES

SECTION

(ST1) CONCRETE STEPS

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE

FACILITY CODE

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

PKH engineering
CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA

ISSUE DATE: 02-15-24
JOB No. 22280
SCALE: 1" = 20'

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY
GSWCC LEVEL II - 0000008686

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CONSTRUCTION DETAILS

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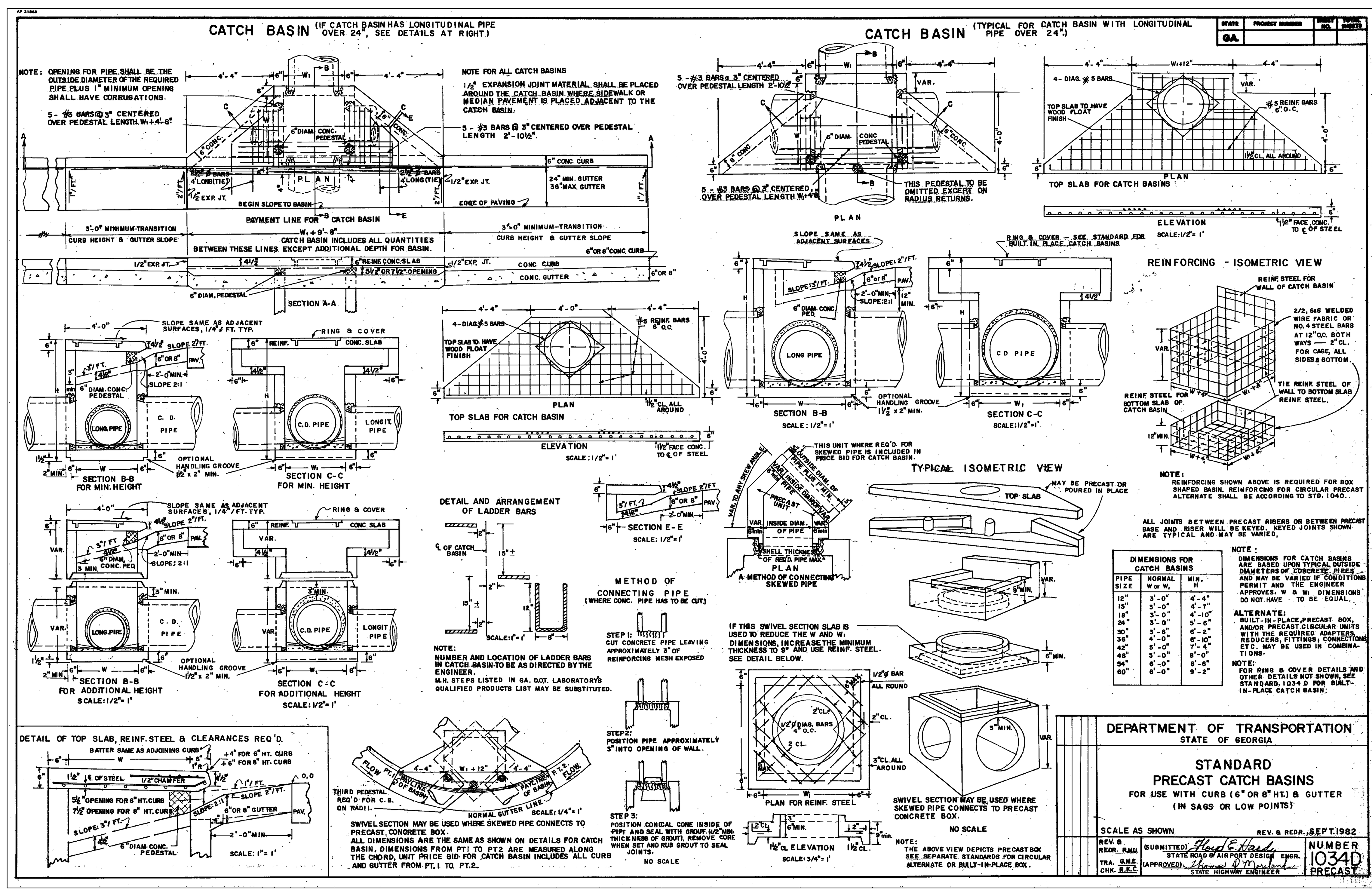
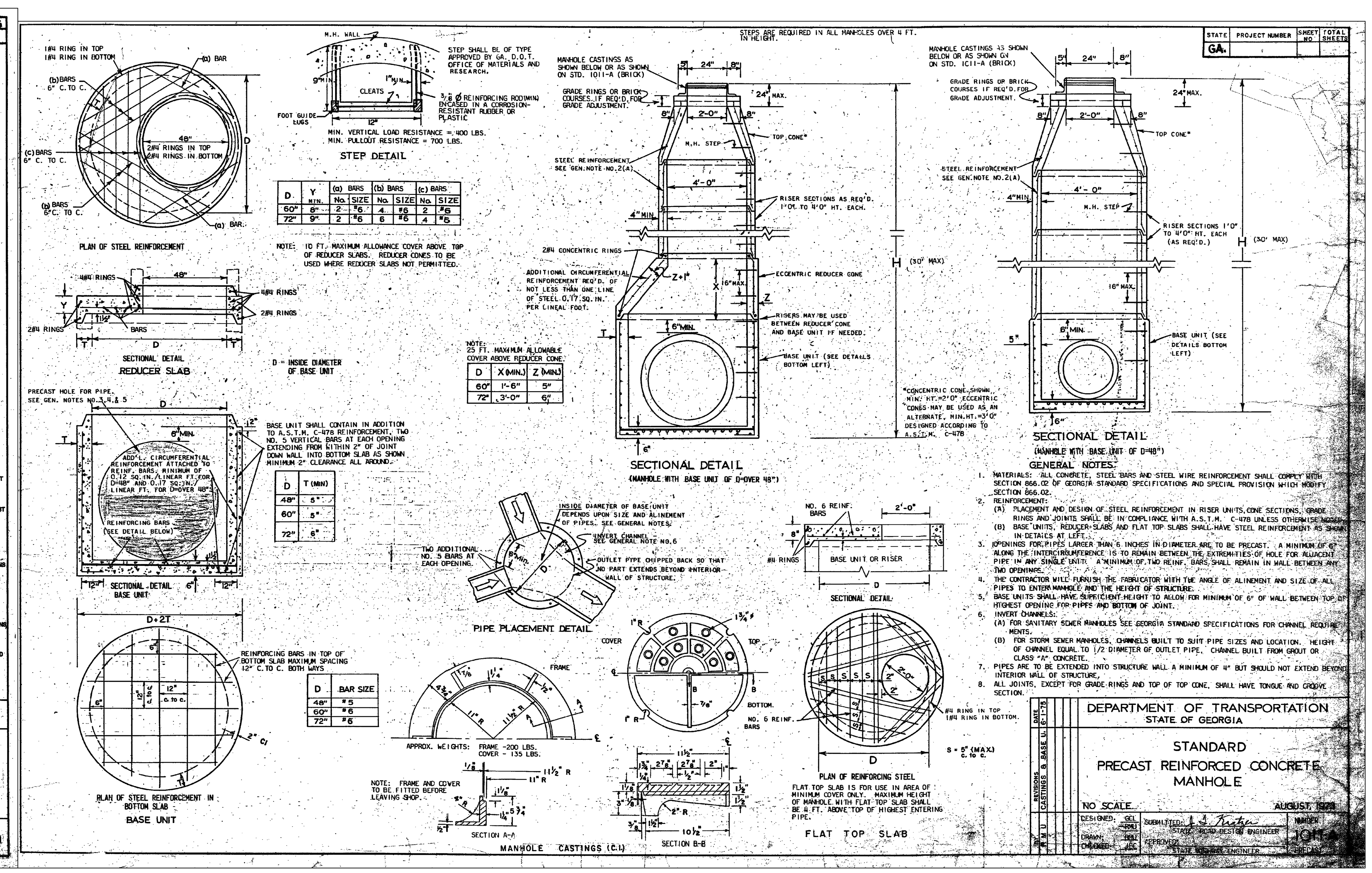
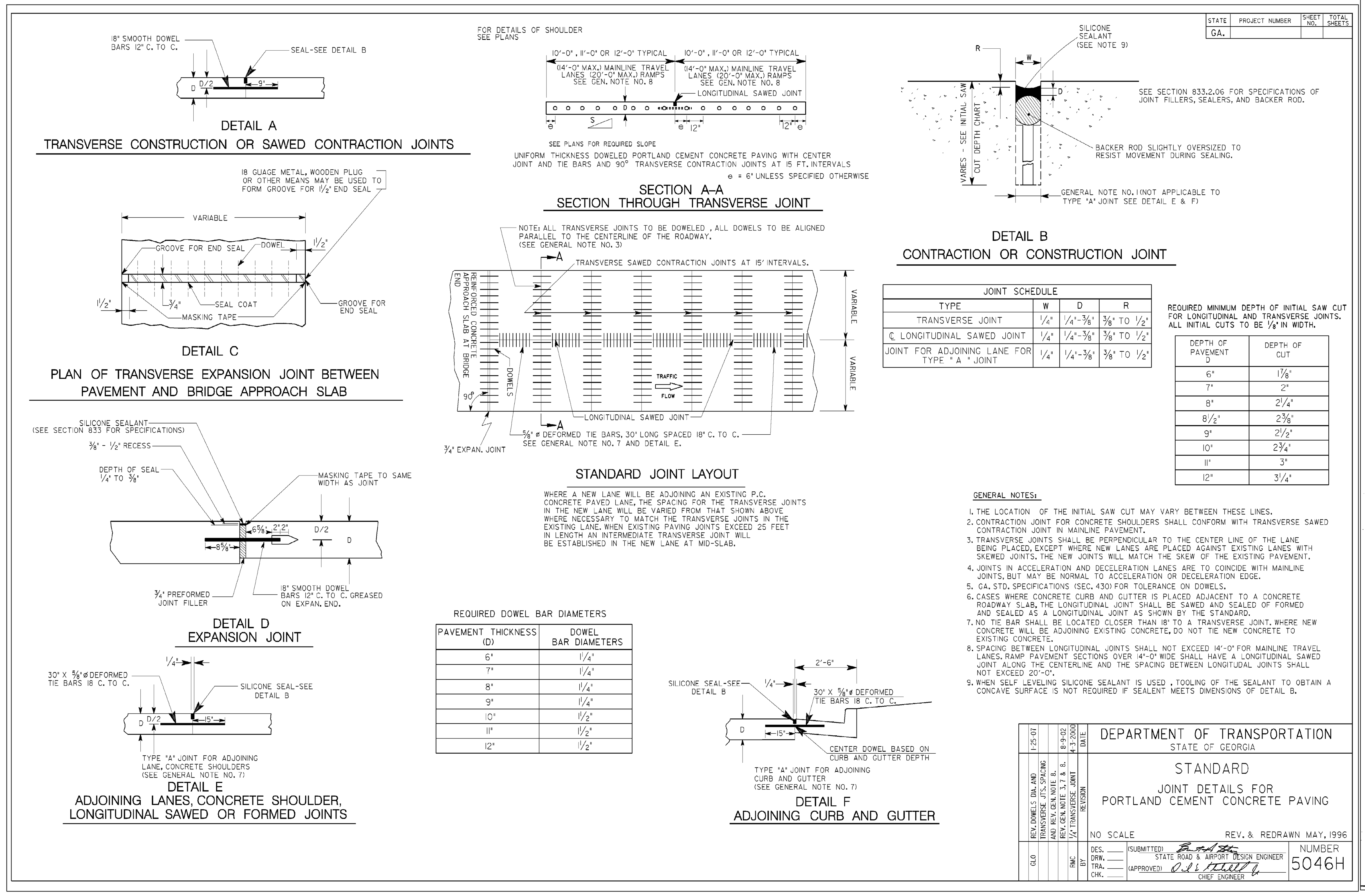
C7.1







WHERE A NEW LANE WILL BE ADJOINING AN EXISTING P.C. CONCRETE PAVED LANE, THE SPACING FOR THE TRANSVERSE JOINTS IN THE NEW LANE WILL BE VARIED FROM THAT SHOWN ABOVE WHERE NECESSARY TO MATCH THE TRANSVERSE JOINTS IN THE EXISTING LANE. WHEN EXISTING PAVING JOINTS EXCEED 25 FEET IN LENGTH AN INTERMEDIATE TRANSVERSE JOINT WILL BE ESTABLISHED IN THE NEW LANE AT MID-SLAB.

JOINT SCHEDULE

TYPE	W	D	R
TRANSVERSE JOINT	1/4"	1/4"-3/8"	3/8" TO 1/2"
℄ LONGITUDINAL SAWED JOINT	1/4"	1/4"-3/8"	3/8" TO 1/2"
JOINT FOR ADJOINING LANE FOR TYPE "A" JOINT	1/4"	1/4"-3/8"	3/8" TO 1/2"

REQUIRED MINIMUM DEPTH OF INITIAL SAW CUT FOR LONGITUDINAL AND TRANSVERSE JOINTS. ALL INITIAL CUTS TO BE 1/8" IN WIDTH.

DEPTH OF PAVEMENT D	DEPTH OF CUT
6"	1 7/8"
7"	2"
8"	2 1/4"
8 1/2"	2 3/8"
9"	2 1/2"
10"	2 3/4"
11"	3"
12"	3 1/4"

GENERAL NOTES:

1. THE LOCATION OF THE INITIAL SAW CUT MAY VARY BETWEEN THESE LINES.
2. CONTRACTION JOINT FOR CONCRETE SHOULDERS SHALL CONFORM WITH TRANSVERSE SAWED CONTRACTION JOINT IN MAINLINE PAVEMENT.
3. TRANSVERSE JOINTS SHALL BE PERPENDICULAR TO THE CENTER LINE OF THE LANE BEING PLACED, EXCEPT WHERE NEW LANES ARE PLACED AGAINST EXISTING LANES WITH SKEWED JOINTS. THE NEW JOINTS WILL MATCH THE SKEW OF THE EXISTING PAVEMENT.
4. JOINTS IN ACCELERATION AND DECELERATION LANES ARE TO COINCIDE WITH MAINLINE JOINTS, BUT MAY BE NORMAL TO ACCELERATION OR DECELERATION EDGE.
5. GA. STD. SPECIFICATIONS (SEC. 430) FOR TOLERANCE ON DOWELS.
6. CASES WHERE CONCRETE CURB AND GUTTER IS PLACED ADJACENT TO A CONCRETE ROADWAY SLAB, THE LONGITUDINAL JOINT SHALL BE SAWED AND SEALED OF FORMED AND SEALED AS A LONGITUDINAL JOINT AS SHOWN BY THE STANDARD.
7. NO TIE BAR SHALL BE LOCATED CLOSER THAN 18" TO A TRANSVERSE JOINT. WHERE NEW CONCRETE WILL BE ADJOINING EXISTING CONCRETE, DO NOT TIE NEW CONCRETE TO EXISTING CONCRETE.
8. SPACING BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 14'-0" FOR MAINLINE TRAVEL LANES. RAMP PAVEMENT SECTIONS OVER 14'-0" WIDE SHALL HAVE A LONGITUDINAL SAWED JOINT ALONG THE CENTERLINE AND THE SPACING BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 20'-0".
9. WHEN SELF LEVELING SILICONE SEALANT IS USED, TOOLING OF THE SEALANT TO OBTAIN A CONCAVE SURFACE IS NOT REQUIRED IF SEALANT MEETS DIMENSIONS OF DETAIL B.

REQUIRED DOWEL BAR DIAMETERS

PAVEMENT THICKNESS (D)	DOWEL BAR DIAMETERS
6"	1 1/4"
7"	1 1/4"
8"	1 1/4"
9"	1 1/4"
10"	1 1/2"
11"	1 1/2"
12"	1 1/2"

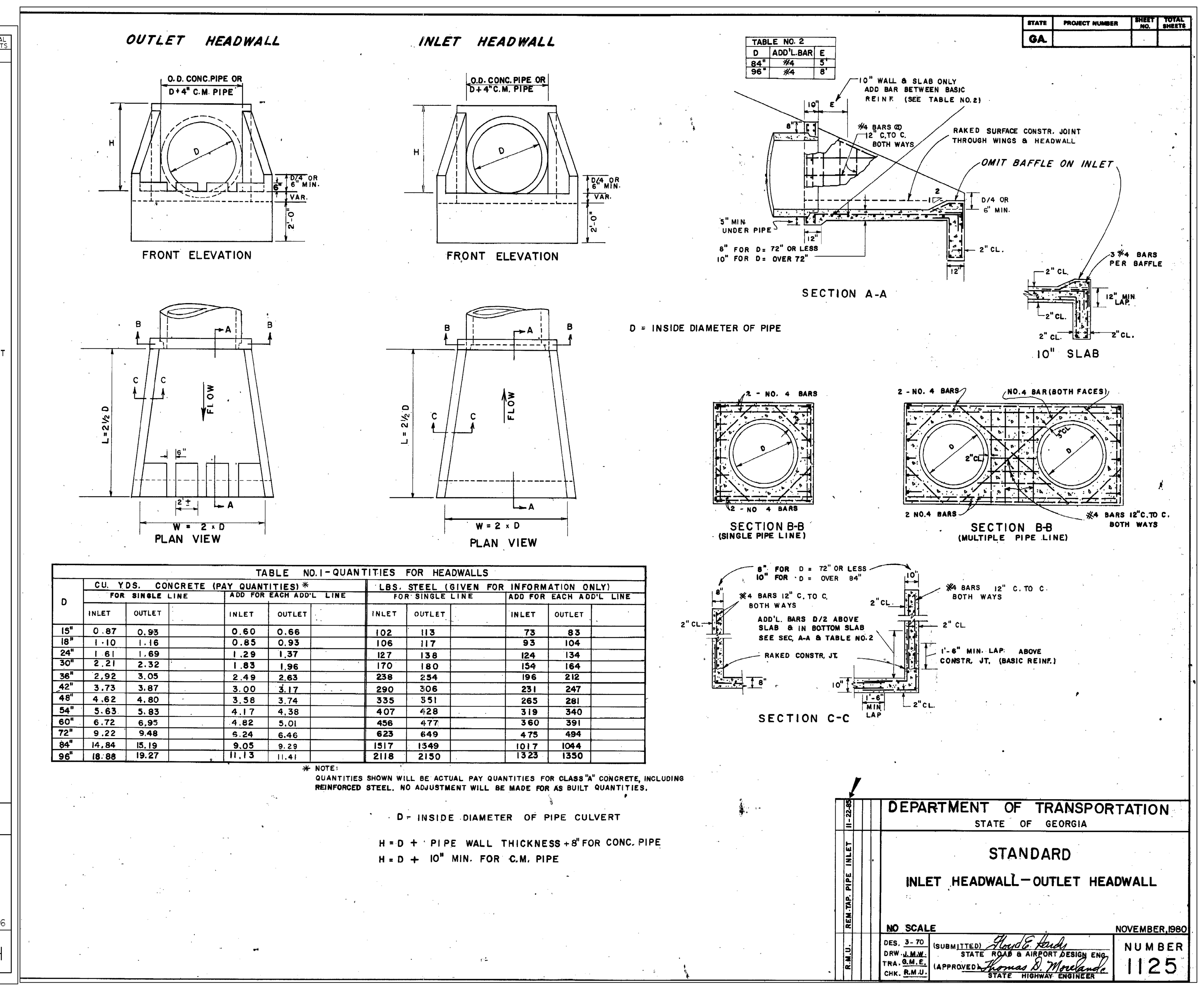


TABLE NO. 1 - QUANTITIES FOR HEADWALLS

D	CU. YDS. CONCRETE (PAY QUANTITIES) * FOR SINGLE LINE INLET	FOR SINGLE LINE OUTLET	ADD FOR EACH ADD'L LINE INLET	ADD FOR EACH ADD'L LINE OUTLET	LBS. STEEL (GIVEN FOR INFORMATION ONLY) FOR SINGLE LINE INLET	FOR SINGLE LINE OUTLET	ADD FOR EACH ADD'L LINE INLET	ADD FOR EACH ADD'L LINE OUTLET
15"	0.87	0.93	0.60	0.66	102	113	73	83
18"	1.10	1.16	0.85	0.93	106	117	93	104
24"	1.61	1.69	1.29	1.37	127	138	124	134
30"	2.21	2.32	1.83	1.96	170	180	154	164
36"	2.92	3.05	2.49	2.63	238	254	196	212
42"	3.73	3.87	3.00	3.17	290	306	231	247
48"	4.62	4.80	3.58	3.74	335	351	265	281
54"	5.63	5.83	4.17	4.38	407	428	319	340
60"	6.72	6.95	4.82	5.01	456	477	360	391
72"	9.22	9.48	6.24	6.46	623	649	475	494
84"	14.84	15.19	9.05	9.29	1517	1549	1017	1044
96"	18.88	19.27	11.13	11.41	2118	2150	1323	1350

* NOTE:
QUANTITIES SHOWN WILL BE ACTUAL PAY QUANTITIES FOR CLASS "A" CONCRETE, INCLUDING REINFORCED STEEL. NO ADJUSTMENT WILL BE MADE FOR AS BUILT QUANTITIES.

D - INSIDE DIAMETER OF PIPE CULVERT

H = D + PIPE WALL THICKNESS + 8" FOR CONC. PIPE

H = D + 10" MIN. FOR C.M. PIPE

PROJECT NUMBER
23-021

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FACILITY CODE

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PWH ENGINEERING
CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190

301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA

ISSUE DATE: 02-15-24
JOB No. 22280 SCALE: 1" = 20'

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 22553 PRESTON W. HOBBY
GSWCC LEVEL II - 0000008686

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CONSTRUCTION DETAILS

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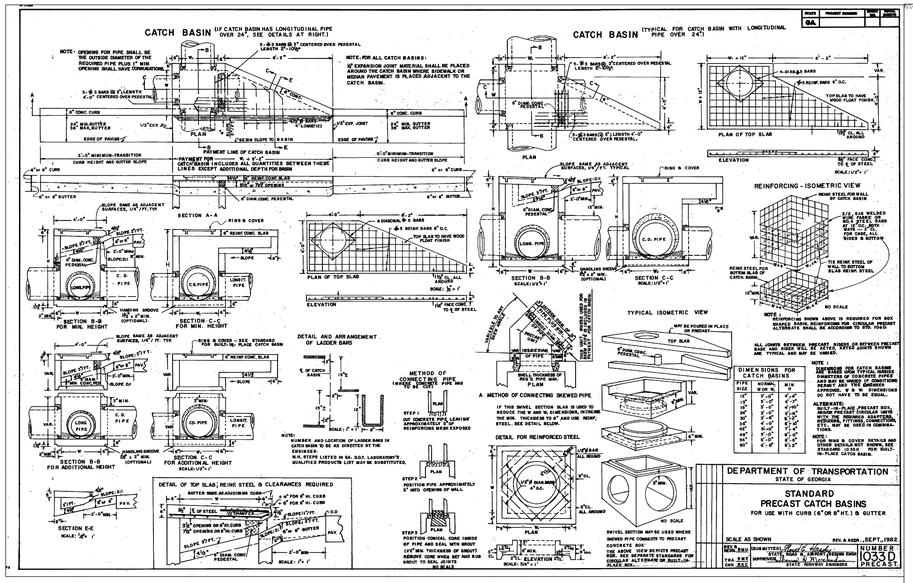
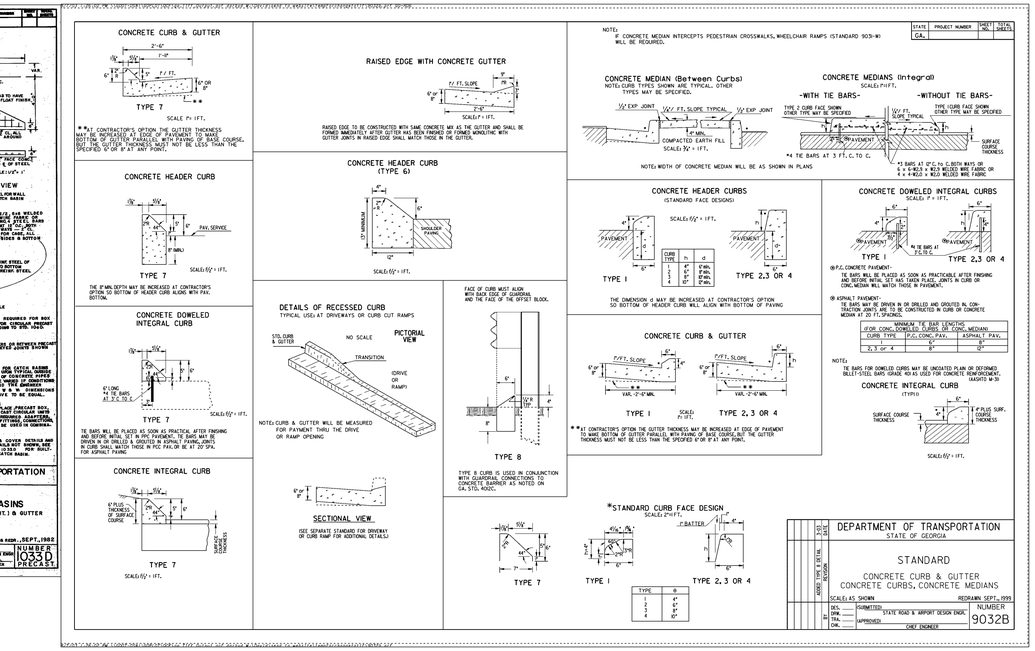
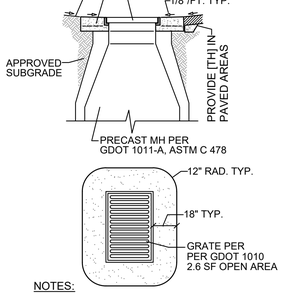
C7.2

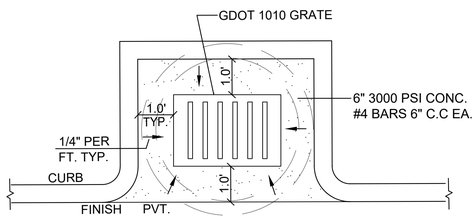






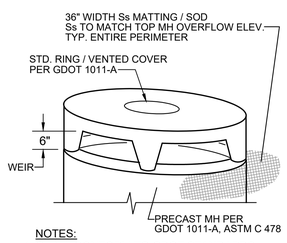
NOTES:
1. SHALL CONFORM TO GDOT STANDARDS, SPECIFICATIONS AND DETAILS

(D2) DROP INLET DETAIL



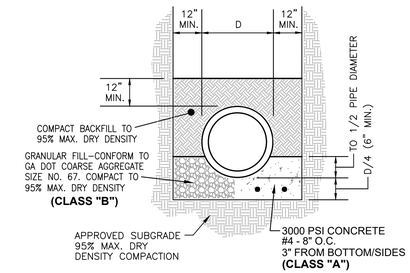
NOTES:
1. SHALL CONFORM TO GDOT STANDARDS, SPECIFICATIONS AND DETAILS

(D3) OFFSET GRATE INLET



NOTES:
1. SHALL CONFORM TO GDOT STANDARDS, SPECIFICATIONS AND DETAILS
2. PEDASTAL DESIGN PER MANUFACTURER.

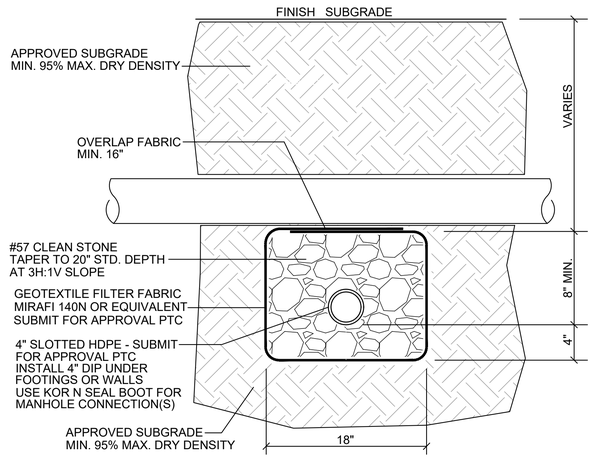
(D1) DROP INLET DETAIL



CLASS "A" / CLASS "B"
COMPACTED GRANULAR BEDDING

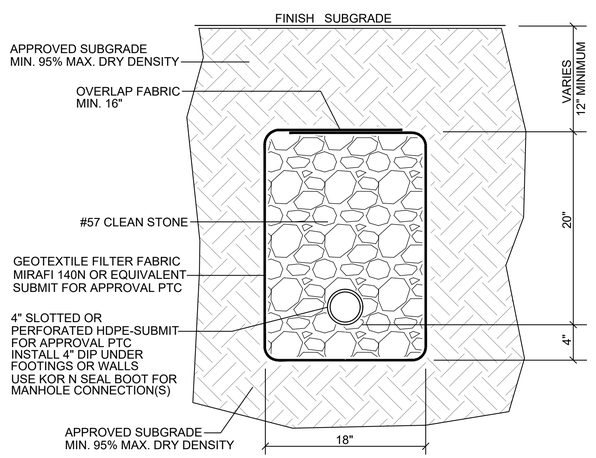
(TD) TRENCH DRAIN NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. GEOTECHNICAL ENGINEER SHALL DOCUMENT AND APPROVE ALL SUBGRADE, COMPACTION, BACKFILL, TRENCH DRAIN MATERIALS AND INSTALLATION FOR FULL COMPLIANCE WITH CONTRACT DOCUMENTS.
3. ALL CONNECTIONS AND FITTINGS TO PVC PIPES AND STRUCTURES SHALL BE STANDARD FITTINGS WITH STRENGTH RATING TO MATCH THE PVC SPECIFICATIONS. ALL CONNECTIONS AND FITTINGS SHALL BE PERMANENT AND WATERTIGHT .
4. SUBMIT ALL MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION (PTC).
5. ALL CONNECTIONS INTO MANHOLES OR OTHER STRUCTURES SHALL BE CORED WITH BOOTS EQUAL TO KOR-N-SEAL.
6. TAPER TRENCH DRAIN STONE AT PIPE CROSSINGS AS SHOWN, MAINTAIN MINIMUM STONE DEPTHS AT ALL CROSSINGS.
   DOCUMENT EACH CROSSING, CAREFULLY WRAP AND MAINTAIN FILTER FABRIC TO ENSURE PERIMETER PROTECTION FOR TRENCH
   DRAIN (TD) ENTIRE PERIMETER. ANY HOLES, TEARS, OR OTHER DAMAGE OR DEGRADATION OF FILTER FABRIC SHALL BE REPAIRED
   PER MANUFACTURERS SPECIFICATIONS TO PROVIDE FILTER FABRIC FUNCTION TO MEET FILTER FABRIC SPECIFICATIONS FOR UNDAMAGED FABRIC.
7. EXTEND STONE TO 24" FROM MANHOLES OR STRUCTURES, WRAP FILTER FABRIC AROUND END(S) OF (TD) TRENCH DRAINS STONE
   AT MANHOLES OR STRUCTURES, EXTEND SOLID PIPE FROM END OF STONE TO CONNECT TO MANHOLE OR STRUCTURE.
   PROVIDE 100% FILTER FABRIC COVERAGE FOR ALL TRENCH DRAIN STONE, OVERLAP FABRIC MIN. 16 INCHES.



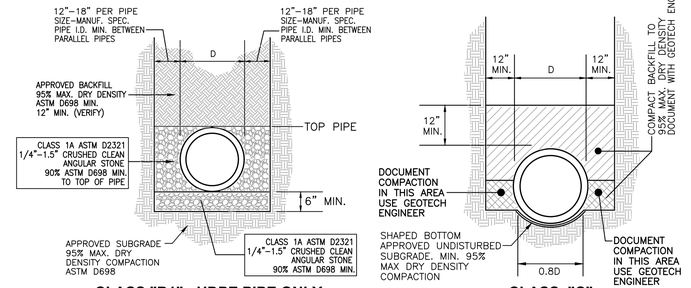
DOCUMENT MATERIALS AND INSTALLATION PER GEOTECHNICAL ENGINEER

(TD) TRENCH DRAIN DETAIL
(AT PIPE CROSSING)



DOCUMENT MATERIALS AND INSTALLATION PER GEOTECHNICAL ENGINEER

(TD) TRENCH DRAIN DETAIL



CLASS "B1" - HDPE PIPE ONLY
COMPACTED GRANULAR BEDDING

CLASS "C"
SHAPED BOTTOM

NOTES:
1. GEOTECH ENGINEER MUST DOCUMENT AND CERTIFY ALL EARTHWORK, SUBGRADE, BACKFILL, AND MATERIALS.
2. COMPLY WITH ALL MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS FOR BEDDING.
3. ALL PIPE SHALL BE INSPECTED AFTER BEDDING IS ONE-HALF PIPE DIAMETER THICKNESS AND PRIOR TO BACKFILL OVER PIPE. COORDINATE WITH OWNER'S REPRESENTATIVE, DOCUMENT WITH DIGITAL IMAGES.
4. DETAILS SHOWN ARE BASED ON SUITABLE SUBGRADE. WET, SPONGY OR SOFT SOILS, OR OTHER DEFECTS IN SUBGRADE SOIL, WILL REQUIRE SPECIFIC DESIGN ON INDIVIDUAL BASIS. CONTRACTOR IS RESPONSIBLE FOR SUITABILITY OF SOILS SELECTED FOR ALL FILL MATERIAL.
5. PIPE GAUGES AND STRUCTURAL SPECIFICATIONS SHALL CONFORM TO GEORGIA D.O.T. STANDARDS FOR PIPE CULVERTS 1030D AND MANUFACTURER SPECIFICATIONS.
6. BLOCKING WILL NOT BE PERMITTED.
7. ALL JOINTS, GASKETS, AND HARDWARE SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS FOR MATERIALS AND CONSTRUCTION AND PROVIDE PERMANENT WATERTIGHT SEALS.
8. DO NOT PLACE PIPE ON INCOMPRESSIBLE MATERIAL OR ROCK. EXCAVATE TO MINIMUM DEPTHS SHOWN.

PIPE BEDDING DETAILS

PROJECT NUMBER
23-021
DATE
12/01/23

REVISIONS
NO. DATE

FACILITY CODE

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
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CONSTRUCTION DETAILS

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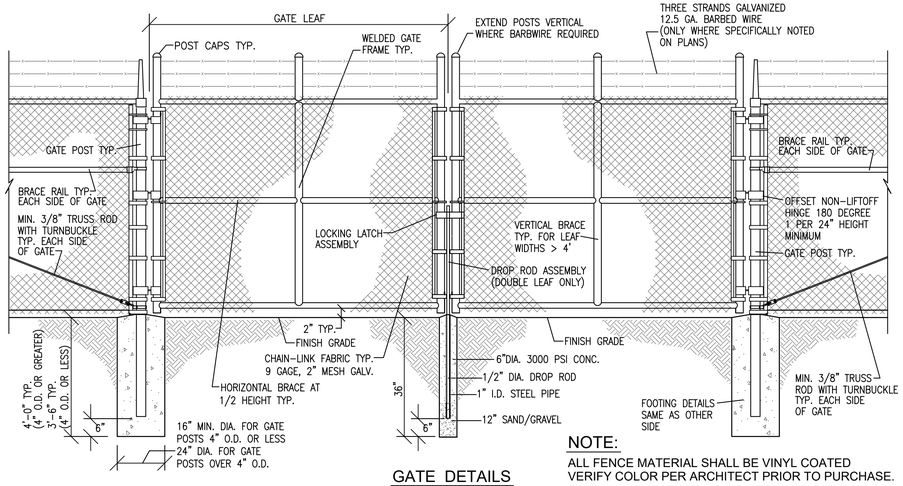
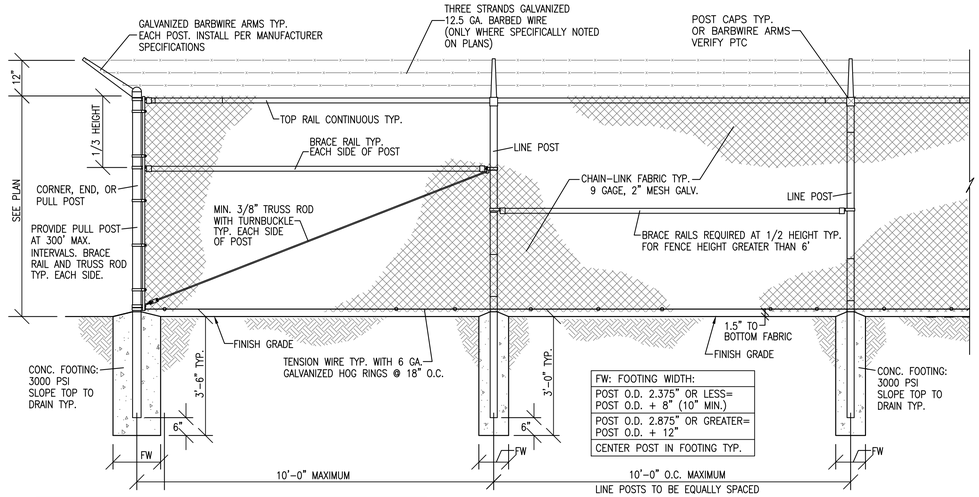
C7.3



GATE DETAILS

NOTE:

ALL FENCE MATERIAL SHALL BE VINYL COATED
VERIFY COLOR PER ARCHITECT PRIOR TO PURCHASE.

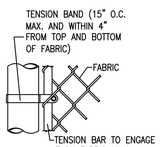


FW: FOOTING WIDTH:
POST O.D. 2.375" OR LESS= POST O.D. + 8" (10" MIN.)
POST O.D. 2.875" OR GREATER= POST O.D. + 12"
CENTER POST IN FOOTING TYP.

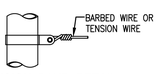
POST & RAIL SCHEDULE			
TYPE	FENCE HEIGHT 6' OR LESS	FENCE HEIGHT 6' TO 8'	FENCE HEIGHT OVER 8'
CORNER, END, TERMINAL & PULL POST	2.875" O.D.	2.875" O.D.	4.00" O.D.
LINE POST	1.90" O.D.	2.375" O.D.	2.875" O.D.
TOP, BOTTOM & BRACE RAIL	1.66" O.D.	1.66" O.D.	1.66" O.D.

FENCE DETAILS

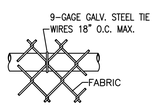
GATE POST SCHEDULE	
GATE LEAF WIDTH	POST
6' OR LESS	2.875" O.D.
6' TO 12'	4.00" O.D.
12' TO 18'	6.625" O.D.



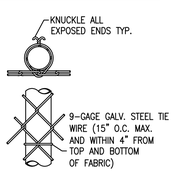
END, CORNER, GATE OR PULL POST DETAIL



TENSION BAND DETAIL



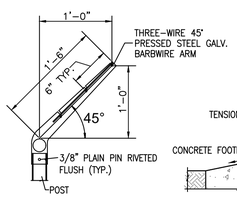
TOP OR BRACE RAIL ATTACHMENT



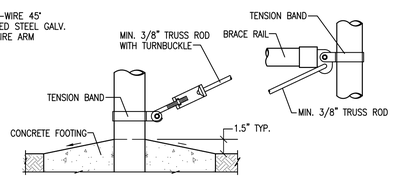
LINE POST ATTACHMENTS

NOTE:

ALL FENCE MATERIAL SHALL BE VINYL COATED
VERIFY COLOR PER ARCHITECT PRIOR TO PURCHASE.



BARBWIRE ARM



TRUSS ROD AND BAND

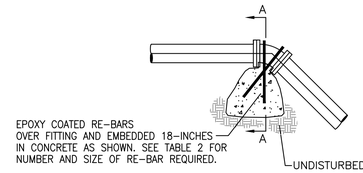
(CL) CHAIN - LINK FENCE DETAIL

TABLE 1

FITTING SIZE	MINIMUM CUBIC YARDS CONCRETE ANCHOR BLOCK			
	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
4	2.0	1.3	1.0	1.0
6	3.5	2.2	1.3	1.0
8	5.6	3.2	1.9	1.3
10	8.0	5.1	2.6	1.6
12	10.8	5.9	3.0	1.5
14	14.4	7.8	4.1	2.0
16	18.8	10.1	5.1	2.6
18	23.4	12.8	6.5	3.3
20	29.0	15.6	8.0	4.1
24	41.1	22.2	11.4	5.7

TABLE 2

FITTING SIZE	MINIMUM NUMBER & SIZE STEEL RE-BAR REQUIRED			
	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
4	2-#5	2-#5	2-#5	2-#5
6	2-#5	2-#5	2-#5	2-#5
8	2-#5	2-#5	2-#5	2-#5
10	3-#5	2-#5	2-#5	2-#5
12	4-#5	2-#5	2-#5	2-#5
14	4-#6	3-#5	2-#5	2-#5
16	4-#7	4-#5	2-#5	2-#5
18	4-#7	3-#6	3-#5	2-#5
20	4-#8	4-#6	3-#5	2-#5
24	6-#8	4-#7	2-#7	2-#5



SECTION A-A
N.T.S.

NOTES:

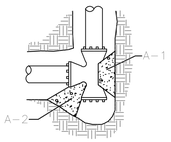
1. THE VOLUMES SHOWN IN TABLE 1 ARE BASED ON TEST PRESSURES OF 200 PSI AND THE WEIGHT OF CONCRETE = 4050 LBS/CU.Y.D. TO COMPUTE VOLUME FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESSURE/150) X (TABLE VALUE).
2. THE NUMBER AND SIZE OF RE-BAR REQUIRED SHOWN IN TABLE 2 ARE BASED UPON GRADE 40 RE-BAR WITH A TENSILE STRENGTH OF 20,000 PSI AND A FS=1.5.
3. ALTERNATE JOINT RESTRAINT METHODS SUCH AS MEGA-LUG, ETC., MAY BE ACCEPTED BY WRITTEN APPROVAL OF THE ENGINEER.
4. CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
5. ALL CONCRETE TO BE 3000 PSI MINIMUM.
6. INSTALL ISOLATION MATERIAL BETWEEN PIPE AND/OR FITTINGS BEFORE POURING CONCRETE BLOCKING.
7. FOR SOFT OR UNSUITABLE SOILS, CONSULT ENGINEER FOR THRUST BLOCK DESIGN
8. KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.

VERTICAL THRUST BLOCK DETAIL

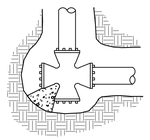
HORIZONTAL MINIMUM BEARING AREA OF THRUST BLOCKS IN SQUARE FEET								
FITTING SIZE INCHES	TEE, WYE, PLUGGED CROSS	STRADDLE BLOCK	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN		45° BEND	22-1/2° BEND	11-1/4° BEND
				A-1	A-2			
4	2.0	3.0	3.5	3.5	2.8	2.5	2.0	1.5
6	4.0	6.0	6.0	7.0	5.0	3.0	2.0	1.5
8	6.0	10.0	10.2	12.0	8.5	5.0	3.0	2.0
10	8.9	15.3	15.5	17.7	12.6	6.9	3.6	1.8
12	12.8	22.1	21.8	25.5	18.0	9.9	5.1	3.1
14	17.3	32.0	29.3	34.5	24.5	13.4	6.9	3.5
16	22.5	39.2	37.5	45.0	32.5	20.6	10.5	5.3
18	28.5	51.0	47.6	57.0	40.5	25.8	13.2	6.6
20	35.3	61.2	58.5	70.5	50.0	32.2	16.2	7.1
24	51.0	88.2	73.5	102.0	72.0	39.3	20.4	10.2

NOTES:

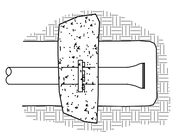
1. ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 200 PSI AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:
   BEARING AREA = (TEST PRESSURE / 150) x (2000 / SOIL BEARING STRESS) x (TABLE VALUE)
2. ABOVE VOLUMES BASED ON TEST PRESSURE OF 150 PSI AND THE WEIGHT OF CONCRETE=4050 POUNDS PER CUBIC YARD. TO COMPUTE FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION:
   VOLUME = (TEST PRESSURE / 150) x (TABLE VALUE)



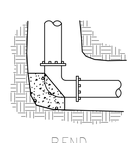
TEE PLUGGED ON RUN



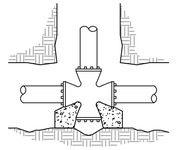
CROSS PLUGGED FOR 90° BEND
SEE NOTE 5



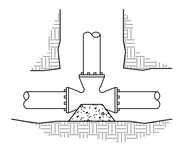
STRADDLE BLOCK



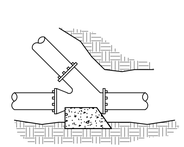
BEND
90°, 45°, 22 1/2°, 11 1/4°



CROSS PLUGGED FOR TEE
SEE NOTE 5



TEE



WYE

NOTES:

1. CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. ALL CONCRETE TO BE 3000 PSI MINIMUM.
3. INSTALL ISOLATION MATERIAL BETWEEN PIPE AND/OR FITTINGS BEFORE POURING CONCRETE BLOCKING.
4. CONCRETE SHALL BE KEPT CLEAR OF ALL JOINTS AND ACCESSORIES.
5. MAY NOT WORK OUT FOR ALL FITTING SIZES – CONFIRM USE OF THIS BLOCKING CONFIGURATION WITH ENGINEER.
6. FOR SOFT OR UNSUITABLE SOILS, CONSULT ENGINEER FOR THRUST BLOCK DESIGN

THRUST BLOCK DETAIL

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE

FACILITY CODE

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

PWS ENGINEERING
CIVIL ENGINEERING
SITE DEVELOPMENT
2900 DELK ROAD STE 700 #318 • MARIETTA, GA 30067 • PH: 770-433-8190
301 JONES STREET DALTON, GA 30720 WHITFIELD COUNTY, GA

ISSUE DATE: 02-15-24
JOB No. 22280 SCALE: 1" = 20'

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. 22553 PROFESSIONAL ENGINEER PRESTON W. HOBBY
GSWCC LEVEL II - 0000008686

SHEET INDEX

CONSTRUCTION DETAILS

SHEET INDEX

C7.4

DOOR EGRESS CAPACITIES @ .2/PERSON:		
NOMINAL OPENING SIZE	CLEAR WIDTH OF OPENING	EGRESS CAPACITY OF OPENING
3'-0" SINGLE	33.5"	167 PERSONS
3'-6' SINGLE	39.5"	197 PERSONS

IDENTIFICATION OF FIRE AND SMOKE RATED WALLS:

ALL FIRE RATED WALLS AND PARTITIONS SHALL BE PERMANENTLY IDENTIFIED ABOVE THE CEILING LINE WITH THE WORDING AS FOLLOWS:

"_ HR. RATED FIRE OR SMOKE BARRIER PROTECT ALL OPENINGS"

SUCH IDENTIFICATION SHALL CONSIST OF 2" H RED LETTERS PAINTED DIRECTLY ON BOTH SIDES OF THE WALL. USE RED ENAMEL PAINT AND STENCILS. SPACING SHALL BE 10'-0" O.C. MAXIMUM.

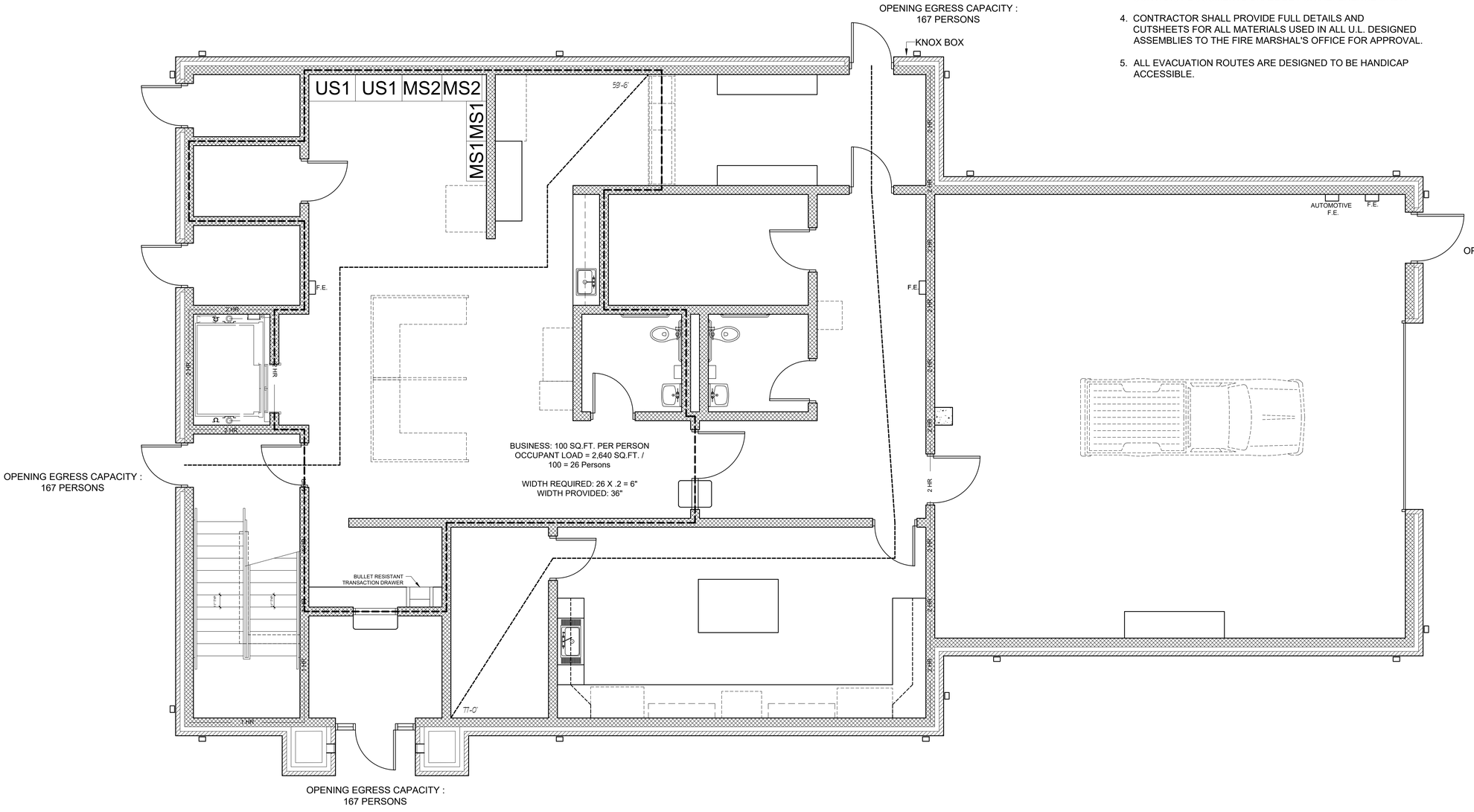
THE FOLLOWING WALLS SHALL BE SO IDENTIFIED: ALL 1 & 2 HR RATED WALLS AND PARTITIONS - AS INDICATED ON THIS SHEET.

GENERAL LIFE SAFETY PLAN NOTES:

1. KEY LOCK BOX IS REQUIRED.THE FIRE INSPECTOR WILL APPROVE THE LOCATION FOR THE BOX DURING THE 50% INSPECTION. GENERALLY, THESE BOXES ARE LOCATED SIX (6) FEET ABOVE GRADE AND TO THE RIGHT OF THE MAIN ENTRY DOOR. THE REQUIRED KNOX BOX MUST BE ORDERED THROUGH WWW.KNOXBOX.COM, USING THE LOCAL DEPARTMENT/AGENCY CODE. KNOX BOX SHALL BE OF A RECESSED TYPE, WHERE APPLICABLE. KNOX BOX TO BE PROVIDED BY GENERAL CONTRACTOR.
2. PORTABLE FIRE EXTINGUISHERS WILL BE PROVIDED PER NFPA 101. AN INSPECTOR OF THE FIRE MARSHAL'S OFFICE PRIOR TO FINAL INSPECTION WILL DETERMINE THE LOCATION AND ARRANGEMENT OF THE EXTINGUISHERS. A MINIMUM OF FOUR EXTINGUISHERS WITH THE POSSIBILITY OF ONE EVERY SEVENTY-FIVE (75) MAY BE REQUIRED.
3. CONTRACTOR SHALL SUBMIT FIRE ALARM AND FIRE SPRINKLER PLANS TO THE FIRE MARSHAL'S OFFICE FOR REVIEW AND PERMIT. CONTRACTOR SHALL BE IN POSSESSION OF PERMIT PRIOR TO COMMENCEMENT OF WORK. ANY DESIGN OF THESE SYSTEMS SHOWN ON THIS SET OF CONTRACT DOCUMENTS SHALL BE FOR REFERENCE ONLY.
4. CONTRACTOR SHALL PROVIDE FULL DETAILS AND CUTSHEETS FOR ALL MATERIALS USED IN ALL U.L. DESIGNED ASSEMBLIES TO THE FIRE MARSHAL'S OFFICE FOR APPROVAL.
5. ALL EVACUATION ROUTES ARE DESIGNED TO BE HANDICAP ACCESSIBLE.

LEGEND

- 8" CMU BLOCK EXTEND TO 1'-0" ABOVE CEILING, UNLESS NOTED OTHERWISE.
- 1 HR — 1 HOUR RATED
- 2 HR — 2 HOUR RATED
- (123) DOOR NUMBER TAG
- (A) WINDOW OR FRAME TAG
- F.E. — FIRE EXTINGUISHER AND CABINET
- F.D. — FLOOR DRAIN - COORDINATE WITH PLUMBING



1 LIFE SAFETY FLOOR PLAN
SCALE: 3/16" = 1'-0"

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

STATE OF GEORGIA
KENNETH R. HARLESS
CERTIFICATE NO. RA######
REGISTERED ARCHITECT

SHEET INDEX
FIRST FLOOR
LIFE SAFETY PLAN

SHEET INDEX
A0.1

DOOR EGRESS CAPACITIES @ .2/PERSON:		
NOMINAL OPENING SIZE	CLEAR WIDTH OF OPENING	EGRESS CAPACITY OF OPENING
3'-0" SINGLE	33.5"	167 PERSONS
3'-6' SINGLE	39.5"	197 PERSONS

IDENTIFICATION OF FIRE AND SMOKE RATED WALLS:

ALL FIRE RATED WALLS AND PARTITIONS SHALL BE PERMANENTLY IDENTIFIED ABOVE THE CEILING LINE WITH THE WORDING AS FOLLOWS:

"_ HR. RATED FIRE OR SMOKE BARRIER PROTECT ALL OPENINGS"

SUCH IDENTIFICATION SHALL CONSIST OF 2" H RED LETTERS PAINTED DIRECTLY ON BOTH SIDES OF THE WALL. USE RED ENAMEL PAINT AND STENCILS. SPACING SHALL BE 10'-0" O.C. MAXIMUM.

THE FOLLOWING WALLS SHALL BE SO IDENTIFIED: ALL 1 & 2 HR RATED WALLS AND PARTITIONS - AS INDICATED ON THIS SHEET.

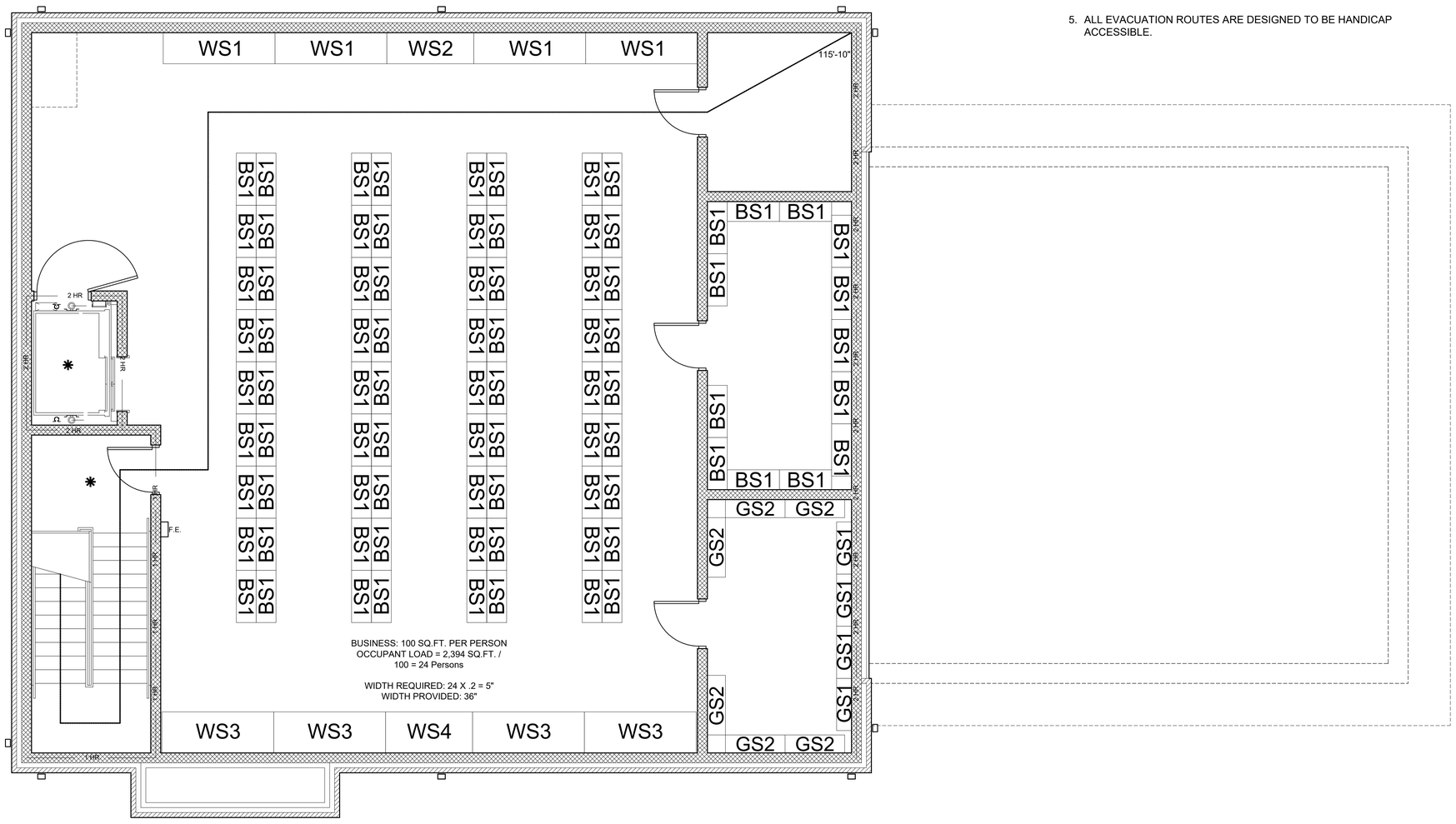
OPENING EGRESS CAPACITY :
167 PERSONS

GENERAL LIFE SAFETY PLAN NOTES:

1. KEY LOCK BOX IS REQUIRED.THE FIRE INSPECTOR WILL APPROVE THE LOCATION FOR THE BOX DURING THE 50% INSPECTION. GENERALLY, THESE BOXES ARE LOCATED SIX (6) FEET ABOVE GRADE AND TO THE RIGHT OF THE MAIN ENTRY DOOR. THE REQUIRED KNOX BOX MUST BE ORDERED THROUGH WWW.KNOXBOX.COM, USING THE LOCAL DEPARTMENT/AGENCY CODE. KNOX BOX SHALL BE OF A RECESSED TYPE, WHERE APPLICABLE. KNOX BOX TO BE PROVIDED BY GENERAL CONTRACTOR.
2. PORTABLE FIRE EXTINGUISHERS WILL BE PROVIDED PER NFPA 101. AN INSPECTOR OF THE FIRE MARSHAL'S OFFICE PRIOR TO FINAL INSPECTION WILL DETERMINE THE LOCATION AND ARRANGEMENT OF THE EXTINGUISHERS. A MINIMUM OF FOUR EXTINGUISHERS WITH THE POSSIBILITY OF ONE EVERY SEVENTY-FIVE (75) MAY BE REQUIRED.
3. CONTRACTOR SHALL SUBMIT FIRE ALARM AND FIRE SPRINKLER PLANS TO THE FIRE MARSHAL'S OFFICE FOR REVIEW AND PERMIT. CONTRACTOR SHALL BE IN POSSESSION OF PERMIT PRIOR TO COMMENCEMENT OF WORK. ANY DESIGN OF THESE SYSTEMS SHOWN ON THIS SET OF CONTRACT DOCUMENTS SHALL BE FOR REFERENCE ONLY.
4. CONTRACTOR SHALL PROVIDE FULL DETAILS AND CUTSHEETS FOR ALL MATERIALS USED IN ALL U.L. DESIGNED ASSEMBLIES TO THE FIRE MARSHAL'S OFFICE FOR APPROVAL.
5. ALL EVACUATION ROUTES ARE DESIGNED TO BE HANDICAP ACCESSIBLE.

LEGEND

- 8" CMU BLOCK EXTEND TO 1'-0" ABOVE CEILING, UNLESS NOTED OTHERWISE.
- 1 HR — 1 HOUR RATED
- 2 HR — 2 HOUR RATED
- 123 — DOOR NUMBER TAG
- A — WINDOW OR FRAME TAG
- F.E. — FIRE EXTINGUISHER AND CABINET
- * — TOP ENCLOSURE IN SPACE SHALL BE RATED TO MATCH ADJACENT WALLS IN ACCORDANCE WITH UL P521. SEE SETAILS FOR FURTHER INFORMATION



2 LIFE SAFETY FLOOR PLAN
SCALE: 3/16" = 1'-0"

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

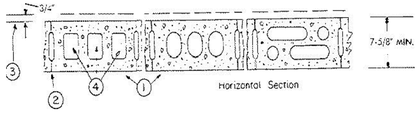
STATE OF GEORGIA
KENNETH R. HARLESS
CERTIFICATE NO. RA#####
REGISTERED ARCHITECT

SHEET INDEX
SECOND FLOOR
LIFE SAFETY PLAN

SHEET INDEX
A0.2

Design No. U905

Bearing Wall Rating -- 2 HR.
Nonbearing Wall Rating -- 2 HR
Load Restricted for Canadian Applications -- See Guide BXUV7



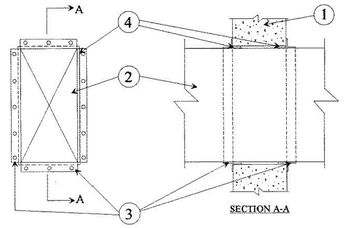
1. Concrete Blocks* -- Various designs. Classification D-2 (2 hr).
See Concrete Blocks category for list of eligible manufacturers.

2. Mortar -- Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
3. Portland Cement Stucco or Gypsum Plaster -- Add 1/2 hr to classification if used, Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).
4. Loose Masonry Fill -- If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.
5. Foamed Plastic* -- (Optional-Not Shown) -- 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
THE DOW CHEMICAL CO -- Type Thermax

*Bearing the UL Classification Mark

System No. W-J-7001

F Rating -- 1 Hr
T Rating -- 0 Hr



1. Wall Assembly -- Min 3-3/4 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max area of opening is 325 sq in. with max dimension of 25 in.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

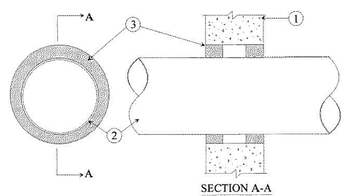
2. Steel Vent Duct -- Nom 12 x 24 in. (or smaller) x 24 gauge (or heavier) galv steel vent duct. One vent duct to be positioned within the firestop system. The annular space shall be min 1/4 in. to a max 3/4 in. Duct to be rigidly supported on both sides of the wall assembly.
3. Steel Retaining Angle -- Nom 2 x 2 x 1/8 in. steel angles attached to all four sides of the duct on both sides of the wall. The angles shall be attached with No. 8 (or larger) steel sheet metal screws or 1/4 in. diam by min 1 in. long steel bolts and nuts spaced within a max of 2 in. from each end and at a max of 5 in. OC.
4. Fill, Void or Cavity Material* -- Sealant -- Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC -- CP601S, CP606 or FS-One Sealant

*Bearing the UL Classification Mark

System No. W-J-1028

F Ratings -- 1 & 2 Hr (See Item 3)
T Rating -- 0 Hr



1. Wall Assembly -- Min 2-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 12-1/2 in.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

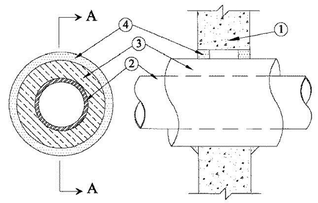
2. Through-Penetrants -- One metallic pipe, conduit or tubing to be centered within the firestop system. The annular space between pipes, conduit or tubing and periphery of opening shall be min 1/2 in. to max 7/8 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
A. Steel Pipe -- Nom 10 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Conduit -- Nom 4 in. diam (or smaller) steel electrical metallic tubing or nom 6 in. diam (or smaller) steel conduit.
C. Copper Tubing -- Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing.
D. Copper Pipe -- Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* -- Sealant -- Min 5/8 in. or 1-1/4 in. thickness of fill material applied within the annulus, flush with both surfaces of wall for 1 hr and 2 hr fire-rated walls, respectively.
HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC -- CP 601s or FS-ONE Sealant

*Bearing the UL Classification Mark

System No. W-J-5042

F Ratings -- 1 and 2 Hr (See Items 1 and 4)
T Ratings -- 1/2, 3/4, 1, 1-1/2 and 1-3/4 Hr (See Item 3)
L Rating At Ambient -- 4 CFM/Sq Ft
L Rating at 400 F -- Less Than 1 CFM/Sq Ft



1. Wall Assembly -- Min 3-3/4 in. and 5 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete for 1 and 2 h rated assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 18-5/8 in.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through--Penetrants -- One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
A. Steel Pipe -- Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe -- Nom 12 in. diam (or smaller) cast or ductile iron pipe.
C. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
D. Copper Pipe -- Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
3. Pipe Covering* -- Nom 1, 1-1/2 or 2 in. thick hollow-cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.
See Pipe and Equipment Covering Materials (BRGU) category in the Building Materials Directory for the names of the manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

The hourly T Rating of the firestop system is dependent on the size and type of through penetrant, the pipe covering thickness and the annular space as shown in the the table below:

Wall Assembly Rating	Through Penetrant		Pipe Covering Thickness In.	Annular Space		T Rating Hr.
	Type +	Max Diameter In.		Min. In.	Max In.	
1	A,B	4	1	0	1-1/2	1/2
1	C OR D	2	1 OR 1-1/2	0	1-1/2	1/2
1	A,B	4	1-1/2	0	1-1/2	1
1	A,B	10	2	0	1-7/8	3/4
1	C OR D	6	2	0	1-7/8	1
2	A,B	4	1	0	1-1/2	1
2	C OR D	4	1 OR 1-1/2	0	1-1/2	1
2	A,B	4	1-1/2	0	1-1/2	1-3/4
2	A,B	12	2	0	1-7/8	1-1/2
2	C OR D	6	2	0	1-7/8	1

+-Indicates penetrant type as itemized in Item 2.

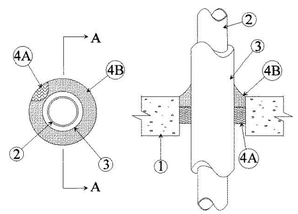
4. Fill, Void or Cavity Material*--Sealant -- Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe covering/wall interface on both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC -- FS-One Sealant

*Bearing the UL Classification Mark

System No. C-BJ-5008

F Rating -- 3 Hr
T Rating -- 3 Hr



1. Floor or Wall Assembly -- Min 6 in. thick reinforced normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 16 in.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Steel Pipe -- Nom 8 in. diam (or smaller) Schedule 10 (or heavier) steel pipe. One pipe to be installed either concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of floor or wall assembly.
3. Pipe Coverings -- One of the following types of pipe coverings shall be used:
A. Pipe and Equipment Coverings and Materials* -- Nom 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners for factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space within the firestop system shall be min 1/2 in. to max 2 in.
See Pipe and Equipment Covering -- Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

B. Pipe Covering Materials* -- Nom 2 in. thick unfaced mineral fiber pipe insulation having a nom density of 3.5 pcf (or heavier) and sized to the outside diam of pipe or tube. Pipe insulation secured with min 8 AWG steel wire spaced max 12 in. OC. The annular space within the firestop system shall be min 1/2 in. to max 2 in.
IIG MINWOOL L L C -- High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT or High Temperature Pipe Insulation Thermaloc

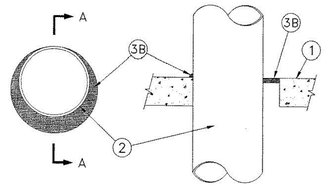
C. Sheathing Material* -- Used in conjunction with item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or butt tape.
See Sheating Materials (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

1. Firestop System -- The firestop system shall consist of the following:
A. Packing Material -- Min 2-1/2 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.
B. Fill, Void or Cavity Material* -- Sealant -- Min 1 in. thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces. Additional fill material to be installed such that a min 1/4 in. crown is formed around the penetrating item
W R GRACE & CO - CONN -- FS 1900 Sealant

*Bearing the UL Classification Mark

System No. C-AJ-1235

F Ratings -- 2 and 3 Hr (See Item 3B)
T Rating -- 0 Hr
L Rating at Ambient - Less than 1 CFM/sq ft
L Rating at 400° F - Less than 1 CFM/sq ft



1. Floor or Wall Assembly -- Min 4-1/2 in. (114 mm) thick reinforced normal weight (140-150 pcf or 2200-2400 kg/m3) concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 26 in. (660 mm). If the firestop system is installed within a hollow-core hollow-core precast concrete unit, max diam of opening shall be 7 in. (178 mm).
See Concrete Block (CAZT) and Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

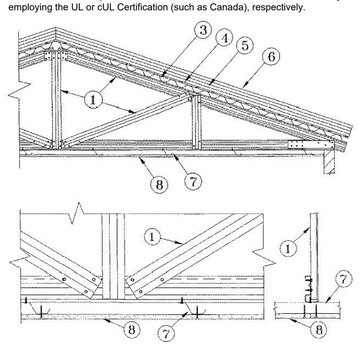
1A. Metallic Sleeve -- (Not shown, Optional) -- Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces. The use and the max diam of the steel sleeve is dependent upon the type and max diam of the through penetrant (Item 3) and type and min fill material thickness as tabulated in Item 3B.
2. Through Penetrants -- One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe, conduit or tubing and the periphery of the opening shall be min 0 in. (point contact) to a max 1-7/8 in. (48 mm). Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
A. Steel Pipe -- Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe -- Nom 24 in. (610 mm) diam (or smaller) cast or ductile iron pipe.
C. Conduit -- Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 6 in. (152 mm) diam (or smaller) steel conduit.
D. Copper Tubing -- Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
E. Copper Pipe -- Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Firestop System -- The firestop system shall consist of the following:
A. Packing Material -- Min 4 pcf (64 m3) mineral wool batt insulation firmly packed into opening or min 1 in. (25 mm) diam backer rod friction fitted into the opening as a form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material. When the floor is constructed of hollow-core precast concrete units, packing material shall be recessed from both surfaces of floor to accommodate the required thickness of fill materials. In floors, the packing material may be removed after the fill material cures.
B. Fill, Void or Cavity Material* -- Sealant -- Fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between through penetrant and concrete, a min 3/8 in. (10 mm) diam bead of fill material shall be applied at the concrete/through penetrant interface on the top surface of floor and on both surfaces of wall. When the floor is constructed of hollow-core precast concrete units, fill material shall be installed symmetrically on both sides of floor, flush with both floor surfaces. The F Rating of the firestop system is dependent upon the use and the max diam of the steel sleeve, type and max diam of the through penetrant and type and min fill material thickness as tabulated below:

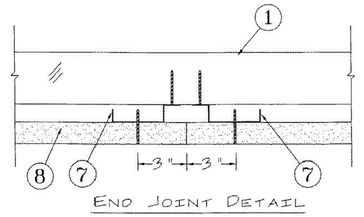
Use of Steel Sleeve	Max. Dia. of Stl. Sleeve In.	Type of Through Penetration	Max. Dia. of Through Penetration In.	Type of Fill Material	Min. Fill Material Thickness In.	F Rating Hr.
Not Permitted	-	Steel or Iron Pipe	24 (610)	FS1900	1 (25)	3
Permitted	8 (203)	Steel or Iron Pipe	6 (152)	FS1900	1 (25)	3
Permitted	8 (203)	Copper Pipe, Tube or Stl.	6 (152)	FS1900	1 (25)	3
Permitted	6 (152)	Steel EMT	4 (102)	FS1900	1 (25)	3
Permitted	6 (152)	Steel or Iron Pipe	4 (102)	FS1900	1/2 (13)	2
Permitted	6 (152)	Copper Pipe, Tube or Stl.	4 (102)	FS1900	1/2 (13)	2
Permitted	6 (152)	Steel EMT	4 (102)	FS1900	1/2 (13)	2
Not Permitted	-	Steel or Iron Pipe	24 (610)	FS900/FS900+	1/2 (13)	3
Permitted	8 (203)	Steel or Iron Pipe	6 (152)	FS900/FS900+	1/2 (13)	3
Permitted	8 (203)	Copper Pipe, Tube or Stl.	6 (152)	FS900/FS900+	1/2 (13)	3
Permitted	6 (152)	Steel EMT	4 (102)	FS900/FS900+	1/2 (13)	3

W R GRACE & CO - CONN -- FlameSafe® FS1900, Flamesafe® FS900, FlameSafe® FS900+.
*Bearing the UL Classification Mark

Design No. P521
October 09, 2017
Restrained Assembly Rating — 1, 1-1/2 and 2 Hr. (See Items 3A, 5, 5A, 5B, 5C, 5D, 8 and 8A)
Unrestrained Assembly Rating — 1, 1-1/2 and 2 Hr. (See Items 3A, 5, 5A, 5B 5C, 5D, 8 and 8A)
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.





1. Structural Steel Members* — Pre-fabricated light gauge steel truss system consisting of cold-formed, galvanized steel chord and web sections. Trusses fabricated in various sizes, depths, and from various steel thickness. Trusses spaced a max of 48 in. OC.
AEGIS METAL FRAMING, DIV OF MITEK — Ultra-Span, Pre-fabricated Light Gauge Steel Truss System

2. Bridging — (Not Shown) — Location of lateral bracing for truss chord and web sections to be specified on truss engineering.
3. Steel Floor and Form Units — (Classified or Unclassified) — Corrugated or fluted steel form units, min 22 MSG painted or galv steel, welded or mechanically fastened max 12 in. OC to truss-top chords.
4. Cementitious Backer Units* — Nom 1/2 or 5/8 in. thick sheets. End-joints to occur over crests of steel roof deck with end-joints staggered in adjacent rows. Units loosely laid, adhered or mechanically attached to steel roof deck.
UNITED STATES GYPSUM CO — Type DCB.

4A. Gypsum Board — (Classified or Unclassified) — (Not Shown) — As an alternate to Item 4, Gypsum sheathing, min 1/2 in. thick, applied perpendicular to steel roof deck. End joints to occur over crests of steel roof deck. Sheathing loosely laid, adhered or mechanically attached to steel roof deck. See Gypsum Board (CKNX) category for names of Classified companies.
5. Roof Insulation — Foamed Plastic* — Any polyisocyanurate foamed plastic insulation boards bearing the UL Classification Marking. Min thickness is 1 in. for the 1 hr assembly ratings, 2 in. for the 1-1/2 hr assembly ratings and 4 in. for the 2 hr ratings, with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4) or gypsum sheathing (Item 4A), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer of board to be offset in both directions from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units or gypsum sheathing, and to steel roof deck (Item 3). See Foamed Plastic (CCVW) Category in the Fire Resistance Directory.
5A. Roof Insulation — Foamed Plastic* — (Not Shown) — As an alternate to Item 5 — For 1 and 1-1/2 hr ratings only — Any polystyrene foamed plastic insulation boards bearing the UL Classification Marking. Min thickness is 1 in. for the 1 hr assembly ratings, and 2 in. for the 1-1/2 hr assembly ratings, with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4) or gypsum sheathing (Item 4A), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer or board to be offset in both directions from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units or gypsum sheathing, and to steel roof deck (Item 3). See Foamed Plastic (BRYX) category in the Building Materials Directory or Foamed Plastic (CCVW) category in the Fire Resistance Directory.
5B. Roof Insulation — Mineral and Fiber Boards* — (Not Shown) — As an alternate to Item 5 — Mineral wool, glass fiber or perlite insulation boards, 24 by 48 in. min size, applied in one or more layers. Min thickness is 1 in. for the 1 hr assembly ratings, 2 in. for the 1-1/2 hr assembly rating and 4 in. for the 2 hr ratings, with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4) or gypsum sheathing (Item 4A), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer of board to be offset in both directions from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units or gypsum sheathing, and to steel roof deck (Item 3).
See Mineral and Fiber Boards (BQXR) Category in the Building Materials Directory or Mineral and Fiber Boards (CERZ) Category in the Fire Resistance Directory.

5C. Roof Insulation —Building Units* — (Not Shown) — As an alternate to Item 5—Any polyisocyanurate foamed plastic insulation faced on the top surface with oriented strand board or faced on the underside or both sides with wood fiber board, bearing the UL Classification Marking for Fire Resistance. No min thickness of the polyisocyanurate foamed plastic core required for the 1 hr assembly ratings, min 2 in. polyisocyanurate foamed plastic core for the 1-1/2 hr assembly ratings and min 4 in. polyisocyanurate foamed plastic core for the 2 hr rating with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4) or gypsum sheathing (Item 4A), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer of board to be offset in both directions from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units or gypsum sheathing and to steel roof deck (Item 3). See Building Units (BZXX) category in the Fire Resistance Directory.
5D. Roof Insulation — Foamed Plastic* — (Not Shown) — For use with Item 8A. Any polyisocyanurate foamed plastic insulation boards bearing the UL Classification Marking. Min thickness is 1 in. for the 1 hr. Assembly Ratings and 3 in. for the 1-1/2 hr and 2 hr. Assembly Ratings, with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer of board to be offset from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units (Item 4). See Foamed Plastic (CCVW) Category in the Fire Resistance Directory.
6. Roof Covering* — Consisting of hot-mopped or cold-application materials compatible with insulation(s) described herin which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering Materials (TEVT).
6A. Roofing Membrane* — (Not Shown) — In lieu of Item 6, single-ply membrane that is either ballasted, adhered or mechanically attached to the insulation(s) described herin as permitted under the respective company's Classification. See Fire Resistance Directory-Roofing Membranes (CHCI) Category.
6B. Metal Roof Deck Panels* — In Lieu of or in addition to Items 6 and 6A, the roof covering may consist of mechanically fastened galv or painted steel roof deck panels. Panels may be installed above a steel purlin assembly per metal roof deck manufacturer's specifications. Steel purlin assembly to be installed transverse to steel roof trusses (Item 1). A line of sealant or tape may be used at panel side and end laps. See Metal Roof Deck Panels Category in the Roofing Materials and Systems Directory (TJPV) or Fire Resistance Directory (CETW) for names of manufacturers.

6C. Roof Cove

ring* — In Lieu of Item 6 —Any UL Class A, B or C Prepared Roof Covering (TFWZ) acceptable for use over plywood sheathing or nonveneer APA Rated Series Sheathing. Sheathing mechanically fastened through roof insulation to top chord of steel trusses with fasteners spaced a max of 12 in. OC. As an alternate to the plywood sheathing or nonveneer APA Rated Series Sheathing, the Prepared Roof Covering (TFWZ) may be applied directly to the Building Units* (Item 5C) if the building units also carry the UL Classification Marking for Prepared Roofing Accessories (TGDY). Fasteners to be of sufficient length to penetrate top chord of truss by 3/8 in.
1. Resilient Channels — Resilient channels formed of 25 MSG galv steel, installed perpendicular to the trusses (Item 1) when steel trusses are spaced a max 24 in. OC,. Resilient channels spaced a max of 16 in. OC. Channels oriented opposite at wallboard butt-joints. Channel spices overlapped 4 in. beneath steel trusses. Channels secured to each truss with Type S-12 by 1/2 in. long screws.
7A. Furring Channels — (Not Shown) — As an alternate to Item 7 — Hat chanels min 20 MSG galv steel, min 2-5/8 in. wide by min 7/8 in. deep, installed perpendicular to the trusses (Item 1) spaced a max of 16 in. OC. Two courses of channel positioned 6 in. OC at wallboard butt-joints (3 in. from each end of wallboard). Channel splices overlapped 6 in. beneath steel trusses. Channels secured to each truss with No. 18 SWG steel wire double strand saddle ties. Channels tied together with double strand of No.18 SWG steel wire at each end overlap.
7B. Resilient Channels — (Not Shown) — As an alternate to Items 7 and 7A, resilient channels, double legged formed of 25 MSG galv steel, 2-7/8 in. wide by 1/2 in. deep, perpendicular to steel trusses (Item 1) when steel trusses are spaced a max 24 in. OC. Resilient channels spaced a max of 16 in. OC. Two courses of resilient channel positioned 6 in. OC at wallboard butt-joints (3 in. from each end of wallboard). Channel splices overlapped 4 in. beneath steel trusses. Channels secured to each truss with Type S12 by 1/2 in. long screws or with No. 18 SWG galv steel wire double strand saddle ties. Channels tied together with double strand of No. 18 SWG galv steel wire at each end overlap.

2. Gypsum Board* — For all ratings except the 2 Hr Assembly Ratings — One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trusses. Attached to the resilient channels using 1 in. long Type S bugle-head screws spaced 12 in. OC along butted end-joints and 12 in. OC in the field. For the 2 Hr Ratings — Two layers of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trussses. Base layer attached as described above. Face layer attached to the resilient channels using 1-5/8 in. long Type S bugle-head screws spaced 12 in. OC along butted end-joints and 12 in. OC in the field. Screws staggered from base layer screws. Face layer side and end joints offset a minimum 16 in. from base layer side and end joints.
CGC INC — Types C, IP-X2, IPC-AR.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR.

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR.

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

STATE OF GEORGIA
KENNETH R. HARLESS
CERTIFICATE NO. RA015604
REGISTERED ARCHITECT

SHEET INDEX
LIFE SAFETY AND NOTES

SHEET INDEX
A0.3

METAL STORAGE SHELVING LEGEND

MS1 - 18D X 36W X 87H - 7- SHELF STORAGE SYSTEM - EQUAL TO SOUTHWEST STORAGE SOLUTIONS - DELUXE SHELVING SYSTEM - SHELVING UNIT SHALL BE CLOSED IN TYPE AND HAVE 18GA HEAVY DUTY SHELVING W/ ANGLE FRONT LEGS - INCLUDE FEET AND ALL ACCESSORIES NECESSARY FOR A COMPLETE SYSTEM INSTALL AND ALLOWING A FIXED INSTALLATION TO WALLS AND/OR FLOOR.

MS2 - 24D X 36W X 87H - 7- SHELF STORAGE SYSTEM - EQUAL TO SOUTHWEST STORAGE SOLUTIONS - DELUXE SHELVING SYSTEM - SHELVING UNIT SHALL BE CLOSED IN TYPE AND HAVE 18GA HEAVY DUTY SHELVING W/ ANGLE FRONT LEGS - INCLUDE FEET AND ALL ACCESSORIES NECESSARY FOR A COMPLETE SYSTEM INSTALL AND ALLOWING A FIXED INSTALLATION TO WALLS AND/OR FLOOR.

US1 - 24D X 42W X 76.25H - DOUBLE TIER UNIFORM STORAGE CABINET - EQUAL TO SOUTHWEST STORAGE SOLUTIONS - MODEL NUMBER SMS-23-42W24DGAR2TR - PROVIDE ALL HARDWARE NECESSARY FOR A COMPLETE INSTALLATION ALLOWING A FIXED INSTALLATION TO WALLS AND/OR FLOOR.

LEGEND

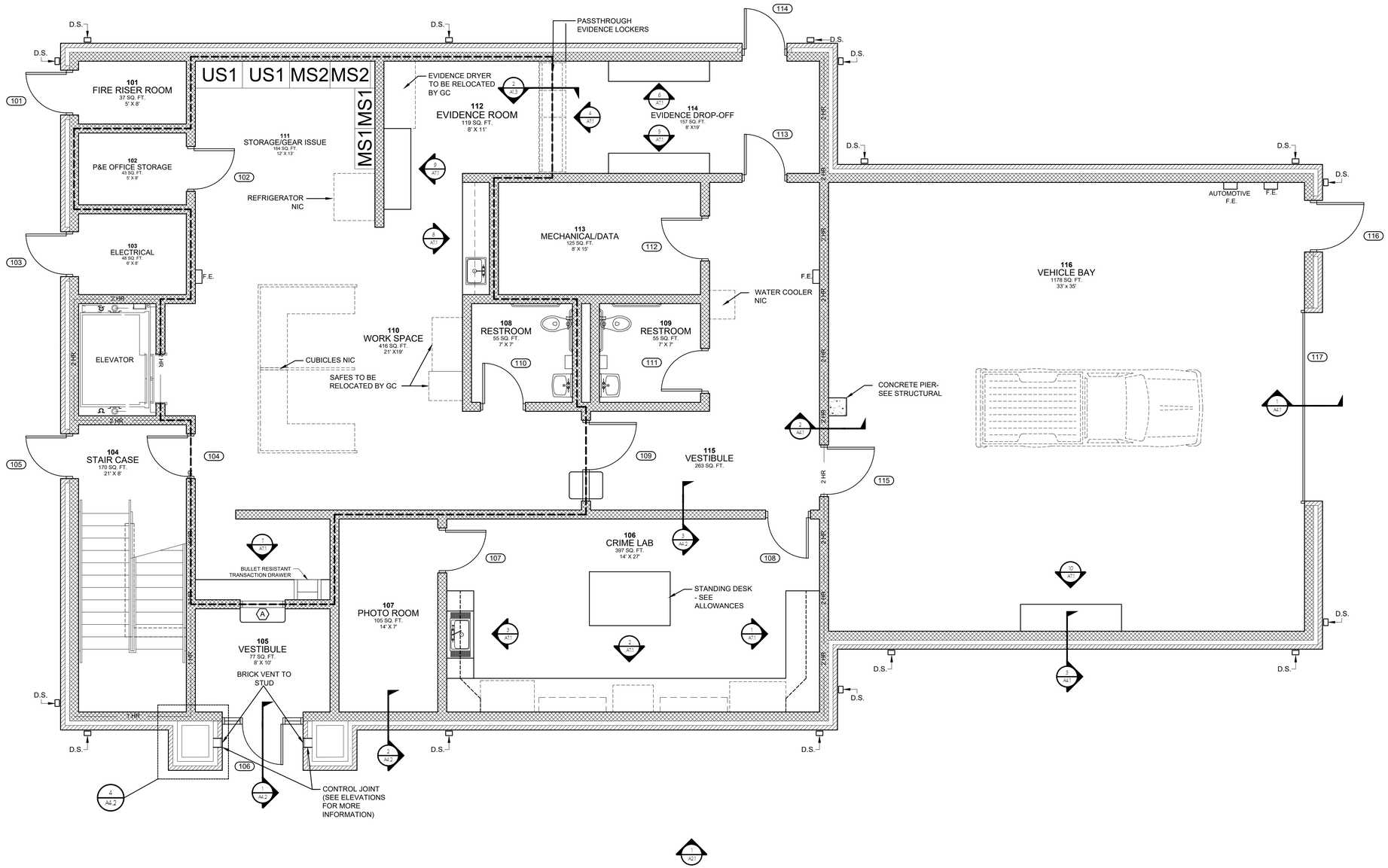
- A## - DOOR NUMBER TAG
- A - NEW WINDOW TYPE TAG
- F.E. - F.E.- FIRE EXTINGUISHER EXACT LOCATION COORDINATE W/ ALL EQUIPMENT
- - - - PORTIONS OF WALL TO EXTEND TO DECK

NOTE: FOR LARGE SCALE TOILETS SEE SHEETS A6.1.

NOTE: SEE LARGE SCALE PLANS FOR ADDITIONAL TYPICAL CASEWORK ELEVATION MARKERS.

NOTE: FOR LARGE SCALE TYP. STAIRS SEE SHEET A6.1.

NOTE: DOWNSPOUTS SHALL BE PREFINISHED TO MATCH SELECTED METAL ROOFING SYSTEM AND GUTTERS. DOWNSPOUTS SHALL BE 4" X 6" AND RECTANGULAR IN SHAPE.



1 FIRST FLOOR PLAN

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

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

STATE OF GEORGIA
KENNETH R. HARLESS
CERTIFICATE NO. RA#####
REGISTERED ARCHITECT

SHEET INDEX
FIRST LEVEL FLOOR PLAN

SHEET INDEX
A1.1

METAL STORAGE SHELVING LEGEND

BS1 - 16D X 42W X 88H - SINGLE SIDED BOX STORAGE SHELVING - EQUAL TO SOUTHWEST STORAGE SOLUTIONS - MODEL NUMBER SMS-20-421688-O8 - SHELVING UNIT SHALL HAVE 7 OPENINGS AND 8 SHELVES

GS1 - 12D X 42W X 76.25H - HANDGUN STORAGE SHELVING - EQUAL TO SOUTHWEST STORAGE SOLUTIONS - MODEL NUMBER SMS-22-761242GAR4L - SHELVING UNIT SHALL BE 4 LEVELS - PROVIDE (60) HANDGUN BAGS WITH EACH UNIT - MODEL NUMBER SMS-21-PCGBHD123665IMP

GS2 - (2) 14.5D X 48W X 36H - LONG GUN SLAT WALL RACK - EQUAL TO HOLDUP DISPLAYS - MODEL NUMBER HD91-B - AT EACH LOCATION PROVIDE (2) RACK DISPLAYS STACKED VERTICALLY. PROVIDE ALL HARDWARE NECESSARY FOR A COMPLETE INSTALLATION ALLOWING A FIXED INSTALLATION TO WALLS.

WS1 - 24D X 90W X 144H - WIDE SPAN RACK SHELVING SYSTEM -EQUAL TO MECALUX-KI-FRAME - MODEL NUMBER U7515H - SHELVING UNIT SHALL HAVE SHELVES 24" OC VERTICALLY (APPROX. 6 SHELVES) W/ PARTICLE BOARD SHELF AND ZS-U BEAMS - SUPPLY ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION INCLUDING WALL CLIPS FOR ATTACHMENT

WS2 - 24D X 70W X 144H - WIDE SPAN RACK SHELVING SYSTEM -EQUAL TO MECALUX-KI-FRAME - MODEL NUMBER U7515H - SHELVING UNIT SHALL HAVE SHELVES 24" OC VERTICALLY (APPROX. 6 SHELVES) W/ PARTICLE BOARD SHELF AND ZS-U BEAMS - SUPPLY ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION INCLUDING WALL CLIPS FOR ATTACHMENT

WS3 - 33D X 90W X 144H - WIDE SPAN RACK SHELVING SYSTEM -EQUAL TO MECALUX-KI-FRAME - MODEL NUMBER U7515H - SHELVING UNIT SHALL HAVE SHELVES 24" OC VERTICALLY (APPROX. 6 SHELVES) W/ PARTICLE BOARD SHELF AND ZS-U BEAMS - SUPPLY ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION INCLUDING WALL CLIPS FOR ATTACHMENT

WS4 - 33D X 70W X 144H - WIDE SPAN RACK SHELVING SYSTEM -EQUAL TO MECALUX-KI-FRAME - MODEL NUMBER U7515H - SHELVING UNIT SHALL HAVE SHELVES 24" OC VERTICALLY (APPROX. 6 SHELVES) W/ PARTICLE BOARD SHELF AND ZS-U BEAMS - SUPPLY ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION INCLUDING WALL CLIPS FOR ATTACHMENT

LEGEND

(A##) - DOOR NUMBER TAG

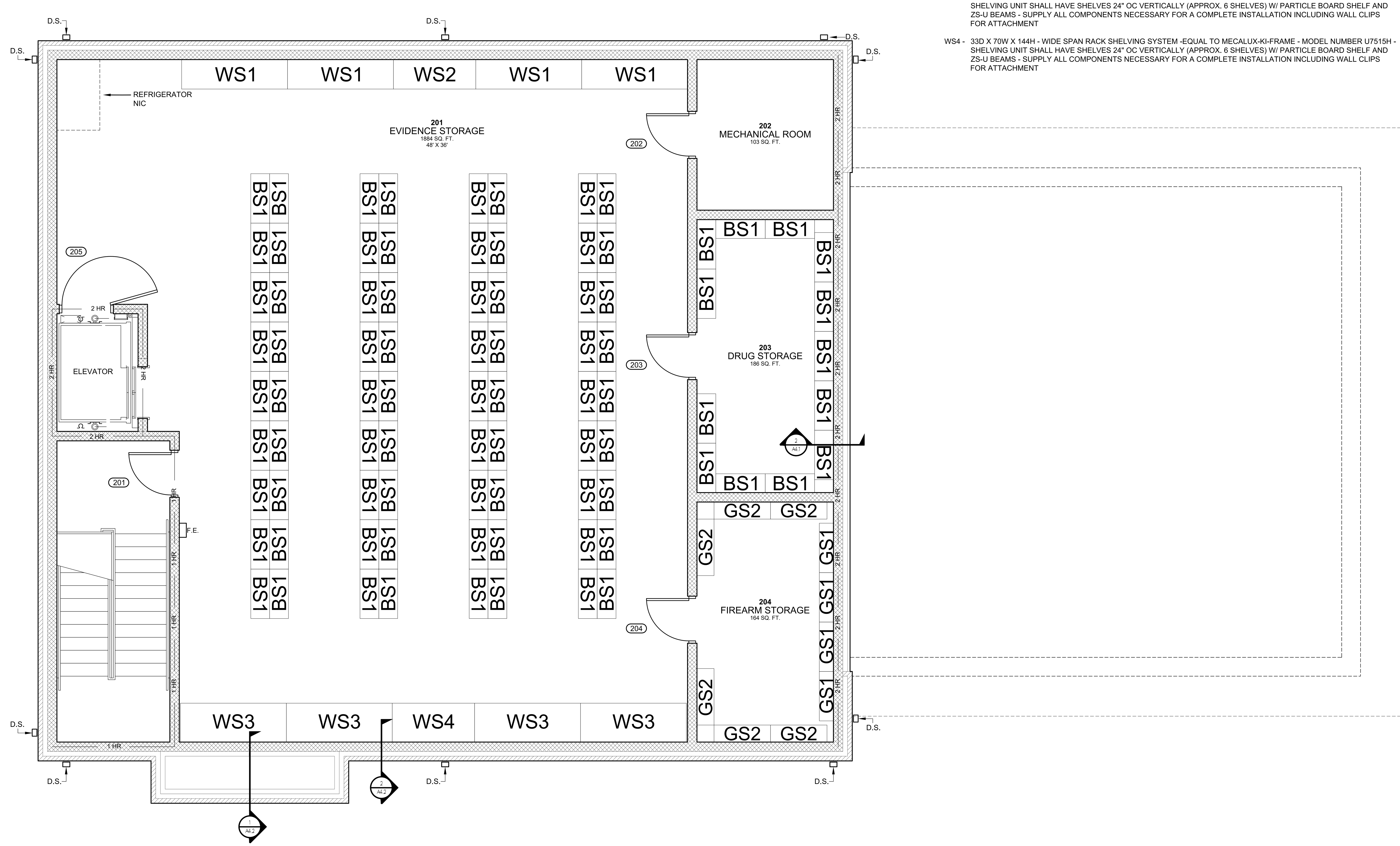
(A) - NEW WINDOW TYPE TAG

F.E. - F.E.- FIRE EXTINGUISHER EXACT LOCATION COORDINATE W/ ALL EQUIPMENT

NOTE: FOR LARGE SCALE TOILETS SEE SHEETS A6.1.

NOTE: SEE LARGE SCALE PLANS FOR ADDITIONAL TYPICAL CASEWORK ELEVATION MARKERS.

NOTE: FOR LARGE SCALE TYP. STAIRS SEE SHEET A6.1.



1 SECOND FLOOR PLAN

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

FOR CONSTRUCTION

PROJECT NUMBER 23-021

DATE 12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE 000-0000

KRH INCORPORATED ARCHITECTS

855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

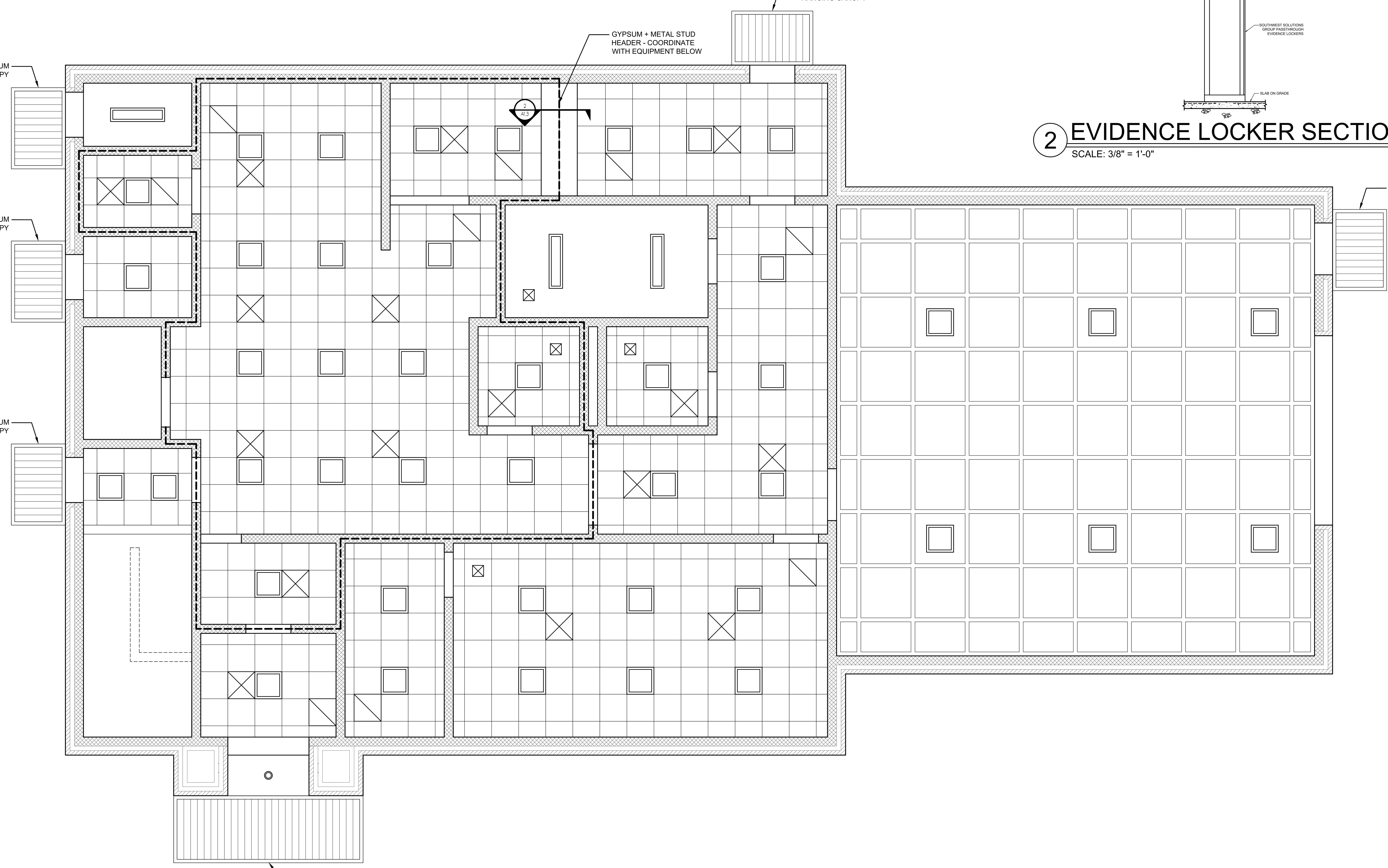
A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

SHEET INDEX

SECOND LEVEL FLOOR PLAN

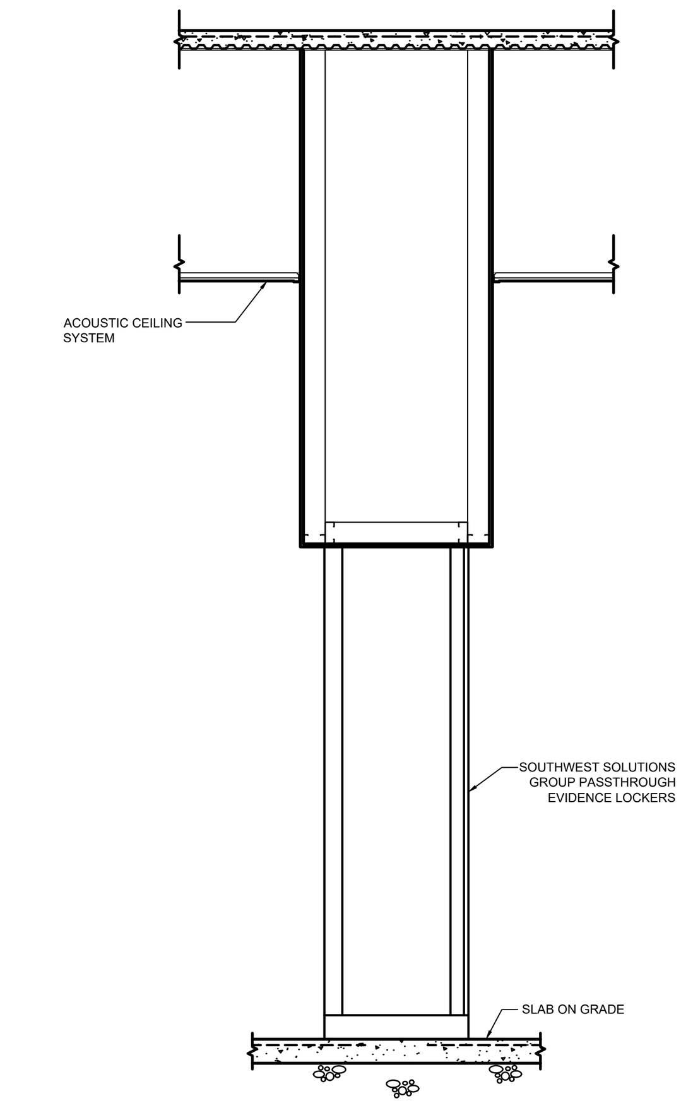
SHEET INDEX

A1.2



1 FIRST FLOOR CEILING PLAN

SCALE: 3/16" = 1'-0"



2 EVIDENCE LOCKER SECTION

SCALE: 3/8" = 1'-0"

LEGEND

(CMU hatch)	8" CMU BLOCK EXTEND TO 1'-0" ABOVE CEILING, UNLESS NOTED OTHERWISE.
(grid)	ACOUSTIC CEILING TILE SYSTEM
(soffit grid)	NON-VENTED SMOOTH HARDIE SOFFIT PANELS, 4'-0" X 8'-0" SIZE, ON LIGHT GAGE METAL FURRING CHANNELS EVERY 2'-0" O.C. MAX. INSTALLED PERPENDICULAR TO TRUSSES, WITH .75" THICK, 2.5" WIDE HARDIE TRIM SMOOTH BATTEN BOARDS EVERY 4'-0" O.C. EACH WAY.

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

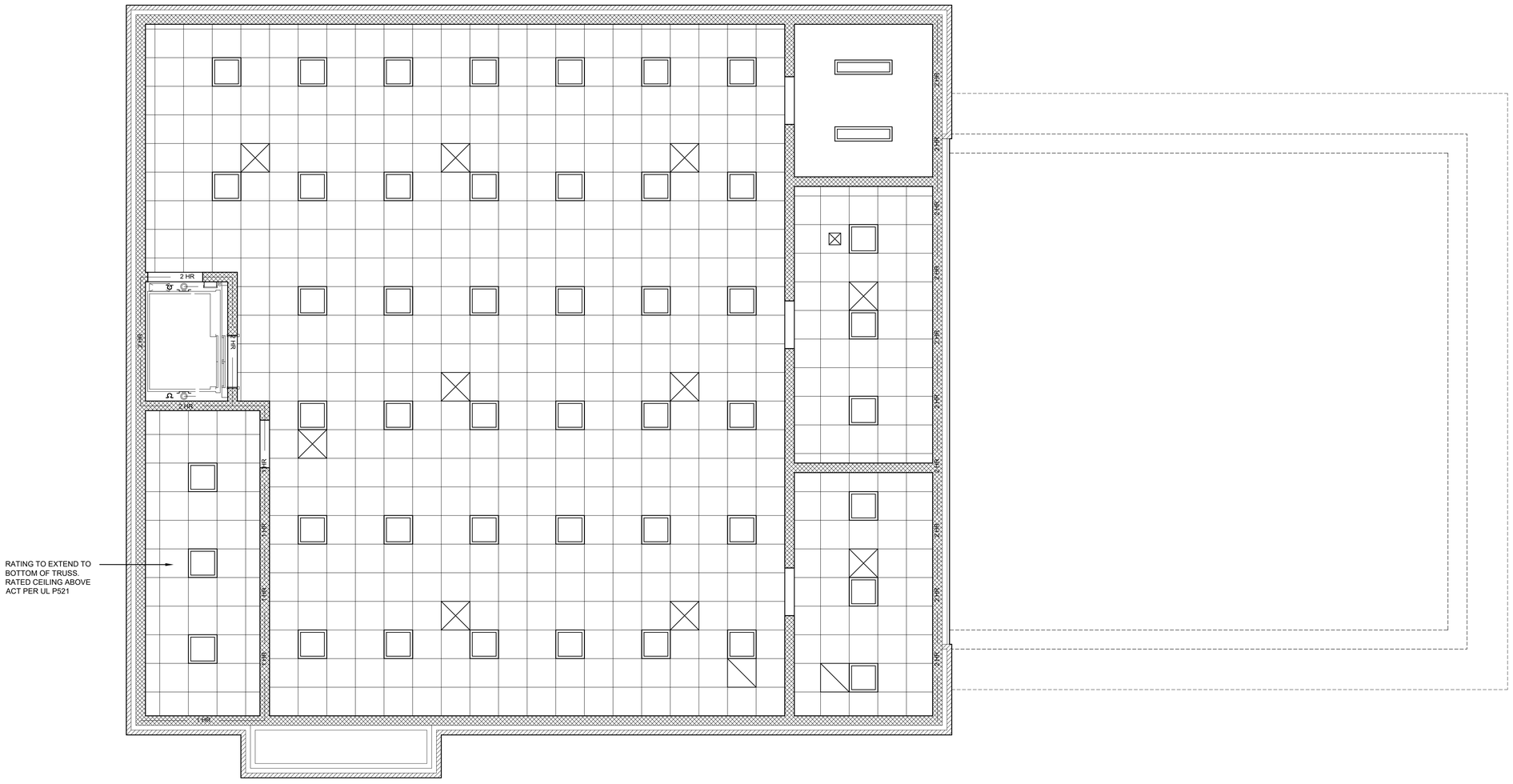
STATE OF GEORGIA REGISTERED ARCHITECT KENNETH R. HARLESS

SHEET INDEX
FIRST LEVEL REFLECTED CEILING PLAN

SHEET INDEX
A1.3

LEGEND

- 8" CMU BLOCK EXTEND TO 1'-0" ABOVE CEILING, UNLESS NOTED OTHERWISE.
- ACOUSTIC CEILING TILE SYSTEM
- NON-VENTED SMOOTH HARDIE SOFFIT PANELS, 4'-0" X 8'-0" SIZE, ON LIGHT GAGE METAL FURRING CHANNELS EVERY 2'-0" O.C. MAX. INSTALLED PERPENDICULAR TO TRUSSES, WITH .75" THICK, 2.5" WIDE HARDIE TRIM SMOOTH BATTEN BOARDS EVERY 4'-0" O.C. EACH WAY.



1 SECOND FLOOR CEILING PLAN
SCALE: 3/16" = 1'-0"

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

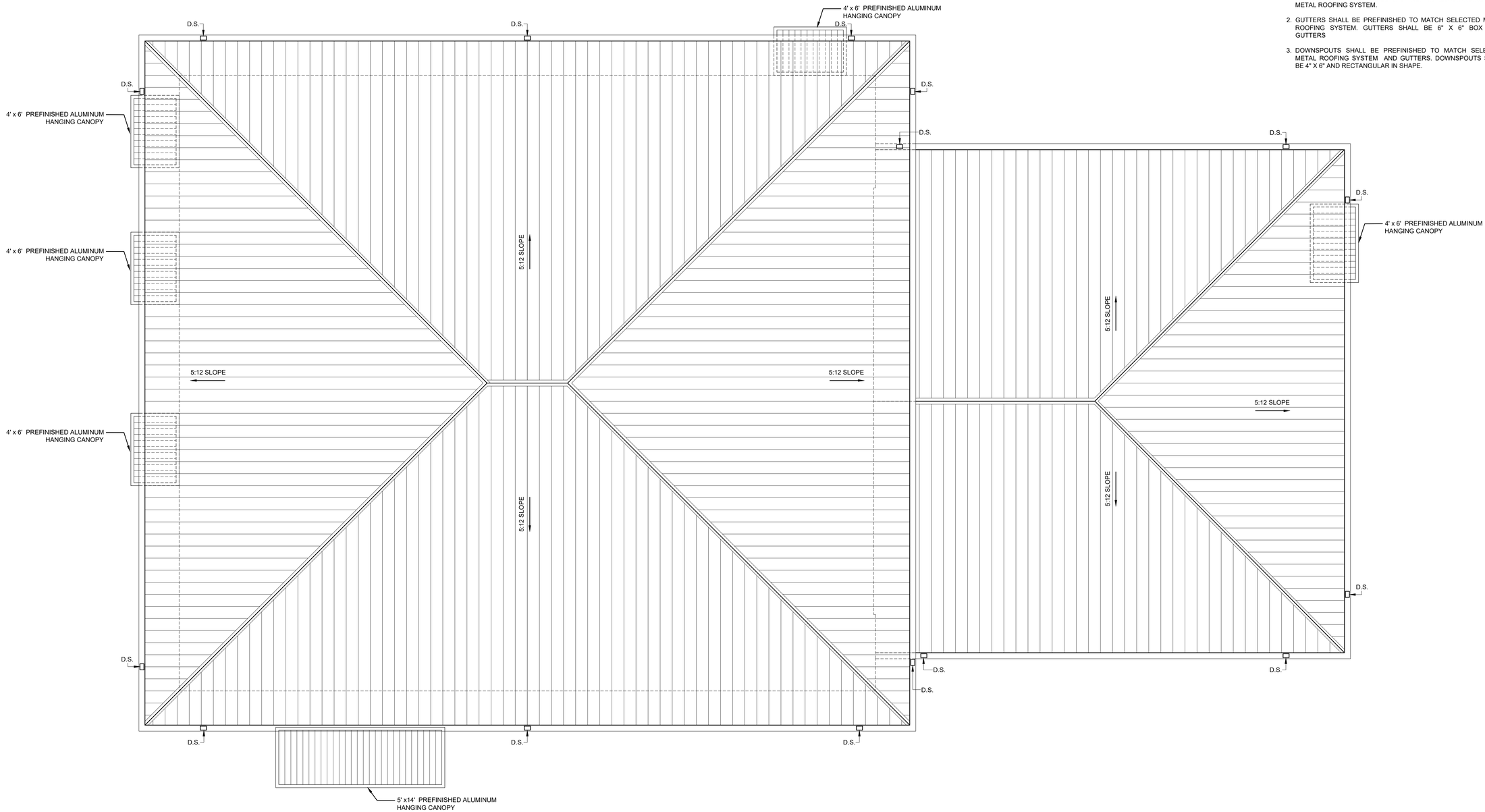
KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

STATE OF GEORGIA
KENNETH R. HARLESS
CERTIFICATE NO. RA025554
REGISTERED ARCHITECT

SHEET INDEX
SECOND LEVEL REFLECTED CEILING PLAN

SHEET INDEX
A1.4



ROOF PLAN

SCALE: 3/16" = 1'-0"

ROOF PLAN LEGEND

- PREFINISHED METAL ROOFING SYSTEM OVER METAL DECKING. SEE SPECIFICATIONS.

DS - DOWNSPOUT - EACH DOWNSPOUT SHALL RECEIVE (1) CAST IRON DOWNSPOUT BOOT EQUAL TO NEENAH MODEL R-4929-A8 AND SHALL CONNECT TO UNDERGROUND STORM SYSTEM - SEE CIVIL FOR FURTHER INFORMATION.

GENERAL NOTES:

1. ALL ROOF SLOPES SHALL BE 5:12 PREFINISHED STANDING SEAM METAL ROOFING SYSTEM.
2. GUTTERS SHALL BE PREFINISHED TO MATCH SELECTED METAL ROOFING SYSTEM. GUTTERS SHALL BE 6" X 6" BOX TYPE GUTTERS
3. DOWNSPOUTS SHALL BE PREFINISHED TO MATCH SELECTED METAL ROOFING SYSTEM AND GUTTERS. DOWNSPOUTS SHALL BE 4" X 6" AND RECTANGULAR IN SHAPE.

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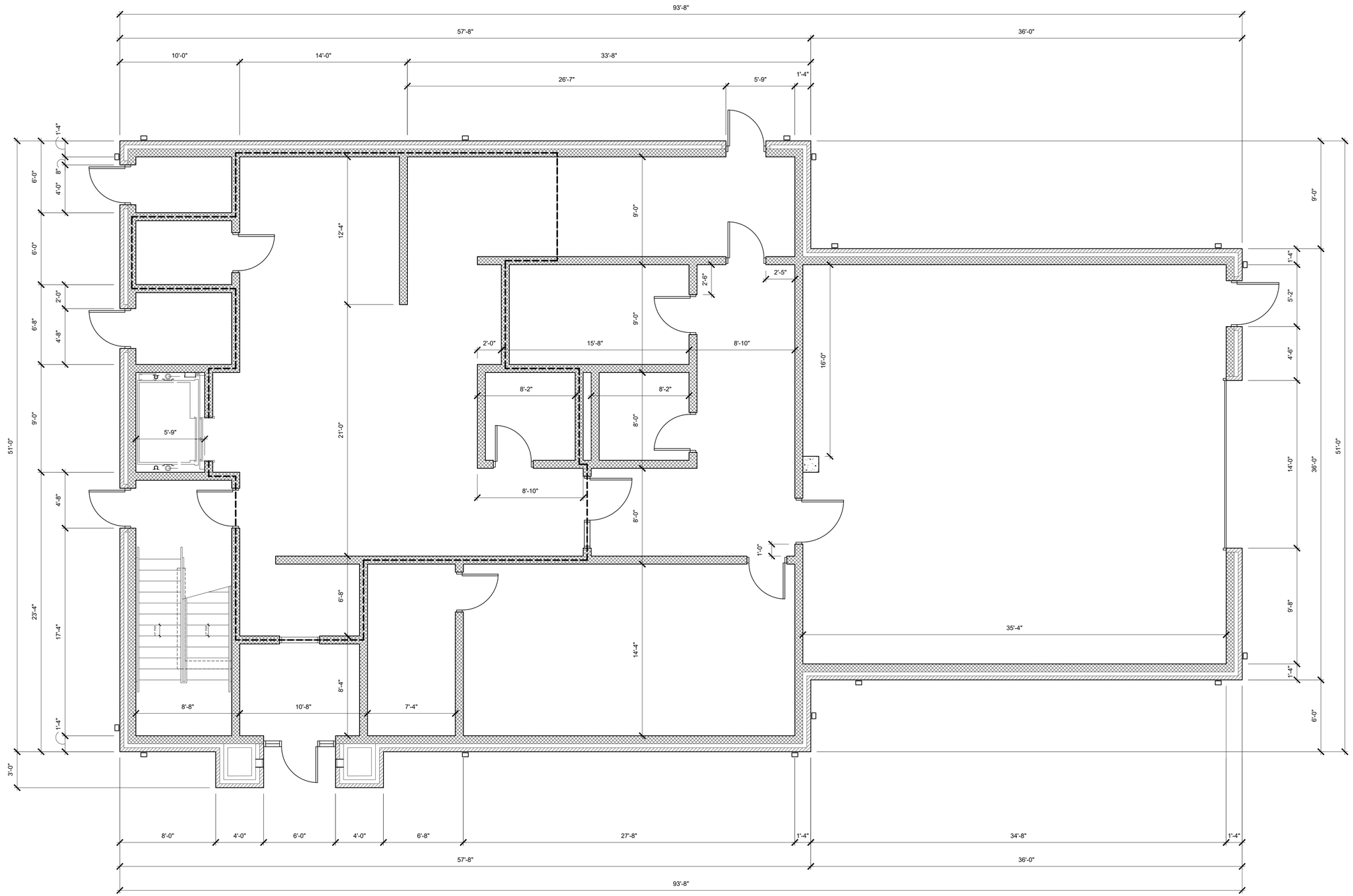
SHEET INDEX
ROOF PLAN

SHEET INDEX
A1.5



N 1 FIRST FLOOR PLAN

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

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STATE OF GEORGIA
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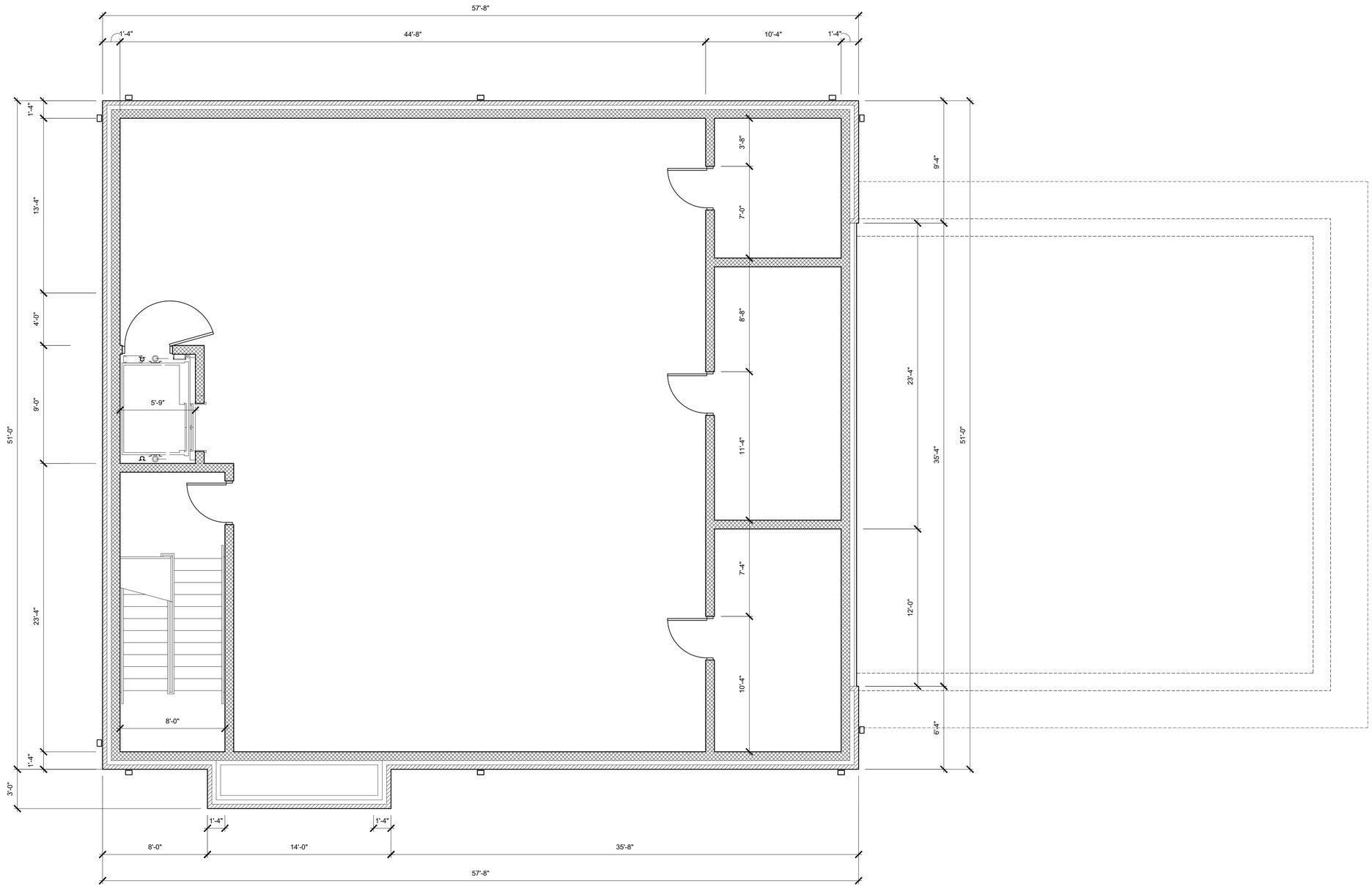
CERTIFICATE NO. RA009884
REGISTERED ARCHITECT

SHEET INDEX
FIRST LEVEL DIMENSIONS PLAN

SHEET INDEX
A1.6



SECOND FLOOR PLAN

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

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CERTIFICATE NO. RA#####
REGISTERED ARCHITECT

SHEET INDEX
SECOND LEVEL DIMENSIONS PLAN

SHEET INDEX
A1.7

GENERAL DEMOLITION NOTES:

*COORDINATE ALL DEMOLITION WITH OWNER AND NEW PLANS. SEE SPECIFICATIONS, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.

*REMOVE ANY EXISTING CONSTRUCTION REQUIRED TO PERFORM NEW WORK.

*EXISTING AREAS TO REMAIN THAT ARE DISTURBED BECAUSE OF WORK PERFORMED UNDER THIS CONTRACT ARE TO BE REPAIRED/RESTORED TO A CONDITION EQUAL TO ORIGINAL OR AS DIRECTED BY OWNER.

*ALL EXISTING EQUIPMENT AND MATERIALS TO BE REMOVED SHALL BE DISPOSED OF AS DIRECTED BY OWNER.

*WHEN EQUIPMENT IS DEMOLISHED, ALL ASSOCIATED COMPONENTS SHALL BE REMOVED.

*CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EQUIPMENT/ COMPONENTS INDICATED TO ACCEPT NEW EQUIPMENT.

*CUT OFF FLUSH WITH WALL AND CAP OVER ALL PENETRATIONS NO LONGER TO BE UTILIZED IN WALLS.

*CONTRACTOR SHALL VISIT THE SITE AND INCLUDE IN THEIR BID ANY DEMOLITION REQUIRED FOR CONSTRUCTION.

*CONTRACTOR SHALL MAINTAIN A SECURE SITE THROUGHOUT DEMOLITION. PROVIDE LOCKABLE GATES/CHAINS/ETC. TO DETER PUBLIC ACCESS WHEN CONTRACTOR IS NOT ON SITE.

GENERAL DEMOLITION NOTES (CONTINUED):

*CONTRACTOR SHALL PROVIDE MEASURES TO DETER UNAUTHORIZED ACCESS TO DEMOLISHED MATERIALS IN DUMPSTERS. MEASURES MAY INCLUDE FENCING, GATES, ETC. AND/OR FREQUENT OR DAILY DUMPSTER PULLS.

*WHEN EXISTING FLOORING IS DEMOLISHED CONTRACTOR SHALL COMPLETELY REMOVE RESIDUAL FLOORING ADHESIVES/GROUTS/SEALANTS FROM ALL SPACES DOWN TO CONCRETE SLAB. LEAVE SLAB SURFACES SMOOTH, CLEAN AND FREE OF DEBRIS IN PREPARATION FOR NEW CONSTRUCTION.

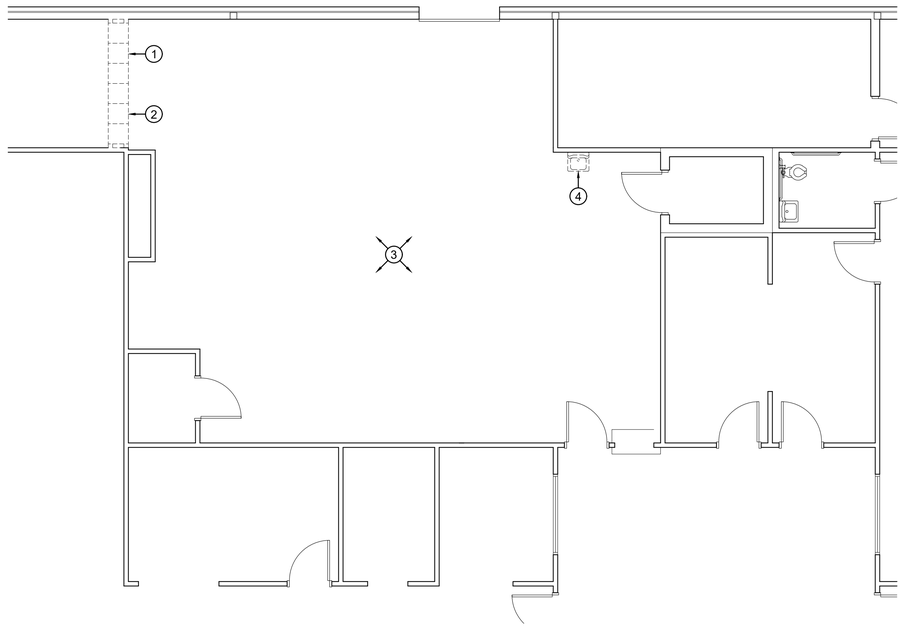
*COMPLETELY REMOVE WALLS AS INDICATED ON PLAN. LEAVE ALL SURFACES SMOOTH, CLEAN AND FREE OF DEBRIS IN PREPARATION FOR NEW CONSTRUCTION.

KEYED DEMOLITION NOTES:

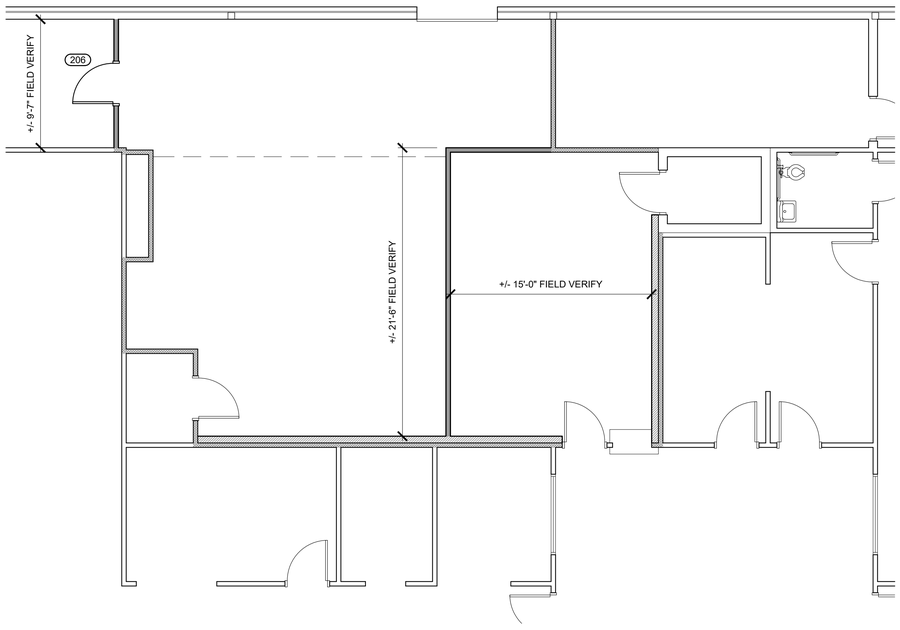
1. CAREFULLY REMOVE EXISTING EVIDENCE PASSTHROUGH LOCKERS, FIXTURES, AND ACCESSORIES AND COORDINATE WITH OWNER REGARDING INTENDED REUSE OR DISPOSAL OF THESE ITEMS. LEAVE ALL SURFACES SMOOTH, CLEAN AND FREE OF DEBRIS IN PREPARATION FOR NEW CONSTRUCTION.
2. CAREFULLY REMOVE EXISTING ELECTRICAL SERVICE DISCONNECT, WIRING, CONNECTIONS, ETC. SEE ELECTRICAL FOR FURTHER NOTES. COORDINATE WITH OWNER REGARDING INTENDED REUSE OR DISPOSAL OF THESE ITEMS.
3. REMOVE EXISTING LIGHT FIXTURES IN THIS SPACE IN PREPARATION FOR INSTALLATION OF NEW LIGHT FIXTURES.
4. COMPLETELY REMOVE EXISTING PLUMBING FIXTURES AND ALL ASSOCIATED CONNECTIONS, ACCESSORIES, PARTITIONS, ETC. LEAVE ALL SURFACES SMOOTH, CLEAN AND FREE OF DEBRIS IN PREPARATION FOR NEW CONSTRUCTION.

PLAN LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE DEMOLISHED
- NEW METAL STUD WALL WITH SOUND ATTENUATING BATT INSULATION AND 5/8" GYPSUM BOARD. WALL TO EXTEND TO EXISTING CEILING
- NEW 6" METAL STUD WALL WITH SOUND ATTENUATING BATT INSULATION AND 5/8" GYPSUM BOARD. WALL TO EXTEND TO EXISTING CEILING
- EXISTING WALL WITH ADDED BLOWN-IN INSULATION

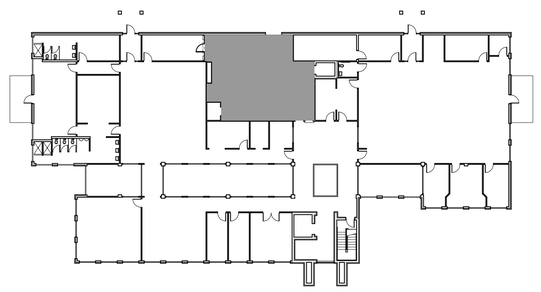


IN 1 DEMOLITION PLAN
SCALE: 3/16" = 1'-0"



2 NEW PLAN
SCALE: 3/16" = 1'-0"

KEY PLAN



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A NEW BUILDING FOR:
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WHITFIELD COUNTY
DALTON, GA 30720

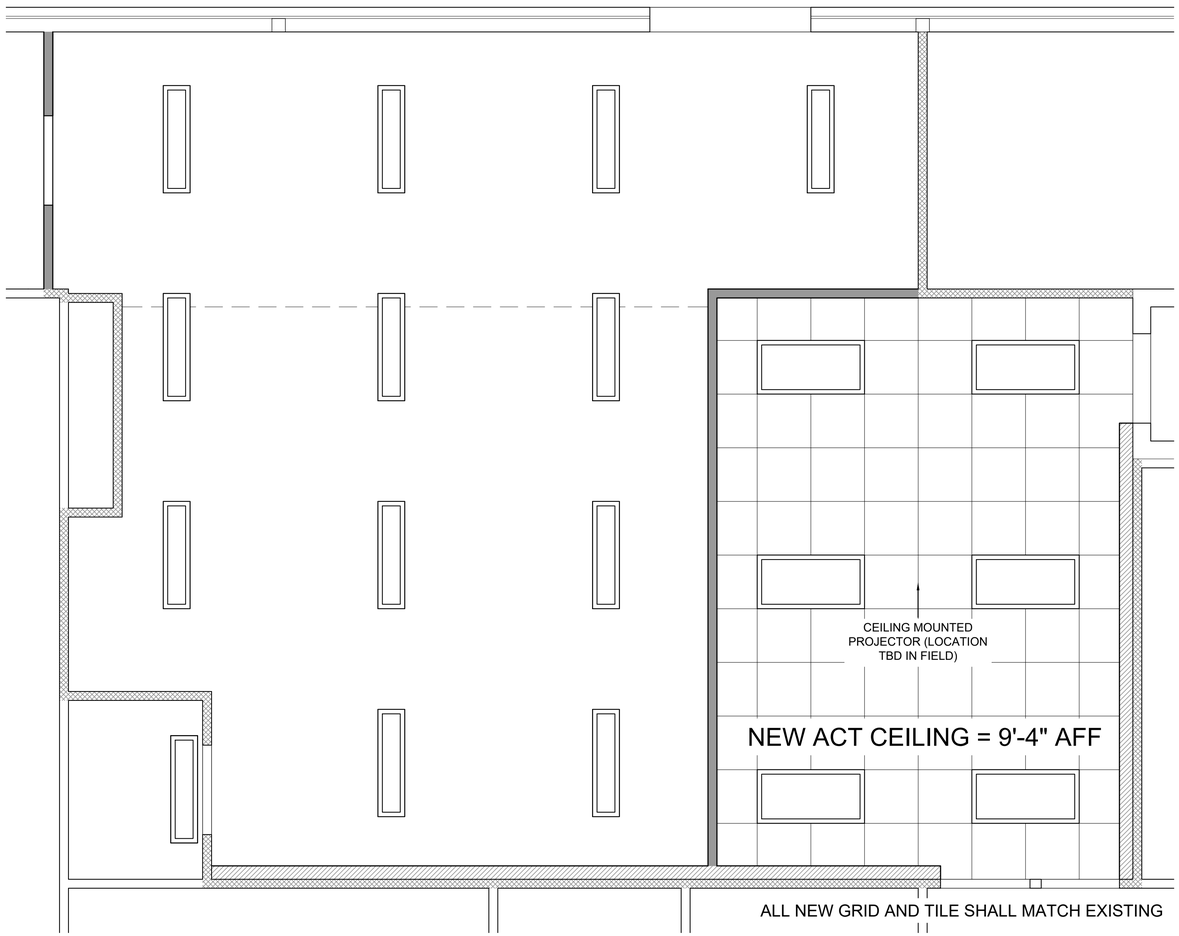
STATE OF GEORGIA
KENNETH R. HABLESS
CERTIFICATE NO. RA031694
REGISTERED ARCHITECT

SHEET INDEX
EXISTING FACILITY DEMO AND NEW PLANS

SHEET INDEX
A1.8

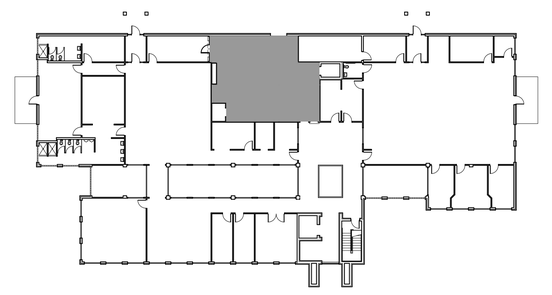
PLAN LEGEND

- 8" CMU BLOCK EXTEND TO 1'-0" ABOVE CEILING, UNLESS NOTED OTHERWISE.
- ACOUSTIC CEILING TILE SYSTEM
- NEW METAL STUD WALL WITH SOUND ATTENUATING BATT INSULATION AND 5/8" GYPSUM BOARD. WALL TO EXTEND TO EXISTING CEILING
- NEW 6" METAL STUD WALL WITH SOUND ATTENUATING BATT INSULATION AND 5/8" GYPSUM BOARD. WALL TO EXTEND TO EXISTING CEILING
- EXISTING WALL WITH ADDED BLOWN-IN INSULATION



1 NEW CEILING PLAN
SCALE: 3/16" = 1'-0"

KEY PLAN



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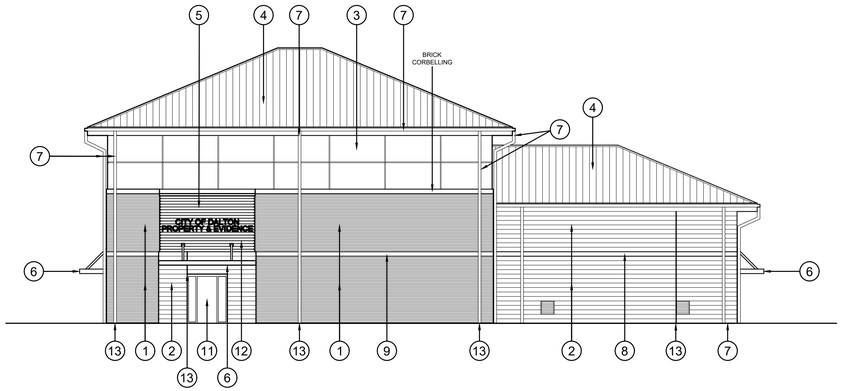
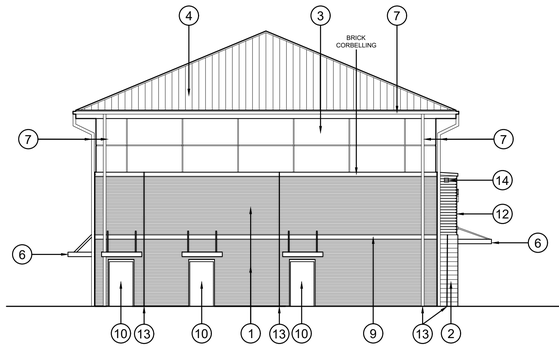
SHEET INDEX
EXISTING FACILITY NEW REFLECTED CEILING PLAN

SHEET INDEX
A1.9



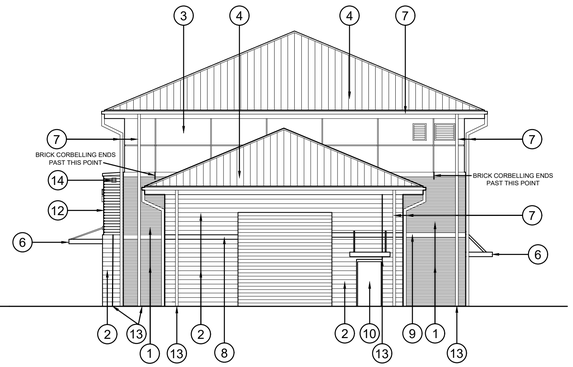
1 FRONT ELEVATION

SCALE: 3/32" = 1'-0"



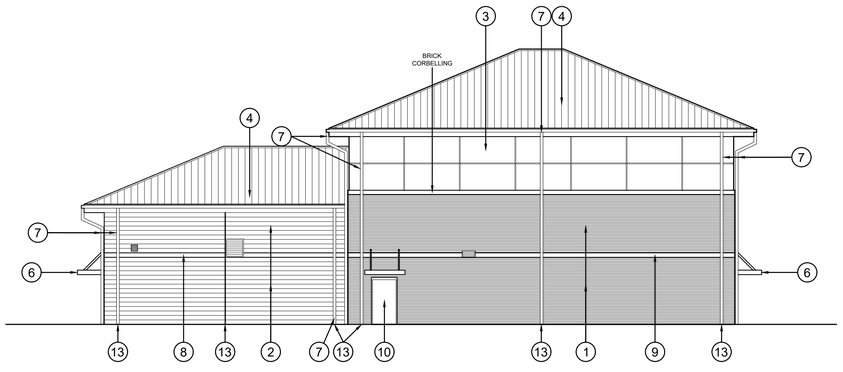
2 SOUTH ELEVATION

SCALE: 3/32" = 1'-0"



3 NORTH ELEVATION

SCALE: 3/32" = 1'-0"



4 WEST ELEVATION

SCALE: 3/32" = 1'-0"

LEGEND

1	MODULAR BRICK VENEER
2	MANUFACTURED STONE VENEER
3	PREFINISHED COMPOSITE METAL PANEL
4	PREFINISHED STANDING SEAM ROOFING SYSTEM
5	CAST ALUMINUM LETTERING SEE A/A8.1
6	PREFINISHED ALUMINUM HANGING CANOPY
7	PREFINISHED GUTTER + DOWNSPOUT
8	MODULAR BRICK BAND, 8" IN HEIGHT
9	MANUFACTURED STONE, 8" IN HEIGHT
10	PAINTED HOLLOW METAL DOOR
11	ALUMINUM STOREFRONT SYSTEM
12	PAC-CLAD HIGHLINE C1 24 GUAGE WITH CLIP
13	CONTROL JOINT
14	BRICK VENT TO STUD

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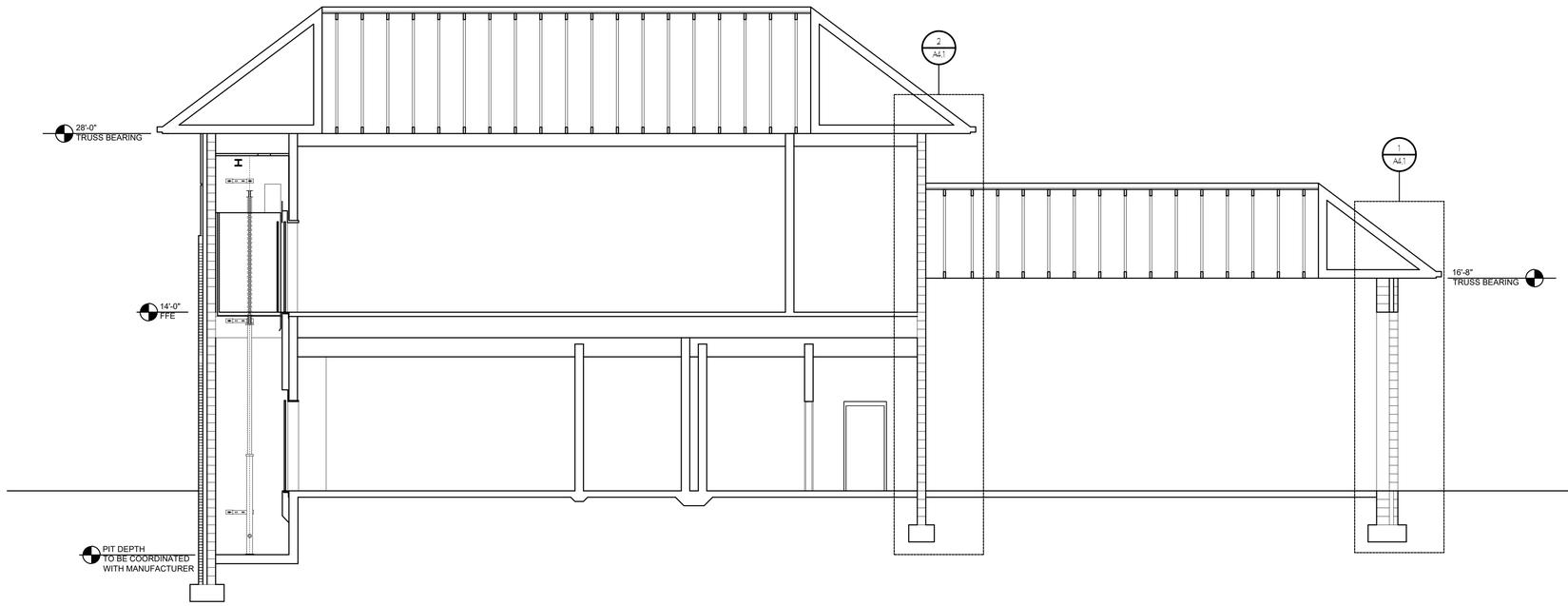
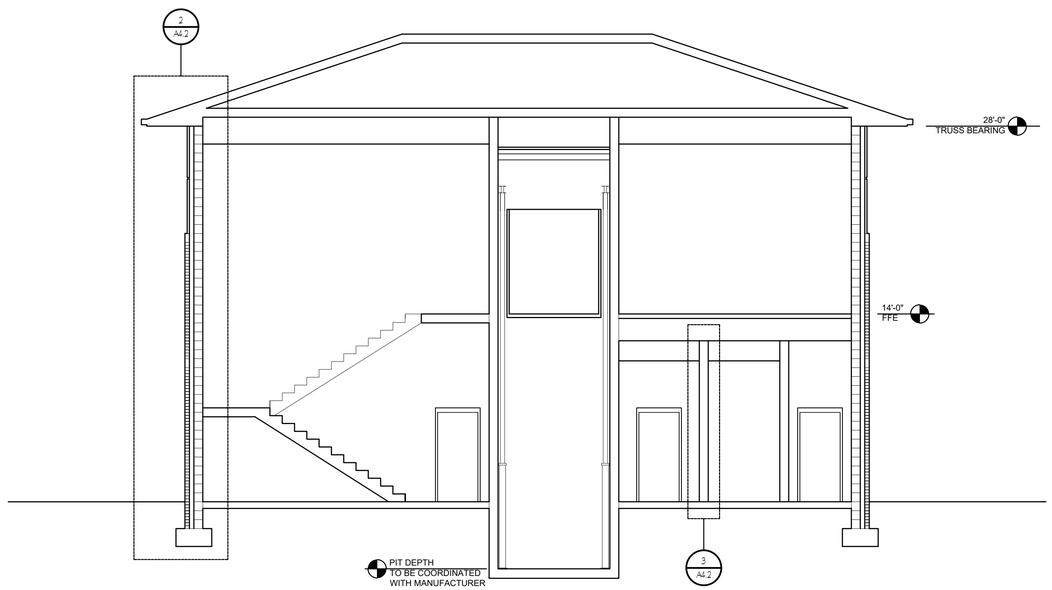
WHITFIELD COUNTY
DALTON, GA 30720

STATE OF GEORGIA
KENNETH R. HARLESS
CERTIFICATE NO. RA#####
REGISTERED ARCHITECT

SHEET INDEX
EXTERIOR ELEVATIONS

SHEET INDEX
A2.1





1 BUILDING SECTIONS

SCALE: 3/16" = 1'-0"

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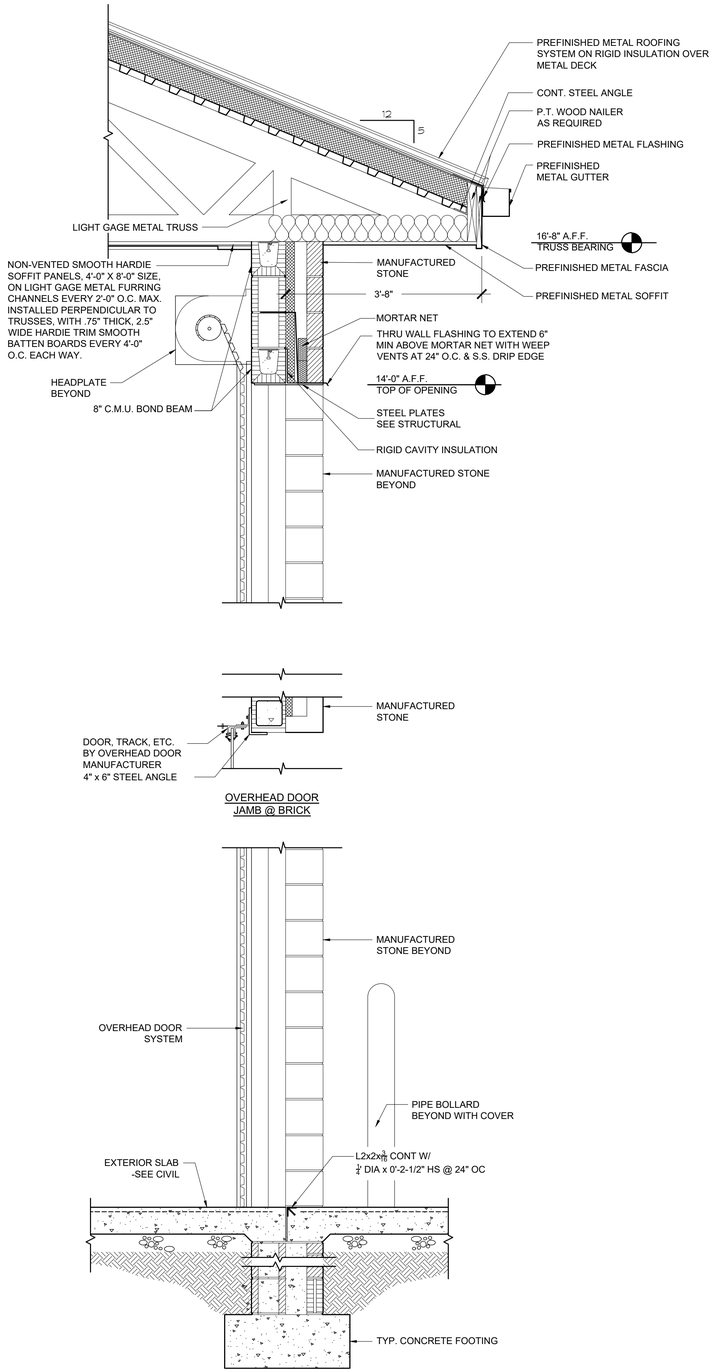
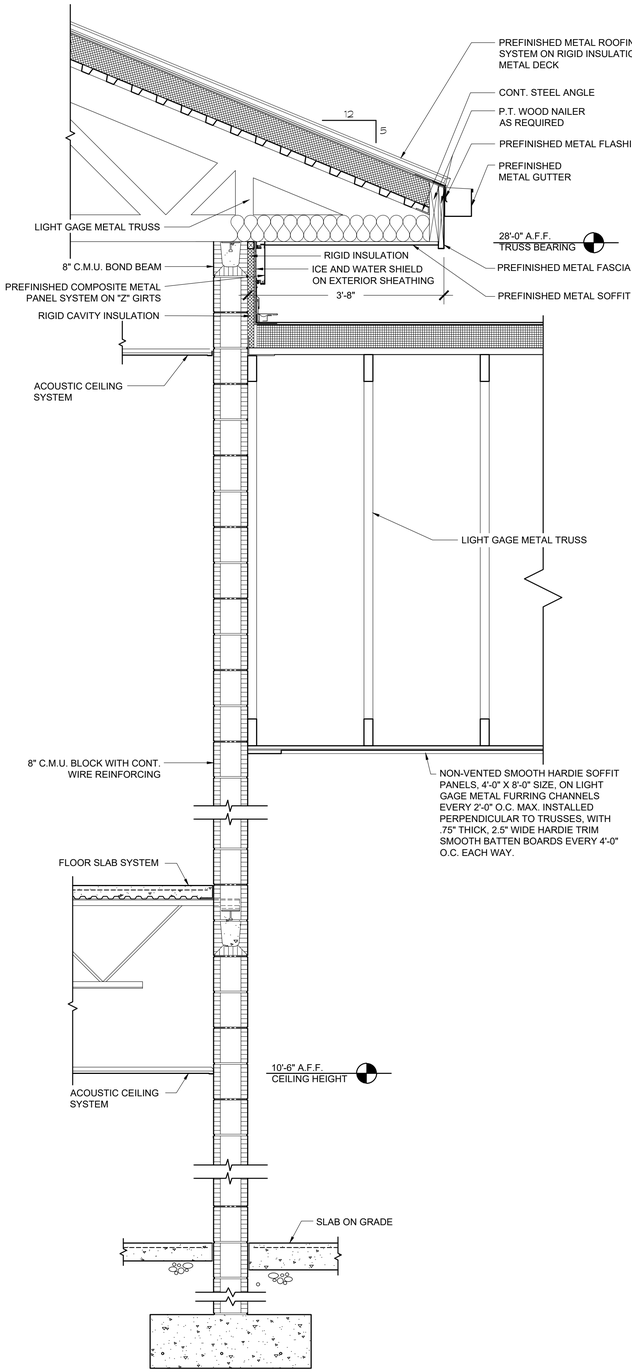
SHEET INDEX
CROSS SECTIONS

SHEET INDEX
A3.1



1 WALL SECTION

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



2 WALL SECTION

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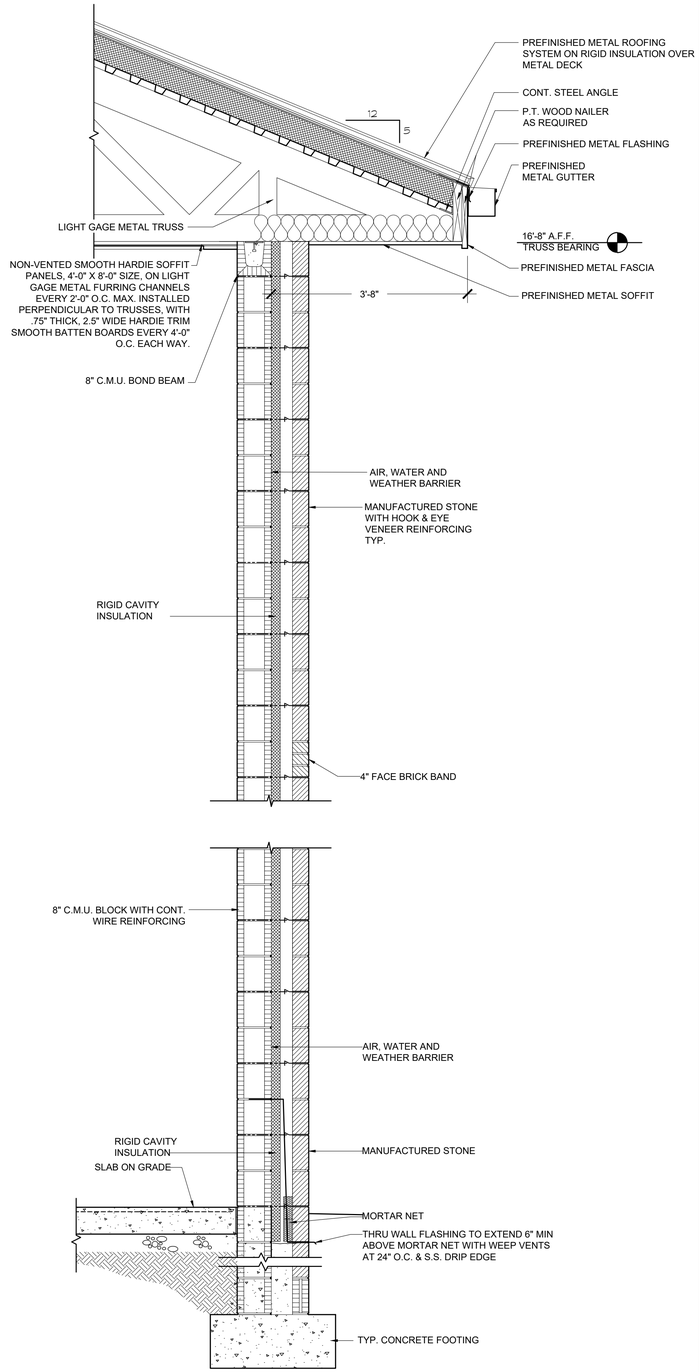

3 WALL SECTION

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

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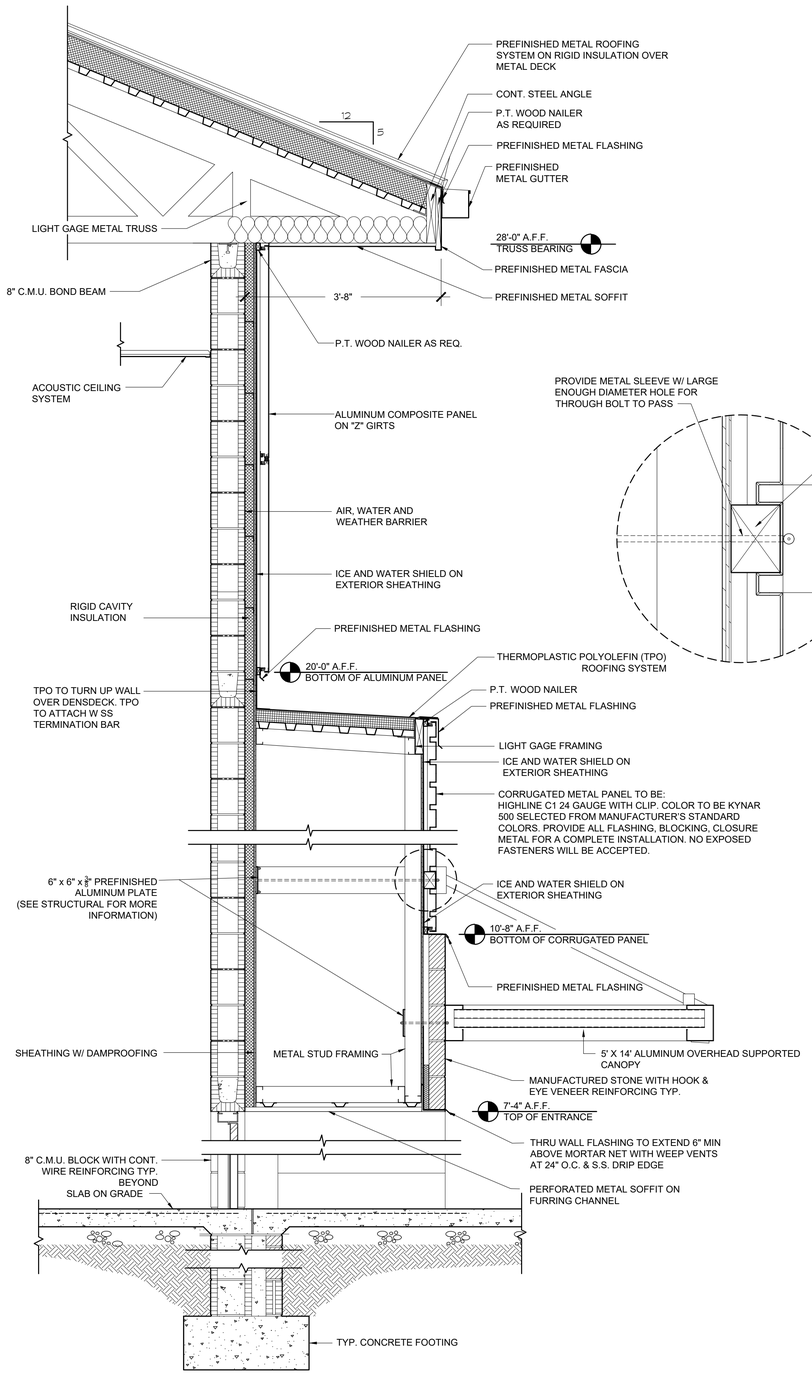
SHEET INDEX
WALL SECTIONS

SHEET INDEX
A4.1



1 WALL SECTION

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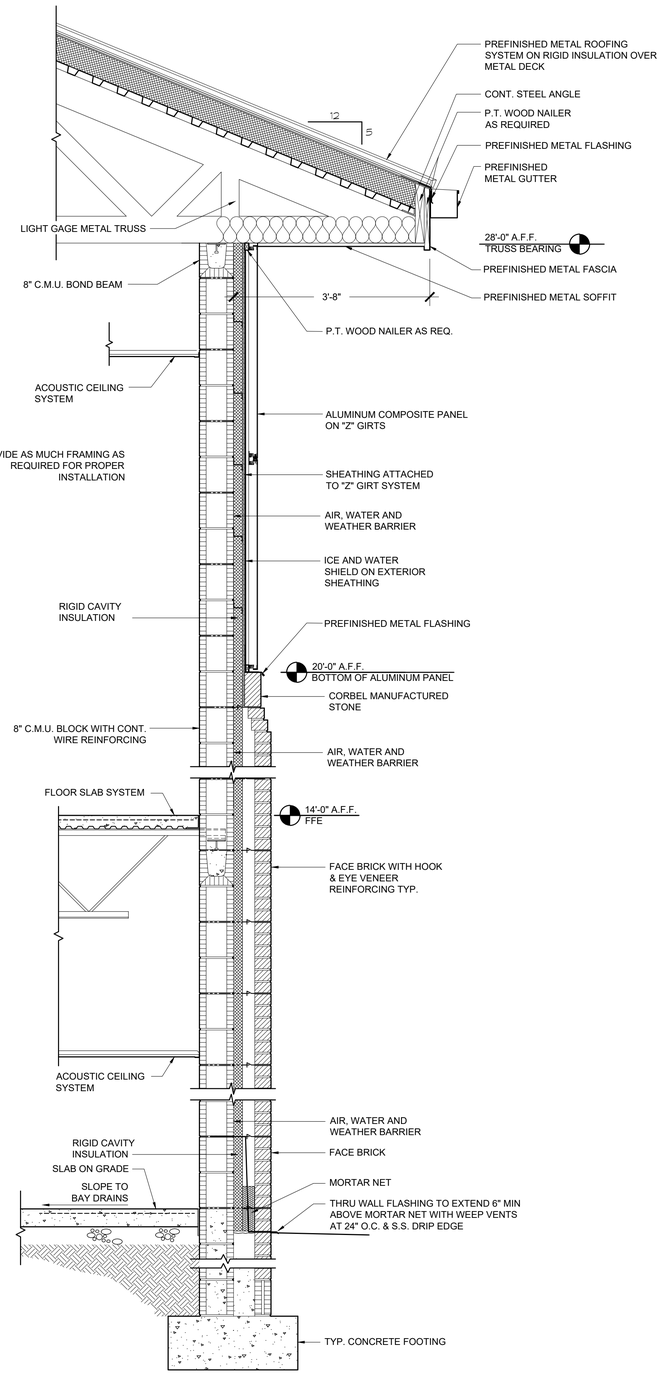
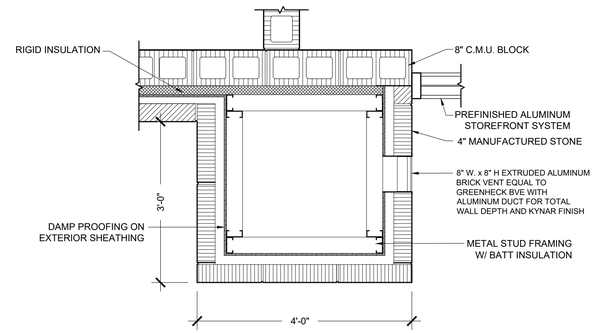


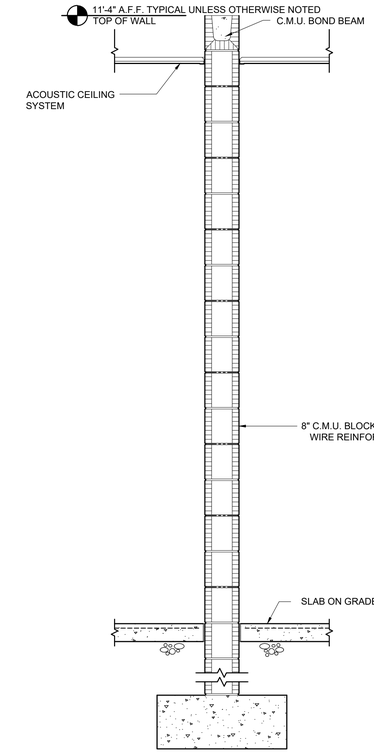
2 WALL SECTION

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



4 PLAN DETAIL

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



3 WALL SECTION

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

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SHEET INDEX
WALL SECTIONS AND PLAN DETAIL

SHEET INDEX
A4.2

SCHEDULE OF FINISHES							
ROOM	NO.	FLOOR	BASE	WALLS	CEILING	CEILING HEIGHT	REMARKS
FIRE RISER ROOM	101	SC	RB	CMU	-	-	
P&E OFFICE STORAGE	102	LVT	RB	CMU	ACT	10'-6"	
ELECTRICAL ROOM	103	SC	RB	CMU	ACT	10'-6"	
STAIR CASE	104	LVT	RB	CMU	ACT	10'-6"	NOTE1
VESTIBULE	105	LVT	RB	CMU	ACT	10'-6"	
CRIME LAB	106	LVT	RB	CMU	ACT	10'-6"	
PHOTO ROOM	107	LVT	RB	CMU	ACT	10'-6"	
RESTROOM	108	EF	EF	CMU	ACT	10'-6"	NOTE3
RESTROOM	109	EF	EF	CMU	ACT	10'-6"	NOTE3
WORK SPACE	110	LVT	RB	CMU	ACT	10'-6"	
STORAGE/GEAR ISSUE	111	LVT	RB	CMU	ACT	10'-6"	
MECHANICAL/DATA	113	SC	RB	CMU	ACT	10'-6"	
EVIDENCE DROP-OFF	114	LVT	RB	CMU	ACT	10'-6"	
VESTIBULE	115	LVT	RB	CMU	ACT	10'-6"	
VEHICLE BAY	116	EF	EF	CMU	SSB	16'-8"	
EVIDENCE ROOM	112	LVT	RB	CMU	ACT	10'-6"	
EVIDENCE STORAGE	201	LVT	RB	CMU	ACT	13'-0"	
MECHANICAL ROOM	202	SC	RB	CMU	ACT	-	
DRUG STORAGE	203	LVT	RB	CMU	ACT	13'-0"	
FIREARM STORAGE	204	LVT	RB	CMU	ACT	13'-0"	
ELEVATOR	-	LVT	-	-	-	-	NOTE2
WORKOUT ROOM	220A	RF	RB	GB	-	-	
SIMULATION ROOM	220B	LVT	RB	GB	ACT	9'-4"	

FINISH SCHEDULE LEGEND:

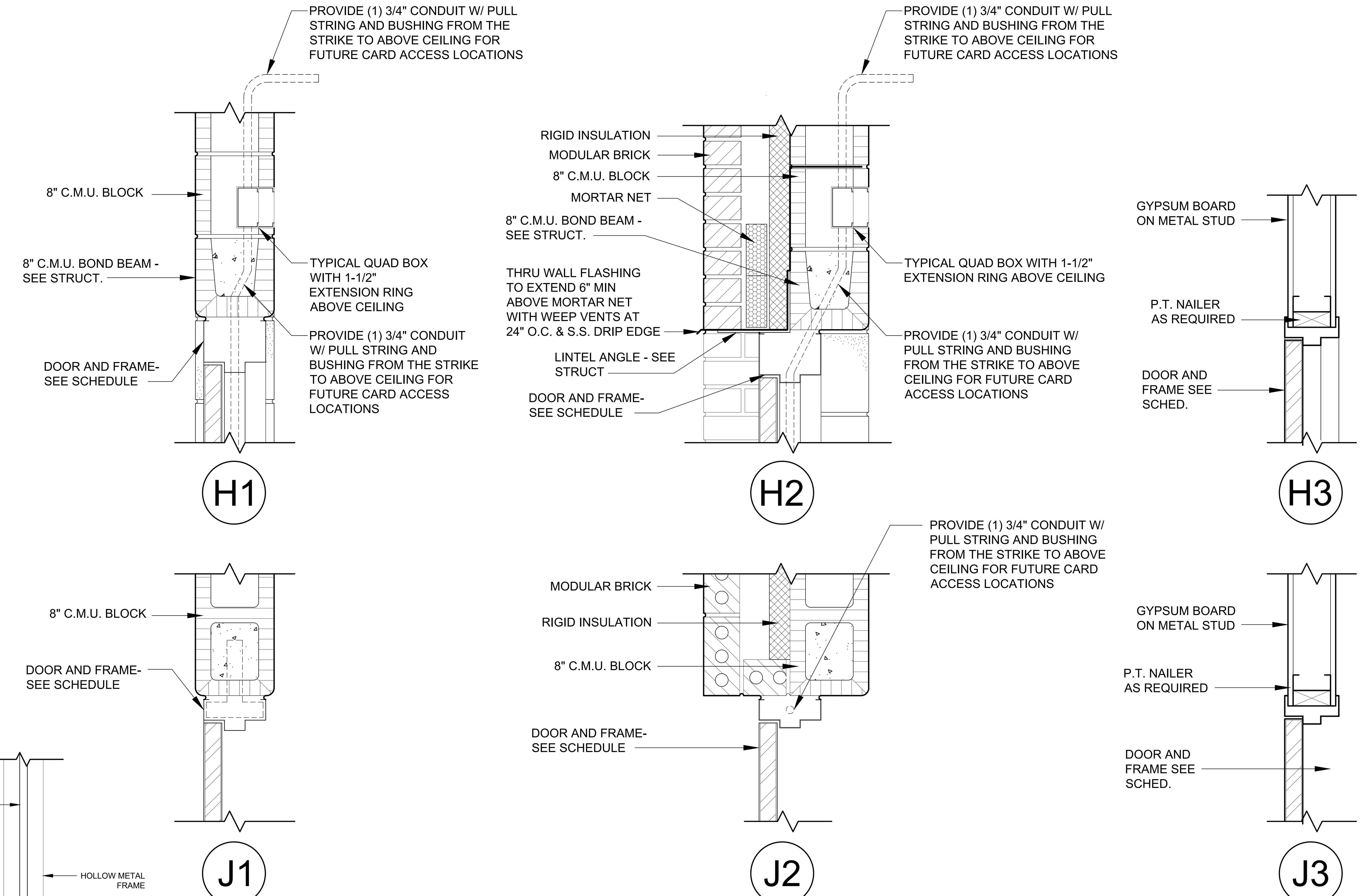
SC - SEALED CONCRETE
EF- EPOXY FLOORING
LVT- LUXURY VINYL TILE
RB - RUBBER BASE
ACT - ACOUSTIC CEILING TILE SYSTEM
SSB - SMOOTH SOFFIT BOARD
CMU - CONCRETE MASONRY UNITS (PAINTED)
RF - RESILIENT ATHLETIC FLOORING
GB - GYPSUM WALL BOARD

NOTE 1: LVT ON LANDINGS, RUBBER ON STAIR RISERS AND TREADS
NOTE 2: SEE SPECIFICATIONS FOR FURTHER INFORMATION
NOTE 3: EXTEND EPOXY FLOORING 6" UP WALL

SCHEDULE OF DOORS AND FRAMES										
MARK	DOORS			FRAMES			MISCELLANEOUS		MARK
	TYPE	SIZE		TYPE	DETAILS		HDWE. SET No.	REMARKS	
		WIDTH	HGT.		HEAD	JAMB			
101	1	3'-0"	7'-0"	F1	H2	J2	-	NOTE 1	101
102	1	3'-0"	7'-0"	F1	H1	J1	-	-	102
103	1	3'-0"	7'-0"	F1	H2	J2	-	NOTE 1	103
104	1	3'-0"	7'-0"	F1	H1	J1	1 HR.	NOTE 1	104
105	1	3'-0"	7'-0"	F1	H2	J2	-	NOTE 1	105
106	2	3'-0"	7'-0"	F3	H2	J2	-	NOTE 1	106
107	1	3'-0"	7'-0"	F1	H1	J1	-	-	107
108	1	3'-0"	7'-0"	F1	H1	J1	-	NOTE 1	108
109	1	3'-6"	7'-0"	F2	H1	J1	-	NOTE 1,3	109
110	1	3'-0"	7'-0"	F1	H1	J1	-	NOTE 1	110
111	1	3'-0"	7'-0"	F1	H1	J1	-	NOTE 1	111
112	1	3'-0"	7'-0"	F1	H1	J1	-	NOTE 1	112
113	1	3'-0"	7'-0"	F1	H1	J1	-	NOTE 1	113
114	1	3'-0"	7'-0"	F1	H2	J2	-	NOTE 1	114
115	1	3'-6"	7'-0"	F1	H1	J1	2 HR.	NOTE 1	115
116	1	3'-0"	7'-0"	F1	H2	J2	-	NOTE 1	116
117	3	14'-0"	14'-0"	-	1/A4.1	1/A4.1	-	-	117
201	1	3'-0"	7'-0"	F1	H1	J1	1 HR.	NOTE 1	201
202	1	3'-0"	7'-0"	F1	H1	J1	-	NOTE 1	202
203	1	3'-0"	7'-0"	F1	H1	J1	-	NOTE 1	203
204	1	3'-0"	7'-0"	F1	H1	J1	-	NOTE 1	204
205	1	3'-6"	7'-0"	F1	H1	J1	2 HR.	NOTE 1&2	205
206	1	3'-6"	7'-0"	F1	H3	J3	-	-	206

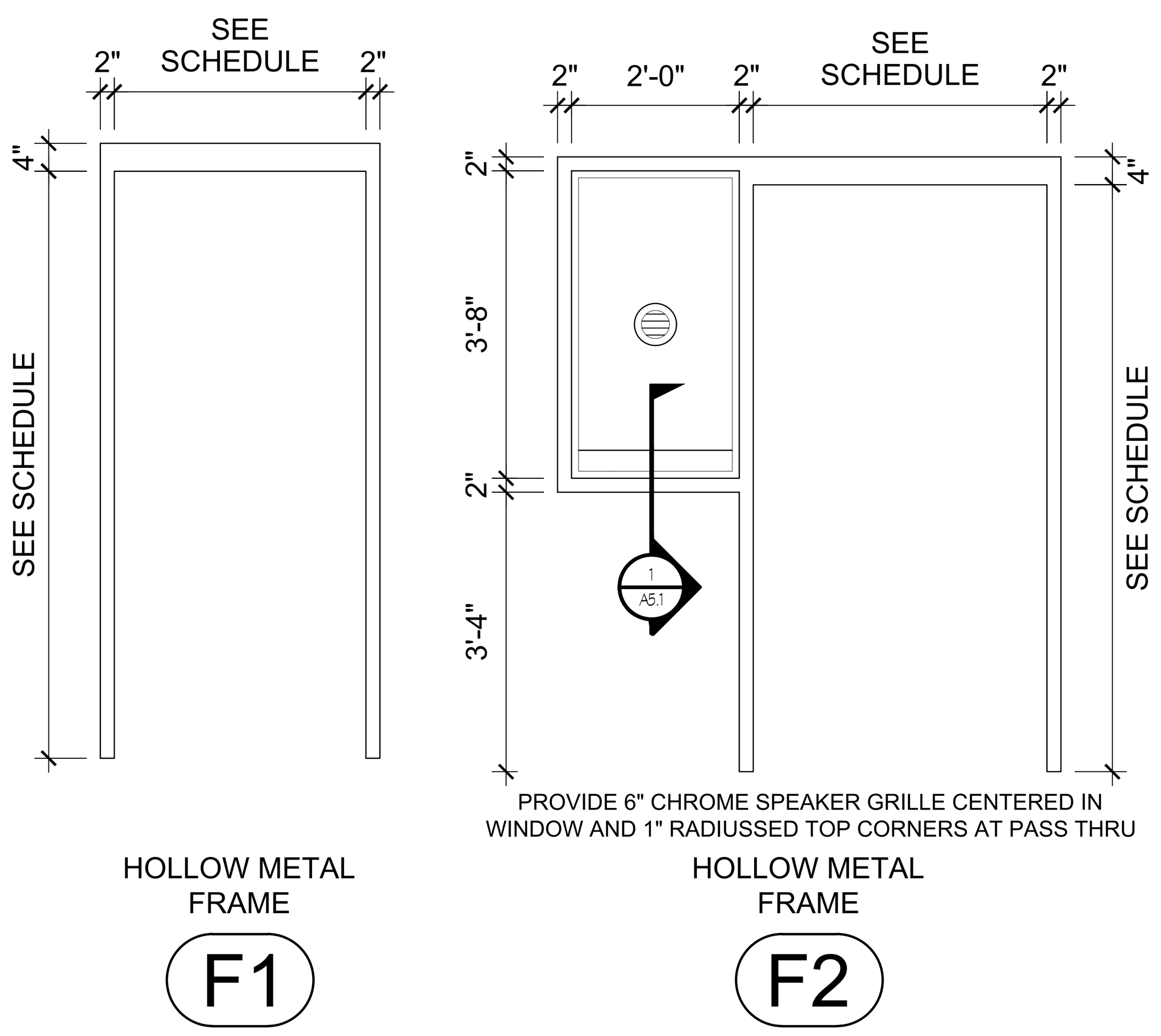
DOOR SCHEDULE NOTES:

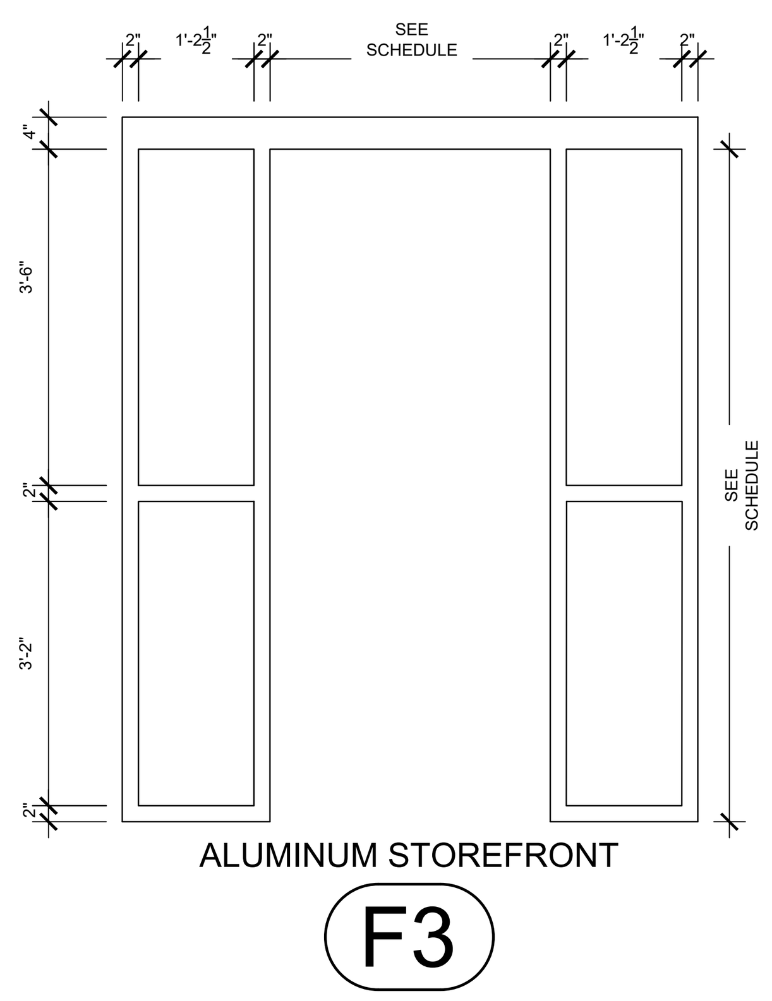
1. PROVIDE OPENING WITH 3/4" CONDUIT W/ PULL STRINGS AND BUSHINGS TO EXTEND FROM STRIKE BOX LOCATION TO ABOVE CEILING FOR FUTURE CARD ACCESS.
2. DOOR SHALL SWING 180°.
3. PROVIDE COUNTER SHUDDER AT WINDOW



HEAD AND JAMB DETAILS

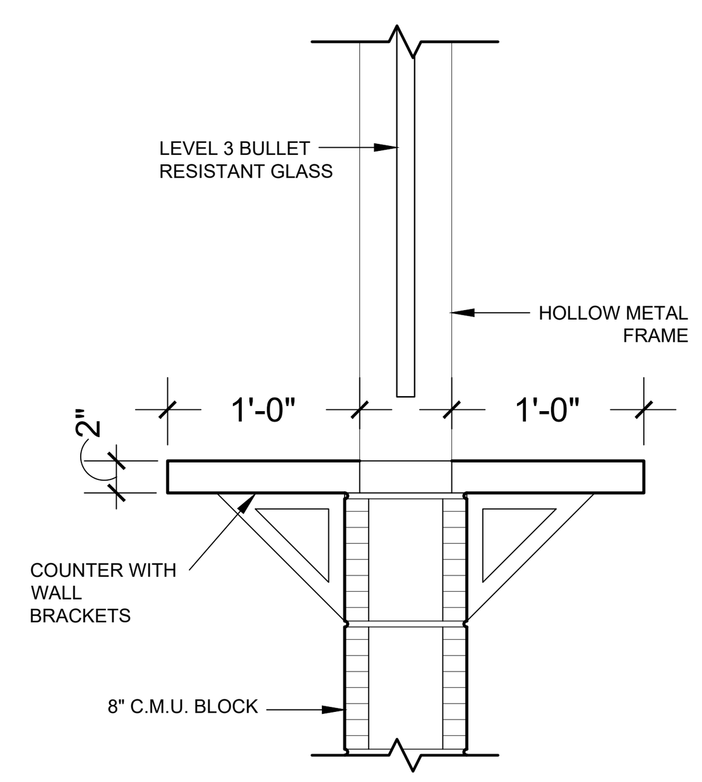
SCALE: 1-1/2" = 1'-0"





DOOR FRAME ELEVATION

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



1 F2 FRAME DETAIL

SCALE: 1" = 1'-0"

DOOR ACCES NOTES:

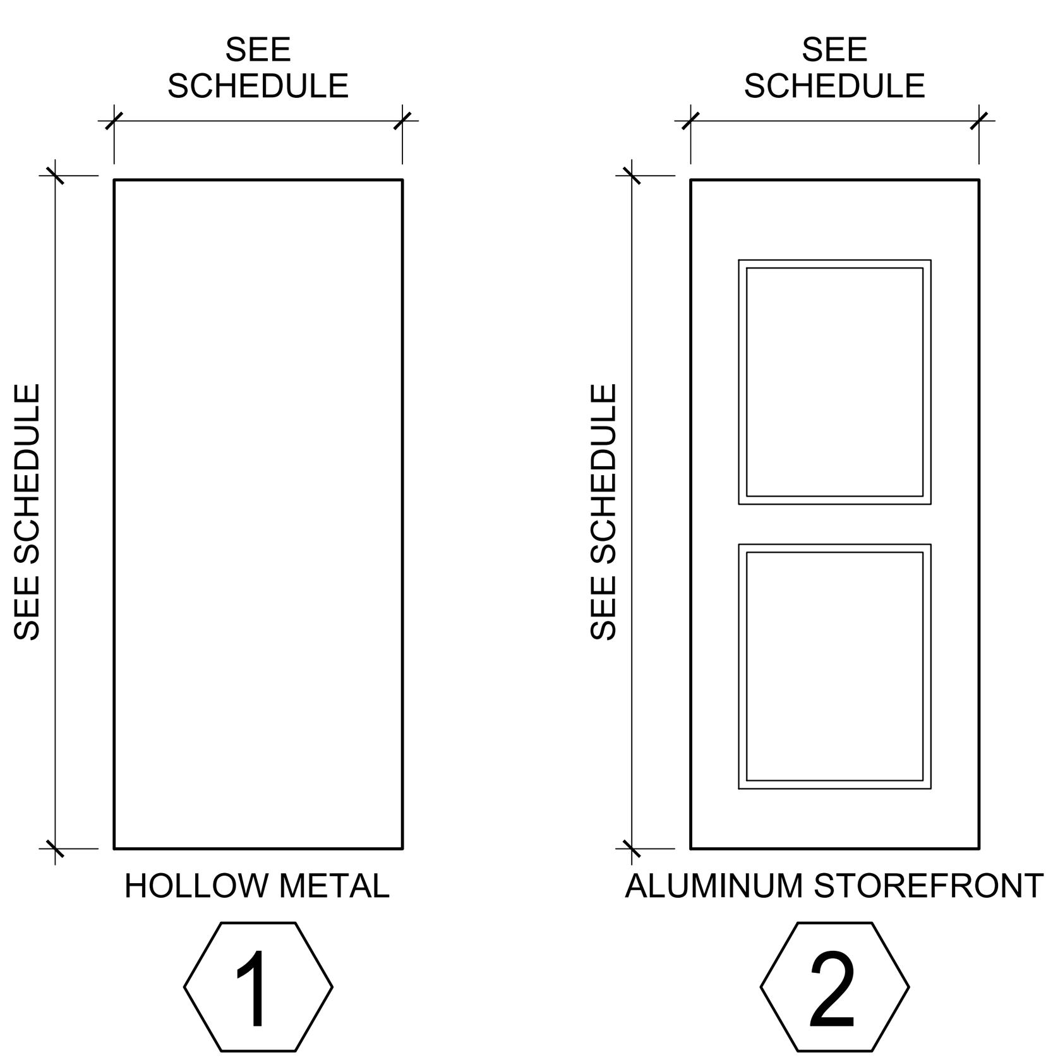
A - DOOR FRAME PREP FOR ACCESS DOOR CONTACT 4" OF UNFILLED SPACE IN DOOR FRAME.

B - RECESSED SINGLE GANG BOX WITH ¾" CONDUIT STUBBED ABOVE CEILING LINE ON SECURE SIDE OF DOOR.

C - 4X4 J-BOX ON INTERIOR/SECURE SIDE OF DOOR.

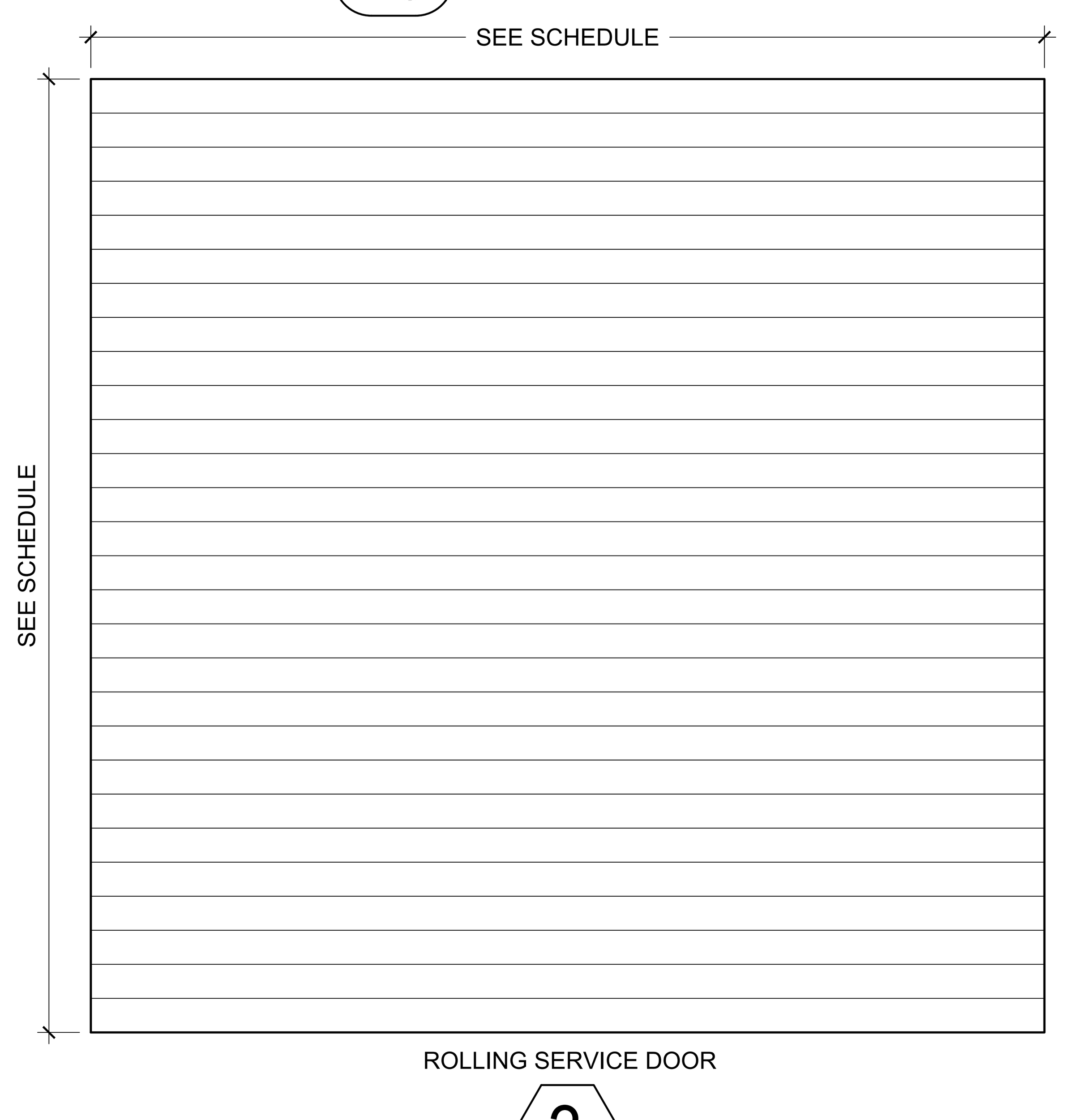
GENERAL NOTES:

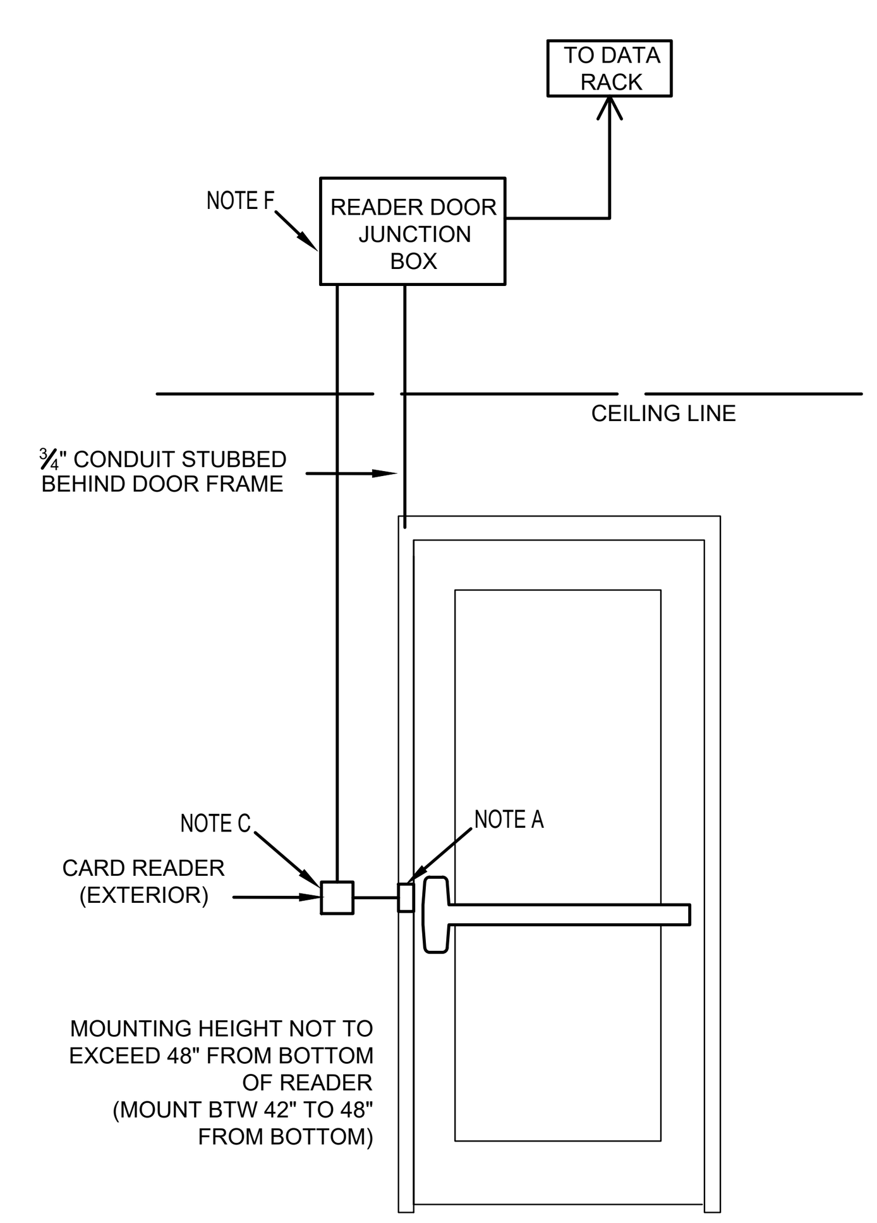
- ALL CONDUIT NEEDS TO BE CONCEILED IN MASONRY WALLS AND DOOR FRAMES.
- ALL CONDUIT NEEDS TO BE ON THE SECURE SIDE OF THE DOOR.
- INSTALL PULLSTRING IN ALL CONDUITS.



DOOR TYPE ELEVATIONS

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





SINGLE READER DOOR

DIAGRAM B

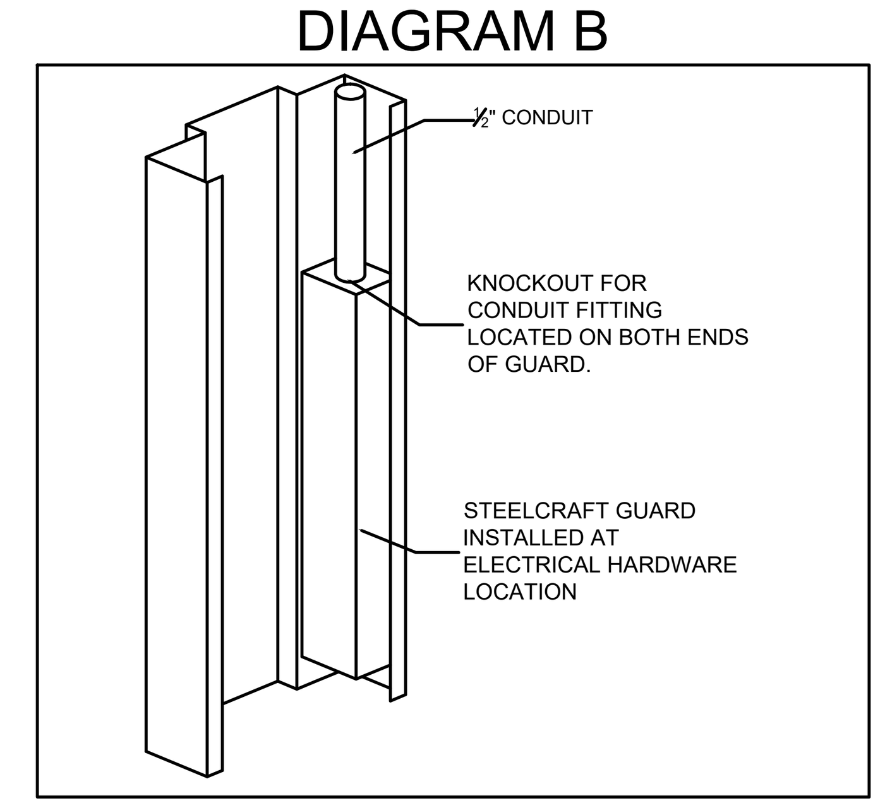
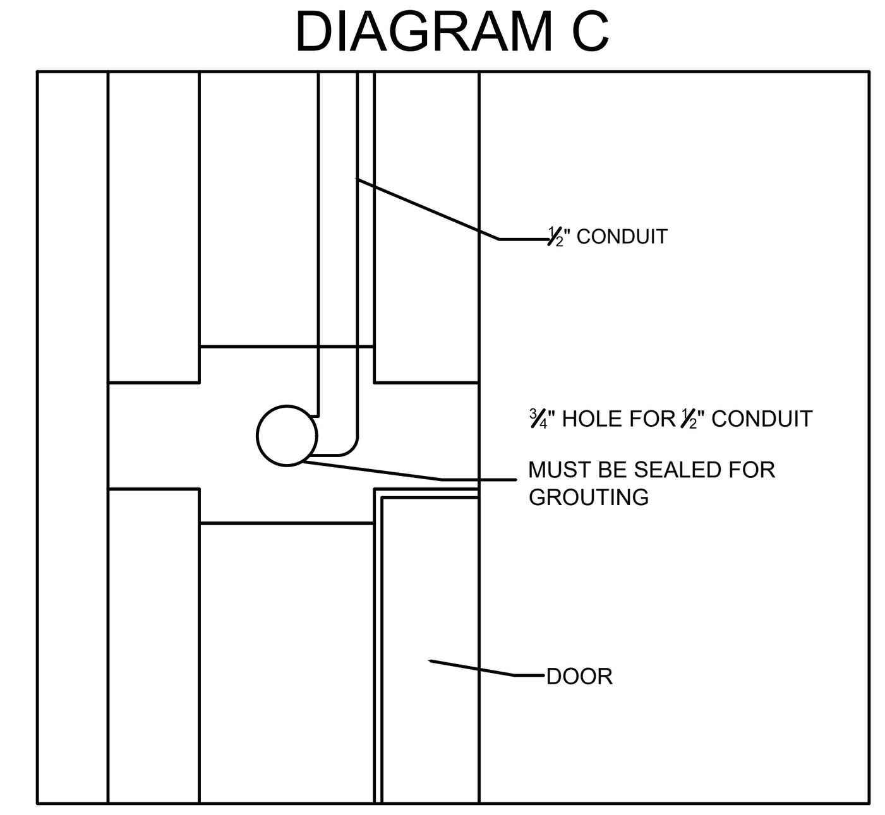
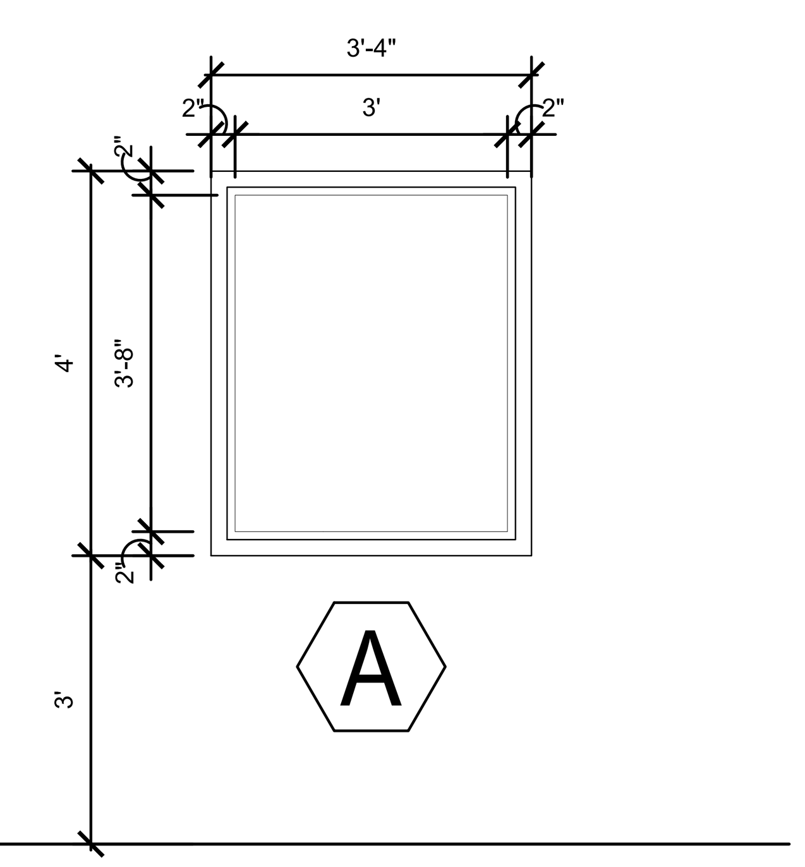


DIAGRAM C



DOOR ACCESS DETAILS

SCALE: 3/8" = 1'-0"



CRL MODEL N11W12P WITH LEVEL 3 BULLET RESISTANCE

(PROVIDE COUNTER SHUDDER AT WINDOW ON SECURE SIDE)

WINDOW FRAME ELEVATIONS

SCALE: 3/8" = 1'-0"

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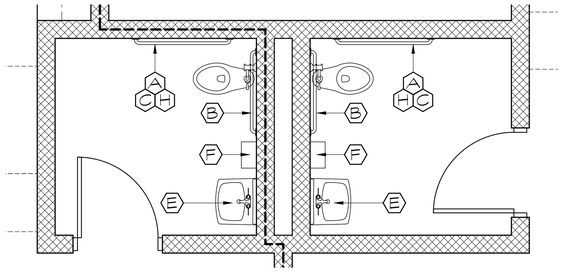
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

SHEET INDEX
FINISH AND DOOR SCHEDULES

SHEET INDEX
A5.1

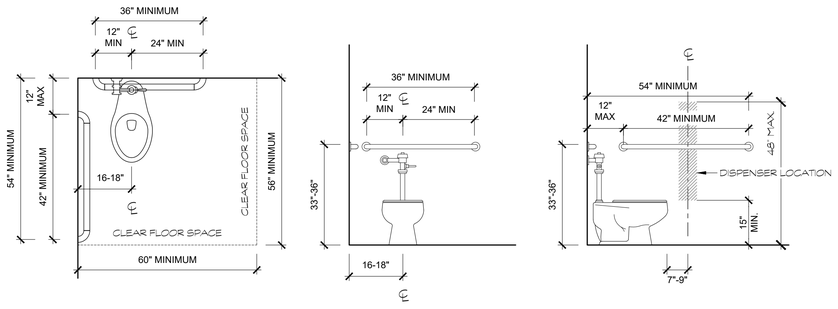


1 TOILET PLAN

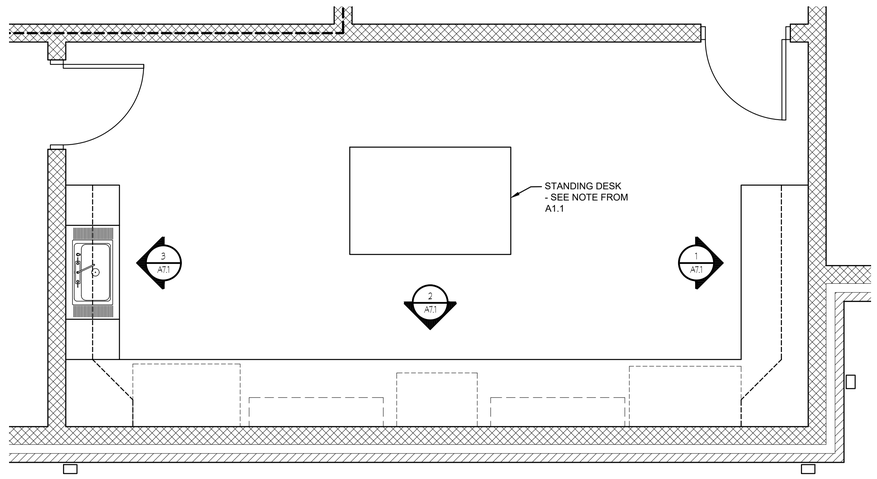
SCALE: 3/8" = 1'-0"

SCHEDULE OF TOILET ACCESSORIES				
MARK	ITEM	MFR.	No.	LOCATION
A	GRAB BARS AT SIDE WALL OF WATER CLOSETS	BOBRICK	B-5806-42	33" TO CENTERLINE AFF
B	GRAB BARS AT REAR WALL OF WATER CLOSETS	BOBRICK	B-5806-36	33" TO CENTERLINE AFF
C	TOILET PAPER DISPENSER	OWNER FURNISHED CONTRACTOR INSTALLED		40" TO BOTTOM OF DISPENSER AFF - ONE DISPENSER PER WATER CLOSET
D	PAPER TOWEL DISPENSER	OWNER FURNISHED CONTRACTOR INSTALLED		40" TO BOTTOM OF DISPENSER AFF
E	MIRROR	BOBRICK	B-290-2436	40" TO BOTTOM OF MIRROR AFF
F	SOAP DISPENSER	OWNER FURNISHED CONTRACTOR INSTALLED		40" TO BOTTOM OF DISPENSER AFF - ONE PER HANDWASH SINK LOCATION
G	ROBE HOOK	BOBRICK	B-212	40" TO CENTERLINE AFF
H	SANITARY NAPKIN DISPOSAL	BOBRICK	B-270	LOCATION TO BE PROVIDED BY OWNER
I	HAND DRYER	XCELERATOR	XL-SB	40" TO BOTTOM OF OUTLET
J	SHOWER ROD & CURTAIN	BOBRICK	B-207X60	74 1/2" TO CENTERLINE OF ROD AFF
K	SHOWER SEAT	BOBRICK	B-918116R	INSTALL PER MANUFACTURER
L	48" BENCH	GLOBAL	#493712	INSTALL PER MANUFACTURER

NOTE: COORDINATE ALL FINAL MOUNTING HEIGHTS WITH OWNER PRIOR TO INSTALLATION.

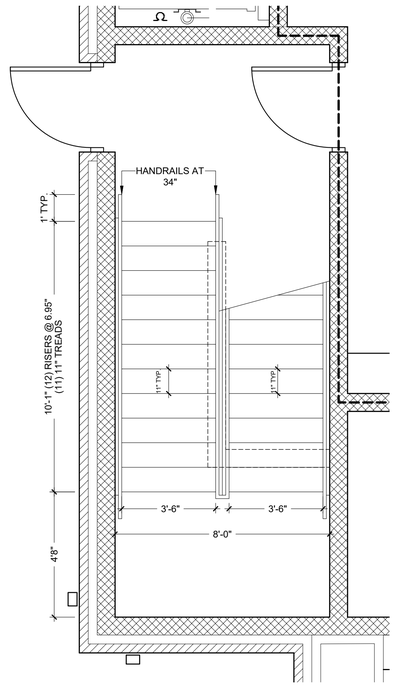


ADA INSTALLATION GUIDELINES



2 CRIME LAB PLAN

SCALE: 3/8" = 1'-0"



3 STAIRCASE PLAN

SCALE: 3/8" = 1'-0"

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KRH ARCHITECTS INCORPORATED
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A NEW BUILDING FOR:
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WHITFIELD COUNTY
DALTON, GA 30720

STATE OF GEORGIA
KENNETH R. HARLESS
CERTIFICATE NO. RA003594
REGISTERED ARCHITECT

SHEET INDEX
LARGE SCALE PLANS

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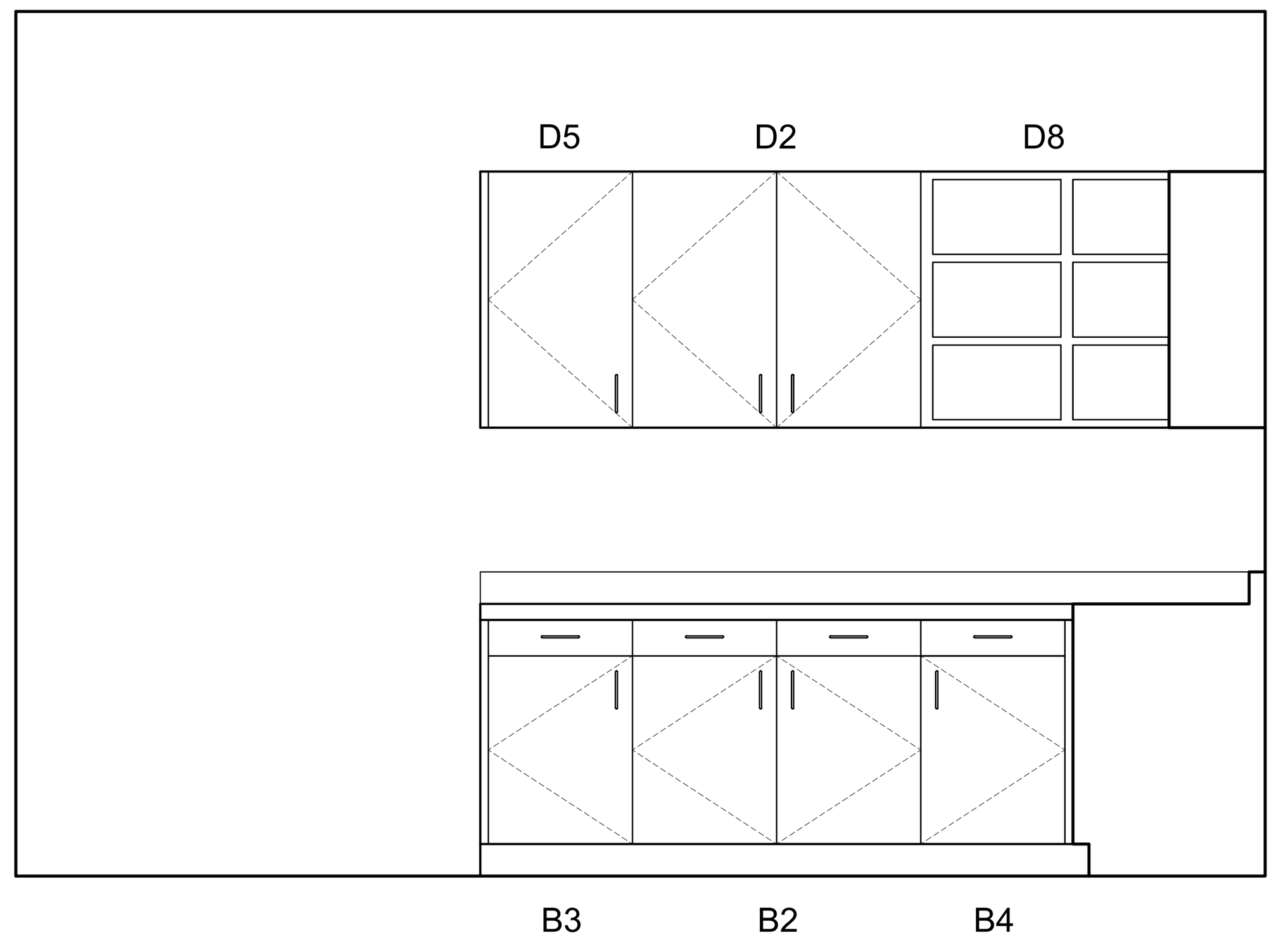
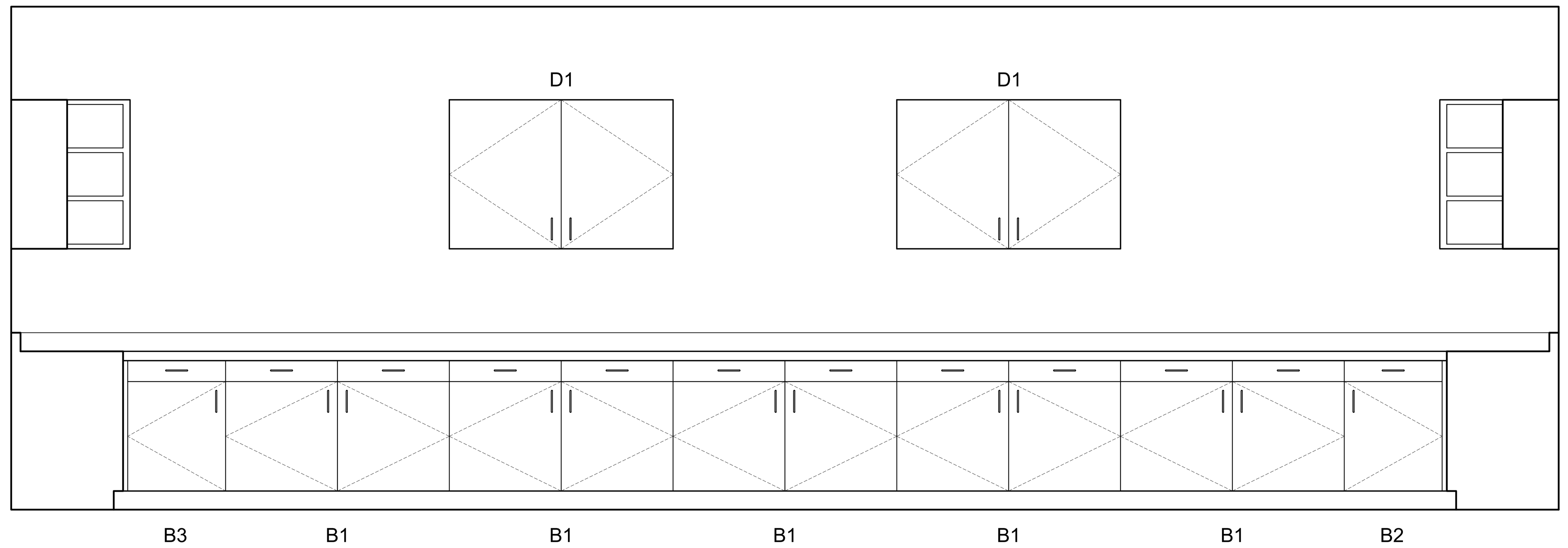
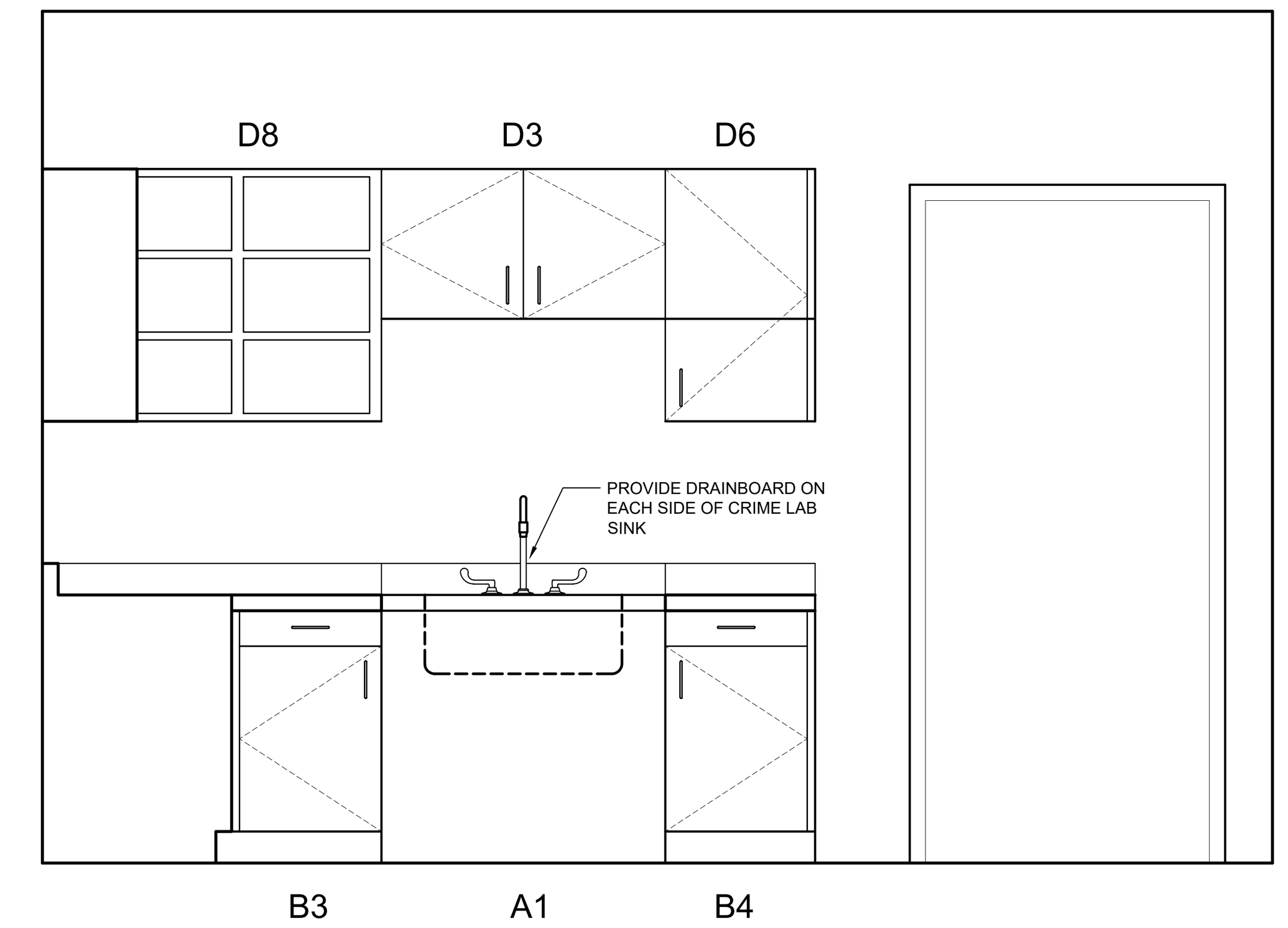
A6.1



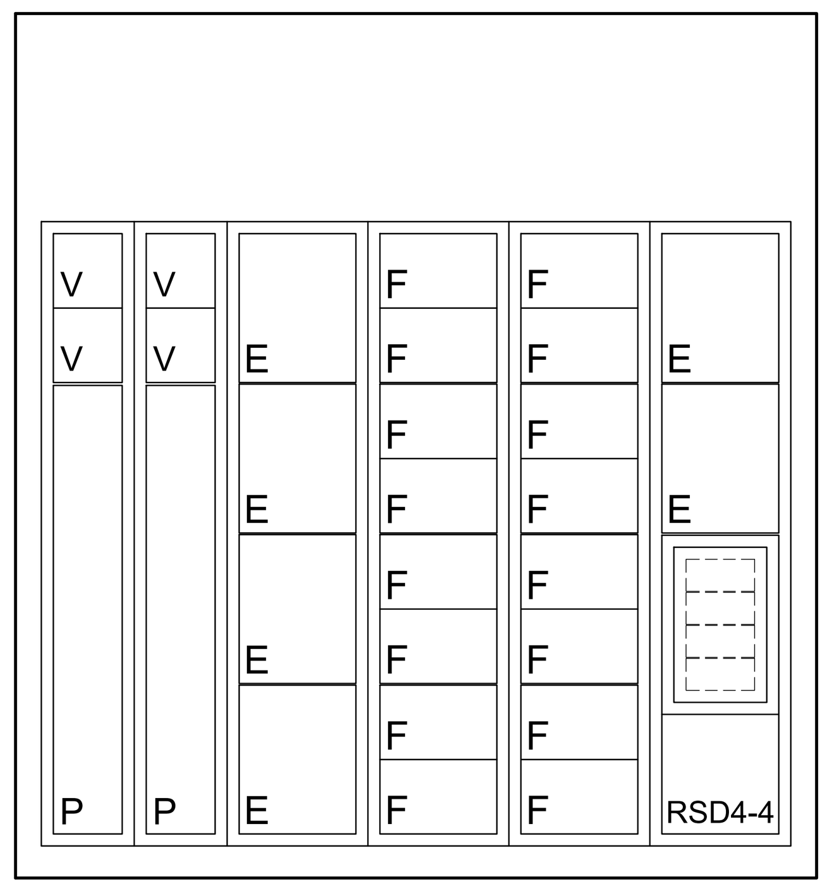
1 CRIME LAB
SCALE: 1/2" = 1"



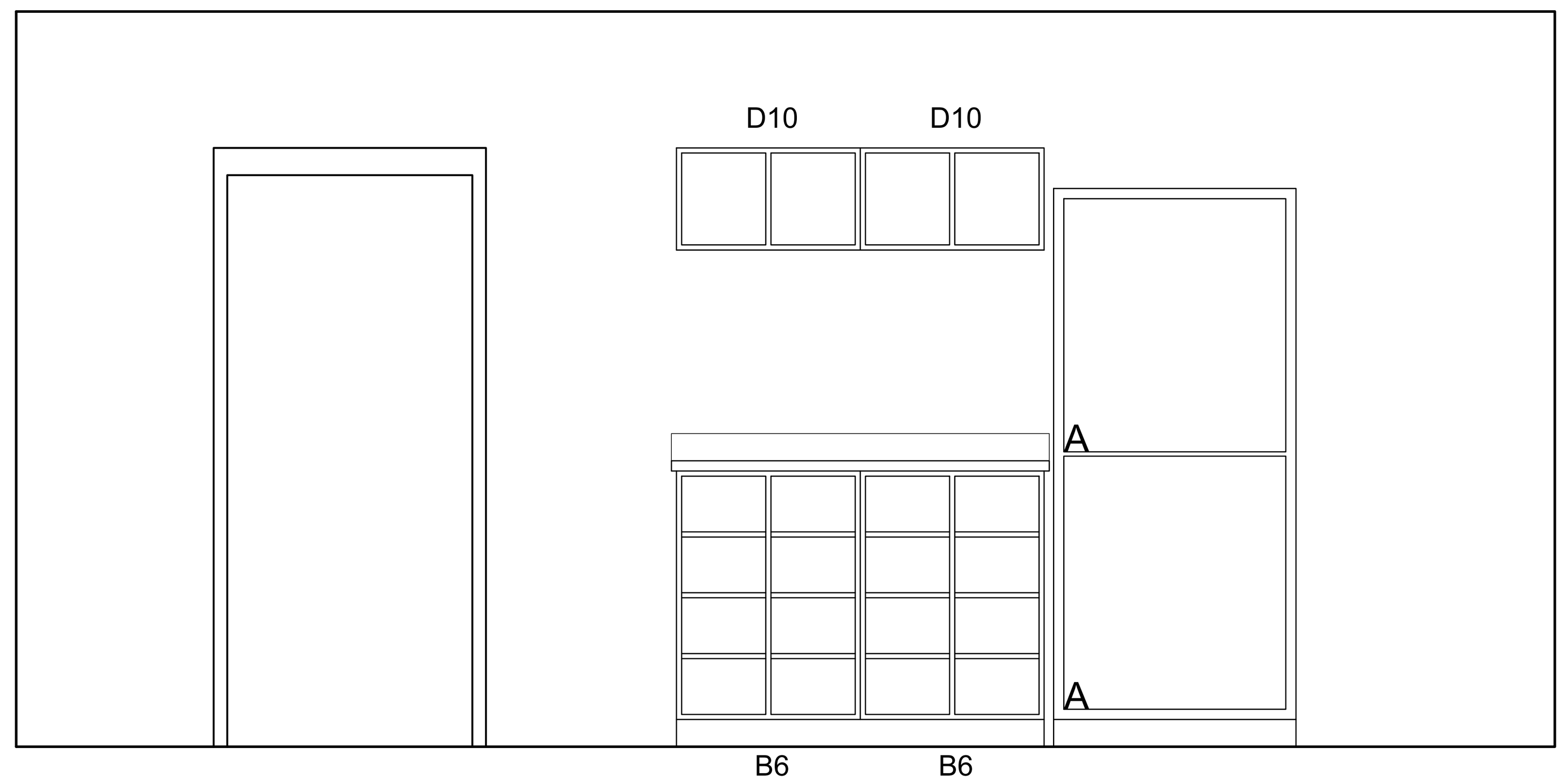
2 CRIME LAB
SCALE: 1/2" = 1"



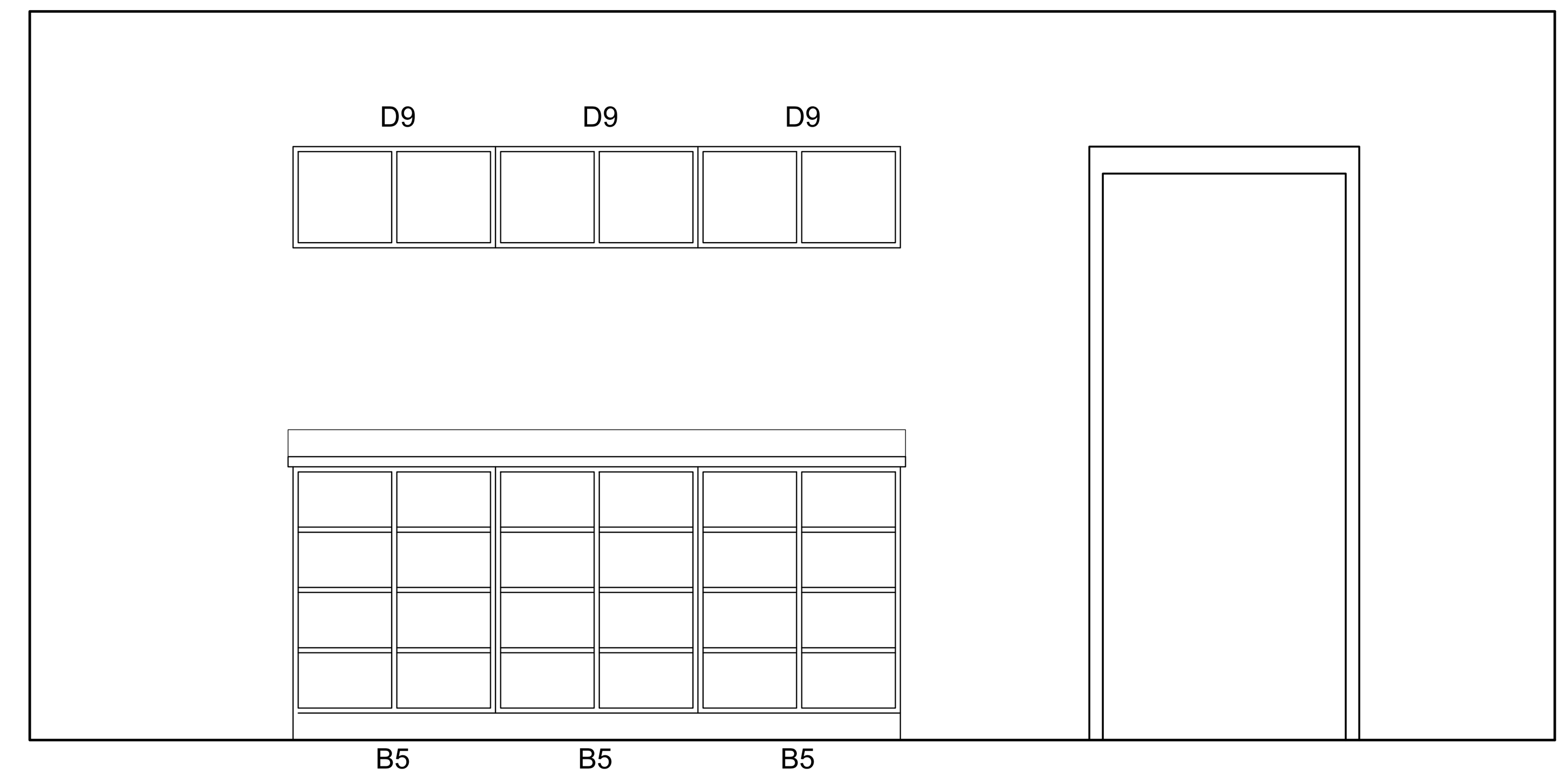
3 CRIME LAB
SCALE: 1/2" = 1"



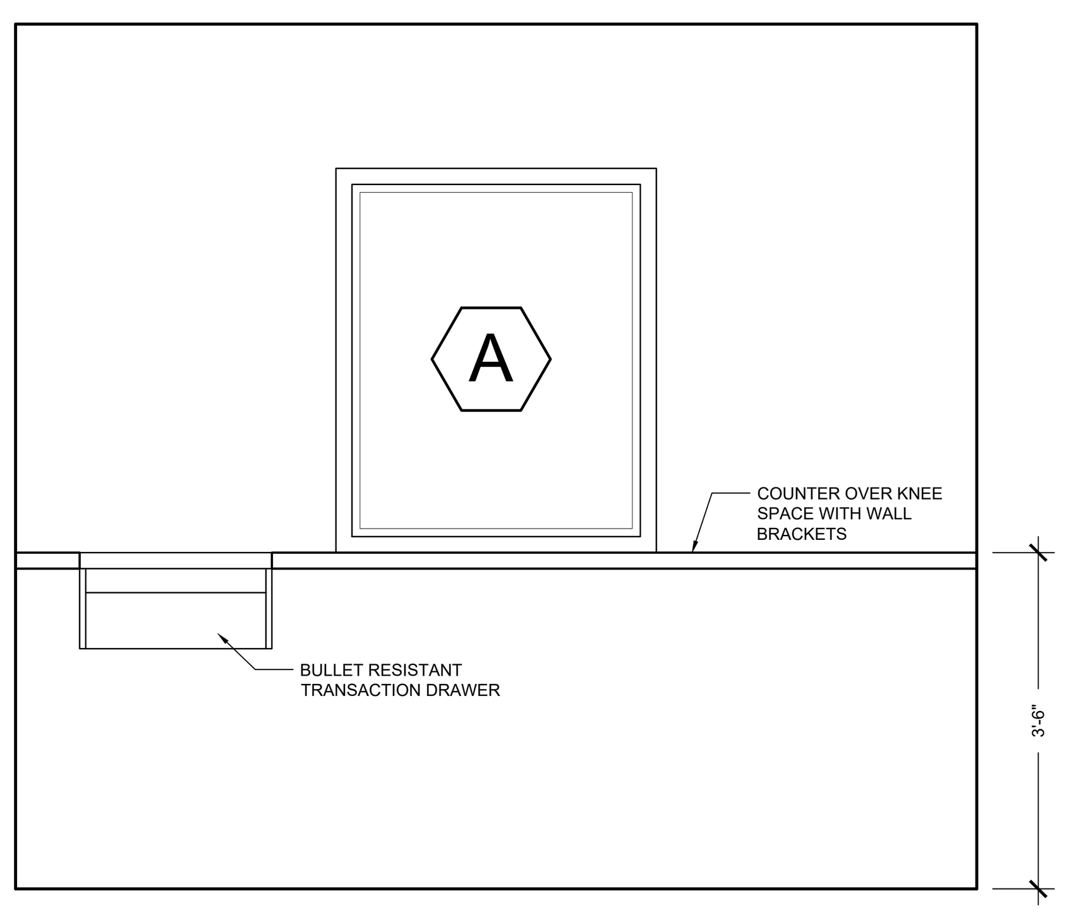
4 EVIDENCE LOCKERS
SCALE: 1/2" = 1"



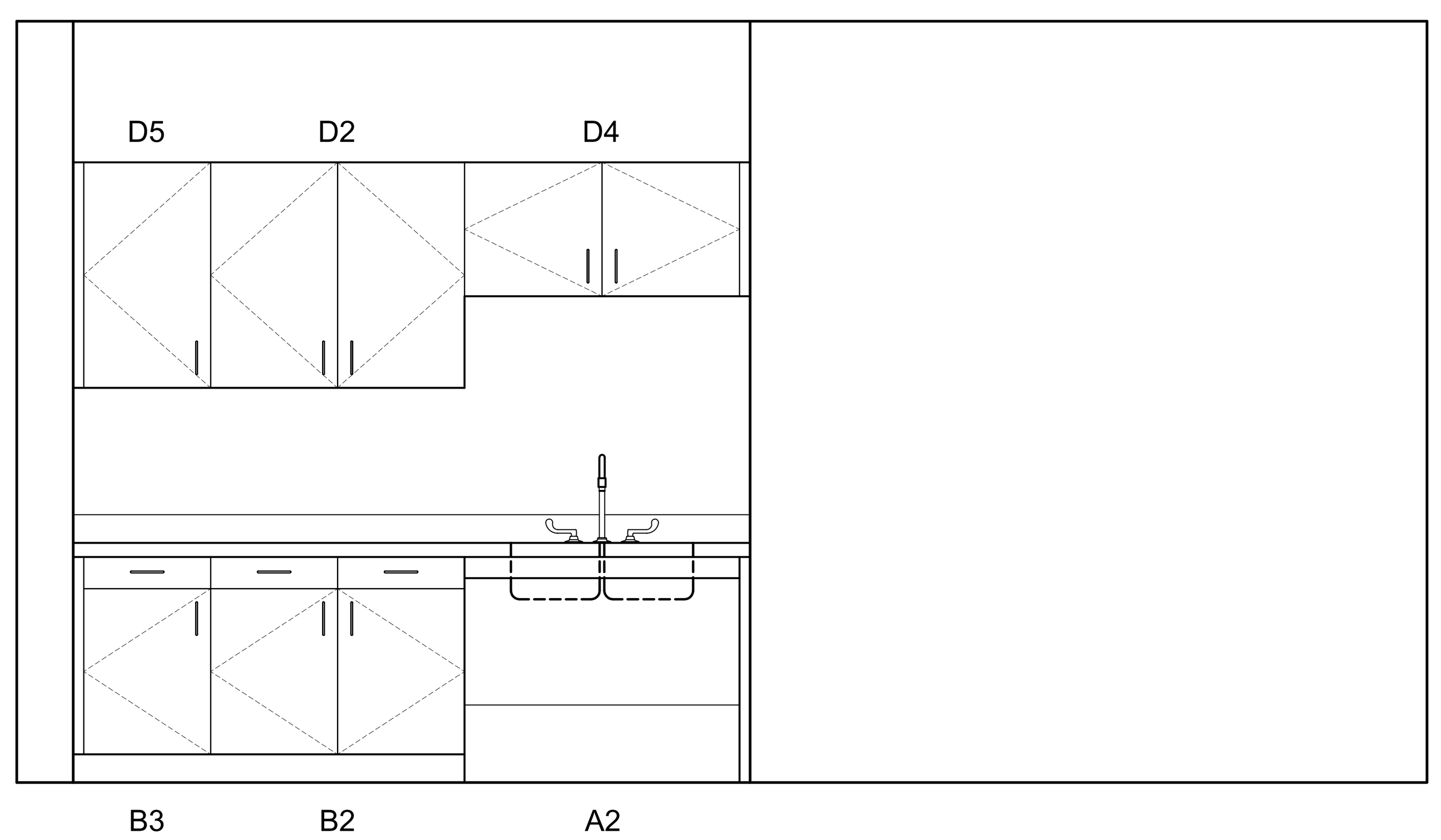
5 EVIDENCE DROP OFF
SCALE: 1/2" = 1"



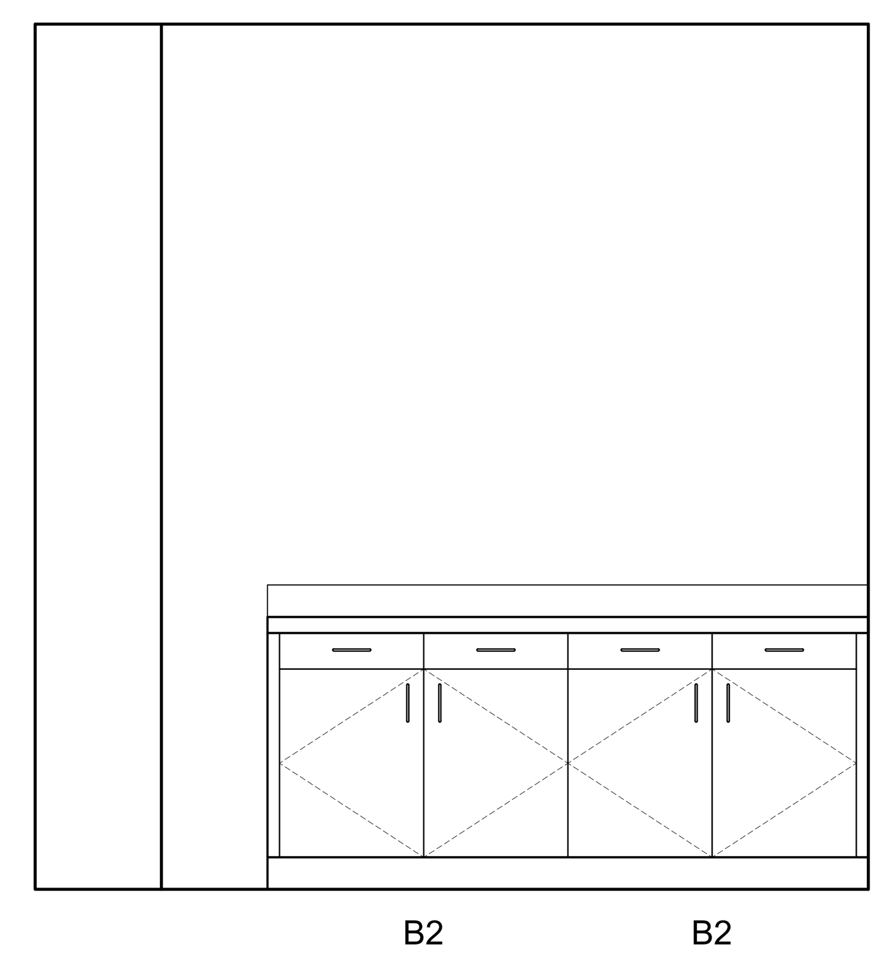
6 EVIDENCE DROP OFF
SCALE: 1/2" = 1"



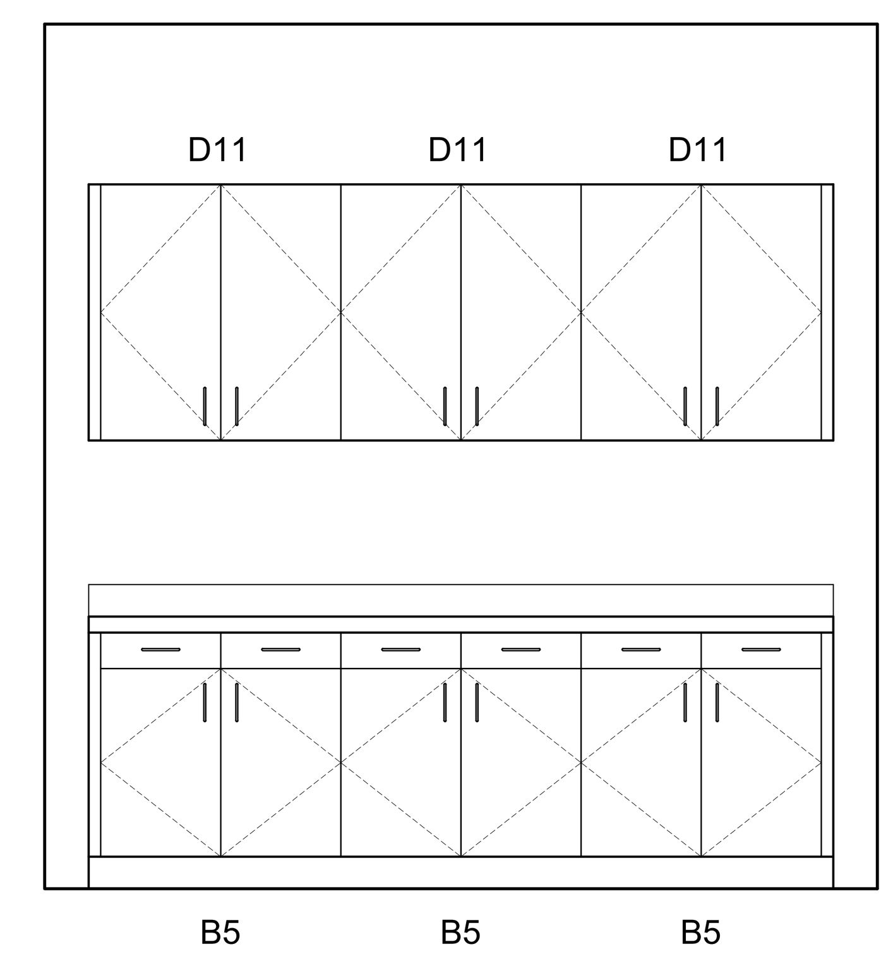
7 VISITOR WINDOW ELEVATION
SCALE: 1/2" = 1"



8 EMPLOYEE BREAK AREA
SCALE: 1/2" = 1"



9 EVIDENCE ROOM
SCALE: 1/2" = 1"



10 VEHICLE BAY
SCALE: 1/2" = 1"

EVIDENCE LOCKER SCHEDULE

V	(PASSTHROUGH)	8.594W, 18.594H, 24D
F	(PASSTHROUGH)	14.594W, 18.594H, 24D
E	(PASSTHROUGH)	14.594W, 18.594H, 24D
P	(PASSTHROUGH)	8.594W, 56.031H, 24D
A	(NOT PASSTHROUGH)	32.594W, 37.188H, 24D
RSRD4-4	(PASSTHROUGH)	14.594W, 37.313H, 24D

CASEWORK SCHEDULE

A1	06000458	ADA SINK	25W, 34H, 15D
A2	B15900	ADA SINK	39W, 34H, 24D
B1	B22200	BASE CABINET	48W, 34H, 24D
B2	B22200	BASE CABINET	36W, 34H, 24D
B3	B21100L	BASE CABINET	18W, 34H, 24D
B4	B21100R	BASE CABINET	18W, 34H, 24D
B5	B11024	BASE CABINET	30W, 42H, 24D
B6	B11024	BASE CABINET	27W, 42H, 24D
D1	W30200	WALL CABINET	48W, 32H, 12D
D2	W30200	WALL CABINET	36W, 32H, 12D
D3	W30200	WALL CABINET	36W, 19H, 12D
D4	W30200	WALL CABINET	39W, 19H, 12D
D5	W30100L	WALL CABINET	18W, 32H, 12D
D6	W30100R	WALL CABINET	18W, 32H, 12D
D7	W30000	WALL CABINET	33W, 32H, 12D
D8	W30000	WALL CABINET	31W, 32H, 12D
D9	W30010	WALL CABINET	30W, 12H, 12D
D10	W30010	WALL CABINET	27W, 12H, 12D
D11	W30200	WALL CABINET	30W, 32H, 12D

FOR CONSTRUCTION

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KRH INCORPORATED ARCHITECTS
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
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WHITFIELD COUNTY
DALTON, GA 30720

STATE OF GEORGIA REGISTERED ARCHITECT KENNETH R. HABLESS

SHEET INDEX
CASEWORK

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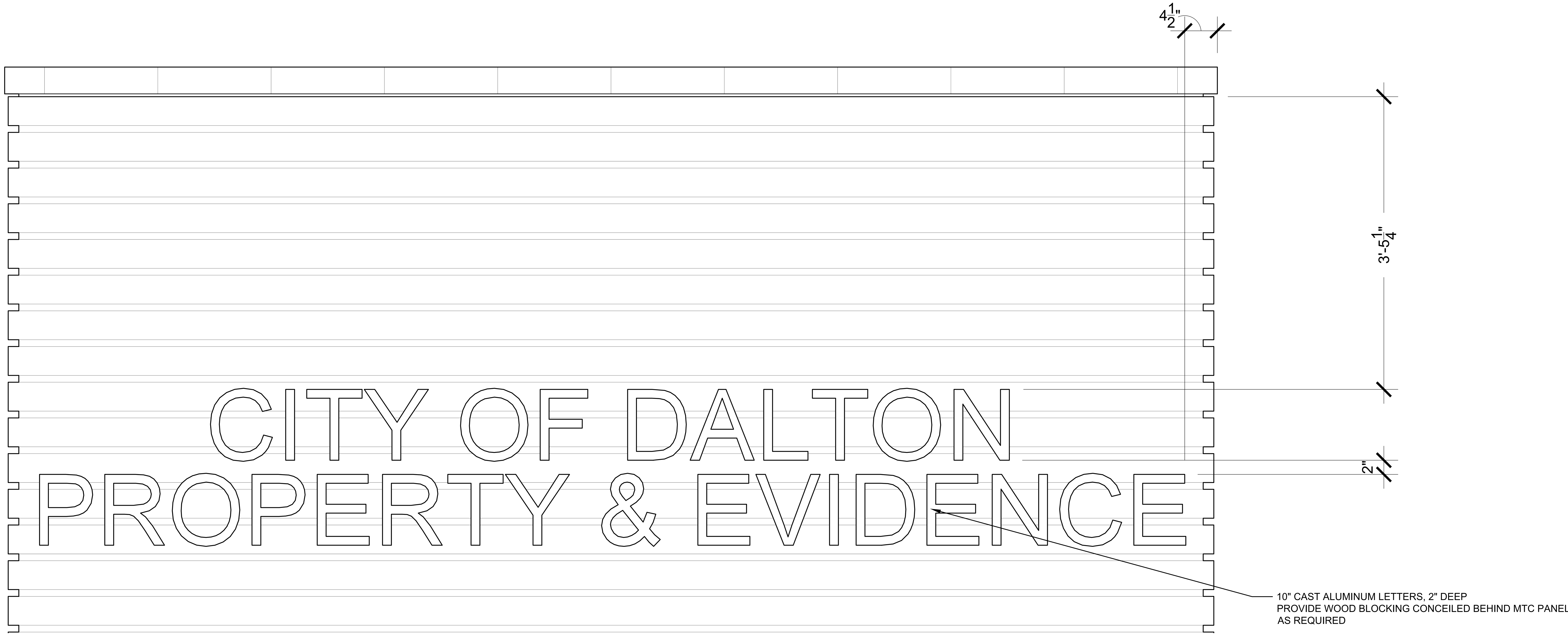
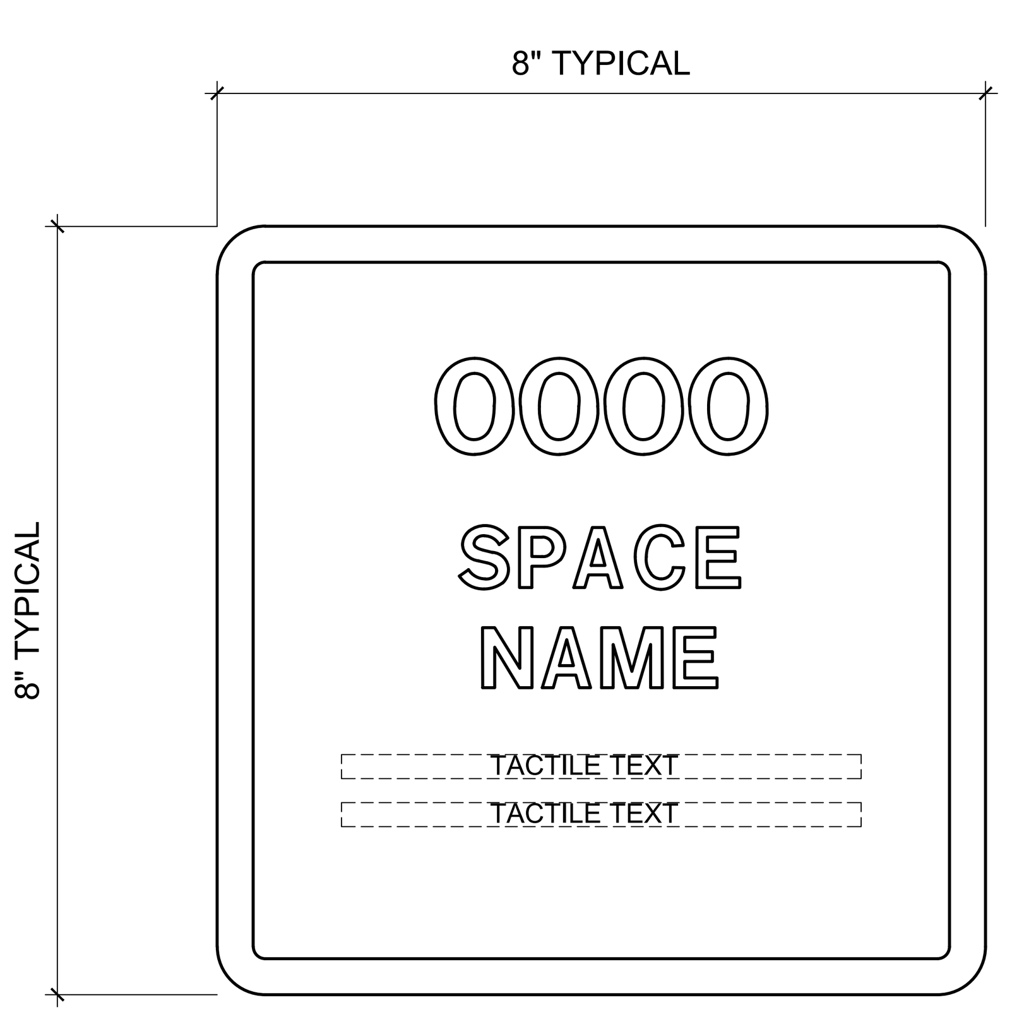
A7.1

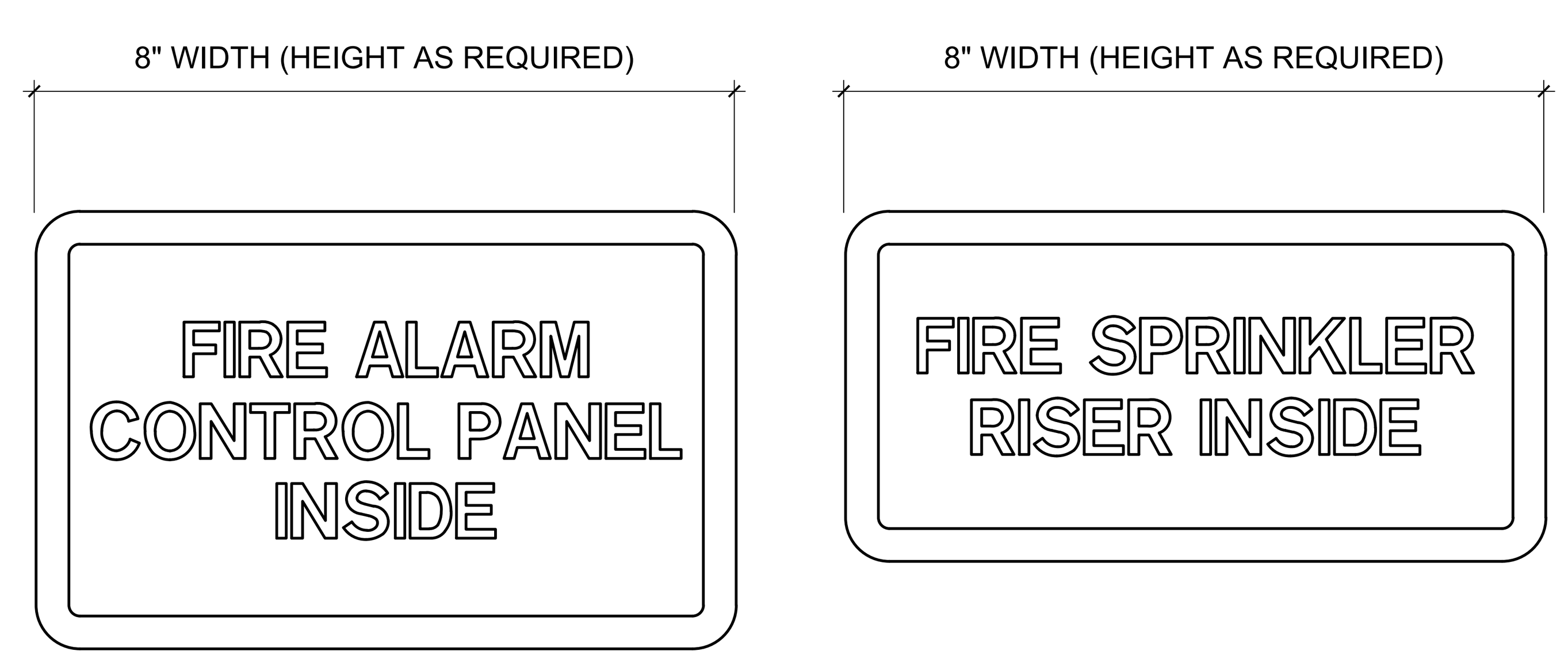


(A) SIGNAGE AT FRONT ENTRANCE
SCALE: 1-1/2" = 1"

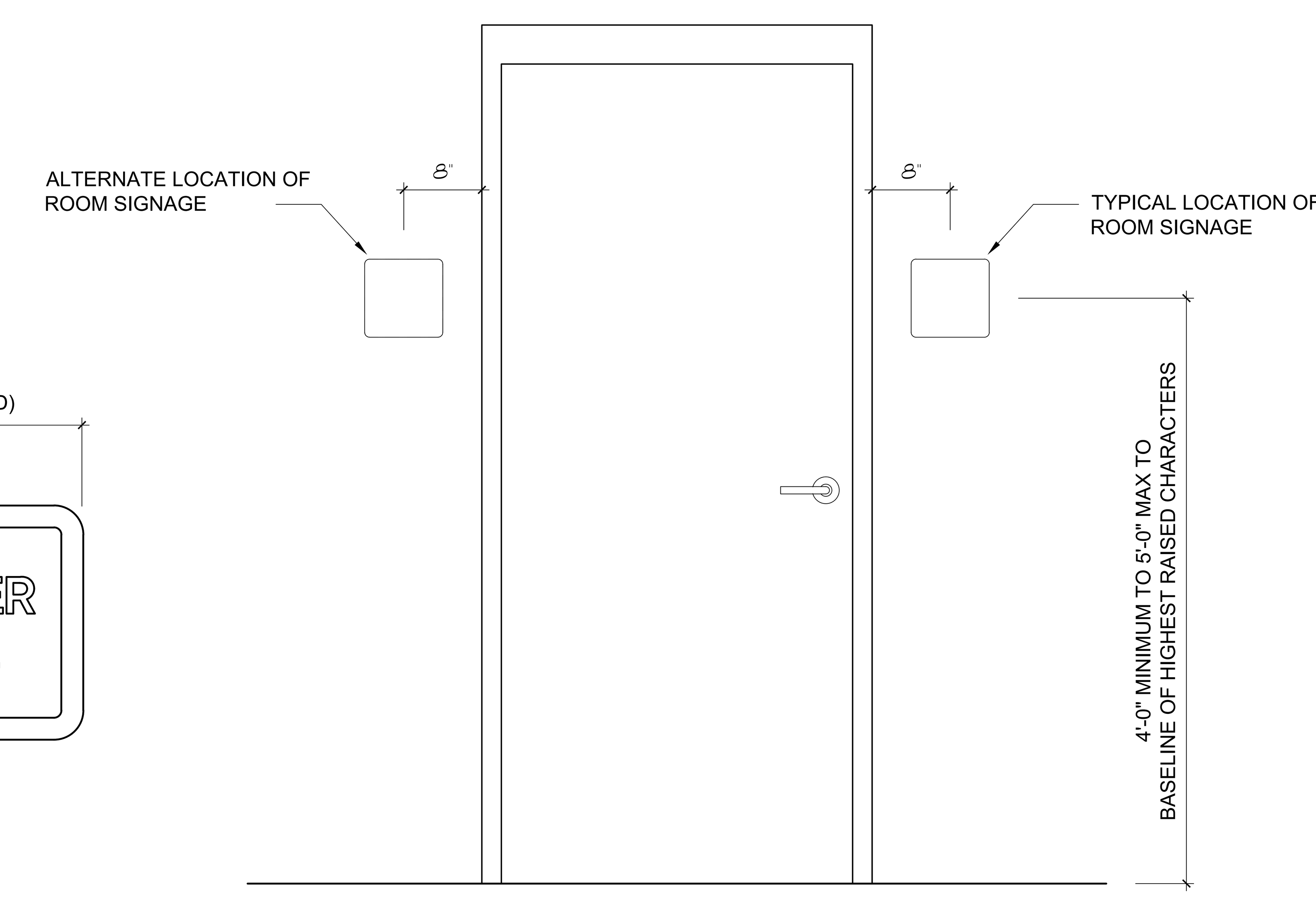
(B) RESTROOM SIGNAGE
SCALE: 6" = 1"



(C) ROOM SIGNAGE
SCALE: 6" = 1"



(D) LIFE SAFETY SIGNAGE
SCALE: 6" = 1"



(1) SIGNAGE MOUNTING LOCATION
SCALE: 1" = 1'-0"

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STATE OF GEORGIA
KENNETH R. HARLESS
REGISTERED ARCHITECT

SHEET INDEX
INTERIOR AND EXTERIOR SIGNAGE

SHEET INDEX
A8.1

DESIGN:

BUILDING CODE: INTERNATIONAL BUILDING CODE 2018 (IBC) W/GEORGIA STATE AMENDMENTS

WIND:

V_{ULT}: 118 MPH
V_{ASD} 89.9 MPH
EXPOSURE CATEGORY B
COMPONENTS AND CLADDING: COMPONENTS AND CLADDING ELEMENTS NOT SPECIFICALLY DESIGNED ON THESE DRAWINGS SHALL BE DESIGNED ACCORDING TO THE WIND PRESSURES STIPULATED BY IBC 2018 FOR THE TRIBUTARY AREA OF THE SPECIFIC COMPONENT.

MIN DESIGN PRESSURE = 37 PSF (WALLS, 100 SQ FT, NON-END ZONE)

BASE SHEAR:

Vx = 24.0 KIPS
Vy = 21.0 KIPS

SEISMIC:

RISK CATEGORY V
IE = 1.5 IP = 1.5
SDS = 0.478 SD1 = 0.192
SS = 0.518 S1 = 0.122
SITE CLASS = D
SEISMIC DESIGN CATEGORY = D
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

BASE SHEAR:

Vx = 24.0 KIPS
Vy = 21.0 KIPS

SNOW:

GROUND SNOW LOAD = 10 PSF
Is = 1.2
FLAT ROOF SNOW LOAD = 7.6 PSF
SNOW EXPOSURE FACTOR Ce = 0.9 SNOW THERMAL FACTOR Ct = 1.0

SEISMIC RESISTING SYSTEM:

BEARING WALL/ SPECIAL REINFORCED MASONRY SHEAR WALLS
R = 5 Ω0 = 2 ½ Cd = 2 1/4

SHEET INDEX:

MISCELLANEOUS:

1. THE FOLLOWING NOTES APPLY TO ALL PROJECT RELATED STRUCTURAL DRAWINGS. THIS INCLUDES THESE DRAWINGS, FIELD SKETCHES AND RESPONSES TO REQUESTS FOR INFORMATION (RFIS), UNLESS OTHERWISE INDICATED.
2. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS.REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PERTINENT ASPECTS OF ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK, AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS.
4. NO OPENINGS OR MODIFICATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
5. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
6. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DESIGN, ADEQUACY, SAFETY AND STABILITY OF TEMPORARY BRACING AND SHORING THAT MAY BE REQUIRED AS A RESULT OF THE CONTRACTORS CONSTRUCTION METHODS AND/OR SEQUENCES. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURAL FRAMING. APPLIED CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF ANY STRUCTURAL BUILDING ELEMENT.
7. THE CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION LIFECYCLE.
8. DO NOT SCALE THESE DRAWINGS; USE DIMENSIONS. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE ARCHITECTURAL DRAWINGS.
9. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
10. WHERE A SECTION OR DETAIL IS CUT ON THE PLAN, IT IS UNDERSTOOD TO BE REPRESENTATIVE OF ALL LIKE OR SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
11. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ARCHITECTS OR ENGINEERS PRESENCE AT THE JOB SITE OR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTORS MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE WITH OSHA REGULATIONS.
12. CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION, SIZES, AND EXTENT OF CHASES, INSERTS, RECESSES, RIDGES, FINISHES, DEPRESSIONS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.
13. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF RECORD IN WRITING OF ALL CONDITIONS ENCOUNTERED IN THE FIELD THAT ARE CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
14. STRUCTURAL CONTRACT DOCUMENTS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.
15. REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AND PUBLISHED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.
16. SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPE, AND LOCATION OF DEPRESSED FLOOR AREAS. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH THE ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.
17. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. OPENINGS 1'-4" IN WIDTH OR LENGTH (AND LESS) ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL REQUIRED OPENINGS. ALL MECHANICAL OPENING LOCATIONS, UNIT OPERATING WEIGHTS, AND SIZES SHALL BE VERIFIED WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION FOR APPROVAL.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES IN ORDER TO COMPLY WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

SUBMITTALS:

1. STRUCTURAL DRAWINGS GIVE REPRESENTATIVE DETAILS AND ARE NOT INTENDED TO SHOW ALL CONDITIONS THAT MAY BE PRESENT. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS AS INDICATED IN THE PROJECT DOCUMENTS.
2. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTAL DATES TO ARCHITECT AT LEAST 30 DAYS PRIOR TO FIRST SUBMITTAL FAILURE TO SUBMIT DRAWINGS ON DESIGNATED DATE MAY IMPACT REVIEW SCHEDULE.
3. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIALS OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE CONSIDERED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
   A. A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
   B. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CODE COUNCIL (ICC) AND THE ICC-ES REPORT IS SUBMITTED WITH THE REQUEST. SUBMITTALS NOT SATISFYING THE ABOVE CRITERIA WILL NOT BE CONSIDERED.
4. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
5. COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL FABRICATED AND SPECIALTY BUILDING COMPONENTS INCLUDING (BUT NOT LIMITED TO) WINDOW SYSTEMS, CANOPY SYSTEMS, AND METAL STAIRS. SHOP DRAWINGS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA.
6. ALL APPROVED SUBMITTALS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, SHALL BE MADE AVAILABLE ON THE JOBSITE FOR REVIEW BY THE INSPECTOR.
7. REPRODUCTION OF CONTRACT DOCUMENTS FOR USE AS SHOP DRAWINGS IS NOT PERMITTED.

FOUNDATIONS:

1. FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING AN ASSUMED NET ALLOWABLE BEARING PRESSURE OF 1.5 KSF FOR INDIVIDUAL COLUMN FOOTINGS AND 1.5 KSF FOR CONTINUOUS WALL FOOTINGS UNDER FULL SERVICE LIVE AND DEAD LOAD.
2. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH CIVIL DRAWINGS AND PROJECT SPECIFICATIONS. A GEOTECHNICAL INVESTIGATION HAS NOT BEEN PERFORMED ON THIS SITE PRIOR TO THE ISSUANCE OF THESE DRAWINGS. A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY ALL ASSUMPTIONS AND REPORT ANY VARIATIONS OR DISCREPANCIES TO THE ENGINEER.
3. THE FOOTINGS HAVE BEEN POSITIONED AT THE ESTIMATED ELEVATION WHICH WILL PROVIDE SUITABLE BEARING. HOWEVER, IF ADEQUATE BEARING CAPACITY IS NONEXISTENT AT THESE ESTIMATED ELEVATIONS, THE FOOTING SHALL BE LOWERED TO AN ELEVATION WHERE THE PRESCRIBED SAFE BEARING CAPACITY EXISTS (AS RECOMMENDED BY A QUALIFIED GEOTECHNICAL ENGINEER).
4. FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
5. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SURFACE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.
6. IN AREA OF THE BUILDING, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS SHALL BE REMOVED. ANY CUT AND FILL REQUIREMENTS SPECIFIED BY CIVIL SHALL BE AS INSTALLED PURSUANT TO THE GEOTECHNICAL REPORT NOTED IN ITEM 2 OF THIS SECTION.
7. FOOTING CONCRETE SHALL BE CAST ON THE SAME DAY THE EXCAVATION IS APPROVED. IF THE BEARING SURFACE IS ALLOWED TO BECOME DISTURBED IN ANY WAY, IT SHALL BE REWORKED TO THE SATISFACTION OF AN INDEPENDENT TESTING AGENCY PRIOR TO CASTING OF THE CONCRETE.
8. ALL EXCAVATIONS AND STRUCTURE BEARING PADS SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL.
9. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 1'-6" BELOW FINAL GRADE FOR FROST PROTECTION.
10. NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (2 HORIZONTAL TO 1 VERTICAL) TO A FOOTING. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.
11. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.
12. BACKFILL AGAINST WALLS SHALL BE PLACED IN 8" LIFTS AND SHALL BE DEPOSITED EVENLY AGAINST EACH SIDE OF WALL UNTIL THE LOWER FINAL GRADE IS REACHED. BACKFILL SHALL NOT BE PLACED AGAINST WALLS DEPENDENT UPON TOP AND BOTTOM SLABS/FOUNDATION FOR SUPPORT UNTIL SUCH SLABS HAVE ATTAINED MINIMUM SUFFICIENT BRACING AND SHORING FOR ALL WORK DURING THE CONSTRUCTION PROCESS. RETAINING WALLS ARE NOT DESIGNED TO CANTILEVER AT ANY TIME UNLESS EXPLICITLY NOTED ON DRAWINGS.
13. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE DRAINAGE SYSTEM FOR ALL BACKFILL CONDITIONS PER CIVIL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
14. COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE POURED MONOLITHIC WITH TOPS OF ADJACENT FOOTINGS AT THE SAME ELEVATION.
15. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY FOOTING WITHOUT PRIOR WRITTEN APPROVAL FROM ENGINEER.

CONCRETE:

1. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-14.
2. CEMENT USED SHALL BE TYPE I OR III CONFORMING TO ASTM C-150. CONCRETE SHALL DEVELOP A MINIMUM 28 DAY STRENGTH AND DENSITY AS FOLLOWS:

	STRENGTH (PSI)	DENSITY (PCF)
FOOTINGS, 4" SLAB ON GRADE	3000	145 - 150
6" SLAB ON GRADE	4000	145 - 150
ELEVATED SLAB (LIGHTWEIGHT)	3000	110 - 115

3. AGGREGATE SHALL BE WELL GRADATED AND SHALL CONFORM TO THE FOLLOWING:

ALL ELEMENTS (DENSITY 145 - 150 PCF)	1" COARSE AGGREGATE (ASTM C-33)
ELEVATED SLAB (DENSITY 115 - 120 PCF)	¾" COARSE AGGREGATE (ASTM C-330)

4. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS BY EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD AND SHALL BE CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. RESULTS OF ALL COMPRESSIVE STRENGTH TEST SHALL BE MADE AVAILABLE AT THE JOB SITE FOR REVIEW BY THE INSPECTOR.
5. ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.
6. NO ADDITIONAL WATER SHALL BE ADDED TO CONCRETE AT THE JOB SITE.
7. MINIMUM CONCRETE COVER UNLESS NOTED OTHERWISE:
   A. #11 BARS AND SMALLER 3/4 INCHES
   B. UNFORMED SURFACE IN CONTACT WITH THE GROUND: 3 INCHES
   C. BASEMENT WALLS: 2 INCHES EXTERIOR; 3/4 INCHES INTERIOR
   D. FORMED SURFACES EXPOSED TO EARTH OR WEATHER:
      #6 BARS AND LARGER: 2 INCHES
      #5 BARS AND SMALLER: 1 1/2 INCHES
   E. FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER:
      BEAMS, GIRDERS AND COLUMNS: 1 1/2 INCHES
      SLABS, WALLS, AND JOISTS: 3/4 INCHES
8. SLAB-ON-GRADE SHALL BE SAW CUT NO MORE THAN 12 HOURS AFTER CONCRETE HAS BEEN FINISHED. CONTRACTOR TO SUBMIT LAYOUT AND CONSTRUCTION SCHEDULE ('SOFT-CUT' INTERNATIONAL OR SIM.)
9. PLACEMENT OF CONCRETE. COLD WEATHER AND HOT WEATHER PRECAUTIONS, MATERIAL AND PROPORTIONING REQUIREMENTS, REBAR COVER AND DETAILING SHALL CONFORM TO REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI) 318-14.
10. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS FOR SLAB FINISHES, SLAB DEPRESSIONS, ELEVATIONS AND ENCASED OR EMBEDDED ITEMS.
11. PIPES AND CONDUITS EMBEDDED IN CONCRETE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
   A. NO MATERIAL HARMFUL TO CONCRETE (SUCH AS , BUT NOT LIMITED TO, ALUMINUM) IS PERMITTED.
   B. NO EMBEDMENT OR PENETRATION WHICH IMPAIRS THE STRUCTURAL STRENGTH OR INTEGRITY IS PERMITTED.
   C. CONDUITS AND PIPES SHALL NOT HAVE A DIAMETER THAT EXCEEDS 1/3 THE OVERALL THICKNESS OF THE STRUCTURAL ELEMENT IN WHICH THEY ARE EMBEDDED.
   D. MINIMUM CENTER TO CENTER SPACING SHALL NOT BE CLOSER THAN 3 DIAMETERS OR WIDTHS.
   E. PLACEMENT SHALL OCCUR ABOVE BOTTOM LAYER OF REINFORCEMENT AND BELOW TOP LAYER OF REINFORCEMENT AND SHALL NOT CAUSE REINFORCEMENT TO BE CUT, BENT OR DISPLACED IN ANY MANNER.
   F. PLACEMENT SHALL MAINTAIN A MINIMUM CLEARANCE FROM REINFORCEMENT OF 3 REINFORCING BAR DIAMETERS OR 3/4" FROM WELDED WIRE FABRIC REINFORCEMENT.
   G. PLUMBING AND ELECTRICAL CONDUITS SHALL BE PLACED BELOW SLAB ON GRADE.
12. UNLESS NOTED OTHERWISE, PROVIDE CONTROL JOINTS IN SLABS ON GRADE NOT TO EXCEED 15 FEET ON CENTER IN EACH DIRECTION, UNLESS OTHERWISE APPROVED BY THE STRUCTURAL ENGINEER.
13. FORMING SHALL BE OF WOOD, STEEL, OR FIBERGLASS OF SATISFACTORY QUALITY AND CONDITION.
14. NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE UNLESS APPROVED BY THE ENGINEER.
15. REINFORCING SHALL CONFORM TO ASTM A615, GR60 UNLESS NOTED OTHERWISE.
16. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 GRADE 60.
17. REINFORCING STEEL AND ACCESSORIES SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 (MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES) AND CRSI MSP-1 (MANUAL OF STANDARD PRACTICE), LATEST EDITION.
18. ALL 'CONTINUOUS' REINFORCEMENT SHALL HAVE MINIMUM LAP OF 'B' TYPE (ACI 318-14, SECTION 25.5.2) AT SPLICES UNLESS NOTED OTHERWISE.
19. PROVIDE REINFORCING CHAIRS FOR ALL SLAB-ON-GRADE REINFORCING.
20. SUBMIT REINFORCING PLACEMENT AND DETAIL (SHOP) DRAWINGS FOR REVIEW. NO REINFORCING BARS SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
21. ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH CRSI 'MANUAL OF STANDARD PRACTICE' (27TH EDITION).
22. WHERE WELDED WIRE FABRIC REINFORCEMENT IS SPECIFIED IN SLABS ON GRADE PLACEMENT SHALL BE 1" BELOW TOP OF SLAB. OVERLAP EACH REINFORCING SHEET TWO FULL PANELS AND TIE CROSS WIRES ON EACH SIDE.
23. SCHEDULED OR DETAILED REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL AND/OR SPLICES ARE PERMITTED ONLY WHERE SHOWN ON DRAWINGS. WHERE WELDING IS PERMITTED IT SHALL CONFORM TO AWS D1.4, STRUCTURAL WELDING CODE - REINFORCING STEEL.
24. WHERE FOOTINGS, WALLS, OR OTHER STRUCTURAL ELEMENTS INTERSECT, CORNER OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL REINFORCING UNLESS NOTED OTHERWISE.

MASONRY:

1. ALL MASONRY DESIGN AND CONSTRUCTION SHALL CONFORM TO TMS 402-16.
2. MASONRY SHALL BE LIGHTWEIGHT AND HAVE A MINIMUM COMPRESSIVE STRENGTH, f'm, OF 1500 PSI BASED ON GROSS AREA. MORTAR SHALL CONFORM TO ASTM C270 TYPE S OR M. GROUT SHALL CONFORM TO ASTM C476, WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
3. REINFORCING BARS SHALL CONFORM TO ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE.
4. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED LADDER TYPE FABRICATED UNITS WITH A SINGLE PAIR OF 3/16" DIAMETER SIDE RODS AND CROSS RODS FABRICATED FROM COLD DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 8" VERTICALLY IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE. PROVIDE HOOK AND EYE VENEER REINFORCING IN ALL EXTERIOR WALLS.
5. VERTICAL CONTROL JOINTS IN MASONRY WALLS ARE NOT INDICATED ON THESE DRAWINGS. HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS. HORIZONTAL JOINT REINFORCING (DUR-O-WALL) SHALL BE TERMINATED ON EITHER SIDE OF VERTICAL CONTROL JOINTS. WALLS SHORTER THAN 15'-0" IN LENGTH SHALL NOT HAVE VERTICAL CONTROL JOINTS.
   A. AT EXTERIOR WALLS, SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF VERTICAL CONTROL JOINTS. JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-0" ON CENTER. JOINTS SHALL NOT BE LOCATED CLOSER THAN 2'-8" TO THE JAMB OF ANY EXTERIOR WALL OPENING. JOINTS SHALL NOT BE LOCATED FURTHER THAN 15'-0" FROM ANY CORNER, NOR CLOSER THAN 5'-0" FROM ANY CORNER.
   B. AT INTERIOR SHEAR WALLS, JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-0" ON CENTER. JOINTS SHALL NOT BE LOCATED CLOSER THAN 2'-8" TO THE JAMB OF ANY SHEAR WALL OPENING. JOINTS SHALL NOT BE LOCATED FURTHER THAN 15'-0" FROM ANY CORNER, NOR CLOSER THAN 5'-0" FROM ANY CORNER.
   C. AT INTERIOR NON-SHEAR WALLS, VERTICAL CONTROL JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-0" ON CENTER. JOINTS SHALL BE LOCATED AT WALL JAMBS, WHERE PRACTICAL, AND SHALL STEP 8" HORIZONTALLY AT MASONRY LINTEL LOCATIONS. WHERE WALLS SIT ON TOP OF A CAST SLAB-ON-GRADE, ALIGN WALL CONTROL JOINTS WITH SLAB CONTROL JOINTS. JOINTS SHALL BE LOCATED AT ALL CORNER/TEE INTERSECTIONS WHERE THE LEGS OF EACH CORNER/TEE EXCEED 15'-0" IN LENGTH.
6. MASONRY PILASTERS SHALL BE LOCATED ADJACENT TO CONTROL OR EXPANSION JOINTS PER TYPICAL DETAILS.
7. ALL REINFORCED CELLS AND ALL CELLS BELOW FINISH FLOOR SHALL BE GROUTED SOLID.
8. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING.
9. REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.
10. VERTICAL BARS SHALL BE HELD IN POSITION WITH PRE-MANUFACTURED TIES AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 200 DIAMETERS OF THE REINFORCING NOR 10 FEET.
11. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 2-1/2" x 3".
12. GROUTING SHALL BE STOPPED 1-1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.
13. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
14. ALL BOLTS INSERTED IN THE WALLS SHALL BE GROUTED SOLIDLY INTO POSITION.
15. WHERE EXPANSION BOLTS OR OTHER ANCHORS ARE EMBEDDED INTO THE SIDE OF MASONRY WALLS, THE CELLS SHALL BE FULLY GROUTED AT LEAST 8" ABOVE AND BELOW EACH BOLT OR ANCHOR.
16. WHERE NOT OTHERWISE SHOWN, MASONRY WALL FOOTINGS SHALL BE 12" THICK AND HAVE A MINIMUM OF 4" PROJECTION ON EACH SIDE OF WALL. REINFORCE WITH (2) #5 BARS CONTINUOUS TOP AND BOTTOM.
17. WALLS SHALL BE GROUTED USING LOW LIFT GROUTING TECHNIQUES.
18. ALL MASONRY WALLS SHALL BE ASSUMED TO BE RUNNING BOND, UNLESS NOTED OTHERWISE IN PLAN OR SECTION.
19. MASONRY MORTAR SHALL BE TYPE 'S' AND CONFORM TO ASTM C-270

METAL FLOOR DECK:

1. METAL FLOOR DECK SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE STANDARD FOR STEEL FLOOR DECK.
2. THE METAL DECK WORK SHALL CONSIST OF FURNISHING EVERYTHING (LABOR, MATERIALS, ACCESSORIES, EQUIPMENT, ETC.) NECESSARY AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF ALL METAL DECK WORK AS INDICATED AND SPECIFIED ON THE DRAWINGS.
3. SUBMIT PLACEMENT AND DETAILED ('SHOP') DRAWINGS FOR REVIEW. NO METAL DECK SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
4. METAL DECK SHALL CONFORM TO STEEL DECK INSTITUTE'S CURRENT STANDARDS.
5. METAL DECK SHALL BE OF THE CONFIGURATION, DEPTH AND MINIMUM GAGE AS SHOWN ON THE DRAWINGS. ATTACHMENT TO THE SUPPORTING STRUCTURE SHALL BE AS SHOWN ON THE DRAWINGS AS A MINIMUM. SEE PLAN NOTES.
6. DO NOT HANG OR SUPPORT ANY LOADS FROM METAL ROOF DECK.
7. DECK SHALL BE POSITIONED SO THAT A COMPLETE RIB BEARS ON STEEL SUPPORT.

METAL ROOF DECK:

1. METAL ROOF DECK SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE SDI RD - 2017: STANDARD FOR STEEL ROOF DECK.
2. THE METAL DECK WORK SHALL CONSIST OF FURNISHING EVERYTHING (LABOR, MATERIALS, ACCESSORIES, EQUIPMENT, ETC.) NECESSARY AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF ALL METAL DECK WORK AS INDICATED AND SPECIFIED ON THE DRAWINGS.
3. SUBMIT PLACEMENT AND DETAILED ('SHOP') DRAWINGS FOR REVIEW. NO METAL DECK SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
4. METAL DECK SHALL CONFORM TO STEEL DECK INSTITUTE'S CURRENT STANDARDS.
5. METAL DECK SHALL BE OF THE CONFIGURATION, DEPTH AND MINIMUM GAGE AS SHOWN ON THE DRAWINGS. ATTACHMENT TO THE SUPPORTING STRUCTURE SHALL BE AS SHOWN ON THE DRAWINGS AS A MINIMUM. SEE PLAN NOTES.
6. DO NOT HANG OR SUPPORT ANY LOADS FROM METAL ROOF DECK.
7. WHERE POSSIBLE, METAL ROOF DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 3 SPANS. TWO SPAN DECK SHALL BE USED ONLY WHERE DECK LAYOUT DOES NOT PERMIT THE USE OF THREE SPANS. SINGLE SPAN DECK IS NOT PERMITTED.
8. ROOF OPENINGS LESS THAN 6" SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6" TO 10" INCLUSIVE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6" MAXIMUM CENTERS WITH A 5/8" DIAMETER PUDDLE WELD OR SHEET METAL SCREWS. SEE DRAWINGS FOR REINFORCEMENT OF OPENINGS LARGER THAT 10".
9. DECK SHALL BE POSITIONED SO THAT A COMPLETE RIB BEARS ON STEEL SUPPORT.

PROJECT NUMBER
23-021

DATE
12/1/2023

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. PEO030054 STRUCTURAL ENGINEER WILLIAM JOHN PELTIER 12/1/2023

SHEET INDEX

GENERAL NOTES

SHEET INDEX

S0.1

STRUCTURAL STEEL:

DESIGN CODE:
AMERICAN INSTITUTE OF STEEL CONSTRUCTION 'SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - AISC 360-16

1. STEEL SHALL CONFORM TO THE FOLLOWING GRADES:

STRUCTURAL W-SHAPES	ASTM A992 (Fy=50ksi)
ALL CHANNELS, ANGLES, PLATES, ETC. (UNO)	ASTM A36 (Fy=36ksi)
STRUCTURAL TUBES	ASTM A500 GRADE C (Fy=50ksi)
STEEL PIPE	ASTM A53 (Fy=35ksi)
ANCHOR RODS	ASTM F1554 (Fy=55ksi)
HIGH STRENGTH BOLTS	ASTM A325
HEX NUTS - GRADE A	ASTM A563
WELDING ELECTRODES	E70xx HARDENED STEEL
WASHERS - TYPE I	ASTM F436

2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (AISC 2016) EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.

3. THE STEEL STRUCTURE IS A NON-SELF-SUPPORTING STEEL FRAME AND IS DEPENDENT UPON DIAPHRAGM ACTION OF THE METAL ROOF DECK AND ATTACHMENT TO THE MASONRY WALLS AND METAL STUD SHEAR WALLS FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THESE ELEMENTS ARE COMPLETE AND ARE CAPABLE OF PROVIDING THIS SUPPORT.

4. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS. CONNECTIONS SHOWN ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. CONNECTION DETAILS INDICATED ON THE DRAWINGS SHALL BE INCORPORATED INTO FABRICATORS CONNECTION DESIGN ONLY AS THEY ARE DEEMED APPROPRIATE AND ADEQUATE. BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH AISC 14TH EDITION 'SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS'.

5. SPLICING OF STEEL MEMBERS UNLESS SHOWN ON THE DRAWINGS IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.

6. NO HOLES SHALL BE CUT IN ANY STEEL ELEMENT UNLESS THEY ARE DETAILED ON THE DRAWINGS.

7. UNLESS NOTED OTHERWISE, BEAMS SHALL BEAR 8" MINIMUM ON CONCRETE OR MASONRY. ANCHOR BEAMS TO MASONRY WITH TWO 5/8" DIAMETER ANCHOR RODS WITH 1'-0" EMBEDMENT INTO GROUT FILLED MASONRY.

8. WHERE BEAMS INTERSECT AT THE TERMINATING ELEVATION OF A COLUMN, THE BEAM WITH THE GREATEST REACTION SHALL BEAR ON TOP OF THE COLUMN UNLESS NOTED OTHERWISE ON DRAWINGS. WHERE BEAMS INTERSECT AT THE INTERMEDIATE ELEVATION OF A COLUMN, THE FRAMING BEAMS SHALL BE CONNECTED TO THE COLUMNS WITH A WT CONNECTION. FIN PLATE CONNECTIONS ARE NOT PERMITTED.

9. CONNECTIONS FOR NON-COMPOSITE BEAMS WHICH CANNOT CONFORM TO AISC TYPICAL CONNECTION DETAILS SHALL BE DETAILED IN ACCORDANCE WITH THE FOLLOWING:
   A. WHERE BEAM REACTIONS ARE NOT SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE MAXIMUM UNIFORM LOAD WHICH THE BEAM WILL SUPPORT (AS SIMPLE SPAN) FOR THE SPAN SHOWN ON THE DRAWINGS. (TABLE 3-6, AISC 15TH EDITION).
   B. WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION.
   C. WHERE CONNECTIONS SUPPORT BEAMS WHICH ARE SUBJECT TO CONCENTRATED LOADS, SUCH CONCENTRATED LOADS SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION.
   D. BOLTED CONNECTIONS SHALL BE BEARING TYPE WITH A325 BOLTS, MINIMUM DIAMETER OF ALL BOLTS SHALL BE 3/4", MAX. DIA 1 1/8". PROVIDE AT LEAST 2 BOLTS PER CONN. TIGHTENED 'SNUG TIGHT'.
   E. END CONNECTIONS OF FLOOR MEMBERS SHALL ACCOMMODATE END ROTATIONS OF SIMPLE, UNRESTRAINED BEAMS. FOR THIS PURPOSE, INELASTIC ACTION IN THE CONNECTION IS PERMITTED.
   F. COPED OR CUT ENDS OF MEMBERS SHALL BE REINFORCED WHERE REQUIRED TO SUSTAIN THE SPECIFIED REACTIONS.

10. TENSILE CONNECTIONS SHALL BE DESIGNED FOR A FORCE RESULTING FROM MULTIPLYING THE GROSS AREA BY 20 KSI.

11. FABRICATE AND ERECT MEMBERS WITH NATURAL CAMBER UP.

12. STRUCTURAL STEEL CONTRACTOR TO PROVIDE DECK SUPPORT ANGLES AS REQD (L3x3x1/4 MINIMUM, UNO). THE CONTINUOUS ANGLE AT THE ROOF PERIMETER SHALL BE SPLICED SUCH THAT THE FULL TENSION FORCE THAT CAN BE DEVELOPED BY THE ANGLE WILL BE TRANSFERRED THROUGHOUT THE SPLICE.

13. UNLESS OTHERWISE SHOWN ON DRAWINGS, SIZE OF WELDS SHALL NOT BE SMALLER THAN 3/16". ALL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.

14. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST, ALL ADDITIONAL STEEL CONNECTIONS, GUYING, ETC. REQUIRED FOR ERECTION.

15. OBTAIN ALL FIELD MEASUREMENTS REQUIRED FOR PROPER FABRICATION AND INSTALLATION OF WORK PRIOR TO DETAILING. PRECISE MEASUREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

16. PROVIDE STIFFENERS FINISHED TO BEAR UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS, ON ALL MEMBERS FRAMING OVER COLUMNS, AT BEAM COLUMN JOINTS (AS REQUIRED BY THE AISC SPECIFICATIONS) AND WHERE SHOWN ON THE DRAWINGS.

17. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND ELEVATIONS OF LOOSE LINTELS.

18. THE FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND FOR THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.

19. WELDING INSPECTION SHALL MEET REQUIREMENTS AS STATED IN THE SCHEDULE OF SPECIAL INSPECTIONS.

20. ALL STRUCTURAL STEEL NOT RECEIVING FIRE PROOFING SHALL RECEIVE ONE SHOP COAT OF RUST INHIBITIVE PRIMER.

STEEL JOISTS (K SERIES):

1. STEEL JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE 'STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, K-SERIES' (1989) OF THE STEEL JOIST INSTITUTE (SJI).

2. STEEL JOISTS SHALL BE DESIGNED BY THE MANUFACTURER. THE MANUFACTURERS ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN, ADEQUACY AND SAFETY OF ALL STEEL JOISTS. ALL SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN GEORGIA.

3. UNLESS OTHERWISE NOTED, STEEL JOISTS SHALL BE DESIGNED AS SIMPLY SUPPORTED UNIFORMLY LOADED TRUSSES WITH THE TOP CHORD BRACED AGAINST LATERAL BUCKLING. THE UNIFORM DESIGN LOAD SHALL BE THE TOTAL SAFE UNIFORMLY DISTRIBUTED LOAD AS SHOWN IN THE SJI STANDARD LOAD TABLE.

4. WHEN NET UPLIFT FORCES DUE TO WIND ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS, BRIDGING, AND CONNECTIONS OF THE JOISTS TO THE SUPPORTING STRUCTURE FOR THE NET UPLIFT. A SINGLE LINE OF BOTTOM CHORD BRIDGING MUST BE PROVIDED NEAR THE FIRST BOTTOM CHORD PANEL POINTS WHENEVER UPLIFT DUE TO WIND FORCES IS SHOWN ON THE DESIGN DRAWINGS.

5. WHEN NON-UNIFORM OR CONCENTRATED LOADS ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS IN ACCORDANCE WITH THE SJI STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, K-SERIES.

6. STEEL JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE SJI SPECIFICATION. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE PLACED AND STEEL JOIST ENDS FIXED PRIOR TO THE APPLICATION OF ANY LOADS. BRIDGING THAT TERMINATES AT, OR IS INTERRUPTED BY, STRUCTURAL STEEL BEAMS, MASONRY WALLS OR CONCRETE WALLS SHALL BE ATTACHED THERETO. COORDINATE BRIDGING LOCATIONS TO AVOID INTERFERENCE WITH ALL MECHANICAL, ELECTRICAL, FIRE PROTECTION EQUIPMENT, AND ARCHITECTURAL CONDITIONS.

7. MINIMUM BEARING REQUIREMENTS FOR K-SERIES JOISTS, UNLESS NOTED OTHERWISE, SHALL BE 2-1/2" ON STRUCTURAL STEEL AND 4" ON STEEL BEARING PLATES OVER MASONRY OR CONCRETE.

8. UNLESS NOTED OTHERWISE, K-SERIES STEEL JOISTS SHALL BE ATTACHED TO SUPPORTING STEEL WORK OR STEEL BEARING PLATE WITH TWO 1/8" FILLET WELDS (ONE EACH SIDE), 2" LENGTH MINIMUM, OR WITH (2) 1/2" DIAMETER BOLTS (ONE EACH SIDE).

9. STEEL JOISTS AT COLUMN CENTER LINES SHALL BE BOLTED TO STRUCTURAL STEEL WITH TWO 1/2" DIAMETER BOLTS. WHERE STEEL JOISTS DO NOT SPACE TO COLUMN CENTER LINES, USE BOLTED CONNECTIONS FOR THE STEEL JOIST CLOSEST TO THE CENTERLINE.

10. HOLES IN STEEL JOIST CHORDS ARE NOT PERMITTED, EXCEPT FOR BOLTED CONNECTIONS AT THE BEARING END OF THE STEEL JOIST.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING JOIST ANCHORAGE THAT MEETS ALL OSHA REQUIREMENTS.

12. ALL ITEMS SUCH AS MECHANICAL EQUIPMENT, DUCT WORK, PIPES, CEILING FIXTURES, ETC. THAT ARE TO BE SUPPORTED OR HUNG FROM THE STEEL JOISTS SHALL BE FRAMED WITH AUXILIARY FRAMING TO THE PANEL POINTS OF THE STEEL JOISTS. METHODS OF FRAMING THAT INDUCE BENDING TO THE STEEL JOIST CHORDS OR WEB MEMBERS WILL NOT BE PERMITTED.

13. ALL JOISTS SHALL RECEIVE RUST-INHIBITIVE PRIMER PER PROJECT SPECIFICATIONS.

LIGHT GAUGE METAL TRUSSES:

1. DESIGN, FABRICATIONS AND ERECTION SHALL CONFORM TO AISI 'SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS', LATEST EDITION.

2. LIGHT-GAUGE METAL TRUSSES SHALL BE FULLY DESIGNED AND FABRICATED BY THE MANUFACTURER AND SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA.

3. SHOP DRAWING AND CALCULATION SUBMITTALS SHALL INCLUDE THE FOLLOWING: TRUSS SPACING, SIZE OF MEMBERS, CONNECTIONS OF TRUSS COMPONENTS, CONNECTIONS OF TRUSS MEMBERS TO THE MAIN STRUCTURE, REACTIONS OF THE CONNECTIONS TO THE MAIN STRUCTURE, AND PERMANENT BRACING.

4. DESIGN OF ALL COMPONENTS SHALL CONSIDER DEAD LOADS, LIVE LOADS, SHORT TERM LOADS AND ALL SPECIAL LOADS FROM ANY EQUIPMENT, FEATURES, ETC., INCLUDING LOADS POSTED ON STRUCTURAL DRAWINGS (IF APPLICABLE). TRUSS ELEMENTS SHALL BE CAPABLE OF TRANSMITTING A DIAPHRAGM FORCE OF 225 POUNDS PER LINEAL FOOT FROM THE ROOF DECK DIAPHRAGM TO THE MAIN BUILDING STRUCTURE (UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS).

5. UNLESS OTHERWISE NOTED ON PLANS, TRUSS TOP CHORDS SHALL BE DESIGNED FOR 15 POUNDS PER SQUARE FOOT DEAD LOAD AND THE ROOF LIVE LOAD AS NOTED ON THE ROOF PLAN. TRUSS BOTTOM CHORDS SHALL BE DESIGNED FOR 5 PSF DEAD LOAD AND NO LIVE LOAD.

6. MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS EXERTING LOADS ONTO TRUSSES SHALL BE COORDINATED BY THE GENERAL CONTRACTOR. RESULTING LOADS SHALL BE PROVIDED TO THE TRUSS DESIGNER AND SHALL BE APPLIED IN ADDITION TO TYPICAL UNIFORM LOADS.

7. CONCENTRATED LOADS SHALL BE APPLIED AT PANEL POINTS ONLY. FIELD CONDITIONS RESULTING IN LOADS AT NON-PANEL POINT LOCATIONS WILL BE REPORTED BY THE CONTRACTOR DIRECTLY TO THE TRUSS DESIGNER FOR APPROVAL AND REINFORCEMENT (IF REQUIRED).

8. TRUSS DEFLECTION SHALL BE LIMITED TO SPAN / 240 FOR DEAD PLUS LIVE CONDITION AND SPAN / 360 FOR LIVE LOAD CONDITION.

9. NO ALTERATIONS OF ANY KIND ARE PERMITTED TO ANY TRUSS MEMBER WITHOUT PRIOR WRITTEN APPROVAL OF THE TRUSS DESIGNER.

10. ALL LIGHT GAUGE METAL FRAMING SHALL BE GALVANIZED.

11. LIGHT GAUGE METAL TRUSS FRAMING LAYOUT SHOWN ON STRUCTURAL FRAMING PLANS IS SHOWN FOR REFERENCE ONLY AND SHALL BE BY TRUSS DESIGNER.

VERIFICATION AND SPECIAL INSPECTION:

1. THE PROJECT OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PERFORM INSPECTIONS AND TESTING DURING CONSTRUCTION FOR THE TYPES OF WORK INDICATED BY IBC SECTIONS 1704, 1705, 1708, AND 1707. SUBMIT DOCUMENTATION THAT SUMMARIZES THE QUALIFICATIONS AND CREDENTIALS OF EACH SPECIAL INSPECTOR AND DEMONSTRATES COMPETENCE FOR THE BUILDING INSPECTOR FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

2. APPROVED SPECIAL INSPECTORS SHALL FURNISH INSPECTION AND TESTING REPORTS TO THE OWNER, ARCHITECT AND BUILDING OFFICIAL AND STRUCTURAL ENGINEER OF RECORD WHICH INDICATES THE WORK INSPECTED WAS DONE IN CONFORMANCE WITH APPROVED CONSTRUCTION DOCUMENTS. REPORTS WHICH DOCUMENT THE RESULTS OF THE SPECIAL INSPECTIONS SHALL BE SUBMITTED PERIODICALLY AT A FREQUENCY APPROVED BY THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION. A FINAL REPORT DOCUMENTING ALL THE WORK HAS BEEN PERFORMED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS SHALL BE SUBMITTED AT THE END OF THE PROJECT.

3. SPECIAL INSPECTION REPORTS AND A FINAL REPORT IN ACCORDANCE WITH SECTION 1704.2.4 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF THE WORK IS APPROVED FOR OCCUPANCY.

4. SEE THE PROJECT SPECIFICATIONS AND SECTION 1704 OF THE BUILDING CODE FOR FULL CRITERIA AND EXCEPTIONS FOR INSPECTION REQUIREMENTS.

DEFINITIONS:
1. SPECIAL INSPECTION, PERODIC: A PART-TIME OR INTERMITTENT OBSERVATION WORK BEING PERFORMED REQUIRING A PRESENCE WHEN THE WORK IS BEING PERFORMED AND AFTER COMPLETION OF THE WORK. PRESENCE AT THE JOB SITE SHALL BE WEEKLY AT MINIMUM OR GREATER AS REQUESTED BY THE OWNER.
2. SPECIAL INSPECTION, CONTINOUS: A FULL-TIME OBSERVATION OF WORK REQUIRING CONTINUOUS JOBSITE PRESENCE WHEN AND WHERE THE WORK IS BEING PERFORMED.

TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD[B]	IBC REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	—	X	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING:	—			
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706;		X	AWS D1.4	—
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16" ; AND		X	ACI 318: 26.6.4	
C. INSPECT ALL OTHER WELDS.	X			
3. INSPECT ANCHORS CAST IN CONCRETE.	—	X	ACI 318: 17.8.2	—
4. INSPECTING ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.[A]				
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATION TO RESIST SUSTAINED TENSION LOADS.	X		ACI 318: 17.8.2.4	—
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A		X	ACI 318: 17.8.2	
5. VERIFY USE OF REQUIRED DESIGN MIX.	—	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TEST, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	—	ASTM C172 ACI 318: 26.5, 26.12 ACI 318: 26.5, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	—	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	—	X	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR:	X			
A. APPLICATION OF PRESTRESSING FORCES; AND B. GROUTING OF BONDED PRESTRESSING TENDONS.	X	—	ACI 318: 26.10	—
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	—	X	ACI 318: 26.9	—
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUTURAL SLABS.	—	X	ACI 318: 26.11.2	—
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	—	X	ACI 318: 26.11.2(b)	—

FOR SI: 1 INCH = 25.4mm

A. WHERE APPLICABLE, SEE SECTION 1705.12, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.
B. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPORVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI318, OR OTHER OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTEREDDESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

TABLE 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	—	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	—	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	—	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	—
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THATE SITE HAS BEEN PREPARED PROPERLY.	—	X

PROJECT NUMBER
23-021

DATE
12/1/2023

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NO.	DATE
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FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. PEO009064 STRUCTURAL ENGINEER WILLIAM JOHN PELTIER 12/1/2023

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TABLE 1705.2.3
REQUIRED SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD[a]
1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS.			
A. END CONNECTIONS - WELDING OR BOLTED.	—	X	SJI SPECIFICATIONS LISTED IN SECTION 2207.1.
B. BRIDGING - HORIZONTAL OR DIAGONAL.	—	—	—
1. STANDARD BRIDGING.	—	X	SJI SPECIFICATIONS LISTED IN SECTION 2207.1.
2. BRIDGING THAT DIFFERES FROM THE SJI SPECIFICATIONS LISTED IN SECTION 2207.1.	—	X	—

REQUIRED VERIFICATION AND INSPECTION OF STRUCTURAL STEEL CONSTRUCTION
(PURSUANT TO AISC 360-16 QUALITY CONTROL AND QUALITY ASSURANCE - CHAPTER "N")

INSPECTIONS TASKS PRIOR TO WELDING	QA		QA		REFERENCED STANDARD
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS		X	X		AISC 360-10 TABLE N5.4-1
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	X		X		
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X		X		
MATERIAL IDENTIFICATION (TYPE/GRADE)		X		X	
WELDER IDENTIFICATION SYSTEM		X		X	
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACE) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)		X		X	
FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y-, AND K- JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACE) • TACKING (TACK WELD QUALITY AND LOCATION)		X	X		
CONFIGURATION AND FINISH OF ACCESS HOLES		X		X	
FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACE) • TACKING (TACK WELD QUALITY AND LOCATION)		X		X	
CHECK WELDING EQUIPMENT			X		
ITHE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.					
INSPECTIONS TASKS DURING WELDING	QA		QA		AISC 360-10 TABLE N5.4-2
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL		X		X	
NO WELDING OVER CRACKED TACK WELDS		X		X	
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE		X		X	
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH)		X		X	
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS		X		X	
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	X		X		
INSPECTIONS TASKS AFTER WELDING	QA		QA		AISC 360-10 TABLE N5.4-3
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
WELDS CLEANED		X		X	
SIZE, LENGTH AND LOCATION OF WELDS	X		X		
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	X		X		
ARC STRIKES	X		X		
K-AREA[a]	X		X		
WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES[b]	X		X		
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X		X		
REPAIR ACTIVITIES	X		X		
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X		X		
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR		X		X	

[a] WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN. (75mm) OF THE WELD.
[b] AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.1C) AND BUILT-UP HEAVY SHAPES (SEE SECTION A3.1D) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.

REQUIRED VERIFICATION AND INSPECTION OF STRUCTURAL STEEL CONSTRUCTION
(PURSUANT TO AISC 360-16 QUALITY CONTROL AND QUALITY ASSURANCE - CHAPTER "N")

INSPECTIONS TASKS PRIOR TO BOLTING	QA		QA		REFERENCED STANDARD
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	X			X	AISC 360-10 TABLE N5.6-1
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS		X		X	
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)		X		X	
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL		X		X	
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS		X		X	
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED		X	X		
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS		X		X	
INSPECTIONS TASKS DURING BOLTING	QA		QA		AISC 360-10 TABLE N5.6-2
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED		X		X	
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION		X		X	
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING		X		X	
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES		X		X	
INSPECTIONS TASKS AFTER BOLTING	QA		QA		AISC 360-10 TABLE N5.6-3
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	X		X		

REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTR (LEVEL 1 AND 2)

INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODIC DURING TASK LISTED	NOTES
MINIMUM VERIFICATION REQUIREMENTS			
1. PRIOR TO CONSTRUCTION, VERIFICATION OF COMPLIANCE OF SUBMITTALS		PRIOR TO CONSTRUCTION	SUBMITTAL REVIEW
2. PRIOR TO CONSTRUCTION - VERIFICATION OF FM		PRIOR TO CONSTRUCTION	TESTING BY UNIT STRENGTH METHOD OR PRISM TEST METHOD
3. DURING CONSTRUCTION, VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF-CONSOLIDATING GROUT IS DELIVERED TO PROJECT SITE.		X	TESTING BY UNIT STRENGTH METHOD OR PRISM TEST METHOD
MINIMUM SPECIAL INSPECTION REQUIREMENTS			
1. AS MASONRY CONSTRUCTION BEGINS VERIFY THE FOLLOWING:			
A. PROPORTIONS OF THE SITE PREPARED MORTAR		X	FIELD INSPECTION
B. GRADE, TYPE, AND SIZE OF REINFORCEMENT, ANCHOR BOLTS AND ANCHORAGES.		X	FIELD INSPECTION
C. SAMPLE PANEL CONSTRUCTION.	X		FIELD INSPECTION
2. PRIOR TO GROUTING VERIFY THAT THE FOLLOWING ARE IN:			
A. GROUT SPACE	X		FIELD INSPECTION
B. PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHOR BOLTS.	X		FIELD INSPECTION
C. PROPORTIONS OF SITE PREPARED GROUT.		X	FIELD INSPECTION
3. VERIFY THE FOLLOWING DURING CONSTRUCTION:			
A. MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS		X	FIELD INSPECTION
B. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION		X	FIELD INSPECTION
C. SIZE AND LOCATION OF STRUCTURAL MEMBERS		X	FIELD INSPECTION
D. TYPE, SIZE, LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.	X		FIELD INSPECTION
E. WELDING OF REINFORCEMENT			NOT PERMITTED
F. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40° F) OR HOT WEATHER (TEMPERATURE ABOVE 90° F)		X	FIELD INSPECTION
G. PLACEMENT OF GROUT	X		FIELD INSPECTION
4. OBSERVE PREPARATION OF GROUT SPECIMENS MORTAR SPECIMENS, AND/OR PRISMS	X		FIELD INSPECTION

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KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. PEC007054 STRUCTURAL ENGINEER WILLIAM JOHN PELITIER

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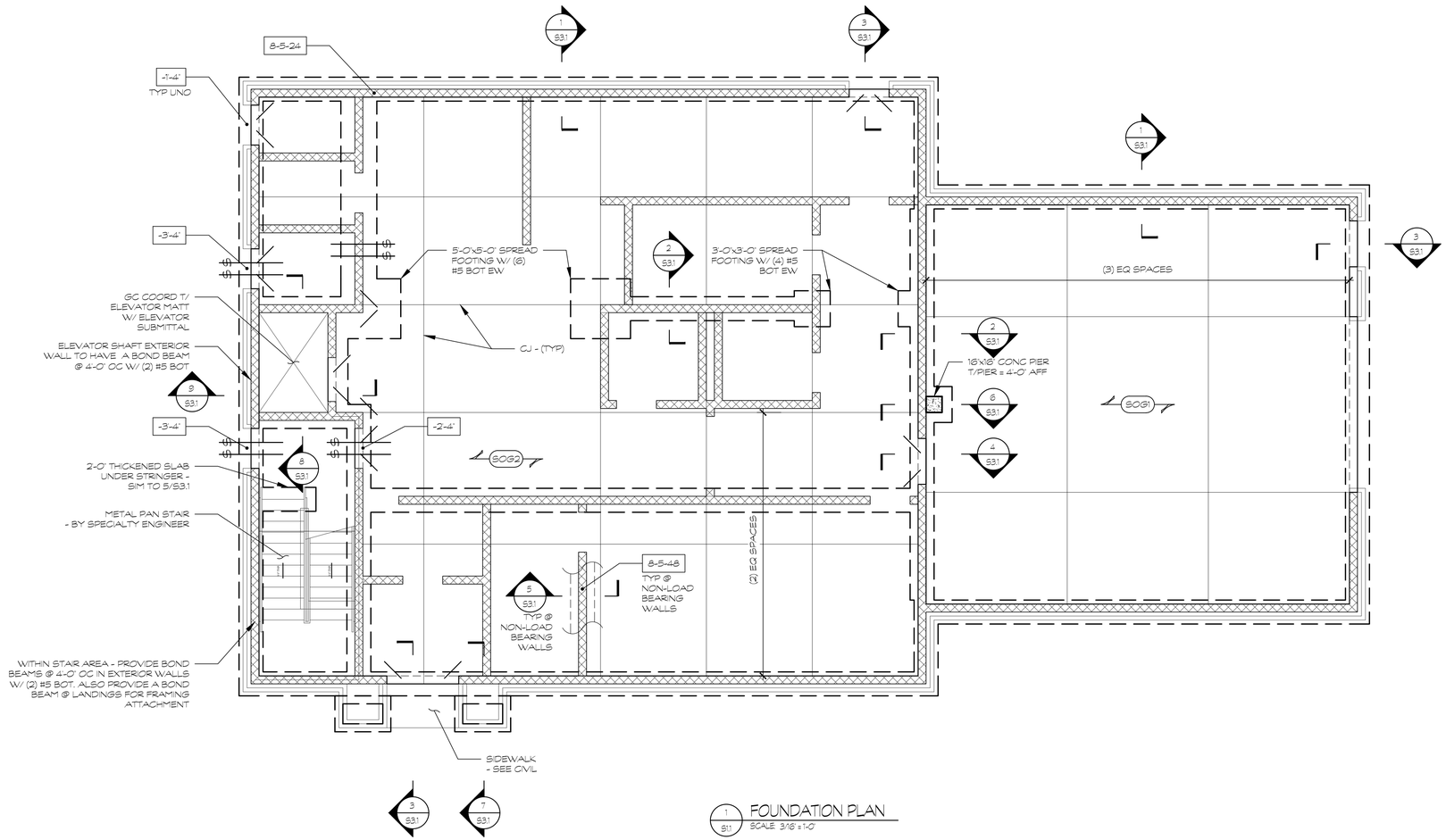

1 S1.1 FOUNDATION PLAN
SCALE: 3/16" = 1'-0"

TYPICAL & FOUNDATION NOTES:

1. SOG1 — SLAB ON GRADE SHALL BE 6" CONC SLAB (4000 PSI) ON VAPOR RETARDER ON 4" GAB (GRADED AGGREGATE BASE) W/(1) LAYER 6X6-W2.1X2.1 WWF 1" FROM TOP OF SLAB, UNO ON PLAN. ALL SLOPES TO DRAINS SHALL BE ACCOMMODATED BY SLOPING BOTTOM AND TOP OF SLAB AT THE SAME RATE (SEE A/S3.2). SEE ARCH DRAWINGS FOR FFE.

   SOG2 — SLAB ON GRADE SHALL BE 4" CONC SLAB (3000 PSI) ON 10 MIL (MIN) VAPOR RETARDER ON 4" GAB (GRADED AGGREGATE BASE) W/(1) LAYER 6X6-W1.4X1.4 WWF 1" FROM TOP OF SLAB, UNO ON PLAN. ALL SLOPES TO DRAINS SHALL BE ACCOMMODATED BY SLOPING BOTTOM AND TOP OF SLAB AT THE SAME RATE (SEE A/S3.2). SEE ARCH DRAWINGS FOR FFE.

2. "CJ" — INDICATES CONTROL/CONSTRUCTION JOINTS IN SLAB. SEE GENERAL NOTES FOR MORE INFORMATION REGARDING THE LAYOUT OF JOINTS. PROPOSED JOINT LAYOUT SHALL BE SUBMITTED AS A SHOP DRAWING FOR ARCHITECT APPROVAL PRIOR TO SLAB PLACEMENT - SEE SHEET S4.1 AND THE PROJECT SPECIFICATIONS FOR MORE INFORMATION.

3. -X-XX" — INDICATES TOP OF FOOTING ELEVATION.

4. INDICATES FLOOR DRAIN. COORDINATE EXACT LOCATION AND SLOPING REQUIREMENTS W/ARCHITECTURAL AND PLUMBING DRAWINGS. SEE A/S3.2.

5. INDICATES STEP/TRANSITION @ CMU WALL FOOTING. PROVIDE STEP BARS FOR CONTINUOUS REINFORCING AT TRANSITION. SEE 2/S4.1.

6. INDICATES PARTIALLY GROUTED, LOAD BEARING MASONRY SHEARWALL. SEE S4.1 FOR TYPICAL DETAILS.

7. XX-XX — INDICATES CMU WALL REINFORCEMENT. ALL REINFORCEMENT TO BE CENTERED IN CELLS, UNO. AT MINIMUM, ALL REINFORCED CELLS SHALL BE GROUTED SOLID. ALL MASONRY WALLS SHALL HAVE LADDER TYPE HORIZONTAL REINFORCING (MIN 3/16" Ø SIDE RODS) AT 8" OC, UNO.
   - BAR SPACING (INCHES)
   - BAR SIZE
   - NOMINAL WALL SIZE (INCHES)

PROJECT NUMBER
23-021

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FACILITY CODE
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KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
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A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. PEC000054 STRUCTURAL ENGINEER WILLIAM JOHN PELTIER 12/1/2023

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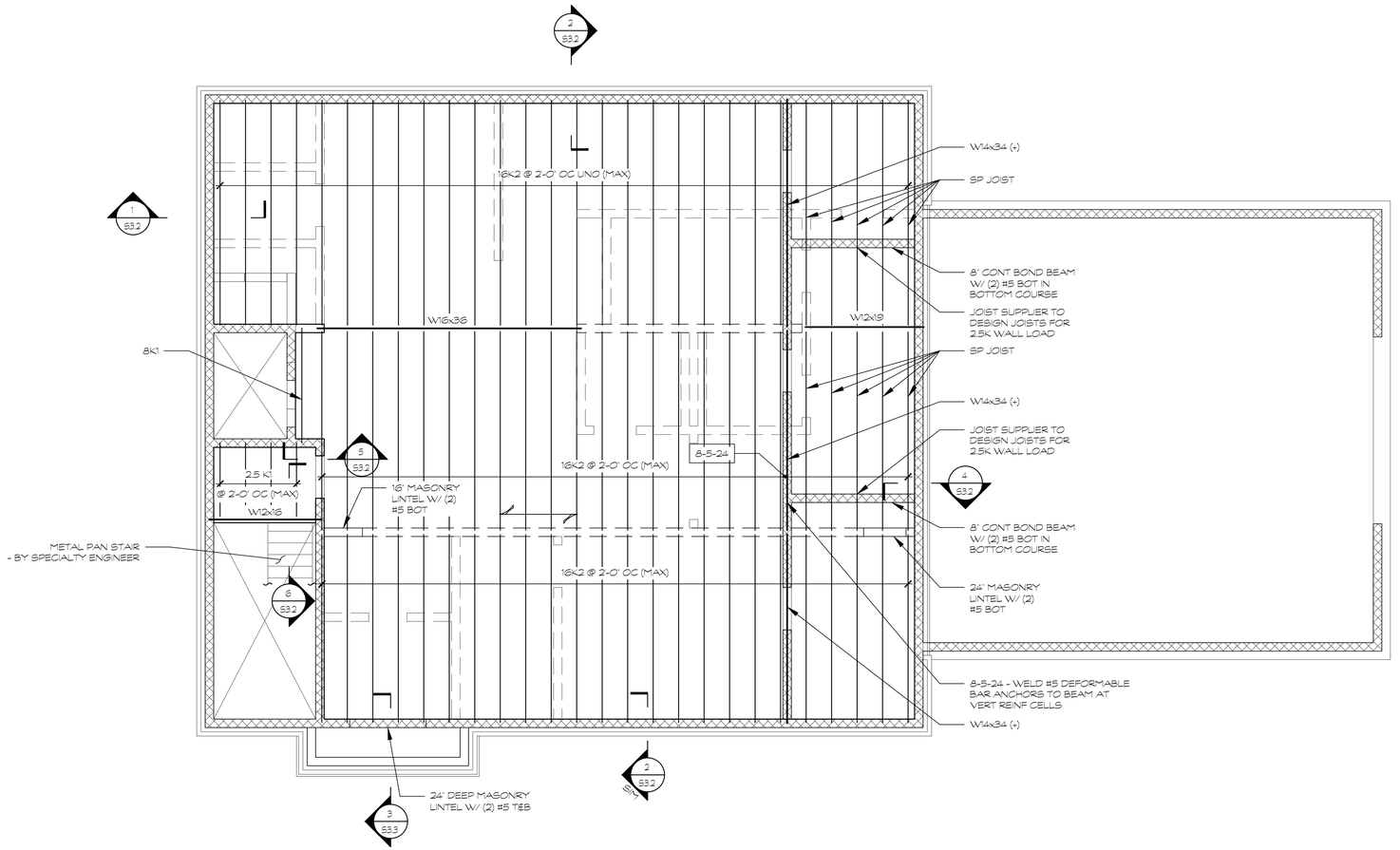
FOUNDATION PLAN

SHEET INDEX

S1.1



1 S1.2 2ND FLOOR FRAMING PLAN
SCALE: 3/16" = 1'-0"

2ND FLOOR FRAMING NOTES:

1. JOIST BEARING ELEVATION = + 13'- 6 1/2"
2. INDICATES DIRECTION TO SPAN METAL DECK: 9/16" DEEP 28 GAGE GALVANIZED NON-COMPOSITE METAL FLOOR DECK. 2 7/16" LIGHT WEIGHT CONCRETE TOPPING (3" TOTAL THICKNESS) (1) LAYER 6x6x 1.4"x1.4" WWF PLACED 1" FROM TOP OF SLAB ATTACH AT SUPPORTS UTILIZING 5/8" Ø PUDDLE WELDS IN A 30/4 PATTERN. FASTEN SIDELAPS WITH (2) EVENLY SPACED #10 TEK SCREWS ATTACH AT PERIMETER UTILIZING 5/8" Ø PUDDLE WELDS AT 6' OC.
3. METAL DECK SHALL BE INSTALLED IN (3) SPAN LENGTHS MINIMUM.

DEAD LOAD

CONCRETE SLAB AND DECK	27.0 PSF
CEILING AND LIGHTS	2.0 PSF
MECHANICAL	3.0 PSF
MISC	3.0 PSF
	35.0 PSF

LIVE LOAD

STORAGE	125 PSF
MECHANICAL ROOM	125 PSF

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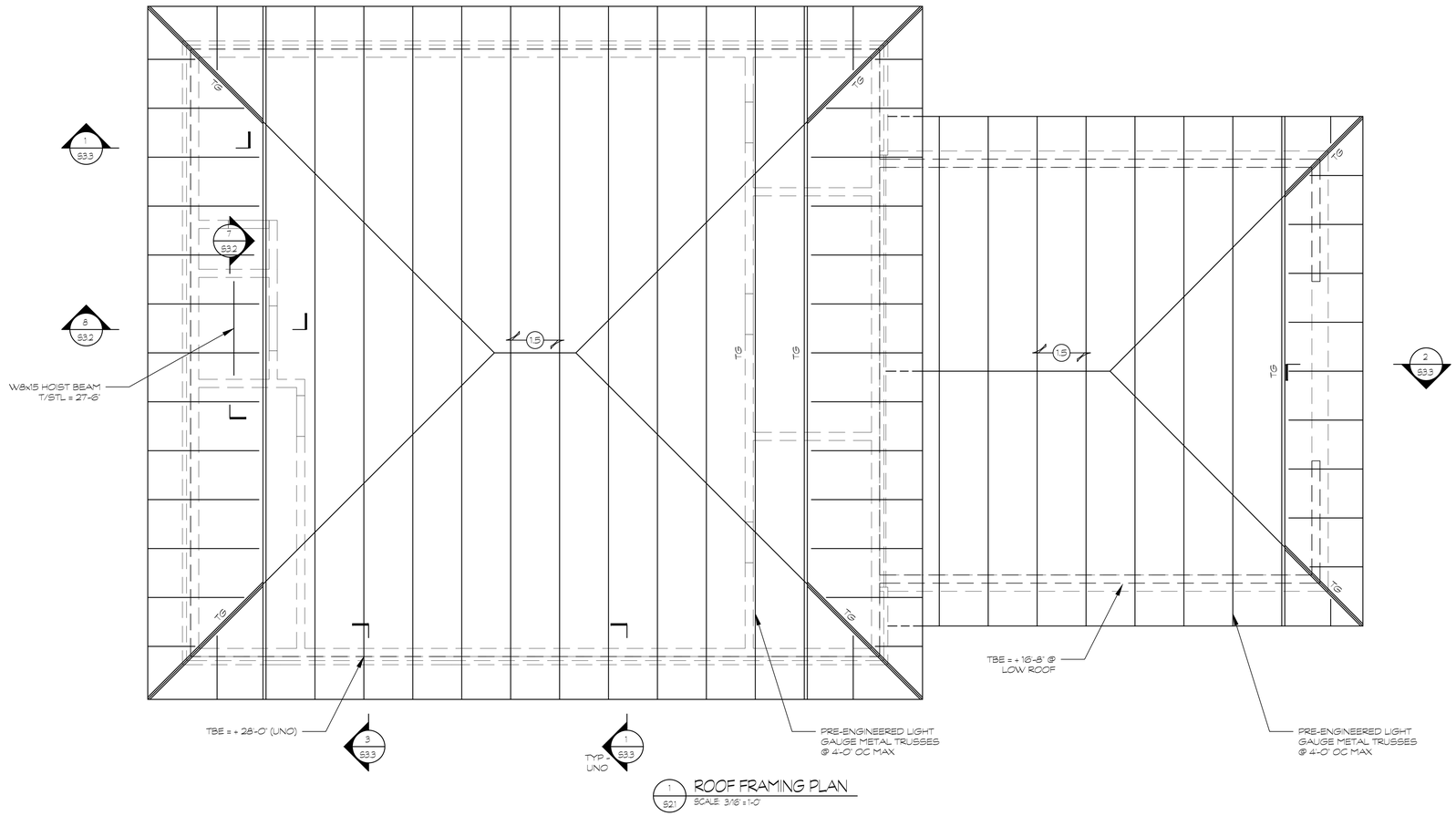
2ND FLOOR FRAMING PLAN

SHEET INDEX

S1.2



ROOF FRAMING PLAN
SCALE: 3/16" = 1'-0"

TYPICAL ROOF FRAMING NOTES:

1. 15 INDICATES SPAN OF 1 1/2", 22 GA WIDE RIB METAL ROOF DECK. FASTEN TO ALL SUPPORTS WITH #12 TEK SCREWS ON A 36/4 PATTERN. FASTEN SIDE LAPS W/(2) EVENLY SPACED #10 TEK SCREWS BETWEEN SUPPORTS. FASTEN AT PERIMETER WITH #12 TEK SCREWS AT 6' OC.
2. 'TBE' INDICATES TRUSS BEARING ELEVATION ABOVE FFE.
3. T/ STL EL = TOP OF STEEL ELEVATION ABOVE FFE. T/STL EL AS SHOWN IS A NOMINAL ELEVATION. CONTRACTOR SHALL DETERMINE PRECISE T/STL ELEVATION BY COORDINATING WITH ARCHITECTURAL HEAD ELEVATIONS.
4. LIGHT GAGE METAL TRUSS MANUFACTURER SHALL CONSIDER THE BOTTOM CHORDS OF METAL TRUSSES UNBRACED IN THE TRUSS DESIGN, OR PROVIDE BOTTOM CHORD BRACING AS REQUIRED FOR INDICATED ROOF LOADS.

ROOF LOADS:

DEAD LOAD: 10 PSF (5 PSF TOP CHORD + 5 PSF BOTTOM CHORD)

LIVE LOAD: 20 PSF (TOP CHORD ONLY)

WIND LOAD: 10 PSF (NET UPLIFT TOP CHORD)

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ROOF FRAMING PLAN

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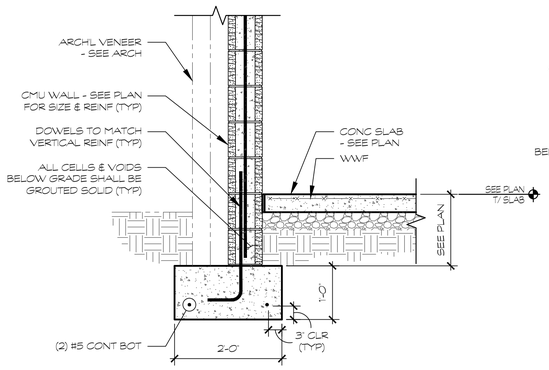
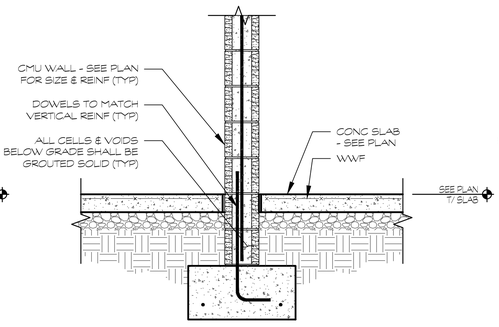
S2.1



1 S3.1 SECTION
SCALE: 3/4" = 1'-0"



2 S3.1 SECTION
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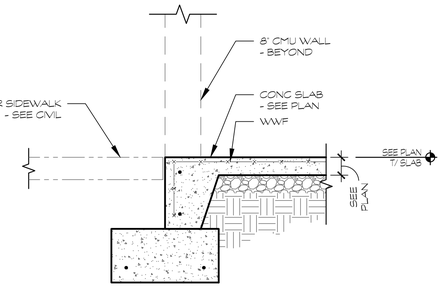

3 S3.1 SECTION
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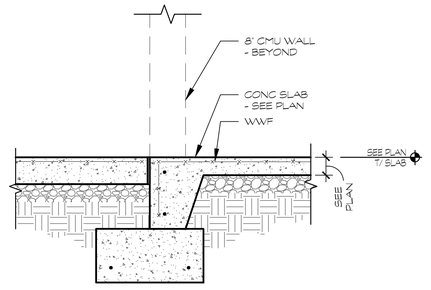

4 S3.1 SECTION
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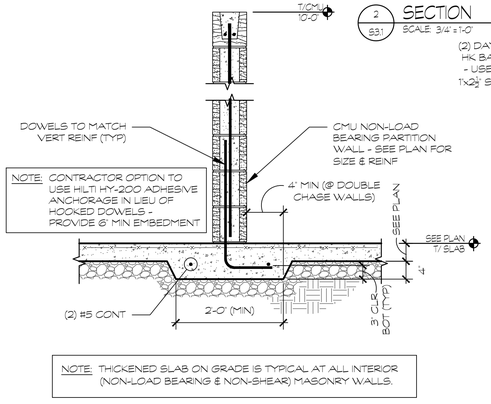

5 S3.1 SECTION
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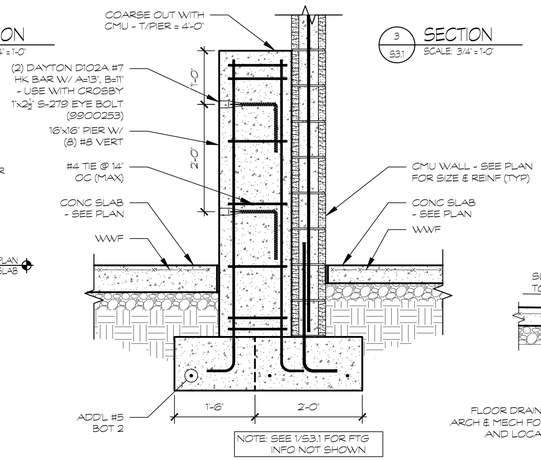
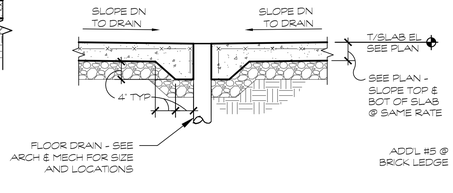
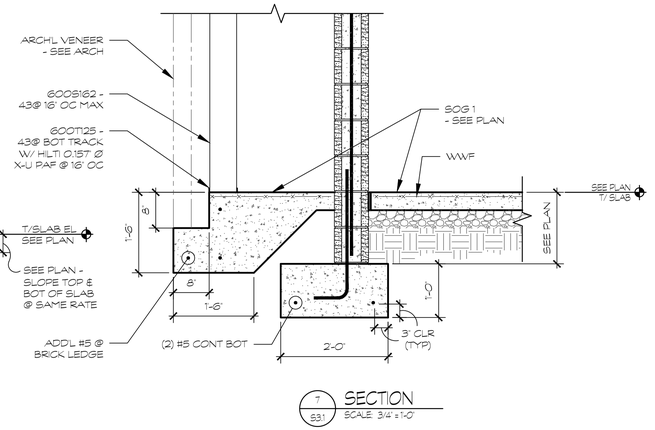


6 S3.1 SECTION
SCALE: 3/4" = 1'-0"



A S3.1 SLAB DRAIN DETAIL
SCALE: 3/4" = 1'-0"



7 S3.1 SECTION
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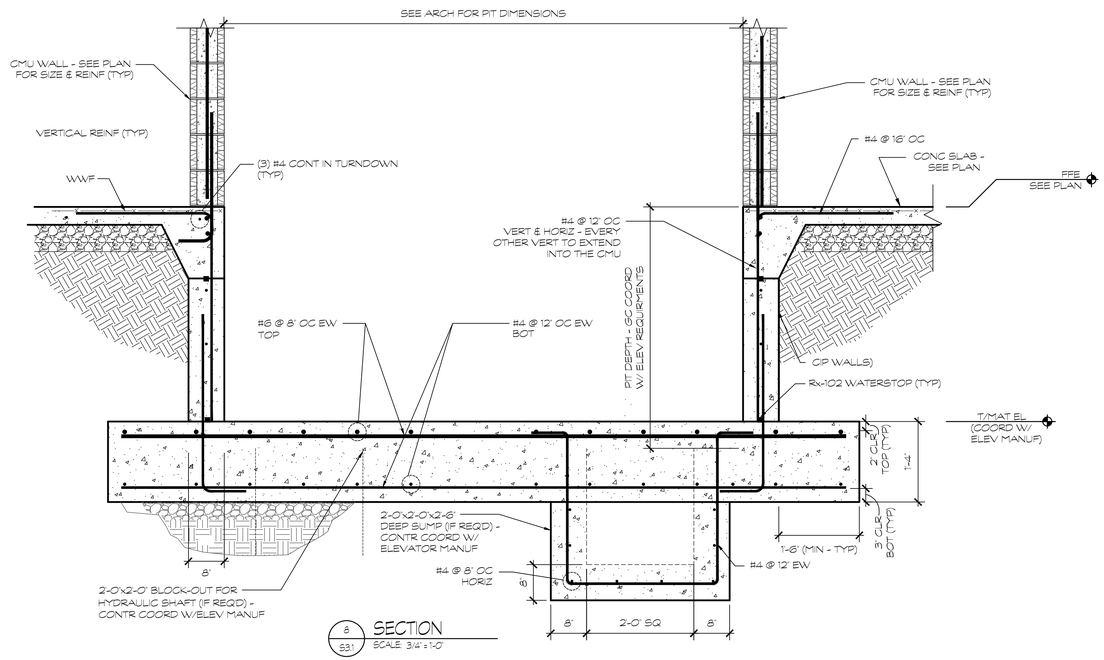

8 S3.1 SECTION
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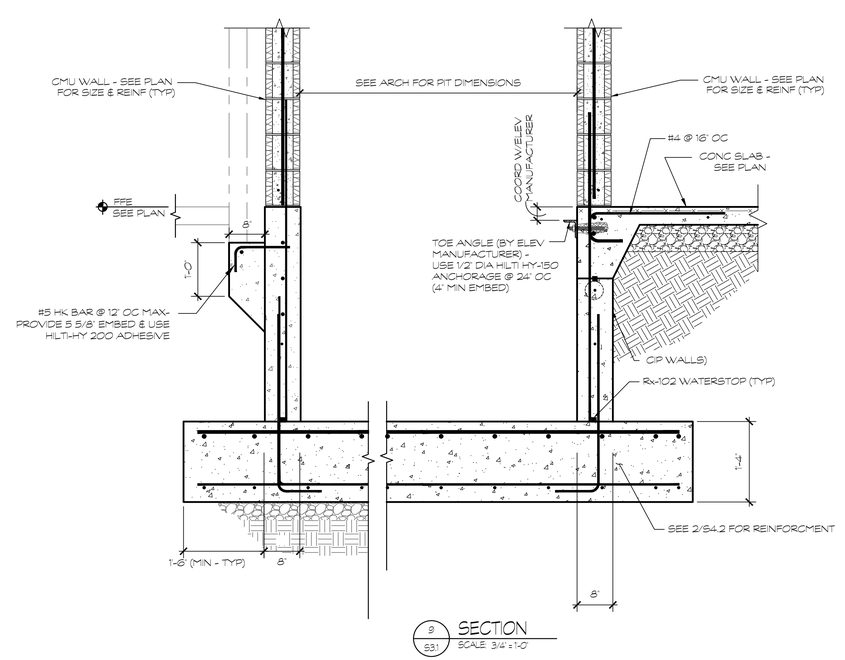

9 S3.1 SECTION
SCALE: 3/4" = 1'-0"

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GEORGIA REGISTERED No. PEC000054 STRUCTURAL ENGINEER WILLIAM JOHN PELTIER 12/1/2023

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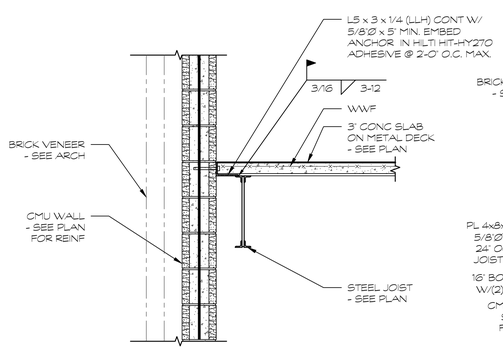
S3.1



1 S3.2 SECTION
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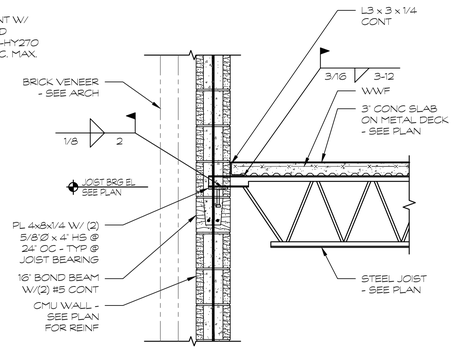

2 S3.2 SECTION
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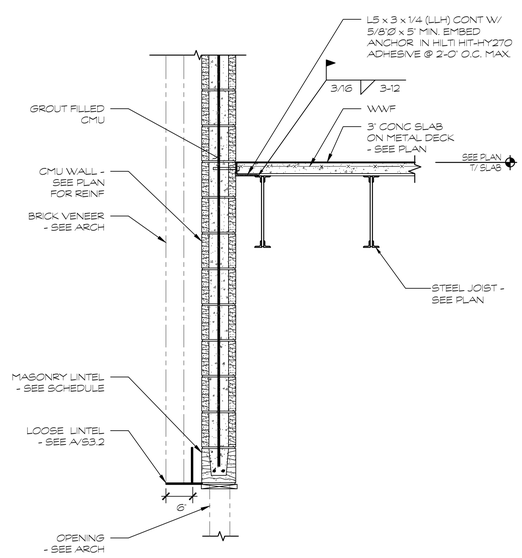

3 S3.2 SECTION
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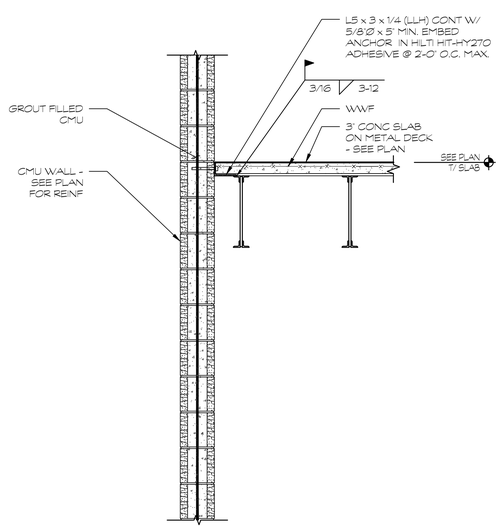
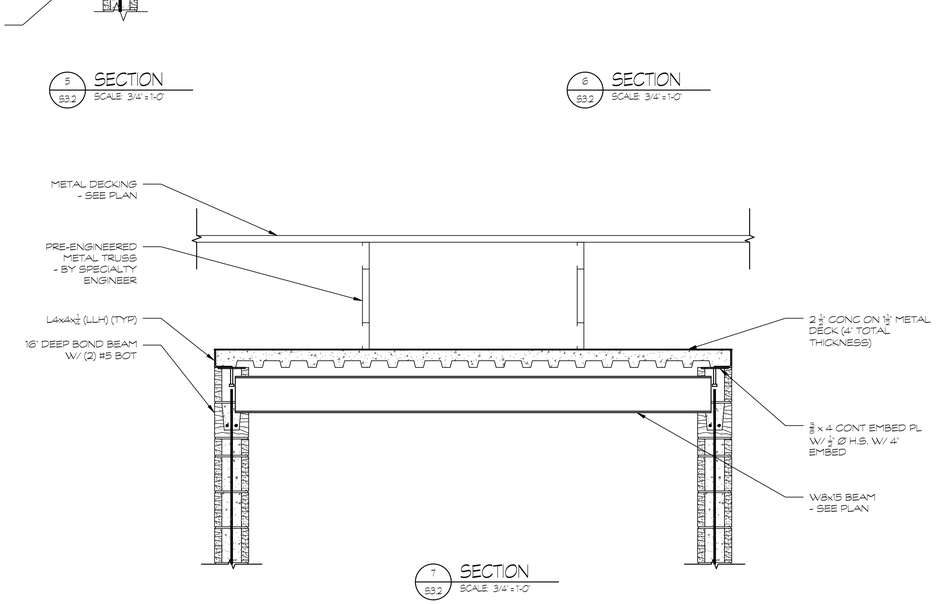


4 S3.2 SECTION
SCALE: 3/4" = 1'-0"

5 S3.2 SECTION
SCALE: 3/4" = 1'-0"

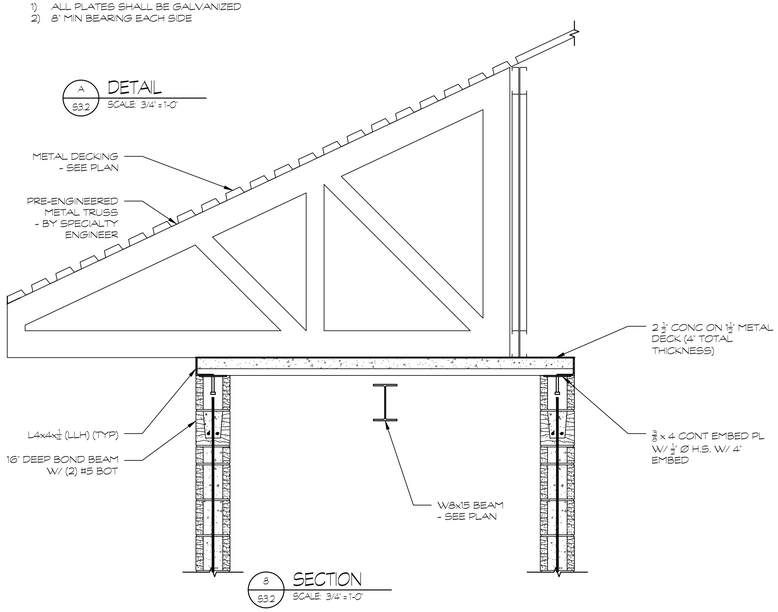
6 S3.2 SECTION
SCALE: 3/4" = 1'-0"

NOTES:
1) ALL PLATES SHALL BE GALVANIZED
2) 8" MIN BEARING EACH SIDE



7 S3.2 SECTION
SCALE: 3/4" = 1'-0"

A S3.2 DETAIL
SCALE: 3/4" = 1'-0"



8 S3.2 SECTION
SCALE: 3/4" = 1'-0"

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CONSTRUCTION DOCUMENT

A NEW BUILDING FOR:
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WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED No. PE000004 STRUCTURAL ENGINEER WILLIAM JOHN PELTIER 12/1/23

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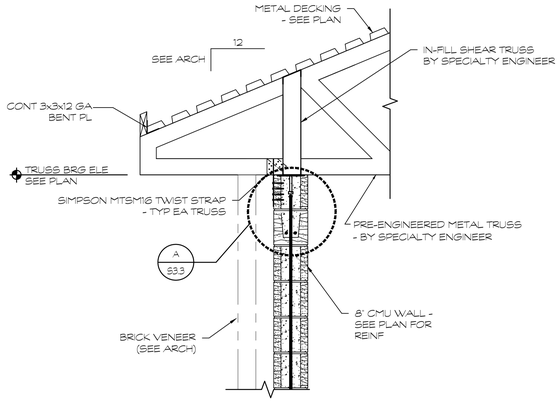
S3.2



1 S3.3 SECTION
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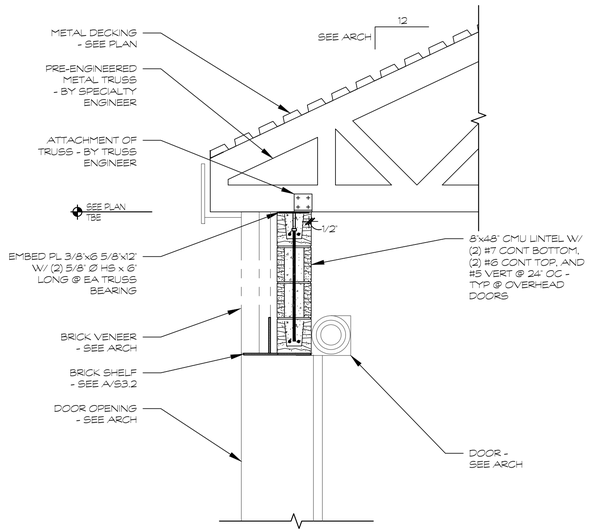

2 S3.3 SECTION
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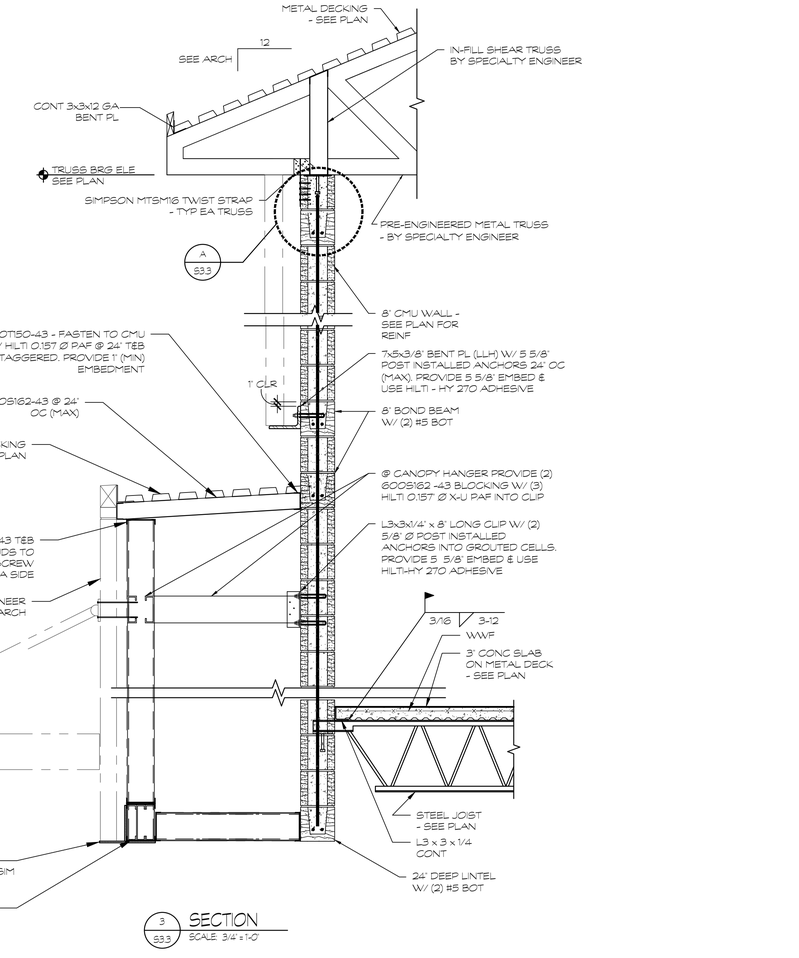

3 S3.3 SECTION
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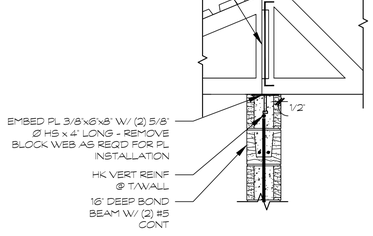

A S3.2 SECTION
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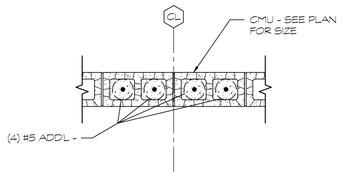
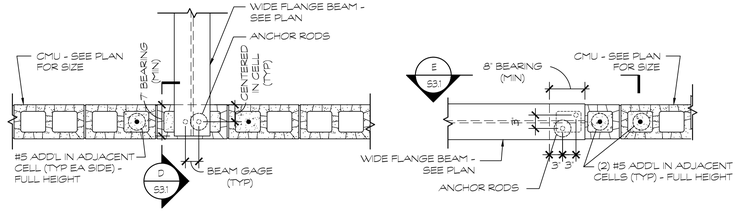
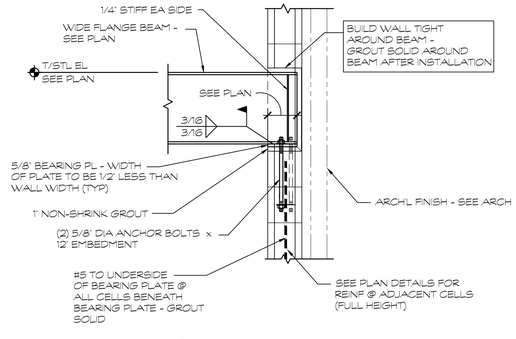


B S3.3 DETAIL
SCALE: 3/4"=1'-0"



C S3.3 TYP WIDE FLANGE BEAM ON CMU WALL
SCALE: 3/4"=1'-0"



D S3.3 SECTION
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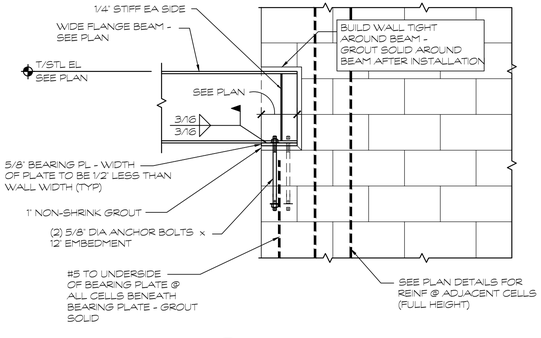

E S3.3 SECTION
SCALE: 3/4"=1'-0"

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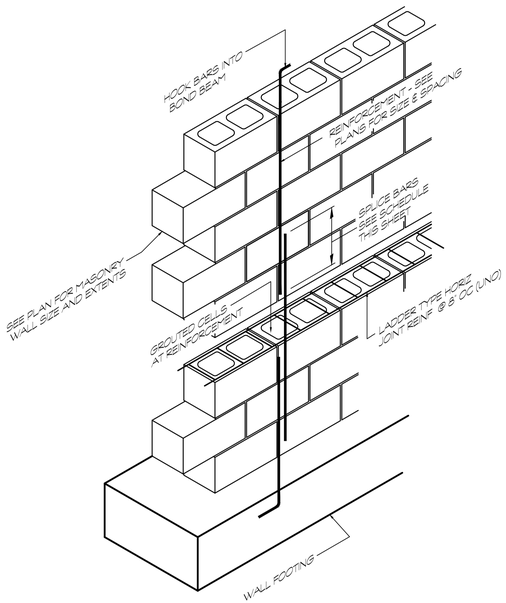
S3.3



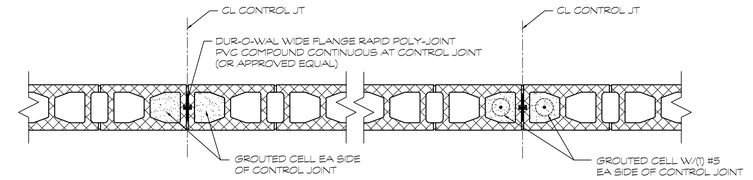
1 / S4.1 TYPICAL DETAIL OF LOW-LIFT REINFORCED MASONRY CONSTRUCTION
SCALE: NTS

REINFORCING LAP LENGTH SCHEDULE*	
BAR SIZE	LAP LENGTH
#4	21"
#5	26"
#6	43"

* LAP LENGTHS APPLY TO 8" OR 12" CMU WITH REINFORCING CENTERED IN CELL (UNO).

LOW LIFT GROUTING PROCEDURE

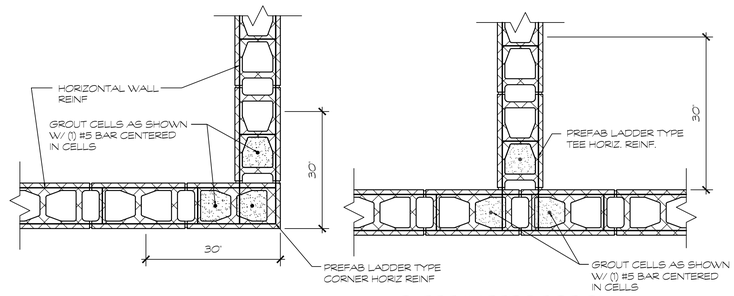
1. CONSTRUCT WALL TO HEIGHT OF 5'-0", ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
3. FILL CELLS TO 1 1/2" BELOW TOP COURSE.
4. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.



@ NON-SHEARWALL @ SHEARWALL

NOTES:
1. SEE GENERAL NOTES FOR SPACING GUIDELINES FOR CONTROL JOINTS IN INTERIOR/EXTERIOR CMU WALLS.
2. SEE ARCH FOR EXACT LOCATIONS OF CONTROL JOINTS
3. DISCONTINUE HORIZONTAL REINFORCING AT CONTROL JOINT LOCATIONS

2 / S4.1 TYP CMU CONTROL JOINTS
SCALE: NTS



@ CORNER @ TEE INTERSECTION

NOTES:
1. CORNER/TEE INTERSECTION REINF. SHALL BE LAPPED WITH THE TYPICAL TRUSS TYPE HORIZ. REINF. AND EXTEND A MINIMUM OF 30" IN EACH DIRECTION AT THE INTERSECTION.
2. SEE PLAN FOR SPACING OF TYPICAL HORIZ. REINF.

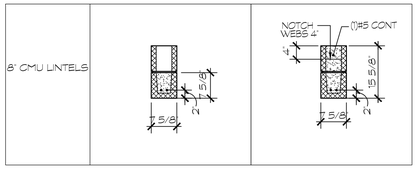
3 / S4.1 TYP CMU WALL CORNER/TEE INTERSECTIONS
SCALE: NTS

MASONRY WALL LINTEL SCHEDULE						
OPENING WIDTH		STEEL LINTELS	MASONRY LINTELS			
		* STEEL FOR EACH 4" WALL THICKNESS	LINTEL DEPTH AND REINFORCING "			
MIN.	MAX.		DEPTH	4" WALL	6" WALL	8" WALL / 12" WALL
-	2'-0"	SEE A/S3.2	7 5/8"	(1) #4	(1)#4 BOTT.	(2)#5 BOTT. / (2)#5 BOTT.
2'-1"	3'-6"		7 5/8"	(1) #4	(1)#4 BOTT.	(2)#5 BOTT. / (2)#5 BOTT.
3'-7"	5'-0"		7 5/8"	(1) #4	(1)#5 BOTT.	(2)#5 BOTT. / (2)#5 BOTT.
5'-1"	6'-6"		15 5/8"	-	(1)#5 BOTT.	(2)#5 BOTT. / (2)#6 BOTT.
6'-7"	8'-0"		15 5/8"	-	(1)#5 BOTT.	(2)#5 BOTT. / (2)#6 BOTT.
8'-1"	10'-0"		15 5/8"	-	(2)#5 BOTT.	(2)#5 BOTT. / (2)#6 BOTT.
10'-1"	12'-0"		15 5/8"	-	(2)#5 BOTT.	(2)#5 BOTT. / (2)#6 BOTT.

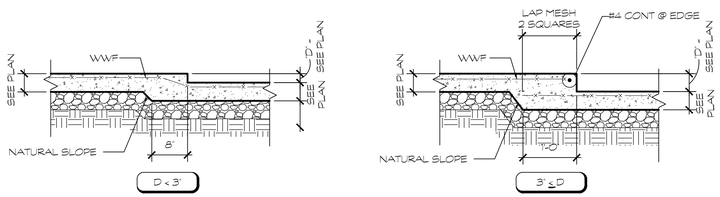
* 8" BEARING EACH END FOR STEEL " 8" BEARING EACH END FOR U-BLOCK

NOTES:
1. USE EITHER STEEL LINTEL OR MASONRY LINTEL (SEE ARCH HEAD DETAILS).
2. THIS SCHEDULE TO BE USED UNLESS NOTED OTHERWISE.
3. DO NOT USE THIS SCHEDULE IF CONCENTRATED LOAD IS APPLIED TO LINTEL.
4. DO NOT USE THIS SCHEDULE IF HEIGHT OF MASONRY ABOVE OPENING IS LESS THAN HALF OF THE OPENING WIDTH.
5. ALL LOOSE LINTELS TO BE GALVANIZED

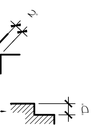
4 / S4.1 MASONRY WALL LINTEL SCHEDULE
SCALE: NTS



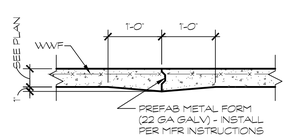
5 / S4.1 MASONRY LINTEL REINFORCING CONFIGURATIONS
SCALE: NTS



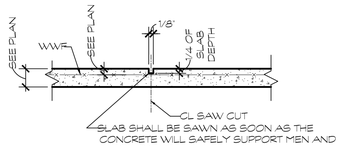
NOTE:
1. W.W.F TO BE POSITIONED WITH SLAB DEPTH W/PREFABRICATED CHAIRS.
2. COORDINATE DEPTHS AND LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
3. PROVIDE (1) #4 x 4'-0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.
4. SLAB DEPRESSIONS ARE TYPICALLY SHOWN ON PLAN THUS:



6 / S4.1 TYP DEPRESSED SLAB-ON-GRADE DETAILS
SCALE: 3/4"=1'-0"



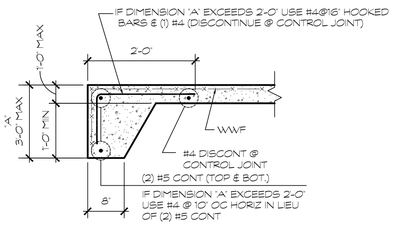
TYP CONSTRUCTION JOINTS



TYP SAWED CONTROL JOINT

NOTE: USE CONSTRUCTION JOINT IN LIEU OF CONTROL JOINT WHENEVER A POUR STOP IS REQUIRED OR WHERE INDICATED ON THE PLAN.

7 / S4.1 TYP SLAB-ON-GRADE JOINT DETAILS
SCALE: 3/4"=1'-0"



8 / S4.1 TYP TURNED DOWN SLAB
SCALE: 3/4"=1'-0"

PROJECT NUMBER
23-021

DATE
12/1/2023

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

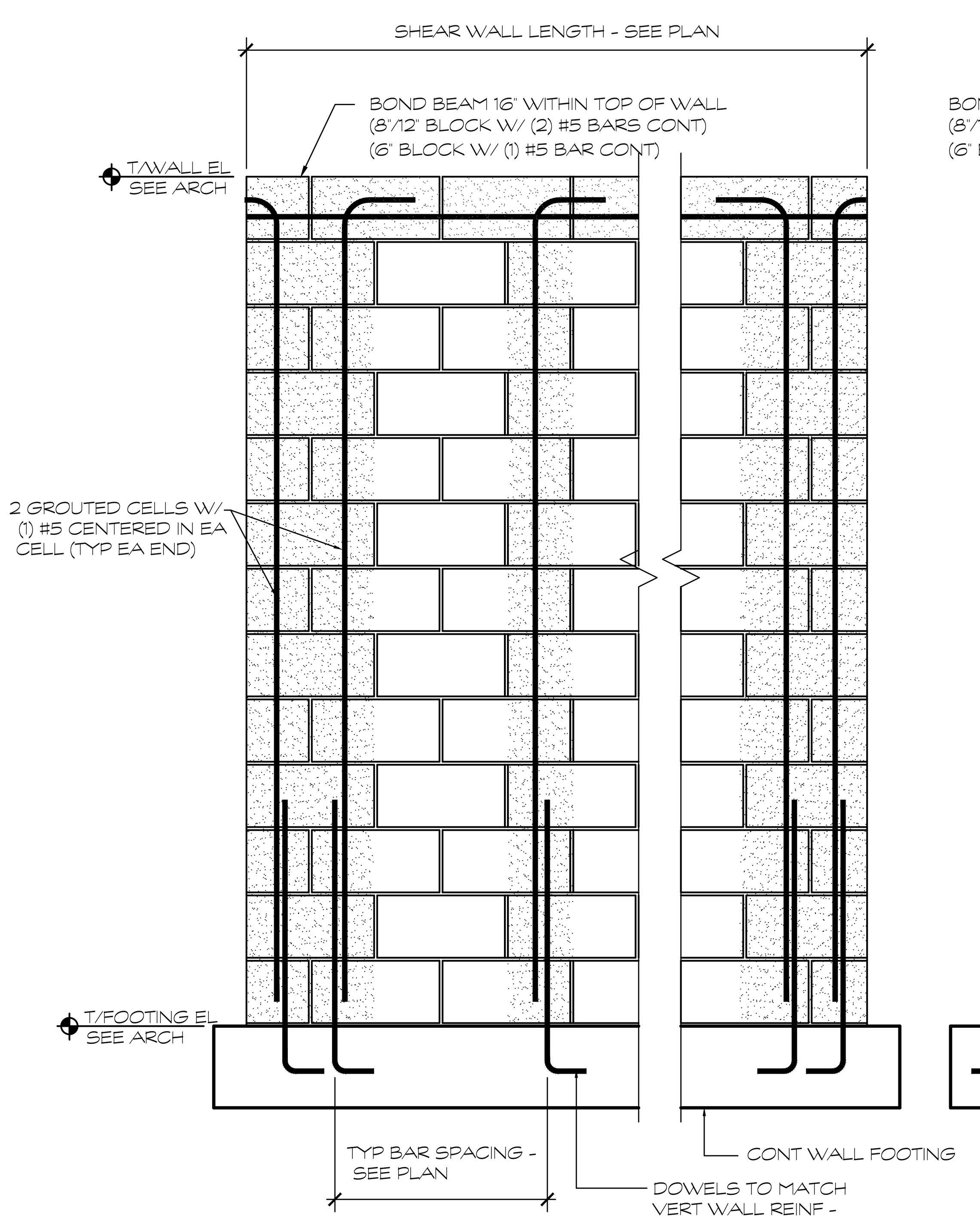
GEORGIA REGISTERED ARCHITECT WILLIAM JOHN PELTIER 12/1/2023

SHEET INDEX

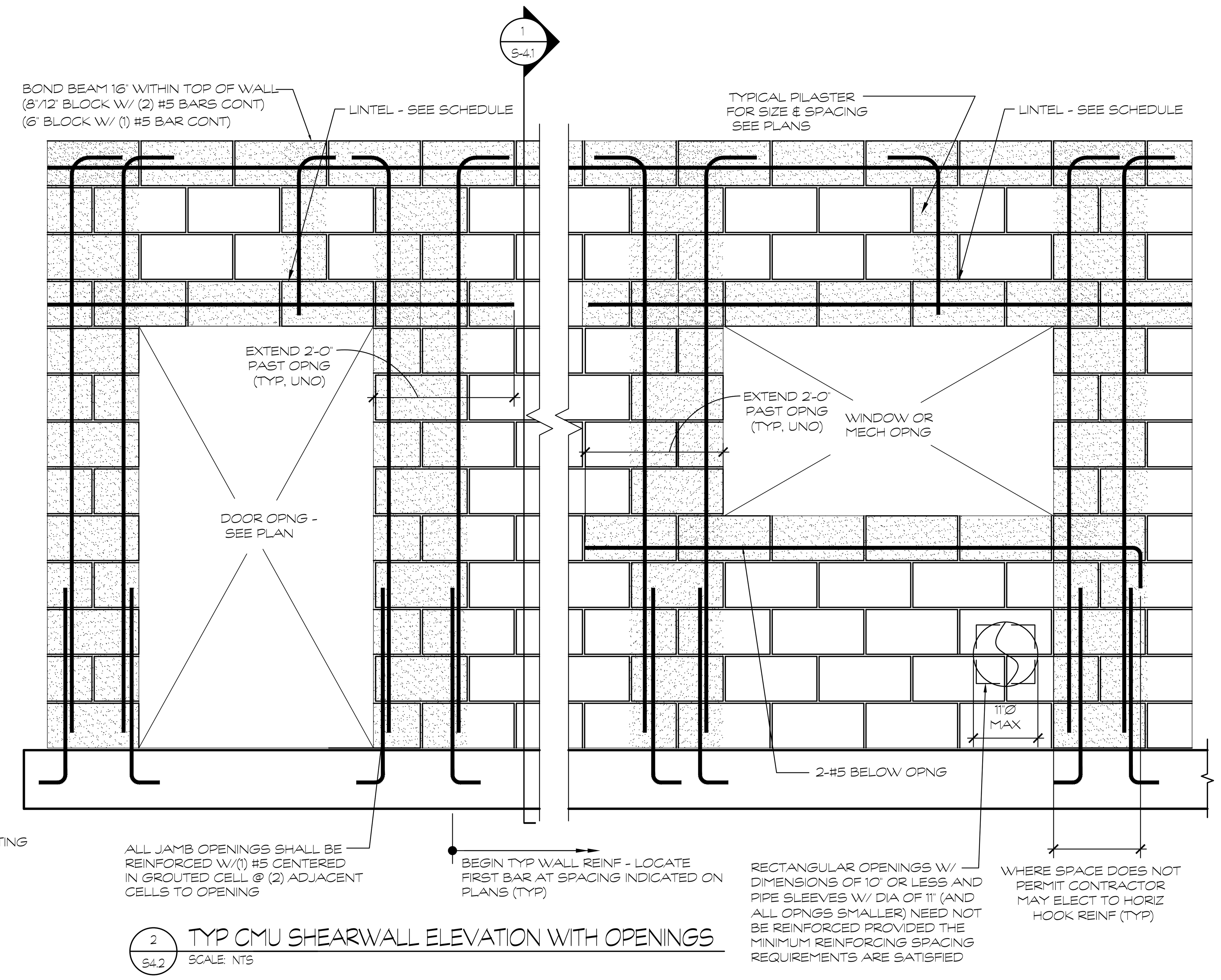
TYPICAL SECTIONS & DETAILS

SHEET INDEX

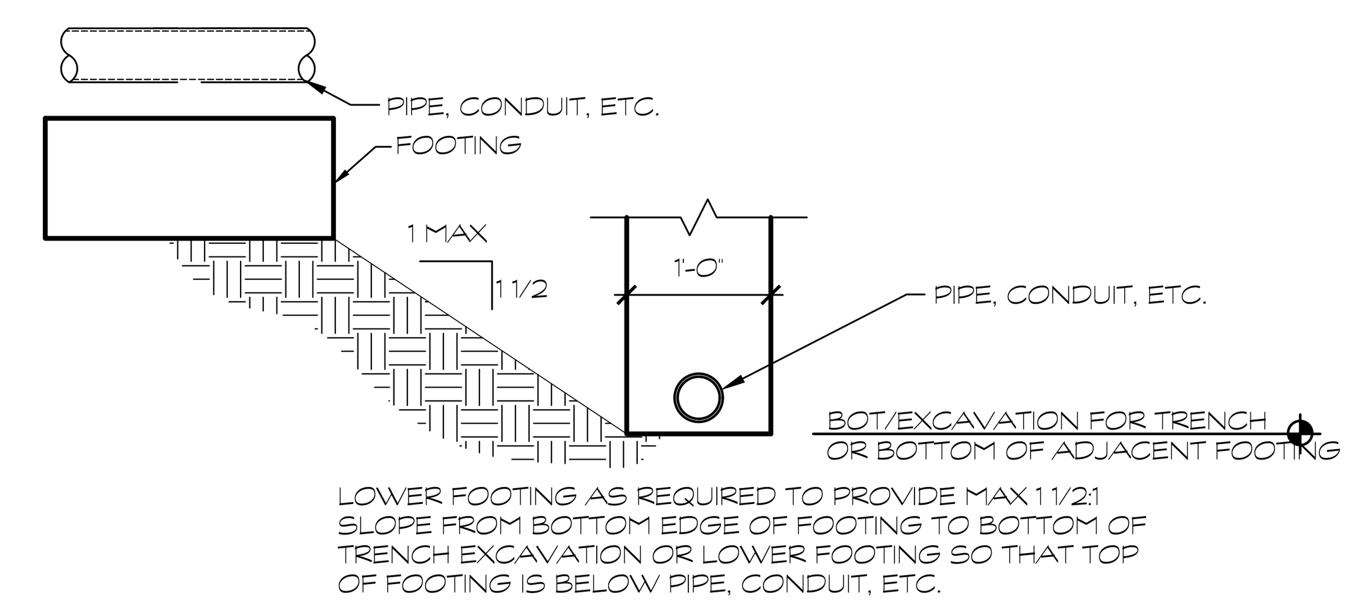
S4.1



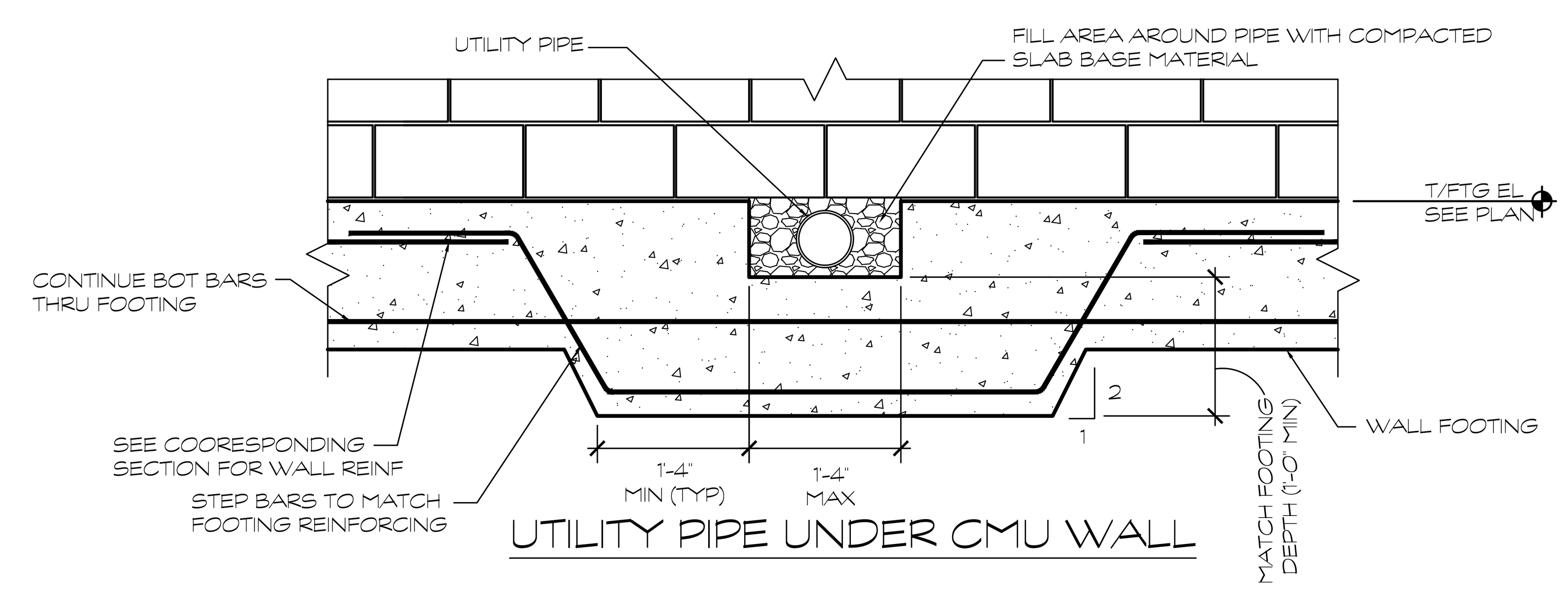
1 S4.2 TYP CMU SHEARWALL ELEVATION
SCALE: NTS



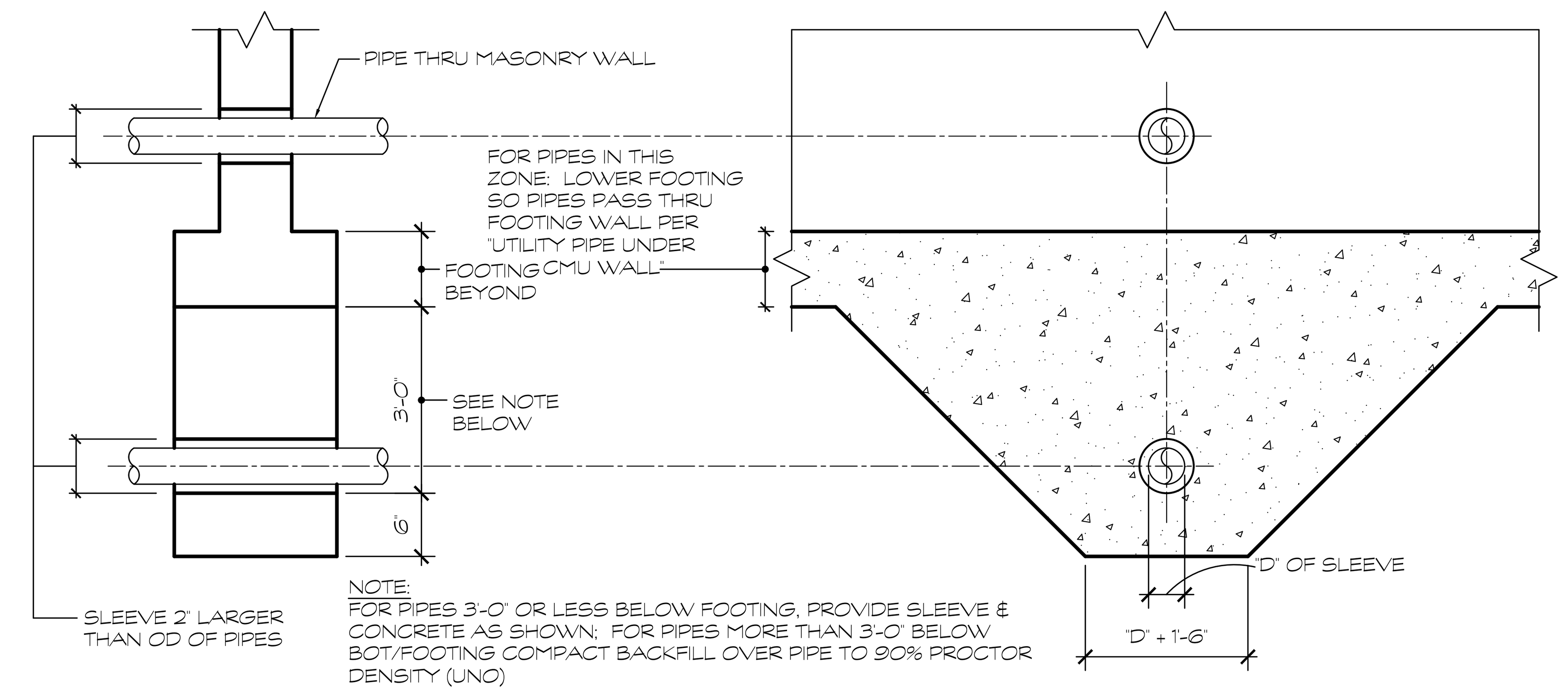
2 S4.2 TYP CMU SHEARWALL ELEVATION WITH OPENINGS
SCALE: NTS



3 S4.2 TYP FOUNDATION INFLUENCE DETAIL
SCALE: NTS

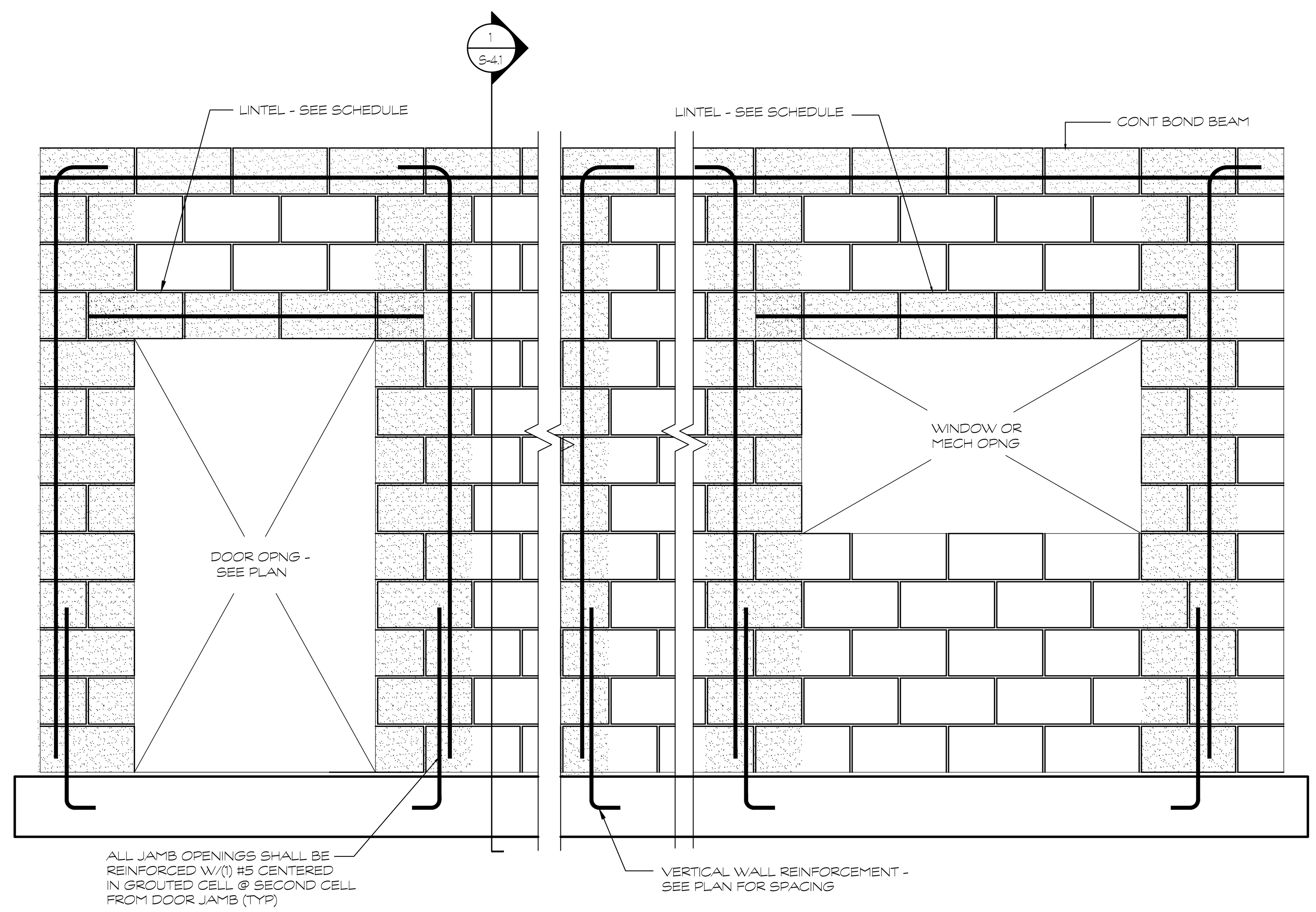


UTILITY PIPE UNDER CMU WALL



EXCAVATION TRANSVERSE TO WALL FTG

4 S4.2 TYP FOUNDATION DETAILS @ UTILITY PIPES
SCALE: NTS



5 S4.2 TYP CMU NON-SHEARWALL ELEVATION WITH OPENINGS
SCALE: NTS

PROJECT NUMBER
23-021

DATE
12/1/2023

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
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WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED STRUCTURAL ENGINEER WILLIAM JOHN PELTIER 12/1/2023

SHEET INDEX
TYPICAL SECTIONS & DETAILS

SHEET INDEX
S4.2

GENERAL HVAC NOTES

1. ALL MECHANICAL EQUIPMENT AND INSTALLATIONS SHALL CONFORM WITH THE REQUIREMENTS OF THE LOCAL CODE OFFICE'S LATEST APPROVED VERSION OF THE INTERNATIONAL MECHANICAL CODE, THE INTERNATIONAL BLDG. CODE, THE STATE ENERGY CODE, NFPA 54, NFPA 90A, 101, UNDERWRITERS LABORATORIES AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
2. PRIOR TO PURCHASING ANY MATERIALS OR STARTING ANY WORK, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, DUCTWORK SIZES, EQUIPMENT LOCATIONS, ETC. SHOWN ON THE DRAWINGS OR AFFECTING THIS WORK AND SHALL REPORT ANY DEVIATIONS TO THE ARCHITECT.
3. SUBMITTALS AND SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ARCHITECT AND MECHANICAL ENGINEER PRIOR TO ORDERING, PURCHASING, OR FABRICATING ANY MECHANICAL EQUIPMENT. THESE SHALL INCLUDE ALL EQUIPMENT SPECIFIED ON THE PLANS OR IN THE PROJECT SPECIFICATIONS. IF ANY MECHANICAL EQUIPMENT SUBMITTED DEVIATES FROM THAT SHOWN IN THE PLANS AND SPECIFICATIONS AS BASIS OF DESIGN, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY AND ALL CHANGES REQUIRED OF OTHER TRADES TO ACCOMPLISH THE WORK USING SUBMITTED EQUIPMENT.
4. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS, AND ELECTRICAL PLANS AND SPECIFICATIONS. SEE SPECIFICATIONS FOR DESCRIPTION OF INTERFACE WITH DIVISION 16 WORK.
5. ALL ELECTRICAL CHARACTERISTICS OF POWERED MECHANICAL EQUIPMENT SHALL BE VERIFIED AND FIELD COORDINATED WITH DIVISION 16 CONTRACTOR BEFORE ANY EQUIPMENT IS PURCHASED OR ORDERED.
6. ALL REQUIRED CONTROL WIRING NOT SHOWN ON ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK. WIRING IN HVAC PLENUM SPACES SHALL BE INSTALLED ACCORDING TO CODE REQUIREMENTS.
7. UNLESS OTHERWISE NOTED, STARTERS, TRANSFORMERS, CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
8. INSTALL FIRE DAMPERS IN ALL RATED WALL, FLOOR, AND CEILING PENETRATIONS AS APPLICABLE. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED AREAS. PROVIDE ACCESS DOORS IN DUCT AT EACH FIRE DAMPER LOCATION. INSTALL SMOKE DAMPERS IN ALL DUCT PENETRATIONS THROUGH SMOKE RATED WALLS. WHERE DUCTS PENETRATE WALLS THAT CARRY BOTH SMOKE AND FIRE RATINGS, THE DAMPERS INSTALLED SHALL BE COMBINATION SMOKE AND FIRE DAMPERS. ALL DAMPERS SHALL BE U.L. 555 LABELED.
9. FIRE ALARM CONTRACTOR SHALL PROVIDE SMOKE DETECTORS FOR THE SUPPLY AND RETURN AIR TRUNKS OF ALL HVAC EQUIPMENT SUPPLYING GREATER THAN 2000 CFM TO ANY SPACE. PER IMC 606, DUCT SMOKE DETECTORS SHALL SHUT DOWN THE AIR DISTRIBUTION SYSTEM UPON ACTIVATION. PER IMC 606, DUCT SMOKE DETECTORS TO BE CONNECTED TO THE BUILDING FIRE ALARM PANEL AS APPLICABLE. IF THE OCCUPANCY DOES NOT REQUIRE A FIRE ALARM PANEL, THE ACTIVATION OF DUCT SMOKE DETECTORS SHALL ACTIVATE AN AUDIBLE AND VISIBLE SIGNAL IN AN APPROVED LOCATION. SIGNAL TO BE IDENTIFIED AS "AIR DUCT DETECTOR TROUBLE". HVAC UNITS MAY BE RESET AT FIRE ALARM PANEL.
10. FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR ALL WIRING AND EQUIPMENT TO MONITOR SMOKE DETECTORS AND SHUT DOWN HVAC UNIT UPON SMOKE DETECTOR ACTIVATION. FIRE ALARM CONTRACTOR SHALL PROVIDE DUCT DETECTORS, AND MECHANICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING DETECTOR IN DUCT. FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND OPERATION OF BUILDING FIRE ALARM SYSTEM.
11. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
12. SUPPLY, RETURN, EXHAUST, AND OUTDOOR AIR DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL AS RECOMMENDED IN SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS, LATEST EDITION. ALL JOINTS, SEAMS, AND TAKE-OFFS IN SUPPLY AND RETURN SHEET METAL DUCTWORK SHALL BE SEALED WITH MASTIC DUCT SEALER TO SMACNA CLASS A, NO CLOTH DUCT TAPE IS ALLOWED.
13. ALL SHEET METAL SUPPLY, RETURN, AND VENTILATION AIR DUCT WORK SHALL BE INSULATED WITH FIBERGLASS DUCT INSULATION WITH FOIL VAPOR BARRIER, U.L. LISTED, MINIMUM R-6 OR OTHERWISE AS REQUIRED BY LOCAL ENERGY CODES. USE R-8 IN ATTICS OR OUTSIDE THE BUILDING INSULATION ENVELOPE. EXHAUST DUCT WORK SHALL BE INSULATED WITH THE SAME WITHIN 10' OF EXTERIOR WALL OR ROOF OPENING.
14. ALL MECHANICAL EQUIPMENT SHALL BE LABELED WITH BAKELITE NAMEPLATE WITH 2" HIGH WHITE LETTERS ON A BLACK BACKGROUND. NAMEPLATE SHALL SHOW EQUIPMENT TAG USED ON THESE DRAWINGS. ELECTRICAL DISCONNECTS FOR EQUIPMENT SHALL BE LABELED TO MATCH EQUIPMENT SERVED.
15. ALL DUCTWORK SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT HANG FROM OR REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND CONNECTION TO STRUCTURE SHALL BE AS PER SMACNA STANDARDS.
16. FLEXIBLE DUCTWORK SHALL BE THERMAFLEX M-KE (U.L. 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT) OR EQUAL. PROVIDE THERMAFLEX M-KE R-6 (R-6 MINIMUM VALUE OR AS REQUIRED BY LOCAL ENERGY CODE) IN UNCONDITIONED SPACES. USE R-8 IN ATTICS AND SPACES OUTSIDE THE BUILDING INSULATION ENVELOPE. AIR CONNECTORS ARE NOT ACCEPTABLE. SIZE TO MATCH DEVICE NECK, PROVIDE ROUND GALVANIZED STEEL DUCT RUN-OUTS TO PROVIDE A MAXIMUM FLEXIBLE DUCT LENGTH OF 5'-0". FLEXIBLE DUCTWORK SHALL BE ROUTED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS AS REQUIRED TO CONNECT TO AIR DEVICE NECK.
17. BRANCH RUN-OUT DUCTS SHALL BE SAME SIZE AS DIFFUSER NECK IF NOT NOTED OTHERWISE.
18. SHEET METAL DUCTWORK SHOWN AS BEING INTERNALLY LINED SHALL BE LINED WITH 1" THICK, 3 LB/CUFT. DENSITY DUCT LINER, MINIMUM R-4 OR AS REQUIRED BY APPLICABLE ENERGY CODE, CERTAINTEED "TOUGHGARD" OR EQUAL BY JOHNS-MANVILLE OR KNAUF. LINE ALL DUCTWORK A MINIMUM OF 15'-0" DOWNSTREAM AND UPSTREAM (WHERE POSSIBLE) OF ALL AIR HANDLING UNITS, FAN COIL UNITS, AND TERMINAL UNITS. LEADING EDGE OF INSULATION SHALL HAVE SHEET METAL NOSING. DUCT THAT IS INTERNALLY INSULATED SHALL BE EXTERNALLY INSULATED AS WELL TO ACHIEVE REQUIRED TOTAL U-VALUE.
19. DUCTWORK DIMENSIONS SHOWN ON DRAWING ARE INSIDE CLEAR DIMENSIONS. CONTRACTOR SHALL ADJUST TOTAL DUCT WORK DIMENSIONS TO ACHIEVE SHOWN INSIDE CLEAR DIMENSIONS.
20. DUCTWORK AND EQUIPMENT SHOWN IS DIAGRAMMATIC. COORDINATE AND ROUTE DUCTWORK TO MEET JOB REQUIREMENTS. LOCATION OF EQUIPMENT MUST BE COORDINATED WITH ALL DISCIPLINES BEFORE FINAL LOCATIONS ARE SELECTED. WEIGHTS OF EQUIPMENT MUST BE VERIFIED AND COORDINATED WITH STRUCTURAL SYSTEMS MANAGERS BEFORE EQUIPMENT CAN BE MOVED INTO LOCATION OR INSTALLED.
21. ALL CONDENSATE DRAIN LINES FROM HVAC EQUIPMENT LOCATED INSIDE THE BUILDING SHALL BE TRAPPED AND SHALL DRAIN INTO BUILDING FLOOR DRAINS, ROOF DRAINS, OR STORM DRAINS. CONDENSATE SHALL BE INSULATED SCHEDULE 40 PVC (EXCEPT INSULATED TYPE L COPPER IN HVAC PLENUMS). CONDENSTATE SHALL BE PUMPED AS REQUIRED.
22. ALL PIPING ABOVE GRADE SHALL BE SUPPORTED BY THE BUILDING STRUCTURE, AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. PIPE HUNG FROM JOISTS SHALL BE HUNG FROM THE TOP CHORD OF JOISTS.
23. ALL PIPE AND DUCT PENETRATIONS OF FIRE AND/OR SMOKE RATED ASSEMBLIES SHALL BE FIRESTOPPED AS REQUIRED TO RESTORE ASSEMBLY TO ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE MANUFACTURED BY 3M COMPANY, CP25 CAULK, CP195 COMPOSITE PANEL, FS195 WRAP/STRIP, OR PSS 7900 SERIES SYTEMS AS RECOMMENDED BY MFG. FOR PARTICULAR APPLICATIONS, OR EQUIVALENT SYSTEM AS APPROVED BY LOCAL CODE OFFICIALS.
24. ANY WALL, FLOOR, OR CEILING SURFACE THAT IS DISTURBED DURING THE COURSE OF THIS WORK SHALL BE REPAIRED TO EXISTING OR LIKE-NEW CONDITION.
25. OUTSIDE HARDWARE FOR EXHAUST FANS SHALL BE PLACED IN A LOCATION SUITABLE TO OWNER. CONTRACTOR SHALL COORDINATE PLACEMENT WITH OWNER BEFORE FINAL INSTALLATION. OUTSIDE HARDWARE FOR EXHAUST FANS AND FRESH AIR INTAKES SHOULD BE CONSTRUCTED SO AS TO BE WEATHERTIGHT AND SHOULD INCLUDE INTEGRAL BIRD OR INSECT SCREENS.
26. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, ETC. TO FIT WITHIN THE SPACE ALLOWED BY ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
27. CONTRACTOR SHALL PROVIDE ALL NECESSARY PRODUCTS AND MATERIALS FOR A COMPLETE MECHANICAL SYSTEM.

HVAC LEGEND

SYMBOL - SINGLE LINE	SYMBOL - DOUBLE LINE	DESCRIPTION
		CELING DIFFUSER
		CEILING RETURN GRILLE
		SIDEWALL SUPPLY REGISTER OR GRILLE
		SIDEWALL RETURN REGISTER OR GRILLE
AHU 1	AHU 1	EQUIPMENT DESIGNATION
AB 200	AB 200	DIFFUSER TAG: TYPE "A", NECK SIZE 8", BALANCED FOR 200 CFM
WL–1 75	WL–1 75	LOUVER TAG: TYPE "WL-1", SIZE FOR 75 CFM @ 500 FPM
D	D	DROP
R	R	RISE
16x12	16x12	DUCT SIZE - RECTANGULAR
10"ø	10"ø	DUCT SIZE - ROUND
		DUCT TRANSITION
		RETURN AIR DUCT TURNED DOWN
		RETURN AIR DUCT TURNED UP
		RECT. ELBOW WITH TURNING VANES
		LINED DUCT
		FLEXIBLE DUCT
DD	DD	DUCT SMOKE DETECTOR
FD	FD	FIRE DAMPER
F/SD	F/SD	FIRE/SMOKE DAMPER
CRD	CRD	CEILING RADIATION DAMPER
MOD SD CAR	MOD SD CAR	MOTOR OPERATED DAMPER SMOKE DAMPER CONSTANT AIRFLOW REGULATOR
	MVD	MANUAL VOLUME DAMPER
BDD	BDD	BACKDRAFT DAMPER
FC	FC	FLEXIBLE EQUIPMENT CONNECTOR
T H C	T H C	THERMOSTAT, HUMIDISTAT, CARBON DIOXIDE WALL-MOUNTED SENSOR, OR AS NOTED
		REVISION TAG (#1)
UC	UC	UNDER CUT (DOOR) 1"
		CONNECT TO EXISTING

HVAC ABBREVIATIONS

SYMBOL	DESCRIPTION
MBH	1000 BTU/HR
A/C	ABOVE CEILING
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
CD	CONDENSATE DRAIN
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE (IN. W.C.)
HP	HEAT PUMP UNIT OR HORSEPOWER
CU	CONDENSING UNIT
OA	OUTSIDE AIR
WL	WALL LOUVER
FC	FLEXIBLE EQUIPMENT CONNECTOR
IDU	DUCTED OR DUCTLESS MINI-SPLIT FAN COIL
ODU	MINI-SPLIT HEAT PUMP OR CONDENSING UNIT
FNU	FURNACE UNIT
DN	DOWN
CTE	CONNECT TO EXISTING

SPLIT SYSTEM FURNACE UNIT SCHEDULE

TAG	BASIS OF DESIGN	AREA SERVED	COOLING COIL	NOM TON	SUPPLY AIR CFM	E.S.P. (IWG)	COOLING CAP. (MBH)	COOLING EFFIC. (SEER)	GAS HTG. (MBH)		HEATING EFFIC. (AFUE)	POWER	OP. WEIGHT (LBS)	NOTES
									INPUT	OUTPUT				
CU / GFU-1	CARRIER 24TPA736 / 59TP6B60	WORK SPACE	CAPMP3614	3	1,100	0.5	25.4 / 36.0	(17.0)	40.0 / 26.0	39.0 / 25.0	0.96	SEE DIV. 16	218 / 172	1,2,3,4,5,6,7,8
CU / GFU-2	CARRIER 24TPA736 / 59TP6B60	LAB	CAPMP3614	3	1,100	0.5	25.4 / 36.0	(17.0)	40.0 / 26.0	39.0 / 25.0	0.96	SEE DIV. 16	218 / 172	1,2,3,4,5,6,7,8
CU / GFU-3	CARRIER 24TPA736 / 59TP6B60	VEHICLE	CAPMP3614	3	1,100	0.5	25.4 / 36.0	(17.0)	40.0 / 26.0	39.0 / 25.0	0.96	SEE DIV. 16	218 / 172	1,2,3,4,5,6,7,8
CU / GFU-4	CARRIER 24TPA760 / 59TP6B080	STORAGE	CAPMP6021	5	2,000	0.5	42.3 / 60.0	(17.0)	80.0 / 52.0	78.0 / 51.0	0.96	SEE DIV. 16	218 / 172	1-9

NOTES:

1. SEE MECHANICAL SPECIFICATIONS & DETAILS FOR ADDITIONAL REQUIREMENTS
2. WALL MOUNTED DIGITAL PROGRAMMABLE TYPE THERMOSTAT, LOCATED AS SHOWN ON PLANS
3. OUTDOOR CONDENSING UNIT w/ COIL GUARD PROTECTION
4. UNITS INDICATED ARE BASIS OF DESIGN; OTHER APPROVED VENDORS ARE TRANE
5. ROUTE 3" VENT TO " BACK OF ROOF. FOLLOW MANUFACTURER'S INSTALLATION REQUIREMENTS.
6. PROVIDE CONDENSATE NEUTRALIZATION KIT. ROUTE TO NEAREST DRAIN. REFER TO PLUMBING PLANS FOR EXACT LOCATION
7. AIR PURIFICATION DEVICE EQUAL TO GLOBAL PLASMA SOLUTIONS MODEL GPS-RN-2400, OR AS REQUIRED BY 2013 ASHRAE 62.1 IAQ PROCEDURE FOR COMPLIANCE
8. VERIFY COIL SIZE MATCHES FURNACE UNIT PRIOR TO PURCHASE
9. PROVIDE 3rd-PARTY, FIELD INSTALLED ECONOMIZER EQUIVALENT TO MICROMETL w/ INTEGRAL ENTHALPY SENSOR AND MULTI-SPEED ELECTROMECHANICAL CONTROLLER.

DX SPLIT SYSTEM HEAT PUMP SCHEDULE

TAG	BASIS OF DESIGN	AREA SERVED	NOM TON	SUPPLY AIR CFM	E.S.P. (IWG)	COOLING CAP. (MBH)	COOLING EFFIC. (SEER)	HEATING CAP. 17°(MBH)	HEATING CAP. 47°(MBH)	HEATING EFFIC. (HSPF)	POWER	OP. WEIGHT (LBS)	NOTES
HP / WFC-5	CARRIER 38MARB-24 / 40MAHBQ24	IT CLOSET	2.0	425	0.125	16.9 / 24.0	(21.5)	18.6	24.0	(3.1)	SEE DIV. 16	218 / 172	1-7

NOTES:

1. SEE MECHANICAL SPECIFICATIONS & DETAILS FOR ADDITIONAL REQUIREMENTS
2. WALL MOUNTED DIGITAL PROGRAMMABLE TYPE THERMOSTAT
3. OUTDOOR CONDENSING UNIT w/ COIL GUARD PROTECTION
4. OUTDOOR CONDENSING UNIT w/ CRANK CASE HEATER
5. UNITS INDICATED ARE BASIS OF DESIGN; OTHER APPROVED VENDORS ARE MITSUBISHI AND DAIKIN
6. INDOOR FAN COIL SERVED BY LINE VOLTAGE WIRING FROM OUTDOOR UNIT; VERIFY EXACT WIRE SIZE, LENGTH, DISCONNECT PER NEC.
7. UL APPROVED DISCONNECT TO BE PROVIDED TO ELECTRICAL CONTRACTOR FOR INDOOR & OUTDOOR UNITS

EXHAUST FAN SCHEDULE

TAG	BASIS OF DESIGN	TYPE	SERVES	CFM	E.S.P.	SONES	OPER. HP(W)	MOTOR HP/(W)	POWER	CONTROL	WEIGHT (LBS)	NOTES
EF-1, EF-2	GREENHECK SP-B110	CEILING	TOILET	70	0.25	1.0	0.02	(80)	SEE DIV. 16	INTERLOCKED w/ LIGHTS	15	1,2,3,4,5
EF-3	GREENHECK SP-B110	CEILING	JANITOR	70	0.25	1.0	0.02	(80)	SEE DIV. 16	WALL SWITCH	15	1,2,3,4,5,6
EF-4	GREENHECK	CEILING	LAB	450	0.25	1.0	0.02	(80)	SEE DIV. 16	WALL SWITCH	15	1,2,3,4,5,7
EF-5	GREENHECK	INLINE	VEHICLE	50	0.25	1.0	0.02	(80)	SEE DIV. 16	CONTINUOUS	15	1,2,3,4,5,7
WEF-6	GREENHECK	WALL	VEHICLE	1,000	0.25	1.0	0.02	(80)	SEE DIV. 16	CO & NO2 SENSOR	15	1,5,8,9,10,11
EF-7	GREENHECK	CEILING	DRUG STOR	200	0.25	1.0	0.02	(80)	SEE DIV. 16	CONTINUOUS	15	1,2,3,4,5,7

NOTES

1. OUTSIDE HARDWARE FOR EXHAUST FANS SHOULD BE CONSTRUCTED SO AS TO BE WEATHERTIGHT.
2. SPEED CONTROLLER ABOVE ACCESSIBLE CEILING
3. BACKDRAFT DAMPER
4. VIBRATION ISOLATORS
5. ELECTRICAL DISCONNECT OR BREAKER AS REQUIRED BY VENDOR & NEC
6. PROVIDE WALL SWITCH ADJACENT TO LIGHT SWITCH
7. PROVIDE WALL w/ LED INDICATOR FOR 'ON' POSITION
8. OSHA MOTOR GUARD
9. PROVIDE w/ WALL LOUVER AND INTEGRAL BACKDRAFT DAMPER
10. EXT. WEATHER HOOD, BRONZE COLOR, OR AS DIRECTED BY ARCHITECT. DO NOT LEAVE MILL FINISH.
11. FAN INTERLOCKED w/ GAS MONITOR. FAN SHALL ACTIVATE UPON DETECTION OF CARBON MONOXIDE OR NITROGEN OXIDE(S)

AIR DISTRIBUTION EQUIPMENT SCHEDULE

TAG	DESCRIPTION	NOTES
A	STEEL SQUARE CONE DIFFUSER, FIXED AIR PATTERN, 4-WAY THROW, ROUND NECK, SIZED AS SHOWN, WHITE, LAY-IN FRAME, PRICE SCD.	1,2,3
B	STEEL DOUBLE DEFLECTION SUPPLY GRILLE, ADJUSTABLE PATTERN, 3/4" SPACING BETWEEN BLADES, SIZE AS SHOWN, FRONT BLADES PARALLEL TO SHORT DIMENSION, O.B. DAMPER WHEN DUCT MOUNTED, PRICE 520.	1,2,3
C	HEAVY DUTY GYM RETURN GRILLE, 14 GAUGE STEEL, 0° DEFLECTION FIXED LOUVER, 3/4" BLADE SPACING, SIZE AS SHOWN, BLADES PARALLEL TO LONG DIMENSION, PRICE 95.	2
D	1/2"X1/2"X1/2" ALUMINUM EGG CRATE RETURN GRILLE, LAY-IN FRAME, 24X12 OR 12X12 SIZE, PLENUM TYPE OR ROUND DUCT CONN. NECK AS SHOWN, PRICE 80.	1,4

NOTES

1. VERIFY MOUNTING TYPE WITH ARCHITECTURAL RCP.
2. SUPPLY DIFFUSERS AND GRILLES SHALL NOT COME SUPPLIED WITH VOLUME DAMPERS UNLESS NOTED OTHERWISE. MANUAL VOLUME DAMPERS SHALL BE INSTALLED AT BRANCH TAKE-OFFS NEAR TRUNK (SEE DETAIL SHEET).
3. BACK INSULATION SHALL BE INCLUDED ON ALL SUPPLY DIFFUSERS AND GRILLES.
4. PROVIDE FULL SIZE LINED PLENUM, INTERIOR PAINTED FLAT BLACK.

WALL LOUVER SCHEDULE

TAG	BASIS OF DESIGN	CFM	WIDTH	HEIGHT	FREE AREA (SQFT)	COLOR	APPLICATION	NOTES
WL-1, WL-2	GREENHECK EAC-601	500	24	24	1.3	ARCH	INTAKE	1,2,3,4
WL-3	GREENHECK ESD-403	100	12	12	0.33	ARCH	EXHAUST	1,2,3,4
WL-4	GREENHECK ESD-403	610	24	12	0.33	ARCH	EXHAUST	1,2,3,4
WL-5	GREENHECK ESD-403	800	24	30	2.22	ARCH	INTAKE	1,2,3,4
WL-6	GREENHECK ESD-403	2,000	36	30	3.48	ARCH	INTAKE	1,2,3,4

NOTES

1. BACKDRAFT DAMPER
2. INSECT SCREEN
3. PROVIDE FULL-SIZE LINED PLENUM
4. COORDINATE w/ ARCHITECT FOR COLOR PREFERENCE

ELECTRIC WALL HEATER SCHEDULE

TAG	BASIS OF DESIGN	HEATING OUTPUT (WATTS)	FAN CFM	TYPE	BASE UNIT WT. (LBS)	POWER	APPLICATION	ROUGH-IN DIMENSIONS (W X H X D)	NOTES
HTR-1	MARKEL 3320	1,500	175	RECESSED WALL	26	SEE DIV. 16	RISER ROOM	14-3/16" X 19-7/16" X 4"	1,2,3
HTR-2	MARKEL 3320	1,500	175	RECESSED WALL	26	SEE DIV. 16	STAIR	14-3/16" X 19-7/16" X 4"	1,2,3

NOTES:

1. BUILT-IN THERMOSTAT FOR CONTROL.
2. RECESSED LOW WALL MOUNT.
3. WATTAGE SELECTED AT 208 V.

FOR CONSTRUCTION

PROJECT NUMBER
23-021

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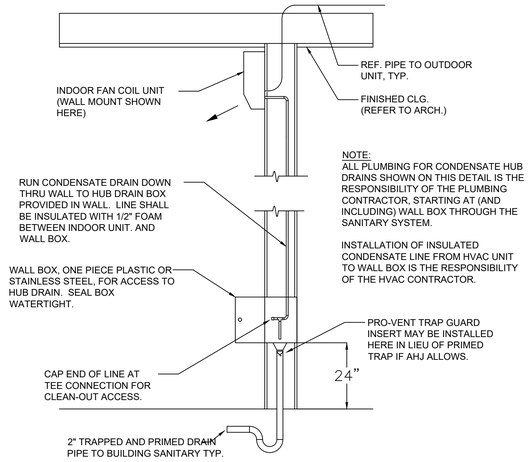
KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED PROFESSIONAL ENGINEER
Kyle Cox
5 Dec 2023
KYLE COX

SHEET NAME
MECHANICAL SCHEDULES, NOTES, & LEGEND

SHEET INDEX
M0.1



CONDENSATE TO HUB DRAIN WALL BOX DETAIL

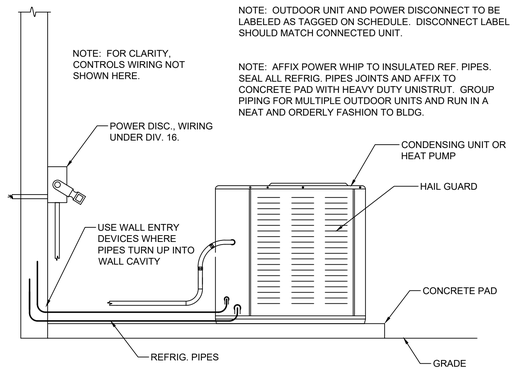
NOT TO SCALE

100% DOAS Split System Schedule

Tag	Supply CFM	Outside CFM	ESP (in wg)	Total Cap (MBH)	Sen Cap (MBH)	OADB	OAWB	Unit LADB	Unit LAWB	%RH	SA Fan HP	Heat Type	Heat EADB	Heat LADB	Heat KW	Heat Staging	Voltage	Unit FLA	MCA	MOP	Op Weight (lbs)	Model String
DOAS-1	1000	1000	0.8	66.61	42.09	95	75	55.85	54.99	55	1	Electric	18	86.1	21.0	SCR	208/3/60	61	76	80	721	V3-BRB-8-0-161C-7DS
DCU-1																		23	28	45	425	CFA-007-A-A-8-DA00H

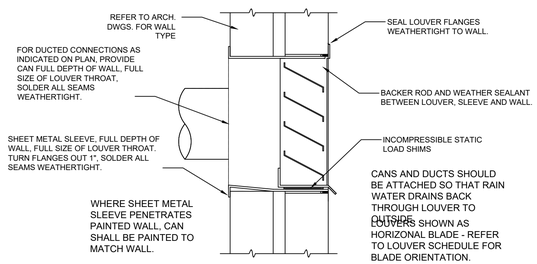
NOTES:

1. R-410a
2. Two (2) independent compressor circuits with minimum 6 row interlaced-circuit DX coil (Horizontal split not acceptable)
3. Hot gas bypass all circuits
4. Factory mounted hot gas reheat coil with MODULATING valve for dehumidification (2-position or dedicated heat pump circuit not acceptable)
5. Stainless steel drain pan with factory mounted/wired condensate overflow switch
6. Unit shall include manual reset high pressure switches & auto reset low pressure switches
7. High efficiency EC supply fan motor
8. VFD condenser fan motors for condenser head pressure control
9. 4" MERV 12 filters with 2" MERV 8 pre-filters
10. Controls: Wattmaster/Orion VCCX controller with ambient dewpoint sensor; electronic sequencing of compressors, heating and modulating hot gas re-heating.
    - The intention of this unit is to provide continuous dehumidification of outside air while also providing temperature control to the space it serves
    - If this causes overcooling in the space, the modulating hot gas reheat valve shall open to satisfy the conditioned space requirement
    - Field mounted controls shall include a duct mounted leaving air stat and a wall mounted stat (see plans for location)
    - All unit mounted controls for complete operation shall be installed by the equipment manufacturer
11. DOAS-1 shall have 2" foam injected insulated doublewall cabinet construction
12. Hinged access doors with lockable handles
13. Duct mounted smoke detector provided by electrical, installed by mechanical
14. Compressors shall have 5 year warranty (parts only)
15. Unit shall have modulating SCR electric heating with infinite stages of heating
16. Condenser, evaportator, and reheat coils to have corrosion resistant polymer coating
17. DCU-2 shall have corrosion resistant internal coating
18. Unit shall have phase protection



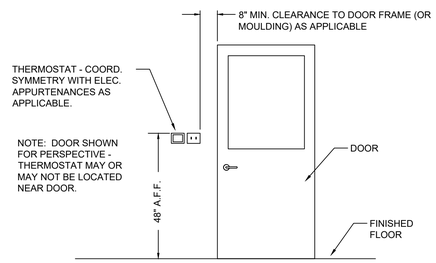
TYP. PAD MOUNT OUTDOOR CONDENSING UNIT DETAIL

NOT TO SCALE



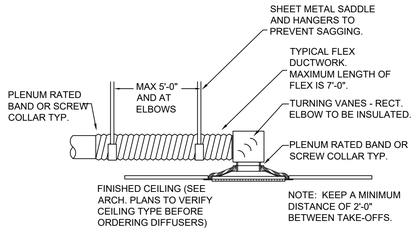
TYP. WALL LOUVER DETAIL

NOT TO SCALE



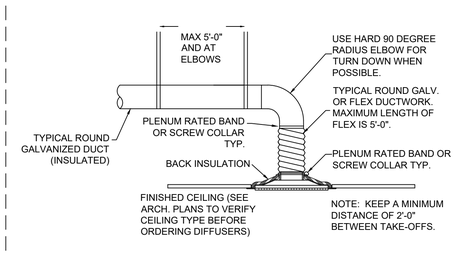
TYP. THERMOSTAT OR WALL SENSOR INSTALLATION DETAIL

NOT TO SCALE



LOW CLEARANCE BRANCH RUN-OUT DETAIL

NOT TO SCALE



BRANCH RUN-OUT DETAIL

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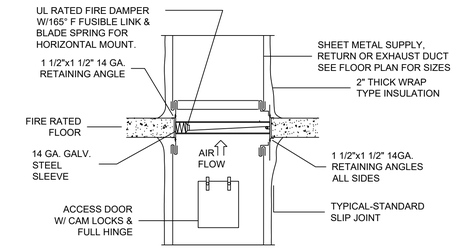
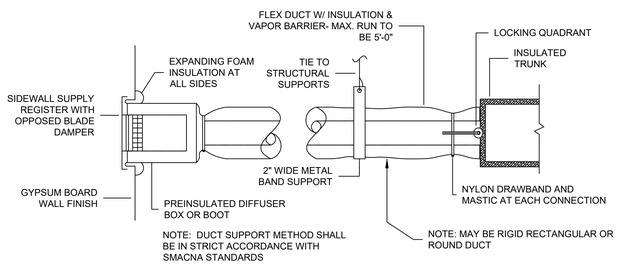


HORIZONTAL FIRE DAMPER

NOT TO SCALE



SIDEWALL REGISTER DETAIL

NOT TO SCALE

FOR CONSTRUCTION

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KRH ARCHITECTS INCORPORATED
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TEL. 706.529.5895

A NEW BUILDING FOR:
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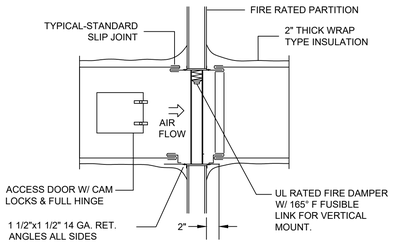
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED J. Kyle Cox 5 Dec 2023 PROFESSIONAL ENGINEER J. KYLE COX

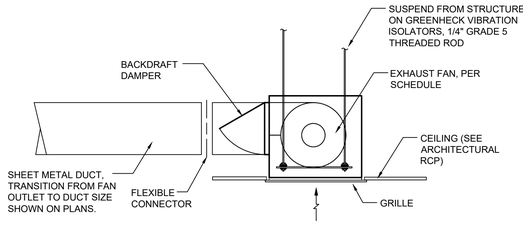
SHEET NAME
MECHANICAL DETAILS

SHEET INDEX
M0.2



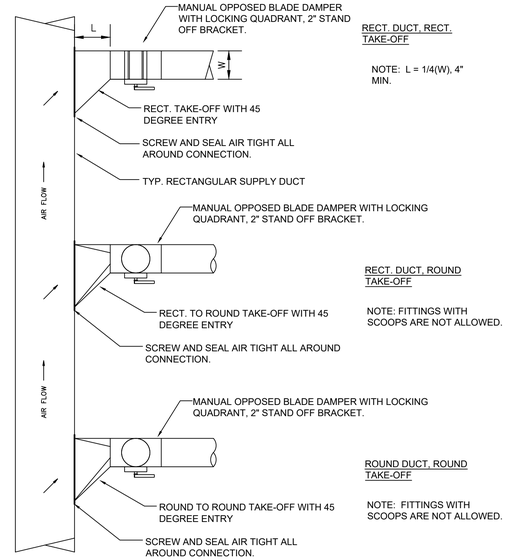
VERTICAL FIRE DAMPER

NOT TO SCALE



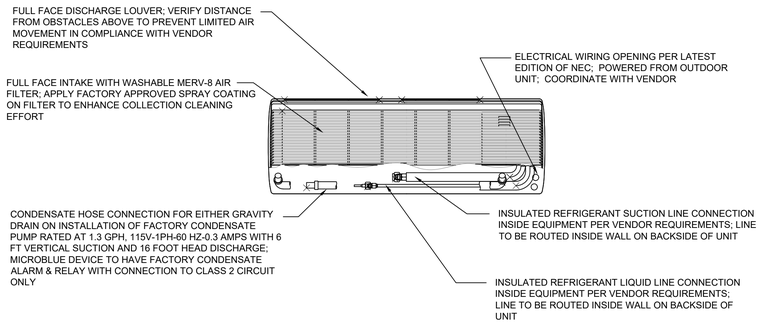
CEILING MOUNT EXHAUST FAN DETAIL

NOT TO SCALE



BRANCH DUCT TAKE-OFF DETAILS

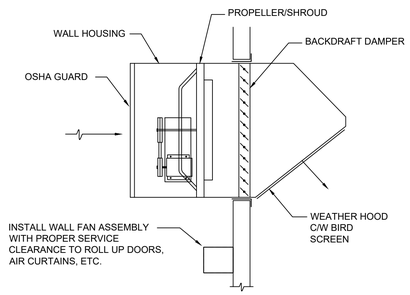
NOT TO SCALE



TYPICAL MINI-SPLIT WALL MOUNTED FAN COIL DETAIL

NOT TO SCALE

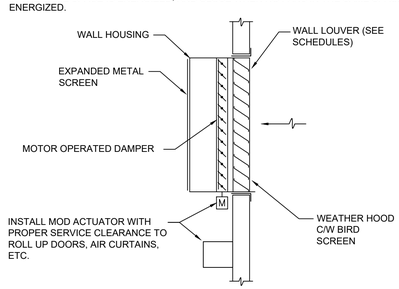
FAN CONTROL NOTES:
EACH EXHAUST FAN SHALL BE INTERLOCKED w/ WAREHOUSE LIGHTS FOR POWER, CONTROLLED BY A WALL MOUNTED ON/OFF SWITCH LOCATED NEAR FAN.



WALL MOUNT PROPELLER EXHAUST FAN DETAIL

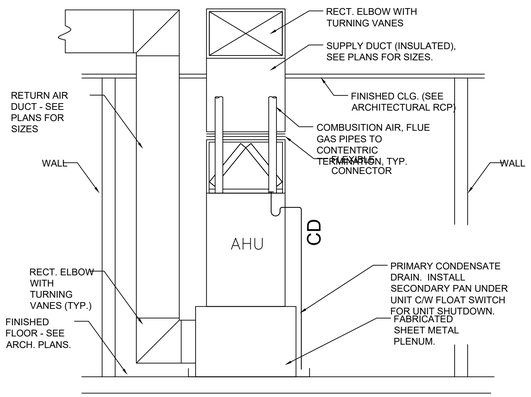
NOT TO SCALE

LOUVER CONTROL NOTES:
EACH MOTOR OPERATED DAMPER TO BE CONTROLLED TO OPEN WHEN ANY EXHAUST FAN IN THE SAME SPACE IS ENERGIZED, AND CLOSE WHEN NO FANS IN THE SAME SPACE ARE ENERGIZED.



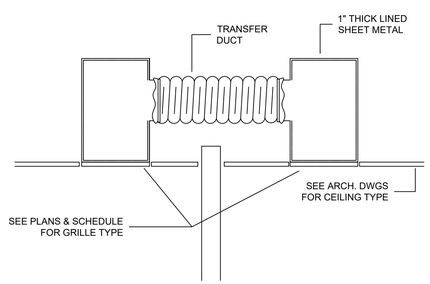
INDUSTRIAL INTAKE WALL LOUVER DETAIL

NOT TO SCALE



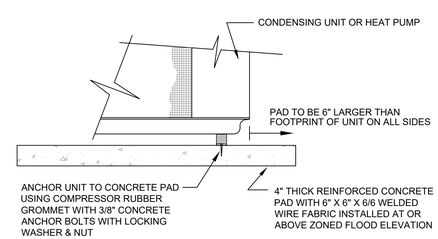
TYP. SPLIT FURNACE UNIT DETAILS

NOT TO SCALE



TYP. TRANSFER GRILLE

NOT TO SCALE



OUTDOOR UNIT GROUND MOUNTING DETAIL

NOT TO SCALE

FOR CONSTRUCTION

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KRH ARCHITECTS INCORPORATED
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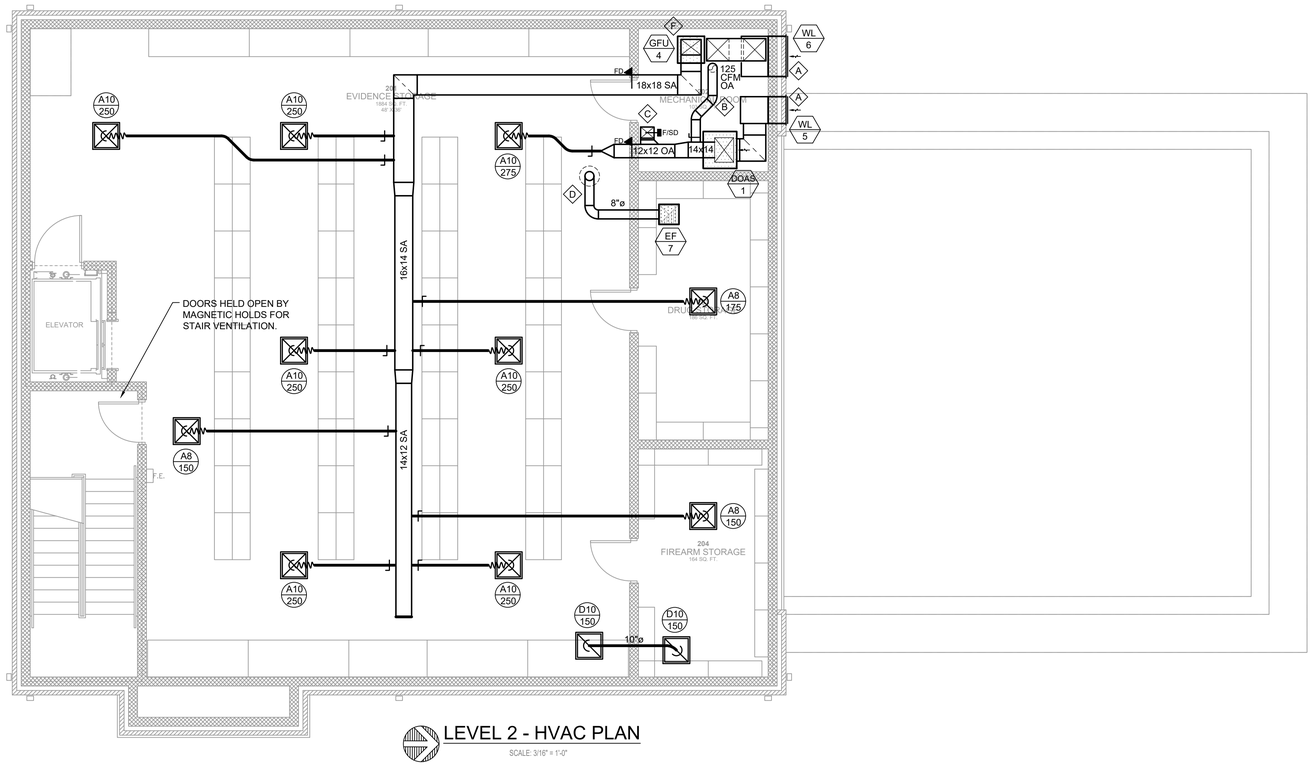
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED J. KYLE COX ENGINEER
5 Dec 2023

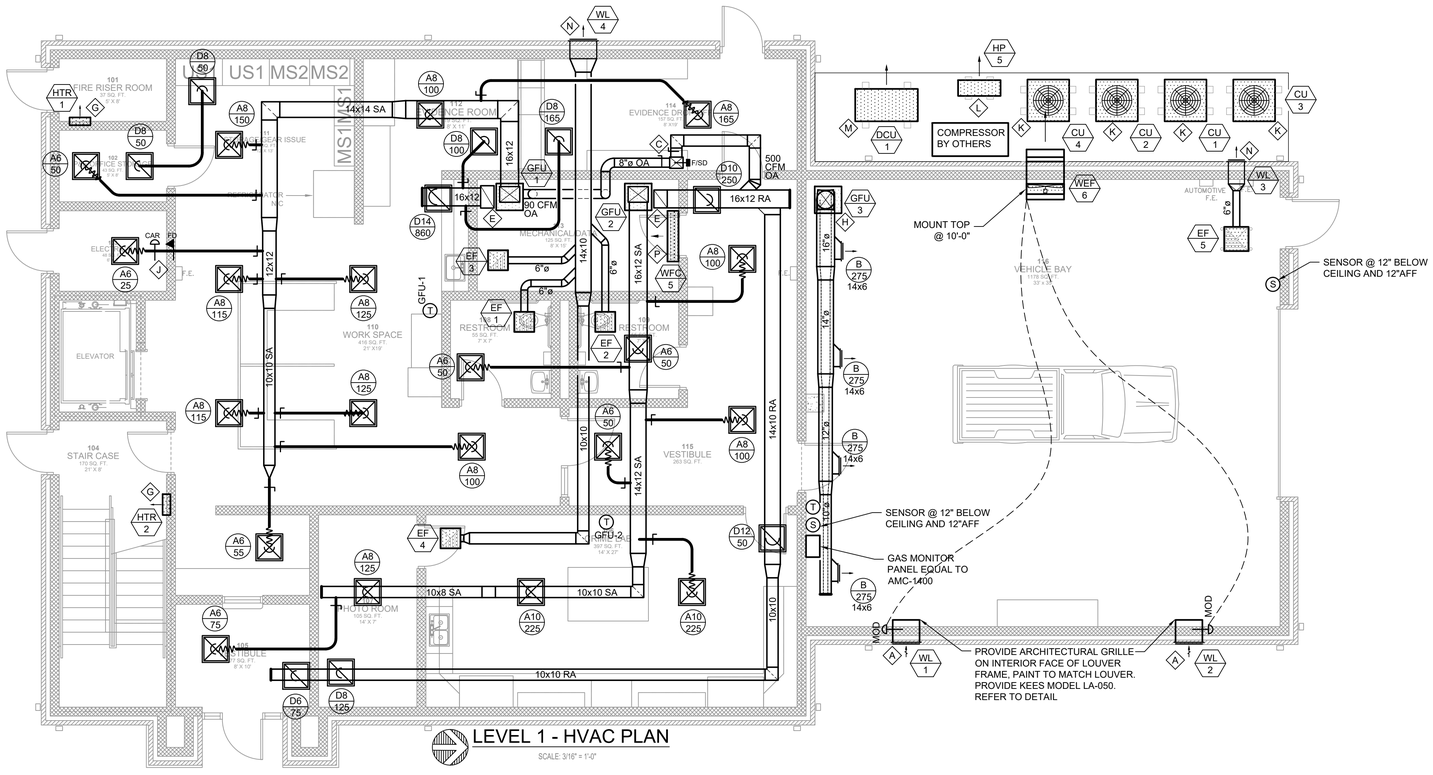
SHEET NAME
MECHANICAL DETAILS

SHEET INDEX
M0.3



LEVEL 2 - HVAC PLAN

SCALE: 3/16" = 1'-0"



LEVEL 1 - HVAC PLAN

SCALE: 3/16" = 1'-0"

KEY NOTES

A. TYPICAL INTAKE LOUVER, PER SCHEDULE & DETAIL. MOUNT ADJACENT LOUVER w/ BOTTOM @ SAME ELEVATION FOR UNIFORM APPEARANCE.

B. ROUTE 8"ø OA DUCT FROM DOAS SYSTEM TO GFU-4 RETURN PLENUM. PROVIDE w/ MANUAL BALANCING DAMPER SET TO CFM INDICATED.

C. OUTSIDE AIR DUCT DOWN THRU FLOOR TO SERVE LOWER LEVEL. PROVIDE COMBINATION FIRE / SMOKE DAMPER @ PENETRATION. DAMPER SHALL BE ORIENTED FOR ACCESSIBILITY.

D. 8"ø EXHAUST DUCT UP FROM EF-7 TO ROOF MOUNTED GRAVITY RELIEF CAP, EQUIVALENT TO GREENHECK GRSR-08. PROVIDE w/ FACTORY CURB INTENDED FOR SLOPED ROOF APPLICATIONS. HOOD SHALL BE LOCATED ON 'BACK' OF ROOF.

E. TYPICAL GAS-FIRED FURNACE UNIT w/ COMPATIBLE COOLING COILS. INSTALL PER MANUFACTURER'S REQUIREMENTS. TEST FIT ALL DUCTWORK AND EQUIPMENT IN THIS AREA PRIOR TO INSTALLATION. FIELD COORDINATE WHERE REQUIRED TO MEET DESIGN INTENT.

F. TYPICAL GAS-FIRED FURNACE UNIT w/ COMPATIBLE COOLING COILS. INSTALL PER MANUFACTURER'S REQUIREMENTS.

G. TYPICAL WALL MOUNTED ELECTRIC HEATER, w/ BOTTOM @ 18"AFF. FIELD COORDINATE EXACT WALL HEATER w/ OTHER SYSTEMS IN THIS AREA

H. TYPICAL GAS-FIRED FURNACE UNIT w/ COMPATIBLE COOLING COILS. INSTALL PER MANUFACTURER'S REQUIREMENTS. FAN MOUNTED ON RETURN PLENUM MIXING BOX w/ SIDE RETURN FILTER GRILLE. PROVIDE 20x20 FILTER RETURN GRILLE

I. NOT USED

J. PROVIDE INLINE AUTOMATIC FLOW CONTROL DEVICE, SIMILAR TO AMERICAN ALDES, CAR3 MODEL. SET FOR CFM INDICATED

K. TYPICAL SPLIT SYSTEM CONDENSING UNIT, PER SCHEDULE AND DETAILS. MAINTAIN ALL RECOMMENDED CLEARANCES. MOUNT REFRIGERANT PIPING TO UNISTRUT AND ROUTE PARALLEL w/ OTHER SYSTEMS

L. MINI-SPLIT HEAT PUMP, OUTDOOR UNIT. MOUNT REFRIGERANT PIPING TO UNISTRUT AND ROUTE PARALLEL w/ OTHER SYSTEMS

M. SPLIT DOAS CONDENSING UNIT, PER SCHEDULE. MAINTAIN ALL MANUFACTURER REQUIRED CLEARANCES. MOUNT REFRIGERANT PIPING TO UNISTRUT AND ROUTE UP TO INDOOR UNIT.

N. TYPICAL EXHAUST LOUVER, PER SCHEDULE & DETAIL. MOUNT LOUVER w/ BOTTOM @ 11'-0"

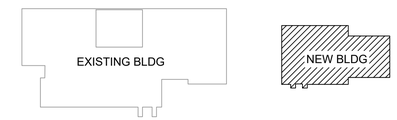
O. NOT USED

P. MINI-SPLIT WALL MOUNTED FAN COIL, PER SCHEDULE & DETAILS. ROUTE GRAVITY DRAIN CONDENSATE DOWN TO HUB DRAIN PROVIDED. REFER TO PLUMBING DRAWINGS FOR EXACT LOCATION.

GENERAL CONSTRUCTION NOTES

1. UNLESS DOOR IS NOTED TO HAVE A TRANSFER GRILLE INSTALLED, UNDERCUT RESTROOM, STORAGE CLOSET, AND JANITOR'S CLOSET DOORS 3/4" FOR PROPER MAKE-UP AIR FLOW.
2. DRAIN HVAC CONDENSATE TO HUB DRAINS PROVIDED, UNLESS NOTED OTHERWISE. REFER TO PLUMBING DRAWINGS FOR EXACT LOCATION.
3. COORDINATE DIFFUSER LOCATIONS WITH ARCH. REFLECTED CEILING PLAN AND LIGHTING PLAN.
4. FIELD VERIFY EXACT CONDITIONS. PROVIDE NECESSARY ALTERATIONS REQUIRED TO MEET DESIGN INTENT.

KEY PLAN



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GEORGIA REGISTERED ARCHITECT J. Kyle Cox 5 Dec 2023 J. KYLE COX

SHEET NAME
NEW FACILITY HVAC PLANS

SHEET INDEX
M1.1

VENTILATION AIR SUMMARY

ZONE	DESIGN SQFT	CFM PER SQFT	DESIGN OCC	CFM PER OCC	OA EFF.	MIN OA CFM	ASHRAE 62.1 - IAQ	NOTES
FITNESS ROOM	788	.06	7	20	.80	234	105	1
VIRTUAL RANGE	310	.06	3	20	.80	98	45	1
					TOTAL	332		

NOTES

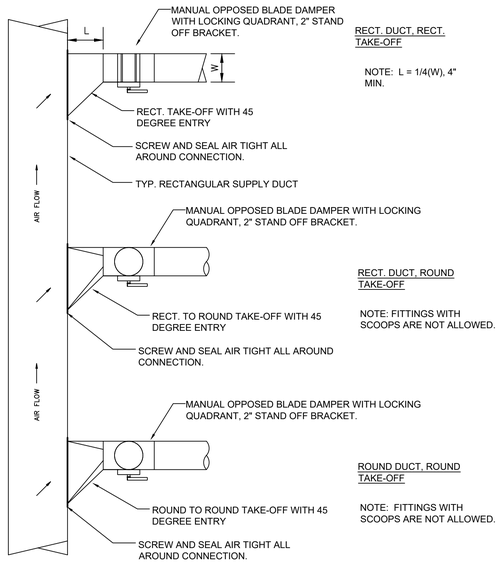
1. TOTAL REQUIRED VENTILATION REDUCED BY ASHRAE 62.1 INDOOR AIR QUALITY PROCEDURE. PROVIDE BI-POLAR IONIZATION DEVICES IN FAN COIL.

AIR DISTRIBUTION EQUIPMENT SCHEDULE

TAG	DESCRIPTION	NOTES
A	STEEL SQUARE CONE DIFFUSER, FIXED AIR PATTERN, 4-WAY THROW, ROUND NECK, SIZED AS SHOWN, WHITE, LAY-IN FRAME, PRICE SCD.	1,2,3
B	HEAVY DUTY GYM RETURN GRILLE, 14 GAUGE STEEL, 0° DEFLECTION FIXED LOUVER, 3/4" BLADE SPACING, SIZE AS SHOWN, BLADES PARALLEL TO LONG DIMENSION, PRICE 95.	4

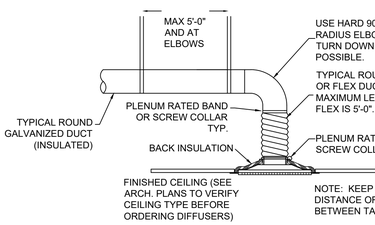
NOTES

1. VERIFY MOUNTING TYPE WITH ARCHITECTURAL RCP.
2. SUPPLY DIFFUSERS AND GRILLES SHALL NOT COME SUPPLIED WITH VOLUME DAMPERS UNLESS NOTED OTHERWISE. MANUAL VOLUME DAMPERS SHALL BE INSTALLED AT BRANCH TAKE-OFFS NEAR TRUNK (SEE DETAIL SHEET).
3. BACK INSULATION SHALL BE INCLUDED ON ALL SUPPLY DIFFUSERS AND GRILLES.
4. PROVIDE FULL SIZE LINED PLENUM, INTERIOR PAINTED FLAT BLACK.



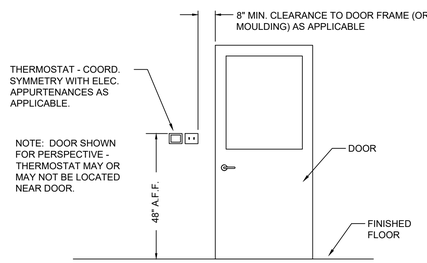
BRANCH DUCT TAKE-OFF DETAILS

NOT TO SCALE



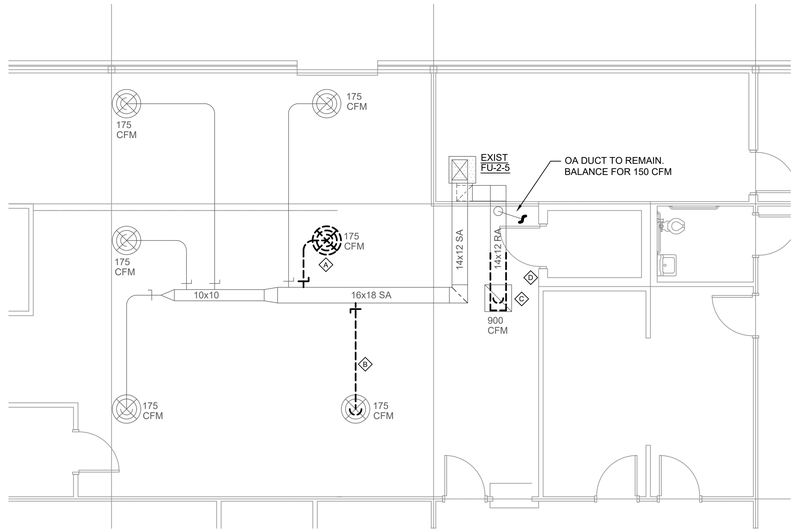
BRANCH RUN-OUT DETAIL

NOT TO SCALE



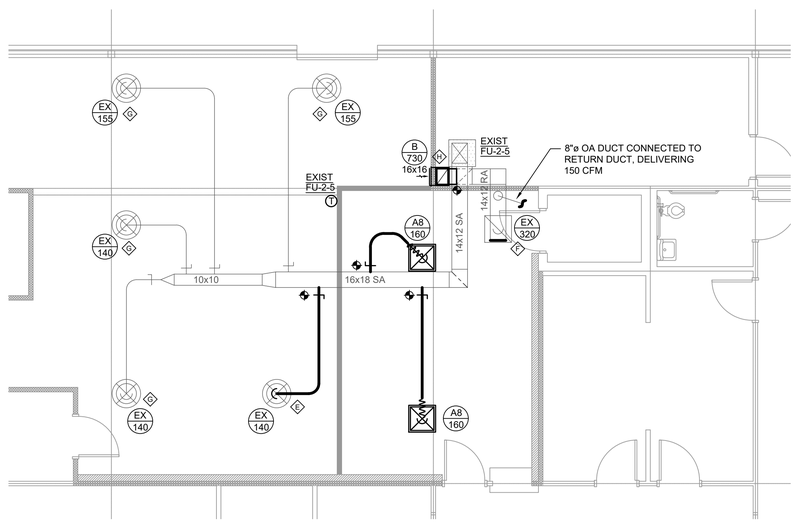
TYP. THERMOSTAT OR WALL SENSOR INSTALLATION DETAIL

NOT TO SCALE



LEVEL 2 - HVAC DEMOLITION PART PLAN

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



LEVEL 2 - HVAC PART PLAN

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

KEY NOTES

A. DEMOLISH EXISTING RUNOUT AND DIFFUSER. PATCH TRUNK AND REPAIR INSULATION.

B. DEMOLISH EXISTING RUNOUT. RETAIN EXISTING DIFFUSER FOR REUSE. REFER TO NEW WORK PLAN FOR NEW LOCATION. CLEAN DIFFUSER AND RETURN TO LIKE-NEW CONDITION.

C. DEMOLISH PORTION OF EXISTING RETURN DUCT, AS INDICATED. RETAIN EXISTING RETURN GRILLE FOR REUSE. REFER TO NEW WORK PLAN FOR NEW LOCATION. CLEAN GRILLE AND RETURN TO LIKE-NEW CONDITION

D. REMOVE EXISTING THERMOSTAT AND MOVE TO NEW LOCATIONS. REFER TO NEW WORK PLAN FOR NEW LOCATION.

E. NEW LOCATION FOR EXISTING DIFFUSER. FIELD COORDINATE w/ LIGHTING AND OTHER SYSTEMS IN THIS AREA. BALANCE DIFFUSER FOR CFM INDICATED IN DIFFUSER TAG.

F. NEW LOCATION FOR EXISTING RETURN GRILLE. FIELD COORDINATE w/ LIGHTING AND OTHER SYSTEMS IN THIS AREA.

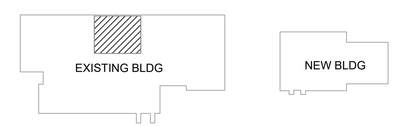
G. BALANCE DIFFUSERS TO CFM VALUE INDICATED.

H. EXTEND RETURN DUCT TO SHARED WALL. PROVIDE WALL MOUNTED RETURN GRILLE.

GENERAL CONSTRUCTION NOTES

1. UNLESS DOOR IS NOTED TO HAVE A TRANSFER GRILLE INSTALLED, UNDERCUT RESTROOM, STORAGE CLOSET, AND JANITOR'S CLOSET DOORS 3/4" FOR PROPER MAKE-UP AIR FLOW.
2. DRAIN HVAC CONDENSATE TO HUB DRAINS PROVIDED, UNLESS NOTED OTHERWISE. REFER TO PLUMBING DRAWINGS FOR EXACT LOCATION.
3. COORDINATE DIFFUSER LOCATIONS WITH ARCH. REFLECTED CEILING PLAN AND LIGHTING PLAN.
4. FIELD VERIFY EXACT CONDITIONS. PROVIDE NECESSARY ALTERATIONS REQUIRED TO MEET DESIGN INTENT.

KEY PLAN



FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED PROFESSIONAL ENGINEER
5 Dec 2023
KYLE COX

SHEET NAME

EXISTING POLICE SERVICES BUILDING HVAC PLANS

SHEET INDEX

M1.2

SECTION 15010 - MECHANICAL GENERAL

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

A. Specification: This specification is intended to cover all portions of this building.

B. Reference Codes: This installation shall comply with the following codes and regulations, along with all Georgia amendments.

1. Current Georgia State Minimum Standard Mechanical Code.
2. Current NFPA No. 90A Installation of Air Conditioning and Ventilation Systems.
3. Current Georgia State Minimum standard Plumbing Code.
4. Current Georgia State Minimum Standard Gas Code.
5. Current NFPA #54 National Fuel Gas Code.
6. Current Georgia State Minimum Standard Gas Code.
7. Current NFPA No.70, National Electric Code.
8. Current Georgia State Minimum Life Safety Code.
9. Current Georgia State Minimum Standard Fire Prevention Code.
10. Current Georgia State Energy Code for Buildings

C. Reference Standards: This installation shall comply with the following standards.

1. Manufacturers Standardization Society of the Valve and fittings Industry (1815 North Ft. Meyer Drive, Arlington, VA 22209). MSS-SP-58-2002, called MSS-SP-58. MSS-SP-69-2003, called MSS-SP-69.
2. American Society of Heating and Ventilating and Air Conditioning Engineers Guide, Fundamentals, 2009 Edition.
3. Sheet Metal and Air Conditioning Contractor National Association (SMACNA) HVAC Duct Construction Standards, Metal & Flexible, 2005 Edition. Fire, Smoke and Radiation Damper Installation Guide for HVAC Systems. 1986 Edition. Seismic Restraint Manual Guidelines for Mechanical Systems, Second Edition.
4. American Society of Sanitary Engineers (ASSE) Standard, Latest Edition.
5. North American Insulation Manufacturers Association (NAIMA) Fibrous Glass Duct Construction Standards.

1.2 REGULATIONS

A. Attention is called to the fact that all work shall be done in accordance with all applicable City, County and State regulations, which regulations shall be considered as minimum requirements, and shall not alter the arrangement and pipe sizes indicated on the plans, except where they conflict.

B. Contractor is responsible for obtaining all permits and paying all fees required to complete the Work

1.3 DRAWINGS

A. The work is shown on the project drawings and specifications.

1.4 PROTECTION OF PUBLIC

A. If the contractor must operate any potentially dangerous devices before all specified safety valves controls and devices are installed, he shall notify the Architect in writing. He shall not operate such devices under these conditions until arrangements for supervision by competent operators have been instituted and Architect's written approval has been issued.

1.5 EXCAVATION, SHORING AND BRACING

A. Excavate and back-fill for the installation of all underground work.

B. Provide all shoring and bracing to prevent cave-ins during the construction period.

1.6 SHOP DRAWINGS

A. Shop drawings shall be submitted for but not limited to the following items:

1. All Scheduled Equipment
2. Ductwork & Accessories
3. Hangers
4. Piping & Accessories
5. Supports
6. Vibration Isolation
7. Fixtures
8. Roof Portals
9. Control System
10. Duct Systems
11. Equipment Curbs
12. Insulation
13. Filters
14. Access Panels
15. Louvers
16. Refrigerant Pipe Sizes

B. Provide with the submittal package the proposed Test & Balance Company's credentials as described in Section 15950. Include a latter from the Test & Balance company indicating that they have read Section 15950 and will perform testing and balancing of the mechanical systems as described in that Section.

C. Provide a complete list of all accessories and options (indicate factory or field installed) for all scheduled mechanical equipment, including air distribution devices. Provide manufacturer generated specifications and ratings sheets for each individual piece of air conditioning and heating equipment. Generic photocopies from manufacturers catalog will not be accepted.

D. In addition to cut sheets, provide a summary sheet indicating exactly what pipe material joining methods, valves, etc. will be provided in the various piping systems.

E. The Contractor shall produce ¼" scale CAD-generated ductwork and piping shop drawing for every area of the building. Contractor shall coordinate all new mechanical systems with other Divisions, specifically including piping, lights, the building structure, and ceiling heights. It shall be the Contractor's responsibility to ensure that the mechanical work is coordinated with all other trades. The shop drawings submitted shall reflect this coordination in its entirety, including location of piping 2" and larger, all ductwork (except runouts to diffusers), and all equipment by dimensions to column lines. Bottom of duct and bottom of pipe dimensions shall be taken from finished floor, and shall be recorded on the shop drawings for review. Any interferences or conflicts not resolved during normal shop drawing coordination between trades shall be specifically noted to the Architect for his instructions. Conflicts arising out of work installed (or ductwork already fabricated) without shop drawings or shop drawings that have no been completely coordinated, shall be the Contractor's responsibility and at his expense for any necessary changes.

F. The Contract Drawings are diagrammatic and indicated generally the size and location of ductwork and equipment. While duct sizes shall not be decreased, it is recognized that job site conditions may require re-routing or re-sizing of ductwork, and the Contractor shall be responsible for this coordination. Ductwork that has to be re-sized and/or re-routed as a result of this coordination effort shall be the Contractor's responsibility and at his expense. Ductwork re-sized shall be equivalent to that shown on the drawings.

G. Steel fabrication shop drawings shall be coordinated with all Division 15 equipment and roof openings. The resulting coordination shall be confirmed and verification shall be submitted with associated equipment and roof curbs.

H. Division 15 shall coordinate with structural steel contractors to insure where ductwork is required to be routed within joist space that an alternate to x bracing is installed. Failure to coordinate shall subject the Contractor to full cost incurred to meet the design intact on the contract documents.

1.7 MOTORS, WIRING AND ELECTRICAL EQUIPMENT

A. All motors required for this work shall be built in accordance with the latest standards of National Electrical Manufacturer's Association, and shall be especially designed for quiet operation. All motors shall be selected for operation within their nameplate amperage. Adjustable bases shall be provided with motors and equipment which have belt drives.

B. All electrical materials shall comply with requirements of the National Electric Code. All contactors, starters, relays and panels used in this work, which are included in Underwriters Label Service, shall be new and bear the National Board of Fire Underwriters inspection label. Material not included in Underwriters Label service shall be new and conform to NEMA or other applicable industry standard.

C. Division 16, ELECTRICAL, provides for the furnishing of conduit and wire from electrical source to electrical use, called "path of power," and for the installation of certain line voltage devices specified in Division 15 which lie in the "path of power," including but not limited to:

1. Manual switches.
2. Line voltage thermostats.
3. Solid state speed controllers.
4. Operators for operable dampers.
5. Aquastats for domestic hot water circulating pumps.
6. Alarms for Flow Switches and Valve Supervisor Switches.

D. The "path of power" terminates at contactors or control panels of the following listed items of equipment. These control panels contain starters/contactors for the motors or heaters installed on or within the unit and are specifies in Division 15. Any wiring past the point of termination described above is Division 15 work.

1. Packaged Rooftop Units.
2. Domestic Water Heaters.
3. Make-up Air Units.
4. Condensing and/or Heat Pump Units.
5. Fan Coil Units.
6. Ductless Split Systems.
7. Electric Heaters.

E. Division 16, ELECTRICAL, provides for electrical power to any given item of equipment at the voltage and phase required by the primary use only. If the item of equipment contains devices such as fans, thermostats, motorized dampers or other controls which require other than primary voltage for their proper function, then transformers shall be furnished under Division 15 for that purpose.

F. Voltage and phase for Division 15 equipment shall be as specified by Division 16. Division 15 Contractor shall submit a list of all mechanical equipment requiring electrical connections to the Contractor prior to release of any equipment, for coordination with the Division 16 contractor. A copy of this list that has been reviewed and approved by the General Contractor shall be submitted to the Architect with the submittal for mechanical equipment. Failure to include this list may result in the rejection of the entire mechanical equipment submittal.

G. The control power source (point of connection for control power) for major equipment except those single phase fans which are thermostatically controlled and those items listed in C above, are provided at the combination starters.

H. The automatic control of signal for STOP-START of major equipment is furnished and installed to and from combination starts as part of Division 15.

I. All other conduit and wire, not in "path of power" described above is included in Division 15.

J. If any Division's Contractor makes a change by submittal, by delivery, by wiring rearrangement or power requirements, which results in increased costs, the Contractor initiating the change shall bear all cost increases.

K. All motors that are 1 HP and larger shall be high efficiency motors with nominal and minimum full load efficiencies equal to or greater than those specified by the State Energy Code. Specifications shall be submitted for each motor furnished.

L. Starters or contractors shall be furnished in Division 15 for each motor.

1. Magnetic starters shall be NEMA standard sizes adequate for the load served, Size 00, 1, 2, 3, 4. Half sizes and/or quarter sizes are not acceptable.
2. Overload relays shall be unit constructed, hand reset melting alloy type, and shall be provided for all ungrounded legs.
3. Units shall have NEMA-1 enclosures, three thermal overloads in three-phase starts, HAND-OFF-AUTO switches as required by the "controls" specification section.
4. All fractional HP single-phase motors shall have internal thermal overload protection except where starters are scheduled.
5. All motor starters shall be of the same manufacturer and shall be General Electric Type CR-306, or equal by Square-D, Westinghouse, Allen-Bradley, Furnas, Siemens, or Cutler-Hammer subject to full compliance with all criteria.

M. Where power wiring to Division 15 equipment is not within the equipment curb, roof curb and boots shall be provided under Division 16. The portal location shall be coordinated with Division 15 equipment power inlet requirements, and located not to block access for equipment servicing.

1.8 ACCESS PANELS

A. Shall be provided to permit operation of concealed valves, dampers, or equipment. The following table lists types of Bilco access frames and doors. Panels of equivalent construction by Titus, Milcor, Hohmann, and Barnard or Zurn are acceptable.

B. Wall:

1. Sheetrock	Style G
2. Plaster	Style A
3. Masonry	Style C

C. Ceiling:

1. Sheetrock	Style G
2. Plaster	Style A
3. Concealed spline	Style D
4. Lay-in tile	None

D. Fire Rated Wall or Ceiling Style F (U.L Listed)

E. Sizes shall be: Small valves - 12" x 12". Multiple valves and dampers - 24" x 24"

F. Access panels shall be insulated for sound barrier equal to wall in which it is installed.

G. Acoustical Tile: Coordinate with tile installed to provide a removal tile at access point. Install a colored thumb tack to mark the access panel of above ceiling equipment, control instrument, valves or relay.

1.9 WARRANTY

A. The Contractor shall operate the air conditioning, heating and ventilating systems and plumbing systems for a period of one week to the satisfaction of the Architect. Thereafter, the Contractor shall guarantee and be responsible for all materials and workmanship (parts and labor) for a period of one (1) year following the date of acceptance by the Architect.

B. The Contractor shall also provide maintenance for the one (1) year period by providing four (4) periodic inspections at approximately three-month intervals, which shall include the following.

1. Check all bearing, align and oil or grease.
2. Check belt tensions and pulley adjustment and adjust as necessary.
3. Check filters and advise Owner when change is necessary.
4. Check refrigerant charges and oil levels and replenish as necessary.
5. Check and re-calibrate controls as necessary.

C. Any required maintenance for the above shall be performed and materials needed shall be furnished by the Contractor. Not included in the materials to be furnished by the Contractor are fuel, electricity, water and filters. Provide the Owner with four (4) copies of the inspection reports indicating all items checked and adjustment or repairs performed.

D. Water heaters shall be guaranteed for five years; parts and labor.

E. All equipment compressors shall be guaranteed for five years; parts and labor.

1.10 CUTTING AND PATCHING

A. The Contractor shall set sleeves for pipes, ducts and equipment accurately before the concrete walls and floors are poured.

B. Should the contractor neglect to perform this preliminary work and should cutting and patching be required in order to install the piping, ductwork or equipment, then the expense of the cutting and restoring of surfaces to their original condition shall be borne by the Contractor.

1.11 BASIS OF DESIGN

A. When brand, trade or manufacturer's names are used for basis of design, they are used in the interest of brevity to describe the style, type, size, quality or arrangement of articles of equipment and are not intended to limit competition. If articles of equipment by manufacturers other than basis of design are submitted for installation, the Architect shall compare them with specified articles of equipment on basis of qualities mentioned. The size, weight and arrangement of other equipment shall be checked by the Contractor to ascertain that it can be installed, connected, operated, and serviced successfully, and that walking space and service space can be maintained without altering equipment space or enclosures or the work of other trades. Manufacturers not listed as "Acceptable Manufacturers" will not be considered.

B. If any Division's Contractor makes a change by submittal, by delivery or by wiring rearrangement which results in increased costs, the Contractor initiating the change shall bear all cost increases.

1.12 AS-BUILT DRAWINGS

A. Per the Georgia State energy Code, the Contractor shall produce and submit to the Architect, "As-Built" drawings, four (4) copies, as described below.

B. As work progresses, neatly and clearly record on four (4) sets of mechanical plans (in red) all changes and deviations from the contract drawings in size, locations, etc., of all piping, ductwork terminal units and other equipment. Record (in red) final location of piping, ductwork, starts, valves, thermostats, etc., by dimensions to adjacent walls and floors. Make sufficient measurement to accurately locate all equipment. Locate underground lines by dimension from building walls.

1.13 OPERATION AND MAINTENANCE MANUALS

A. Operation and Maintenance manuals (6 sets) shall be provided to the Owner or the Owners designated representative. Manuals shall be in accordance with the Georgia State Energy Code for Buildings.

1. Manuals shall include as a minimum the following:
   a. Final, corrected submittal data with equipment sizes and selected options for each piece of equipment, including Engineer's submittal review comments.
   b. Current manufacturer's published operation and maintenance manuals for each piece of equipment.
   c. Name, address and phone number of at least one LOCAL service agency.
   d. HVAC controls system maintenance and calibration information including wiring diagrams, schematics, and control drawings.
   e. Complete narrative of how each system is intended to operate, including suggested set-points.
   f. Copy of the final Test & Balance report.
   g. Copy of the final As-built drawings.
   h. Controls certification letter.
   i. Copy of Engineer's final punch list items, with each item checked off when completed or an explanation of why the item was not completed.

1.14 INTERFACES WITH OTHER WORK

A. There are many interfaces between the work involved with Division 15 and the work involved with other Sections and Divisions, particularly with Division 16. Contractor shall be aware of the requirements of these other Sections or Divisions and his responsibilities at the interfaces.

B. No mechanical equipment, piping, or ductwork shall be places within 42" of switchboards and/or panel boards.

C. No water piping (domestic, storm, sanitary, etc., except sprinkler piping when required) shall be located above electrical switchboards and/or panel boards. When sprinklers are required, shields must be provided over the panels.

1.15 EQUIPMENT IDENTIFICATION

A. Equipment Identification:

1. All mechanical equipment shall be labeled with Bakelite nameplates with 2" high white letters on a black background, securely affixed to equipment for outdoor or indoor service.
2. Equipment Identification numbers shall be the same as those scheduled on the design drawings. Identification shall be located where it can be conveniently read, and shall be located in the same relative position on like equipment.
3. In addition to the above ID tags, all scheduled equipment shall be provided with permanent factory installed engraved nameplate labels listing complete model and serial numbers, unit voltage, motor sizes, etc.
4. Identify all disconnect switches that are not directly attached to the equipment that they serve, with identical ID tags as specified above for the equipment.

1.16 PIPE IDENTIFICATION

A. All piping systems shall be identified.

1. All piping systems within the building except as noted herein shall be identified with clear block letters and number stenciled on the outside surface of the pipe or insulation, indicating the system contents by abbreviated letters and direction of the flow.
2. This identification marking shall be applied to the pipe systems where pipe enters or leaves a wall or floor, and item of equipment such as pumps, fan coil units and tanks, and at tees. Identification shall be applied no less than 50 feet apart on horizontal pipe; and one identification per floor on vertical pipe.
3. Letters and numbers shall be high on pipe 2" and smaller.
4. Letters and numbers shall be 1" high on pipe 3" and larger.
5. Directional arrows shall be 4" long and "wide.
6. Letters and numbers shall be black on white pipe or insulation.
7. Letters and number shall be white on dark pipe or insulation.
8. Pipe identification symbols shall be the same as shown on the drawings.
9. Soil, vent and refrigerant piping shall not be identified.

1.17 PERMITS AND INSPECTIONS

A. The Contractor shall secure and pay for all permits, fees, inspections, and utility connection costs.

B. BOILER TEST CERTIFICATES: It shall be the Contractor's responsibility to have each boiler, large (greater than 120 gallon capacity) water heater, and pressure vessel inspected by a State of Georgia certified inspector upon installation. Each inspection report shall be submitted to the Georgia Department of Labor, Safety Engineering Section, 1700 Century Circle, Atlanta, Georgia 30345 to the attention of Direction of Engineering, PLUS a copy of each report transmitted to the Architect. ONE additional copy of each report shall be included in EACH of the FOUR Close-Out Manuals.

1.18 EQUIPMENT & MATERIAL PROTECTION

A. All equipment and material shall be kept clean and free of debris as construction progresses. Closures shall be provided over duct, piping and major equipment openings during storage, erection and prior to connection. Material finishes shall be protected by covers to prevent impingement of corrosive, abrasive and disfiguring foreign matter. Accidental finish damage shall be repaired equivalent to original finish.

1.19 TEST, BALANCE AND REPORT

A. See Section 15950.

1.20 PROHIBITED MATERIALS

A. All products, materials or assemblies which contain asbestos or polychlorinated biphenyl (PCB) in any form or in any concentration whatsoever, are expressly forbidden from being used on this project.

1.21 SITE VISIT AND FAMILIARIZATION

A. Contractors proposing to undertake work under this Division shall visit the site of the work and fully inform themselves of all conditions that effect the work or cost thereof, examine the drawings and specifications as related to the site conditions, and acquaint themselves with the utility companies from whom services will be supplied; verify locations of utility services and determine requirements for connections.

B. Consideration will not be granted for any alleged misunderstanding of the amount of work to be performed. Tender of proposal shall convey full agreement to all items and conditions specified, indicated on the drawings, and/or required by nature of the site.

C. Attention is called to the fact that this scope of work includes renovation to an existed facility and/or an addition to an existing building. When the work is finished, the mechanical systems shall be complete in every respect, and completely integrated with all affected mechanical and control systems.

D. Existing mechanical systems in the existing facility shall not be interrupted without prior approval of the Owner or Architect.

1.22 DISINFECTION AND TESTING OF WATER SYSTEM

A. Sanitize plumbing potable water systems after cleaning and pressure tests, with chlorinated potable water solution to 200 ppm chlorine residual after 24-hours minimum, then flushed with fresh potable water until effluent chlorine content does not exceed make-up. Water samples shall be sent to Lumpkin Health Department (LHP) for testing. A letter of approval must be obtained from the LHD before the system is put into service.

B. All domestic water piping shall be disinfected with chlorine before it is placed into operation. The chlorinating material shall be liquid chlorine conforming to Federal Specification BB-C-120 and shall be introduced to the system by experienced operators only. The chlorine solution applied to the piping sections or system shall contain at least fifty (50) parts per million of available chlorine and shall remain in the sections or system for a period of not less than sixteen (16) hours. During the disinfection period all valves shall be opened and closed at least four (4) times. After the disinfection period, the chlorinated water shall be flushed from the system with clear water until the residual chlorine content is not greater than two-tenths parts per million (0.2PPM). Submit certification to the Architect and Owner that the system was disinfected.

END OF SECTION

SECTION 15061 - HANGERS AND SUPPORTS FOR MECH. PIPING AND EQUIPMENT

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pipe hangers and supports, Hanger rods, Inserts, Flashing, Equipment curbs, Sleeves, Mechanical sleeve seals, Formed steel channel, Firestopping relating to HVAC work, Firestopping accessories, Equipment bases and supports.

1.2 REFERENCES

A. American Society of Mechanical Engineers:

1. ASME B31.1 - Power Piping.
2. ASME B31.5 - Refrigeration Piping.
3. ASME B31.9 - Building Services Piping.

B. ASTM International:

1. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
2. ASTM E814 - Standard Test Method for Fire Tests of Through Penetration Fire Stops.
3. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.
4. ASTM E1966 - Standard Test Method for Fire-Resistive Joint Systems.

C. American Welding Society:

1. AWS D1.1 - Structural Welding Code - Steel.

D. FM Global:

1. FM - Approval Guide, A Guide to Equipment, Materials & Services Approved By Factory Mutual Research For Property Conservation.

E. Manufacturers Standardization Society of the Valve and Fittings Industry:

1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
3. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

F. Underwriters Laboratories Inc.:

1. UL 263 - Fire Tests of Building Construction and Materials.
2. UL 723 - Tests for Surface Burning Characteristics of Building Materials.
3. UL 1479 - Fire Tests of Through-Penetration Firestops.
4. UL 2079 - Tests for Fire Resistance of Building Joint Systems.
5. UL - Fire Resistance Directory.

G. Intertek Testing Services (Warnock Hersey Listed):

1. WH - Certification Listings.

1.3 DEFINITIONS

A. Firestopping (Through-Penetration Protection System): Sealing or stuffing material or assembly placed in spaces between and penetrations through building materials to arrest movement of fire, smoke, heat, and hot gases through fire rated construction.

1.4 SYSTEM DESCRIPTION

A. Firestopping Materials: ASTM E119, ASTM E814, UL 263, UL 1479 to achieve fire ratings as noted on architectural drawings for adjacent construction, but not less than 1 hour fire rating.

B. Firestop interruptions to fire rated assemblies, materials, and components.

1.5 PERFORMANCE REQUIREMENTS

A. Firestopping: Conform to applicable code and UL listings for fire resistance ratings and surface burning characteristics.

1.6 QUALITY ASSURANCE

A. Through Penetration Firestopping of Fire Rated Assemblies: UL 1479 or ASTM E814 with 0.10 inch water gage minimum positive pressure differential to achieve fire F-Ratings and temperature T-Ratings as indicated on Drawings, but not less than 1-hour.

1. Wall Penetrations: Fire F-Ratings as indicated on Drawings, but not less than 1-hour.
2. Floor and Roof Penetrations: Fire F-Ratings and temperature T-Ratings as indicated on Drawings, but not less than 1-hour.
   a. Floor Penetrations Within Wall Cavities: T-Rating is not required.

B. Through Penetration Firestopping of Non-Fire Rated Floor and Roof Assemblies: Materials to resist free passage of flame and products of combustion.

1. Noncombustible Penetrating Items: Noncombustible materials for penetrating items connecting maximum of three stories.
2. Penetrating Items: Materials approved by authorities having jurisdiction for penetrating items connecting maximum of two stories.

C. Fire Resistant Joints in Fire Rated Floor, Roof, and Wall Assemblies: ASTM E1966 or UL 2079 to achieve fire resistant rating as indicated on Drawings for assembly in which joint is installed.

D. Fire Resistant Joints Between Floor Slabs and Exterior Walls: ASTM E119 with 0.10 inch water gage minimum positive pressure differential to achieve fire resistant rating as indicated on Drawings for floor assembly.

E. Surface Burning Characteristics: Maximum 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

F. Perform Work in accordance with AWS D1.1 for welding hanger and support attachments to building structure.

1.7 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

PART 2 PRODUCTS

2.1 PIPE HANGERS AND SUPPORTS

A. Acceptable Manufacturers: Carpenter & Paterson, Creative Systems, Flex-Weld, Globe Pipe Hanger Products, Michigan Hanger, Superior Valve Co.

B. Piping - Inside Building:

1. Conform to ASME B31.9, ASTM F708, NFPA 54.
2. Hangers for Pipe Sizes 1/2 to 1-1/2 inch: Malleable iron or carbon steel, adjustable swivel, split ring.
3. Hangers for Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
4. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
5. Wall Support for Pipe Sizes 3 inches and Smaller: Cast iron hooks.
6. Wall Support for Pipe Sizes 4 inches and Larger: Welded steel bracket and wrought steel clamp.
7. Vertical Support: Steel riser clamp.
8. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
9. Copper Pipe Support: Copper-plated, carbon steel ring.

2.2 ACCESSORIES

A. Hanger Rods: Mild steel threaded both ends, threaded on one end, or continuous threaded.

2.3 INSERTS

A. Inserts: Malleable iron case of galvanized steel shell and expander plug for threaded connection with lateral adjustment, top slot for reinforcing rods, lugs for attaching to forms; size inserts to suit threaded hanger rods.

2.4 FLASHING

A. Metal Flashing: 26 gage thick galvanized steel.

B. Metal Counterflashing: 22 gage thick galvanized steel.

C. Lead Flashing:

1. Waterproofing: 5 lb./sq. ft sheet lead.
2. Soundproofing: 1 lb./sq. ft sheet lead.

D. Flexible Flashing: 47 mil thick sheet; compatible with roofing.

E. Caps: Steel, 22 gage minimum; 16 gage at fire resistant elements.

2.5 EQUIPMENT CURBS

A. Fabrication: Welded 18 gage galvanized steel shell and base, mitered 3 inch cant, variable step to match roof insulation, 1-1/2 inch thick insulation, factory installed wood nailer.

2.6 SLEEVES

A. Sleeves for Pipes Through Non-fire Rated Floors: 18 gage thick galvanized steel.

B. Sleeves for Pipes Through Non-fire Rated Beams, Walls, Footings, and Potentially Wet Floors: Steel pipe or 18 gage thick galvanized steel.

C. Sleeves for Round Ductwork: Galvanized steel.

D. Sleeves for Rectangular Ductwork: Galvanized steel or wood.

E. Sealant: Acrylic.

2.7 MECHANICAL SLEEVE SEALS

A. Product Description: Modular mechanical type, consisting of interlocking synthetic rubber links shaped to continuously fill annular space between object and sleeve, connected with bolts and pressure plates causing rubber sealing elements to expand when tightened, providing watertight seal and electrical insulation.

2.8 FORMED STEEL CHANNEL

A. Acceptable Manufacturers: Allied Tube & Conduit Corp., B-Line Systems, Midland Ross Corporation, Unistrut Corp.

B. Product Description: Galvanized 12 gage thick steel. With holes 1-1/2 inches on center.

2.9 FIRESTOPPING

A. Acceptable Manufacturers: Dow Corning Corp., Fire Trak Corp., Hilti Corp., International Protective Coating Corp., 3M Fire Protection Products, Specified Technology Inc.

B. Product Description: Different types of products by multiple manufacturers are acceptable as required to meet specified system description and performance requirements; provide only one type for each similar application.

1. Silicone Firestopping Elastomeric Firestopping: Single or Multiple component silicone elastomeric compound and compatible silicone sealant.
2. Foam Firestopping Compounds: Single or Multiple component foam compound.
3. Formulated Firestopping Compound of Incombustible Fibers: Formulated compound mixed with incombustible non-asbestos fibers.
4. Fiber Stuffing and Sealant Firestopping: Composite of mineral or ceramic fiber stuffing insulation with silicone elastomer for smoke stopping.
5. Mechanical Firestopping Device with Fillers: Mechanical device with incombustible fillers and silicone elastomer, covered with sheet stainless steel jacket, joined with collars, penetration sealed with flanged stops.
6. Intumescent Firestopping: Intumescent putty compound which expands on exposure to surface heat gain.
7. Firestop Pillows: Formed mineral fiber pillows.

FOR CONSTRUCTION

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23-021

DATE
12/01/23

REVISIONS

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0000	00/00/00

FACILITY CODE
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KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED PROFESSIONAL ENGINEER
5 Dec 2023
KYLE COX

SHEET NAME
MECHANICAL SPECIFICATIONS

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2.10 FIRESTOPPING ACCESSORIES

A. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces and suitable for required fire ratings.

B. Dam Material: Permanent Mineral fiberboard or fiber matting, sheet metal, plywood or alumina silicate fire board.

C. Installation Accessories: Provide clips, collars, fasteners, temporary stops or dams, and other devices required to position and retain materials in place.

D. General:
1. Furnish UL listed products.
2. Select products with rating not less than rating of wall or floor being penetrated.

E. Non-Rated Surfaces:
1. Stamped steel, chrome plated, hinged, split ring escutcheons or floor plates or ceiling plates for covering openings in occupied areas where piping is exposed.
2. For exterior wall openings below grade, furnish mechanical sealing device to continuously fill annular space between piping and cored opening or water-stop type wall sleeve.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify openings are ready to receive sleeves.

C. Verify openings are ready to receive firestopping.

3.2 PREPARATION

A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter affecting bond of firestopping material.

B. Remove incompatible materials affecting bond.

C. Install damming materials to arrest liquid material leakage.

D. Do not drill or cut structural members.

3.3 INSTALLATION - INSERTS

A. Install inserts for placement in concrete forms.

B. Install inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams.

C. Provide hooked rod to concrete reinforcement section for inserts carrying pipe 4 inches and larger.

D. Where concrete slabs form finished ceiling, locate inserts flush with slab surface.

E. Where inserts are omitted, drill through concrete slab from below and provide through-bolt with recessed square steel plate and nut recessed into and grouted flush with slab.

3.4 INSTALLATION - PIPE HANGERS AND SUPPORTS

A. Install in accordance with ASME B31.1, ASME B31.5, ASME 31.9, ASTM F708, NFPA 54.

B. Support horizontal piping as scheduled.

C. Install hangers with minimum 1/2 inch space between finished covering and adjacent work.

D. Place hangers within 12 inches of each horizontal elbow.

E. Use hangers with 1-1/2 inch minimum vertical adjustment.

F. Support vertical piping at every floor.

G. Where piping is installed in parallel and at same elevation, provide multiple pipe or trapeze hangers.

H. Support riser piping independently of connected horizontal piping.

I. Provide copper plated hangers and supports for copper piping.

J. Design hangers for pipe movement without disengagement of supported pipe.

K. Prime coat exposed steel hangers and supports. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.

L. Provide clearance in hangers and from structure and other equipment for installation of insulation.

3.5 INSTALLATION - EQUIPMENT BASES AND SUPPORTS

A. Provide housekeeping pads of concrete, minimum 3-1/2 inches thick and extending 6 inches beyond supported equipment.

B. Using templates furnished with equipment, install anchor bolts, and accessories for mounting and anchoring equipment.

C. Construct supports of steel members, formed steel channel, steel pipe and fittings. Brace and fasten with flanges bolted to structure.

3.6 INSTALLATION - FLASHING

A. Provide flexible flashing and metal counter-flashing where piping and ductwork penetrate weather or waterproofed walls, floors, and roofs.

B. Provide acoustical lead flashing around ducts and pipes penetrating equipment rooms for sound control.

C. Provide curbs for roof installations 14 inches minimum high above roofing surface. Flash and counter-flash with sheet metal; seal watertight. Attach counter-flashing to equipment and lap base flashing on roof curbs. Flatten and solder joints.

D. Adjust storm collars tight to pipe with bolts; caulk around top edge. Use storm collars above roof jacks. Screw vertical flange section to face of curb.

3.7 INSTALLATION - SLEEVES

A. Exterior watertight entries: Seal with mechanical sleeve seals.

B. Set sleeves in position in forms. Provide reinforcing around sleeves.

C. Size sleeves large enough to allow for movement due to expansion and contraction. Provide for continuous insulation wrapping.

D. Extend sleeves through floors 1 inch above finished floor level. Caulk sleeves.

E. Where piping or ductwork penetrates floor, ceiling, or wall, close off space between pipe or duct and adjacent work with stuffing insulation and caulk airtight. Provide close fitting metal collar or escutcheon covers at both sides of penetration.

F. Install chrome plated steel escutcheons at finished surfaces.

3.8 INSTALLATION - FIRESTOPPING

A. Install material at fire rated construction perimeters and openings containing penetrating sleeves, piping, ductwork, and other items, requiring firestopping.

B. Apply primer where recommended by manufacturer for type of firestopping material and substrate involved, and as required for compliance with required fire ratings.

C. Apply firestopping material in sufficient thickness to achieve required fire and smoke rating, to uniform density and texture.

D. Fire Rated Surface:
1. Seal opening at floor, wall, partition, ceiling, and roof as follows:
   a. Install sleeve through opening and extending beyond minimum of 1 inch on both sides of building element.
   b. Size sleeve allowing minimum of 1 inch void between sleeve and building element.
   c. Pack void with backing material.
   d. Seal ends of sleeve with UL listed fire resistive silicone compound to meet fire rating of structure penetrated.
2. Where cable tray, conduit, wireway, and piping penetrates fire rated surface, install firestopping product in accordance with manufacturer's instructions.

E. Non-Rated Surfaces:
1. Seal opening through non-fire rated wall, partition floor, ceiling, and roof opening as follows:
   a. Install sleeve through opening and extending beyond minimum of 1 inch on both sides of building element.
   b. Size sleeve allowing minimum of 1 inch void between sleeve and building element.
   c. Install type of firestopping material recommended by manufacturer.
2. Install escutcheons, floor plates, or ceiling plates where conduit or piping, penetrates non-fire rated surfaces in occupied spaces. Occupied spaces include rooms with finished ceilings and where penetration occurs below finished ceiling.
3. Exterior wall openings below grade: Assemble rubber links of mechanical sealing device to size of piping and tighten in place, in accordance with manufacturer's instructions.
4. Interior partitions: Seal pipe penetrations at locations where partitions run to structure. Apply sealant to both sides of penetration to completely fill annular space between sleeve and conduit.

END OF SECTION

SECTION 15700 - HVAC INSULATION

PART 1 GENERAL

1.1 GENERAL

A. Section 15010 applies.

PART 2 PRODUCTS

2.1 BASIS OF DESIGN

A. Manufacturers shown below as Basis of Design
1. Acceptable Manufacturers for Glass Fiber and Mineral Fiber Insulation Products: CertainTeed, Knauf, Johns Manville, Owens-Corning.
2. Acceptable Manufacturers for Closed Cell Elastomeric Insulation Products: Aeroflex Aerocell, Armacell Armaflex, Nomaco K-flex.

2.2 DUCT INSULATION

A. Supply, Return, Exhaust, and Outdoor Ventilation Ducts
1. Duct liner: ASTM C1071, Type I, flexible, glass fiber duct liner with 100% coated air side. Minimum density 1.5 lb/ft3.
2. Externally insulated: All sheet metal supply, return, and outdoor ventilation ducts shall be insulated on the outside with a Formaldehyde-free, flexible glass fiber blanket. Insulation shall have a minimum installed R-value of R-6 and have a Type 75 facing. Use R-8 in attics and outside the building insulation envelope. Insulation shall be provided with a factory-applied facing with a composite UL HFC rating of 25/50. Basis of Design: Johns-Manville Microlite XG Formaldehyde-free Fiber Glass Duct Wrap.
3. All supply, return, and outdoor ventilation air ducts shall be completely insulated on the outside.
4. Exhaust ducts shall be insulated within 10 feet of exterior openings.
5. Duct shown as internally lined shall be also externally insulated as needed to bring total R-value to required level.

2.3 PIPE INSULATION

A. Condensate Piping
1. ASTM C534, Type I, flexible, closed cell elastomeric insulation, tubular.
2. Thermal Conductivity: 0.27 at 75 degrees F.
3. Operating Temperature Range: Range: Minus 70 to 180 degrees F.
4. Thickness: 1/2" thickness for all pipe sizes.

B. Refrigerant Piping
1. Suction piping between evaporator and condenser units shall be insulated with Johns-Manville Aerotube II or equal elastomeric pipe insulation, max. K-value shall be 0.27 (Btu-in)/(h-ft2-F).
2. Wall thickness for pipes under 1-1/2" diam. shall be 1" for heat pumps, 1/2" for cooling only units.
3. For pipes 1-1/2" and larger, wall thickness shall be 1-1/2" for heat pumps and 1" for cooling only units. All joints and seams shall be sealed with mastic.
4. Insulation exposed to the outdoor environment shall be covered with a protective jacket or coated with a UV and water resistant coating.

PART 3 EXECUTION

3.1 INSTALLATION - DUCT SYSTEMS

A. Verify all surfaces are clean and dry before applying insulation.

B. Butt joints of insulation together to obtain total coverage. Do not compress the insulation. Tape all joints.

C. Mechanical fasteners: weld or adhesive applied pins shall be used to secure insulation to bottom of ducts 20" wide or wider. Install 18" on centers, both directions.

D. Place holding washers over weld pins firmly, do not compress insulation, clip of excessive length of pin, cover with 4" length of tape.

E. Where 2" flaps are provided, use adhesive to obtain full 2" coverage in lieu of tape.

F. Repair breaks, holes, and perforations to full thickness flush with adjoining surface, with new sections if large, with tape on small areas so that 2" of tape or replacement foil-kraft project away from the imperfection.

G. Insulation on round ducts may be wired in place with soft monel wire, 12" O.C., with joints taped and vapor sealed.

H. Cover flexible equipment connections on air conditioning units with specified supply/return duct insulation. Lap connection 6" and secure 2" edge flap with adhesive.

3.2 INSTALLATION - PIPING SYSTEMS

A. Verify piping has been tested before applying insulation materials. Verify surfaces are clean and dry, with foreign material removed. Piping Exposed to View in Finished Spaces: Locate insulation and cover seams in least visible locations.

B. Continue insulation through penetrations of building assemblies or portions of assemblies having fire resistance rating of one hour or less. Provide intumescent firestopping when continuing insulation through assembly. Finish at supports, protrusions, and interruptions.

C. Piping Systems Conveying Fluids Below Ambient Temperature:
1. Insulate entire piping system including fittings, valves, unions, flanges, strainers, flexible connections, and expansion joints.
2. Furnish factory-applied or field-applied vapor retarder jackets. Secure factory-applied jackets with pressure sensitive adhesive self-sealing longitudinal laps and butt strips. Secure field-applied jackets with outward clinch expanding staples and seal staple penetrations with vapor retarder mastic.
3. Insulate fittings, joints, and valves with molded insulation of like material and thickness as adjacent pipe. Finish with glass cloth and vapor retarder adhesive or PVC fitting covers.

D. Inserts and Shields:
1. Piping 1-1/2 inches Diameter and Smaller: Install steel shield between pipe hanger and insulation.
2. Piping 2 inches Diameter and Larger: Install insert between support shield and piping and under finish jacket.
   a. Insert Configuration: Minimum 6 inches long, of thickness and contour matching adjoining insulation; may be factory fabricated.
   b. Insert Material: Compression resistant insulating material suitable for planned temperature range and service.
3. Piping Supported by Roller Type Pipe Hangers: Install galvanized steel shield between roller and inserts.

E. Condensate Piping: Insulate entire piping system and components inside the building space to prevent condensation.

F. Closed Cell Elastomeric Insulation:
1. Push insulation on to piping, miter joints at elbows.
2. Seal seams and butt joints with manufacturer's recommended adhesive.
3. When application requires multiple layers, apply with joints staggered.
4. Insulate fittings and valves with insulation of like material and thickness as adjacent pipe.

G. Refrigeration suction piping shall be insulated through pipe clamps and hangers, provide insulation shields when insulation passes through clamps and hangers.

H. Pipe Exposed in Mechanical Equipment Rooms or Finished Spaces: Finish with PVC jacket and fitting covers. Labels on exterior covers should be oriented so as to be easily readable and shall have directional flow arrows.

I. Buried Piping: Insulate only where insulation manufacturer recommends insulation product may be installed in trench, tunnel or direct buried. Install factory fabricated assembly with inner all-purpose service jacket with self-sealing lap, and asphalt impregnated open mesh glass fabric, with 1 mil thick aluminum foil sandwiched between three layers of bituminous compound; outer surface faced with polyester film.

END OF SECTION

SECTION 15750 - MAJOR HVAC EQUIPMENT

PART 1 GENERAL

1.1 GENERAL

A. Section 15010 applies.

1.2 BASIS OF DESIGN

A. Acceptable manufacturers for products specified under this section are listed below.
1. Exhaust Fans: Greenheck, Cook, Broan, Twin City, Penbarry
2. Wall Mount Propeller Exhaust Fans: Greenheck, Cook, Twin City, Pennbarry

PART 2 PRODUCTS

2.1 EXHAUST FANS (EF)

A. General
1. Fans are scheduled on the drawings.
2. All fans shall bear the AMCA Certified Performance Rating seal and UL label. Sone ratings shall be in accordance with AMCA Bulletin 300. Fans shall have published ratings certified by AMCA Standard 210 and Class established by AMCA 2408-69. Fan BHP and RPM shall be selected to produce specified capacity when installed in system with accessories as indicated. Fan wheels shall be statically and dynamically balanced.
3. Belt drive fan motors shall have bases which permit adjustment of belt tension, belt guards with tachometer hole for fan shaft, and variable pitch diameter sheaves.
4. Bearings for fan shafts, other than propeller type, shall have an average service life of 100,000 hours. Bearings shall be factory lubricated and shall have grease fittings for lubrication as recommended by bearing manufacturer. Grease lines shall extended to outside of casing where fittings are inaccessible during fan run time.
5. Solid state speed controllers for direct drive fans shall be provided and wired under Division 15 for initial balancing of fan air quantity.
6. Motors shall be provided as specified in Section 15010 and shall be readily accessible. Motors 1 hp and larger shall be premium efficiency type.

B. Centrifugal Roof Mounted Exhaust Fan
1. Fans shall be centrifugal belt or direct dive type. Housing shall be constructed of heavy duty aluminum mounted on a rigid frame. Shroud shall have a rolled bead and internal structural members for added strength. Install on 12" weathertight curb. Curb assembly shall be water spray tested and proven leak-free to the satisfaction of the Owner.
2. Fan shall be backward curved centrifugal type with spun inlet venturi. Motors and centrifugal wheels shall be mounted on vibration isolators. Motors shall be isolated from the exhaust air stream - cooling air shall be provided from a location free of contaminants. Motors shall be readily accessible for maintenance.
3. A NEMA disconnect switch shall be factory installed and wired from the motor to the disconnect junction box. A conduit chase shall be provided for running electrical wiring from the curb cap into the power junction box.
4. Provide backdraft damper within roof curb unless a MOD is noted otherwise.

C. Ceiling/Cabinet Type
1. Housing shall be reinforced phosphatized steel. Wheels shall be true centrifugal, forward curved in design, and shall be statically and dynamically balanced.
2. Where grilles are required, they shall be aluminum with white baked enamel symmetrically finished appearance. Interior of housings shall be lined with dark acoustical insulation permanently attached in place. Interior of installed unit shall not be visible when grille is installed.
3. Motors shall be shaded pole type with sleeve bearings supported by one piece die formed steel suspension brackets with rubber isolation dampers.
4. Terminal box shall be mounted in the housing with receptacle, plug and cord inside of the cabinet. All motors shall be suitably grounded. Motor and fan assembly shall be removable from installed ceiling ventilator.
5. Where duct flanges are required on one or both ends of the fan, they shall be pre-assembled to housings.
6. Backdraft dampers shall be of integral design with aluminum damper on steel spring and foam rubber seal to eliminate chatter.
7. A speed controller on direct drive fans shall be shall be mounted at the fan and factory wired or field wired under Division 15 between the fan and fan energizer.

1.2 WALL MOUNT PROPELLER FANS (WEF)

A. General Description:
1. Fan arrangement shall be either supply or exhaust, see plans.
2. Sidewall mounted application.
3. Maximum continuous operating temperature 130 Fahrenheit (54.4 Celsius)
4. Each fan shall bear a permanently affixed manufacture's engraved metal nameplate containing the model number and individual serial number

B. Wheel:
1. Material type: steel blades and hubs.
2. Securely attached to fan shaft by welding or with standard square key and set screw or tapered bushing.
3. Statically and dynamically balanced in accordance with AMCA Standard 204-05.
4. The propeller and fan inlet will be matched and shall have precise running tolerances for maximum performance and operating efficiency.

C. Motors:
1. Motor enclosures: Totally enclosed fan cooled.
2. Motors are permanently lubricated, heavy duty ball bearing type to match with the fan load and furnished at the specific voltage and phase.
3. Accessible for maintenance.

D. Shafts and Bearings:
1. Fan Shaft shall be ground and polished solid steel with an anti-corrosive coating
2. Bearing shall be cast iron pillow block with grease fittings
3. Bearings shall be selected for a minimum L10 life in excess of 100,00 hours (equivalent to L50 average life of 500,000 hours), at maximum cataloged operating speed
4. Bearing shall be air handling quality and 100% factory tested by bearing manufacturer
5. Fan Shaft first critical speed is at least 25 percent over maximum operating speed

E. Drive Frame:
1. Drive frame assemblies shall be galvanized steel, and bolted construction
2. Drive frame shall have formed channels and fan panels shall have prepunched mounting holes, formed flanges and a deep formed one piece inlet venturi

F. Disconnect Switches:
1. NEMA rated: 3R
2. Positive electrical shut-off
3. Wired from fan motor to junction box

G. Drive Assembly:
1. Belts, pulleys, and keys oversized for a minimum of 150 percent of driven horsepower
2. Belt: Static free and oil resistant
3. Fully machined cast iron pulley, keyed and securely attached to the wheel and motor shafts
4. The motor pulley shall be adjustable for final system balancing
5. Readily accessible for maintenance

H. Options/Accessories:
1. Dampers:
   a. Type: Gravity
   b. Prevents outside air from entering back into the building when fan is off
   c. Balanced for minimal resistance to flow
   d. Galvanized frames with prepunched mounting holes
2. Finishes:
   a. Types: Primer
3. Wall Housing:
   a. Constructed of galvanized steel with heavy gauge mounting flanges and pre-punched mounting holes
   b. Housing shall include OSHA approved motor guard
   c. Reduces installation time and provides maximum installation flexibility
4. Motor Side Guard:
   a. Guard type: OSHA Guard
   b. Protective guard completely enclose the motor and drive side of the fan
5. Weatherhood:
   a. Shall shield wall opening and dampers from rain and snow
   b. Material type: Galvanized
   c. Turndown Angle: 90 degrees
   d. Screen: Birdscreen
   e. Finish: Primer

PART 3 EXECUTION

3.1 INSTALLATION

A. Field coordinate power requirements with Division 16 contractor before ordering any equipment.

B. Do not place equipment on roof before roof curbs are installed. All roof-mounted equipment shall be mounted on curbs. Install roof mounted units on roof curb providing watertight enclosure to protect ductwork and utility services. Install roof curb and equipment level.

C. Install components furnished loose for field mounting.

D. Install electrical devices downstream of contactors furnished loose for field mounting. Division 16 contractor is responsible for providing remote disconnects for all mechanical equipment under this contract. Division 16 contractor is responsible for providing and installing power wiring to terminals on all mechanical equipment.

E. Furnish initial start-up and shutdown during first year of operation, including routine servicing and checkout.

END OF SECTION

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED J. KYLE COX 5 Dec 2023 J. KYLE COX

SHEET NAME
MECHANICAL SPECIFICATIONS

SHEET INDEX
M2.2

SECTION 15850 - AIR DISTRIBUTION

PART 1 GENERAL

1.1 GENERAL

A. Section 15010 is applicable.

B. All general conditions of the contract apply.

1.2 BASIS OF DESIGN

A. Acceptable manufacturers for products specified under this section are listed below.
1. Flexible duct: Thermaflex, Flexmaster, Clecon
2. Flexible equipment connections: Durodyne, Ventafabrics
3. Volume control dampers: Ruskin, Greenheck, Nailor, United, Price
4. Fire/Smoke dampers: Ruskin, Greenheck, Nailor, United
5. Air diffusers and grilles: Price, Titus, Nailor, Metalaire

1.3 PRESSURE

A. All new supply, return, outdoor air, and exhaust air ducts are to be STD, 1" static pressure type, class "A" seal, ASHRAE/SMACNA.

PART 2 PRODUCTS

2.1 METAL DUCTWORK

A. Duct work shall be rectangular, oval, or round as shown on plans, and shall be fabricated from ASTM A653/A653M galvanized steel sheet, lock-forming quality. All fasteners shall be galvanized steel.

B. Fabricate and support rectangular ducts in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible. Provide duct material, gages, reinforcing, and sealing for operating pressures indicated.

C. Fabricate and support round ducts with longitudinal seams in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible (Round Duct Construction Standards). Provide duct material, gages, reinforcing, and sealing for operating pressures indicated.
1. Construct T's, bends, and elbows with minimum radius 1-1/2 times centerline duct width. Where not possible and where rectangular elbows are used, provide turning vanes. Where acoustical lining is indicated, furnish turning vanes of perforated metal with glass fiber insulation.
2. Increase duct sizes gradually, not exceeding 15 degrees divergence wherever possible; maximum 30 degrees divergence upstream of equipment and 45 degrees convergence downstream.
3. Fabricate continuously welded round and oval duct fittings two gages heavier than duct gages indicated in SMACNA Standard. Minimum 4 inch cemented slip joint, brazed or electric welded. Prime coat welded joints.
4. Provide standard 45-degree branch takeoffs per plans. When space does not allow 45-degree lateral wye takeoff, use 90-degree conical tee connections.
5. Seal ducts to ASHRAE/SMACNA Class A standard. No cloth duct tape will be allowed.

2.2 FLEXIBLE DUCTWORK

A. Flex ducts connections are for connecting round galvanized duct to air distribution devices. Maximum allowed length of any flex duct section shall be 5'-0". Flex duct shall be two ply vinyl film supported by helical wound spring steel wire; fiberglass insulation; vapor barrier film. Minimum R-6, max velocity 4000 fpm, pressure raing 10 iwg positive and 1 iwg negative. Use R-8 in attics and spaces outside the building envelope. Temperature rating -20 degrees F to 200 degrees F.
Basis of design is Thermaflex MK-E.

2.3 FLEXIBLE EQUIPMENT CONNECTIONS

A. Flexible connections shall be used for all duct connections to HVAC equipment and fans. Flexible connections shall be per SMACNA chapter 7, Figure 7-7 and 7-8. Flexible material for indoor installation shall be airtight heavy glass fabric, double coated with neoprene.

2.4 VOLUME CONTROL DAMPERS

A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated on Drawings.

B. Fabricate splitter dampers of material matching duct gage to 24 inches size in each direction, and two gages heavier for larger sizes. Secure with continuous hinge or rod. Operate with minimum 1/4 inch diameter rod.

C. Fabricate single blade dampers for duct sizes to 12 x 30 inch. Fabricate multi-blade damper of opposed blade pattern with maximum blade sizes 8 x 72 inch. Assemble center and edge crimped blades in prime coated or galvanized channel frame with suitable hardware.

D. Furnish locking, indicating quadrant regulators on single and multi-blade dampers with 2" standoff brackets. Where width exceeds 30 inches, furnish regulator at both ends.

2.5 FIRE DAMPERS

A. Damper shall be UL 555 listed and labeled as a 1-1/2 hour static fire damper. UL approved for dual directional air flow. Integral Sleeve Frame: Minimum 20 gage by 12 inches roll formed, galvanized steel. Apply factory sealant to dampers in HVAC systems with pressures to maximum 4 inches wg. Mill galvanized finish.
1. Blades:
a. Style: Curtain type, out of airstream.
b. Action: Spring or gravity closure upon fusible link release.
c. Orientation: Horizontal or vertical as indicated on plans.
d. Material: Minimum 24 gage roll formed, galvanized steel.
2. Closure Springs: Type 301 stainless steel, constant force type, if required.
3. Temperature Release Device: fusible link, 165 degrees F.

B. Type "B" fire dampers shall have no less than 90% free area, shall have 160 degree F fusible link, and integral 12" long 20 gauge integral sleeve and preformed picture frame mounting angles. Basis of design is Ruskin IBD2 Style B.

C. For applications where damper is in wall without interconnecting duct, or where noted as such, damper frame shall be size shown on drawing and shall be type A.

D. For applications where damper is in wall with a grille on both sides or on one side, use thin line type A damper, Ruskin IBDT or approved manufacturer listed above.

E. Provide hinged, insulated access panels with part turn latches in ductwork to all fire dampers where access is not otherwise possible. Duct access panels shall be insulated and stenciled "F.D." with 2" high black letters on light surfaces, light letters on dark surfaces.

F. Picture Frame Mounting Angles:
1. One-piece, roll formed retaining angles 1-1/2 x 1-1/2 inches.
2. Factory matched and shipped attached to damper.

2.6 TURNING DEVICES AND EXTRACTORS

A. Multi-blade device with blades aligned in short dimension; steel or aluminum construction; with individually adjustable blades, mounting straps.

B. Multi-blade device with radius blades attached to pivoting frame and bracket, steel or aluminum construction, with push-pull operator strap.

2.7 INSPECTION PANELS

A. Inspection panels shall be installed in plenums and ductwork in order to facilitate inspection of filters, fans, dampers, and coils. Panels into spaces large enough for a person to enter shall be 24"x24" minimum. Panels into smaller spaces shall be 12"x12" minimum. Panels in insulated metal duct shall be 22 gauge galvanized frame with 24 gauge galvanized steel door panel and shall be gasketed, double wall insulated with 1" fiberglass insulation. Panels shall be piano hinged on one side with galvanized cam lock on the other. Inspection panels with sheet metal screw fasteners are not acceptable.

2.8 AIR OUTLETS AND INLETS

A. Air diffusers and grilles are scheduled on the plans. No on-board dampers shall be allowed for ceiling mounted diffusers and grilles. Dampers should be purchased and installed separately at the point of each branch take-off from trunk ducts.

2.9 FILTERS

A. Normal operating filters for all systems shall be disposable pleated media type filter of a size standard for the unit(s) installed.

B. Construction phase filters shall be dry fiberglass media, double wall box panel type, of a size standard for the unit(s) installed. Only construction phase filters shall be used during construction, and normal operating filters shall be installed by contractor after final punch-out. Construction phase filters shall be checked regularly as the project progresses and changed as needed. Units shall not be run without filters.

C. For projects with DDC systems, dirty filter switches shall be installed on equipment filters to indicate, through the DDC, when these filters are dirty.

2.10 ELECTRICAL CHARACTERISTICS AND COMPONENTS

A. Electrical characteristics of powered equipment are shown on the Div. 16 plans.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify sizes of equipment connections before fabricating transitions.

B. Verify rated walls are ready for fire damper installation.

C. Verify ducts and equipment are ready for installation and accessories.

D. Check location of air outlets and inlets and make necessary adjustments in position to conform to architectural features, symmetry, and lighting arrangement.

3.2 FIRE DAMPERS

A. Install fire dampers at locations shown on drawings. Installation of fire dampers shall comply with SMACNA Fire, Smoke, and Radiation Damper Installation Guide for HVAC systems.
1. Basic installation Figure 1
2. Breakaway connections Figure 2
3. Specific Installation Figure 5
4. Damper out of wall Figure 12
5. Opening protection Figure 15

B. Fire damper openings in metal stud walls shall be internally framed on four sides from vertical members for rigid support of opening with internal gypsum board liner per SMACNA installation guide or manufacturer's guidelines for installation in metal stud walls.

3.3 METAL DUCTS

A. Install in accordance with SMACNA Duct Construction Standards - Metal and Flexible, for pressures and seal as specified herein.

B. During construction install temporary closures of metal or taped polyethylene on open ductwork to prevent construction dust from entering ductwork system.

3.4 FLEXIBLE DUCTS

A. Flex duct connections shall be made with a band on inner liner and another band to secure vapor jacket. Max length of any flexible duct section is 5'-0". Tape all loose ends with foil tape, no cloth duct tape is allowed.

3.5 FLEXIBLE EQUIPMENT CONNECTIONS

A. Install on inlets and outlets of all powered equipment prior to any duct hangers. Manufacturer shall provide with equipment where option is available. Install connecting duct in a straight line with equipment connection, and prevent flexible connection from being in tension while equipment is running.

3.6 DUCT SMOKE DETECTORS

A. Shall be provided and wired by Division 16, installed in duct by Division 15.

3.7 FILTERS

A. Prevent passage of unfiltered air around filters by installing felt, rubber, or neoprene gaskets.

B. Install filter gage static pressure tips upstream and downstream of filters. Mount filter gages on outside of filter housing or filter plenum, in accessible position. Adjust and level.

3.8 INSPECTION PANELS

A. Install inspection panels at the following locations and as indicated on drawings:
1. Before and after each automatic control damper.
2. Before and after each fire, smoke, and/or combination fire and smoke damper.

B. Access Door Sizes: Install minimum 12 x 12 inch size for hand access, 18 x 18 in. size for shoulder access. Review locations prior to fabrication.
1. Mark access doors for fire and smoke dampers on outside surface, with minimum 2 in. high letters reading: FIRE/SMOKE DAMPER, SMOKE DAMPER, OR FIRE DAMPER.

3.9 AIR DIFFUSERS AND GRILLES

A. Install balancing dampers for diffusers and grilles at branch take-off from main trunk, no dampers allowed on-board diffusers or grilles unless explicitly specified on plans. Do not install manual volume dampers next to grilles unless required by field conditions.

B. Do not locate air registers, diffusers or grilles in floors of toilet or bathing rooms.

C. Paint ductwork, cans, and plenums visible behind air outlets and inlets matte black.

D. Install safety screen where fan inlet or outlet is exposed.

END OF SECTION

SECTION 15950 - TESTING, ADJUSTING, AND BALANCING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Testing, adjusting, and balancing of air systems.

B. The Contractor shall obtain the services of an independent test, adjustment, and balance (TAB) agency to test, adjust, and balance:
1. Each supply, return, exhaust, relief, and outdoor air distribution systems.

C. The Contractor and the TAB Agency shall review the proposed system installations and determine all measuring and balancing devices required for proper test and balance of the systems. These shall include, but not be limited to, manual air volume balancing dampers, etc. The Contractor shall be responsible for providing these in the locations recommended by the TAB Agency, in addition to any shown on the drawings. These devices shall be provided under the Contract.

D. Instruments used for testing and balancing shall have been calibrated within a period of six months of the time of the testing and balancing and such instruments shall be checked for accuracy prior to the start of the work. Submit verification for certification to the Architect and the Owner.

E. Perform Work in accordance with AABC National Standards, latest addition. TAB shall include all equipment and distribution systems and shall be reported, as a minimum, on forms as published by the AABC, NEBB, or approved equal. Report shall include a diagram(s) of each system showing all devices in the system.

F. The TAB Agency shall, unless approved by the Owner, be an AABC or NEBB member and the work shall be done by an AABC or NEBB certified TAB Technician and Commissioning Agent.

G. All corrections required by the report shall be executed by the Contractor to the satisfaction of the Owner, Architect, Engineer, and TAB agency. All costs associated with testing and balancing, as well as costs of any necessary re-testing, shall be borne by the Contractor.

H. Testing and Balancing Agency shall be kept informed of any major changes made to the systems during construction, and shall be provided with a complete set of contract documents, as-built drawings, approved submittals, applicable specification sections, addenda and change orders.

1.2 SUBMITTALS

A. Draft Reports: Submit for review prior to final acceptance of Project.

B. Test Reports: Submit prior to final acceptance of Project and for inclusion in operating and maintenance manuals. Assemble in soft cover, letter size, 3-ring binder, with table of contents page and tabs, and cover identification. Include reduced scale drawings with air outlets and equipment identified to correspond with data sheets, and indicating thermostat locations.

PART 2 EXECUTION

2.1 EXAMINATION

A. Before starting work, verify systems are complete and operable.

B. The TAB Agency shall check refrigerant superheat settings.

C. The TAB Agency shall test drain pans for proper drainage under operating conditions.

D. Report defects, deficiencies, or abnormal conditions in mechanical systems preventing system balance to Owner, Architect, and Engineer.

E. Beginning of work means acceptance of existing conditions.

2.2 INSTALLATION TOLERANCES

A. Air Handling Systems: Adjust to within plus or minus 5 percent of design for supply systems and plus or minus 10 percent of design for return and exhaust systems.

B. Air Outlets and Inlets: Adjust to within plus or minus 10 percent of design.

2.3 AIR SYSTEM PROCEDURE

A. Examine all air handling systems to see that they are free from obstructions that may prevent proper balancing of system.

B. Ensure that all dampers, grilles, and registers are open or in normal positions, that moving equipment is lubricated, filters are installed and clean, and perform other inspection and maintenance activities to ensure that the operation of the system is as specified.

C. Adjust air handling and distribution systems to deliver design supply, return, and exhaust air quantities within previously stated tolerances.

D. Make air quantity measurements in ducts by traverse of entire cross sectional area of duct.

E. Measure air quantities at air inlets and outlets.

F. Use volume control devices to regulate air quantities only to extent those adjustments do not create objectionable air motion or sound levels. Change volume using dampers mounted in ducts, not dampers on ceiling diffusers. Leave dampers on ceiling diffusers open for seasonal adjustment by Owner.

G. Vary total system air quantities by adjustment of fan speeds. Vary branch air quantities by damper regulation.

H. Measure static air pressure conditions on air supply units, including filter and coil pressure drops, and total pressure across fan. Allow for pressure drop equivalent to 50 percent loading of filters.

I. Adjust automatic outside air, return air, and exhaust air dampers for design conditions.

J. Measure temperature conditions across outside air, return air, and exhaust air dampers to check leakage.

K. At modulating damper locations, take measurements and balance at extreme conditions.

L. The TAB Agency shall check all the systems operating together to ensure that the air conditioning spaces are under an overall positive pressure.

2.4 FIELD QUALITY CONTROL

A. Verify recorded data represents actually measured or observed conditions.

B. Permanently mark settings of valves, dampers, and other adjustment devices. Set and lock memory stops.

END OF SECTION

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
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KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED J. Kyle Cox 5 DEC 2023 ENGINEER J. KYLE COX

SHEET NAME

MECHANICAL SPECIFICATIONS

SHEET INDEX

M2.3

GENERAL PLUMBING NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ACCEPTED VERSION OF THE INTERNATIONAL PLUMBING CODE (IPC) WITH ADOPTED STATE AMENDMENTS AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
2. PLUMBING FIXTURES SHALL BE "HIGH EFFICIENCY" WITH WATER SENSE COMPLIANT FLOW OR FLUSH RATES AS REQUIRED BY GEORGIA AMENDMENTS TO THE IPC.
3. EXPOSED FIXTURES: CHROME PLATED BRASS AND COPPER TUBING WITH THREADED PLATED BRASS FITTINGS.
4. JOIN PIPES OF DISSIMILAR METALS WITH DIELECTRIC UNIONS OR SIMILAR ISOLATING DEVICES, DO NOT DIRECTLY CONNECT TO PIPES OF DISSIMILAR METALS.
5. ROUTE PIPING PARALLEL TO BUILDING STRUCTURE AND MAINTAIN GRADIENT.
6. INSTALL PIPING TO MAINTAIN HEADROOM. GROUP PIPING TO CONSERVE SPACE. GROUP PIPING WHENEVER PRACTICAL AT COMMON ELEVATIONS.
7. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT.
8. PROVIDE CLEARANCE IN HANGERS AND FROM STRUCTURE AND OTHER EQUIPMENT FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS.
9. SLEEVE PIPE PASSING THROUGH PARTITIONS, WALLS AND FLOORS.
10. INSTALL IDENTIFICATION ON PIPING SYSTEMS OR INSULATION COVERINGS INCLUDING UNDERGROUND PIPING PER PIPE LABELING DETAIL. LABELS SHALL INCLUDE NAME OF FLUID INSIDE PIPE ALONG WITH DIRECTIONAL FLOW ARROWS. ALL GAS PIPING SHALL BE PAINTED YELLOW WITH PIPE MARKERS APPLIED AFTER PAINTING. NON-STEEL GAS PIPING SHALL HAVE LABELS APPLIED NOT EXCEEDING 5 FEET APART.
11. PROTECT PIPING SYSTEMS FROM ENTRY OF FOREIGN MATERIALS BY TEMPORARY COVERS, COMPLETING SECTIONS OF THE WORK, AND ISOLATING PARTS OF COMPLETED SYSTEM.
12. CONTRACTOR SHALL SECURE AND PAY FOR ALL FEES AND PERMITS REQUIRED TO ACCOMPLISH THE WORK SHOWN.
13. BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL VERIFY EXACT LOCATIONS, ELEVATIONS, AND CHARACTERISTICS OF UTILITIES AND PIPING AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES. PIPE SLOPES SHOULD BE VERIFIED TO ENSURE PROPER ELEVATIONS ARE OBTAINED AT CONNECTION POINTS.
14. EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM ARCHITECTURAL DRAWINGS.
15. CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH UTILITY COMPANIES FOR SERVICE AND CONNECTIONS AND SHALL PAY FOR ALL FEES, CHARGES, PERMITS, AND METERS.
16. ALL SANITARY DRAINAGE PIPES 2" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT MINIMUM, AND ALL SANITARY DRAINAGE PIPES 3" AND LARGER SHALL BE SLOPED AT 1/8" PER FOOT MINIMUM. GREASE WASTE PIPES SHALL ALL BE SLOPED AT MIN. 1/4" PER FOOT.
17. ALL PIPING ABOVE GRADE SHALL BE PROPERLY SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR BE SUPPORTED FROM CEILING TILES.
18. LOCATE ALL SECTIONAL OR MAIN CONTROL VALVES WITHIN 1'-0" OF ACCESS PANELS, CELING TILES, OR OTHER POINTS OF ACCESS.
19. PLUMBING AND FIRE PROTECTION PIPING IS NOT TO BE INSTALLED IN ELECTRICAL ROOMS, CLOSETS, TELEPHONE ROOMS, OR ELEVATOR EQUIPMENT ROOMS EXCEPT PIPING SERVING THAT ROOM.
20. WATER PIPING ROUTED ABOVE CEILING AND IN EXTERIOR WALLS SHALL BE ROUTED ON HEATED SIDE (UNDERSIDE) OF CEILING INSULATION AND HEATED SIDE (INSIDE) OF WALL INSULATION.
21. TOPS OF ALL FLOOR DRAINS AND FLOOR CLEANOUTS SHALL BE LEVEL WITH FINISHED FLOOR AT INSTALLATION LOCATION TO PREVENT TRIP HAZARDS - FLOORS SHALL SLOPE TO FLOOR DRAINS.
22. PRIME ALL FLOOR DRAIN AND INDIRECT DRAIN TRAPS WITH WATER BASED TRAP PRIMERS AS SHOWN ON PLANS. MECH. TRAP GUARDS MAY BE USED IN LIEU OF WATER BASED TRAP PRIMERS WHERE THE AUTHORITY HAVING JURISDICTION ALLOWS.
23. ALL VENT AND FLUE OUTLETS SHALL BE 10'-0" MINIMUM FROM ANY FRESH AIR INTAKE.
24. DURING THE PROGRESS OF THE PROJECT, MAINTAIN AN ACCURATE RECORD OF ALL CHANGES MADE IN THE PLUMBING SYSTEMS. THE RECORD DRAWING SHALL SHOW CHANGES IN MANUFACTURER (WITH NUMBERS AND TRADE NAMES), MATERIALS, SIZES, LOCATIONS, AND HOOK-UP POINTS. AS-BUILTS SHALL BE GIVEN TO OWNER'S CONSTRUCTION MANAGER AT COMPLETION OF JOB.
25. UPON COMPLETION OF THIS JOB, CONTRACTOR SHALL INSPECT ALL EXPOSED PORTIONS OF THE PLUMBING INSTALLATION AND COMPLETELY REMOVE ALL EXPOSED LABELS, SOIL, MARKINGS, AND FOREIGN MATERIAL EXCEPT PRODUCT LABELS AND THOSE REQUIRED BY THESE PLANS.
26. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL DRAWINGS AND THE ELECTRICAL CONTRACTOR, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN. PLUMBING CONTRACTOR SHALL WIRE AND START ALL ELECTRICAL PLUMBING EQUIPMENT, ELECTRICAL CONTRACTOR SHALL PROVIDE WIRING, CONDUIT, BREAKERS, AND OTHER APPROPRIATE ELECTRICAL EQUIPMENT.
27. ALL PLUMBING EQUIPMENT, PIPING, INSULATION, ETC. INSTALLED IN HVAC PLENUM SPACES SHALL BE NONCOMBUSTIBLE OR SHALL BE LISTED AND LABELED AS HAVING A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723.
28. ALL PIPE PENETRATIONS OF FIRE OR SMOKE RATED ASSEMBLIES SHALL BE FIRE STOPPED AS REQUIRED TO RESTORE ASSEMBLY TO ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY 3M COMPANY, CP25 CAULK, CS195 COMPOSITE PANEL, FS195 WRAP/SHRINK, OR PSS 7900 SERIES SYSTEMS AS RECOMMENDED BY MANUFACTURER FOR PARTICULAR APPLICATIONS, OR EQUIVALENT SYSTEM AS APPROVED BY LOCAL CODE OFFICIALS.
29. ALL VENT THRU ROOF PENETRATIONS SHALL BE ROUTED TO TERMINATE AT THE LEAST VISIBLE LOCATION FROM THE ENTRY VIEW.
30. CONTRACTOR SHALL PROVIDE ALL NECESSARY PRODUCTS AND MATERIALS FOR A COMPLETE PLUMBING SYSTEM.
31. EQUIPMENT AND PIPING LOCATIONS AND ROUTING SHOWN ARE DIAGRAMMATIC AND INTENDED TO SHOW THE INTENT OF THE DESIGN. COORDINATE FINAL LOCATIONS AND PIPE ROUTING WITH ARCHITECTURAL PLANS AND FIELD CONDITIONS.
32. TEMPER ALL HAND WASHING SINKS TO A MAXIMUM OF 110 DEG. F. USING ASSE 1070 TEMPERATURE LIMITING DEVICE, ALL OTHER LOCATIONS TO A MAXIMUM OF 120 DEG. F UNLESS HIGHER TEMPERATURES ARE REQ'D FOR PROPER OPERATION.
33. ALL FIXTURES USING PRESSURIZED WATER SUPPLIES SHALL BE INSTALLED WITH SHUT OFF VALVES FOR ISOLATION AND SERVICE.
34. CONTRACTOR SHALL FIELD COORDINATE REQUIRED DRAIN PIPE INVERTS WITH SITE CONTRACTOR BEFORE ORDERING PIPE.
35. CONTRACTOR SHALL HAVE A THOROUGH COORDINATION AND CONSTRUCTABILITY MEETING WITH ALL JOB TRADES BEFORE FINAL PRICING/BUDGETING OR PURCHASING ANY EQUIPMENT, AND ENGINEER SHALL BE NOTIFIED BEFORE FINAL PRICING/BUDGETING OR PURCHASING ANY EQUIPMENT OF CONFLICTS, DISCREPANCIES, OR OTHER ISSUES THAT MAY INCREASE PROJECT COST SO THAT ISSUES MAY BE RESOLVED BEFORE PRICING. THESE PLANS WERE DEVELOPED BASED ON THE ARCHITECTURAL PLANS AVAILABLE AT THE TIME OF DESIGN, AND ARE DIAGRAMMATIC IN NATURE.
36. ALL PIPING ACCESSORIES INSTALLED UNDERGROUND INCLUDING, BUT NOT LIMITED TO SHUT OFF VALVES, BACKFLOW DEVICES, PRESSURE REDUCING VALVES, ETC. SHALL BE INSTALLED IN A BOX OR VAULT FOR SERVICEABILITY AND PROTECTION. THESE DEVICES SHALL NOT BE DIRECT BURIED BELOW GRADE.
37. MAX. "DEAD LEG" LENGTH OF ANY PIPING SHALL BE 12 INCHES.

PLUMBING LEGEND

SYMBOL	DESCRIPTION	ABBREVIATION
	ABOVE FINISHED CEILING	AFC
	ABOVE FINISHED FLOOR	AFF
	BELOW COUNTER	B/C
	BELOW FINISHED FLOOR	BFF
	BELOW GRADE	B/G
	DOMESTIC COLD WATER PIPING	CW
	DOMESTIC HOT WATER PIPING	HW
	VENT PIPE	V
	SANITARY SOIL	SS
	VENT THROUGH ROOF OR WALL	VTR OR VTW
	FLOOR CLEANOUT	FCO
	FLOOR DRAIN	FD
	FLOOR SINK (INDIRECT DRAIN)	FS
	WALL CLEANOUT	WCO
	CLEANOUT TO GRADE	COTG
	P-TRAP	
	PRESSURE REDUCING VALVE	PRV
	BACKFLOW PREVENTER	BP
	BALL VALVE	———
	UNION	———
	PRESSURE REDUCING VALVE	———
	BLIND FLANGE/CAP	———
	PIPING CONNECTION ON TOP	———
	PIPING CONNECTION ON BOTTOM	———
	ELBOW TURNED DOWN	———
	ELBOW TURNED UP	———
	THERMOMETER	———
	CONNECT TO EXISTING	CTE

PLUMBING FIXTURE SCHEDULE

TAG	FIXTURE	PIPING CONNECTION SIZES				SPECIFICATION
		S.S.	V.	C.W.	H.W.	
HWC	FLUSH VALVE WATER CLOSET, ADA.	3"	3"	1"		• HANDICAP WATER CLOSET SHALL BE FLOOR MOUNTED FLUSH VALVE TYPE WITH ELONGATED BOWL AND 1.28 GPF FLUSH. SEAT SHALL BE COMMERCIAL TYPE WITH OPEN FRONT. INCLUDE ALL REQUIRED HARDWARE FOR A COMPLETE INSTALLATION. • FIXTURE: KOHLER K-4405, 10" ROUGH-IN • SEAT: KOHLER K-4670 • FLUSH VALVE: SLOAN, CROWN MODEL 111-1.28
LAV	WALL MOUNT LAVATORY, PUBLIC (0.5 GPM)	2"	2"	1/2"	1/2"	• KOHLER K-2035, ADA COMPLIANT, WHITE VITREOUS CHINA WALL MOUNT SINK, REAR CENTER DRAIN WITH OVERFLOW, 2 HOLE DRILLING ON 4" CENTERS, 21-1/4" L-R X 18-1/8" F-B X 7-1/4" DEEP, INCLUDE WALL CARRIER. • KOHLER 8998 P-TRAP • DELTA 501 FAUCET, POLISHED CHROME. • MCGUIRE 151 BRASS STRAINER. • MCGUIRE BV-2165 QUARTER TURN BALL VALVE STOPS AND SUPPLIES • WATTS LFUSG-B UNDER SINK GUARDIAN THERMOSTATIC MIXING VAVLE
SK-1	SINGLE BASIN KITCHEN SINK	2"	2"	1/2"	1/2"	• JUST SLN-ADA-1933-A-GR, 18 GA STAINLESS STEEL, DROP-IN, 6" DEPTH. • DELTA 440 FAUCET w/ 1.5 GPM FLOW RATE. • WATTS LFUSG-B UNDER SINK GUARDIAN THERMOSTATIC MIXING VAVLE
SK-2	LAB SINK w/ SIDE BOARDS	2"	2"	1/2"	1/2"	• EPOXY RESIN, SINGLE BASIN, UNDERMOUNT, BLACK SINK w/ DOUBLE SIDE-BOARD, CENTER DRAIN • FIXTURE: FISHERBRAND 25"x15"x10" w/ UNDERMOUNT SINK SUPPORT ASSEMBLY • FAUCET: SPEAKMAN SC-3004-FC-LD • WATTS LFUSG-B UNDER SINK GUARDIAN THERMOSTATIC MIXING VALVE
EYE	EMERGENCY EYEWASH	2"	2"	1/2"	1/2"	• FAUCET MOUNTED EYE WASH STATION, FISHER SCIENTIFIC MODEL: FISHERBRAND EYESAFE FAUCET-MOUNTED EYEWASH • TWIN SPRAYHEAD REMOVABLE OUTLET CAPS • ACTUATOR PULL-PIN ACTIVATION
MOP	JANITOR'S MOP SINK	3"	2"	1/2"	1/2"	• SERVICE/JANITOR'S SINK SHALL BE BOTTOM-DRAINING, FLOOR-MOUNTED, 12" DEEP, CORNER-TYPE, FAUCET w/ 1/2" DIAMETER RUBBER HOSE, HOSE CLAMP, INTEGRAL RIM GUARD, STAINLESS STEEL SPLASH PANELS, AND INCLUDE ALL PARTS FOR COMPLETE INSTALLATION. • FIXTURE: STERN WILLIAMS CRS-2210 • FAUCET: STERN WILLIAMS T-10-VB • WATTS LFUSG-B UNDER SINK GUARDIAN THERMOSTATIC MIXING VALVE, MOUNTED ABOVE CEILING • PROVIDE ACCESSIBLE INLINE CHECK VALVES ON HOT AND COLD SUPPLY PIPES.
NFWH	WALL HYDRANT			1/2"		• NON-FREEZE TYPE • WOODFORD, MODEL B65 • PROVIDE KEYED BOX
WCO/GCO/ FCO	WALL/GRADE/ FLOOR CLEANOUT					• SEE PLUMBING SPECIFICATIONS 15100 - 2.10
FD/FS	FLOOR DRAIN	3"				• SEE PLUMBING SPECIFICATIONS 15100 - 2.9
HD	HUB DRAIN	3"		1/2"		• CONDENSATE DRAIN HUB DRAIN • SEE PLUMBING DETAILS

PIPING LABEL COLOR GUIDE

PIPING SYSTEM FLUID	LABEL COLOR	TEXT COLOR
DOMESTIC COLD WATER	SAFETY GREEN	WHITE
DOMESTIC HOT WATER	SAFETY GREEN	WHITE
FIRE PROTECTION FLUIDS	SAFETY RED	WHITE

SIZE OF LEGEND LETTERS

PIPE OR PIPE COVERING OUTER DIAM. (IN.)	LENGTH OF COLOR FIELD (IN.)	SIZE OF LETTERS (IN.)
3/4" TO 1-1/4"	8"	1/2"
1-1/2" TO 2"	8"	3/4"
2-1/2" TO 6"	12"	1-1/4"
8" TO 10"	24"	2-1/2"
OVER 10"	32"	3-1/2"

NOTES:
1. IF AN EXISTING PIPE LABELING/MARKING SCHEME IS USED IN THE FACILITY, MATCH EXISTING SCHEME IN LIEU OF THESE DIRECTIONS.
2. LABEL TEXT SHOULD MATCH FLUIDS IN TABLE, AND SHOULD INCLUDE FLOW ARROWS INDICATING DIRECTION OF FLUID FLOW.
3. IF FLUIDS MAY FLOW IN TWO DIRECTIONS, ARROWS SHOULD INDICATE SUCH.
4. APPLY LABELS SO THAT THEY ARE EASILY READABLE BY OCCUPANTS OR EMPLOYEES. FOR EASE OF READING, LABELS SHOULD BE APPLIED ON BOTTOM OF PIPES THAT ARE ABOVE OCCUPANT LEVEL, ON TOP OF PIPES THAT ARE BELOW OCCUPANT LEVEL, AND ON SIDE OF PIPES THAT ARE AT OR NEAR OCCUPANT LEVEL.
5. FOR PIPES SMALLER THAN 3/4", USE PERMANENTLY ENGRAVED LABELS AFFIXED TO PIPES.
6. APPLY LABELS NEAR VALVES, BRANCHES, WHERE A CHANGE IN DIRECTION OCCURS, AT ENTRY AND RE-ENTRY POINTS THRU WALLS, FLOORS, ROOFS, AND ON STRAIGHT SEGMENTS WITH SPACING BETWEEN LABELS THAT ALLOWS FOR EASY INDENTIFICATION.
7. PIPING SYSTEMS CONVEYING GASEOUS CONTENTS SHALL HAVE SYSTEM DESIGN PRESSURE INDICATED ON THE LABEL IN ADDITION TO SYSTEM FLUID AND DIRECTIONAL ARROWS.
8. NATURAL AND PROPANE GAS LABELS ON NON-STEEL PIPING SHALL BE APPLIED AT INTERVALS NOTE EXCEEDING 5 FEET.
9. THESE LABELING GUIDELINES DO NOT APPLY TO MEDICAL GAS AND VACUUM SYSTEMS. FOR THESE TYPES OF SYSTEMS, REFER TO THE LOCAL CODE OFFICIALS' LATEST ACCEPTED VERSION OF NFPA 99.

SUMP PUMP SCHEDULE

TAG	BASIS OF DESIGN	FLOW (GPM)	HEAD (FT)	HORSE POWER	DISCHARGE CONN.(IN.)	PWR	NOTES
SP-1	STANCORE, SE-50	74	37	1/2	2	SEE DIV. 16	1,2

NOTES
1. PUMP IS BASED ON 110V MODEL
2. INCLUDE OIL MINDER CONTROLS AND ROUTE DISCHARGE PIPING PER PLANS.

DOMESTIC WATER HEATER SCHEDULE

TAG	BASIS OF DESIGN	STORAGE CAPACITY (GAL.)	TOTAL INPUT (KW)	NO. OF ELEMENTS, KW EA.	100 F RECOV. (GPH)	STORAGE TEMP. (DEG F)	WATER CONN. (IN.)	SHIP WEIGHT (LBS.)	POWER	NOTES
EWH-1	LOCHINVAR LDJ-20-JP	20	6.0	1	24	140	3/4	50	SEE DIV. 16	1,2,3

NOTES
1. BASIS OF DESIGN IS LOCHINVAR. ALTERNATE MANUFACTURERS: A.O.SMITH, RHEEM
2. EXPANSION TANK
3. PROVIDE ALL APPURTENANCES FOR A FULLY FUNCTIONING, CODE COMPLIANT WATER HEATING SYSTEM BASED ON IPC, PLANS, NOTES, AND DETAILS.

GAS LOAD SCHEDULE

TAG	GAS LOAD (MBH)	CONNECTION SIZE (in.)
GFU-1	40	1/2
GFU-2	40	1/2
GFU-3	40	1/2
GFU-4	80	1/2
GENERATOR	1,175	3/4
TOTAL	1,375	

CONFIRM CONNECTION SIZE w/ MANUFACTURER'S REQUIREMENTS

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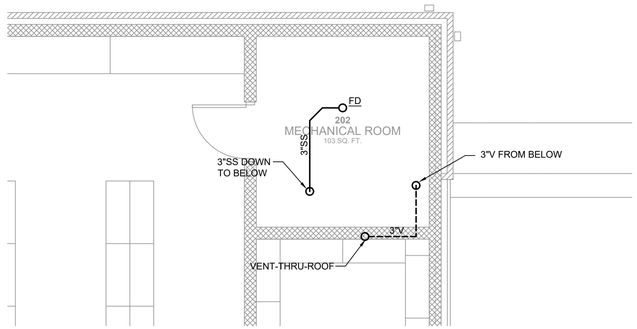
KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED PROFESSIONAL ENGINEER
J. Kyle Cox
5 Dec 2023
J. KYLE COX

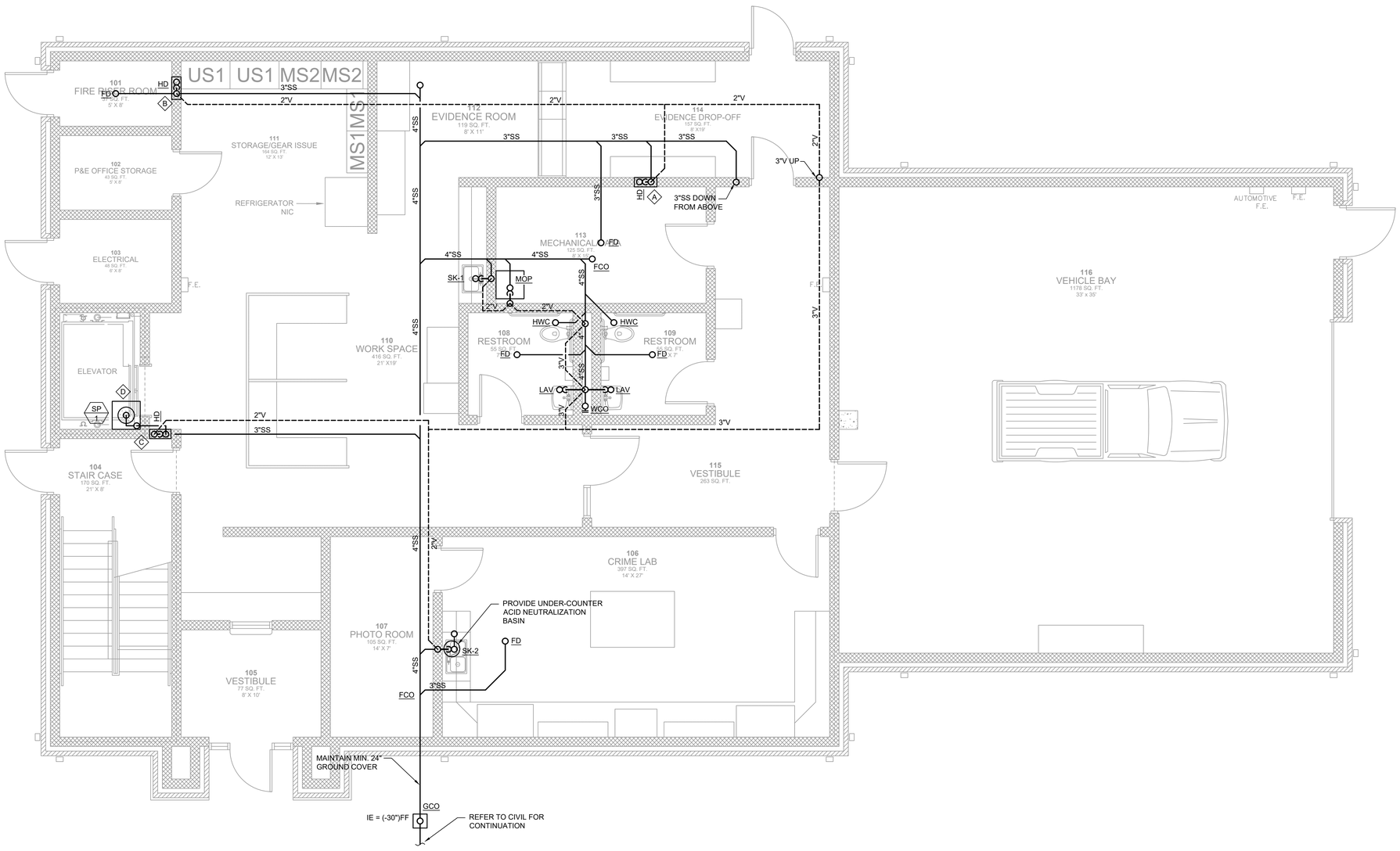
SHEET NAME
PLUMBING SCHEDULES, NOTES, & LEGEND

SHEET INDEX
P0.1



LEVEL 2 - SANITARY WASTE & VENT PLAN

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



LEVEL 1 - SANITARY WASTE & VENT PLAN

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

KEY NOTES

A. PROVIDE HUB DRAIN FOR CONDENSATE LOCATED IN WALL BOX w/ HINGED DOOR. MAINTAIN INDIRECT CONNECTION FOR CODE COMPLIANCE. REFER TO DETAIL

B. PROVIDE HUB DRAIN FOR RISER(s) DRAIN. LOCATE HUB DRAIN IN WALL BOX w/ HINGE DOOR.

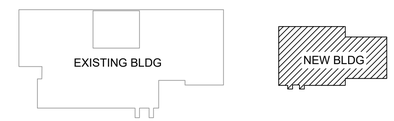
C. PROVIDE HUB DRAIN FOR ELEVATOR SUMP PUMP DISCHARGE. LOCATE HUB DRAIN IN WALL BOX w/ LOCKABLE HINGE DOOR.

D. SUMP PUMP LOCATED IN SUMP PIT. PUMP SHALL BE EQUIPPED w/ INTEGRAL OIL-MINDER CONTROLS TO SHUT-OFF UPON SENSING OIL. REFER TO PUMP SCHEDULE AND DETAIL.

GENERAL CONSTRUCTION NOTES

1. ALL PIPING SHALL BE ROUTED CONCEALED.
2. ALL PIPING INSIDE WALLS SHALL BE SECURED SUCH THAT THERE IS NO MOVEMENT DUE TO WATER HAMMER
3. PROVIDE ISOLATION VALVES AT EACH FIXTURE GROUP. ALL FIXTURES SHALL BE CAPABLE OF REMOVAL / REPLACEMENT WITHOUT SHUTTING OFF BUILDING SUPPLY
4. ALL FLOOR DRAINS SHALL HAVE TRAP PRIMER INLET. PRIME ALL TRAPS w/ WATER-BASED TRAP PIMERS.
5. PROVIDE ESCUTCHEONS AT ALL FIXTURE PIPE WALL PENETRATIONS

KEY PLAN



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KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
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DALTON, GA 30721
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A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

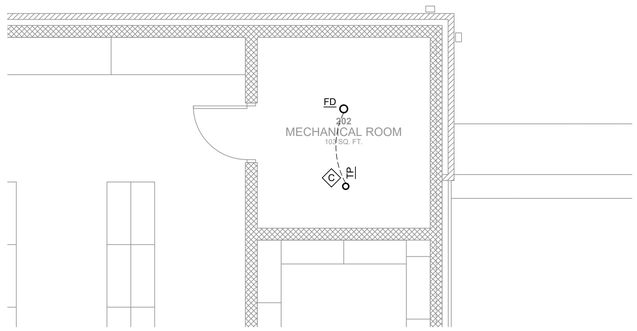
GEORGIA REGISTERED J. KYLE COX LICENSED ARCHITECT
5 Dec 2023
J. KYLE COX

SHEET NAME

NEW FACILITY
SANITARY WASTE &
VENT PLANS

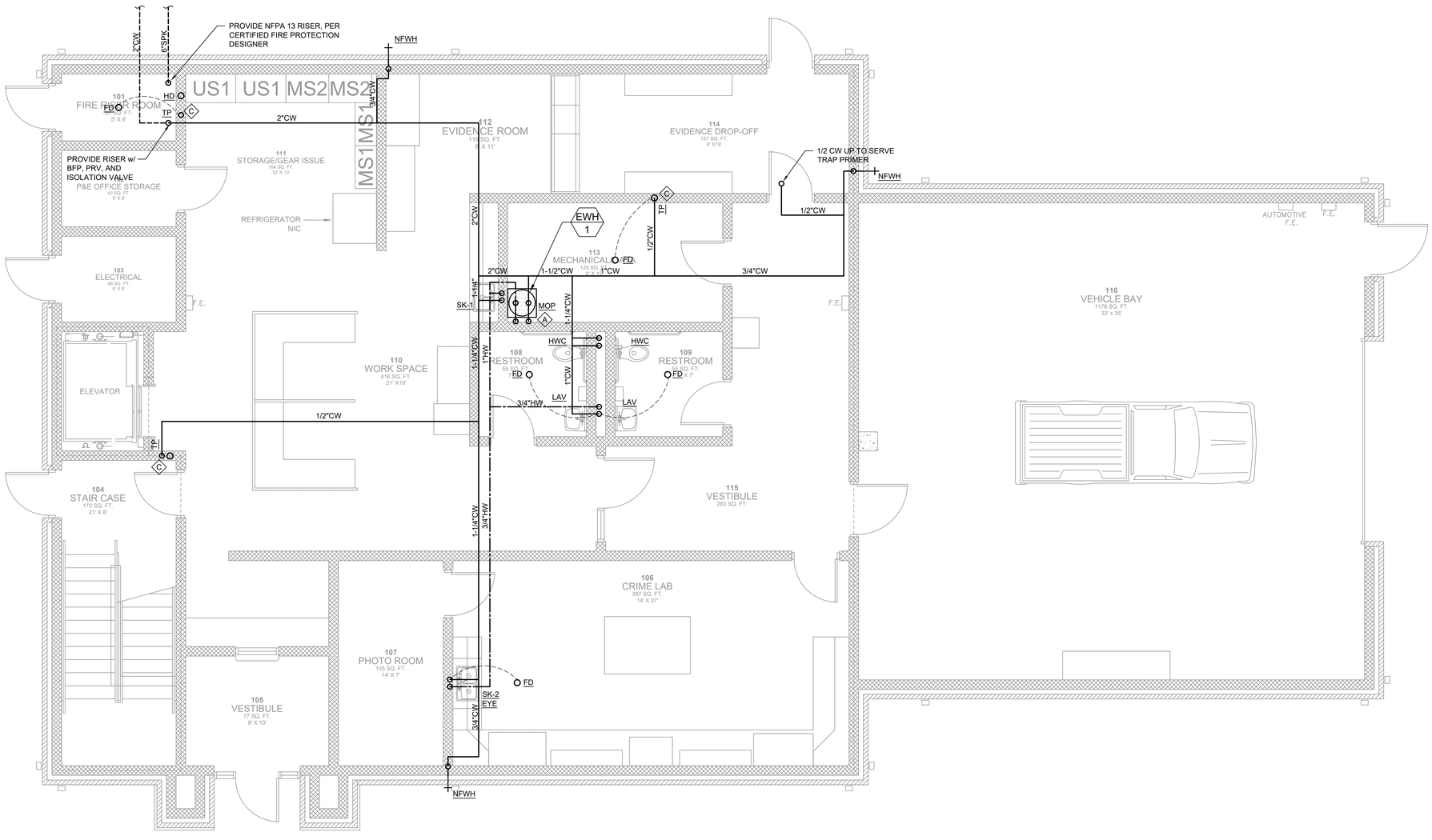
SHEET INDEX

P1.1



LEVEL 2 - DOMESTIC WATER PIPING PLAN

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



LEVEL 1 - DOMESTIC WATER PIPING PLAN

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

KEY NOTES

A. TYPICAL ELECTRIC WATER HEATER MOUNTED ON SHELF ABOVE MOP SINK. REFER TO SCHEDULE AND DETAIL. MAINTAIN ALL CLEARANCES REQUIRED FOR WATER HEATER & MOP SINK

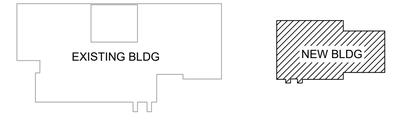
B. PROVIDE 1/2"CW DROP AT EACH FUME HOOD STATION, AS REQUIRED BY MANUFACTURER. CONTRACTOR TO CONFIRM w/ FINAL HOOD EQUIPMENT SELECTION PRIOR TO START OF CONSTRUCTION.

C. PROVIDE 1/2"CW DROP FOR WATER-BASED TRAP PRIMER LOCATED FOR PRIMING HUB DRAIN. REFER TO DETAIL.

GENERAL CONSTRUCTION NOTES

1. ALL PIPING SHALL BE ROUTED CONCEALED.
2. ALL PIPING INSIDE WALLS SHALL BE SECURED SUCH THAT THERE IS NO MOVEMENT DUE TO WATER HAMMER
3. PROVIDE ISOLATION VALVES AT EACH FIXTURE GROUP. ALL FIXTURES SHALL BE CAPABLE OF REMOVAL / REPLACEMENT WITHOUT SHUTTING OFF BUILDING SUPPLY
4. ALL FLOOR DRAINS SHALL HAVE TRAP PRIMER INLET. PRIME ALL TRAPS w/ WATER-BASED TRAP PIMERS.

KEY PLAN



FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

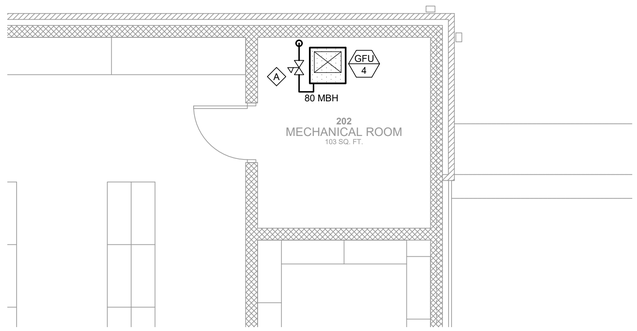
KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED PROFESSIONAL ENGINEER
J. Kyle Cox
5 Dec 2023
J. KYLE COX

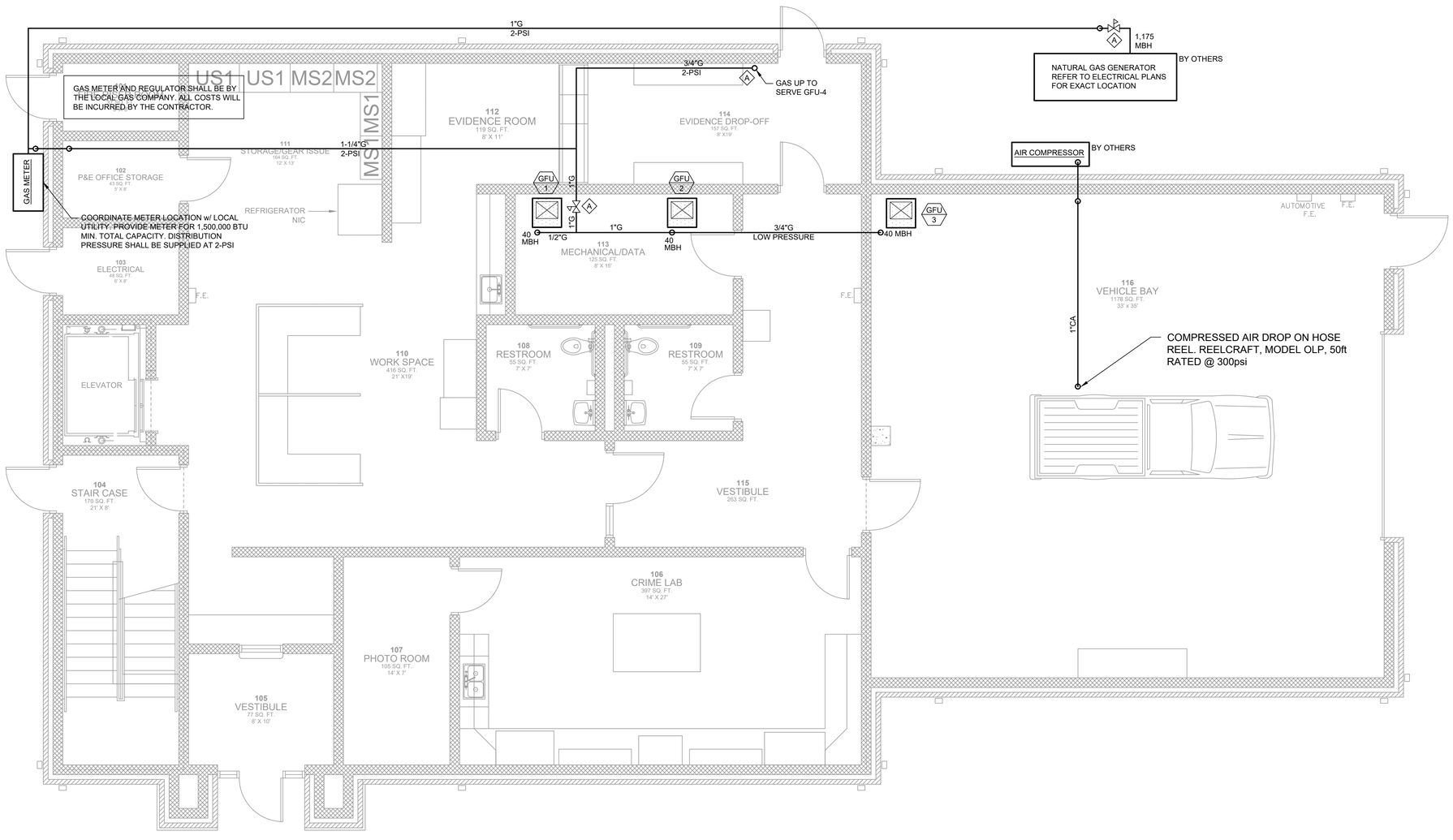
SHEET NAME
NEW FACILITY DOMESTIC WATER PIPING PLANS

SHEET INDEX
P2.1



LEVEL 2 - NATURAL GAS PIPING PLAN

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



LEVEL 1 - NATURAL GAS & COMPRESSED AIR PLAN

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

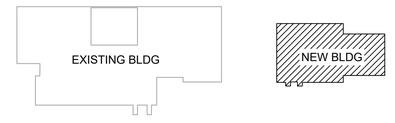
KEY NOTES

A. PROVIDE APPLIANCE REGULATOR RATED FOR CFH NOTED ON EQUIPMENT

GENERAL CONSTRUCTION NOTES

1. GAS METER TO BE COORDINATED w/ LOCAL UTILITY. ALL INSTALLATION SHALL BE PER PLANS UNLESS CONFLICTING w/ LOCAL UTILITY. LOCAL UTILITY REQUIREMENTS SHALL SUPERCEDE.
2. ALL GAS PIPING SHALL BE ROUTED CONCEALED EXCEPT IN STORAGE ROOM & MECHANICAL ROOMS.

KEY PLAN



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SHEET NAME

NEW FACILITY NATURAL GAS & COMPRESSED AIR PIPING PLANS

SHEET INDEX

P3.1

SECTION 13900 - FIRE SUPPRESSION

PART 1 GENERAL

1.1 SUMMARY
- A. Section includes complete fire suppression system including, as required, sprinkler system, fire department connections and fire pump system for sprinkling of the building.
- B. The building design is shown on the project drawings.
- C. The intent of this specification is for the Contractor to determine, based on site visit(s) and the building drawings, the labor, materials, equipment, and other items necessary for a complete sprinkling of the building per NFPA 13. This determination includes, but is not limited to, the use of fire pumps, jockey pumps, fire hoses, stand pipes, and other fire suppression equipment for a complete sprinkling of the building. The Fire Suppression Contractor should base his bid on this determination.
- D. The information contained in the specification on fire pumps is intended to be a guide in the selection and installation of such fire pumps. If, based on hydraulic calculations and hydrant testing, a pump is deemed to be necessary; it is the responsibility of the Contractor to coordinate with other applicable trades, e.g. the Division 16 contractor, to provide a complete and functional fire suppression system installation.

1.2 SYSTEM DESCRIPTION
- A. Sprinkler System: Conform to the following criteria:
  1. Coverage for entire building.
  2. Design system hydraulically to achieve the hazard occupancy requirements set forth in NFPA 13.
- B. Fire Pump (where applicable): Conform to the following criteria:
  1. Description: Electric motor driven.
  2. Design to NFPA 20.
  3. System to achieve performance required by NFPA 13.
- C. The Contractor shall be responsible for coordinating with all other trades.
- D. The Contractor shall be responsible for obtaining all necessary inspections, permits, utility connections, and paying all required fees.
- E. Areas subject to freezing shall be provided with a dry pipe system.

1.3 SUBMITTALS
- A. Shop Drawings: Indicate detailed fire pump and jockey pump layout, pipe layout, supports, components, accessories, sizes, and hydraulic calculations. Drawings to be on a scale of 1/8" = 1'-0" showing all equipment and piping installed under this section. Shop drawings shall be given drawing numbers, which shall be retained through all revisions.
- B. All shop drawings submitted shall be approved by the Fire Marshall before submission to the Architect for approval. Submit sufficient prints for architect to retain three copies.
- C. Product Data: Submit data for pipe materials used, valves, manufacturer's catalog sheet for equipment indicating rough-in size, finish, accessories, pump type, capacity, power requirements, certified pump curves, and NPSH.

1.4 CHARTS AND TAGS
- A. Provide three (3) sets of charts or diagrams showing outline plan of the structures and the essential features of the systems including all piping, equipment, valves, and controls.
- B. All valves, dampers, and controls shall be designated

1.5 CLOSEOUT SUBMITTALS
- A. Project Record Documents: Record actual locations of sprinkler heads.
- B. Operation and Maintenance Data: Submit description of components of system, servicing requirements, record drawings, inspection data, and parts lists.

1.6 QUALITY ASSURANCE
- A. Perform Work in accordance with:
  1. Sprinkler Systems: NFPA 13.
  2. Standpipe and Hose Systems: NFPA 14.
  3. Fire Pump System: NFPA 20.
- B. Design fire suppression system under direct supervision of a NICET qualified fire protection system designer experienced in design of this Work and licensed at Project location.

PART 2 PRODUCTS

2.1 PIPE AND TUBE
- A. Steel Pipe: ASTM A135 black welded or seamless, schedule 40 or 10.
  1. Steel Fittings: ASME B16.9, wrought steel, butt welded; ASME B16.25, butt weld ends; ASTM A234/A234M, wrought carbon steel and alloy steel; ASME B16.5, steel flanges and fittings; ASME B16.11, forged steel socket welded and threaded.
  2. Cast Iron Fittings: ASME B16.1, flanges and fittings; ASME B16.4, threaded fittings.
  3. Malleable Iron Fittings: ASME B16.3, threaded type; ASTM A47/A47M.
  4. Water service underground pipe to building shall be as per site plans.

2.2 GATE VALVES
- A. Up to and including 2 inches: Bronze body and trim, rising stem, hand wheel, solid wedge or disc, threaded ends.
- B. Over 2 inches: Iron body, bronze trim, rising stem pre-grooved for mounting tamper switch, hand wheel, OS&Y, solid bronze or cast iron wedge, flanged or grooved ends.

2.3 BUTTERFLY VALVES
- A. Bronze body, stainless steel disc, resilient replaceable seat, threaded ends, extended neck, hand wheel and gear drive and integral indicating device, tamper switch.
- B. Iron body, iron or bronze disc, EPDM seat, wafer, lug, or grooved ends, extended neck, hand wheel and gear drive, integral indicating device, tamper switch.

2.4 CHECK VALVES
- A. Up to and including 2 inches: Bronze body and swing disc, rubber seat, threaded ends.
- B. Over 2 inches: Iron body, bronze trim, swing check with rubber disc, renewable disc and seat, flanged ends.

2.5 DRAIN VALVES
- A. Bronze compression stop with hose thread nipple and cap.
- B. Brass ball valve with cap and chain, 3/4 inch hose thread.

2.6 SPRINKLERS
- A. Sprinkler brand: Viking, Tyco.
- B. Suspended Ceiling Type: Semi-recessed pendant type with chrome plated finish and matching escutcheon.
- C. Exposed Area Type: Standard upright type with brass finish.
- D. Guards: Finish to match sprinkler head.

2.7 SPRINKLER PIPING SPECIALTIES
- A. Wet Pipe Sprinkler Alarm Valve: Check type valve with electrically or hydraulically operated alarms, with pressure retard chamber and variable pressure trim.
- B. Dry Pipe Sprinkler Alarm Valve: Check type valve with electrically or hydraulically operated alarms, with accelerator.
- C. Flooding Deluge Valve: Gate type valve, actuated electrically with electrically operated alarms, with alarm testing trim.
- D. Water Motor Alarm: Hydraulically operated impeller type alarm gong, red enameled.
- E. Electric Alarm: Electrically operated red enameled gong with pressure alarm switch.
- F. Water Flow Switch: Vane type switch with two contacts.
- G. Pressure Maintenance Pump: Close coupled motor and pump unit, with open drip proof, permanently lubricated, 115 volt, single phase, 60 Hz, motor.
- H. Air Compressor: Single unit, electric motor driven, ASME rated horizontal receiver tank, air pressure operated, safety valves, check valves, automatic tank drain, muffler-filter, belt guard, controls and 115 volt, single phase, 60 Hz motor.

2.8 STANDPIPE EQUIPMENT
- A. Hose Cabinet: Formed steel construction, prime coated; recessed mounted; 16 gage thick with 12 gage thick door; glazed door style, hinged with positive latch device. Fire rated when installed within fire rated assemblies.
- B. Hose Rack: Steel with polished chrome finish; swivel or stationary type with pins and water stop.
- C. Hose: 100 feet of 1-1/2 inch synthetic hose.
- D. Nozzle: Brass; combination fog-straight stream and adjustable shut-off nozzle.
- E. Hose Station Valves: Angle type, 1-1/2 inch nominal size with ball drip.
- F. Hose Connection Valves: Brass, chrome plated finish, 2-1/2 inch size, thread to match fire department hardware, threaded dust cap and chain.

2.9 FIRE DEPARTMENT CONNECTION
- A. Type: Post mounted type in vault with brass finish.
- B. Outlets: Two way with thread size to suit fire department hardware; threaded dust cap and chain of matching material and finish.
- C. Drain: 3/4 inch automatic drip.
- D. Label: "Fire Department Connection."
- E. Coordinate with local fire department on connection type before pricing job.

2.10 FIRE PUMP
- A. Pumps
  1. Type: UL 448 Centrifugal, direct connected.
  2. Casing: Cast iron, split case, single or double suction, rated for 150 psig or 1.25 times working discharge pressure, renewable bronze wearing rings, flanged suction and discharge.
  3. Impeller: Bronze, fully enclosed, keyed to shaft.
  4. Shaft: High-grade alloy steel with copper, bronze or stainless steel shaft sleeves.
  5. Bearings: Grease lubricated ball bearings.
  6. Drive: Flexible coupling with coupling guard.
  7. Seals: Packing gland with minimum four rings packing.
  8. Baseplate: High grade heat-treated cast iron or reinforced steel with integral drain rim.
- B. Accessories:
  1. Check valve in discharge pipe.
  2. OS&Y gate or butterfly valves on system side of check valve and on supply side of pump.
  3. Fire pump bypass fitted with OS&Y gate or butterfly valves and check valve.
  4. Relief valve.
  5. Pressure gages, suction and discharge.
  6. Temperature relief valve.
  7. Umbrella cock, automatic air release.
  8. Splash shield between pump and motor.
  9. Manifold with hose gate valves.
  10. Flow metering system for closed loop testing.
- C. Electric Drive: Squirrel cage type in open drip proof NEMA MG 1 enclosure, 208 volt, three phase, 60 Hz.
- D. Electric Motor Controls: Limited service type with reduced voltage starter.
  1. Alarm circuit for power failure.
- E. Operating Controls: Hand-off-automatic switch, fire water pressure switch to operate pump drive, fire water pressure switches for alarms, with indicating lights for low fire water pressure and high fire water pressure and contacts for remote circuits to indicate pump operational status and alarm status.

2.11 PRESSURE BOOSTER (JOCKEY) PUMP
- A. Electrically operated, positive-displacement pressure booster pump, pressure switch operated.

2.12 ELECTRICAL CHARACTERISTICS AND COMPONENTS
- A. Per Division 16.

PART 3 EXECUTION

3.1 INSTALLATION
- A. Install in accordance NFPA 13, NFPA 14, NFPA 20.
- B. Install Work in accordance with Fire Department, Fire Marshall, and local and state Building Inspection's standards.
- C. Ream pipe and tube ends to full inside diameter. Remove burrs and bevel plain end ferrous pipe.
- D. Remove scale and foreign material, inside and outside, before assembly.
- E. Install sleeves where penetrating footings, floors, or walls. Seal pipe and sleeve penetration to maintain fire resistance equivalent to fire separation of footings, floors, or walls.
- F. Install pipe runs to minimize obstruction to other work. Offset around ductwork.
- G. Install piping in concealed spaces above finished ceilings.
- H. Install gate valves for shut-off or isolating service.
- I. Install drain valves at main shut-off valves, low points of piping and apparatus.
- J. Connect system to water source ahead of domestic water connection with double check valve assembly.
- K. Install heads to coordinate with reflected ceiling plan. Center in two directions in ceiling tiles.
- L. Protection:
  1. Apply temporary tape or paper cover to sprinkler heads to protect from painting.
  2. Protect concealed sprinkler head cover plates from painting.
- M. Install air compressor on vibration isolators.
- N. Install drain piping from tank to nearest floor drain.
- O. Interface sprinkler system with building fire and smoke alarm system.
- P. Locate fire department connection with sufficient clearance from walls, obstructions, or adjacent Siamese connectors to allow full swing of fire department wrench handle.
- Q. Install drain piping from pump bases, pump stuffing boxes, and pump casings to floor sinks or drains. Install air vents on pump cases.
- R. Install long radius elbows on suction side of pump. Do not support piping from pump casing.
- S. Align base mounted pumps. Install on vibration isolators.
- T. On jockey pumps, install shut-off valves, check valve, and relief valves.
- U. Flush entire piping system of foreign matter.
- V. Hydrostatically test entire system. Schedule test to be witnessed by authority having jurisdiction.

END OF SECTION

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GEORGIA REGISTERED J. Kyle Cox 5 Dec 2023 ARCHITECT J. KYLE COX

SHEET NAME
PLUMBING SPECIFICATIONS

SHEET INDEX
P4.1

SECTION 15080 - PLUMBING INSULATION

PART 1 GENERAL

1.1 GENERAL

A. Section 15010 applies.

PART 2 PRODUCTS

2.1 BASIS OF DESIGN

A. Manufacturers shown below as Basis of Design
1. Acceptable Manufacturers for Glass Fiber and Mineral Fiber Insulation Products: CertainTeed, Knauf, Johns Manville, Owens-Corning.

2.2 PIPE INSULATION

A. Domestic Hot Water Supply and Recirculation
1. ASTM C547, molded glass fiber pipe insulation.
2. Thermal Conductivity: 0.23 at 75 degrees F.
3. Operating Temperature Range: 0 to 850 degrees F.
4. Vapor Barrier Jacket: ASTM C1136, Type I, factory applied reinforced foil kraft with self-sealing adhesive joints.
5. Jacket Temperature Limit: minus 20 to 150 degrees F.
6. Thickness: 1'' thickness for 1-1/2'' pipe and smaller. 1-1/2'' thickness for pipes larger than 1-1/2''.

B. Domestic Cold Water Supply and Condensate Piping
1. ASTM C547, molded glass fiber pipe insulation.
2. Thermal Conductivity: 0.23 at 75 degrees F.
3. Operating Temperature Range: 0 to 850 degrees F.
4. Vapor Barrier Jacket: ASTM C1136, Type I, factory applied reinforced foil kraft with self-sealing adhesive joints.
5. Jacket Temperature Limit: minus 20 to 150 degrees F.
6. Thickness: 1/2'' thickness for all pipes.

C. Pipe Insulation Jacket
1. ASTM C921, white Kraft paper with glass fiber yarn, bonded to aluminized film.
2. Water vapor transmission: ASTM E96/E96M; 0.02 perm-inches.

PART 3 EXECUTION

3.1 INSTALLATION - PIPING SYSTEMS

A. Paint insulation to match ceiling where piping and pipe insulation are exposed to view.

B. Verify piping and equipment has been tested before applying insulation materials. Verify surfaces are clean and dry, with foreign material removed. Piping Exposed to View in Finished Spaces: Locate insulation and cover seams in least visible locations.

C. Continue insulation through penetrations of building assemblies or portions of assemblies having fire resistance rating of one hour or less. Provide expanding fire stopping when continuing insulation through assembly. Finish at supports, protrusions, and interruptions.

D. Hot and Cold Piping Systems:
1. Insulate entire system including fittings, valves, unions, flanges, strainers, flexible connections, and expansion joints.
2. Furnish factory-applied or field-applied standard jackets. Secure with outward clinch expanding staples or pressure sensitive adhesive system on standard factory-applied jacket and butt strips or both.
3. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe. Finish with glass cloth and adhesive or PVC fitting covers.
4. Do not insulate unions and flanges at equipment, but bevel and seal ends of insulation at such locations. For hot piping systems above 140 degrees F, insulate unions and flanges at equipment.

E. Inserts and Shields:
1. Piping 1-1/2 inches Diameter and Smaller: Install steel shield between pipe hanger and insulation.
2. Piping 2 inches Diameter and Larger: Install insert between support shield and piping and under finish jacket.
a. Insert Configuration: Minimum 6 inches long, of thickness and contour matching adjoining insulation; may be factory fabricated.
b. Insert Material: Compression resistant insulating material suitable for planned temperature range and service.
3. Piping Supported by Roller Type Pipe Hangers: Install galvanized steel shield between roller and inserts.
a. Condensate Piping: Insulate entire piping system and components inside the building space to prevent condensation.
b. Pipe exposed in Mechanical Equipment or Finished Spaces: Finish with PVC jacket and fitting covers. Labels on exterior covers should be oriented so as to be easily readable and shall have directional flow arrows.

END OF SECTION

SECTION 15100 - PIPING AND ACCESSORIES

PART 1 GENERAL

1.1 GENERAL

A. Section 15010 is applicable.

1.2 PRESSURE

A. The working pressure of all pipes, fittings, valves, and joints shall be in excess of the maximum system pressure and maximum system temperature at the point of installation.

PART 2 PRODUCTS

2.1 PIPE HANGERS AND SUPPORTS

A. Conform to ASME B31.9, ASTM F708.

B. Hangers for Non Insulated Pipe Sizes 1/2 to 1-1/2 inch: Malleable iron or carbon steel, adjustable swivel, split ring.

C. Hangers for Insulated and Non Insulated Pipe Sizes ½'' to 30 inches: Carbon steel, adjustable, clevis.

D. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.

E. Vertical Support: Steel riser clamp.

F. Wall Support for Pipe Sizes to 3 inches: Cast iron hook.

G. Wall Support for Pipe Sizes 4 inches and Over: Welded steel bracket and wrought steel clamp.

H. Copper Pipe Support: Copper-plated, carbon-steel adjustable, ring.

I. Floor Support for horizontal Pipe Sizes to 4 inches: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.

J. Floor Support for horizontal Pipe Sizes 6 inches and Over: Adjustable cast iron roll and stand, steel screws, and concrete pier or steel support.

K. Ground support for exterior horizontal Pipe: Adjustable stainless steel roll and stand, and concrete pier support.

2.2 PIPE SLEEVES

A. Sleeves are defined as holes that are provided to permit the passage of pipe (and insulation) through walls or floors. Soil, waste, vent, and domestic water pipes stubbed through walls and floors for plumbing fixture connections do not require sleeves.

B. Masonry: Sleeves shall be schedule 40 steel pipe and shall be large enough to accommodate continuous passage of pipe plus insulation through the wall or floor system. Pipe sleeves shall extend 1'' on both sides of a wall or floor.

C. Concrete:
1. Sleeves through concrete walls and floor shall be formed by any device that forms a neat circular hole, of proper size, through the wall or floor system. Acceptable devices are pipe and sheet metal.
2. Structural floor sleeves require extension above the floor surface to prevent water passage down the sleeves, and shall be made of schedule 40 black steel pipe extended 1'' above the floor.

D. Other Sleeves: Where sleeves pass through wood, drywall, plaster partitions, or suspended ceilings, sleeves shall be neatly cut holes sealed with caulk, finished with chrome plated escutcheon where exposed in visible areas.

E. Sealing of annular space: For sleeves in masonry and concrete walls and elevated floor slabs, non-rated, annular spaces shall be packed with silicone RTV foam. Sleeves in exterior walls shall be sealed with a "Link Seal'' assembly or packed with fiberglass and sealed at both ends with weather-resistant, non-hardening caulk. Where escutcheons are not required, the annular space shall be neatly sealed at the sleeve end. Pipes passing through ducts and plenums shall be sealed air tight. Annular spaces that pass through fire resistive or fire rated partitions, or ceilings shall be closed with 3M Fire Barrier Penetration Sealing System.

F. Unused holes in floors made for duct or pipe penetrations shall be sealed neatly to match existing wall or floor.

G. All sleeves shall be sized for full pipe size plus pipe insulation thickness through the entire length of the sleeve.

2.3 ESCUTCHEONS

A. Escutcheons are annular shaped metal plates installed to cover annular spaces around pipes entering walls, floors, or other partitions. They are installed for decorative purposes in areas where these penetrations are visible. Escutcheons shall be chrome plated steel, fastened to remain secure and in position at all times.

B. Escutcheons for water closets, plated supply pipes, and shower heads shall be chrome plated brass with setscrew.

C. Escutcheons are not to be installed on the bell of any soil or drain pipes, on any pipe larger than 4'', on insulated pipe if exterior diameter of insulation is larger than 4'', or on pipes which do not enter the wall or floor at right angles.

2.4 FLASHING

A. Flashing shall be sheet lead, 4 lbs. per square foot, and shall extend out from pipe and edge of drain a minimum of 12''.

B. Roof drains, floor drains, area drains, and equipment room drains installed where membrane water-proofing is installed shall be flashed.

C. Vent stacks and other pipes through roof shall be flashed. Flashing may be caulked into pipe bell if flush with finished roof, or on 3'' and larger may employ 4 lb. boot flashing. Vents shall extend a minimum of 12'' above finished roof elevation at penetration. Refer to roof pipe portals for piping through roof other than sanitary vents or overflow drains.

2.5 PIPES AND TUBES

A. Sanitary Sewer (SS), Grease Waste (GW), and Vent Piping (V) PIping
1. Sanitary Sewer (SS): PVC, schedule 40, with PVC fittings and elastomeric gasket joints. Solvent weld with ASTM D2564 solvent cement.
2. Grease Waste (GW): PVC, schedule 40, with PVC fittings and elastomeric gasket joints. Solvent weld with ASTM D2564 solvent cement.
3. Vent Piping (V): PVC, schedule 40, with PVC fittings and elastomeric gasket joints. Solvent weld with ASTM D2564 solvent cement.
4. WRAP ALL NON-METALIC PIPING IN HVAC PLENUM SPACES with 3M Fire Wrap 5A+.

B. Domestic Water Piping, Cold water (CW), Hot water (HW) & Hot water return (HWR)
1. Underground: Type K Copper Tubing ASTM B42, Tempered O61 annealed without fittings.
2. Above ground: Type L copper tubing, ASTM B88, drawn with wrought copper fittings and grade 95TA solder joints.
3. Exposed fixtures: Chrome plated brass and copper tubing with threaded plated brass fittings.

C. TPR Drain Piping: PVC, Schedule 40, with PVC fittings and elastomeric gasket joints. Solvent weld with ASTM D2564 solvent cement.

D. Trap Primer piping (TP): Type K Copper Tubing ASTM B42, Tempered O61 annealed without fittings.

2.6 VALVES

A. For drinking water service, provide valves and equipment complying with NSF 61.

B. Gate Valves:
1. Up to 2 inches: Bronze body, bronze trim, non-rising stem, hand wheel, inside screw, double wedge disc, soldered or threaded.
2. Over 2 inches: Iron body, bronze trim, rising stem, hand wheel, OS&Y, solid wedge, flanged or grooved ends.

C. Ball Valves:
1. Up to 2 inches: Bronze or stainless steel one piece body, chrome plated brass ball, teflon seats and stuffing box ring, lever handle, solder or threaded ends.
2. Over 2 inches: Cast steel flanged body, chrome plated steel ball, Teflon seat and stuffing box seals and lever handle.

D. Relief Valves:
1. Bronze body, Teflon seat, stainless steel stem and springs, automatic, direct pressure actuated capacities ASME certified and labeled.

E. Plug Valves:
1. Up to 2 inches: Bronze body, bronze tapered plug, non-lubricated, Teflon packing, threaded ends.
2. Over 2 inches: Cast iron body and plug, pressure lubricated, Teflon packing, flanged ends.

F. Butterfly Valves:
1. Up To 2 inches: Bronze body, stainless steel disc, resilient replaceable seat, threaded ends, extended neck, 10-position lever handle.
2. Over 2 inches: Iron body, chrome plated iron disc, resilient replaceable seat, wafer or lug ends, extended neck, 10 position lever handle.

G. Swing Check Valves:
1. Up to 2 inches: Bronze body and swing disc, solder or threaded ends.
2. Over 2 inches: Iron body, bronze trim, swing disc, renewable disc and seat, flanged ends.

H. Spring Loaded Check Valves:
1. Iron body, bronze trim with threaded, wafer or flanged ends and stainless steel spring with renewable composition disc.

I. Relief Valves:
1. Bronze body, Teflon seat, stainless steel stem and springs, automatic, direct pressure actuated capacities ASME certified and labeled.

2.7 METERS AND GAGES

A. Thermometers:
1. Scale Range: Temperature ranges for services listed are as follows:
a. Domestic Hot Water: 30 to 240 deg F, with 2-degree scale divisions
b. Domestic Cold Water: 0 to 100 deg F, with 2-degree scale divisions

B. Liquid-In-Glass Thermometers Description: ASTM E 1.
a. Case: Die cast and aluminum finished in baked-epoxy enamel, glass front, spring secured, 9 inches (230 mm) long.
b. Adjustable Joint: Finish to match case, 180-degree adjustment in vertical plane, 360-degree adjustment in horizontal plane, with locking device.
c. Tube: Red or blue reading, organic-liquid filled with magnifying lens.

Retain paragraph above or below. Tube type above is recommended.
d. Tube: Red or blue reading, mercury filled with magnifying lens.
e. Scale: Satin-faced nonreflective aluminum with permanently etched markings.
f. Stem: Copper-plated steel, aluminum, or brass for separable socket; of length to suit installation.
2. Thermometer Wells: Fitting with protective well for installation in threaded pipe fitting to hold test thermometer.
a. Material: Brass, for use in copper piping.
b. Material: Stainless steel, for use in steel piping.
c. Material: Steel, for use in steel piping.
d. Extension-Neck Length: Nominal thickness of 2 inches but not less than thickness of insulation. Omit extension neck for wells for piping not insulated.
e. Retain one of three subparagraphs below.
f. Insertion Length: To extend to one-third of diameter of pipe.
g. Cap: Threaded, with chain permanently fastened to socket.
h. Heat-Transfer Fluid: Oil or graphite.

C. Pressure Gages
1. Description: ASME B40.1, phosphor-bronze bourdon-tube type with bottom connection; dry type, unless liquid-filled-case type is indicated.
2. Cases are also constructed of molded aluminum and phenolic plastic. Lenses are also made of clear acrylic plastic.
3. Case: Drawn steel, brass, or aluminum with 4-1/2-inch diameter, glass lens.
4. Connector: Brass, NPS 1/4.
5. Scale: White-coated aluminum with permanently etched markings.
6. Range: 0-100 PSI.

D. Test Plugs
1. Description: Nickel-plated, brass-body test plug in NPS 1/2 fitting.
2. Body: Length as required to extend beyond insulation.
3. Pressure Rating: 500 psig minimum.
4. Core Inserts: One or two self-sealing valves, suitable for inserting 1/8-inch OD probe from dial-type thermometer or pressure gage.
5. Test-Plug Cap: Gasketed and threaded cap, with retention chain or strap.
6. Test Kit: Pressure gage and adapter with probe, two bimetal dial thermometers, and carrying case.

E. Calibrated Flow Balancing Valves
1. Furnished with calibrated nameplate and memory stop.
2. Fitted with capped readout fittings.

2.8 PIPING SPECIALTIES

A. Flanges, Unions, and Couplings:
1. Pipe Size 2 inches and Under: Malleable iron unions for threaded ferrous piping; bronze unions for copper pipe, soldered joints.
2. Pipe Size Over 2 inches: Forged steel flanges for ferrous piping; bronze flanges for copper piping; preformed neoprene gaskets.
3. Grooved and Shouldered Pipe End Couplings: Malleable iron housing, C-shape elastomer composition sealing gasket, steel bolts, nuts, and washers.
4. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier. Dielectric unions shall be used for joining ferrous and non-ferrous metals to prevent galvanic corrosion.

B. Strainers:
1. Size 2 inches and Under: Threaded brass or iron body for 175 psig working pressure, Y pattern with 1/32 inch stainless steel perforated screen.
2. Size 2-1/2 inch to 4 inch: Flanged iron body for 175 psig working pressure, Y pattern with 3/64 inch stainless steel perforated screen.

C. Flexible Connectors:
1. Corrugated stainless steel hose with single layer of stainless steel exterior braiding, minimum 9 inches long with copper tube ends; for maximum working pressure 300 psig.

D. Water Hammer Arrestors:
1. Install on all fixture branches having quick-closing valves and at the tops of all risers to prevent water hammer. Each water hammer arrestor shall be sized and certified according to the Plumbing and Drainage Institute standard - WH201.

2.9 DRAINAGE FIXTURES

A. Floor Drain (FD): Floor drain shall be epoxy coated cast iron drain with anchor flange, reversible clamping collar with primary and secondary weep holes, adjustable round nickel bronze strainer and no hub outlet.
1. Basis of design: Watts FD-100-A

2.10 CLEANOUTS (CO)

A. Cleanouts shall be provided at the base of each stack, and at each change in direction greater than 45 degrees. Cleanouts shall be of the same nominal size as the connected pipe up to and including 4'' and not less than 4'' in larger pipe.

B. The distance between cleanouts in horizontal soil and waste lines shall not be greater than 50 feet for pipes up to and including 3'', 80 feet for lines 4'' and larger.

C. All cleanouts shall be made with a caulking cast ferrule having a cast brass cleanout screw plug, having a raised nut not less than 1'' high, except that cleanouts underground under floor slabs shall be extended through the slabs, flush with the floor line, provided with countersunk caps.

D. Basis of Design: J.R. Smith, according to the following table.
1. Exposed piping, cast iron: 4470
2. Exterior or unfinished area floors, cast iron: 4031
3. Finished ceramic or quarry tile floors: 4051
4. Vinyl tile floors (recessed top for tile insert): 4151
5. All walls: 4472
6. Carpeted area floors (carpet cleanout markers): 4031-X

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify excavations are to required grade, dry, and not over-excavate.

3.2 PREPARATION

A. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe.

B. Remove scale and dirt, on inside and outside piping before assembly.

C. Prepare piping connections to equipment with flanges or unions.

3.3 INSTALLATION - INSERTS

A. Install inserts for placement in concrete forms.

B. Install inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams.

C. Provide hooked rod to concrete reinforcement section for inserts carrying pipe over 4 inches.

D. Where concrete slabs form finished ceiling, locate inserts flush with slab surface.

E. Where inserts are omitted, drill through concrete slab from below and provide through-bolt with recessed square steel plate and nut recessed into and grouted flush with slab.

3.4 INSTALLATION - PIPING SYSTEMS

A. Install dielectric connections wherever joining dissimilar metals.

B. Label all piping with labels and directional flow arrows per 22 0001.

C. Install unions downstream of valves and at equipment or apparatus connections.

D. Route piping parallel to building structure and maintain gradient.

E. Install piping to maintain headroom. Group piping to conserve space. Group piping whenever practical at common elevations.

F. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.

G. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings.

H. Sleeve pipe passing through partitions, walls and floors.

I. Install piping system allowing clearance for installation of insulation and access to valves and fittings.

J. Install identification on piping systems including underground piping.

K. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completed system.

3.5 INSTALLATION - VALVES

A. Install valves with stems upright or horizontal, not inverted.

B. Install ball or butterfly valves for shut-off and to isolate equipment, part of systems, or vertical risers.

C. Install ball or butterfly valves for throttling, bypass, or manual flow control services.

D. Provide lug end butterfly valves adjacent to equipment when functioning to isolate equipment.

E. Install spring loaded check valves on discharge of pumps.

F. Install plug valves for throttling service. Install non-lubricated plug valves only when shut-off or isolating valves are also installed.

G. Install 3/4 inch drain ball valves at main shut-off valves, low points of piping, bases of vertical risers, and equipment drains. Pipe to nearest drain.

3.6 INSTALLATION - PIPING SPECIALTIES

A. Install pressure gages with pulsation dampers. Provide ball valve to isolate each gage. Extend nipples and siphons to allow clearance from insulation.

B. Install thermometers in piping systems in sockets in short couplings. Enlarge pipes smaller than 2-1/2 inches for installation of thermometer sockets. Allow clearance from insulation.

C. Install gages and thermometers in locations where they are easily read from normal operating level. Install vertical to 45 degrees off vertical.

D. Adjust gages and thermometers to final angle, clean windows and lenses, and calibrate to zero.

E. Provide drain and hose connection with valve on strainer blow down connection.

F. Test backflow preventers in accordance with ASSE.

3.7 INSTALLATION - PLUMBING SUPPLY PIPING

A. Install water piping in accordance with ASME B31.9.

B. Insulate all domestic hot water (and recirculating) pipes and domestic cold water pipes per specs.

C. Establish elevations of buried piping outside the building to obtain not less than two (2) ft of cover.

D. Provide support for utility meters in accordance with requirements of utility companies.

E. Slope water piping and arrange to drain at low points.

F. Install piping from relief valves, back-flow preventers and drains to nearest drain.

G. Install water hammer arrestors complete with accessible isolation valve on hot and cold water supply piping to lavatories, sinks, washing machine outlets, and other fixtures and equipment with quick acting valves.

H. Provide water service complete with approved reduced pressure back-flow preventer and water meter with by-pass valves, pressure reducing valve, and sand strainer.

I. Install flow controls in water circulating systems as indicated on Drawings.

J. Disinfecting of Domestic Water Systems:
1. Prior to starting, verify system is complete, flushed and clean.
2. Verify pH of water to be treated is between 7.4 and 7.6 by adding alkali (caustic soda or soda ash) or acid (hydrochloric).
3. Inject disinfectant, free chlorine in liquid, powder and tablet or gas form, throughout system to obtain residual from 50 to 80 mg/L.
4. Bleed water from outlets to obtain distribution and test for disinfectant residual at minimum 15 percent of outlets.
5. Maintain disinfectant in system for 24 hours.
6. When final disinfectant residual tests less than 25 mg/L, repeat treatment.
7. Flush disinfectant from system until residual concentration is equal to incoming water or 1.0 mg/L.
8. Take samples no sooner than 24 hours after flushing, from 10 percent of outlets and from water entry, and analyze in accordance with AWWA C651.

3.8 INSTALLATION - PLUMBING DRAINAGE PIPING

A. Install bell and spigot pipe with bell end upstream.

B. Extend cleanouts to finished floor or wall surface. Lubricate threaded cleanout plugs with mixture of graphite and linseed oil. Install with clearance at cleanout for rodding of drainage system.

C. Encase exterior cleanouts in concrete flush with grade.

D. Install floor cleanouts at elevation to accommodate finished floor.

E. Establish elevations of buried piping outside building to provide not less than 2 ft of cover.

F. Install piping penetrating roofed areas to maintain integrity of roof assembly.

G. Establish invert elevations, slopes for drainage per plumbing plan notes. Maintain gradients.

H. Test drainage piping in accordance with local code requirements.

3.9 INSTALLATION - PIPE HANGERS AND SUPPORTS

A. Support horizontal piping as scheduled.

B. Install hangers with minimum 1/2 inch space between finished covering and adjacent work.

C. Place hangers within 12 inches of each horizontal elbow.

D. Use hangers with 1-1/2 inch minimum vertical adjustment.

E. Support horizontal cast iron pipe adjacent to each hub, with 5 feet maximum spacing between hangers.

F. Support vertical piping at every floor. Support vertical cast iron pipe at each floor at hub.

G. Where piping is installed in parallel and at same elevation, provide multiple pipe or trapeze hangers.

H. Design hangers for pipe movement without disengagement of supported pipe.

I. Prime coat exposed steel hangers and supports. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.

3.10 SERVICE CONNECTIONS

A. Install sanitary sewer services. Before commencing work check invert elevations required for sewer connections, confirm inverts and verify proper slope for drainage and proper cover to avoid freezing.

3.11 PIPE CLEANING

A. Flush heating system hot water, and cooling system chilled water piping with clean water. Where temporary construction strainers are installed, remove and install permanent strainer. Remove and clean or replace other strainer screens.

END OF SECTION

SECTION 15401 - PLUMBING FIXTURES

PART 1 GENERAL

1.1 GENERAL

A. Section 15010 is applicable.

PART 2 PRODUCTS

2.1 BASIS OF DESIGN

A. Fixture and accessory brands and model numbers shown below are intended to establish minimum acceptable quality. Models deemed by the engineer to be of inferior quality as compared to the Basis of Design will not be accepted. Equivalent fixtures and accessories by the manufacturers noted below are acceptable unless noted otherwise.
1. Fixtures: Toto, Kohler, Crane, American Standard
2. Sinks: Just, Moen, Kohler, Advance Tabco, Elkay, Toto
3. Faucets: Toto, Delta, Kohler, Zurn, Symmons, Moen
4. Supplies: Brasscraft, McGuire, ProFlo, Franklin Brass
5. Water Closet Seats: Kohler, Toto, American Standard, Proflo, Bemis, Beneke
6. Drinking Fountains: Elkay, Kohler
7. Fixture Carriers: J.R. Smith, Zurn, Josam
8. Floor drains: Watts, J.R. Smith, Josam, Zurn
9. Indirect drains: Watts, J.R. Smith, Josam, Zurn
10. Cleanouts: Watts, J.R. Smith, Josam, Zurn, Wade
11. Hose Bibbs: Woodford, Chicago, T&S Brass
12. Wall Hydrants: Josam, Woodford, J.R. Smith

PART 3 PLUMBING FIXUTURES:

3.1 FIXTURES ARE SCHEDULED ON THE PLANS.

PART 4 EXECUTION

4.1 INSTALLATION

A. Verify adjacent construction is ready to receive rough-in work of this section. Review final millwork shop drawings. Confirm location and size of fixtures and openings before rough in and installation. If discrepancies exist between millwork sizes and fixtures specified, contact Engineer for direction.

B. All fixtures shall be installed straight, level, and plumb. When three or more of the same fixture are installed adjacent to each other, use equal spacing between fixtures.

C. All fixtures and equipment shall be installed with all accessories required for a complete and fully functional installation, regardless of whether all equipment and accessories are listed on the plans or in the specifications.

D. All vitreous china fixtures shall be bright white in color unless otherwise noted. Faucets shall be polished chrome unless otherwise noted. If these colors are unavailable, contact Engineer for approved alternatives.

E. Install each fixture with chrome plated rigid or flexible supplies with screwdriver stops, reducers, and escutcheons. All water and drain piping exposed to view shall be chrome plated. Piping underneath counters with closing doors need not be chrome plated.

F. All handicapped fixtures shall be installed according to ADA and local code requirements. All handicapped drains shall be covered.

G. All floors where floor drains are installed shall slope to drain, minimum 2%. This contractor shall coordinate with the applicable trades to ensure that the proper slope is achieved.

H. Prime all floor drains. Where accessible, prime drain by water-saver trap primer from adjacent lavatory. Otherwise prime floor drain using water-valve type primer from domestic water supply. In lieu of water-based trap primers, mechanical trap guards may be used where Owner and AHJ allow.

I. All pressure operated fixtures and equipment shall be furnished with water stops. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

J. All hand washing fixtures shall have a delivered water temperature limit of 110 degrees F unless specified otherwise. This may be accomplished with a tempering valve at each device to maintain delivered temperature below 110 F. See plans for location of tempering valves as applicable.

END OF SECTION

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED PROFESSIONAL ENGINEER
5 Dec 2023
KYLE COX

SHEET NAME
PLUMBING SPECIFICATIONS

SHEET INDEX
P4.2

SECTION 15195 - FACILITY NATURAL GAS PIPING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. NATURAL GAS piping buried within 5 feet of building.
2. NATURAL GAS piping above grade.
3. Unions and flanges.
4. Valves.
5. Pipe hangers and supports.
6. Strainers.
7. NATURAL GAS pressure regulators.
8. NATURAL GAS pressure relief valves.
9. Underground pipe markers.
10. Bedding and cover materials.

B. All general conditions of the contract apply.

C. Related Sections:
1. Section 15010 - Mechanical General
2. Section 15061 - Hangers and Supports for HVAC Piping and Equipment: Product requirements for pipe hangers and supports for placement by this section.

1.2 REFERENCES

A. American National Standards Institute:
1. ANSI Z21.15 - Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves.

B. American Society of Mechanical Engineers:
1. ASME B16.3 - Malleable Iron Threaded Fittings.
2. ASME B16.26 - Cast Copper Alloy Fittings for Flared Copper Tubes.
3. ASME B16.33 - Manually Operated Metallic Gas Valves for Use in Gas Piping Systems Up to 125 psig (sizes 1/2 - 2).
4. ASME B31.9 - Building Services Piping.
5. ASME Section IX - Boiler and Pressure Vessel Code - Welding and Brazing Qualifications.

C. ASTM International:
1. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
2. ASTM A234/A234M - Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service.
3. ASTM B88 - Standard Specification for Seamless Copper Water Tube.
4. ASTM B88M - Standard Specification for Seamless Copper Water Tube (Metric).
5. ASTM B280 - Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service.
6. ASTM B749 - Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products.
7. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.

D. American Welding Society:
1. AWS D1.1 - Structural Welding Code - Steel.

E. American Water Works Association:
1. AWWA C105 - American National Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.

F. Manufacturers Standardization Society of the Valve and Fittings Industry:
1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
2. MSS SP 67 - Butterfly Valves.
3. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
4. MSS SP 78 - Cast Iron Plug Valves, Flanged and Threaded Ends.
5. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.
6. MSS SP 110 - Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends.

G. National Fire Protection Association:
1. NFPA 54 - National Fuel Gas Code.

H. Underwriters Laboratories Inc.:
1. UL 842 - Valves for Flammable Fluids.

1.3 SYSTEM DESCRIPTION

A. Where more than one piping system material is specified, provide compatible system components and joints. Use non-conducting dielectric connections when joining dissimilar metals in systems.

B. Provide flanges, unions, or couplings at locations requiring servicing. Use unions, flanges, or couplings downstream of valves and at equipment connections. Do not use direct welded or threaded connections to valves, equipment.

C. Provide pipe hangers and supports in accordance with ASME B31.9, ASTM F708.

D. Use plug, ball, or butterfly valves for shut-off and to isolate equipment, part of systems, or vertical risers.

1.4 QUALITY ASSURANCE

A. Perform NATURAL GAS Work in accordance with NFPA 54, local gas company requirements

B. Perform Work in accordance with ASME B31.9 code for installation of piping systems and ASME Section IX for welding materials and procedures.

1.5 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

PART 2 PRODUCTS

2.1 NATURAL GAS PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Steel Pipe: ASTM A53/A53M Schedule 40 black.
1. Fittings: ASTM A234/A234M forged steel welding type.
2. Joints: ASME B31.9, welded.
3. Jacket: AWWA C105 polyethylene jacket or double layer, half-lapped 10 mil polyethylene tape.

2.2 NATURAL GAS PIPING, ABOVE GRADE

A. Steel Pipe: ASTM A53/A53M Schedule 40 black.
1. Fittings: ASME B16.3, malleable iron, or ASTM A234/A234M forged steel welding type.
2. Joints: Threaded for pipe 2 inch and smaller; welded for pipe 2-1/2 inches and larger.

B. Corrugated Stainless Steel Tubing: ANSI LC 1.

2.3 Regulator Vent PIPING, ABOVE GRADE

A. Indoors and outdoors: Same as NATURAL GAS piping, above grade.

2.4 UNIONS AND FLANGES

A. Unions for Pipe 2 inches and Smaller:
1. Ferrous Piping: Class 150, malleable iron, threaded.
2. Copper Piping: Class 150, bronze unions with [soldered] [brazed joints].
3. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.

B. Flanges for Pipe 2-1/2 inches and Larger:
1. Ferrous Piping: Class 150, forged steel, slip-on flanges.
2. Copper Piping: Class 150, slip-on bronze flanges.
3. Gaskets: 1/16 inch thick preformed neoprene gaskets.

2.5 BALL VALVES

A. Acceptable Manufacturers: Crane Valve, Hammond Valve, Milwaukee Valve, NIBCO, Stockham Valves & Fittings.

B. 1/4 inch to 1 inch: MSS SP 110, Class 125, two piece, threaded ends, bronze body, chrome plated bronze ball, reinforced teflon seats, blow-out proof stem, lever handle, UL 842 listed for flammable liquids and LPG, full port.

C. 1-1/4 inch to 3 inch: MSS SP 110, Class 125, two piece, threaded ends, bronze body, chrome plated bronze ball, reinforced teflon seats, blow-out proof stem, lever handle, UL 842 listed for flammable liquids and LPG, conventional port.

2.6 PLUG VALVES

A. Acceptable Manufacturers: DeZURIK, Unit of SPX Corp., Flow Control Equipment, Inc., Homestead Valve.

B. 2 inches and Smaller: MSS SP 78, Class 150 construction, round port, full pipe area, pressure lubricated, teflon packing, threaded ends. Furnish one plug valve wrench for every ten plug-valves with minimum of one wrench.

C. 2-1/2 inches and Larger: MSS SP 78, Class 150 construction, round port, full pipe area, pressure lubricated, teflon packing, flanged ends.

2.7 BUTTERFLY VALVES

A. Acceptable Manufacturers: Crane Valve, Hammond Valve, Milwaukee Valve, NIBCO, Stockham Valves & Fittings.

B. 2 inches and Smaller: MSS SP 67, 175 psi, bronze body, Viton seals, stainless steel trim, lever or tee handle UL 842 listed for gas service, threaded ends, full port.

2.8 PIPE HANGERS AND SUPPORTS

A. Manufacturers:
1. Carpenter & Paterson, Creative Systems Inc., Flex-Weld, Inc., Glope Pipe Hanger, Michigan Hanger Co., Superior Valve Co.,Cooper B-Line

B. Conform to NFPA 54, ASME 31.9.

C. Hangers for Pipe Sizes 1/2 to 1-1/2 inch: Malleable iron or carbon steel adjustable swivel, split ring.

D. Hangers for Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.

E. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.

F. Wall Support for Pipe 3 inches and Smaller: Cast iron hook.

G. Vertical Support: Steel riser clamp.

H. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.

I. Copper Pipe Support: Carbon steel ring, adjustable, copper plated.

J. Sheet Lead: ASTM B749, 2.5 lb/sq ft, 0.039 inch thick.

2.9 STRAINERS

A. Acceptable Manufacturers:
1. Mueller Steam Specialty, O.C. Keckley Co., Spirax Sarco

B. 2 inch and Smaller: Screwed brass or iron body for 175 psig working pressure, Y pattern with 1/32 inch stainless steel perforated screen.

C. 2-1/2 inch to 4 inch: Flanged iron body for 175 psig working pressure, Y pattern with 3/64 inch stainless steel perforated screen.

D. 5 inch and Larger: Flanged iron body for 175 psig working pressure, basket pattern with 1/8 inch stainless steel perforated screen.

2.10 NATURAL GAS PRESSURE REGULATORS

A. Product Description: Spring loaded, general purpose, self-operating service regulator including internal relief type diaphragm assembly and vent valve. Diaphragm case can be rotated 360 degrees in relation to body.
1. Comply with ANSI Z21.80.
2. Temperatures: minus 20 degrees F to 150 degrees F.
3. Body: Cast iron or Steel.
4. Spring case, lower diaphragm casing, union ring, seat ring and disk holder: Aluminum.
5. Disk, diaphragm, and O-ring: Nitrile.
6. Maximum inlet pressure: 150 psig.
7. Furnish sizes 2 inches and smaller with threaded ends. Furnish sizes 2-1/2 inches and larger with flanged ends.

2.11 NATURAL GAS PRESSURE RELIEF VALVES

A. Product Description: Spring loaded type relief valve.
1. Body: Aluminum.
2. Diaphragm: Nitrile.
3. Orifice: Aluminum, brass, or stainless steel.
4. Maximum operating temperature: 150 degrees F.
5. Inlet Connections: Threaded.
6. Outlet or Vent Connection: Same size as inlet connection.

2.12 UNDERGROUND PIPE MARKERS

A. Plastic Ribbon Tape: Bright colored, continuously printed, minimum 6 inches wide by 4 mil thick, manufactured for direct burial service.

B. Trace Wire (for non-metallic pipe): Magnetic detectable conductor, brightly colored plastic covering, imprinted with "NATURAL GAS Service" in large letters.

2.13 BEDDING AND COVER MATERIALS

A. Site specifications override this section as applicable.

B. Excavation: Excavate trenches by open cut. Pavement removal and replacement required by the excavation of trenches shall be done in accordance with the requirements of section 02150, Removing and Replacing Pavement. Perform all excavation in accordance with the latest accepted Occupational Safety and Health Act of 1970 as amended. The Developer shall pay particular attention to Safety & Health Regulations Part 1926, subpart P "Excavations, Trenching & Shoring."

C. Bedding:
1. General: Compact stone bedding material by tamping or slicing with a flatblade shovel. Prepare the trench bottom to support the pipe uniformly throughout its length. Provide bell holes to relieve pipe bells of all loads. If the trench is excavated to excessive width or depth, provide the next better class of bedding.
2. Materials: Bedding materials shall be crushed stone unless shown or specified otherwise. Crushed stone bedding material shall meet the requirements of Georgia Department of Transportation Specification 800.01 for No. 57 stone, Group II (quartzite granite).
3. Bedding: Excavate the bottom of the trench flat at a minimum 36" depth or as shown on the Site Plans below the bottom of the pipe barrel. Place and compact bedding material to the proper grade. Bedding shall then be carefully placed by hand and compacted to provide full support under and up to the crown of the pipe.

D. Cover and Backfill: Place initial backfill material carefully around the pipe above bedding in uniform six (6) inch layers to a depth of at least eighteen (18) inches above the pipe bell. Compact each layer thoroughly with suitable hand tools. Do not disturb or damage the pipe. Backfill on both sides of the pipe simultaneously to prevent side pressures. Initial backfill material shall be clean and free of rock, stumps, limbs or other unsuitable material.

PART 3 EXECUTION

3.1 EXAMINATION

A. 01300 - Administrative Requirements: Coordination and project conditions.

B. Verify excavations are to required grade, dry, and not over-excavated.

3.2 PREPARATION

A. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe.

B. Remove scale and dirt, on inside and outside, before assembly.

C. Prepare piping connections to equipment with flanges or unions.

3.3 INSTALLATION - INSERTS

A. Provide inserts for placement in concrete forms.

B. Provide inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams.

C. Provide hooked rod to concrete reinforcement section for inserts carrying pipe 4 inches and larger.

D. Where concrete slabs form finished ceiling, locate inserts flush with slab surface.

E. Where inserts are omitted, drill through concrete slab from below and provide through-bolt with recessed square steel plate and nut recessed into and grouted flush with slab.

3.4 INSTALLATION - PIPE HANGERS AND SUPPORTS

A. Install hangers and supports in accordance with ASME B31.9, ASTM F708.

B. Support horizontal piping hangers as scheduled.

C. Install hangers to provide minimum 1/2 inch space between finished covering and adjacent work.

D. Place hangers within 12 inches of each horizontal elbow.

E. Install hangers to allow 1-1/2 inch minimum vertical adjustment. Design hangers for pipe movement without disengagement of supported pipe.

F. Support vertical piping at every floor. Support riser piping independently of connected horizontal piping.

G. Where installing several pipes in parallel and at same elevation, provide multiple pipe hangers or trapeze hangers.

H. Finish paint exposed steel hangers and supports to match ceiling or wall color. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.

I. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings.

J. Install pipe hangers and supports in accordance with Section 15061.

3.5 INSTALLATION - BURIED PIPING SYSTEMS

A. Site specifications override this section as applicable.

B. Install NATURAL GAS piping in accordance with NFPA 54.

C. Verify connection to existing piping system size, location, and invert are as indicated on Drawings.

D. Establish elevations of buried piping with not less than 2 ft of cover.

E. Establish minimum separation from other services piping in accordance with local codes.

F. Remove scale and dirt on inside of piping before assembly.

G. Excavate pipe trench in accordance with Site Plans or methods utilized by the local AHJ.

H. Install pipe to elevation as indicated on Drawings.

I. Place bedding material at trench bottom to provide uniform bedding for piping, level bedding materials in one continuous layer not exceeding 4 inches compacted depth; compact to 95 percent maximum density.

J. Install pipe on prepared bedding.

K. Route pipe in straight line.

L. Install pipe to allow for expansion and contraction without stressing pipe or joints.

M. Install plastic ribbon tape or trace wire continuous over top of pipe.

N. Pipe Cover and Backfilling:
1. Backfill trench in accordance with Site Plans or methods utilized by the local AHJ.
2. Maintain optimum moisture content of fill material to attain required compaction density.
3. After hydrostatic test, evenly backfill entire trench width by hand placing backfill material and hand tamping in 6 inch compacted layers to 12 inches minimum cover over top of jacket. Compact to 95 percent maximum density.
4. Evenly and continuously backfill remaining trench depth in uniform layers with backfill material.
5. Do not use wheeled or tracked vehicles for tamping.

3.6 INSTALLATION - ABOVE GROUND PIPING SYSTEMS

A. Install NATURAL GAS piping in accordance with NFPA 54.

B. Provide non-conducting dielectric connections wherever jointing dissimilar metals.

C. Route piping in orderly manner and maintain gradient.

D. Where required, bend pipe with pipe bending tools in accordance with procedures intended for that purpose.

E. Install piping to conserve building space and not interfere with use of space.

F. Size and install gas piping to provide sufficient gas to supply maximum appliance demand at pressure higher than appliance minimum inlet pressure.

G. Group piping whenever practical at common elevations.

H. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.

I. Sleeve pipe passing through partitions, walls and floors. Refer to Section 15061.

J. Install firestopping at fire rated construction perimeters and openings containing penetrating sleeves and piping.

K. Provide clearance for installation of insulation and access to valves and fittings.

L. Provide access where valves and fittings are not exposed.

M. Where pipe support members are welded to structural building framing, scrape, brush clean, weld, and apply one coat of zinc rich primer.

N. Provide support for utility meters in accordance with requirements of utility company.

O. Install vent piping from gas pressure reducing valves to outdoors and terminate in weatherproof hood. Protect vent against entry of insects and foreign material.
1. Minimum Vent Size: Connection size at regulator vent connection.
2. Run individual vent line from each relief device, independent of breather vents.

P. Breather vents may be manifolded together with piping sized for combined appliance vent requirements.

Q. Prepare pipe, fittings, supports, and accessories not pre-finished, ready for finish painting.

R. Install identification on piping systems including underground piping.

S. Install valves with stems upright or horizontal, not inverted.

T. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

U. Install gas pressure regulator with independent vent full size opening on regulator and terminate outdoors.

V. Provide new gas service complete with gas meter and regulators. Gas service distribution piping to have initial minimum pressure of 2 psi, 5 psi, or as indicated on plans. Provide regulators on each line serving gravity type appliances, sized in accordance with equipment.

3.7 FIELD QUALITY CONTROL

A. Where gas appliance will be damaged by test pressure, disconnect appliance and cap piping during pressure test. Reconnect appliance after pressure test and leak test connection.

B. Where gas appliance is designed for operating pressures equal to or greater than piping test pressure, provide gas valve to isolate appliance or equipment from gas test pressure.

C. Pressure test NATURAL GAS piping in accordance with NFPA 54.

D. Where new branch piping is extended from existing system, pressure test new branch piping only. Leak test joint between new and existing piping with noncorrosive leak detection fluid or other approved method.

E. When pressure tests do not meet specified requirements, remove defective work, replace and retest.

F. Immediately after gas is applied to a new system, or a system has been restored after gas service interruption, check pipe for leakage.
1. Where leakage is detected, shut off gas supply until necessary repairs are complete.

1.1 SCHEDULES

A. Pipe Hanger Spacing:

GAS PIPE HANGER SPACING

PIPE SIZE inches	COPPER TUBING MAXIMUM HANGER SPACING Feet	STEEL PIPE MAXIMUM HANGER SPACING Feet	COPPER TUBING MINIMUM ROD HANGER DIAMETER Inches	STEEL PIPE MAXIMUM ROD HANGER DIAMETER Inches
1/2	4	6	3/8	3/8
3/4	6	7	3/8	3/8
1	6	7	3/8	3/8
1–1/4	8	7	3/8	3/8
1–1/2	8	9	3/8	3/8
2	8	10	3/8	3/8
2–1/2	8	10	1/2	1/2
3	8	10	1/2	1/2
4	8	10	1/2	5/8
5	8	10	1/2	5/8
6	8	10	1/2	3/4
8	8	10	1/2	3/4

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

KRH ARCHITECTS INCORPORATED
855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

GEORGIA REGISTERED PROFESSIONAL ENGINEER
5 Dec 2023
KYLE COX

SHEET NAME
PLUMBING SPECIFICATIONS

SHEET INDEX
P4.3

ELECTRICAL LEGEND

Symbol	Description	Symbol	Description
	LED TROFFER, TYPE AS NOTED		DUPLEX RECEPTACLE 18" AFF OR AS NOTED, NEMA 5-20R
	LED TROFFER, TYPE AS NOTED PROVIDE WITH EMERGENCY BALLAST	WP	WEATHER PROOF DUPLEX RECEPTACLE 18" AFF OR AS NOTED, NEMA 5-20R
	LED TROFFER, TYPE AS NOTED		DUPLEX RECEPTACLE ABOVE COUNTER OR AS NOTED, NEMA 5-20R
	LED TROFFER, TYPE AS NOTED PROVIDE WITH EMERGENCY BALLAST		QUAD RECEPTACLE 18" AFF OR AS NOTED, NEMA 5-20R
	RECESSED CAN FIXTURE, TYPE AS NOTED	IG	DUPLEX RECEPTACLE 18" AFF OR AS NOTED, NEMA 5-20R
	RECESSED CAN FIXTURE, TYPE AS NOTED PROVIDE WITH EMERGENCY BALLAST		SPECIAL PURPOSE RECEPTACLE 18" AFF OR AS NOTED, SEE SCHEDULE
	LED STRIP FIXTURE		DUPLEX RECEPTACLE, MOUNTED FLUSH IN FLOOR PROVIDE BRASS COVER, NEMA 5-20R
	WALL MOUNTED FIXTURE, TYPE AS NOTED		DUPLEX RECEPTACLE, MOUNTED FLUSH IN CEILING NEMA 5-20R
	PENDANT FIXTURE, TYPE AS NOTED		WALL / CEILING MOUNTED JUNCTION BOX
	PENDANT FIXTURE, TYPE AS NOTED PROVIDE WITH EMERGENCY BALLAST		UNFUSED DISCONNECT SWITCH RATING/POLES/NEMA RATING
	TRACK LIGHT FIXTURE, TYPE AS NOTED	F	FUSED DISCONNECT SWITCH RATING/POLES/NEMA RATING/FUSE SIZE
	EMERGENCY LIGHT		MOTOR
	EXIT/EMERGENCY LIGHT COMBINATION	M	UTILITY GRADE METER
	CEILING MOUNTED EXIT SIGN	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	WALL MOUNTED EXIT SIGN		TELEPHONE OUTLET, PROVIDE 4" BOX SINGLE GANG PLASTER RING, 3/4" C ABOVE CEILING
$	SINGLE POLE SWITCH, 44" AFF		DATA OUTLET, PROVIDE 4" BOX SINGLE GANG PLASTER RING, 3/4" C ABOVE CEILING
$$	TWO SINGLE POLE SWITCHES GANGED TOGETHER FOR INNER/OUTER CONTROL OF LAMPS, 44" AFF	TV	TELEVISION/CABLE OUTLET
$$$	THREE SINGLE POLE SWITCHES GANGED TOGETHER 44" AFF		TELEPHONE OUTLET, PROVIDE 4" BOX FLUSH IN FLOOR, 3/4" C ABOVE CEILING
$3	THREE WAY SWITCH, 44" AFF		DATA OUTLET, PROVIDE 4" BOX FLUSH IN FLOOR, 3/4" C ABOVE CEILING
$3$3	TWO THREE WAY SWITCHES GANGED TOGETHER FOR INNER/OUTER CONTROL OF LAMPS, 44" AFF		DOOR HOLD-OPEN DEVICE
$4	FOUR WAY SWITCH, 44" AFF	T	TRANSFORMER, SEE ONE LINE
$D	WALL BOX DIMMER 1000W UNLESS NOTED DIFFERENTLY 44" AFF	S	SPEAKER STROBE 85" CENTER
$WP	WEATHER PROOF SWITCH, 44" AFF		HORN 85" CENTER
$M	MOTOR RATED SWITCH, 44" AFF OR AS NOTED		PULL STATION
$OS	COMBINATION SWITCH AND OCCUPANCY SENSOR, 44" AFF		FIRE ALARM STROBE, MIN 75 CANDELA CEILING / WALL MOUNT 85" CENTER
$T	DIGITAL TIMER SWITCH, 44" AFF		DUCT MOUNTED SMOKE DETECTOR
OS x	CEILING MOUNTED OCCUPANCY SENSOR	S	SMOKE DETECTOR
OS x	WALL MOUNTED OCCUPANCY SENSOR, 44" AFF	H	HEAT DETECTOR
TC	TIME CLOCK	TS	TAMPER SWITCH
LC	LIGHTING CONTACTOR	FS	FLOW SWITCH
PC	PHOTO CELL		RACEWAY CONCEALED IN WALL OR ABOVE CEILING
	8" CONE SPEAKER IN CEILING EC TO PROVIDE BLACK SPEAKER		RACEWAY EXPOSED
S	8" CONE SPEAKER IN WALL EC TO PROVIDE BLACK SPEAKER		RACEWAY CONCEALED IN FLOOR SLAB, BELOW SLAB OR GRADE BELOW SLAB OR GRADE, OR UNDER RAISED ACCESS FLOOR
V	VOLUME CONTROL		DENOTES CONDUIT TURNING UP IN PLAN VIEW
	PLYWOOD EQUIPMENT BACKBOARD 4'X8' UNLESS NOTED OTHERWISE		DENOTES CONDUIT TURNING DOWN IN PLAN VIEW
CCTV	CLOSED CIRCUIT TELEVISION CAMERA		STUB UP
TV	COAXIAL CABLE OUTLET	XXXX	SHORT CIRCUIT AVAILABLE CURRENT

(NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS AND ARE USED AS APPLICABLE TO THIS PROJECT)

ABBREVIATIONS

Abbreviation	Meaning
A, AMPS	AMPERES
A/C	AIR CONDITIONER
AC	ALTERNATING CURRENT
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
BKBD	BACKBOARD
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CU	COPPER
DIST	DISTRIBUTION
DN	DOWN
DP	DISTRIBUTION PANEL
DWG	DRAWING
EB	ENCASED BURIAL
EC	EMPTY CONDUIT
EEW	ENERGIZED ELECTRICAL WORK
EGC	EQUIPMENT GROUNDING CONDUCTOR
ELR	END-OF-LINE RESISTOR
EWC	ELECTRIC WATER COOLER
<E>	EXISTING
<ER>	EXISTING TO REMAIN
<EX>	EXISTING
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPERES
GND	GROUND
GALV	GALVANIZED
GRS	GALVANIZED RIGID STEEL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
HD	HEAT DETECTOR
HP	HORSEPOWER
IMC	INTERMEDIATE METAL CONDUIT
ISC	INTERRUPTING SHORT CIRCUIT
IG	ISOLATED GROUND
INST	INSTANTANEOUS
JB	JUNCTION BOX
KAIC	KILO (THOUSAND) AMPERES INTERRUPTING CAPACITY
KCMIL	KILO (THOUSAND) CIRCULAR MILS
KV	KILO (THOUSAND) VOLTS
KVA	KILO (THOUSAND) VOLT-AMPERES
KW	KILO (THOUSAND) WATTS
KWH	KILO (THOUSAND) WATT-HOURS
LFMC	LIQUID-TIGHT FLEXIBLE METAL CONDUIT
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR MILS
MCCB	MOLDED CASE
MLO	MAIN LUGS ONLY
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NESC	NATIONAL ELECTRICAL SAFETY CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN, NUMBER
NTS	NOT TO SCALE
PNL	PANELBOARD
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL CONDUIT
RMC	RIGID METALLIC CONDUIT (GALVANIZED)
RMS	ROOT-MEAN-SQUARE
RNC	RIGID NON-METALLIC CONDUIT
SCA	SHORT CIRCUIT AVAILABLE
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TBD	TO BE DETERMINED
TCP	TEMPERATURE CONTROL PANEL
TD	TIME DELAY
TEL	TELEPHONE
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORIES
UON	UNLESS OTHERWISE
	UNDERGROUND PULLBOX
V	VOLTS
VA	VOLT-AMPERES
VFD	VARIABLE FREQUENCY DRIVE
WH	WATER HEATER
WP	WEATHERPROOF
WT	WATERTIGHT
XFMR	TRANSFORMER

ELECTRICAL SPECIFICATIONS:

1. GENERAL: Furnish all labor, equipment, and materials necessary for a complete installation of electrical wiring. The drawings indicate diagrammatically the extent, general character, and the approximate location of the work to be performed. Omissions of details of work, mounting hardware, fittings, J-boxes, outlet boxes, pull boxes, supports, connectors, accessories, and/or adaptors, which are evidently necessary to carry out the intent of the drawings and specifications, shall be provided. Connect all electrical equipment, whether furnished by Electrical Contractor or by others, and whether shown on plans or not. Install and connect all starters furnished by this contractor or others. Furnish, install, and connect disconnects and safety switches for all electrical equipment whether furnished by this contractor or others and where required by NEC. Before installing raceways for motors, appliances, HV AC equipment, and/or other equipment provided by others, verify locations and arrange raceways accordingly. Verify all door swings with architectural plans before roughing in light switches. Where no raceway sizes or wire sizes are shown, install as required by NEC. Verify power and connection requirements for all equipment before installation. Wire as required by equipment manufacturer and in compliance with the NEC. Obtain MOCP and MCA information from actual equipment being installed and circuit accordingly. All circuit breakers supplying HVAC equipment shall be HACR type. All work shall comply with applicable laws of the community and with the NEC. Obtain and pay for all permits required. Obtain approval from all agencies and authorities having jurisdiction for all work indicated on plans and in specifications. After completion of the work, submit a certificate of final inspection and approval from the local Electrical Inspector and local Fire Department Authorities, certifying that the installation complies with all regulations governing the same. All materials shall be new and UL listed. Execute all work in a workmanlike manner so as to present a neat and mechanical appearance when completed.
2. COORDINATION: Coordinate work so as to conform to the progress of the work of the other trades, and complete the entire installation as soon as the condition of the building permits. Some safety disconnect switches may be provided by the Mechanical Contractor but installed and connected by the Electrical Contractor. This work shall be coordinated by the Electrical Contractor.
3. INTERFERENCE: In the event that interferences or conflicts develop, the Architect shall decide which equipment shall be relocated, at no cost to owner, regardless of which equipment was first installed.
4. CUTTING AND PATCHING: Provide cutting and patching, under the supervision of the General Contractor, as required for electrical work. Coordinate with other trades as work progresses so cutting and patching will not be required or is kept at a minimum.
5. SUBMITTALS: Within twenty (20) days after award of contract, submit six (6) copies of manufacturer's drawings to the Architect for review of the following items: Panelboards, disconnect switches, transient voltage surge suppressors, light fixtures, lighting controls, and fire alarm system (complete with plan showing wiring/conduit).
6. TESTING: Upon completion of the work, conduct a thorough test in the Engineer's presence, and show the entire system to be in perfect working condition.
7. GUARANTEE: Guarantee that all work executed under these specifications and plans will be free from defects of workmanship and materials for a period of one (1) year from date of final acceptance of this work. Promptly repair, replace, or otherwise make good, upon notification, any defect becoming apparent during this period, at no cost to Owner.
8. TEMPORARY SYSTEMS: The Electrical Contractor shall be responsible for furnishing and installing equipment and materials necessary for providing electrical power where needed for the construction of the project in accordance with all OSHA regulations.
9. SITE VISIT: Before submitting a bid, visit the site, and verify all existing conditions. Make such adjustments to work as required by the actual conditions encountered.
10. SERVICE ENTRANCE: It shall be the responsibility of the Contractor to verify that the location, arrangement, voltage, phase, and connections to the utility service, as well as the required metering equipment, are coordinated with, and in accordance with, the requirements of the local power company. If the requirements are at variance with these Drawings or Specifications, the contract price shall include any additional cost necessary to meet those requirements, without extra cost to the Owner, after the contract is entered into. Notify the Architect of any changes required before proceeding with work. Any charges by the utility company for the electrical service to the facility shall be included in the bid price.
11. CONDUIT PENETRATIONS: Where conduits and other electrical equipment raceways pass through fire partitions, fire walls, or floors, provide a U.L. Listed penetration for an effective barrier against the spread of fire, smoke, and gases, to maintain the fire rating of the wall which has been penetrated. Where exterior walls or floors are penetrated, provide complete weatherproofing of the penetration. Furnish roof flashing for all conduit or equipment which penetrates the roof.
12. LIGHT FIXTURES: It shall be the responsibility of the contractor to verify the exact ceiling type, type of fixture mounting and trim, and recessing depth of all recessed fixtures, prior to purchasing any fixtures. Regardless of manufacturer part numbers identified in the Light Fixture Schedule on the plans, it shall be the contractor's responsibility to verify the proper operating voltage of light fixtures, according to what is indicated on the plans, prior to purchasing any fixtures. Equivalent fixture substitutes by Lithonia, Cooper Lighting, and Hubbell will be accepted. Provide lamps for all fixtures. Lamps shall be manufactured by GE, Osrarn-Sylvania, or Phillips. Fluorescent ballasts shall be high frequency electronic type by Magnetic Triad, Lutron, Osrarn-Sylvania or Motorola and shall have a 5 year warranty. BF shall be greater than .9, THD shall be less than 20%, CF greater than I. 7, and PF greater than .93. HID lamp ballasts shall be high power factor (.90 or greater) type. HID lamps shall be ceramic type. Provide all mounting hardware, adaptors, and accessories as required. UON, center all downlight and wallwasher fixtures on the ceiling tile.
13. BUILDING WIRE AND CABLE: All wiring shall be copper, unless otherwise noted as aluminum. Interior wire shall be copper THHN, #12 AWG minimum. Exterior or underground wire shall be XHHW copper. Conductors #10 and #12 shall be solid. Conductors sized larger than #10 shall be stranded. Control and signal wire shall be type TFF copper, min. size #16. Where no wire sizes are shown on plans, provide and install as required by NEC. If no branch circuit wiring interconnection and/or circuit home runs are shown between devices on plans, and if subscript circuit number designations are shown adjacent to the devices, circuit the devices according to subscript notations. Joints and splices in wire shall be made with solderless connectors, and covered so that insulation is equal to conductor insulation. Wire nuts shall not be used for conductors #8 and larger. No splices shall be pulled into conduit. Both conductors and conduit shall be continuous from outlet to outlet. All conduits shall have bushings, with smooth beveled throats installed at both ends, prior to installing conductors. Circuits may be combined, if conduit sizes are adjusted where necessary, and if NEC derating factors are observed. Type MC cable may be used, as permitted by Article 330 of NEC. Type NM cable may be used, as permitted by Article 334 of NEC.
14. CONDUIT: All raceways shall be a minimum 1/2" diameter. Use EMT for general interior work, when conduit must be installed exposed. RGS or IMC shall be used in floor slabs, where embedded in concrete, areas exposed to moisture, areas in danger of mechanical injury and hazardous areas. PVC Schedule 40 (3/4" minimum diameter) shall be used below grade with steel transitions through slabs. Use flexible metal conduit connections to motors, transformers, and other vibrating equipment. Exterior flex shall be liquidtight. EMT conduit fittings shall be compression type. Where no raceway sizes are shown on plans, provide and install as required by NEC. All exposed conduit shall be painted to match surface upon which it is installed. Interior wiring, as shown on plans, will typically be concealed in ceilings, walls, or floors, where possible, except in mechanical/electrical rooms, janitor closets, unfinished rooms, and other such rooms where conduits are typically exposed, and unless otherwise noted. Unless otherwise approved by the Architect, the installation of exposed conduit runs mounted to outside of exterior walls shall be kept to a minimum. Horizontal and vertical conduit runs which serve exterior components shall be concealed within interior walls or above ceilings.
15. DEVICE PLATES: Cover plates shall be smooth nylon with color matching devices. Verify color with FF&E Finish Schedule on Architectural plans. For unfinished areas with exposed conduit, cover plates shall be galvanized steel with beveled edges.
16. FUSES: Class RK-1 time delay fuses shall be used for protecting circuit breakers; Bussman Limitron, or equal. Class RK-5 time delay fuses shall be used for protection of motors and transformers; Bussman Fusetron, or equal. Fuses shall be rated for 200K AIC at rated voltage.
17. OUTLET BOXES: Except as noted, boxes shall be standard galvanized or sheradised, at least 1-1/2 inches deep or as noted in plans, and of metal at least 1/16 inch thick. Plastic boxes which are at least 1/16 inch thick and at least 1-1 /2 inches deep, or as noted on plans, are also permitted. Boxes shall be sized to accommodate devices and conductors as per NEC Article 370. Coordinate depth with wall construction. Boxes used with exposed conduit shall be 4-inch square utility boxes. Exterior boxes shall be galvanized cast-iron with gaskets and appropriate fittings. Boxes shall be provided with approved 3/8" fixture studs where required. Except where located in concrete block, switch and receptacle boxes shall be 4" square for single gang installation. Appropriate gang boxes shall be used for mounting ganged switches. All outlet box openings shall be sealed with listed putty pads.
18. WIRING DEVICES: Switches shall be A.C. type as made by Hubbell, Pass & Seymour, General Electric, or Leviton. Receptacles shall be by Hubbell, Bryant, Pass & Seymour, General Electric, or Leviton. Color shall be selected by FF&E Finish Schedule on Architectural plans. Provide matching plugs for special purpose receptacles when required for connecting equipment. All receptacles in toilets, within six (6) feet of sinks, in commercial kitchens, and in exterior locations shall be GFCI type. Additionally, exterior receptacles shall be listed weather-resistant type.
19. SAFETY SWITCHES AND DISCONNECTS: Safety switches and disconnect switches shall be Type HD by Cutler-Hammer, Square D, or General Electric. Locate disconnects adjacent to equipment on suitable structure. A disconnect shall not be required other than the CB which provides power to equipment when equipment is within sight and not greater than 50 feet from CB. Verify disconnect size from equipment nameplate data. Mount disconnects for outside HVAC units no higher than height of unit.
20. GROUNDING: All equipment shall be grounded and bonded in accordance with local regulations and National Electrical Code. Install a green equipment grounding conductor in all raceways.
21. COLOR CODING OF CONDUCTORS: Color code conductors in accordance with the NEC and with standard and accepted trade practices.
22. OUTLET BOX MOUNTING HEIGHTS: Unless otherwise noted, Wall Switches (general): 44" AFF; Receptacles: 18" AFF. All mounting heights noted on plans are measured to the top of outlet boxes.
23. VERIFY: The word "verify" when used in plans shall mean to verify location and wiring requirements before circuiting and to circuit in accordance with the manufacturcr1s recommendations and in compliance with the NEC.
24. DATA, CABLE TV, AND TELEPHONE: For data outlets, cable TV outlets, and telephone outlets, the wiring, jacks, and faceplates shall be provided by the Contr ctor, unless otherwise noted. Mount individual data outlets, cable TV outlets, and telephone outlets at exactly the same height as receptacles, unless noted otherwise.
26. PANELBOARDS: Panelboards shall be of a dead-front safety type equipped with thermal magnetic molded case circuit breakers with frame and trip ratings as shown on the schedule. Circuit breakers shall be quick-make, quick-break, thermal magnetic trip indicating and shall have common trip on all multiple breakers. Connection to the buss shall be bolt on. Terminals for feeder conductors to the panelboard mains and neutral shall be UL listed as suitable for the type of conductor specified. Terminals for branch circuit wiring, both breaker and neutral, shall be UL listed as suitable for the type conductor specified. Panelboards not shown to be rated for service entrance equipment shall be equipped with an isolated neutral and a grounding buss. The panelboard front shall be of the hinged front type with doors equipped with flush, brushed steel, cylinder tumbler-type locks with catches and spring-loaded door pulls. The flush lock shall not protrude beyond the front of the door. All panelboard locks shall be keyed alike. A circuit directory frame and card with a clear plastic covering shall be provided on the inside of the door. Panelboards shall be rated for use as Service Entrance Equipment where required by NEC. For all flush-installed house panelboards which serve common building spaces, install five spare empty 3/4" conduits stubbed to the above ceiling space. Panelboards shall be by General Electric, Square D, or Cutler-Hammer. Load.centers shall not be used unless indicated on plans.
27. NEC: "NEC" refers to the 2020 edition of the National Electrical Code.
28. EXTERIOR/WET LOCATION EQUIPMENT: All exterior enclosures or enclosures exposed to moist conditions shall be rated NEMA 3R or rated for use in damp or wet locations, as each case requires. All equipment labeled with "WP" on Plans shall be rated for use in wet locations or provided with a listed weatherproof enclosure in accordance with NEC Article 406.9(B).
29. UNDERGROUND INSTALLATIONS: Where conduit is installed below grade, the minimum burial depth shall be 24", unless installed under building slab (where there is no minimum burial depth). Where rigid conduit is installed below grade, coat conduit and couplings with (2) coats of asphaltum paint. Underground primary conduit, installed in coordination with power company, shall be installed at a depth as directed by power company. Avoid all existing utilities. Any existing utilities damaged shall be repaired at Contractor1s expense and as directed by Architect. Restore any damaged paving to match existing.
30. IDENTIFICATION: Provide I" high laminated phenolic nameplates, permanently installed, with 3/8" high white letters on black, on the front of all disconnect switches, CB enclosures, panelboards, contactors, transformers, transient voltage surge suppressors, starters, and other similar typical electrical equipment enclosures, when shown as labeled on Plans.
31. CLEAN UP: During the progress of work, keep the Owner's premise in a neat and orderly condition, free from accumulation of debris resulting from this work. At the completion of the work, remove all material, scrap, etc. not a part of this Contract.
32. OPERATION AND MAINTENANCE INSTRUCTIONS: Submit one set of all equipment catalogs and maintenance data to the Architect. Explain and demonstrate the electrical systems to Owner and/or Owner's representative.
33. DRAWING LINEWEIGHTS: Items shown with bold/thick lineweight indicate work to be performed as part of this Contract. Items shown with screened/thin lineweight are existing to remain or by others. Items shown with screened/thin lineweight, which arc also shown with associated bold/thick lineweight text or notes, or items that are shown with bold/thick lineweight and labeled as existing, are existing and shall be modified as indicated in the Drawings.

ELECTRICAL GENERAL NOTES:

1. DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATIONS, MOUNTING HEIGHTS OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATE WITH THE EQUIPMENT REQUIREMENTS AND FIELD CONDITIONS. REFERENCE COMPLETE CONSTRUCTION DOCUMENTS (ARCHITECTURAL, MECHANICAL, PLUMBING, AND STRUCTURAL) PRIOR TO COMMENCING WORK FOR ADDITIONAL INFORMATION AND REQUIREMENTS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT THE OWNER'S/ARCHITECT'S ATTENTION BEFORE PROCEEDING WITH WORK.
2. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE ELECTRICAL WORK COMPLETE AND READY FOR OPERATION. CONTRACTOR SHALL PROVIDE CONNECTIONS TO OWNER, CONTRACTOR, OR OTHER PARTY'S EQUIPMENT AND DEVICES, UNLESS OTHERWISE NOTED. ON THE DAY OF SPECIALTY EQUIPMENT INSTALLATION, THE ELECTRICIAN MUST BE ON SITE TO MAKE FINAL CONNECTIONS WHERE NECESSARY.
3. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED PROJECT TO INSPECT THE EXISTING CONDITIONS AND DETERMINE THE SCOPE OF HIS WORK AND THE EXTENT OF DEMOLITION. THE SITE INSPECTION SHALL BE MADE PRIOR TO SUBMITTING BID FOR THE PROPOSED PROJECT. NO COMPENSATION WILL BE ALLOWED FOR FAILURE TO INSPECT THE SITE. CONTRACTOR SHALL INFORM ARCHITECT PRIOR TO BIDDING OF DISCREPANCIES WHICH EXISTING BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS.
4. REFER TO RISER DIAGRAM FOR FEEDER SIZES FOR PANELBOARDS.
5. CONTRACTOR SHALL REVIEW CONSTRUCTION DOCUMENTS TO IDENTIFY MISCELLANEOUS POWER REQUIREMENTS AND PROVIDE CIRCUITING AS REQUIRED. COORDINATE POWER REQUIREMENTS WITH OTHER INSTALLERS. MISCELLANEOUS POWER REQUIREMENTS FOR CONTROL PANELS AND SMALL EQUIPMENT IS MANUFACTURER DEPENDENT AND MAY NOT BE SHOWN OR WILL BE DEFINED BY OTHERS.
6. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHT FIXTURES.
7. FINAL AIMING OF ALL ADJUSTABLE LIGHT FIXTURES TO BE AS DIRECTED BY ARCHITECT.
8. CONTRACTOR SHALL COORDINATE INSTALLATION OF NEW LIGHTING FIXTURES, RECEPTACLES, PANELBOARDS, ETC. WITH EXISTING STRUCTURE PIPING, ETC. AND MAKE ADJUSTMENTS AS REQUIRED.
9. EDGE OF LIGHT SWITCH WALL PLATE SHALL BE NOT MORE THAN 4" AWAY FROM METAL/WOOD DOOR FRAME. TYPICAL FOR SINGLE OR MULTIPLE WALL SWITCHES.
10. COORDINATE ALL LIGHTING CONTROL SENSOR LOCATIONS AND MAKE NECESSARY ADJUSTMENTS PER MANUFACTURER RECOMMENDATIONS AND FIELD CONDITIONS. CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT A POST OCCUPANCY TIME TO ADJUST ALL LIGHTING SENSORS.
11. OVERCURRENT PROTECTION, WIRE SIZE, AND NUMBER OF CONNECTION POINTS FOR MECHANICAL HVAC EQUIPMENT IS FOR ITEMS SPECIFIED. COORDINATE WITH MECHANICAL CONTRACTOR AND MAKE NECESSARY CHANGES PRIOR TO INSTALLATION FOR ACTUAL EQUIPMENT FURNISHED AT NO COST TO OWNER. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT. REFER TO HVAC/ELECTRICAL SCHEDULE FOR WIRING INFORMATION.
12. PROVIDE A SEPARATE NEUTRAL FOR EACH BRANCH CIRCUIT. DO NOT SHARE NEUTRALS.
13. ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT ELECTRICAL REQUIREMENT OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH THE MECHANICAL AND PLUMBING CONTRACTORS PRIOR TO PURCHASING EQUIPMENT. VERIFY THE ELECTRICAL REQUIREMENTS WITH THE EQUIPMENT FURNISHED (NAME PLATE INFORMATION) AND MAKE CORRECTIONS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. COORDINATE EQUIPMENT LOCATIONS WITH MECHANICAL/PLUMBING DRAWINGS AND CONTRACTORS PRIOR TO ROUGH-IN.
14. COORDINATE ALL 120V EXHAUST FAN CONTROLS WITH MECHANICAL PRIOR TO ROUGH-IN.
15. PROVIDE FINISHED COVERPLATES FOR ALL JUNCTION BOXES. ALL JUNCTION BOXES AND COVERPLATES SHALL BE PAINTED LABELED. REFER TO DETAILS ON THE DRAWINGS.
16. CONFIRM MOUNTING HEIGHTS AND COORDINATE LOCATION OF ALL OUTLETS, SWITCHES, AND OTHER DEVICES WITH ARCHITECTURAL ELEVATIONS (FURNITURE LAYOUT, EQUIPMENT DRAWINGS, ETC.) PRIOR TO ROUGH-IN.
17. ALL WIRING SHALL BE IN EMT CONDUIT UNLESS NOTED OR APPROVED OTHERWISE.
18. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL STRING.
19. COORDINATE EXACT LOCATION AND COVER TYPE (CARPET, TILE, OR WOOD) FOR ALL FLOOR BOXES WITH ARCHITECT PRIOR TO ROUGH-IN.
20. WHERE NOTED, WIRE AND CONDUIT SIZE INDICATED ON HOMERUNS SHALL BE CONTINUOUS THROUGH CIRCUIT.
21. A GROUNDING CONDUCTOR SHALL BE INCLUDED IN EACH RACEWAY OR CABLE, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
22. PROVIDE SCALED DRAWINGS OF ALL ELECTRICAL ROOMS TO THE ELECTRICAL ENGINEERS FOR APPROVAL PRIOR TO ORDERING EQUIPMENT. DRAWINGS MUST INSURE PROPER CLEARANCES ARE BEING MAINTAINED PER THE NEC WITH ACTUAL EQUIPMENT BEING INSTALLED. TYPICAL FOR ALL NEW AND EXISTING ELECTRICAL ROOMS.
23. TERMINATIONS (LUGS, TERMINAL BLOCKS, ETC.) IN CIRCUIT BREAKERS, DISCONNECT SWITCHES, LIGHTING CONTACTORS, RELAYS, PANELBOARDS, TIME SWITCHES, ETC. SHALL BE RATED FOR 75C IN TEMPERATURE. IF TERMINATIONS IN EQUIPMENT SUCH AS EXHAUST FANS, WATER HEATERS, AIR CONDITIONING UNITS, TEC. ARE RATED FOR 60C ONLY, THEN CONDUCTORS MUST BE DE-RATED AND USED IN COMPLIANCE WITH TABLE 310-16 OF CURRENT NEC AND SIZED FOR THE 60C COLUMN.
24. BRANCH CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN NO.12 AND WHERE BRANCH CIRCUIT CONDUCTOR RUNS FROM SOURCE (PANEL) TO THE LAST DEVICE ON THE CIRCUIT EXCEEDS 100FT. IN LENGTH, THE CONDUCTORS SHALL BE NO.10 MINIMUM AND FOR THE ENTIRE LENGTH OF THE CIRCUIT. FOR RUNS OVER 200FT. IN LENGTH THE CONDUCTOR SHALL BE NO.8 MINIMUM AND FOR THE ENTIRE LENGTH OF THE CIRCUIT. THE ABOVE APPLIES TO 120V CIRCUITS ONLY.
25. BRANCH CIRCUITING WIRES SHALL NOT PASS THROUGH ELECTRICAL DEVICES (PANELS, DISCONNECT SWITCHES, CONTRACTORS, ETC.) OTHER THAN THOSE DESIGNED FOR THE USE AS A JUNCTION BOX.
26. WIRE NUTS ARE NOT PERMITTED WITHIN THE ELECTRICAL PANEL OR ELECTRICAL DEVICES. ALL WIRING SHALL BE PULLED AT REQUIRED LENGTHS WITHOUT SPLICING WITHIN ELECTRICAL PANELS AND OTHER ELECTRICAL DEVICES.
27. BACK TO BACK RECEPTACLES IN ALL FIRE RATED WALLS SHALL BE INSTALLED PER THE INTERNATIONAL BUILDING CODE (IBC 2018)
28. PROVIDE ARC FLASH LABELING FOR ELECTRICAL EQUIPMENT PER NEC AND NFPA 70E.
29. CONTRACTOR SHALL ASSURE THAT ALL WORK CLEARANCES PER THE NEC ARE MET OR EXCEEDED WITH EQUIPMENT FURNISHED PRIOR TO ROUGH-IN. NOTIFY ARCHITECT OF ANY DISCREPANCIES WITH THE ELECTRICAL PLANS.
30. PROVIDE SEISMIC BRACING PER THE INTERNATIONAL BUILDING CODE (IBC 2018, CHAPTER 13).
31. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH OSHA, THE NATIONAL ELECTRICAL CODE, AND LOCAL GOVERNING AUTHORITIES.

GFCI NOTES:

1. ALL 15A/20A, 125V THROUGH 250V RECEPTACLES INSTALLED IN LOCATIONS SPECIFIED IN NEC 210.8 (A) (1-11) SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTOER PROTECTION FOR PERSONNEL. GA AMENDMENTS OMIT 250V REQUIREMENT AND ONLY REQUIRE 125V PROTECTION. GFCI RECEPTACLES SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 210.8 AND BE READILY ACCESSIBLE. FOR EQUIPMENT THAT WOULD HAVE TO BE MOVED TO RESET THE RECEPTACLE PER THE NEC DEFINITION, A GFCI BREAKER SHALL BE UTILIZED IN LIEU OF A RECEPTACLE.

LIGHTING CONTROL GENERAL NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND AIM SENSORY IN THE CORRECT LOCATION REQUIRED FOR A COMPLETE AND PROPER VOLUMETRIC COVERAGE WITHIN THE RANGE OF COVERAGE(S) OF CONTROLLED AREAS PER THE MANUFACTURER'S RECOMMENDATIONS. ROOMS SHALL HAVE (90) TO ONE HUNDRED (100) PERCENT COVERAGE TO COMPLETELY COVER THE CONTROLLED AREA TO ACCOMMODATE ALL OCCUPANCY HABITS OF SINGLE OR MULTIPLE OCCUPANTS AT ANY LOCATION WITHIN THE ROOM(S). THE LOCATIONS AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS WHICH ARE TO BE PROVIDED WITH SENSORS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS IF REQUIRED TO PROPERLY AND COMPLETELY COVER THE RESPECTIVE ROOM.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A PRE-INSTALLATOIN MEETING WITH THE MANUFACTURER'S FACTORY AUTHORIZED REPRESENTATIVE, AT THE OWNER'S FACILITY, TO VERIFY PLACEMENT OF SENSORS AND INSTALLATION CRITERIA.
3. PROPER JUDGEMENT MUST BE EXERCISED IN THE EXECUTING THE INSTALLATION SO AS TO ENSURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATION OR INTERFERENCE OF STRUCTURAL COMPONENTS. THE CONTRACTOR SHALL ALSO PROVIDE AT THE OWNER'S FACILITY, THE TRAINING NECESSARY TO FAMILIARIZE THE OWNER'S PERSONNEL WITH THE OPERATION, USE, ADJUSTMENT, AND PROBLEM SOLVING DIAGNOSIS OF THE OCCUPANCY SENSING DEVICES AND SYSTEMS.
4. ALL SENSOR LOCATIONS ARE APPROXIMATE, REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.
5. ALL ULTRASONIC CEILING MOUNTED SENSORS SHALL BE LOCATED A MINIMUM OF 6'-0" FROM HVAC SUPPLY AND RETURN DIFFUSERS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SENSITIVITY AND THE TIME DELAY SETTINGS. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH ALL LOCAL AND NATIONAL CODES.
7. UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURE'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERITY ALL ADJUSTMENTS AND SENSOR PLACEMENT TO ENSURE A TROUGLE-FREE OCCUPANY-BASAED LIGHTING CONTROL SYSTEM. THIS SERVICE IS PROVIDED AT NO ADDITIONAL COST.
8. THE ELECTRICAL CONTRACTOR SHALL PROVIDE BOTH THE MANUFACTURER AND THE ELECTRICAL ENGINEER WITH TEN WORKING DAYS WRITTEN NOTICE OF THE SCHEDULED COMMISSIONING DATE. UPON COMPLETION OF THE SYSTEM FIN-TUNING THE FACTORY AUTHORIZED TECHNICIAN SHALL PROVIDE THE PROPER TRAINING TO THE OWNER'S PERSONNEL IN THE ADJUSTMENT AND MAINTENANCE OF THE SENSORS.
9. SUBMIT SHOP DRAWINGS INDICATING SENSOR LOCATIONS AND COVERAGE PATTERNS.

TAMPER-RESISTANT RECEPTACLE NOTES:

ALL 15A/20A, 125V & 250V NON-LOCKING TYPE RECEPTACLES LISTED BELOW REQUIRE UL LISTED TAMPER RESISTANT RECEPTACLES.

1. DWELLING UNITS IN ALL AREAS SPECIFIED IN 210.52 & 550.13.
2. GUEST ROOMS AND GUEST SUITES OF HOTELS AND MOTELS.
3. CHILD CARE FACILITIES.
4. PRESCHOOLS AND ELEMENTARY EDUCATION FACILITIES.
5. BUSINESS OFFICES, CORRIDORS, WAITING ROOMS, AND THE LIKE IN CLINICS, MEDICAL AND DENTAL OFFICES AND OUTPATIENT FACILITIES.
6. SUBSET OF ASSEMBLY OCCUPANCIES DESCRIBED IN 518.2 TO INCLUDE PLACES OF WAITING TRANSPORTATION, GYMNASIUMS, SKATING RINKS, AND AUDITORIUMS.
7. DORMITORIES.
EXCEPTIONS: RECEPTACLES LOCATED MORE THAN 5-1/2' ABOVE THE FLOOR, RECEPTACLES THAT ARE PART OF A LUMINAIRE OR APPLIANCE, A SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES LOCATED WITHIN THE DEDICATED SPACE FOR EACH APPLIANCE THAT, IN NORMAL USE, IS NOT EASILY MOVED FROM ONE PLACE TO ANOTHER AND THAT IS CORD-AND-PLUG CONNECTED IN ACCORDANCE WITH 400.10(A)(6), (A)(7), OR (A)(8), NON-GROUNDING RECEPTACLES USED FOR REPLACEMENTS AS PERMITTED IN 406.4(D)(2)(a).

FIRE ALARM GENERAL NOTES:

1. FIRE ALARM SUBCONTRACTOR SHALL PREPARE ENGINEERED FIRE ALARM PERMIT AND CONSTRUCTION DRAWINGS. THESE DRAWINGS SHALL INCLUDE PANEL AND DEVICE SPECIFICATIONS, CIRCUITING, VOLTAGE DROP AND BATTERY CALCULATIONS. VERIFY FIRE ALARM DEVICES ARE COMPATIBLE TO EXISTING FIRE ALARM SYSTEM IF APPLICABLE. ADDITIONAL DEVICES SHALL BE ADDED AS NECESSARY FROM VOLTAGE DROP AND BATTERY CALCULATIONS. SUBCONTRACTOR'S DRAWINGS SHALL INCLUDE ALL DEVICES NECESSARY FOR A COMPLETE ADDRESSABLE FIRE ALARM SYSTEM AS REQUIRED BY NFPA 72 & NFPA 101. DEVICES SHOWN ON THESE DRAWINGS INDICATE INTENT OF FIRE ALARM SCOPE FOR BIDDING PURPOSES. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE FIRE ALARM ENGINEER'S DRAWINGS AND PROVIDE ALL RACEWAY, BOXES, AND POWER REQUIRED FOR THEIR SPECIFIED SYSTEM. DEVICE LOCATIONS AND NUMBER MAY DIFFER FROM WHAT IS SHOWN ON THESE PLANS. NO ADDITIONAL COST SHALL BE PASSED ON TO THE OWNER FOR INCORPORATING THESE DEVICES AS IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE FIRE ALARM ENGINEER.
2. FIRE ALARM SYSTEM AND ALL ASSOCIATED OPERATIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING::
   A. GEORGIA ACCESSIBILITY CODE
   B. INTERNATIONAL FIRE CODE (2018)
   C. NFPA 70, NATIONAL ELECTRICAL CODE (2020)
   D. INTERNATIONAL BUILDING CODE (2018)
   E. INTERNATIONAL MECHANICAL CODE (2018)
   F. OTHER APPLICABLE NFPA STANDARDS
3. AUDIBLE/VISUAL SIGNAL APPLIANCES SHALL COMPLY WITH THE REQUIREMENTS OF RULE 120-3-20-.39 OF THE STATES ACCESSIBILITY CODE AND NFPA 72.
4. PROVIDE SEAL FOR PENETRATION OF FIRE RATED WALLS BY CONDUIT.
5. ALL STROBES AND SPEAKER/STROBES SHALL HAVE SWITCH SELECTABLE CANDELA (15,30,60,75, AND 110 CANDELA). AT TIME OF INSTALLATION SET ALL STROBES AND HORN/STROBES TO 110 CANDELA UNLESS OTHERWISE NOTED ON THE DRAWINGS BY SUBSCRIPT ADJACENT TO THE DEVICE SYMBOL. STATE ADA CODE REQUIRES A MINIMUM OF 75 CANDELA AT ALL LOCATIONS.
6. MOUNT ALL STROBES AND SPEAKER/STROBES AT 80 INCHES AFF OR 6 INCHES FROM THE CEILING, WHICHEVER IS LOWER.
7. ALL HVAC DUCT MOUNTED SMOKE DETECTORS TO BE LOCATION ON THE EXTERIOR OF ASSOCIATED DUCT WORK AND WITH EASY ACCESS PROVIDED FOR SERVICING AND TESTING.
8. ALL WIRING SHALL BE INSTALLED IN EMT CONDUIT.
9. PROVIDE FIRE ALARM CONNECTION TO ALL SUPPRESSION SYSTEMS.
10. PROVIDE SITE PROTECTION TO PIV.

FOR CONSTRUCTION

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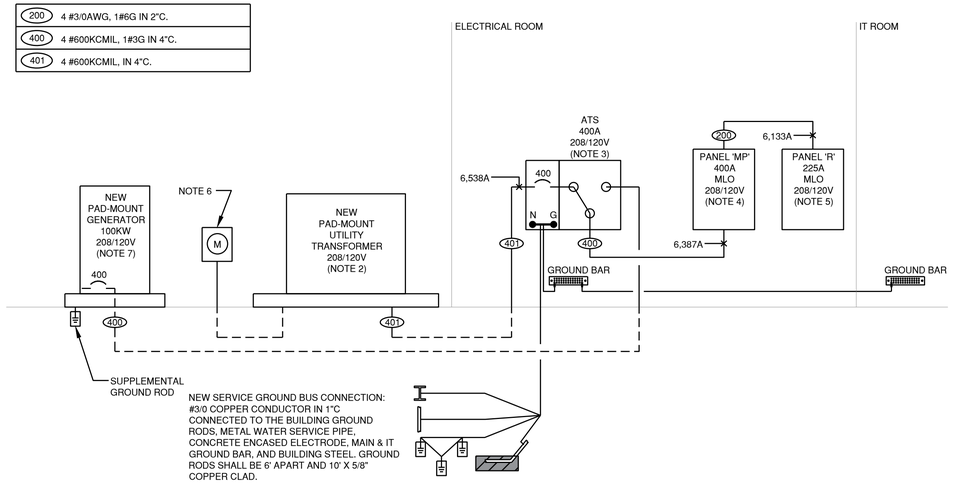
WHITFIELD COUNTY
DALTON, GA 30720

SHEET INDEX
ELECTRICAL NOTES, LEGEND, & SPECIFICATIONS

SHEET INDEX
E1.0

FEEDER SCHEDULE - COPPER CONDUCTORS

200	4 #3/0AWG, 1#6G IN 2"C.
400	4 #600KCMIL, 1#3G IN 4"C.
401	4 #600KCMIL, IN 4"C.



1 ELECTRICAL RISER DIAGRAM

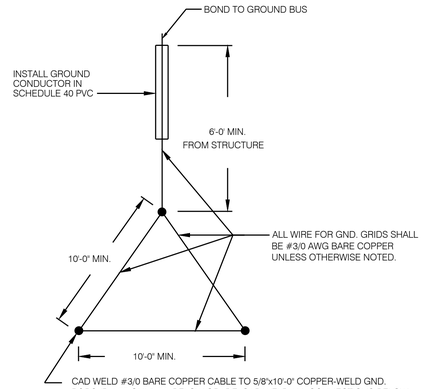
SCALE: NTS

2 CONDUIT HANGING DETAIL

SCALE: NTS

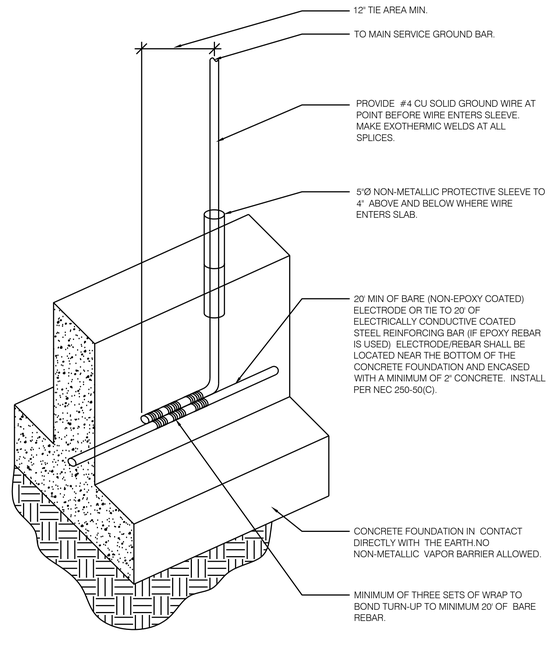
3 TROFFER HANGING DETAIL

SCALE: NTS



4 GROUNDING TRIAD DETAIL

SCALE: NTS



5 CONCRETE ENCASED ELECTRODE GROUNDING DETAIL

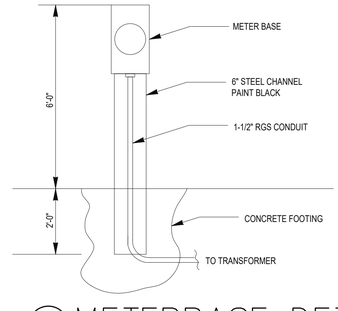
SCALE: NTS

NEW ELECTRICAL RISER GENERAL NOTES:

A. ELECTRICAL SERVICE AND INSTALLATION SHALL CONFORM TO THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE, APPLICABLE STATE AND LOCAL CODES, AND LOCAL UTILITY REQUIREMENTS.
B. CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE SERVICE WITH THE UTILITY COMPANY PRIOR TO BID. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS AND REQUIREMENTS OF TRANSFORMERS, POLES, SERVICE EQUIPMENT AND OBTAIN ALL NECESSARY APPROVALS FROM THE UTILITY COMPANY PRIOR TO COMMENCEMENT OF WORK. UTILITIES SHOWN ON DRAWINGS ARE TO BE USED AS A GUIDELINE ONLY AND MAY NOT NECESSARILY BE APPROVED. FINAL APPROVALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
C. CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTING WITH OTHER TRADES PRIOR TO ROUGH IN TO DETERMINE ROUTES THAT WILL NOT INTERFERE WITH OTHER TRADES.
D. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES. REFER TO ARCHITECTURAL, MECHANICAL, AND CIVIL DRAWINGS IN ORDER TO BE AWARE OF CONDITIONS AFFECTING ELECTRICAL WORK.
E. CONTRACTOR SHALL COORDINATE ALL MECHANICAL EQUIPMENT CONNECTIONS WITH MECHANICAL CONTRACTOR AND EQUIPMENT SUBMITTALS PRIOR TO ROUGH IN FOR EXACT LOCATIONS, CIRCUITS SIZES, AND BREAKER REQUIREMENTS.
F. FOR EACH PANELBOARD INSTALLED, SPACE EQUAL TO THE WIDTH AND DEPTH EXTENDING THE FLOOR TO 6'-0" ABOVE THE PANEL OR STRUCTURAL CEILING, WHICHEVER IS LOWER, SHALL BE DEDICATED FOR ELECTRICAL EQUIPMENT INSTALLATION ONLY.
G. ALL SUPPORTS, BOLTS, STRAPS, SCREWS AND SO FORTH SHALL BE OF CORROSION-RESITANT MATERIALS OR PROTECTED AGAINST CORROSION.
H. RACEWAY AND CONDUIT EXPOSED TO DIFFERING TEMPERATURES SHALL BE FILLED OR SEALED TO PREVENT THE CIRCULATION OF AIR AND FORMATION OF CONDENSATION.
I. PROVIDE ENGRAVED NAME PLATES FOR EACH PANEL AND DISCONNECT INDICATING NAME AND FEEDER SOURCE AND AFFIX TO EQUIPMENT. PROVIDE TYPE-WRITTEN PANEL SCHEDULES FOR EACH PANELBOARD AND AFFIX TO INTERIOR PANEL DOOR.
J. ALL FEEDERS SHOWN ARE COPPER IN CONDUIT WITH THHN/THHW INSULATION EXCEPT FOR SERVICE ENTRANCE CONDUCTORS LABELED 'AL' ALUMINUM. ALL HOMERUNS ARE TO BE IN EMT CONDUIT. FLEXIBLE CONDUIT SHALL BE LIMITED TO RUNS OF 10'-0" FROM JUNCTION BOX TO DEVICE.
K. CALCULATED AVAILABLE FAULT VALUES ARE SHOWN WHEN EXCESS OF 10KA. PROVIDE PANELBOARDS AND DISCONNECTS WITH AN AIC RATING THAT EXCEEDS THIS VALUE.

NEW ELECTRICAL RISER NOTES:

1. ALL EQUIPMENT SHOWN IN THE RISER DIAGRAM IS NEW AND TO BE PURCHASED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. COORDINATE ALL REQUIREMENTS FOR NEW ELECTRICAL SERVICE WITH THE LOCAL UTILITY AND CIVIL ENGINEER.
3. PROVIDE NEW SERVICE ENTRANCE RATED AUTOMATIC TRANSFER SWITCH (ATS) AND LOCATE IN THE ELECTRICAL ROOM. ATS SHALL BE RATED FOR 400A/208V/3PH AND HAVE OVERCURRENT PROTECTION ON INPUT FEEDER. ATS TO BE BY SAME MANUFACTURER AS GENERATOR.
4. PROVIDE NEW 400A/208V/3PH MAIN LUG ONLY PANELBOARD WITH COPPER BUS THAT UTILIZES BOLT-ON BREAKERS. PANEL SHALL BE SQUARE D I-LINE OR EQUAL.
5. PROVIDE NEW 225A/208V/3PH MAIN LUG ONLY PANELBOARD WITH COPPER BUS THAT UTILIZES BOLT-ON BREAKERS.
6. PROVIDE METERBASE FOR NEW SERVICE AND LOCATE AT UTILITY TRANSFORMER OR AS DIRECTED BY UTILITY. SEE METERBASE MOUNTING DETAIL ON THIS SHEET FOR FURTHER REQUIREMENTS.
7. PROVIDE NEW CUMMINS 100KW NATURAL GAS GENERATOR 208V/3PH WITH A 400A OUTPUT BREAKER IN A WEATHERPROOF, SOUND ATTENUATED, STEEL ENCLOSURE WITH BAKED ON POWDER COAT FINISH. PROVIDE BATTERY CHARGER, REMOTE ANNUNCIATOR, AND ALL CONNECTIONS. PROVIDE CONCRETE BASE 6" LARGER THAN GENERATOR ALL THE WAY AROUND. GENERATOR SHALL MEET CURRENT LOCAL, NEC, AND EPA REQUIREMENTS AND BE UL 2200 CERTIFIED.



6 METERBASE DETAIL

SCALE: NTS

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SHEET INDEX
ELECTRICAL DETAILS

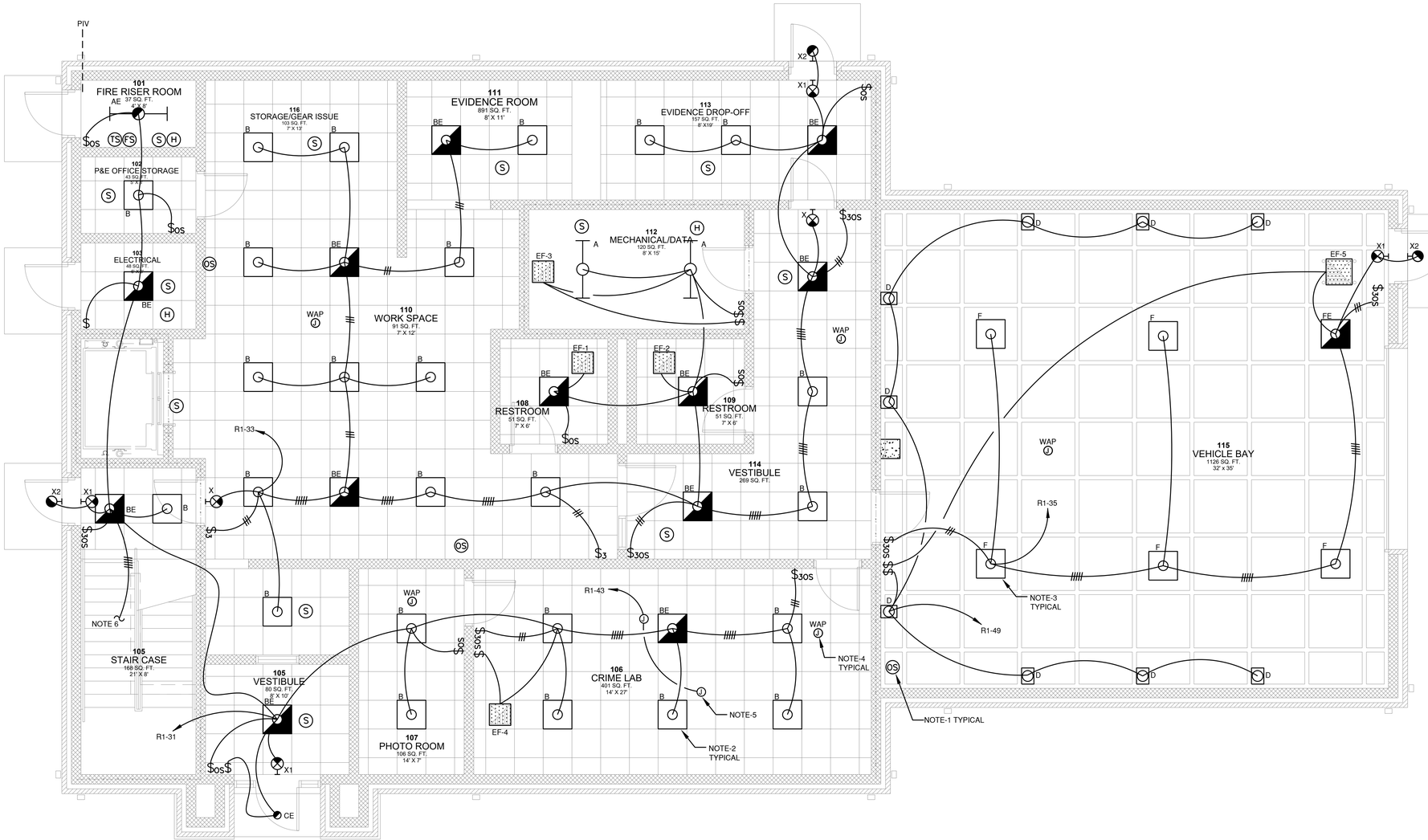
SHEET INDEX
E2.0

CEILING PLAN GENERAL NOTES:

A. PROVIDE NON-CONTACTORED, NON-SWITCHED HOT CONDUCTOR OF SAME CIRCUIT TO EACH EMERGENCY LIGHTING FIXTURE, EXIT SIGN AND NIGHT LIGHT.
B. FIXTURES SHOWN ARE IDENTIFIED IN THE FIXTURE SCHEDULE. THE FIXTURE SCHEDULE IS BASIS OF DESIGN AND THE OWNER ULTIMATELY APPROVES THE FIXTURES PURCHASED.
C. ALL EXTERIOR FIXTURES SHALL BE WET LISTED.

CEILING PLAN KEY NOTES:

1. ALL INTERIOR LIGHTING SHALL BE CONTROLLED BY WALL OR CEILING MOUNTED OCCUPANCY SENSORS. SEE LIGHTING CONTROL NOTES ON SHEET E1.0 FOR REQUIREMENTS.
2. SEE TROFFER HANGING DETAIL ON SHEET E1-0 FOR FURTHER REQUIREMENTS.
3. COORDINATE WITH ARCHITECT ON CEILING TYPE AND PROVIDE FRAME-IN KIT AS REQUIRED FOR SURFACE MOUNTED FIXTURES LOCATED IN GYP CEILINGS.
4. PROVIDE 4" RECESSED JUNCTION BOX FOR WIRELESS CONNECTION POINT AND UTILIZE CIRCUIT R1-40 FOR POWER AS REQUIRED.
5. PROVIDE BRANCH CIRCUIT AND RECESSED JUNCTION BOXES FOR SURGICAL TYPE, CEILING HUNG LIGHT FIXTURES. CONTRACTOR TO PURCHASE AND INSTALL, COORDINATE WITH CITY ON DESIRED FIXTURE, MOUNTING LOCATION, AND CONTROL REQUIREMENTS. PROVIDE WALL MOUNTED SWITCH AS DIRECTED. OWNER TO SELECT, PROVIDE $2500 ALLOWANCE.
6. CONTINUED TO THE NEXT LEVEL.



1 ELECTRICAL FIRST FLOOR - CEILING PLAN

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

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SHEET INDEX

ELECTRICAL
FIRST FLOOR -
CEILING PLAN

SHEET INDEX

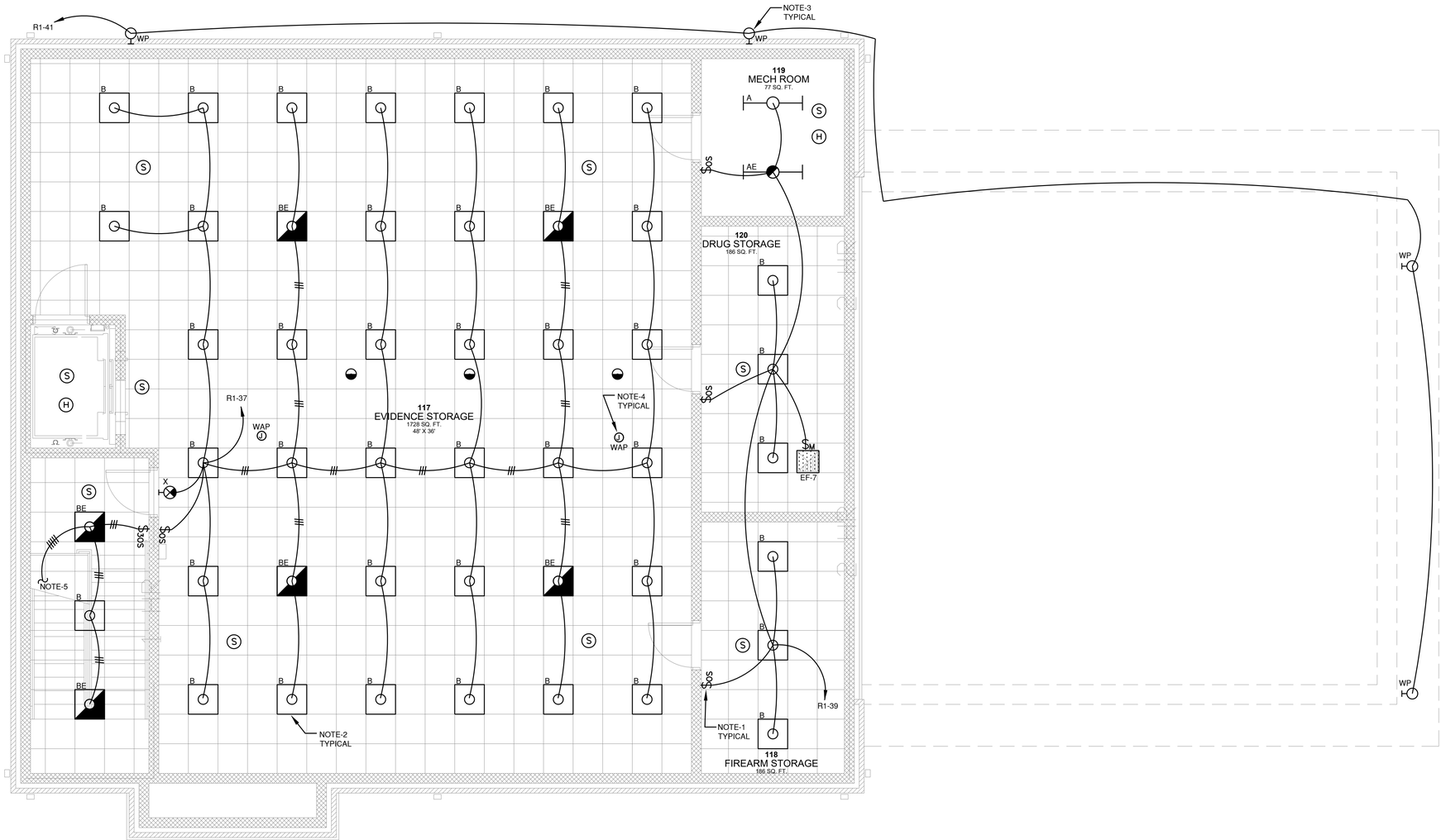
E3.0

CEILING PLAN GENERAL NOTES:

A. PROVIDE NON-CONTACTORED, NON-SWITCHED HOT CONDUCTOR OF SAME CIRCUIT TO EACH EMERGENCY LIGHTING FIXTURE, EXIT SIGN AND NIGHT LIGHT. PROVIDE NEW BATTERIES FOR ANY EXISTING EMERGENCY FIXTURE THAT IS TO REMAIN.
B. FIXTURES SHOWN ARE IDENTIFIED IN THE FIXTURE SCHEDULE. THE FIXTURE SCHEDULE IS BASIS OF DESIGN AND THE OWNER ULTIMATELY APPROVES THE FIXTURES PURCHASED.
C. ALL EXTERIOR FIXTURES SHALL BE WET LISTED.

CEILING PLAN KEY NOTES:

1. ALL INTERIOR LIGHTING SHALL BE CONTROLLED BY WALL OR CEILING MOUNTED OCCUPANCY SENSORS. SEE LIGHTING CONTROL NOTES ON SHEET E1.0 FOR REQUIREMENTS.
2. SEE TROFFER HANGING DETAIL ON SHEET E1-0 FOR FURTHER REQUIREMENTS.
3. WALL PACKS ARE TO UTILIZE INTEGRATED PHOTOCELL FOR CONTROL.
4. PROVIDE 4" RECESSED JUNCTION BOX FOR WIRELESS CONNECTION POINT AND UTILIZE CIRCUIT R1-40 FOR POWER AS REQUIRED.
5. CONTINUED TO NEXT LEVEL.



1 ELECTRICALSECOND FLOOR - CEILING PLAN

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

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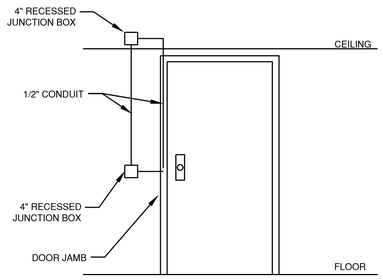
SHEET INDEX
ELECTRICAL SECOND FLOOR - CEILING PLAN

SHEET INDEX
E4.0

LOW VOLTAGE GENERAL NOTES:

A. ELECTRICAL CONTRACTOR TO CONTRACT WITH LICENSED LOW VOLTAGE CONTRACTOR TO PROVIDE ALL LOW VOLTAGE CABLING, RACEWAY, JUNCTION BOXES, AND DATA PLATES. PROVIDE ALL TERMINATIONS AND CABLE LABELING.
B. EACH DATA DROP SHOWN SHALL CONSIST OF (2) CAT6A CABLES AND DUAL PORT DATA PLATE. ROUTE CABLES TO IT ROOM.
C. EACH CAMERA AND WIRE ACCESS POINT (WAP) ARE TO HAVE (1) CAT6A DATA CABLE INSTALLED AND ROUTED BACK TO THE IT ROOM.
D. ALL LOW VOLTAGE CABLING ABOVE CEILING SHALL BE ROUTED ALONG CORRIDORS ON J-HOOKS. ELECTRICAL CONTRACTOR TO PROVIDE J-HOOKS AND INSTALL PER CITY DIRECTION. ACROSS OPEN CEILINGS, CONTRACTOR IS TO PROVIDE 4" PANDUIT TYPE CABLE TRAY HANGING FROM STRUCTURE.
E. ELECTRICAL CONTRACTOR TO PROVIDE 12-PAIR FIBER BETWEEN BUILDINGS AND TERMINATE EACH FIBER. SEE NOTE 6 FOR CONDUIT INFORMATION AND TERMINATION POINTS.
F. EACH KEY PAD LOCATION SHALL HAVE (2) CAT6A DATA CABLES INSTALLED, TERMINATED, AND ROUTED TO IT ROOM.
G. ALL CAT6A AND FIBER CABLES ARE TO BE TESTED AND CERTIFIED BY LOW VOLTAGE CONTRACTOR.
H. ALL CAT6A CABLE IS TO BE TERMINATED AT PATCH PANEL AND LABELED ON BOTH ENDS OF THE CABLE. PROVIDE TYPED-WRITTEN NUMBER AT EACH DATA PORT IDENTIFYING THE CABLE NUMBER WITH ADHESIVE LABEL.
I. SEE SHEET E7.0 FOR TABLES LISTING EQUIPMENT PROVIDED AND INSTALLED BY EC, EQUIPMENT PROVIDED BY DALTON AND INSTALLED BY EC, AND DALTON PROVIDED AND INSTALLED EQUIPMENT.



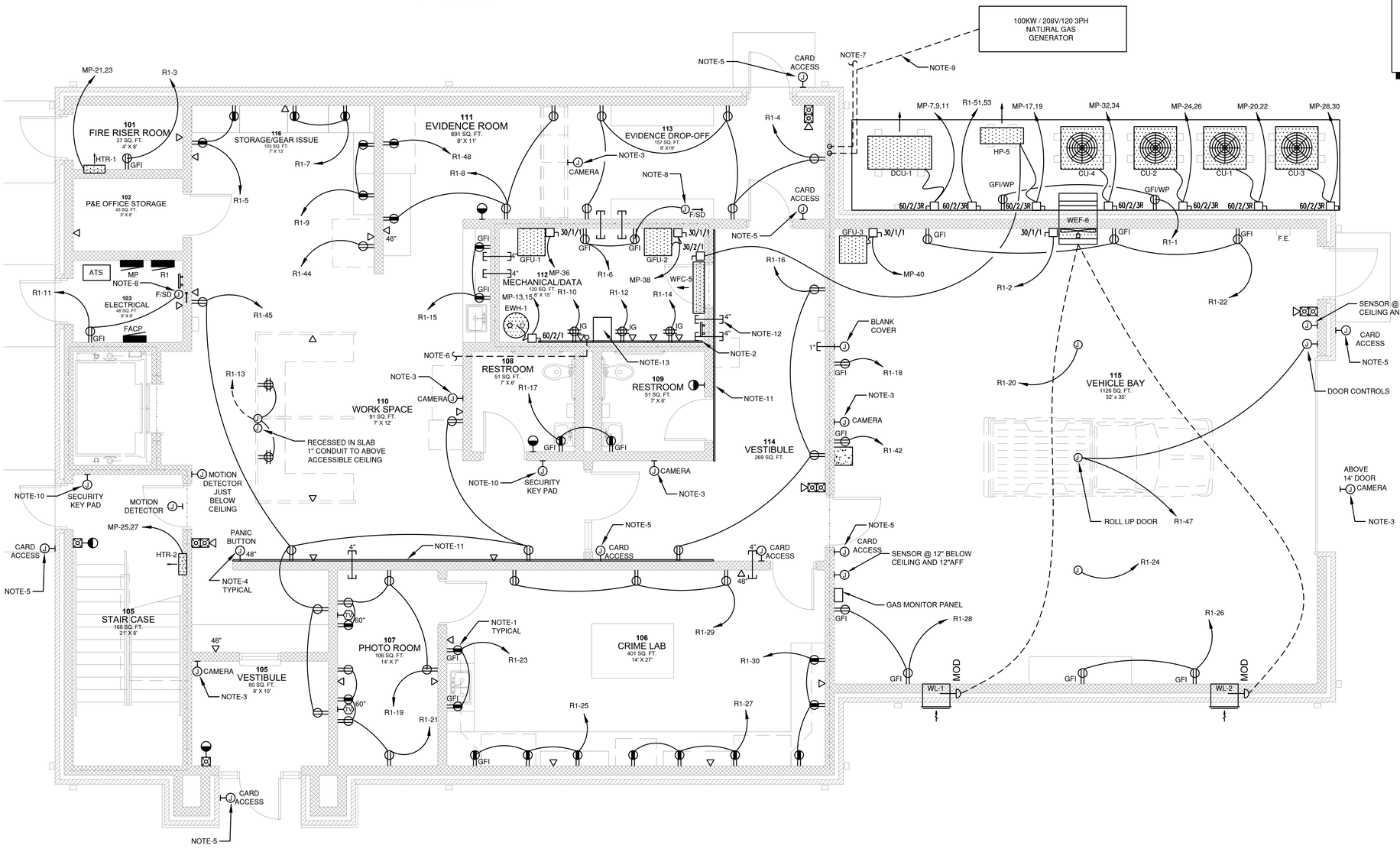
3 CARD ACCESS AT DOORS
SCALE: NTS

FLOOR PLAN GENERAL NOTES:

A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL MECHANICAL AND PLUMBING EQUIPMENT ELECTRICAL REQUIREMENTS WITH THOSE CONTRACTORS ON EQUIPMENT PURCHASED AS IT MAY DIFFER FROM THESE PLANS. PROVIDE MANUFACTURE'S RECOMMENDED FEEDER, OVERCURRENT PROTECTION, AND DISCONNECT FOR EQUIPMENT PURCHASED WITH NO ADDITIONAL COST TO THE OWNER.
B. ALL 15A/20A RECEPTACLES IN KITCHENS, FOOD PREP AREAS, RESTROOMS, OR ON EXTERIOR SHALL BE GFCI TYPE. GFCI RECEPTACLES SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 210.8 AND BE READILY ACCESSIBLE. FOR EQUIPMENT THAT WOULD HAVE TO BE MOVED TO RESET THE RECEPTACLE PER THE NEC DEFINITION, A GFCI BREAKER SHALL BE UTILIZED IN LIEU OF A RECEPTACLE.
C. COORDINATE WITH OWNER/ARCHITECT ON DEVICE/PLATE COLOR THROUGHOUT SUITE PRIOR TO PURCHASE OR INSTALLATION. CONFIRM ALL MOUNTING HEIGHTS AND LOCATIONS.
D. NOTE RECEPTACLES WITH ISOLATED GROUND (IG). PROVIDE ISOLATED GROUND RECEPTACLE AND ADDITIONAL INSULATED GREEN GROUND CONDUCTOR WITH YELLOW STRIPE BACK TO DISTRIBUTION PANEL GROUND BAR.
E. PROVIDE FIRE CAULKING AROUND ANY THROUGH WALL PENETRATION OF FIRE RATED WALLS.

FLOOR PLAN KEY NOTES:

1. EACH RECEPTACLE SHOWN AT COUNTER HEIGHT SHALL BE 44" ABOVE FINISHED FLOOR.
2. PROVIDE (3) 4' X 8' X 3/4" FIRE RESISTANT PLYWOOD BACKBOARD PAINTED GRAY FOR TELEPHONE SYSTEM. CONNECT #6 AWG, INSULATED, STRANDED, COPPER GROUND WIRE FROM TELEPHONE SYSTEM TO GROUND BUS AT MAIN PANEL. ROUTE (2) - 2" PVC CONDUITS BELOW GRADE TO ADJACENT BUILDING. PROVIDE PULL STRING, AND CAP BOTH ENDS. COORDINATE WITH SERVICE PROVIDER AND OWNER ON EXACT REQUIREMENTS.
3. PROVIDE RECESSED 4" JUNCTION BOX IN WALL JUST BELOW FINISHED CEILING AND 3/4" CONDUIT STUBBED TO ABOVE ACCESSIBLE CEILING FOR CAMERA BY OTHERS. COORDINATE WITH OWNER ON LOCATION AND MOUNTING HEIGHT. EC TO INSTALL CAMERA.
4. PROVIDE 4" RECESSED JUNCTION BOX AND 3/4" CONDUIT STUBBED TO ABOVE CEILING FOR PANIC BUTTON MY OTHERS. COORDINATE WITH OWNER ON LOCATION AND MOUNTING HEIGHT. EC TO INSTALL BUTTON.
5. PROVIDE 4" RECESSED JUNCTION BOX FOR CARD ACCESS FOR DOOR, STUB 1/2" CONDUIT TO BE ACCESSIBLE CEILING. PROVIDE ALL NECESSARY CONNECTIONS FOR MAG LOCK. SEE DETAIL 3 THIS SHEET FOR REQUIREMENTS.
6. PROVIDE 2" CONDUIT FROM MECH/IT ROOM 112 OUT OF BUILDING BELOW GRADE TO ADJACENT BUILDING. CONDUIT WILL BE ROUTED ABOVE CEILING TO THE EXISTING CORRIDOR J-HOOK LOCATION. COORDINATE WITH OWNER ON CONDUIT ROUTING AND TERMINATION. PROVIDE 12-PAIR FIBER OPTIC CABLE FROM IT ROOM TO IT ROOM IN ADJACENT BUILDING. ALL CONDUIT BENDS SHALL BE WIDE SWEEP TYPE FOR FIBER CABLING.
7. PROVIDE 1-1/2" CONDUIT FROM BUILDING BELOW GRADE TO PERIMETER FENCE. STUB UP AT FENCE, CAP BOTH ENDS, AND PROVIDE PULL STRING.
8. PROVIDE CONNECTION FROM FIRE ALARM SYSTEM TO FIRE/SMOKE DAMPER. PROVIDE 120V FROM NEAREST RECEPTACLE AS REQUIRED.
9. PROVIDE 1" CONDUIT BELOW GRADE TO GENERATOR FROM IT ROOM ALONG WITH (3) CAT6 CABLES FOR COMMUNICATION.
10. PROVIDE 4" RECESSED JUNCTION BOX FOR SECURITY KEY PAD, STUB 3/4" CONDUIT TO BE ACCESSIBLE CEILING. PROVIDE ALL NECESSARY CONNECTIONS.
11. PROVIDE J-HOOKS 6" ABOVE FINISHED CEILING ALONG WALL EVERY 24".
12. PROVIDE 4" SLEEVES THROUGH WALL FOR LOW VOLTAGE CABLING TYPICAL UNLESS NOTED OTHERWISE. SLEEVE TO BE LOCATED ABOVE FINISHED CEILING.
13. INSTALL KENDALL HOWARD ENCLOSED 6U V-RACK. PROVIDE PATCH PANEL AND INSTALL VERTICALLY IN THE RACK. RACK IS BY OWNER.



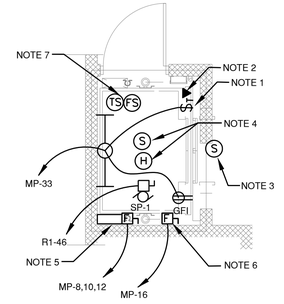
1 ELECTRICAL FIRST FLOOR - FLOOR PLAN
SCALE: 1/4" = 1'-0"

ELEVATOR GENERAL NOTES:

A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL ELEVATOR SYSTEM REQUIREMENTS AND TO WIRE ACCORDINGLY. VERIFY LOCATIONS OF ALL EQUIPMENT, VERIFY OVERCURRENT PROTECTION, WIRING, AND DISCONNECT REQUIREMENTS, AND PROVIDE AS REQUIRED.
B. LIGHT LEVELS AT THE PIT FLOOR SHALL BE 10 FOOT CANDLES. LIGHT LEVELS AT THE MACHINE EQUIPMENT SPACE SHALL BE 19 FOOT CANDLES. CONTRACTOR TO LOCATE LIGHTING ACCORDINGLY AND PROVIDE ADDITIONAL FIXTURES AS REQUIRED TO MEET THESE REQUIREMENTS.
C. NOTE THE ELEVATOR DOES NOT UTILIZE A MACHINE ROOM.

ELEVATOR KEY NOTES:

1. LOCATE LIGHT SWITCH 42" ABOVE THE SEAL PLATE ADJACENT TO THE LADDER AND ACCESS DOOR.
2. PROVIDE TELEPHONE CABLE FROM TTB IN 3/4"C. UP HOISTWAY TO TERMINATION POINT FOR THE ELEVATOR, AS REQUIRED.
3. PROVIDE WIRING FROM A NORMALLY CLOSED SET OF CONTACTS FROM ALL HEAT DETECTORS ADJACENT TO ELEVATOR DOORS, THE SMOKE DETECTOR OUTSIDE THE ELEVATOR DOORS, AND THE SMOKE DETECTOR AT THE TOP OF THE ELEVATOR SHAFT, TO A POINT IN THE ELEVATOR CONTROLLER AS DESIGNATED BY THE ELEVATOR MANUFACTURER.
4. LOCATE SMOKE DETECTOR, HEAT DETECTOR, AND FLOW SWITCH AT TOP ELEVATOR SHAFT.
5. PROVIDE LOCKABLE DISCONNECT SWITCH WITH CURRENT-LIMITING RK-1 FUSES, SIZED PER THE MANUFACTURER'S RECOMMENDATIONS, FOR THE ELEVATOR MOTE. PROVIDE FLEXIBLE CONNECTION TO THE CONTROLLER MOTOR TERMINALS. PROVIDE WIRING SIZED FOR THE DISCONNECT SWITCH FUSE AMP RATING. COORDINATE LOCATION OF DISCONNECT SWITCH WITH ELEVATOR CONTRACTOR. REFER TO EQUIPMENT WIRING SCHEDULE FOR FURTHER INFORMATION.
6. PROVIDE LOCKABLE 30A/1P/15AF DISCONNECT SWITCH FOR POWER TO ELEVATOR CAB LIGHT, RECEPTACLES, AND VENTILATION. COORDINATE LOCATION OF DISCONNECT SWITCH WITH ELEVATOR CONTROLLER.
7. VERIFY EXACT LOCATION AND REQUIRED QUANTITIES OF TAMPER AND/OR FLOW SWITCH.



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

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

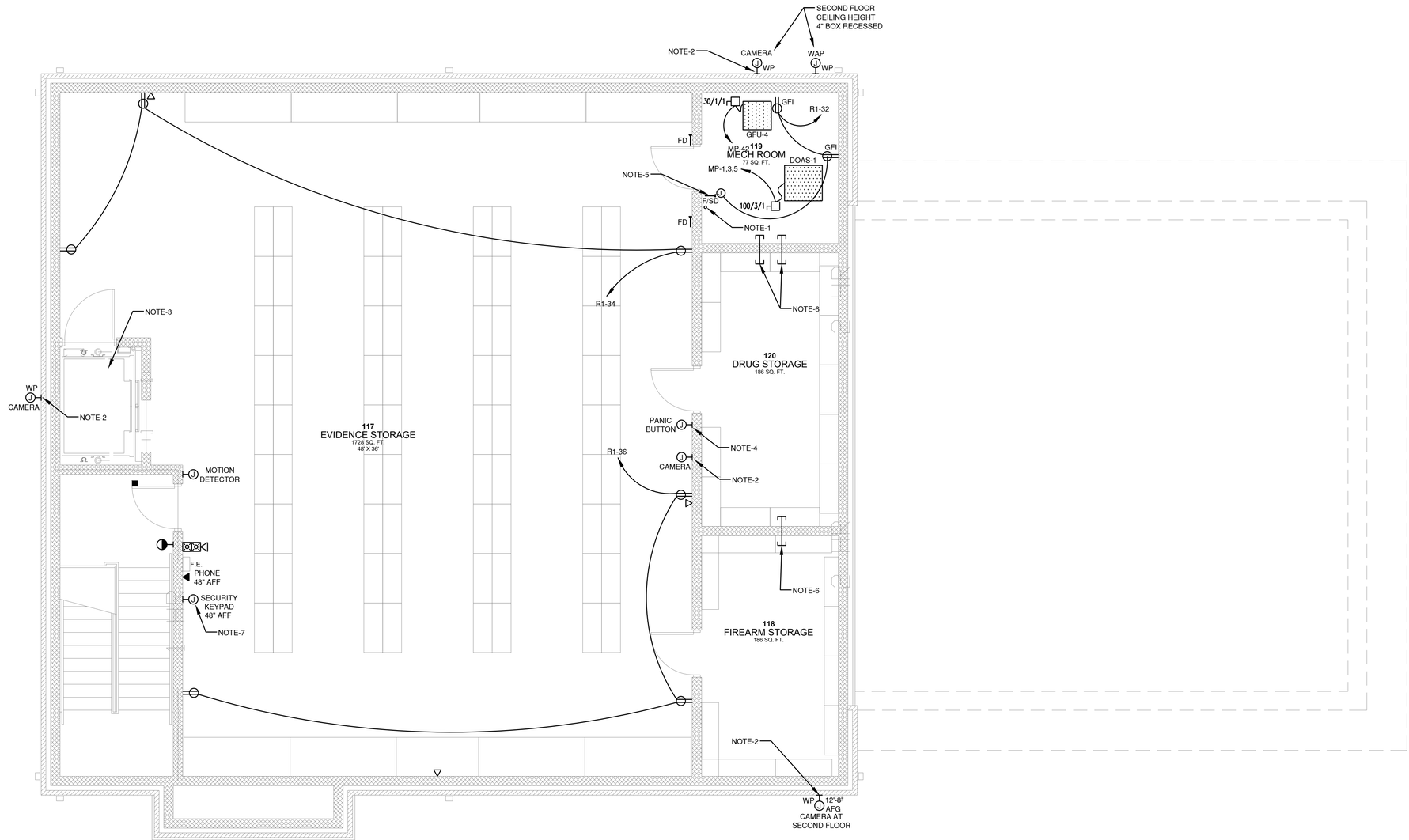
GEORGIA REGISTERED No. 38150 PROFESSIONAL ENGINEER ANDREW N. LUKOFF

855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

SHEET INDEX
ELECTRICAL FIRST FLOOR - FLOOR PLAN

SHEET INDEX
E5.0



1 ELECTRICALSECOND FLOOR - FLOOR PLAN

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

FLOOR PLAN GENERAL NOTES:

A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL MECHANICAL AND PLUMBING EQUIPMENT ELECTRICAL REQUIREMENTS WITH THOSE CONTRACTORS ON EQUIPMENT PURCHASED AS IT MAY DIFFER FROM THESE PLANS. PROVIDE MANUFACTURE'S RECOMMENDED FEEDER, OVERCURRENT PROTECTION, AND DISCONNECT FOR EQUIPMENT PURCHASED WITH NO ADDITIONAL COST TO THE OWNER.

B. ALL 15A/20A RECEPTACLES IN KITCHENS, FOOD PREP AREAS, RESTROOMS, OR ON EXTERIOR SHALL BE GFCI TYPE. GFCI RECEPTACLES SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 210.8 AND BE READILY ACCESSIBLE. FOR EQUIPMENT THAT WOULD HAVE TO BE MOVED TO RESET THE RECEPTACLE PER THE NEC DEFINITION, A GFCI BREAKER SHALL BE UTILIZED IN LIEU OF A RECEPTACLE.

C. COORDINATE WITH OWNER/ARCHITECT ON DEVICE/PLATE COLOR THROUGHOUT SUITE PRIOR TO PURCHASE OR INSTALLATION. CONFIRM ALL MOUNTING HEIGHTS AND LOCATIONS.

D. PROVIDE FIRE CAULKING AROUND ANY THROUGH WALL PENETRATION OF FIRE RATED WALLS.

E. SEE SHEET E7.0 FOR TABLES LISTING EQUIPMENT PROVIDED AND INSTALLED BY EC, EQUIPMENT PROVIDED BY DALTON AND INSTALLED BY EC, AND DALTON PROVIDED AND INSTALLED EQUIPMENT.

FLOOR PLAN KEY NOTES:

1. PROVIDE 4" CONDUIT BETWEEN MECHANICAL ROOM 119 AND MECH/DATA ROOM 112 FOR FUTURE LOW VOLTAGE PROVISIONS.
2. PROVIDE RECESSED 4" JUNCTION BOX AND 3/4" CONDUIT STUBBED TO ABOVE ACCESSIBLE CEILING FOR CAMERA BY OTHERS. COORDINATE WITH OWNER ON LOCATION AND MOUNTING HEIGHT.
3. SEE ELEVATOR DETAIL ON SHEET E5.0 FOR REQUIREMENTS.
4. PROVIDE 4" RECESSED JUNCTION BOX AND 3/4" CONDUIT STUBBED TO ABOVE CEILING FOR PANIC BUTTON MY OTHERS. COORDINATE WITH OWNER ON LOCATION AND MOUNTING HEIGHT.
5. PROVIDE CONNECTION FROM FIRE ALARM SYSTEM TO FIRE/SMOKE DAMPER. PROVIDE 120V FROM NEAREST RECEPTACLE AS REQUIRED.
6. PROVIDE 4" SLEEVES THROUGH WALL FOR FUTURE LOW VOLTAGE CABLING.
7. PROVIDE 4" RECESSED JUNCTION BOX FOR SECURITY KEY PAD, STUB 3/4" CONDUIT TO BE ACCESSIBLE CEILING. PROVIDE ALL NECESSARY CONNECTIONS.

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
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FACILITY CODE
000-0000

GEORGIA REGISTERED No. 38158 PROFESSIONAL ENGINEER ANDREW N. LUMSDEN

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A NEW BUILDING FOR:
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WHITFIELD COUNTY
DALTON, GA 30720

SHEET INDEX

ELECTRICAL
SECOND FLOOR -
FLOOR PLAN

SHEET INDEX

E6.0

COMcheck Software Version 4.1.1.0

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: Dalton Police Department
Project Type: New Construction

Construction Site: Whitfield County, Dalton, GA 30720
Owner/Agent:
Designer/Contractor:

Additional Efficiency Package(s)

High efficiency HVAC. Systems that do not meet the performance requirement will be identified in the mechanical requirements checklist report.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Common Space Types:Office - Enclosed	6500	1.11	7215
		Total Allowed Watts =	7215

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Common Space Types:Office - Enclosed				
LED 1: A: LED Linear 22W:	1	5	26	130
LED 2: B: LED Panel 33W:	1	85	31	2669
LED 3: C: LED Panel 19W:	1	1	23	23
LED 4: D: LED Panel 54W:	1	9	48	432
			Total Proposed Watts =	3254

Interior Lighting PASSES: Design 55% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Andrew Lundy — Name - Title
Andrew Lundy — Signature
11/3/23 — Date

Project Title: Dalton Police Department — Report date: 11/03/23
Data filename: P:\Projects 2023\2023-0151 KRH_Rome Police Station\Calculation\Dalton P&E CC.cck — Page 1 of 5

LOAD SUMMARY

VOLTAGE: 208 Y/120V

CIRCUIT DESCRIPTION	PANEL MP	PANEL R1		CONNECTED	DEMAND
LIGHTING	0.0	5.9		5.86	7.33
RECEPTACLE	0.5	15.7		16.18	13.09
MOTOR	49.3	8.7		58.02	58.02
HEATING	32.0	0.2		32.14	32.14
COOLING	27.7	0.0		27.70	27.70
KITCHEN	0.0	0.3		0.25	0.16
			NEW TOTAL DIVERSIFIED KVA		111
			NEW TOTAL DIVERSIFIED AMPS		307

PANEL NAME: MP — LOCATION: ELEC ROOM 103 — VOLTAGE: 208 Y/120V 3 PHASE — 400A MLO — MOUNTING / ENCLOSURE: SURFACE / NEMA 1

AMPS	POLES	TYPE	CIRCUIT DESCRIPTION	KVA	CKT	A	B	C	CKT	KVA	CIRCUIT DESCRIPTION	TYPE	POLES	AMPS
80	3	H	DOAS-1	7.32	1	16.23			2	8.91	PANEL R1		3	200
		H		7.32	3		19.19		4	11.87				
		H		7.32	5			17.19	6	9.87				
45*	3	AC	DCU-1	2.76	7	17.76			8	15.00	ELEVATOR	M	3	200*
		AC		2.76	9		17.76		10	15.00		M		
		AC		2.76	11			17.76	12	15.00		M		
40	2	H	EWH-1	3.00	13	3.00			14		SHUNT TRIP		1	
		H		3.00	15		3.25		16	0.25	ELEVATOR CAB LIGHTS		1	20*
30*	2	AC	HP-5 / WFC-5	1.66	17			1.66	18		SHUNT TRIP		1	20
		AC		1.66	19	3.31			20	1.65	CU-1	AC	2	35*
20	2	H	HTR-1	0.75	21		2.40		22	1.65		AC		
		H		0.75	23			3.85	24	3.10	CU-2	AC	2	60*
20	2	H	HTR-2	0.75	25	3.85			26	3.10		AC		
		H		0.75	27		2.40		28	1.65	CU-3	AC	2	35*
20	1	R	GENERATOR BATTERY CHARGER	0.25	29			1.90	30	1.65		AC		
20	1	H	GENERATOR ENCLOSURE HEATER	1.00	31	2.65			32	1.65	CU-4	AC	2	35*
20	1	R	ELEVATOR SHAFT LTSRECEP	0.25	33		1.90		34	1.65		AC		
20	1		SPARE		35			0.86	36	0.86	GFU-1	M	1	20
20	1		SPARE		37	1.76			38	1.76	GFU-2	M	1	20
20	1		SPARE		39		0.86		40	0.86	GFU-3	M	1	20
20	1		SPARE		41			0.86	42	0.86	GFU-4	M	1	20
				PHASE TOTAL		48.6	47.8	44.1	KVA					

**PROVIDE SHUNT TRIP TYPE BREAKER
*PROVIDE HACR TYPE CIRCUIT BREAKER

TOTAL CONNECTED LOAD	140 KVA 390 A
TOTAL DEMAND LOAD	113 KVA 314 A

PANEL NAME: R1 — LOCATION: ELEC ROOM 103 — VOLTAGE: 208 Y/120V 3 PHASE — 225A MLO — MOUNTING / ENCLOSURE: SURFACE / NEMA 1

AMPS	POLES	TYPE	CIRCUIT DESCRIPTION	KVA	CKT	A	B	C	CKT	KVA	CIRCUIT DESCRIPTION	TYPE	POLES	AMPS
20	1	R	RECEP HVAC EXTERIOR	0.36	1	0.54			2	0.18	WEF-6	M	1	20
20	1	R	RECEP FIRE RISER 101	0.18	3		1.08		4	0.90	RECEP EVIDENCE DROP 113	R	1	20
20	1	R	RECEP GEAR STORAGE 116	0.36	5			0.72	6	0.36	RECEP MECH/DATA 112	R	1	20
20	1	R	RECEP GEAR STORAGE 116	0.36	7	0.90			8	0.54	RECEP EVIDENCE 111	R	1	20
20	1	R	RECEP GEAR STORAGE 116	0.36	9		0.72		10	0.36	RECEP MECH/DATA 112	R	1	20
20	1	R	RECEP ELECTRICAL 103	0.18	11			0.54	12	0.36	RECEP MECH/DATA 112	R	1	20
20	1	R	RECEP WORK SPACE 110	0.72	13	1.08			14	0.36	RECEP MECH/DATA 112	R	1	20
20	1	R	RECEP COUNTER WORK SPACE 110	0.36	15		0.90		16	0.54	RECEP VESTIBULE 114	R	1	20
20	1	R	RECEP RESTROOMS	0.36	17			0.54	18	0.18	RECEP VEHICLE BAY 115	R	1	20
20	1	R	RECEP PHOTO RM 107	0.72	19	1.08			20	0.36	PLUGREEL VEHICLE BAY 115	R	1	20
20	1	R	RECEP PHOTO RM 107	0.72	21		1.26		22	0.54	RECEP VEHICLE BAY 115	R	1	20
20	1	R	RECEP CRIME LAB 106	0.36	23			0.72	24	0.36	PLUG REEL VEHICLE BAY 115	R	1	20
20	1	R	RECEP CRIME LAB 106	0.54	25	0.90			26	0.36	RECEP VEHICLE BAY 115	R	1	20
20	1	R	RECEP CRIME LAB 106	0.54	27		0.90		28	0.36	RECEP VEHICLE BAY 115	R	1	20
20	1	R	RECEP CRIME LAB 106	0.54	29			1.08	30	0.54	RECEP CRIME LAB 106	R	1	20
20	1	L	LTG 101-107	0.60	31	0.96			32	0.36	RECEP MECH ROOM 119	R	1	20
20	1	L	LTG 108-116	0.82	33		1.36		34	0.54	RECEP EVIDENCE STORAGE 117	R	1	20
20	1	L	LTG VEHICLE BAY 115	1.00	35			1.54	36	0.54	RECEP EVIDENCE STORAGE 117	R	1	20
20	1	L	LTG EVIDENCE STORAGE 117	1.20	37	1.30			38	0.10	MAG LOCKS	R	1	20
20	1	L	LTG 118-119	0.22	39		0.32		40	0.10	WAP	R	1	20
20	1	L	WALL PACKS	0.12	41			0.30	42	0.18	RECEP VEHICLE BAY 115	R	1	20
20	1	L	CRIME LAB SURGICAL LTS	1.00	43	1.25			44	0.25	REFRIGERATOR	K	1	20
20	1	R	RECEPS WORK SPACE 110	1.08	45		1.33		46	0.25	SP-1	M	1	20
20	1	M	ROLL UP DOOR	0.25	47			0.43	48	0.18	EVIDENCE DRYER	H	1	20
20	1	L	LTG BAY WALLS	0.90	49	0.90			50		SPARE		1	20
50	2	M	FUTURE AIR COMPRESSOR	4.00	51		4.00		52		SPARE		1	20
		M		4.00	53			4.00	54		SPARE		1	20
				PHASE TOTAL		8.9	11.9	9.9	KVA					

*PROVIDE HACR TYPE CIRCUIT BREAKER

TOTAL CONNECTED LOAD	31 KVA 85 A
TOTAL DEMAND LOAD	30 KVA 83 A

LIGHTING FIXTURE SCHEDULE

FIXTURE DESIGNATION	GENERIC DESCRIPTION	MANUFACTURER AND CATALOG NUMBER	ALLOWANCE	COLOR	MOUNTING/ HEIGHT	VOLTAGE	LAMP	COLOR TEMP.	WATTAGE
A	4' LED LINEAR STRIP	METALUX CAT# 4SNX-LN-41SL-UNV-L835-CD1 *AE" INDICATES EL14W BATTERY OPTION		WHITE	SURFACE	UNV	4100LM LED	3500K	26
B	2X2 LED TROFFER	METALUX CAT# 22CGT3535C "BE" INDICATES EL14W BATTERY OPTION		WHITE	RECESSED	120	3500LM LED	3500 K	31.4
C	6" RECESSED LED DOWNLIGHT	PORTFOLIO CAT# LDSEC209035D010-S0H *CE" INDICATES EMBOD6ST 90M BATTERY OPTION		WHITE	RECESSED	120	2000LM LED	3500K	22.58
D	8' LED LINEAR WRAP	FAIL-SAFE CAT#HVSL4-8-LD4-2-HI-40-UNV-O-EDC1		WHITE	SURFACE	120	10K LM LED	4000K	92
F	4' LED LINEAR WRAP	FAIL-SAFE CAT#VRVT4S-18-DR-UNV-L840 *FE" INDICATES EL10W BATTERY		WHITE	SURFACE	120	18K LM LED	4000K	138
WP	WALL PACK	HALO CAT# WXPS40UNVDBZ INTEGRATED PHOTOCELL		BRONZE	SURFACE	120	3700LM LED	4000K	30
X1	EXIT SIGN	SURE LITES CAT#APX7R		WHITE	SURFACE	120	LED		1.3
X2	EXTERIOR EGRESS FIXTURE	SURE LITES CAT#AEL231BZ		BRONZE	SURFACE	120	LED	3000K	2

MECHANICAL EQUIPMENT SCHEDULE

EQUIPMENT NAME	LOCATION / SERVES	VOLTAGE	PHASE	HP	KW	KW / POLE	FLA	MCA	MOCP	BREAKER AMPACITY	PANEL	FEEDER	DISCONNECT (NOTE 1) SIZE	POLES	FUSE SIZE	ENCLOSURE	CONTROL
CU-1	EXTERIOR	208	1			1.65	15.8	19.8	35	35	MP-20,22	2 # 8 ,1# 10 G- 3/4 "C	60	2	NF	NEMA 3R	BY DIVISION 15
CU-2	EXTERIOR	208	1			3.10	29.8	37.3	60	60	MP-24,26	2 # 4 ,1# 10 G- 1 "C	60	2	NF	NEMA 3R	BY DIVISION 15
CU-3	EXTERIOR	208	1			1.65	15.8	19.8	35	35	MP-28,30	2 # 8 ,1# 10 G- 3/4 "C	60	2	NF	NEMA 3R	BY DIVISION 15
CU-4	EXTERIOR	208	1			1.65	15.8	19.8	35	35	MP-32,34	2 # 8 ,1# 10 G- 3/4 "C	60	2	NF	NEMA 3R	BY DIVISION 15
GFU-1	MECH/DATA 112	120	1			0.86	7.2	9.8	15	15	MP-36	2 # 12 ,1# 12 G- 1/2 "C	30	1	NF	NEMA 1	BY DIVISION 15
GFU-2	MECH/DATA 112	120	1			1.76	14.7	19.3	20	20	MP-38	2 # 12 ,1# 12 G- 1/2 "C	30	1	NF	NEMA 1	BY DIVISION 15
GFU-3	VEHICLE BAY 115	120	1			0.86	7.2	9.8	15	15	MP-40	2 # 12 ,1# 12 G- 1/2 "C	30	1	NF	NEMA 1	BY DIVISION 15
GFU-4	MECH 119	120	1			0.86	7.2	9.8	15	15	MP-42	2 # 12 ,1# 12 G- 1/2 "C	30	1	NF	NEMA 1	BY DIVISION 15
EWH-1	MECH/DATA 112	208	1		6.0	3.00			40	40	MP-13,15	2 # 8 ,1# 10 G- 3/4 "C	60	2	NF	NEMA 1	BY DIVISION 15
HP-5 / WFC-5	EXTERIOR / MECH/DATA 112	208	1			1.66	16.0	20.0	30	30	MP-17,19	2 # 10 ,1# 10 G- 1/2 "C	30	2	NF	NEMA 3R / 1	BY DIVISION 15
HTR-1	FIRE RISER ROOM 101	208	1		1.5	0.75			20	20	MP-21,23	2 # 12 ,1# 12 G- 1/2 "C	DIRECT CONNECTION				BY DIVISION 15
HTR-2	STAIR CASE 105	208	1		1.5	0.75			20	20	MP-25,27	2 # 12 ,1# 12 G- 1/2 "C	DIRECT CONNECTION				BY DIVISION 15
EF-1	RESTROOM 108	120	1			0.17	1.4		20	20	R1-33	2 # 12 ,1# 12 G- 1/2 "C	MOTOR RATED SWITCH				BY DIVISION 15
EF-2	RESTROOM 109	120	1			0.17	1.4		20	20	R1-33	2 # 12 ,1# 12 G- 1/2 "C	MOTOR RATED SWITCH				BY DIVISION 15
EF-3	MECH/DATA 112	120	1			0.46	3.8		20	20	R1-33	2 # 12 ,1# 12 G- 1/2 "C	MOTOR RATED SWITCH				BY DIVISION 15
EF-4	CRIME LAB 106	120	1	0.03		0.36			20	20	R1-31	2 # 12 ,1# 12 G- 1/2 "C	MOTOR RATED SWITCH				BY DIVISION 15
EF-5	VEHICLE BAY 115	120	1	0.25		0.70	5.8		20	20	R1-35	2 # 12 ,1# 12 G- 1/2 "C	MOTOR RATED SWITCH				BY DIVISION 15
WEF-6	VEHICLE BAY 115	120	1			0.02	0.2		20	20	R1-2	2 # 12 ,1# 12 G- 1/2 "C	MOTOR RATED SWITCH				BY DIVISION 15
EF-7	DRUG STORAGE 120	120	1			0.02	0.2		20	20	R1-39	2 # 12 ,1# 12 G- 1/2 "C	MOTOR RATED SWITCH				RUN CONTINUOUSLY
DOAS-1	MECH 119	208	3		21.0	7.32	61.0	76.0	80	80	MP-1,3,5	3 # 3 ,1# 8 G- 1 1/4"C	100	3	NF	NEMA 1	BY DIVISION 15
DCU-1	EXTERIOR	208	3			2.76	23.0	28.0	45	45	MP-7,9,11	3 # 6 ,1# 10 G- 1 "C	60	3	NF	NEMA 3R	BY DIVISION 15

NOTES:
1. DISCONNECT SWITCH IS NOT REQUIRED IF UNIT IS PROVIDED WITH DISCONNECT OR IF UNIT HAS CORD/PLUG AND RECEPTACLE.

Dalton to Provide for Dalton to Install

Section	Part Number	Description	QTY	Spec Sheet Link
Data	FortiSwitch 248E-F	Network FortiSwith 52 Port	1	FortiSwitch Secure Access Data Sheet (fortinet.com)
Data	PR1500RT2U	Battery Backup UPS	1	CyberPower DS_PR1500RT2U.pdf (dl4jz3rbrsfum.cloudfront.net)
Data	StarTech Horizontal	1U low profile Cable Manager	1	1U Finger Duct Cable Manager w/ Cover - Rack Cable Management | Server Rack Accessories | StarTech.com
		Wireless Panic Button		

Dalton to Provide for EC to Install

Section	Part Number	Description	QTY	Spec Sheet Link
Data	FAP-431G-A	Fortinet Indoor WAP	5	FAP-431G-433G-QSG.pdf (fortinetweb.s3.amazonaws.com)
Data	FAP-432F	Fortinet outdoor WAP	1	FortiAP Access Points Datasheet (avfirewalls.com)
Surveillance	CF81-E	Verkada Fisheye Camera	8	video-security-fisheye-series-overview.pdf (verkada.com)
Surveillance	ACC-MNT-7	Verkada Angle Mount	8	accessories-overview.pdf (verkada.com)
Surveillance	ACC-CAM-SHIELD-1	Verkada Weather Shield	3	accessories-overview.pdf (verkada.com)
Surveillance	TD52	Verkada Intercom Camera	2	video-intercom-overview.pdf (verkada.com)
Surveillance	ACC-INT-SURF	Verkada Intercom Mount	1	intercom-accessories-overview.pdf (verkada.com)
Surveillance	ACC-INT-ANGLE	Verkada Intercom Mount	1	intercom-accessories-overview.pdf (verkada.com)
Surveillance	ACC-CAM-SHIELD-1	Verkada Weather Shield	4	accessories-overview.pdf (verkada.com)
Access Control	AC12	Verkada Controller	7	ac12-one-door-controller-datasheet.pdf (verkada.com)
Data	EVR6U25-U	Kendal Howard Cabinet	1	EVR6U25 Data Sheet
Alarm	PBM-1-4-L2-GR	Wired Panic Button	2	PB Series Panic Stations (alarmcontrols.com)
Alarm	ELK-124	8-Channel Voice Driver	1	8-Channel Recordable Voice Driver - ELK Products
Alarm	BR11	Wired Motion Sensor	2	intrusion-sensors-spec-datasheet.pdf (verkada.com)
Alarm	BC82	Verkada Alarm Console	3	alarm-console-overview.pdf (verkada.com)
Data	EVR6U25-U	Kendal Howard Cabinet	1	EVR6U25 Data Sheet

Contractor to Provide & Install

Section	Part Number	Description	QTY	Spec Sheet Link
Data	CPP48HDEWBL	Panduit Mini-Com® Patch Panel, 48 Port, 1 RU, BL	2	
Data		Panduit Mini-Com Network Jacks, Patch Panel & Wall	158	
Data		Panduit Face Plates	24	
Data		Panduit Surface Mount Box; Indoor Wireless AP & IDF Equipment	12	
Data		Panduit Cat6a Riser Cable, # of Cables, indoor rated	79	
Data		1 U Fiber Patch Panel, Old Building MDF	1	
Data		Wall Mount Fiber Enclosure, New IDF	1	
Data		12 strand fiber, terminated on both ends	1	
Data	UTP28X2BU	Slim Patch Cables, Blue - in Cabinet Only (Alarm) - 2ft	6	Panduit | UTP28X2BU
Data	UTP28X2RD	Slim Patch Cables, Red - in Cabinet Only (Camera) - 2ft	12	Panduit | UTP28X2RD
Data	UTP28X3GR	Slim Patch Cables, Green - in Cabinet Only (UPS) - 3ft	2	Panduit | UTP28X3GR
Data	UTP28X2BL	Slim Patch Cables, Black - in Cabinet Only (Workstations) - 2ft	6	Panduit | UTP28X2BL
Data	UTP28X2YL	Slim Patch Cables, Yellow - in Cabinet Only (Phones) - 2ft	6	Panduit | UTP28X2YL
Data		Slim Patch Cables, Grey - in Cabinet Only (Devices like Printers, HVAC, Generator	4	Panduit | UTP28X2GY
Data		Slim Patch Cables, Orange - in Cabinet Only (Access Control) - 2ft	9	Panduit | UTP28X2OR
Data		Slim Patch Cables, White - in Cabinet Only (WAPS)	8	Panduit | UTP28X2
Data		Panduit Standard Patch Cable CAT6a Blue - for Endpoint - 3ft	2	
		Panduit Standard Patch Cable CAT6a Blue - for Endpoint - 2ft	4	
Data		Panduit Standard Patch Cable CAT6a Red - for Endpoint - 2ft	12	
Data		Panduit Standard Patch Cable CAT6a Yellow - for Endpoint - 6ft	3	
Data		Panduit Standard Patch Cable CAT6a Yellow - for Endpoint - 2ft	3	
Data		Panduit Standard Patch Cable CAT6a Grey - for Endpoint - 6ft	3	
Data		Panduit Standard Patch Cable CAT6a Orange - for Endpoint - 3ft	9	
Data		Panduit Standard Patch Cable CAT6a White - for Endpoint - 3ft	8	
Access Control	40KNKS-00-000000	HID Signo Keypad Reader 40K	7	HID® Signo™ Readers Datasheet | HID Global
Alarm		Outside Plant 18/2 for Anunciator in Old Building	1	
Access Control		Deadbolt Lock on two entry doors	2	
Access Control		Door Strike	7	
Data	ISTPH6X1MTL	Industrial Patch Cable 1m, for outdoor WAP on rear of building	1	Panduit | ISTPH6X1MTL
Alarm		22/4 Cable for Alarm Motion Detectors	2	
Alarm		22/2 Cable for Panic Buttons	2	

FOR CONSTRUCTION

PROJECT NUMBER
23-021

DATE
12/01/23

REVISIONS

NO.	DATE
0000	00/00/00

FACILITY CODE
000-0000

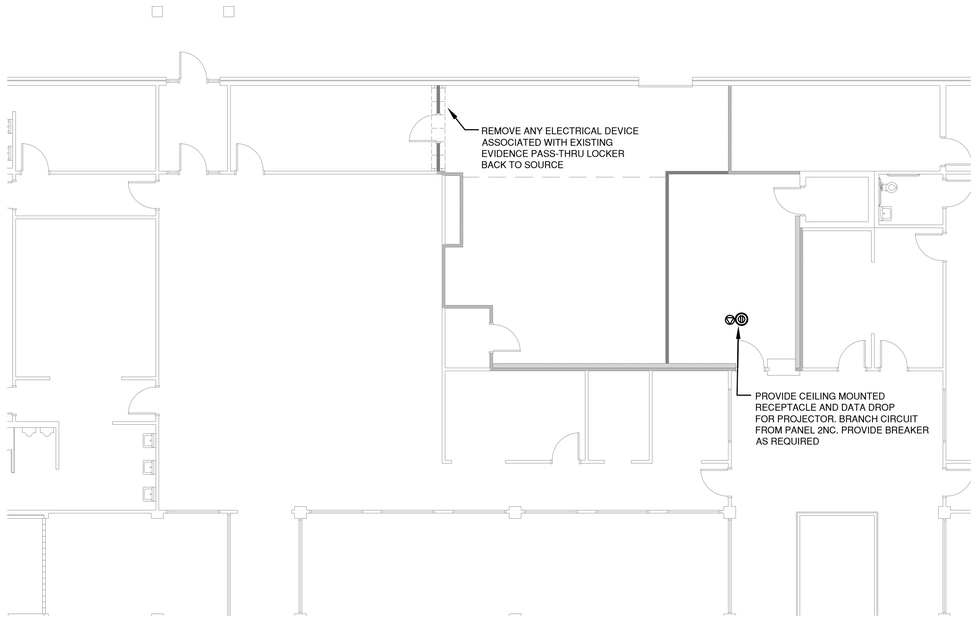
GEORGIA REGISTERED No. 38158 PROFESSIONAL ENGINEER ANDREW N. LUNDY

855 ABUTMENT ROAD
SUITE FOUR
DALTON, GA 30721
TEL. 706.529.5895

A NEW BUILDING FOR:
DALTON POLICE DEPARTMENT
WHITFIELD COUNTY
DALTON, GA 30720

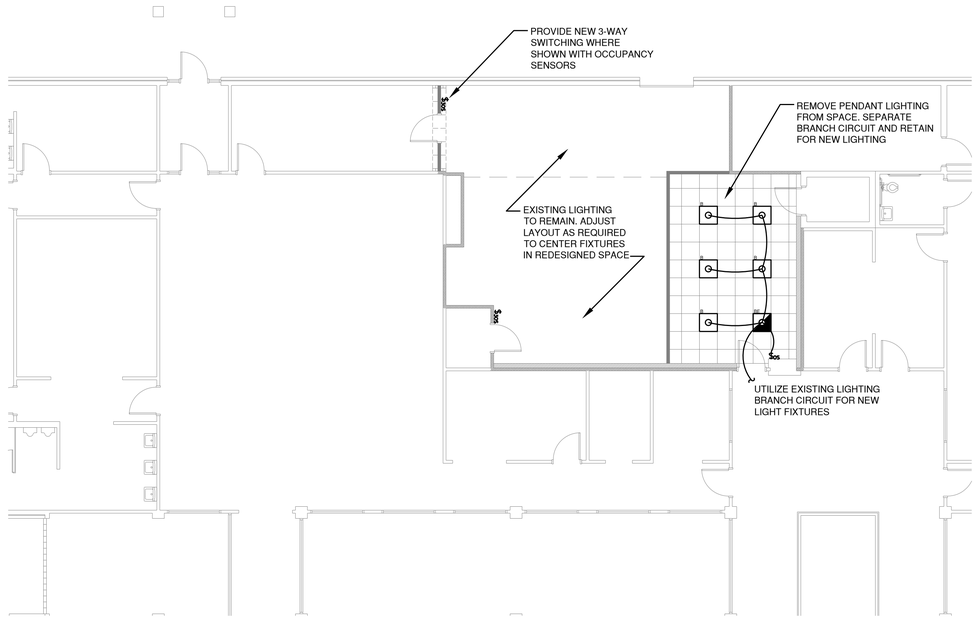
SHEET INDEX
ELECTRICAL SCHEDULES

SHEET INDEX
E7.0



1 ELECTRICAL SECOND FLOOR - FLOOR PLAN

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



1 ELECTRICAL SECOND FLOOR - FLOOR PLAN

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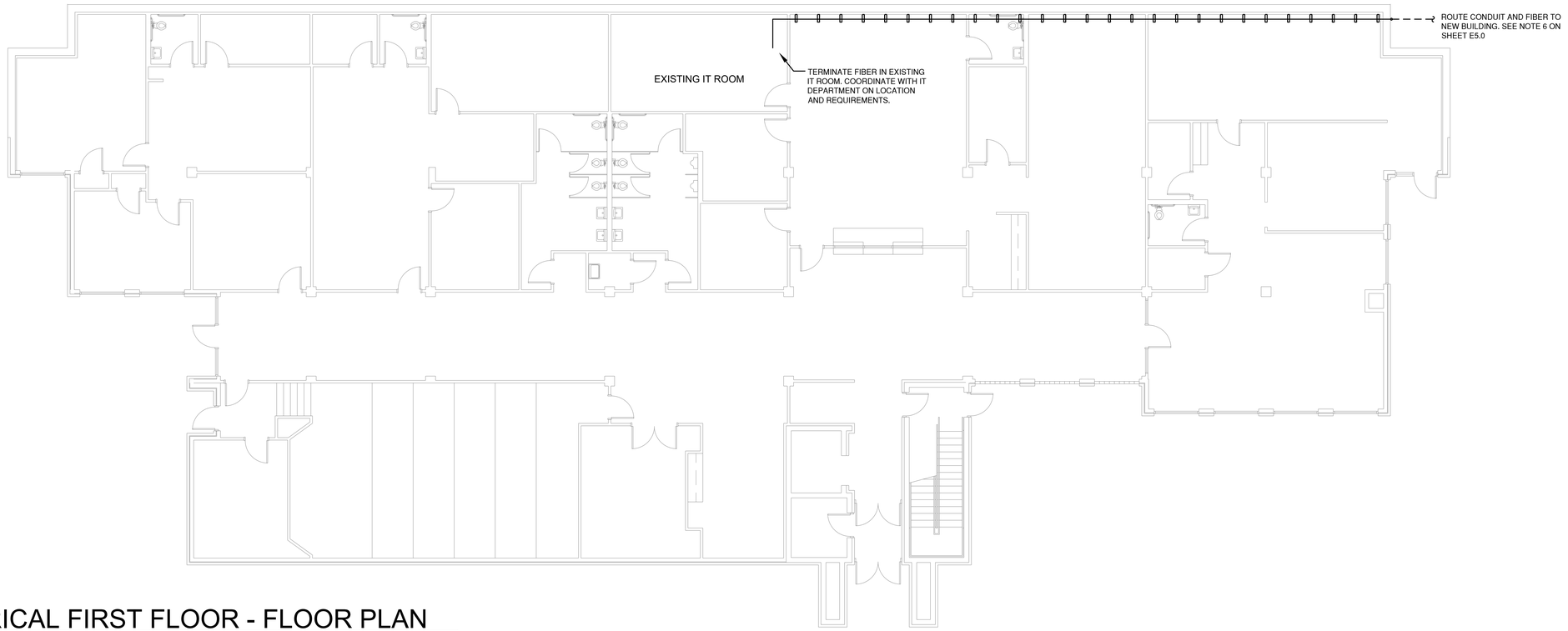

1 ELECTRICAL FIRST FLOOR - FLOOR PLAN

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

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GEORGIA REGISTERED No. 38158 PROFESSIONAL ENGINEER ANDREW N. LUMSDEN

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WHITFIELD COUNTY
DALTON, GA 30720

SHEET INDEX

EXISTING POLICE SERVICES BUILDING ELECTRICAL PLAN

SHEET INDEX

E8.0