

ISSUED FOR BID July-August 2016

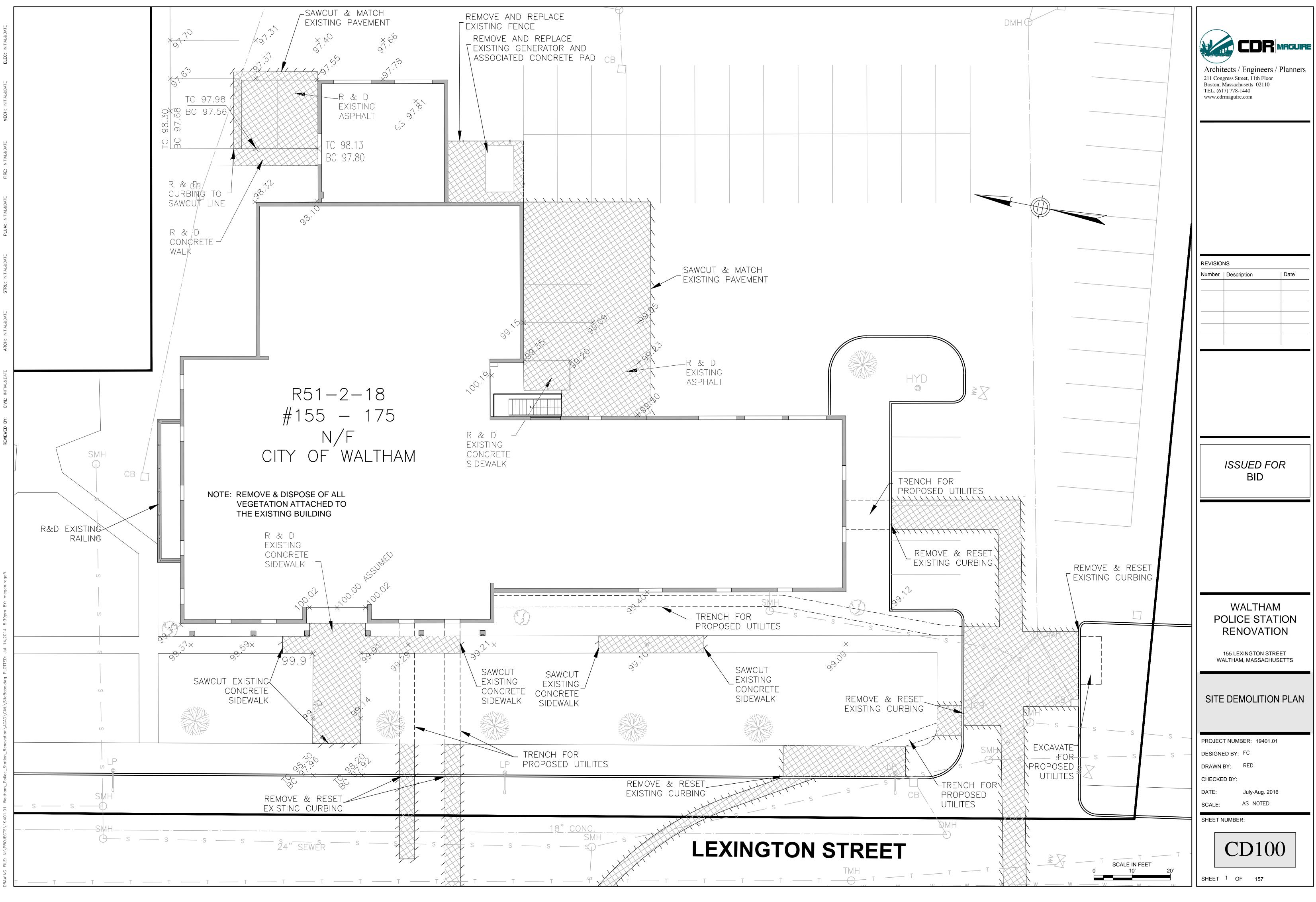
LIST OF DRAWINGS

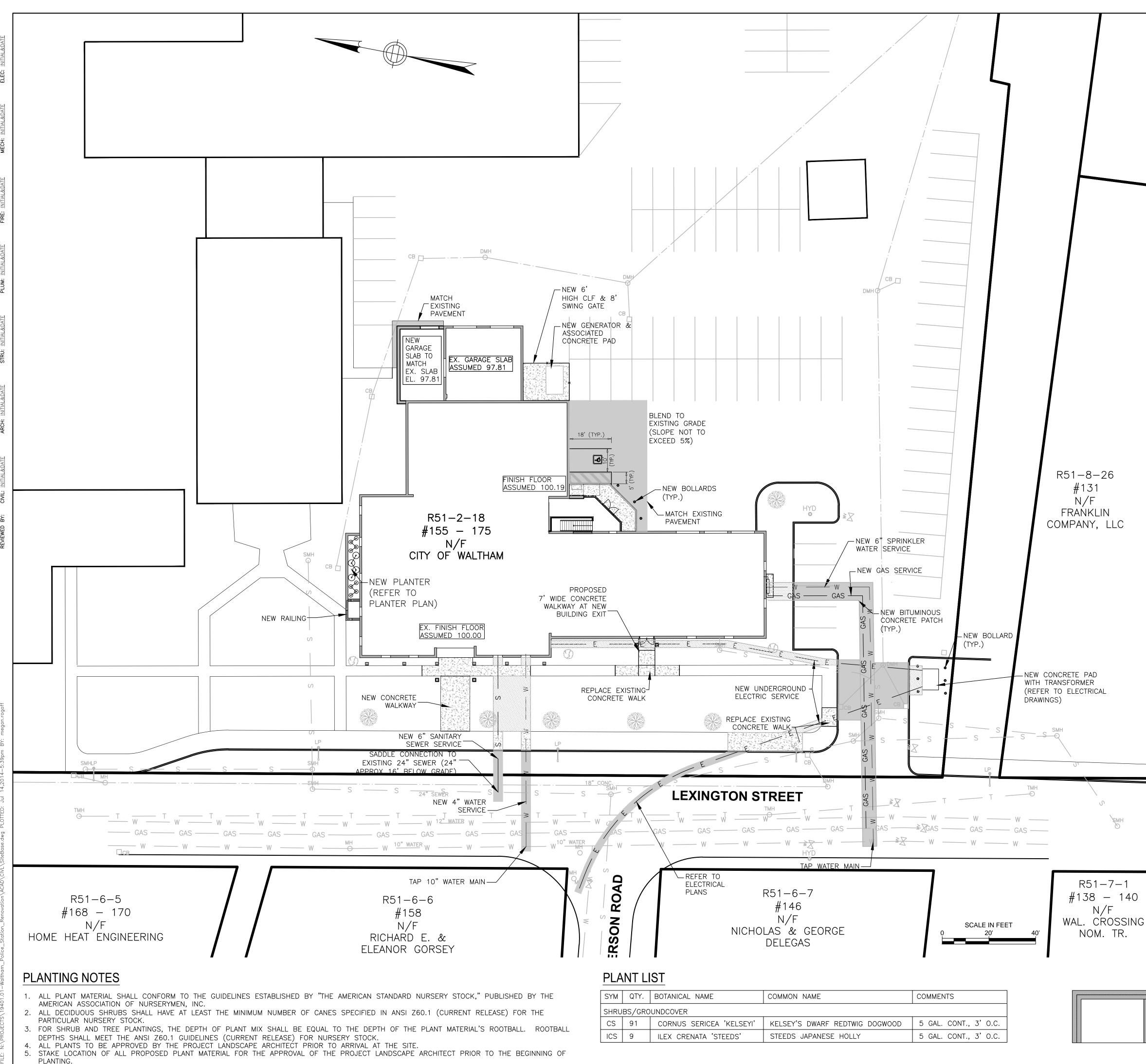
COVERSHEE⁻

CIVIL

MECHANICAL

	CIVIL		
C100 C101 C102 C103 C104	SITE DEMOLITION SITE PLAN SITE DETAILS SITE DETAILS-2 SITE DETAILS-3 STRUCTURAL	HD101 HD102 HD103 HD104 H000 H101 H102 H103	HVAC BASEMENT FLOOR DEMO PLAN HVAC FIRST FLOOR DEMO PLAN HVAC SECOND FLOOR DEMO PLAN HVAC ROOF DEMO PLAN HVAC LEGEND, NOTES AND ABBREVIATIONS HVAC BASEMENT FLOOR PLAN HVAC FIRST FLOOR PLAN HVAC SECOND FLOOR PLAN
SD101 SD102 S001 S101	BASEMENT DEMOLITION PLAN FIRST/SECOND FLOOR DEMOLITION PLANS GENERAL NOTES BASEMENT PLAN	H104 H800 H801 PD101 PD102 PD103	HVAC ROOF PLAN HVAC SCHEDULES HVAC SCHEDULESPLUMBING DEMOLITION PLUMBING BASEMENT FLOOR DEMO PLAN PLUMBING FIRST FLOOR DEMO PLAN PLUMBING SECOND FLOOR DEMO PLAN
S102	FIRST FLOOR FRAMING PLAN		PLUMBING
S103 S104 S301 S302 S303 S304 S401 S402 S501 S502	SECOND FLOOR FRAMING PLAN ROOF FRAMING PLAN SECTION AND DETAILS SECTIONS AND DETAILS SECTIONS AND DETAILS SECTIONS AND DETAILS STAIR PLAN AND SECTION ENLARGED FRAMING PLANS TYPICAL DETAILS TYPICAL DETAILS	P000 P101U P101 P102 P103 P104 P600 P601 P700 P701	PLUMBING LEGEND, NOTES AND ABBREVIATIONS PLUMBING UNDERSLAB PLAN PLUMBING BASEMENT FLOOR PLAN PLUMBING FIRST FLOOR PLAN PLUMBING SECOND FLOOR PLAN PLUMBING ROOF PLAN PLUMBING DETAILS PLUMBING SCHEDULES PLUMBING SCHEDULES
S502	TYPICAL DETAILS		FIRE PROTECTION
S504 S505 S506 S601	TYPICAL DETAILS TYPICAL DETAILS TYPICAL DETAILS COLUMN SCHEDULE, BASE PLATE AND PIER DETAILS	FP000 FP101 FP102 FP103 FP600 FP601	FIRE PROTECTION LEGEND, NOTES AND ABBREVIATI FIRE PROTECTION BASEMENT FLOOR PLAN FIRE PROTECTION FIRST FLOOR PLAN FIRE PROTECTION SECOND FLOOR PLAN FIRE PROTECTION DETAILS FIRE PROTECTION DETAILS
	ARCHITECTURAL		ELECTRICAL
AD101 AD102 AD103 AD104 AD120 AD121 AD122 A001 A002 A009 A010 A011 A012 A100 A111 A102 A100 A101 A102 A103 A111 A122 A103 A111 A122 A113 A120 A121 A122 A201 A202 A310 A311 A312 A401 A402 A521	BASEMENT DEMOLITION PLAN FIRST FLOOR DEMOLITION PLAN SECOND FLOOR DEMOLITION PLAN ROOF DEMOLITION PLAN BASEMENT DEMOLITION RCP FIRST FLOOR DEMOLITION RCP SECOND FLOOR DEMOLITION RCP SYMBOLS AND ABBREVIATIONS WALL TYPES LIFE SAFETY DATA SHEET BASEMENT LIFE SAFETY PLAN FIRST FLOOR LIFE SAFETY PLAN SECOND FLOOR LIFE SAFETY PLAN SECOND FLOOR PLAN FIRST FLOOR PLAN SECOND FLOOR PLAN SECOND FLOOR PLAN ENLARGED FLOOR PLANS ENLARGED FLOOR PLANS ENLARGED FLOOR REFLECTED CEILING PLAN FIRST FLOOR REFLECTED CEILING PLAN FIRST FLOOR REFLECTED CEILING PLAN FIRST FLOOR REFLECTED CEILING PLAN SECOND FLOOR REFLECTED CEILING PLAN FIRST FLOOR REFLECTED CEILING PLAN SECOND FLOOR REFLECTED CEILING PLAN FIRST FLOOR REFLECTED CEILING PLAN SECOND FLOOR RCP EXTERIOR ELEVATION TYP. WALL SECTIONS TYP. WALL SECTIONS STAIR PLAN, SECTIONS, DETAILS STAIR PLAN, SECTIONS, DETAILS PLAN DETAILS	ESD102 ESD103 ES101 ES102 ES103 ES701 ES702	ELECTRICAL BASEMENT FLOOR DEMOLITION PLAN ELECRICAL FIRST FLOOR DEMOLITION PLAN ELECTRICAL SECOND FLOOR DEMO ELECTRICAL LEGEND, NOTES AND ABBREVIATIONS ELECTRICAL LIGHTING BASEMENT FLOOR PLAN ELECTRICAL LIGHTING FIRST FLOOR PLAN ELECTRICAL LIGHTING SECOND FLOOR PLAN ELECTRICAL LIGHTING SECOND FLOOR PLAN ELECTRICAL POWER BASEMENT FLOOR PLAN ELECTRICAL POWER BASEMENT FLOOR PLAN ELECTRICAL POWER SECOND FLOOR PLAN ELECTRICAL POWER ROOF PLAN ELECTRICAL FIRE ALARM BASEMENT FLOOR PLAN ELECTRICAL FIRE ALARM BASEMENT FLOOR PLAN ELECTRICAL FIRE ALARM SECOND FLOOR PLAN ELECTRICAL ON LINE DIAGRAM ELECTRICAL ONE LINE DIAGRAM ELECTRICAL SCHEDULES ELECTRICAL SCHEDULES ELECTRICAL SCHEDULES ELECTRICAL SCHEDULES ELECTRICAL SCHEDULES ELECRICY BASEMENT DEMO PLAN SECURITY SECOND FLOOR PLAN SECURITY FIRST FLOOR PLAN SECURITY FIRST FLOOR PLAN SECURITY SECOND FLOOR PLAN SECURITY SECOND FLOOR PLAN SECURITY SECOND FLOOR PLAN SECURITY DETAILS BLOOD VISUAL
A531 A532 A541 A571 A572 A581 A601 A602 A630 A631 A632 A701 A702 A703 A704 A705 A801 A900 A901 A902 A903 A904	SECTION DETAILS SECTION DETAILS DOOR & WINDOW DETAILS MISCELLANEOUS DETAILS MISCELANEOUS DETAILS CEILING DETAILS CEILING DETAILS ROOM FINISH SCHEDULE WINDOW & DOOR TYPE ELEVATIONS BASEMENT FINISH PLAN FIRST FLOOR FINISH PLAN SECOND FLOOR FINISH PLAN TOILET ROOM PLANS AND ELEVATIONS TOILET ROOM PLANS AND ELEVATIONS INTERIOR ELEVATIONS INTERIOR ELEVATIONS MILLWORK DETAILS BASEMENT FLOOR FURNITURE PLAN FIRST FLOOR FURNITURE PLAN SECOND FLOOR FURNITURE PLAN SECOND FLOOR FURNITURE PLAN NOT IN PROJECT NOT IN PROJECT	AV000 AV202 AV301 AV400 AV500 AV700	AUDIO VISUAL LEGEND, NOTES AND ABBREVIATIONS AUDIO VISUAL FIRST FLOR PLAN AUDIOVISUAL SIGNAL FLOWS AUDIOVISUAL CONDUIT RISER AUDIOVISUAL DETAILS





PLANTING.

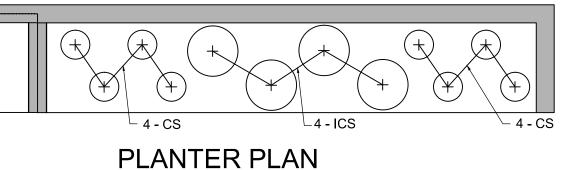
EROSION & SEDIMENT CONTROL NOTES

- 1. ALL SEDIMENTS SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PUBLIC RIGHT OF WAY MUST BE CLEANED UP/REMOVED PRIOR TO THE END OF THE WORK DAY.
- 2. EXPOSED AREAS SHALL NOT BE LEFT UNATTENDED OR EXPOSED IN AREAS WHERE WORK IS TO CEASE FOR A PERIOD OF 14 DAYS OR GREATER OR DURING THE INACTIVE WINTER SEASON. AREAS EXPOSED FOR THE DESCRIBED PERIODS SHALL RECEIVE TEMPORARY VEGETATIVE COVER AND
- BE COMPLETELY COVERED WITH LOOSE HAY MULCH. 3. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- 4. GRASS AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES WHICH ARE NOT DESIGNATED TO HAVE ASPHALT OR CONCRETE INSTALLED SHALL RECEIVE PERMANENT LOAM AND SEED AS REQUIRED IMMEDIATELY AFTER THE COMPLETION OF CONSTRUCTION ACTIVITIES IN THE AREA.

GENERAL NOTES

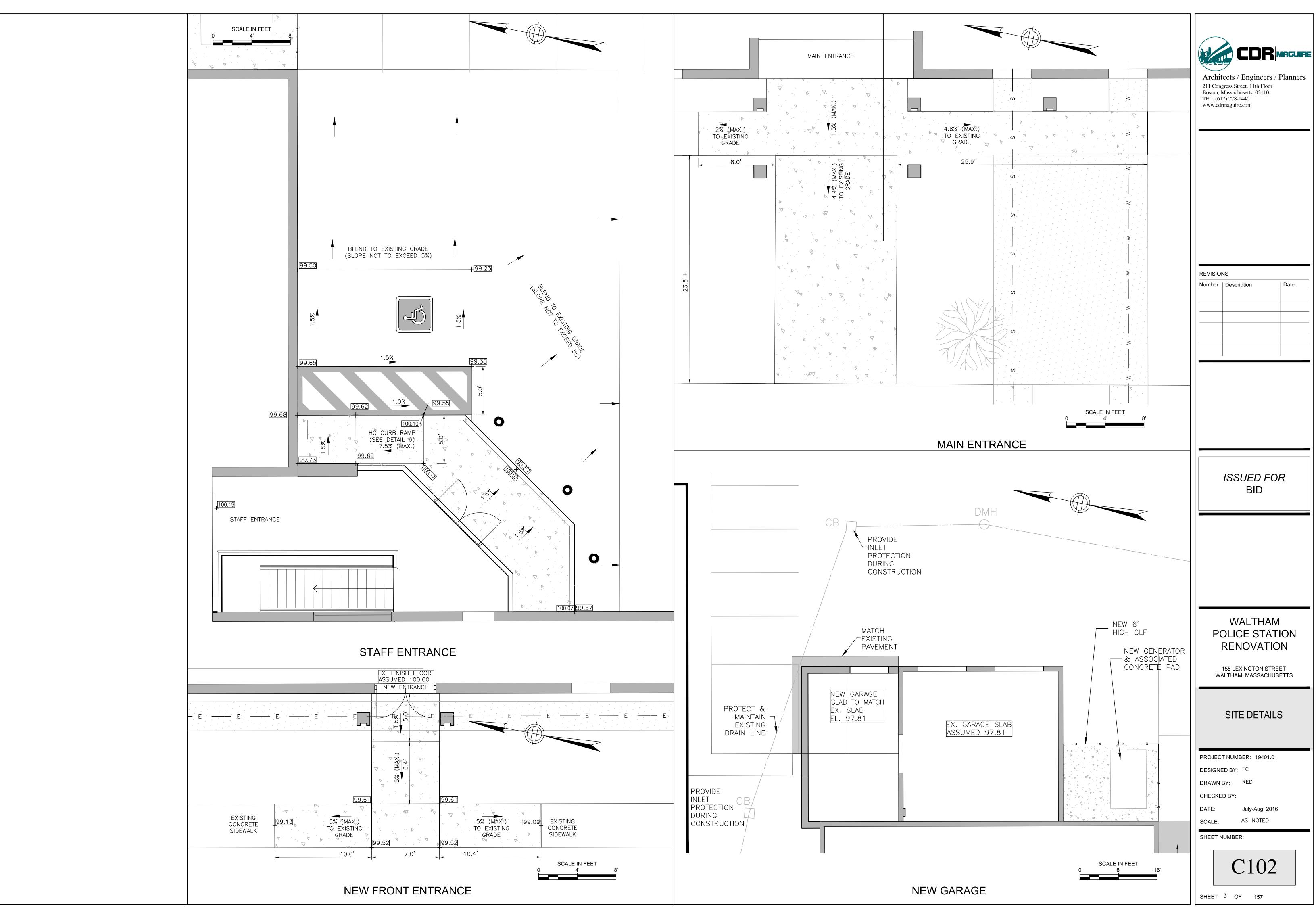
- 1. EXISTING CONDITIONS INFORMATION WAS COMPILED WITH INFORMATION OBTAINED FROM MASS GIS SUPPLEMENTED BY SITE INVESTIGATION.
- 2. EXISTING SPOT GRADES AND LOCATION OF WATER GATES WERE OBTAINED THE FIELD ON JUNE 19, 2014. 3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE LOCATION (
- EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT THE ENGINEER IF CONDITIONS ARE ENCOUNTERED IN THE FIELD WHICH IMPACT OR INTERFE WITH THE PROPOSED CONSTRUCTION. 4. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS AS DIRECTED E
- THE CONTRACT DOCUMENTS. 5. THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH ALL PERMITS, LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT
- OF THE WORK AS DRAWN AND SPECIFIED. 6. THE CONTRACTOR'S WORK SHALL BE SUBJECT TO INSPECTION BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
- 7. THE LIMIT OF DISTURBANCE WILL BE KEPT TO A MINIMUM. 8. ASPHALT AND CONCRETE REMOVED DURING THE DEMOLITION PROCESS SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS AND THE CONTRACT DOCUMENTS.
- 9. THE CONTRACTOR SHALL SATISFY HIMSELF/HERSELF AS TO THE EXTENT, DEPTH, TYPE AND LOCATION OF ALL ASPHALT AREAS, CONCRETE AREAS, WALLS AND UNDERGROUND UTILITIES, ETC. WHICH MAY BE ENCOUNTERED DURING THE DEMOLITION AND/OR CONSTRUCTION ACTIVITIES. INFORMATION ON THE PLANS IS GENERAL AND SHALL NOT RELIEVE THE CONTRACTOR (FAMILIARIZING HIMSELF/HERSELF WITH THE EXISTING CONDITIONS.
- 10. THE COST INCURRED BY DAMAGE TO ANY UTILITIES, INCLUDING THOSE NO SHOWN SHALL BE BORNE BY THE CONTRACTOR. 11. SAFE ACCESS TO THE BUILDING SHALL BE PROVIDED DURING THE
- CONSTRUCTION ACTIVITIES.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL CONSTRUCTION ACTIVITIES FOLLOW OSHA SAFETY RULES AND GUIDELINES AS APPROPRIATI
- 13. THE CONTRACTOR SHALL CONTACT DIG SAFE AT 888-DIG-SAFE A MINIMUI OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- 14. GRAVEL AND BITUMINOUS CONCRETE GRADATIONS AS SHOWN ABOVE WERE OBTAINED FROM THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATION FOR HIGHWAYS AND BRIDGES"

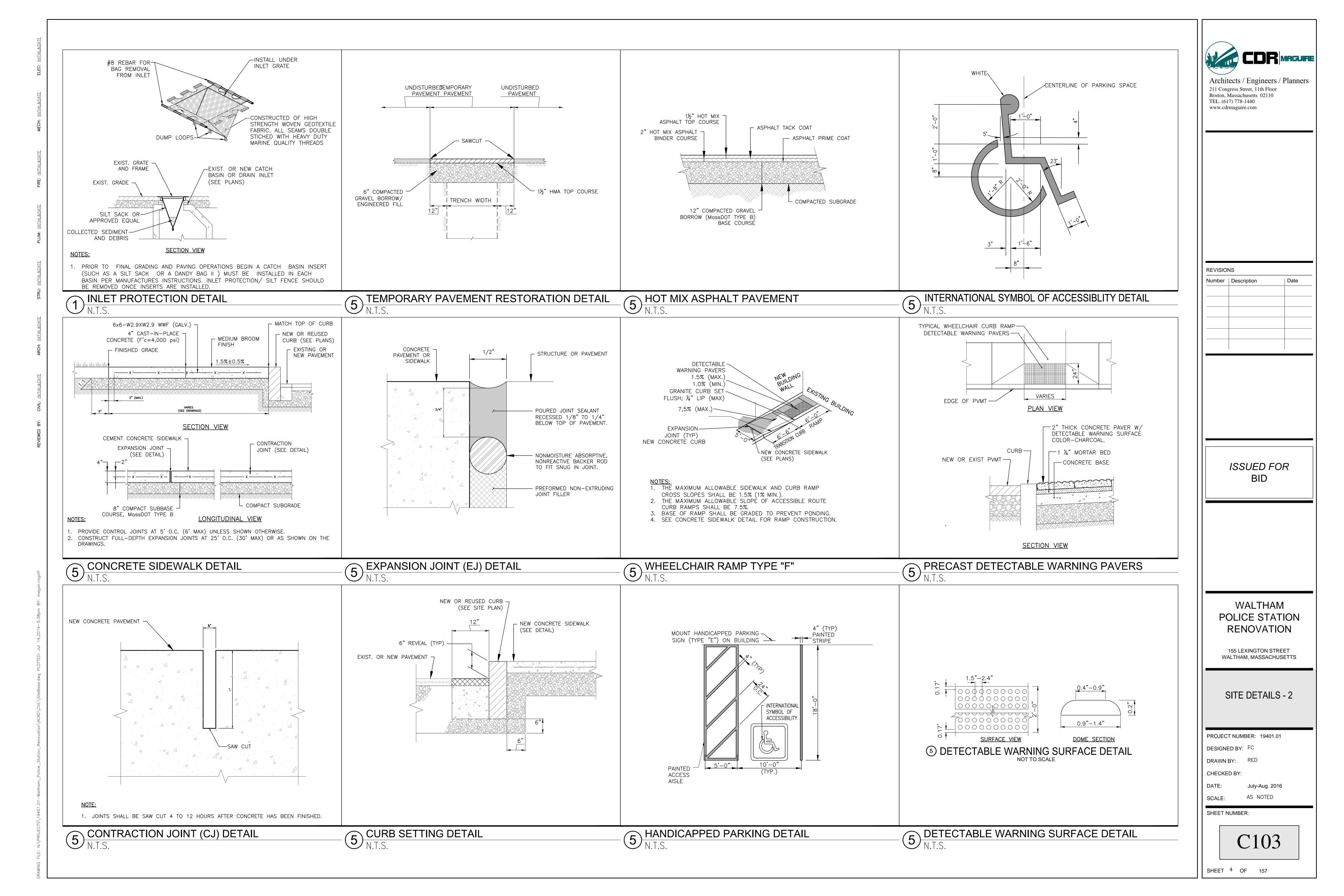
EXISTING	TE LEGEND	PROPOSED
	APPROX. TREE/SHRUB	(+) $(+)$
	SPOT GRADE	99.13 +
0.× TC 98.30	GRADE TOP OF CURB	00.10
× BC 97.96	GRADE BOTTOM OF CUR	В
HYD	HYDRANT	
\sim	WATER GATE	
— W —	WATER LINE	— W —
	SEWER LINE -	
	ELECTRIC -	
SMH O	SEWER MANHOLE	
DMH O	DRAINAGE MANHOLE	
	CATCH BASIN	
MHO	MANHOLE	
	DRAIN LINE -	
	APPROX. UTILITY POLE W/LIGH	ΗT
R&D	REMOVE & DISPOSE	
	SAWCUT	<u>`````</u>
	AREA TO BE REMOVED	
	BITUMINOUS CONCRETE	
	CEMENT CONCRETE	P

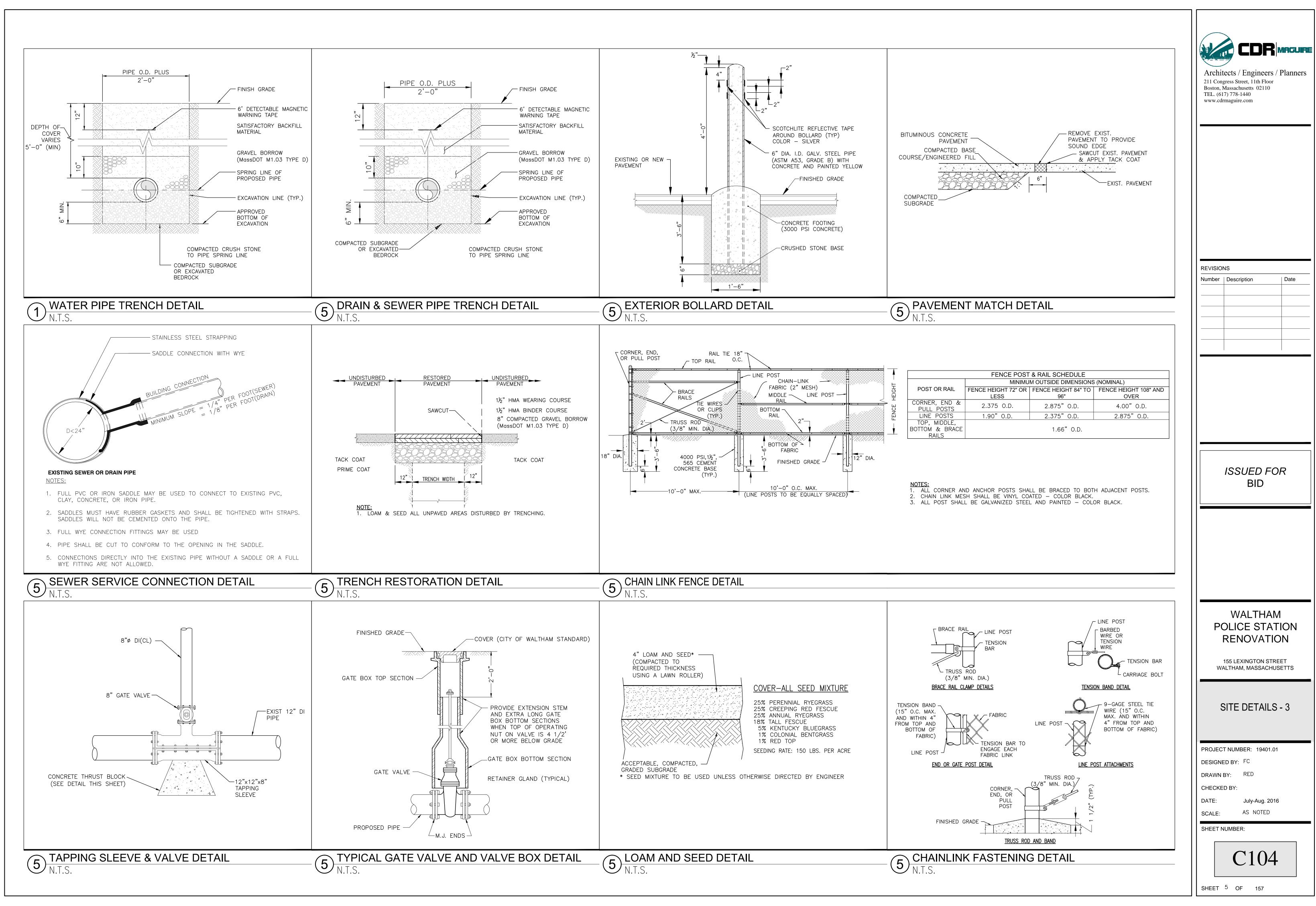


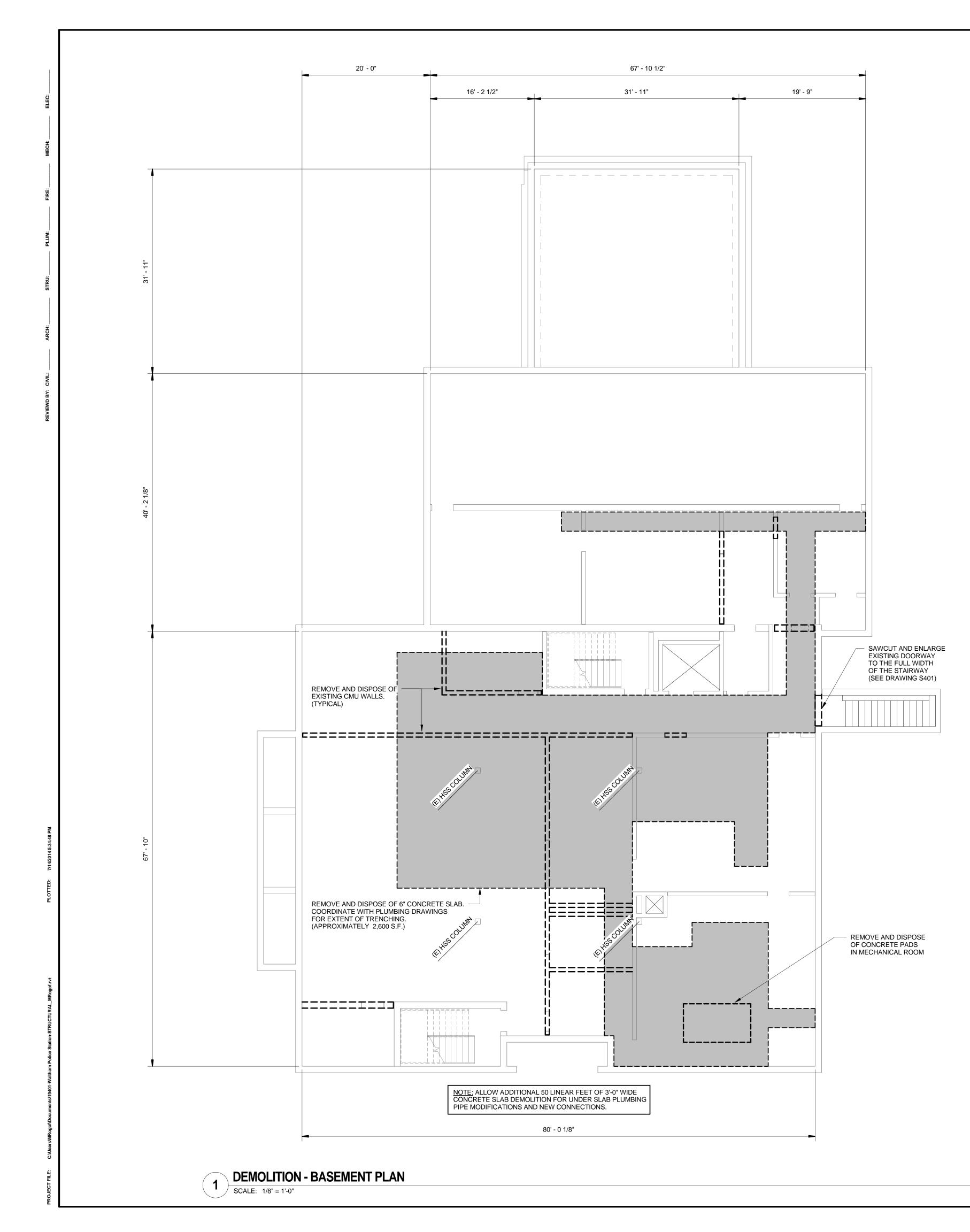
NOT TO SCALE

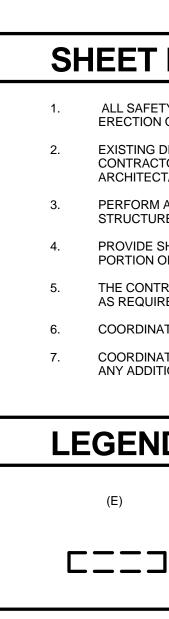
5	COR MACURE Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
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)F IT	REVISIONS Number Description Date
M	
	ISSUED FOR BID
	WALTHAM POLICE STATION RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
	SITE PLAN PROJECT NUMBER: 19401.01 DESIGNED BY: FC
	DRAWN BY: RED CHECKED BY: DATE: July-Aug. 2016 SCALE: AS NOTED SHEET NUMBER: C101
	SHEET ² OF 157











SHEET NOTES:

1. ALL SAFETY REGULATIONS TO BE FOLLOWED STRICTLY. METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIALS IS CONTRACTOR'S RESPONSIBILITY.

EXISTING DIMENSIONS AND CONDITIONS MUST BE VERIFIED OR DETERMINED IN THE FIELD BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

PERFORM ALL DEMOLITION PROCEDURES WITH CARE TO AVOID DAMAGE TO ADJACENT STRUCTURES AND FINISHES. PATCH ANY DAMAGE TO MATCH EXISTING.

PROVIDE SHORING UNDER THE EXISTING JOISTS PRIOR TO CUTTING OR REMOVING OF ANY PORTION OF THE JOIST UNTIL STRUCTURAL RE-FRAMING IS COMPLETE.

THE CONTRACTOR SHALL DESIGN AND CONSTRUCT SHORING AND TEMPORARY WALLS AS REQUIRED TO PROTECT EXISTING AND NEW WORK.

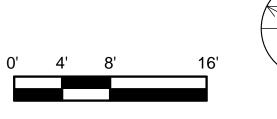
COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXTENT OF CMU WALL DEMOLITION. COORDINATE WITH ARCHITECTURAL, HVAC, ELECTRICAL AND PLUMBING DRAWINGS FOR

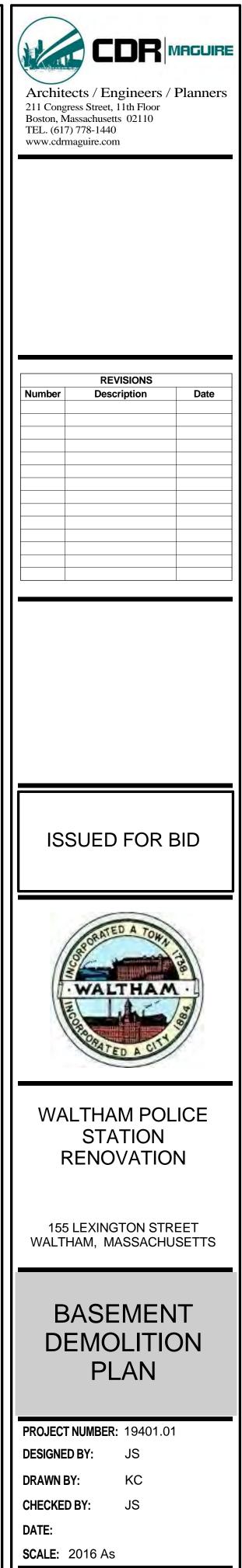
ANY ADDITIONAL OPENINGS THAT MAY NEED TO BE PROVIDED OR FILLED IN.

LEGEND:

(E) INDICATES EXISTING MEMBER.

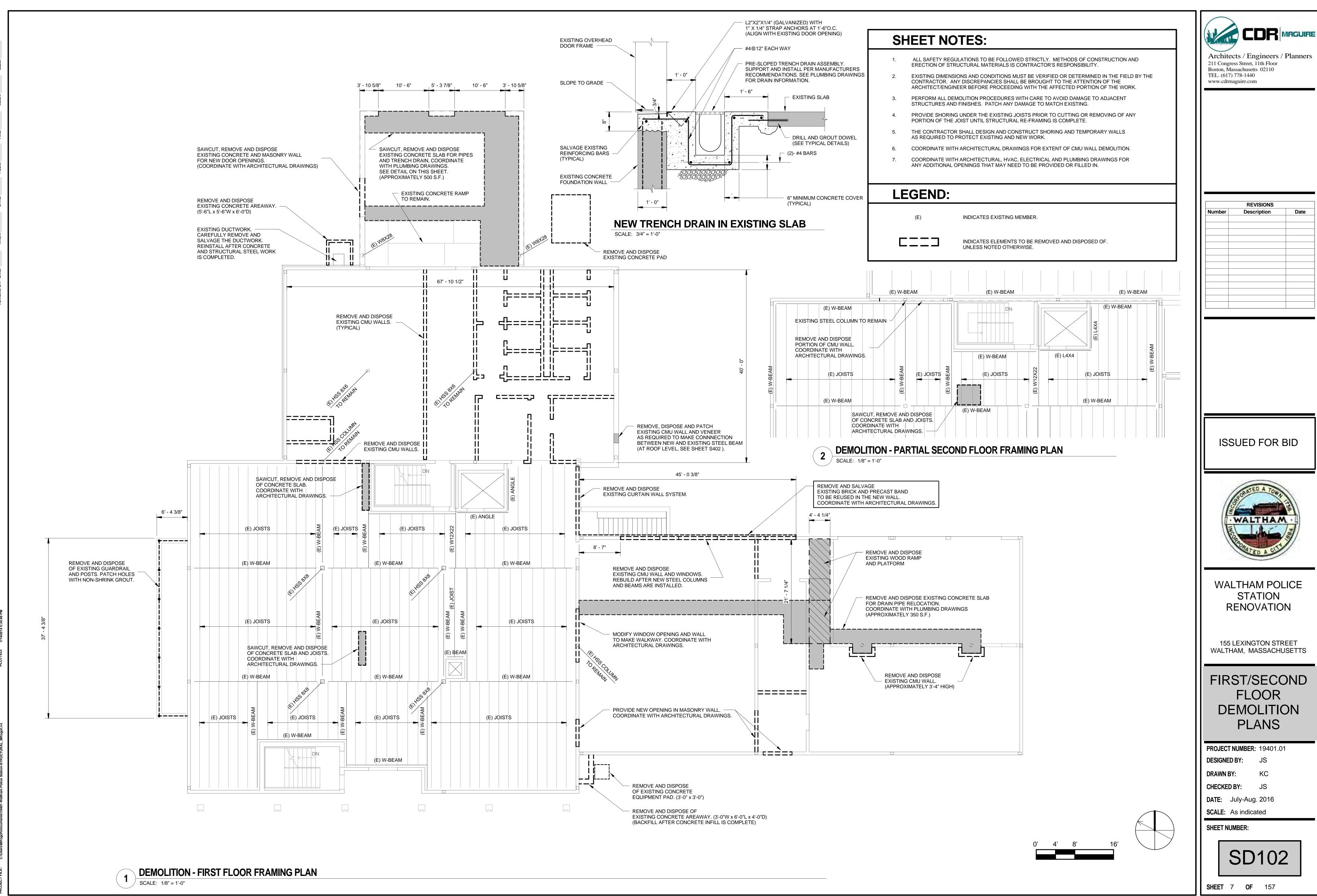
> INDICATES ELEMENTS TO BE REMOVED AND DISPOSED OF. UNLESS NOTED OTHERWISE.





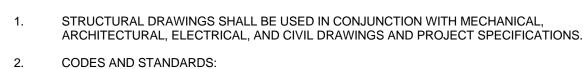
SHEET NUMBER **SD101**

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GENERAL

6.



- A. MASSACHUSETTS STATE BUILDING CODE 8th EDITION B. ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
- 2. AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. D. ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
- ALL SAFETY REGULATIONS SHALL BE FOLLOWED STRICTLY. METHODS OF CONSTRUCTION 3. AND ERECTION OF STRUCTURAL MATERIALS IS CONTRACTOR'S RESPONSIBILITY.
- UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED
- TYPICAL FOR ALL SIMILAR CONDITIONS. EXISTING DIMENSIONS AND CONDITIONS MUST BE VERIFIED OR DETERMINED IN THE FIELD 5. BY THE GENERAL CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE
- ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK. THE CONTRACTOR SHALL PROVIDE A FIRE WATCH AT ALL TIMES AT AREAS WHERE
- FIELD WELDING AND/OR BURNING OPERATIONS ARE BEING DONE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY FIRE.

DESIGN CRITERIA

1.	SNOW LOAD: GROUND SNOW LOAD SNOW EXPOSURE FACTOR SNOW IMPORTANCE FACTOR SNOW THERMAL FACTOR DESIGN ROOF SNOW LOAD	Pg = 40 PSF Ce = 1.0 Is = 1.2 Ct = 1.0 Pf = 34 PSF		
2.	WIND LOAD: BASIC WIND SPEED: WIND IMPORTANCE FACTOR: WIND EXPOSURE CATEGORY: BUILDING ENCLOSURE:	105 MPH lw = 1.15 B ENCLOSED		
3.	EARTHQUAKE DESIGN DATA: MAPPED SPECTRAL RESPONSE ACCEL SITE CLASS: SEISMIC DESIGN CATEGORY: ANALYSIS PROCEDURE USED: EXISTING BUILDING FRAME SYSTEM:	C C EQUIVALENT L/	Ss = 0.28, ATERAL FORCE EL MOMENT FRA	

FOUNDATIONS

1.	ALLOWABLE BEARING CAPACITY, 2.0 KSF.
2.	ALL EXTERIOR BUILDING FOUNDATION INVERTS SHALL BE A MINIMUM OF 4'-0" BELOW FINISHED GRADE FOR FROST PROTECTION, UNLESS OTHERWISE SHOWN.
3.	COMPLETELY REMOVE ALL UNSUITABLE AND UNSATISFACTORY MATERIALS FROM BENEATH SLABS-ON-GRADE, FOOTINGS, FOUNDATIONS AND UTILITIES. REFER TO SPECIFICATION SECTION 312000.
4.	REFILL ALL EXCAVATIONS FOR SLABS-ON-GRADE, FOOTINGS AND FOUNDATIONS WITH ENGINEERED FILL OR SOIL MATERIAL FROM ON-SITE SOURCES MEETING THE REQUIREMENTS FOR ENGINEERED FILL. REFER TO SPECIFICATION SECTION 312000.
5.	ALL FILL MATERIALS WITHIN THE BUILDING AREA SHALL BE COMPACTED TO NOT LESS THAN 95-PERCENT OF THE ASTM 1557 MAXIMUM DRY DENSITY.
6.	A MINIMUM OF 12 INCHES OF COMPACTED ENGINEERED FILL SHALL BE PLACED BENEATH ALL FOUNDATION WALLS, FOOTINGS AND SLAB-ON-GRADE ELEMENTS, UNLESS OTHERWISE SHOWN. THE 12 INCH ENGINEERED FILL LAYER DIRECTLY BENEATH NEW FOOTINGS AND SLABS SHALL BE PLACED AND COMPACTED IN TWO LIFTS OF EQUAL THICKNESS. THE EXPOSED FINAL SUBGRADE SURFACE SHALL BE PROOF COMPACTED BY AN OBSERVED 4 TO 6 PASSES WITH APPROVED VIBRATORY COMPACTION EQUIPMENT. ANY LOOSE OR UNSUITABLE SOILS SHALL BE REMOVED AND REPLACED WITH COMPACTED ENGINEERED FILL. SUBGRADE AND ENGINEERED FILL COMPACTION IN/AROUND FOOTING INVERT ELEVATION SHALL BE SUBJECT TO GOOD ENGINEERING JUDGEMENT RELATIVE TO EXISTING SOIL AND GROUND WATER CONDITIONS.
7.	FINAL FOOTING EARTHWORK, FINAL FOOTING EXCAVATION, SUBGRADE PROOF COMPACTION AND MINIMUM 12 INCH LAYER OF COMPACTED ENGINEERED FILL PLACEMENT FOR AN INDIVIDUAL COLUMN FOOTING SHALL BE INITIATED/COMPLETED IN ONE WORKING DAY. PARTICULAR ATTENTION SHALL BE DIRECTED TO EARTHWORK PERFORMED ADJACENT TO AND BELOW EXISTING FOOTING INVERT ELEVATION. IF SIGNIFICANT UNDERMINING OF EXISTING FOOTINGS IS OBSERVED AS A RESULT OF NEW FOOTING EARTHWORK, THE CONTRACTOR SHALL STOP WORK AND PROPOSE TO THE ENGINEER ALTERNATIVE MEANS AND METHODS.
8.	GROUNDWATER LEVELS SHALL BE MAINTAINED A MINIMUM OF 2'-0" BELOW THE DEEPEST EXCAVATION ELEVATION.
9.	ALL WALLS RETAINING EARTH SHALL BE SHORED AGAINST LATERAL EARTH PRESSURE UNTIL FLOOR SLABS AND WALLS ABOVE ARE IN PLACE AND CONCRETE HAS ATTAINED ITS 28 DAY COMPRESSIVE STRENGTH.
10.	DO NOT PLACE CONCRETE ON FROZEN GROUND OR IN WATER. FOUNDATIONS SHALL NOT BE PARTLY SUPPORTED ON ROCK AND PARTLY ON SOIL. ALL NEW FOOTINGS SHALL BE SUPPORTED ON A MINIMUM 6 INCH LAYER OF COMPACTED ENGINEERED FILL.
11.	DO NOT PLACE BACKFILL UNBALANCED BY MORE THAN 2'-0" ON EITHER SIDE OF FOUNDATION WALLS AND PIERS, OR BY THE AMOUNT OF FINISH GRADE DIFFERENTIAL.
12.	PROVIDE TEMPORARY OR PERMANENT SUPPORTS TO PREVENT HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OF EXISTING STRUCTURES, STREETS, SOIL OR UTILITIES ADJACENT TO OR ON THE PROJECT SITE. DESIGN OF SUCH SUPPORT IS THE RESPONSIBILITY OF THE CONTRACTOR.
13.	PROVIDE CONTINUOUS CONTROL OF SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION AS NECESSARY TO PERFORM FOUNDATION WORK IN THE DRY AND ON UNDISTURBED SUBGRADE MATERIAL.
14.	PROTECT FOUNDATIONS AND SLABS FROM FROST FOR A MINIMUM OF 28 DAYS.
15.	FOUNDATION CONSTRUCTION SHALL COMPLY WITH ALL OSHA REGULATIONS.

DEMOI ITION

1.	PERFORM ALL DEMOLITION PROCEDURES WITH CARE TO AVOID DAMAGE TO ADJACENT STRUCTURAL ELEMENTS & FINISHES.
2.	A SAW-CUT TO A MAXIMUM DEPTH OF 1/2-INCH SHALL BE MADE ALONG ALL BOUNDARIES OF CONCRETE TO BE DEMOLISHED.
3.	CONCRETE AND REINFORCING STEEL SURFACES EXPOSED BY DEMOLITION SHALL BE FREE OF RUST, OIL SOLVENTS, GREASE, DIRT, DUST, BITUMEN, LOOSE PARTICLES, AND OTHER FOREIGN MATTER.
4.	WHERE NEW CONCRETE IS TO BE PLACED AGAINST EXISTING SURFACES, ANY EXPOSED REINFORCING BARS AND NEWLY EXPOSED CONCRETE SURFACES SHALL BE THOROUGHLY CLEANED BY GRIT BLASTING OR OTHER MECHANICAL ABRASION METHODS AS APPROVED BY THE ENGINEER.
5.	PROVIDE ANY SHORING NECESSARY FOR SAFETY AND PROTECTION OF EXISTING ELEMENTS TO REMAIN IN ORDER TO MAINTAIN LATERAL STABILITY OF THE BUILDING UNTIL ALL PERMANENT SHEARWALLS AND LATERAL BRACING ARE INSTALLED. CONTRACTOR IS RESPONSIBLE TO DESIGN AND PROVIDE ANY NECESSARY SHORING.

ALL CONCRETE SHALL HAVE ULTIMATE COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED. ALL CONCRETE WORK SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND TO "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301). ALL CONCRETE SUBJECT TO FREEZE-THAW SHALL BE AIR-ENTRAINED. VERIFY AIR CONTENT BEFORE PLACEMENT OF ALL CONCRETE. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 (UNLESS OTHERWISE NOTED), OR ASTM A706 WHERE DOWELS ARE INDICATED TO BE WELDED. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. MINIMUM CONCRETE COVER FROM FACE OF CONCRETE TO MAIN REINFORCING SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE: SLABS AND WALLS (NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND)......1" FACE OF WALLS AND TOP OF SLABS EXPOSED TO EARTH, WEATHER, OR IMMERSED. FOOTINGS, BOTTOM OF WALLS AND STRUCTURAL SLABS CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ... BAR PLACING SHALL CONFORM TO CONCRETE REINFORCING STEEL INSTITUTE'S "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS". REINFORCING BARS SHALL BE DETAILED IN ACCORDANCE WITH LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315) UNLESS INDICATED OTHERWISE ON THE DRAWINGS, REBAR SPLICES SHALL BE STAGGERED WITH NOT MORE THAN 50 PERCENT OF THE REBARS SPLICED WITHIN A REQUIRED LAP LENGTH LOCATIONS OF ALL SPLICES SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. REINFORCING BARS SHALL BE LAPPED ACCORDING TO SCHEDULE BELOW 10. UNLESS INDICATED OTHERWISE ON THE DRAWINGS CONCRETE COVER CONCRETE (PSI) #7 NOTES a. LENGTHS ARE BASED ON fy = 60 KSI, NORMAL WEIGHT CONCRETE, UNCOATED BARS, WITH SPACING OVER 6 BAR DIAMETERS. b. LAP SPLICE LENGTHS ARE FOR CLASS "B" SPLICES. CLASS "A" SPLICES (77% OF THE TABLE VALUES) MAY BE USED WHERE APPROVED BY THE ENGINEER. c. BARS THAT HAVE OVER 12" OF FRESH CONCRETE PLACED BELOW THE LAPS SHALL HAVE THEIR SPLICE AND DEVELOPMENT LENGTHS MULTIPLIED BY 1.3. d. MINIMUM DEVELOPMENT LENGTHS ARE 77% OF THE TABLE VALUES. 11. WELDED WIRE FABRIC SHALL BE LAPPED 2 MESHES AT SIDES AND ENDS. 12. ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE A 3/4" x 45 DEGREE CHAMFER, UNLESS OTHERWISE NOTED. PROVIDE WELDED WIRE FABRIC IN ALL SLABS-ON-GRADE, CONCRETE SIDEWALKS AND RAMPS AS FOLLOWS UNLESS SHOWN OTHERWISE: 4" SLABS-ON-GRADE 6x6-W1.4xW1.4 5" SLABS-ON-GRADE 6x6-W2.9xW2.9 14. SLABS-ON-GRADE SHALL BE PLACED IN ALTERNATE STRIPS BOUNDED BY CONSTRUCTION AND CONTROL JOINTS. ALLOW 72 HOURS TO ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS. MAXIMUM LENGTH OF CONCRETE WALL POUR SHALL BE 40 FEET. CONSTRUCTION JOINTS SHALL NOT BE LOCATED AT ANY CORNER OF WALLS. CONCRETE SHALL BE POURED IN LEVEL COURSES FULL HEIGHT. CONCRETE WALLS SHALL BE PLACED IN ALTERNATE SECTIONS BETWEEN VERTICAL CONSTRUCTION JOINTS. 16. FOR LOCATIONS OF VENTS, PIPES, OPENINGS, INSERTS, HANGERS, EQUIPMENT PADS, SUPPORTS, AND FLOOR DRAINS, CONSULT MECHANICAL DRAWINGS. 17. CUT NO BARS AND OMIT NO BARS BECAUSE OF SLEEVE OR DUCT OPENINGS IN FLOORS OR WALLS. BARS MAY BE MOVED ASIDE WITHOUT CHANGING THE DISTANCE FROM THE FACE OF CONCRETE. BEND NO BARS IN FIELD WITHOUT APPROVAL OF THE ENGINEER. CONCRETE SLABS, INCLUDING CONCRETE PLACED ON STEEL DECK, SHALL 18. BE PLACED SO THAT THE SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS. THIS WILL REQUIRE THAT THE SLAB NOT BE CAST DEAD LEVEL WHERE SUPPORTING BEAMS, GIRDERS, OR TRUSSES HAVE AN UPWARD CAMBER. PROVIDE ADDITIONAL CONCRETE AS REQUIRED TO COMPENSATE FOR DEFLECTIONS OF STEEL BEAMS AND DECK. PROVIDE THE NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY 19. IN POSITION. MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS, 4'-0" O.C. WITH CONTINUOUS #5 SUPPORT BAR; SLAB BOLSTERS, CONTINUOUS AND 3'-6" O.C.; BEAM BOLSTERS, 5'-0" O.C. WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT 20. IN ACCORDANCE WITH THE NEAREST APPLICABLE DETAILS AS DETERMINED BY THE ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN THE MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES, AND NOT LESS THAN THE FOLLOWING: (A) BEAM STIRRUPS: #3 @ 12" O.C.

- 22. IN THE SLAB WITHOUT APPROVAL OF THE ENGINEER.

CONCRETE

6

E ON THE BRAWINGS.				
	1"		2" OR MORE	
	3000	4000	3000	4000
	22"	19"	22"	19"
	34"	29"	27"	23"
	44"	37"	32"	28"
	54"	54"	42"	35"

(B) BEAM STIRRUPS SUPPORTS: (1)- #5 @ EACH STIRRUP BEND (C) FACE REINFORCEMENT IN BEAMS OR PORTIONS OF BEAMS: #4@12" EACH FACE (D) STRUCTURAL SLABS: 0.0020 x GROSS CONCRETE AREA IN EACH DIRECTION (E) CONCRETE WALLS: 0.0025 x GROSS CONCRETE AREA IN EACH DIRECTION

21. DOWELS SHALL MATCH SIZE AND NUMBER OF MAIN BARS, UNLESS OTHERWISE NOTED. NO PIPES, CONDUITS OR SIMILAR NON-STRUCTURAL ELEMENTS SHALL BE EMBEDDED

MASONRY

- ALL MASONRY CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530) AND TO "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530.1)
- ALL MASONRY UNITS SHALL CONFORM TO ASTM C90 TYPE 1, MINIMUM F'm = 2000 PSI. 2.
- ALL GROUT SHALL CONFORM TO ASTM C476, FINE OR COARSE GROUT, MINIMUM COMPRESSIVE STRENGTH, 3000 PSI.
- ALL MORTAR FOR CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C270, TYPE S.
- MORTAR FOR BRICK VENEER SHALL CONFORM TO ASTM C270, TYPE N. 5.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60, DEFORMED. 6.
- ALL CORES OF MASONRY CONTAINING REINFORCING BARS AND ALL BOND BEAMS SHALL BE FILLED SOLID WITH GROUT. VERTICAL BARS SHALL BE LOCATED AT THE CENTER OF WALL. FILLING CORES AND BOND BEAMS WITH MORTAR IS STRICTLY PROHIBITED. EXERCISE CARE TO KEEP CORES FREE FROM MORTAR DROPPINGS.
- VERTICAL AND HORIZONTAL REINFORCING SHALL BE SECURELY HELD IN PROPER 8. ALIGNMENT AND POSITION DURING GROUTING OPERATIONS BY USING HOT-DIPPED GALVANIZED REBAR POSITIONERS.
- GROUT SHALL BE PLACED USING LOW-LIFT GROUTING PROCEDURES CONFORMING TO ACI 530 REQUIREMENTS. THE MAXIMUM GROUT LIFT SHALL NOT EXCEED 4'-8". ALTERNATE GROUT POURS 1 1/2" BELOW TOP COURSE OF POUR. REINFORCING SHALL BE SPLICED A MINIMUM OF 48 BAR DIAMETERS.
- REINFORCEMENT FOR CONCRETE MASONRY BOND BEAMS SHALL BE 10. (2)- #5 BARS CONTINUOUS, UNLESS OTHERWISE NOTED.
- 11. WHERE STEEL BEAMS, STEEL JOISTS, OR LINTELS ARE SUPPORTED ON CONCRETE MASONRY. THE MASONRY SHALL BE FILLED SOLID WITH GROUT CONTINUOUSLY FOR TWO COURSES UNDER BEAM, JOIST, OR LINTEL. FILL AFTER STEEL HAS BEEN ERECTED AND PLUMBED.
- ALL BEAMS SUPPORTED ON MASONRY SHALL BEAR ON A BEARING PLATE 12. 6 INCHES x 1/2 INCH x (FLANGE WIDTH PLUS 4 INCHES) WITH (2)- 1/2" DIAMETER HEADED ANCHOR RODS, UNLESS SHOWN OTHERWISE.
- 13. WHEN STEEL BEAMS RUN INSIDE MASONRY WALLS, THE BEAMS SHALL BE INSTALLED FIRST, FOLLOWED BY MASONRY INSTALLATION FROM THE BOTTOM UP (THE WALL AT THE LOWER FLOOR INSTALLED BEFORE THE WALL ABOVE).
- 14. MINIMUM VERTICAL WALL REINFORCEMENT SHALL BE, UNLESS OTHERWISE NOTED: 6" CMU: #4 @ 32" ON CENTER 8" CMU UP TO 10'-0" UNSUPPORTED LENGTH: #5 @ 32" ON CENTER 8" CMU UP TO 20'-0" UNSUPPORTED LENGTH: #5 @ 16" ON CENTER 12" CMU: #6 @ 8" ON CENTER
 - PROVIDE ADDED BARS AT WALL ENDS, AND CORNERS AS SHOWN. PROVIDE MATCHING DOWELS, LAP 40 BAR DIAMETERS TO VERTICAL BARS.
- PROVIDE CUT OUTS IN EXISTING MASONRY WALL FOR THE NEW DUCT WORK. 15. COORDINATE WITH MECHANICAL AND PLUMBING DRAWINGS.

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL CONFORM TO "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC); "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS & BRIDGES" (AISC): AND "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1).
- STRUCTURAL STEEL SHALL BE DETAILED IN ACCORDANCE WITH 2. "DETAILING FOR STEEL CONSTRUCTION" (AISC).
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

(A) ROLLED BEAM SHAPES	ASTM A992 GRADE 50 (Fy=50 KSI)
(B) ANGLES AND PLATES	ASTM A36 (Fy = 36 KSI)
(C) TUBES	ASTM A500 GRADE B (Fy = 46 KSI)
(D) PIPES	ASTM A501; OR ASTM A53, TYPE E OR S GRADE B
(E) ANCHOR RODS	ASTM F1554-99 (36 KSI MIN.)
(F) HIGH STRENGTH BOLTS	
(G) THREADED ROD	ASTM A449 GRADE 81 FOR 1"Ø AND UNDER
	ASTM A449 GRADE 92 FOR OVER 1"Ø

ANCHOR BOLTS, LEVELING PLATES, AND BEARING PLATES SHALL BE SET BY TEMPLATES.

- BOLTED CONNECTIONS SHALL BE AS FOLLOWS:

5.

(A) MINIMUM BOLT DIAMETER - 3/4"; TWO BOLTS, MINIMUM. (B) STANDARD, OVERSIZED, OR HORIZONTAL SHORT SLOTTED HOLES IN WEBS

- OF BEAMS. (C) SHEAR CONNECTIONS FOR MOMENT CONNECTED MEMBERS - FRICTION TYPE HIGH
- STRENGTH BOLTS IN SINGLE SHEAR. (D) SHEAR CONNECTIONS FOR OTHER MEMBERS - SIMPLE SHEAR CONNECTIONS
- WITH EITHER FRICTION TYPE HIGH STRENGTH BOLTS IN SINGLE SHEAR OR BEARING TYPE HIGH STRENGTH BOLTS (THREADS INCLUDED IN SHEAR PLANE)
- IN SINGLE OR DOUBLE SHEAR. (E) SIMPLE SHEAR CONNECTIONS SHALL BE CAPABLE OF END ROTATION PER AISC REQUIREMENTS FOR "UNRESTRAINED MEMBERS."
- BEAM CONNECTIONS, UNLESS NOTED OTHERWISE, SHALL PROVIDE CONNECTION CAPACITY AS FOLLOWS:
 - (A) NON-COMPOSITE BEAMS: SUPPORT A REACTION "R" EQUAL TO 1/2 THE TOTAL UNIFORM LOAD CAPACITY OF BEAM FOR A GIVEN SHAPE, SPAN, AND GRADE OF STEEL PER "ALLOWABLE LOADS ON BEAMS" PART 2 AISC MANUAL OF STEEL CONSTRUCTION, 9TH EDITION.
 - (B) ADD TO "R" THE LOADS OR REACTIONS OF MEMBERS SUPPORTED BY THE BEAM NEAR SUPPORTS AND FORCES FROM LATERAL BRACING MEMBERS.
- WELDED CONNECTIONS SHALL BE MADE BY AWS CERTIFIED WELDERS USING FILLER METAL CONFORMING TO E70XX WITH LOW HYDROGEN.
- STRUCTURAL STEEL ENCASED IN MASONRY SHALL BE COVERED WITH MASTIC COATING 8. PER SPECIFICATIONS.
- NO FIELD CUTTING OF STRUCTURAL STEEL OR FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL BE DONE WITHOUT PRIOR WRITTEN APPROVAL BY ENGINEER FOR EACH SPECIFIC CASE.
- MOMENT CONNECTIONS INDICATED IN PLANS SHALL BE DESIGNED FOR FULL MOMENT 10. CAPACITY OF MEMBER PER ASCE-7 AND AISC. (INCLUDE SEISMIC PROVISION). STEEL FABRICATOR MUST PROVIDE CALCULATIONS AND SHOP DETAILS FOR APPROVAL PREPARED AND SIGNED BY A STRUCTURAL ENGINEER REGISTERED IN MASSACHUSETTS.
- GENERAL CONTRACTOR SHALL COAT ALL STEEL COLUMNS AND BASE PLATES BELOW 11. TOP OF SLABS WITH ASPHALTIC PAINT. PRIOR TO POURING BOX OUT CONCRETE.
- 12. ALL EXPOSED EXTERIOR STEEL FRAMING SHALL BE HOT DIP GALVANIZED PER ASTM A123.

METAL DECK

- STEEL DECK SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A653. GRADE 33 OR HIGHER, TYPE B. BEFORE FORMING, SHEETS SHALL BE COATED WITH ZINC COATING CONFORMING TO ASTM A653, G-90 COATING.
- BEAR DECK A MINIMUM OF 2" ON STEEL FRAMING AND 4" ON MASONRY. WHEN TWO UNITS ABUT, WELD BOTH TO THE SUPPORT.

SCREW OR WELD ALL AROUND TO EACH CELL.

- STEEL DECK UNITS SHALL SPAN THREE OR MORE SUPPORTS WHERE POSSIBLE. SINGLE SPAN DECK UNITS ARE NOT ACCEPTABLE.
- ROOF DECK UNITS SHALL BE WELDED AT ALL SUPPORTS WITH 5/8" DIAMETER FUSION WELDS AT EACH DECK VALLEY (6" O.C. MAX.). SIDE LAPS SHALL BE FASTENED IN THE FIELD WITH #10 TEK SCREWS AT 12" O.C. MAXIMUM AND 6" O.C. IN THE CORNERS AND EDGE STRIP ZONE. (EDGE STRIP ZONE IS DEFINED AS EDGE STRIP AREA WITH A WIDTH OF 10 PERCENT OF LEAST HORIZONTAL DIMENSION OR 40 PERCENT OF EAVE HEIGHT, WHICH EVER IS SMALLER, BUT NOT LESS THAN 4 PERCENT OF LEAST HORIZONTAL DIMENSION OR 3 FEET)
- FLOOR DECK UNITS SHALL BE WELDED AT ALL SUPPORTS WITH 5/8" DIAMETER FUSION WELDS SPACED AT EACH DECK VALLEY. SIDE LAPS SHALL BE FASTENED WITH #10 TEK SCREWS AT 2'-0" O.C. MAXIMUM.
- NOTHING SHALL BE HUNG FROM THE METAL DECK, UNLESS APPROVED BY THE ENGINEER. ALL OPENINGS IN METAL DECK WILL REQUIRE ADDITIONAL FRAMING AS SHOWN
- ON THE DRAWINGS. FOR DECK OPENINGS OF 13" OR LESS, NOT ADJACENT TO SUPPORTS, PLACE A 14 GAGE SHEET ON TOP OF THE DECK (OVERLAP THE OPENING A MINIMUM OF 6 INCHES ON ALL SIDES).

MECHANICAL EQUIPMENT SUPPORTS

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL INDICATING LOCATION, FRAMING, AND SUPPORT DETAILS OF ALL EQUIPMENT, INCLUDING DIMENSIONS, DETAILS, AND OPERATING AND DESIGN LOADS. NO EQUIPMENT SHALL BE SET IN PLACE WITHOUT SUCH APPROVAL.

STEEL JOISTS

- GRADE OF STEEL, DESIGN, FABRICATION, AND ERECTION OF K-SERIES STEEL JOISTS SHALL CONFORM TO "STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, K-SERIES" AND "RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS", BOTH ADOPTED BY STEEL JOIST INSTITUTE.
- GRADE OF STEEL, DESIGN, FABRICATION, AND ERECTION OF LH-SERIES AND DLH-SERIES STEEL JOISTS SHALL CONFORM TO "STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS LH-SERIES AND DEEP LONGSPAN STEEL JOISTS, DLH-SERIES, AND "RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS," BOTH ADOPTED BY STEEL JOIST INSTITUTE.
- WELD JOISTS TO STRUCTURAL STEEL SHAPE AND PLATE SUPPORTS WITH 2" OF 1/8" FILLET WELDS EACH SIDE OF JOISTS, UNLESS NOTED OTHERWISE.
- ROOF JOISTS AND THEIR CONNECTIONS SHALL BE DESIGNED FOR A NET UPLIFT LOAD OF 25 LBS. PER SQUARE FOOT. PROVIDE UPLIFT BRIDGING AT FIRST PANEL POINT OF ALL ROOF JOISTS.
- ROOF JOISTS SHALL SUPPORT AN ADDITIONAL 300 LB CONCENTRATED LOAD CONCURRENT WITH LIVE LOAD AT ANY PANEL POINT. THE CONTRACTOR SHALL REINFORCE THE JOIST FOR ANY CONCENTRATED LOAD OF MORE THAN 100 POUNDS PER THE TYPICAL DETAILS.
- ROOF JOIST CONNECTIONS SHALL BE DESIGNED TO TAKE AND TRANSFER 600 LBS. LATERAL FORCE PER CONNECTION. (PERPENDICULAR TO LENGTH OF JOIST)

LINTELS AT DOORS AND WINDOWS

- FOR ALL OPENINGS IN INTERIOR AND EXTERIOR CMU WALLS UP TO 6'-4" WIDE, CMU LINTEL BEAMS WITH (2)- #5 BARS AND 8" MINIMUM END BEARING SHALL BE USED. UNLESS OTHERWISE NOTED.
- FOR ALL OPENINGS IN INTERIOR AND EXTERIOR BRICK WALLS. PROVIDE LINTEL ANGLES FOR EACH 4 INCH WALL THICKNESS AS FOLLOWS: (LINTELS CONSISTING OF MORE THAN ONE ANGLE SHALL BE BOLTED OR WELDED TOGETHER) SPANS UP TO 5'-0" L4" X 3 1/2" X 5/16" WITH 6" END BEARING

L5" X 3 1/2" X 5/16"

L6" X 4" X 3/8"

WITH 8" END BEARING

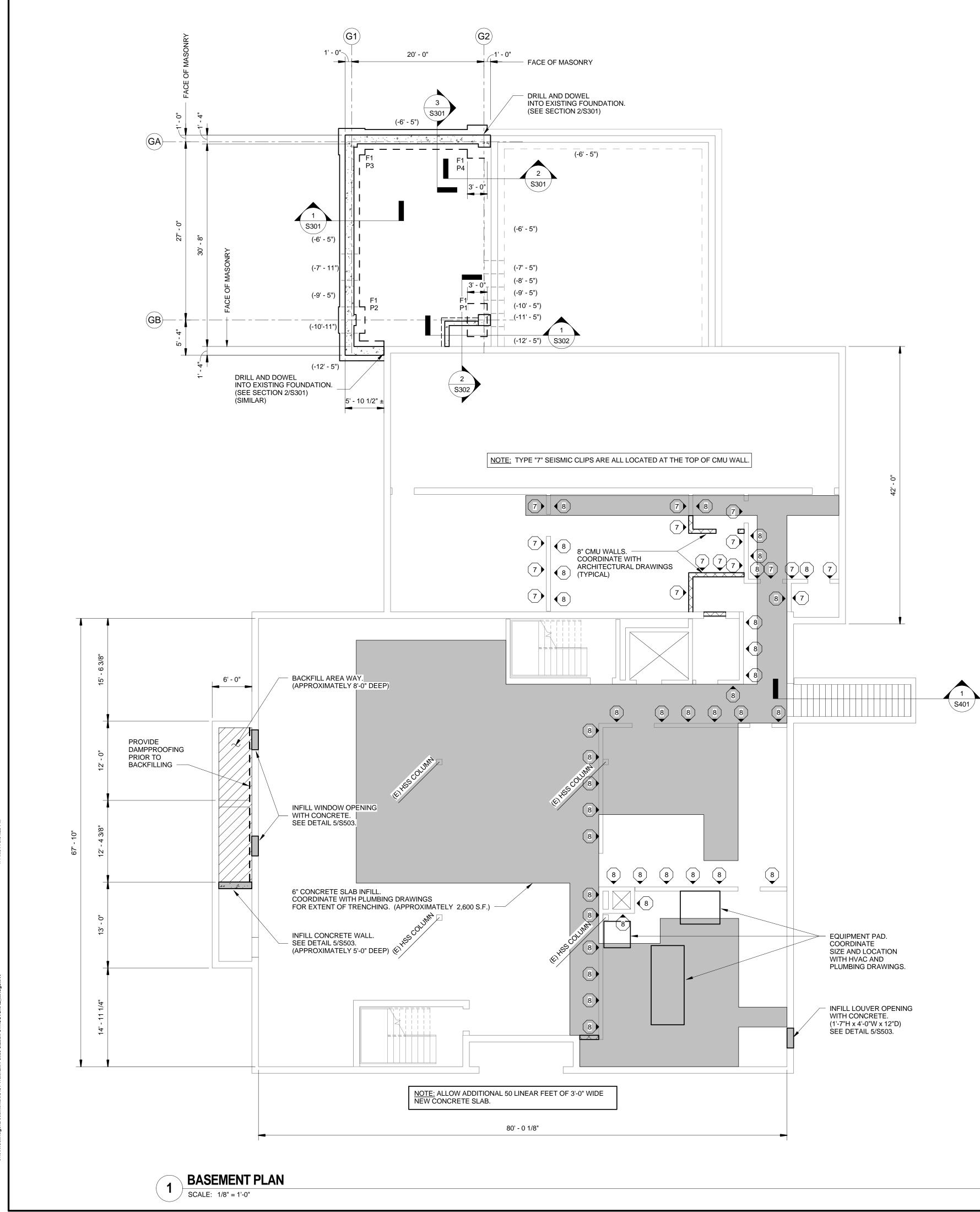
WITH 10" END BEARING

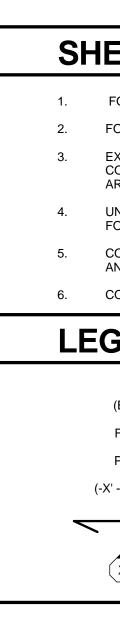
- SPANS 5'-1" TO 7'-0"
- SPANS 7'-1" TO 8'-0"
- SPANS 8'-1" AND LARGER
 - W8X24 & 5/16" PLATE WELDED TOGETHER WITH 10" END BEARING
- ALL STEEL LINTELS EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.

POST INSTALLED ANCHORS

POST-INSTALLED AN OR APPROVED EQU	NCHORS SHALL BE OF THE TYPE AND SIZE SHOWN ON THE DRAWINGS, AL.
	ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS, TENTION TO CLEANING OF HOLES TO ASSURE DEVELOPMENT GTH.
	L ARRANGE FOR SITE VISITS BY THE ANCHOR MANUFACTURER DICALLY DURING CONSTRUCTION TO REVIEW INSTALLATION PRACTICES.
HILTI HIT HY-70 IN O	OR ALL POST-INSTALLED ANCHORS IN CONCRETE/SOLID CMU AND LLOW CMU, UNLESS NOTED OTHERWISE. ISTURB POST-INSTALLED ANCHORS UNTIL EPOXY GROUT IS FULLY CURED.
	O THE PROPER "STANDARD" EMBEDMENT DEPTH AS PUBLISHED JRER'S LITERATURE EXCEPT AS SHOWN OTHERWISE ON THE DRAWINGS.
EMBED REBAR DOW ON THE DRAWINGS:	ELS TO THE FOLLOWING DEPTHS UNLESS SHOWN OTHERWISE
BAR SIZE	MINIMUM EMBEDMENT DEPTH
#4	6"
#5 #6	9" 9 1/2"
POST-INSTALLED AN	NCHORS SHALL BE FIELD TESTED AS FOLLOWS:

CCR MAGUIRE Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
REVISIONS Number Description Date
ISSUED FOR BID
WALTHAM .
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
GENERAL NOTES
PROJECT NUMBER: 19401.01 DESIGNED BY: JS
DRAWN BY: KC
CHECKED BY: JS DATE: July-Aug. 2016
SCALE: 12" = 1'-0"
SHEET NUMBER:
S001
SHEET 8 OF 157





SHEET NOTES:

1. FOR GENERAL NOTES, SEE DRAWING S001.

2. FOR TYPICAL DETAILS, SEE DRAWINGS S501 - S506.

EXISTING DIMENSIONS AND CONDITIONS MUST BE VERIFIED OR DETERMINED IN THE FIELD BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

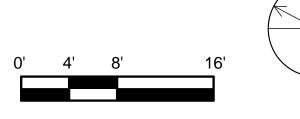
UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS. COORDINATE WITH ARCHITECTURAL, HVAC, ELECTRICAL AND PLUMBING DRAWINGS FOR

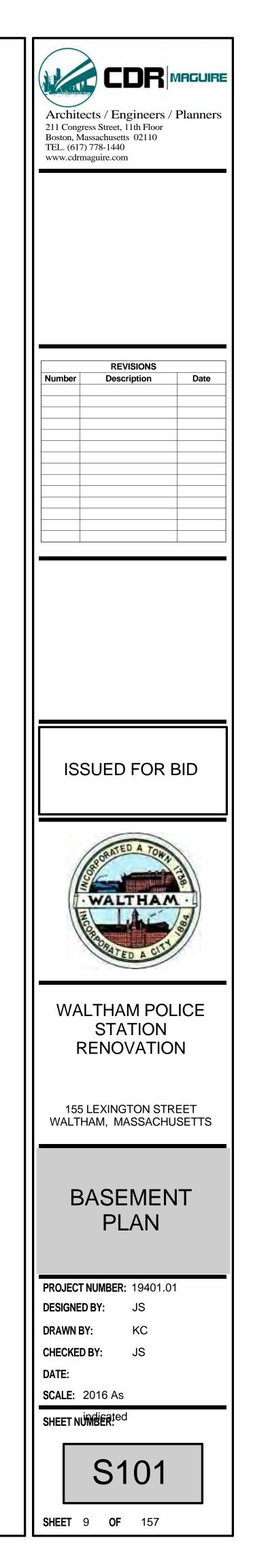
ANY OPENINGS THAT MAY BE REQUIRED.

6. COORDINATE ALL CMU WALL LOCATIONS WITH ARCHITECTURAL DRAWINGS.

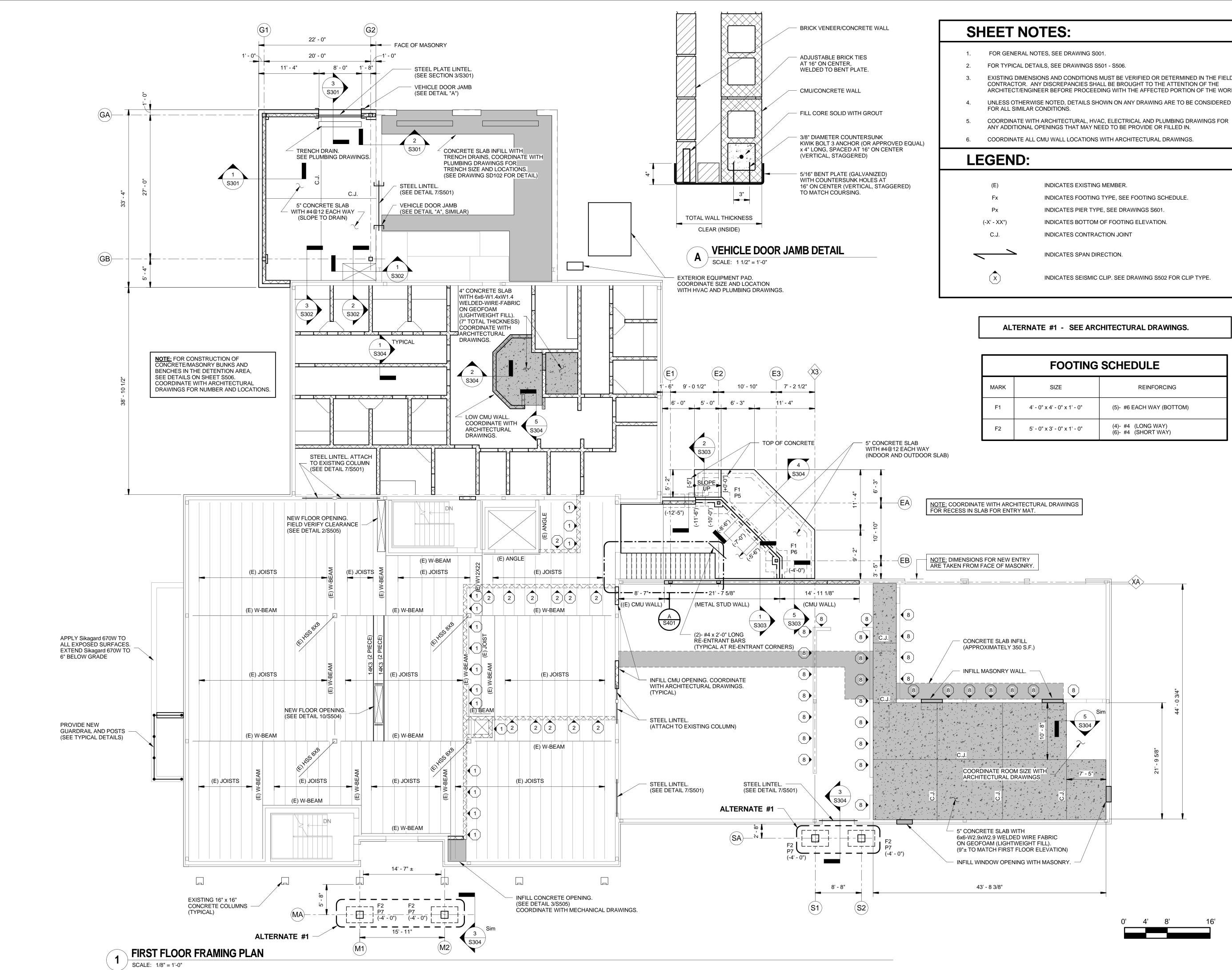
LEGEND:

(E)	INDICATES EXISTING MEMBER.
Fx	INDICATES FOOTING TYPE, SEE FOOTING SCHEDULE ON DRAWING S102.
Px	INDICATES PIER TYPE, SEE DRAWINGS S601.
K' - XX")	INDICATES BOTTOM OF FOOTING ELEVATION.
	INDICATES SPAN DIRECTION.
x	INDICATES SEISMIC CLIP. SEE DRAWING S502 FOR CLIP TYPE.









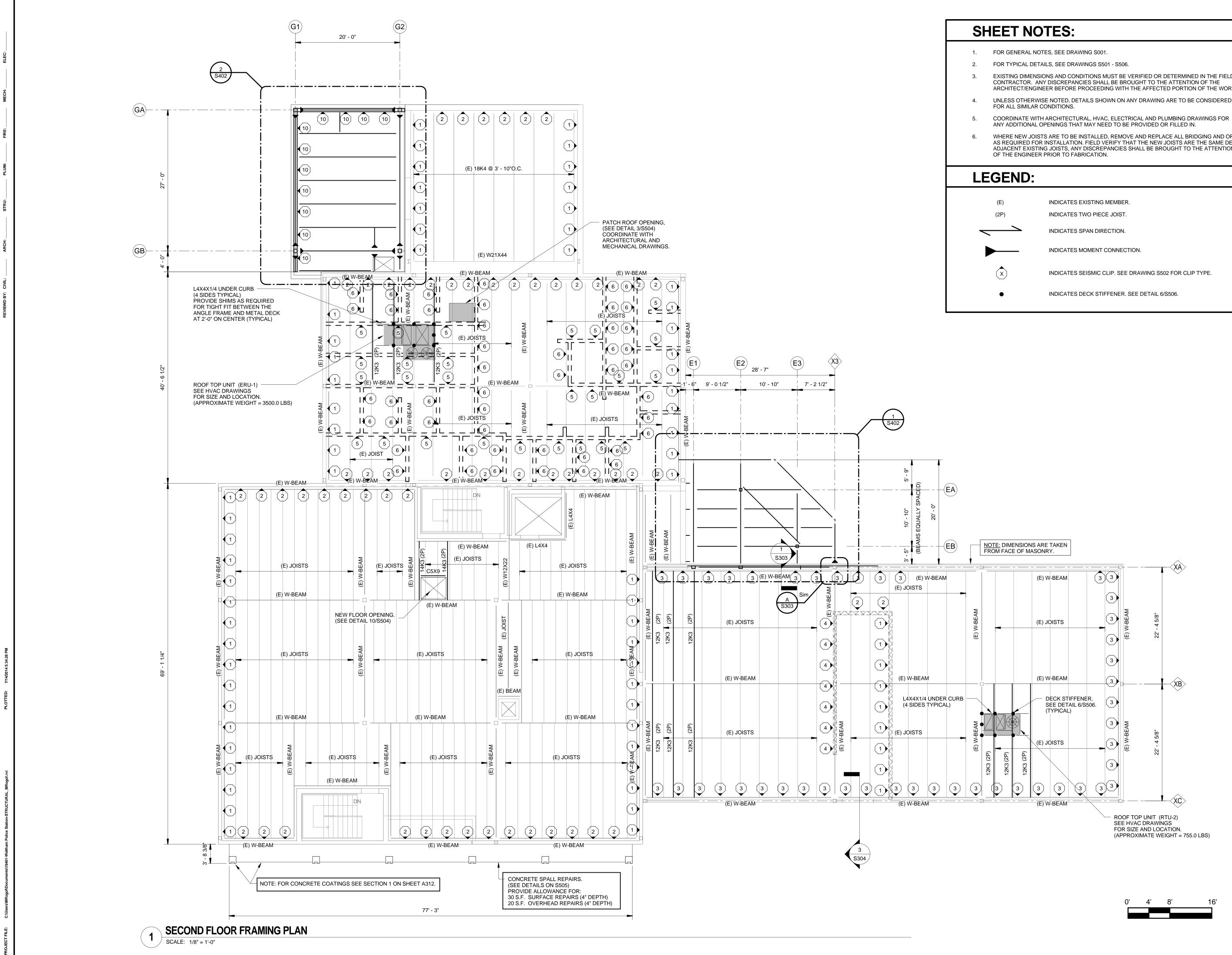
EXISTING DIMENSIONS AND CONDITIONS MUST BE VERIFIED OR DETERMINED IN THE FIELD BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL

(E)	INDICATES EXISTING MEMBER.
Fx	INDICATES FOOTING TYPE, SEE FOOTING SCHEDULE.
Px	INDICATES PIER TYPE, SEE DRAWINGS S601.
(' - XX")	INDICATES BOTTOM OF FOOTING ELEVATION.
C.J.	INDICATES CONTRACTION JOINT
	INDICATES SPAN DIRECTION.

16'





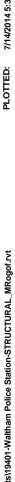
EXISTING DIMENSIONS AND CONDITIONS MUST BE VERIFIED OR DETERMINED IN THE FIELD BY THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

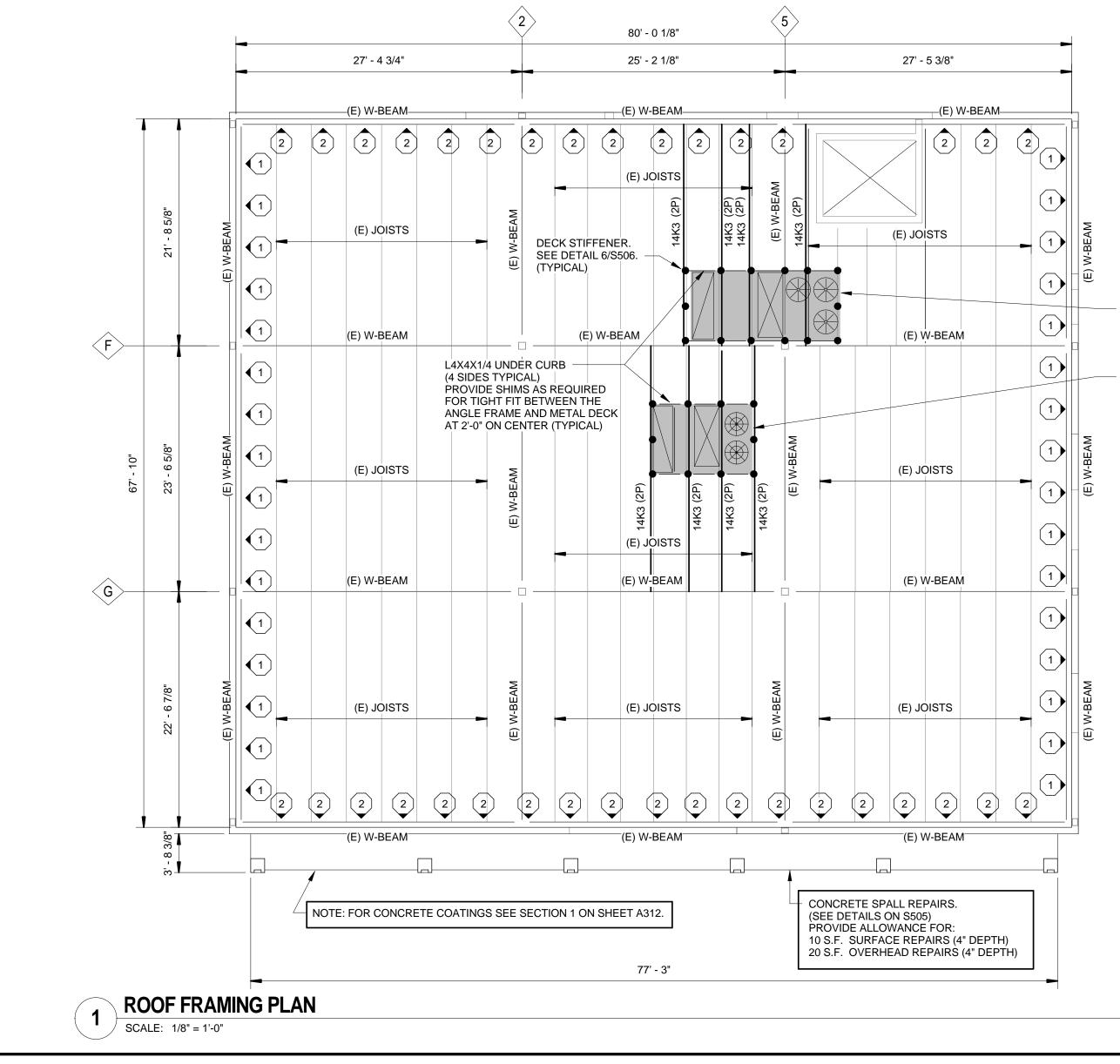
UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL

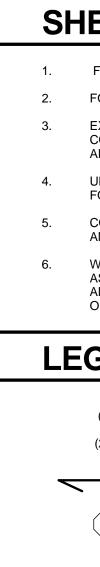
WHERE NEW JOISTS ARE TO BE INSTALLED, REMOVE AND REPLACE ALL BRIDGING AND OR BRACING AS REQUIRED FOR INSTALLATION. FIELD VERIFY THAT THE NEW JOISTS ARE THE SAME DEPTH AS ADJACENT EXISTING JOISTS, ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION

(E)	INDICATES EXISTING MEMBER.
(2P)	INDICATES TWO PIECE JOIST.
	INDICATES SPAN DIRECTION.
<u> </u>	INDICATES MOMENT CONNECTION.
X	INDICATES SEISMIC CLIP. SEE DRAWING S502 FOR CLIP TYPE.
•	INDICATES DECK STIFFENER. SEE DETAIL 6/S506.









ROOF TOP UNIT (RTU-1)
 SEE HVAC DRAWINGS
 FOR SIZE AND LOCATION.
 (APPROXIMATE WEIGHT = 4220.0 LBS)

ROOF TOP UNIT (RTU-3)
 SEE HVAC DRAWINGS
 FOR SIZE AND LOCATION.
 (APPROXIMATE WEIGHT = 2129.0 LBS)

SHEET NOTES:

1. FOR GENERAL NOTES, SEE DRAWING S001.

2. FOR TYPICAL DETAILS, SEE DRAWINGS S501 - S506.

3. EXISTING DIMENSIONS AND CONDITIONS MUST BE VERIFIED OR DETERMINED IN THE FIELD BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.

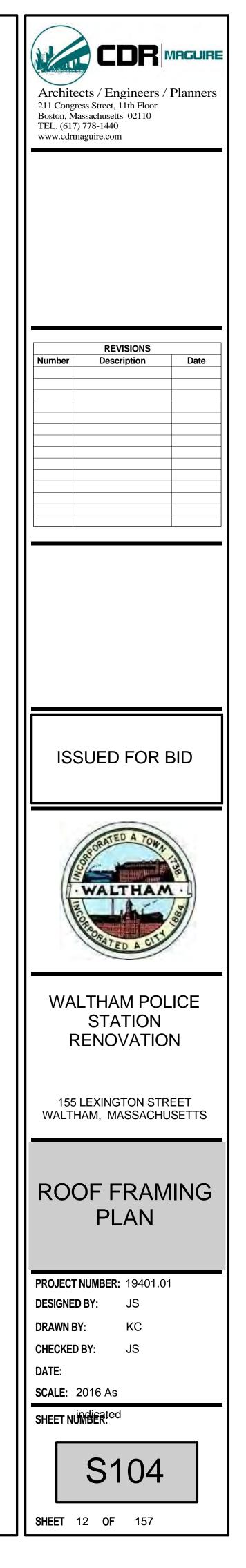
COORDINATE WITH ARCHITECTURAL, HVAC, ELECTRICAL AND PLUMBING DRAWINGS FOR ANY ADDITIONAL OPENINGS THAT MAY NEED TO BE PROVIDED OR FILLED IN.

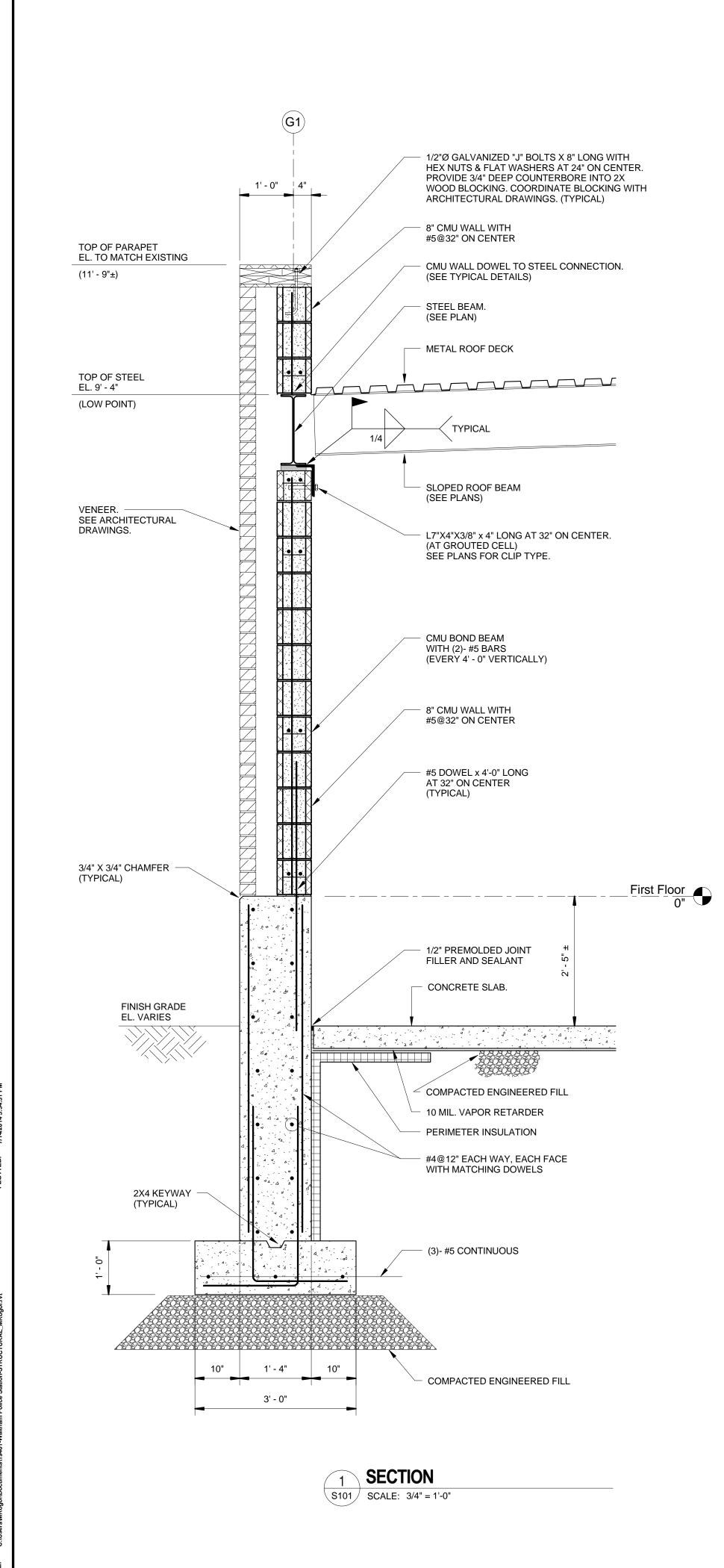
WHERE NEW JOISTS ARE TO BE INSTALLED, REMOVE AND REPLACE ALL BRIDGING AND OR BRACING AS REQUIRED FOR INSTALLATION. FIELD VERIFY THAT THE NEW JOISTS ARE THE SAME DEPTH AS ADJACENT EXISTING JOISTS, ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO FABRICATION.

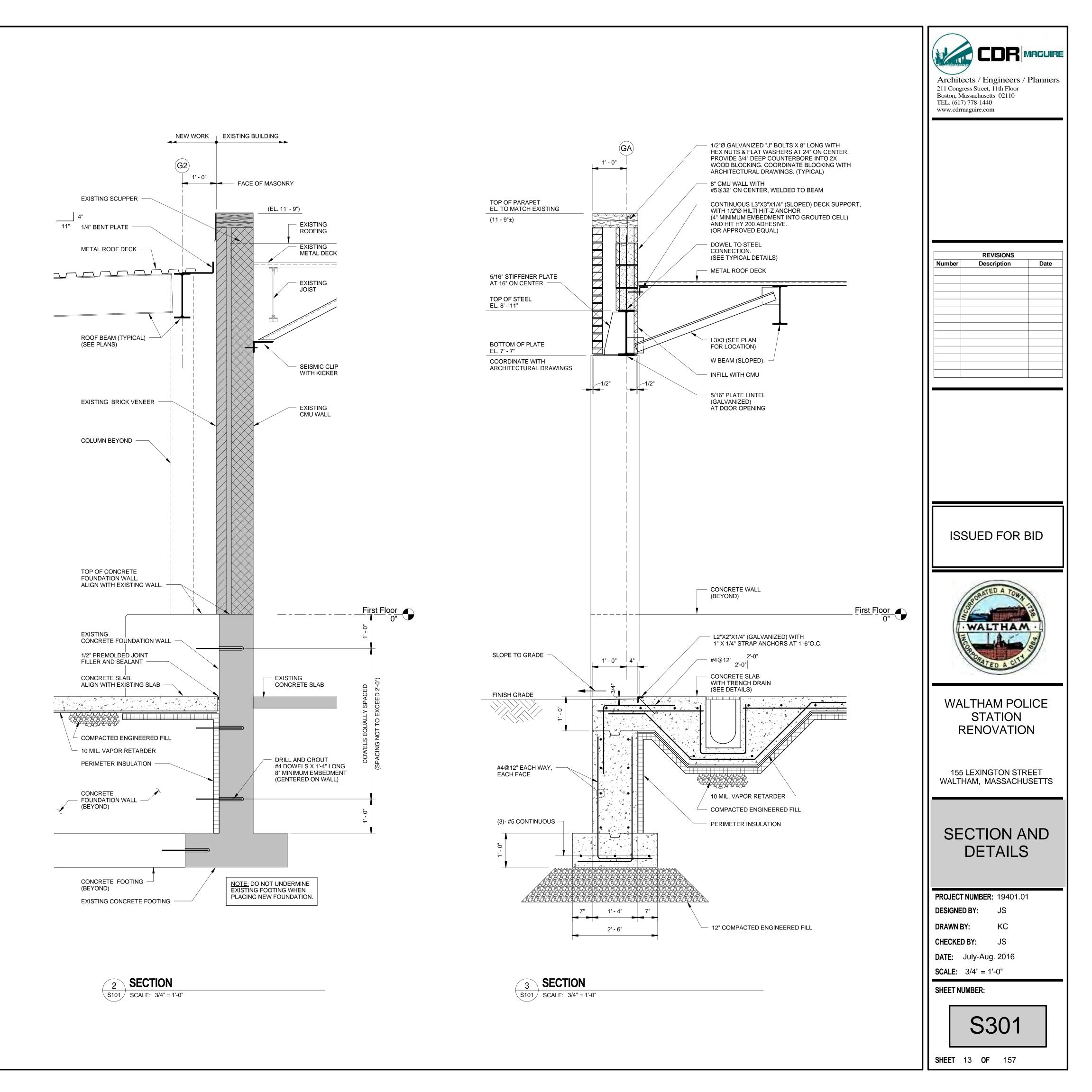
LEGEND:

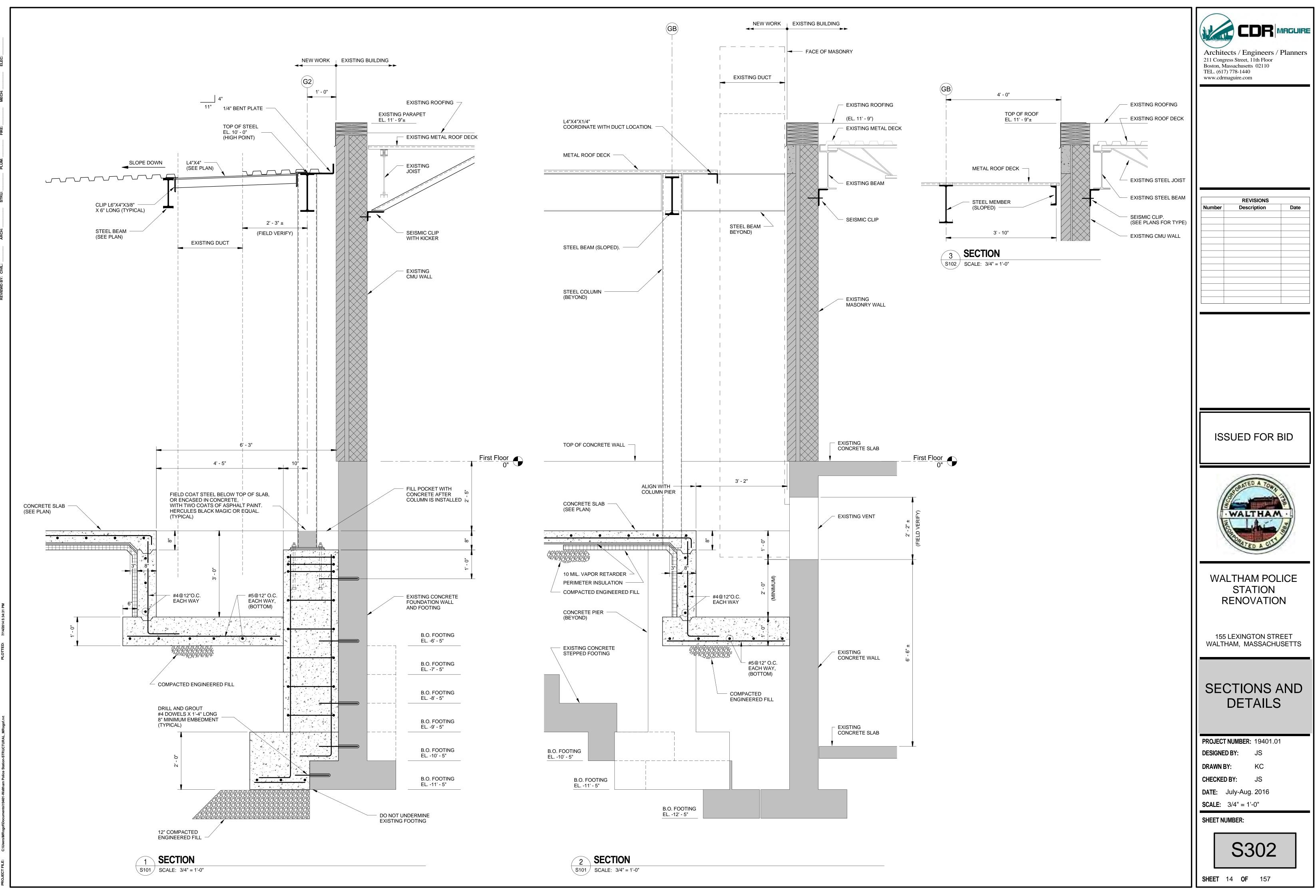
(E) (2P)	INDICATES EXISTING MEMBER. INDICATES TWO PIECE JOIST.
	INDICATES SPAN DIRECTION.
×	INDICATES SEISMIC CLIP. SEE DRAWING S502 FOR CLIP TYPE.
•	INDICATES DECK STIFFENER. SEE DETAIL 6/S506.

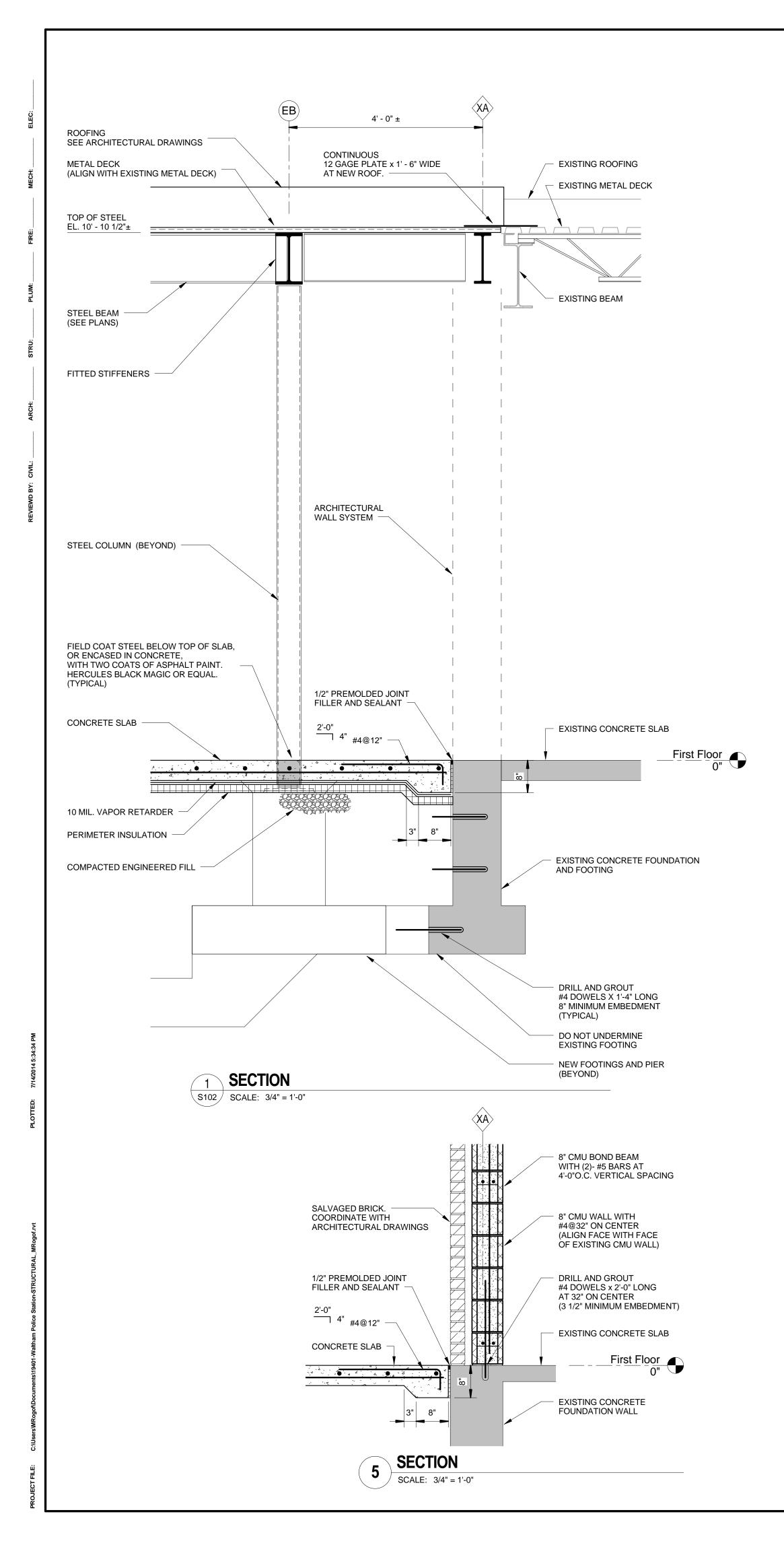


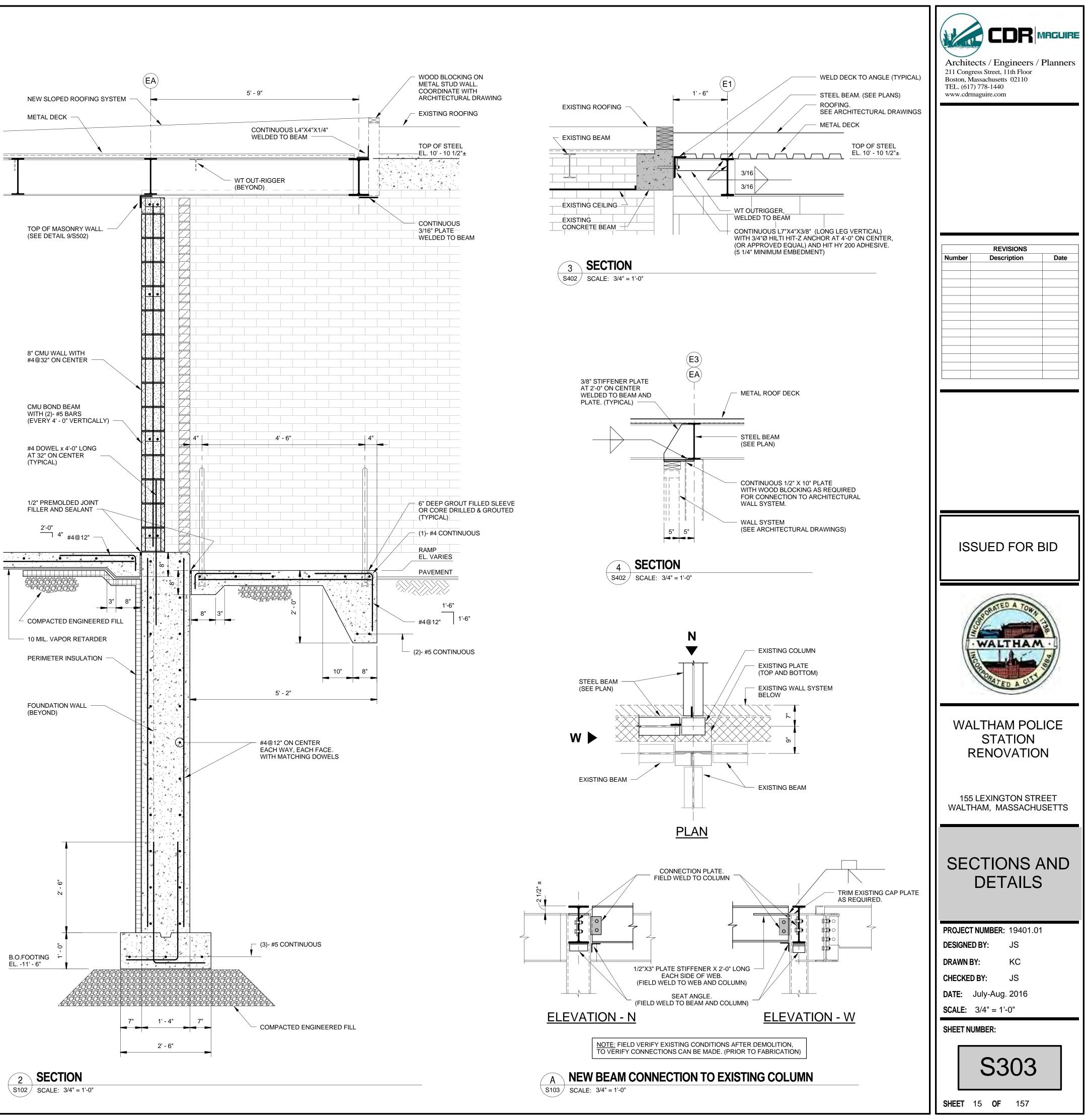


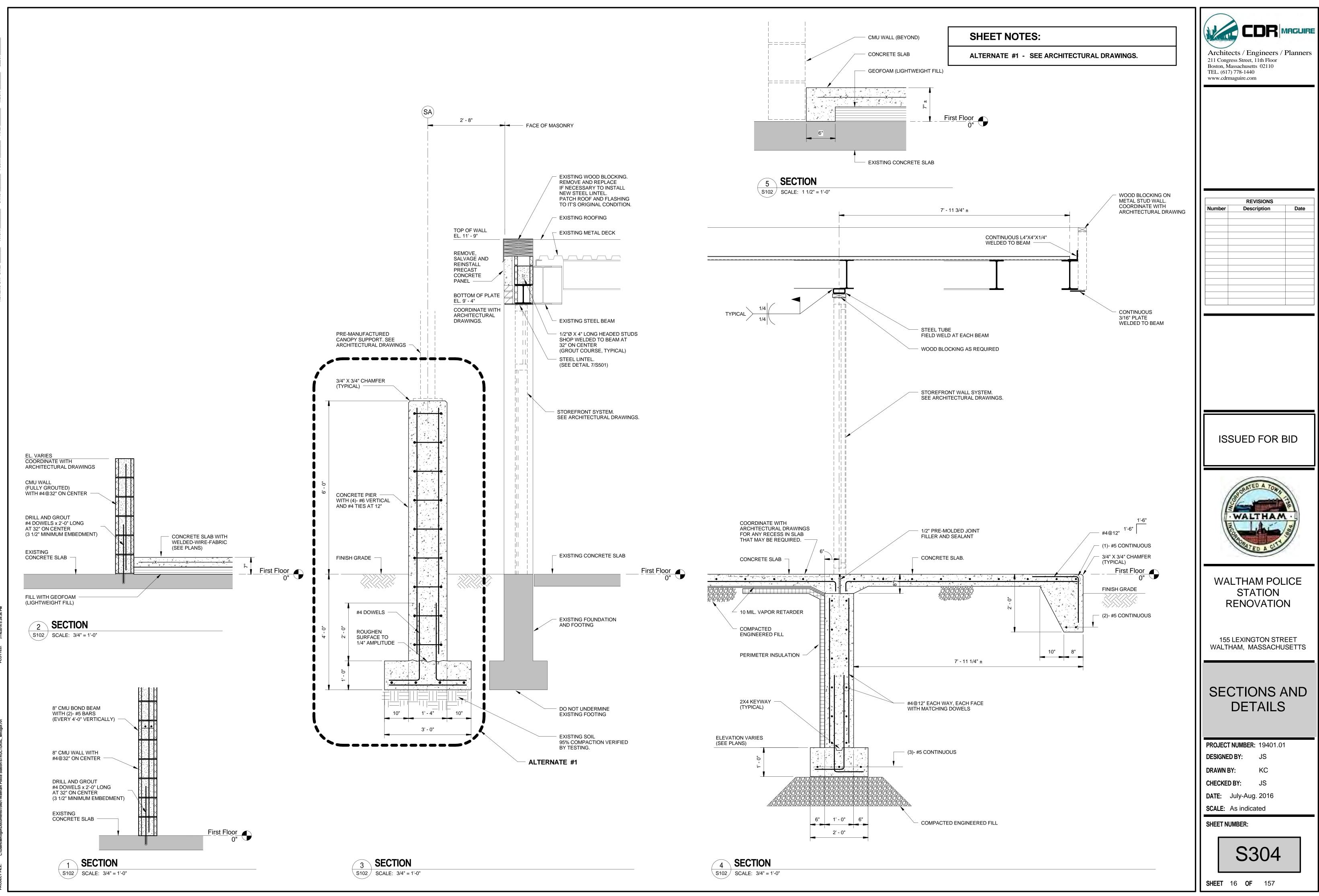


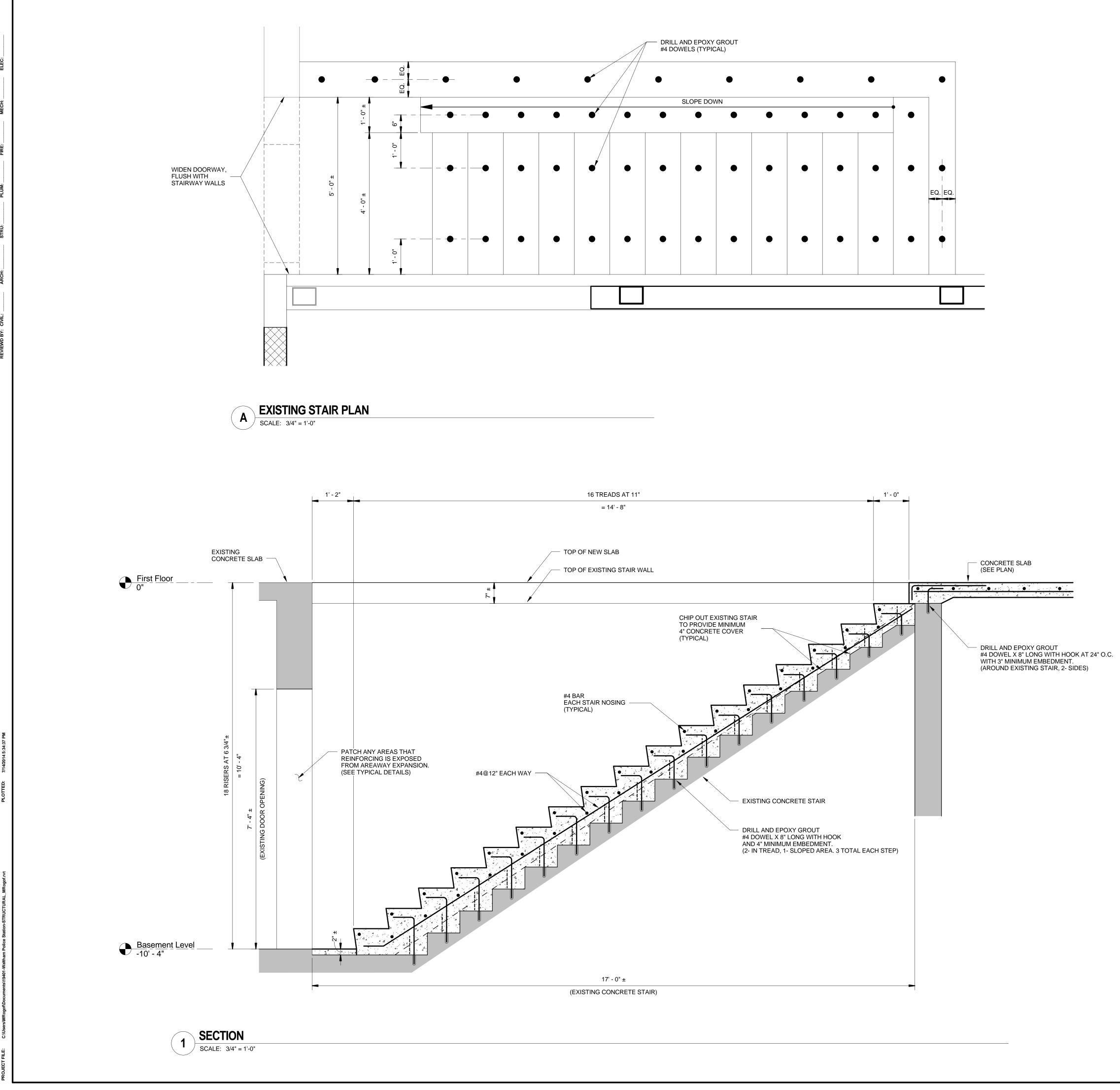




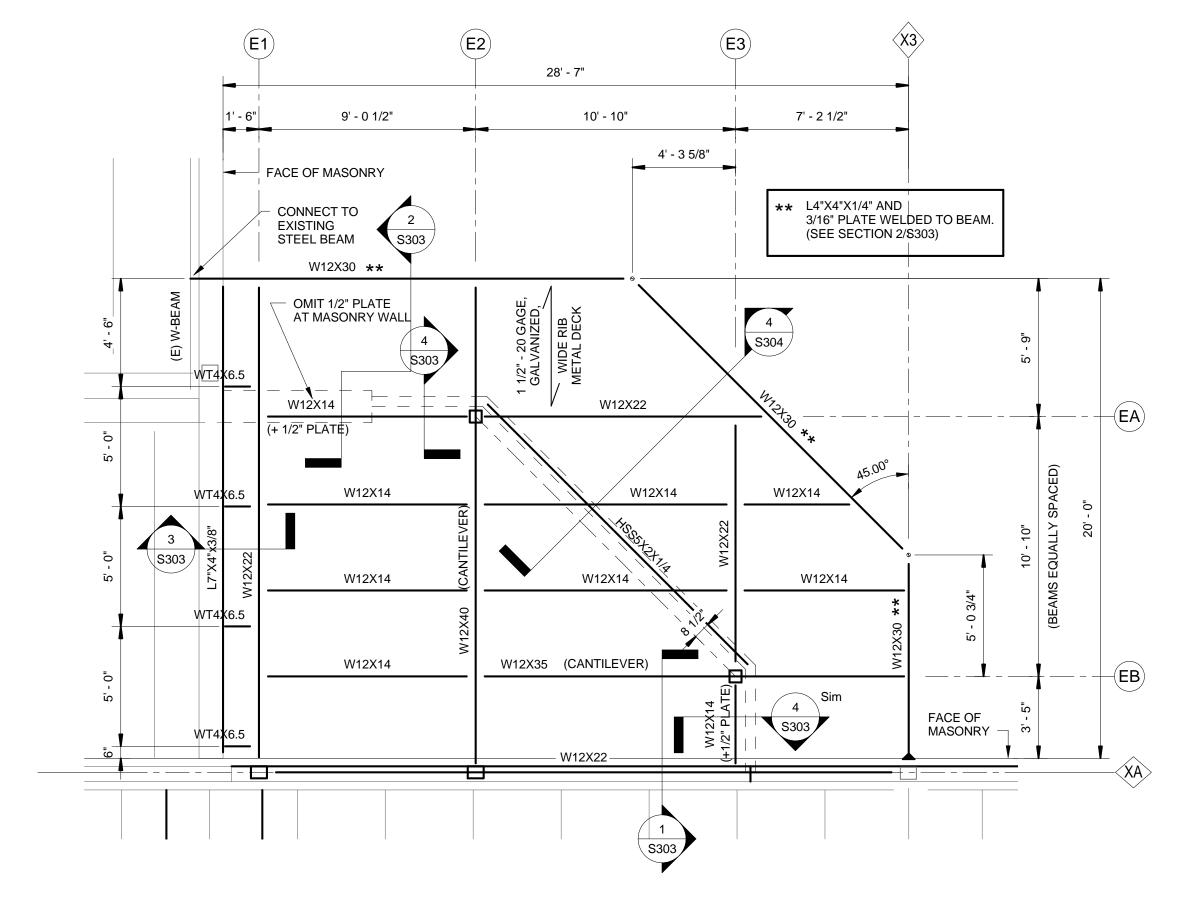






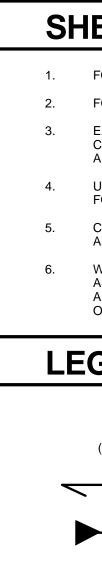


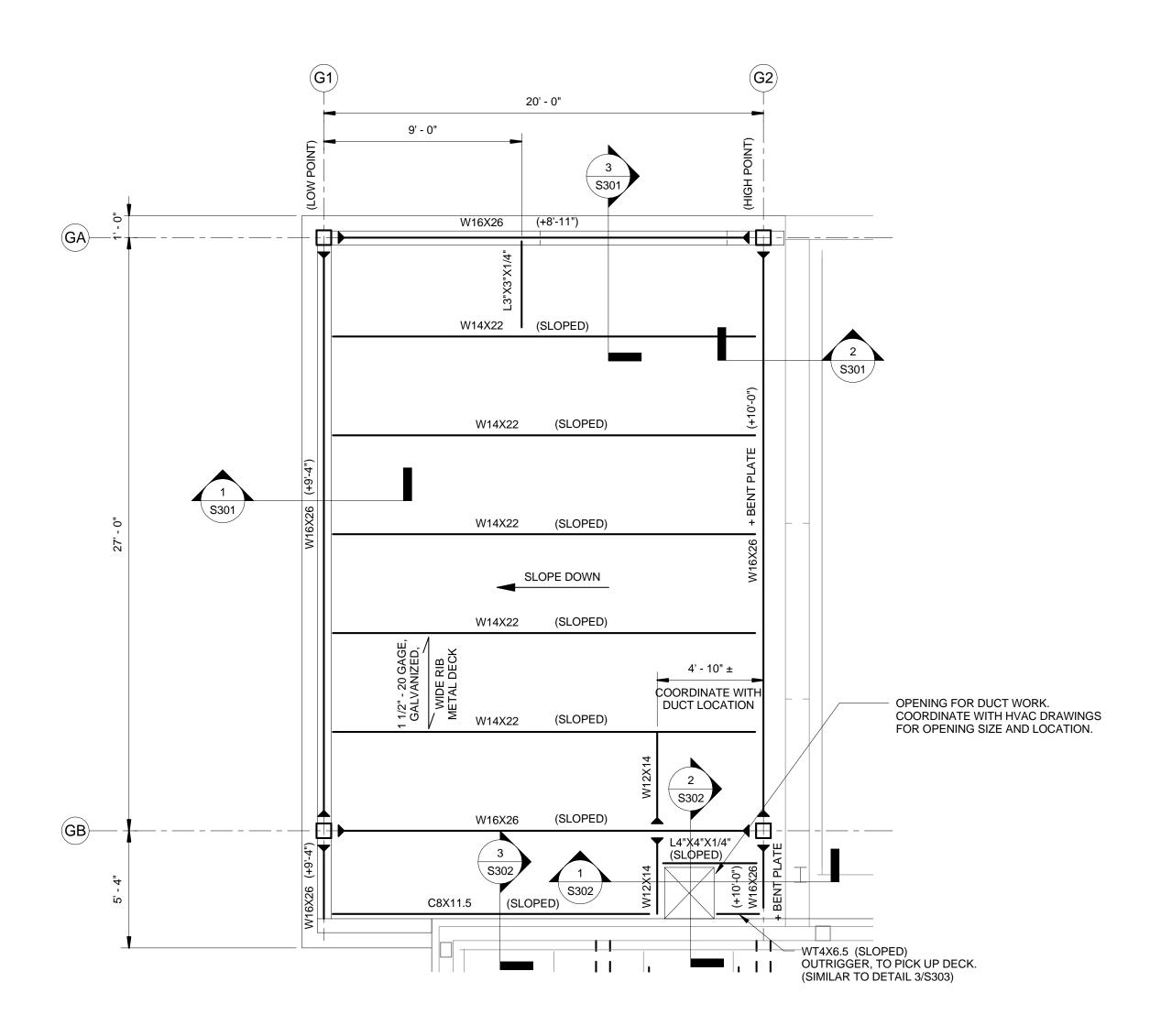
211 Congr Boston, M TEL. (617)	CCDR ects / Engineers / ess Street, 11th Floor assachusetts 02110) 778-1440 aguire.com	
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DESIGNED DRAWN B CHECKED DATE:	BY: JS July-Aug. 2016 3/4" = 1'-0"	1
SHEET	S401 17 OF 157	





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2 ROOF FRAMING PLAN (Motorcycle/Bike Storage) SCALE: 1/4" = 1'-0"

SHEET NOTES:

1. FOR GENERAL NOTES, SEE DRAWING S001.

2. FOR TYPICAL DETAILS, SEE DRAWINGS S501 - S506.

EXISTING DIMENSIONS AND CONDITIONS MUST BE VERIFIED OR DETERMINED IN THE FIELD BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

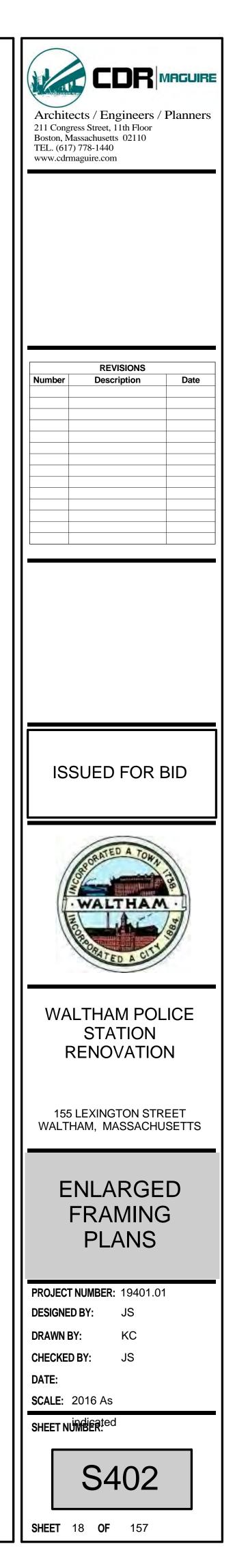
UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.

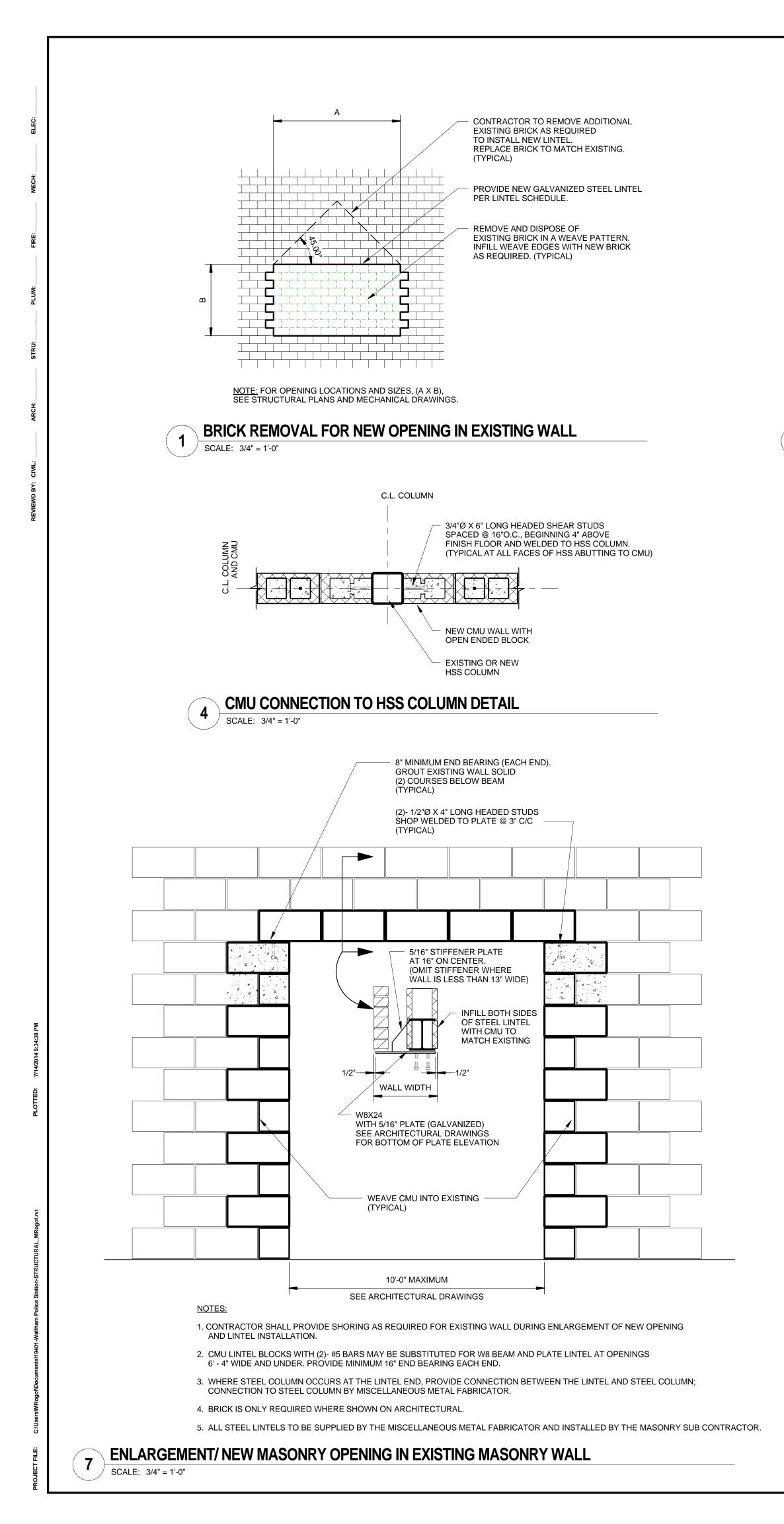
COORDINATE WITH ARCHITECTURAL, HVAC, ELECTRICAL AND PLUMBING DRAWINGS FOR ANY ADDITIONAL OPENINGS THAT MAY NEED TO BE PROVIDED OR FILLED IN.

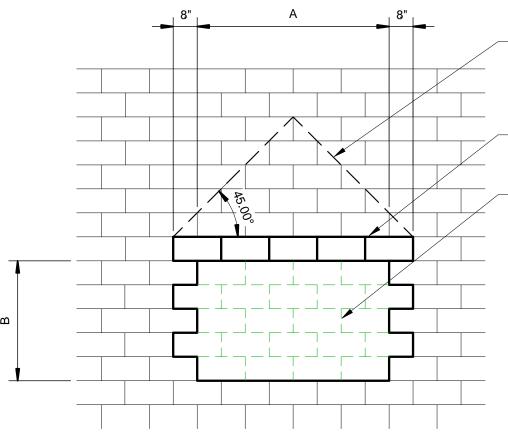
WHERE NEW JOISTS ARE TO BE INSTALLED, REMOVE AND REPLACE ALL BRIDGING AND OR BRACING AS REQUIRED FOR INSTALLATION. FIELD VERIFY THAT THE NEW JOISTS ARE THE SAME DEPTH AS ADJACENT EXISTING JOISTS, ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO FABRICATION.

LEGEND:

(E)	INDICATES EXISTING MEMBER.
(2P)	INDICATES TWO PIECE JOIST.
	INDICATES SPAN DIRECTION.
	INDICATES MOMENT CONNECTION.
x	INDICATES SEISMIC CLIP. SEE DRAWING S502 FOR CLIP TYPE.
•	INDICATES DECK STIFFENER. SEE DETAIL 6/S506.

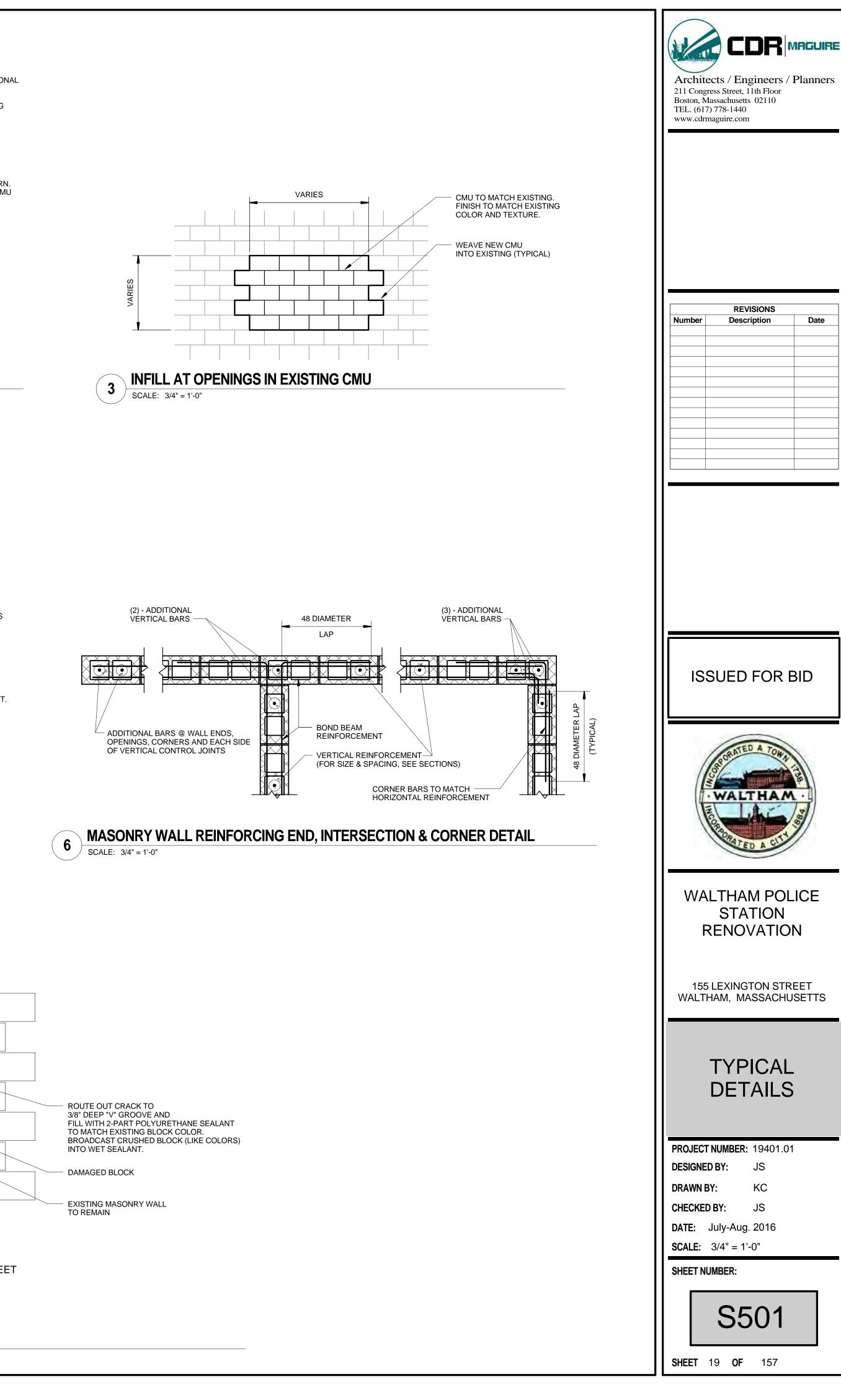


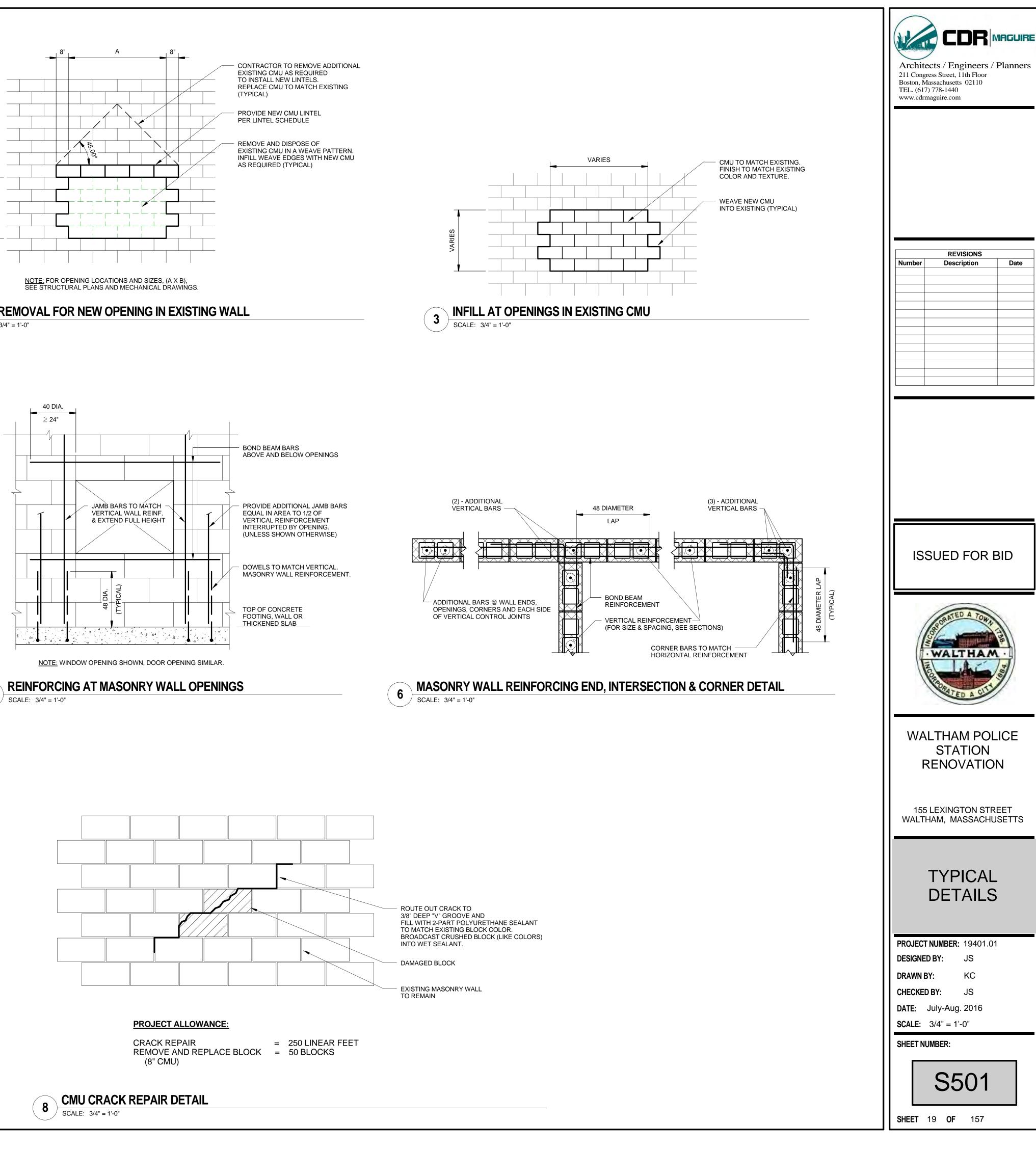




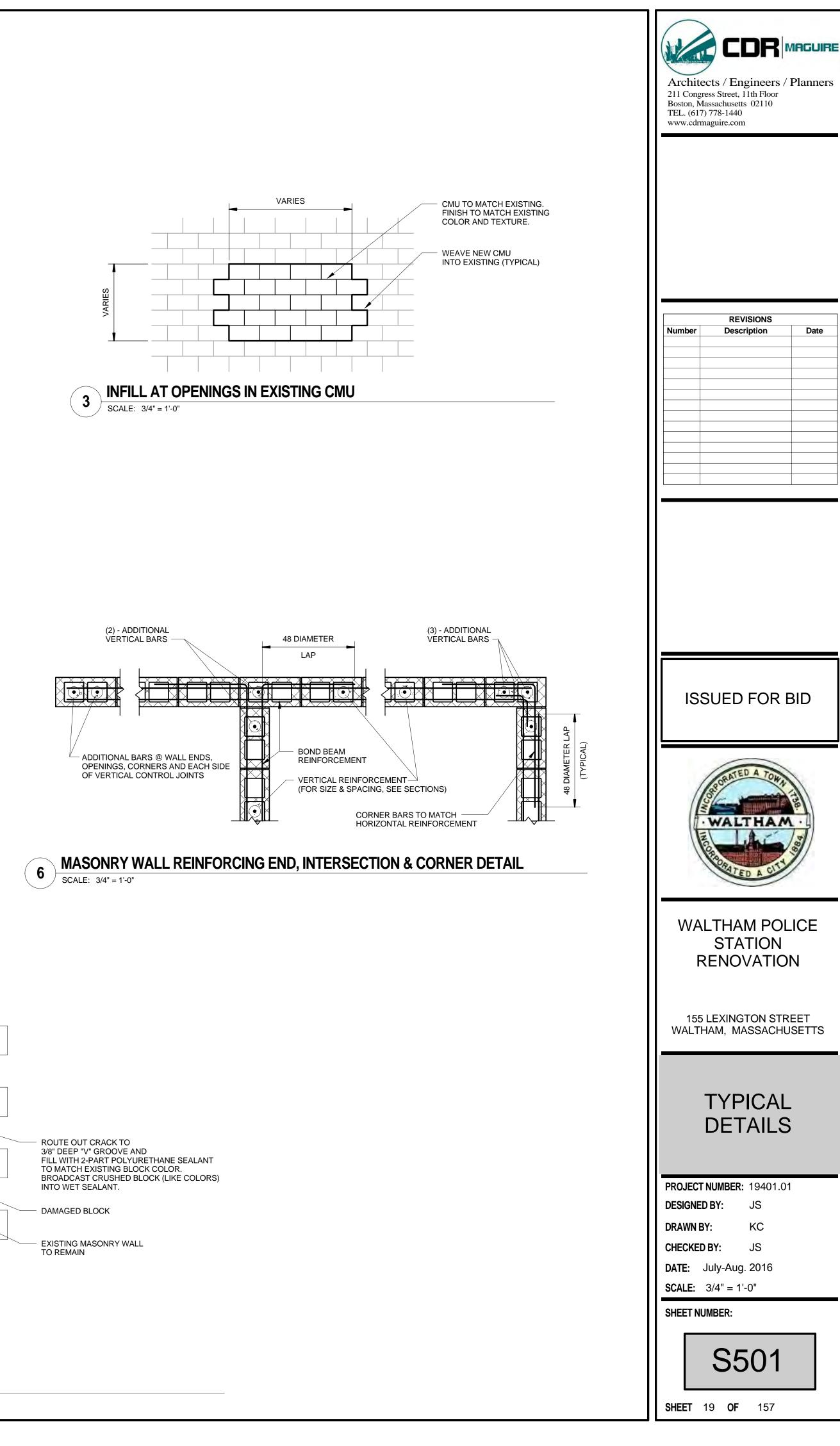
CMU REMOVAL FOR NEW OPENING IN EXISTING WALL SCALE: 3/4" = 1'-0"

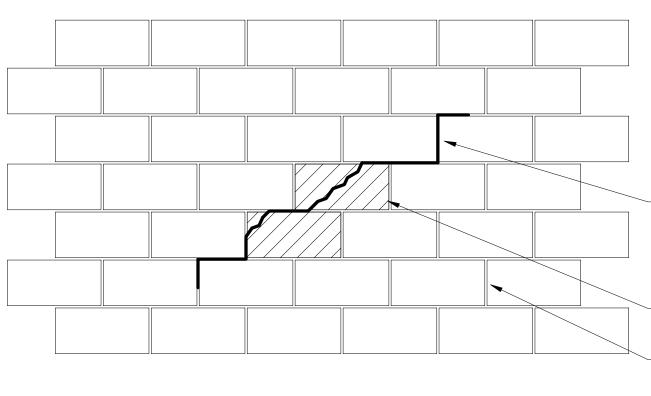
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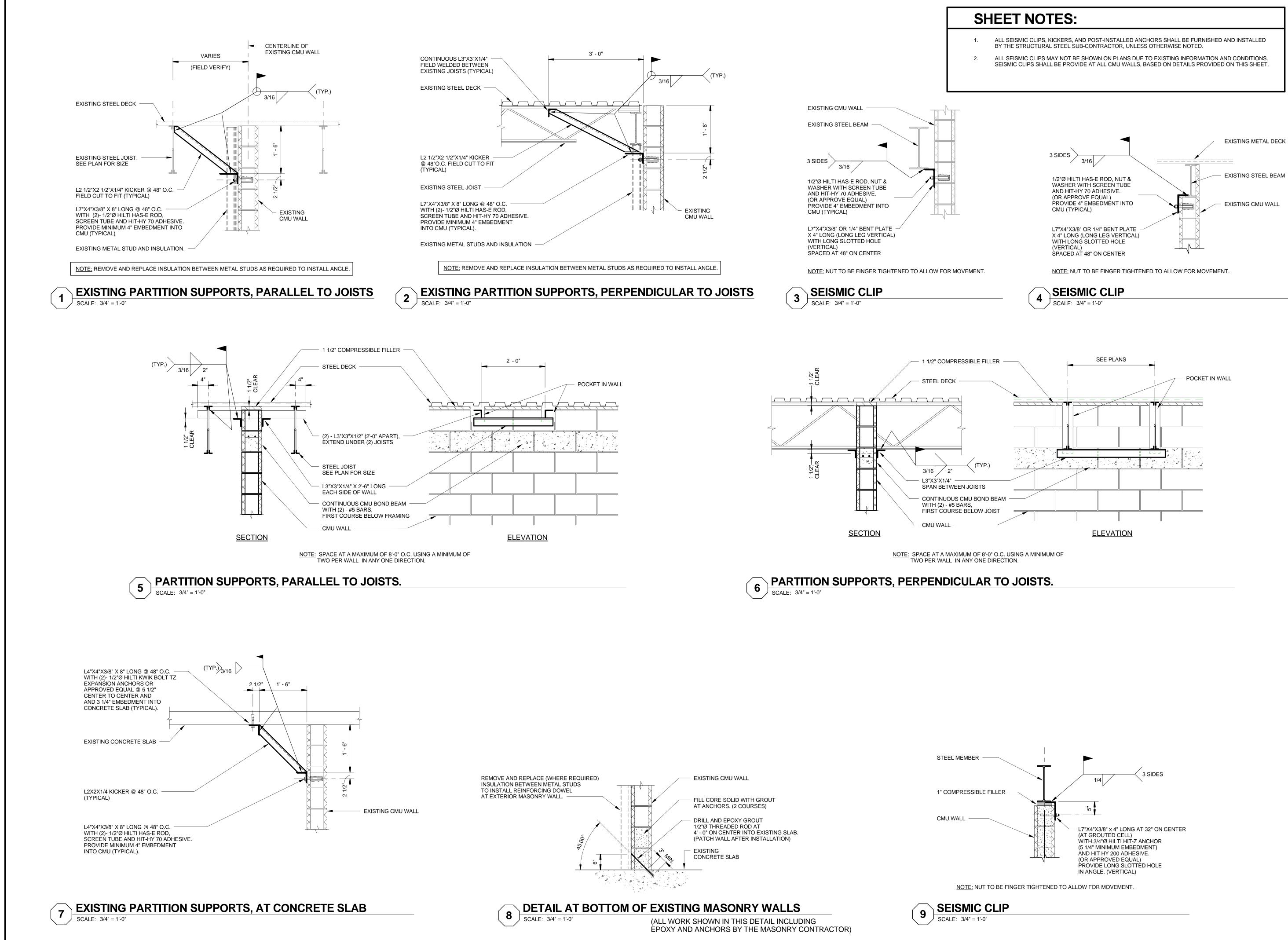




REINFORCING AT MASONRY WALL OPENINGS 5



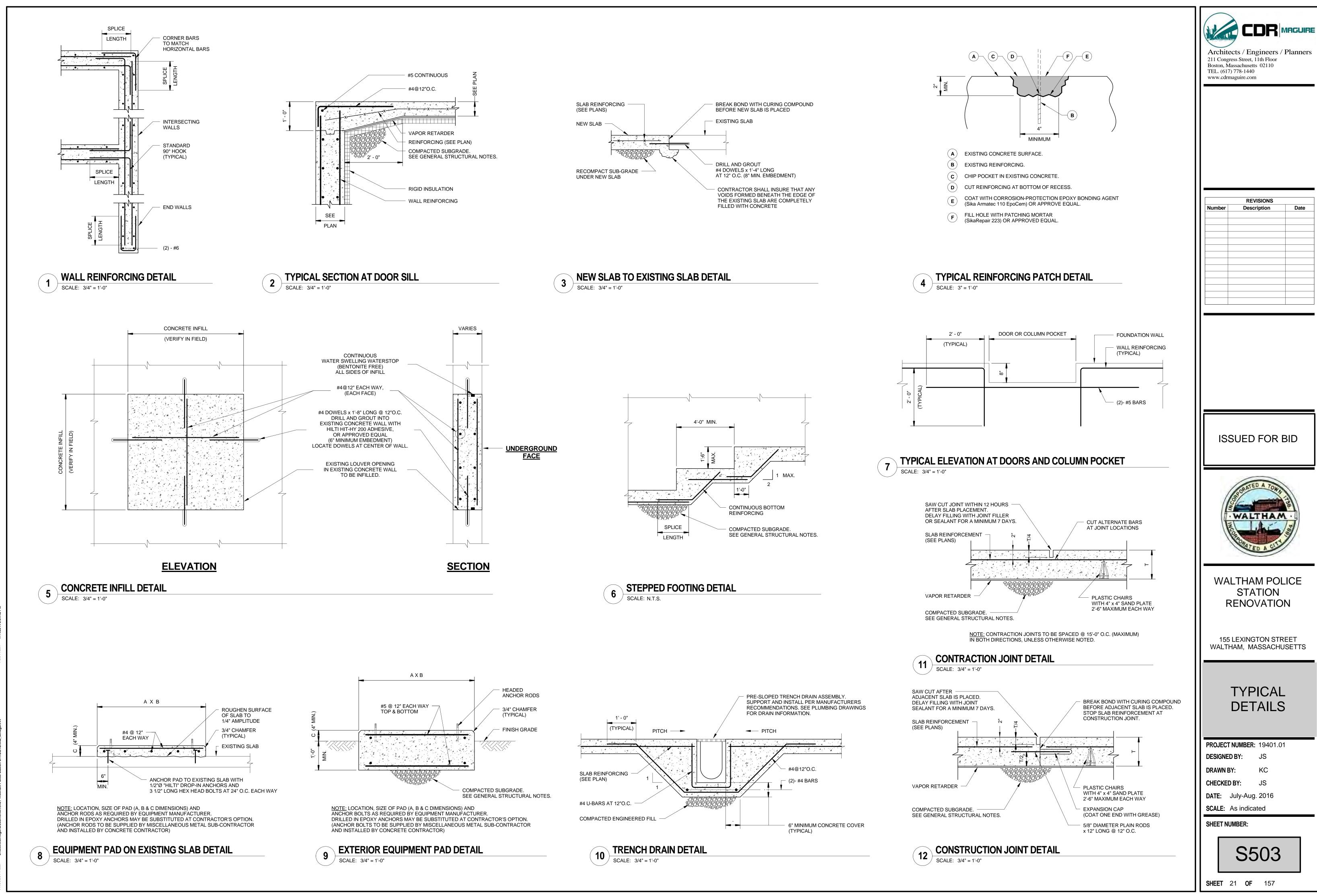


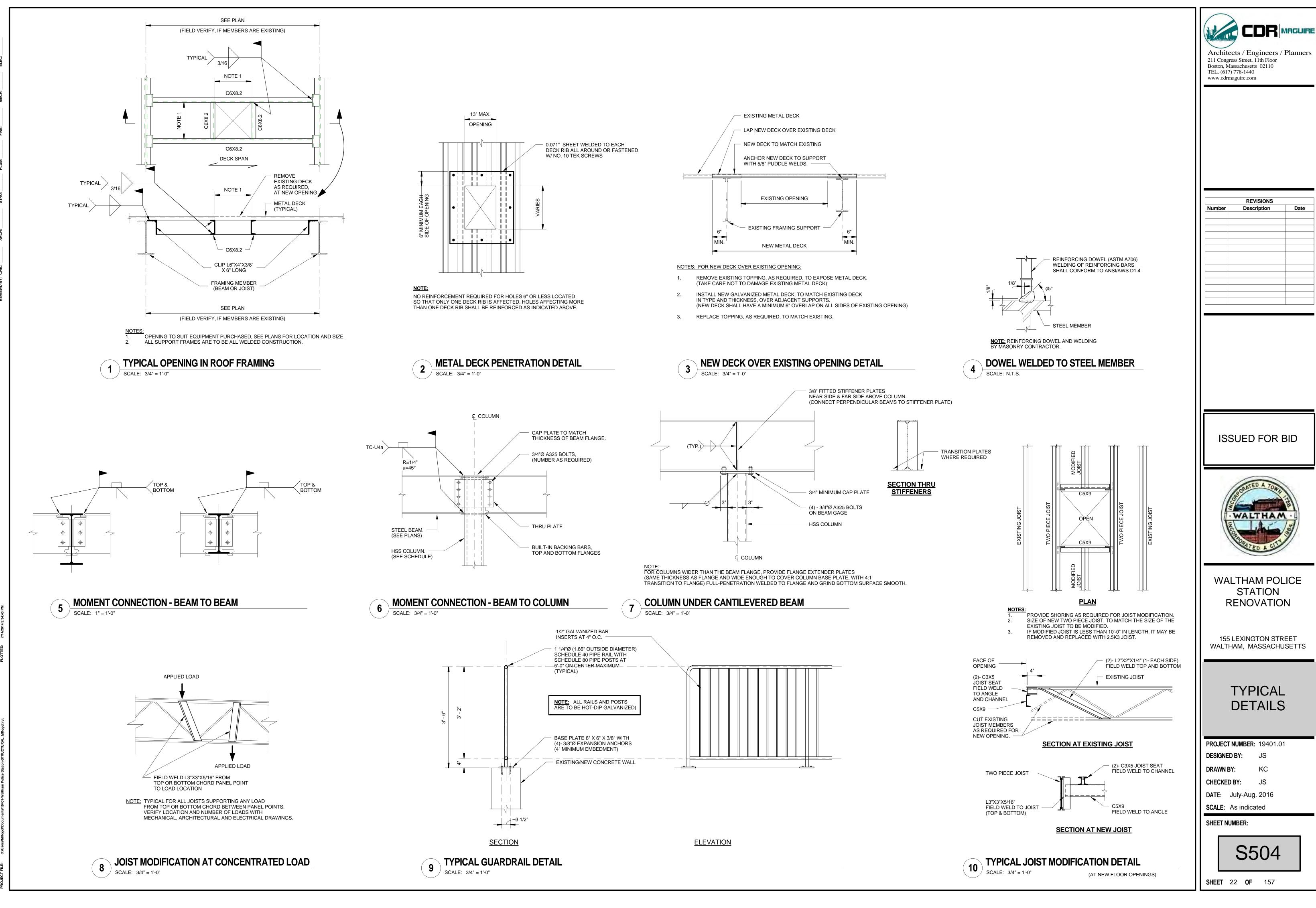


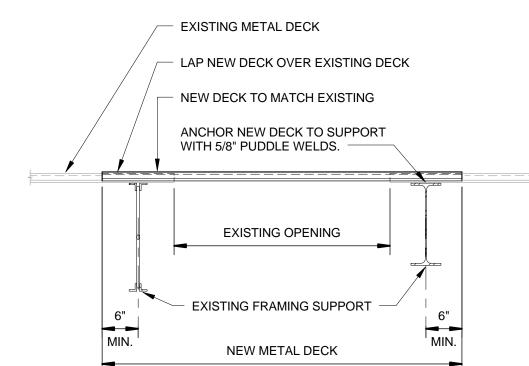
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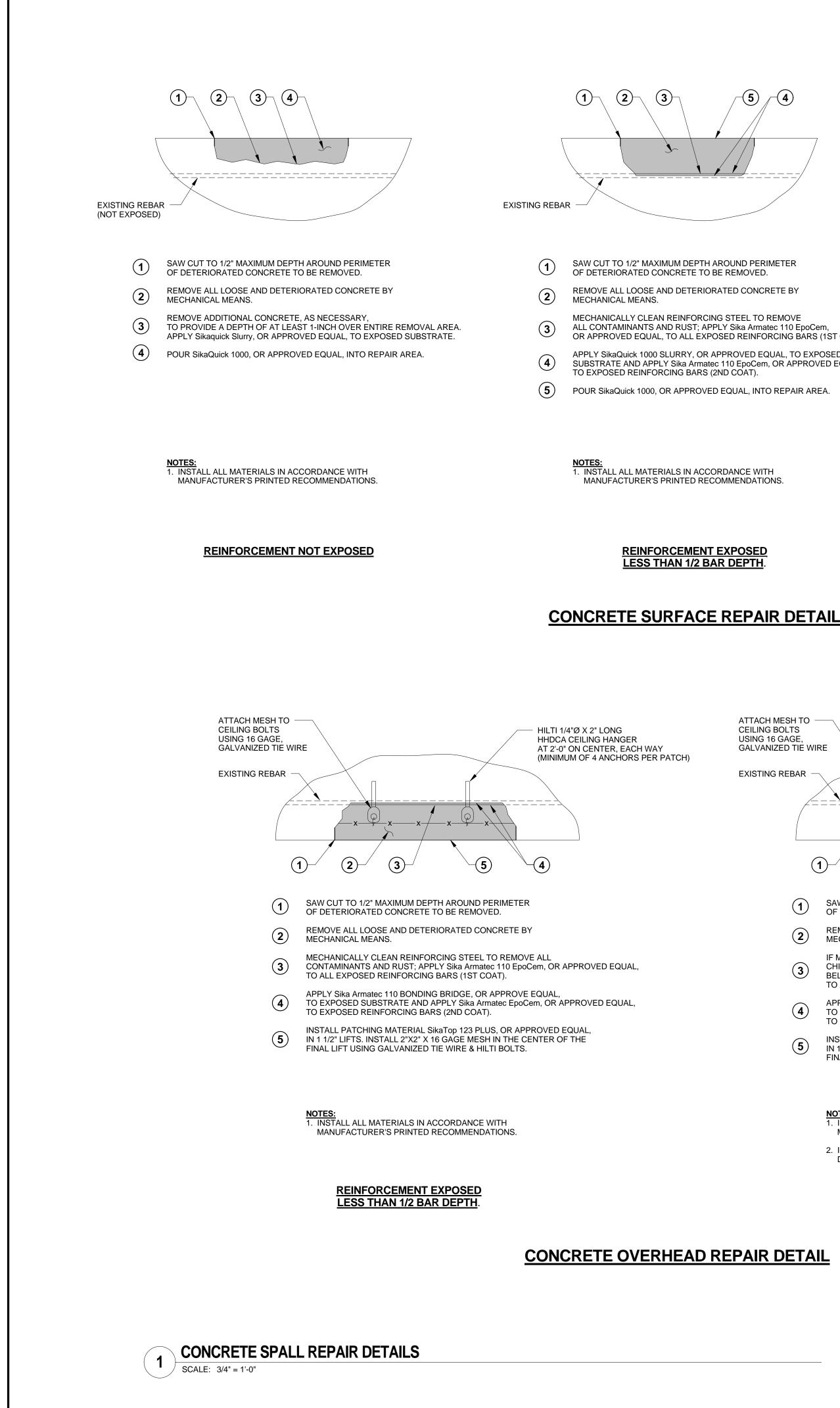
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211 Congress Street, 11th Floor









-5 -4

	-5 -4
EXISTING REBAR	MINIMUM

HAROUND PERIMETER DBE REMOVED.	
DRATED CONCRETE BY	
NG STEEL TO REMOVE PPLY Sika Armatec 110 EpoCem, POSED REINFORCING BARS (1ST COAT).	
APPROVED EQUAL, TO EXPOSED tec 110 EpoCem, OR APPROVED EQUAL, (2ND COAT).	
ED EQUAL, INTO REPAIR AREA.	

SAW CUT TO 1/2" MAXIMUM DEPTH AROUND PERIMETER OF DETERIORATED CONCRETE TO BE REMOVED.

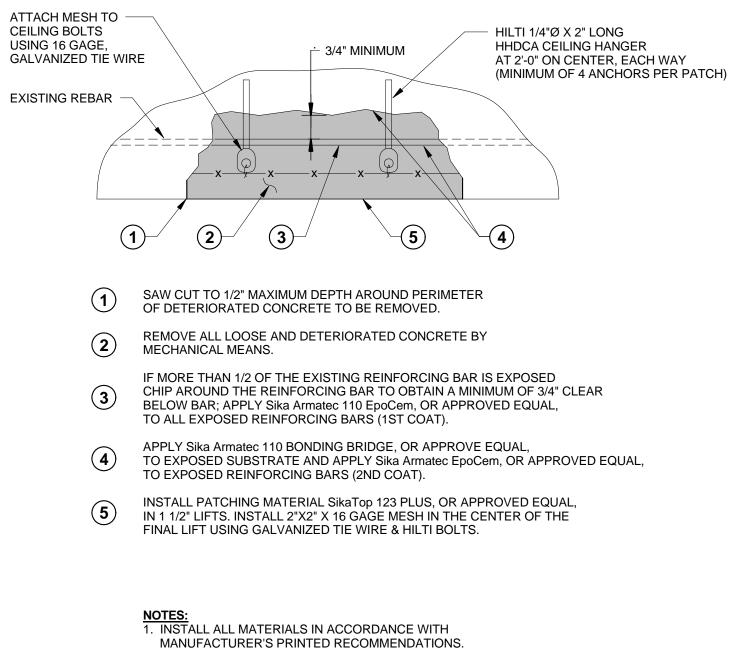
- REMOVE ALL LOOSE AND DETERIORATED CONCRETE BY (2) MECHANICAL MEANS.
- IF MORE THAN 1/2 OF THE EXISTING REINFORCING BAR IS EXPOSED CHIP AROUND THE REINFORCING BAR TO OBTAIN A MINIMUM OF 3/4" CLEAR (3) BELOW BAR; APPLY Sika Armatec 110 EpoCem, OR APPROVED EQUAL, TO ALL EXPOSED REINFORCING BARS (1ST COAT).
- APPLY SikaQuick 1000 SLURRY, OR APPROVED EQUAL, TO EXPOSED (4) SUBSTRATE AND APPLY Sika Armatec 110 EpoCem, OR APPROVED EQUAL, TO EXPOSED REINFORCING BARS (2ND COAT).
- (5) POUR SikaQuick 1000, OR APPROVED EQUAL, INTO REPAIR AREA.

NOTES: 1. INSTALL ALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S PRINTED RECOMMENDATIONS.

REINFORCEMENT EXPOSED

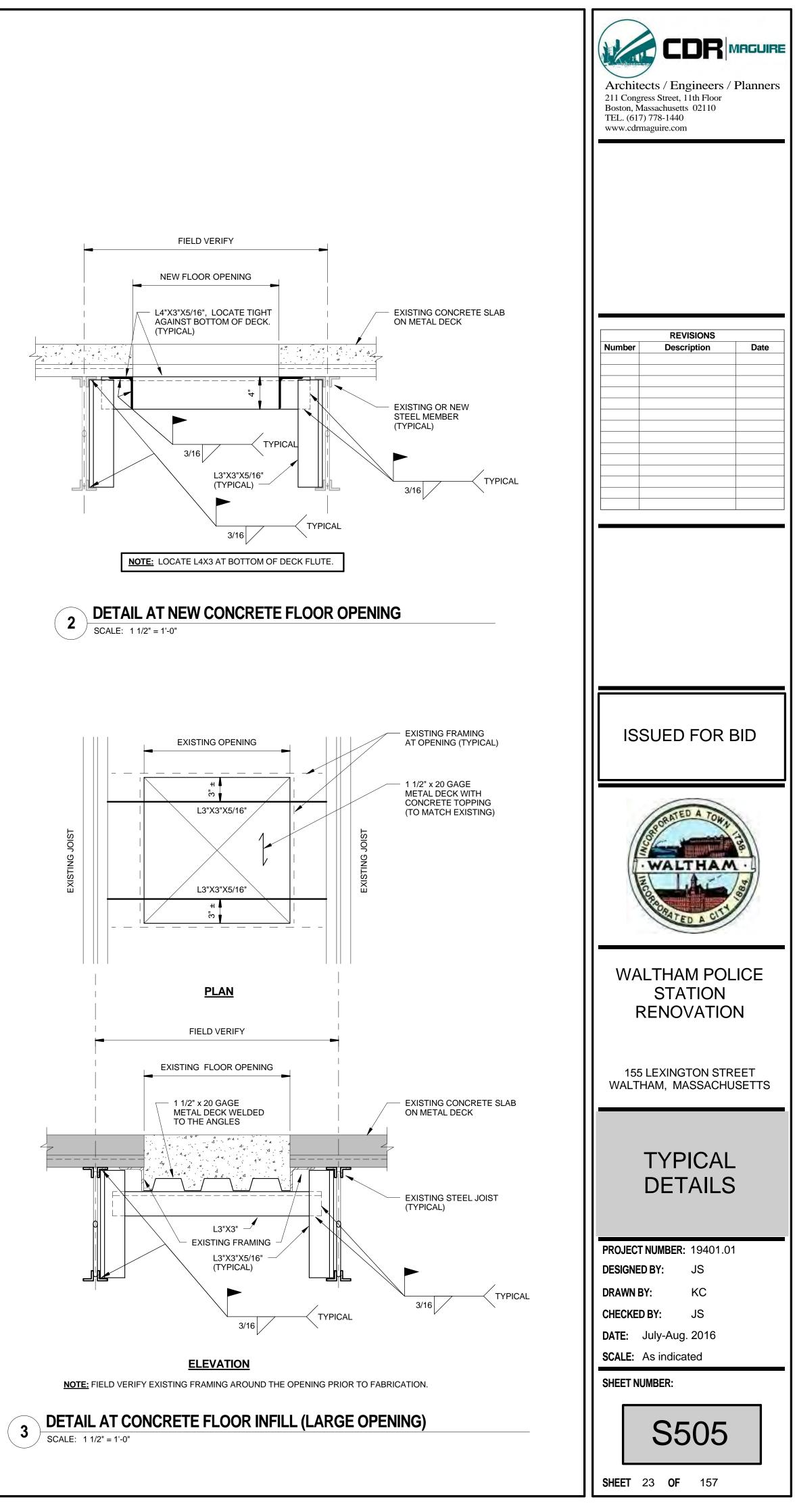
MORE THAN 1/2 BAR DEPTH

2. IF MORE THAN 25% OF EXISTING REINFORCEMENT IS DETERIORATED, CONTACT ENGINEER BEFORE CONTINUING.

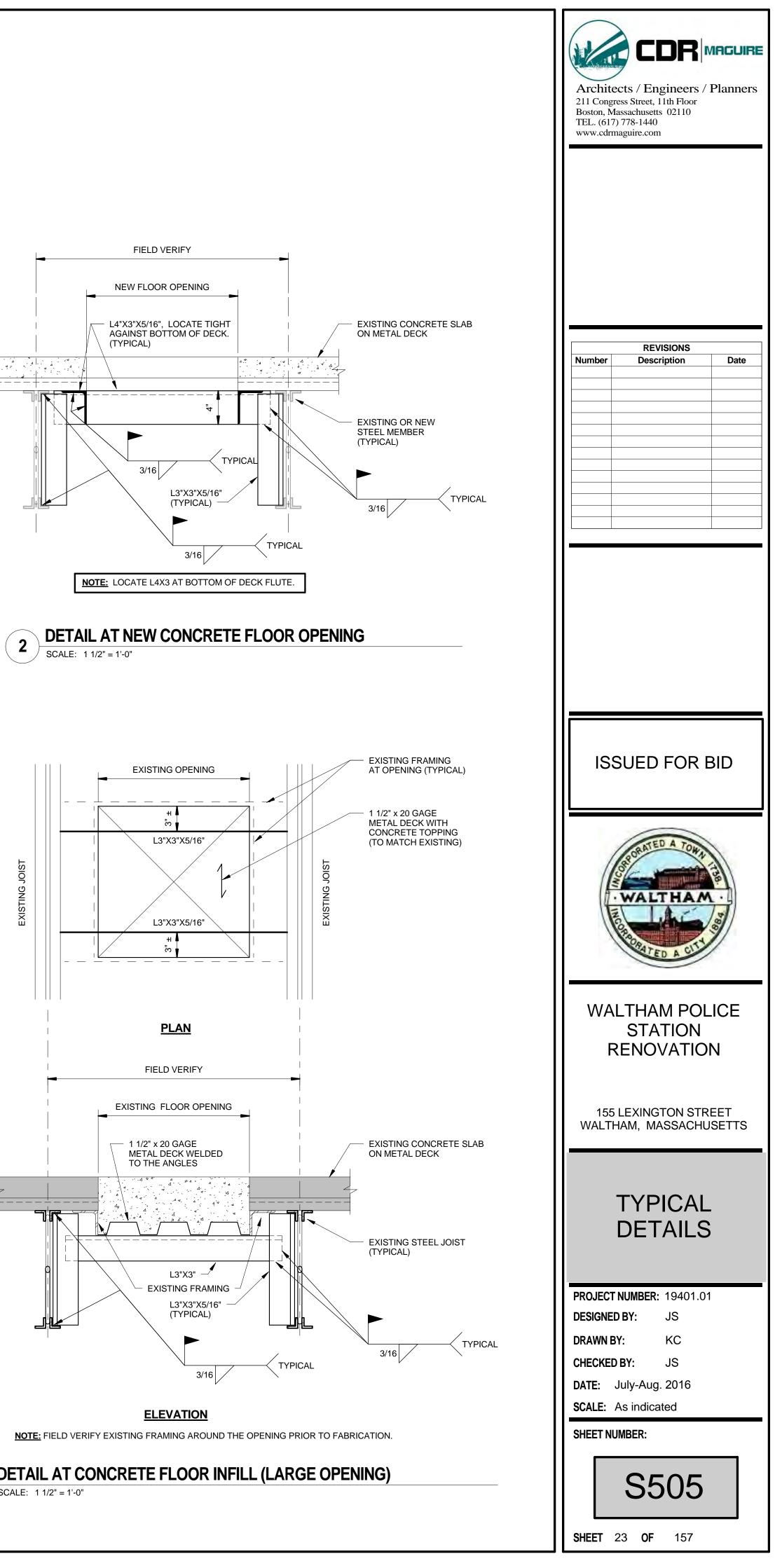


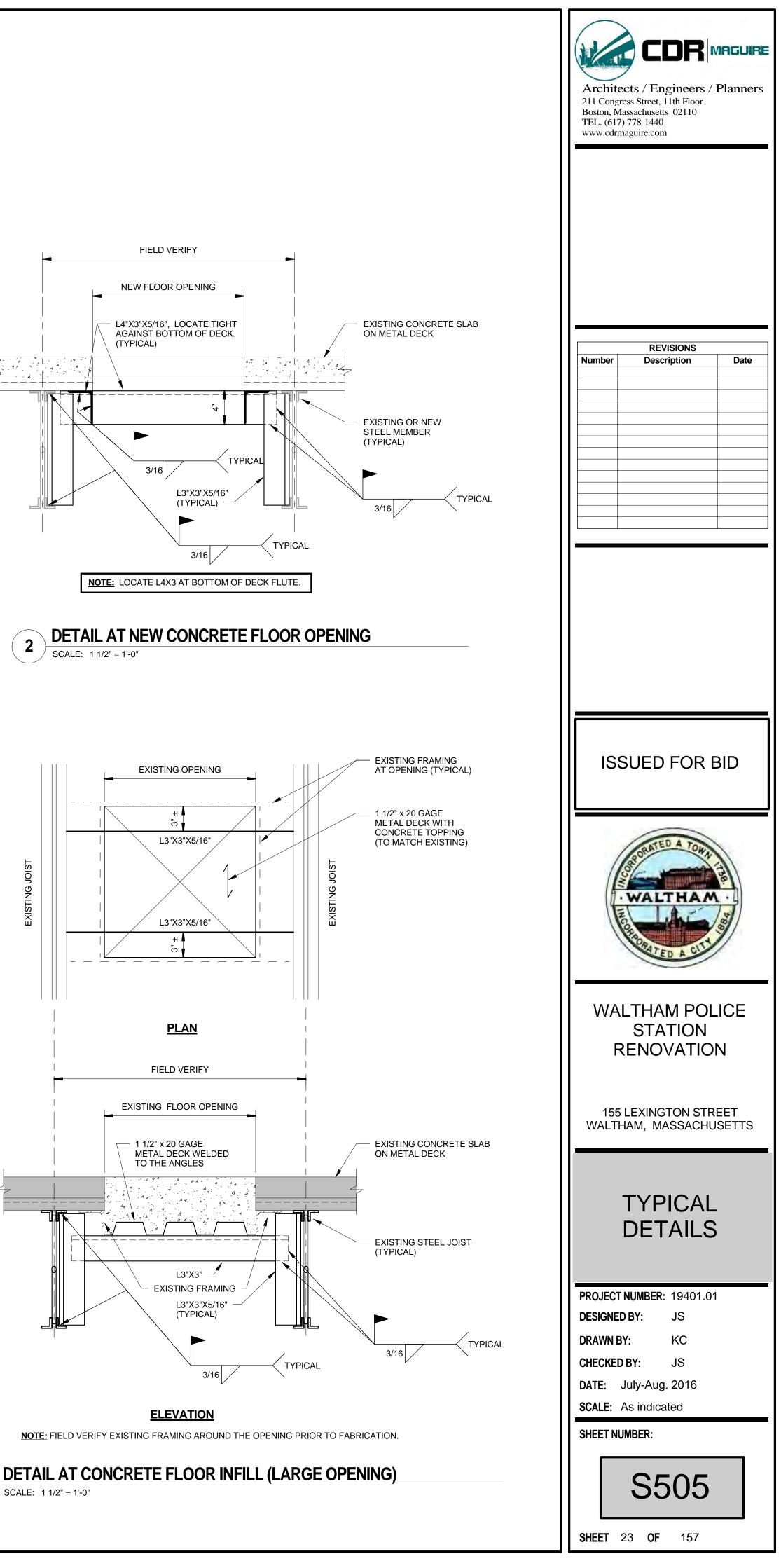
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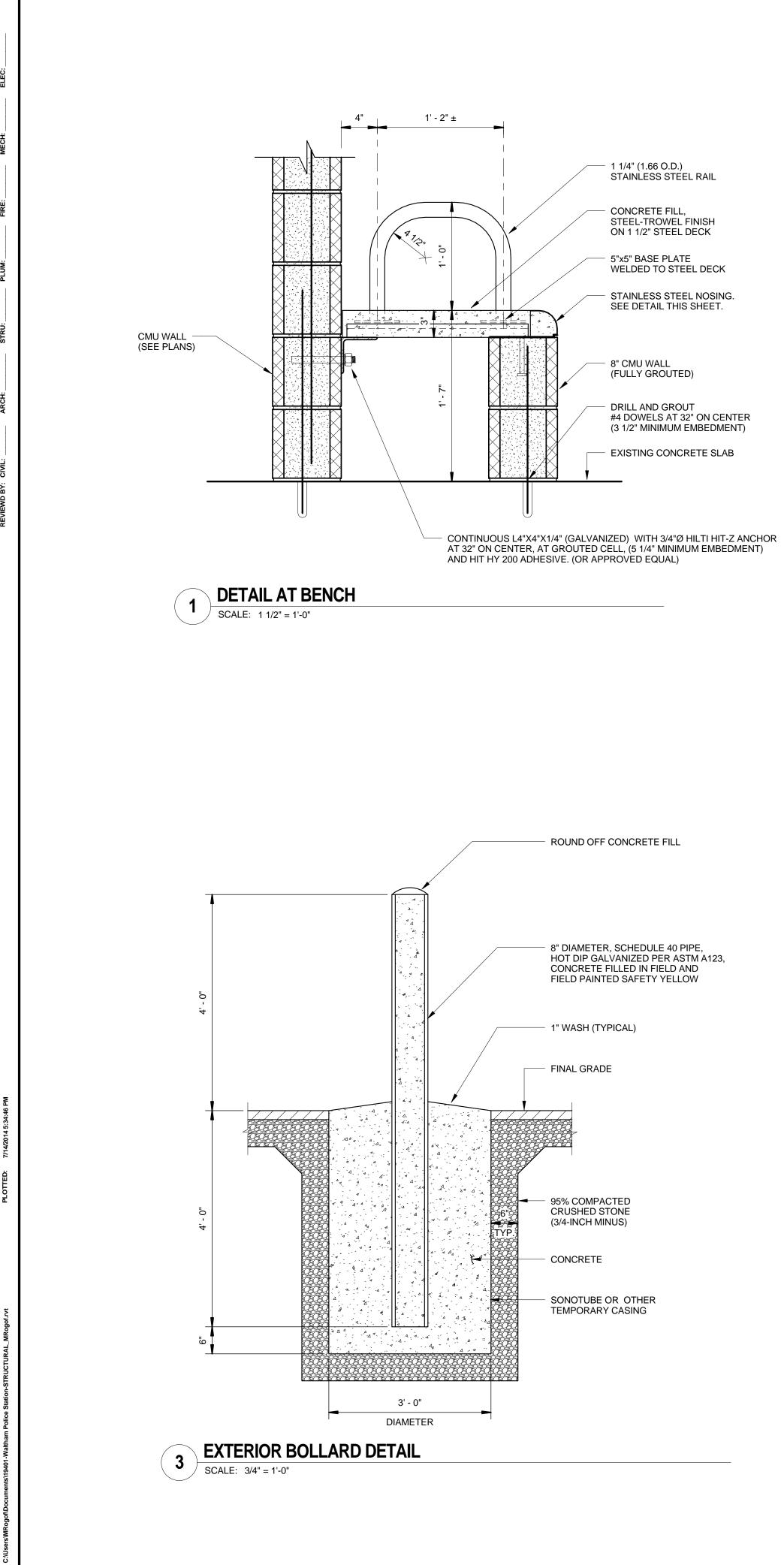
REINFORCEMENT EXPOSED MORE THAN 1/2 BAR DEPTH

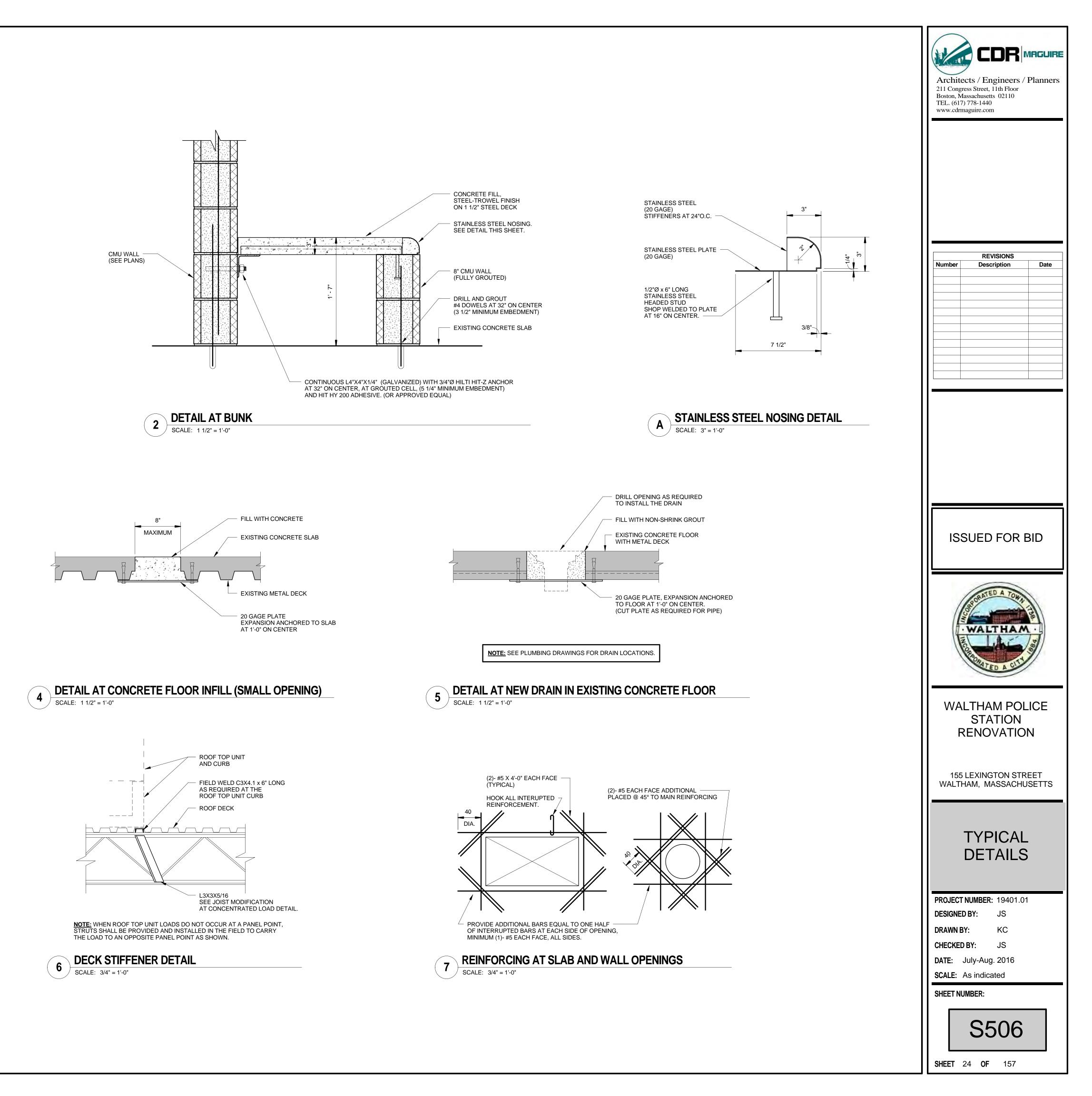


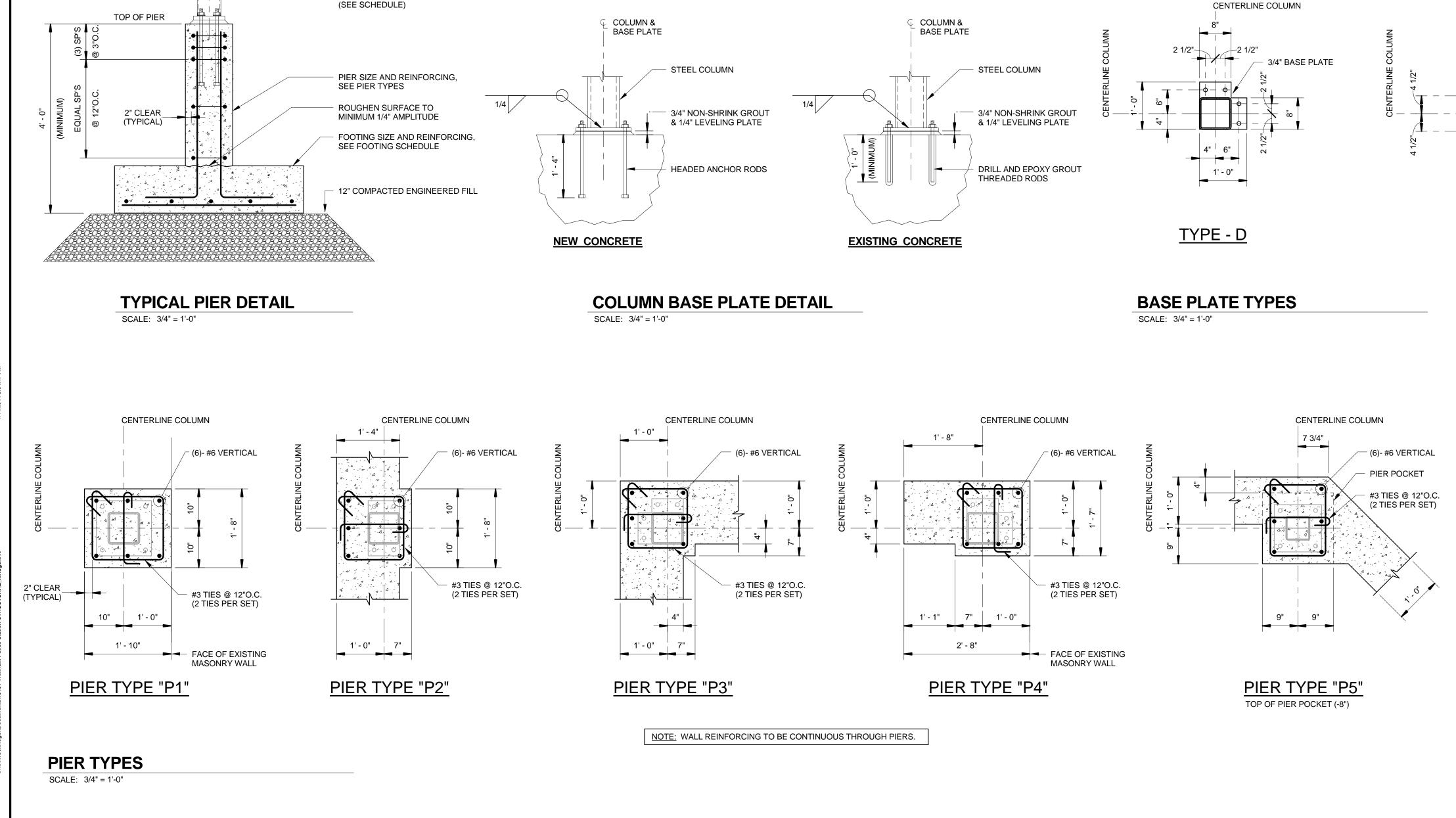












1. ALL COLUMN MATERIAL ASTM A500 GRADE B. 2. ALL BASE PLATE MATERIAL ASTM A572 GRADE 50.

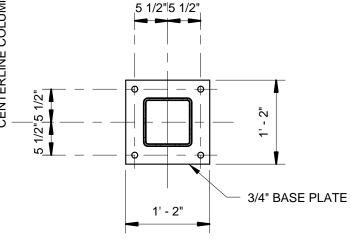
ÇENTERLINE OF PIER & COLUMN

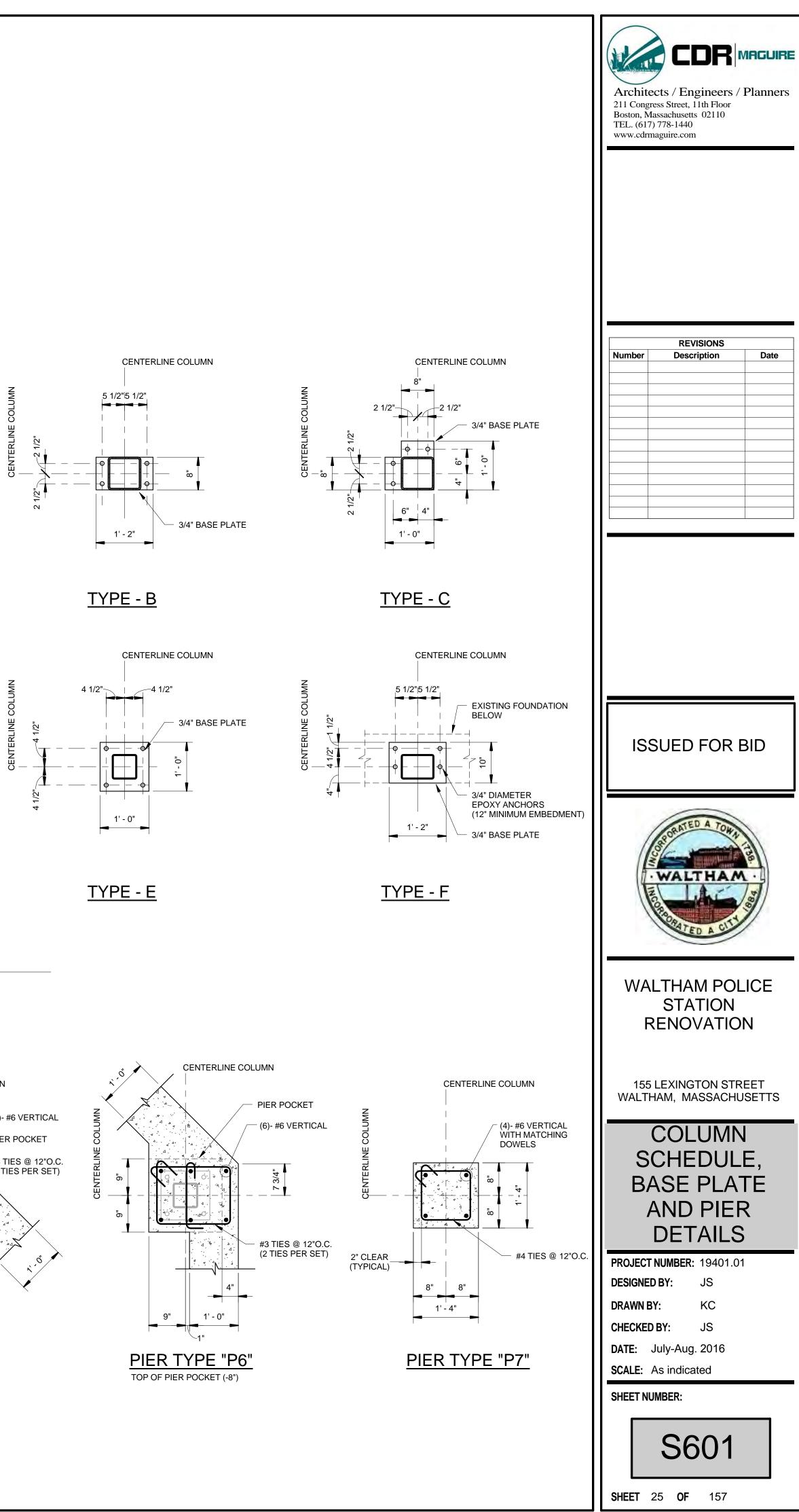
STEEL COLUMN

COLUMN NOTES:

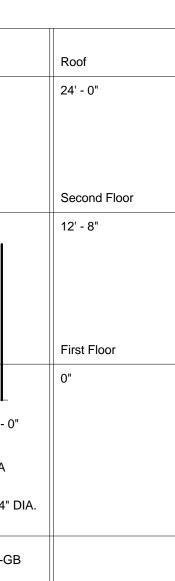
COLUMN SCHEDULE Roof 24' - 0" Second Floor \rightarrow >_____ _____ 12' - 8" \square ____(First Floor 1" Bottom of Base Plate -7" -7" 1" 1" -3' - 0" 1" 1" Elevation: Base Plate Type: F Е F В D Α С (4)- 3/4" DIA. Anchor Rod: (4)- 3/4" DIA. EPOXY EPOXY ANCHORS ANCHORS Column Locations E1-XA E2-XA E3-EB E2-EA G1-GA G1-GB G2-GA G2-GB

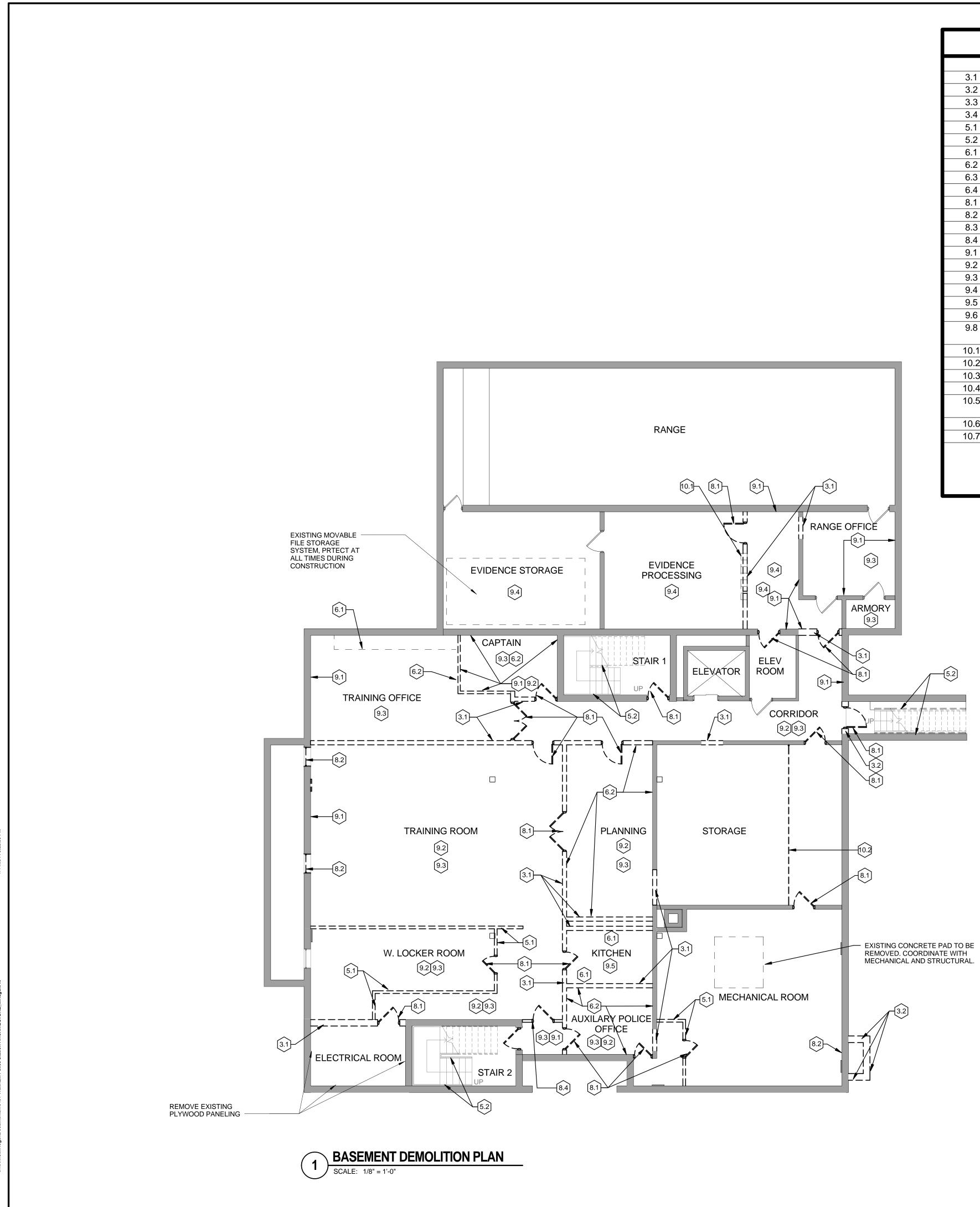
<u>TYPE - A</u>





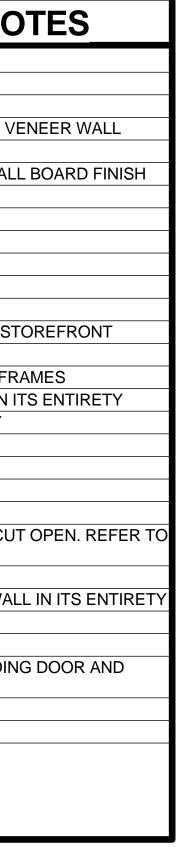
CENTERLINE COLUMN



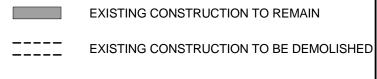


	KEYED DEMO PLAN WORK NO
3.1	REMOVE PORTION OF EXISTING CMU
3.2	REMOVE PORTION OF EXISTING CONCRETE WALL
3.3	REMOVE PORTION OF EXISTING EXTERIOR CMU, BRICK V
3.4	REMOVE PORTION OF EXISTING AIRWAY
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10.7	REMOVE AND RELOCATE EXISTING PISTOL LOCKER

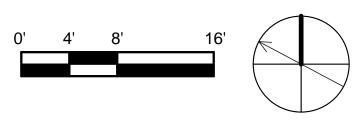
* PLEASE NOTE: NOT ALL WORK NOTES LISTED APPEAR ON THIS SHEET.



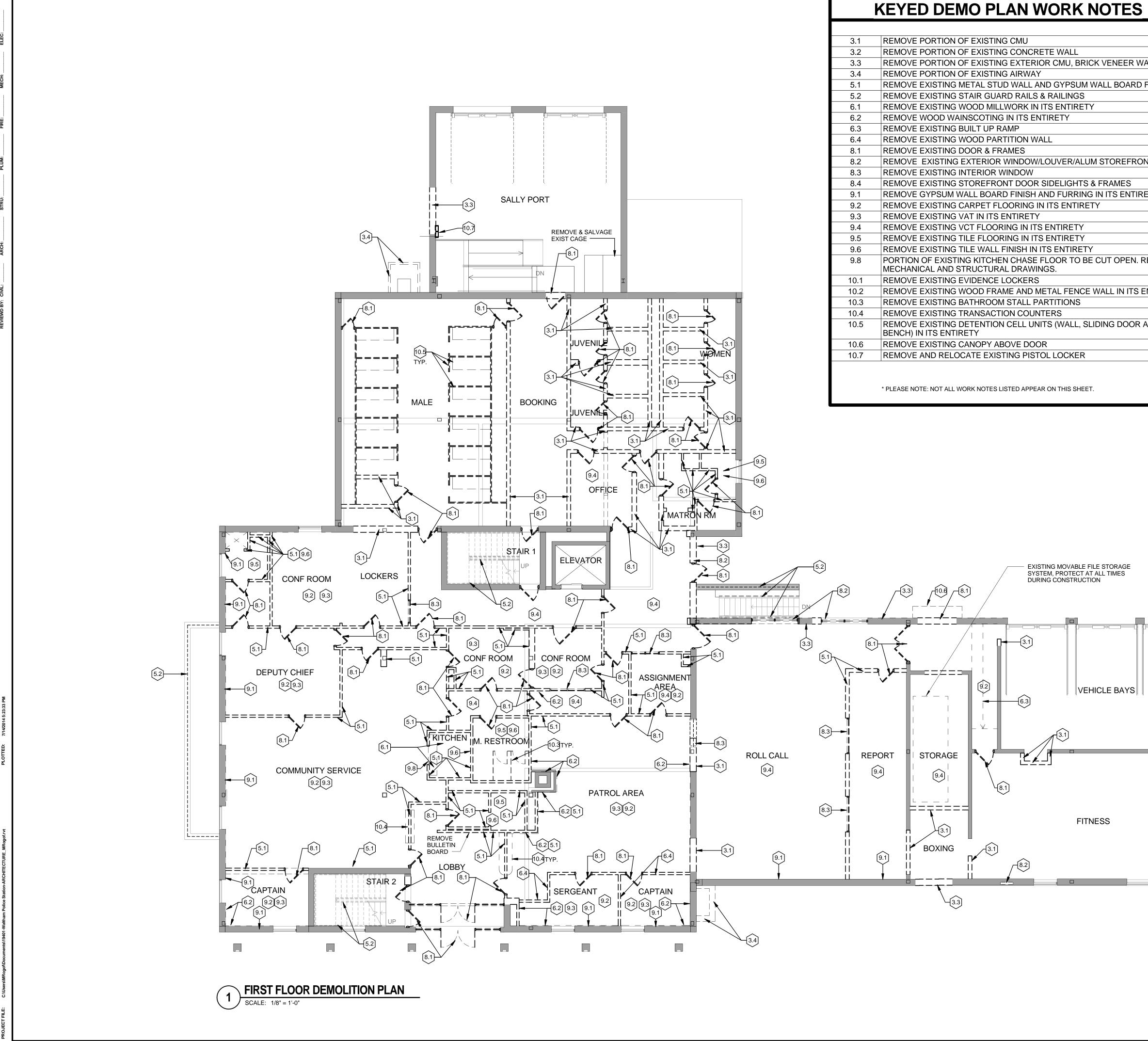
1.	REMOVAL OF ANY WORK OR ITEM SHALL INCLUDE LEGAL DISPOSAL OF SAME UNLESS INDICATED TO BE SALVAGED. ALL REMOVAL AND DISPOSAL WORK SHALL BE PERFORMED IN A SAFE AND LEGAL MANNER. DOCUMENTATION OF RECYCLED WASTE IS REQUIRED.
2.	CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD PRIOR TO COMMENCEMENT OF DEMOLITION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTIO OF THE OWNER'S ARCHITECT IN WRITING IMMEDIATELY UPON DISCOVERY.
3.	DRAWINGS MAY NOT FULLY SHOW EVERY DETAIL OR CONDITION. CONTRACTOR SHALL COORDINATE WITH NEW CONSTRUCTION WORK TO PROVIDE ALL DEMOLITION WORK REQUIRED TO MEET NEW DESIGN BASED ON ALL INFORMATION PROVIDED.
4.	CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL STRUCTURAL MEMBERS PRIOR TO DEMOLITION AND SHALL PROVIDE ALL NECESSARY SHORING, BRACING AND TEMPORARY SUPPORTS REQUIRED TO ENSURE STRUCTURAL STABILITY AND PREVENT COLLAPSE OF EXISTING STRUCTURE AND CONSTRUCTION TO REMAIN
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6.	REFER TO THE MECHANICAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL NOTES FOR REMOVAL AND DISPOSAL OF EQUIPMENT, PIPES, CONDUITS, WIRING OR OTHER ITEMS THAT ARE INCLUDED AS PART OF THE SCOPE OF DEMOLITION WORK IN THIS CONTRACT.
7.	REFER TO STRUCTURAL DRAWINGS FOR CUTTING OF EXISTING CONCRETE SLAB. COORDINATE EXTENT WITH PLUMBING CONTRACTORS.
8.	PATCH ALL ROOF PENETRATIONS FROM REMOVED EQUIPMENT



DEMOLITION PLAN LEGEND



Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
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BASEMENT DEMOLITION PLAN
PROJECT NUMBER:19401.01DESIGNED BY:FCDRAWN BY:EKM
CHECKED BY:FCDATE:July-Aug. 2016SCALE:As indicated
SHEET NUMBER:
SHEET 26 OF 157

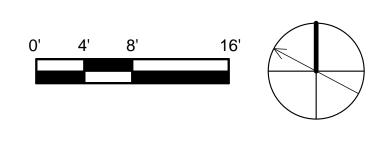


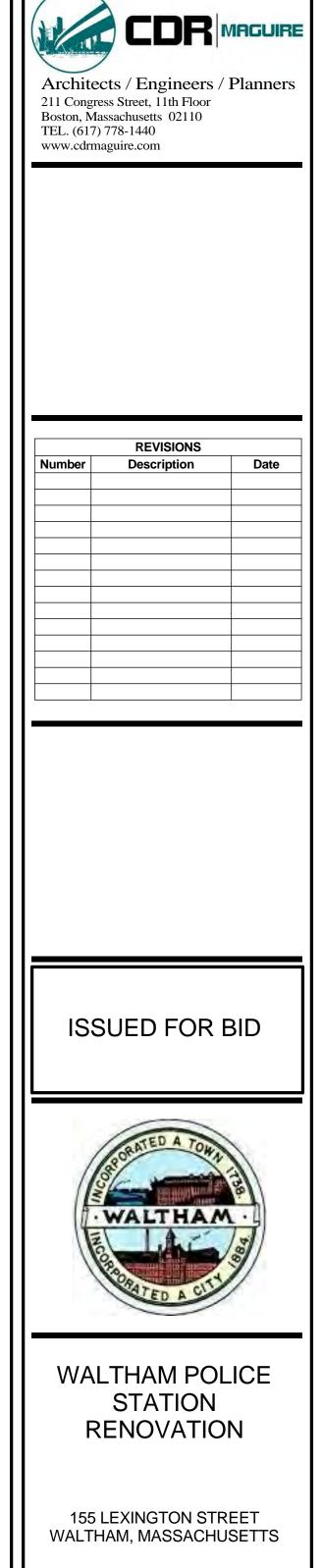


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8. PATCH ALL ROOF PENETRATIONS FROM REMOVED EQUIPMENT	7.	REFER TO STRUCTURAL DRAWINGS FOR CUTTING OF EXISTING CONCRETE SLAB. COORDINATE EXTENT WITH
	8.	PATCH ALL ROOF PENETRATIONS FROM REMOVED

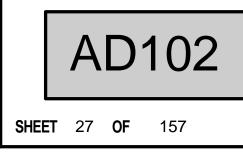
DEMOLITION PLAN LEGEND EXISTING CONSTRUCTION TO REMAIN _____ EXISTING CONSTRUCTION TO BE DEMOLISHED ____



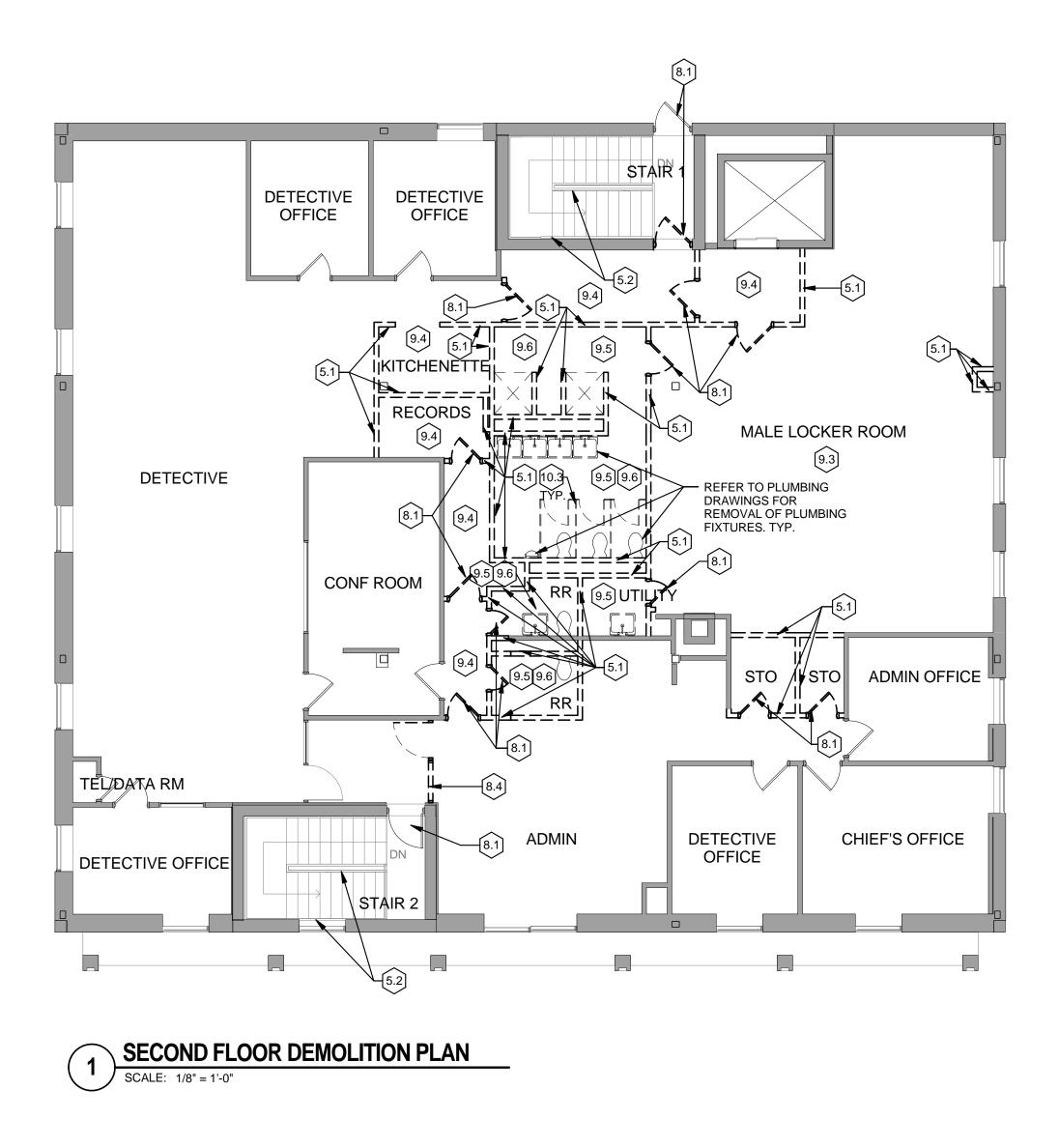


FIRST FLOOR DEMOLITION PLAN

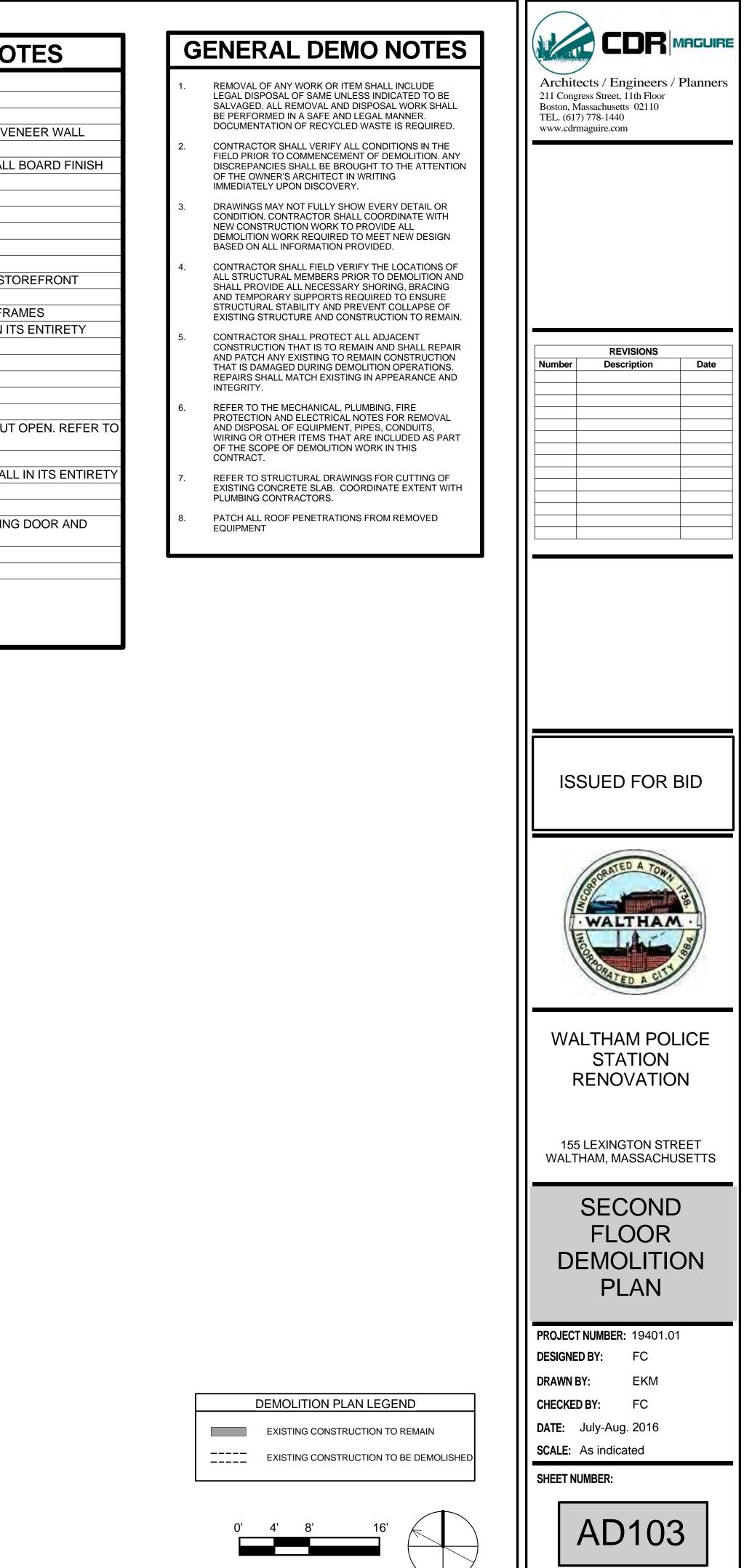
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DESIGNE	DBY:	FC
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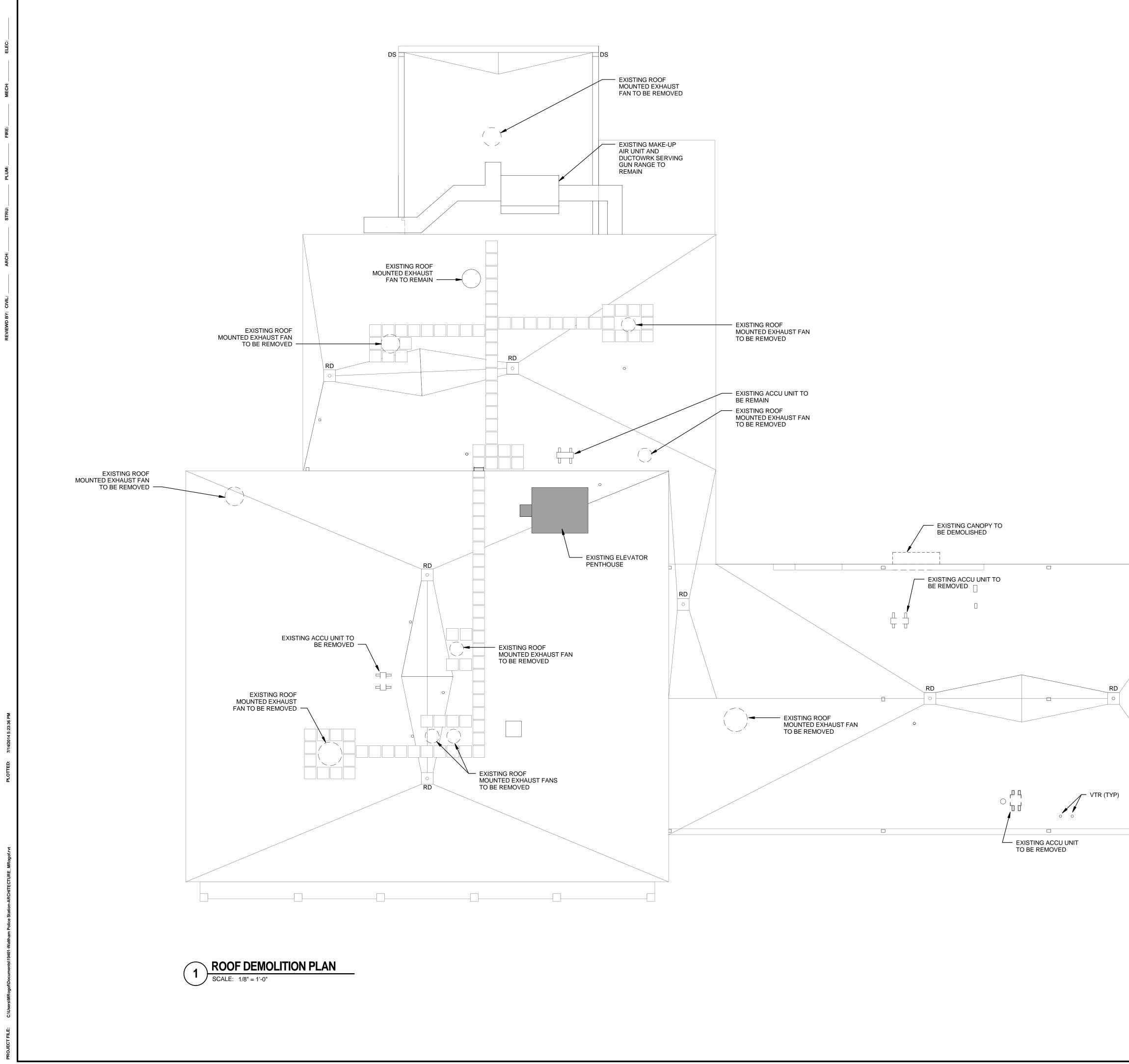


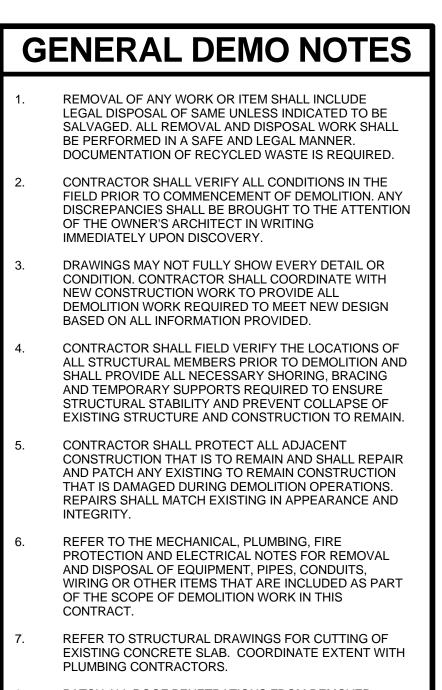


	KEYED DEMO PLAN WORK NO
3.1	REMOVE PORTION OF EXISTING CMU
3.2	REMOVE PORTION OF EXISTING CONCRETE WALL
3.3	REMOVE PORTION OF EXISTING EXTERIOR CMU, BRICK VI
3.4	REMOVE PORTION OF EXISTING AIRWAY
5.1	REMOVE EXISTING METAL STUD WALL AND GYPSUM WAL
5.2	REMOVE EXISTING STAIR GUARD RAILS & RAILINGS
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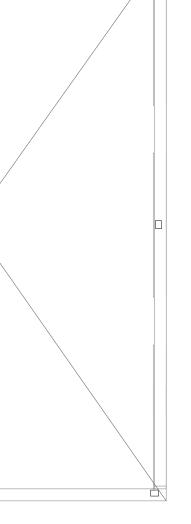


SHEET 28 **OF** 157





8. PATCH ALL ROOF PENETRATIONS FROM REMOVED EQUIPMENT



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DEMOLITION PLAN LEGEND

EXISTING CONSTRUCTION TO BE DEMOLISHED

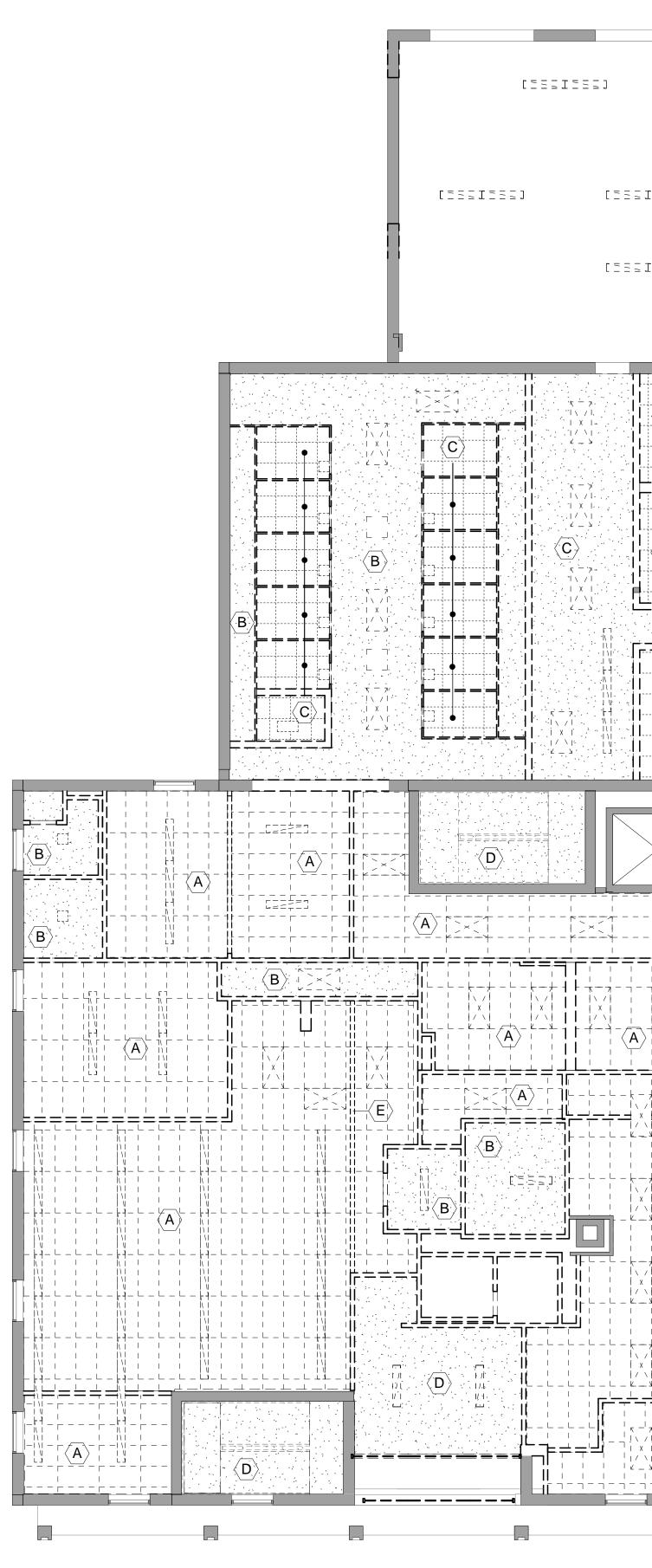
EXISTING CONSTRUCTION TO REMAIN

CCR MAGUIRE Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
REVISIONS Number Description Date
ISSUED FOR BID
WALTHAM . TOWNSON
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
ROOF DEMOLITION PLAN
PROJECT NUMBER: 19401.01 DESIGNED BY: Designer
DRAWN BY: Author CHECKED BY: Checker DATE:
SCALE: 2016 As SHEET NUMBER:
AD104
SHEET 29 OF 157



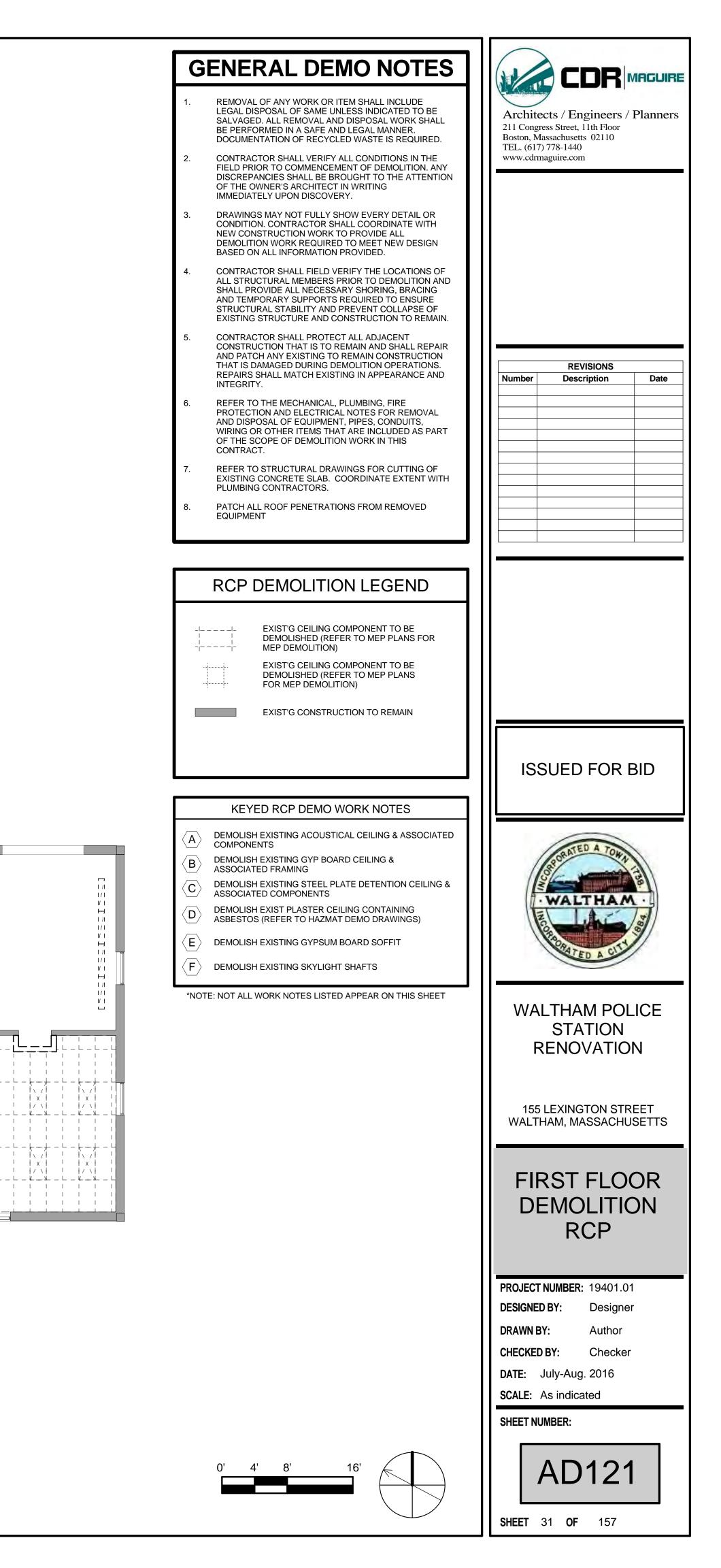
G	ENERAL DEMO NOTES	
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3.	DRAWINGS MAY NOT FULLY SHOW EVERY DETAIL OR CONDITION. CONTRACTOR SHALL COORDINATE WITH NEW CONSTRUCTION WORK TO PROVIDE ALL DEMOLITION WORK REQUIRED TO MEET NEW DESIGN	
4.	BASED ON ALL INFORMATION PROVIDED. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL STRUCTURAL MEMBERS PRIOR TO DEMOLITION AND SHALL PROVIDE ALL NECESSARY SHORING, BRACING AND TEMPORARY SUPPORTS REQUIRED TO ENSURE STRUCTURAL STABILITY AND PREVENT COLLAPSE OF EXISTING STRUCTURE AND CONSTRUCTION TO REMAIN	
5.	EXISTING STRUCTURE AND CONSTRUCTION TO REMAIN. CONTRACTOR SHALL PROTECT ALL ADJACENT CONSTRUCTION THAT IS TO REMAIN AND SHALL REPAIR AND PATCH ANY EXISTING TO REMAIN CONSTRUCTION THAT IS DAMAGED DURING DEMOLITION OPERATIONS. REPAIRS SHALL MATCH EXISTING IN APPEARANCE AND INTEGRITY.	REVISIONS Number Description Da
6.	REFER TO THE MECHANICAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL NOTES FOR REMOVAL AND DISPOSAL OF EQUIPMENT, PIPES, CONDUITS, WIRING OR OTHER ITEMS THAT ARE INCLUDED AS PART OF THE SCOPE OF DEMOLITION WORK IN THIS	
7.	CONTRACT. REFER TO STRUCTURAL DRAWINGS FOR CUTTING OF EXISTING CONCRETE SLAB. COORDINATE EXTENT WITH PLUMBING CONTRACTORS.	
8.	PATCH ALL ROOF PENETRATIONS FROM REMOVED EQUIPMENT	
	RCP DEMOLITION LEGEND	
_!! _! _!	EXIST'G CEILING COMPONENT TO BE DEMOLISHED (REFER TO MEP PLANS FOR MEP DEMOLITION) EXIST'G CEILING COMPONENT TO BE DEMOLISHED (REFER TO MEP PLANS	
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		ISSUED FOR BID
	KEYED RCP DEMO WORK NOTES	
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	DEMOLISH EXISTING GYPSUM BOARD SOFFIT DEMOLISH EXISTING SKYLIGHT SHAFTS	BADEATED A CITY
*N01	E: NOT ALL WORK NOTES LISTED APPEAR ON THIS SHEET	WALTHAM POLICE STATION RENOVATION
		155 LEXINGTON STREET WALTHAM, MASSACHUSETT
		BASEMENT DEMOLITION RCP
		PROJECT NUMBER:19401.01DESIGNED BY:DesignerDRAWN BY:AuthorCHECKED BY:CheckerDATE:SCALE:2016 As
		SHEET NUMBER
	0' 4' 8' 16'	AD120





FIRST FLOOR RCP DEMOLITION SCALE: 1/8" = 1'-0"

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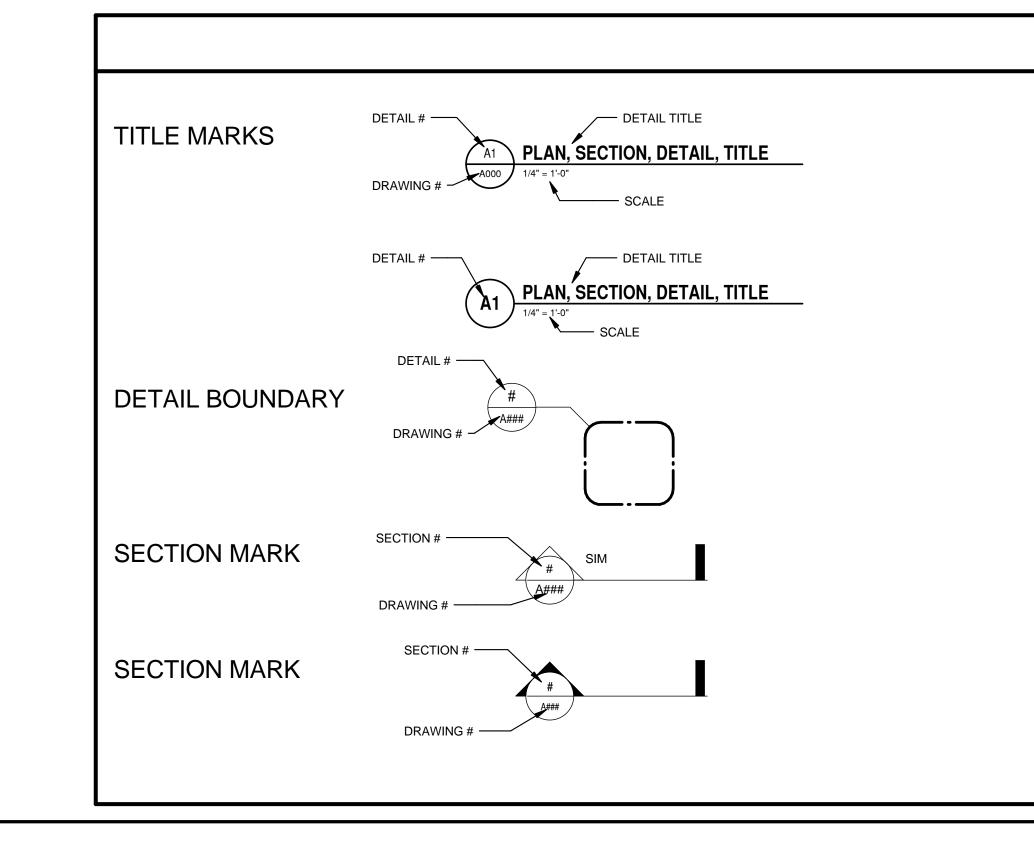
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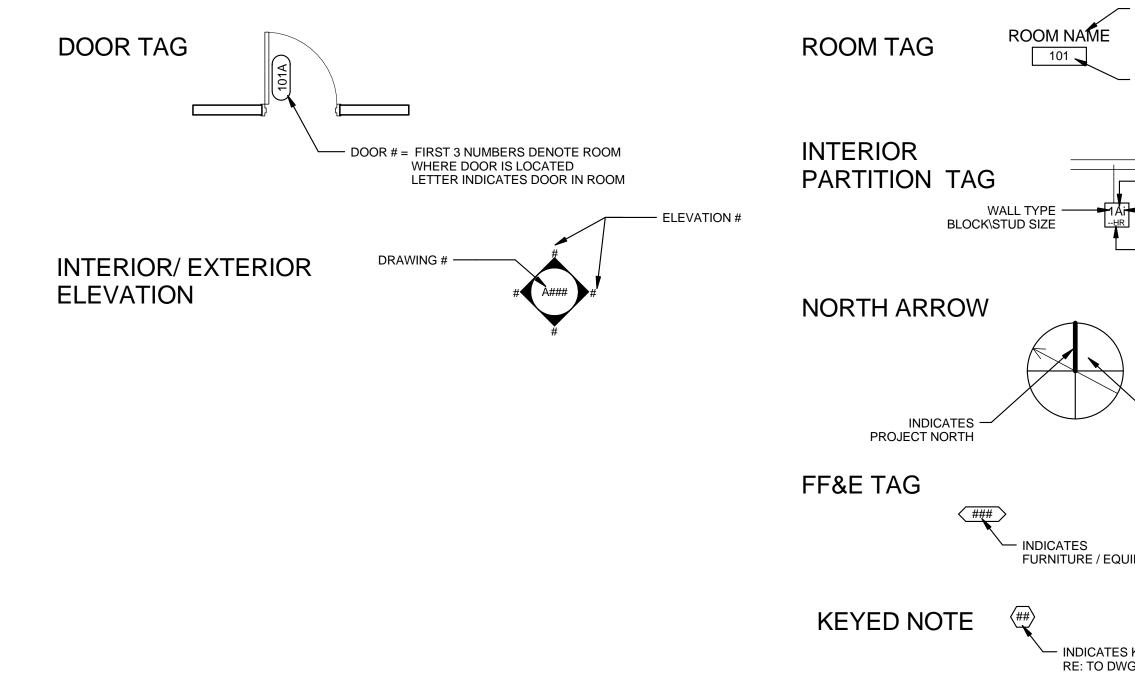


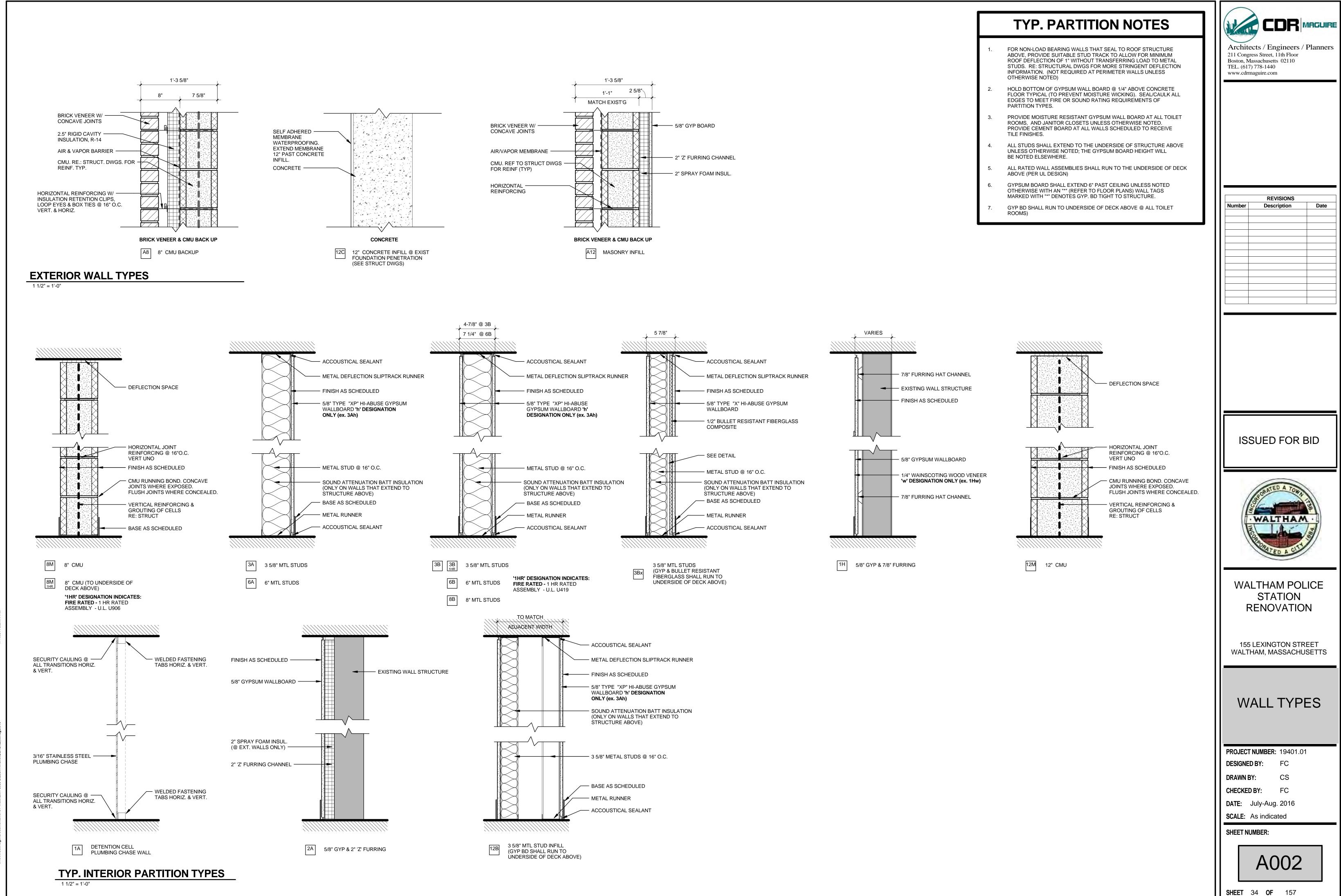
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GENERAL DEMO NOTES	
1. REMOVAL OF ANY WORK OR ITEM SHALL INCLUDE LEGAL DISPOSAL OF SAME UNLESS INDICATED TO BE SALVAGED. ALL REMOVAL AND DISPOSAL WORK SHALL BE PERFORMED IN A SAFE AND LEGAL MANNER. DOCUMENTATION OF RECYCLED WASTE IS REQUIRED.	Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD PRIOR TO COMMENCEMENT OF DEMOLITION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S ARCHITECT IN WRITING IMMEDIATELY UPON DISCOVERY.	
3. DRAWINGS MAY NOT FULLY SHOW EVERY DETAIL OR CONDITION. CONTRACTOR SHALL COORDINATE WITH NEW CONSTRUCTION WORK TO PROVIDE ALL DEMOLITION WORK REQUIRED TO MEET NEW DESIGN BASED ON ALL INFORMATION PROVIDED.	
4. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL STRUCTURAL MEMBERS PRIOR TO DEMOLITION AND SHALL PROVIDE ALL NECESSARY SHORING, BRACING AND TEMPORARY SUPPORTS REQUIRED TO ENSURE STRUCTURAL STABILITY AND PREVENT COLLAPSE OF EXISTING STRUCTURE AND CONSTRUCTION TO REMAIN.	
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 REFER TO STRUCTURAL DRAWINGS FOR CUTTING OF EXISTING CONCRETE SLAB. COORDINATE EXTENT WITH PLUMBING CONTRACTORS. 	
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RCP DEMOLITION LEGEND	
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EXIST'G CONSTRUCTION TO REMAIN	
	ISSUED FOR BID
KEYED RCP DEMO WORK NOTES	
 A DEMOLISH EXISTING ACOUSTICAL CEILING & ASSOCIATED COMPONENTS B DEMOLISH EXISTING GYP BOARD CEILING & ASSOCIATED FRAMING C DEMOLISH EXISTING STEEL PLATE DETENTION CEILING & ASSOCIATED COMPONENTS D DEMOLISH EXIST PLASTER CEILING CONTAINING ASBESTOS (REFER TO HAZMAT DEMO DRAWINGS) E DEMOLISH EXISTING GYPSUM BOARD SOFFIT 	WALTHAM .
F DEMOLISH EXISTING SKYLIGHT SHAFTS	
*NOTE: NOT ALL WORK NOTES LISTED APPEAR ON THIS SHEET	WALTHAM POLICE STATION RENOVATION
	155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
	SECOND FLOOR DEMOLITION RCP
	PROJECT NUMBER:19401.01DESIGNED BY:DesignerDRAWN BY:AuthorCHECKED BY:CheckerDATE:SCALE:2016 As
	SHEET NUMBER
0' 4' 8' 16'	AD122 SHEET 32 OF 157

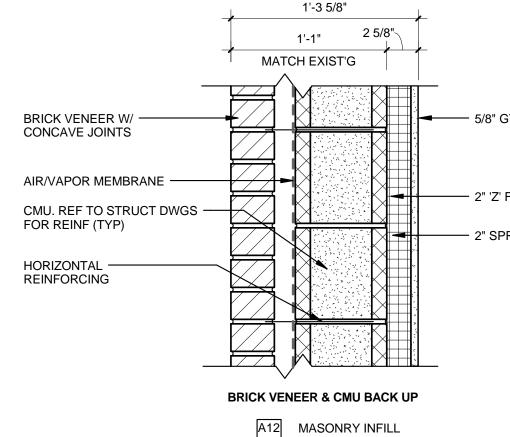




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	A	BBREVIATIONS LIST	
S. AND Q. AT DBL Q. C. CENTRLINE DBL E. C. CHANNEL DEM Q. DIAMETER OR ROUND DEPT P. PL, PLS PLATE(S) DF. P. NO, NOS NUMBER(S) DF. AB ANCHOR BOLT DM AV ABOVE DN AC AR CONDITIONING DN AC ARGONDENT DN AC ARGONDENT E. ACOUSTICAL CEILING TILE DWR ADDM ADDENDUM ADJ ADJA ADJACENT E. ALT ALUTRINATE E.L APR ACCESS PANEL ELEC APPROX. APRONIMATE ELEV APPROX. APRONIMATE ELEV ASPH. ASPHALT ENC BLG. BOARD EXT BLG. BOARD EXT BLG. BOARD EXT BLG. BOARD EXT BLG. BOARD	DEPRESSED DEPARTMENT DETAIL DRINKING FOUNTAIN DIMETER DIMENSION DISPENSER DEMAIN MANHOLE DOWN DOOR DOWNSPOUT DRAYSTANDPIPE DRAWER E EAST EACH EAST EAST EACH EAST EAST EAST EACH EAST EAST EAST EAST EAST EACH EAST EACH EAST EACH EAST EACH EAST EACH EACH EACH EAST EACH EACH	H H H H H H H H H H H H H H H H H H H	
OOR TAG	UMBERS DENOTE ROOM DOR IS LOCATED DICATES DOOR IN ROOM	ROOM TAG NTERIOR PARTITION TAG ROOM NAME TO ROOM NAME TO ROOM NAME ROOM NAME ROOM NAME ROOM NAME ROOM NAME ROOM NAME ROOM # DEMO NOTE SCHEDULE REVISION TAG NDICATES REVISION #	WALTHAM POLICE STATION RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
TERIOR/ EXTERIOR	ELEVATION #	WALL TYPE BLOCKISTUD SIZE INDICATES FIRE RATED ASSEMBLY NORTH ARROW INDICATES PROJECT NORTH INDICATES PROJECT NORTH INDICATES FROJECT NORTH INDICATES FURNITURE / EQUIPMENT # KEYED NOTE INDICATES KEYED NOTE RE: TO JWG FOR SCHEDULE INDICATES KEYED NOTE INDICATES	ABBREVIATIONS PROJECT NUMBER: 19401.01 DESIGNED BY: FC DRAWN BY: EKM CHECKED BY: FC DATE: July-Aug. 2016 SCALE: As indicated SHEET NUMBER:







BUILDING CODE: (IBC) INTERNATIONAL BUILDIN										
	IG CODF	2009					L IFE SAFETY CODE: NFPA 101 LIFE SAFETY CODE			
ÎNTÉRNATIONAL EXISTING BUILDING CODE 2009 780 CMR: MASSACHUSETTS BUILDING CODE - 8TH EDITION						م	ACCESSIBILITY CODE: ADA STANDARDS FOR ACCESSIBLE DESIGN			
MECHANICAL CODE: (IMC) INTERNATIONAL MECHANICAL CODE 2009							521 CMR: MASSACHUSETTS ARCHITECTURAL ACCESS BOARD REGUL4 ENERGY CODE:			
PLUMBING CODE: 248 CMR 10.00: UNIFORM STATE PLUMBING CODE ELECTRICAL CODE:						(7 0	ENERGY CODE: (IECC) INTERNATIONAL ENERGY CONSERVATION CODE 2009 780 CMR: MASSACHUSETTS BUILDING CODE - 8TH EDITION CHAPTER 13 - ENERGY CONSERVATION CHAPTER 115 APPENDIX AA - STRETCH ENERGY CODE			
527 CMR 12.00: MASSACHUSE ⁻ (NEC) NFPA 70: NATIONAL ELE										
FIRE CODE: (IFC) INTERNATIONAL FIRE CO 527 CMR: MASSACHUSETTS FI			I REGUL	ATIONS	i	C	SIGN CODE: CITY OF WALTHAM GENERAL ORDINANCES CHAPTER Z. ZONING ARTICLE VI. SPECIAL PROVISIONS RELATING TO SIGNS			
STATE/CITY AMENDMENTS: 780 CMR: MASSACHUSETTS BI	UILDING	CODE -	8TH EDI	tion an	IENDME		ELEVATOR CODE: ANSI/ASME A17.1-2007 SAFETY CODE FOR ELEVATORS AND ESCALATO			
CITY OF WALTHAM GENERAL (CHAPTER Z: ZONING SEC. 3.7. EXISTING BUILDINGS			AND USI	ES.		5	524 CMR: MASSACHUSETTS ELEVATOR CODE			
BUILDING INFORMATION										
WALTHAM POLICE DEPARTME 155 LEXINGTON ST WALTHAM, MA 02454	NT									
PARCEL ID: OWNER: LAND USE:		CITY C MUNIC		HAM	6 (3.216)	(EXISTING 1	NONCONFORMING)			
YEAR BUILT: ORIGINAL USE:	POLICE	50 YEAR	ON							
CURRENT OCCUPANCY:POLIC	ESTATIC	AŠSEN BUSIN INSTIT	IBLY GR ESS GR UTIONA	OUP A-: OUP B L GROU	3 P I-3	15 SF PE 100 SF PE 240 SF PE	ER OCC ER OCC			
PROPOSED OCCUPANCY: CONSTRUCTION:	UNCHA	ANGED CONS ⁻ NONCO	OMBUST	ON TYPE TBLE M	E II B (UN ATERIAL		D)			
FIRE PROTECTION:		BRICK <u>EXISTI</u>		IEEL FF		MEMBRANE PROPOSE	ED			
	24'-9"			-0	FULLY	' SPRINKLEF	RED			
EXISTING STORIES: AREA:	BASEN		STORIE SF (BAS)					
CLASSIFICATION OF WORK: IBEC CHAPTER 3 - PRE <u>ZONING</u> ZONING:	ESCRIPTI	28,536 1,311 29,847 ATIONS VE COM	SF (TOT OF 100%	<u>STING A</u> DRAGE A TAL) % OF EX E METH	<u>rea)</u> NDDITION ISTING / OD	AREA AND A	ITRY, AND CANOPIES) ADDITION OF STORAGE AREA PER			
FRONT YARD: SIDE YARD:	<u>ALLOW</u> 15'		EIGHT =	12'	<u>EXIST</u> 6'	<u>ING</u> 30'				
REAR YARD: MAXIMUM HEIGHT:	25' 80'				70' 24'-9"					
MAXIMUM STORIES: FAR BY RIGHT:	8 .4				2 N/A					
FAR BY SPECIAL PERMIT: LOT AREA: LOT FRONTAGE:	2.0	10,000 50 FT	SF		N/A	N/A N/A				
PARKING :		1 PER	300 SF (SSIBLE S		S)	15-25	1			
						26-50 51-75	2 3			
		<u>REQUI</u> N/A	RED			76- 100 4 <u>EXISTING</u> N/A				
ALLOWABLE AREA AND HEIGH	<u>IT</u>									
	E AND AL	LOWS U	REQUI		S AND 1		R STORY WHEN SPRINKLERED. THE ENTIRE BUILDING IS 29,847 SF < 5			
A-3 IS THE MORE RESTRICTIVE	E AND AL	LOWS U DNS ARE <u>ALLOV</u> 3 STOI	EREQUIE <u>VED</u> RIES		S AND 1	PROPOSE 2 STORIES	ED IS			
A-3 IS THE MORE RESTRICTIVI A-3 LIMIT. THEREFORE NO SE STORIES: AREA: HEIGHT:	E AND AL	LOWS U NS ARE <u>ALLOV</u>	EREQUIE <u>VED</u> RIES		S AND 1	PROPOSE	ED IS			
A-3 IS THE MORE RESTRICTIVI A-3 LIMIT. THEREFORE NO SE STORIES: AREA: HEIGHT: <u>STRUCTURAL</u>	E AND AL	LOWS U DNS ARE <u>ALLOV</u> 3 STOI 57,000 75 FT	: REQUII <u>VED</u> RIES SF	RED.		PROPOSE 2 STORIE: 29,847 SF 24'-9"	ED IS			
A-3 IS THE MORE RESTRICTIVI A-3 LIMIT. THEREFORE NO SE STORIES: AREA: HEIGHT:	E AND AL	LOWS U DNS ARE <u>ALLOV</u> 3 STOI 57,000 75 FT	: REQUII <u>VED</u> RIES SF	RED.		PROPOSE 2 STORIE: 29,847 SF 24'-9"	ED IS			
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A-3 IS THE MORE RESTRICTIVI A-3 LIMIT. THEREFORE NO SE STORIES: AREA: HEIGHT: <u>STRUCTURAL</u> TABLE 1604.11 GROUND SNOV DESIGN FACTORS CITY/TOWN	E AND AL	LOWS U DNS ARE <u>ALLOV</u> 3 STOF 57,000 75 FT ; BASIC Pg 40	EREQUIF VED RIES SF WIND SF Pf	RED. PEEDS; V	EARTHQ	PROPOSE 2 STORIE: 29,847 SF 24'-9" WAKE S1	ED IS			
A-3 IS THE MORE RESTRICTIVE A-3 LIMIT. THEREFORE NO SE STORIES: AREA: HEIGHT: STRUCTURAL TABLE 1604.11 GROUND SNOW DESIGN FACTORS CITY/TOWN WALTHAM *CALCULATED FLAT ROOF SNO ENERGY CONSERVATION	e and al Paratic V Loads Ow Loae	LOWS UNS ARE ALLOV 3 STOF 57,000 75 FT ; BASIC	EREQUIF VED RIES SF WIND SF Pf	RED. PEEDS; V	EARTHQ	PROPOSE 2 STORIE: 29,847 SF 24'-9" WAKE S1	ED S STRETCH CODE			
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EVIEWD BY: CIVIL: _____ ARCH: _____ STRU: ____ PLUM: ____ FIRE: _____ MECH: _____ E

EGRESS

OCCUPANT LOAD: BASEMENT:

BASEMENT: BUSINESS GF	ROUP B 8,601 SF	÷ 100 SF PER OCC (E	3) = 87 OC0	2				
SUBTOTAL BASEMEN	Т	*ACTUAL BY	ROOM GRE	EATER		=		102 OCC 102 OCC
FIRST FLOOR: ASSEMBLY G		39 SF ÷ 15 SF PER C		_		56 OCC		
BUSINESS GR	ROUP B 1	04 SF ÷ 100 SF PER	OCC(B) = 0	(2 OCC)		50 000		
BUSINESS GF		,354 SF ÷ 100 SF PEI *ACTUAL BY	ROOM ĠŔI	EATER	<i>(</i> C)	=		238 OCC
INSTITUTION	AL GROUP B,3584 SF	÷ 240 SF PER OCC (E *ACTUAL BY				=		30 OCC
STORAGE GR STORAGE GR		640 SF ÷ 200 SF PEI 993 SF ÷ 200 SF PEI	R OCC (B)		=		4 OCC 5 OCC	
SUBTOTAL FIRST FLC		993 61 ÷ 200 61 1 E1	к ОСС (В)		-		3000	<u>333 OCC</u>
SECOND FLOOR: BUSINESS GF	OUP B 5	,727 SF ÷ 100 SF PEI						
SUBTOTAL SECOND F	LOOR	*ACTUAL BY	ROOM GRE	EATER	=	_	83 OCC	83 OCC
<u>TOTAL:</u> NUMBER OF EXITS:	REQUIRED			PROVI	DED			<u>518 OCC</u>
BASEMENT: FIRST FLOOR:	2				2	1 (I-3) = 4		
SECOND FLOOR2				2	. ,	1 (1-3) = 4		
SEPARATION: BASEMENT:	REQUIRED 143' ÷ 3 = 48'			PROVII 54'	JED			
FIRST FLOOR: SECOND FLOOR: 108' ÷	185' ÷ 3 = 62' · 3 = 36'		54'	82'				
EGRESS WIDTH: REQU STAIRS:	JIRED 48"		PROVID	DED	48" TRF	- ADS, 40"	LANDINGS (*NON COMPLIANT)
CORRIDORS:	24" MECH (1018.2 36" (521 0			26" ME	СН) OCC (10		
		H SIDE (521 CMR 26))	60" MIN		0000 (10	10.2)	
BASEMENT: STAIR 1:	0.3" X 102 = 30.6"			48"				
DOOR: STAIR 3:	0.2" X 102 = 20.4" 0.3" X 102 = 30.6"			36" 48"				
DOOR:	0.2" X 102 = 20.4"	÷ 2 = 10.2"		36"				
FIRST FLOOR: DOOR 1:	0.2" X 333 = 66.6"	· 3 – 22 2"		72"				
DOOR 2:	0.2" X 333 = 66.6"	÷ 3 = 22.2"		72"				
DOOR 3: DOOR 4 (I-3 ONLY):	0.2" X 333 = 66.6" 0.2" X 30 = 6"			72" 35.5"				
SECOND FLOOR:								
STAIR 1: DOOR:	0.3" X 83 = 24.9" ÷ 0.2" X 83 = 16.6" ÷			48" 36"				
STAIR 2: DOOR:	0.3" X 83 = 24.9" ÷ 0.2" X 83 = 16.6" ÷	2 = 12.45"		48" 36"				
EXIT ACCESS TRAVEL DISTAN	ICE:			30				
ASSEMBLY GROUP A-3 250'	REQUIRE	D		170'	PROVIE	DED		
BUSINESS GROUP B INSTITUTIONAL GROUP 200'	300'			143'	261'			
STORAGE GROUP S-2 FIRE PROTECTION	400'				150'			
PRIMARY STRUCTUR	AL FRAME			0				
EXTERIOR						2 HOUR		
INTERIOR NONBEARING WALLS	AND PARTITIONS					0		
INTERIOR FLOOR CONSTRUCTIO	ON			0		0		
ROOF CONSTRUCTIO NONBEARING EXTERI				0				
	X < 5' 5' ≤ X< 10	,				1 HOUR 1 HOUR		
	10' ≤ X< 3 X ≥ 30 '				0	0		
EXTERIOR WALL UNP	ROTECTED OPENIN	GS: ALLC	WABLE AF	REA	-			
	5' < 10' 10' < 15'				25%	45%		
	15' < 20' 20' OR GI	REATER		NO LIM	IIT	75%		
SHAFTS: ELEVATOR:					1 HOUF 1 HOUF	-		
ELEVATOR MACHINE STAIRS 1 AND 2:	ROOM:			1 HOUF				
STAIR 1 AND 2 DOORS				1 HOUF	२			
EXIT PASSAGEWAY W EXIT PASSAGEWAY F	LOOR AND STRUCT	URE: 1 HO	UR		1 HOUF			
EXIT PASSAGEWAY C EXIT PASSAGEWAY D	OORS:				1 HOUF 1 HOUF			
EXIT PASSAGEWAY S MECHANICAL ROOM (1 HOUF 1 HOUF				
ELECTRICAL ROOM (N SMOKE DOORS				1 HOUF	२ 1/3 HOL	IR		
FIRE EXTINGUISHERS 10 LBS 4A-60B:C (UL F					1,01100			
ORDINARY (MODÈRA	TE) HAŹARD OCCUP	ANCY	. .					
MINIMUM RATED SINC MAXIMUM FLOOR ARE	EA PER UNIT OF A		2-A	1,500 S	F X 5 = 6	6,000 SF		
MAXIMUM TRAVEL DIS 8,601 SF (BASEMENT)		UISHER =	75'		2 EXTIN	IGUISHEF	RS	
14,208 SF (FIRST FLO 5,727 SF (SECOND FL		=	1 EXTIN	3 EXTIN IGUISHE	NGUISHE Er	RS		
PLUMBING FIXTURE COUNT	REQUIRE				PROVID)ED		
WATER CLOSETS - FEMALE WATER CLOSETS - MALEN/A	N/A	-		12	8	(5 ACCES ESSIBLE)	SSIBLE)	
WATER CLOSETS - MALEN/A WATER CLOSETS - UNISEX	N/A			12	1	(1 ACCÉS		
URINALS - MALE LAVATORIES - FEMALE	N/A N/A				3 8	(2 ACCES (5 ACCES	SSIBLE)	
LAVATORIES - MALE LAVATORIES - UNISEX	N/A N/A				13 1	(5 ACCES (1 ACCES		
SHOWERS - MALE SHOWERS - FEMALE	N/A N/A				3 1	(1 ACCES (1 ACCES	SSIBLE)	
DRINKING FOUNTAINS N/A SERVICE SINKS	N/A			6	(3 ACCI 2		HIGH-LOW T	YPE)
KITCHEN SINKS	N/A N/A				2	(2 ACCES	SSIBLE)	

EXCEPTIONS

715.4.7.1 SIZE LIMIT OF NFPA 80. EXCEPTIONS:

EXCEPTIONS: 1. FIRE-PROTECTIOI IN A HORIZONTAL E 100 SQUARE INCHE

1007.3 STAIRWAYS. AS PERMITTED BY S HANDRAILS AND SH ACCESSED FROM E

EXCEPTIONS: 1. THE AREA OF REF 1022.1 IN BUILDINGS WITH SECTION 903.3

2. THE CLEAR WIDT PERMITTED BY SEC SYSTEM INSTALLED

3. AREAS OF REFUG SPRINKLER SYSTEM *EXISTING STAIRWA

1009.5 STAIRWAY LA OF LANDINGS SHAL DIMENSION MEASUF EXCEED 48 INCHES

1015.2.1 TWO EXITS PORTION OF THE EX NOT LESS THAN ON SERVED MEASURED STAIRS SHALL BE C

EXCEPTIONS: 2. WHERE A BUILDIN 903.3.1.1 OR 903.3.1. ONE-THIRD OF THE

1018.4 DEAD ENDS. WHERE MORE THAN THERE ARE NO DEAI

EXCEPTIONS: 1. IN OCCUPANCIES SHALL NOT EXCEED 2. IN OCCUPANCIES AUTOMATIC SPRINK NOT EXCEED 50 FEE 3. A DEAD-END COR 2.5 TIMES THE LEAS

TABLE 1021.1 MINIMU OCCUPANT LOAD (PI 1-500 501-1,000

TABLE 1021.2 STORI SECOND STORY, B 1022.1 ENCLOSURES HOUR WHERE CONN

EXCEPTIONS: 1.1. THE STAIRWAY 1.2. THE STAIRWAY

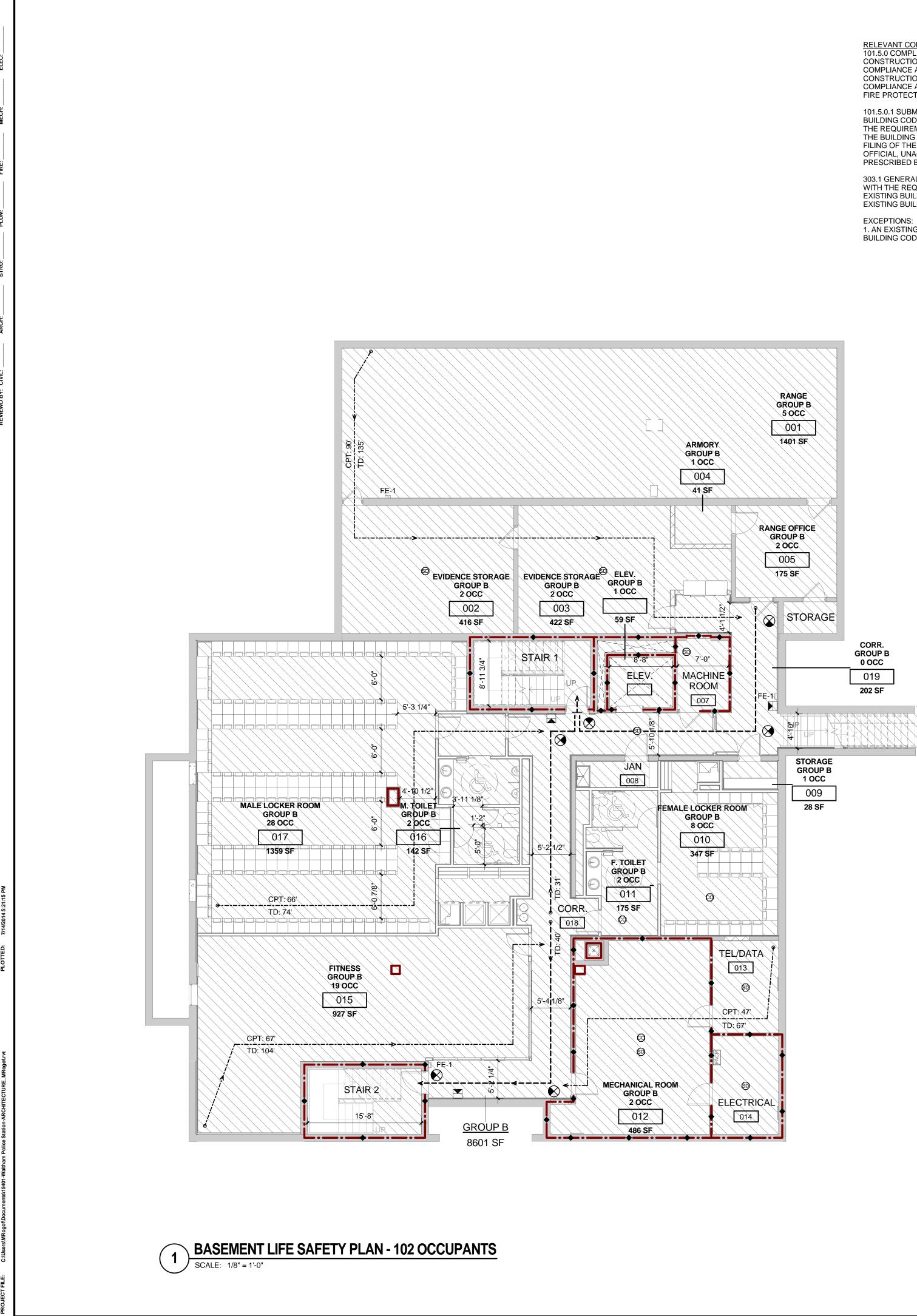
1022.2 TERMINATION EXCEPTION: AN EXI 1023, PROVIDED TH

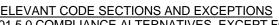
1023.5 OPENINGS A REQUIREMENTS OF

EXCEPT AS PERMITT LIMITED TO THOSE N EGRESS FROM THE ELEVATORS SHALL N

521 CMR 20.00: ACC SHALL BE PROVIDE REQUIREMENTS: EXCEPTION: AREAS A. EXISTING BUILDI

TATIONS. FIRE-PROTECTION-RATED GLAZING USED IN FIRE DOORS SHALL COMPLY WITH THE SIZE LIMITATIONS	
ON-RATED GLAZING LOCATED IN FIRE WALLS SHALL BE PROHIBITED EXCEPT WHERE SERVING IN A FIRE DOOR EXIT, A SELF-CLOSING SWINGING DOOR SHALL BE PERMITTED TO HAVE A VISION PANEL OF NOT MORE THAN ES (0.065 M2) WITHOUT A DIMENSION EXCEEDING 10 INCHES (254 MM).	Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440
5. IN ORDER TO BE CONSIDERED PART OF AN ACCESSIBLE MEANS OF EGRESS, AN EXIT ACCESS STAIRWAY SECTION 1016.1 OR EXIT STAIRWAY SHALL HAVE A CLEAR WIDTH OF 48 INCHES (1219 MM) MINIMUM BETWEEN HALL EITHER INCORPORATE AN AREA OF REFUGE WITHIN AN ENLARGED FLOOR-LEVEL LANDING OR SHALL BE EITHER AN AREA OF REFUGE COMPLYING WITH SECTION 1007.6 OR A HORIZONTAL EXIT.	www.cdrmaguire.com
EFUGE IS NOT REQUIRED AT OPEN EXIT ACCESS OR EXIT STAIRWAYS AS PERMITTED BY SECTIONS 1016.1 AND SS THAT ARE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE 3.3.1.1 OR 903.3.1.2.	
TH OF 48 INCHES (1219 MM) BETWEEN HANDRAILS IS NOT REQUIRED AT EXIT ACCESS STAIRWAY AS CTION 1016.1 OR EXIT STAIRWAYS IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER D IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2.	
IGE ARE NOT REQUIRED AT EXIT STAIRWAYS IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC EM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3. /AY LANDINGS ARE NOT 48" WIDE IN THE DIRECTION OF TRAVEL	
LANDINGS. THERE SHALL BE A FLOOR OR LANDING AT THE TOP AND BOTTOM OF EACH STAIRWAY. THE WIDTH ALL NOT BE LESS THAN THE WIDTH OF STAIRWAYS THEY SERVE. EVERY LANDING SHALL HAVE A MINIMUM URED IN THE DIRECTION OF TRAVEL EQUAL TO THE WIDTH OF THE STAIRWAY. SUCH DIMENSION NEED NOT S (1219 MM) WHERE THE STAIRWAY HAS A STRAIGHT RUN.	REVISIONS
S OR EXIT ACCESS DOORWAYS. WHERE TWO EXITS OR EXIT ACCESS DOORWAYS ARE REQUIRED FROM ANY EXIT ACCESS, THE EXIT DOORS OR EXIT ACCESS DOORWAYS SHALL BE PLACED A DISTANCE APART EQUAL TO NE-HALF OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING OR AREA TO BE ED IN A STRAIGHT LINE BETWEEN EXIT DOORS OR EXIT ACCESS DOORWAYS. INTERLOCKING OR SCISSOR COUNTED AS ONE EXIT STAIRWAY.	Number Description Date
ING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 1.2, THE SEPARATION DISTANCE OF THE EXIT DOORS OR EXIT ACCESS DOORWAYS SHALL NOT BE LESS THAN E LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE AREA SERVED.	
S. AN ONE EXIT OR EXIT ACCESS DOORWAY IS REQUIRED, THE EXIT ACCESS SHALL BE ARRANGED SUCH THAT EAD ENDS IN CORRIDORS MORE THAN 20 FEET (6096 MM) IN LENGTH.	
AS IN GROUP I-3 OF OCCUPANCY CONDITION 2, 3 OR 4 (SEE SECTION 308.5), THE DEAD END IN A CORRIDOR ED 50 FEET (15 240 MM). IS IN GROUPS B, E, F, I-1, M, R-1, R-2, R-4, S AND U, WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN IKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1, THE LENGTH OF THE DEAD-END CORRIDORS SHALL EET (15 240 MM). IRRIDOR SHALL NOT BE LIMITED IN LENGTH WHERE THE LENGTH OF THE DEAD-END CORRIDOR IS LESS THAN AST WIDTH OF THE DEAD-END CORRIDOR. MUM NUMBER OF EXITS FOR OCCUPANT LOAD (PER STORY) MINIMUM NUMBER OF EXITS (PERSONS PER STORY)	
2 3	
RIES WITH ONE EXIT B OCCUPANCY, 29 OCCUPANTS AND 75 FEET TRAVEL DISTANCE ES REQUIRED. INTERIOR EXIT STAIRWAYSSHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN1 NNECTING LESS THAN FOUR STORIES.	
Y IS OPEN TO NOT MORE THAN ONE STORY ABOVE ITS LEVEL OF EXIT DISCHARGE; OR Y IS OPEN TO NOT MORE THAN ONE STORY BELOW ITS LEVEL OF EXIT DISCHARGE. ON. EXIT ENCLOSURES SHALL TERMINATE AT AN EXIT DISCHARGE OR A PUBLIC WAY. KIT ENCLOSURE SHALL BE PERMITTED TO TERMINATE AT AN EXIT PASSAGEWAY COMPLYING WITH SECTION HE EXIT PASSAGEWAY TERMINATES AT AN EXIT DISCHARGE OR A PUBLIC WAY. AND PENETRATIONS. EXIT PASSAGEWAY OPENING PROTECTIVES SHALL BE IN ACCORDANCE WITH THE DF SECTION 715.	ISSUED FOR BID
ITTED IN SECTION 402.4.6, OPENINGS IN EXIT PASSAGEWAYS OTHER THAN EXTERIOR OPENINGS SHALL BE ENECESSARY FOR EXIT ACCESS TO THE EXIT PASSAGEWAY FROM NORMALLY OCCUPIED SPACES AND FOR E EXIT PASSAGEWAY. L NOT OPEN INTO AN EXIT PASSAGEWAY. CESSIBLE ROUTE: 20.12 AREAS OF RESCUE ASSISTANCE ED WHERE AN ACCESSIBLE MEANS OF EGRESS IS NOT PROVIDED AND SHALL COMPLY WITH THE FOLLOWING S OF RESCUE ASSISTANCE ARE NOT REQUIRED IN: DINGS UNDERGOING ALTERATIONS, REMODELING, RECONSTRUCTION	WALTHAM .
	WALTHAM POLICE STATION RENOVATION
	155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
	LIFE SAFETY DATA SHEET
	PROJECT NUMBER: 19401.01 DESIGNED BY: Designer DRAWN BY: Author CHECKED BY: Checker DATE: July-Aug. 2016 SCALE: SHEET NUMBER:
	SHEET 35 OF 157





RELEVANT CODE SECTIONS AND EXCEPTIONS 101.5.0 COMPLIANCE ALTERNATIVES. EXCEPT FOR STRUCTURAL WORK, WHERE COMPLIANCE WITH THE PROVISIONS OF THE CODE FOR NEW CONSTRUCTION, REQUIRED BY THIS CODE, IS IMPRACTICAL BECAUSE OF CONSTRUCTION DIFFICULTIES OR REGULATORY CONFLICTS, COMPLIANCE ALTERNATIVES MAY BE ACCEPTED BY THE BUILDING OFFICIAL. EXAMPLES OF COMPLIANCE ALTERNATIVES AND ARCHAIC CONSTRUCTION SYSTEMS CAN BE FOUND AT THE FAQ LINK AT WWW.MASS.GOV/DPS. THE BUILDING OFFICIAL MAY ACCEPT THESE COMPLIANCE ALTERNATIVES, ARCHAIC CONSTRUCTION SYSTEMS, OR OTHERS PROPOSED. IF THE COMPLIANCE ALTERNATIVE INVOLVES FIRE PROTECTION SYSTEMS THE BUILDING OFFICIAL SHALL CONSULT WITH THE FIRE OFFICIAL.

101.5.0.1 SUBMITTALS. THE APPLICATION FOR A BUILDING PERMIT SHALL BE IN ACCORDANCE WITH SUBSECTION 107.2.1 OF THE INTERNATIONAL BUILDING CODE 2009 WITH MASSACHUSETTS AMENDMENTS (780 CMR 107.2.1) AND IDENTIFY ALL ITEMS OF NON- OR PARTIAL COMPLIANCE WITH THE REQUIREMENTS OF THIS CODE, AND COMPLIANCE ALTERNATIVES, IF ANY ARE PROPOSED, FOR APPROVAL BY THE BUILDING OFFICIAL. THE BUILDING OFFICIAL SHALL RESPOND TO THE ACCEPTABILITY OF ANY PROPOSED COMPLIANCE ALTERNATIVES WITHIN 30 DAYS OF THE FILING OF THE BUILDING PERMIT APPLICATION. WHERE PROPOSED COMPLIANCE ALTERNATIVES ARE, IN THE OPINION OF THE BUILDING OFFICIAL, UNACCEPTABLE, OR WHERE ISSUES OF NON-COMPLIANCE REMAIN, THE PERMIT APPLICANT SHALL HAVE THE REMEDIES PRESCRIBED BY SECTION 113 OF THE INTERNATIONAL BUILDING CODE 2009 WITH THE MASSACHUSETTS AMENDMENTS (780 CMR 113).

303.1 GENERAL. EXCEPT AS PROVIDED BY SECTION 301.2 OR THIS SECTION, ALTERATIONS TO ANY BUILDING OR STRUCTURE SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE FOR NEW CONSTRUCTION. ALTERATIONS SHALL BE SUCH THAT THE EXISTING BUILDING OR STRUCTURE IS NO LESS CONFORMING TO THE PROVISIONS OF THE INTERNATIONAL BUILDING CODE THAN THE EXISTING BUILDING OR STRUCTURE WAS PRIOR TO THE ALTERATION.

1. AN EXISTING STAIRWAY SHALL NOT BE REQUIRED TO COMPLY WITH THE REQUIREMENTS OF SECTION 1009 OF THE INTERNATIONAL BUILDING CODE WHERE THE EXISTING SPACE AND CONSTRUCTION DOES NOT ALLOW A REDUCTION IN PITCH OR SLOPE.

OCCUPANCY LEGEND

GROUP B

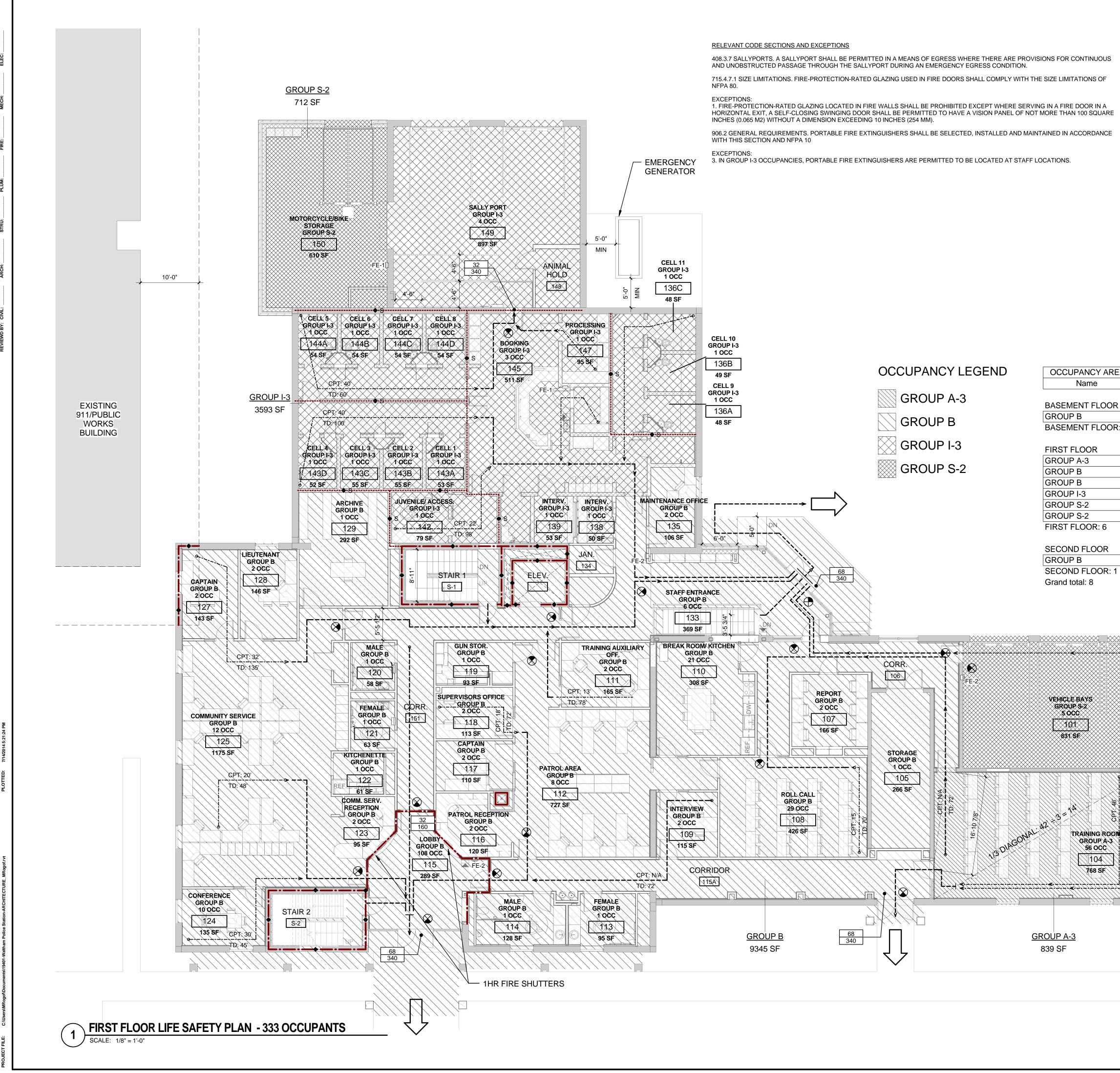
OCCUPANCY AREA Name

BASEMENT FLOOR **GROUP B BASEMENT FLOOR: 1**

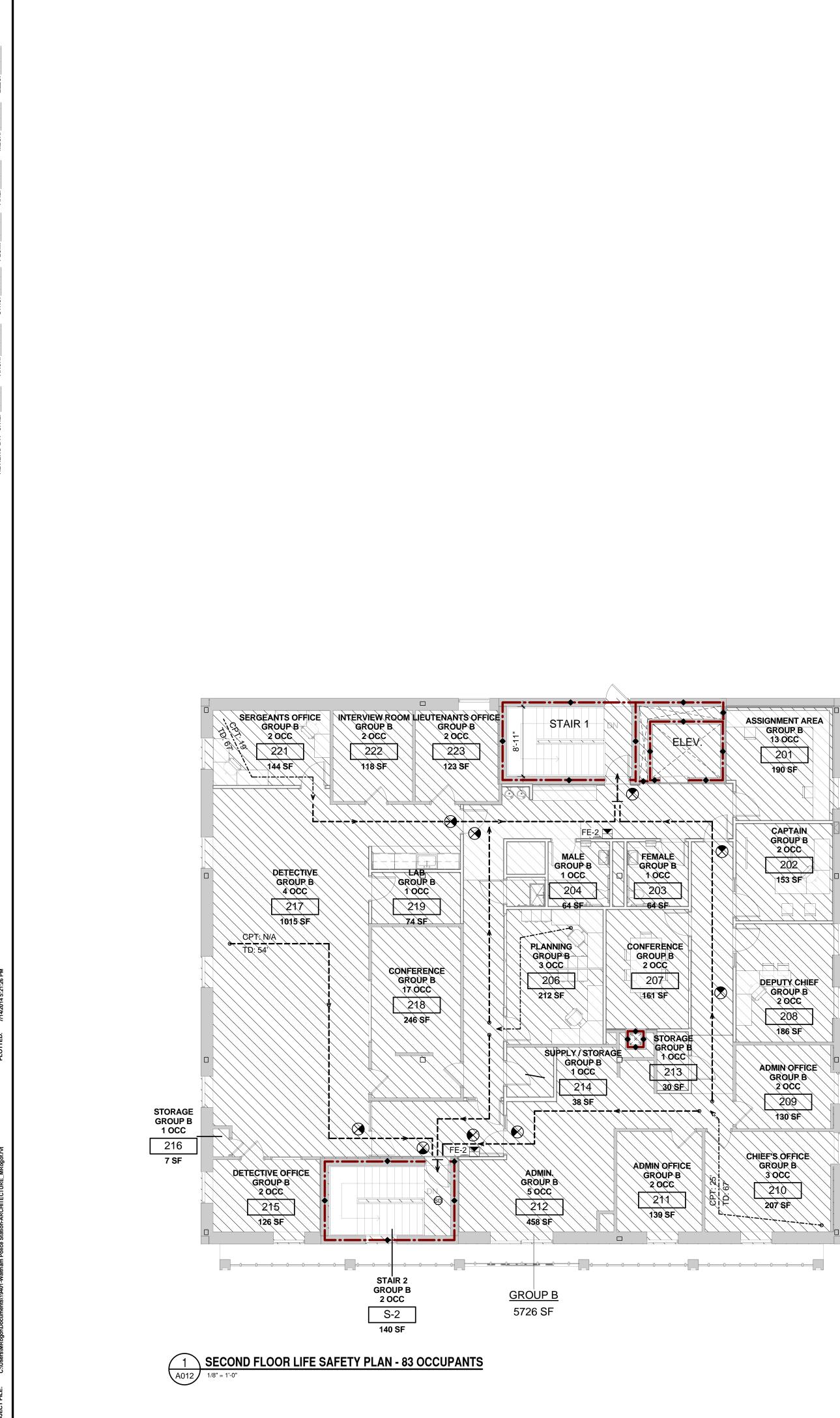
FIRST FLOOR
GROUP A-3
GROUP B
GROUP B
GROUP I-3
GROUP S-2
GROUP S-2
FIRST FLOOR: 6

SECOND FLOOR GROUP B SECOND FLOOR: 1 Grand total: 8

	LIFE SAFETY LEGEND OCCUPANT LOAD: IBC 2009 SECTION 1004	Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440
	Room - ROOM NUMBER GROUP Rm_Occupancy OCC OCCUPANCY TYPE Occupancy OCC NUMBER OF OCC 101 ROOM NUMBER 150 SF - AREA	www.cdrmaguire.com
	EXIT ACCESS TRAVEL DISTANCE: IBC 2009 SECTION 1016	
	PATH OF TRAVEL (TD) COMMON PATH OF TRAVEL (CPT) EXIT SIGN	
	EGRESS WIDTH: IBC 2009 SECTION 1005	REVISIONS Number Description Date
	FIRE-RESISTANCE RATED WALL SYMBOLS: IBC SECTION 703	
SCHEDULE Area		
8601 SF	FIRE EXTINGUISHER LEGEND (NFPA 10)	
8601 SF 839 SF 104 SF	FIRE EXTINGUISHER FIRE EXTINGUISHER (3" MAX PROJECTION) FIRE EXTINGUISHER & CABINET	
9345 SF 3593 SF 712 SF 993 SF 15586 SF	FIRE ALARM LEGEND FACP FACP FIRE ALARM CONTROL PANEL FAA FIRE ALARM	ISSUED FOR BID
5726 SF 5726 SF 29913 SF	ANNUNCIATOR PANEL © CARBON MONOXIDE DETECTOR	OR OR ATED A TOWN
	SMOKE DETECTOR FIRE ALARM MANUAL PULL STATION FIRE DEPARTMENT CONNECTION	· WALTHAM ·
		WALTHAM POLICE STATION RENOVATION
		155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
		BASEMENT LIFE SAFETY PLAN
		PROJECT NUMBER:19401.01DESIGNED BY:DesignerDRAWN BY:AuthorCHECKED BY:CheckerDATE:July-Aug. 2016
	0' 4' 8' 16'	SCALE: 1/8" = 1'-0" SHEET NUMBER:
		A010 SHEET 36 OF 157



	LIFE SAFETY LEGEND	Architects / Engineers / Planners
	OCCUPANT LOAD: IBC 2009 SECTION 1004	211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440
	Room - ROOM NUMBER GROUP Rm_Occupancy OCC OCCUPANCY TYPE Occupancy OCC NUMBER OF OCC 101 ROOM NUMBER 150 SF - AREA	www.cdrmaguire.com
	EXIT ACCESS TRAVEL DISTANCE: IBC 2009 SECTION 1016	
	PATH OF TRAVEL (TD)	
	COMMON PATH OF TRAVEL (CPT)	
	EGRESS WIDTH: IBC 2009 SECTION 1005	REVISIONS Number Description Date
	FIRE-RESISTANCE RATED WALL SYMBOLS: IBC SECTION 703 1 HR FIRE	
	 → S → S	
A SCHEDULE Area	FIRE EXTINGUISHER LEGEND (NFPA 10)	
8601 SF	FE-1 SURFACE MOUNTED FIRE EXTINGUISHER	
1 8601 SF 839 SF 104 SF	FE-2 SEMI RECESSED (3" MAX PROJECTION) FIRE EXTINGUISHER & CABINET	
9345 SF 3593 SF		
712 SF 993 SF 15586 SF	FIRE ALARM LEGEND FIRE ALARM CONTROL PANEL	ISSUED FOR BID
5726 SF	FIRE ALARM ANNUNCIATOR	
5726 SF 29913 SF	PANEL © CARBON MONOXIDE	BORATED A TOWA
	DETECTOR SMOKE DETECTOR	WALTHAM
****	FIRE ALARM MANUAL PULL STATION	The state of the s
	© FDC FIRE DEPARTMENT CONNECTION	ORATED A CITY
	UP S-2	WALTHAM POLICE STATION
99. 89.	3 SF	RENOVATION
STORAGE GROUPIB		155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
<u></u>	<u>DUP B</u> 4 SF	FIRST FLOOR LIFE SAFETY PLAN
FDC		PROJECT NUMBER:19401.01DESIGNED BY:DesignerDRAWN BY:AuthorCHECKED BY:CheckerDATE:July-Aug.2016SCALE:1/8" = 1'-0"
		SHEET NUMBER:
	0' 4' 8' 16'	A011
		SHEET 37 OF 157



SECTION 1016 EXIT ACCESS TRAVEL DISTANCE

1016.1 TRAVEL DISTANCE LIMITATIONS. EXITS SHALL BE SO LOCATED ON EACH STORY SUCH THAT THE MAXIMUM LENGTH OF EXIT ACCESS TRAVEL, MEASURED FROM THE MOST REMOTE POINT WITHIN A STORY ALONG THE NATURAL AND UNOBSTRUCTED PATH OF EGRESS TRAVEL TO AN EXTERIOR EXIT DOOR AT THE LEVEL OF EXIT DISCHARGE, AN ENTRANCE TO A VERTICAL EXIT ENCLOSURE, AN EXIT PASSAGEWAY, A HORIZONTAL EXIT, AN EXTERIOR EXIT STAIRWAY OR AN EXTERIOR EXIT RAMP, SHALL NOT EXCEED THE DISTANCES GIVEN IN TABLE 1016.1.

EXCEPTIONS:

3. IN OTHER THAN OCCUPANCY GROUPS H AND I, THE EXIT ACCESS TRAVEL DISTANCE TO A MAXIMUM OF 50 PERCENT OF THE EXITS IS PERMITTED TO BE MEASURED FROM THE MOST REMOTE POINT WITHIN A BUILDING TO AN EXIT USING UNENCLOSED EXIT ACCESS STAIRWAYS OR RAMPS WHEN CONNECTING A MAXIMUM OF TWO STORIES. THE TWO CONNECTED STORIES SHALL BE PROVIDED WITH AT LEAST TWO MEANS OF EGRESS. SUCH INTERCONNECTED STORIES SHALL NOT BE OPEN TO OTHER STORIES.

4. IN OTHER THAN OCCUPANCY GROUPS H AND I, EXIT ACCESS TRAVEL DISTANCE IS PERMITTED TO BE MEASURED FROM THE MOST REMOTE POINT WITHIN A BUILDING TO AN EXIT USING UNENCLOSED EXIT ACCESS STAIRWAYS OR RAMPS IN THE FIRST AND SECOND STORIES ABOVE GRADE PLANE IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1. THE FIRST AND SECOND STORIES ABOVE GRADE PLANE SHALL BE PROVIDED WITH AT LEAST TWO MEANS OF EGRESS. SUCH INTERCONNECTED STORIES SHALL NOT BE OPEN TO OTHER STORIES.

WHERE APPLICABLE, TRAVEL DISTANCE ON UNENCLOSED EXIT ACCESS STAIRWAYS OR RAMPS AND ON CONNECTING STORIES SHALL ALSO BE INCLUDED IN THE TRAVEL DISTANCE MEASUREMENT. THE MEASUREMENT ALONG STAIRWAYS SHALL BE MADE ON A PLANE PARALLEL AND TANGENT TO THE STAIR TREAD NOSINGS IN THE CENTER OF THE STAIRWAY.

> OCCUPANCY AREA SCHEDULE Name

BASEMENT FLOOR **GROUP B** BASEMENT FLOOR:

FIRST FLOOR **GROUP A-3** GROUP B GROUP B GROUP I-3 GROUP S-2 GROUP S-2 FIRST FLOOR: 6

SECOND FLOOR **GROUP B** SECOND FLOOR: 1 Grand total: 8

OCCUPANCY LEGEND



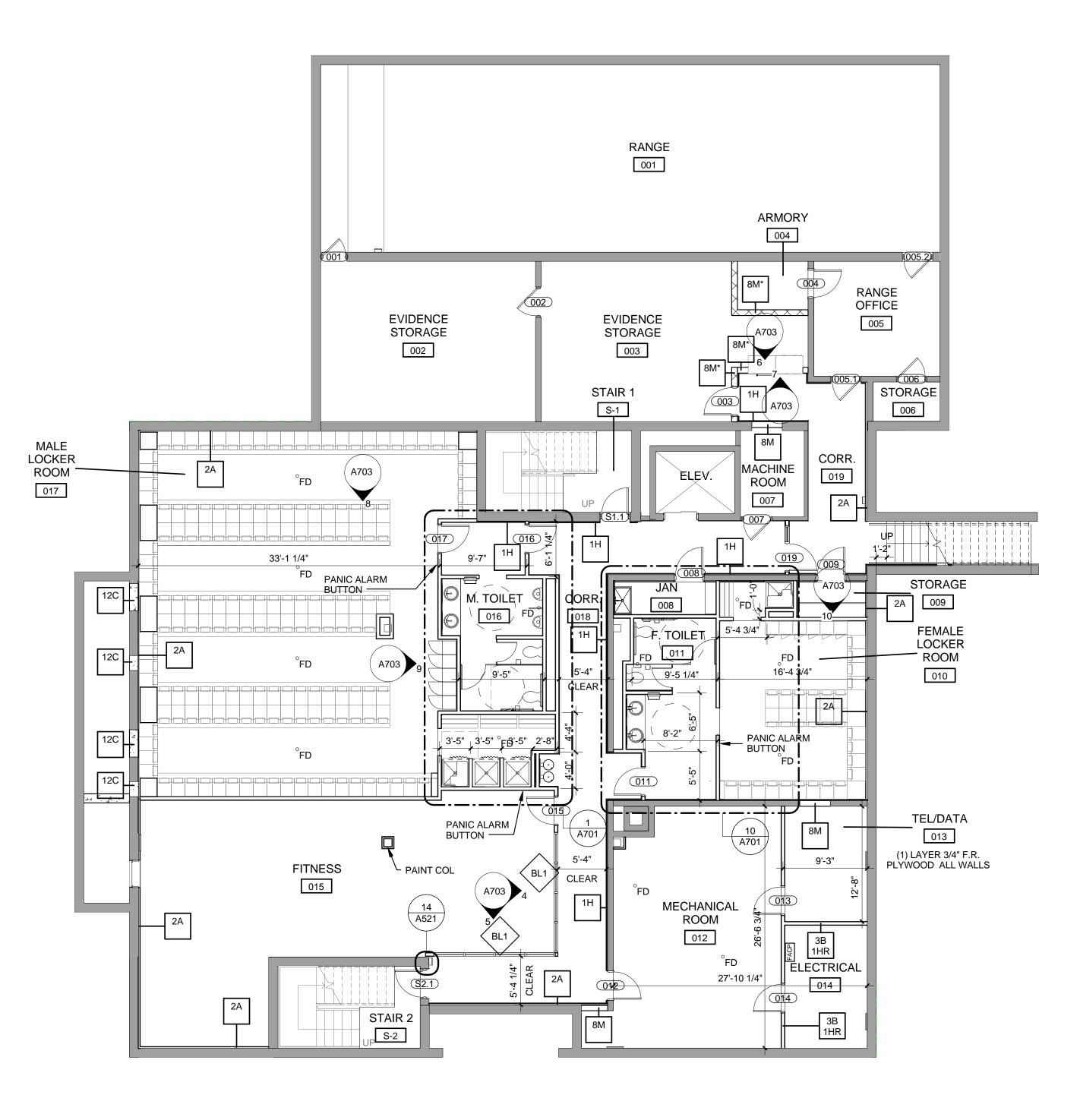
LIFE SAFET	Y LEGEND	Archite	ects / Engineers / Planners ess Street, 11th Floor
OCCUPANT LOAD: IBC	2009 SECTION 1004	Boston, Ma TEL. (617)	assachusetts 02110) 778-1440
GROUP Rm_Occupancy Occupancy OCC 101 150 SF	NUMBER OF OCC ROOM NUMBER AREA	www.cdrm	naguire.com
EXIT ACCESS TRAVEL IBC 2009 SECTION 1016			
EXIT SI	PATH OF TRAVEL (CPT) GN		
EGRESS WIDTH: IBC 20	09 SECTION 1005 EGRESS WIDTH EGRESS CAPACITY	Number	REVISIONS Description Date
FIRE-RESISTANCE RAT	ED WALL SYMBOLS:		
+	1 HR FIRE 2 HR FIRE		
•••• S	1 HR FIRE/SMOKE 2 HR FIRE/SMOKE		
FIRE EXTINGUISHER LE	GEND (NFPA 10)		
	JRFACE MOUNTED RE EXTINGUISHER		
(3)	EMI RECESSED ' MAX PROJECTION) RE EXTINGUISHER & ABINET		
FIRE ALARM LEGEND	FIRE ALARM	ISS	SUED FOR BID
FAA	CONTROL PANEL		
	ANNUNCIATOR PANEL	- k	ORATED A TOWA
Ø	CARBON MONOXIDE DETECTOR		
0	SMOKE DETECTOR FIRE ALARM MANUAL		WALTHAM
	PULL STATION	1	Contraction of the second seco
₿ FDC	FIRE DEPARTMENT CONNECTION		ED A
			LTHAM POLICE STATION RENOVATION
			LEXINGTON STREET HAM, MASSACHUSETTS
		FL	SECOND LOOR LIFE FETY PLAN
		DESIGNED DRAWN B CHECKED DATE:	Y: Author BY: Checker July-Aug. 2016 1/8" = 1'-0"
)' 4' 8' 1	6'		A012 38 OF 157

	Area			
	8601 SF			
: 1	8601 SF			
	839 SF			
	104 SF			
	9345 SF			
	3593 SF			
	712 SF			
	993 SF			
	15586 SF			

5726 SF 5726 SF 29913 SF

ice Station-ARCHITECTURE_MRogof.rvt PLOTTED: 7/14/2

REVIEWD BY: CIVIL: _____ ARCH: _____ STRU: _____ PLUM: _____ FIRE: _____ MECH: _____ ELEC: _____





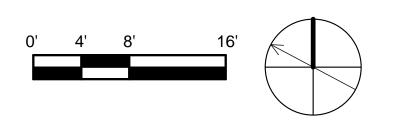
_	
G	ENERAL PLAN NOTES
1.	COORDINATE ALL NEW WORK w/ STRUCTURAL, PLUMBING, MECHANICAL & ELECTRICAL DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK.
2.	ALL DIMENSIONS TO NEW CONSTRUCTION ARE TO CENTERLINE OF <u>STUD</u> AND FACE OF <u>MASONRY</u> UNLESS NOTED OTHERWISE.
3.	ALL DIMENSIONS TO EXISTING CONSTRUCTION ARE TO FACE OF <u>FINISH</u> UNLESS NOTED OTHERWISE
4.	ALL NEW INTERIOR WALLS ARE TYPE 3B UNLESS NOTED OTHERWISE.
5.	ALL INTERIOR GYPSUM WALL BOARD CORNERS WITHOUT WAINSCOTING SHALL HAVE STEEL CORNER GUARDS.
6.	ALL EXISTING DOOR FRAMES TO REMAIN SHALL BE SCRAPED, PRIMED AND PAINTED.
7.	ALL EXISTING WOOD DOORS TO REMAIN SHALL BE SANDED AND REFINISHED.
8.	ALL EXISTING METAL DOORS TO REMAIN SHALL BE SCRAPED, PRIMED AND PAINTED.
9.	SEE FINISH PLANS FOR THE EXTENT OF WAINSCOTTING.
10.	REFER TO STRUCTURAL DRAWINGS FOR PATCHING OF CONCRETE SLAB.
11.	WALL TAGS MARKED WITH ^{1*!} DENOTES GYP BOARD SHALL RUN TO THE UNDERSIDE OF DECK ABOVE

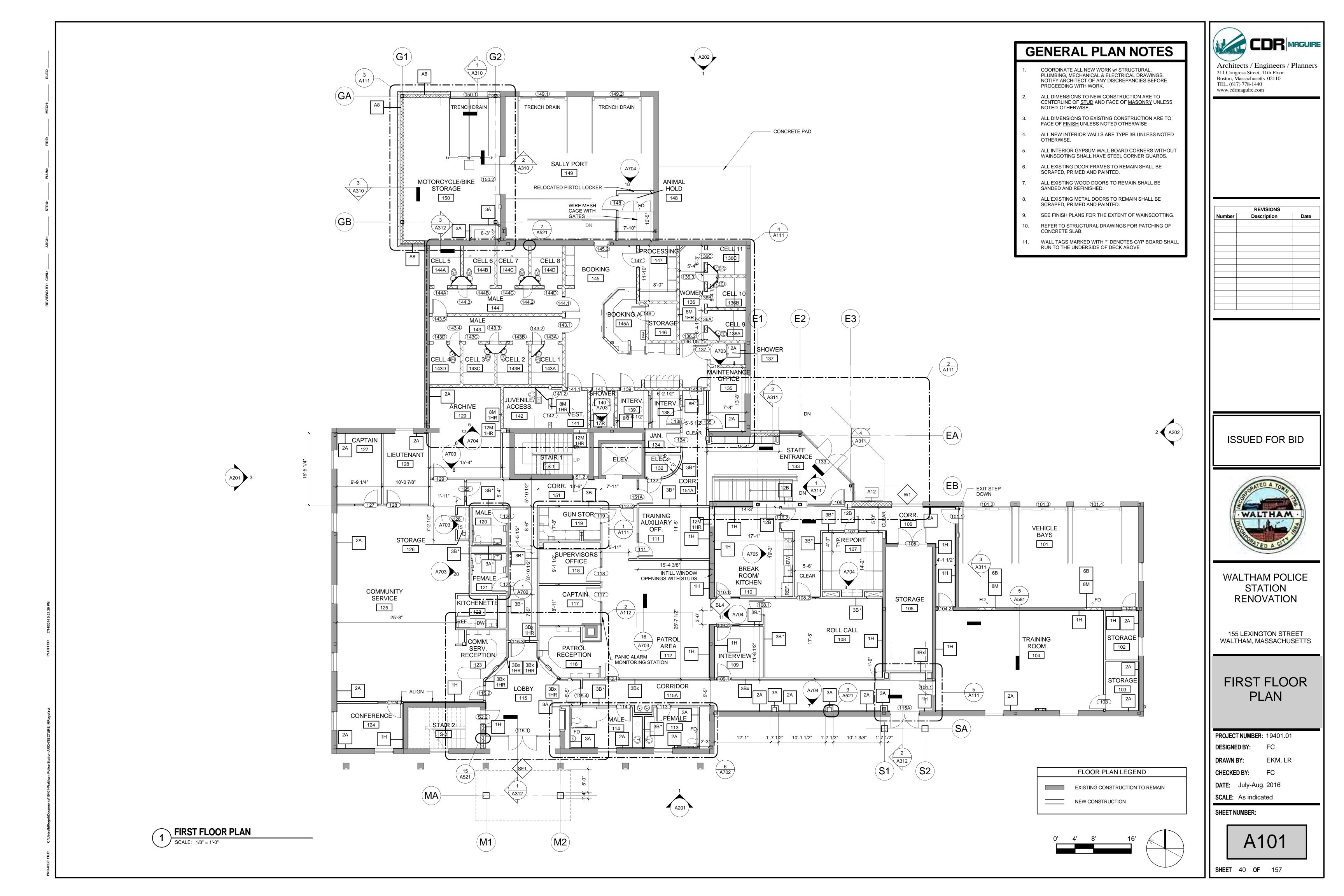
Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110
TEL. (617) 778-1440 www.cdrmaguire.com
REVISIONS Number Description Date
ISSUED FOR BID
OR ORATED A TOWN
· WALTHAM ·
ZCORATED A CITY
PATED A CIT
WALTHAM POLICE
STATION RENOVATION
155 LEXINGTON STREET
WALTHAM, MASSACHUSETTS
BASEMENT FLOOR PLAN
I LOON I LAN
PROJECT NUMBER: 19401.01 DESIGNED BY: FC
DRAWN BY: EKM, LR CHECKED BY: FC
DATE:
SCALE: 2016 As
A100
SHEET 39 OF 157

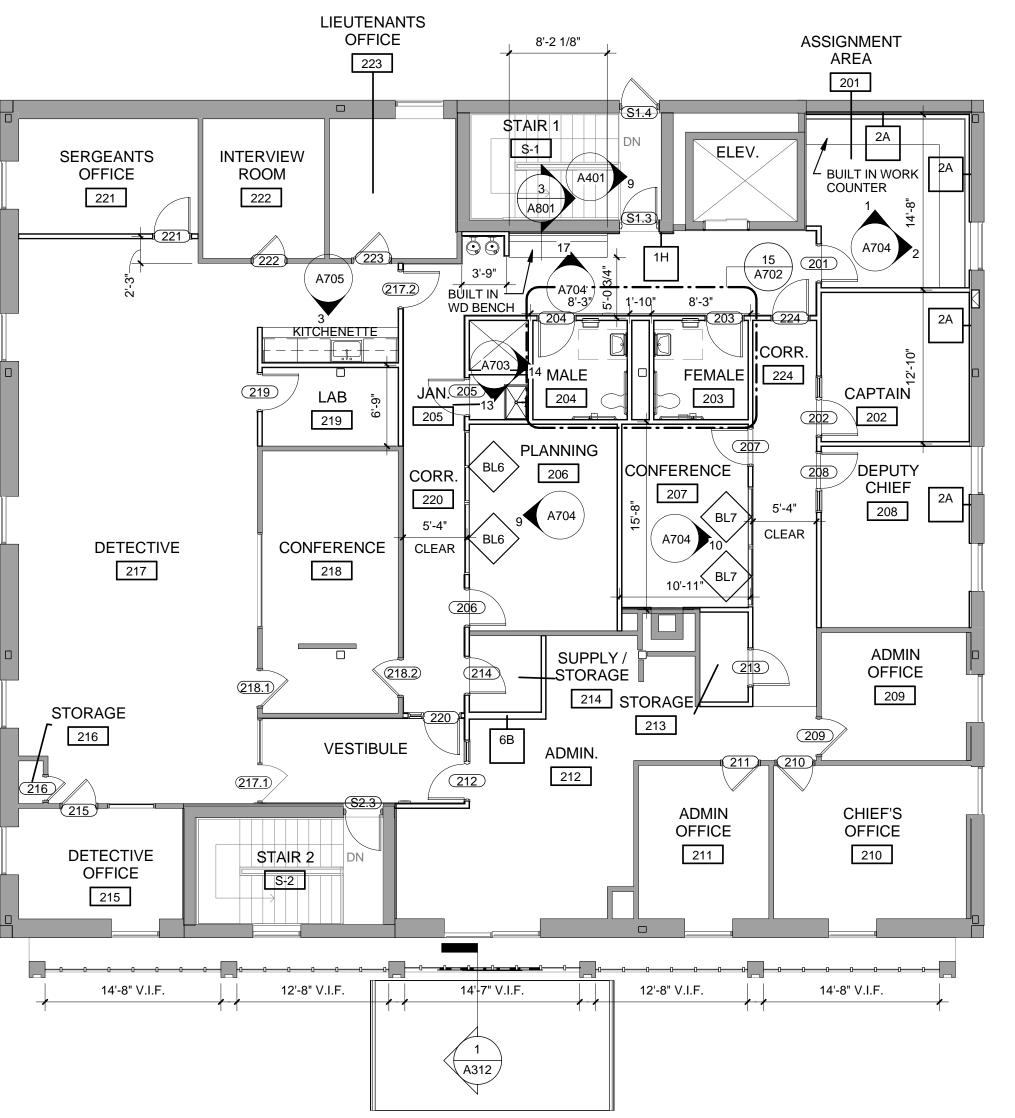
FLOOR PLAN LEGEND	

EXISTING CONSTRUCTION TO REMAIN

NEW CONSTRUCTION









GENERAL PLAN N

- COORDINATE ALL NEW WORK w/ STRUCTURAL, PLUMBING, MECHANICAL & ELECTRICAL DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK. ALL DIMENSIONS TO NEW CONSTRUCTION ARE TO CENTERLINE OF STUD AND FACE OF MASONRY UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO EXISTING CONSTRUCTION ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE ALL NEW INTERIOR WALLS ARE TYPE 3B UNLESS NOTED OTHERWISE. ALL INTERIOR GYPSUM WALL BOARD CORNERS WITHOUT 5. WAINSCOTING SHALL HAVE STEEL CORNER GUARDS. ALL EXISTING DOOR FRAMES TO REMAIN SHALL BE 6. SCRAPED, PRIMED AND PAINTED. ALL EXISTING WOOD DOORS TO REMAIN SHALL BE 7. SANDED AND REFINISHED. ALL EXISTING METAL DOORS TO REMAIN SHALL BE SCRAPED, PRIMED AND PAINTED. 8.
- 9. SEE FINISH PLANS FOR THE EXTENT OF WAINSCOTTING.
- 10. REFER TO STRUCTURAL DRAWINGS FOR PATCHING OF CONCRETE SLAB.
- 11. WALL TAGS MARKED WITH '*' DENOTES GYP BOARD SHALL RUN TO THE UNDERSIDE OF DECK ABOVE

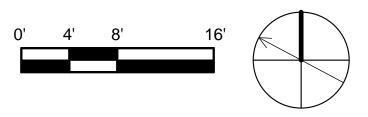
CCCR MAGUIRE Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
REVISIONS Number Description Date
ISSUED FOR BID
WALTHAM . REALTHAM . REALTHAM .
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
SECOND FLOOR PLAN
PROJECT NUMBER: 19401.01
DESIGNED BY: FC DRAWN BY: EKM, LR
CHECKED BY: FC
DATE: SCALE: 2016 As
SHEET NUMBER!ed
A102
SHEET 41 OF 157

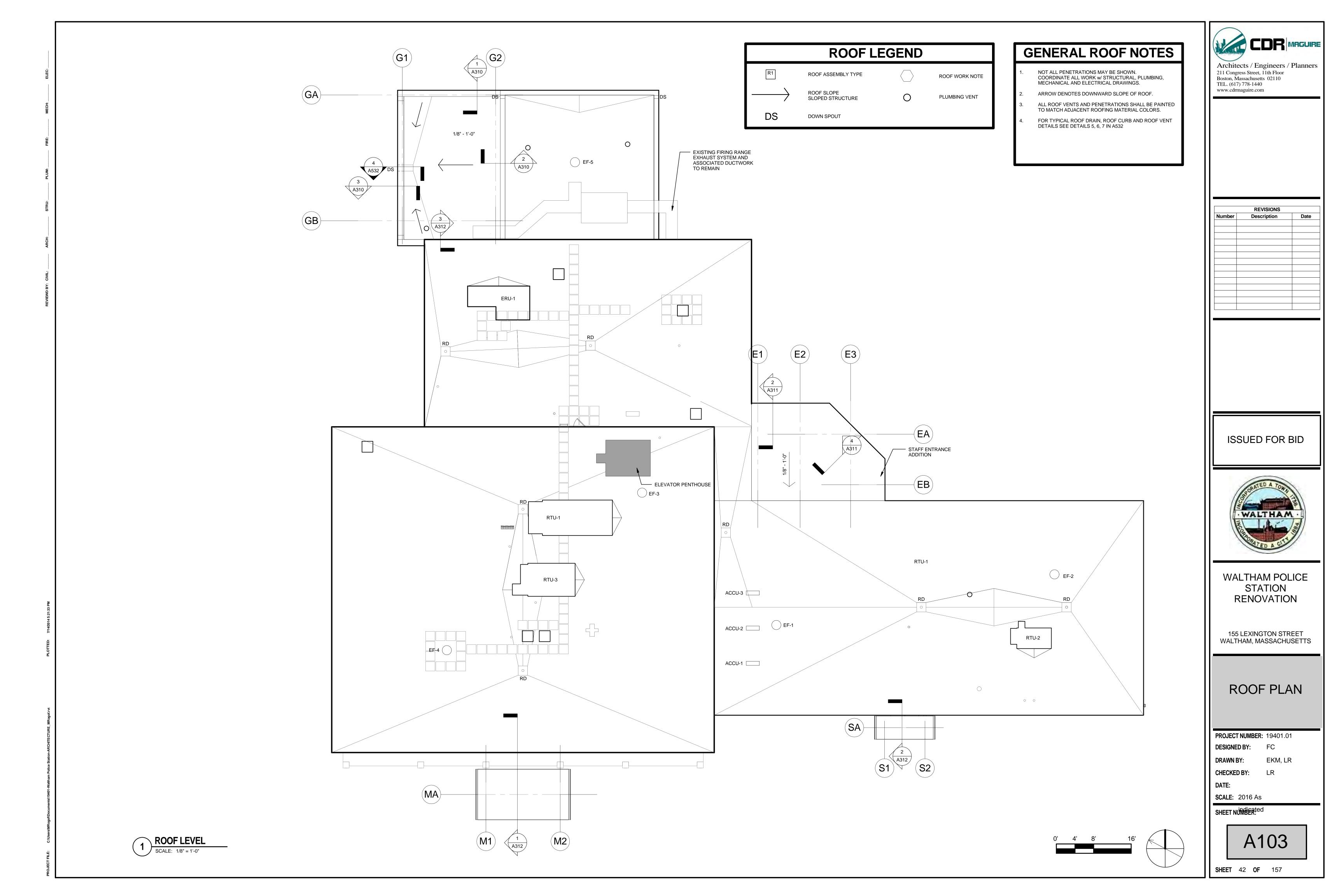
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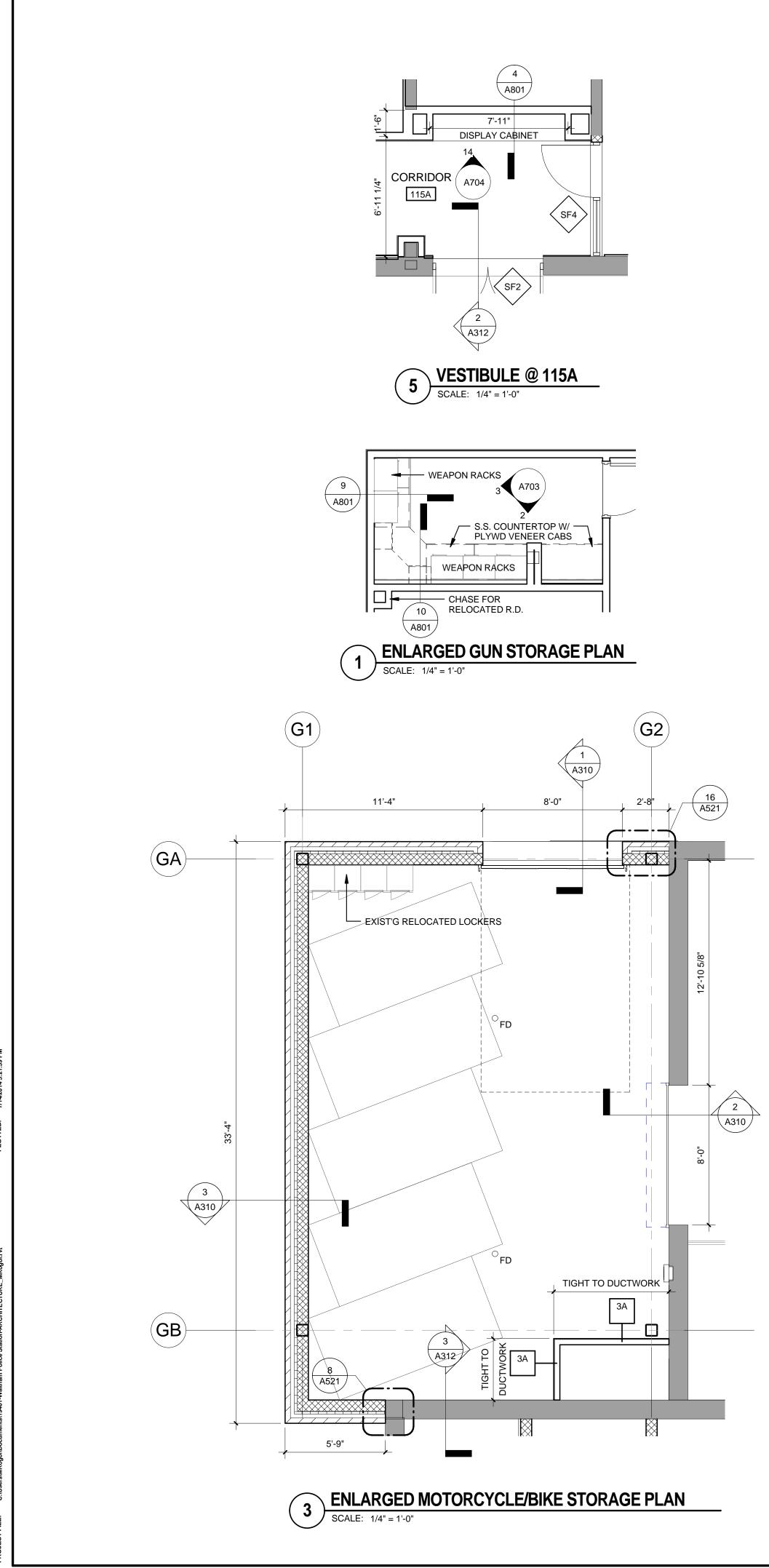
FLOOR PLAN LEGEND

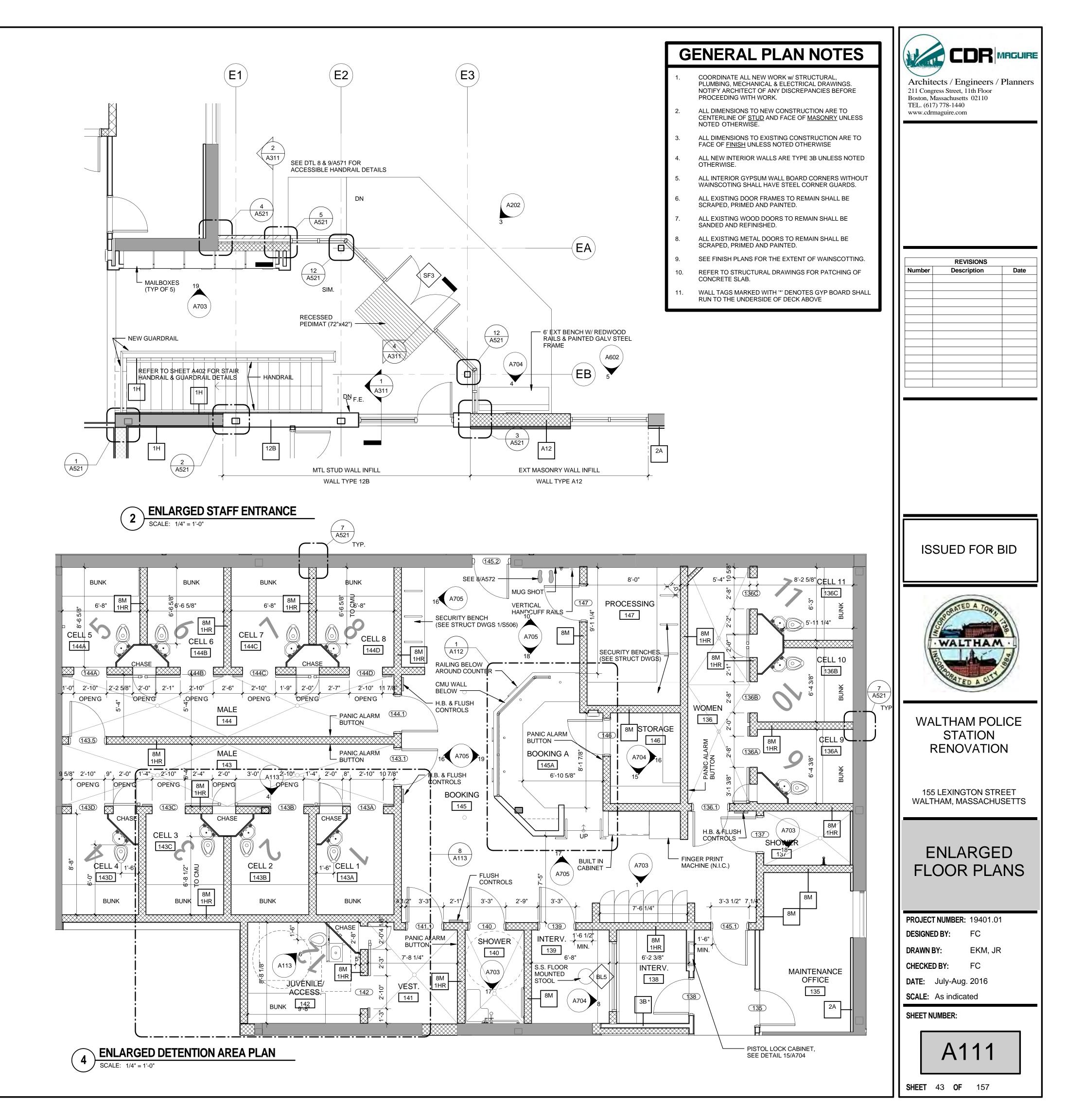
EXISTING CONSTRUCTION TO REMAIN

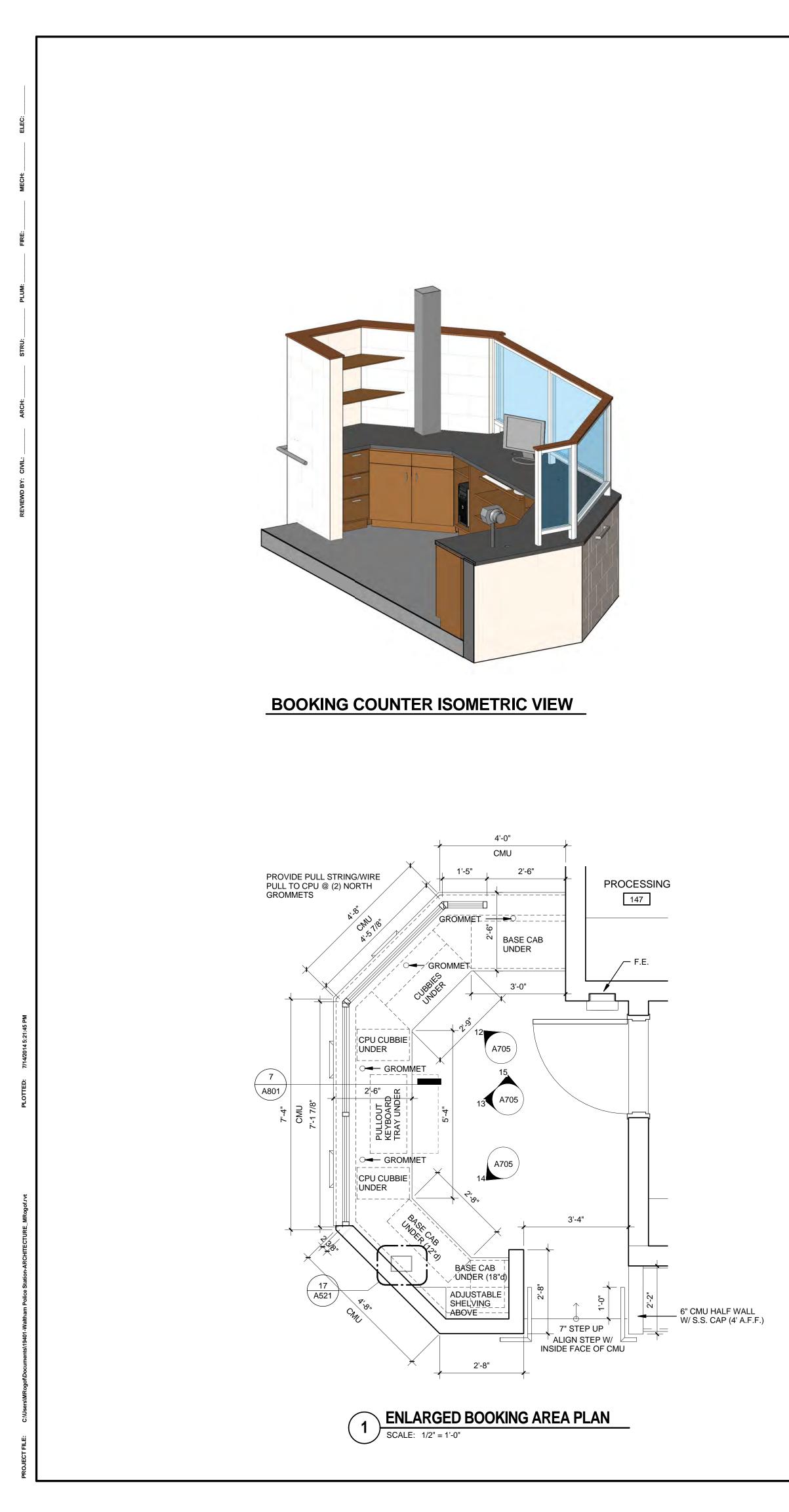
NEW CONSTRUCTION

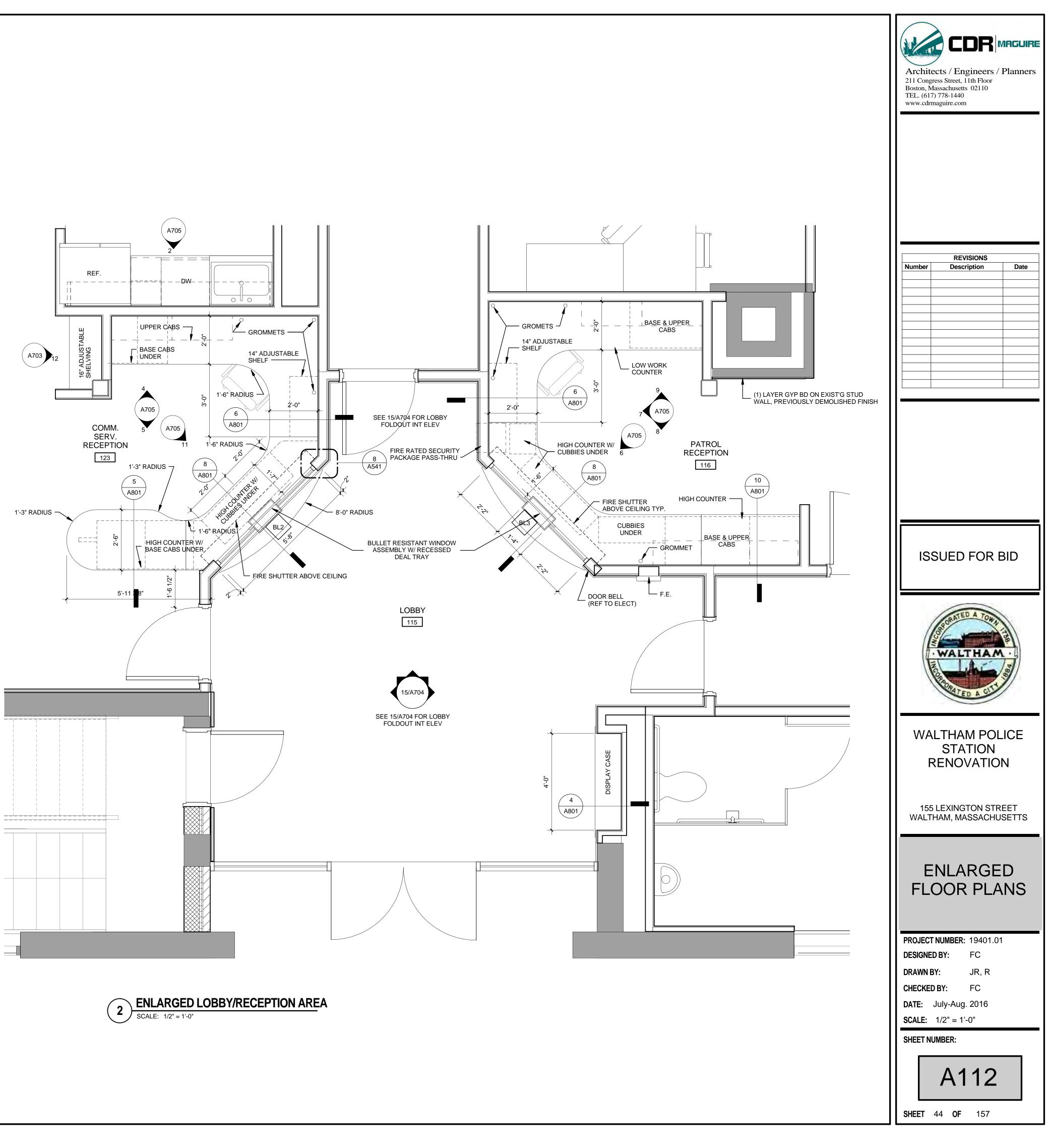


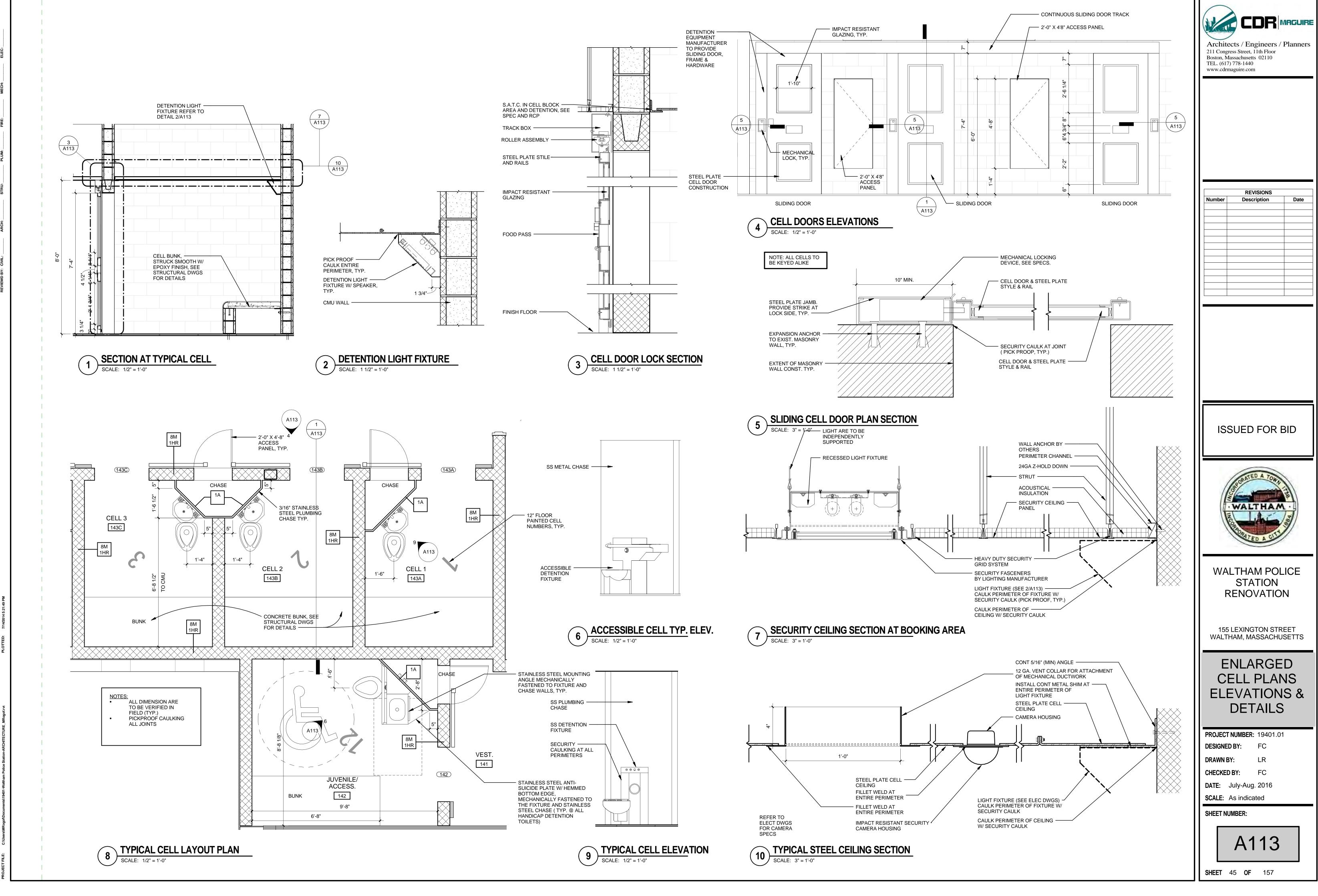


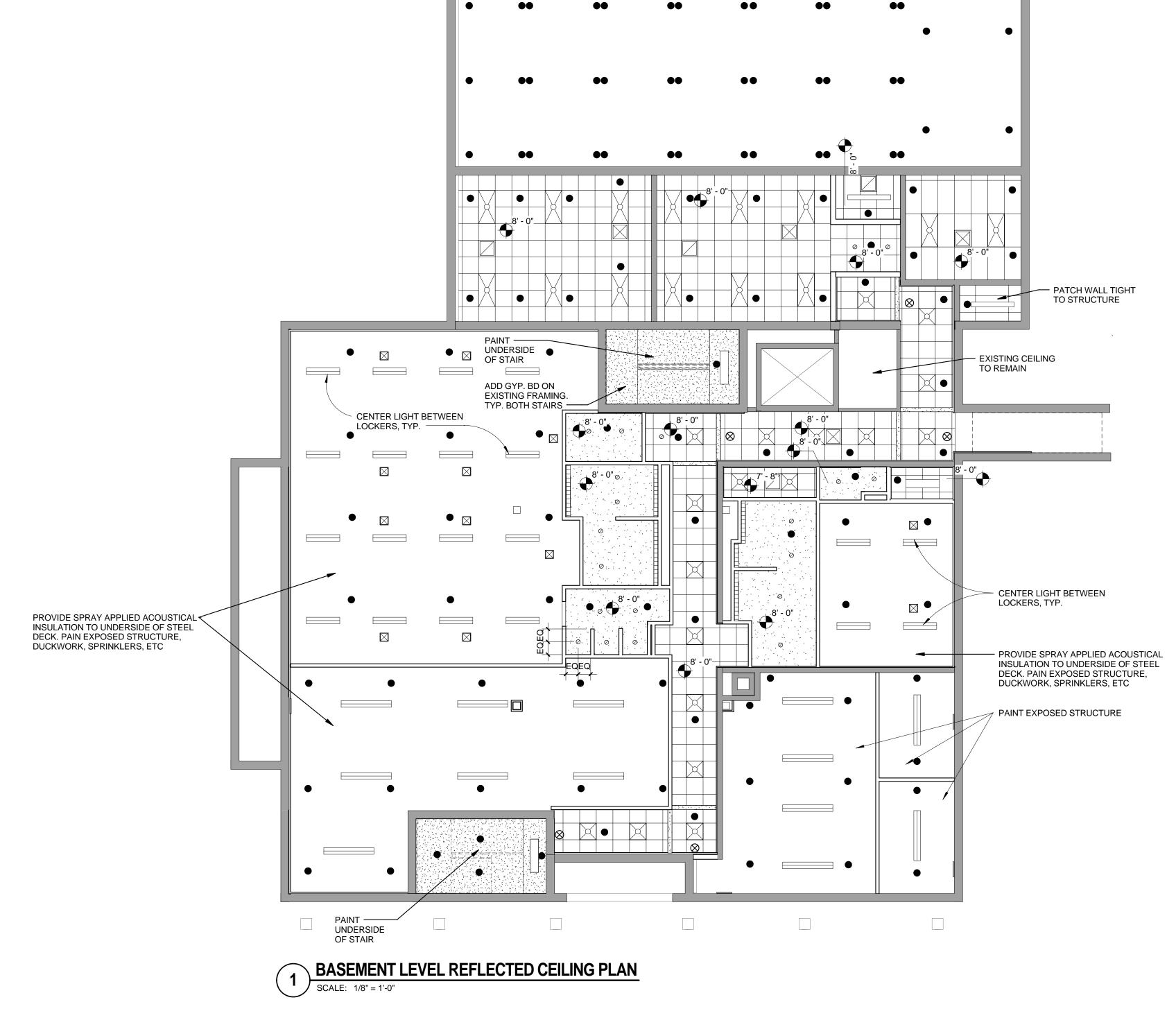


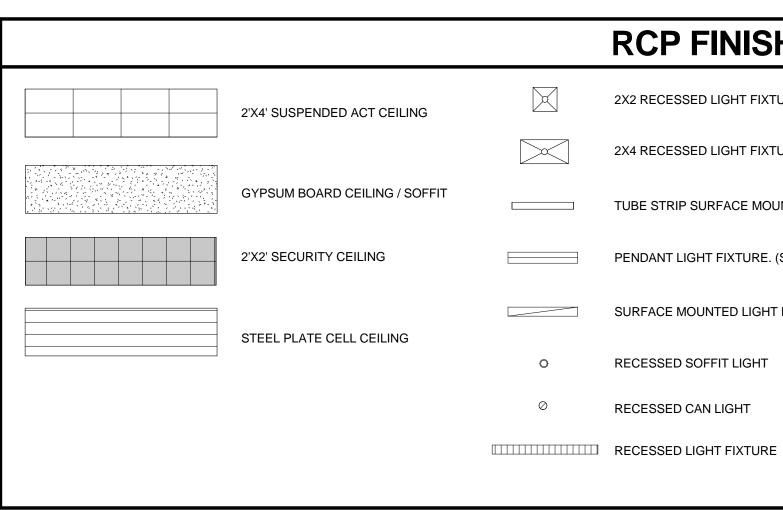












RCP FINISH LEGEND

IXTURE. (SEE ELEC.)	\otimes	EXIT SIGN. (SEE ELEC.)
IXTURE. (SEE ELEC.)	S	SPEAKERS (SEE TD DRAWINGS.)
IOUNTED LIGHT FIXTURE (SEE ELEC.)	•	SPRINKLER HEADS (SEE FIRE SUPPRESSION)
RE. (SEE ELEC.)	OS	MECHANICAL DIFFUSER / REGISTER. (SEE MECH.)
GHT FIXTURE (SEE ELEC.)		MECHANICAL DIFFUSER / REGISTER. (SEE MECH.)
IT		

			_
		Number	
GENERAL RCP NOTES			
NOT ALL CEILING MOUNTED ITEMS MAY BE SHOWN. CONTRACTOR TO COORDINATE w/ STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL & I.T. DRAWINGS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.	3		
ALL CEILING MOUNTED ITEMS ARE TO BE CENTERED IN CEILING TILES UNLESS NOTED OTHERWISE.			
SPRINKER HEAD LAYOUT IS APPROXIMATE AND NOT ALL HEADS MAY BE SHOWN. COORDINATE W/ SPRINKLE DWGS AND NOTIFY ARCHITECT OF ANY DISCREPANCIE BEFORE STARTING WORK.			
PROVIDE WHITE GROMMET TRIM @ ALL SUPPORT CABLE PENETRATIONS FOR SUSPENDED ELEMENTS.			
ALL EXPOSED PIPING UTILITIES, HVAC SHALL BE			

- PAINTED IN EXPOSED CEILING AREAS.
- REFER TO ELECTRICAL DRAWINGS FOR LIGHT LOCATIONS.

SEE SHEET A581 FOR TYPICAL CEILING DETAILS.

ISSUED FOR BID WALTHAM WALTHAM POLICE STATION RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS BASEMENT FLOOR REFLECTED CEILING PLAN PROJECT NUMBER: 19401.01 DESIGNED BY: FC DRAWN BY: EKM, LR CHECKED BY: FC DATE: SCALE: 2016 As SHEET NUMBER

A120

SHEET 46 **OF** 157

Architects / Engineers / Planners

REVISIONS

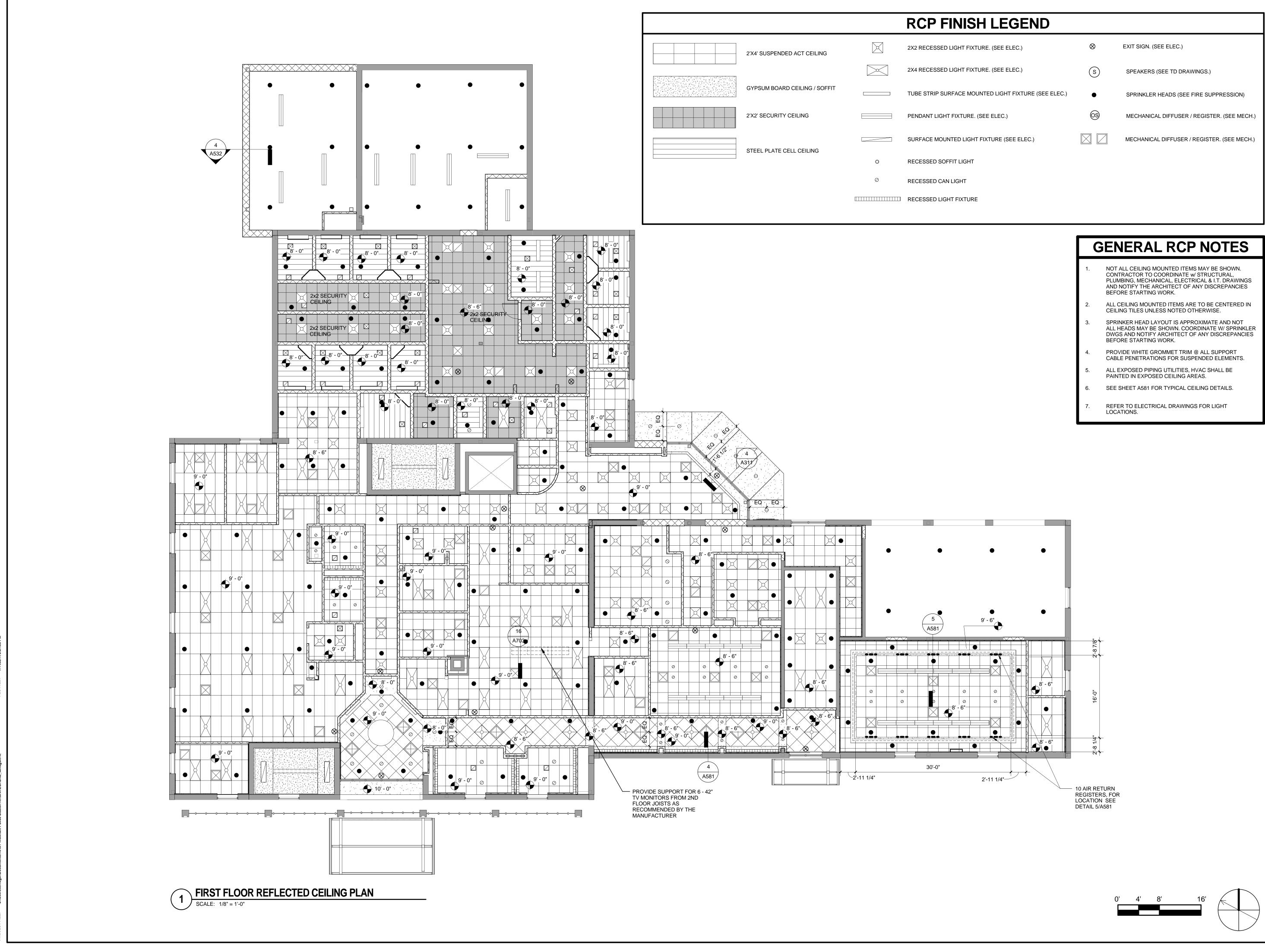
Date

Description

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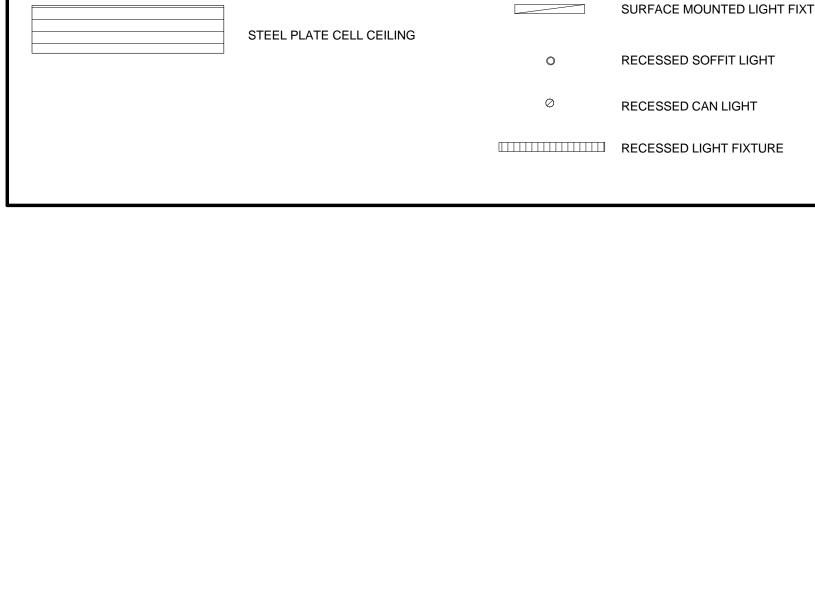




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(SEE ELEC.)	OS	MECHANICAL DIFFUSER / REGISTER. (SEE MECH.)
T FIXTURE (SEE ELEC.)		MECHANICAL DIFFUSER / REGISTER. (SEE MECH.)

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Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com						
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RENOVATION						
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS						
FIRST FLOOR						
REFLECTED CEILING PLAN						
PROJECT NUMBER: 19401.01 DESIGNED BY: FC						
DRAWN BY: EKM, LR CHECKED BY: FC						
DATE: SCALE: 2016 As						
SHEET NUMBER!						
A121						
SHEET 47 OF 157						

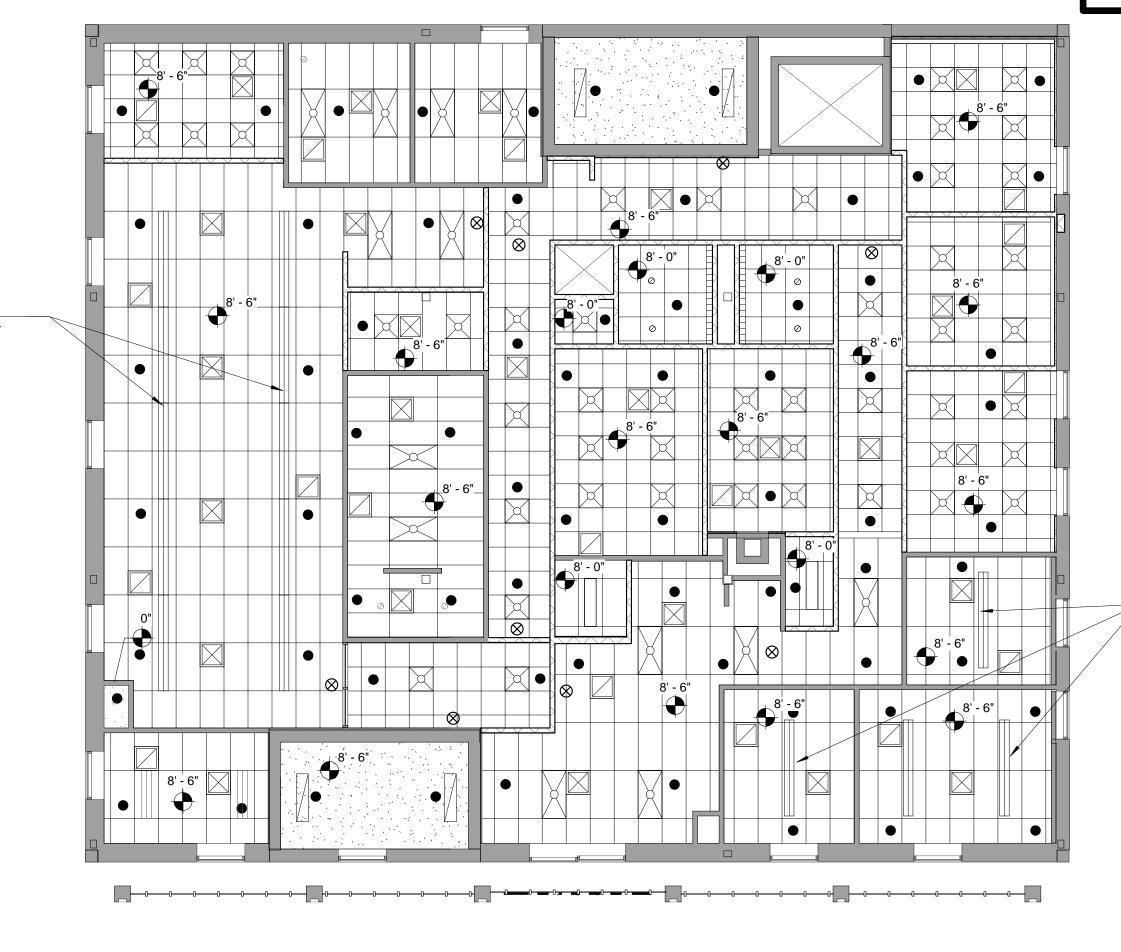




2'X4' SUSPENDED ACT CEILING

GYPSUM BOARD CEILING / SOFFIT

2'X2' SECURITY CEILING



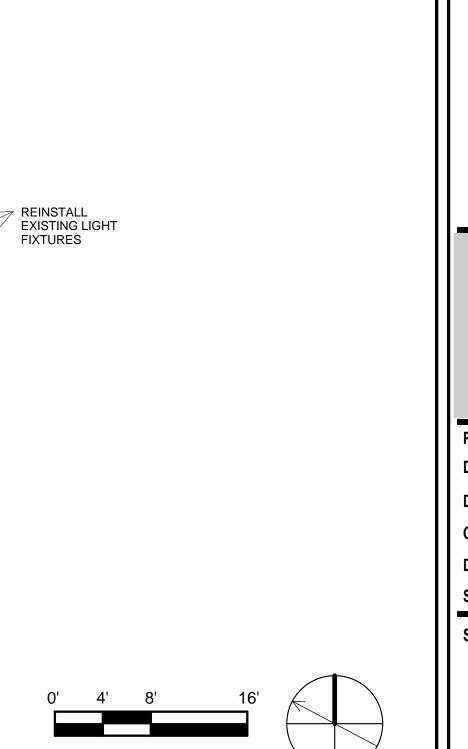


RCP FINISH LEGEND

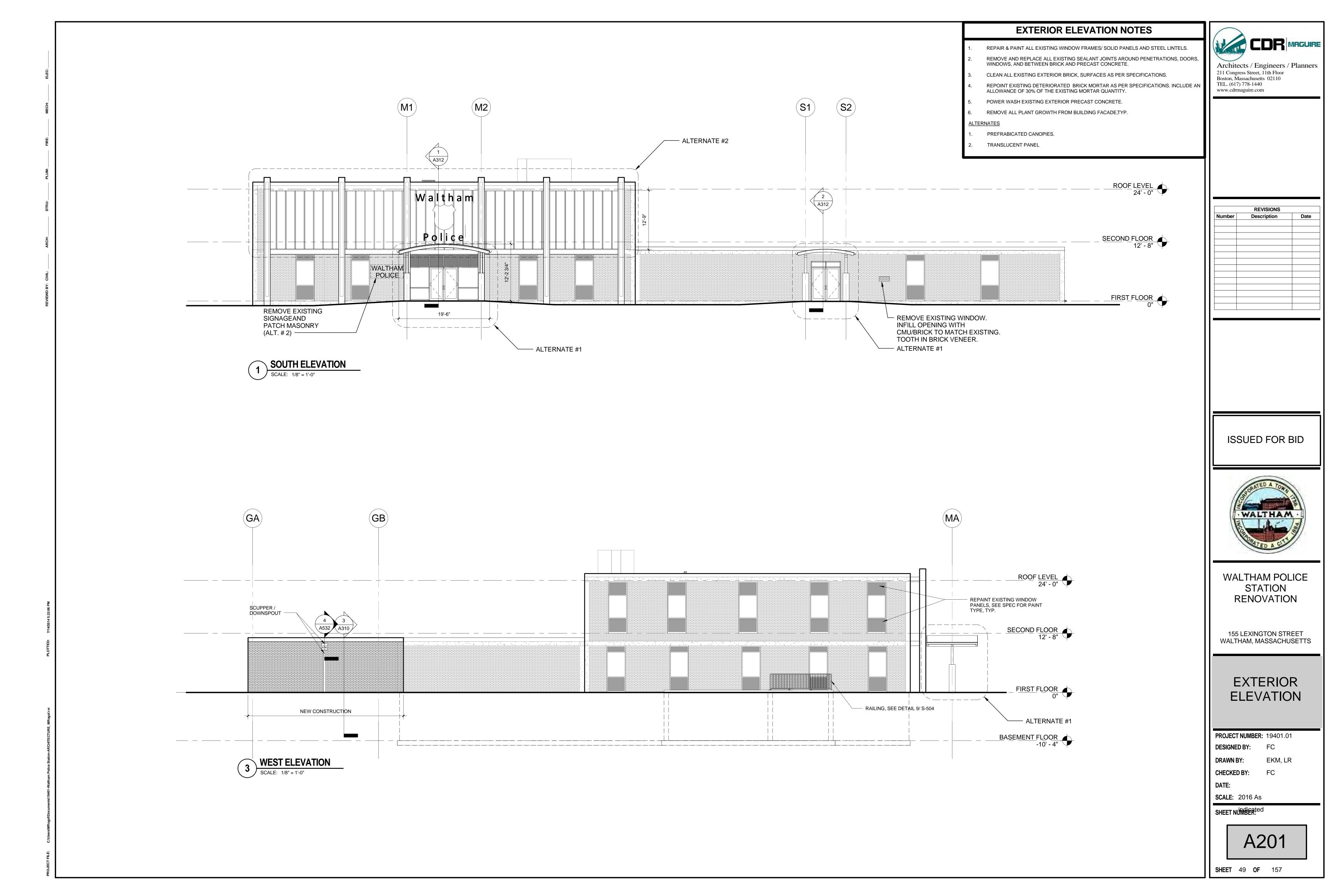
X	2X2 RECESSED LIGHT FIXTURE. (SEE ELEC.)	\otimes	EXIT SIGN. (SEE ELEC.)
	2X4 RECESSED LIGHT FIXTURE. (SEE ELEC.)	S	SPEAKERS (SEE TD DRAWINGS.)
	TUBE STRIP SURFACE MOUNTED LIGHT FIXTURE (SEE ELEC.)	•	SPRINKLER HEADS (SEE FIRE SUPPRESSION)
	PENDANT LIGHT FIXTURE. (SEE ELEC.)	OS	MECHANICAL DIFFUSER / REGISTER. (SEE MECH.)
	SURFACE MOUNTED LIGHT FIXTURE (SEE ELEC.)		MECHANICAL DIFFUSER / REGISTER. (SEE MECH.)



- NOT ALL CEILING MOUNTED ITEMS MAY BE SHOWN. CONTRACTOR TO COORDINATE w/ STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL & I.T. DRAWINGS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.
- ALL CEILING MOUNTED ITEMS ARE TO BE CENTERED IN CEILING TILES UNLESS NOTED OTHERWISE. SPRINKER HEAD LAYOUT IS APPROXIMATE AND NOT ALL HEADS MAY BE SHOWN. COORDINATE W/ SPRINKLER
- DWGS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.
- PROVIDE WHITE GROMMET TRIM @ ALL SUPPORT CABLE PENETRATIONS FOR SUSPENDED ELEMENTS.
- ALL EXPOSED PIPING UTILITIES, HVAC SHALL BE PAINTED IN EXPOSED CEILING AREAS.
- 6. SEE SHEET A581 FOR TYPICAL CEILING DETAILS.
- REFER TO ELECTRICAL DRAWINGS FOR LIGHT LOCATIONS.

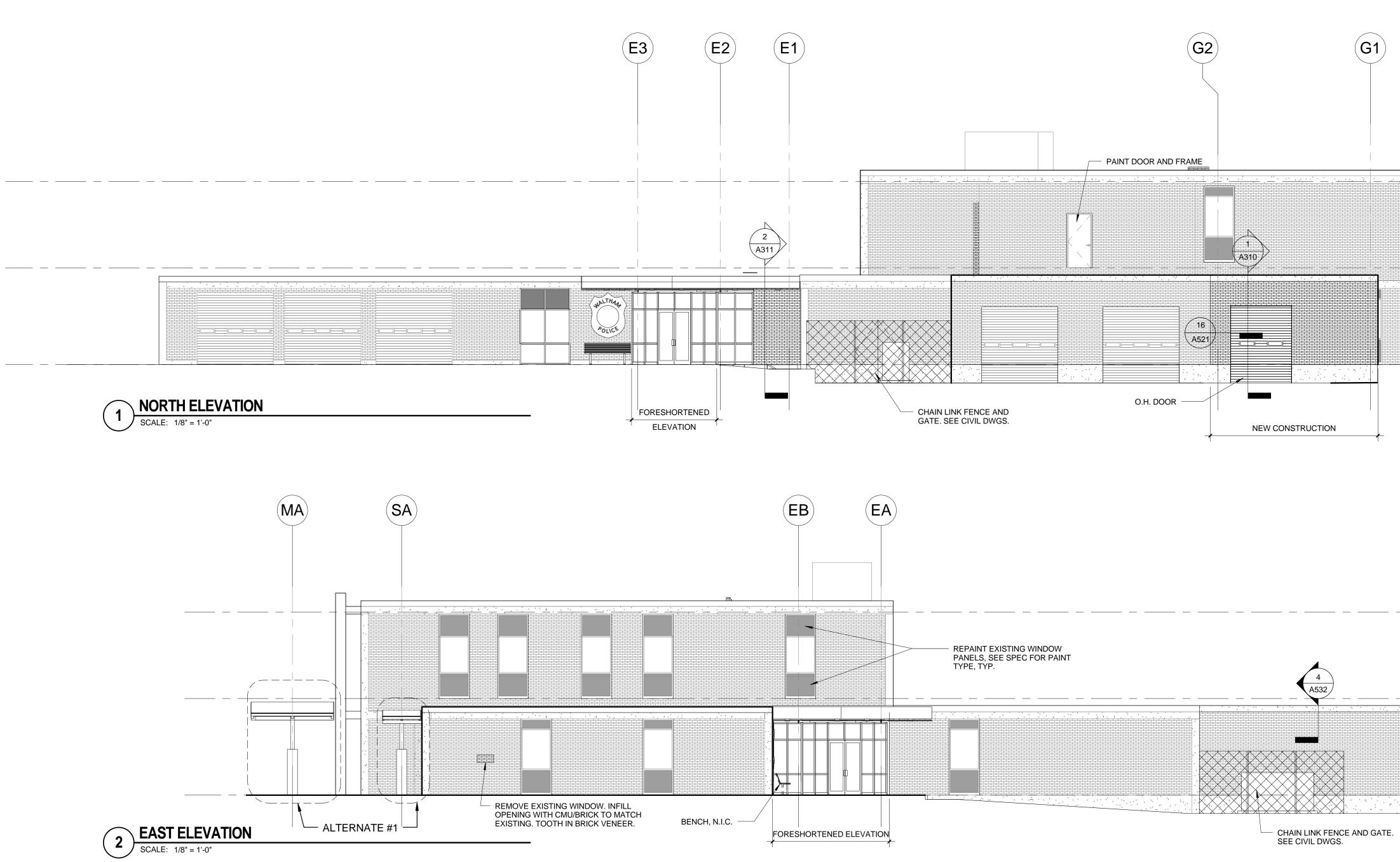


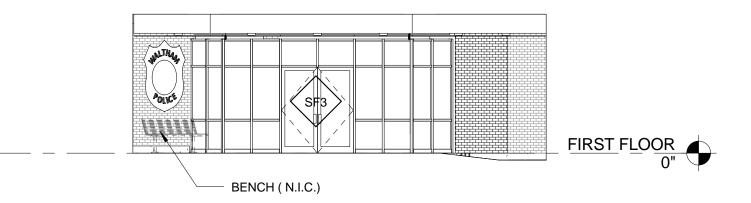
CCCR MAGUIRE Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com					
REVISIONS Number Description Date Image: Image of the system of the sys					
ISSUED FOR BID					
WALTHAM POLICE STATION					
RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS SECOND FLOOR RCP					
PROJECT NUMBER:19401.01DESIGNED BY:FCDRAWN BY:EKM, LRCHECKED BY:CheckerDATE:SCALE:2016 As					
SHEET NUMBER! A122 SHEET 48 OF 157					



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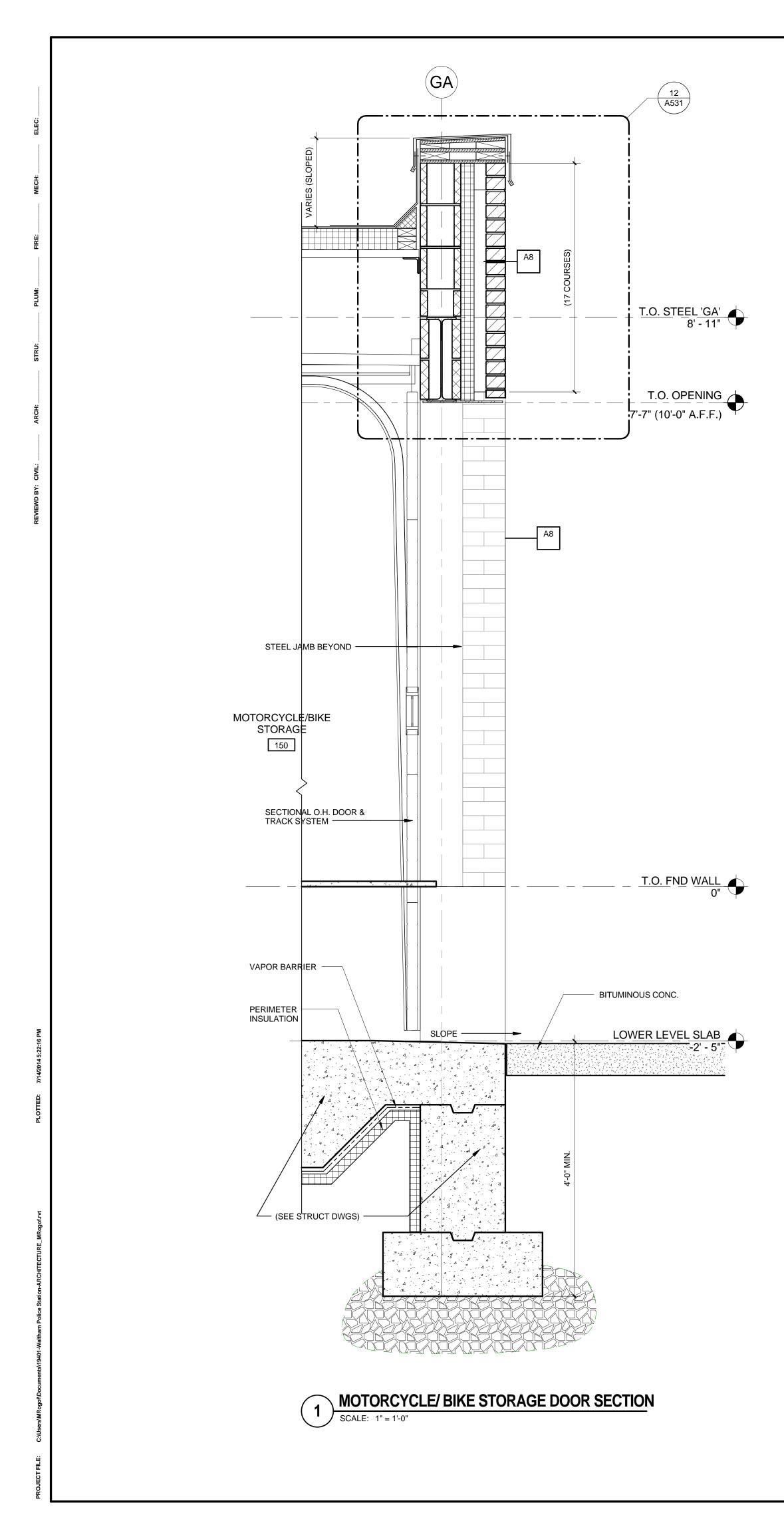


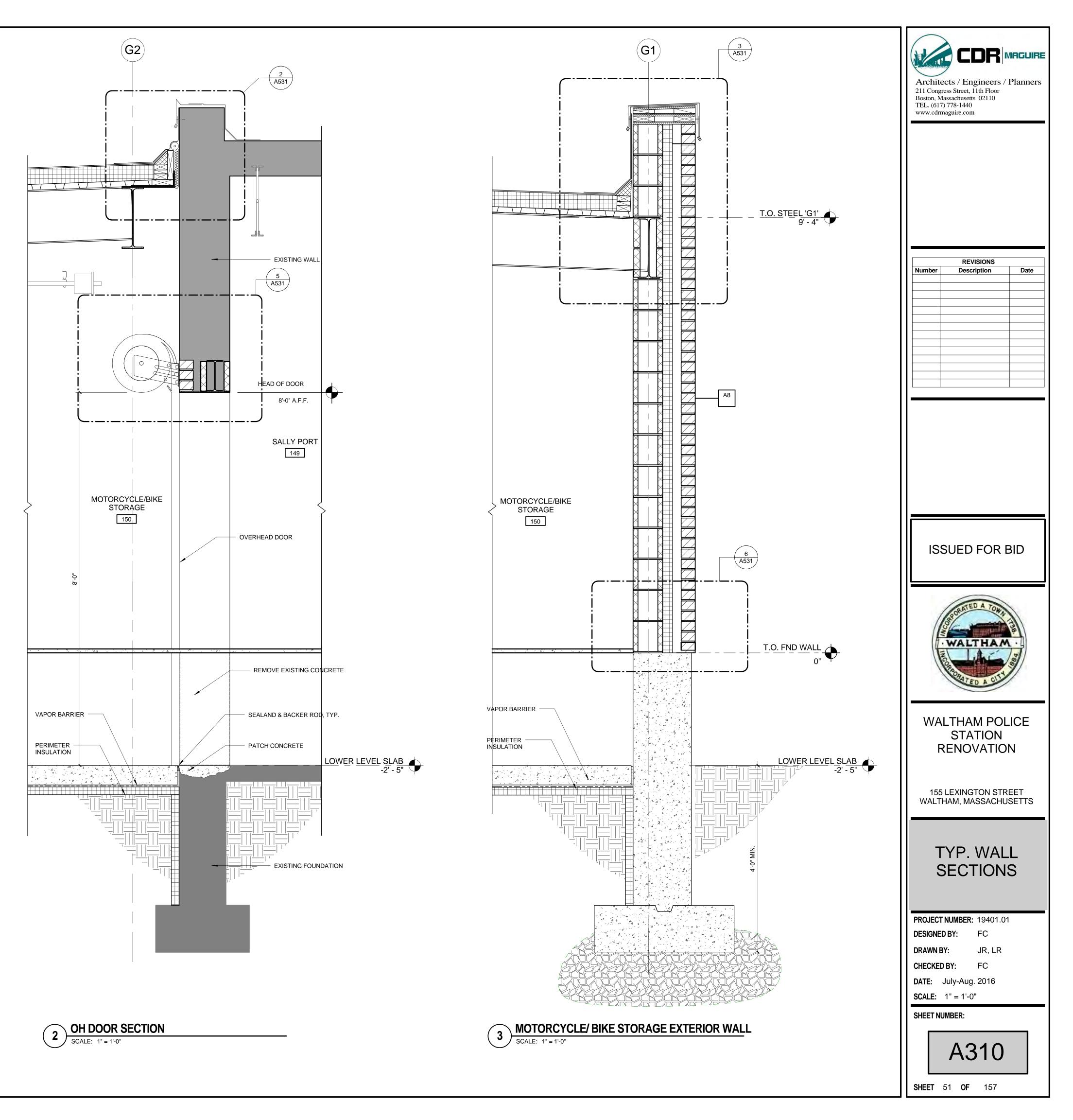


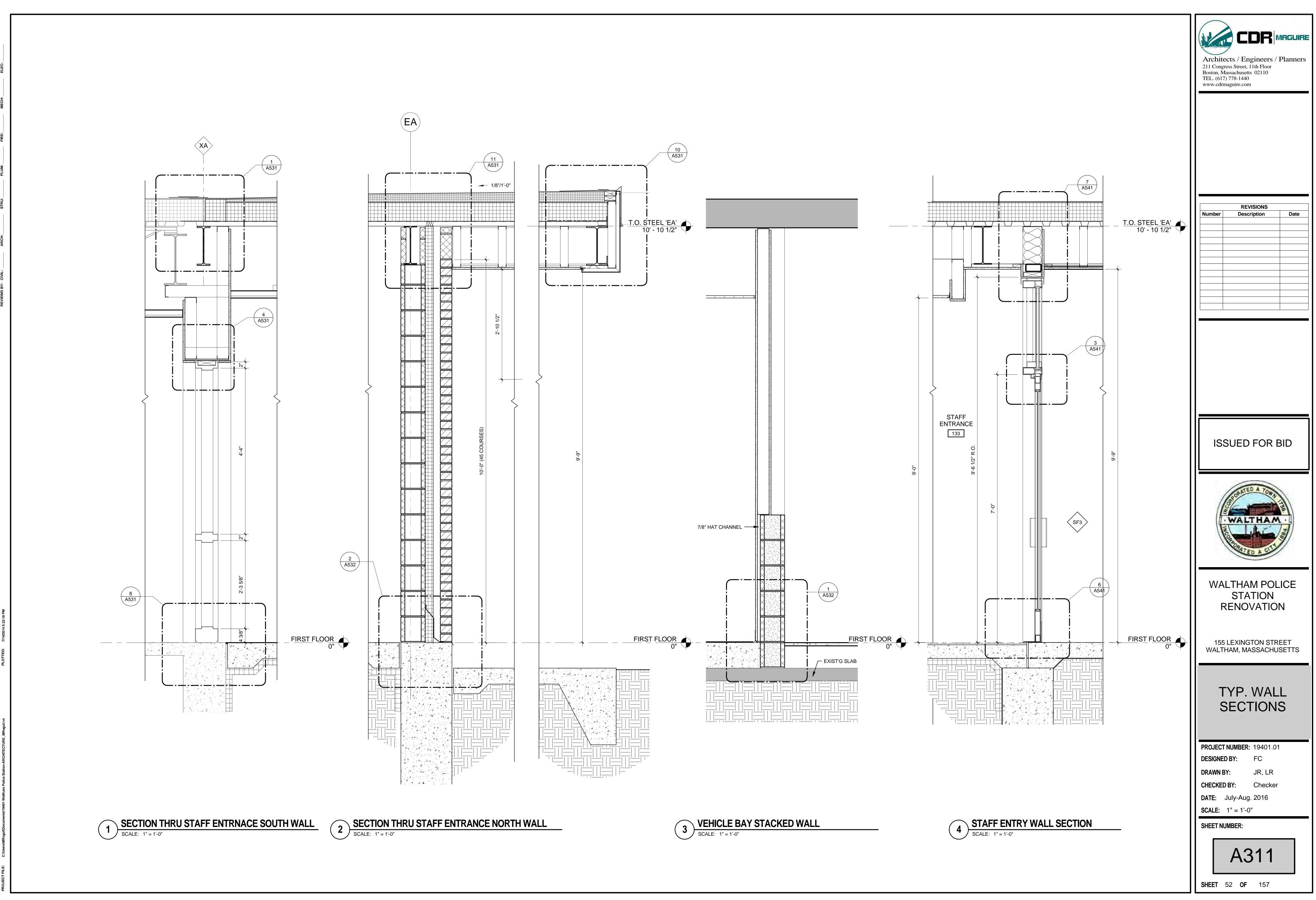


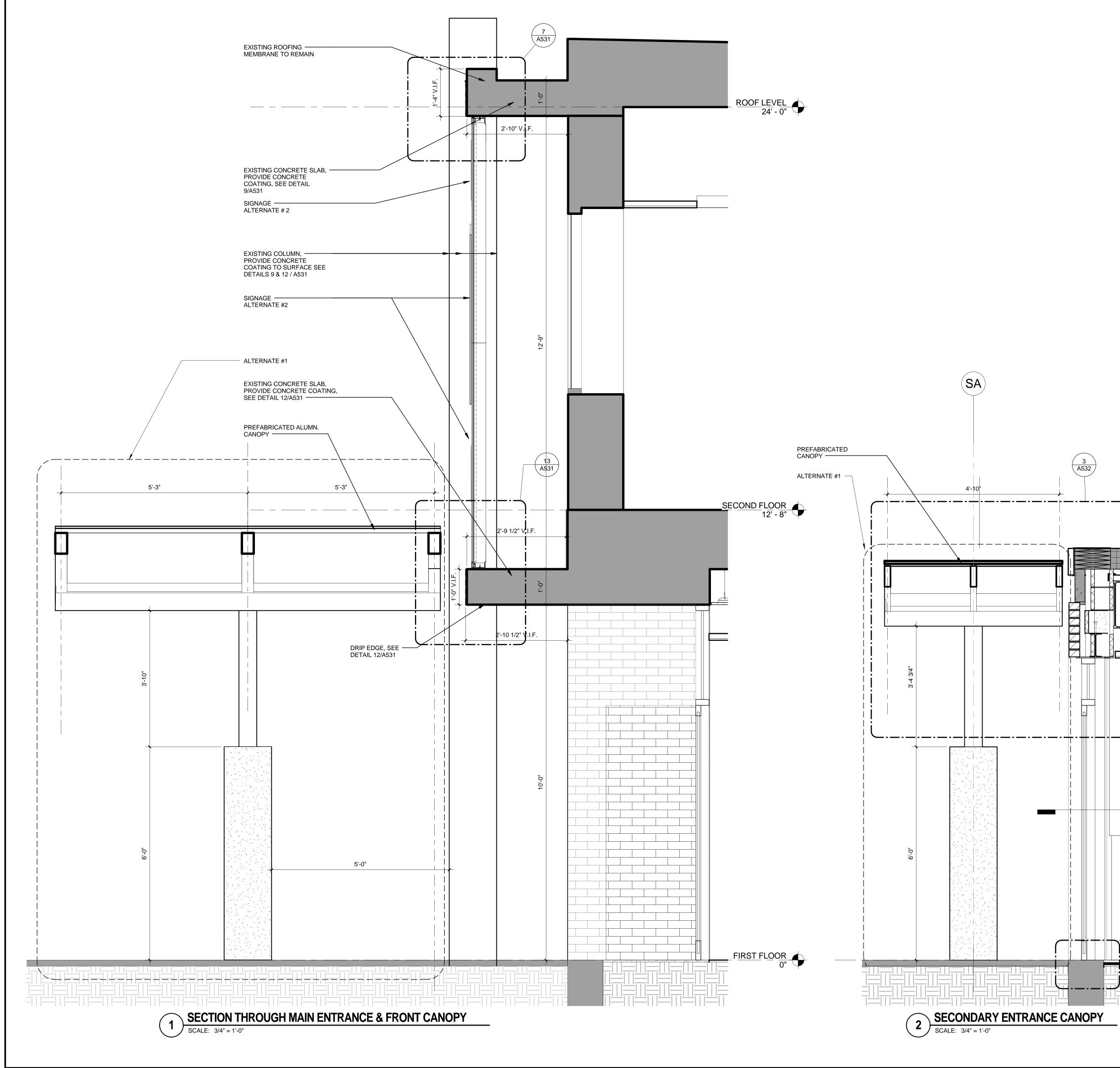
3 STAFF ENTRY ELEVATION NORTHEAST SCALE: 1/8" = 1'-0"

EXTERIOR ELEVATION NOTES	
 REPAIR & PAINT ALL EXISTING WINDOW FRAMES/ SOLID PANELS AND STEEL LINTELS. REMOVE AND REPLACE ALL EXISTING SEALANT JOINTS AROUND PENETRATIONS, DOORS, WINDOWS, AND BETWEEN BRICK AND PRECAST CONCRETE. CLEAN ALL EXISTING EXTERIOR BRICK, SURFACES AS PER SPECIFICATIONS. INCLUDE AN ALLOWANCE OF 30% OF THE EXISTING MORTAR QUANTITY. POWER WASH EXISTING EXTERIOR PRECAST CONCRETE. REMOVE ALL PLANT GROWTH FROM BUILDING FACADE, TYP. PREFRABICATED CANOPIES. TRANSLUCENT PANEL 	CCOR MAGURE Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
$\frac{\text{SECOND FLOOR}}{12' - 8"} \bigoplus$	REVISIONS Number Description Date
	ISSUED FOR BID
$ \begin{array}{c} $	WALTHAM .
	WALTHAM POLICE STATION RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
	EXTERIOR ELEVATION
	PROJECT NUMBER: 19401.01 DESIGNED BY: FC DRAWN BY: EKM, LR CHECKED BY: FC DATE: SCALE: 2016 As SHEET NUMBER:
	A202 Sheet 50 of 157





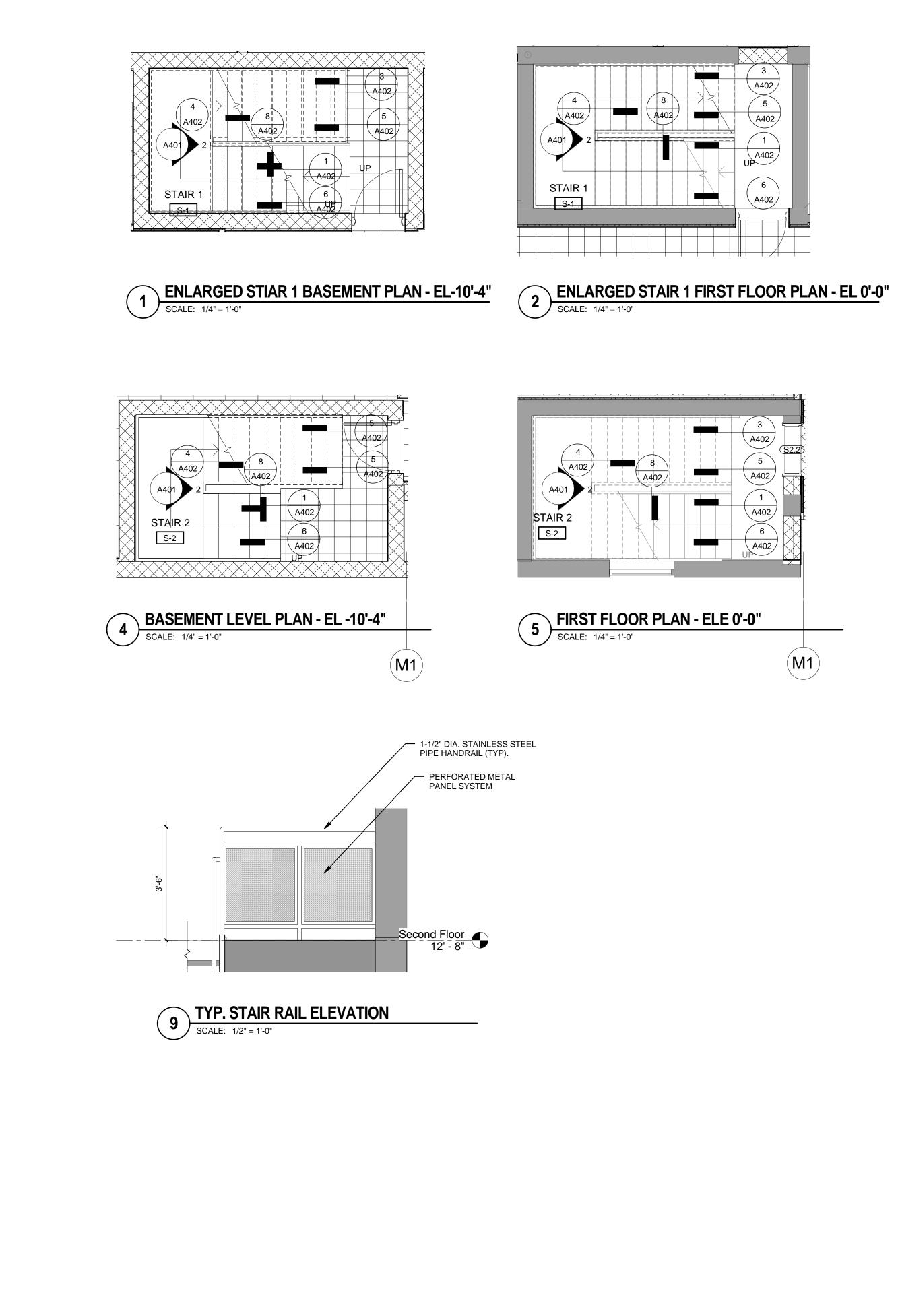


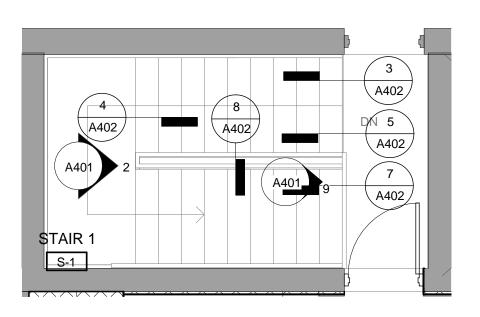


VIEWD BY: CIVIL: _____ ARCH: _____ STRU: _____ PLUM: _____ FIRE: _____ MECH: _____ ELEC: _____

OJECT FILE: C:\Users\utis.riobueno\Documents\19401-Waltham Police Station-ARCHITECTURE_Iuls.riobueno.rvt PLOTTED: 7/15/2014 8:22

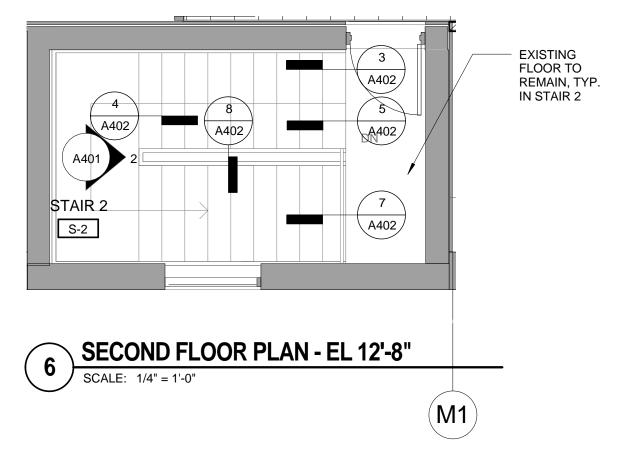
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	WALTHAM .
	WALTHAM POLICE STATION RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
	TYP. WALL SECTIONSPROJECT NUMBER: 19401.01DESIGNED BY: DesignerDRAWN BY: LR
FIRST FLOOR 0" 0" 0" FIRST FLOOR 0" 0" 0" 0" 0" 0" 0" 0"	CHECKED BY: Checker DATE: July-Aug. 2016 SCALE: 3/4" = 1'-0" SHEET NUMBER: A312 SHEET 53 OF 157





3 ENLARGED STAIR 1 SECOND FLOOR PLAN - EL 12'-8" SCALE: 1/4" = 1'-0"

(M1)



Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com REVISIONS Number Description Date **ISSUED FOR BID** WALTHAM Ar WALTHAM POLICE STATION RENOVATION **155 LEXINGTON STREET** WALTHAM, MASSACHUSETTS STAIR PLAN, SECTIONS, DETAILS PROJECT NUMBER: 19401.01 DESIGNED BY: FC EKM DRAWN BY: CHECKED BY: FC

DATE: July-Aug. 2016

SCALE: As indicated

SHEET 54 **OF** 157

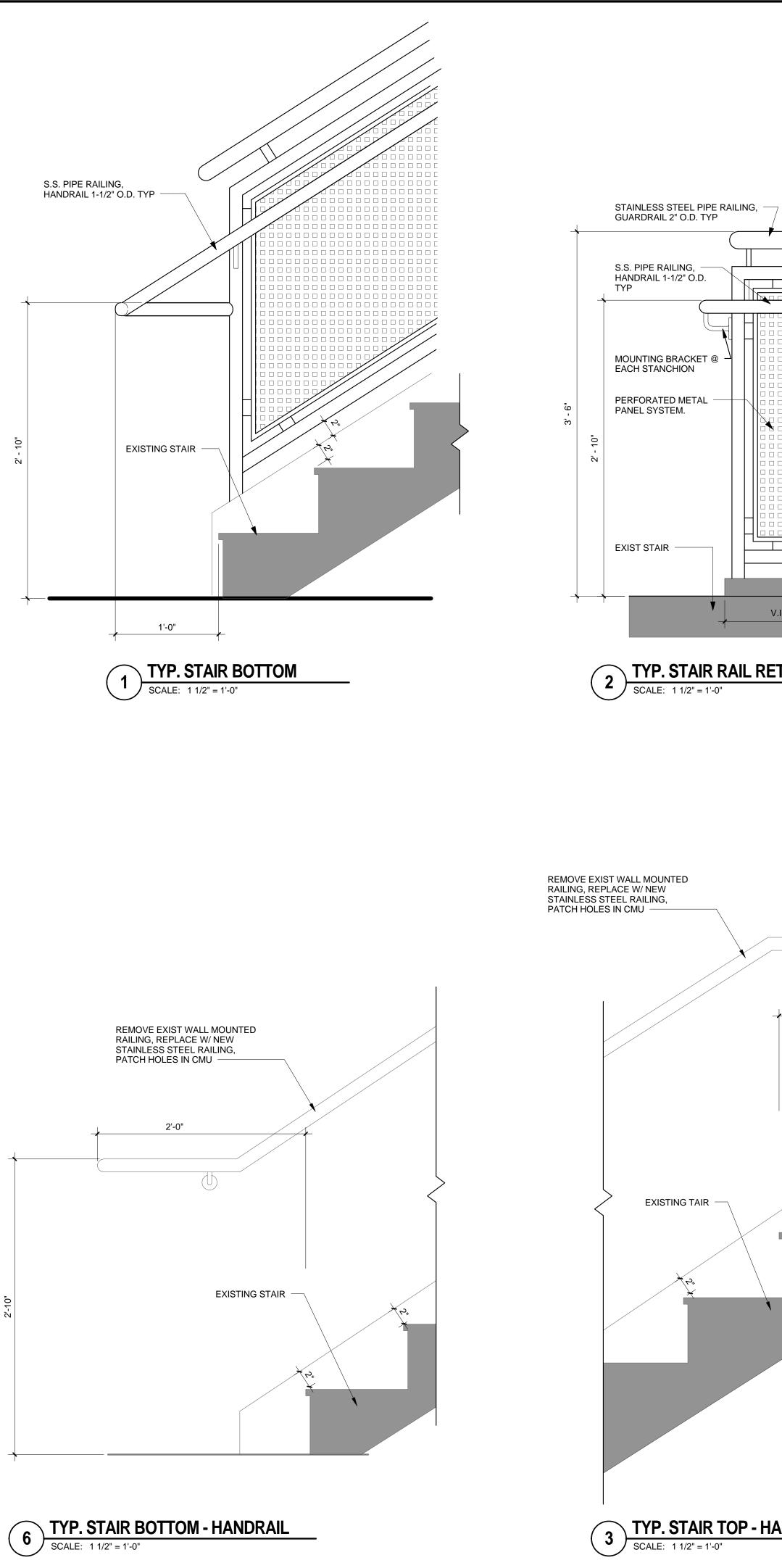
A401

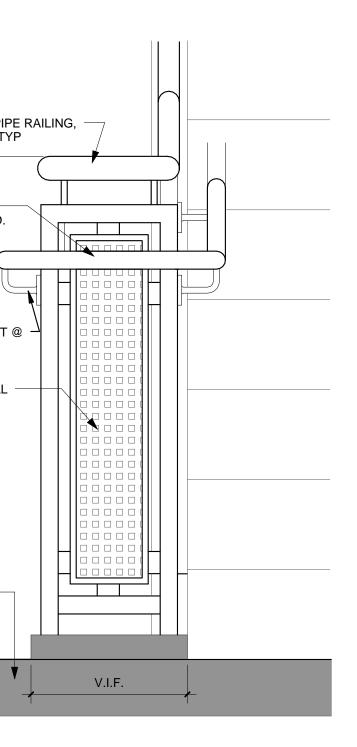
SHEET NUMBER:

STAIR NOTES

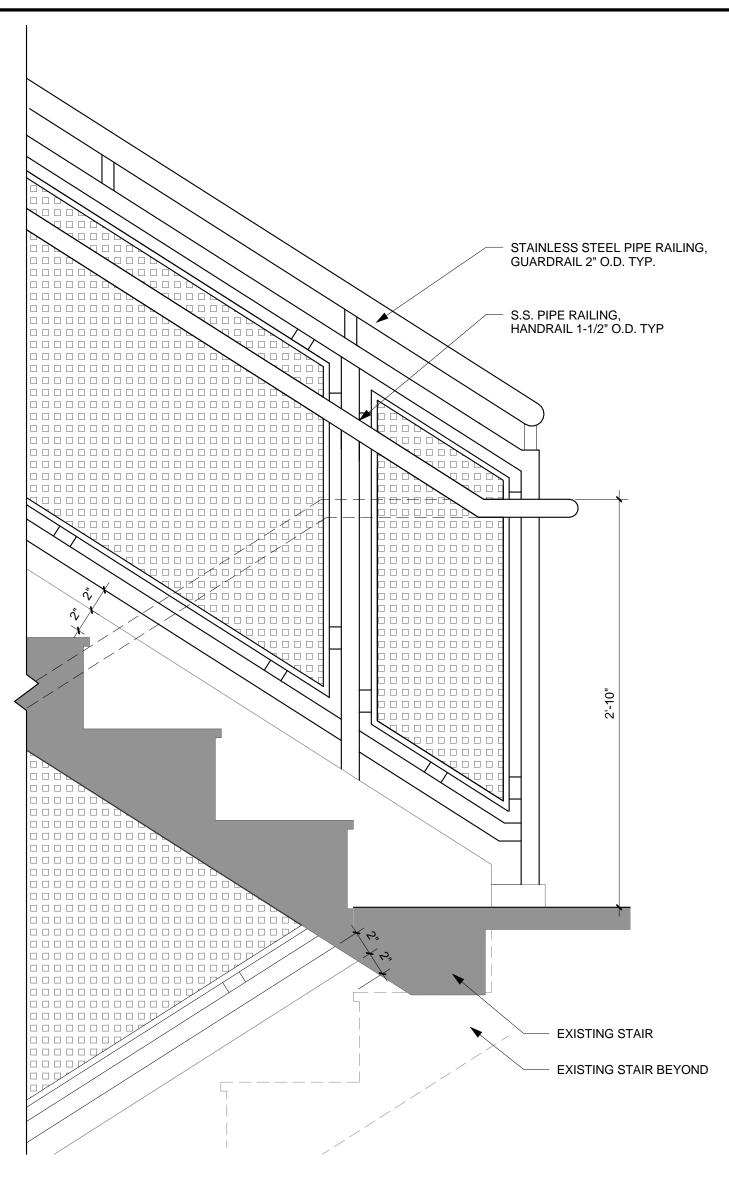
- REMOVE EXISTING GUARDRAILS AND HANDRAILS.
- NEW GUARDRAILS AND HANDRAILS, SEE DETAILS ON A402
- REMOVE DOOR, PATCH MASONRY.
- PAINT CMU, POLYMIX, SEE SPECIFICATIONS. 4.
- REFINISH TERRAZO FLOORING / TREADS IN STAIR 2
- NEW GWB CEILING AND UNDERSIDE OF STAIR. 6. PAINT UNDERSIDE OF STAIR. 7
- 8. PAINT DOORS & WINDOW FRAME.



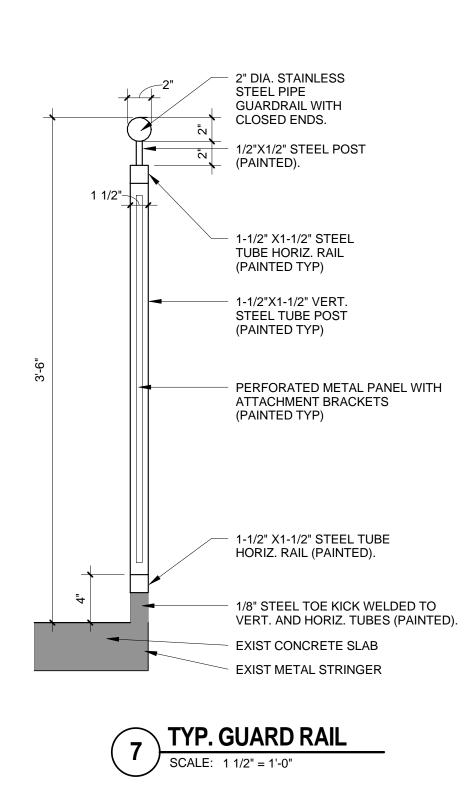


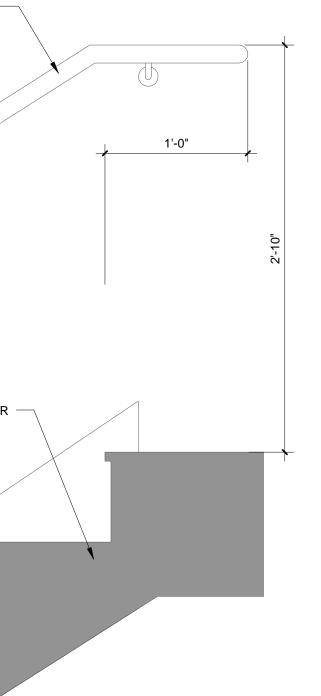




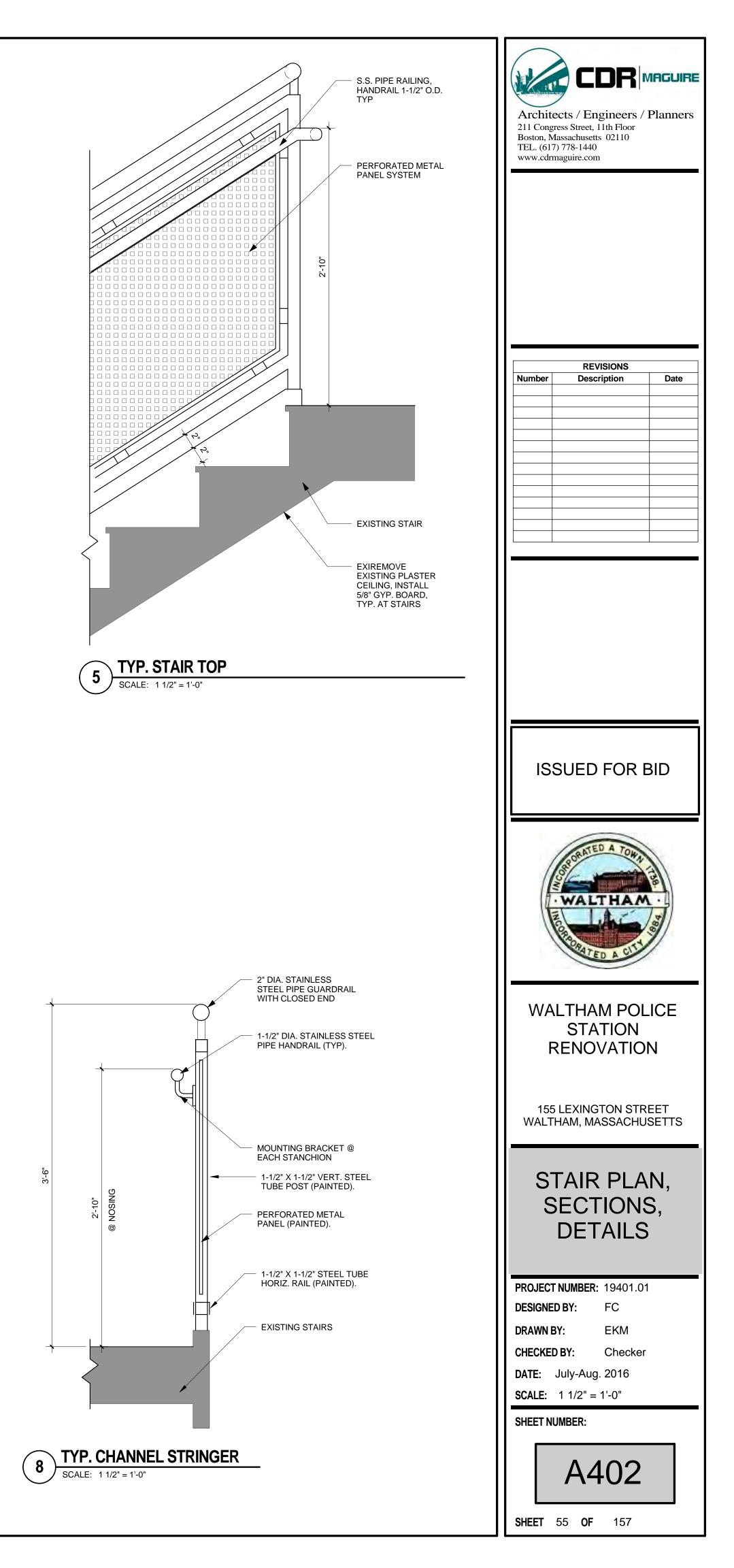


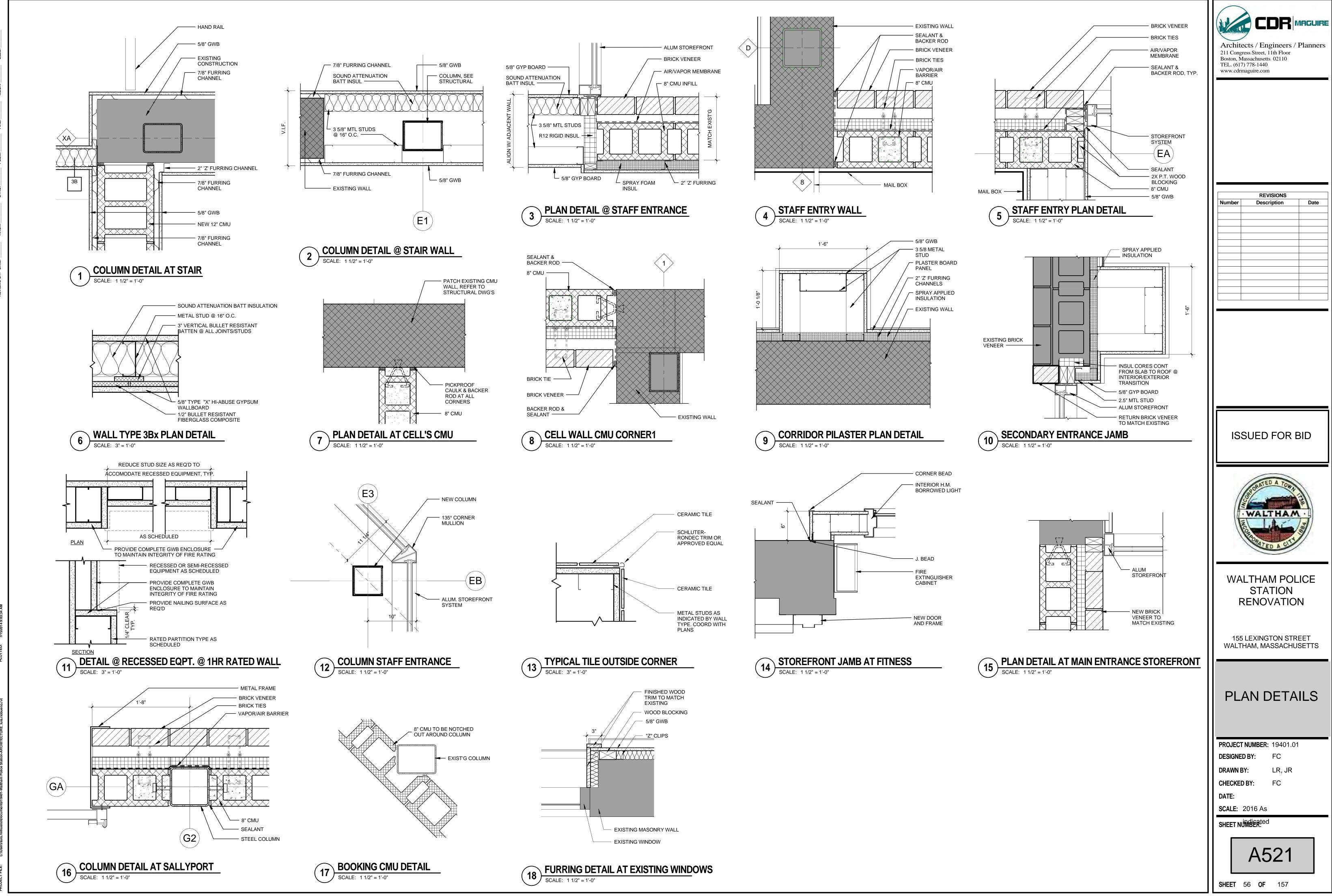


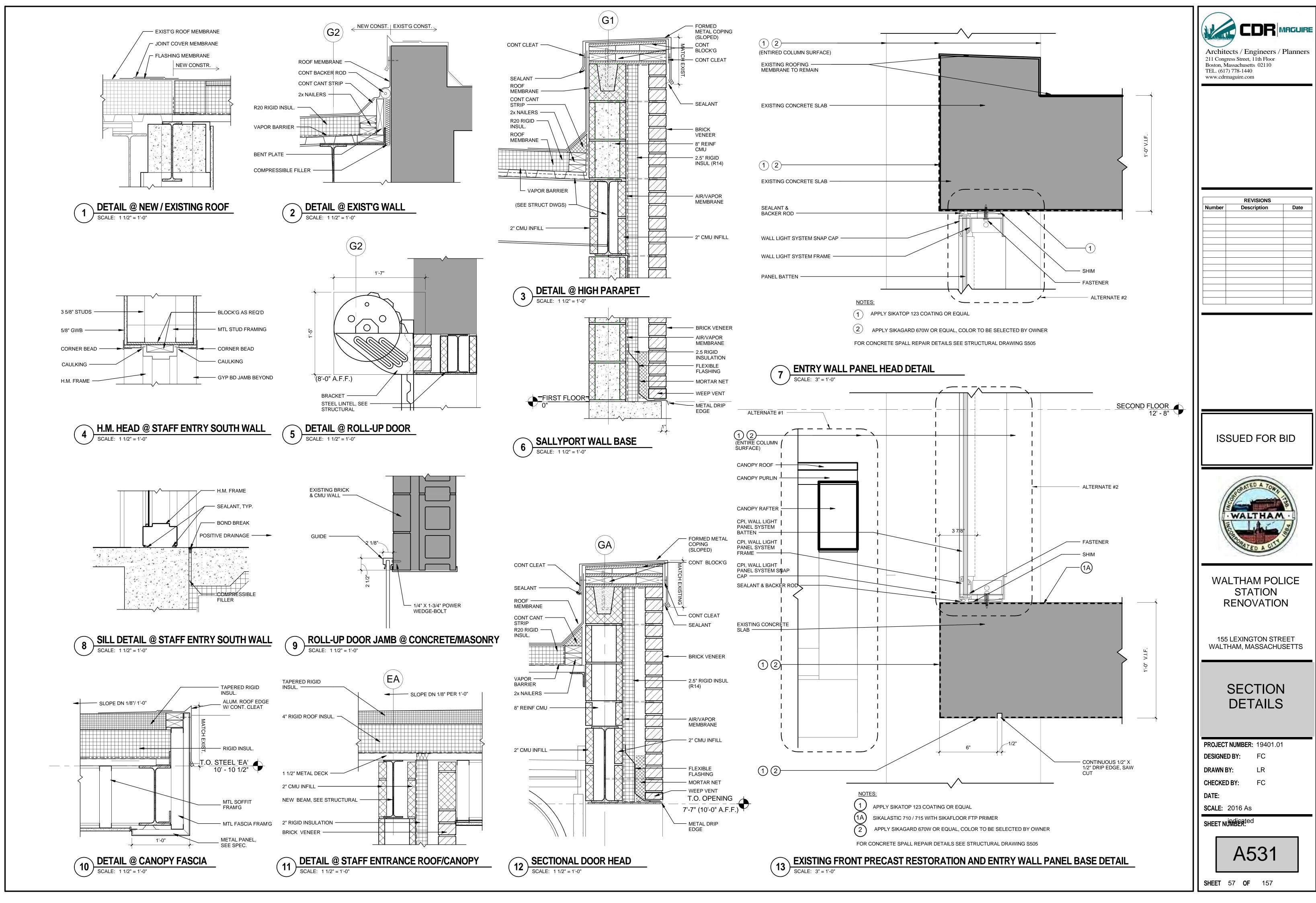


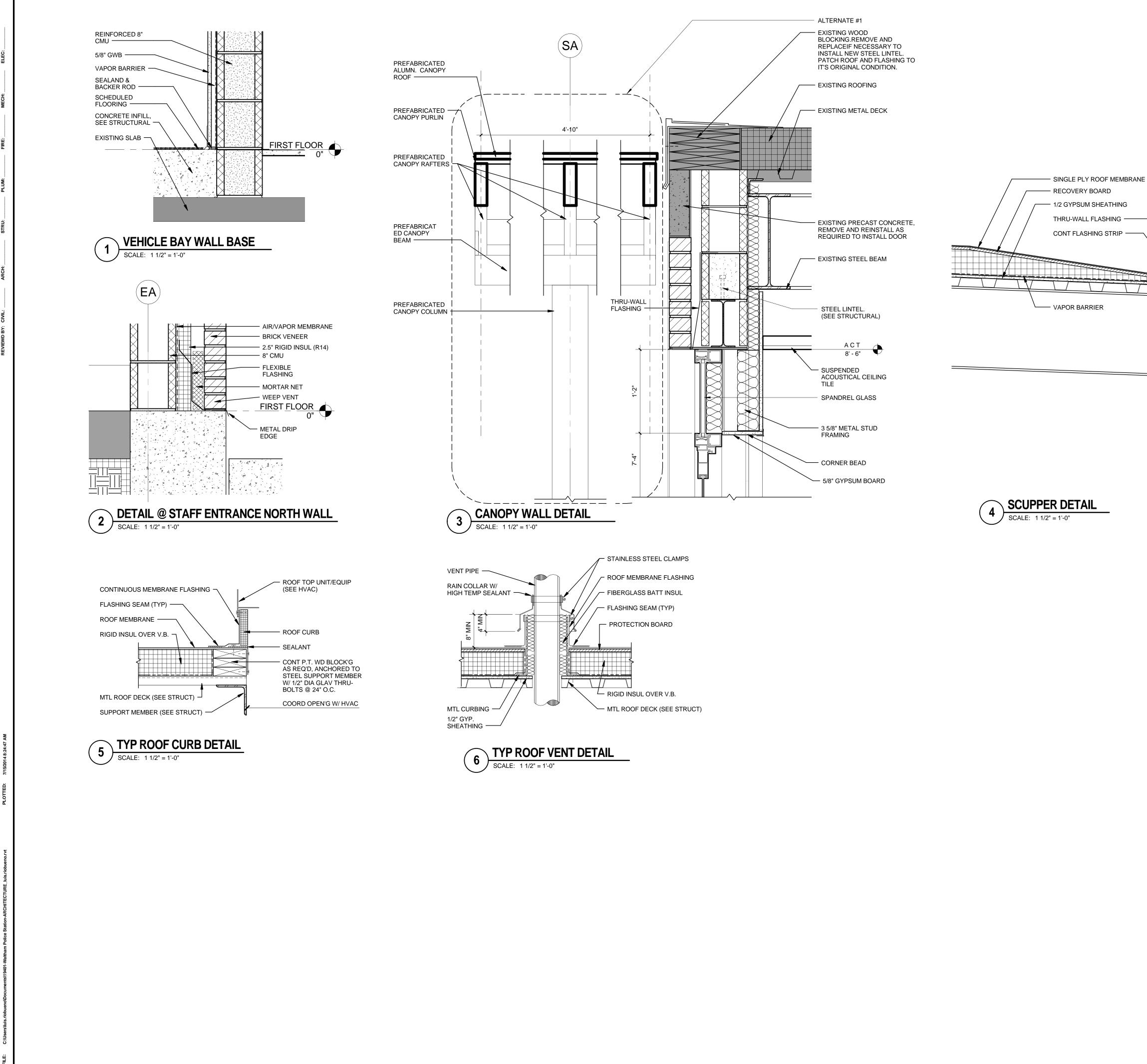


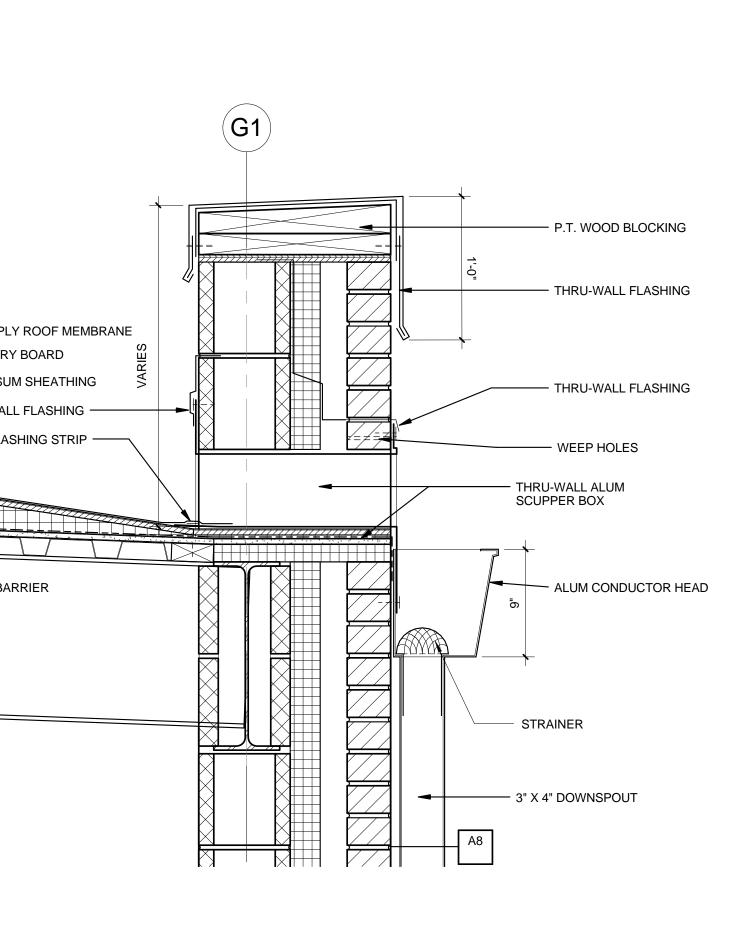
TYP. STAIR TOP - HANDRAIL

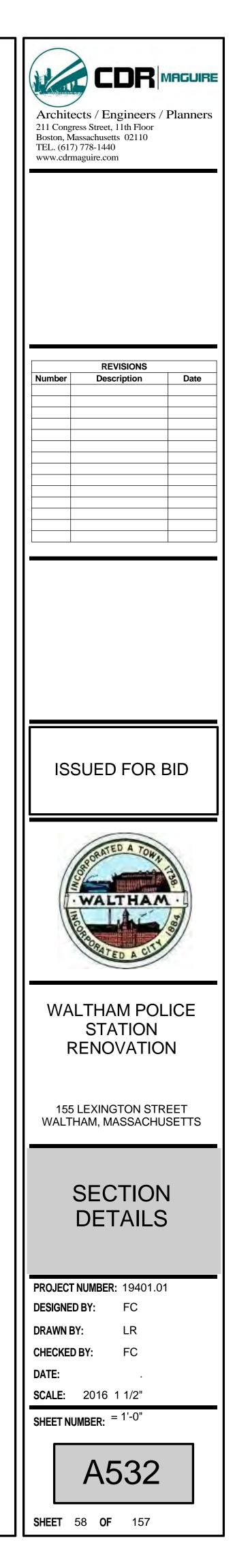


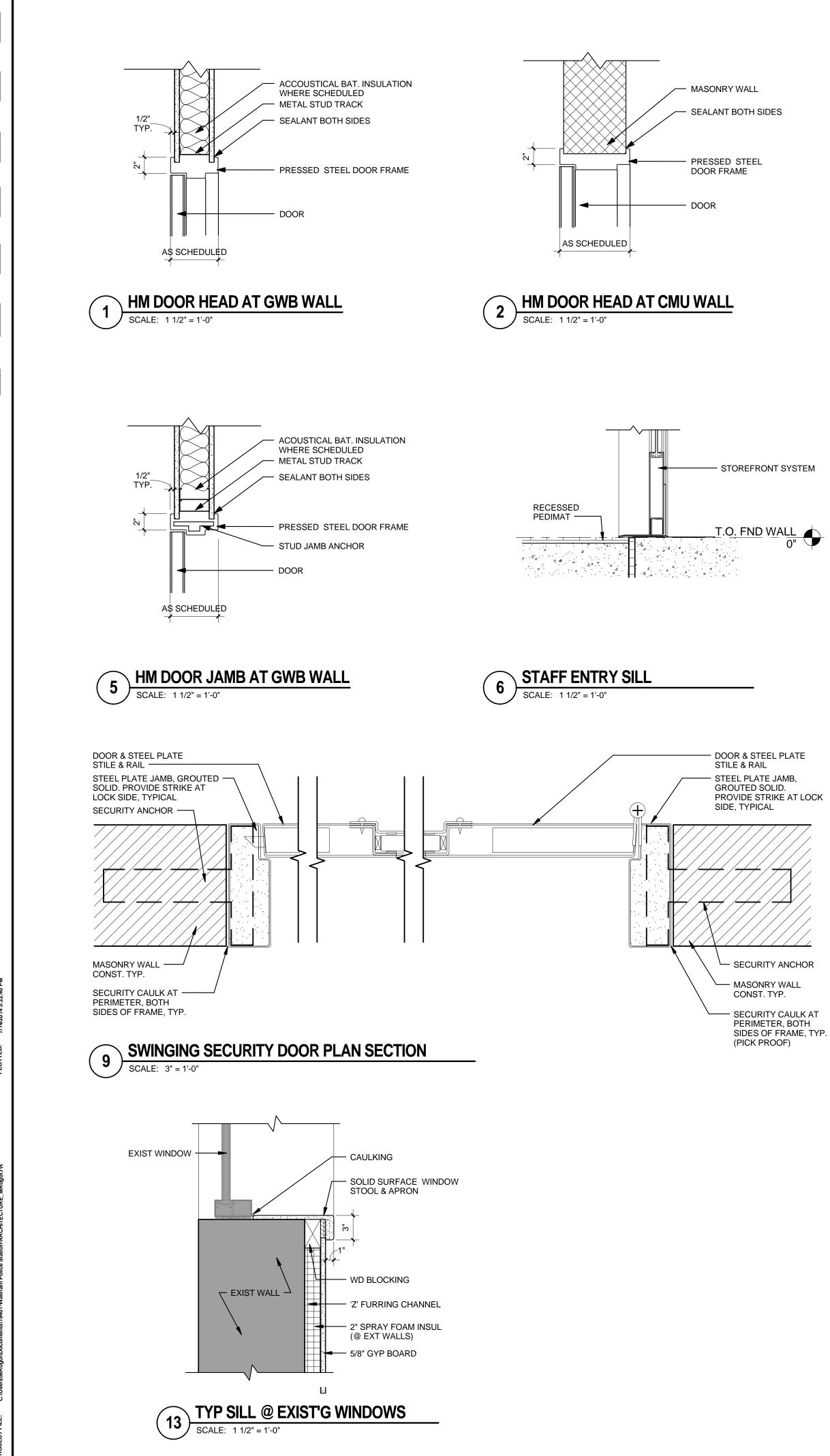


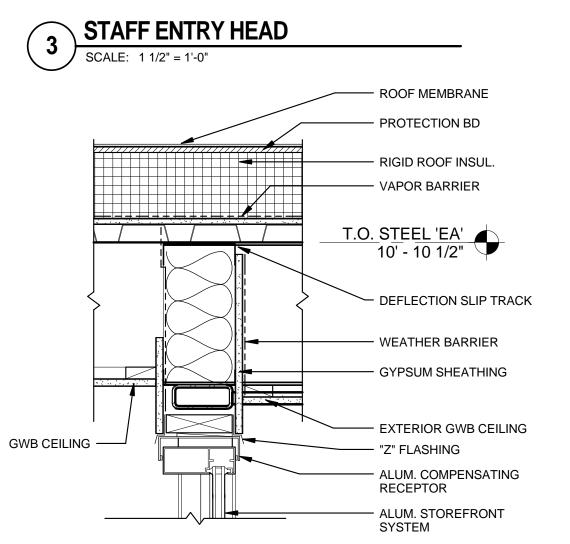




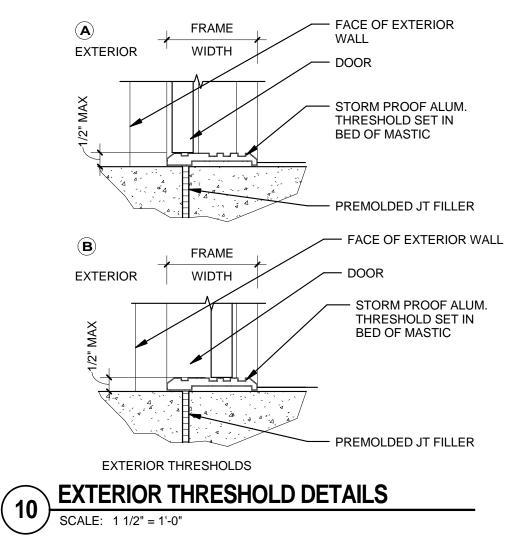


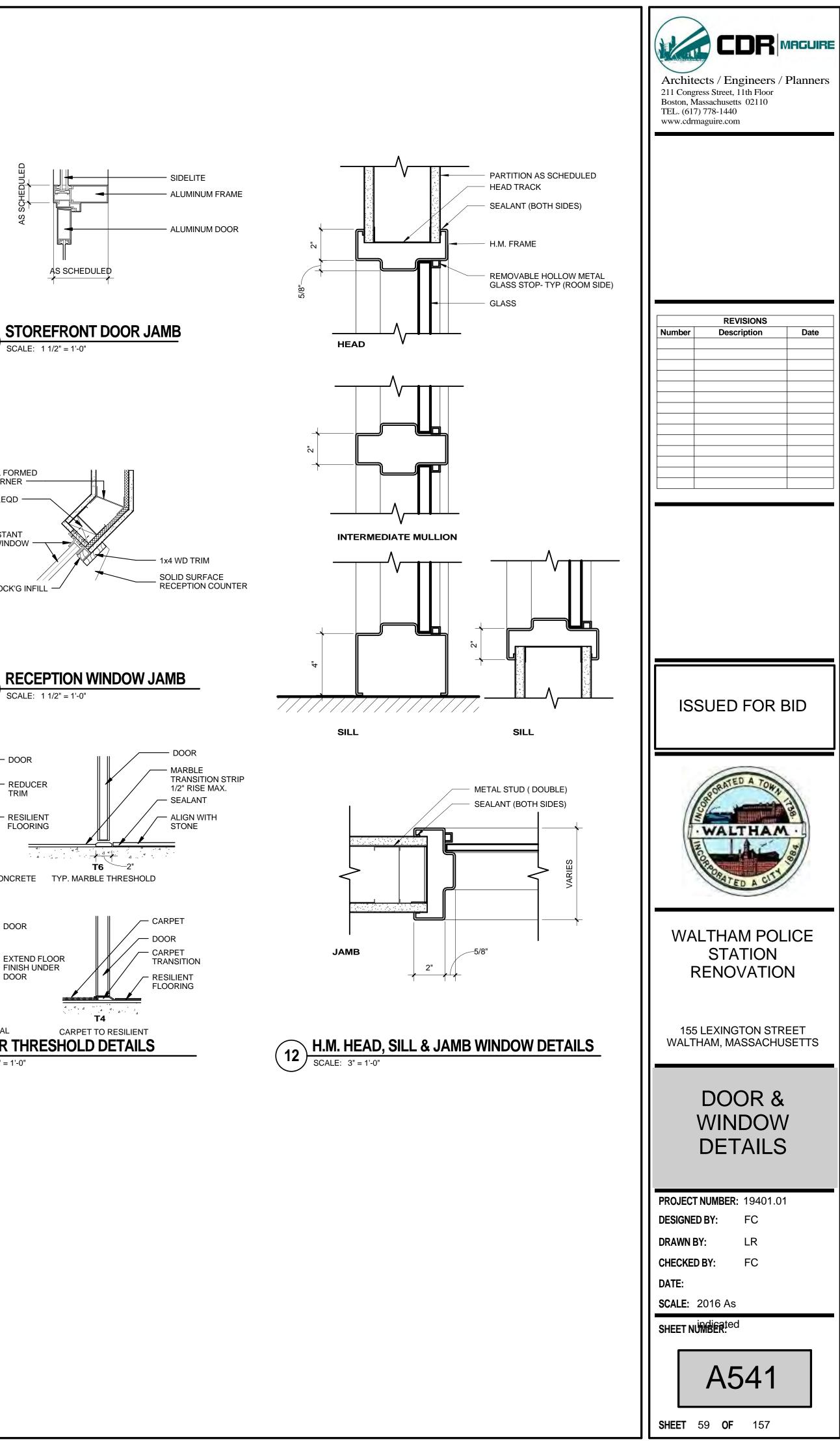


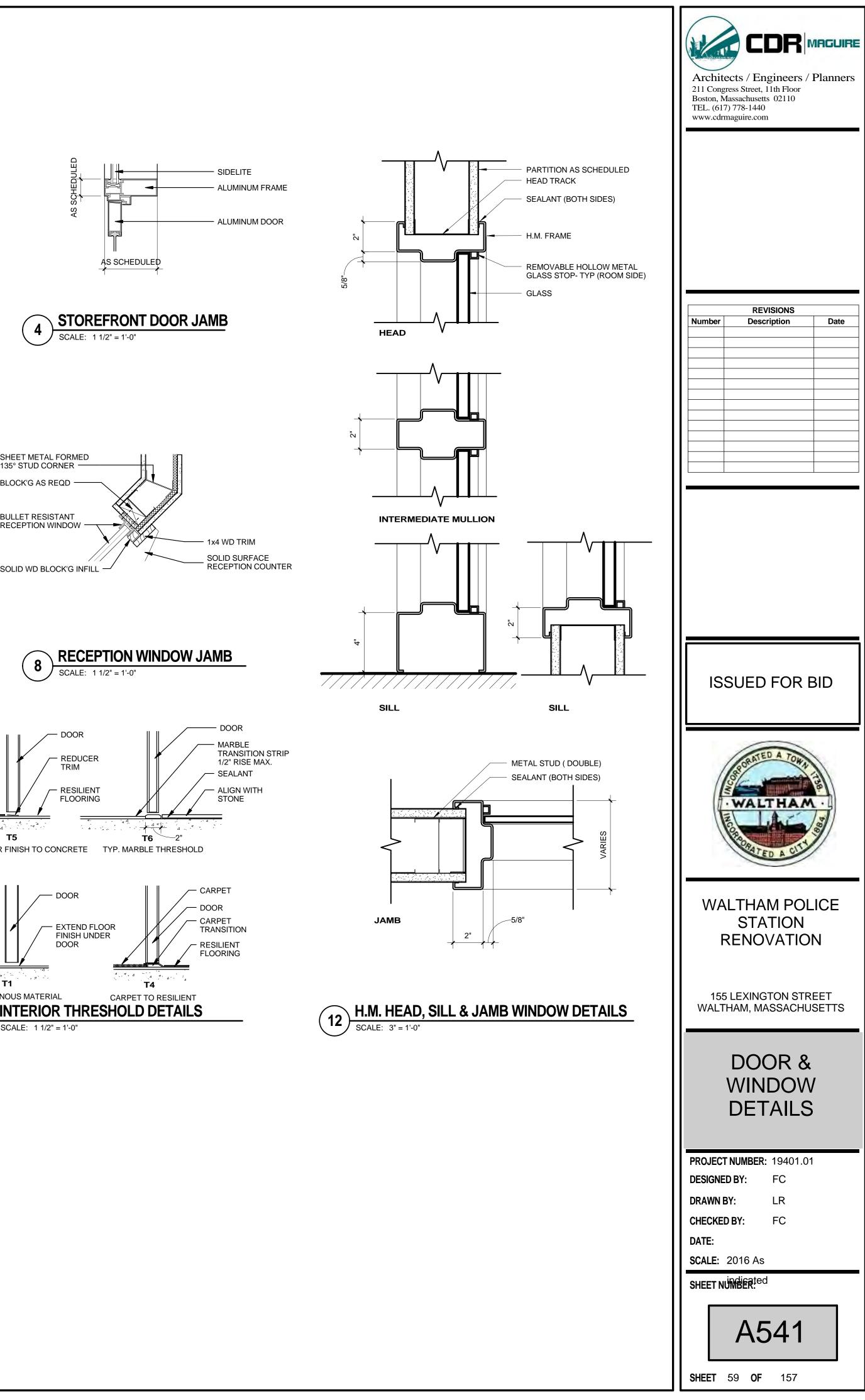


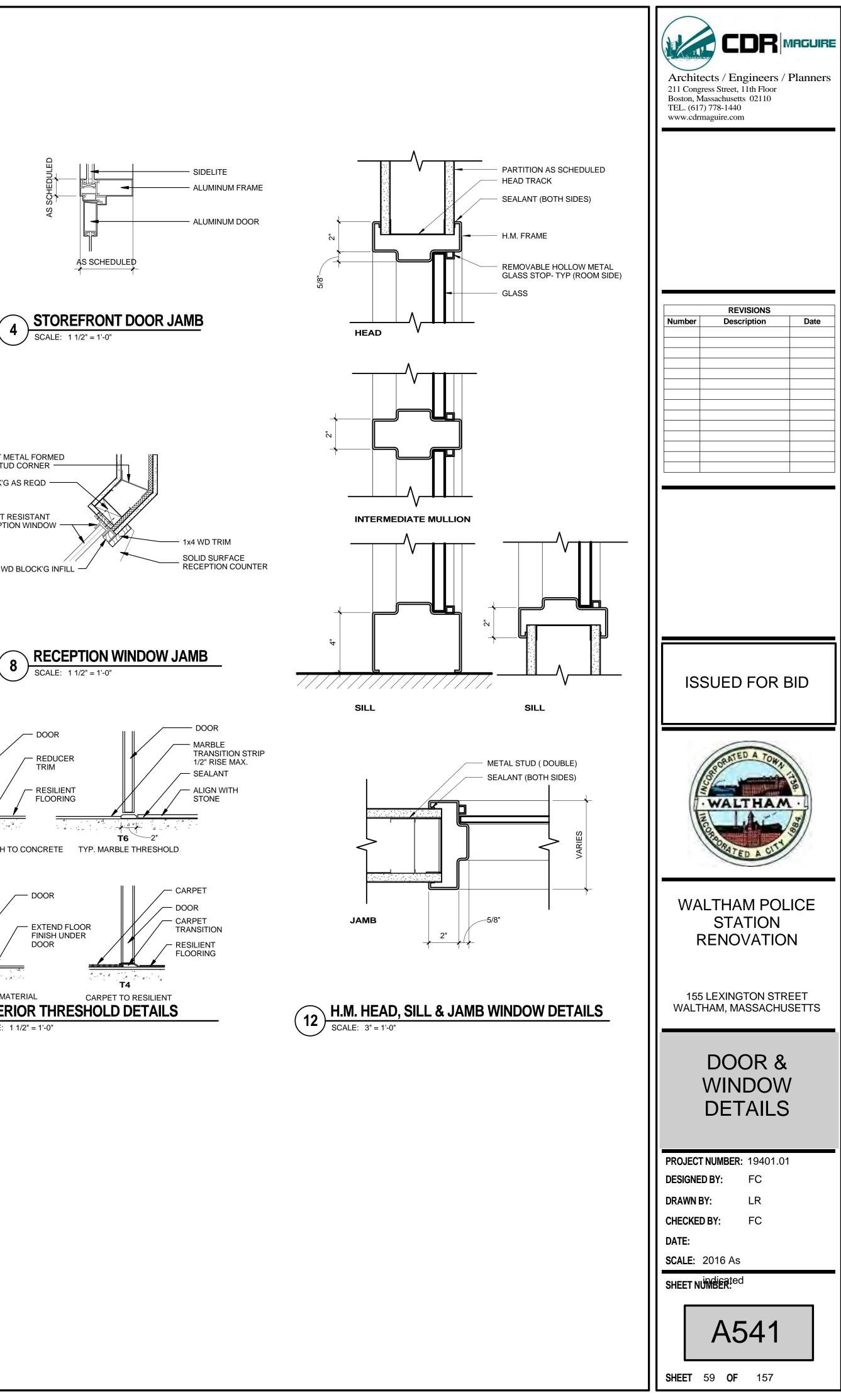


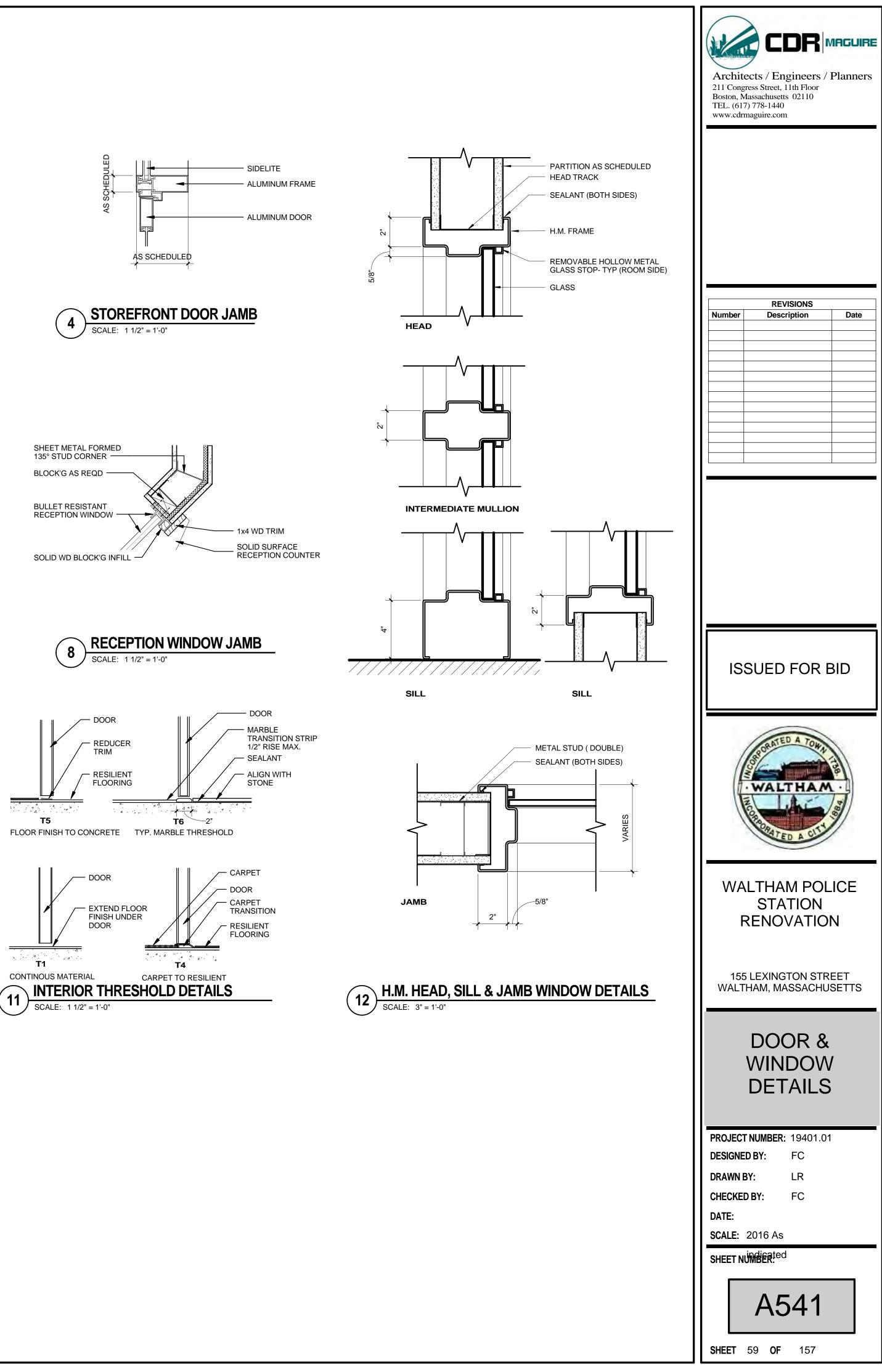




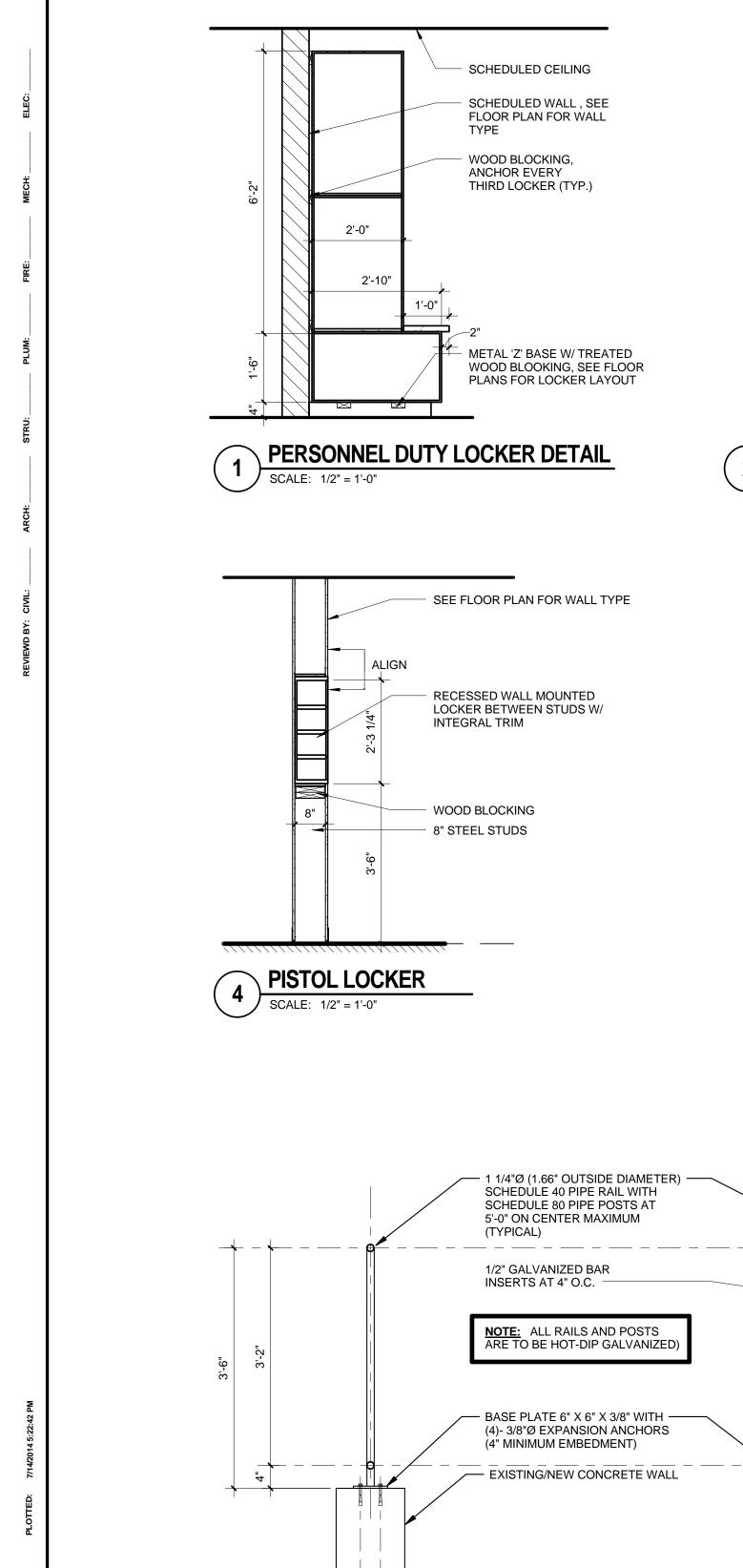


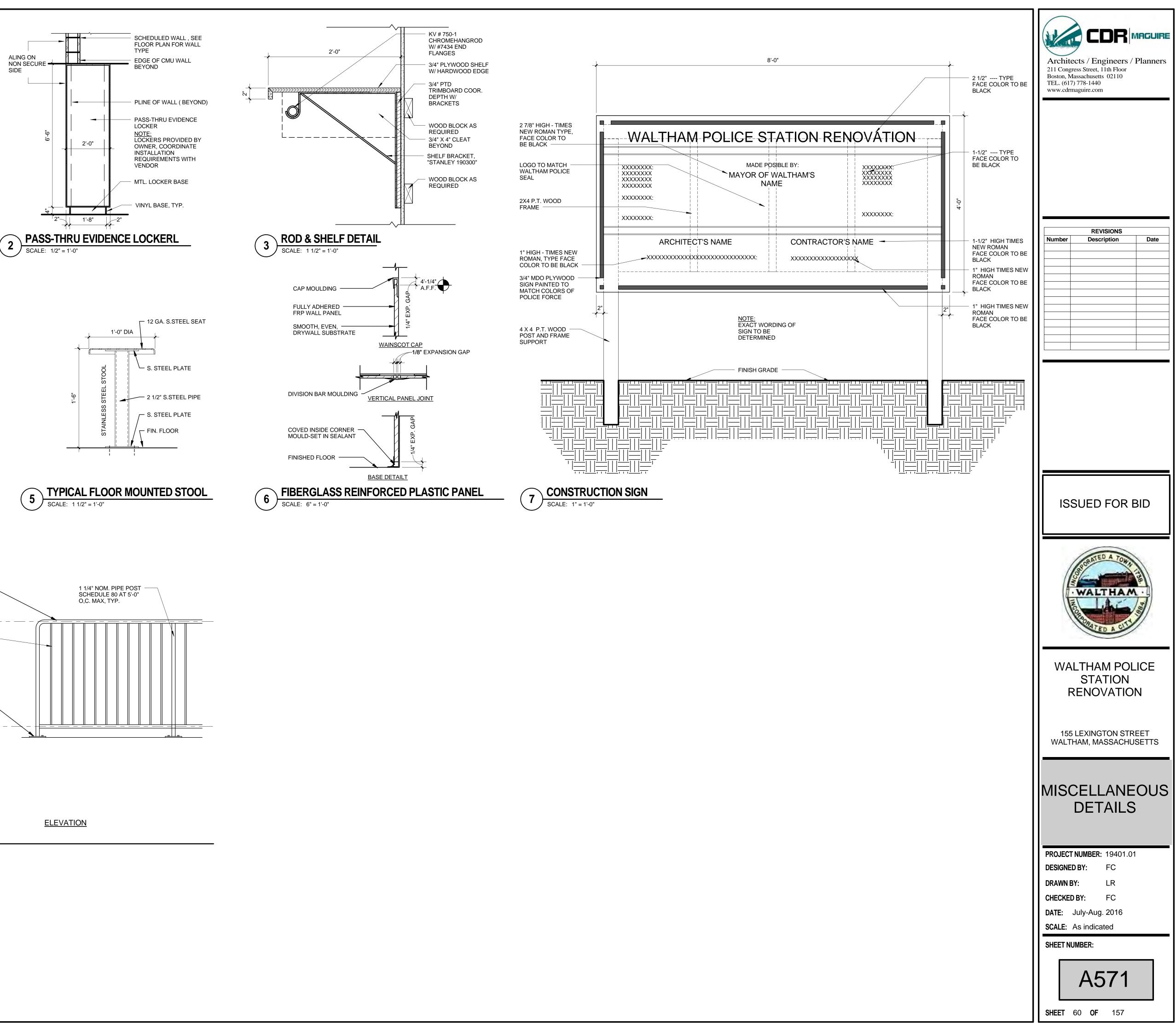


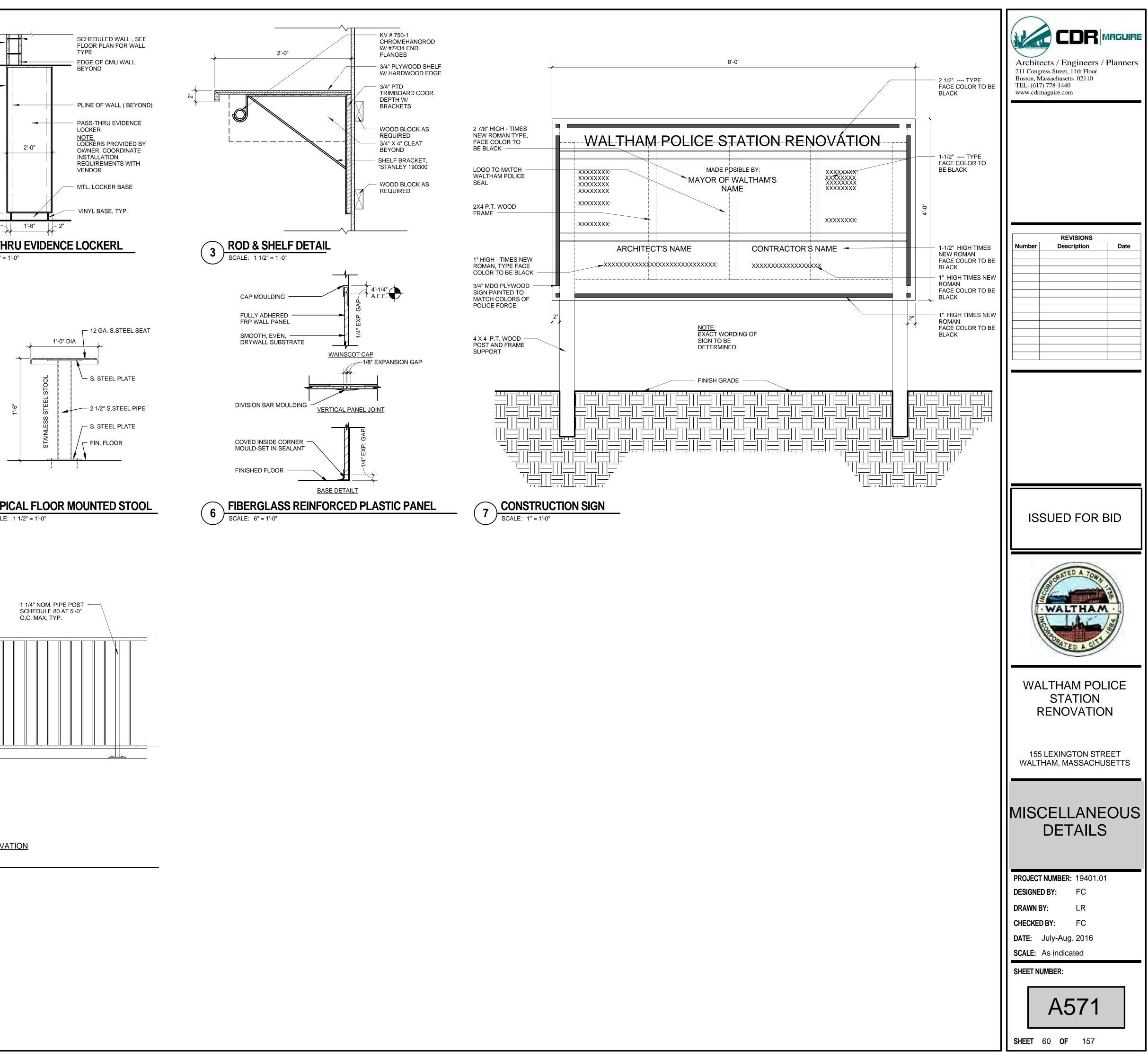


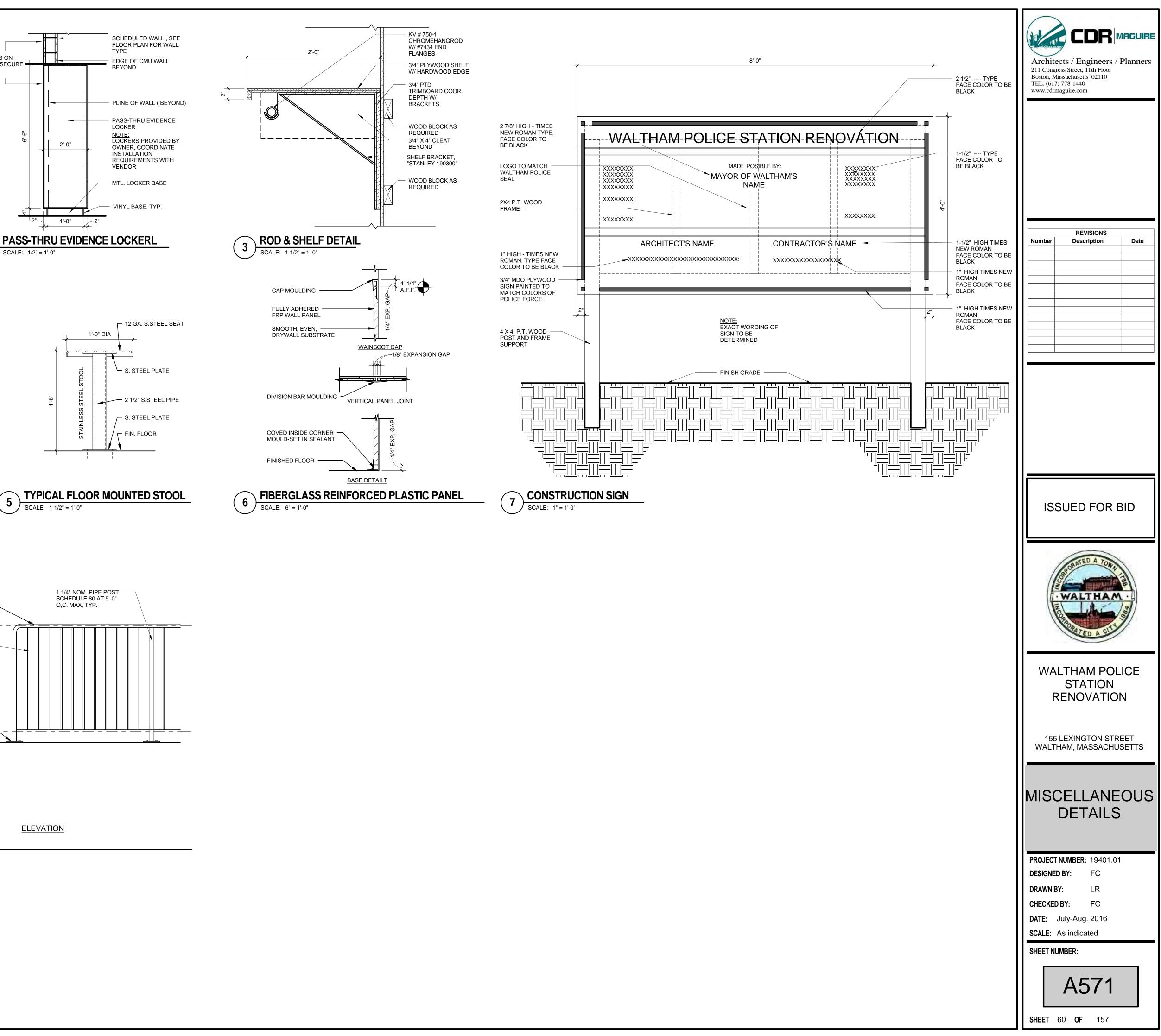


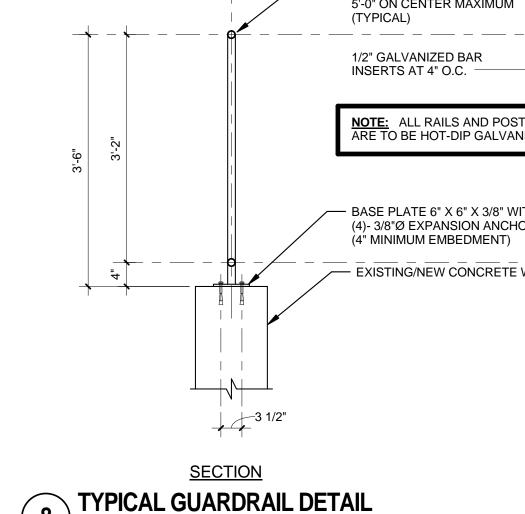
- STOREFRONT SYSTEM







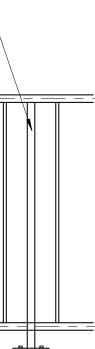


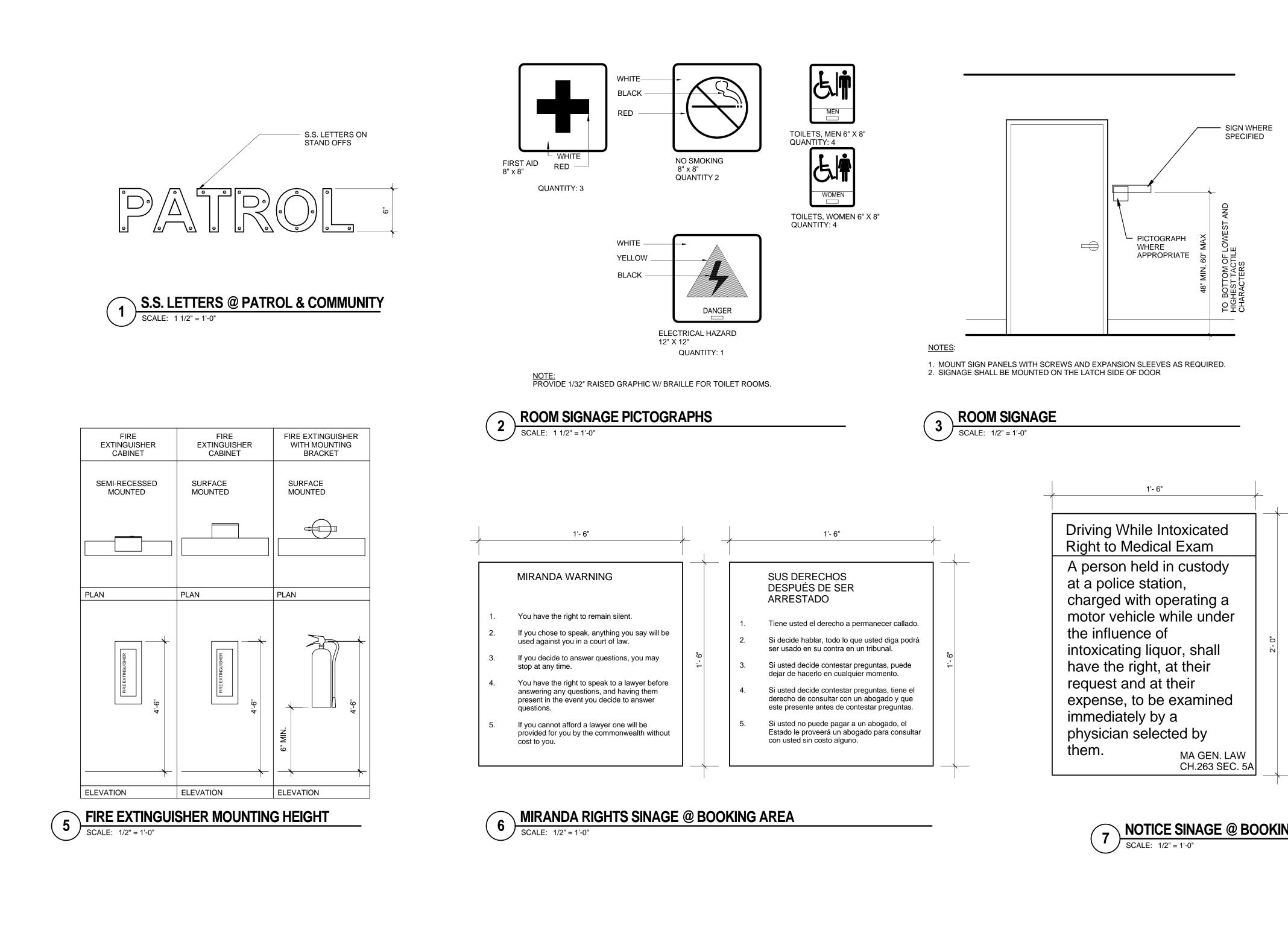




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SCALE: 3/4" = 1'-0"



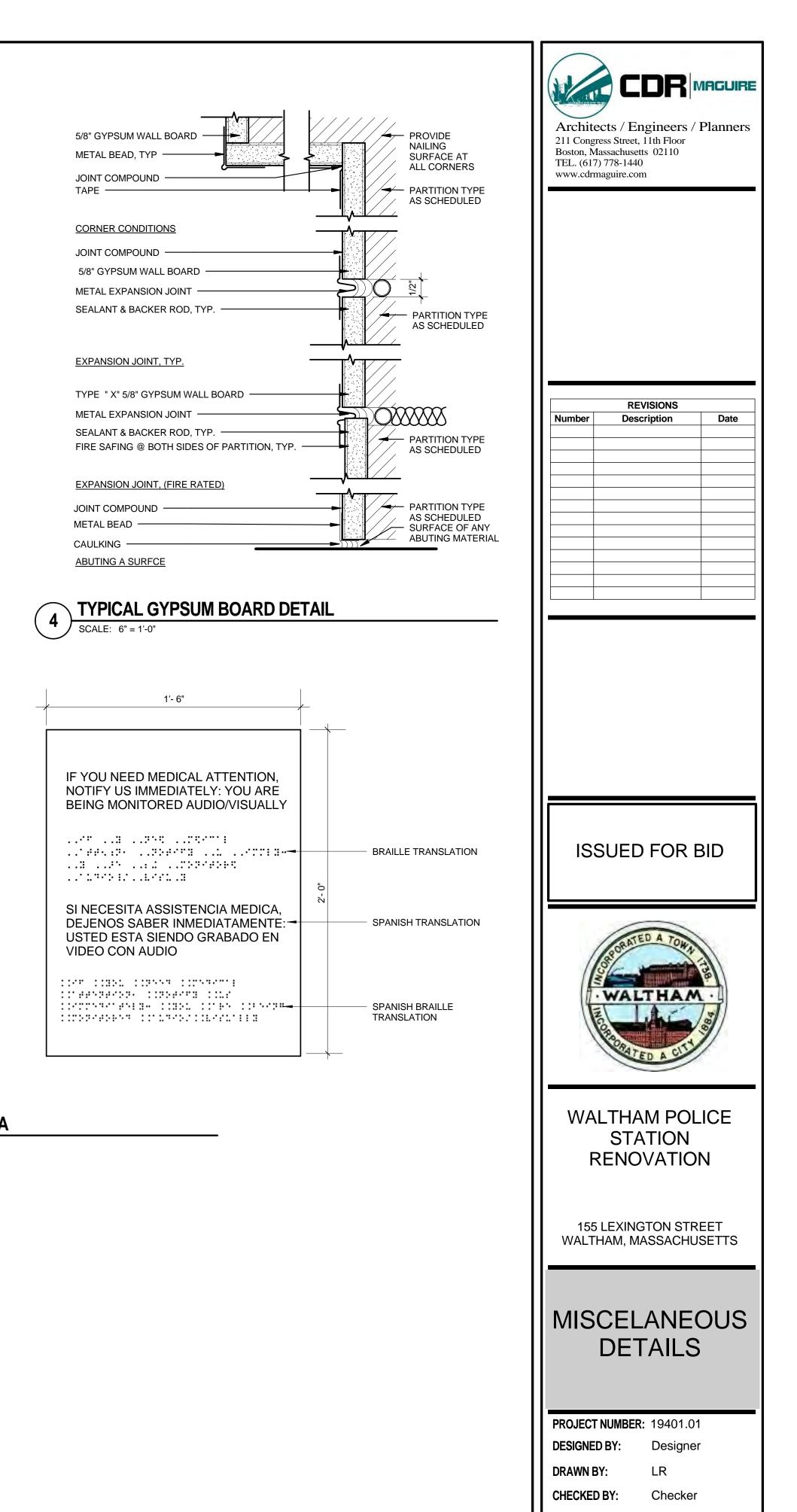


INSTALL GRAPHIC AS SHOWN IN EPOXY FLOORING BELOW CLEAR TOPCOAT IN CONTRASTING COLOR *1"x1" SQUARES

FOOTPRINT GRAPHIC

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

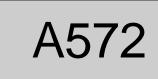
7 NOTICE SINAGE @ BOOKING AREA SCALE: 1/2" = 1'-0"



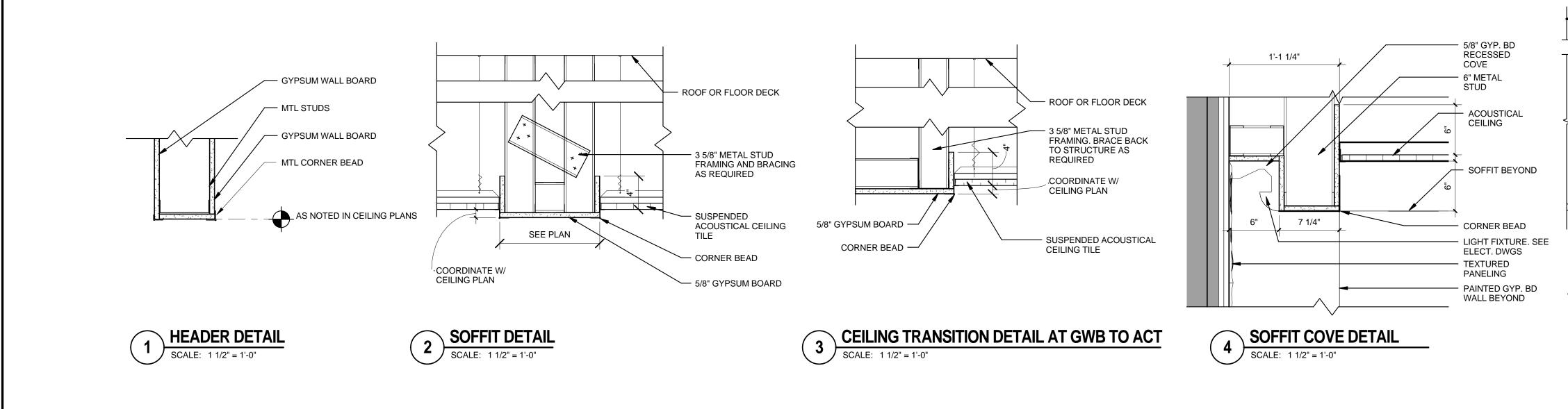
DATE:	July-Aug. 2016
SCALE:	As indicated

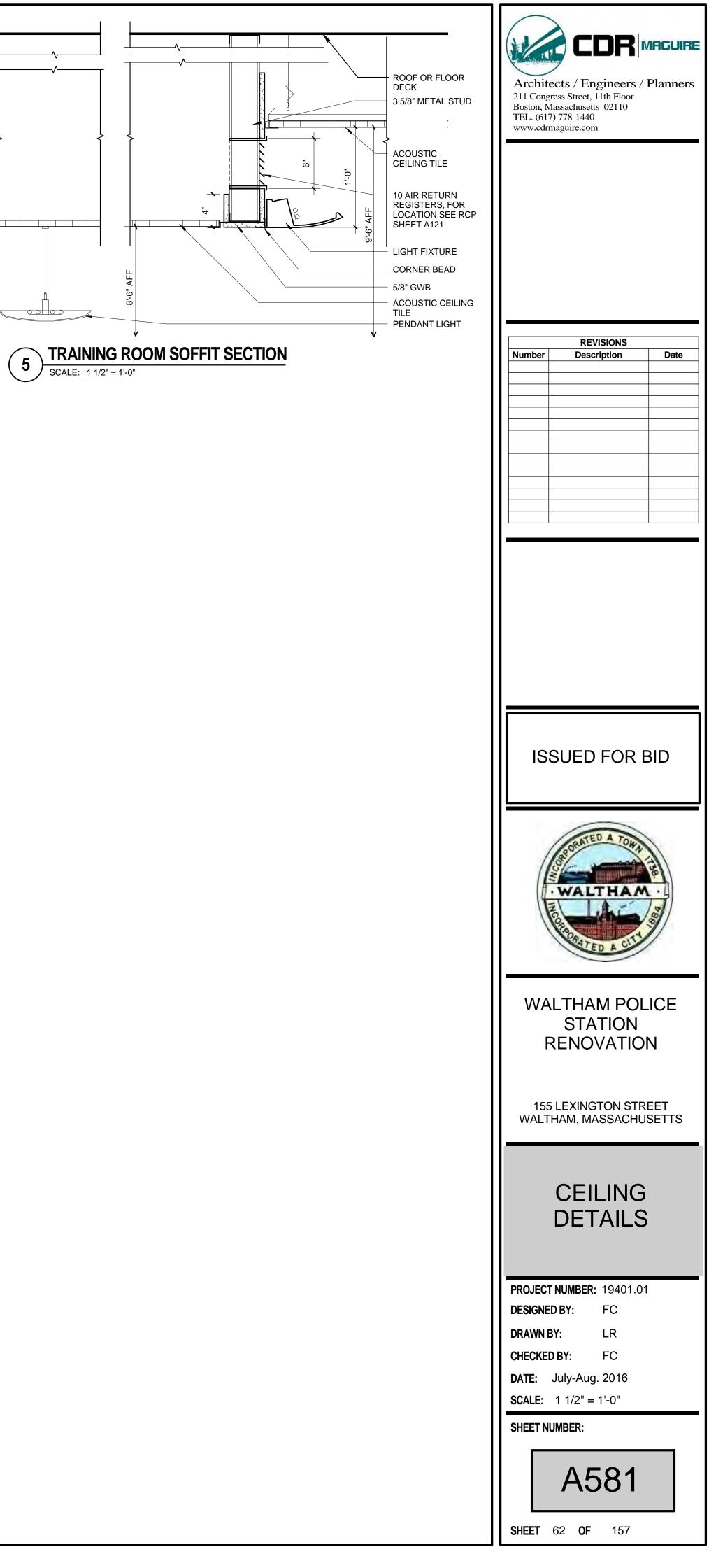
SHEET 61 **OF** 157

SHEET NUMBER:









INTERIOR

1. G.C. OR THEIR SUBCONTRACTORS SHALL SUBMIT MANUFACTURER'S COLOR SELECTION FOR ALL SPECIFIED MATERIALS. (COLOR SCHEDULE TO BE COMPLETED UPON RECEIPT AND APPROVAL OF ALL SPECIFIED FINISHES) 2. G.C. OR THEIR SUBCONTRACTORS SHALL INSTALL FRT WOOD BLOCKING AT ALL AREAS INDICATED TO RECEIVE WALL MOUNTED ITEMS, CABINETRY, SHELVING, TOILET ACCESSORIES ETC. 3. REFER TO REFLECTED CEILING PLANS, SECTIONS AND DETAILS FOR CEILING HEIGHTS AND SOFFITS. 4. ALL SPECIFIED FINISHES SHALL BE CONTINUOUS BEHIND ALL MOUNTED OR APPLIED ITEMS i.e.: MIRRORS, TACK BOARDS, ETC. 5. FOR MILLWORK FINISHES & DETAILS RE: A801 AND OTHER RELATED DRAWINGS. 6. SEE FLOOR FINISH PLANS FOR FLOORING PATTERNS. 7. ALL RESILIENT BASE WILL BE STRAIGHT AT CARPETS AND COVED AT RESILIENT FLOORING 8. PAINT ALL EXPOSED DUCTS, CONDUITS, PIPING, STRUCTURE, ETC, NOT CONCEALED BY ROOM FINISHES. COORDINATE WITH MEP & STRUCTURAL DRAWINGS (NOT FACTORY FINISH) 9. PAINT ALL STEEL HANDRAILS, RISERS, STAIR STRINGERS AND UNDERSIDE OF STAIR AT AL EXPOSED AREAS. 10. G.C. AND THEIR SUBCONTRACTORS SHALL DETERMINE AVAILABILITY OF ALL FINISH MATERIALS. ANY DELIVERY SCHEDULE THAT POTENTIALLY MAY CAUSE COORDINATION PROBLEMS DURING THE CRITICAL PATH OF CONSTRUCTION/INSTALLATION SHALL BE BROUG TO ATTENTION OF THE ARCHITECT, EARLY ON, FOR POSSIBLE RE-EVALUATION OF MATERIAL DESIGNATION. THE LACK OF A TIMELY ORDER DOES NOT CONSTITUTE A RE-SELECTION.

11. A MINIMUM QUANTITY OF TWO (2) 1'-0" X 1'-0" FINISH SAMPLES OF ALL SPECIFIED FINISHES AND CURRENT STOCK CUTTINGS OF ALL SPECIFIED FABRICS SHALL BE PROVIDED FOR APPROVAL PRIOR TO ORDERING.

12. G.C. AND THEIR SUBCONTRACTORS SHALL ASSURE THAT NO ELECTRIC RECEPTACLE OR TELECOMMUNICATIONS OUTLET COVERPLATES HAVE BEEN INSTALLED PRIOR TO COMPLETIN OF APPLICATION OF ANY WALL FINISH MATERIALS. ANY SUCH COVERPLATES OR SURFACE HARDWARE, ETC., IN PLACE, SHALL BE REMOVED PRIOR TO WALL FINISH APPLICATION.

13. UPON COMPLETION OF FINISH PHASE OF JOB, G.C. SHALL REMOVE ALL PAINT, WALLCOVERING PASTE, ETC., FROM WHERE IT HAS SPILLED, SPLASHED, OR SPATTERED.

14. ALL FINISH FLOORING MATERIAL INSTALLATION SHALL BE PER MANUFACTURERS RECOMMENDATION. SEAMS SHALL BE TIGHT/INVISIBLE. G.C. OR THEIR SUBCONTRACTORS SHALL PROVIDE AND MAINTAIN ADEQUATE PROTECTION FOR ALL NEWLY INSTALLED FLOORING MATERIALS FOR THE DURATION OF CONSTRUCTION AND REMOVE PROTECTION ONLY IMMEDIATELY BEFORE JOB COMPLETION, FLOOR WILL BE THOROUGHLY CLEANED OF ALL ADHESIVE, GROUT, CONSTRUCTION STAINS, ETC.

15. PROVIDE MOISTURE MITIGATION UNDERLAYMENT UNDERNEATH ALL VCT AND PAINTED FLOORING AT FIRST FLOOR (TYPE 1). SECOND FLOOR USE TYPE 2 UNDERLAYMENT.

TYPE 1 UNDERLAYMENT: MOISTURE CONTROL UNDERLAYMENTS AND PATCHING COMPOUNDS TWO-COAT 100% SOLID EPOXY MOISTURE MANAGEMENT SYSTEM WHERE MOISTURE EMISSIONS FROM NEW AND EXISTING CONCRETE SLABS EXCEEDS TILE MANUFACTURER'S REQUIREMENTS OR APPROVED BY TILE MANUFACTURER FOR APPLICATIONS RECOMMENDED BY THE FLOORING MANUFACTURER. 1. SIMILAR TO ARDEX MC PLUS.

TYPE 2 UNDERLAYMENT: TROWELABLE UNDERLAYMENTS AND PATCHING COMPOUNDS: LATE MODIFIED, PORTLAND-CEMENT-BASED FORMULATION PROVIDED OR APPROVED BY TILE MANUFACTURER FOR APPLICATIONS RECOMMENDED BY THE FLOORING MANUFACTURER. 1. SIMILAR TO LEVELASTIC. 2. SIMILAR TO GYP-CRETE. 3. SIMILAR TO ARDEX K-15.

INTERIOR FINISH ABBREVIATIONS

ACT CPT CT EPX E.T.R. GWB PP PTD RES RUB ST VCT

2. OR EQUAL.

4. OR EQUAL

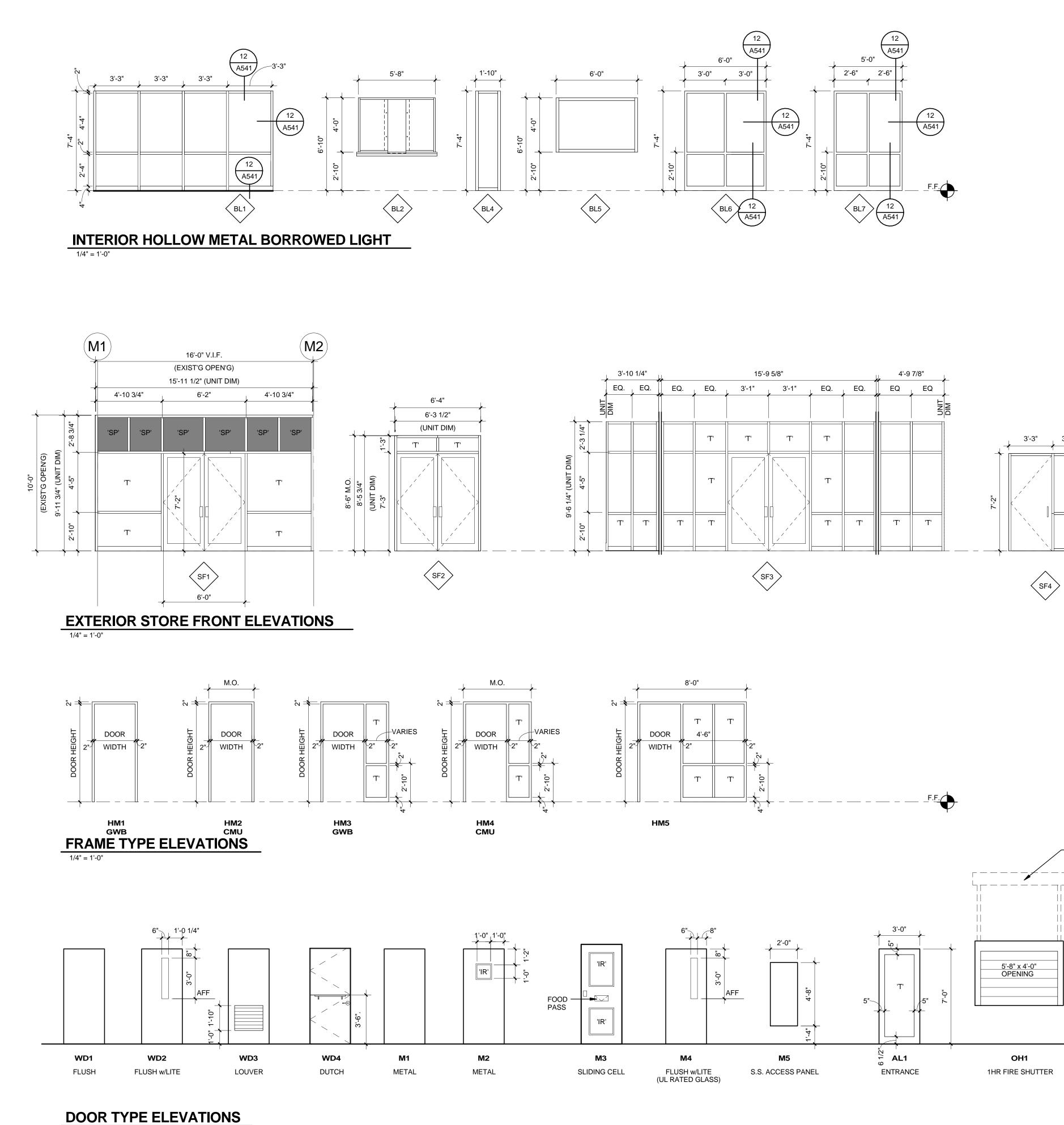
CARPET TILES CERAMIC TILE EPOXY EXISTING TO REMAIN GYPSUM WALL BOARD PORCELAIN PAVERS PAINTED RESINOUS FLOORING RUBBER BASE

ACOUSTICAL CEILING TILE

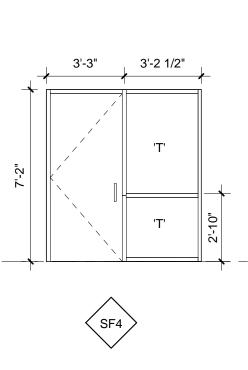
SPORTS TILE FLOORING VINYL COMPOSITE TILE

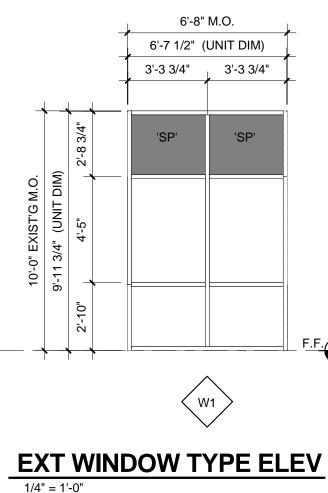
INISH NOTES	ו 📖						FINISH SCH	EDULE				
	ROOM NO.	ROOM NAME	FLOOR	BASE	NORTH	SOUTH	LLS EAST	WEST	CEILING FINISH	HEIGHT	NOTES	Architects / Engineers /]
16. G.C. AND THEIR SUBCONTRACTORS ARE RESPONSIBLE FOR ALL FLASH PATCHING AND TO HAVE THE FLOOR IN A CONDITION TO RECEIVE FLOORING MATERIALS.		ELEV. ELEV. ELEV.	E.T.R. E.T.R. E.T.R.	E.T.R. E.T.R. E.T.R.	E.T.R. E.T.R. E.T.R.	E.T.R. E.T.R. E.T.R.	E.T.R. E.T.R. E.T.R.	E.T.R. E.T.R. E.T.R.	EXPOSED EXPOSED EXPOSED	10' - 0" 10' - 0" 10' - 0"		211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440
17. CARPET SUPPLIER/INSTALLER SHALL PROVIDE CURRENT STOCK SAMPLES OF SPECIFIED CARPET FINISHES FOR APPROVAL PRIOR TO ORDERING. PROVIDE TRANSITION STRIPS AS	001	VESTIBULE RANGE	E.T.R. CONC	WD E.T.R.	PTD E.T.R.	PTD E.T.R.	PTD E.T.R.	PTD E.T.R.	ACT E.T.R.	8' - 0" 10' - 0"		www.cdrmaguire.com
SPECIFIED OR NECESSARY (VINYL, IF NOT SPECIFIED). 18. G.C. AND VENDORS/SUBCONTRACTORS ARE RESPONSIBLE FOR FIELD VERIFICATION OF	002 003 004	EVIDENCE STORAGE EVIDENCE STORAGE ARMORY	VCT VCT VCT	RUB-2 RUB-2 RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	8' - 0" 8' - 0" 8' - 0"		
ALL DIMENSIONS, QUANTITIES ETC., OF THEIR RESPECTIVE WORK. 19. FOR FLOOR MATERIAL CHANGE LOCATIONS, SEE FLOOR PLANS, THRESHOLD DETAILS	005 006	RANGE OFFICE STORAGE	CPT VCT	RUB-2 RUB-2	PTD PTD	PTD PTD	PTD PTD	PTD PTD	ACT ACT	8' - 0" 7' - 9"		
AND/OR FLOOR FINISH PLANS 20. FOR WALL MATERIAL FINISH CHANGE LOCATIONS, SEE INTERIOR WALL ELEVATIONS	007 008 009	MACHINE ROOM JAN STORAGE	E.T.R. VCT VCT	E.T.R. RUB-2 RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	E.T.R. ACT ACT	9' - 0" 7' - 8" 8' - 0"	FRP PANEL AT MOP SINK	
21. FOR ADDITIONAL WORK REQUIRED, SEE INTERIOR WALL ELEVATIONS	009 010 011	FEMALE LOCKER ROOM F. TOILET	EPX CT-1	RUB-2 RUB-2 CT-2	PTD/CT-3 PTD/CT-3	PTD PTD PTD/CT-3	PTD/CT-3 PTD/CT-3	PTD PTD PTD/CT-3	EXPOSED PAINTED GWB	9' - 0" 8' - 0"	PROVIDE SPRAY ACOUSTICAL INSULATION ON CEILING	
22. PROVIDE SPLASH TRIM AT ALL WALLS ADJACENT TO COUNTER TOPS U.O.N. TYPICAL 23. PROVIDE BASE FINISH AT TOE KICKS OF ALL CABINETRY KITCHENS & VANITIES	012 013	MECHANICAL ROOM TEL/DATA	CONC CONC	RUB-2 RUB-2	PTD PTD	PTD PTD	PTD PTD	PTD PTD	EXPOSED EXPOSED	9' - 4" 9' - 4"		
24. PROVIDE BASE FINISH AT ALL FINISH CABINETRY END PANELS	014 015	ELECTRICAL FITNESS M. TOILET	CONC ST CT-1	RUB-2 RUB-2	PTD PTD PTD/CT-3	PTD PTD PTD/CT-3	PTD PTD PTD/CT-3	PTD PTD PTD/CT-3	EXPOSED EXPOSED GWB	9' - 4" 10' - 0" 8' - 0"		
25. PROVIDE WALL BASE BEHIND ALL REFRIGERATORS, RANGE AND OTHER APPLIANCES. PROVIDE PAINTED FINISH AND CAULKING.	016 017 018	MALE LOCKER ROOM CORR.	EPX VCT	CT-2 RUB-2 WAIN	PTD/CT-3 PTD PTD	PTD/CT-3 PTD PTD	PTD/CT-3 PTD PTD	PTD/CT-3 PTD PTD	EXPOSED ACT/ GWB	9' - 0" 8' - 0"	PROVIDE SPRAY ACOUSTICAL INSULATION ON CEILING	REVISIONS
26. PROVIDE PAINTED FINISH AND CAULKING BEHIND SINKS, TYP	019 101	CORR. VEHICLE BAYS	VCT E.T.R.	WAIN E.T.R.	PTD PTD	PTD PTD	PTD PTD	PTD PTD	ACT/ GWB EXPOSED	8' - 0" 10' - 0"		Number Description
27. NOT ALL WALL OBJECTS MAY BE SHOWN. COORDINATE WITH MECHANICAL; PLUMBING; ELECTRICAL DRAWINGS. ALSO REFER TO ARCHITECTURAL DWGS & SPECIFICATIONS FOR ADDITIONAL ITEMS	102 103 104	STORAGE STORAGE TRAINING ROOM	CONC CPT CPT	RUB-2 RUB-2 RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	8' - 6" 8' - 6" 8' - 6"		
28. INSULATE ALL EXPOSED PIPES AND SINK BOTTOM WITH TRAP WRAP PROTECTIVE KIT	104 105 106	STORAGE CORR.	VCT VCT	RUB-2 WD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	8' - 6" 8' - 6"		
29. ALL WINDOW SILLS SHALL BE SOLID, CLEAR FINISHED MAPLE UNLESS NOTED OTHERWISE. 30. PAINT CONCRETE BLOCK AND PAINT PIERS AT COLUMNS AND PROVIDE SEALED	107 108	REPORT ROLL CALL	CPT VCT	RUB-2 RUB-2	PTD PTD	PTD PTD	PTD PTD	PTD PTD	ACT ACT	9' - 0" 8' - 6"		
CONCRETE AT STAIR TREADS AND PAINT ALL EXPOSED STAIR STRUCTURE AND RAILINGS. 31. FOR TOILET ACCESSORIES SCHEDULE SEE A701.	109 110 111	INTERVIEW BREAK ROOM/ KITCHEN TRAINING ALLYII JARY OFF	CPT VCT	RUB-2 RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT/ GWB	8' - 6" 8' - 6"		
31. FOR TOILET ACCESSORIES SCHEDULE SEE A701. 32. PAINT CONCRETE BLOCK AND PAINT PIERS AT COLUMNS AND PROVIDE SEALED CONCRETE AT STAIR TREADS AND PAINT ALL EXPOSED STAIR STRUCTURE AND RAILINGS.	111 112 113	TRAINING AUXILIARY OFF. PATROL AREA FEMALE	CPT CPT CT-1	RUB-2 RUB-2 CT-2	PTD PTD CT-3	PTD PTD CT-3	PTD PTD CT-3	PTD PTD CT-3	ACT ACT ACT	9' - 0" 8' - 6" 9' - 0"		
33. FIELD PAINT ALL EXPOSED FRAMING, STEEL AND IRON WORK, BARE AND COVERED PIPES,	114 115	MALE LOBBY	CT-1 PP	CT-2 WD	CT-3 PTD	CT-3 PTD	CT-3 PTD	CT-3 PTD	ACT ACT/ GWB	9' - 0" 9' - 0"		
HANGERS, PLYWOOD, CMU, STEEL DECK, RAILING, UNDERNEATH THE STAIRS AND PRIMED METAL SURFACES OF MECHANICAL AND ELECTRICAL WORK.	115A 116	CORRIDOR PATROL RECEPTION	PP CPT	WD RUB-2	PTD PTD	PTD PTD PTD	PTD PTD	PTD PTD	ACT/ GWB ACT	9' - 0" 9' - 0"		
34. ALL CORRIDOR WALLS SHALL RECEIVE ABUSE RESISTAND, HIGH IMPACT GYPSUM BOARD.	117 118 119	CAPTAIN SUPERVISORS OFFICE GUN STOR.	CPT CPT VCT	RUB-2 RUB-2 RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	9' - 0" 9' - 0" 9' - 0"		
	120 121	MALE FEMALE	CT-1 CT-1	CT-2 CT-2	CT-3 CT-3	CT-3 CT-3	CT-3 CT-3	CT-3 CT-3	ACT ACT	9' - 0" 9' - 0"		1
	122 123	KITCHENETTE COMM. SERV. RECEPTION	VCT CPT	RUB-2 RUB-2	PTD PTD	PTD PTD	PTD PTD	PTD PTD	ACT ACT	9' - 0" 9' - 0"		
	124 125 126	CONFERENCE COMMUNITY SERVICE STORAGE	CPT CPT CPT	RUB-2 RUB-2 RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	9' - 0" 9' - 0" 9' - 0"		
	120 127 128	CAPTAIN LIEUTENANT	CPT CPT	RUB-2 RUB-2 RUB-2	PTD PTD	PTD PTD	PTD PTD	PTD PTD	ACT	9' - 0" 9' - 0"		
	129 132	ARCHIVE ELEC.	CPT VCT	RUB-2 RUB-2	PTD PTD	PTD PTD	PTD PTD	PTD PTD	ACT ACT	8' - 6" 8' - 0"		
	133 134 135	JAN. MAINTENANCE OFFICE	VCT VCT CPT	WD RUB-2 RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT/ GWB ACT ACT	9' - 0" 8' - 0" 8' - 0"	FRP PANEL AT MOP SINK	ISSUED FOR I
	136 136A	WOMEN CELL 9	RES-1 RES-1	RES-2 RES-2	EPX EPX	EPX EPX	EPX EPX	EPX EPX	SECURITY CEILING DETENTION CEILING	8' - 0" 8' - 0"		
	136B 136C	CELL 10 CELL 11	RES-1 RES-1	RES-2 RES-2	EPX EPX	EPX EPX	EPX EPX	EPX EPX	DETENTION CEILING DETENTION CEILING	8' - 0" 8' - 0"		
FINISH MATERIAL SCHEDULE	137 138 139	SHOWER INTERV. INTERV.	RES-1 VCT RES-1	RES-2 RUB-2 RES-2	EPX PTD EPX	EPX PTD EPX	EPX PTD EPX	EPX PTD EPX	DETENTION CEILING SECURITY CEILING SECURITY CEILING	8' - 0" 8' - 0" 8' - 0"		ITED A TO
MARKDESCRIPTIONMANUF., LINECOLORCT-1CERAMIC TILEDALTILE, NATURAL HUES-FLOOR TILE 6x6TBD	140 141	SHOWER VEST.	RES-1 RES	RES-2 RES-2 RES-2	EPX EPX EPX	EPX EPX EPX	EPX EPX EPX	EPX EPX EPX	DETENTION CEILING DETENTION CEILING	8' - 0" 8' - 0"		38 CRA
CT-2 CERAMIC TILE DALTILE, NATURAL HUES-WALL BASE TBD	142 143	JUVENILE/ ACCESS. MALE	RES-1 RES-1	RES-2 RES-2	EPX EPX	EPX EPX	EPX EPX	EPX EPX	DETENTION CEILING SECURITY CEILING	8' - 0" 8' - 0"		WALTHAN
CT-3 CERAMIC TILE DALTILE, NATURAL HUES-WALL TILE 6x6 TBD	143A 143B 143C	CELL 1 CELL 2 CELL 3	RES-1 RES-1 RES-1	RES-2 RES-2 RES-2	EPX EPX EPX	EPX EPX EPX	EPX EPX EPX	EPX EPX EPX	DETENTION CEILING DETENTION CEILING DETENTION CEILING	8' - 0" 8' - 0" 8' - 0"		ELAS
CPT CARPET TILE MANNINGTON, MODERN WEAR TBD	1430 143D 144	CELL 3 CELL 4 MALE	RES-1 RES-1	RES-2 RES-2 RES-2	EPX EPX	EPX EPX EPX	EPX EPX EPX	EPX EPX	DETENTION CEILING DETENTION CEILING SECURITY CEILING	8' - 0" 8' - 0"		PROPATED A CITY
PX EPOXY PAINT SEE SPECIFICATIONS TBD	144A 144B	CELL 5 CELL 6	RES-1 RES-1	RES-2 RES-2	EPX EPX	EPX EPX	EPX EPX	EPX EPX	DETENTION CEILING DETENTION CEILING	8' - 0" 8' - 0"		
-PTD-1 MULTI-COLORED PAINT TBD	144C 144D 145	CELL 7 CELL 8 BOOKING	RES-1 RES-1 RES-1	RES-2 RES-2 RES-2	EPX EPX EPX	EPX EPX EPX	EPX EPX EPX	EPX EPX EPX	DETENTION CEILING DETENTION CEILING SECURITY CEILING	8' - 0" 8' - 0" 8' - 6"		WALTHAM POL
	145 145A 146	BOOKING A BOOKING A STORAGE	RES-1 RES-1 RES-1	RES-2 RES-2 RES-2	EPX EPX EPX	EPX EPX EPX	EPX EPX EPX	EPX EPX EPX	SECURITY CEILING SECURITY CEILING SECURITY CEILING	8' - 6" 8' - 0"		STATION
AR-1 SOLID WOOD PARQUET ARMSTRONG, URETHANE PARQUET TBD	147 148	PROCESSING ANIMAL HOLD	RES-1 E.T.R.	RES-2 N/A	EPX PTD	EPX PTD	EPX PTD	EPX PTD	DETENTION CEILING EXPOSED	8' - 0" 10' - 0"		RENOVATIO
P PORCELAIN PAVER TILE DALTILE, COLOUR SCHEME TBD	149 150	SALLY PORT MOTORCYCLE/BIKE STORAGE	E.T.R. CONC	N/A N/A	PTD PTD	PTD PTD	PTD PTD	PTD PTD	EXPOSED EXPOSED	10' - 0" 10' - 0"		
TD PAINT SHERWIN WILLIAMS TBD	151 151A 201	CORR. CORR. ASSIGNMENT AREA	VCT VCT CPT	WAIN WAIN RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	8' - 6" 9' - 0" 8' - 6"		155 LEXINGTON STR
ES-1 RESILIENT FLOORING DUR-A-FLEX, DUR-A-QUARTZ TBD	202 203	CAPTAIN FEMALE	CPT CT-1	RUB-2 CT-2	PTD CT-3	PTD CT-3	PTD CT-3	PTD CT-3	ACT ACT	8' - 6" 8' - 0"		WALTHAM, MASSACHU
ES-2 RESILIENT WALL BASE DUR-A-FLEX, DUR-A-QUARTZ TBD	204 205 206	MALE JAN. PLANNING	CT-1 VCT	CT-2 WD	CT-3 PTD	CT-3 PTD PTD	CT-3 PTD PTD	CT-3 PTD PTD	ACT ACT	8' - 0" 8' - 6"	FRP PANEL AT MOP SINK	
UB-1 RUBBER FLOORING TBD	206 207 208	PLANNING CONFERENCE DEPUTY CHIEF	CPT CPT CPT	WD WD WD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	8' - 6" 8' - 6" 8' - 6"		ROOM FINI
RUBBER WALL BASE TBD	209 210	ADMIN OFFICE CHIEF'S OFFICE	E.T.R. E.T.R.	E.T.R. E.T.R.	PTD PTD	PTD PTD	PTD PTD	PTD PTD	ACT ACT	8' - 6" 8' - 6"		SCHEDUL
T-1 SPORTS TILE FLOORING JOHNSONITE, TRIUMPH SPORTS RUBBER TILE TBD	211 212 213	ADMIN OFFICE ADMIN. STORAGE	E.T.R. CPT	E.T.R. WD RUB-2	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT	8' - 6" 8' - 6" 8' - 0"		
CT-1 VINYL COMPOSITION TILE ARMSTRONG, IMPERIAL TEXTURE TBD	213 214 215	STORAGE SUPPLY / STORAGE DETECTIVE OFFICE	VCT VCT CPT	RUB-2 RUB-2 WD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	8' - 0" 8' - 0" 8' - 6"	BASE TO MATCH EXISTING	
AIN-1 WAINSCOTTING TBD	213 216 217	STORAGE DETECTIVE	VCT CPT	WD WD WD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	GWB ACT	8' - 6" 8' - 6"	BASE TO MATCH EXISTING	PROJECT NUMBER: 19401.0
	218 219	CONFERENCE LAB	E.T.R. VCT	E.T.R. WD	PTD PTD	PTD PTD	PTD PTD	PTD PTD	ACT ACT	8' - 6" 8' - 6"		DESIGNED BY: FC DRAWN BY: EKM
/D-1 WOOD WALL BASE TBD	220 221 222	CORR. SERGEANTS OFFICE INTERVIEW ROOM	VCT CPT CPT	WAIN WD WD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT ACT ACT	8' - 6" 8' - 6" 8' - 6"	BASE TO MATCH EXISTING BASE TO MATCH EXISTING	CHECKED BY: FC
	222 223 224	LIEUTENANTS OFFICE CORR.	CPT CPT PQT	WD WD WD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	PTD PTD PTD	ACT	8' - 6" 8' - 6"	BASE TO MATCH EXISTING BASE TO MATCH EXISTING	DATE: July-Aug. 2016
	S-1	STAIR 1	RUB-1	RUB-2	MC-PTD	MC-PTD	MC-PTD	MC-PTD	GWB	EXISTING	MULTI-COLORED PAINT ON WALLS. STEEL TO BE PAINTED. RUBBER FLOORING AND THREAD/RISER WEARING SURFACE.	SCALE : 12" = 1'-0"
	S-1 	STAIR 1 STAIR 1	RUB-1 RUB-1	RES-2 RUB-2	MC-PTD MC-PTD	MC-PTD MC-PTD	MC-PTD MC-PTD	MC-PTD MC-PTD	GWB	EXISTING	MULTI-COLORED PAINT ON WALLS. STEEL TO BE PAINTED. RUBBER FLOORING AND THREAD/RISER WEARING SURFACE. MULTI-COLORED PAINT ON WALLS. STEEL TO BE PAINTED.	SHEET NUMBER:
	S-2	STAIR 2	TER	RUB-2	MC-PTD	MC-PTD	MC-PTD	MC-PTD	GWB		RUBBER FLOORING AND THREAD/RISER WEARING SURFACE. IULTI-COLORED PAINT ON WALLS. TERRAZZO TO BE CLEANED.	
	S-2	STAIR 2	TER	RUB-2	MC-PTD	MC-PTD	MC-PTD	MC-PTD	GWB	EXISTING M	STEEL TO BE PAINTED IULTI-COLORED PAINT ON WALLS. TERRAZZO TO BE CLEANED. STEEL TO BE PAINTED	A601
	S-2	STAIR 2	TER	RUB-2	MC-PTD	MC-PTD	MC-PTD	MC-PTD	GWB	EXISTING M	IULTI-COLORED PAINT ON WALLS. TERRAZZO TO BE CLEANED. STEEL TO BE PAINTED	





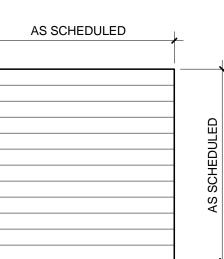
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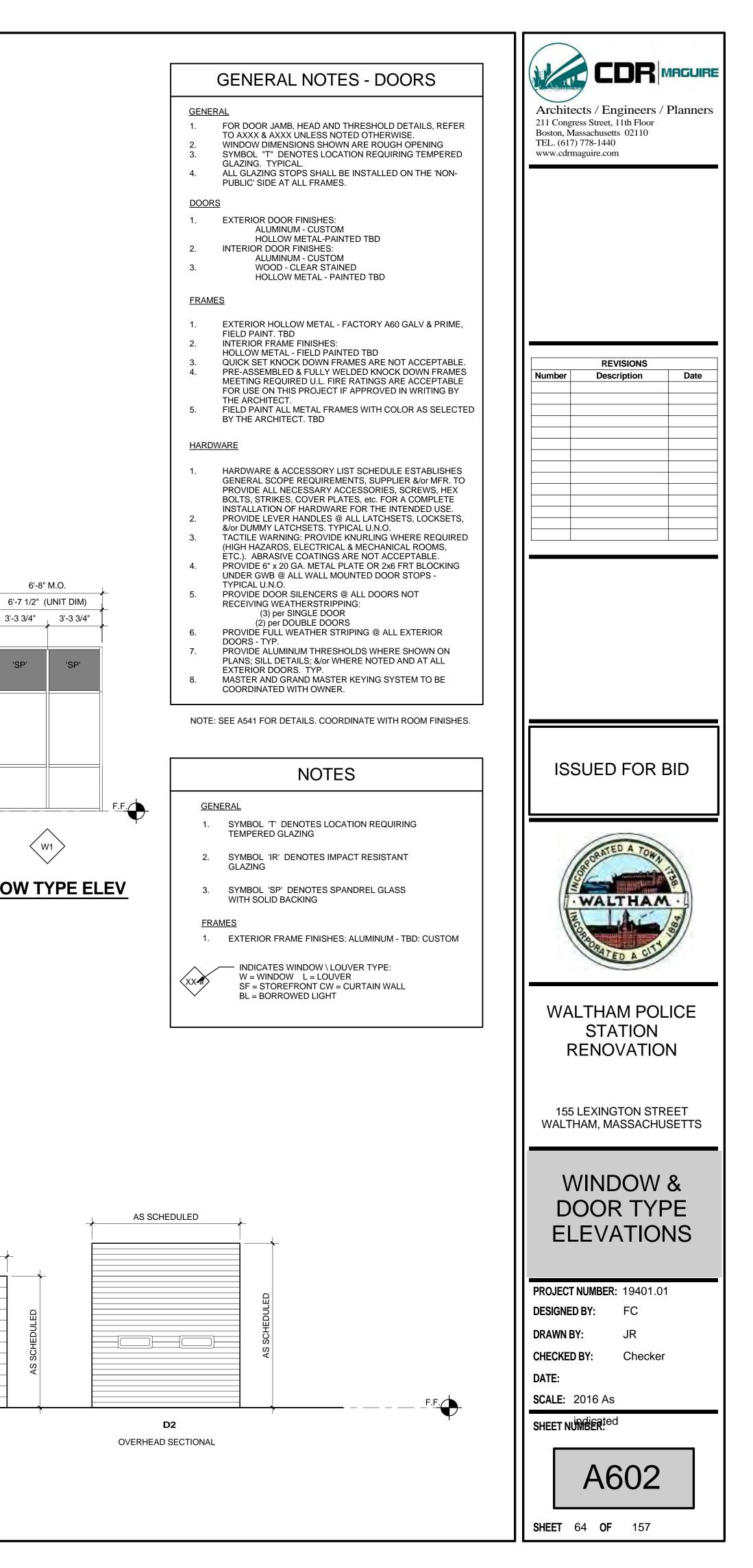


- HOUSING FOR ROLLING COUNTER DOOR. TO BE

ABOVE CEILING.



D1 COIL/ROLL-UP

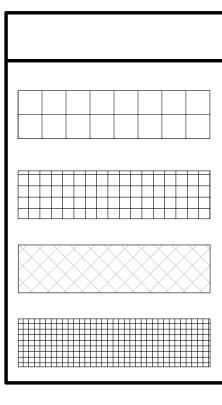


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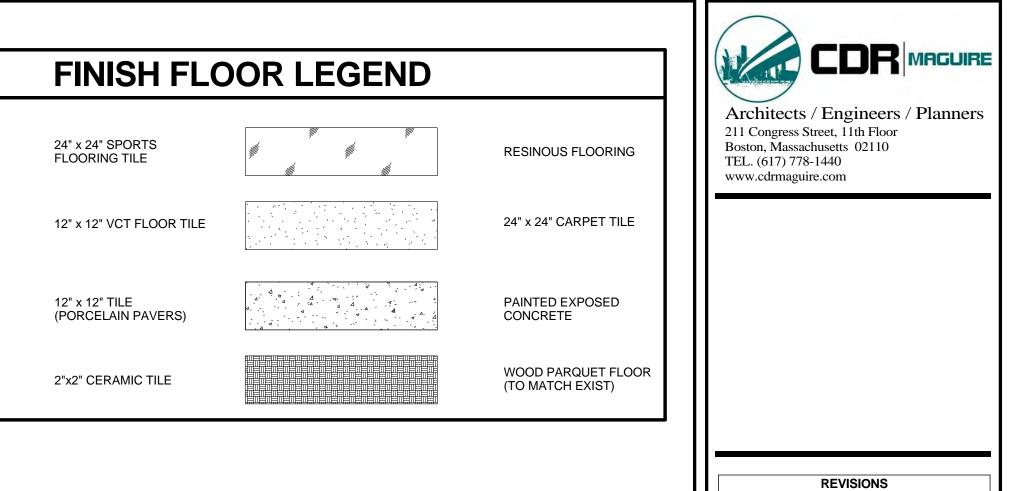
EVIEWD BY: CIVIL: _____ ARCH: _____ STRU: ____ PLUM: ____ FIRE: _____ MECH: _____ ELEC: _____



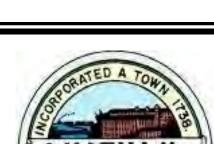




BASEMENT LEVEL FINISH PLAN



	WALL FINISH LEGEND
	TYP WOOD WAINSCOTING (12/A704)
FH	WOOD WAINSCOTING (FLR TO CEILING)
SP	SCULPTURED PANEL BOARD (7/A704)

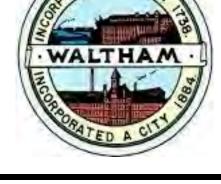


ISSUED FOR BID

Number

Description

Date



WALTHAM POLICE STATION RENOVATION

155 LEXINGTON STREET WALTHAM, MASSACHUSETTS



PROJECT NUMBER:19401.01DESIGNED BY:DesignerDRAWN BY:MRCHECKED BY:CheckerDATE:

A630

SHEET NUMBER ted

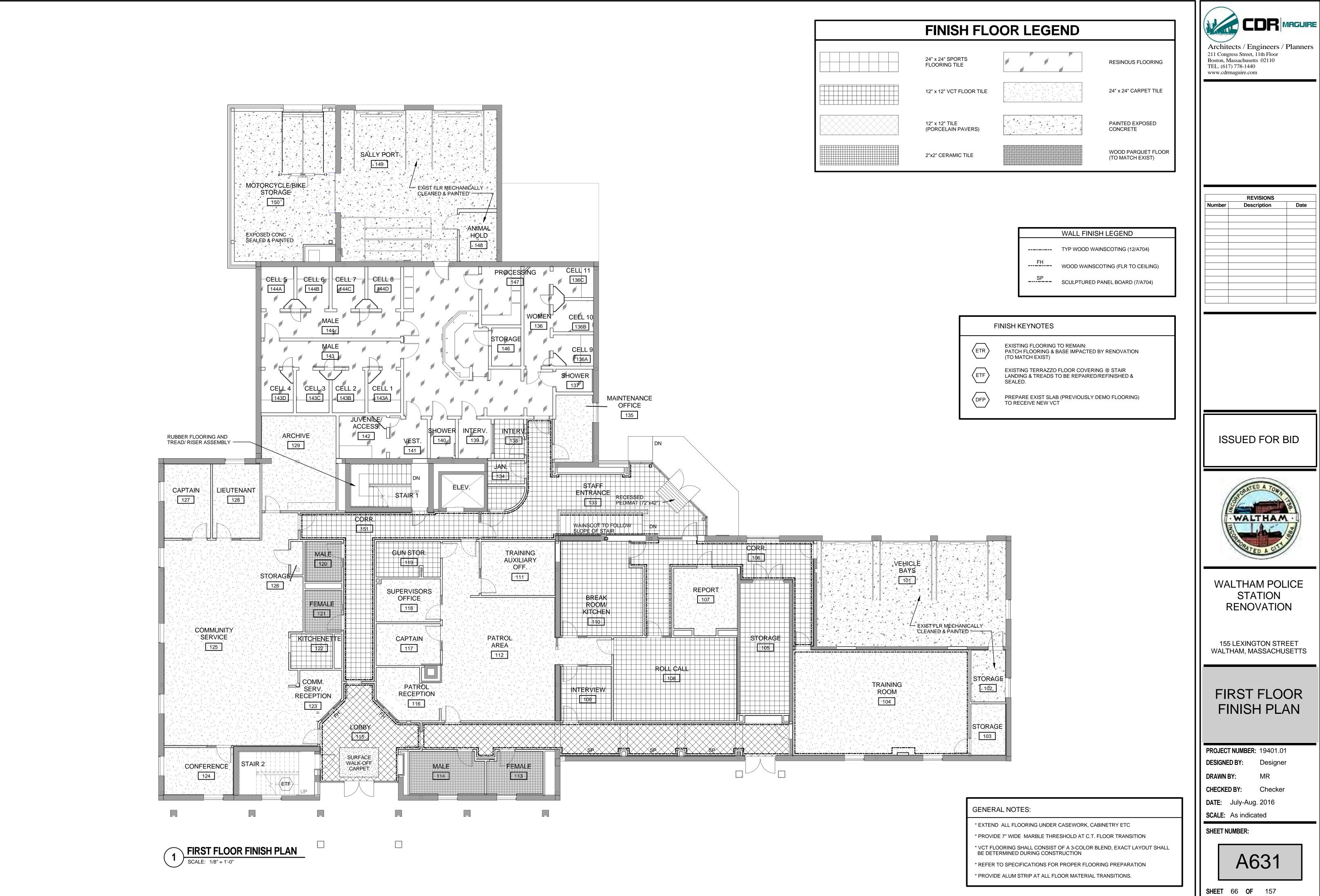
SHEET 65 **OF** 157

SCALE: 2016 As

GENERAL NOTES:

* EXTEND ALL FLOORING UNDER CASEWORK, CABINETRY ETC

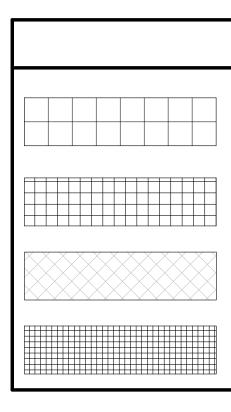
- * PROVIDE 7" WIDE MARBLE THRESHOLD AT C.T. FLOOR TRANSITION
- * VCT FLOORING SHALL CONSIST OF A 3-COLOR BLEND, EXACT LAYOUT SHALL BE DETERMINED DURING CONSTRUCTION
- * REFER TO SPECIFICATIONS FOR PROPER FLOORING PREPARATION
- * PROVIDE ALUM STRIP AT ALL FLOOR MATERIAL TRANSITIONS.



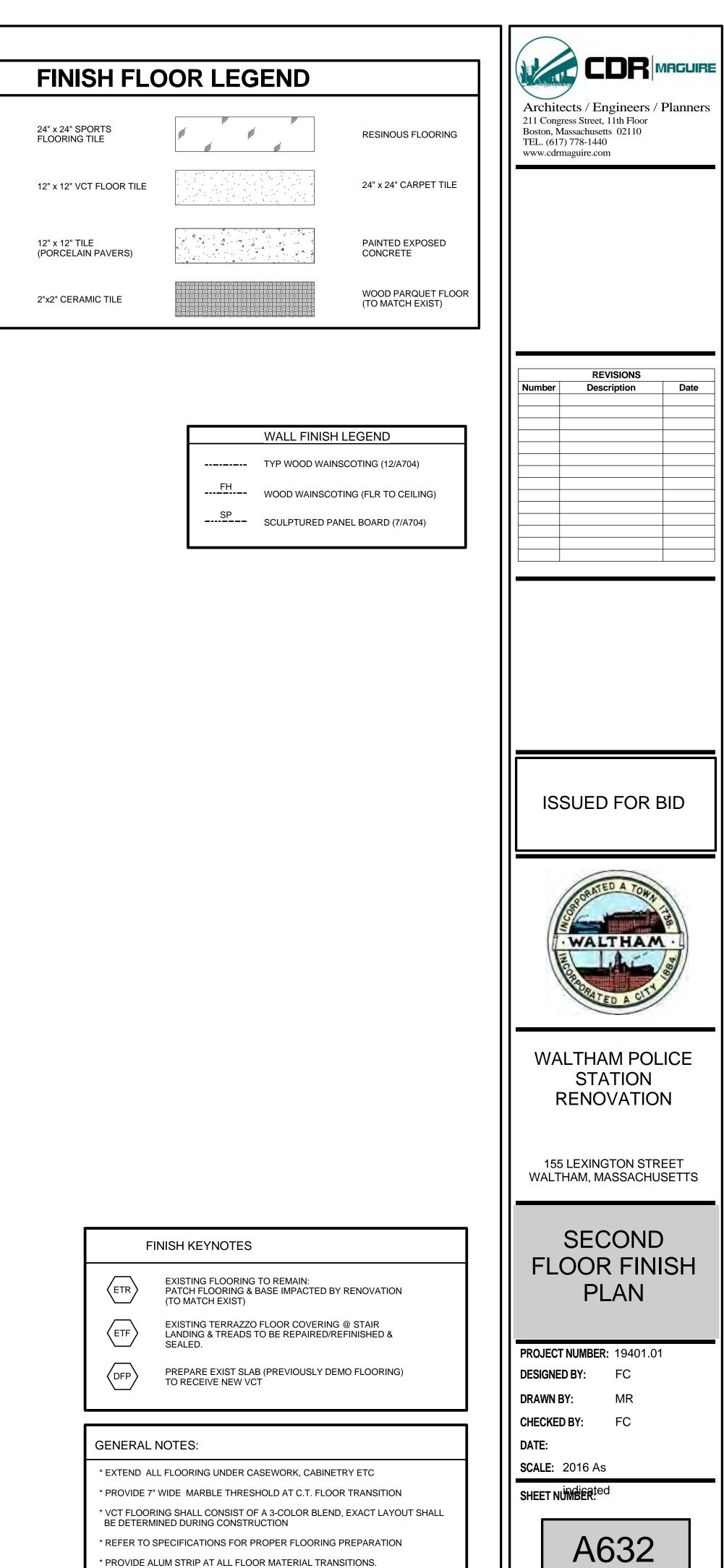
PROJEC	T NUMBER:	19401.01	
DESIGNED BY:		Designer	
DRAWN	BY:	MR	
CHECKED BY:		Checker	
DATE:	July-Aug.	2016	
SCALE:	As indicat	ted	



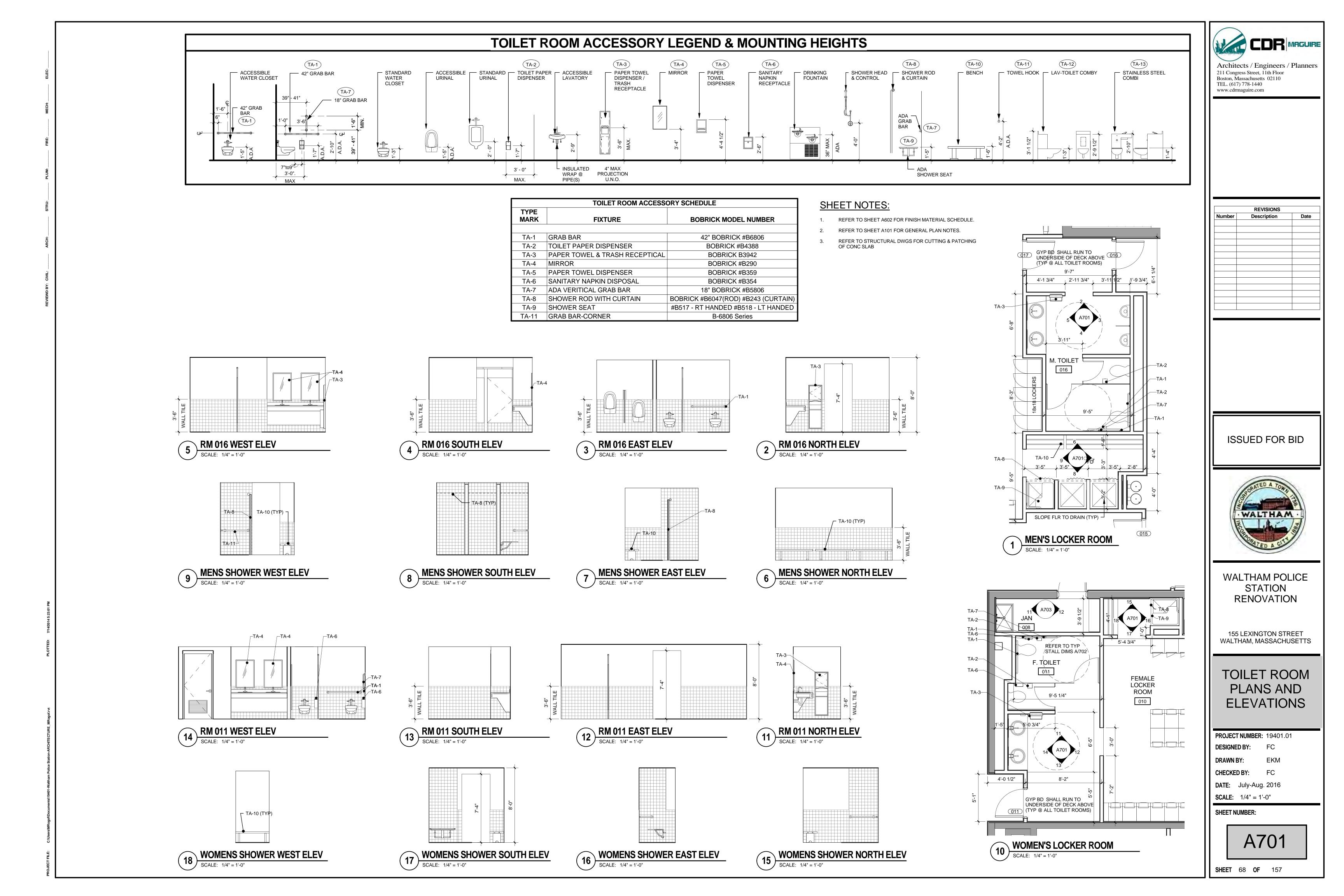
1 SCALE: 1/8" = 1'-0"

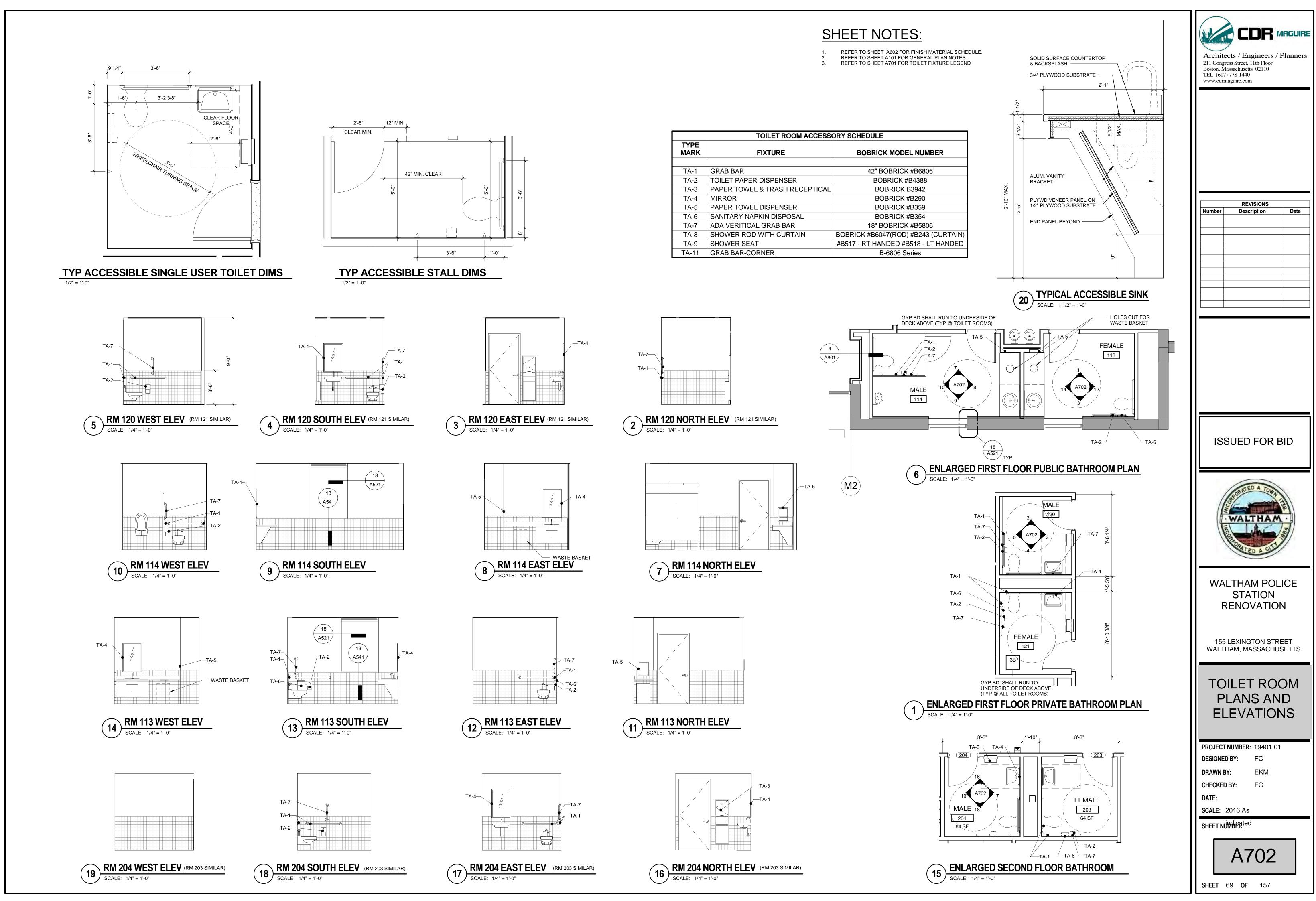


SECOND FLOOR FINISH PLAN

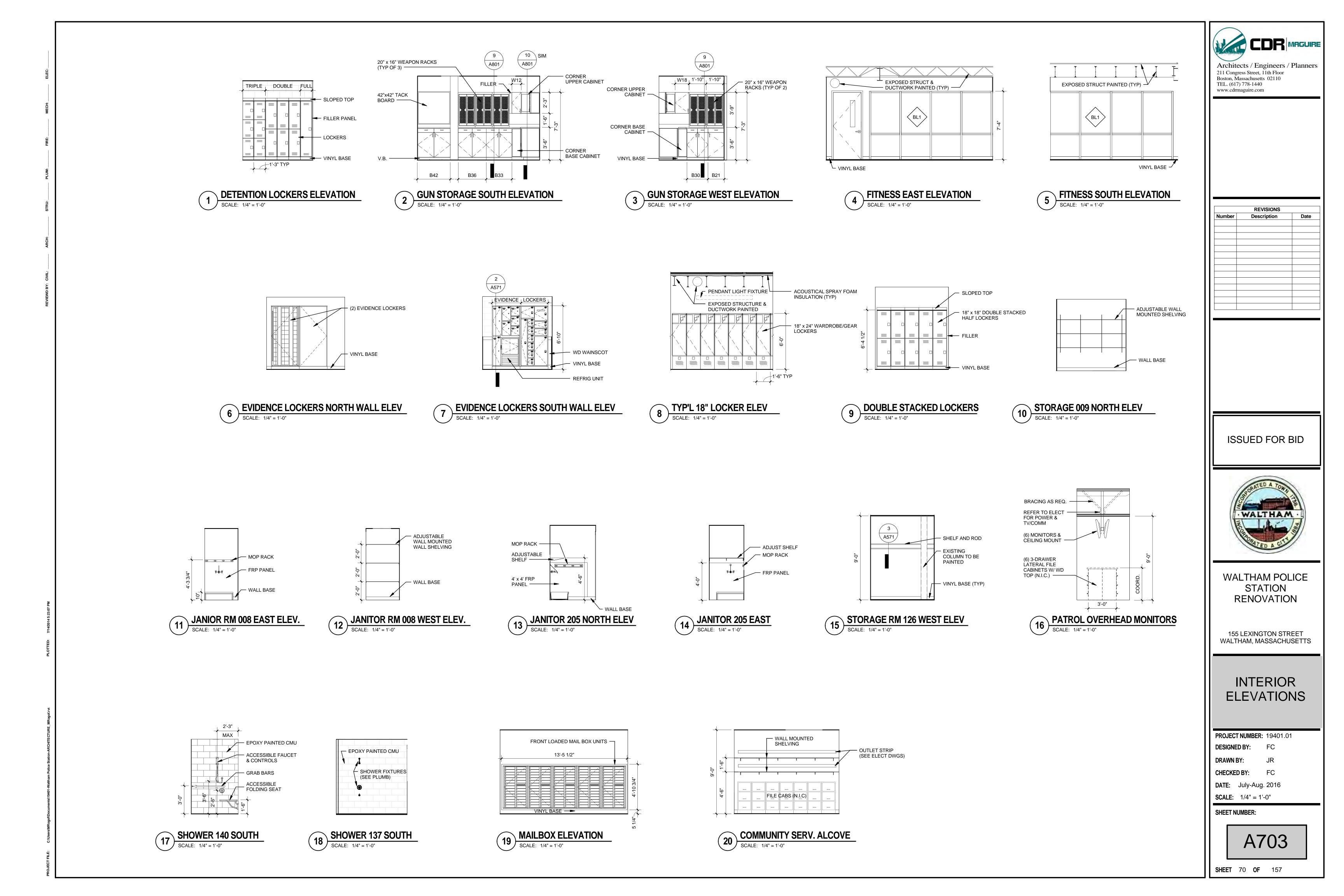


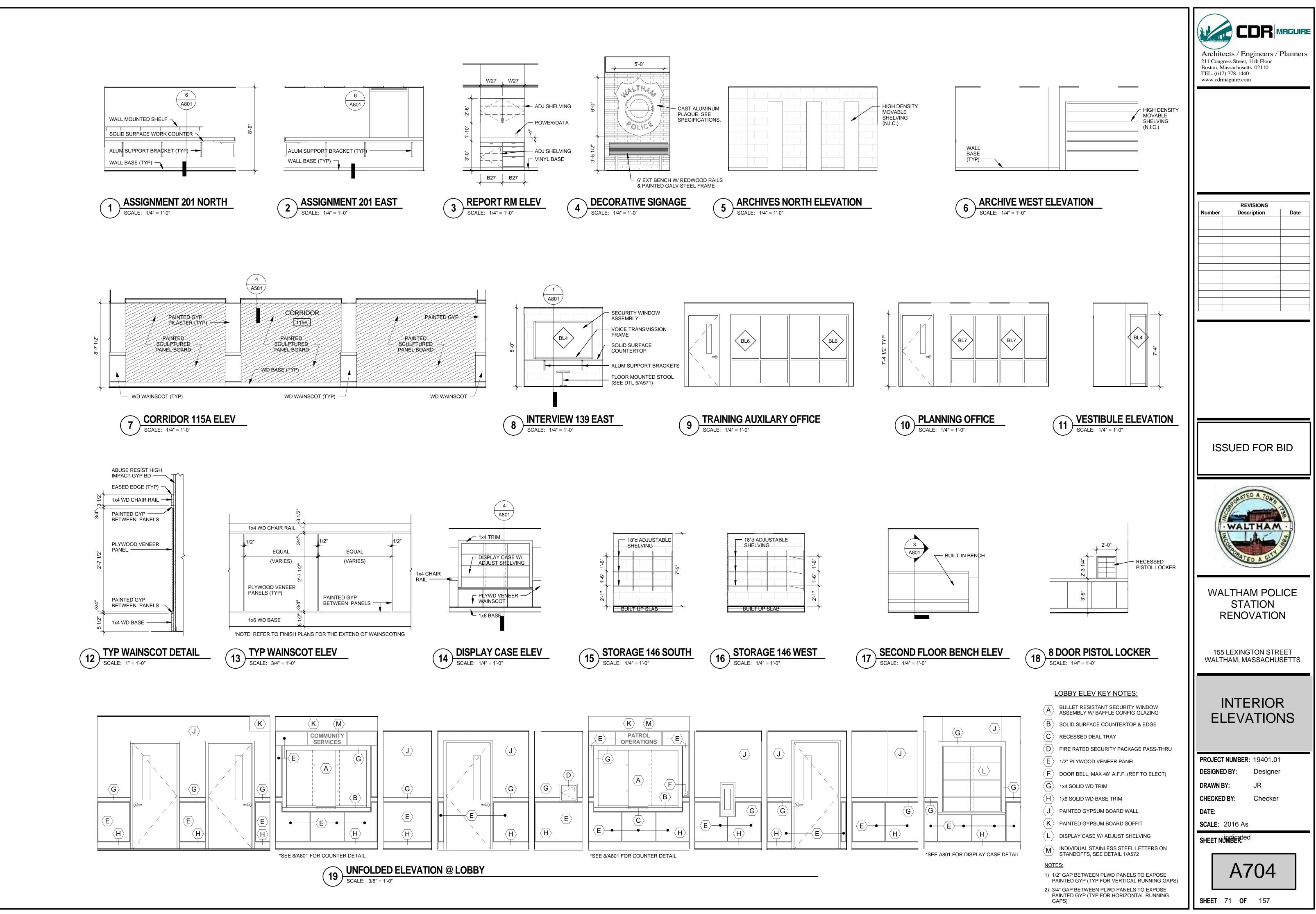
SHEET 67 **OF** 157





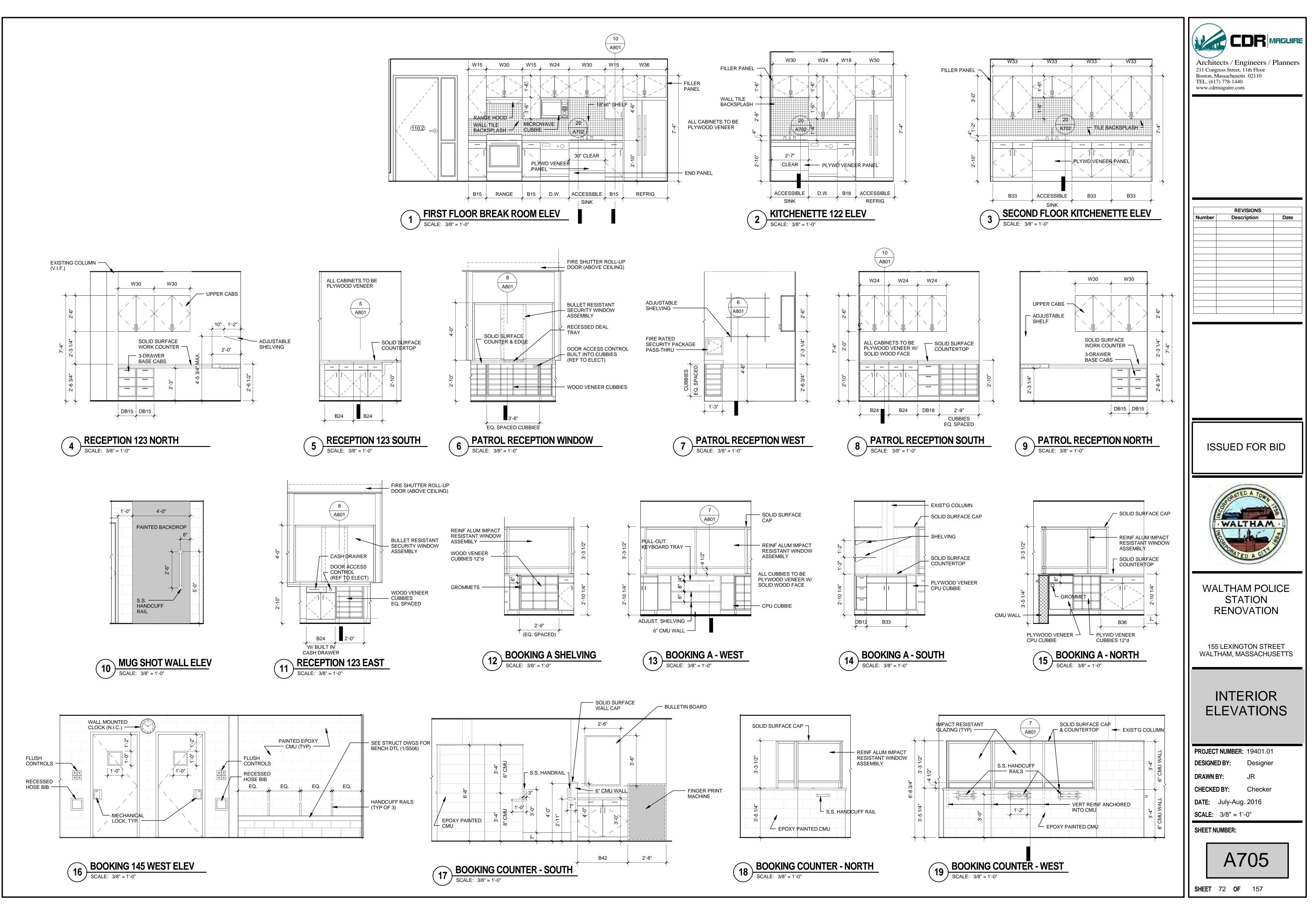
	TOILET ROOM ACCESSORY SCHEDULE						
TYPE MARK	FIXTURE	BOBRICK MODEL					
TA-1	GRAB BAR	42" BOBRICK #					
TA-2	TOILET PAPER DISPENSER	BOBRICK #B					
TA-3	PAPER TOWEL & TRASH RECEPTICAL	BOBRICK B3					
TA-4	MIRROR	BOBRICK #E					
TA-5	PAPER TOWEL DISPENSER	BOBRICK #E					
TA-6	SANITARY NAPKIN DISPOSAL	BOBRICK #E					
TA-7	ADA VERITICAL GRAB BAR	18" BOBRICK #					
TA-8	SHOWER ROD WITH CURTAIN	BOBRICK #B6047(ROD) #					
TA-9	SHOWER SEAT	#B517 - RT HANDED #B5					
TA-11	GRAB BAR-CORNER	B-6806 Ser					





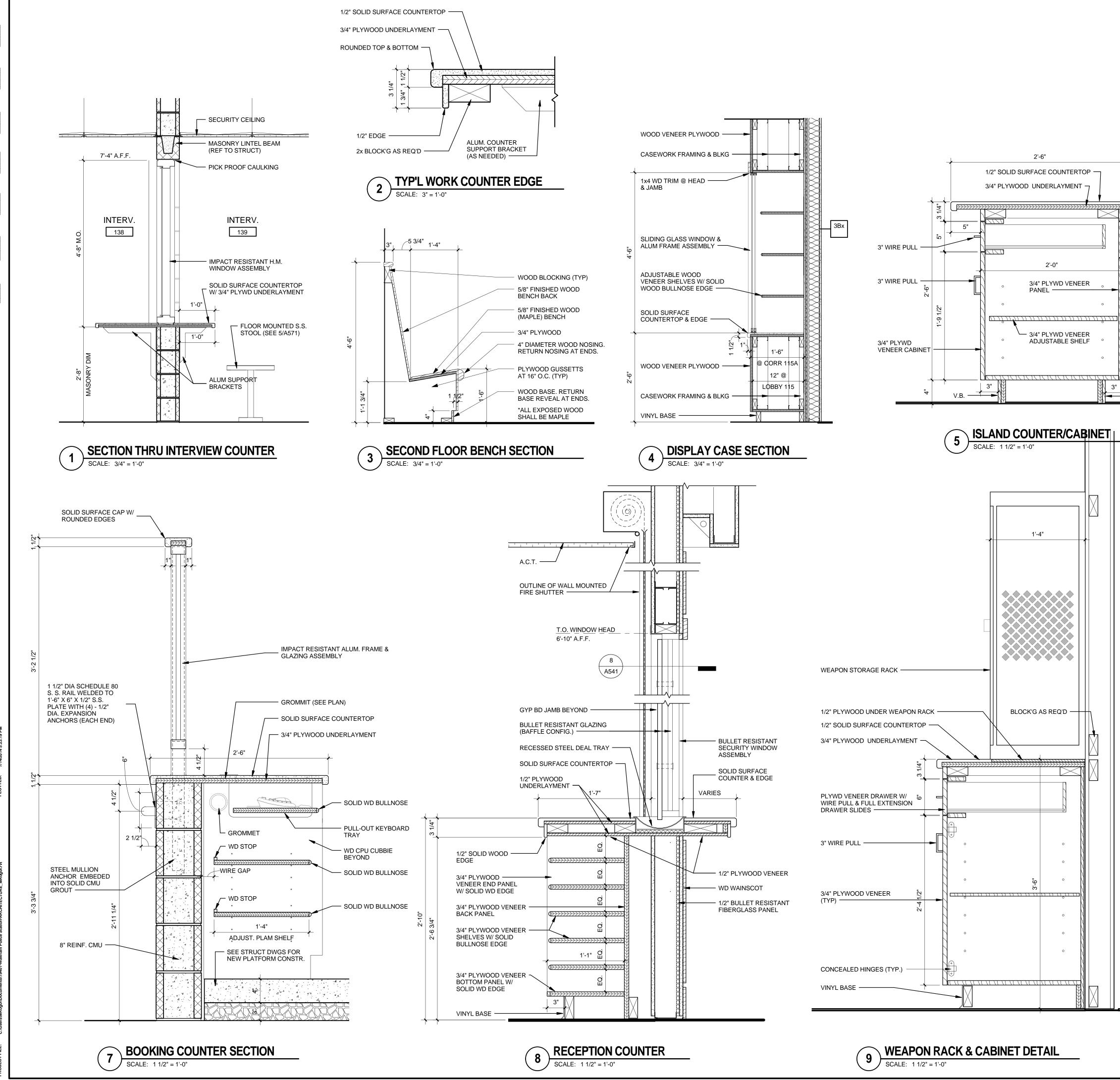
STORAGE 146	

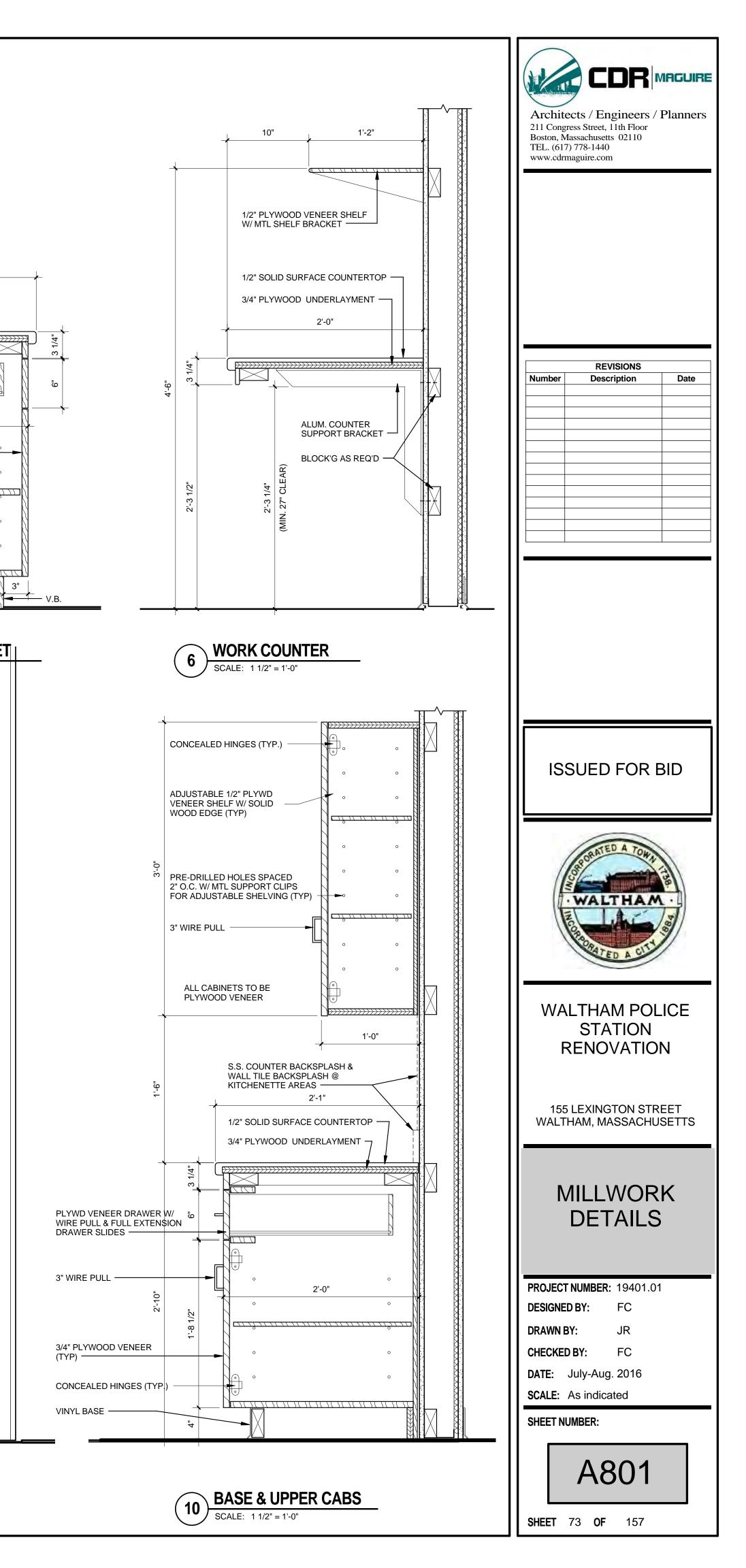
	18"d ADJUSTABLE SHELVING	
		$ \rightarrow $
5		2'-1



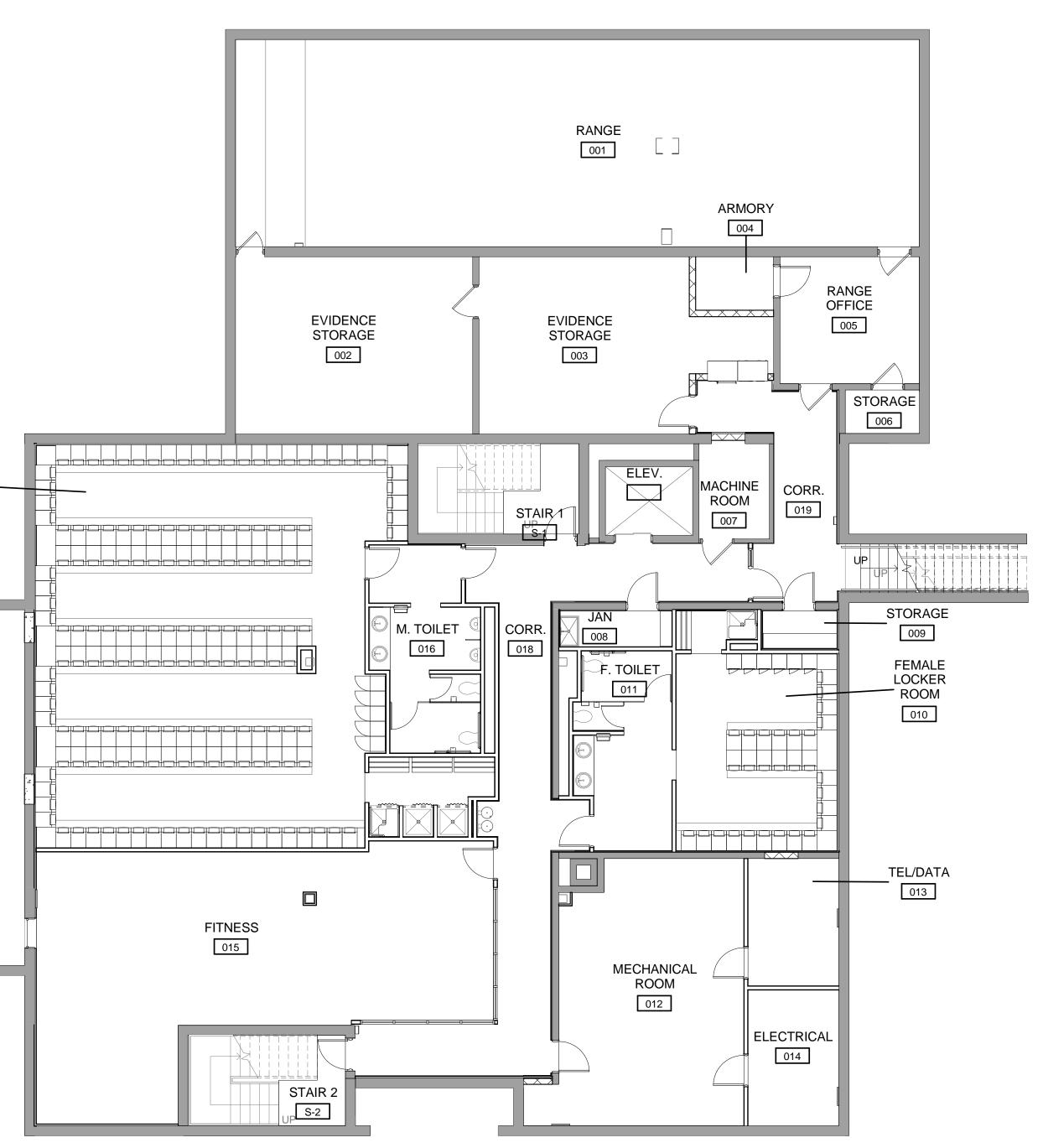
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MALE LOCKER ROOM 017

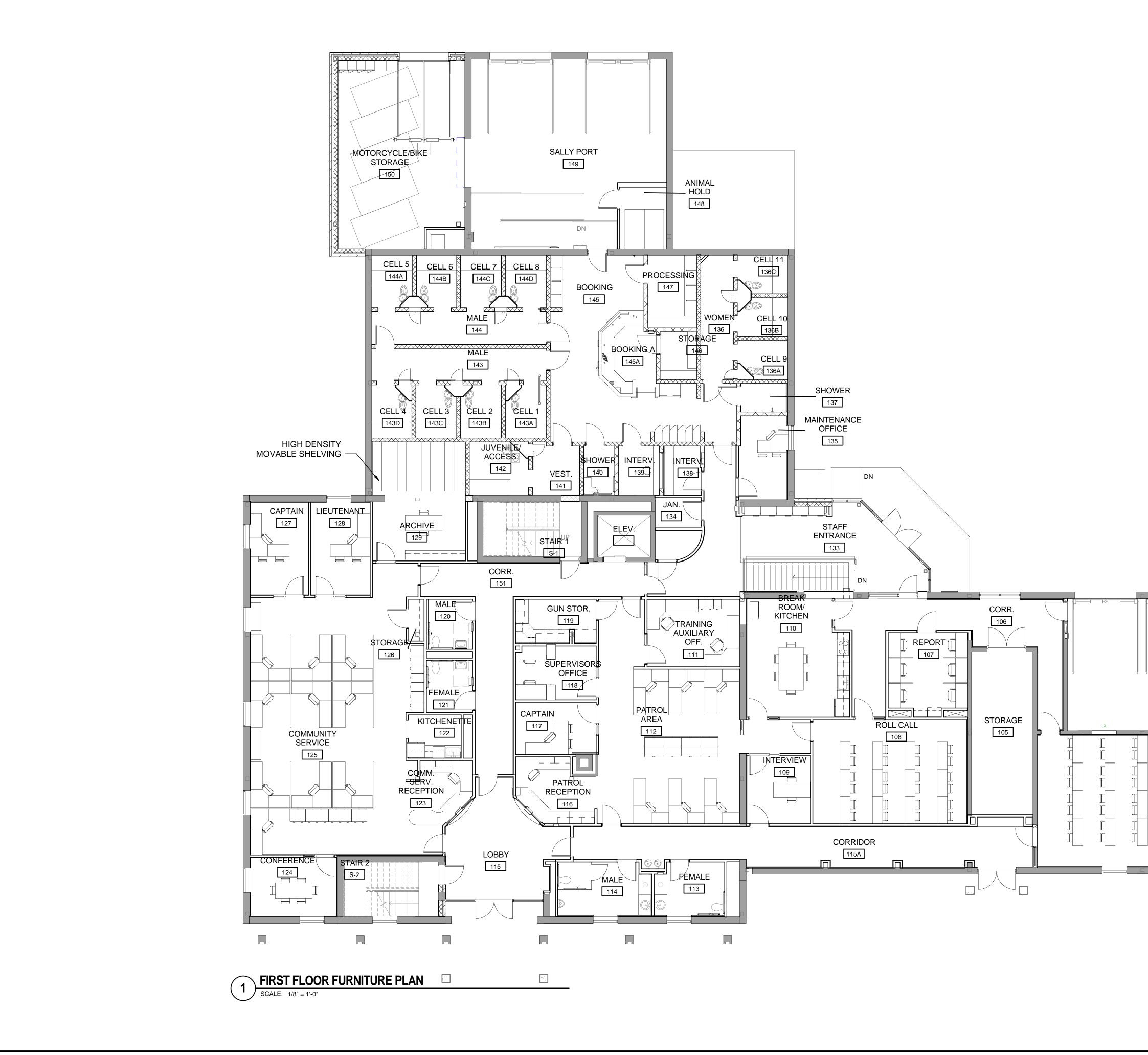


1 BASEMENT LEVEL FURNITURE PLAN SCALE: 1/8" = 1'-0"

FURNITURE PLAN NOTES

ALL FURNITURE AND EQUIPMENT SHALL BE PURCHASED AND INSTALLED BY THE CITY UNLESS OTHERWISE NOTED. GM TO COORDINATE POWER / DATA WITH VENDOR.





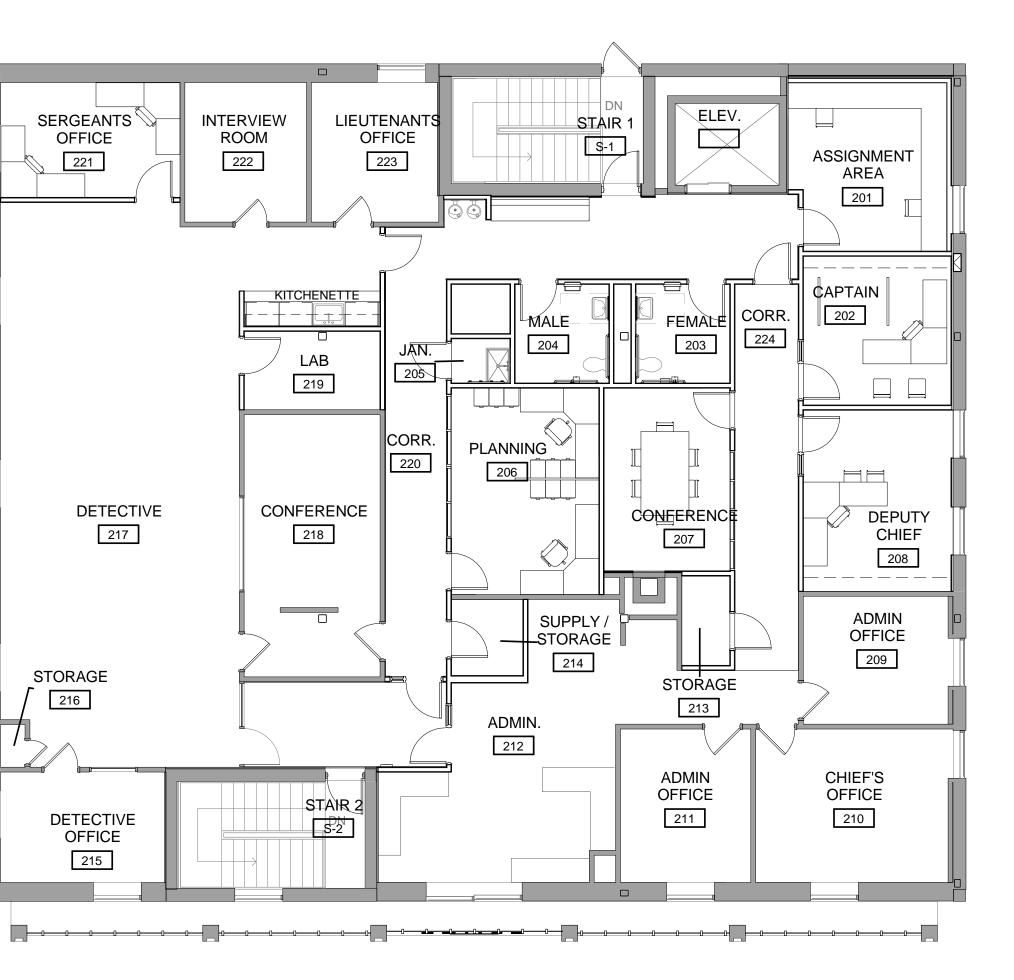
FURNITURE PLAN NOTES

ALL FURNITURE AND EQUIPMENT SHALL BE PURCHASED AND INSTALLED BY THE CITY UNLESS OTHERWISE NOTED. GM TO COORDINATE POWER / DATA WITH VENDOR.



VEHICLE BAYS 101 STORAGE 102 - TRAINING ROOM 104 STORAGE 103

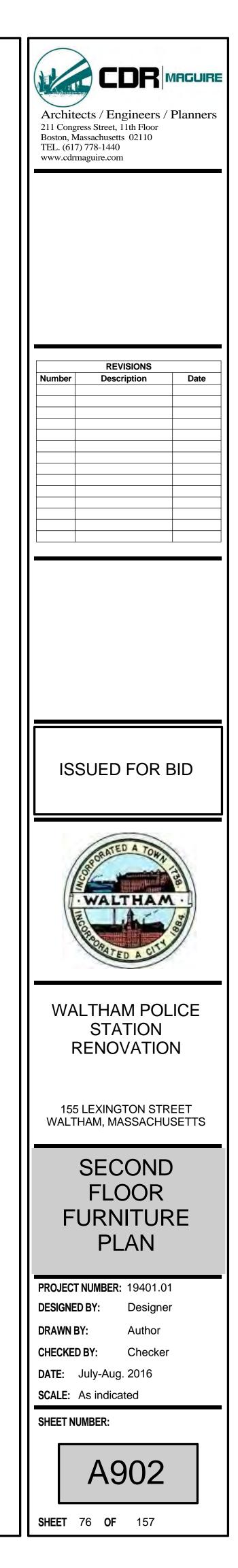




SECOND FLOOR FURNITURE PLAN SCALE: 1/8" = 1'-0"

FURNITURE PLAN NOTES

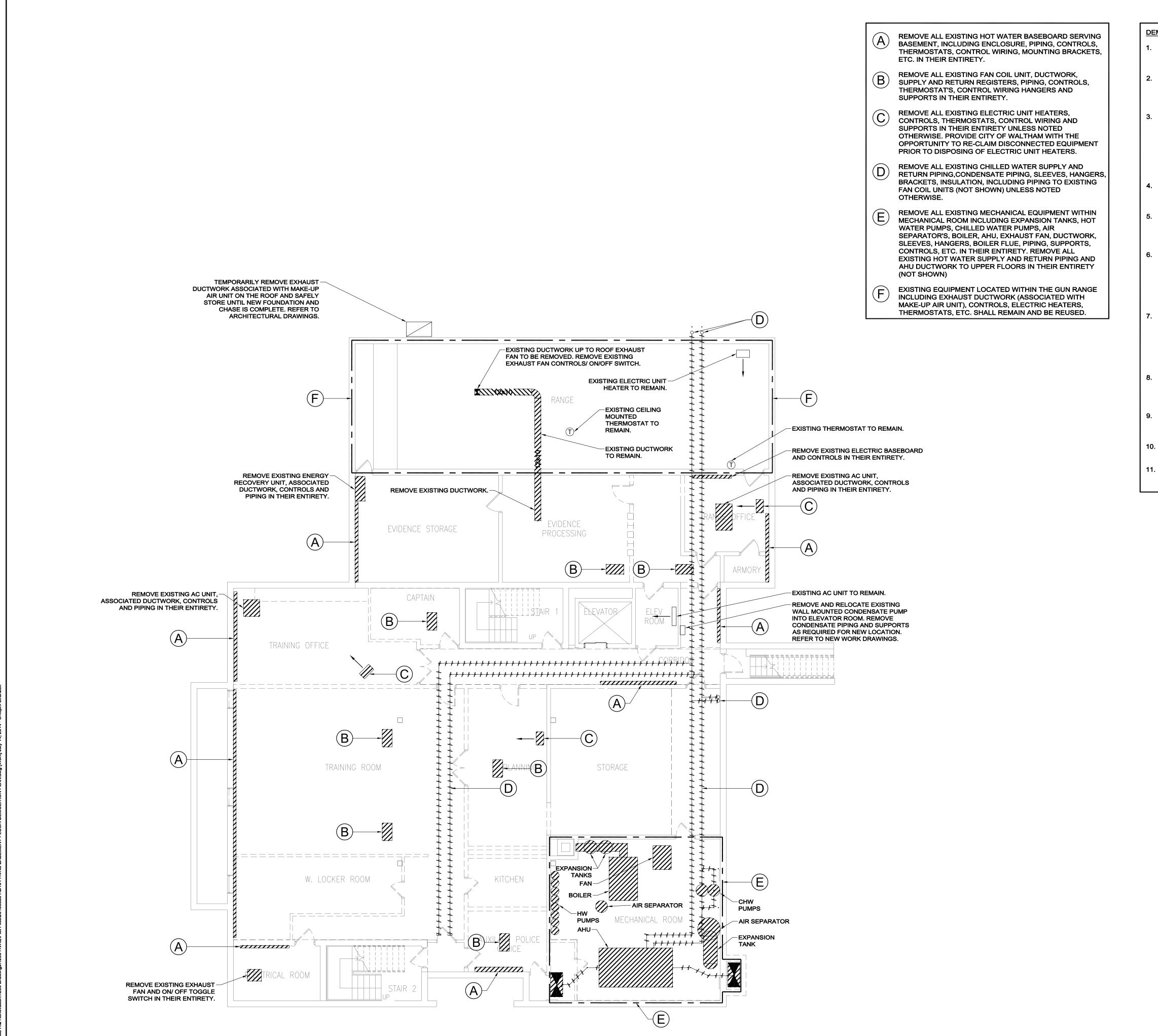
ALL FURNITURE AND EQUIPMENT SHALL BE PURCHASED AND INSTALLED BY THE CITY UNLESS OTHERWISE NOTED. GM TO COORDINATE POWER / DATA WITH VENDOR.



ABBREVIATIONS

4 AD	COMPRESSED AIR ACCESS DOOR	QTY	QUANTITY	ιφι ιΓ
ADD'L AF	ADDITIONAL AIR FOIL	R RA	RADIUS RETURN AIR	
ÅFF AFR	ABOVE FINISHED FLOOR ABOVE FINISHED ROOF	RET	RETURN	d₽
ALT	ALTITUDE OR ALTERNATE	REQ'D RH	REQUIRED RELATIVE HUMIDITY	
∖MP \P	AMPERE ACCESS PANEL	RLA RLF	RUNNING LOAD AMPS RELIEF	<u>k</u>
APD ARCH	AIR PRESSURE DROP ARCHITECT	RM RPM	ROOM REVOLUTIONS PER MINUTE	
ATC ATM	AUTOMATIC TEMPERATURE CONTROL ATMOSPHERE	SCH	SCHEDULE	SD
AVE	AVERAGE	SCR SDET	SCREEN	S
3HP 3I	BRAKE HORSEPOWER BACKWARDS INCLINED	SEN	SMOKE DETECTOR SENSIBLE	
BLDG BOD	BUILDING BOTTOM OF DUCT	SHC SP	SENSIBLE HEAT CAPACITY STATIC PRESSURE	&
BSMT BTU	BASEMENT BRITISH THERMAL UNIT	SPECS SQ	SPECIFICATIONS SQUARE	
зтин	BTU PER HOUR	SF SS	SQUARE FEET STAINLESS STEEL	
C TO C CENT	CENTER TO CENTER CENTRIFUGAL	STL SUP	STEEL	Š
CF	CUBIC FEET	50P	SUPPLY	
CFM CL	CUBIC FEET PER MINUTE CENTERLINE	т	TEMPERATURE	
CLG CO	CEILING OR COOLING CARBON MONOXIDE	TA TEL	THROWAWAY TELEPHONE	<u></u> FS
COL CONC	COLUMN CONCRETE	TEFC	TOTALLY ENCLOSED FAN COOLED TEMPERATURE	~ 本
CONN	CONNECTION	TSTAT	THERMOSTAT	<u> </u>
	CONTRACTOR DRAIN OR DEPTH	TON TOT	12,000 BTUH COOLING CAPACITY TOTAL	
ЪВ	DRY BULB TEMPERATURE	TYP	TYPICAL	
DEG DDC	DEGREE DIRECT DIGITAL CONTROL	UC	UNDERCUT DOOR]
DIA DIM	DIAMETER DIMENSION	V VEL	VOLTS (ELECTRICAL) VELOCITY	φ
DN DP	DOWN DIFFERENTIAL PRESSURE			
EA		W W/	WIDTH OR WATT WITH	· · · · · · · · · · · · · · · · · · ·
EAT	EACH OR EXHAUST AIR ENTERING AIR TEMPERATURE	WB WC	WET BULB TEMPERATURE WATER COLUMN	<u> </u>
FF LEC	EFFICIENCY ELECTRICAL	WG W/O	WATER GAUGE WITHOUT	T ^{PT}
ELEV EMER	ELEVATION EMERGENCY	WPD WTD	WATER PRESSURE DROP WATER TEMPERATURE DIFFERENCE	Q AV
EMS ENT	ENERGY MANAGEMENT SYSTEM			
SP WT	EXTERNAL STATIC PRESSURE	DUCT ACD	AUTOMATIC CONTROL DAMPER	
EXH	ENTERING WATER TEMPERATURE EXHAUST	AFMS BDD	AIR FLOW MEASURING STATION BACKDRAFT DAMPER	│
EXIST. EXT	EXISTING EXTERNAL	BOD DIFF	BOTTOM OF DUCT DIFFUSER	EJ
EXP	EXPANSION	EA EG	EXHAUST AIR	
. A		ER	EXHAUST GRILLE EXHAUST REGISTER	
C	FREE AREA FLEXIBLE CONNECTION	FBD FD	FLAT BOTTOM DUCT FIRE DAMPER (W/ ACCESS DOOR)	X
[:] LA [:] LEX	FULL LOAD AMPS FLEXIBLE	LD MD	LINEAR DIFFUSER MOTOR OPERATED DAMPER	
FLRDR FPM	FLOOR DRAIN FEET PER MINUTE	OA OED	OUTSIDE AIR OPEN END DUCT	o
PS S	FEET PER SECOND FLOW SWITCH	RA	RETURN AIR	
-T	FEET	RG RR	RETURN GRILLE RETURN REGISTER	
G	GAS	SA SD	SUPPLY AIR SMOKE DAMPER	
ga Gal	GAUGE GALLONS	SFD	COMBINATION AUTOMATIC SMOKE/FIRE DAMPER WITH ACCESS DOOR	O
GALV GC	GALVANIZED GENERAL CONTRACTOR	TA	THROW AWAY OR TRANSFER AIR	
GPH GPM	GALLONS PER HOUR GALLONS PER MINUTE	TG TOD	TRANSFER GRILLE TOP OF DUCT	
GRD GWB	GRADE GYPSUM WALL BOARD	TR TSP	TRANSFER TOTAL STATIC PRESSURE (IN. WG)	
	HOSE BIBB CONN.	VD VAV	VOLUME DAMPER VARIABLE AIR VOLUME SUPPLY AIR TERMINAL	
HD	HEAD	WMS	WIRE MESH SCREEN	Со
IGT IP	HEIGHT HORSEPOWER			
HR HTG	HOUR HEATING	EQUIPME AC	AIR CONDITIONING OR AIR CONDITIONING UNIT	
ΗZ	HERTZ (FREQUENCY, CYCLES PER SECOND)	ACC ACU	AIR COOLED CONDENSING UNIT AIR CONDITIONING UNIT	
D N	INSIDE DIAMETER INCHES	В	BOILER	
		CUH DDC	CABINET UNIT HEATER DIRECT DIGITAL CONTROL	
Ŵ	KILOWATT	DX EF	DIRECT EXPANSION EXHAUST FAN	
AT	LENGTH LEAVING AIR TEMPERATURE	ET F	EXPANSION TANK	
.B .F	POUND LINEAR FEET	FTR	FAN FINNED TUBE RADIATION	
.P	LOW POINT	HC HP	HEATING COIL HEAT PUMP	L
UVR	LOCKED ROTOR AMPS LOUVER	HWC P	HOT WATER HEATING COIL PUMP	
VDR	LOUVERED DOOR LEAVING	REG	REGISTER	
.WT	LEAVING WATER TEMPERATURE	RF RHC	RETURN FAN REHEAT COIL	
MAX		RTU SA	ROOF TOP UNIT SOUND ATTENUATOR	
MBH MCA	THOUSAND BTUH MINIMUM CIRCUIT AMPS	SF	SUPPLY FAN	
ЛЕСН ЛF'R	MECHANICAL MANUFACTURER	UH UV	UNIT HEATER UNIT VENTILATOR	
/IN //U	MINIMUM MAKE-UP WATER	VAV VFD	VARIABLE AIR VOLUME TERMINAL UNIT VARIABLE FREQUENCY DRIVE	
//A	NOT APPLICABLE	HOT WAT		
	NORMALLY CLOSED OR NOISE CRITERIA NOT IN CONTRACT	HW	HOT WATER	
NO No.	NORMALLY OPEN NUMBER	HWR HWS	HOT WATER RETURN HOT WATER SUPPLY	
MOM	NOMINAL			
		PIPING AAV		
DA DAI	OUTSIDE AIR OUTSIDE AIR INTAKE	ACV AS	AUTOMATIC CONTROL VALVE AIR SEPARATOR	
DC DD	ON CENTER OUTSIDE DIAMETER	ATV BOP	ATMOSPHERIC VENT BOTTOM OF PIPE	
DDP DV	OPEN DRIP PROOF	CO	CLEAN-OUT	
		DOV MAV	DRAIN-OFF VALVE MANUAL AIR VENT	
PCF PD	POUNDS PER CUBIC FOOT PRESSURE DROP	MU TOP	MAKE-UP WATER TOP OF PIPE	
эН ЭВG	PHASE PLUMBING	V	VENT	
POS	PROVIDED BY OTHER SECTION			
	PARTS PER MILLION	DX RG	DIRECT EXPANSION REFRIGERANT GAS	
PPM PSI	POUNDS PER SQUARE INCH			
	POUNDS PER SQUARE INCH POUNDS PER SQUARE INCH ABSOLUTE POUNDS PER SQUARE INCH DIFFERENTIAL	RL RS	REFRIGERANT LIQUID REFRIGERANT SUCTION	

PIPING LEGEND	DUCTWORK PIPING ABBREVIATIONS	
→ 1 0 → BALL VALVE → 1 1 → BUTTERFLY VALVE → 1 0 → HOSE END BALL VALVE WITH CAP AND CHAIN → 1 0 → HOSE END BALL VALVE WITH CAP AND CHAIN → 1 0 → CHECK VALVE (SILENT CHECK TYPE ON PUMP DISCHARGE) → 1 → STRAINER WITH HOSE END BLOWOFF VALVE, CAP AND CHAIN	SINGLE LINE DOUBLE LINE SINGLE LINE DOUBLE LINE WxD RECTANGULAR SUPPLY DUCT W=WIDTH, D=DEPTH (INCHES UNLESS NOTED OTHERWISE) AS VIEWED W_D RECTANGULAR RETURN/EXHAUST DUCT W=WIDTH, D=DEPTH (INCHES UNLESS NOTED OTHERWISE) AS VIEWED W_D HOT WATER RETURN HOT WATER SUPPLY DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø DIA"Ø	Architects / Engineers / Planner 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
Image: Substantial constraints Substantial constraints Image: Substantial constraints	STANDARD RADIUS ELBOW STANDARD RADIUS ELBOW SUPPLY DUCT UP SUPPLY DUCT UP SUPPLY DUCT DOWN SUPPLY DUCT DOWN <tr< td=""><td>Andover, MA - Boston, MA - Amnerst, MA Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200 REVISIONS Number Description Date</td></tr<>	Andover, MA - Boston, MA - Amnerst, MA Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200 REVISIONS Number Description Date
Image: Image	JOWN JOWN RECTANGULAR Image: constraint of the second secon	
\blacksquare	EXHAUST DUCT UP 45° TAKEOFF 45° TAKEOFF 45° TAKEOFF SCHEDULED EQUIPMENT UNIT NUMBER Image: Schedular duct down	ISSUED FOR BID
REDUCER - ECCENTRIC CLEANOUT FOR CONDENSATE DRAIN CO DIRT LEG RISE (DOUBLE LINE - PLAN VIEW) DROP (DOUBLE LINE - PLAN VIEW) PIPE BREAK (DOUBLE LINE)	Image: Substant of the second seco	WALTHAM POLICE
ςς ςς PIPE BREAK (SINGLE LINE)	DIFFUSER/GRILLE (W/SHEETMETAL PLENUM, LINING & BRANCH CONN. FOR EVERY 4' OF LINEAR.) SHANCH CONN. FOR EVERY 4' OF LINEAR.) (W/SHEETMETAL PLENUM, LINING & BRANCH CONN. FOR EVERY 4' OF LINEAR.) SHANCH CONN. FOR EVERY 4' OF LINEAR.) (W/SHEETMETAL PLENUM, LINING & BRANCH CONN. FOR UPLENUM BY LD MFR SHANCH CONN. FOR UPLENUM BY LD MFR (W/SHEETMETAL PLENUM, LINING & BRANCH CONN. FOR UPLENUM BY LD MFR SHANCH CONN. FOR UPLENUM BY LD MFR (W/SHEETMETAL PLENUM, LINING & BRANCH CONN. FOR UPLENUM BY LD MFR SHANCH CONN. FOR UPLENUM BY LD MFR (W/SHEETMETAL PLENUM, LINING & BRANCH CONN. FOR UPLENUM BY LD MFR SHANCH CONTROL DAMPER W/ ACCESS DOOR VD (W/SHEETMETAL PLENUM, LINING & UPLENUM, BLOW SUPPLY DIFFUSER	STATION RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
	FD SELF-CLOSING FIRE DAMPER W/ ACCESS DOOR Image: SFD 3-WAY BLOW SUPPLY DIFFUSER SFD COMBINATION SMOKE/FIRE DAMPER W/ ACCESS DOOR Image: OR image:	HVAC LEGEND, NOTES & ABBRVS. PROJECT NUMBER: 20130535 DESIGNED BY: JJK DRAWN BY: JJK CHECKED BY: CH DATE: July-Aug.
		SCALE: 2016 N.T.S. SHEET NUMBER: HOOOO SHEET 79 OF 157



REVIEWD BY: CIVIL: _____ ARCH: _____ STRU: _____ PLUM: _____ FIRE: _____ MECH: _____ ELI

13/20130535 - Waltham Police HQ Renovation/1200 Drawings/1203 HVAC/Plot Files/20130535 HD101 HVAC BASEMENT FLOOR DEMOLITION PLAN.dwg [Work] July 14, 2014 - 5:48pm dfranzek

DEMOLITION WORK NOTES:

IF THERE IS A QUESTION AS TO WHETHER EXISTING EQUIPMENT SHALL REMAIN AND BE REUSED OR REMOVED CONTACT THE ARCHITECT AND ENGINEER PRIOR TO DEMOLISHING FOR CLARIFICATION.

PRIOR TO DEMOLITION, COORDINATE WITH THE CITY OF WALTHAM TO CONFIRM IF ANY EXISTING EQUIPMENT TO BE DEMOLISHED CAN BE TURNED OVER TO THE CITY FOR RE-USE (I.E. EXISTING ACU/ACCU'S, ELECTRIC UNIT HEATERS, ETC.)

THE DEMOLITION DRAWINGS AND EQUIPMENT LOCATIONS ARE DIAGRAMMATIC AND ARE NOT REPRESENTATIVE OF ALL EXISTING EQUIPMENT, PIPING, CONTROLS, ETC. TO BE DEMOLISHED - I.E. ROOMS WITHIN THE SCOPE OF WORK WITH BASEBOARD RADIATION NOT SHOWN ON DEMOLITION PLANS SHALL BE REMOVED IN SAME MANNER AS SIMILAR EQUIPMENT DESCRIBED ON THE PLANS AT NO ADDITIONAL COST TO THE OWNER UNLESS EQUIPMENT IS TO BE TURNED OVER TO CITY FOR RE-USE, SEE NOTE ABOVE.

THE EQUIPMENT ASSOCIATED WITH THE ELEVATOR MACHINE ROOM AND GUN RANGE SHALL REMAIN AND BE REUSED UNLESS OTHERWISE NOTED.

IF EXISTING EQUIPMENT IS FOUND DURING DEMOLITION THAT IS NOT EXPLICITLY OR GENERICALLY DESCRIBED OR NOTED WITHIN THESE DOCUMENTS, CONTACT THE ARCHITECT AND ENGINEER FOR FURTHER GUIDANCE PRIOR TO DEMOLISHING SAID EQUIPMENT.

PROVIDE DEMOLITION OF EXISTING HOT WATER SYSTEM, BOILER, PUMPS, PIPING, HANGERS, SLEEVES, SUPPORTS, EXPANSION TANK, EXPANSION LOOPS, AIR SEPARATOR, TERMINAL EQUIPMENT, COMBUSTION DUCTWORK, CONTROLS, VALVES, ACTUATORS, AND COMPONENTS IN THEIR ENTIRETY. NO PART OF THE EXISTING SYSTEM SHALL REMAIN AND BE REUSED. EXISTING HOT WATER PIPING DISTRIBUTION NOT SHOWN ON PLANS.

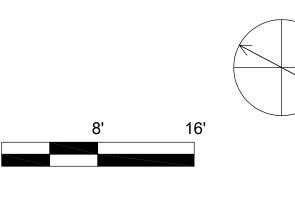
PROVIDE DEMOLITION OF EXISTING CHILLED WATER SYSTEM, AIR COOLED CHILLER, EXPANSION TANK, AIR SEPARATOR, CHILLED WATER PUMPS, PIPING, CONDENSATE DRAINS, HANGERS, SLEEVES, SUPPORTS, CONTROLS, VALVES ACTUATORS AND COMPONENTS IN THEIR ENTIRETY. NO PART OF THE EXISTING SYSTEM SHALL REMAIN AND BE REUSED. EXISTING CHILLED WATER MAINS SHOWN (V.I.F. EXACT RUNS AND LOCATIONS.

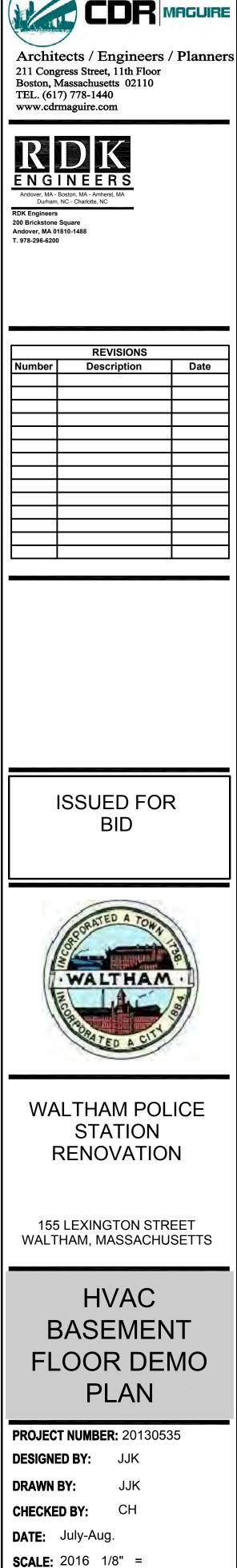
ALL EXISTING SUPPLY, RETURN, AND EXHAUST DUCTWORK AND ASSOCIATED EQUIPMENT LOCATED IN THE BASEMENT, FIRST FLOOR, SECOND FLOOR AND ROOF SHALL BE REMOVED IN IT'S ENTIRETY UNLESS EXPLICITLY CALLED OUT TO REMAIN AND BE REUSED.

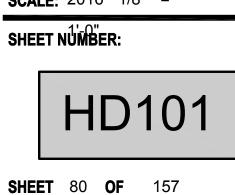
ALL SIZES, ROUTING AND EQUIPMENT LOCATIONS INDICATED AND ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY EXACT SIZES AND ROUTING IN THE FIELD.

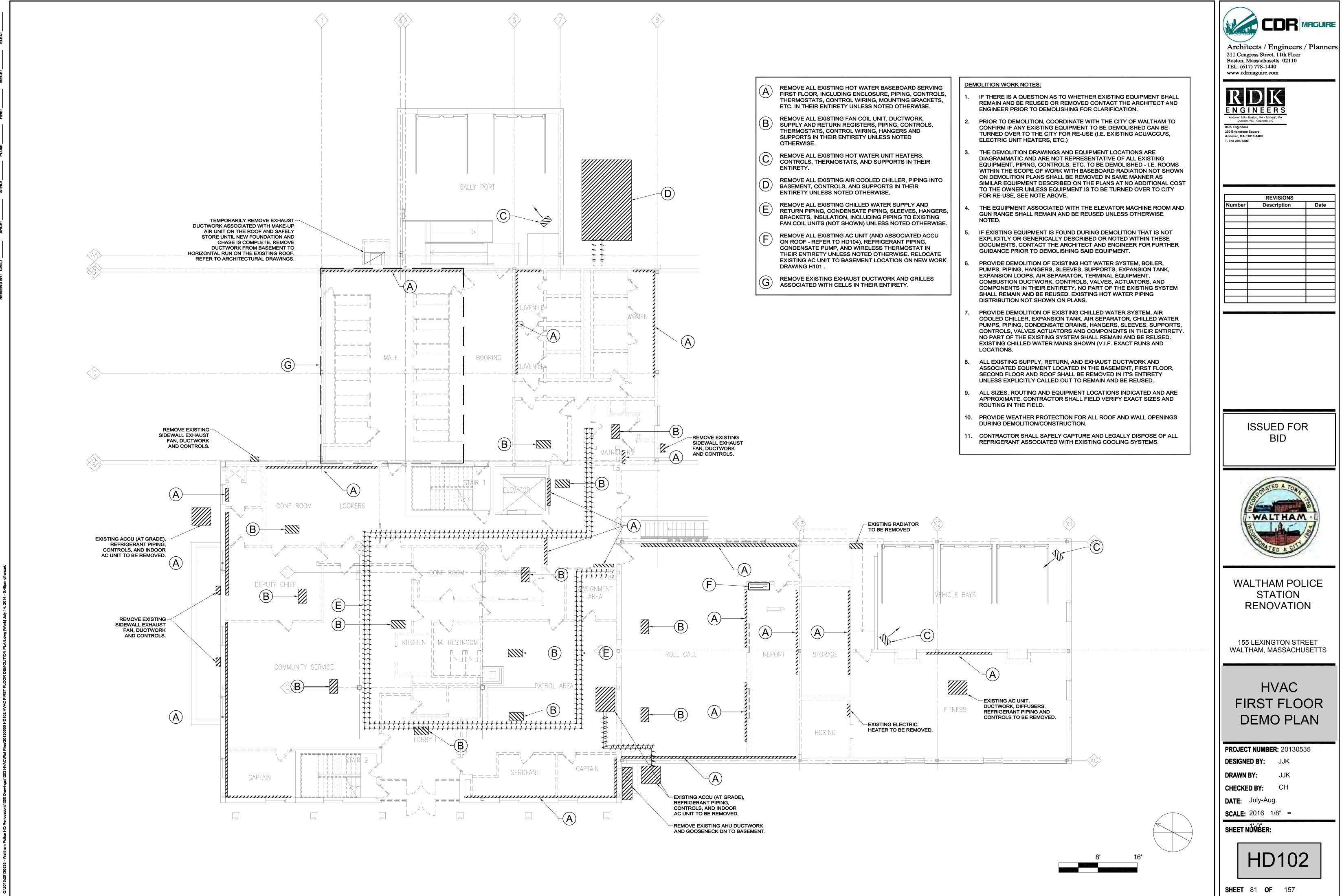
10. PROVIDE WEATHER PROTECTION FOR ALL ROOF AND WALL OPENINGS DURING DEMOLITION/CONSTRUCTION.

11. CONTRACTOR SHALL SAFELY CAPTURE AND LEGALLY DISPOSE OF ALL REFRIGERANT ASSOCIATED WITH EXISTING COOLING SYSTEMS.

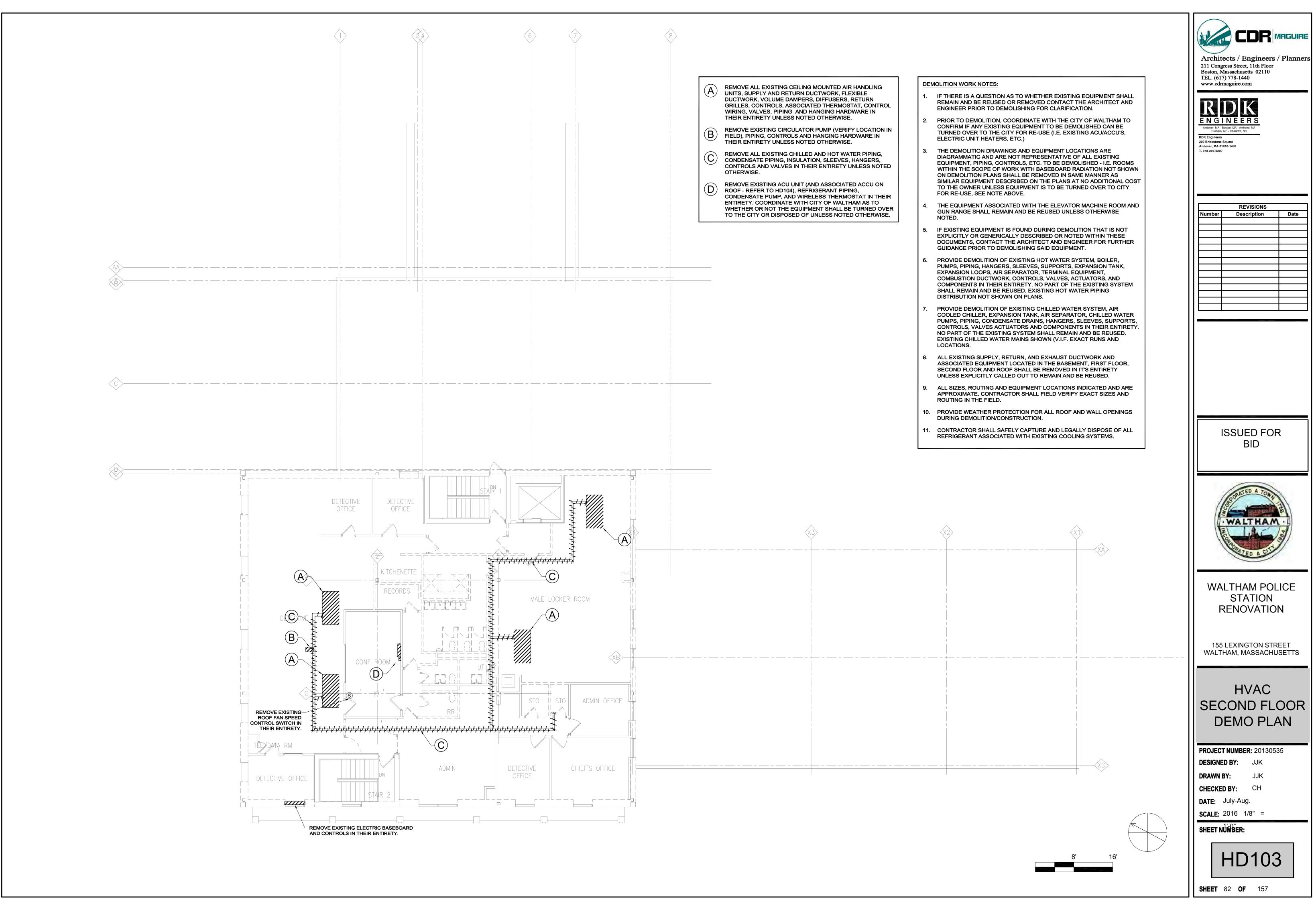


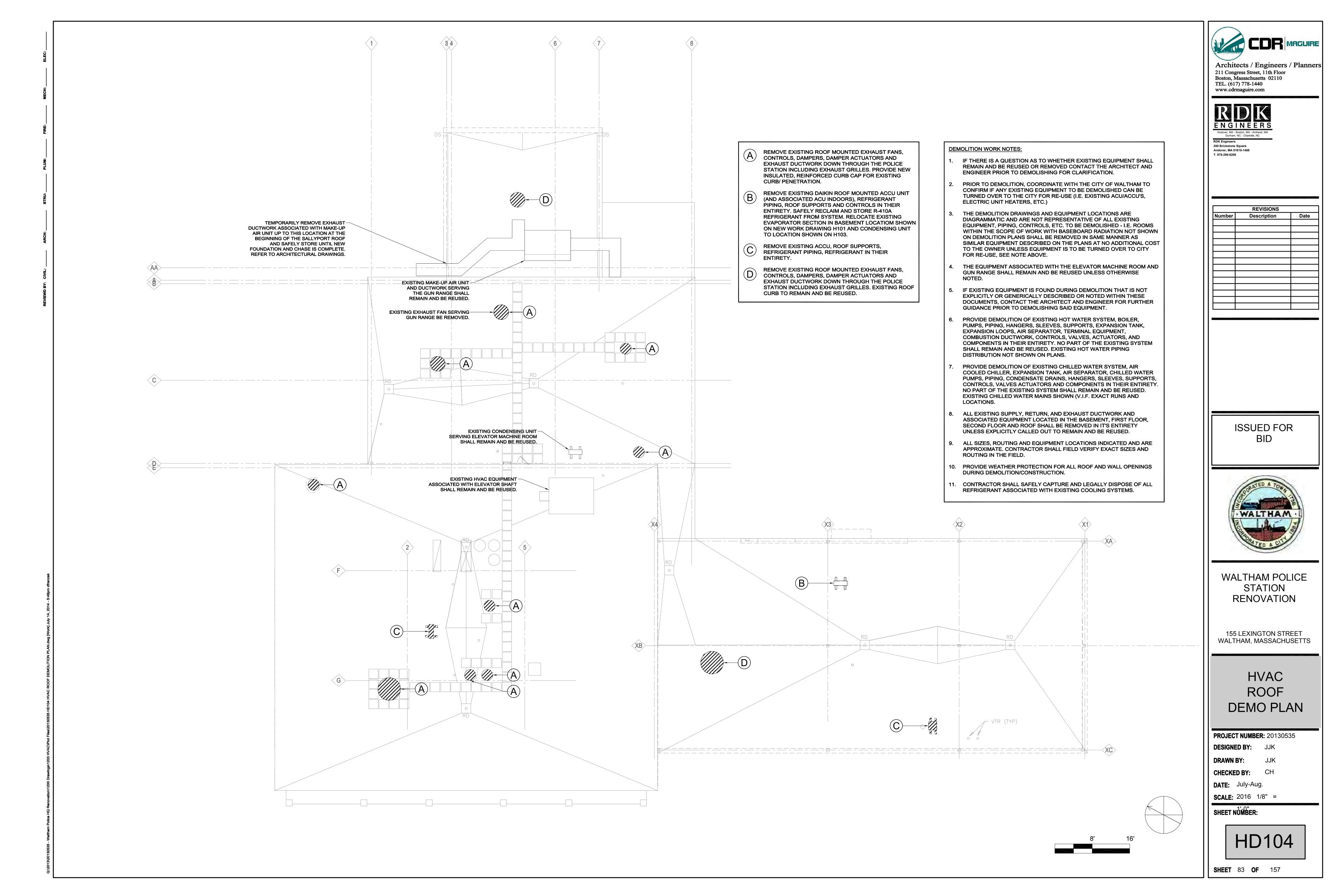


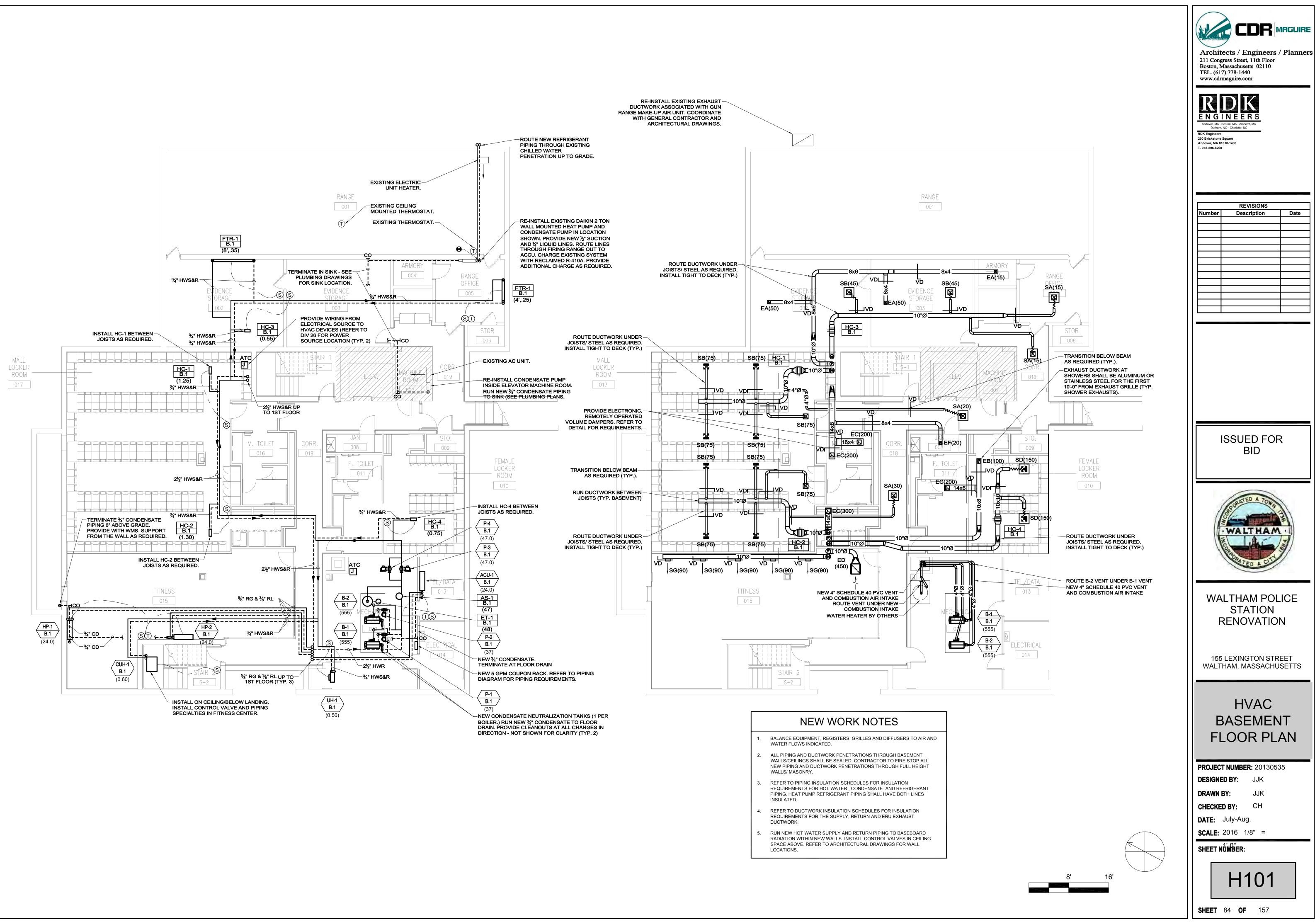


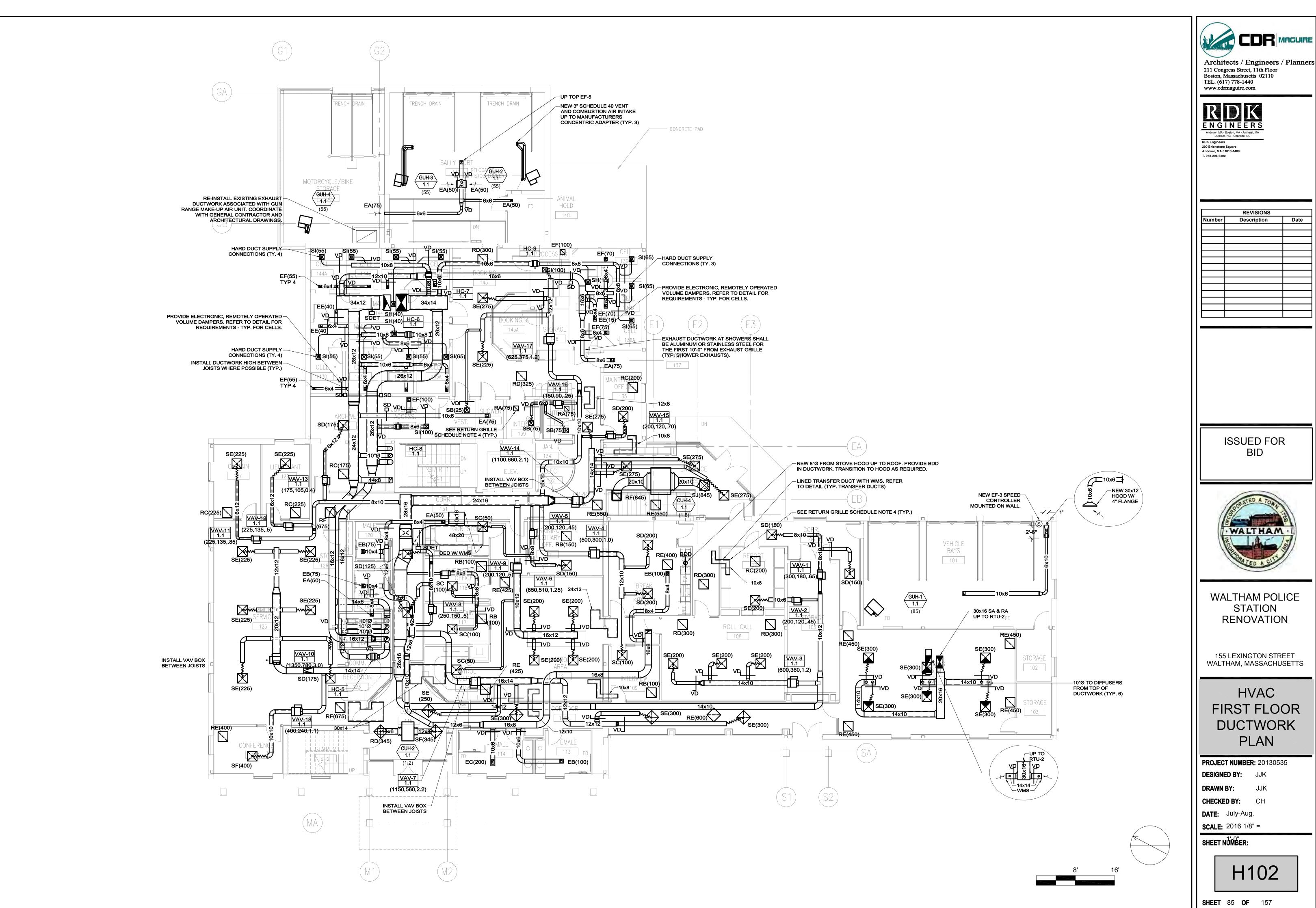


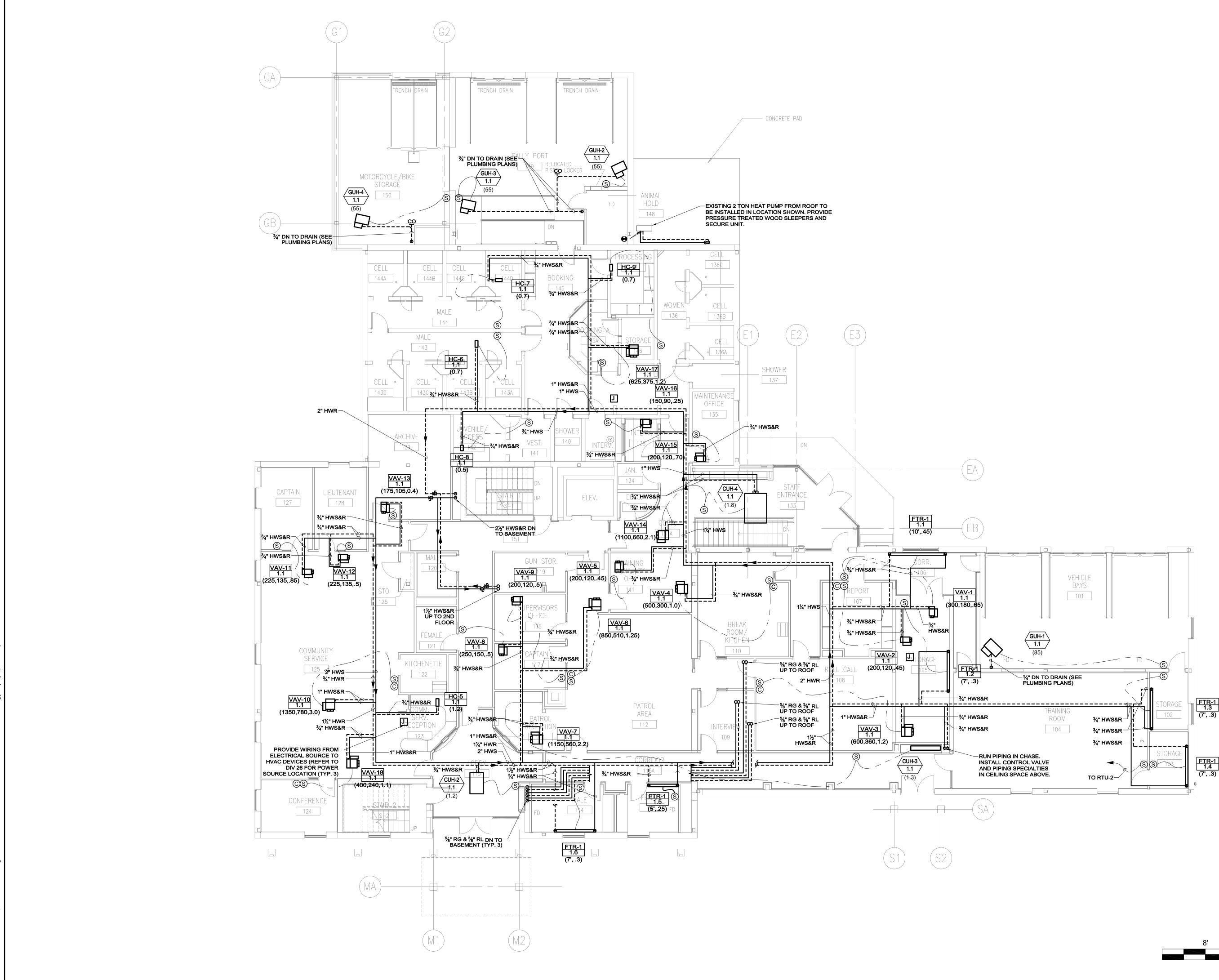






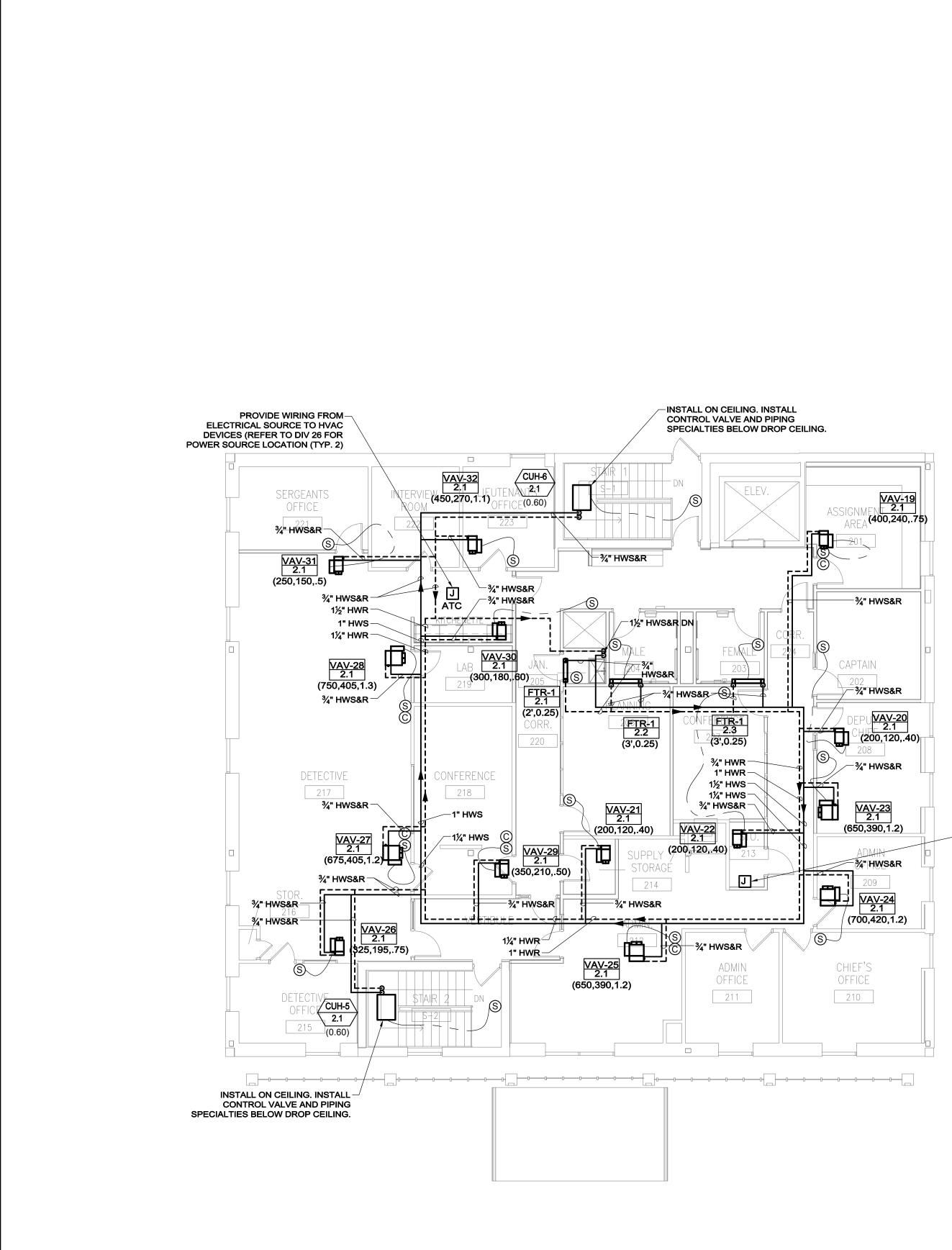




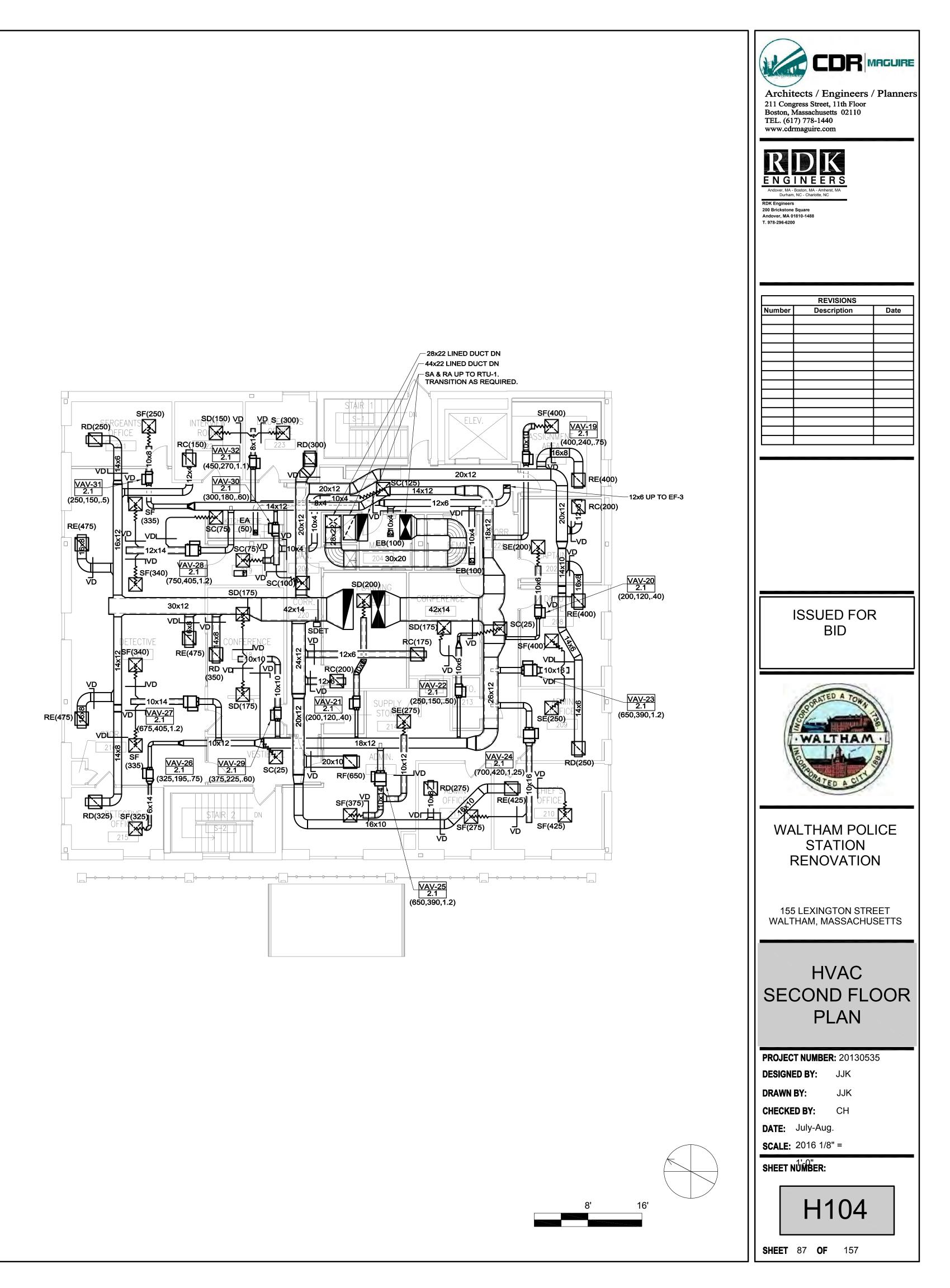


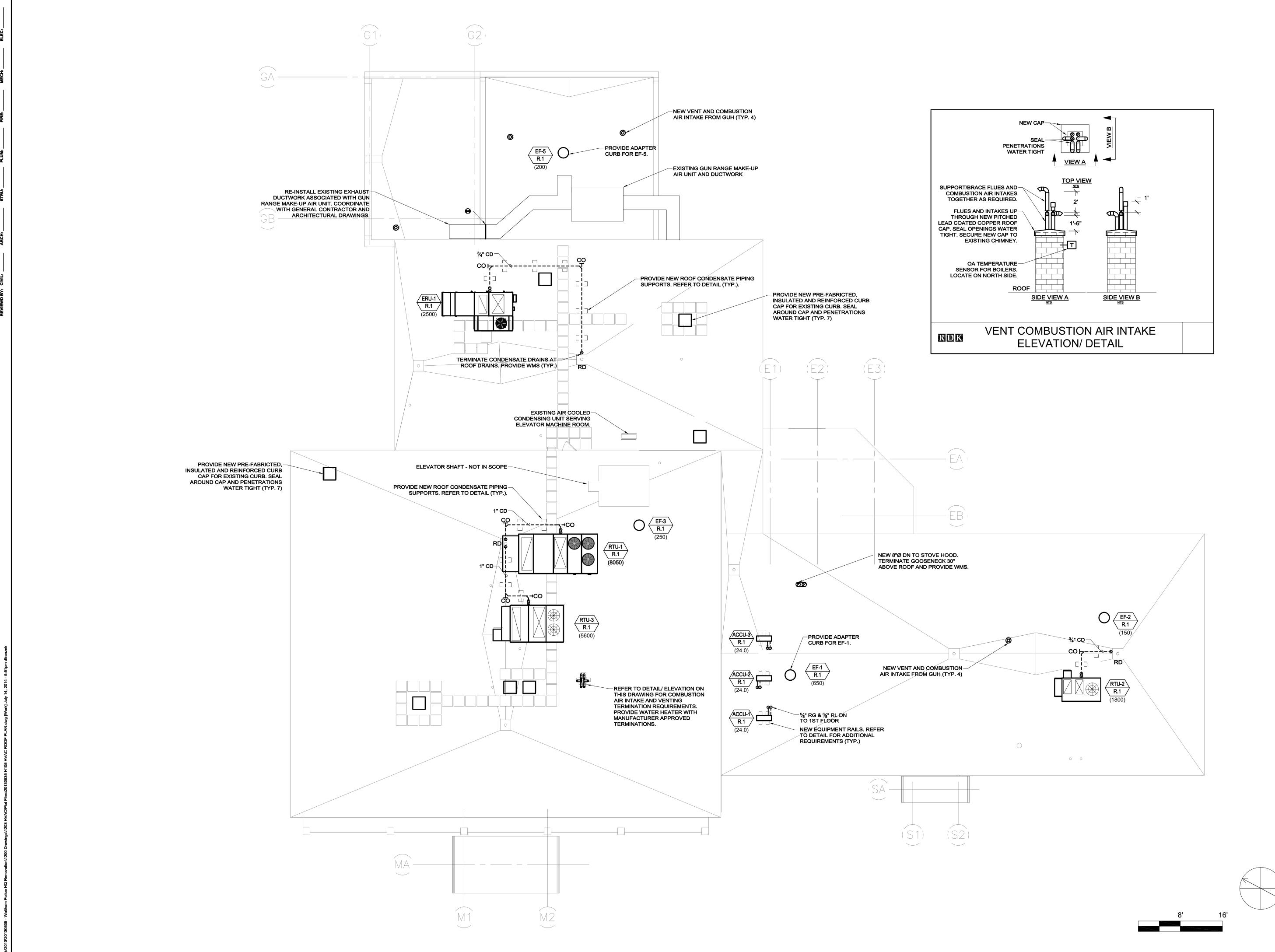
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REVISIONS Number Description Date
ISSUED FOR BID
WALTHAM POLICE STATION RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS HVAC
FIRST FLOOR PIPING PLAN PROJECT NUMBER: 20130535 DESIGNED BY: JJK DRAWN BY: JJK CHECKED BY: CH DATE: July-Aug. SCALE: 2016 1/8" =
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16'



--PROVIDE WIRING FROM ELECTRICAL SOURCE TO HVAC DEVICES (REFER TO DIV 26 FOR POWER SOURCE LOCATION (TYP. 2)



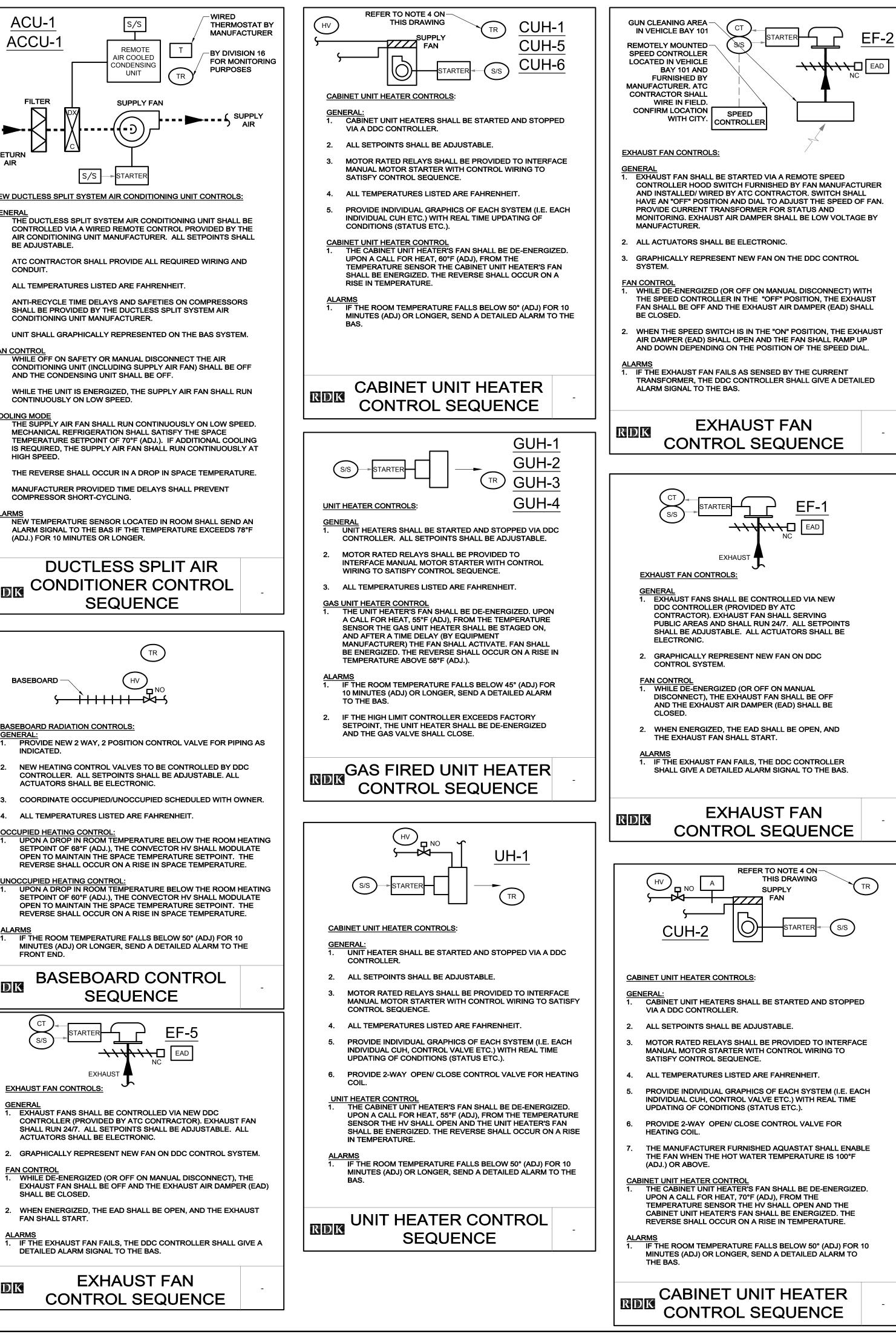




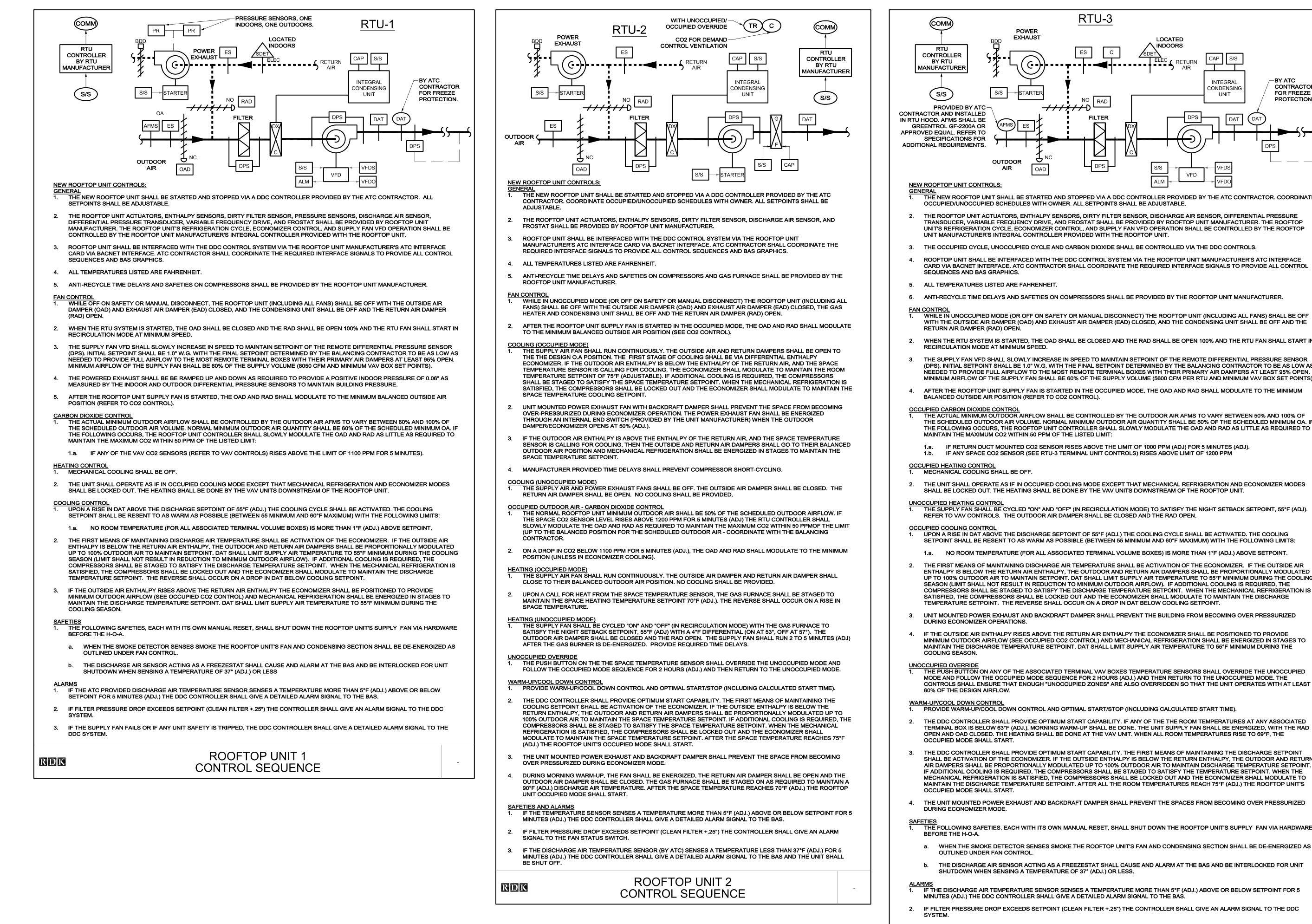
DETAILED ALARM SIGNAL TO THE BAS. EXHAUST FAN RDK

SHALL BE CLOSED.

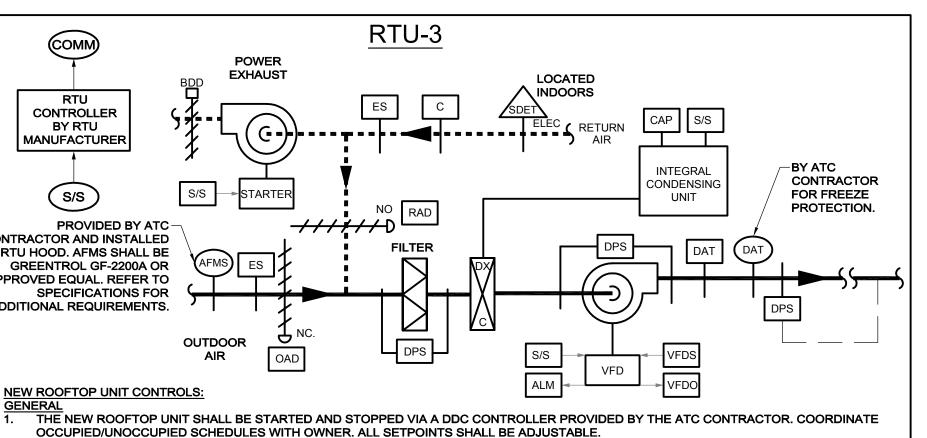
FAN SHALL START.



ATC NOTES: 1. PROVIDE NEW DDC TEMPERATURE CONTROL SYSTEM PER DRAWINGS AND SPECIFICATIONS. NEW DDC SYSTEM SHALL INTERFACE AND CONTROL ALL SYSTEMS ON DRAWINGS AND IN SPECIFICATIONS. CONTRACTOR SHALL PROVIDE NEW DDC CONTROLLERS AS REQUIRED TO SATISFY THE CONTROL SEQUENCES OUTLINED ON AUTOMATIC CONTROL DRAWINGS.	
2. PROVIDE INDIVIDUAL EQUIPMENT GRAPHICS WITH REAL TIME UPDATING OF CONDITIONS (STATUS, TEMPERATURE, FLOWS, ETC) FOR ALL SYSTEMS WITHIN EACH CONTROL SEQUENCE. PROVIDE THE CITY OF WALTHAM WITH 1 SERVICE TOOL LAPTOP COMPUTER DEDICATED TO THE NEW DDC CONTROL SYSTEM - REFER TO ATC SPECIFICATIONS FOR SERVICE TOOL REQUIREMENTS.	Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
3. PROVIDE SECURITY ACCESS/PASSWORD PROGRAMMING FOR DDC CONTROL SYSTEM. ALL ALARMS SHALL BE SENT TO THE DDC SYSTEM AND SHALL BE VIEWABLE WHEN LOGGED ON FROM ANY COMPUTER WITH AN AUTHORIZED USER VIA THE INTERNET.	RDK
4. PROVIDE STAINLESS STEEL WALL PLATE TEMPERATURE SENSOR IN ALL PUBLIC AREAS (I.E. CORRIDORS, BATHROOMS, ETC.) AND IN THE CELLS.	ENGINEERS Andover, MA - Boston, MA - Amherst, MA Durham, NC - Charlotte, NC
 REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND TRAINING REQUIREMENTS. ALL NEW ROOM TEMPERATURE SENSORS SHALL BE MOUNTED AT 48" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED BY ARCHITECT. 	RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200
7. ALL ATC CONTROLS SHALL BE HARDWIRED. NO WIRELESS TECHNOLOGY SHALL BE ALLOWED. ALL EXPOSED WIRING SHALL BE IN WIRE MOLD, NO CONDUIT SHALL BE USED IN EXPOSED AREAS.	
8. ON SITE TRAINING SHALL ALSO INCLUDE A MINIMUM OF 40 HOURS OF HANDS ON INSTRUCTION GEARED TOWARD OPERATION AND MAINTENANCE OF THE SYSTEMS. PRIOR TO TRAINING, THE NECESSARY LESSON PLANS, TRAINING DOCUMENTS, HANDOUTS, ETC. SHALL BE PROVIDED WITH THE CURRICULUM OUTLINE, WHICH SHALL INCLUDE AS A MINIMUM:	REVISIONS
8.a.INITIAL SESSION:8 HRS8.b.2ND SESSION, 2 WEEKS LATER8 HRS8.c.3RD SESSION, 2 WEEKS LATER8 HRS8.d.4TH SESSION, 1 MONTH LATER8 HRS8.e.REMAINING 8 HRS TO BE SCHEDULED BY AS NEEDED	Number Description Date
9. THE CONTRACTOR SHALL CARRY 24 HOURS OF ADDITIONAL ON-SITE PROGRAMMING (ABOVE BASE CONTRACT) IN THEIR BID PROPOSAL TO ALLOW FOR FIELD MODIFICATIONS THAT MAY BE NEEDED TO OPTIMIZE THE VARIOUS SYSTEMS TO FULLY CONFORM TO THE REQUIREMENTS OF THE VARIOUS SYSTEMS TO FULLY CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS, SEQUENCE OF CONTROLS AND WORK WITH THE ACTUAL OPERATING CONDITIONS AS INSTALLED. THIS WORK SHALL BE DONE AT NO ADDITIONAL COST.	
10. SUBMIT ACCEPTANCE TESTING PLAN, PRE-FUNCTIONAL PERFORMANCE TEST FORMS/NARRATIVES AND FUNCTIONAL TEST FORMS/NARRATIVES TO THE ENGINEER FOR REVIEW AND APPROVAL.	
11. REFER TO FLOOR PLANS FOR ELECTRICAL SOURCES TO SERVE MISCELLANEOUS ATC DEVICES - COORDINATE WITH DIVISION 16.	
RDK ATC NOTES -	
ELEC CT EAD S/S STARTER EF-3 ELEC EAD EXHAUST	ISSUED FOR
<u>EXHAUST FAN CONTROLS:</u> <u>GENERAL</u> 1. EXHAUST FAN SHALL BE CONTROLLED VIA NEW DDC CONTROLLER (PROVIDED BY ATC CONTRACTOR).	BID
 ALL SETPOINTS SHALL BE ADJUSTABLE. ALL ACTUATORS SHALL BE ELECTRONIC. EF-3 SHALL BE CONTROLLED/INTERFACED WITH THE LIGHTING MOTION SENSORS. 	
 COORDINATE OCCUPANCY SENSOR WITH DIVISION 16. GRAPHICALLY REPRESENT NEW FAN ON DDC CONTROL SYSTEM. 	Segerated A TOWN
FAN CONTROL 1. WHILE DE-ENERGIZED (OR OFF ON MANUAL DISCONNECT), THE EXHAUST FAN SHALL BE OFF AND THE EXHAUST AIR DAMPER (EAD) SHALL BE CLOSED.	WALTHAM
 WHEN AN OS SENSOR IS TRIPPED, THE EAD SHALL OPEN, AND THE EXHAUST FAN SHALL START. <u>ALARMS</u> 1. IF THE EXHAUST FAN FAILS, THE DDC CONTROLLER SHALL GIVE A DETAILED ALARM SIGNAL TO THE EXISTING BAS. 	A CITY SE
ROOF MOUNTED EXHAUST FAN CONTROL SEQUENCE	WALTHAM POLICE STATION RENOVATION
	155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
	HVAC AUTOMATIC
	TERMPERATURE CONTROLS
	PROJECT NUMBER: 20130535 DESIGNED BY: JJK
	DRAWN BY: JJK
	CHECKED BY: CH DATE: July-Aug.
	SCALE: 2016 N.T.S. SHEET NUMBER:
	H600 Sheet 89 of 157
	L



- DDC SYSTEM.
- RDK



THE ROOFTOP UNIT ACTUATORS, ENTHALPY SENSORS, DIRTY FILTER SENSOR, DISCHARGE AIR SENSOR, DIFFERENTIAL PRESSURE TRANSDUCER, VARIABLE FREQUENCY DRIVE, AND FROSTAT SHALL BE PROVIDED BY ROOFTOP UNIT MANUFACTURER. THE ROOFTOP UNIT'S REFRIGERATION CYCLE, ECONOMIZER CONTROL, AND SUPPLY FAN VFD OPERATION SHALL BE CONTROLLED BY THE ROOFTOP UNIT MANUFACTURER'S INTEGRAL CONTROLLER PROVIDED WITH THE ROOFTOP UNIT.

3. THE OCCUPIED CYCLE, UNOCCUPIED CYCLE AND CARBON DIOXIDE SHALL BE CONTROLLED VIA THE DDC CONTROLS.

ROOFTOP UNIT SHALL BE INTERFACED WITH THE DDC CONTROL SYSTEM VIA THE ROOFTOP UNIT MANUFACTURER'S ATC INTERFACE CARD VIA BACNET INTERFACE. ATC CONTRACTOR SHALL COORDINATE THE REQUIRED INTERFACE SIGNALS TO PROVIDE ALL CONTROL

S/S

6. ANTI-RECYCLE TIME DELAYS AND SAFETIES ON COMPRESSORS SHALL BE PROVIDED BY THE ROOFTOP UNIT MANUFACTURER.

WHILE IN UNOCCUPIED MODE (OR OFF ON SAFETY OR MANUAL DISCONNECT) THE ROOFTOP UNIT (INCLUDING ALL FANS) SHALL BE OFF WITH THE OUTSIDE AIR DAMPER (OAD) AND EXHAUST AIR DAMPER (EAD) CLOSED, AND THE CONDENSING UNIT SHALL BE OFF AND THE

WHEN THE RTU SYSTEM IS STARTED, THE OAD SHALL BE CLOSED AND THE RAD SHALL BE OPEN 100% AND THE RTU FAN SHALL START IN

THE SUPPLY FAN VFD SHALL SLOWLY INCREASE IN SPEED TO MAINTAIN SETPOINT OF THE REMOTE DIFFERENTIAL PRESSURE SENSOR (DPS). INITIAL SETPOINT SHALL BE 1.0" W.G. WITH THE FINAL SETPOINT DETERMINED BY THE BALANCING CONTRACTOR TO BE AS LOW AS NEEDED TO PROVIDE FULL AIRFLOW TO THE MOST REMOTE TERMINAL BOXES WITH THEIR PRIMARY AIR DAMPERS AT LEAST 95% OPEN.

MINIMUM AIRFLOW OF THE SUPPLY FAN SHALL BE 60% OF THE SUPPLY VOLUME (5600 CFM PER RTU AND MINIMUM VAV BOX SET POINTS). AFTER THE ROOFTOP UNIT SUPPLY FAN IS STARTED IN THE OCCUPIED MODE, THE OAD AND RAD SHALL MODULATE TO THE MINIMUM BALANCED OUTSIDE AIR POSITION (REFER TO CO2 CONTROL).

THE ACTUAL MINIMUM OUTDOOR AIRFLOW SHALL BE CONTROLLED BY THE OUTDOOR AIR AFMS TO VARY BETWEEN 50% AND 100% OF THE SCHEDULED OUTDOOR AIR VOLUME. NORMAL MINIMUM OUTDOOR AIR QUANTITY SHALL BE 50% OF THE SCHEDULED MINIMUM OA. IF THE FOLLOWING OCCURS, THE ROOFTOP UNIT CONTROLLER SHALL SLOWLY MODULATE THE OAD AND RAD AS LITTLE AS REQUIRED TO MAINTAIN THE MAXIMUM CO2 WITHIN 50 PPM OF THE LISTED LIMIT:

1.a. IF RETURN DUCT MOUNTED CO2 SENSOR RISES ABOVE THE LIMIT OF 1000 PPM (ADJ) FOR 5 MINUTES (ADJ). 1.b. IF ANY SPACE CO2 SENSOR (SEE RTU-3 TERMINAL UNIT CONTROLS) RISES ABOVE LIMIT OF 1200 PPM

THE UNIT SHALL OPERATE AS IF IN OCCUPIED COOLING MODE EXCEPT THAT MECHANICAL REFRIGERATION AND ECONOMIZER MODES SHALL BE LOCKED OUT. THE HEATING SHALL BE DONE BY THE VAV UNITS DOWNSTREAM OF THE ROOFTOP UNIT.

THE SUPPLY FAN SHALL BE CYCLED "ON" AND "OFF" (IN RECIRCULATION MODE) TO SATISFY THE NIGHT SETBACK SETPOINT, 55°F (ADJ). REFER TO VAV CONTROLS. THE OUTDOOR AIR DAMPER SHALL BE CLOSED AND THE RAD OPEN.

UPON A RISE IN DAT ABOVE THE DISCHARGE SEPTOINT OF 55°F (ADJ.) THE COOLING CYCLE SHALL BE ACTIVATED. THE COOLING SETPOINT SHALL BE RESENT TO AS WARM AS POSSIBLE (BETWEEN 55 MINIMUM AND 60°F MAXIMUM) WITH THE FOLLOWING LIMITS: 1.a. NO ROOM TEMPERATURE (FOR ALL ASSOCIATED TERMINAL VOLUME BOXES) IS MORE THAN 1°F (ADJ.) ABOVE SETPOINT.

THE FIRST MEANS OF MAINTAINING DISCHARGE AIR TEMPERATURE SHALL BE ACTIVATION OF THE ECONOMIZER. IF THE OUTSIDE AIR ENTHALPY IS BELOW THE RETURN AIR ENTHALPY, THE OUTDOOR AND RETURN AIR DAMPERS SHALL BE PROPORTIONALLY MODULATED UP TO 100% OUTDOOR AIR TO MAINTAIN SETPOINT. DAT SHALL LIMIT SUPPLY AIR TEMPERATURE TO 55°F MINIMUM DURING THE COOLING SEASON (LIMIT SHALL NOT RESULT IN REDUCTION TO MINIMUM OUTDOOR AIRFLOW). IF ADDITIONAL COOLING IS REQUIRED, THE COMPRESSORS SHALL BE STAGED TO SATISFY THE DISCHARGE TEMPERATURE SETPOINT. WHEN THE MECHANICAL REFRIGERATION IS SATISFIED, THE COMPRESSORS SHALL BE LOCKED OUT AND THE ECONOMIZER SHALL MODULATE TO MAINTAIN THE DISCHARGE

TEMPERATURE SETPOINT. THE REVERSE SHALL OCCUR ON A DROP IN DAT BELOW COOLING SETPOINT. UNIT MOUNTED POWER EXHAUST AND BACKDRAFT DAMPER SHALL PREVENT THE BUILDING FROM BECOMING OVER PRESSURIZED

IF THE OUTSIDE AIR ENTHALPY RISES ABOVE THE RETURN AIR ENTHALPY THE ECONOMIZER SHALL BE POSITIONED TO PROVIDE MINIMUM OUTDOOR AIRFLOW (SEE OCCUPIED CO2 CONTROL) AND MECHANICAL REFRIGERATION SHALL BE ENERGIZED IN STAGES TO MAINTAIN THE DISCHARGE TEMPERATURE SETPOINT. DAT SHALL LIMIT SUPPLY AIR TEMPERATURE TO 55°F MINIMUM DURING THE

THE PUSH BUTTON ON ANY OF THE ASSOCIATED TERMINAL VAV BOXES TEMPERATURE SENSORS SHALL OVERRIDE THE UNOCCUPIED MODE AND FOLLOW THE OCCUPIED MODE SEQUENCE FOR 2 HOURS (ADJ.) AND THEN RETURN TO THE UNOCCUPIED MODE. THE

PROVIDE WARM-UP/COOL DOWN CONTROL AND OPTIMAL START/STOP (INCLUDING CALCULATED START TIME).

THE DDC CONTROLLER SHALL PROVIDE OPTIMUM START CAPABILITY. IF ANY OF THE THE ROOM TEMPERATURES AT ANY ASSOCIATED TERMINAL BOX IS BELOW 63°F (ADJ.), MORNING WARM-UP SHALL BE DONE. THE UNIT SUPPLY FAN SHALL BE ENERGIZED, WITH THE RAD OPEN AND OAD CLOSED. THE HEATING SHALL BE DONE AT THE VAV UNIT. WHEN ALL ROOM TEMPERATURES RISE TO 69°F, THE

THE DDC CONTROLLER SHALL PROVIDE OPTIMUM START CAPABILITY. THE FIRST MEANS OF MAINTAINING THE DISCHARGE SETPOINT SHALL BE ACTIVATION OF THE ECONOMIZER. IF THE OUTSIDE ENTHALPY IS BELOW THE RETURN ENTHALPY, THE OUTDOOR AND RETURN AIR DAMPERS SHALL BE PROPORTIONALLY MODULATED UP TO 100% OUTDOOR AIR TO MAINTAIN DISCHARGE TEMPERATURE SETPOINT. IF ADDITIONAL COOLING IS REQUIRED, THE COMPRESSORS SHALL BE STAGED TO SATISFY THE TEMPERATURE SETPOINT. WHEN THE MECHANICAL REFRIGERATION IS SATISFIED, THE COMPRESSORS SHALL BE LOCKED OUT AND THE ECONOMIZER SHALL MODULATE TO MAINTAIN THE DISCHARGE TEMPERATURE SETPOINT. AFTER ALL THE ROOM TEMPERATURES REACH 75°F (ADJ.) THE ROOFTOP UNIT'S

THE UNIT MOUNTED POWER EXHAUST AND BACKDRAFT DAMPER SHALL PREVENT THE SPACES FROM BECOMING OVER PRESSURIZED

SAFETIES 1. THE FOLLOWING SAFETIES, EACH WITH ITS OWN MANUAL RESET, SHALL SHUT DOWN THE ROOFTOP UNIT'S SUPPLY FAN VIA HARDWARE

WHEN THE SMOKE DETECTOR SENSES SMOKE THE ROOFTOP UNIT'S FAN AND CONDENSING SECTION SHALL BE DE-ENERGIZED AS

THE DISCHARGE AIR SENSOR ACTING AS A FREEZESTAT SHALL CAUSE AND ALARM AT THE BAS AND BE INTERLOCKED FOR UNIT SHUTDOWN WHEN SENSING A TEMPERATURE OF 37° (ADJ.) OR LESS.

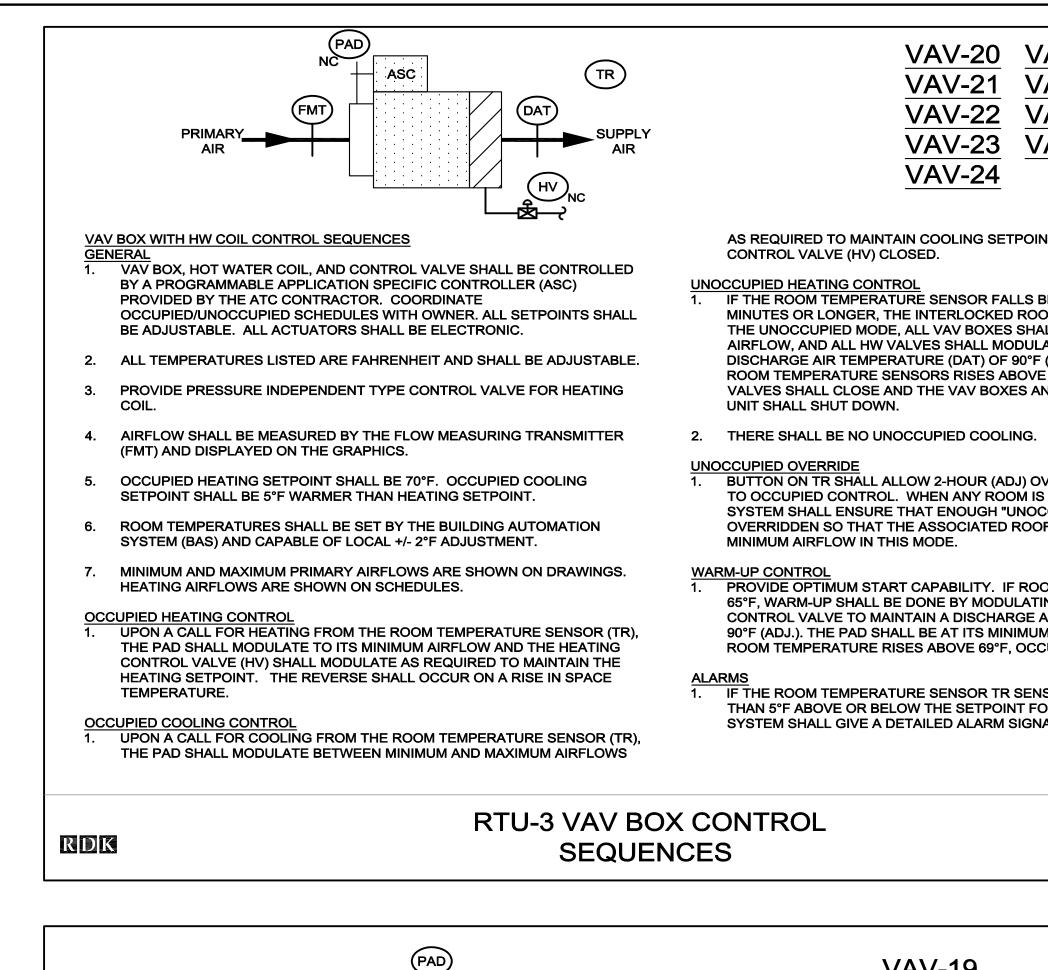
IF THE DISCHARGE AIR TEMPERATURE SENSOR SENSES A TEMPERATURE MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT FOR 5 MINUTES (ADJ.) THE DDC CONTROLLER SHALL GIVE A DETAILED ALARM SIGNAL TO THE BAS.

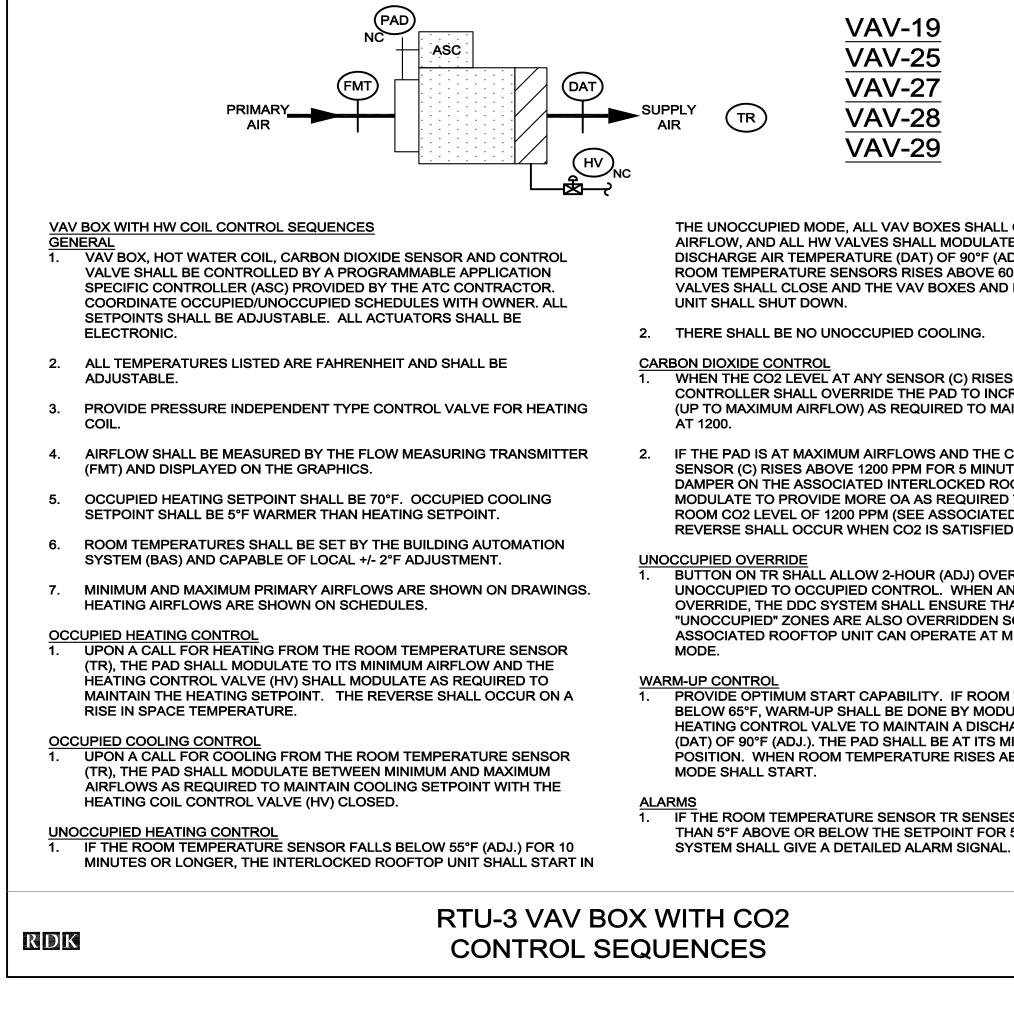
2. IF FILTER PRESSURE DROP EXCEEDS SETPOINT (CLEAN FILTER +.25") THE CONTROLLER SHALL GIVE AN ALARM SIGNAL TO THE DDC

3. IF THE SUPPLY FAN FAILS OR IF ANY UNIT SAFETY IS TRIPPED, THE DDC CONTROLLER SHALL GIVE A DETAILED ALARM SIGNAL TO THE

ROOFTOP UNIT 3 CONTROL SEQUENCE

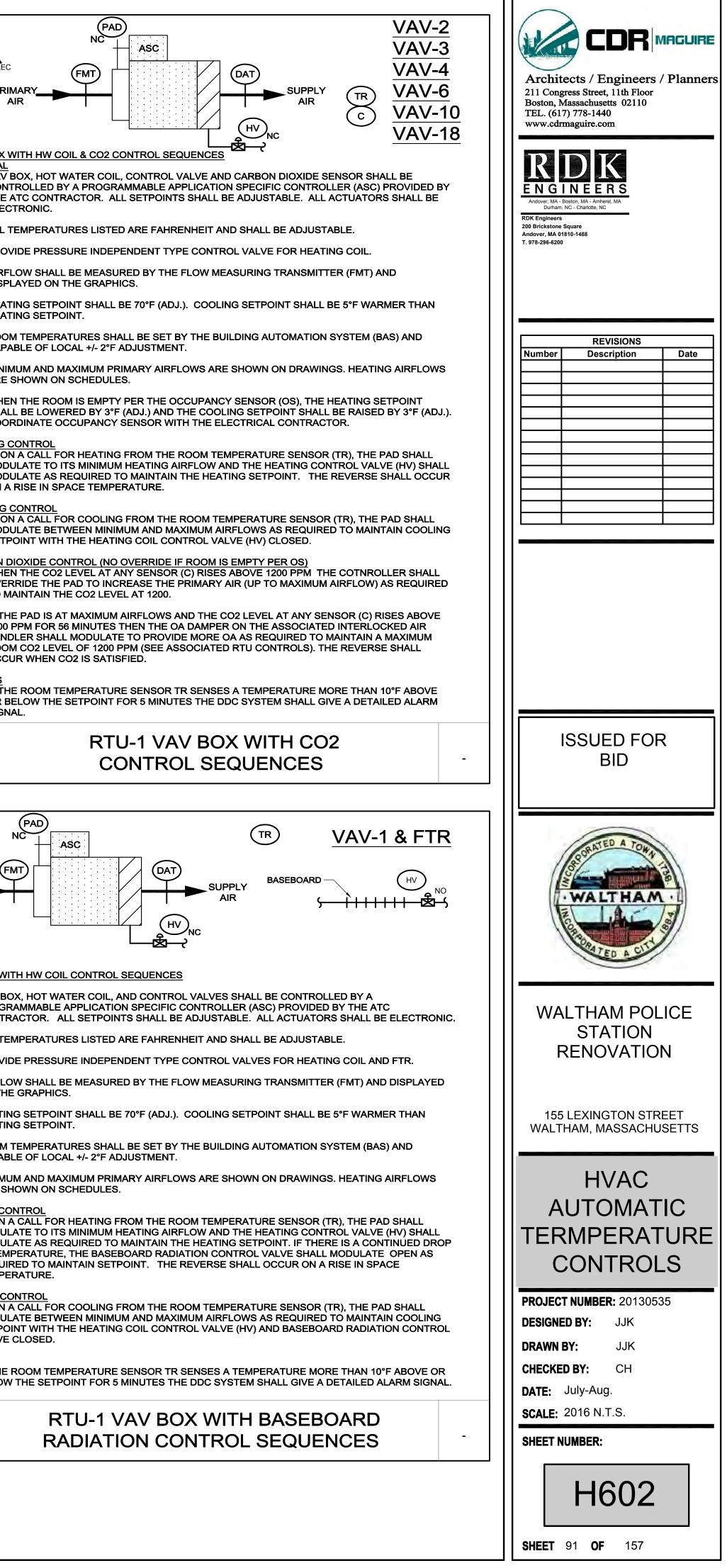
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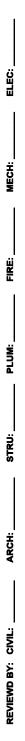




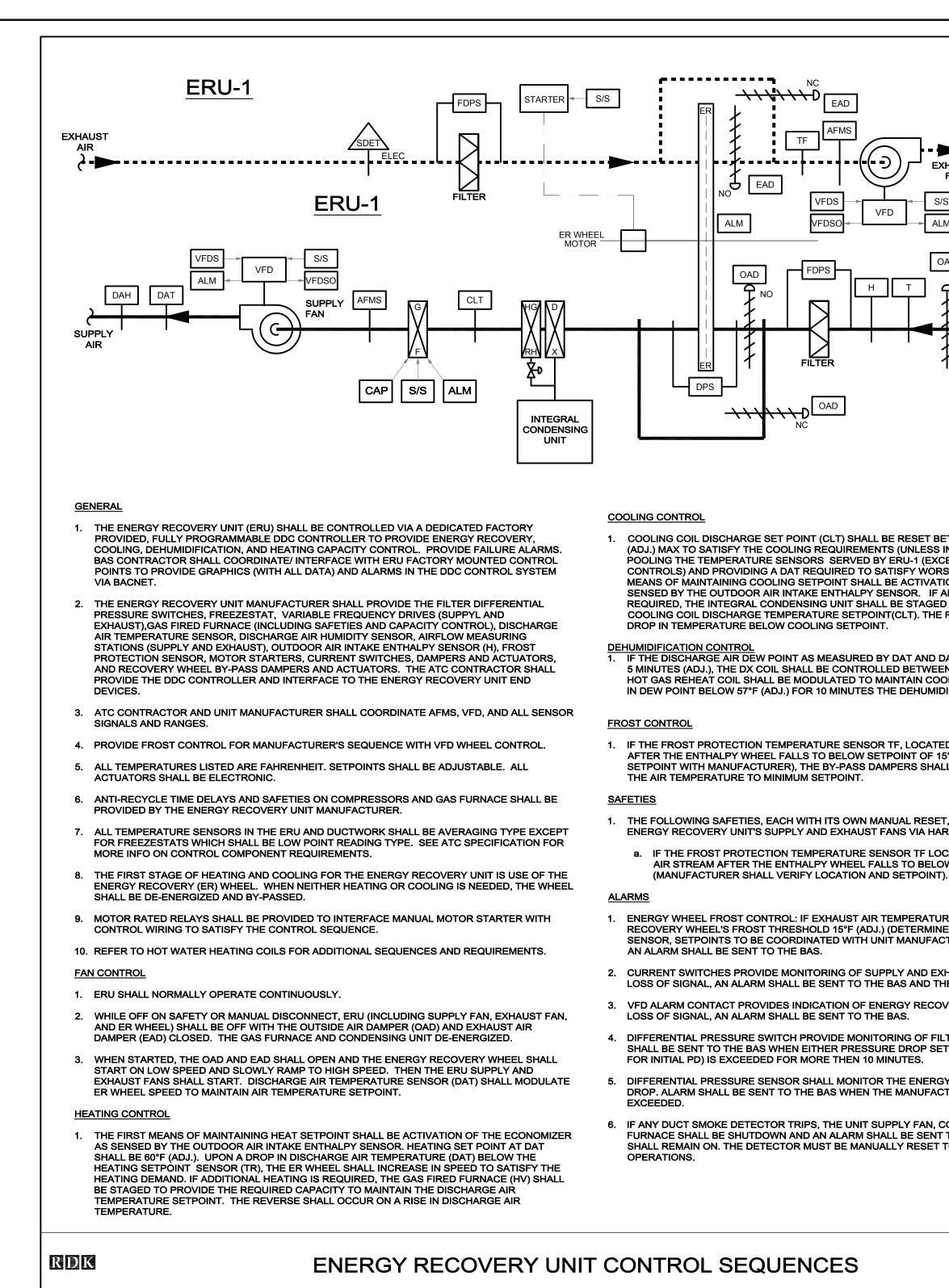
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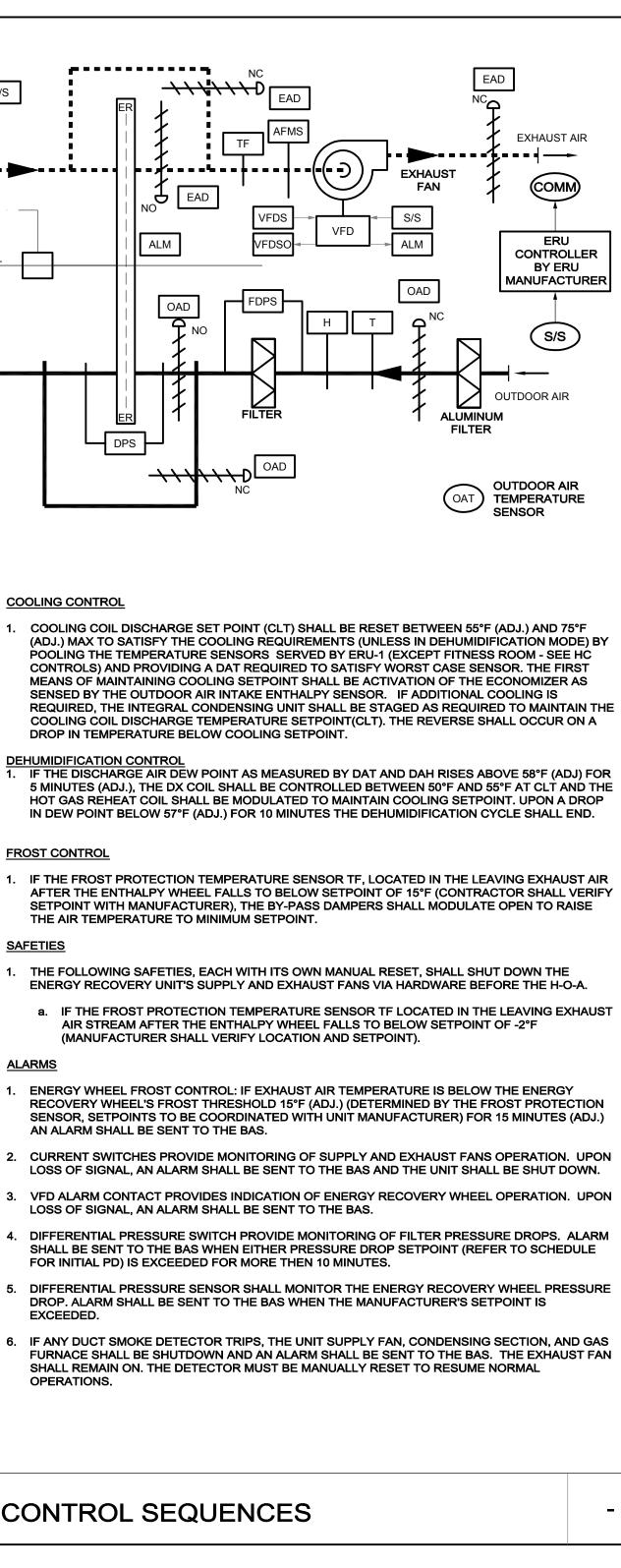
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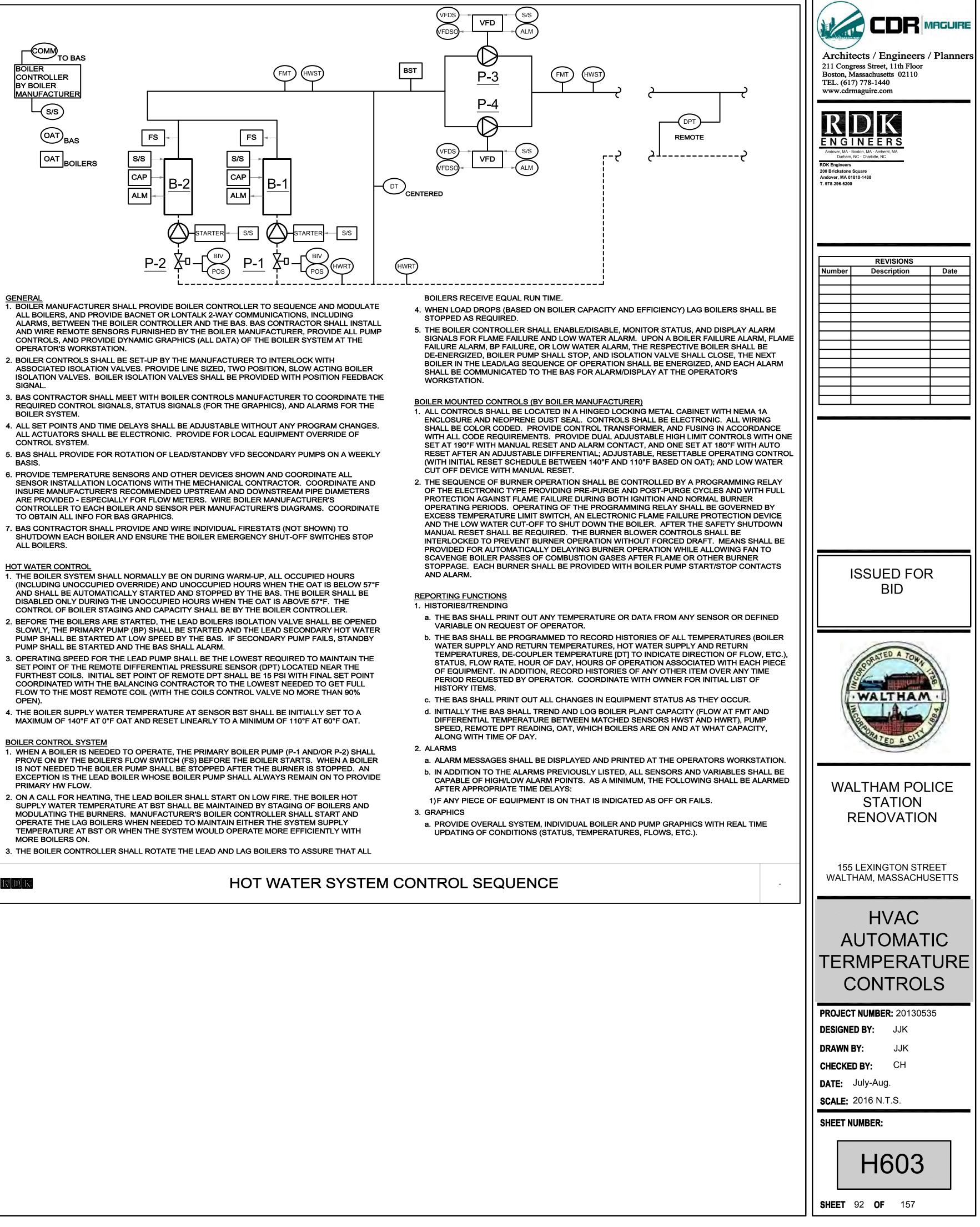




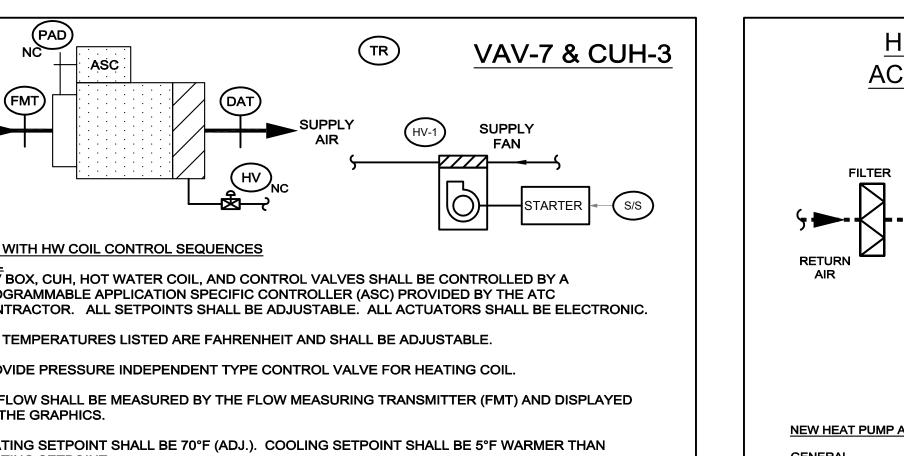








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NG SETPOINT. TEMPERATURES SHALL BE SET BY THE BUILDING AUTOMATION SYSTEM (BAS) AND THE OF LOCAL +/- 2°F ADJUSTMENT.

IM AND MAXIMUM PRIMARY AIRFLOWS ARE SHOWN ON DRAWINGS. HEATING AIRFLOWS IOWN ON SCHEDULES.

ITROL CALL FOR

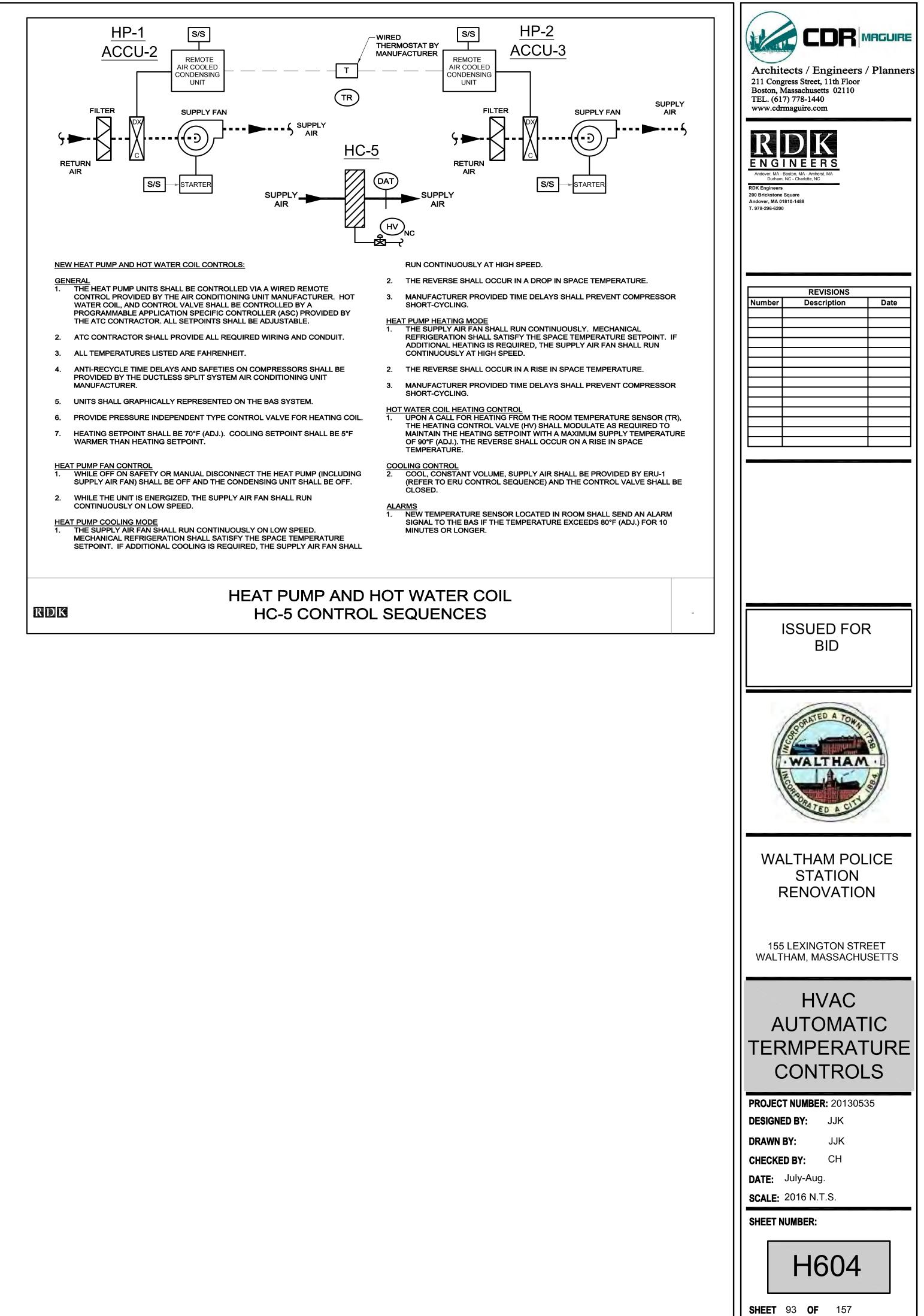
A CALL FOR HEATING FROM THE ROOM TEMPERATURE SENSOR (TR), THE PAD SHALL ATE TO ITS MINIMUM HEATING AIRFLOW AND THE HEATING CONTROL VALVE (HV) SHALL ATE AS REQUIRED TO MAINTAIN THE HEATING SETPOINT. IF THERE IS A CONTINUED DROP PERATURE, THE ASSOCIATED CABINET UNIT HEATER'S FAN SHALL BE ENERGIZED UNTIL EATING SETPOINT IS MAINTAINED. THE REVERSE SHALL OCCUR ON A RISE IN SPACE RATURE.

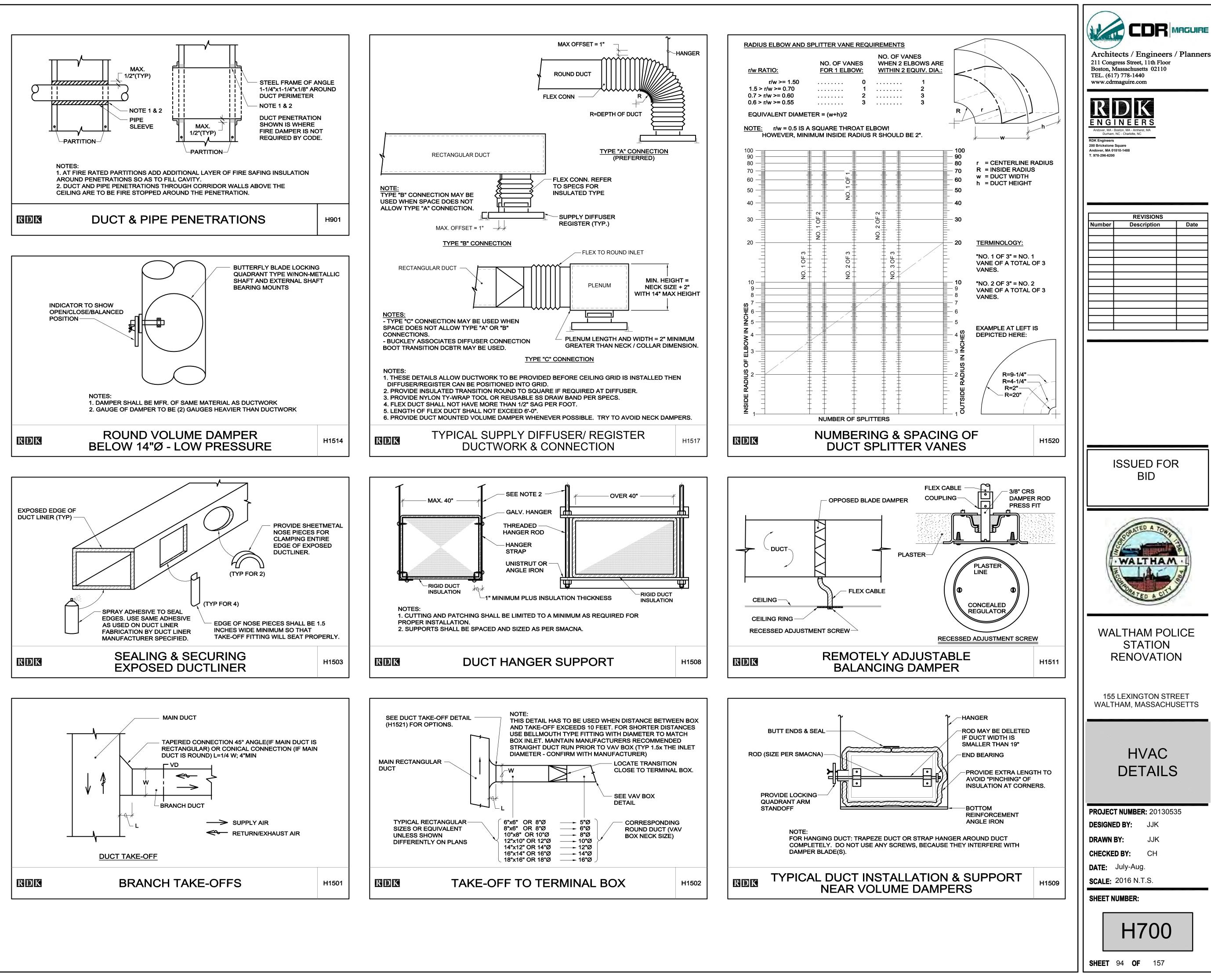
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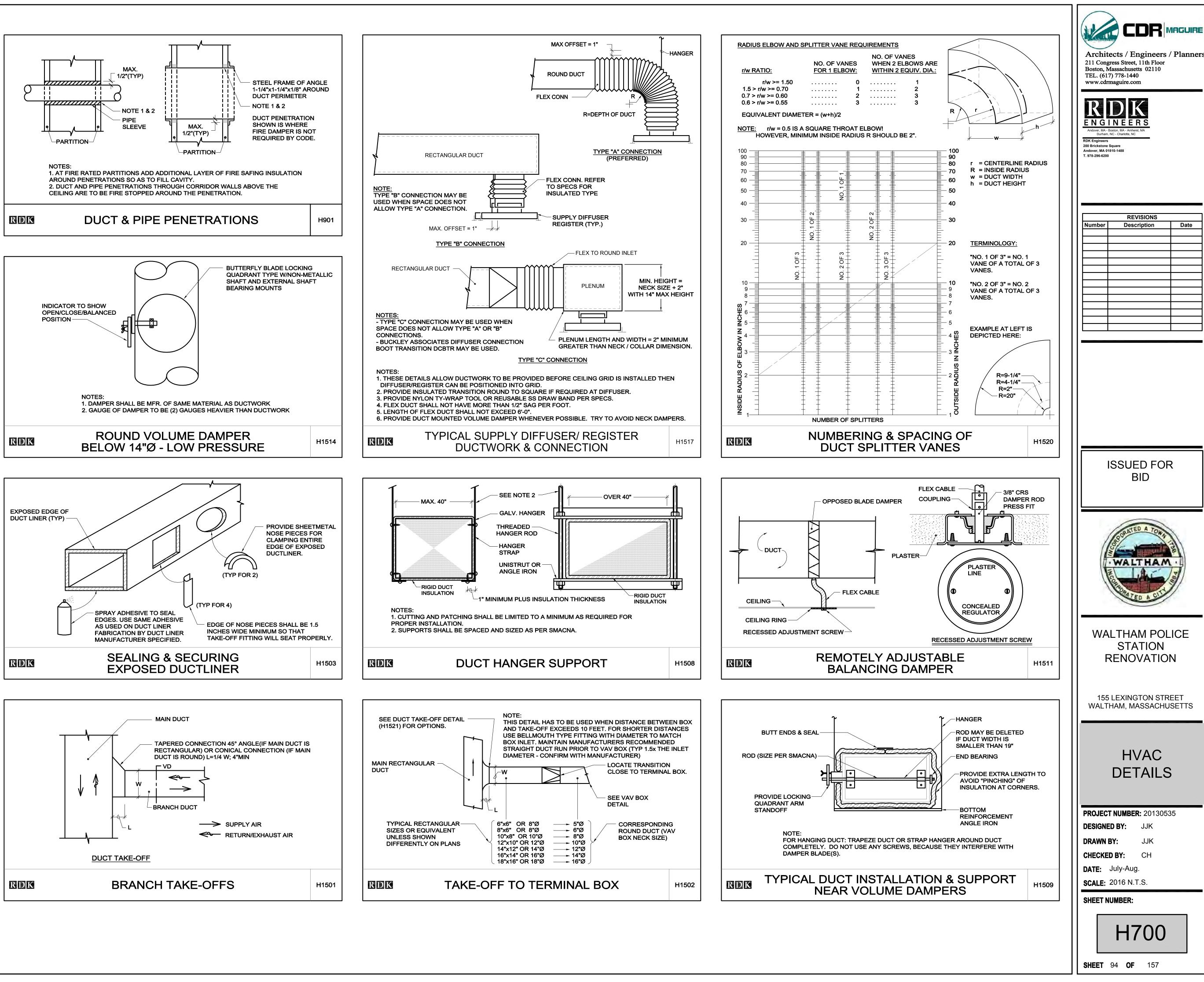
A CALL FOR COOLING FROM THE ROOM TEMPERATURE SENSOR (TR), THE PAD SHALL ATE BETWEEN MINIMUM AND MAXIMUM AIRFLOWS AS REQUIRED TO MAINTAIN COOLING INT WITH THE HEATING COIL CONTROL VALVE (HV) CLOSED, THE CUH CONTROL VALVE LOSED, AND THE CUH DE-ENERGIZED.

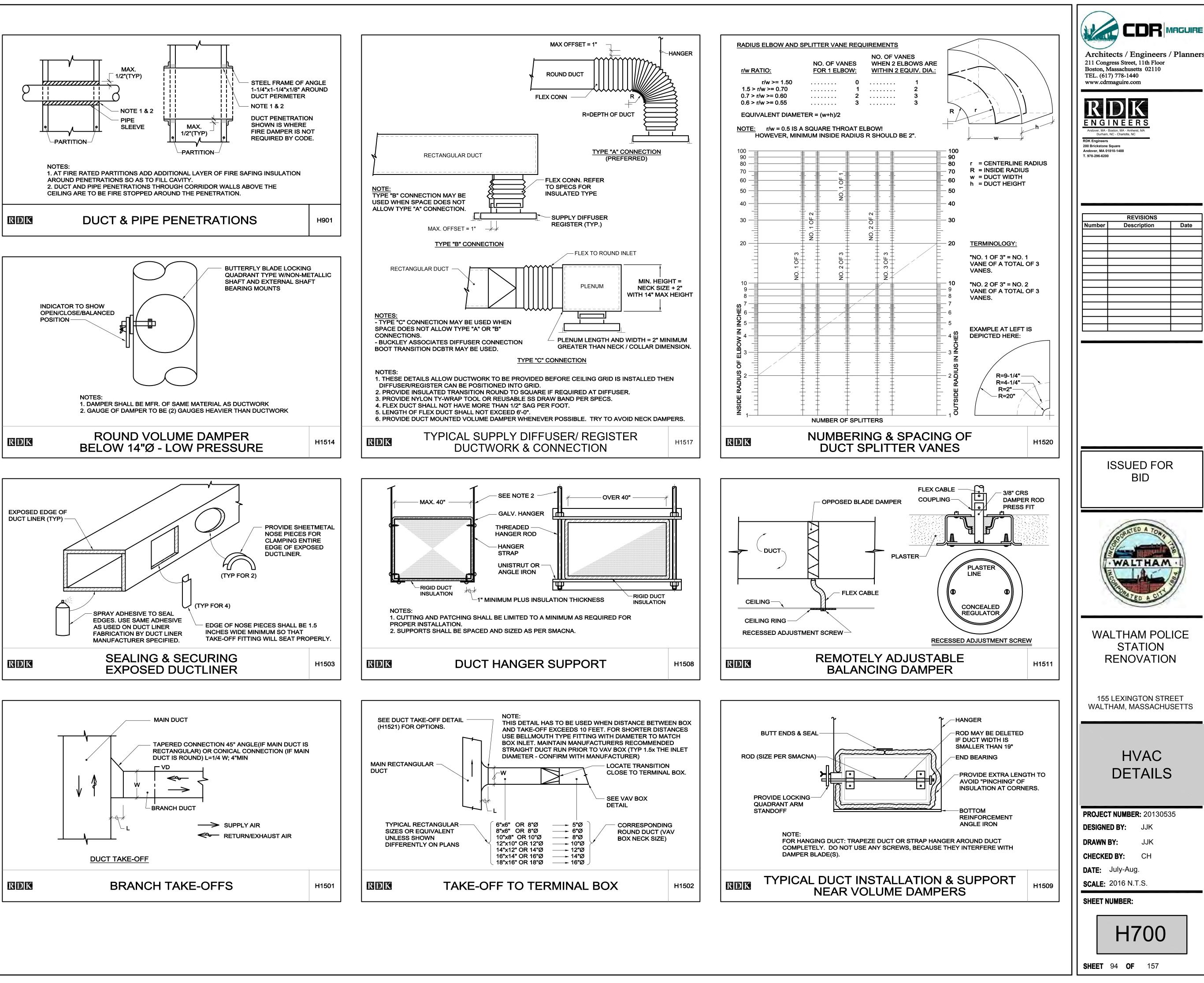
ROOM TEMPERATURE SENSOR TR SENSES A TEMPERATURE MORE THAN 10°F ABOVE OR 7 THE SETPOINT FOR 5 MINUTES THE DDC SYSTEM SHALL GIVE A DETAILED ALARM SIGNAL.

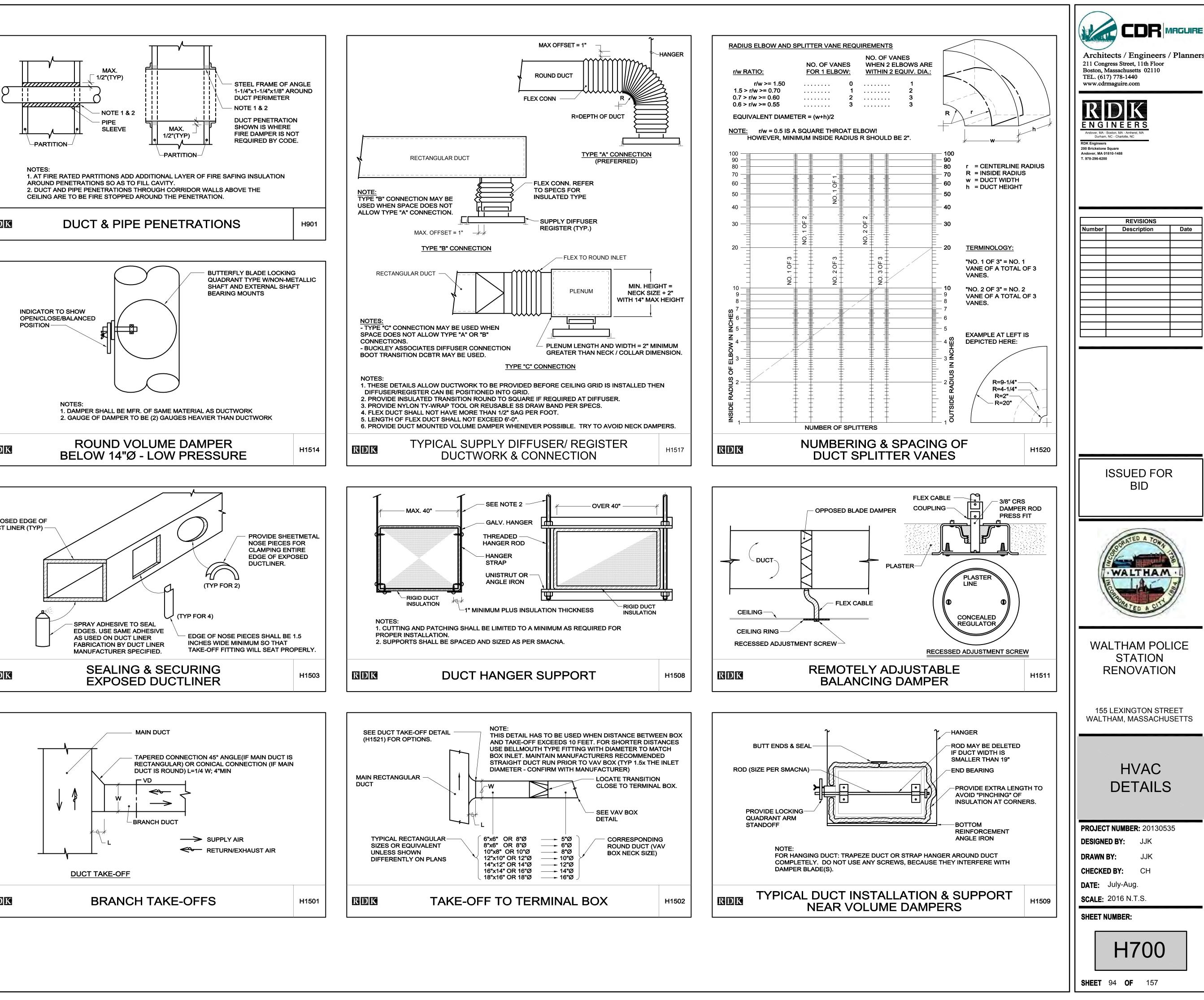
> RTU-1 VAV BOX WITH CUH CONTROL SEQUENCES

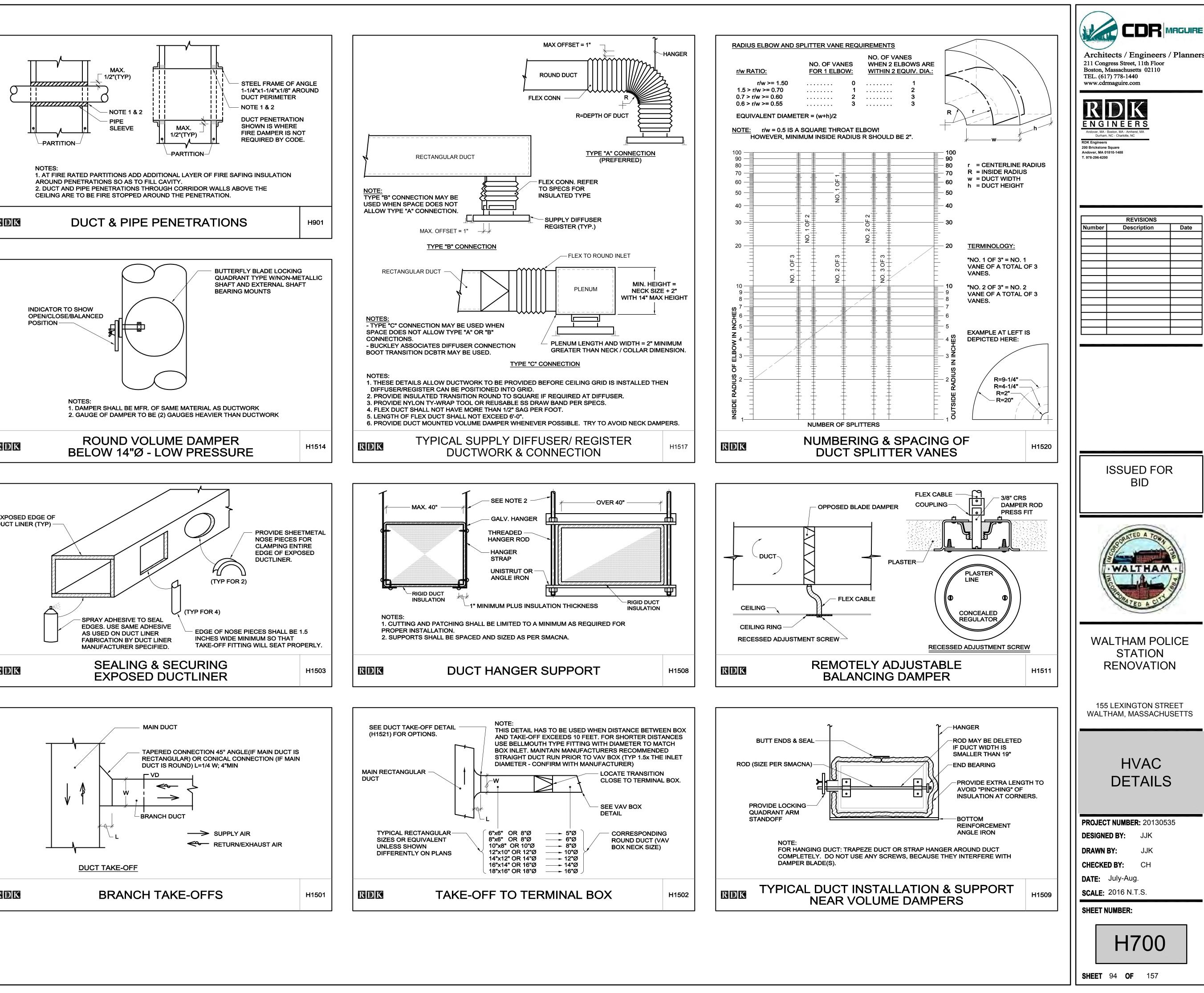




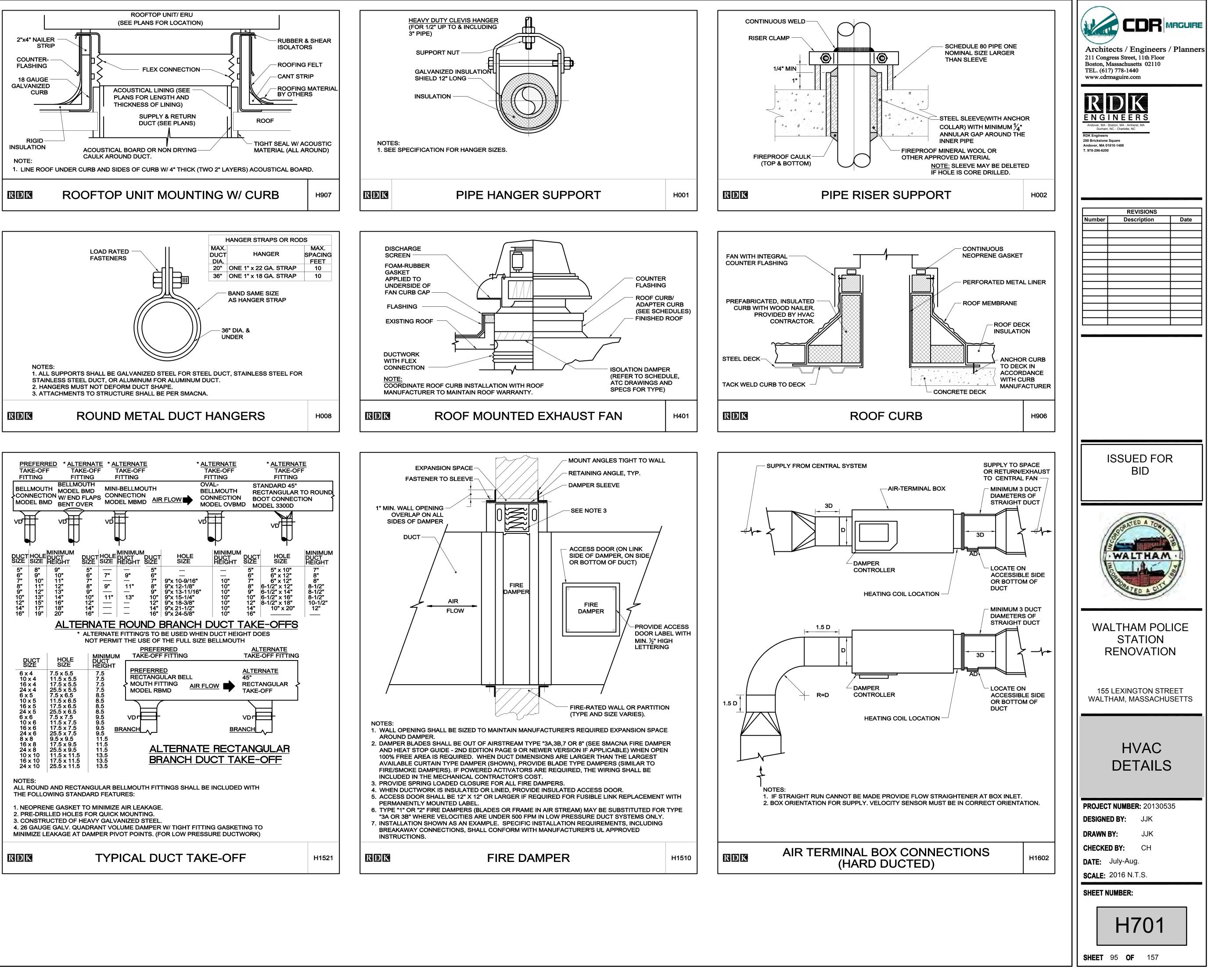


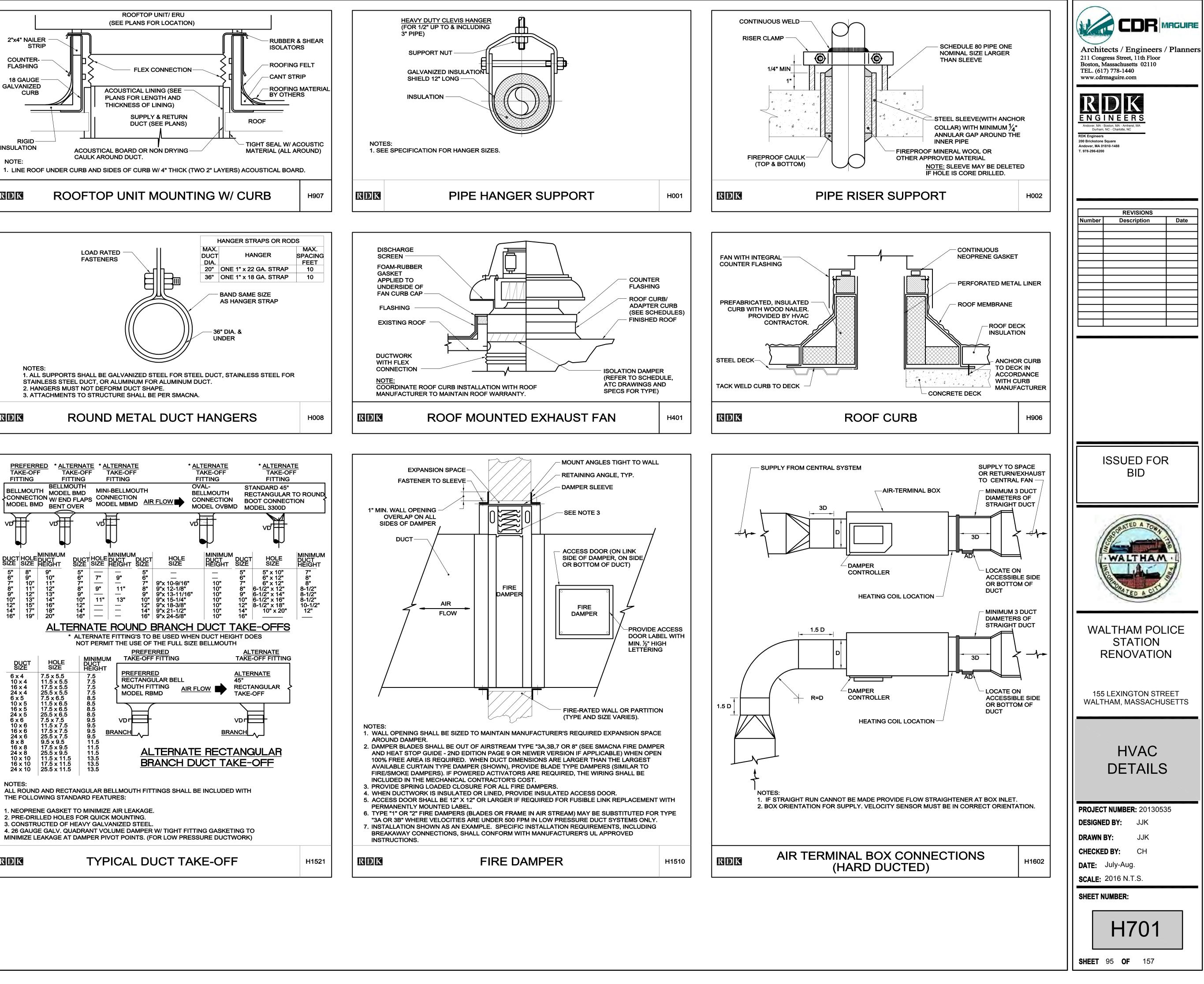


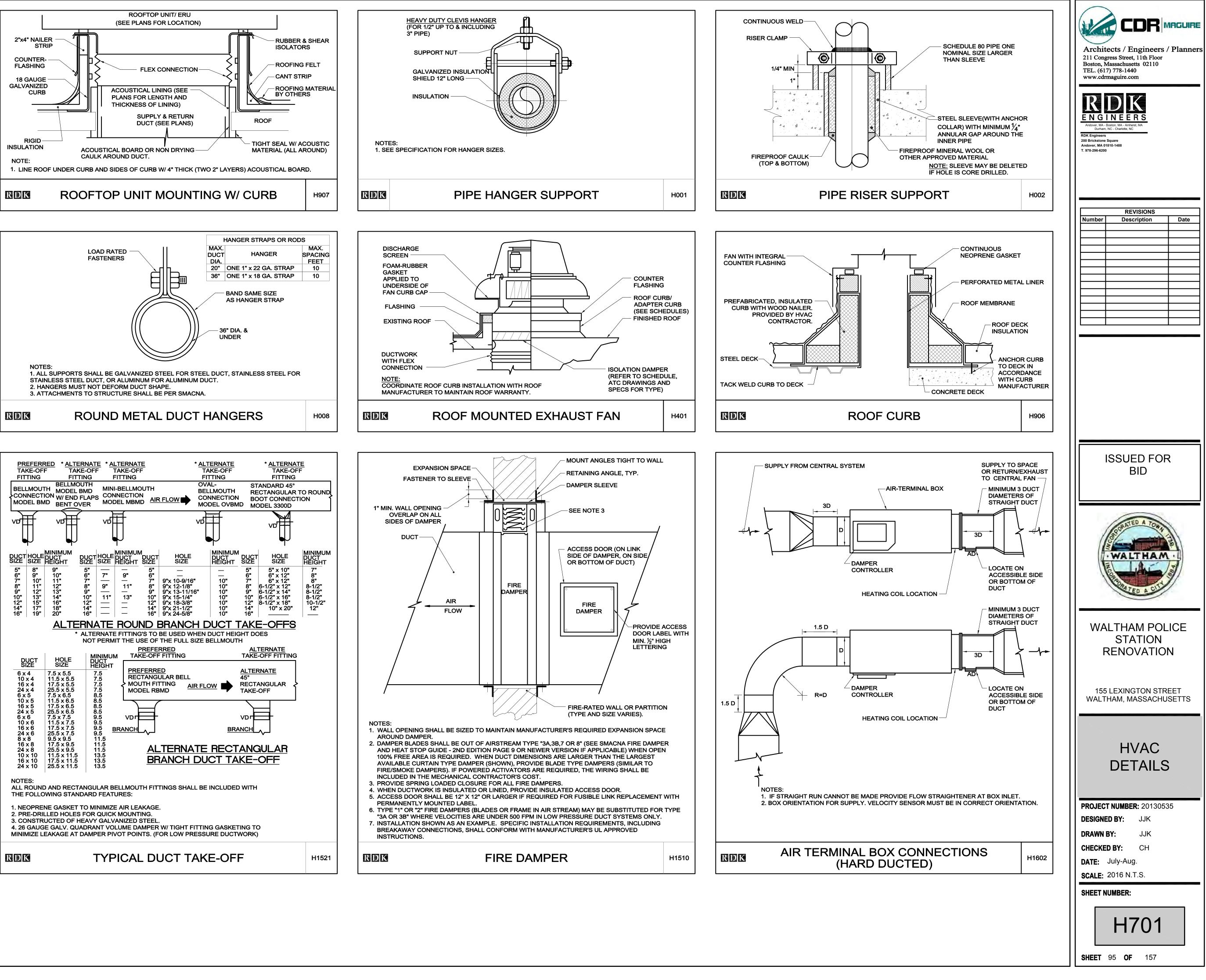


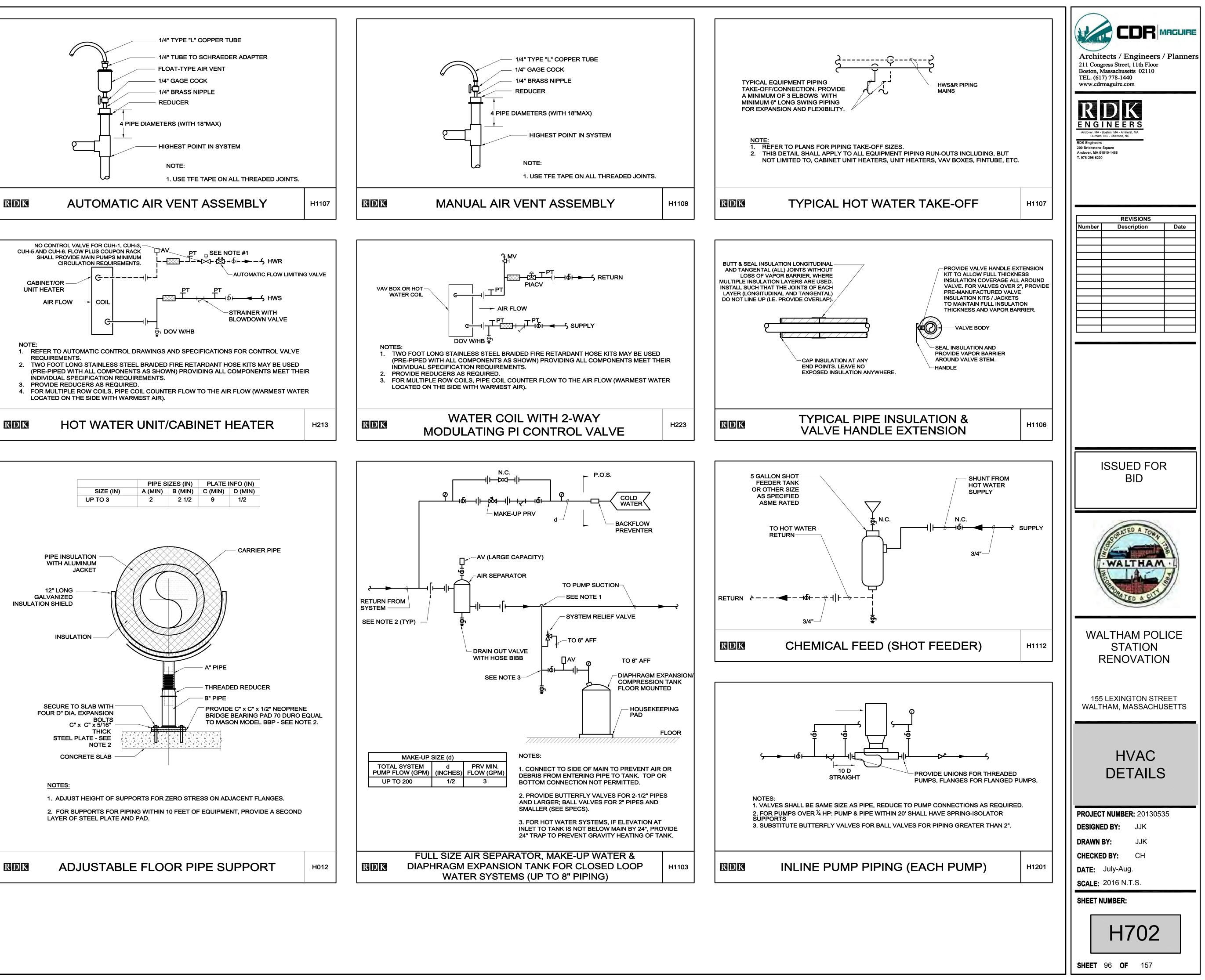


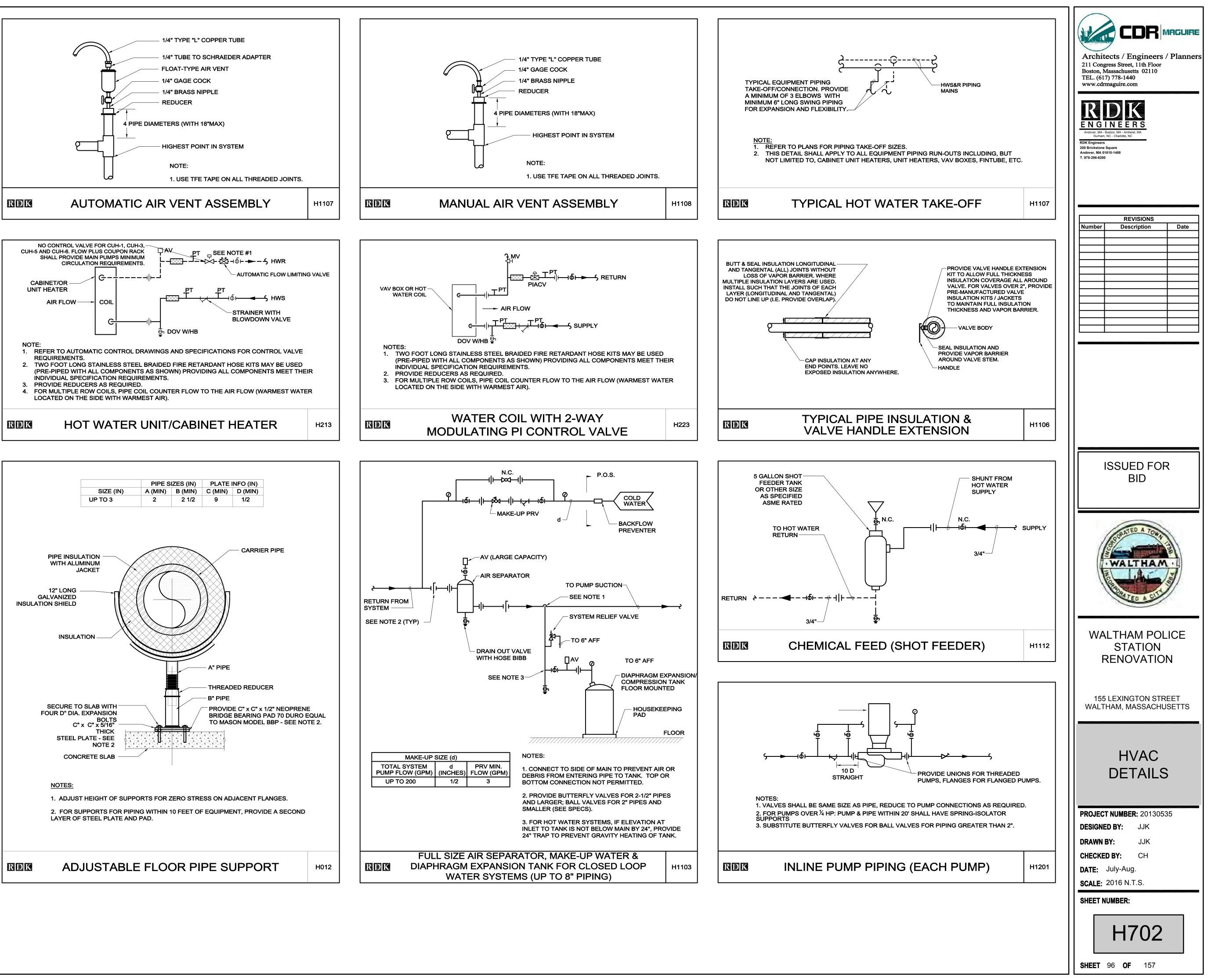
* <u>ALTERNATE</u> TAKE-OFF * ALTERNATE * ALTERNATE PREFERRED TAKE-OFF TAKE-OFF TAKE-OFF FITTING FITTING FITTING FITTING BELLMOUTH OVAL-BELLMOUTH MODEL BMD MINI-BELLMOUTH CONNECTION W/ END FLAPS CONNECTION MODEL MBMD AIR FLOW MODEL BMD BENT OVER volt MINIMUN лімімці DUCT HOLE DUCT SIZE SIZE HEIGHT HOLE SIZE DUCT HOLE DUCT DUCT SIZE SIZE HEIGHT SIZE ____ 9 10" 11" 12" 13" 14" 16" 18" 20" 9" 10" 11" 12" 13" 15" 17" 19" 9" 10" 10" 10" 10" 10" 10" 9"x 10-9/16" 9"x 12-1/8" 8" 9" 11" 9" 10" 12" 14" 16" 9"x 13-11/16" 11" 13" 10" 12" 9"x 15-1/4" 12" 9"x 18-3/8" — 14" ____ — 14" 9"x 21-1/2" 9"x 24-5/8" 16" _ PREFERRED TAKE-OFF FITTING MINIMUM DUCT HEIGHT HOLE SIZE DUCT SIZE 7.5 x 5.5 11.5 x 5.5 17.5 x 5.5 25.5 x 5.5 7.5 x 6.5 17.5 x 6.5 25.5 x 6.5 7.5 x 6.5 25.5 x 6.5 7.5 x 7.5 11.5 x 7.5 17.5 x 7.5 25.5 x 7.5 9.5 x 9.5 17.5 x 9.5 17.5 x 9.5 11.5 x 11.5 17.5 x 11.5 25.5 x 11.5 PREFERRED 6×4 10×4 16×4 24×4 6×5 10×5 16×5 24×5 6×6 16×6 24×6 8×8 16×8 24×8 10×10 16×10 24×10 75 RECTANGULAR BELL MOUTH FITTING MODEL RBMD BRANCH 9.5 11.5 11.5 11.5 13.5 13.5 13.5 25.5 x 11.5 NOTES: THE FOLLOWING STANDARD FEATURES: 1. NEOPRENE GASKET TO MINIMIZE AIR LEAKAGE. 2. PRE-DRILLED HOLES FOR QUICK MOUNTING. 3. CONSTRUCTED OF HEAVY GALVANIZED STEEL

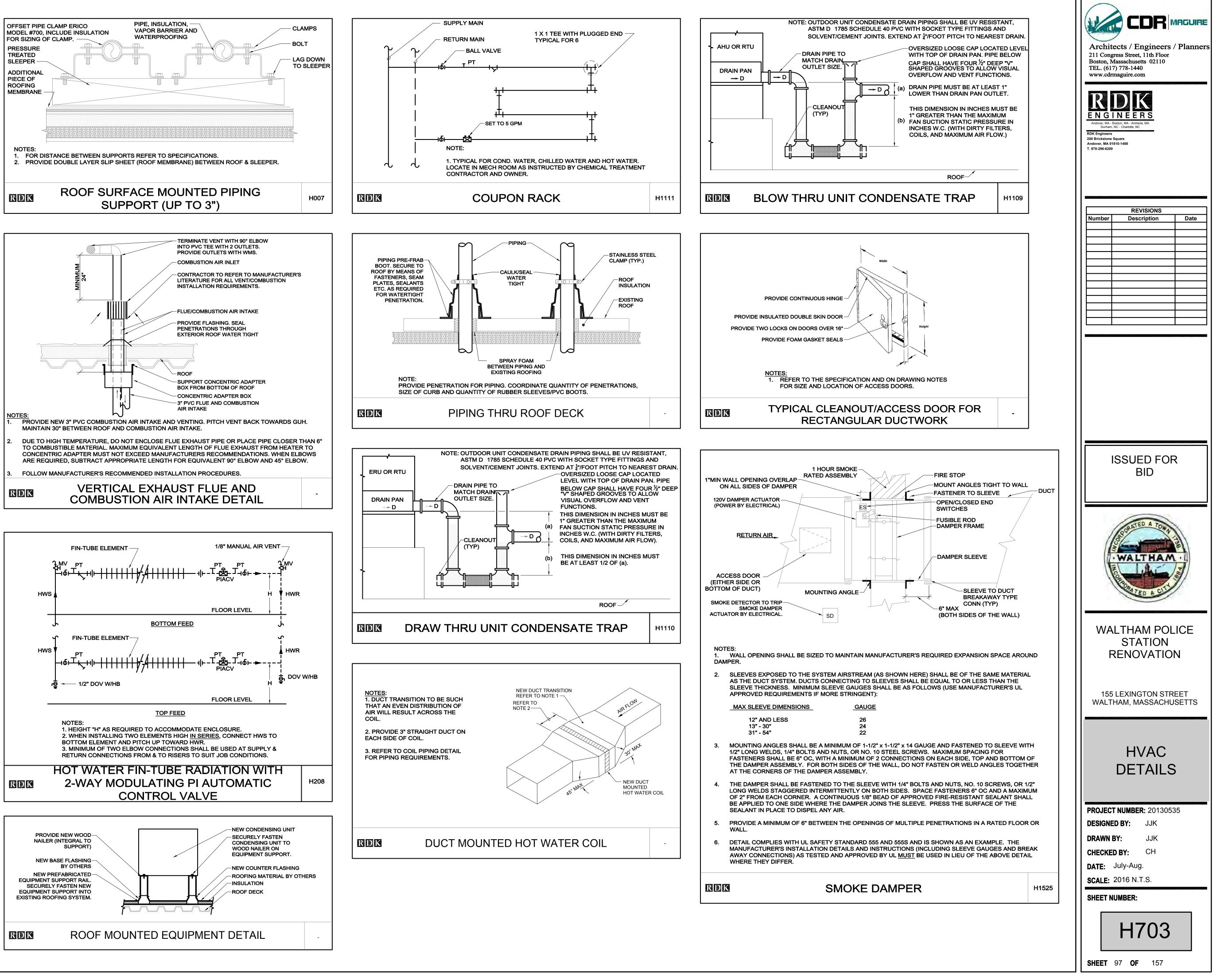


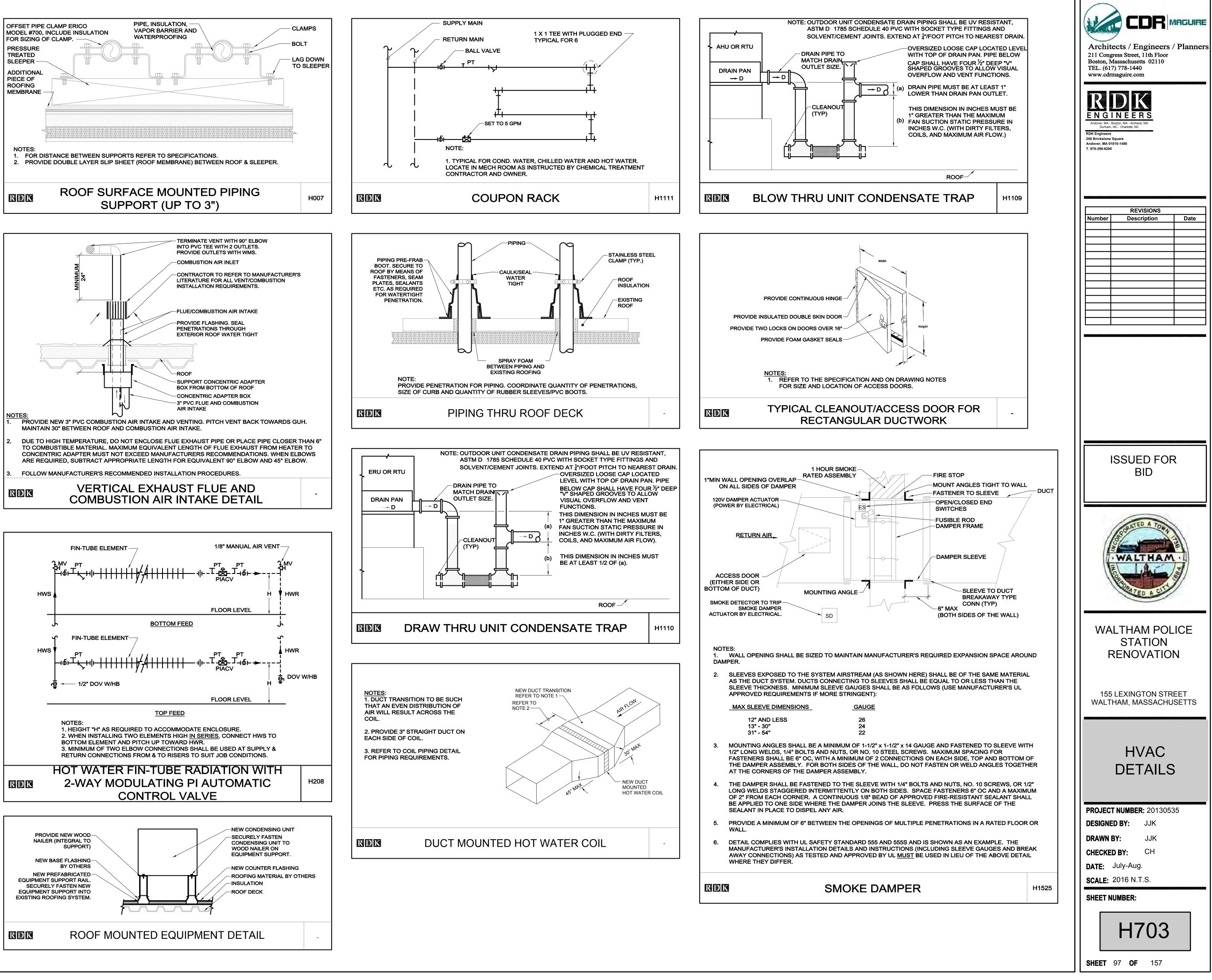


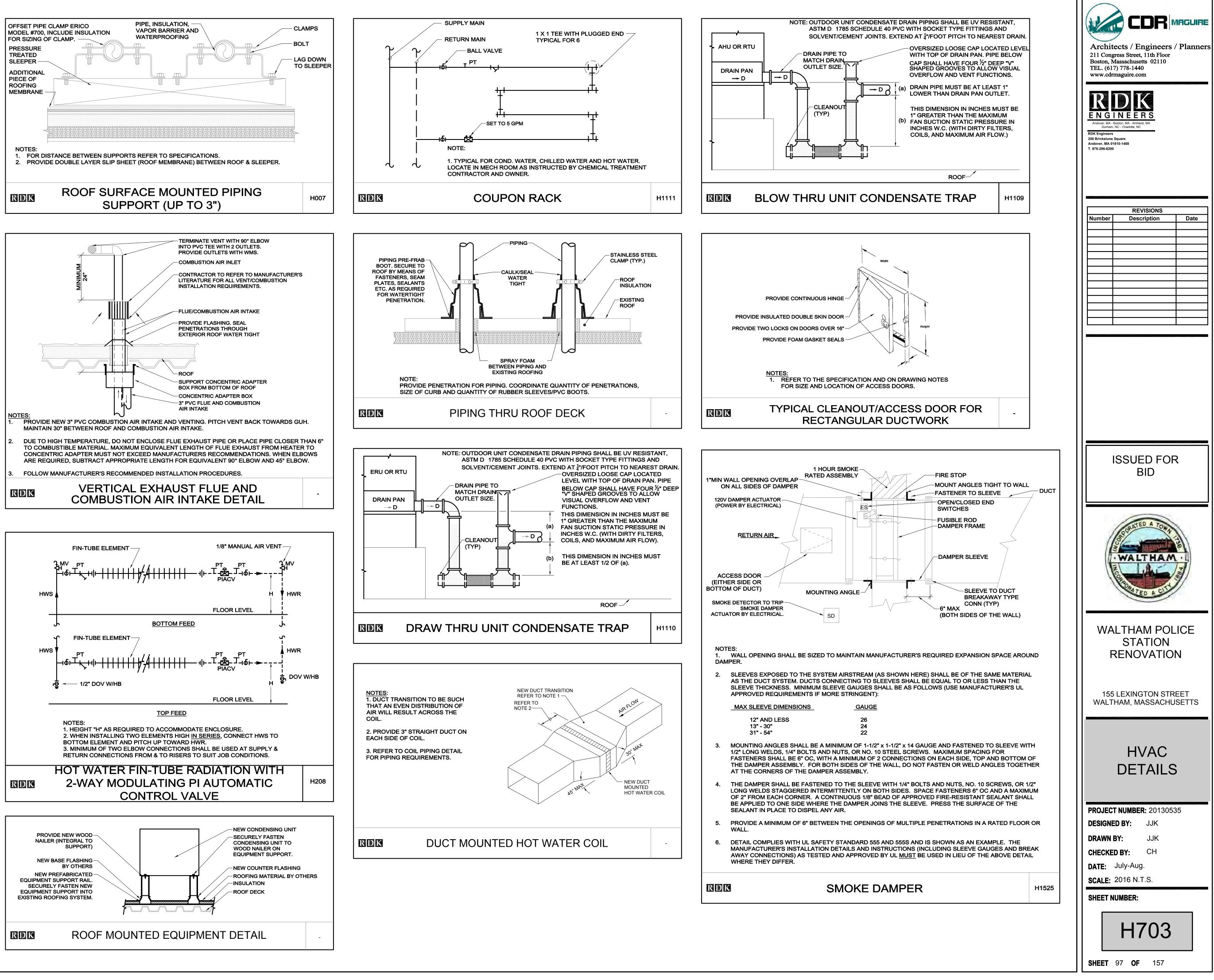












TAG

NOTES:

BASEMENT

ERU-1 & 1ST FLOOR

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RTU-2	TRAINING ROOM	LOWER ROOF	R-410A	11.8	91.0	74.0	1,800	300	900-1800	SINGLE ZONE VAV	1.25	1.153	1039	0.77	1 6	5.0 4	7.6	182	79.3 66	6.3 58	8.61 56.3	SCROL	L 1	4.3	1	95.0	17.2 SEER	1	0.4	80	64 -	- 57	.€
RTU-3	2ND FLOOR	UPPER ROOF	R-410A	17.8	91.0	74.0	5,600	1,000	3,360- 5,600	VAV	1.5	1.73	778	3.88	5 16	7.0 13	31.3	178	79.0 65	5.0 59	9.54 55.4	SCROL	L 2	3.9	2	95.0	14.2 EER	2	0.5	-		-	-
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					CC	ONDENSING	BOILE	R SCHE	EDULE (I	HOT V	VATER	R)						(MBH OUT)		DUCTWOR	K PRESSURE CI	ASS AND SE	AL CLASS	
	TAG LOCATION		((MBH)		NATU	JRAL GAS				WATER		ELECTRICAL		CAL	WEIGHT	MANUFACTURER AND		PRESSU	STATIC PRESSURE	SMACNA SEAL	SMACNA LEAKAGE CLASS		DESIGN	
TAG	LOCATION	MAX OUTPUT	MAX INPUT	MIN (IN.WG)	MAX (IN.WG)	EFFICIENCY @ 100% FIRE	TURN DOWN	RELIEF VALVE	WPD (FT HD)		LVG (°F)	GPM	v	РН	FLA	(LBS)	MODEL NUMBER (AS STANDARD)	REMARKS	RE CLASS		CLASS	RECTANGUL AR	ROUND	VELOCITY LIMITS
B-1	MECHANICAL ROOM	555	600	4.0	14.0	92.5	5:1	50	18	140	110	38	120	1	2.7	340	LOCHINVAR KB-601	SEE NOTES		2" POS. OR NEG.	А	6	3	2000 FPM OR LESS
B-2	MECHANICAL ROOM	555	600	4.0	14.0	92.5	5:1	50	18	140	110	38	120	1	2.7	340	LOCHINVAR KB-601	SEE NOTES		OTHERWISE SPECIFIE RE CLASSIFICATIONS				
NOTES:	/IDE WITH STAIN		CONSTR	RUCTION.	PROVIDE				ANTY ON T	THE STA		STEELI		XCHAN		ID 1 YEAR	WARRANTY ON		2" CLASS:	ALL OTHER DUCTWO	RK.			
	INDER OF THE																		NOTES:					

2. PROVIDE WITH PROBE TYPE LOW WATER CUT-OFF WITH MANUAL RESET. PROVIDE WITH PRESSURE RELIEF VALVE, SINGLE POINT ELECTRICAL 3. PROVIDE WITH MASSACHUSETTS APPROVED VENTLESS GAS TRAIN. IF SUBMITTED BOILER DOES NOT HAVE VENTLESS GAS TRAIN CONTRACTOR PROPERLY VENT GAS TRAIN AT NO ADDITIONAL COST TO THE OWNER.

SUPPLY

EXTERNAL W/

.25" DIRTY

FILTER

1.40

TOTAL

3.26

PROVIDE WITH CONDENSATE NEUTRALIZER (EQUAL TO JJM MODEL JM-10).

PROVIDE WITH OUTDOOR RESET CONTROL AND OUTDOOR SENSOR.

PROVIDE WITH MANUFACTURER'S CONTROLLER AND BACNET INTERFACE.
PROVIDE WITH HIGH TEMPERATURE LIMIT WITH MANUAL RESET AND FLOW SWITCH.

R410A

BOILER SHALL COMPLY WITH CSD-1 CODE REQUIREMENTS.

. PROVIDE STAINLESS STEEL FLUE DESIGNED FOR CONDENSING BOILERS (SEE SPECIFICATIONS FOR DETAILS). 10. PROVIDE WITH FACTORY HIGH TEMPERATURE LIMIT WITH MANUAL RESET, FLOW SWITCH, FLUE TEMPERATURE SENSOR, AND LOW AIR PRESSU

11. REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION. 12. PROVIDE POLYPROPYLENE FLUE DESIGNED FOR CONDENSING BOILERS (SEE SPECIFICATIONS FOR DETAILS

13. EFFICIENCY BASED ON 110°F ENTERING WATER TEMPERATURE AND 140°F LEAVING WATER TEMPERATURE AT 100% FIRING.

14. BOILERS SHALL BE BY LOCHINVAR, AERCO, CLEAVER BROOKS, BUDERUS OR EQUAL.

				CAB	INET	HEAT	ER (H	OT W	ATER	R) SCH	IEDUL	_E					(GPM
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TAG	LOCATION	TYPE	(MBH)	CFM (LO)	EAT (°F)	LAT (°F)	GPM	EWT (°F)	LWT (°F)	P.D. (FT.)	RPM	HP	HZ	v	РН	MODEL NUMBER (AS STANDARD)	REMARKS
CUH-1	STAIR #2 120 - BASEMENT	FLOOR MOUNTED	7.1	185	60	99.0	.60	140	110	0.2	875	¥15	60	115	1	STERLING C-1160-02	SEE NOTES
CUH-2	LOBBY 115	CEILING MOUNTED	13.3	345	60	95.6	1.2	140	110	0.1	875	Ио	60	115	1	STERLING RC-1210-04	SEE NOTES
CUH-3	LOBBY 115	FLOOR MOUNTED	25.8	845	60	98.3	1.8	140	110	.3	875	1 @ ¼ ₀ & 1 @ ¼ ₅	60	115	1	STERLING FSI-1055-10	SEE NOTES
CUH-4	STAFF ENTRANCE 133	CEILING MOUNTED	25.8	845	60	98.3	1.8	140	110	.3	875	1 @ ¼ ₀ & 1 @ ¼ ₅	60	115	1	STERLING RC-1210-10	SEE NOTES
CUH-5	STAIR #2 120 - 2ND FLOOR	FLOOR MOUNTED	7.1	185	60	99.0	.60	140	110	0.2	875	¥15	60	115	1	STERLING C-1160-02	SEE NOTES
CUH-6	STAIR #3 130 - 2ND FLOOR	FLOOR MOUNTED	7.1	185	60	99.0	.60	140	110	0.2	875	1/15	60	115	1	STERLING C-1160-02	SEE NOTES

. REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.

. UNITS SELECTED AT LOW FAN SPEED. PROVIDE CABINET UNIT HEATERS WITH UNIT MOUNTED SPEED CONTROLLER AND LEVELING LEGS. PROVIDE UNITS WITH MOTOR STARTER AND UNIT MOUNTED DISCONNECT.

 PROVIDE WITH BAKED ENAMEL FINISH - COORDINATE FINAL COLOR WITH OWNER AND ARCHITECT.
 CUH FLOW RATES, OUTPUT AND PRESSURE DROPS BASED ON 30°F WATER TEMPERATURE DROP. CONTRACTOR'S SUBMITTAL SHALL ADJUST A CHARACTERISTICS TO ACCOUNT FOR HIGHER TEMPERATURE DIFFERENCE. . PROVIDE CUH-2, CUH-3 AND CUH-4 WITH MANUFACTURERS FURNISHED AQUASTAT TO BE INSTALLED IN FIELD BY THIS CONTRACTOR.

CABINET UNIT HEATERS SHALL BE BY STERLING, MODINE, AIRTHERM OR EQUAL.

								PUMP SC	CHEDULE								
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TAG	SERVICE	LOCATION	CASING TYPE	TYPE	TEMP (°F)	GPM		HEAD (FT.)		RPM	BHP	HP	v	PH	(LBS)	MODEL NUMBER (AS STANDARD)	REMARKS
P-1	B-1	MECHANICAL ROOM	CI	нพ	140	38	27	29	5.25	1750	0.45	3⁄4	208	3	63	B&G SERIES 60 1-1/2x5-1/4	SEE NOTES
P-2	B-2	MECHANICAL ROOM	CI	нพ	140	38	27	29	5.25	1750	0.45	3⁄4	208	3	63	B&G SERIES 60 1-1/2x5-1/4	SEE NOTES
P-3	HEATING HW	MECHANICAL ROOM	CI	HW	140	47	50	56	7	1750	1.1	1.5	208	3	170	B&G 1-1/2x1-1/2x7B	SEE NOTES
P-4	HEATING HW	MECHANICAL ROOM	CI	нพ	140	47	50	56	7	1750	1.1	1.5	208	3	170	B&G 1-1/2x1-1/2x7B	SEE NOTES
	VIDE P-1 AND) P-2 WITH PREMIUM		• • • • • •												AET	

PROVIDE P-3 AND P-4 WITH PREMIUM EFFICIENCY, VFD COMPATIBLE MOTOR (VFD BY DIVISION 26), CAST BRONZE IMPELLER AND STEEL SHAFT.
 PUMPS SHALL BE BY BELL AND GOSSETT, TACO, ARMSTRONG OR EQUAL.

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RAWN BY: LJK
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		G UNIT S		AIR-COOL	_ED COND	ENSING	UNIT		[INDIREC	T GAS-FI	RED H	EATER DA	TA	1				1	1		
	T LAT 'F)	СОМ	PRESS					CONDE	NSER	САРА	CITY (MB			R DATA					FII 7 22				
B DB	ч wb	TYPE	NO.	NOMINAL	- STEPS OF UNLOAD	TEMP.	MIN. EFF	FA	▶		ЭЦТРІ ІТ	MIN. EFF		AT P.[G/ PRE). (IN.)	SS. HZ	v	РН	FILTER DATA	AND MOD NUMBER (STANDAR	AS ^{REM⊄}	ARKS	Architects / Engineers / Plan 211 Congress Street, 11th Floor Boston, Massachusetts 02110
				HP EA.				NO. H	IP EA.			(%)	(°F) (°F) (IN.V	/G)								TEL. (617) 778-1440 www.cdrmaguire.com
0 55.51	53.91	SCROLL	2	-	2	95.0	10.3 EER 17.2	3	1.1	-	-	-	-			- 60	208	3	4" PLEATED MERV 14 2" PLEATED	TRANE YCD			
		SCROLL	1	4.3	1	95.0	SEER 14.2		0.4	80	64	- 5	7.67 90	0.87 0.1	53 4.5/			3	MERV 13 2" PLEATED		2	2	
0 59.54	55.40	SCROLL	2	3.9	2	95.0	EER	2	0.5	-	-	-	-			- 60	208	3	MERV 13	TRANE YHD	3	<u>,</u>	Andover, MA - Boston, MA - Amherst, MA Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square
СОМРА	RATIVE NTERF/	ENTHALPY	ECON	OMIZER W	ITH POWE	ERED EX	HAUST,	DEMAND	CONT	ROL VEN	FILATION	, BACNE ⁻	T INTEF	RFACE CA	RD, 0-10	0% MOTO	RIZED	OUTDO	OR AIR DAM	ELECTRICAL, S PERS, THRU TI ONVENIENCE (HE BASE		REVISIONS Number Description Date
				ENER	GY RECO	VERY WH	HEEL									DX COC	ING (COIL					
	EFFE	NET CTIVENESS	%	SUPP	LY AIR DA	TA		EXHAUS		ATA					T GAS HEAT					AIR DATA			
VHEEL ONTROL				WINTER	SU	MMER	w	INTER	su	MMER	TOTA CAPAC (MBH		ENSIBLI APACIT			SAT. SUCTIC	N VE	FACE LOCITY (FPM)	EAT (°F)	LAT (°F)		/
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				+J.							120.1	-		200				_~~					
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						^{/L} R(-			ACITY (BH)			AIR DAT	A		TER				
									SS	-	$\left \right $		-		N					BS) NUMB	MODEL ER (AS DARD)	REMARKS	
		TIONS FOR	THE T	YPES OF D	UCTWORI	K LISTED) BELOW	V			>		OUTP	UT	EAT (°F)		P.D. (IN.WC						ISSUED FOR
ACTOR	SHALL	LEAK TEST									$\overline{)}$	200	160	1:10	0.0	60.0	0.14		RV 13 35	22 TRAN	E OA1D	SEE	
	UCTWO ORS.	RK ABOVE	PRES	SURE CLAS	SŚ 3" AND	100% OF	F ALL DU	JCTWORI					100				J. 14					NOTES	
TAG		LOCATION	SERV	ED	СҒМ	OUTPUT (MBH)	SIZE	(IN.)	FACE	TY ROV	ATING C VS FINS FOO	EAT	AIR DA	ATA P.D.	GPM	WATER EWT (°F)	2 DATA LWT (°F)	P.D. (FT.)	MODEL	CTURER AND NUMBER (AS NDARD)	REMA	(GPM) RKS	WALTHAM .
HC-2		MALE LOC			395 405	18.7 19.1	18 18	9 9	350 360	2	150 150		103.7 103.4		1.25 1.3	140 140	110 110	1.4		IE DT0B09 IE DT0B09	SEE N		
HC-3	EV	DENCE STO AND RANG	ORAGE	E 002 &	120	4.1	8	6	345	2			90.8		0.55	140	110	0.1		IE DT0B06	SEE N		STATION
HC-4		IALE LOCK FITNES			300 450	10.9 17.6	16 16	9 9	300 450	2			96.7 96.1		0.75 1.2	140 140	110 110	0.2		IE DT0B09 IE DT0B09	SEE NO		RENOVATION
HC-6		MALE CEL			260 260	10.3 10.3	16 16	9 9	260 260	2	110 110	60.0 60.0	10.3 10.3		0.7	140 140	110 110	0.2		IE DT0B09 IE DT0B09	SEE NO		
HC-8			LE 143		100 290	3.5 9.9	8 16	6 9	300 290	2	80 150	60.0	92.3 91.2	0.05	0.5	140 140	110 110	0.4	TRAN	IE DT0B06	SEE NO	OTES	155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
			130		200	3.3	10	3	290		150	00.0	31.2	0.07	0.7	עדי	ιυ	0.7			JEE N		
	FER TC	SPECIFIC								NAL INFC	RMATIO	N.											
					_,																		
				PRESSL	JRE				GAS-														SCHEDULES
G	LOC	ATION	GAS TYPE		INP (ME			MIN. EFFICIEN (%)			/P. RISE			SERV	PH	WEIGHT (LBS)	- ма		TURER AND (AS STAND	MODEL NUMBI ARD)		MARKS	
H-1 \	EHICLE	BAYS 101	NAT		7" 8	5 7	79.1	93		50	(°F) 44			2.2 115		105			MODINE PT	°C-85	SEE	NOTES	PROJECT NUMBER: 20130535
H-2	SALLYF	ORT 149	NAT		7" 5	5 5	51.2 51.2	93		00	43	1440	1⁄8	1.3 115	5 1	95 95						NOTES	DESIGNED BY: JJK
· 1-3	МОТОР	PORT 149 RCYCLE/ DRAGE 150	NAT NAT		7" 5 7" 5 7" 5		51.2 51.2	93 93		00	43 43	1440 1440		1.3 115 1.3 115		95			MODINE PT			NOTES	DRAWN BY: JJK CHECKED BY: CH
н-4 🔓	DE WITH	I 20 GAUGE AUGE ALUI	E ALUM MINIZE	IINIZED ST	EEL CABIN CABINET W	NET WITI /ITH BAK	H BAKED ED ON F	D ON POV POWDER	VDER C COAT	OAT.		ECT SPA											DATE: July-Aug.

		I			AIR-COOL	ED COND	ENSING	JNIT		I		INDIREC		FIRED		ER ח∆⊤	Α							
AT *		LAT	COMF	RESS					COND													MANUFACTURER		With the state base to
VB С	(°F		TYPE		NOMINAL HP EA.	STEPS OF UNLOAD	DB TEMP. (°F)	MIN. EFF	F/	AN		DUTPUT		EAT	LAT (°F)	P.D.	GA PRE (IN.V	ss. нz	v	PH	FILTER DATA	AND MODEL NUMBER (AS STANDARD)	REMARKS	Architects / Engineers / Plan 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
6.0 55	.51	53.91 S	CROLL	2	-	2	95.0	10.3 EER	3	1.1	-	-	-	-	-	-	-	60	208	3	4" PLEATED MERV 14	TRANE YCD 330	SEE NOTE 1	
.3 58	.61	56.30 S	CROLL	1	4.3	1	95.0	17.2 SEER	1	0.4	80	64	-	57.67	90.87	0.153	4.5/1	4.0 60	208	3	2" PLEATED MERV 13	TRANE YHC 060	SEE NOTE 2	
.0 59	.54	55.40 S	CROLL	2	3.9	2	95.0	14.2 EER	2	0.5	-	-	-	-	-	-	-	60	208	3	2" PLEATED MERV 13	TRANE YHD 180	SEE NOTE 3	Andover, MA - Boston, MA - Amherst, MA Durham, NC - Charlotte, NC
I, COM	PARA	ATIVE EN	THALPY	ECON	OMIZER WI	TH POWE	RED EXH	IAUST,	DEMANI			FILATION	I, BACN	ET INT	TERFAC	E CAR	D, 0-100	% МОТО	RIZED	OUTDO	OR AIR DAMP	ELECTRICAL, SINGL PERS, THRU THE BA	SE	T. 978-296-6200
IT SC	HED	ULE										1												REVISIONS Number Description Dat
			ET		ENERG	GY RECOV	ERY WH									нот								
		EFFECTI		%	SUPPL	Y AIR DAT	ΓA	E	EXHAUS	ST AIR DA	A	тот/				REH		SAT.		FACE		AIR DATA		
WHEE ONTR	OL				WINTER	SUN	MMER	w	NTER	SUM	MER	CAPAC (MBł	~ ' ' '	SENSI CAPAC			1 47	SUCTIC		LOCITY (FPM)	EAT (°F)	LAT (°F)	P.D.	
		SUMMER				°F EAT °F	LAT °F	EAT °F		F EAT °F	LAT °F	1				МВН	LAT				DB WE		(IN.WG)	
VFD		-	-	(0.0 45.9	9 91.0	81.6	68.0	18.1	77.0	87.3	125.	0	84.3	3	200	67.0	-		292	81.6 67.4	4 50.7 50.5	0.35	7
	R BLA RB.	DES, HIN	GED AC	CESS		TH SLIDE		AL ENE									ZER, DE	E-HUMIDI	FICATI	ON SEC	QUENCE, MER	STAINLESS STEEL V 13 FILTERS ON SI	JPPLY	
ST		PRESSUF			SEAL S	MACNA LI	EAKAGE	CLASS		SIGN			- н			GAS-FIRI								II
51/		_ASS		CLAS		ECTANGU AR		UND		.OCITY MITS			-											
2"	POS	. OR NEG	·	Α		6		3		FPM OR ESS				(MBH)		TURN			A		LTER DATA WEIC PPLY & (LB			
					VN ON THE					IG						DOWN	EAT		P.D.	ÈEX				ISSUED FOR
ALL	отн	ER DUCT	WORK.								<						(°F)	(°F)	(IN.WO	3)				BID
	_ DU	CTWORK			IIT REPOR								200	1	160	1:10	0.0	60.0	0.14	ME	RV 13 352	22 TRANE OA1	D SE NOT	
F						0T14	ουτρυτ	SIZE				FINS	3	AIR	DATA			WATEF		_				(GPM)
	AG					СЕМ	(MBH)	W	н	VELOCIT (FPM)		FOO	T (°F)	(°	°F) (IN		GPM	EWT (°F)	LWT (°F)	P.D (FT) STA	NUMBER (AS NDARD)	REMARKS	
	C-1 C-2	M	ALE LOC	KER 0 [°]	17	395 405	18.7 19.1	18 18	9 9	350 360	2					0.11 0.12	1.25 1.3	140 140	110 110	1.4			SEE NOTES	s WALTHAM POLICE
	C-3	003 AN	NCE STO D RANGI	E OFFI	CE 005	120 300	4.1	8	6	345	2						0.55	140	110	0.1			SEE NOTES	
н	C-4 C-5		E LOCKE	S 015		450	10.9 17.6	16 16	9 9	300 450	2	150	60.0) 90	6.1 (0.17	1.2	140 140	110 110	0.2	TRAN	E DT0B09	SEE NOTES	S I
	C-6 C-7		ALE CELI ALE CELI			260 260	10.3 10.3	16 16	9 9	260 260	2 2					0.06 0.06	0.7 0.7	140 140	110 110	0.2			SEE NOTES	S
	C-8 C-9		JUVENIL MEN CE		A-C	100 290	3.5 9.9	8 16	6 9	300 290	2	80 150	60.0 60.0			0.05 0.07	0.5 0.7	140 140	110 110	0.4			SEE NOTES	
NC	TES:																							
					, DETAILS, BY TRANE						AL INFC	RMATIO	N.											
								-		GAS-F				P er										
					PRESSU	RE			-						EL	ECTRIC								SCHEDULES
ſAG		LOCATI	NC	GAS TYPE			JT OUT H) (M		MIN. EFFICIEI (%)			IP. RISE					E PH	WEIGHT (LBS)		NUFAC	TURER AND N (AS STANDA	MODEL NUMBER ARD)	REMARK	ks
UH-1		HICLE BA	YS 101	NAT		7" 85	; 7 [,]	9.1	93	165		(°F) 44	1550	пе 	2.2	115	1	105				C-85	SEE NOT	PROJECT NUMBER: 20130535
UH-2	S	ALLYPOR	T 149	NAT	6"	7" 55	i 5	1.2	93	110	0	43	1440	1⁄8	1.3	115	1	95			MODINE PT	C-55	SEE NOT	TES DESIGNED BY: JJK
UH-3 UH-4	N	ALLYPOR IOTORCY	CLE/	NAT NAT		7" 55 7" 55		1.2 1.2	93 93	110		43 43	1440 1440	1⁄8 1⁄8	1.3 1.3	115 115	1	95 95					SEE NOT	
DTES:												שד	,+U	/8	6.1	110		90						DATE: July-Aug.
PRO	VID	E 20 GAU	GE ALUN	INIZEI	INIZED STE D STEEL CA EAT EXCHA	ABINET W	ITH BAKE	ED ON F	POWDEF	R COAT		AGE DIR	ECT SP		GNITIO	N								SCALE: 2016 N.T.S.
PRO		E FACTOR	RY FINGE RY VERT	ER PRO	OOF FAN G ONCENTR	UARD, MO	DUNTING	BRACK	KETS, AN OVIDE F	ND ADJUS		AIR DEFL ED DIFFE	ECTOR	BLAD	DES		СН ТО Р	PROVE P	OSITIVI	E VENT	ING.			SHEET NUMBER:
	יסיו/ (ו	• • • • • • • • • •		maiN (• GVVIICH.			UTTU	UNDENSA	THE NEL		N NH.											

	ļ	AIR SEPARATOR	SCHED	ULE		(GPM)
TAG	SERVICE	TYPE	WATER FLOW (GPM)	P.D. (FT.)	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS
AS-1	HOT WATER	AIR SEPARATOR W/O STRAINER	47	0.3	AMTROL 3-AS-L	SEE NOTES
NOTES:						

1. REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL INFORMATION. 2. PROVIDE BALL-TYPE BLOWDOWN VALVE, HOSE CONNECTION W/ CAP AND CHAIN. 3. PROVIDE VENT WITH $\frac{1}{2}$ " COPPER TUBING FROM THE AIR VENT TO FLOOR. REFER TO DETAIL. 4. AIR SEPARATOR SHALL BE BY AMTROL, TACO, BELL AND GOSSETT OR EQUAL.

						IND	OOR UNIT	-			-						_		OUTDOOR	UNIT	-				
					COOL	ING DATA			HEATING DA	ATA	ELEC	CTRIC	DATA						COMPR	ESSOR	ELECTR	C SERV	ICE	MANUFACTURER	
TAG	SERVICE	LOCATION	CFM	TOTAL	SENS.	E/	٩T	мвн	INDOOR TEMP. DB	OUTDOOR TEMP. DB	v	мса	БЦ	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	TAG	LOCATION		AIR TEMP.	MAX	МВН	МСА	v	PH	AND MODEL NUMBER (AS	REMARKS
				MBH	MBH	DB (°F)	WB (°F)		(°F)	(°F)	v			,				(°⊢)	HEATING	COOLING	MOA	v		STANDARD)	
HP-1	FITNESS 015	FITNESS 015	635-705-775	24.0	18.5	80.0	67.0	18.0	70.0	17.0	208	1.0	1	РКА-А24КА4	ACCU-2	LOWER ROOF	R410A	95	18.0	24.0	18	208	1	PUZ-A24NHA4	SEE NOTES
HP-2	FITNESS 015	FITNESS 015	635-705-775	24.0	18.5	80.0	67.0	18.0	70.0	17.0	208	1.0	1	PKA-A24KA4	ACCU-3	LOWER ROOF	R410A	95	18.0	24.0	18	208	1	PUZ-A24NHA4	SEE NOTES

PIPE INSULATIO	N (IECC - 20	012 ASH	RAE 90.1	-2010 C	OMPLIANCE)
MINIMUM INSULATION THIC	KNESS IN INC	CHES FOR	r Indoor f	PIPE SIZE	S (SEE NOTES BELOW)
PIPING SYSTEM TYPES	FLUID TEMP. RANGE (°F)	< 1"	1" TO 1¼"	1½" TO 3"	K-FACTOR (BTU-INCH/°F-HR-SF) AT AVE. TEMP. (°F)
LOW TEMPERATURE HEATING	100 TO 200	1.5	1.5	2	0.25-0.28 @ 125°F
REFRIGERANT (SUCTION/GAS AND LIQUID LINES FOR HEAT PUMPS) AND ALL OUTDOOR REFRIGERANT	-	0.5	1	1	0.21-0.27 @ 75°F

NOTES: 1. FOR MINIMUM THICKNESS OF ALTERNATIVE INSULATION TYPES OUTSIDE THE STATED CONDUCTIVITY RANGE, SEE TEST METHOD FOR STEADY STATE HEAT TRANSFER PROPERTIES OF HORIZONTAL PIPE INSULATIONS, ASTM C 335-95, AND THE STATE ENERGY CODE. 2. PROVIDE OUTDOOR REFRIGERANT WITH UV RESISTANT ALUMINUM OR PVC JACKET. 3. REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL INFORMATION.

TAG	SELECTION RANGE (CFM)	NECK SIZE (IN.)	OVERALL SIZE (IN.)	MOUNTING	ACCESSORIES	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	NC OR AIR PRESSURE DROP NOT TO EXCEED	REMARKS
SA	0-50	4"Ø	12x12	LAY-IN	-	TITUS TMS	25	SEE NOTES
SB	50-75	5"Ø	12x12	LAY-IN	-	TITUS TMS	25	SEE NOTES
SC	50-125	8"Ø	24x24	LAY-IN	-	TITUS TMS	25	SEE NOTES
SD	125-200	10"Ø	24x24	LAY-IN	-	TITUS TMS	25	SEE NOTES
SE	200-300	12"Ø	24x24	LAY-IN	-	TITUS TMS	25	SEE NOTES
SF	300-450	14"Ø	24x24	LAY-IN	-	TITUS TMS	25	SEE NOTES
SG	90	14x6	14x6	SURFACE	-	TITUS 300RS	25	SEE NOTES
SH	15-50	6x6	6x6	SURFACE	-	TITUS SG-PR	25	SEE NOTES
SI	50-75	8x8	8x8	SURFACE	-	TITUS SG-PR	25	SEE NOTES
SJ	845	20x20	24x24	LAY-IN	-	TITUS 300RS	25	SEE NOTES
RA	0-75	6x6	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
RB	75-150	8x8	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
RC	150-250	10x10	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
RD	250-400	12x12	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
RE	400-600	14x14	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
RF	650-850	18x18	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
EA	0-75	6x6	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
EB	75-150	8x8	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
EC	150-300	12x12	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
ED	300-450	14x14	24x24	LAY-IN	-	TITUS 350RL	25	SEE NOTES
EE	15-50	6x6	6x6	SURFACE	-	TITUS SG-PR	25	SEE NOTES
EF	50-75	8x8	8x8	SURFACE	-	TITUS SG-PR	25	SEE NOTES

NOTES: REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL INFORMATION. CONFIRM QUANTITIES AND FLOW PATTERNS WITH FLOOR PLANS. RUNOUTS TO DIFFUSERS SHALL BE THE SAME SIZE AS THE INLET.

3 PROVIDE 24"x24" LAY-IN BORDER FOR DIFFUSERS, REGISTERS AND GRILLES THAT ARE TO BE INSTALLED WITHIN A CEILING GRID. REFER TO ARCHITECTURAL RCP. 4 PROVIDE RETURN GRILLES IN INTERVIEW ROOMS AND ROOMS WITH FULL HEIGHT WALLS/ DEDICATED TRANSFER AIR DUCTS WITH ACOUSTICAP ACOUSTIC BAFFLE (OR APPROVED EQUAL) AND LINER AND CAP-SUB ASSEMBLY FOR NOISE REDUCTION. ASSEMBLE/ ATTACH AS REQUIRED. CONFIGURE SO OPENING POINTS AWAY FROM TRANSFER DUCT.

					н	EATING	SYSTEM	I EXPA	NSION TANK	SCHEDU	LE	
TAG		LOCATION	FLUID		TEM P (°F)	PRESSU	TEM RE (PSIG) ANK	VOLU	ME (GALLONS)	DIMENSIC	ONS (IN)	INITIA TANK A CHARG
				MIN	MAX	MIN	MAX	TANK	ACCEPTANCE	DIAMETER	HEIGHT	(PSIG
ET-1	HOT WATER	BOILER ROOM	WATER	40	140	20	48	53	48	24	38	12

NOTES: REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL INFORMATION.

2 EXPANSION TANKS TO BE RATED FOR MAXIMUM WORKING PRESSURE OF 125 PSIG. EXPANSION TANK SHALL BE ASME RATED. 3 EXPANSION TANKS SHALL BE FULL ACCEPTANCE TYPE.

							FINNED TUBE	RADIATO		DULE	
	WATEF	R TEMP.	P	IPE		FINS		ROWS		COVE	R
TAG	ENT (°F)	LVG (°F)	TYPE	SIZE (IN)	TYPE	FINS PER INCH	SIZE (IN)	HIGH	BTUH/FT	TYPE	SI (I
FTR-1	140	120	CU	³ ⁄4"	AL	50	4-¼" x 3-5⁄8"	1	540	SLOPE	1
NOTES											

. PROVIDE 14 GAGE ENCLOSURE WITH FULL BACKPLATE, END CAPS, ONE TIER SLOPE TOP TYPE ENCLOSURE. 2. PROVIDE WITH BAKED ENAMEL PRIME COAT. FINAL COLOR TO BE COORDINATED WTIH THE ARCHITECT. 5. FINTUBE RADIATION SHALL BE BY STERLING, SLANT-FIN, VULCAN OR EQUAL.

			UNIT	HEAT	ER (H	IOT V	ATE	R) SCI	HEDU	LE		
			MIN		AIR			WA [.]	TER		MOTOD	ELEC
TAG	LOCATION	TYPE	OUTPUT (MBH)	CFM	EAT (°F)	LAT (°F)	GPM	EWT (°F)	LWT (°F)	P.D. (FT.)	MOTOR HP	AMF
UH-1	MECHANICAL ROOM	HORIZONTAL	4.1	245	60	91	.50	140	110	.3	16 W	0.8
NOTES:	/IDE HOT WATER UNIT HEA	TER WITH OSHA A	PPROVED	FAN G		S. HOF	RIZONT		UVER.			NTED

AL LOUVER, AND UNIT MOUNTED PROVIDE WITH BAKED ENAMEL FINISH - COORDINATE FINAL COLOR WITH OWNER AND ARCHITECT. 3. HOT WATER UNIT HEATER SHALL BE BY STERLING, MODINE, AIRTHERM OR EQUAL.

MINIM	UM DUCT IN	SULATION R	-VALUES
LOCATION	SUPPLY	RETURN	RAW OUTDOOR AIR
UNCONDITIONED SPACE (SHAFT OR CEILING WITH DUCTED RETURN AIR)	R-5	R-5	R-4
DUCT LINING SCOPE: ACOUSTIC DUCT LINING OF THE TYPE A DUCTWORK WITHIN 20 FEET OF ALL TYPES OF AIR HANDLING BRANCHES), ALL LOW PRESSURE DUCTWORK DOWNSTREAM DRAWINGS. LINING SHALL NOT BE USED ON DUCTWORK SER NOTES: (SEE SPECIFICATIONS FOR R-VALUES OF VARIOUS DU	UNITS (INCLUDI OF ALL TYPES (VING AND SHOV JCT INSULATION	NG RTU, ERU, AC DF SUPPLY VOLU VER SYSTEMS. I AND LINERS).	CU, ETC., AND ALL B IME BOXES (VAV), A
1. R-VALUES SHOWN MAY BE OBTAINED BY ADDING THE R-VA 2. R-VALUES SHOWN ARE AS INSTALLED. USE R-VALUES FOR 3. REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL	25% COMPRES		

												SPLIT A/C UN	T SCHE	DULE										
	-					INDOOR UNI	Γ							-		-	OUTDOO	R UNIT						
				COOL	ING DA	ТА		E	LECTI	RIC DA	TA	MANUFACTURER AND				AMBIENT			ELE	ECTRIC	C SERV	/ICE	MANUFACTURER	
TAG	SERVICE	LOCATION		SENS.		EAT	CFM	V	FLA	мса	РН	MODEL NUMBER (AS STANDARD)	TAG	LOCATION	REFRIGERANT TYPE	AIR TEMP. (°F)	COOLING	SEER	мса	FLA	v	PH	AND MODEL NUMBER (AS STANDARD)	REMARKS
			MBH	MBH	DB (°F	⁻) WB (°F)																		
ACU-1	TEL/DATA 013	TEL/DATA 013	24.0	16.8	80.0	67.0	705	208	.36	1.0	1	PKA-A24	ACCU-1	LOWER ROOF	R410A	95	24.0	17.0	18	.75	208	1	PUY-A24	SEE NOTES
NOTES:		TH WIRED REMO				URE SENSO	R. CONDEN	SATE F	PUMP	(MODE	EL SI310	00) AND WIND BAFFLE F		MBIENT COC	DLING.									
							.,			(

			(ACCEPTANCE VOLUME)				
IAL (AIR RGE IG)	WEIGHT (LBS)	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS				
2	190	EXTROL 200-L	SEE NOTES				
SIZE (IN)	MANUFACTURER AND MODEL NUMBER (AS STANDARD)						
14	STER	LING JVB-S14B	SEE NOTES				

						(GPM
CTR	IC S	ERVIC	Э	MANUFACTU	RER AND	
PS	v	PI	Н	MODEL NU (AS STANI		REMARKS
.8	115	5 1		STERLING H	IS-108A	SEE NOTES
) MA	NUA	L MO	гоі	R STARTER/ DI	SCONNEC	T SWITCH.
DOO	R			EXH	AUST	
200	'' X			I ENERGY COVERY		JT ENERGY OVERY

R-5 -0-LLED ON ALL SUPPLY, RETURN, AND EXHAUST ND ALL BRANCHES WITHIN 20') ALL FANS (INCLUDING S (VAV), AND WHERE DETAILED OR SHOWN ON

OR USED) AND EXTERNAL DUCT INSULATION.

							TE	ERMINAL V		BOX W	/ITH H	AW TC	TER S	CHED	ULE					
			SELEC RANGE		INLET		IARGE (IN.)	MAX. S.P.		HOT WATER COIL DATA (SEE NOTES 2 AND 3)				MANUFACTURER AND						
TAG	TYPE	SERVICE	MAX		SIZE (IN.)	W	н	DROP W/ COIL (IN.WG)	NC RATING	мвн	MIN CFM	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	GPM	MAX WATER P.D. (FT.)	ROWS	MODEL NUMBER (AS STANDARD)	REMARKS
VAV-1	SINGLE DUCT	RTU-1	300	180	8	10	8	.13	20	9.5	180	140	110	44	92.5	0.65	0.05	3	TRANE VCWF08	SEE NOTES
VAV-2	SINGLE DUCT	RTU-1	200	120	5	10	8	.08	30	6.4	120	140	110	44	93.1	0.45	0.14	2	TRANE VCWF05	SEE NOTES
VAV-3	SINGLE DUCT	RTU-1	600	360	10	14	12	.17	17	17.5	360	140	110	44	88.9	1.2	0.24	2	TRANE VCWF10	SEE NOTES
VAV-4	SINGLE DUCT	RTU-1	500	300	10	14	12	.13	16	15.4	300	140	110	44	91.0	1.0	0.16	2	TRANE VCWF10	SEE NOTES
VAV-5	SINGLE DUCT	RTU-1	200	120	5	10	8	.08	30	6.4	120	140	110	44	93.1	0.45	0.17	2	TRANE VCWF05	SEE NOTES
VAV-6	SINGLE DUCT	RTU-1	850	510	14	19	18	.10	16	18.5	510	140	110	44	77.4	1.25	0.50	1	TRANE VCWF14	SEE NOTES
VAV-7	SINGLE DUCT	RTU-1	1150	690	14	19	18	.15	16	32.6	690	140	110	44	97.5	2.2	0.22	2	TRANE VCWF14	SEE NOTES
VAV-8	SINGLE DUCT	RTU-1	250	150	5	11	10	.12	32	6.4	150	140	110	44	90.2	0.45	0.20	2	TRANE VCWF04	SEE NOTES
VAV-9	SINGLE DUCT	RTU-1	200	120	4	10	8	.05	36	6.4	120	140	110	44	93.1	0.43	0.14	2	TRANE VCWF04	SEE NOTES
VAV-10	SINGLE DUCT	RTU-1	1300	780	16	_	_	.14	16	44.8	900	140	110	44	99.07	90.0	3.0	2	TRANE VCWF16	SEE NOTES
VAV-11	SINGLE DUCT	RTU-1	225	135	5	10	8	.15	31	12.6	225	140	110	44	95.7	0.85	0.65	3	TRANE VCWF05	SEE NOTES
VAV-12	SINGLE DUCT	RTU-1	225	135	5	10	8	.10	31	7.0	135	140	110	44	91.6	0.50	0.16	2	TRANE VCWF05	SEE NOTES
VAV-13	SINGLE DUCT	RTU-1	175	105	5	10	8	.07	29	5.8	105	140	110	44	94.7	0.39	0.11	2	TRANE VCWF05	SEE NOTES
VAV-14	SINGLE DUCT	RTU-1	1100	660	14	19	18	.14	16	31.5	660	140	110	44	88.0	2.1	0.20	2	TRANE VCWF14	SEE NOTES
VAV-15	SINGLE DUCT	RTU-1	200	120	5	10	8	.12	30	6.4	180	140	110	44	99.5	0.70	0.50	2	TRANE VCWF05	SEE NOTES
VAV-16	SINGLE DUCT	RTU-1	150	90	4	10	8	.03	36	3.4	90	140	110	44	78.5	0.25	0.13	1	TRANE VCWF04	SEE NOTES
VAV-17	SINGLE DUCT	RTU-1	625	375	10	14	12	.18	17	18.0	375	140	110	44	88.4	1.2	0.26	2	TRANE VCWF10	SEE NOTES
VAV-18	SINGLE DUCT	RTU-1	400	240	10	14	12	.09	16	13.0	325	140	110	44	90.3	1.1	0.21	2	TRANE VCWF10	SEE NOTES
VAV-19	SINGLE DUCT	RTU-3	400	240	8	11	10	.23	21	11.3	240	140	110	47	94.0	0.75	0.06	3	TRANE VCWF08	SEE NOTES
VAV-20	SINGLE DUCT	RTU-3	200	120	5	10	8	.08	30	6.1	120	140	110	47	90.3	0.40	0.12	2	TRANE VCWF05	SEE NOTES
VAV-21	SINGLE DUCT	RTU-3	200	120	5	10	9	.08	30	6.1	120	140	110	47	93.7	0.40	0.12	2	TRANE VCWF05	SEE NOTES
VAV-22	SINGLE DUCT	RTU-3	250	150	6	10	8	.08	20	6.3	150	140	110	47	85.6	0.40	0.02	2	TRANE VCWF08	SEE NOTES
VAV-23	SINGLE DUCT	RTU-3	650	390	10	14	12	.19	17	17.6	390	140	110	47	88.7	1.2	0.25	2	TRANE VCWF10	SEE NOTES
VAV-24	SINGLE DUCT	RTU-3	700	420	12	14	12	.16	15	18.0	420	140	110	47	86.6	1.20	0.10	2	TRANE VCWF12	SEE NOTES
VAV-25	SINGLE DUCT	RTU-3	650	390	10	14	12	.19	17	17.6	390	140	110	47	88.7	1.2	0.25	2	TRANE VCWF10	SEE NOTES
VAV-26	SINGLE DUCT	RTU-3	325	195	8	11	10	.16	20	9.5	195	140	110	47	92.0	0.65	0.10	3	TRANE VCWF06	SEE NOTES
VAV-27	SINGLE DUCT	RTU-3	675	450	12	14	12	.15	15	17.5	450	140	110	47	86.8	1.2	0.10	2	TRANE VCWF12	SEE NOTES
VAV-28	SINGLE DUCT	RTU-3	750	450	12	14	12	.17	15	19.1	450	140	110	47	86.1	1.3	0.10	2	TRANE VCWF12	SEE NOTES
VAV-29	SINGLE DUCT	RTU-3	375	225	10	14	12	.05	16	8.7	225	140	110	47	82.6	0.6	1.2	- 1	TRANE VCWF10	SEE NOTES
VAV-30	SINGLE DUCT	RTU-3	300	180	8	11	10	.14	20	9.1	180	140	110	47	93.6	0.60	0.05	3	TRANE VCWF06	SEE NOTES
VAV-31	SINGLE DUCT	RTU-3	250	150	6	10	8	.17	27	7.2	150	140	110	47	90.9	0.50	0.16	2	TRANE VCWF06	SEE NOTES
VAV-32	SINGLE DUCT	RTU-3	450	270	10	14	12	.13	16	17.2	270	140	110	47	105.6	1.1	0.33	3	TRANE VCWF10	SEE NOTES
NOTES:																				

1. COIL HEATING CAPACITY SHALL BE BASED ON MINIMUM CFM AND WATER FLOW LISTED ON DRAWINGS FOR EACH BOX. FOR BOXES WITH CO2 CONTROLS, IN WHICH CASE 75% OF MAXIMUM AIRFLOW SHALL BE USED).

2. RUNOUT TO VAV BOX SHALL BE THE SAME SIZE AS THE INLET CONNECTION. 3. 1" ACOUSTICAL SOUND LINING SHALL BE INSTALLED ON THE SUPPLY AIR DUCTWORK FROM THE VAV UNIT TO 20 FEET DOWNSTREAM OF THE BOX.

. PROVIDE VAV UNIT WITH FACTORY CONTROLS ENCLOSURE.

. PROVIDE VAV UNITS WITH HANGER BRACKETS AND 1" MATTE LINER.

5. CONFIRM LOCATION OF HOT WATER COIL CONNECTIONS IN THE FIELD AND WITH THE DRAWINGS. 7. INLET DUCTWORK TO VAV BOXES SHALL HAVE A MINIMUM DISTANCE OF 1.5 TIMES THE DIAMETER FOR PROPER AIRFLOW MEASUREMENT. . VAV TERMINAL UNITS SHALL BE BY TITUS, TRANE, PRICE OR EQUAL.

						F	AN SCHEI	DULE								
					E.S.P.	ROOF							SOUND	WEIGHT	MANUFACTURER AND	
TAG	SERVICE	LOCATION	CFM	FAN TYPE	(IN.WG)	CURB	MOTOR TYPE	RPM	BHP	HP	v	PH	POWER (dBA)	(LBS)	MODEL NUMBER (AS STANDARD)	REMARKS
EF-1	1ST FLOOR TOILETS	LOWER ROOF	650	DIRECT DRIVE CENTRIFUGAL	1.0	16"	ECM	1415	0.21	1⁄4	115	1	61	100	GREENHECK G-143HP-VG	SEE NOTES
EF-2	VEHICLE BAY 101	LOWER ROOF	150	DIRECT DRIVE CENTRIFUGAL	0.5	16"	ECM	1236	0.05	1⁄4	115	1	50	82	GREENHECK G-097-VG	SEE NOTES
EF-3	2ND FLOOR TOILETS	UPPER ROOF	250	DIRECT DRIVE CENTRIFUGAL	0.5	16"	ECM	1571	0.06	1⁄6	115	1	55	65	GREENHECK G-080-VG	SEE NOTES
-								-								
EF-5	SALLYPORT	LOWER ROOF	225	DIRECT DRIVE CENTRIFUGAL	0.5	16"	ECM	1395	0.07	1⁄4	115	1	54	82	GREENHECK G-097-VG	SEE NOTES
NOTES:																

3. PROVIDE MOTORIZED DAMPER WITH 24V ACTUATOR AND DAMPER TRAY.

4. PROVIDE EF-2 AND EF-3 WITH 16" HIGH INSULATED ROOF CURBS. PROVIDE EF-1, EF-4, AND EF-5 WITH 12" HIGH ADAPTER CURBS. CONFIRM SIZE OF EXISTING ROOF CURBS IN THE FIELD. 5. FANS SHALL BE BY GREENHECK, PRICE, COOK OR APPROVED EQUAL.

PROVIDE FANS WITH EC MOTOR. PROVIDE EF-1, EF-3, AND EF-4 WITH UNIT MOUNTED SPEED CONTROLLERS FOR BALANCING. PROVIDE EF-2 WITH REMOTE SPEED CONTROLLER.
 PROVIDE WITH FACTORY MOUNTED AND WIRED DISCONNECT SWITCH.

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REVISIONS
Number Description Date
ISSUED FOR BID
WALTHAM .
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
HVAC SCHEDULES
PROJECT NUMBER: 20130535DESIGNED BY:JJKDRAWN BY:JJKCHDATE:July-Aug.
SCALE: 2016 N.T.S.
SHEET NUMBER:
SHEET 99 OF 157

	GENE	RAL
0	FD	FLOOR DRAIN
	TD	TRENCH DRAIN
——	со	CLEANOUT
$\square \emptyset$	FCO	FLOOR CLEANOUT
	GCO	GRADE CLEANOUT
		P-TRAP
o		ELBOW UP OR RISE
ə		ELBOW DOWN OR DROP
		CAP OR END OF PIPE
——— + НВ	НВ	HOSE BIBB
	WH	WALL HYDRANT
o		TEE LOOKING UP
		TEE LOOKING DOWN
		UNION
	VIV	VALVE IN VERTICAL
	RPBP	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
		STRAINER
P	WHA/SA	WATER HAMMER ARRESTOR/SHOCK ABSORBER
•	CTE	CONNECT TO EXISTING
	ETR	EXISTING TO REMAIN
· / / / / / / / / / / / / / / / / / / /	ETBR	EXISTING TO BE REMOVED
—		FLOW IN DIRECTION OF ARROW
>		DIRECTION OF SLOPE
───	CNR	CONCENTRIC REDUCER
		PIPE SLEEVE
- 	ECC	ECCENTRIC REDUCER
		DOUBLE WALL PIPING
——————————————————————————————————————		PIPE ANCHOR
		PIPE GUIDE
		EXPANSION JOINT
		FLEXIBLE CONNECTOR
		IN-LINE FILTER
FM		FLOW METER
		LIMIT OF WORK
L L	НС	HANDICAPPED ACCESSIBLE
		I ANDIGAFFED AGGEGOIDLE
NUM		KEY NOTE DESIGNATION
⊗ ^{TP}	ТР	TRAP PRIMER

DESIGNATION INDICATOR - DETAIL DESIGNATION NUMBER

(P-1)

DETAIL DESIGNATION DRAWING

VALVE LEGEND

Image: Ball Valve Image: Ball Valve <th></th>	
GATE VALVE GATE VALVE (NORMALLY CLOSED) GATE VALVE (NORMALLY CLOSED) OS&Y OUTSIDE SCREW AND YOKE VALVE BUTTERFLY VALVE CHECK VALVE BALL VALVE (GAS) GAS COCK PLUG VALVE	
→N GATE VALVE (NORMALLY CLOSED) → OS&Y OS&Y OUTSIDE SCREW AND YOKE VALVE BUTTERFLY VALVE → CHECK VALVE → BALL VALVE (GAS) → GAS COCK → PLUG VALVE	
OS&Y OUTSIDE SCREW AND YOKE VALVE OS&Y OUTSIDE SCREW AND YOKE VALVE UNITERFLY VALVE BUTTERFLY VALVE UNITERFLY VALVE CHECK VALVE UNITERFLY VALVE GAS COCK UNITERFLY PLUG VALVE	
Image: Second state Image: Second state <tr< th=""><th></th></tr<>	
Image: Check valve Image:	
→ → BALL VALVE (GAS) → ✓ GAS COCK → ✓ PLUG VALVE	
GAS COCK I∳I GAS COCK PLUG VALVE	
PLUG VALVE	
±	
MV MIXING VALVE	
BALANCING VALVE	
ANGLE VALVE	
T&P TEMPERATURE AND PRESSURE RELIEF	
A VACUUM RELIEF VALVE	
T AQUASTAT	
THERMOMETER	
	/E
PG PRESSURE GAUGE	
BACK WATER VALVE	
GLOBE VALVE	
FLOW SWITCH	
SOLENOID VALVE	
MOTOR OPERATED GATE VALVE	
MOTOR OPERATED BALL VALVE	

PIPING LEGEND

	CW	COLD WATER
=======================================		COLD WATER BELOW SLAB
	нw	HOT WATER
	HWR	HOT WATER RETURN
	S or W	SOIL OR WASTE ABOVE GROUND
	S or W	SOIL OR WASTE BELOW SLAB
	v	VENT ABOVE GROUND
	V	VENT BELOW SLAB
RL	RL	RAIN LEADER ABOVE GROUND
RL	RL	RAIN LEADER BELOW SLAB
IW	IW	INDIRECT WASTE
G	G	NATURAL GAS PIPING
GV	GV	GAS VENT PIPING
	тw	TEMPERED WATER
	TWR	TEMPERED WATER RETURN
—— 140°F — — ——		140°F HOT WATER
—— 140°F — — — ——		140°F HOT WATER RETURN
—— NP — ——	NPCW	NON POTABLE COLD WATER
DWS	DWS	CHILLED DRINKING WATER SUPPLY
DWR	DWR	CHILLED DRINKING WATER RECIRCULATING
TP	TP	TRAP PRIMER

A	BBREVIATIONS		
ACT	ACOUSTICAL TILE		
AFF	ABOVE FINISH FLOOR ACCESS PANEL	1.	
	ACCESS PANEL	1	PLUI
BLDG	BUILDING	2.	OBT/ COM
CFH	CUBIC FEET PER HOUR	3.	
CFM		0.	EXA
CI CLG	CAST IRON CEILING	4.	
CLDI	CEMENT LINED DUCTILE IRON	l	ARC THE
со	CLEANOUT	5.	FURI
CONC	CONCRETE	1	NOT
CONT			
CONTR	CONTRACTOR CHROME PLATED	6.	PRO INDI
CTE	CONNECT TO EXISTING	7.	PRO
cw	COLD WATER	8.	FUR
DF	DRINKING FOUNTAIN-FIXTURE	0.	REL
DIA	DIAMETER	9.	PITC
DN	DOWN	10). INST
DWG		l	AT A
EC EL/ELEV	ELECTRICAL CONTRACTOR ELEVATION	11	. HOT
		12	. PRO
EWC	ELECTRIC WATER COOLER-FIXTURE IDENTIFICATION	13	. PIPIN
EX	EXISTING	l	ARE
FCO	FLOOR CLEANOUT	14	. INST
FFE	FINISH FLOOR ELEVATION	15	5. PRO
<u>P-#</u>		16	. PRO
FLR FP	FLOOR FIRE PROTECTION	17	. AN A
FS	FLOW SWITCH	l	PRO
FT	FOOT	18	. REQ WHE
FV	FLUSH VALVE	40	
GALV	GALVANIZED	19). REFI PLAN
GC GI	GENERAL CONTRACTOR GREASE INTERCEPTOR	20). ALL
GPF	GALLON PER FLUSH	1	AS II
GPM	GALLONS PER MINUTE	21	I. SEE
нс	HANDICAPPED		
HW HWR	HOT WATER HOT WATER RETURN		
INV	INVERT		
IW	INDIRECT WASTE	<u>DEN</u> 1.	
LPC	LIMIT OF PLUMBING CONTRACTOR	1.	REFE
МЕСН	MECHANICAL	l	SHOV
MSB	MOP SERVICE BASIN-FIXTURE	2.	VISIT
NC	NORMALLY CLOSED	1	CONE
NO	NORMALLY OPEN	3.	TRAC
NTS	NOT TO SCALE	l	DISCO AFFE
NIC OD	NOT IN CONTRACT OUTSIDE DIAMETER	l	REMO
OED	OPEN END DRAIN	l	OWN
PC	PLUMBING CONTRACTOR	4.	NOTIF
PLBG	PLUMBING	1	ENCC
PSI	POUNDS PER SQUARE INCH	5.	
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER	1	TAKE HAZA
SA	SHOCK ABSORBER	l	MANI
SH	SHOWER-FIXTURE IDENTIFICATION	6.	NOTIF
SK	SINK-FIXTURE IDENTIFICATION	1	
SPEC	SPECIFICATION	· _	
SS ST.ST.	SOIL STACK STAINLESS STEEL	7.	ENSU PREV
51.51. TW	TEMPERED WATER	1	BRAC BEFO
ТҮР	TYPICAL	-	
υ	URINAL-FIXTURE IDENTIFICATION	8.	DO NO CONO
v	VENT	l	HIDDI PORT
VB	VACUUM BREAKER	l	ADEC
VS		9.	DRAII
VTR W	VENT THRU ROOF WASTE	l	EXPL
	WASTE WATER CLOSET-FIXTURE	l	
wc	IDENTIFICATION	10.	PRIO
		1	
		11.	PROF

GENERAL NOTES

MBING WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE IMBING AND GAS CODE INCLUDING ALL LOCAL AMENDMENTS.

TAIN ALL PERMITS AND PAY ALL FEES ASSOCIATED WITH THIS WORK PRIOR TO MMENCEMENT.

ING AND EQUIPMENT IS SHOWN DIAGRAMMATICALLY. THE ACTUAL ROUTING OF PIPING AND ACT LOCATION OF EQUIPMENT SHALL BE DETERMINED IN THE FIELD.

ADDITION TO REVIEWING AND COORDINATING WITH THE OTHER TRADES (CIVIL, STRUCTURAL, CHITECTURAL, FIRE PROTECTION, HVAC, AND ELECTRICAL) THE CONTRACTOR SHALL VISIT E SITE AND FAMILIARIZE HIMSELF WITH DETAILS OF CONSTRUCTION.

RNISH AND INSTALL ALL NECESSARY PIPING, EQUIPMENT SUPPORTS AND ANY EQUIPMENT T SHOWN ON DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS BUT NECESSARY TO OVIDE A COMPLETE AND WORKABLE SYSTEM.

OVIDE ACCESSIBLE SHUTOFF VALVES ON ALL BRANCH PIPING AND ON ALL SUPPLY PIPING TO IVIDUAL FIXTURES AND EQUIPMENT.

DVIDE ACCESS TO ALL EQUIPMENT REQUIRING PERIODIC SERVICE AND MAINTENANCE.

RNISH ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION UNDER THE ATED TRADES.

CH ALL WATER LINES TO DRAIN.

TALL HORIZONTAL RUNS OF WATER PIPING AS HIGH AS POSSIBLE AND PROVIDE DRAIN-OFFS ALL LOW POINTS.

T WATER TAKEOFFS SHALL HAVE NOT LESS THAN THREE ELBOW SWINGS.

OVIDE DRAIN VALVE ON HOUSE SIDE OF WATER METER.

ING SHALL RUN CONCEALED IN ALL AREAS WITH THE EXCEPTION OF MECHANICAL ROOMS, EAS WHERE NO CEILING EXISTS OR WHERE NOTED ON THE PLANS.

TALL DIELECTRIC COUPLINGS BETWEEN DISSIMILAR MATERIALS. DVIDE DANDY CLEANOUTS AT THE BASE OF ALL SANITARY AND RAINWATER STACKS.

OVIDE DRIP LEGS FOR ALL GAS RISERS.

AIR GAP OF AT LEAST TWICE THE EFFECTIVE DIAMETER OF THE DRAIN SERVED SHALL BE OVIDED ON ALL EQUIPMENT DRAINS PIPED TO FLOOR DRAINS.

QUIRED FIRE RESISTANCE RATING OF FLOORS, WALLS AND CEILINGS SHALL BE MAINTAINED EN PIPE PENETRATIONS ARE MADE.

ER TO RISER DIAGRAMS AND DETAILS FOR PIPE AND EQUIPMENT SIZES NOT SHOWN ON THE

WORK SHOWN ON RISER DIAGRAMS BUT NOT ON PLANS OR VICE VERSA SHALL BE INCLUDED F SHOWN ON BOTH.

E SPECIFICATIONS FOR OTHER REQUIREMENTS.

DEMO NOTES

ON NOTES:

ER TO THE ARCHITECTURAL DRAWINGS FOR THE EXTENT OF THE DEMOLITION SCOPE OF WORK AREA. THE DEMOLITION PLANS INDICATE THE GENERAL INTENT AND ARE NOT INTENDED TO W ALL ITEMS TO BE REMOVED OR RETAINED.

T THE SITE PRIOR TO SUBMISSION OF THE BIDS TO BECOME FAMILIAR WITH THE ACTUAL DITIONS AND EXTENT OF THE WORK.

CE AND LABEL ALL EXISTING SYSTEMS WITHIN THE DEMOLITION AREA AND BEYOND PRIOR TO CONNECTION AND REMOVAL TO ENSURE THAT NO AREA OUTSIDE THE DEMOLITION AREA IS ECTED. REVIEW IN DETAIL WITH THE GENERAL CONTRACTOR AND OWNER WHAT IS TO BE OVED AND REMAIN PRIOR TO WORK COMMENCING THE DEMOLITION. THERE SHALL BE NO RUPTION OF SERVICES OUTSIDE THE DEMOLITION AREA WITHOUT APPROVAL FROM THE IER'S REPRESENTATIVE.

IFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY UNANTICIPATED HIDDEN CONDITIONS OUNTERED DURING THE DEMOLITION.

ITEMS REMOVED SHALL BE OFFERED TO THE OWNER FOR SALVAGE. IF THE OWNER DOES NOT E POSSESSION, DISPOSE OF THE ITEMS IN A SAFE AND LEGAL MANNER. ALL ITEMS CLASSIFIED AS ARDOUS SHALL BE DISPOSED AS HAZARDOUS WASTES AND A UNIFORM HAZARDOUS WASTE IFEST SHALL BE PROVIDED TO THE OWNER.

IFY UTILITY COMPANIES IN ACCORDANCE WITH THEIR REQUIREMENTS PRIOR TO DEMOLITION. IFY THAT THE UTILITIES HAVE BEEN DISCONNECTED, VALVED, CAPPED AND MADE SAFE PRIOR TO OLITION.

URE THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION. VENT INJURY TO PERSONS AND DAMAGE TO PROPERTY. PROVIDE ADEQUATE SHORING AND CING TO PREVENT COLLAPSE. IMMEDIATELY REPAIR DAMAGED PROPERTY TO THE CONDITION ORE BEING DAMAGED. TAKE EFFECTIVE MEASURES TO PREVENT WINDBLOWN DUST.

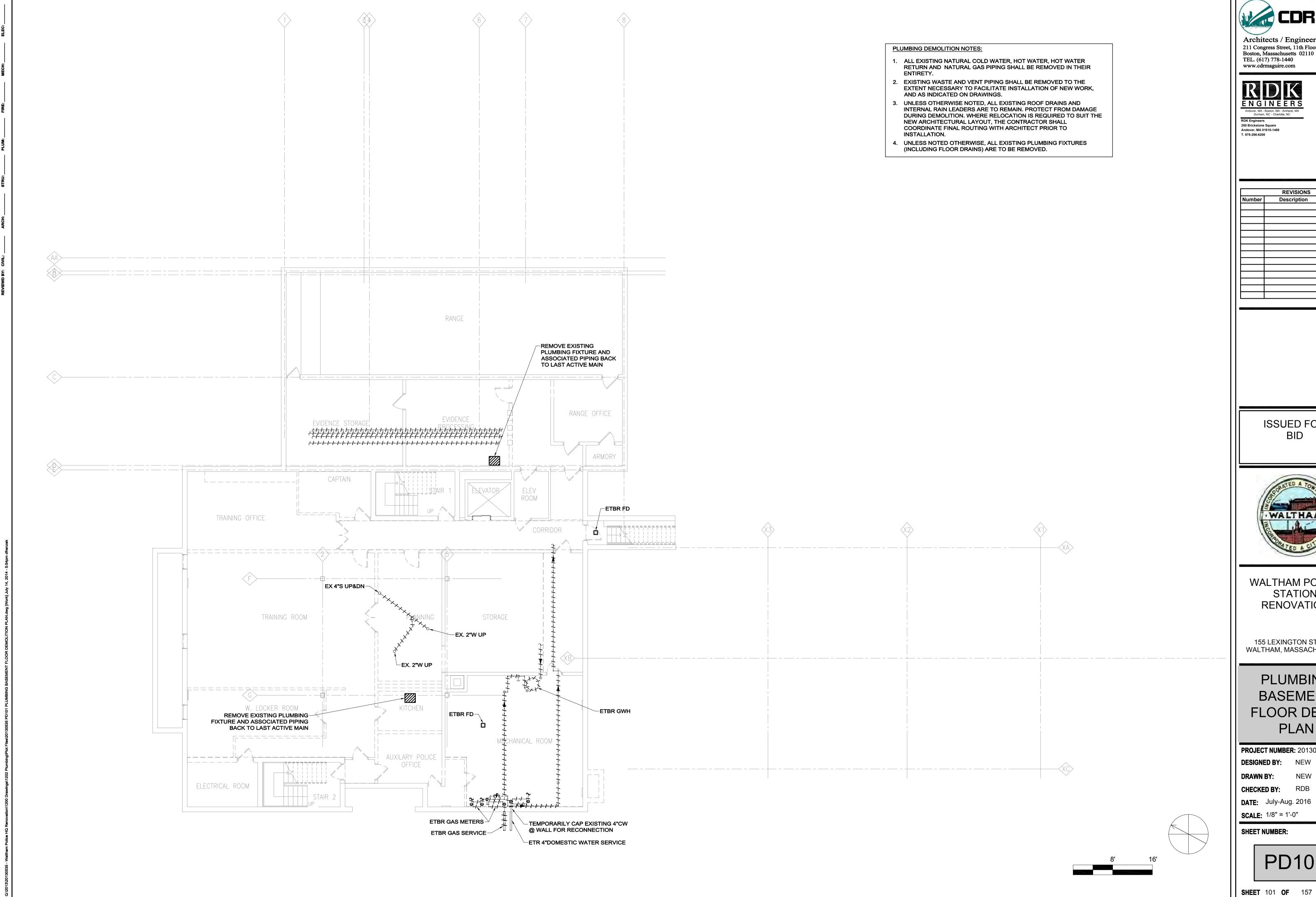
NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CEALED SPACES, SUCH AS DUCT AND PIPE INTERIORS, VERIFY CONDITION AND CONTENTS OF DEN SPACE BEFORE STARTING FLAME-CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND TABLE FIRE-SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS. MAINTAIN QUATE VENTILATION WHEN USING CUTTING TORCHES.

IN, PURGE, OR OTHERWISE REMOVE, COLLECT, AND DISPOSE OF CHEMICALS, LIQUIDS, GASES, LOSIVES, ACIDS, FLAMMABLES, OR OTHER DANGEROUS MATERIALS BEFORE PROCEEDING WITH OLITION OPERATIONS.

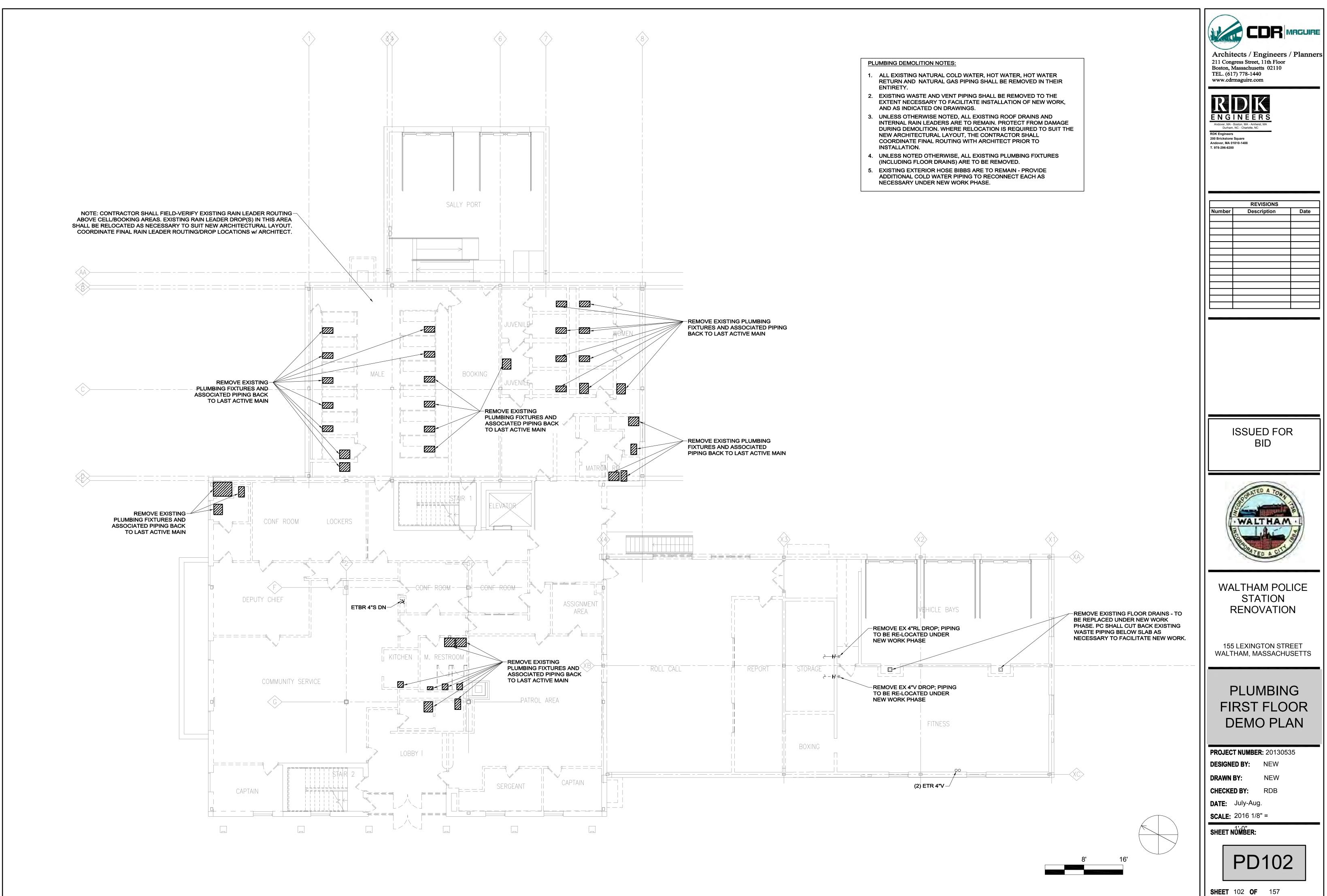
OR TO DEMOLITION, MAKE SAFE ALL SERVICE PIPE TERMINATIONS TO THE AREA. PROVIDE VALVE CAPS ON PRESSURE SERVICES TO THE AREA THAT ARE TO REMAIN IN SERVICE.

PERLY LABEL ALL UNLABELED SERVICE PIPELINES AND VALVES TO REMAIN WITH COLOR PIPE KERS AND VALVE TAGS. MOUNT A VALVE AND SERVICE CHART IN THE AREA OF DEMOLITION THAT IDENTIFIES ALL LABELED SERVICES. TURN ONE COPY OF SAME OVER TO THE CM

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RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200
REVISIONS Number Description Date
ISSUED FOR BID
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WALTHAM POLICE STATION
RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
PLUMBING
LEGEND, NOTES & ABBRVS.
PROJECT NUMBER: 20130535
DESIGNED BY: NEW DRAWN BY: NEW
CHECKED BY: RDB DATE: July-Aug. SCALE: 2016 N.T.S.
SHEET NUMBER:
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SHEET 100 OF 157



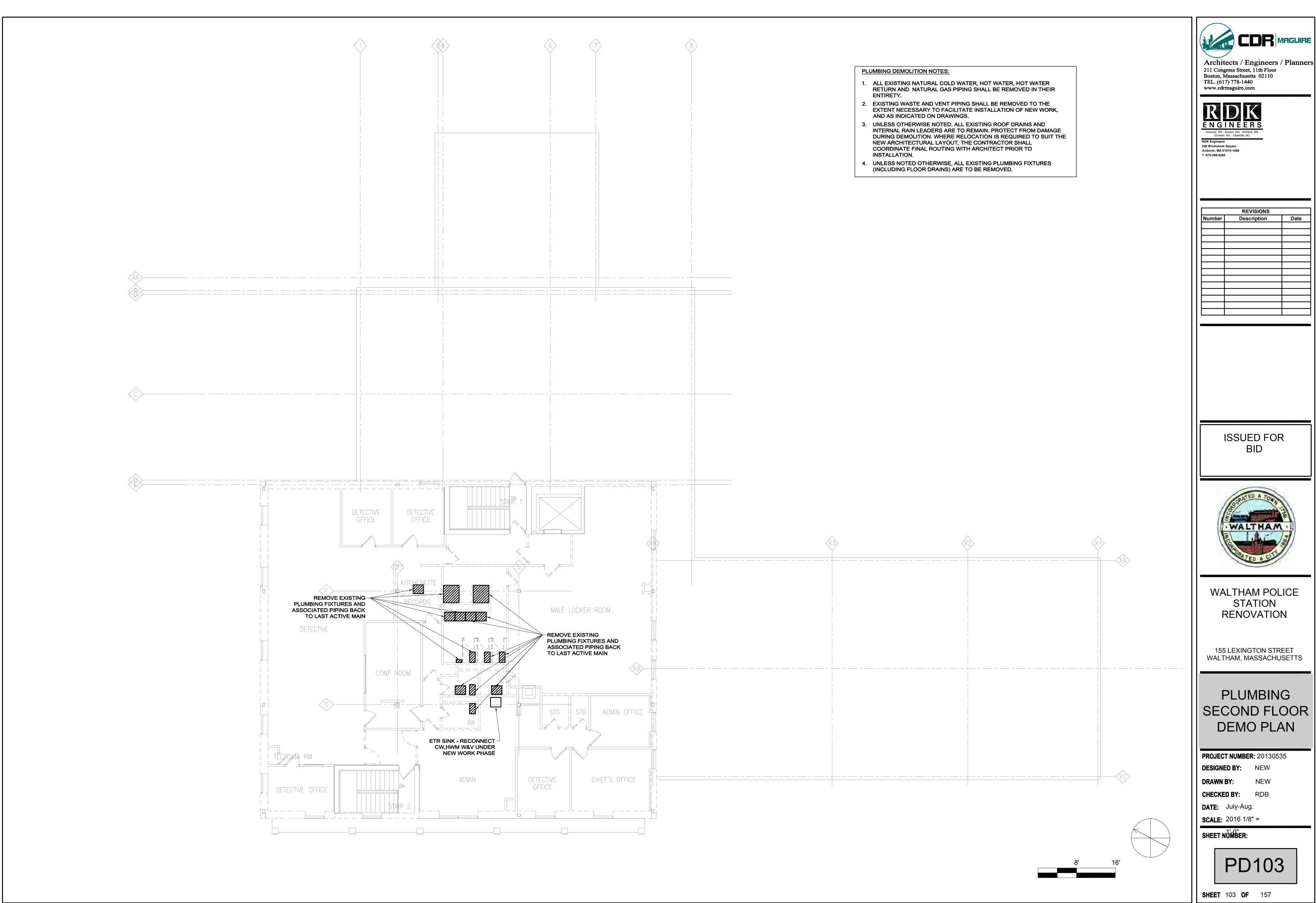
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WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
PLUMBING BASEMENT FLOOR DEMO PLAN
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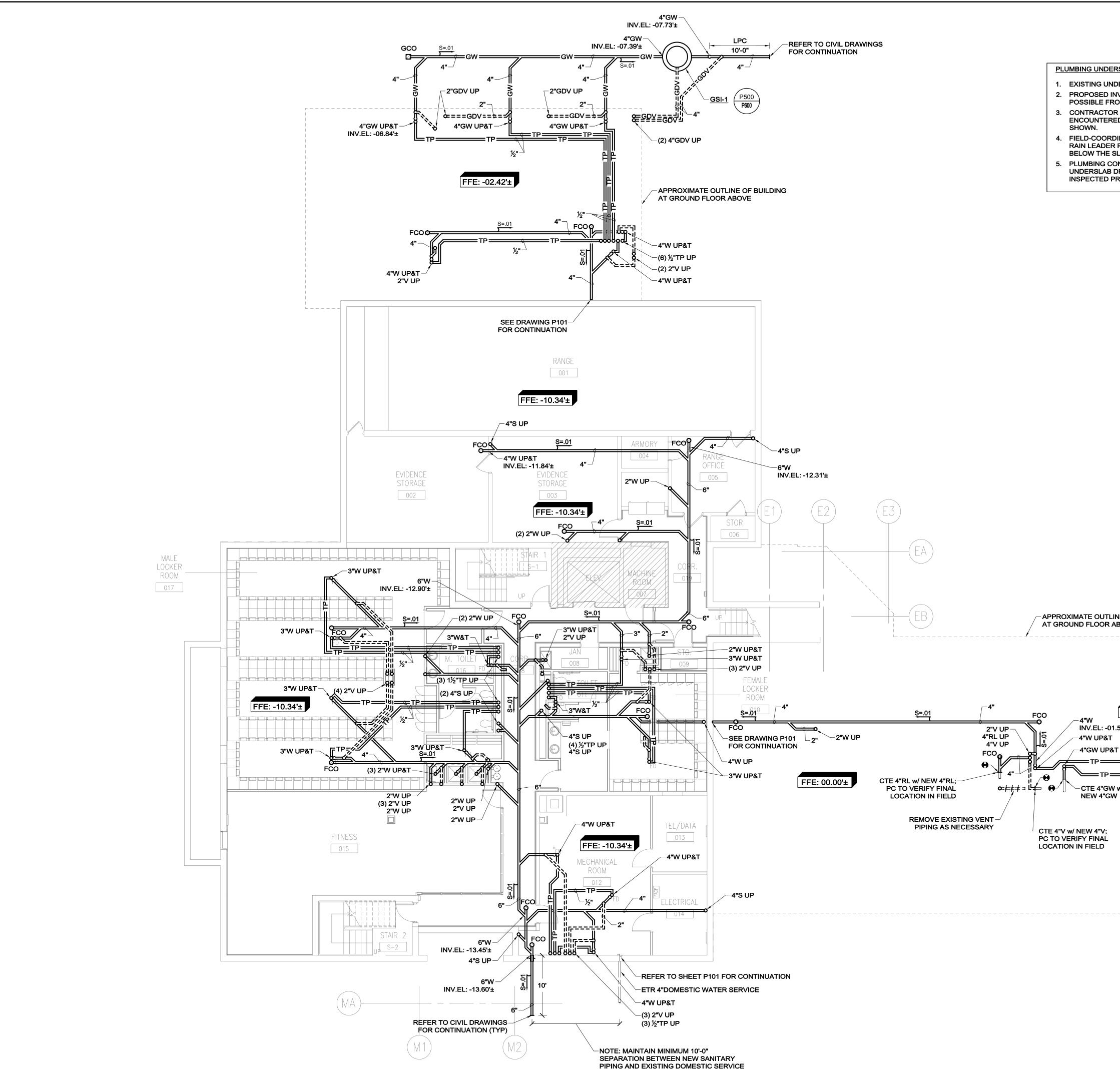


REVIEWD BY: CIVIL: _____ ARCH: _____ STRU: _____ PLUM: _____ FIRE: _____ MECH: _____ ELEC: __

3/20130535 - Waltham Police HQ Renovation/1200 Drawings/1202 Plumbing/Plot Files/20130535 PD102 PLUMBING FIRST FLOOR DEMOLITION PLAN.dwg [Work] July 14, 2014 - 5:54pm dfranzek



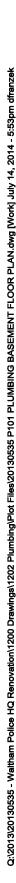


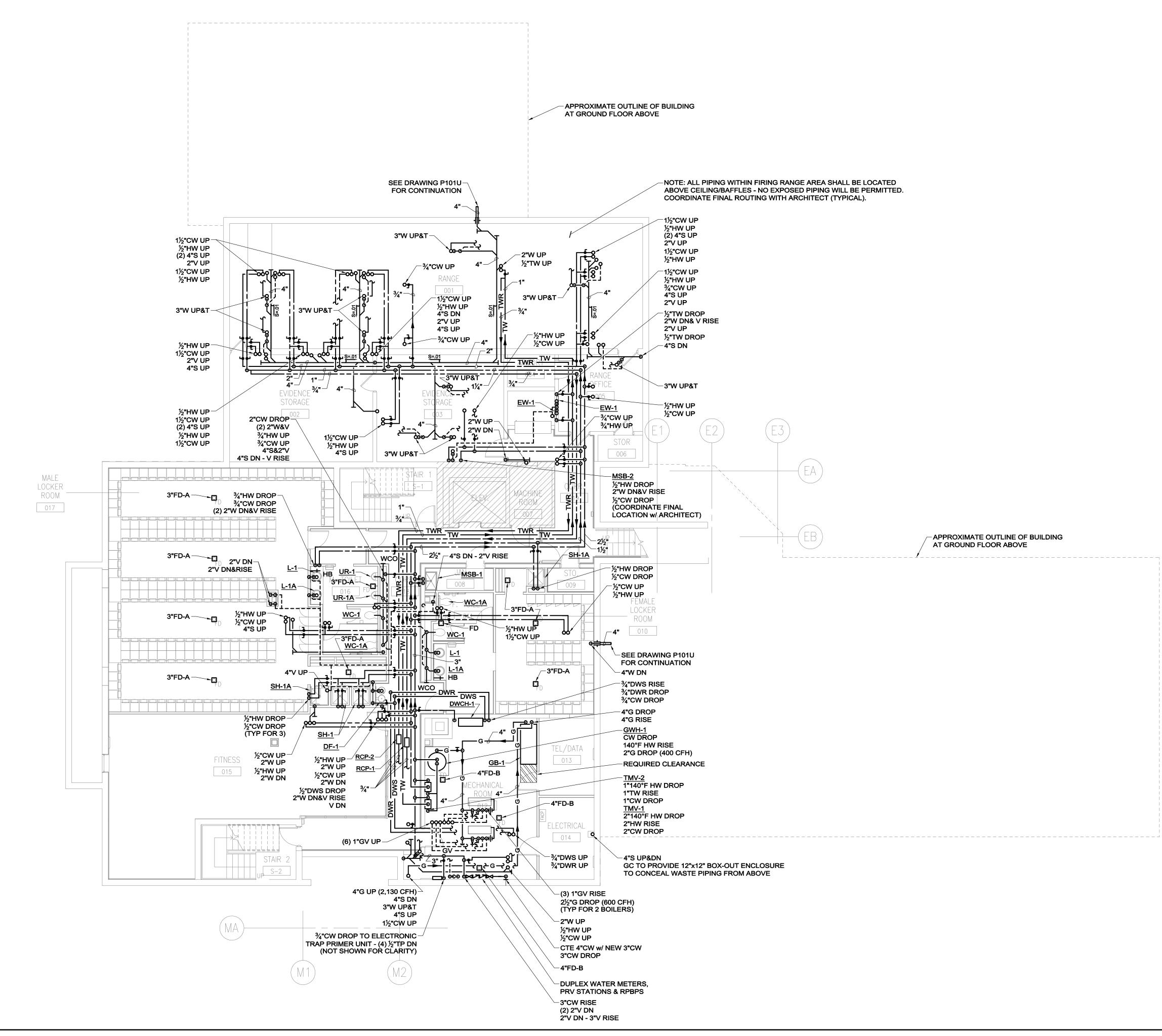


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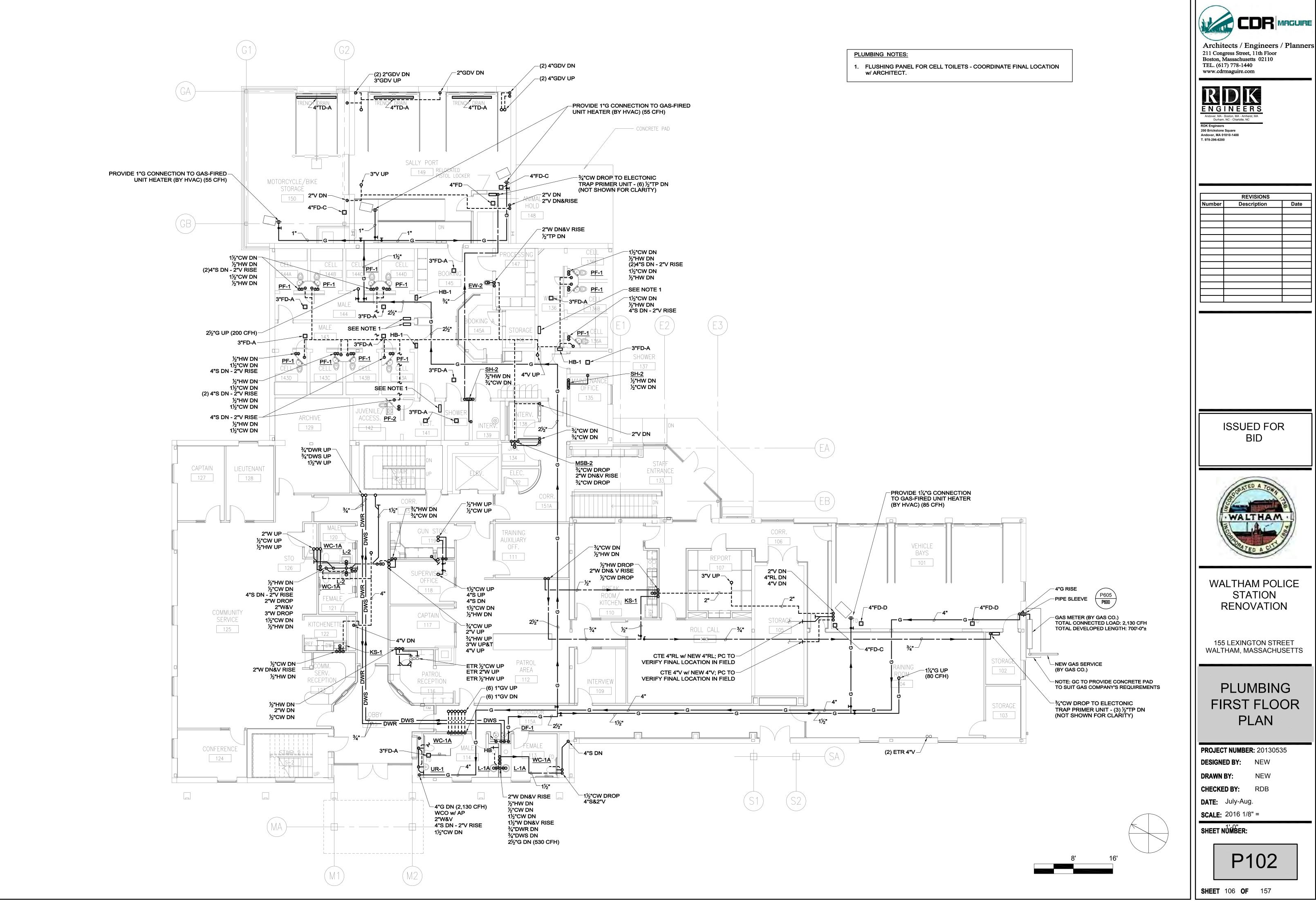
2013/20130535 - Wattham Police HQ Renovation/1200 Drawings/1202 Plumbing/Plot Files/20130535 P101U PLUMBING UNDERSLAB PLAN.dwg [Work] July 14, 2014 - 5:53pm dfran

RSLAB NOTES:		Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston Messachusetta 02110
DERSLAB CONDITIONS ARE CURRENTLY UNKNOWN. VERTS/ROUTING ASSUME GRAVITY DRAINAGE IS DM THE BASEMENT AREA. R SHALL REMOVE ANY ABANDONED PIPING		Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
ED BELOW SLAB AS REQUIRED TO INSTALL NEW WORK AS INATE NEW SANITARY AND VENT PIPING WITH ANY ETR PIPING OR OTHER EXISTING UTILITIES ENCOUNTERED		Andover, MA - Boston, MA - Amherst, MA Durham, NC - Charlotte, NC
LAB. INTRACTOR SHALL PROVIDE PRICING TO HAVE ENTIRE DRAINAGE SYSTEM (BOTH SANITARY AND STORM) VIDEO RIOR TO START OF DEMOLITION.		RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200
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		UNDERSLAB PLAN
		PROJECT NUMBER: 20130535
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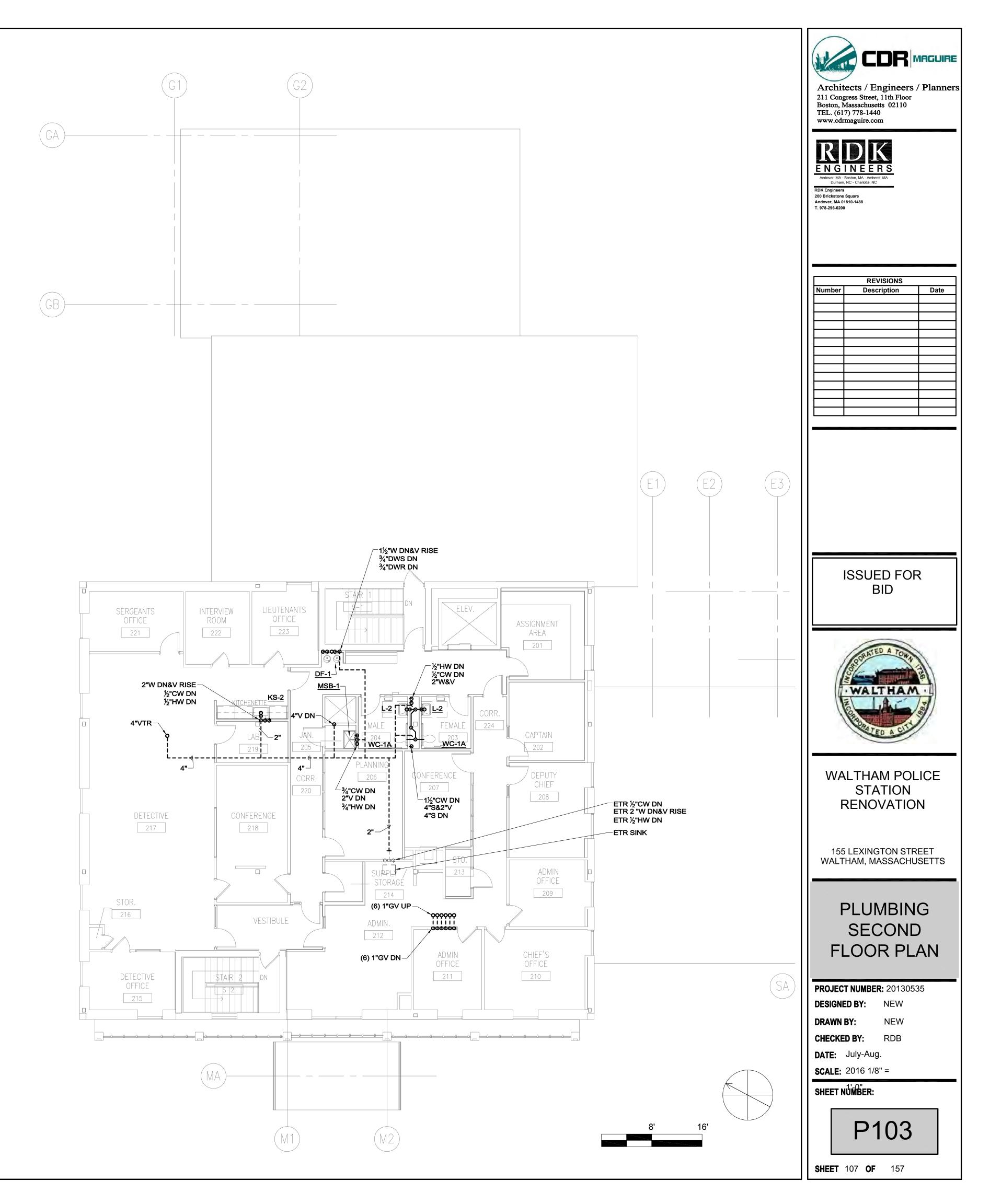




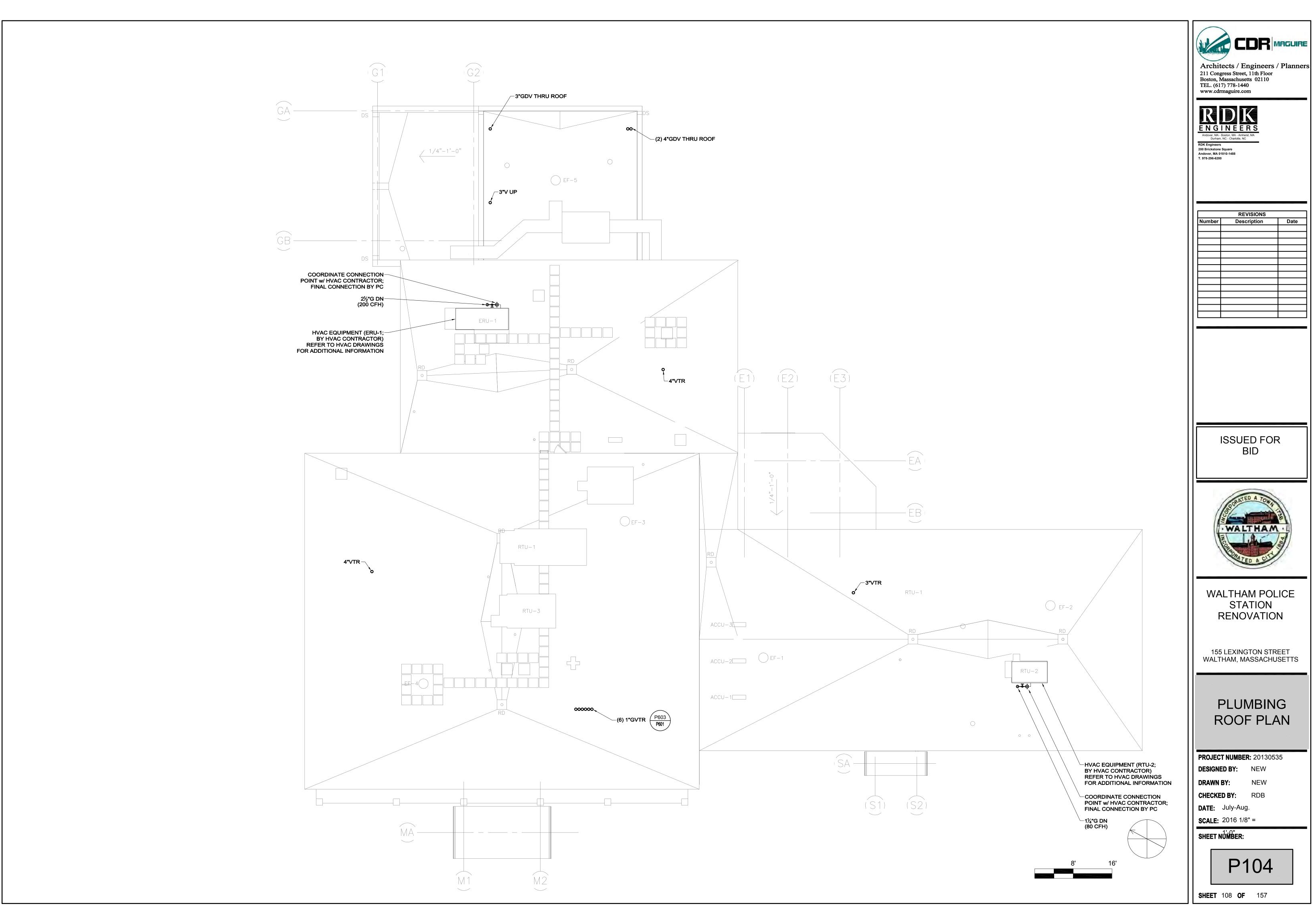
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	155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
	PLUMBING BASEMENT FLOOR PLAN
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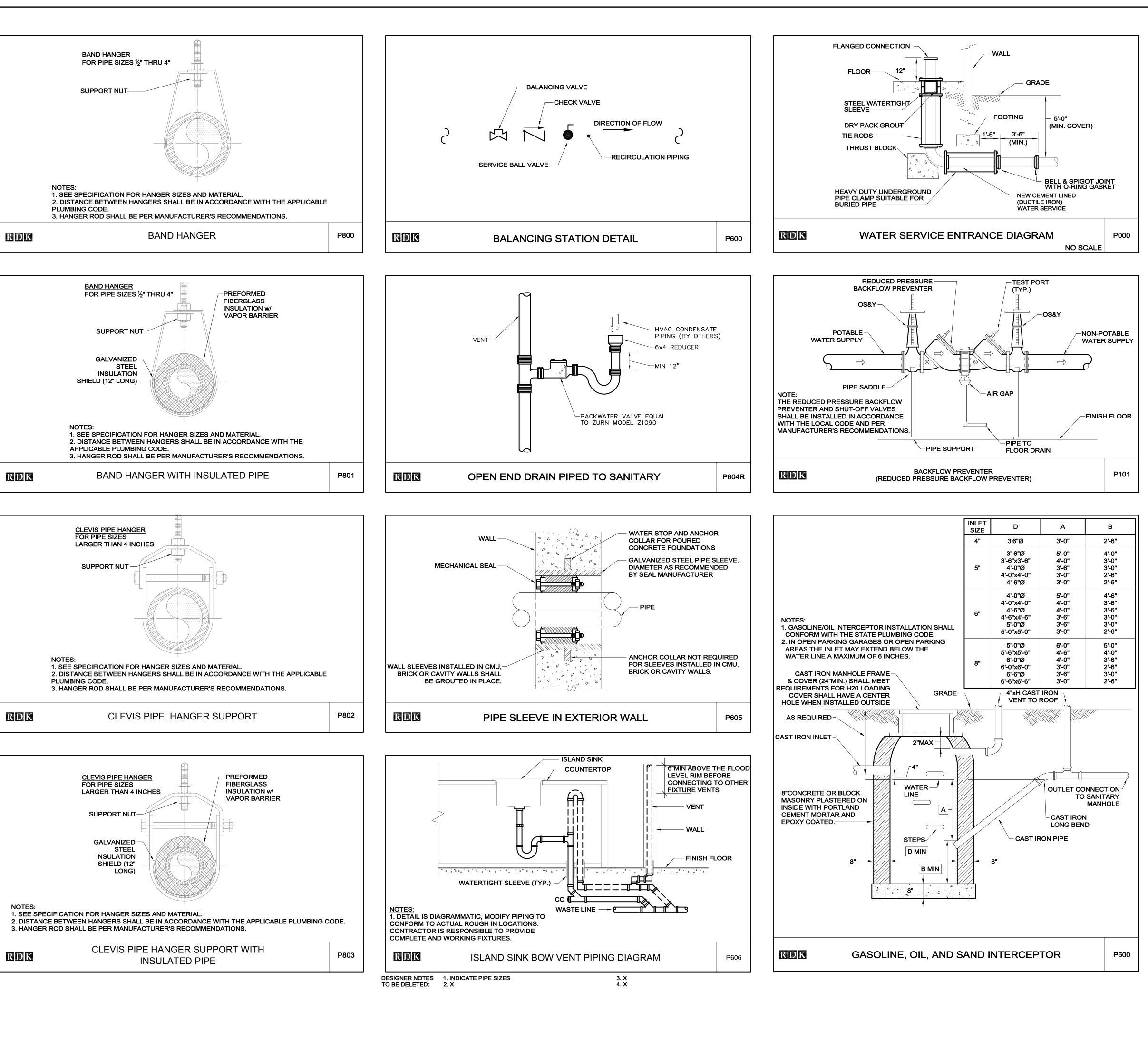


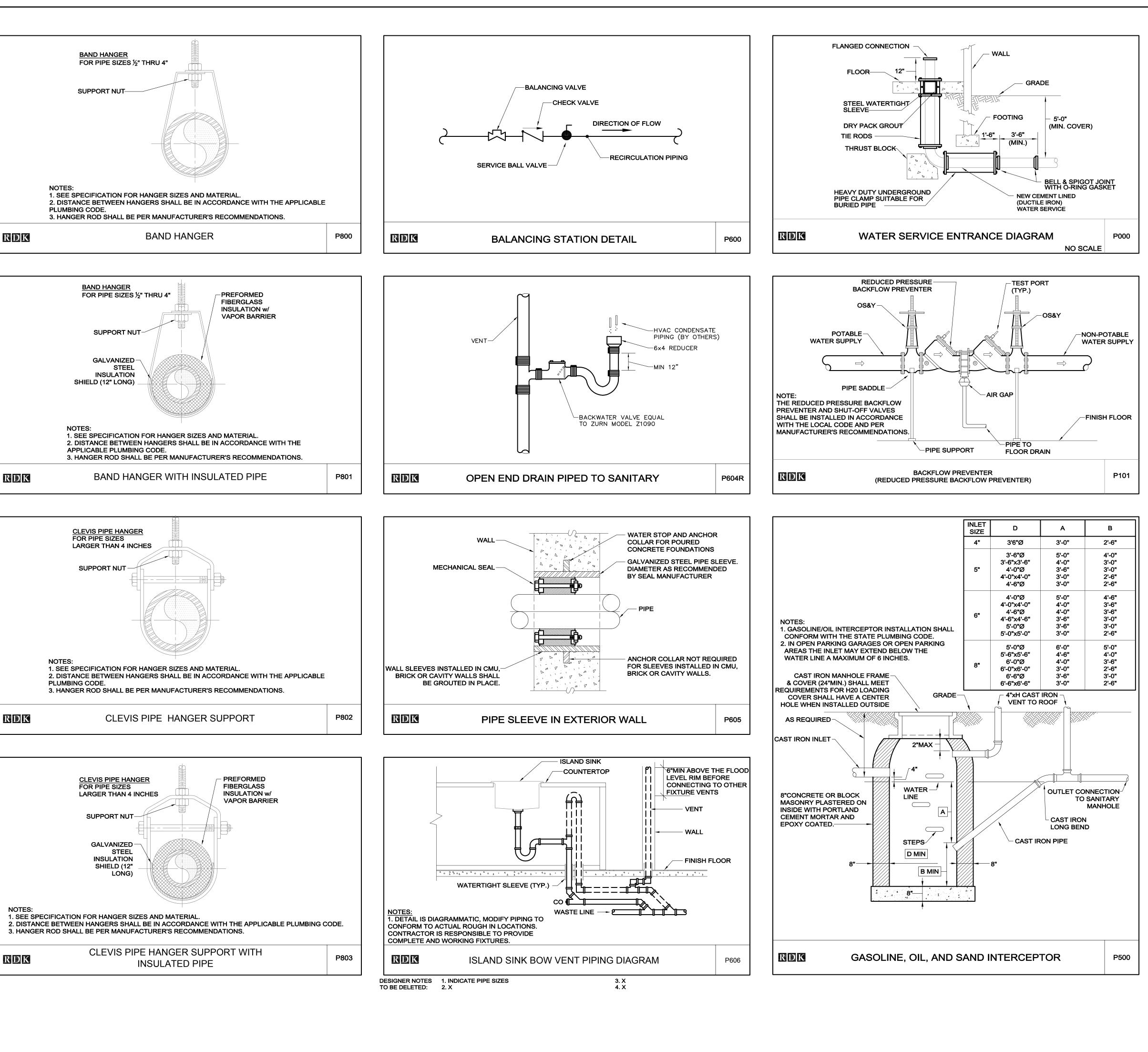
3/20130535 - Waitham Police HQ Renovation/1200 Drawings/1202 Plumbing/Plot Files/20130535 P103 PLUMBING SECOND FLOOR PLAN.dwg [Work] July 14, 2014 - 5:53pm dfranzek

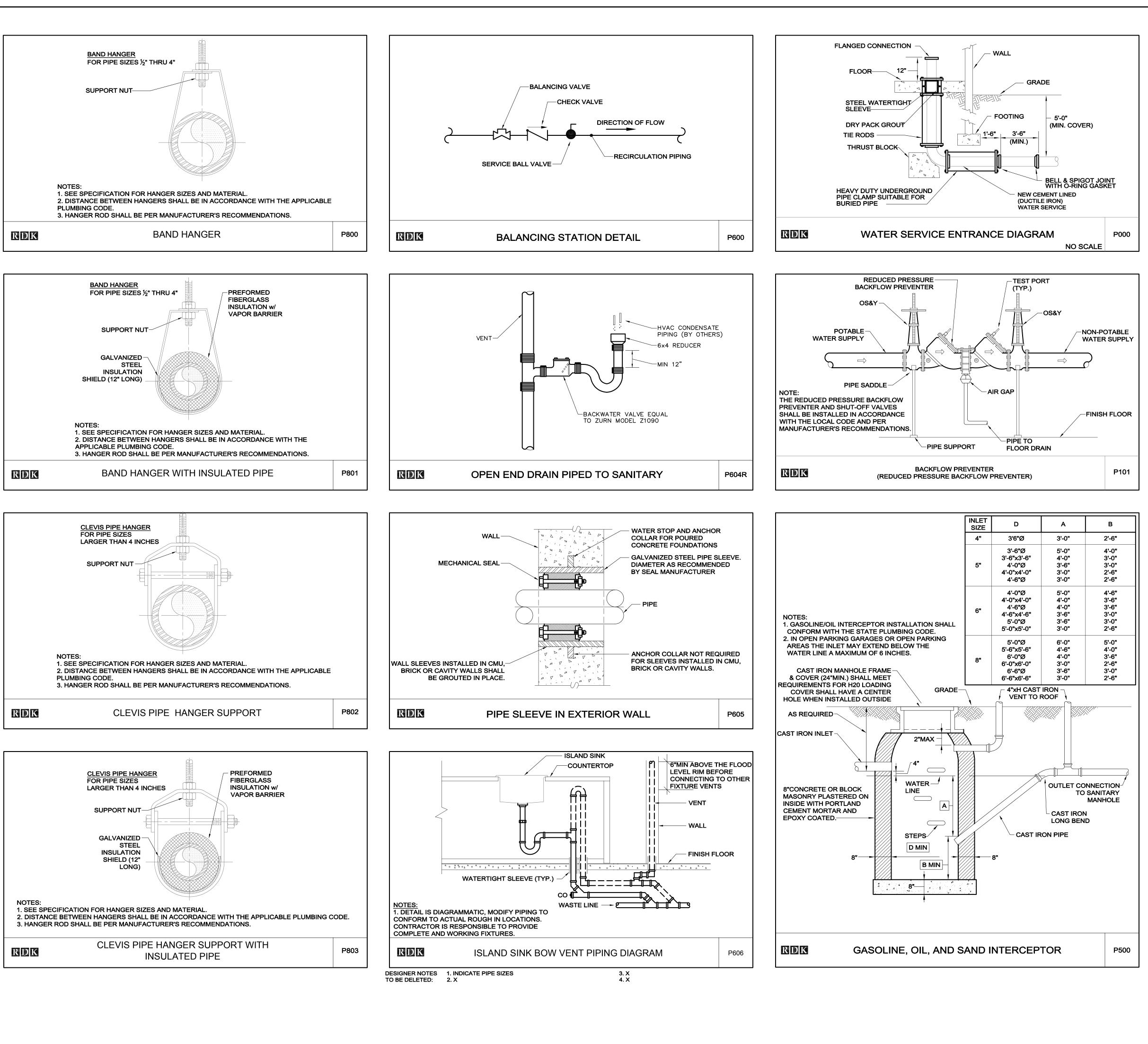






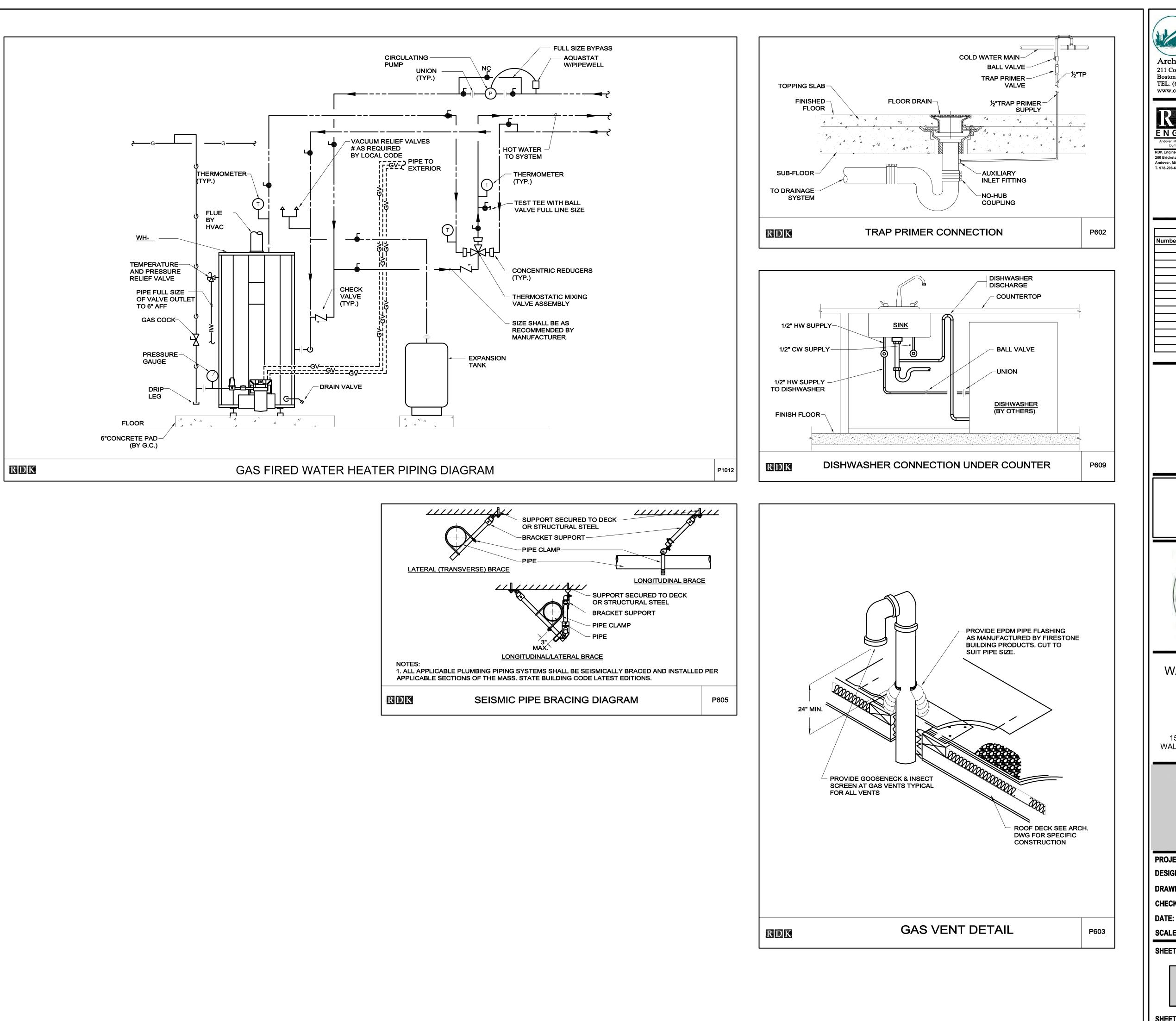


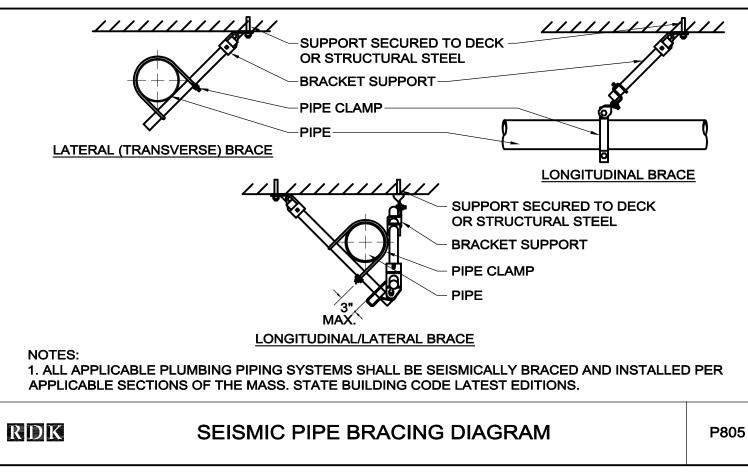




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P601 Sheet 110 of 157

							PLUME	BING FIXTURE SC	CHEDULE		
			FIXTURE			FITTING					
TAG NO.	ТҮРЕ	MANUFACTURER	MODEL	SIZE	TYPE	MANUFACTURER	MODEL	TRAP	FLOW	CARRIER	
WC-1	WATER CLOSET	тото	CT 708		SENSOR FLUSH VALVE	тото	ECOPOWER TET1GNC-32	INTEGRAL	1.6 GPF	PROVIDE TO SUIT	PROVIDE CARRIER SYSTEM EQUAL TO ZURN SERIES 1200. SPECIFIC FRONT SEAT
WC-1A	WATER CLOSET (ADA)	тото	CT 708		SENSOR FLUSH VALVE	тото	ECOPOWER TET1GNC-32	INTEGRAL	1.6 GPF	PROVIDE TO SUIT	PROVIDE CARRIER SYSTEM EQUAL TO ZURN SERIES 1200. SPECIFIC FRONT SEAT. MOUNT AT ADA HEIGHT.
UR-1	URINAL	тото	UT370		SENSOR FLUSH VALVE	тото	ECOPOWER TEU1GNC-12	INTEGRAL	1.0 GPF	PROVIDE TO SUIT	
UR-1A	URINAL (ADA)	тото	UT370		SENSOR FLUSH VALVE	тото	ECOPOWER TEU1GNC-12	INTEGRAL	1.0 GPF	PROVIDE TO SUIT	
L-1	LAVATORY (COUNTER-MOUNT)	тото	LT 501	20" X 17"	SELF GENERATING SENSOR OPERATED FAUCET, WITH THERMAL MIXING, 4 INCH CENTERS, TRIM PLATE	тото	TEL5GSC-10	1 1/4" X 1 1/2" 17 GA CAST BRASS CHROME PLATED P TRAP W/CO PLUG EQUAL TO MCGUIRE MCT150090B		SELF RIMMING	FAUCET SHALL BE SET FOR 10 SECOND RUN TIME
L-1A	LAVATORY (COUNTER-MOUNT) (ADA)	тото	LT 501	20" X 17"	SELF GENERATING SENSOR OPERATED FAUCET, WITH THERMAL MIXING, 4 INCH CENTERS, TRIM PLATE	тото	TEL5GSC-10	1 1/4" X 1 1/2" 17 GA CAST BRASS CHROME PLATED P TRAP W/CO PLUG EQUAL TO MCGUIRE MCT150090B		SELF RIMMING	FAUCET SHALL BE SET FOR 10 SECOND RUN TIME
L-2	LAVATORY (WALL HUNG) (ADA)	ZURN	Z5341	20" X 18"	SELF GENERATING SENSOR OPERATED FAUCET, WITH THERMAL MIXING, 4 INCH CENTERS, TRIM PLATE	тото	TEL5GSC-10	1 1/4" X 1 1/2" 17 GA CAST BRASS CHROME PLATED P TRAP W/CO PLUG EQUAL TO MCGUIRE MCT150090B		PROVIDE TO SUIT	FAUCET SHALL BE SET FOR 10 SECOND RUN TIME
MSB-1	MOP BASIN (MOLDED STONE)	FIAT	MSB 2424	24" X 24" X 10"	1/2" H&CW	CHICAGO	445-897SRCXKCP	STAINLESS STEEL DRAIN BODY W/3" P-TRAP	-	FLOOR MOUNTED	PROVIDE HOSE & HOSE BRACKET FIAT MODEL 832-AA, AND MOP HANGER
MSB-2	UTILITY SINK/LAUNDRY TUB MOLDED STONE FLOOR MOUNTED	FIAT	FL-1	20 1/4" X 17 1/4" X 13"	1/2" H&CW	CHICAGO	526-CP	PROVIDE DRAIN AND STOPPER W/3" P-TRAP	-	FLOOR MOUNTED	
EW-1	EYE/FACE WASH RECESSED MOUNTED BARRIER FREE	GUARDIAN	GBF1735DP		½" TEPID WATER	-	-	-		WALL MOUNTED	
EW-2	EYE/FACE WASH WALL MOUNTED BARRIER FREE VANDAL RESISTANT	GUARDIAN	GBFVR1721-T		½" TEPID WATER	-	-	PROVIDE WITH OPTIONAL CHROME PLATED 1½" BRASS TAILPIECE AND TRAP		WALL MOUNTED	
KS-1	KITCHENETTE SINK w/ DISHWASHER CONNECTION (ADA)	JUST	SL-ADA-2225-A-GR	22"X25"X8"D	½" SWEAT X½" COMP. SIMILAR TO MCGUIRE H171	CHICAGO	201-AGN8AE3V- 317AB	1 1/2" X 1 1/2" 17 GA CAST BRASS CHROME PLATED P TRAP W/CO PLUG EQUAL TO MCGUIRE MCT150090B	2.2 GPM	SELF RIMMING	PROVIDE BASKET STRAINER AND 1/1/2" OD 17 GA BRASS TAILPIECE EQUA
KS-2	KITCHENETTE SINK (ADA)	JUST	SL-ADA-2225-A-GR	22"X25"X6"D	½" SWEAT X½" COMP. SIMILAR TO MCGUIRE H171	CHICAGO	201-AGN8AE3V- 317AB	1 1/2" X 1 1/2" 17 GA CAST BRASS CHROME PLATED P TRAP W/CO PLUG EQUAL TO MCGUIRE MCT150090B	2.2 GPM	SELF RIMMING	PROVIDE BASKET STRAINER AND 1/1/2" OD 17 GA CHROME PLATED BRAS
PF-1	LAV-W.C COMBINATION	BRADLEY	COMBI5500	-	-	-	-	INTEGRAL	1.6GPF	FLOOR MOUNTED	LAV-TOILET COMBY SHALL BE MANUFACTURED BY BRADLEY OR EQU OUTLET, PENAL BUBBLER, AIR CONTROL VALVE SINGLE TEMPERATU TEMPLATE. PROVIDE A THERMOSTATIC MIXING VALVE LEONARD MO AND TEMPLATE TO CELL MANUFACTURER FOR MOCK-UP PRIOR TO
PF-2	LAV-W.C COMBINATION (ADA)	ACORN	1432-AL (OR AR) -2-BP-03-M-UFL-1.6-PH-FTA-MT-GBC	-	-	-	-	INTEGRAL	1.6GPF	FLOOR MOUNTED	LAV-TOILET COMBY SHALL BE MANUFACTURED BY ACORN OR EQUA OUTLET, PENAL BUBBLER, AIR CONTROL VALVE SINGLE TEMPERATU TEMPLATE, GRAB BAR CLOSURE PLATE. PROVIDE A THERMOSTATIC TO FURNISH ONE FIXTURE AND TEMPLATE TO CELL MANUFACTURE ARCHITECT PRIOR TO ORDERING.
SH-1	SHOWER (STAFF)		PC TO PROVIDE TERRAZZO SHOWER PAN (COLOR TBD BY ARCHITECT) AND SHOWER VALVE/TRIM ONLY; SHOWER STALL BUILT BY G.C.	48" X 36"		SYMMONS	SAFETYMIX 1-100-X-2.0	2" P-TRAP			PROVIDE SHOWER MODULE DRAIN EQUAL TO SIOUX CHIEF NO. 827-28 P
SH-2	SHOWER (DETENTION)	BUILT BY G.C.	-			SYMMONS	TEMPTROL	-			PROVIDE w/ 3"FD-A
DF-1	DRINKING FOUNTAIN WALL MOUNTED HI-LO 18 GAUGE, TYPE 304 STAINLESS STEEL BOWL ASSEMBLY W/BACK PANEL AND ACCESS PANEL PUSH BUTTON CONTROL	HAWS	1011 MS		½" DWS						PROVIDE (1) UNIT PER FLOOR. FINAL LOCATIONS TBD BY ARCHITEC
НВ	HOSE BIBB	CHICAGO	952-CP	-	-	-	_	-	-	-	LOCATED IN TOILET ROOMS
HB-1	ENCLOSED HOSE BIBB	ZURN	Z1330	-	-	-	-	-	-	-	LOCATED IN CORRIDOR BETWEEN DETENTION CELLS
WH	WALL HYDRANT	JAY R SMITH	5509QT								

REMARKS	
MODEL AS REQUIRED FOR INSTALLATION ORIENTATION. PROVIDE TOTO MODEL SC534 OPEN	
MODEL AS REQUIRED FOR INSTALLATION ORIENTATION. PROVIDE TOTO MODEL SC534 OPEN	යි
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R FIAT MODEL 889-CC	
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	B
L TO WATTS BRASS NO.763 171 B	
S OFFSET TAILPIECE EQUAL TO ELKAY LK AD35	ය
JAL BY ACORN OR WILLOUGHBY . UNIT SHALL INCLUDE: ON FLOOR MOUTING WITH WALL JRE NON METERING, 1.6 GPF FLUSH VALVE, PAPER HOLDER, FLOOD-TROL AUTOMATIC, METAL IDEL # TA-SB OR EQUAL BY SYMMONS OR LAWLER. CONTRACTOR TO FURNISH ONE FIXTURE	
INSTALLATION. IMPORTANT: CONFIRM ALL OPTIONS WITH ARCHITECT PRIOR TO ORDERING. L BY BRADLEY OR WILLOUGHBY . UNIT SHALL INCLUDE: ON FLOOR MOUTING WITH WALL JRE METERING, 1.6 GPF FLUSH VALVE, PAPER HOLDER, FLOOD-TROL AUTOMATIC, METAL	
MIXING VALVE LEONARD MODEL # TA-SB OR EQUAL BY SYMMONS OR LAWLER. CONTRACTOR R FOR MOCK-UP PRIOR TO INSTALLATION. IMPORTANT: CONFIRM ALL OPTIONS WITH	Ł
ROVIDE 2.0 GPM FLOW RESTRICTOR FOR SHOWER HEAD	
г.	යි

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ENGINEERS Andover, MA - Boston, MA - Amherst, MA Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200
REVISIONS Number Description Date
ISSUED FOR BID
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WALTHAM .
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
PLUMBING SCHEDULES
PROJECT NUMBER: 20130535 DESIGNED BY: NEW
DRAWN BY:NEWCHECKED BY:RDBDATE:July-Aug.
SCALE: 2016 N.T.S. SHEET NUMBER:
P700
SHEET 111 OF 157

	WATER HAMMER ARRES	TER SCHEDULE
TYPE	FIXTURE UNIT RATING	MODEL
SA "A"	1-11	JAY R. SMITH 5005
SA "B"	12-32	JAY R. SMITH 5010
SA "C"	33-60	JAY R. SMITH 5020
SA "D"	61-113	JAY R. SMITH 5030
SA "E"	114-154	JAY R. SMITH 5040
SA "F"	155-330	JAY R. SMITH 5050

					GAS		WATER	HEATEF		ULE			
	STORAGE	INPUT	RECO	VERY	GAS	FLUE	TEMP.	ELEC	TRICAL D	ATA			
TAG NO.	CAPACITY (gal.)	(MBH)	RATE (GPH)	DEG. RISE (°F)	PRESSURE ("W.C.)	SIZE	SETTING (°F)	VOLTS	PHASE	HZ	MANUFACTURER	MODEL NO.	REMARKS
GWH-1	130	400	465	100	5.2-10"		140	120	1	60	STATE INDUSTRIES	SUF 130 400 NEA	

				DRINKING WATE	ER REMOTE CHILLI	ER/PURIFI	ER EQUIP	MENT SCHED	DULE	
TAG NO.	LOCATION	QTY	FIXTURES SERVED	DIMENSIONS	FILTER/PURIFIER	RECIRC. PUMP	COMP	POWER	MFG./MODEL #	REMARKS
DWCH-1	MECH RM 012	1		32"Wx30"Hx11.5"D	TMP2-07	1/25 HP	1/3 HP	115/60/1	FILTRINE ES-6-RFC-FS	SEE NOTES BELOW
NOTES:										

CHILLER/PURIFIER SYSTEM TO INCLUDE: 1. WALL INSERT ASSEMBLY WITH HINGED STAINLESS STEEL GRILLE. 2. FILTER/PURIFIER TO BE NSF CERTIFIED TO REMOVE DIRT, RUST, SEDIMENT, CHLORINE, BAD TASTE AND ODORS, CYSTS AND PARTICLES 0.5 MICRON AND LARGER. 3. DRINKING WATER FICTURES AS SHOWN ON DRAWINGS AND FIXTURE SCHEDULE. 4. ½" RECIRCULATION PIPING LOOP FROM REMOTE CHILLER/PURIFIER TO FIXTURE AS SHOWN ON PLUMBING DRAWINGS.

				DOME	ESTIC HO		R RECIR	CULATI	ON PUMP SCHE	DULE					EXPANSIO	N TANK SCH	EDULE		
TAG NO.	TYPE	CAPACITY (GPM)	HEAD (FT)		ELEC	TRICAL D	ATA		MANUFACTURER	MODEL NO.	REMARKS	TAG NO.	TANK VOL. (GAL.)		MANUFACTURER	MODEL NO.	HEIGHT (IN.)	DIAMETER (IN.)	CONNECTION SIZE
			(,	HP	VOLTS	HZ	PHASE	RPM						(GAL.)					(IN.)
RCP-1	IN-LINE	5	10	1⁄8	115	60	1	3250	TACO	0010-BF3		ET-1	9.2	2	AMTROL	ST-30-V-C	12"	16.25	3⁄4"
RCP-2	IN-LINE	5	10	⅓	115	60	1	3250	TACO	0010-BF3		[GAS FIRED EC				

						MIXII	NG VALVE SCHE	DULE	
TAG NO.	CW INLET	HW INLET	TEMPERED OUTLET	FLOW (GPM)	MIXED TEMP. (°F)	SYSTEM	MANUFACTURER	MODEL NO.	REMARKS
TMV-1	1	1	11⁄4	23	120	HW	LAWLER	802	
TMV-2	1⁄2	1/2	1⁄2"	3	80	тw	LAWLER	911E/F	PROVIDE WITHIN 18 GA SURFACE MOUNTED CABINET LOCATED ABOVE FIXTURE SERVED

				NATURA	L GAS	S BOOST	FER S	CHEDUI	LE		
TAG NO.	INLET PRESSURE	OUTLET PRESSURE	INPUT	ARRANGEMENT		ELECTRIC		ТА	MANUFACTURER	MODEL NO.	REMARKS
	("W.C.)	("W.C.)	(CFH)	(SIMPLEX/DUPLEX)	ΗP	VOLTS	ΗZ	PHASE		MODEL NO.	REMARKS
GB-1	4	7	2,130	SIMPLEX	1/2	208	60	3	ETTER	GASPOD-130-S- PCFM-REG-BP	LOCATED IN MECH RM 012

				GAS FIRED	EQUIPMENT	SCHEDULE	
	TAG NO. / EQUIPMENT	QTY.	INPUT (EA.) CFH	TOTAL INPUT CFH	REQ'D PRESS. "W.C. (MIN-MAX)	LOCATION	REMARKS
	GWH-1	1	400	400	5.2-10	MECH ROOM 012	
	RTU-2	1	80	80	4.5-14	LOWER ROOF	RTU BY HVAC
FACE MOUNTED	ERU-1	1	200	200	7-14	LOWER ROOF	ERU BY HVAC
IXTURE SERVED	GUH-1	1	85	85	6-7	VEHICLE BAYS 101	GUH BY HVAC
	GUH-2	1	55	55	6-7	SALLY PORT 149	GUH BY HVAC
	GUH-3	1	55	55	6-7	SALLY PORT 149	GUH BY HVAC
REMARKS	GUH-4	1	55	55	6-7	MOTORCYCLE/BIKE STORAGE 150	GUH BY HVAC
ATED IN MECH 12	B-1	1	600	600	4-14	MECH ROOM 012	BOILER BY HVAC
	B-2	1	600	600	4-14	MECH ROOM 012	BOILER BY HVAC
			TOTAL LOAD	2,130			

	r		IBING F	IXTURE		TION SCHEDU	LE
TAG NO.	FIXTURE	WASTE	VENT	HOT WATER	COLD WATER	TEMPERED WATER	REMARKS
WC-1	WATER CLOSET	4"	2"	-	1"	-	
WC-1A	WATER CLOSET (ADA)	4"	2"	-	1"	-	
UR-1	URINAL	2"	2"	-	3⁄4"	-	
UR-1A	URINAL (ADA)	2"	2"	-	3⁄4"	-	
L-1	LAVATORY	1½"	1½"	1⁄2"	1⁄2"	-	
L-1A	LAVATORY (ADA)	1½"	1½"	1⁄2"	1⁄2"	-	
L-2	LAVATORY (ADA)	1½"	1½"	1⁄2"	1⁄2"	-	
MSB-1	MOP SINK	3"	2"	3⁄4"	3⁄4"	-	
MSB-2	MOP SINK	3"	2"	3⁄4"	3⁄4"	-	
EW-1	EMERGENCY EYEWASH	2"	2"	-	-	1⁄2"	
EW-2	EMERGENCY EYEWASH	2"	2"	-	-	1⁄2"	
KS-1	KITCHENETTE SINK (ADA)	2"	2"	1⁄2"	1⁄2"	-	
KS-2	KITCHENETTE SINK (ADA)	2"	2"	1⁄2"	1⁄2"	-	
PF-1	LAV-W.C COMBINATION	4"	2"	1⁄2"	(1) 1" (1) ½"	-	
PF-2	LAV-W.C COMBINATION (ADA)	4"	2"	1⁄2"	(1) 1" (1) ½"	-	
SH-1	SHOWER (STAFF)	2"	2"	1⁄2"	1⁄2"	-	
SH-1A	SHOWER (STAFF) (ADA)	2"	2"	1⁄2"	1⁄2"	-	
SH-2	SHOWER (DETENTION)	-	-	1⁄2"	1⁄2"	-	PROVIDE w/ 3"FD-A
DF-1	DRINKING FOUNTAIN	1½"	1½"	-	1⁄2"	-	
HB	HOSE BIBB	-	-	-	1⁄2"	-	
HB-1	ENCLOSED HOSE BIBB	-	-	-	1⁄2"	-	
WH	WALL HYDRANT	-	-	-	3⁄4"	-	

	DRAIN SCHEDULE					
TAG NO.	TYPE	MANUFACTURER	MODEL NO.	STRAINER	REMARKS	
FD-A	FLOOR DRAIN	JAY R. SMITH	2005-Y-B-P050-B-U	6"	LOCATED IN TOILET ROOMS & HOLDING CELL VESTIBULES. PROVIDE W/ VANDAL PROOF HARDWARE, SQUARE STRAINER AND TRAP PRIMER CONNECTION. DRAINS TO BE PROVIDED WITH "PRECISION PLUMBING PRODUCTS" TRAP PRIMER TO SUIT.	
FD-B	FLOOR DRAIN	JAY R. SMITH	2230-C	12"	LOCATED IN MECHANICAL AREAS - DRAINS TO BE PROVIDED WITH "PRECISION PLUMBING PRODUCTS" TRAP PRIMER TO SUIT.	
FD-C	FLOOR DRAIN	JAY R. SMITH	2230-C-F37	12"	LOCATED IN FLEET GARAGE - SERVES INDIRECT WASTE FROM EQUIPMENT. PROVIDE WITH ANTI-FLOOD RIM.	
FD-D	FLOOR DRAIN	JAY R. SMITH	2253-C-M	14"	GARAGE DRAIN - INSTALLED IN CIP SLAB ON GRADE. DRAINS TO BE PROVIDED WITH "PRECISION PLUMBING PRODUCTS" TRAP PRIMER TO SUIT.	
TD-A	TRENCH DRAIN	ABT, INC	TRENCHFORMER TFX 6"-24"	12" WIDE	LOCATED IN SALLYPORT & MOTORCYCLE STORAGE GARAGE. PROVIDE TRAP PRIMER CONNECTION. PROVIDE HEELPROOF ADA- COMPLAINT GRATE w/ VANDAL- RESISTANT HARDWARE. PROVIDE LENGTHS TO SUIT; APPROXIMATELY 8'L EACH.	

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Rickstone Squa Andover, MA - Bostor Durham, NC - RDK Engineers 200 Brickstone Squa Andover, MA 01810- T. 978-296-6200	Charlotte, NC		
Number	REVISIONS Description		
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	WALTHAM POLICE STATION RENOVATION		
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	PLUMBING SCHEDULES		
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	Р701 2 ог 157		

	SPRINKLER SCHEDULE						
SYMBOL	CONDITION	RESPONSE	ORIENTATION	COVERAGE	K-FACTOR	FINISH	TEMP RATING
	NEW	QUICK	CONCEALED PENDENT/ PENDENT	STANDARD	5.6	WHITE/CHROME	ORDINARY
0	NEW	QUICK	CONCEALED PENDENT/PENDENT (OPTION 1)	STANDARD	5.6	WHITE/CHROME	ORDINARY
0	NEW	QUICK	CONCEALED PENDENT/PENDENT (OPTION 2)	STANDARD	5.6	WHITE/CHROME	ORDINARY
0	NEW	QUICK	UPRIGHT (OPTION 1)	STANDARD	5.6	BRASS	ORDINARY
0	NEW	QUICK	UPRIGHT (OPTION 2)	STANDARD	5.6	BRASS	ORDINARY
Ø	NEW	QUICK	DRY PENDENT/UPRIGHT	STANDARD	5.6	BRASS	ORDINARY
▼	NEW	QUICK	HORIZONTAL WET SIDEWALL	STANDARD	5.6	WHITE/CHROME/BRASS	ORDINARY
	NEW	QUICK	HORIZONTAL DRY SIDEWALL	STANDARD	5.6	WHITE/CHROME/BRASS	ORDINARY
V	NEW	QUICK	HORIZONTAL SIDEWALL (OPTION 1)	STANDARD	5.6	WHITE/CHROME/BRASS	ORDINARY
V	NEW	QUICK	HORIZONTAL SIDEWALL (OPTION 2)	STANDARD	5.6	WHITE/CHROME/BRASS	ORDINARY

1. FIRE		ГЕСТІ
AME	NDME	NTS A
2. ALL	FIRE	PRO

OTECTION SYSTEMS, EQUIPMENT, PIPING AND VALVES SHALL BE INSTALLED AND TESTED BY A SPRINKLER CONTRACTOR LICENSED BY THE STATE AND EXPERIENCED IN THE INSTALLATION OF SPRINKLER SYSTEMS. 3. OBTAIN ALL PERMITS AND PAY ALL FEES ASSOCIATED WITH THIS WORK PRIOR TO COMMENCEMENT.

FOR APPROVAL.

6.IN ADDITION TO REVIEWING AND COORDINATING WITH THE OTHER TRADES (CIVIL, STRUCTURAL, ARCHITECTURAL, HVAC AND ELECTRICAL) THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE DETAILS OF CONSTRUCTION.

RECOMMENDATIONS.

GENERAL NOTES

TION WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE BUILDING CODE, LOCAL AND THE REFERENCED NATIONAL FIRE PROTECTION ASSOCIATION CODES INCLUDING 13, 14, 20, AND 24.

4. PIPING AND EQUIPMENT IS SHOWN DIAGRAMMATICALLY THE ACTUAL ROUTING OF PIPING AND EXACT LOCATION OF EQUIPMENT SHALL BE DETERMINED IN THE FIELD.

5. THE DRAWINGS SUGGEST ROUTING OF PIPING, PIPE SIZES AND APPROXIMATE LOCATION OF HEADS. THE CONTRACTOR SHALL PRODUCE A COMPLETE SET OF WORKING PLANS IN ACCORDANCE WITH NFPA 13. THE SYSTEM SHALL BE HYDRAULICALLY CALCULATED PER THE DESIGN CRITERIA SPECIFIED. ALL PLANS AND CALCULATIONS SHALL BE STAMPED BY THE CONTRACTOR'S REGISTERED FIRE PROTECTION ENGINEER AND SHALL BE SUBMITTED TO THE LOCAL AUTHORITY AND OWNER'S UNDERWRITER

7. FURNISH AND INSTALL ALL NECESSARY PIPING EQUIPMENT SUPPORTS AND ANY EQUIPMENT NOT SHOWN ON DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS BUT NECESSARY TO PROVIDE A COMPLETE AND WORKABLE SYSTEM. 8. PROVIDE ACCESS TO ALL EQUIPMENT REQUIRING PERIODIC SERVICE AND MAINTENANCE.

9. FURNISH ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION UNDER THE RELATED TRADES.

10. PITCH ALL PIPING TO DRAIN, PROVIDE AN AUXILIARY DRAIN AT ALL LOW POINTS.

11. PROVIDE WATER TIGHT SLEEVES ON ALL PIPES PASSING THROUGH EXTERIOR WALLS AND BASEMENT FLOORS.

12. ALL VALVES CONTROLLING FIRE PROTECTION MAINS SHALL BE PROVIDED WITH TAMPER/SUPERVISORY SWITCHES WIRED TO THE FIRE ALARM CONTROL PANEL.

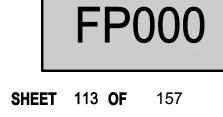
13. CONTRACTOR SHALL PROVIDE FIRE STOPPING FOR ALL PENETRATIONS THRU FIRE WALLS AND FIRE RATED SEPERATIONS, CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND RATINGS OF ALL FIRE RATED SEPARATIONS AND BARRIERS, INSTALLATION OF FIRE STOPPING SHALL BE IN ACCORDANCE WITH MANUFACTURERS

14. ALL FIRE PROTECTION SYSTEMS SHALL BE SEISMICALLY BRACED ACCORDING TO THE APPLICABLE SECTIONS OF THE STATE BUILDING CODE AND THE REFERENCED EDITION OF NFPA-13.

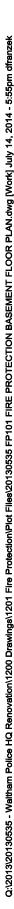
	ABBREVIATIONS
АСТ	ACOUSTICAL TILE
AFF	ABOVE FINISH FLOOR
AP	ACCESS PANEL
BLDG	BUILDING
BFP	BACKFLOW PREVENTER
CLG	CEILING
CLDI	CEMENT LINED DUCTILE IRON
CONT	CONTINUATION
D	DRY SPRINKLER SYSTEM
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DIA	DIAMETER
DN	DOWN
DSR	DRY SYSTEM MAIN RISER
DWG	DRAWING
EAB	ELECTRIC ALARM BELL
EL/ELEV	ELEVATION
F	FIRE SERVICE MAIN/BUILDING WET SUPPLY PIPING
FDC	FIRE DEPARTMENT CONNECTION
FFE	FINISH FLOOR ELEVATION
FLR	FLOOR
FP	FIRE PROTECTION
FS	FLOW SWITCH
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
LPS	LOW PRESSURE SWITCH
MECH	MECHANICAL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
NIC	
OED	OPEN END DRAIN
OS&Y	
PG	PRESSURE GAUGE
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING/REGULATING VALVE
PS	PRESSURE SWITCH
PSI	POUNDS PER SQUARE INCH
	SPECIFICATION
SPD	SPRINKLER DRAIN
SPR	WET PIPE SPRINKLER SYSTEM
тѕ	TAMPER SWITCH
ТҮР	TYPICAL
WSR	WET SYSTEM MAIN RISER
ZCA	SPRINKLER ZONE CONTROL ASSEMBLY

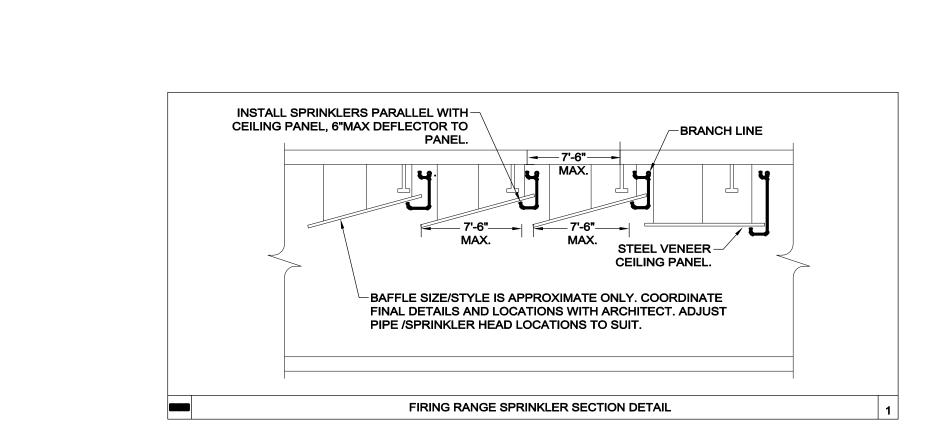
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	PIPING LINETYPES		- Britania and a state	7
———— F-——	FIRE SERVICE/MAIN/BUIDING WET PIPING			ects / Engineers / Planners gress Street, 11th Floor
SPR	WET PIPE SPRINKLER SYSTEM			Massachusetts 02110 7) 778-1440
——— FDC —	FIRE DEPARTMENT CONNECTION PIPING			maguire.com
SPD	SPRINKLER DRAIN			
D	DRY PIPE SPRINKLER SYSTEM			
				INEERS Boston, MA - Amherst, MA , NC - Charlotte, NC
	PIPING SYMBOLS		RDK Engineers 200 Brickstone Andover, MA 0 ⁻ T. 978-296-6200	Square 1810-1488
0	OED OPEN END DRAIN			
	DIRECTION OF SLOPE			
-0	ELBOW UP OR RISE			
— >	ELBOW DOWN OR DROP			
	TEE LOOKING DOWN			REVISIONS
o	TEE LOOKING UP		Number	Description Date
	->>			
	FLOW IN DIRECTION OF ARROW			
	→ CAP OR END OF PIPE			
7	REDUCER/INCREASER			
	PIPE SLEEVE			
— —	UNION			
	CNICH			
EC	QUIPMENT & VALVES			
\bigcirc	WET SYSTEM MAIN RISER			
\bigcirc	DRY SYSTEM MAIN RISER			
₹ ₹	ANGLE VALVE			
	BALL VALVE			
b D				
	SUPERVISED BUTTERFLY VALVE			
\mathbb{N}	CHECK VALVE			
A	BACKFLOW PREVENTER			
ZCA	SPRINKLER ZONE CONTROL ASSEMBLY			ISSUED FOR
	FLOW SWITCH			BID
	GLOBE VALVE			
<u>т</u>	SUPERVISED OS&Y VALVE			
Ø ₽				
	PRESSURE REDUCING/REGULATING VALVE			ORATED A TOWA
PS T	PRESSURE SWITCH		1	S S
ዋ ፍ			1	
名。	ELECTRIC ALARM BELL WALL MOUNTED FIRE DEPARTMENT INLET		14	z A Z
<u> </u>	CONNECTION		1	
				PATED A CIT
	ANNOTATIONS			
	DETAIL DESIGNATION NUMBER		۱۸/۸	
FP-1	DETAIL DESIGNATION DRAWING		v v /~	STATION
— /			F	RENOVATION
#/{#>-	HYDRAULIC CALCULATION NODE POINT		•	LINGVATION
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				ELEXINGTON STREET
			FIDE	PROTECTION
			LEG	END, NOTES &

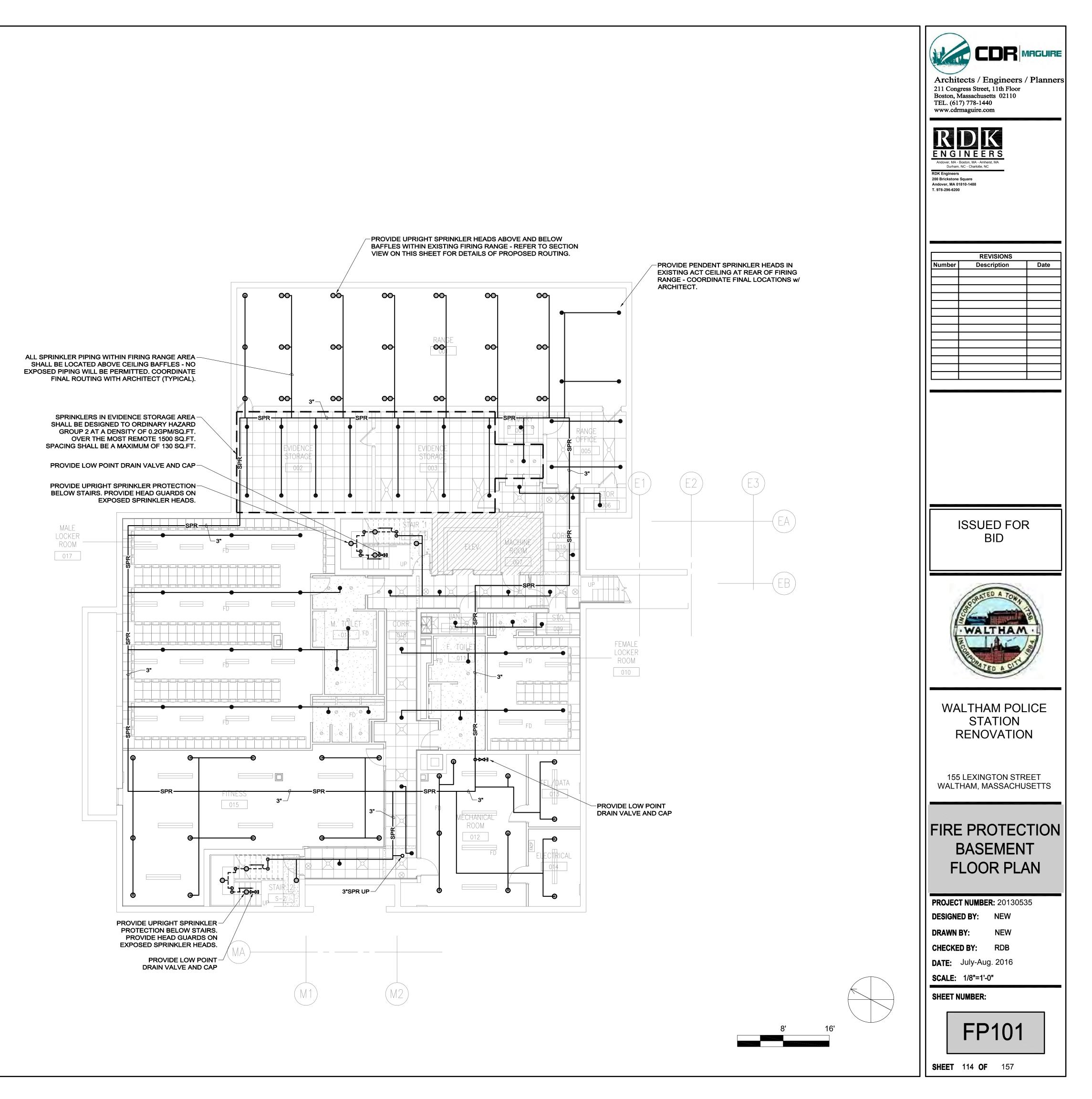
ABBRE\	/IATIONS
PROJECT NUMBER	: 20130535
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SCALE: N.T.S.	
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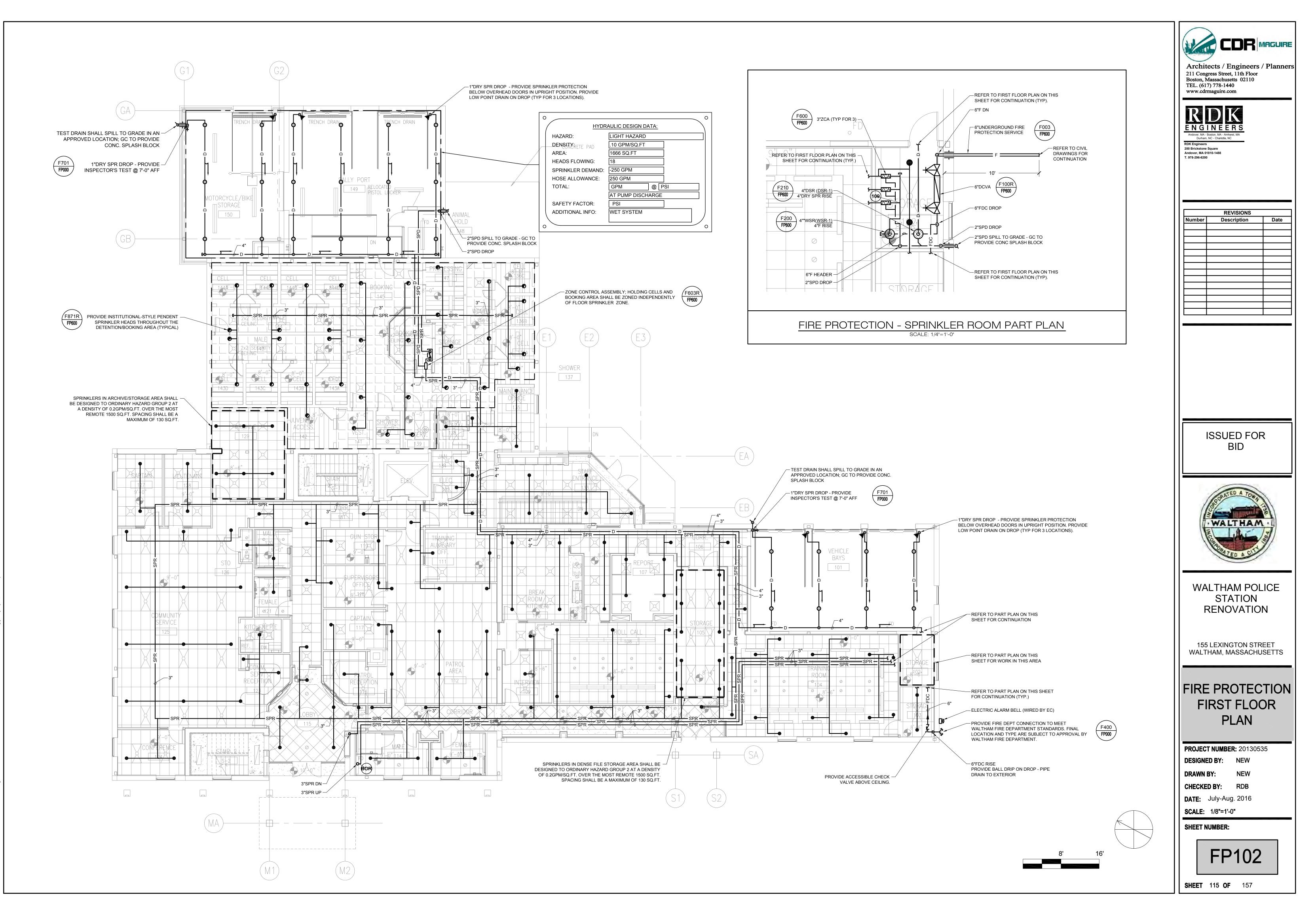






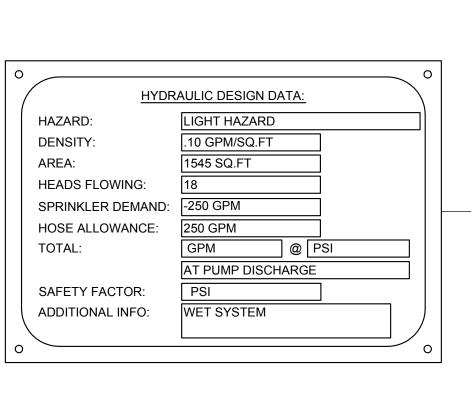
EWD BY: CIVIL: _____ ARCH: _____ STRU: _____ PLUM: _____ FIRE: _____ MECH: _____ ELE

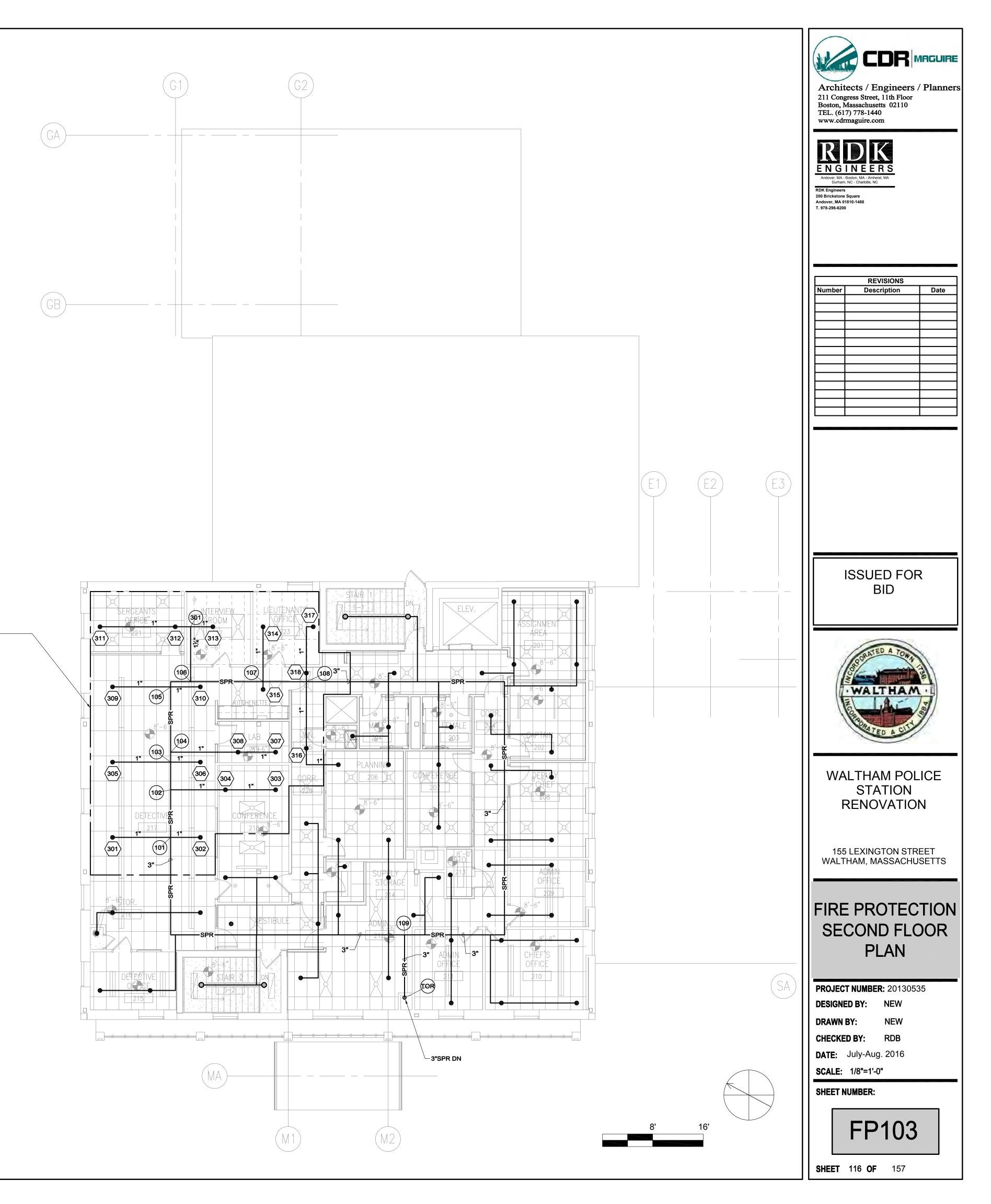
013/20130535 - Waitham Police HQ Renovation/1200 Drawings/1201 Fire Protection/Plot Files/20130535 FP102 FIRE PROTECTION FIRST FLOOR PLAN.dwg [Work] July 14, 2014 - 5:55pm dfranzek

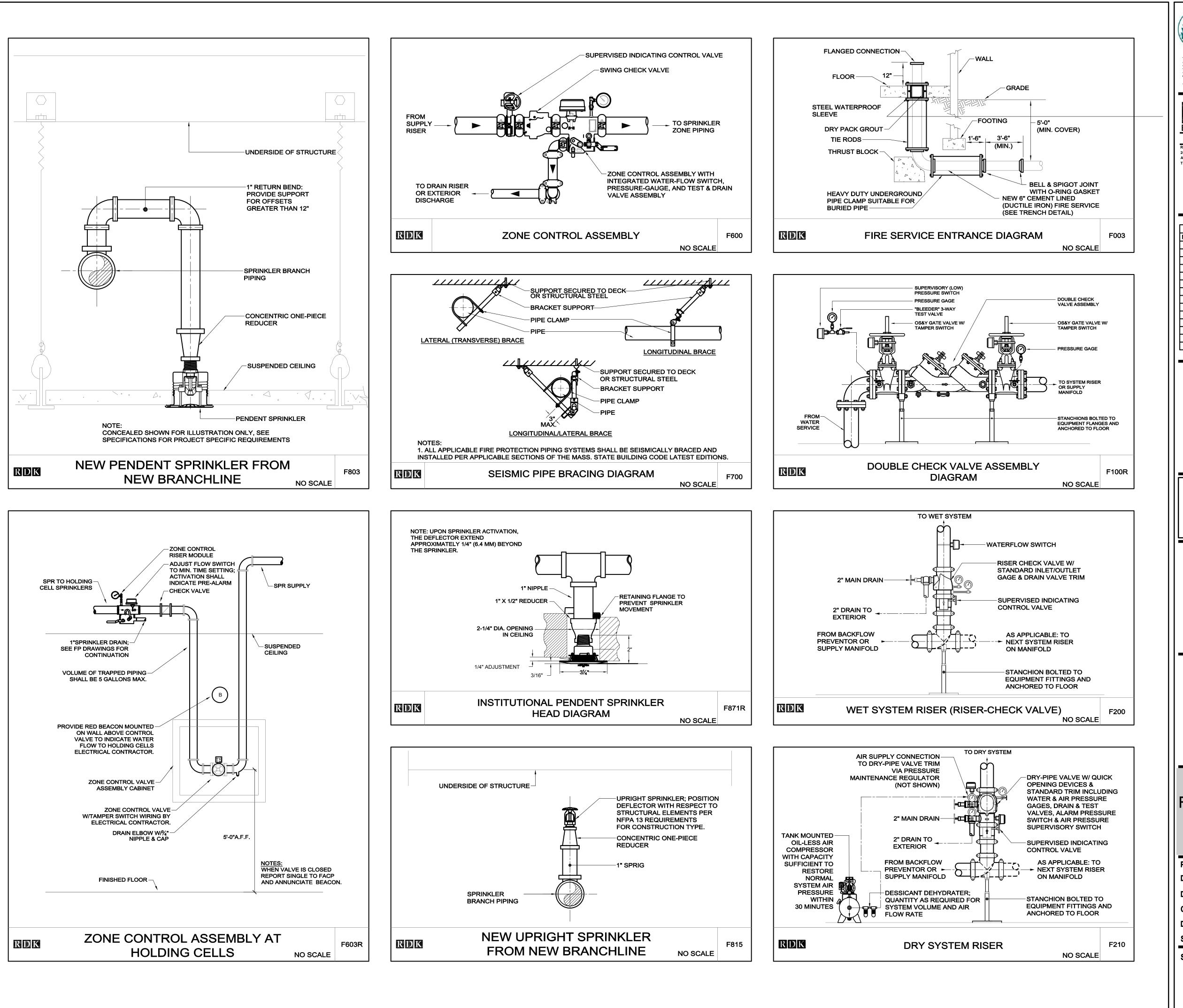


3/20130535 - Waltham Police HQ Renovation/1200 Drawings/1201 Fire Protection/Plot Files/20130535 FP103 FIRE PROTECTION SECOND FLOOR PLAN.dwg [Work] July 14, 2014 - 5:56pm dfranzek

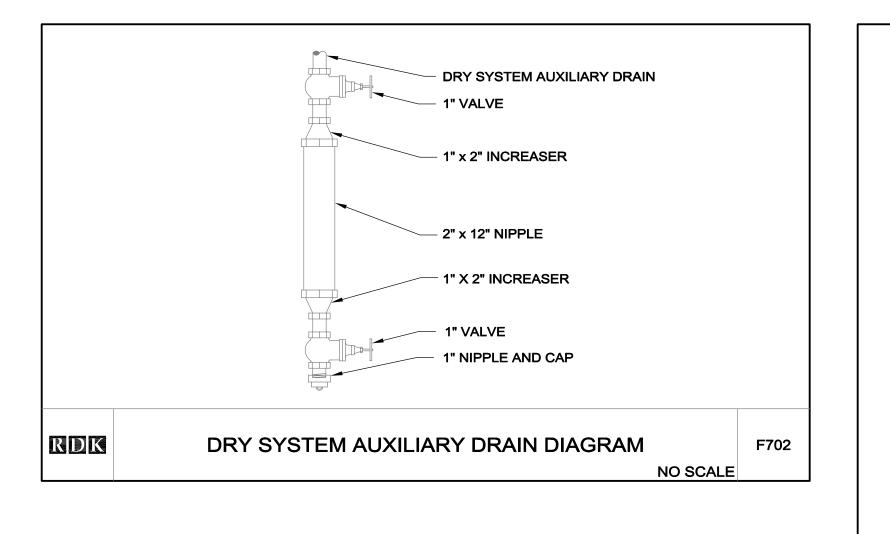
VIEWD BY: CIVIL: _____ ARCH: _____ STRU: _____ PLUM: _____ FIRE: _____ MECH: _____ ELEC: _____

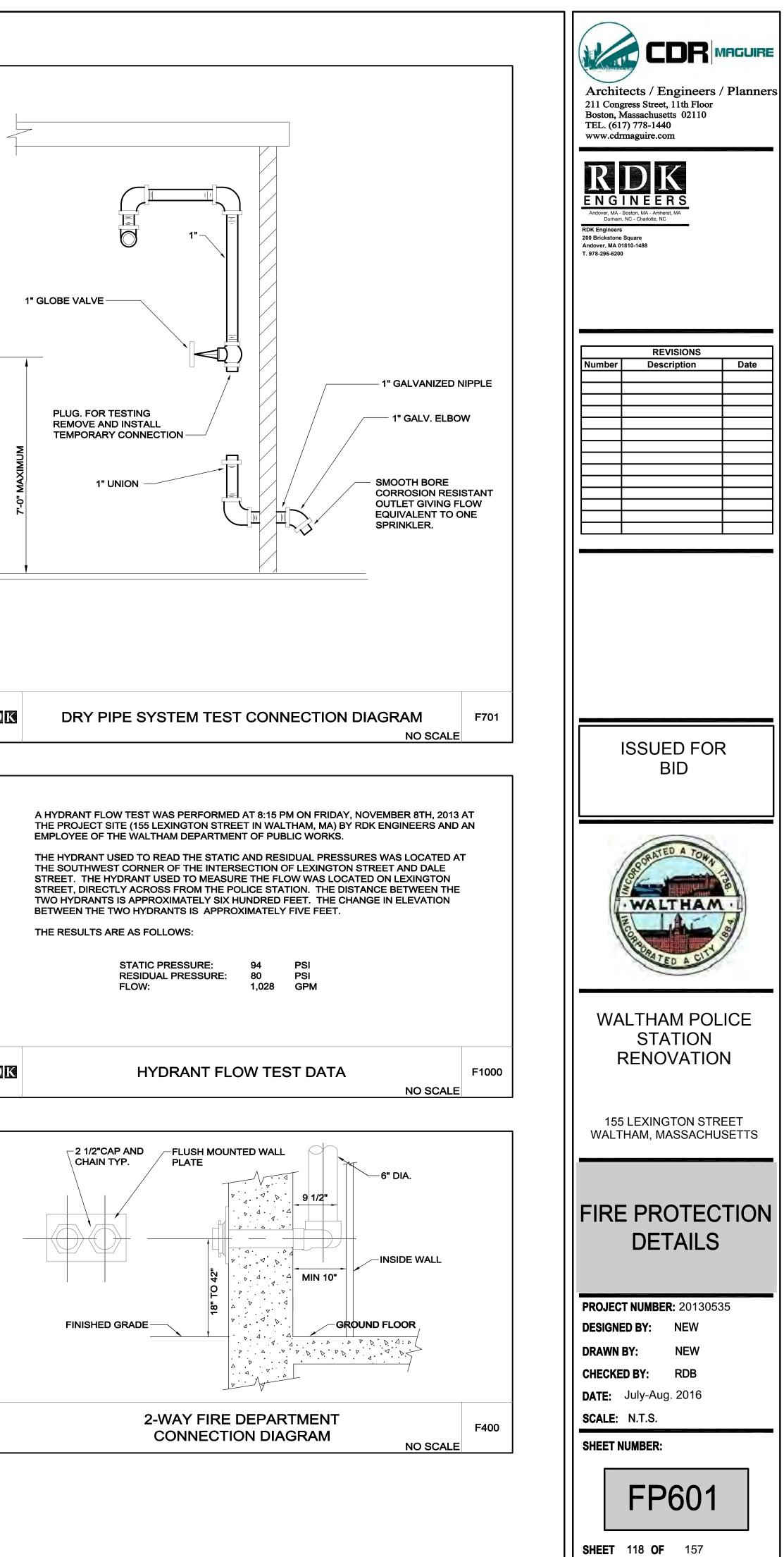




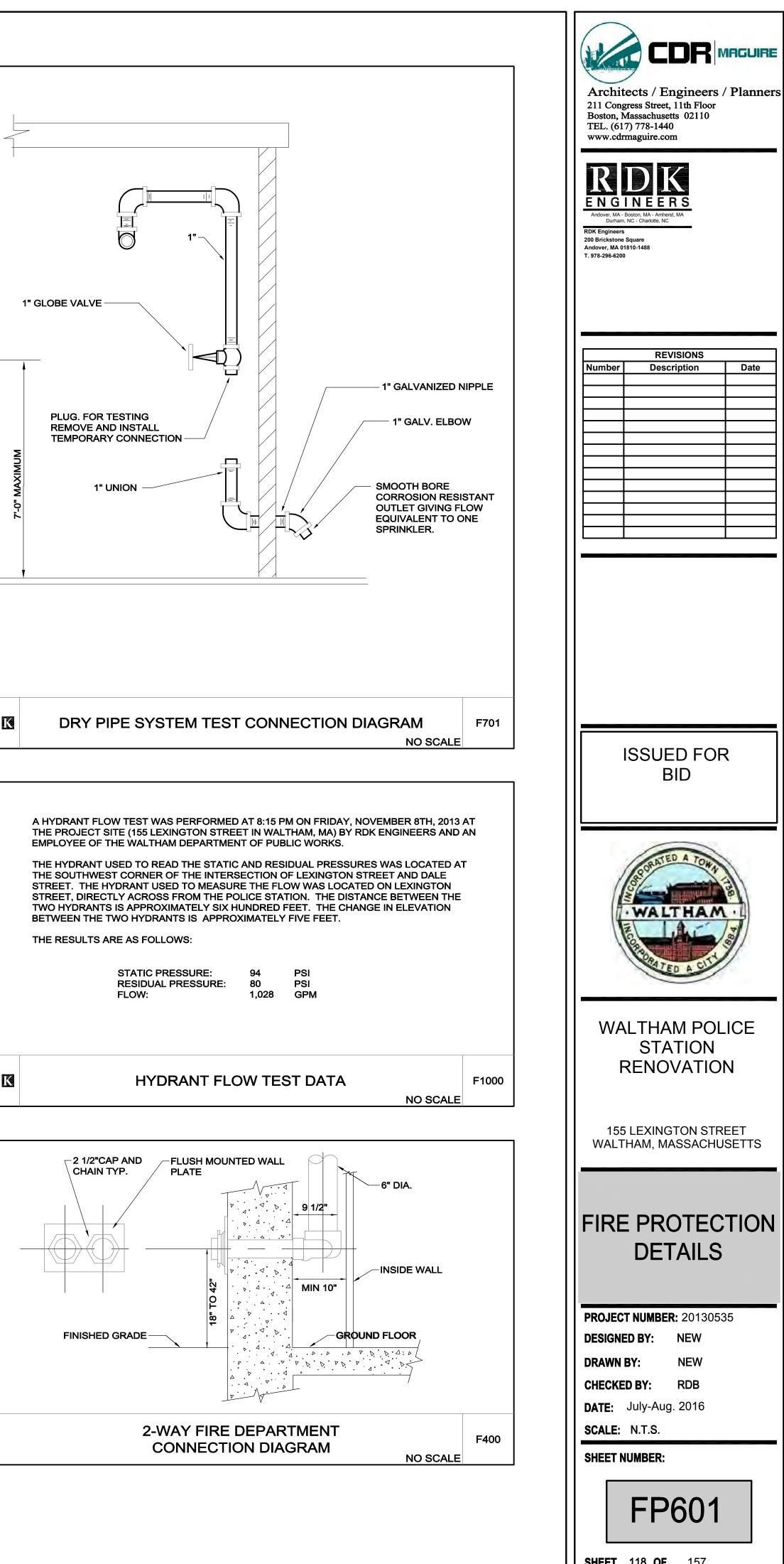


Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com ENGINEERS Andover, MA - Boston, MA - Amhers Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200 REVISIONS Number Description Date **ISSUED FOR** BID WALTHAM WALTHAM POLICE STATION RENOVATION **155 LEXINGTON STREET** WALTHAM, MASSACHUSETTS **FIRE PROTECTION** DETAILS PROJECT NUMBER: 20130535 **DESIGNED BY:** NEW NEW DRAWN BY: CHECKED BY: RDB DATE: July-Aug. 2016 SCALE: N.T.S. SHEET NUMBER: FP600 **SHEET 117 OF** 157

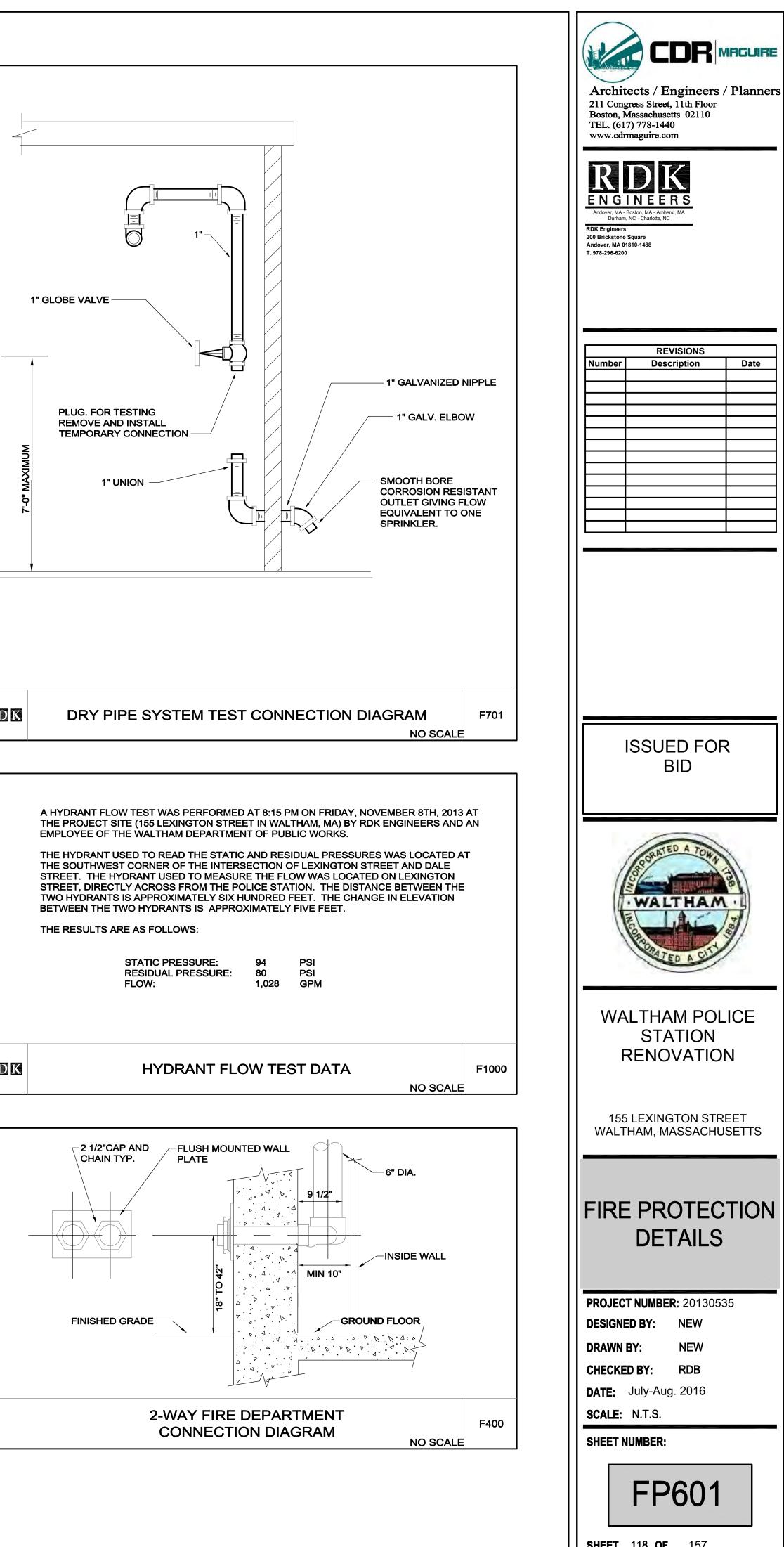




RDK



RDK



		ONE LINE SYMBOLS LE
•	<u> </u>	DISCONNECT SWITCH, UNFUSED
		DISCONNECT SWITCH, FUSED
	$\widehat{}^{\times}$	AF CIRCUIT BREAKER, FIXED "XXAF" INDICATES FRAME SIZE "XXAT" IN
	HOA	HAND/OFF/AUTO SELECTOR SWITCH
	SS	SELECTOR SWITCH
		FUSE
	┝╼╍	
	°€—	CURRENT TRANSFORMER — "3" - INDICATES QUANTITY "500:5A" - INDICATES PRIMARY TO SECO
Ţ	ĘŶ	
-	Δ	3 PHASE, 3 WIRE DELTA CONNECTION
	ĘY	3 PHASE, 4 WIRE WYE SOLIDLY GROUND
		AUTOMATIC TRANSFER SWITCH
	R21A	PANELBOARD
	-	TELECOMMUNICATIONS
,	10/	TELEPHONE OUTLET
	♥"	"W" INDICATES WALL PHONE "P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT "FAX" INDICATES FAX MACHINE
	▼ "	"P" INDICATES PAY PHONE
	—	"P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT "FAX" INDICATES FAX MACHINE
	▼" □ 1 ▽	"P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT "FAX" INDICATES FAX MACHINE FLOOR MOUNTED BOX WITH TELEPHONE OUTLI
٦		"P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT "FAX" INDICATES FAX MACHINE FLOOR MOUNTED BOX WITH TELEPHONE OUTLI CEILING MOUNTED BOX WITH TELEPHONE OUTI
I		"P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT "FAX" INDICATES FAX MACHINE FLOOR MOUNTED BOX WITH TELEPHONE OUTLI CEILING MOUNTED BOX WITH TELEPHONE OUTI DATA OUTLET
I		"P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT "FAX" INDICATES FAX MACHINE FLOOR MOUNTED BOX WITH TELEPHONE OUTLI CEILING MOUNTED BOX WITH TELEPHONE OUTI DATA OUTLET FLOOR MOUNTED BOX WITH DATA OUTLET
ר	\sim	"P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT "FAX" INDICATES FAX MACHINE FLOOR MOUNTED BOX WITH TELEPHONE OUTLING CEILING MOUNTED BOX WITH TELEPHONE OUT DATA OUTLET FLOOR MOUNTED BOX WITH DATA OUTLET CEILING MOUNTED BOX WITH DATA OUTLET
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י י ו י י י י י י י י י י י י י י י		"P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT "FAX" INDICATES FAX MACHINE FLOOR MOUNTED BOX WITH TELEPHONE OUTLING CEILING MOUNTED BOX WITH TELEPHONE OUTLING DATA OUTLET FLOOR MOUNTED BOX WITH DATA OUTLET CEILING MOUNTED BOX WITH DATA OUTLET COMBINATION TELEPHONE/DATA OUTLET FLOOR MOUNTED BOX WITH COMBINATION TELE CEILING MOUNTED BOX WITH COMBINATION TELE CEILING MOUNTED COMBINATION TELEHONE/DATA CABLE TRAY, CONCEALED CABLE TRAY EXPOSED EQUIPMENT RACK WALL MOUNTED BOX FOR TELEPHONE/DATA CO FURNITURE PARTITIONS FLOOR MOUNTED BOX FOR TELEPHONE/DATA CO FURNITURE PARTITIONS

ONE LINE SYMBOLS LEGEND	FIRE ALARM LEGEND	WIRING DEVICE LEGEND
DISCONNECT SWITCH, UNFUSED	FCP FAN CONTROL PANEL	DUPLEX RECEPTACLE, GROUNDING TYPE, RATED 20A, 125V "5"- INDICATES CIRCUIT NUMBER
XXAS XXAF "XXAF" INDICATES FUSE RATING "XXAS" INDICATES SWITCH SIZE	FACP FIRE ALARM CONTROL PANEL	⁵ GFI - INDICATES INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER "IG"- INDICATES ISOLATED GROUND TYPE "WP" - INDICATES WEATHERPROOF
	FAA FIRE ALARM ANNUNCIATOR PANEL	"SP" - INDICATES SURGE PROTECTION "T" - INDICATES TAMPER RESISTANT SAFETY
-6 6- "XXAF" INDICATES FRAME SIZE "XXAT" INDICATES TRIP	FATC FIRE ALARM TERMINAL CABINET	"C" - INDICATES COUNTER HEIGHT DUPLEX RECEPTACLE, SHADING INDICATES EACH RECEPTACLE WIRED
HOA HAND/OFF/AUTO SELECTOR SWITCH	ESR ELEVATOR STATUS/RECALL CABINET	a SEPARATELY, ONE ON CONSTANT SOURCE & ONE ON SWITCHED SOURCE FROM SWITCH "a"
SS SELECTOR SWITCH	BATT FIRE ALARM SYSTEM BATTERY PACK & BATTERY CHARGER	G- SINGLE RECEPTACLE, GROUNDING TYPE, RATED 20A, 125V
	FIRE ALARM MASTER BOX	DOUBLE DUPLEX RECEPTACLE, GROUNDING TYPE, RATED 20A, 125V
POTENTIAL TRANSFORMER "2" INDICATES QUANTITY	FIRE ALARM COMMUNICATIONS ANTENNA/TRANSMITTER	OCE DUPLEX RECEPTACLE MOUNTED FLUSH TO FINISHED CEILING
3 CURRENT TRANSFORMER "3" - INDICATES QUANTITY	FIRE ALARM RED ROTATING BEACON, EXTERIOR MOUNTED, WEATHERPROOF	SPECIAL PURPOSE RECEPTACLE, 15 H "15" - INDICATES TAG NUMBER
 "500:5A" - INDICATES PRIMARY TO SECONDARY TURNS RATIO <u> <u> </u> <u> </u></u>		REFER TO SPECIAL PURPOSE RECEPTACLE SCHEDULE FLOOR MOUNTED BOX WITH SPECIAL PURPOSE RECEPTACLE.
		15 "15" - INDICATES TAG NUMBER REFER TO SPECIAL PURPOSE RECEPTACLE SCHEDULE
	CEILING MOUNTED FIRE ALARM VISUAL DEVICE	FLOOR MOUNTED BOX WITH DUPLEX RECEPTACLE
△ 3 PHASE, 3 WIRE DELTA CONNECTION	BO FIRE ALARM BELL	FLOOR MOUNTED BOX WITH DOUBLE DUPLEX RECEPTACLE
3 PHASE, 4 WIRE WYE SOLIDLY GROUNDED		FLOOR MOUNTED BOX WITH DOUBLE DUPLEX RECEPTACLE AND TEL/DATA
	FIRE ALARM HORN	FB1 FLOOR MOUNTED BOX WITH MULTIPLE DEVICES. "FB1"-INDICATES TYPE AS DEFINED IN NOTES/SCHEDULES.
	S DUCT MOUNTED SMOKE DETECTOR	Ere FLOOR MOUNTED BOX FOR POWER CONNECTION TO PRE-WIRED
R21A	" DH MAGNETIC DOOR HOLDER	Here Wall MOUNTED BOX FOR POWER CONNECTION TO PRE-WIRED FURNITURE PARTITIONS
PANELBOARD		
		PP POWER POLE
	ESC INDICATES STOPPER COVER	SURFACE, HORIZONTALLY MOUNTED MULTI-OUTLET RACEWAY SYSTEM.
TELECOMMUNICATIONS LEGEND	TS SPRINKLER TAMPER FLOW SWITCH	ASSOCIATED NOTES, AND/OR SCHEDULES
TELEPHONE OUTLET W" INDICATES WALL PHONE	FS SPRINKLER WATER FLOW SWITCH	P1 SURFACE MULTI-OUTLET RACEWAY SYSTEM VERTICALLY MOUNTED. "P1" - INDICATES TYPE, SIZE AND QUANTITY OF DEVICES AS PER
▼ "P" INDICATES PAY PHONE "C" INDICATES COUNTER HEIGHT	PS SPRINKLER LOW PRESSURE SWITCH	ASSOCIATED NOTES, AND/OR SCHEDULES
	RAI REMOTE ALARM INDICATOR	P1 15 SHOWN ON FLOOR PLANS. "P1" - INDICATES TYPE
T1	RTS REMOTE TEST STATION	
CEILING MOUNTED BOX WITH TELEPHONE OUTLET	ACM INDIVIDUAL ADDRESSABLE CONTROL MODULE	BRANCH CIRCUIT & FEEDER LEGEND
✓ DATA OUTLET	ZMM ZONE MONITORING MODULE	BRANCH CIRCUIT & FEEDER LEGEND
FLOOR MOUNTED BOX WITH DATA OUTLET	FIRE ALARM AUDIBLE AND VISUAL DEVICE, NUMERAL INDICATES CANDELA	BRANCH CIRCUIT OR FEEDER CONCEALED IN FINISHED AREAS
CEILING MOUNTED BOX WITH DATA OUTLET	EWG VALUE "WG" INDICATES WIRE GUARD "WP" INDICATES WEATHERPROOF	BRANCH CIRCUIT OR FEEDER, CONCEALED IN OR UNDER FLOOR SLAB
COMBINATION TELEPHONE/DATA OUTLET	CEILING MOUNTED FIRE ALARM AUDIBLE AND VISUAL DEVICE, NUMERAL INDICATES CANDELA VALUE	BRANCH CIRCUIT OR FEEDER TURNING UP TOWARDS OBSERVER
FLOOR MOUNTED BOX WITH COMBINATION TELEHONE/DATA OUTLET	VEV INDICATES CANDELA VALUE ▼H FIREFIGHTERS PHONE, JACK ONLY UNLESS INDICATED OTHERWISE	BRANCH CIRCUIT OR FEEDER TURNING DOWN AWAY FROM OBSERVER
—	THE INDICATES HAND SET	
CEILING MOUNTED COMBINATION TELEHONE/DATA OUTLET	BEAM TYPE SMOKE DETECTOR	BRANCH CIRCUIT HOME RUN TICKS INDICATE QUANTITY OF CONDUCTORS, R22A-1,3,5 GROUND CONDUCTORS ARE NOT INDICATED. NO TICKS INDICATES 2#12 & 1#12G IN 3/4"C MINIMUM. R22A-1,3,5 INDICATES PANEL AND CIRCUIT
- <u>CT</u> CABLE TRAY, CONCEALED	FIRE ALARM SMOKE DETECTOR, PHOTO ELECTRIC UNLESS NOTED	1#12G IN 3/4"C MINIMUM. R22A-1,3,5 INDICATES PANEL AND CIRCUIT DESIGNATION FROM WHICH HOMERUN SHALL ORIGINATE. EACH CIRCUIT SHALL BE 20A-1P (20AMP SINGLE POLE) UNLESS NOTED OTHERWISE.
CABLE TRAY EXPOSED	OTHERWISE "ER" INDICATES ELEVATOR RECALL "SC" INDICATES SELF-CONTAINED, SINGLE STATION TYPE	H42B-1 100A-3P FEEDER HOMERUN. REFER TO LEGEND OF FEEDER SIZES FOR
	SER "I" INDICATES IONIZATION TYPE DETECTOR "M" INDICATES MULTI-SENSOR "MULTI-SENSOR	CONDUCTOR AND RACEWAY REQUIREMENTS DESIGNATED INSIDE TAG. H42B-1 INDICATES PANEL AND CIRCUIT NUMBER DESIGNATION FROM
	"WG" INDICATES WIRE GUARD "V" INDICATES VESDA TAMPER PROOF SAMPLING TUBE BY VESDA	WHICH HOME RUN SHALL ORIGINATE, 100A-3P INDICATES 100 AMPERE, 3 6 POLE CIRCUIT BREAKER.
	FIRE ALARM HEAT DETECTOR, 135° FIXED TEMPERATURE UNLESS NOTED OTHERWISE "RR" INDICATES RATE OF RISE (H) RR "R/F" INDICATES RATE OF RISE AND FIXED TEMPERATURE	FLEXIBLE CONNECTION TO EQUIPMENT. RACEWAY AND CONDUCTOR
FLOOR MOUNTED BOX FOR TELEPHONE/DATA CONNECTION TO PRE-WIRED FURNITURE PARTITIONS	"200" INDICATES 200° TEMPERATURE "WG" INDICATES WIRE GUARD	RATING TO MATCH ASSOCIATED BRANCH CIRCUIT OR FEEDER BRANCH CIRCUIT FOR EMERGENCY BATTERY DC CIRCUIT, MINIMUM 2#10 IN
SPEAKER, CEILING MOUNTED "LS" INDICATES LOCAL SOUND SYSTEM "VC" INDICATES INTEGRAL VOLUME CONTROL KNOB	CARBON MONOXIDE SENSOR	3/4"C. UNLESS OTHERWISE NOTED
		POWER DISTRIBUTION
	MOTOR & CONTROLS LEGEND	208Y/120 VOLT PANELBOARD, SURFACE MOUNTED
		REFER TO SCHEDULE OF PANELBOARDS 208Y/120 VOLT PANELBOARD, RECESSED MOUNTED
	SM MANUAL MOTOR STARTING SWITCH WITH THERMAL OVERLOAD	REFER TO SCHEDULE OF PANELBOARDS 480Y/277 VOLT PANELBOARD, SURFACE MOUNTED
HDM INTERCOM STATION "M" INDICATES MASTER INTERCOM STATION	MAGNETIC MOTOR STARTER, REFER TO MAGNETIC MOTOR STARTER & VFD	REFER TO SCHEDULE OF PANELBOARDS
HOM SYSTEM CLOCK "M" INDICATES MASTER CLOCK WITH ASSOCIATED CONTROLS	$\frac{60AS}{EAAF}$ COMBINATION FUSED DISCONNECT MAGNETIC MOTOR STARTER.	REFER TO SCHEDULE OF PANELBOARDS
3/4" PLYWOOD BACKBOARD WITH 2" X 4" STUDS PLACED 16" OFF CENTER	REFER TO MAGNETIC MOTOR STARTER AND VFD SCHEDULE FOR TYPE, SIZE AND ENCLOSURE	GROUND BAR
VS EXTERNAL DOOR/VOICE SIGNALING STATION	C CONTACTOR IN NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED	T3 "T3" - INDICATES KVA RATING OF TRANSFORMER REFER TO DRY TYPE TRANSFORMER SCHEDULE
		CT CURRENT TRANSFORMER CABINET
AMP AMPLIFIER, LOCAL SOUND SYSTEM	VFD VARIABLE SPEED DRIVE	M METER
	ATS AUTOMATIC TRANSFER SWITCH	UTILITY METER AND SOCKET
LSR LOCAL SOUND RACK	G GENERATOR	
TV OUTLET, WALL MOUNTED "TP" INDICATES TEACHER PRESENTATION		SECURITY LEGEND
"V1" INDICATES QUANTITIES OF DATA, VOICE, S-VIDEO, RCA AND CATV	"2" - INDICATES HORSEPOWER RATING	
CEILING MTD. DATAVIDEO PROJECTOR OUTLET W/CONDUIT TO TV OUTLET	DISCONNECT SWITCH RATED 30AMP, 3-POLE, IN NEMA TYPE 1 ENCLOSURE, UNLESS OTHERWISE NOTED "38" - INDICATES NEMA TYPE 38 ENCLOSURE	
-	"3R" - INDICATES NEMA TYPE 3R ENCLOSURE "2P" - INDICATES 2 POLE SINGLE PHASE DISCONNECT "60AS" - INDICATES 60A SWITCH	ES ELECTRIC DOOR STRIKE
	FUSED DISCONNECT SWITCH, 3-POLE, IN NEMA TYPE 1 ENCLOSURE,	DC DOOR CONTACT
	60AS UNLESS OTHERWISE NOTED. 60AF "3R" - INDICATES NEMA TYPE 3R ENCLOSURE 60AS" - INDICATES 60AMP SWITCH	
	"50AF" - INDICATES 50AMP FUSES	EXISTING EQUIPMENT LEGEND
	100AF ENCLOSED CIRCUIT BREAKER IN NEMA TYPE 1 ENCLOSURE, UNLESS 90AT OTHERWISE NOTED ICE "100AF" - INDICATES 100AMP, 3-POLE FRAME CIRCUIT BREAKER	
	"90AT" - INDICATES 90AMP TRIP	
	FB4 EQUIPMENT TAG, TOP ALPHANUMERIC CORRESPONDS TO EQUIPMENT ID LOWER INDICATES LOAD (KW, HP, ETC.)	
	·	
		XN NEW LOCATION OF EXISTING RELOCATED EQUIPMENT Image: Second strain stra
	SITE LEGEND	INSTALLED ON EXISTING BRANCH/FEEDER
	EH ELECTRIC HAND HOLE	EXISTING EQUIPMENT FOR INFORMATION ONLY- INDICATED BY SYMBOL WITH LIGHT AND OUT OF FUNCTION LINE TYPE
		EXISTING EQUIPMENT TO BE REWORKED-
		L INDICATED BY SYMBOL WITH DASHED AND IN FUNCTION LINE TYPE
		1

-UT- UNDERGROUND TELEPHONE

-UF- UNDERGROUND FIRE ALARM

-OE-OVERHEAD ELECTRIC

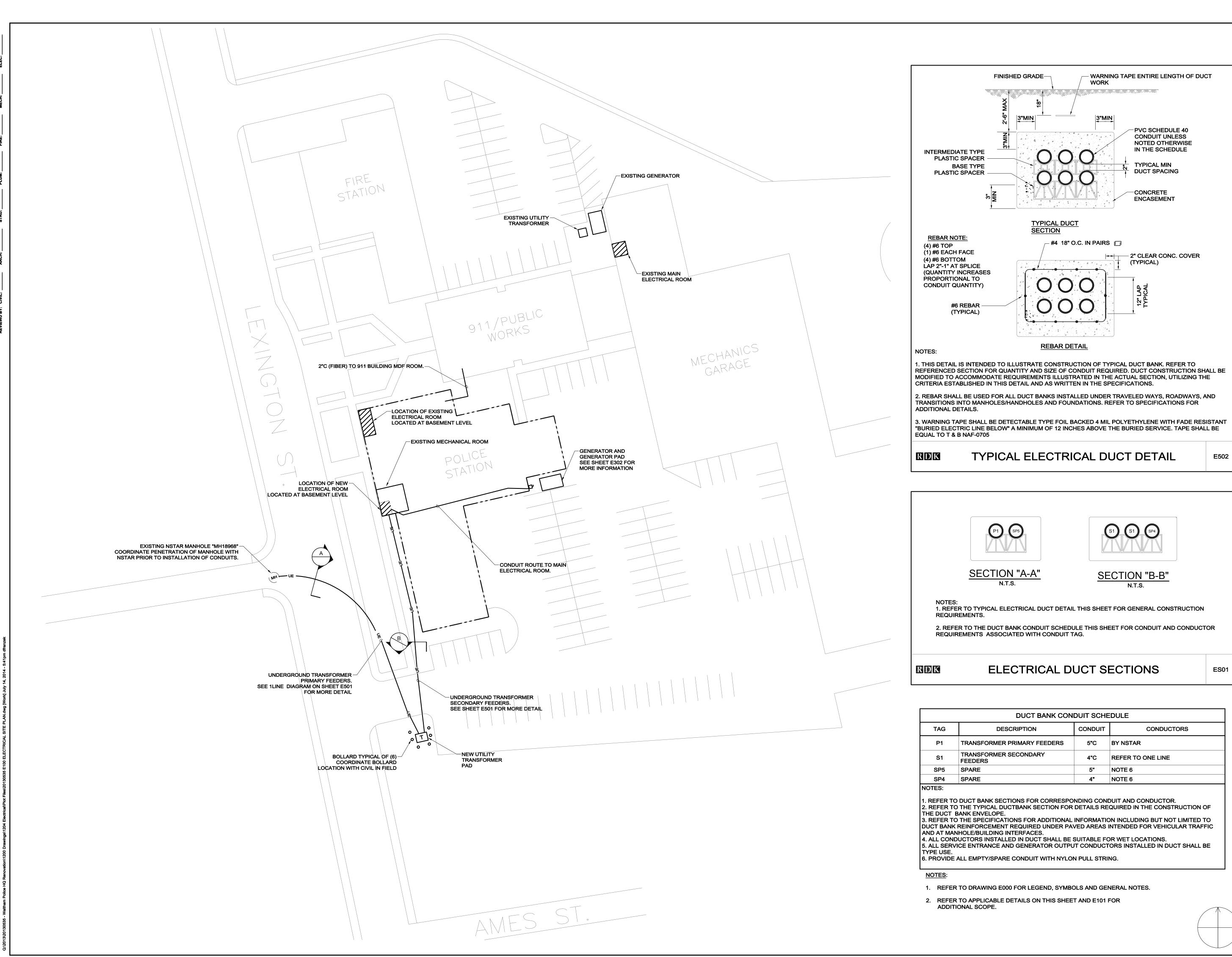
-OF-OVERHEAD FIRE ALARM

UNDERGROUND SECTION, REFER TO SECTION DETAIL "A" INDICATES DETAIL LETTER "#" INDICATES DRAWING NUMBER

LIGHTING FIX	TURE	E LEGEND		
		NG FIXTURE SCHEDULE)		Commission of the second se
2,a "FR2" - INDICATES LIG "2" - INDICATES CIRCL "a" - INDICATES SWITC	IT NUMBE	R OL		Architects / Engineers / Planne 211 Congress Street, 11th Floor
12,NL "NL"- INDICATES NIGH	t light (u	INSWITCHED) CIRCUIT		Boston, Massachusetts 02110 TEL. (617) 778-1440
A 2,NL FIXTURE.	IALLY ORI	IENTED WALLWASH TYPE LIGHTING		www.cdrmaguire.com
^{/2} Q ^{2,a} LIGHTING FIXTURE W/		TED		
		EILING, PENDANT MOUNTED,		RDK
O	-	VALL MOUNTED, ARROWS AND EXIT		Andover, MA - Boston, MA - Amherst, MA
FACE AS (SHADED) AS	INDICATE	ED.		Durham, NC - Charlotte, NC RDK Engineers
	H TYPE AS	S5 HEADS		200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200
	G REMOTE	E LAMP HEADS, SINGLE OR DOUBLE		
	3 BATTER	Y UNIT WITH DOUBLE LAMP HEADS		
^{IG5} BOLLARD LIGHTING FI	XTURE			
•				
LIGHTING FIXTURE SH		DICATES FIXTURE EMERGENCY (LIFE		REVISIONS Number Description Date
^{R1} I				
	TING FIXTU	URE		
l				
SWITCH	I LEG	END		
SINGLE POLE SWITCH, RATED "a" LOWER CASE LETTER IND				
TWO POLE SINGLE THROW S				
THREE WAY SWITCH, RATED	20A, 120/27	777		
FLUORESCENT DIMMER				
"O1" INDICATES SINGLE CIRCU OCCUPANCY SENSOR, RECES "O2" INDICATES DUAL CIRCUI	S WALL M	IOUNTED		
OCCUPANCY SENSOR, CEILIN "O1"-INDICATES TYPE AS DEF	G MOUNT	ED		
DRAWING E701 FOR ADDITION OCCUPANCY SENSOR, SURFA	CE WALL	MOUNTED		
"O1"-INDICATES TYPE AS DEF PHOTOCELL	NED IN NO	DTES/SCHEDULES.		
TIMECLOCK				
O PUSHBUTTON STATION "EPO" INDICATES EMERGENC	Y POWER	OFF		
ABBRE		ONS		
AMPERE	күн	KILOWATT HOURS		ISSUED FOR
ALTERNATION CURRENT AMERICAN WITH DISABILITIES	LTG			BID
ACT AMPERE FRAME	MCB MEC	MAIN CIRCUIT BREAKER MASSACHUSETTS ELECTRICAL		
ABOVE FINISHED FLOOR	M/G	CODE MOTOR/GENERATOR SET		
ABOVE FINISHED GRADE AMPERE INTERRUPTING CAPACITY	MH MLO	MANHOLE MAIN LUGS ONLY		
ALUMINUM AMPERE TRIP	MTD MTG	MOUNTED MOUNTING		PRATED A TOWN
AUTOMATIC TRANSFER SWITCH	NC	NORMALLY CLOSED CONTACT		
AMERICAN WIRE GAUGE BURIED	NEC NO	NATIONAL ELECTRICAL CODE NORMALLY OPEN CONTACT		
CONDUIT CABLE	NTS #	NOT TO SCALE NUMBER		Z A Z
CABLE TELEVISION	OPD	OVER CURRENT PROTECTION DEVICE		
CLOSED CIRCUIT TELEVISION SYSTEM CIRCUIT BREAKER	POS	PROVIDED UNDER OTHER SECTIONS POLYVINYL CHLORIDE		PRATED A CUT
CIRCUITS	PVC PWR	POLYVINYL CHLORIDE POWER		
CENTRAL PROCESSING UNIT CENTERLINE	RGS RMS	RIGID GALVANIZED STEEL ROOT MEAN SQUARE VALUE		
DECIBEL DIRECT CURRENT	RPM SN	REVOLUTIONS PER MINUTE SOLID NEUTRAL		WALTHAM POLICE
DRAWING ELECTRICAL CONTRACTOR	SWBD TB	SWITCHBOARD TERMINAL BLOCK		STATION
ELECTRIC METALLIC TUBING	TEL	TELEPHONE		RENOVATION
FEEDER FLEXIBLE LIQUID TIGHT METALLIC	TERMN	TERMINAL TWISTED SHIELDED-PAIR		
TUBING FREQUENCY	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER		
GROUNDING ELECTRODE CONDUCTOR	ТҮР	TYPICAL		155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
GROUND FAULT INTERRUPTING GROUND	UG UNO	UNDERGROUND UNLESS NOTED OTHERWISE		
HANDHOLE	UPS	UNINTERRUPTIBLE POWER SUPPLY		
HORSEPOWER HEATING, VENTILATING AND AIR	UTP V	UNSHIELDED TWISTED-PAIR VOLTS		ELECTRICAL
CONDITIONING HERTZ	VA	VOLT-AMPERE		
ISOLATED GROUND JUNCTION BOX	VSD W	VARIABLE SPEED DRIVE WATTS		LEGEND, NOTES
KILOVOLT-AMPERE KILOWATT	WP	WEATHERPROOF		& ABBRVS.
			1	
				PROJECT NUMBER: 20130535
				DESIGNED BY: AM
				CHECKED BY: GM
				DATE: July-Aug.
				SCALE: 2016 N.T.S.
				SHEET NUMBER:

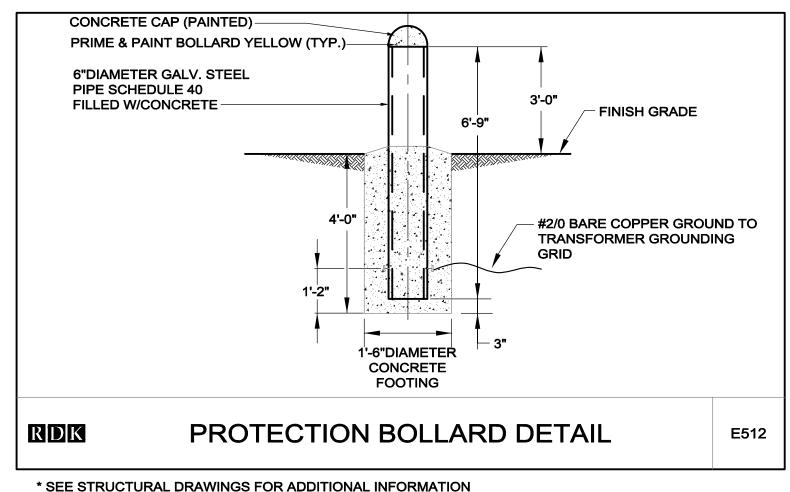
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SHEET 119 **OF** 157

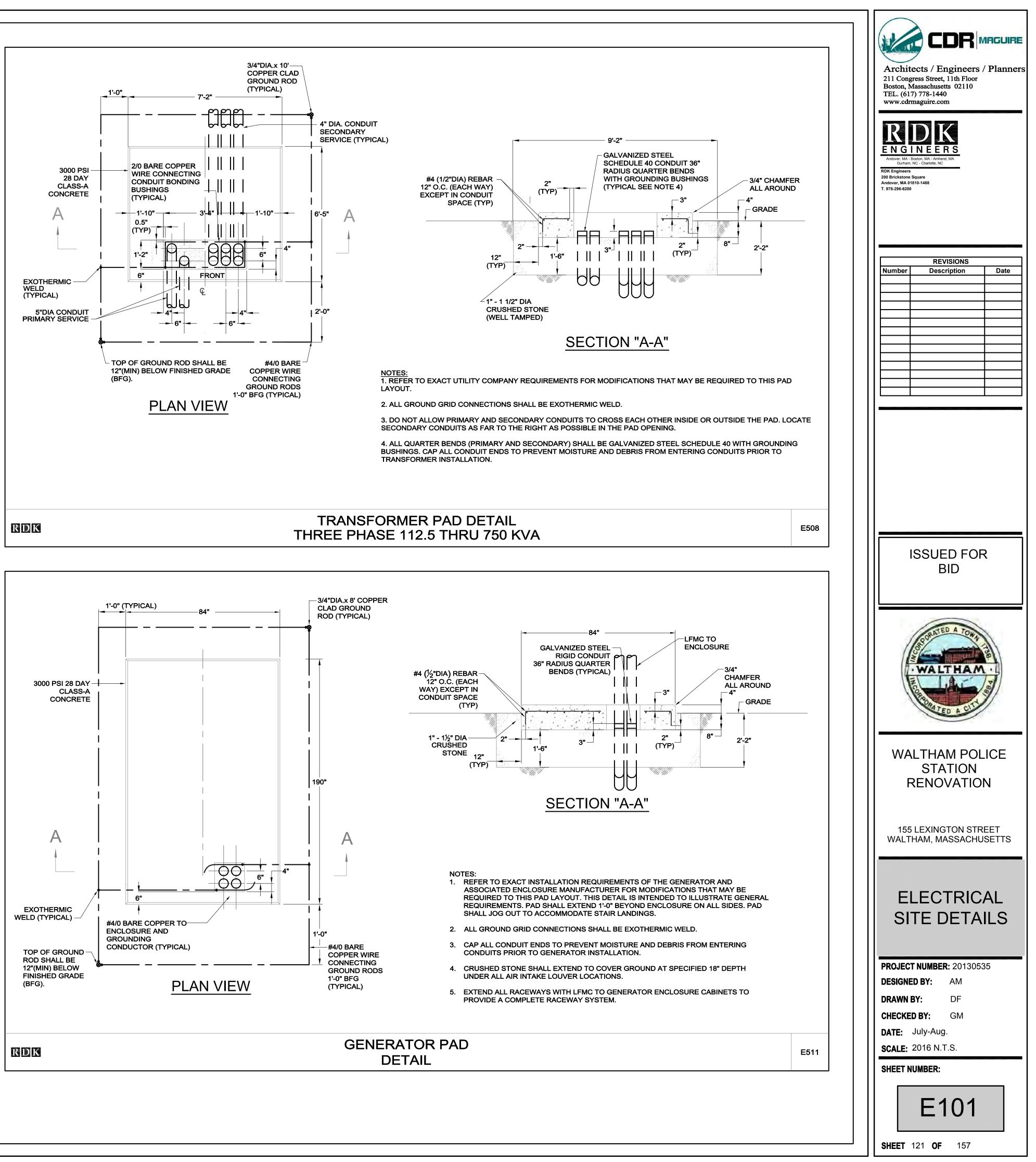


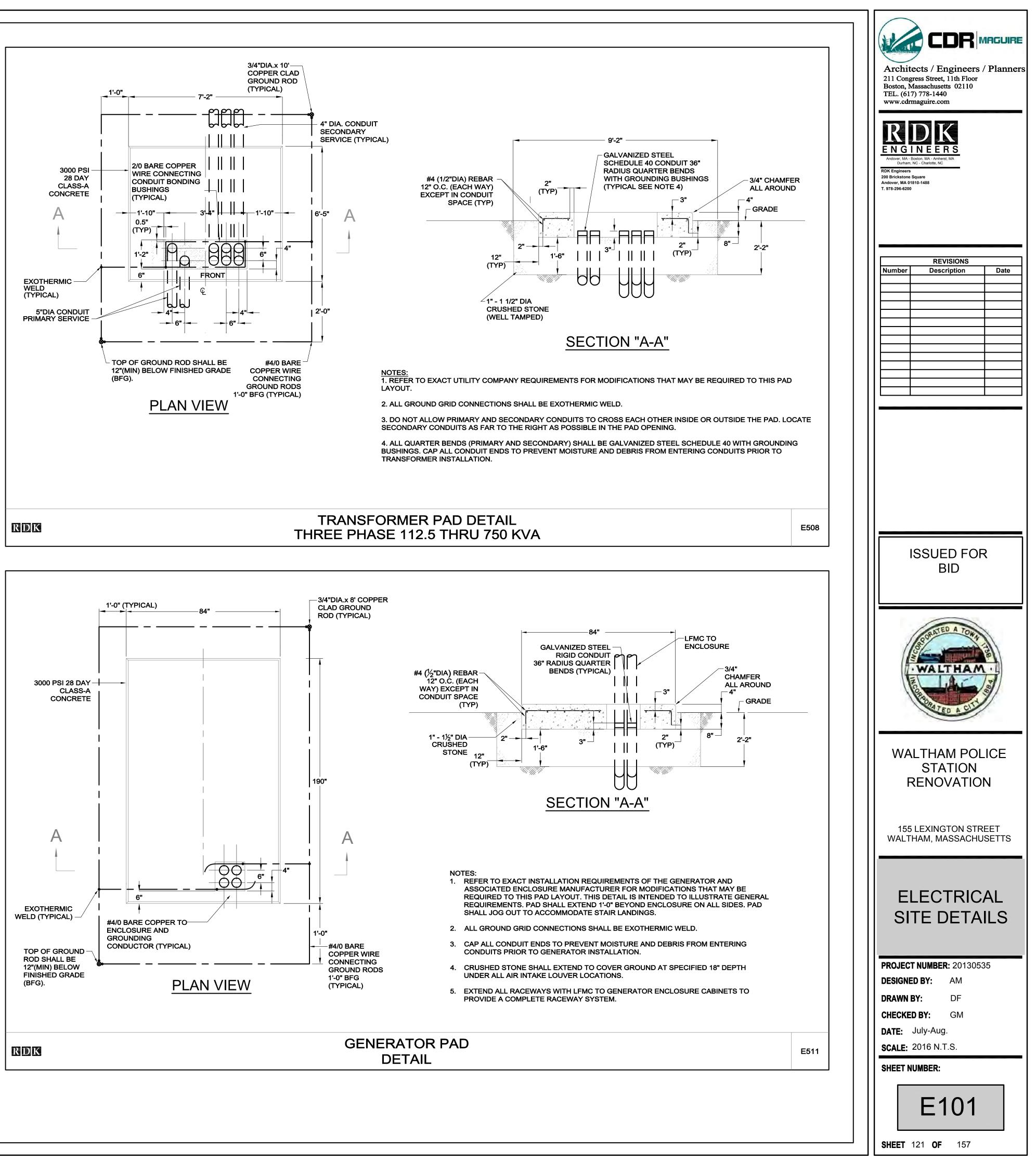
DUCT BANK CONDUIT SCHEDULE				
DESCRIPTION	CONDUIT	CONDUCTORS		
RANSFORMER PRIMARY FEEDERS	5"C	BY NSTAR		
RANSFORMER SECONDARY EEDERS	4"C	REFER TO ONE LINE		
PARE	5"	NOTE 6		
PARE	4"	NOTE 6		

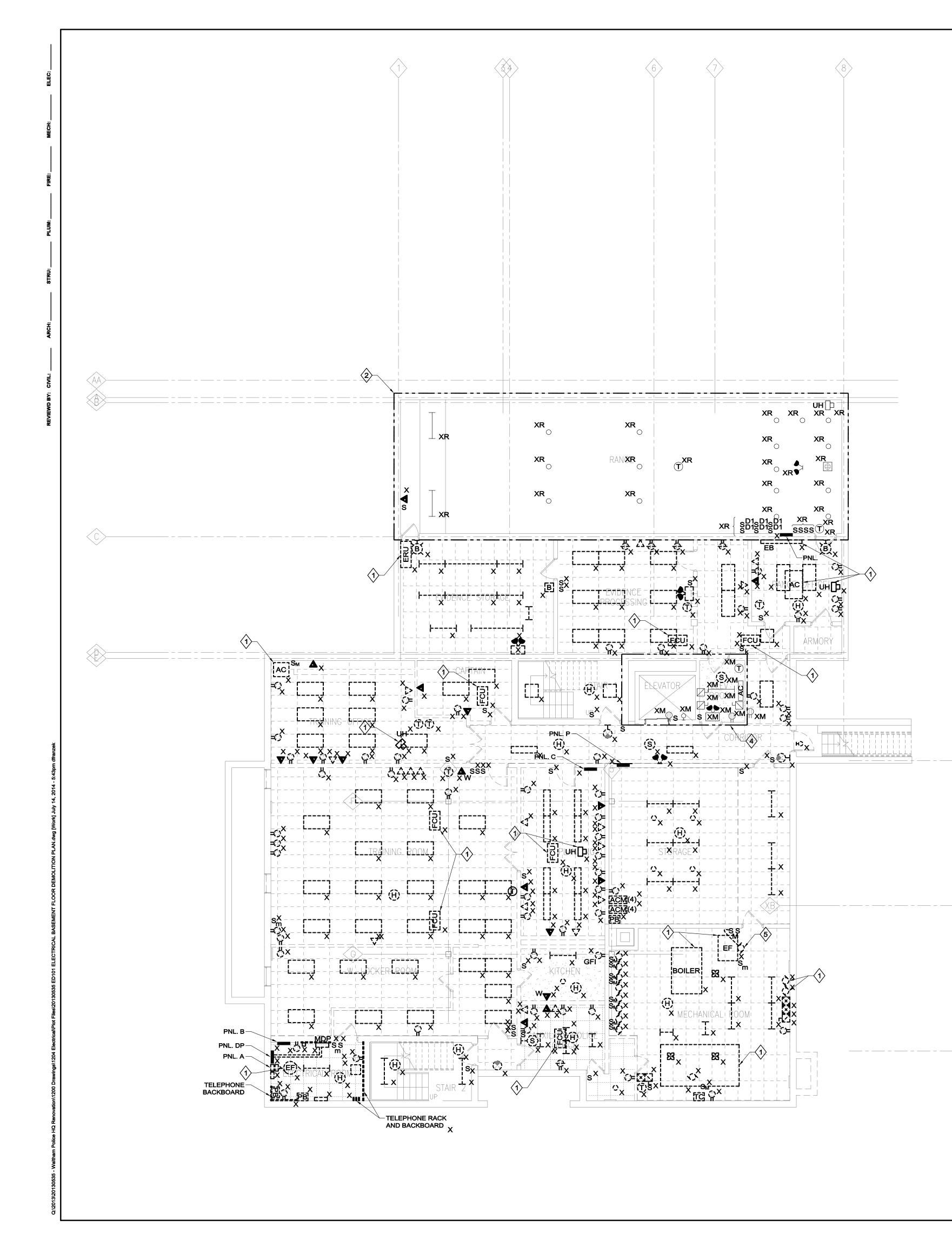
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REVISIONS Number Description Date
ISSUED FOR BID
WALTHAM . NOR ATED A TOWN
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
ELECTRICAL SITE PLAN
PROJECT NUMBER: 20130535DESIGNED BY:AMDRAWN BY:DFCHECKED BY:GMDATE:July-Aug.SCALE:2016 N.T.S.
SHEET NUMBER: E100 SHEET 120 OF 157
E100 SHEET 120 OF 157



* SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION

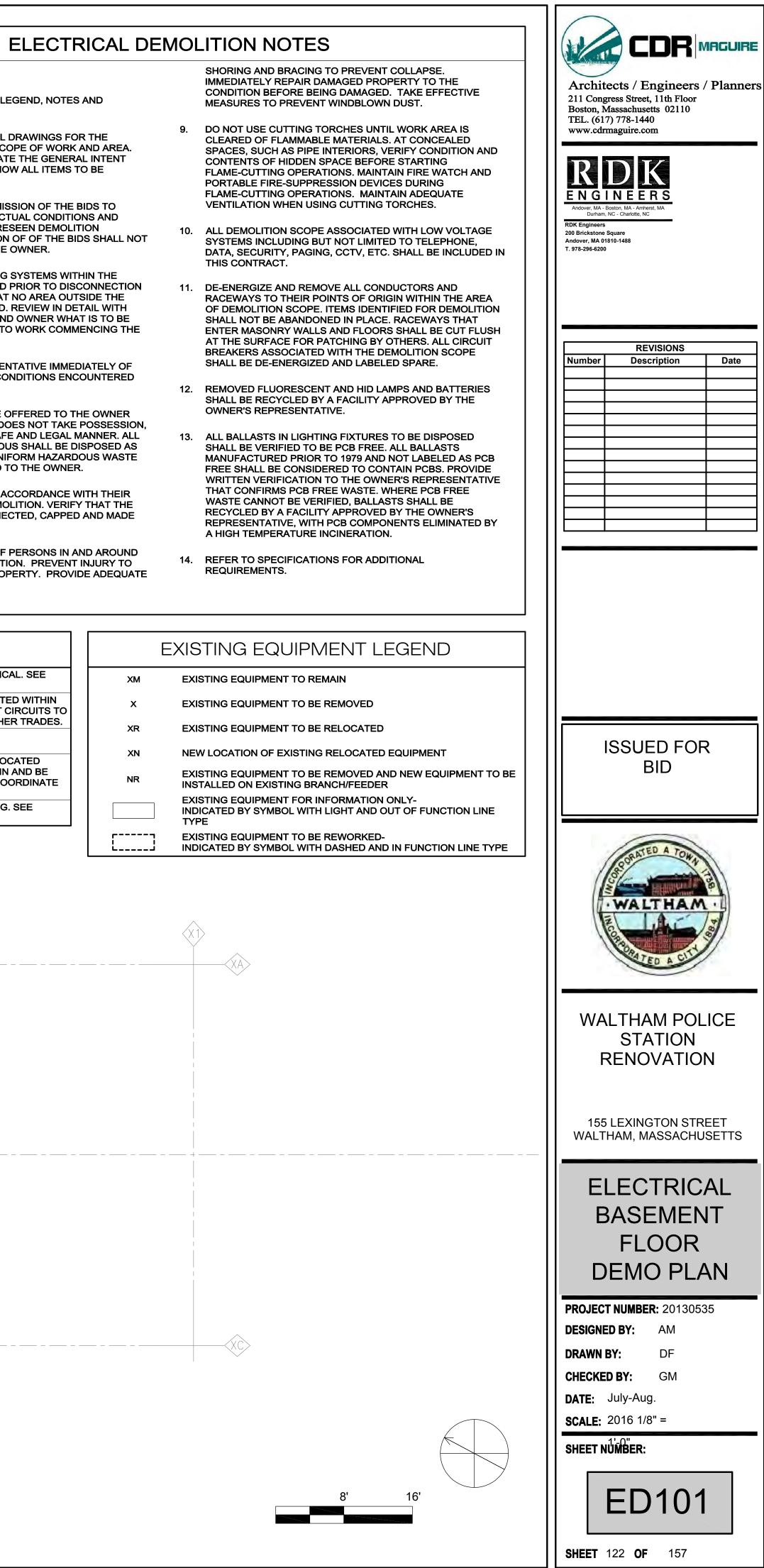


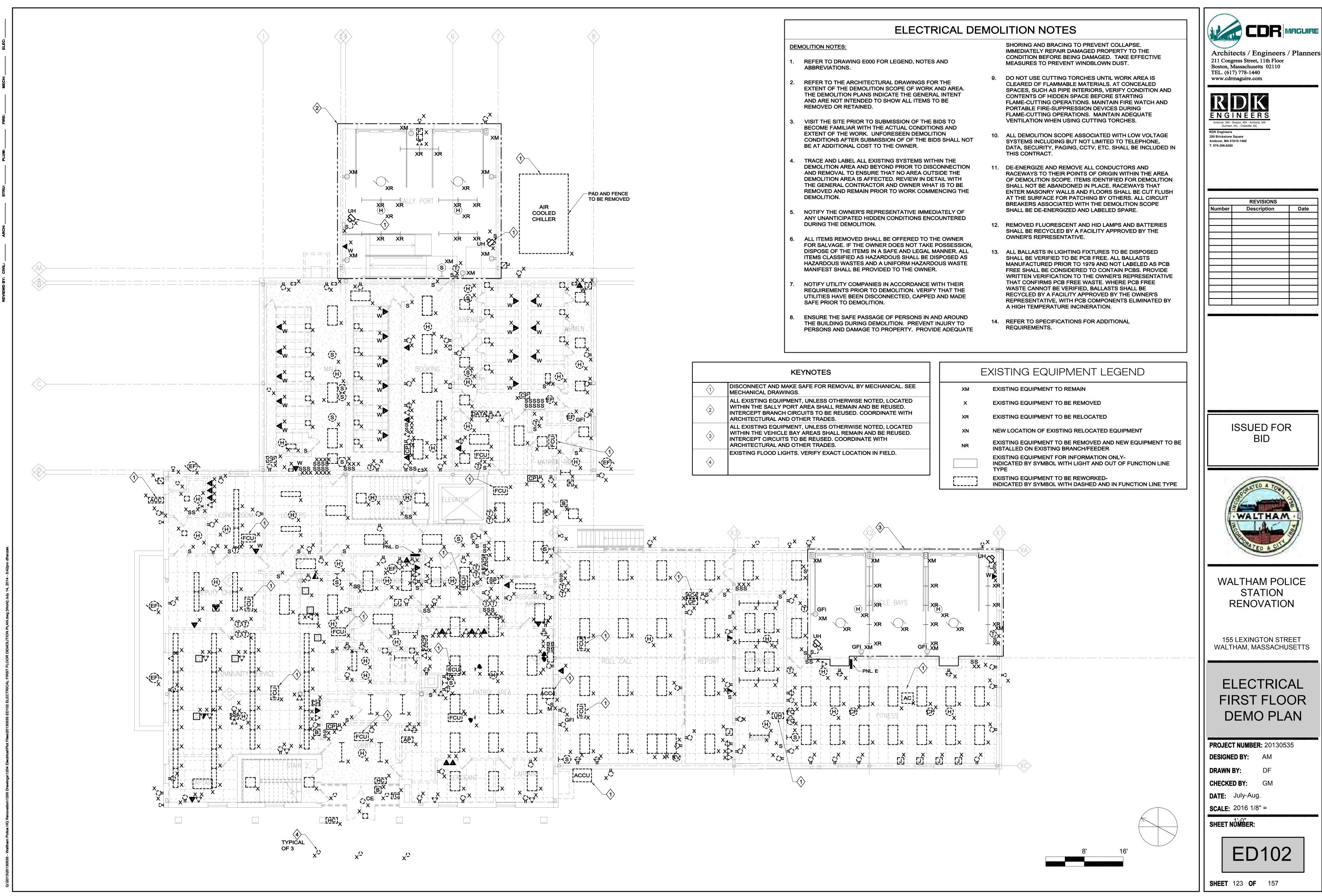


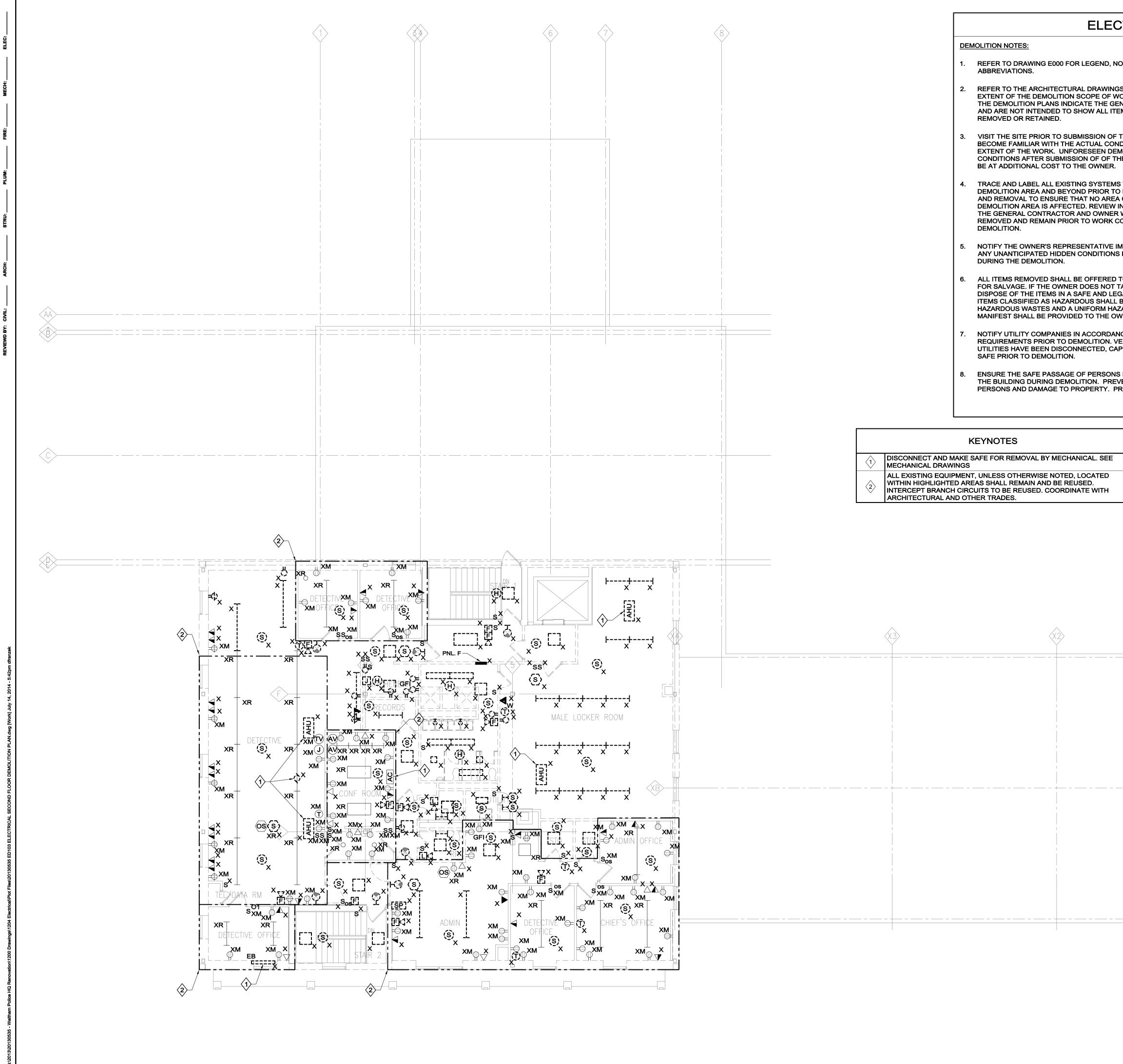


- DEMOLITION NOTES:
- 1. REFER TO DRAWING E000 FOR LEGEND, NOTES AND ABBREVIATIONS.
- 2. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXTENT OF THE DEMOLITION SCOPE OF WORK AND AREA. THE DEMOLITION PLANS INDICATE THE GENERAL INTENT AND ARE NOT INTENDED TO SHOW ALL ITEMS TO BE REMOVED OR RETAINED.
- 3. VISIT THE SITE PRIOR TO SUBMISSION OF THE BIDS TO BECOME FAMILIAR WITH THE ACTUAL CONDITIONS AND EXTENT OF THE WORK. UNFORESEEN DEMOLITION CONDITIONS AFTER SUBMISSION OF OF THE BIDS SHALL NOT BE AT ADDITIONAL COST TO THE OWNER.
- 4. TRACE AND LABEL ALL EXISTING SYSTEMS WITHIN THE DEMOLITION AREA AND BEYOND PRIOR TO DISCONNECTION AND REMOVAL TO ENSURE THAT NO AREA OUTSIDE THE DEMOLITION AREA IS AFFECTED. REVIEW IN DETAIL WITH THE GENERAL CONTRACTOR AND OWNER WHAT IS TO BE REMOVED AND REMAIN PRIOR TO WORK COMMENCING THE DEMOLITION.
- 5. NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY UNANTICIPATED HIDDEN CONDITIONS ENCOUNTERED DURING THE DEMOLITION.
- 6. ALL ITEMS REMOVED SHALL BE OFFERED TO THE OWNER FOR SALVAGE. IF THE OWNER DOES NOT TAKE POSSESSION, DISPOSE OF THE ITEMS IN A SAFE AND LEGAL MANNER. ALL ITEMS CLASSIFIED AS HAZARDOUS SHALL BE DISPOSED AS HAZARDOUS WASTES AND A UNIFORM HAZARDOUS WASTE MANIFEST SHALL BE PROVIDED TO THE OWNER.
- 7. NOTIFY UTILITY COMPANIES IN ACCORDANCE WITH THEIR REQUIREMENTS PRIOR TO DEMOLITION. VERIFY THAT THE UTILITIES HAVE BEEN DISCONNECTED, CAPPED AND MADE SAFE PRIOR TO DEMOLITION.
- 8. ENSURE THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION. PREVENT INJURY TO PERSONS AND DAMAGE TO PROPERTY. PROVIDE ADEQUATE

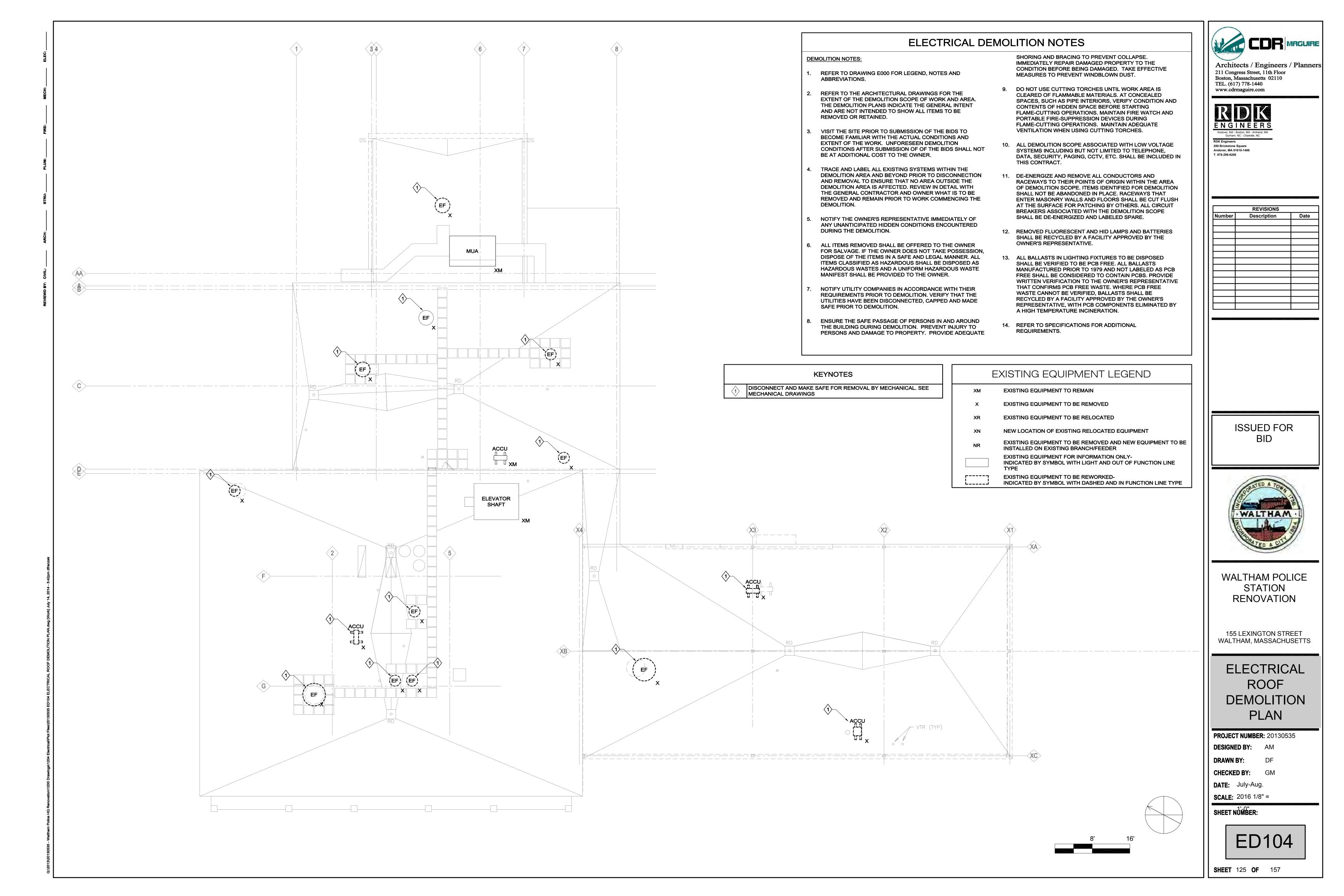
	KEYNOTES
	DISCONNECT AND MAKE SAFE FOR REMOVAL BY MECHANICAL. SEE MECHANICAL DRAWINGS.
2	EXISTING EQUIPMENT, UNLESS OTHERWISE NOTED, LOCATED WITHIN THE EXISTING GUN RANGE SHALL BE REUSED. INTERCEPT CIRCUITS BE REUSED. COORDINATE WITH ARCHITECTURAL AND OTHER TRADE
3	NOTE NOT USED.
4	ALL EXISTING EQUIPMENT, UNLESS OTHERWISE NOTED, LOCATED WITHIN THE ELEVATOR AND MACHINE ROOM SHALL REMAIN AND BE REUSED. INTERCEPT BRANCH CIRCUITS TO BE REUSED. COORDINATE WITH ARCHITECTURAL AND OTHER TRADES.
5	DISCONNECT AND MAKE SAFE FOR REMOVAL BY PLUMBING. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

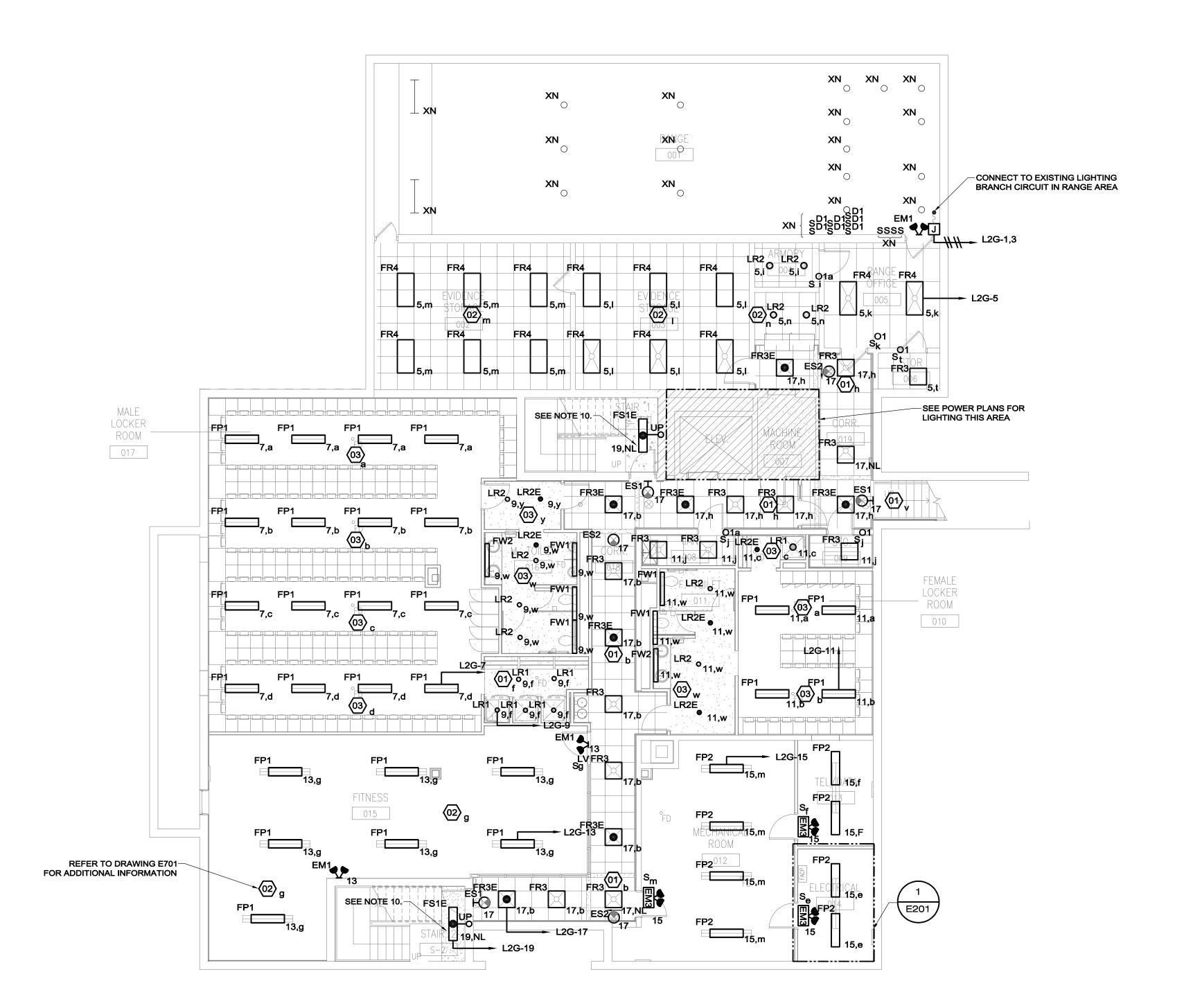


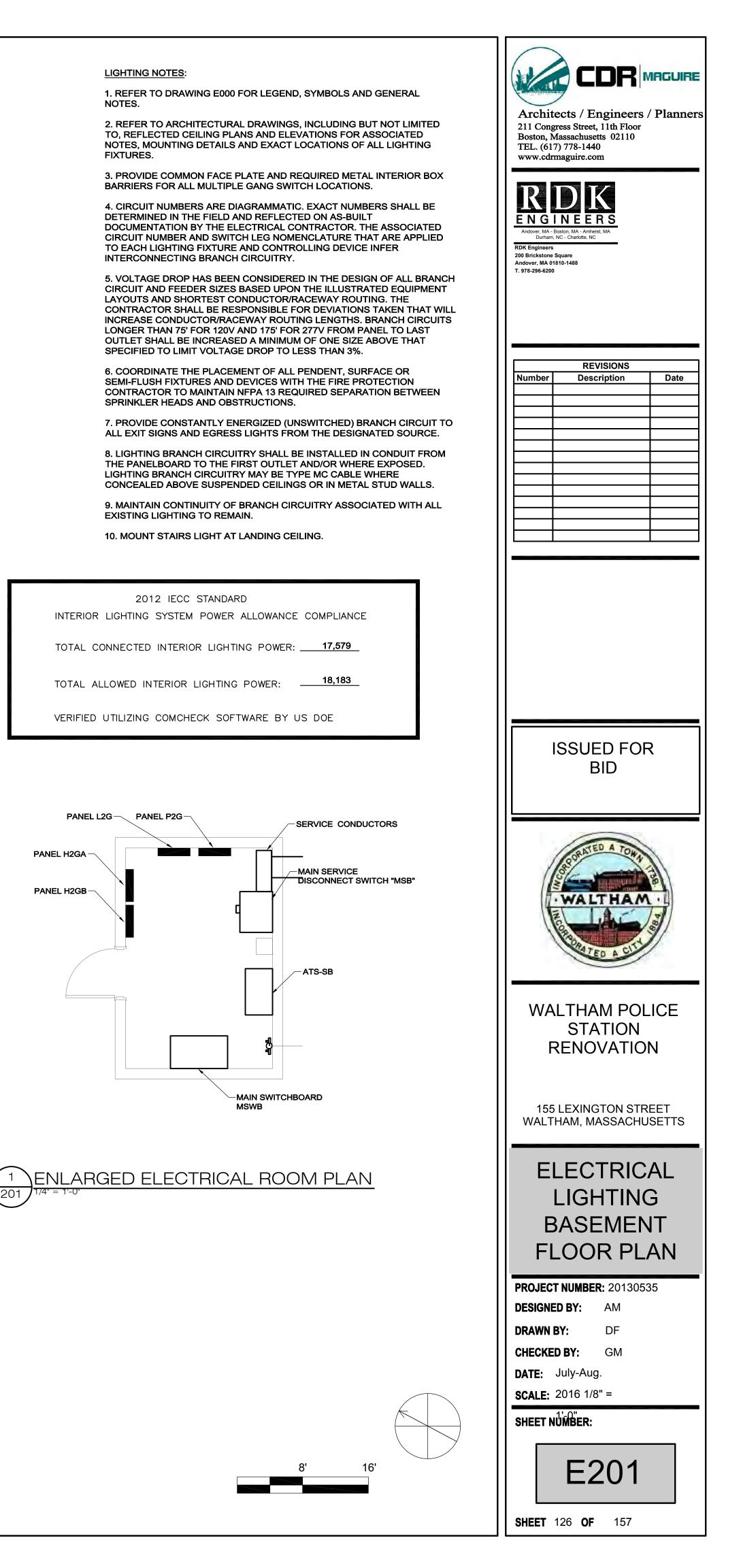




	MOLITION NOTES	
	SHORING AND BRACING TO PREVENT COLLAPSE.	
NOTES AND	IMMEDIATELY REPAIR DAMAGED PROPERTY TO THE CONDITION BEFORE BEING DAMAGED. TAKE EFFECTIVE MEASURES TO PREVENT WINDBLOWN DUST.	Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110
NGS FOR THE WORK AND AREA. GENERAL INTENT	9. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SUCH AS PIPE INTERIORS, VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STARTING	TEL. (617) 778-1440 www.cdrmaguire.com
TEMS TO BE IF THE BIDS TO	FLAME-CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND PORTABLE FIRE-SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS. MAINTAIN ADEQUATE VENTILATION WHEN USING CUTTING TORCHES.	R D K ENGINEERS Andover, MA - Boston, MA - Amherist, MA
ONDITIONS AND EMOLITION THE BIDS SHALL NOT R.	10. ALL DEMOLITION SCOPE ASSOCIATED WITH LOW VOLTAGE SYSTEMS INCLUDING BUT NOT LIMITED TO TELEPHONE, DATA, SECURITY, PAGING, CCTV, ETC. SHALL BE INCLUDED IN THIS CONTRACT.	Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200
MS WITHIN THE TO DISCONNECTION EA OUTSIDE THE V IN DETAIL WITH ER WHAT IS TO BE COMMENCING THE	11. DE-ENERGIZE AND REMOVE ALL CONDUCTORS AND RACEWAYS TO THEIR POINTS OF ORIGIN WITHIN THE AREA OF DEMOLITION SCOPE. ITEMS IDENTIFIED FOR DEMOLITION SHALL NOT BE ABANDONED IN PLACE. RACEWAYS THAT ENTER MASONRY WALLS AND FLOORS SHALL BE CUT FLUSH AT THE SURFACE FOR PATCHING BY OTHERS. ALL CIRCUIT BREAKERS ASSOCIATED WITH THE DEMOLITION SCOPE	REVISIONS
E IMMEDIATELY OF NS ENCOUNTERED D TO THE OWNER	SHALL BE DE-ENERGIZED AND LABELED SPARE. 12. REMOVED FLUORESCENT AND HID LAMPS AND BATTERIES SHALL BE RECYCLED BY A FACILITY APPROVED BY THE OWNER'S REPRESENTATIVE.	Number Description Date
T TAKE POSSESSION, EGAL MANNER. ALL L BE DISPOSED AS AZARDOUS WASTE OWNER. ANCE WITH THEIR VERIFY THAT THE CAPPED AND MADE	13. ALL BALLASTS IN LIGHTING FIXTURES TO BE DISPOSED SHALL BE VERIFIED TO BE PCB FREE. ALL BALLASTS MANUFACTURED PRIOR TO 1979 AND NOT LABELED AS PCB FREE SHALL BE CONSIDERED TO CONTAIN PCBS. PROVIDE WRITTEN VERIFICATION TO THE OWNER'S REPRESENTATIVE THAT CONFIRMS PCB FREE WASTE. WHERE PCB FREE WASTE CANNOT BE VERIFIED, BALLASTS SHALL BE RECYCLED BY A FACILITY APPROVED BY THE OWNER'S REPRESENTATIVE, WITH PCB COMPONENTS ELIMINATED BY	
NS IN AND AROUND EVENT INJURY TO PROVIDE ADEQUATE	A HIGH TEMPERATURE INCINERATION. 14. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.	
	EXISTING EQUIPMENT LEGEND	
ХМ	EXISTING EQUIPMENT TO REMAIN	
x	EXISTING EQUIPMENT TO BE REMOVED	
XR	EXISTING EQUIPMENT TO BE RELOCATED	
]XN	NEW LOCATION OF EXISTING RELOCATED EQUIPMENT	ISSUED FOR
NR	EXISTING EQUIPMENT TO BE REMOVED AND NEW EQUIPMENT TO BE INSTALLED ON EXISTING BRANCH/FEEDER EXISTING EQUIPMENT FOR INFORMATION ONLY- INDICATED BY SYMBOL WITH LIGHT AND OUT OF FUNCTION LINE	BID
	TYPE	
	EXISTING EQUIPMENT TO BE REWORKED- INDICATED BY SYMBOL WITH DASHED AND IN FUNCTION LINE TYPE	WALTHAM .
		WALTHAM POLICE STATION RENOVATION
	·	155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
		ELECTRICAL SECOND FLOOR DEMO PLAN
		PROJECT NUMBER: 20130535DESIGNED BY:AMDRAWN BY:DFCHECKED BY:GMDATE:July-Aug.
	8' 16'	scale: 2016 1/8" = sheet NUMBER: ED103
		SHEET 124 OF 157

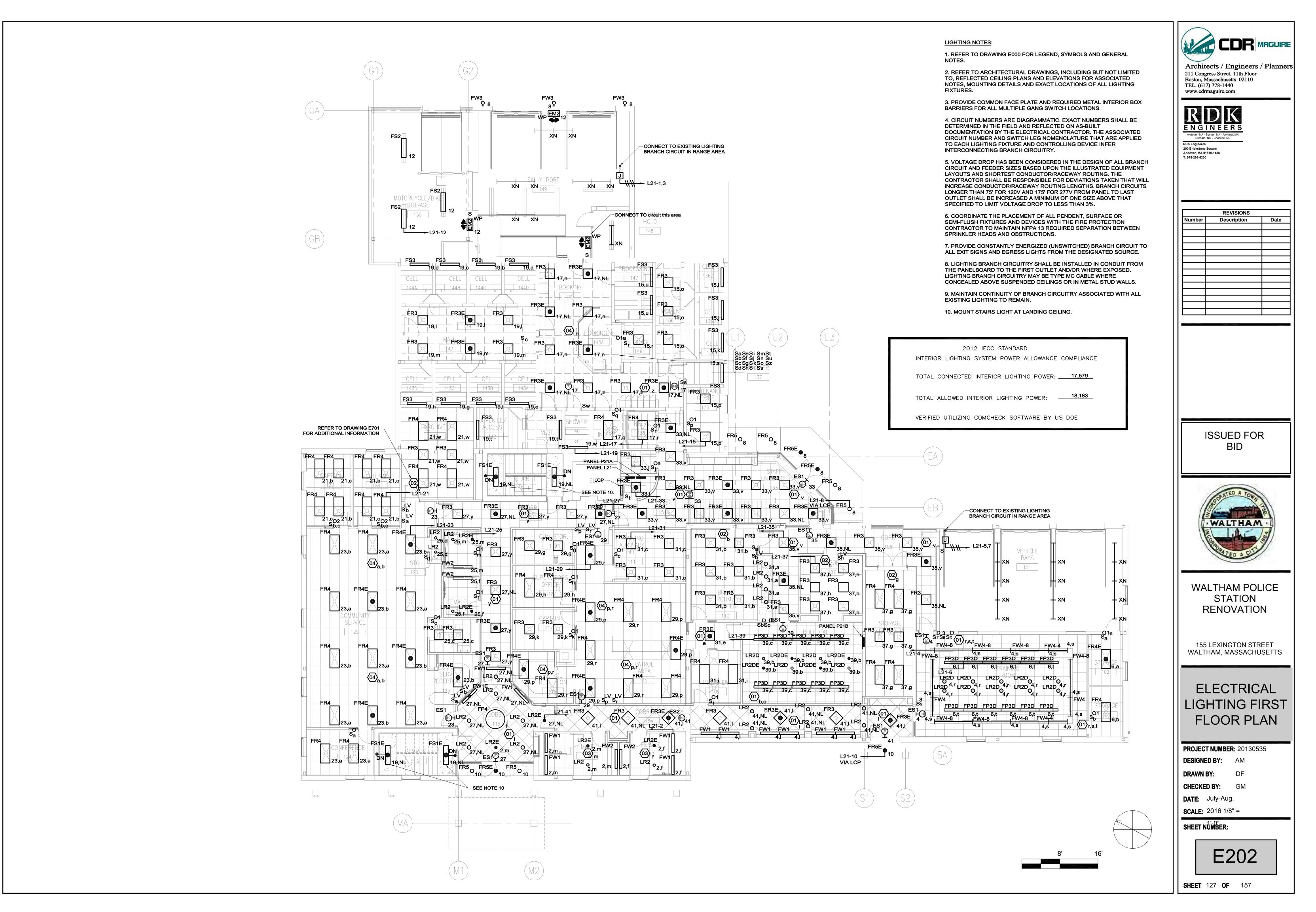




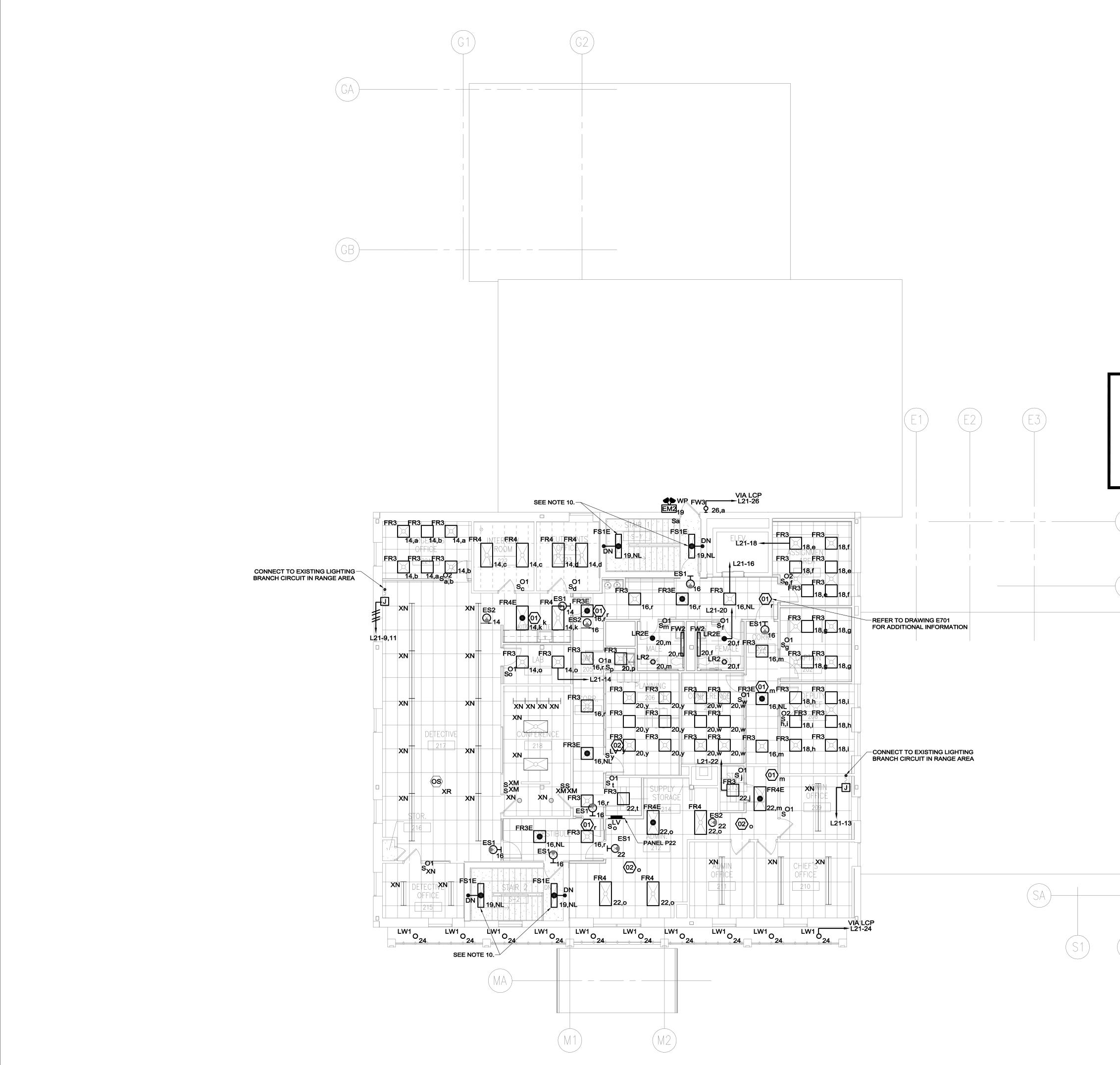


3/20130535 - Waitham Police HQ Renovation/1200 Drawings/1204 Electrical/Plot Files/20130535 E202 ELECTRICAL LIGHTING FIRST FLOOR PLAN.dwg [Work] July 14, 2014 - 5:41pm dfranzek

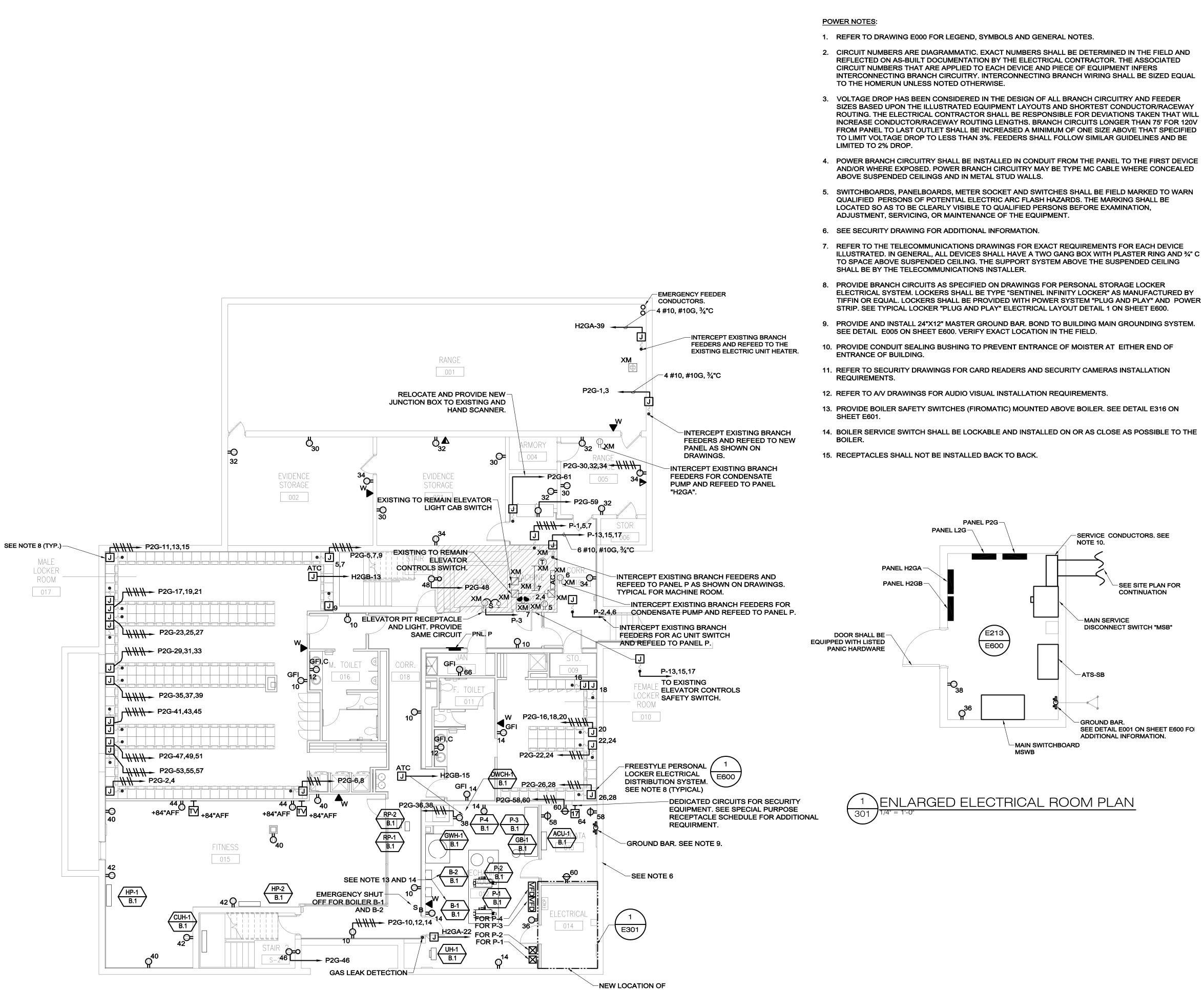
REVIEWD BY: CIVIL: _____ ARCH: _____ STRU: _____ PLUM: _____ FIRE: _____ MECH: _____ ELEC: _____



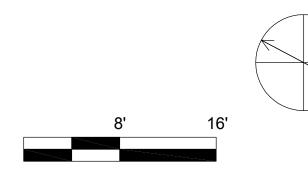


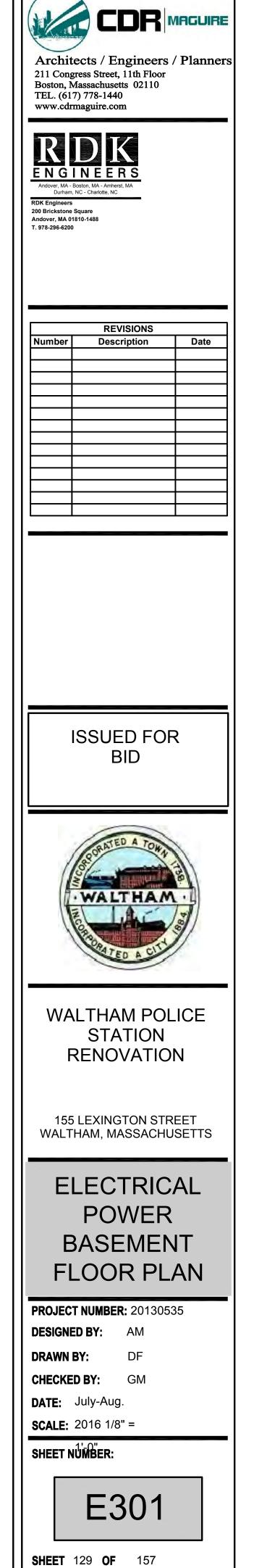


	\bigcirc
LIGHTING NOTES: 1. REFER TO DRAWING E000 FOR LEGEND, SYMBOLS AND GENERAL	
NOTES. 2. REFER TO ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO, REFLECTED CEILING PLANS AND ELEVATIONS FOR ASSOCIATED NOTES, MOUNTING DETAILS AND EXACT LOCATIONS OF ALL LIGHTING	Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440
FIXTURES. 3. PROVIDE COMMON FACE PLATE AND REQUIRED METAL INTERIOR BOX	www.cdrmaguire.com
BARRIERS FOR ALL MULTIPLE GANG SWITCH LOCATIONS. 4. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBER AND SWITCH LEG NOMENCLATURE THAT ARE APPLIED TO EACH LIGHTING FIXTURE AND CONTROLLING DEVICE INFER INTERCONNECTING BRANCH CIRCUITRY.	READEDERS ENGINEERS Andover, MA - Boston, MA - Amherst, MA Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square
5. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUIT AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V AND 175' FOR 277V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%.	Andover, MA 01810-1488 T. 978-296-6200
6. COORDINATE THE PLACEMENT OF ALL PENDENT, SURFACE OR SEMI-FLUSH FIXTURES AND DEVICES WITH THE FIRE PROTECTION CONTRACTOR TO MAINTAIN NFPA 13 REQUIRED SEPARATION BETWEEN SPRINKLER HEADS AND OBSTRUCTIONS.	REVISIONS Number Description Date
7. PROVIDE CONSTANTLY ENERGIZED (UNSWITCHED) BRANCH CIRCUIT TO ALL EXIT SIGNS AND EGRESS LIGHTS FROM THE DESIGNATED SOURCE.	
8. LIGHTING BRANCH CIRCUITRY SHALL BE INSTALLED IN CONDUIT FROM THE PANELBOARD TO THE FIRST OUTLET AND/OR WHERE EXPOSED. LIGHTING BRANCH CIRCUITRY MAY BE TYPE MC CABLE WHERE CONCEALED ABOVE SUSPENDED CEILINGS OR IN METAL STUD WALLS.	
9. MAINTAIN CONTINUITY OF BRANCH CIRCUITRY ASSOCIATED WITH ALL EXISTING LIGHTING TO REMAIN.	
10. MOUNT STAIRS LIGHT AT LANDING CEILING.	
2012 IECC STANDARD INTERIOR LIGHTING SYSTEM POWER ALLOWANCE COMPLIANCE	
TOTAL CONNECTED INTERIOR LIGHTING POWER:	
TOTAL ALLOWED INTERIOR LIGHTING POWER:	
VERIFIED UTILIZING COMCHECK SOFTWARE BY US DOE	ISSUED FOR
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	155 LEXINGTON STREET
	WALTHAM, MASSACHUSETTS
	ELECTRICAL
	LIGHTING
	SECOND FLOOR
	PLAN
	PROJECT NUMBER: 20130535 DESIGNED BY: AM
	DRAWN BY: DF
52)	CHECKED BY: GM DATE: July-Aug.
	SCALE: 2016 1/8" =
	SHEET NUMBER:
8' 16'	E203
	SHEET 128 OF 157

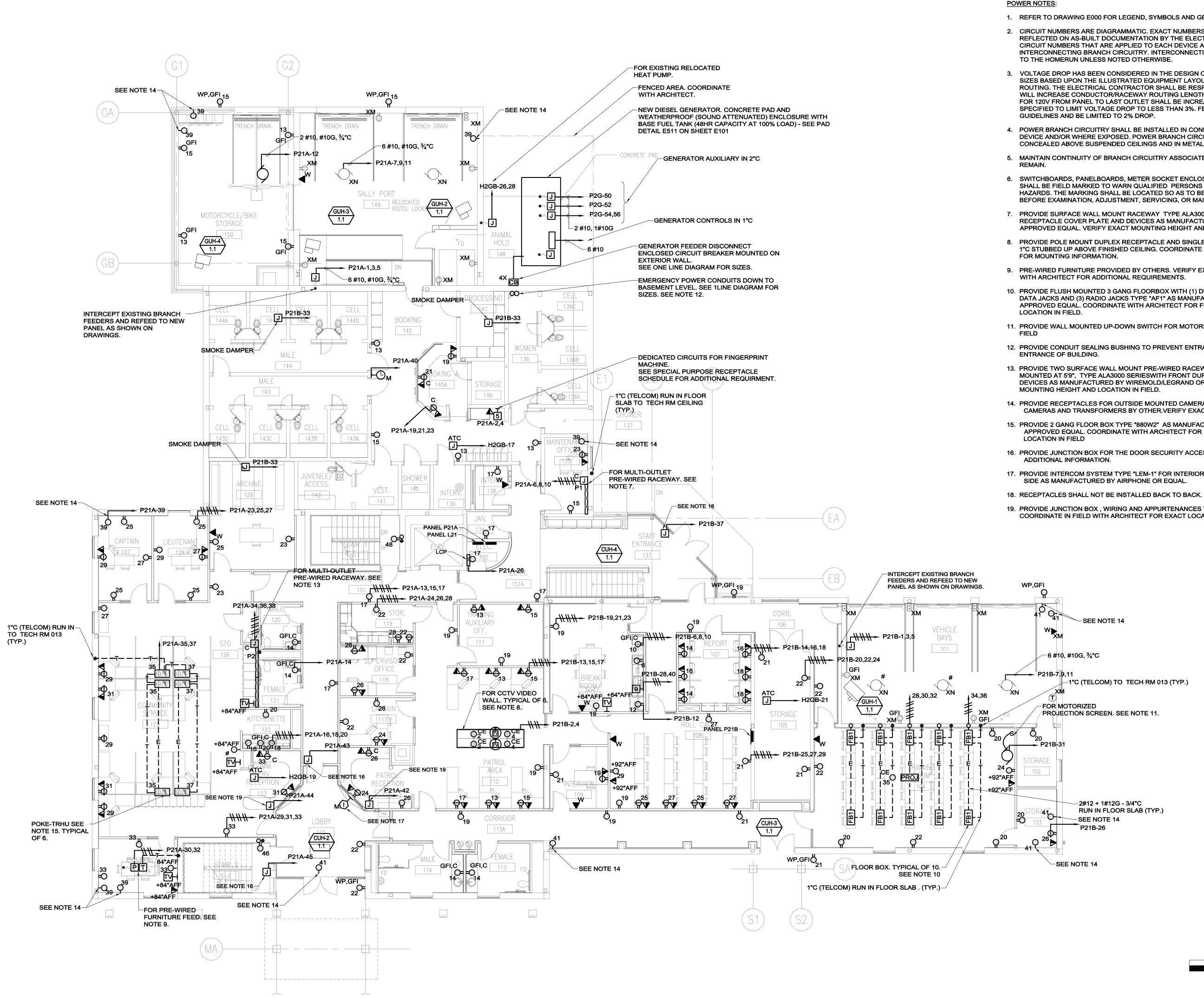


ELECTRICAL ROOM









1. REFER TO DRAWING E000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBERS THAT ARE APPLIED TO EACH DEVICE AND PIECE OF EQUIPMENT INFERS INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL

3. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUITRY AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. FEEDERS SHALL FOLLOW SIMILAR

4. POWER BRANCH CIRCUITRY SHALL BE INSTALLED IN CONDUIT FROM THE PANEL TO THE FIRST DEVICE AND/OR WHERE EXPOSED. POWER BRANCH CIRCUITRY MAY BE TYPE MC CABLE WHERE CONCEALED ABOVE SUSPENDED CEILINGS AND IN METAL STUD WALLS.

5. MAINTAIN CONTINUITY OF BRANCH CIRCUITRY ASSOCIATED WITH ALL EXISTING POWER DEVICES TO

6. SWITCHBOARDS, PANELBOARDS, METER SOCKET ENCLOSURES AND MOTOR CONTROL CENTERS SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

PROVIDE SURFACE WALL MOUNT RACEWAY TYPE ALA3000 SERIES WITH FRONT DUPLEX RECEPTACLE COVER PLATE AND DEVICES AS MANUFACTURED BY WIREMOLD/LEGRAND OR APPROVED EQUAL. VERIFY EXACT MOUNTING HEIGHT AND LOCATION IN FIELD.

8. PROVIDE POLE MOUNT DUPLEX RECEPTACLE AND SINGLE GANG BOX FOR TV MONITORS. PROVIDE 1"C STUBBED UP ABOVE FINISHED CEILING. COORDINATE IN FIELD WITH SECURITY AND ARCHITECT

9. PRE-WIRED FURNITURE PROVIDED BY OTHERS. VERIFY EXACT LOCATION IN FIELD. COORDINATED

10. PROVIDE FLUSH MOUNTED 3 GANG FLOORBOX WITH (1) DUPLEX RECEPTACLE, (1) VOICE JACK, (2) DATA JACKS AND (3) RADIO JACKS TYPE "AF1" AS MANUFACTURED BY WIREMOLD/LEGRAND OR APPROVED EQUAL. COORDINATE WITH ARCHITECT FOR FINISHES REQUIREMENTS. VERIFY EXACT

11. PROVIDE WALL MOUNTED UP-DOWN SWITCH FOR MOTORIZED SCREEN. VERIFY EXACT LOCATION IN

12. PROVIDE CONDUIT SEALING BUSHING TO PREVENT ENTRANCE OF MOISTER AT EITHER END OF

13. PROVIDE TWO SURFACE WALL MOUNT PRE-WIRED RACEWAY , ONE MOUNTED AT 4'-2" AND ONE MOUNTED AT 5'9", TYPE ALA3000 SERIESWITH FRONT DUPLEX RECEPTACLE COVER PLATE AND DEVICES AS MANUFACTURED BY WIREMOLD/LEGRAND OR APPROVED EQUAL. VERIFY EXACT

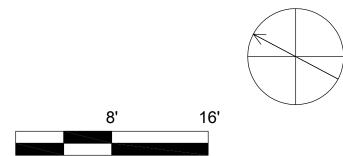
14. PROVIDE RECEPTACLES FOR OUTSIDE MOUNTED CAMERA LOW VOLTAGE TRANSFORMER. CAMERAS AND TRANSFORMERS BY OTHER. VERIFY EXACT LOCATION WITH SECURITY IN FIELD.

15. PROVIDE 2 GANG FLOOR BOX TYPE "880W2" AS MANUFACTURED BY WIREMOLD/LEGRAND OR APPROVED EQUAL. COORDINATE WITH ARCHITECT FOR FINISHES REQUIREMENTS. VERIFY EXACT

16. PROVIDE JUNCTION BOX FOR THE DOOR SECURITY ACCESS. REFER TO SECURITY DRAWINGS FOR

17. PROVIDE INTERCOM SYSTEM TYPE "LEM-1" FOR INTERIOR COMPONENT AND "LE-SS/A" FOR PUBLIC

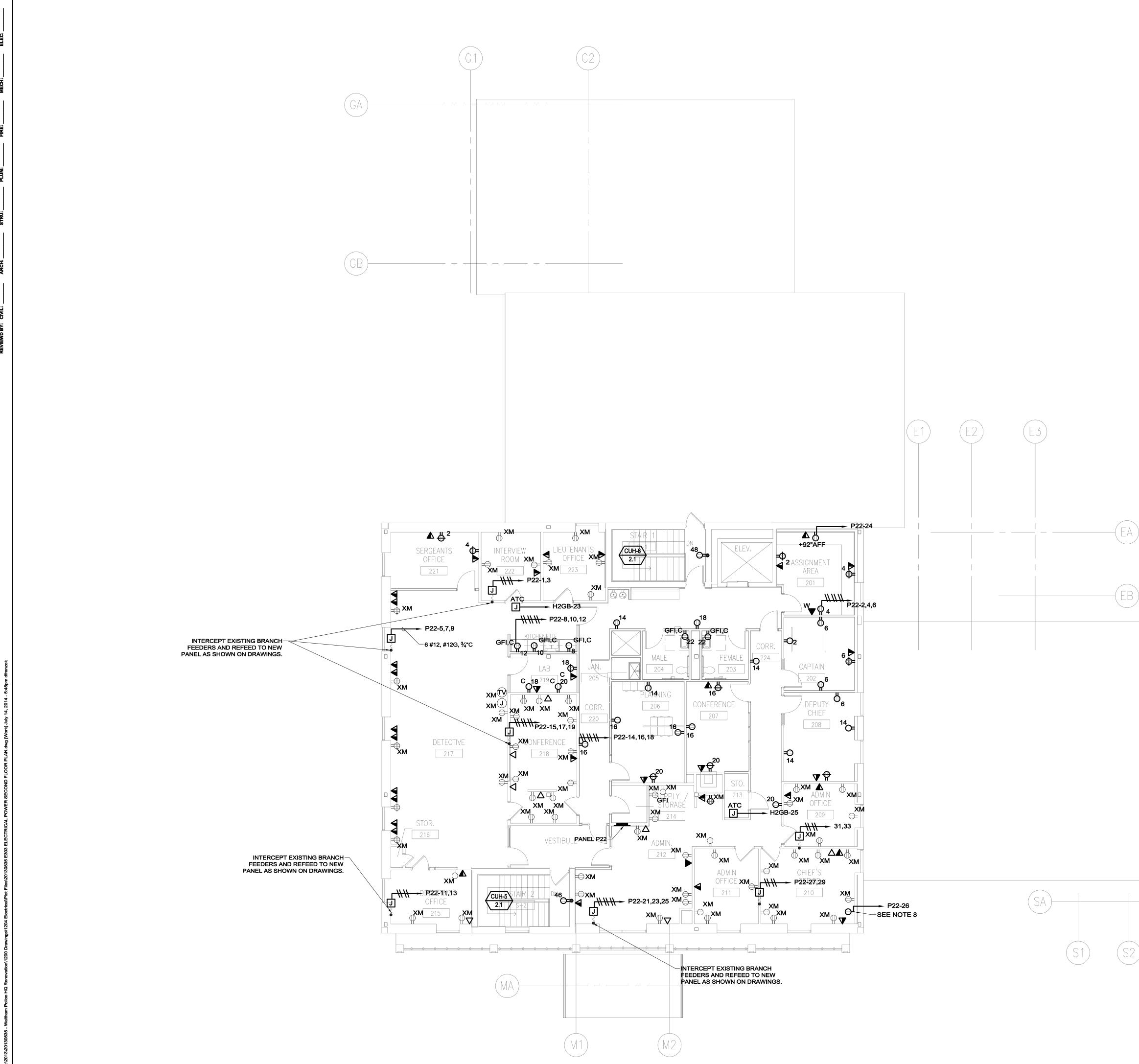
19. PROVIDE JUNCTION BOX, WIRING AND APPURTENANCES TO THE FIRE COUNTER SHUTTER DOOR. COORDINATE IN FIELD WITH ARCHITECT FOR EXACT LOCATION.



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Andover, MA - Boston, MA - Amherst, MA Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square Andover, MA 01810-1488
T. 978-296-6200
REVISIONS Number Description Date
ISSUED FOR
BID
WALTHAM . REALTHAM . REALTHAM .
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
ELECTRICAL POWER FIRST FLOOR PLAN
PROJECT NUMBER: 20130535DESIGNED BY:AMDRAWN BY:DFCHECKED BY:GMDATE:July-Aug.SCALE:2016 1/8" =

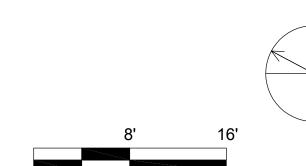
SHEET 130 **OF** 157

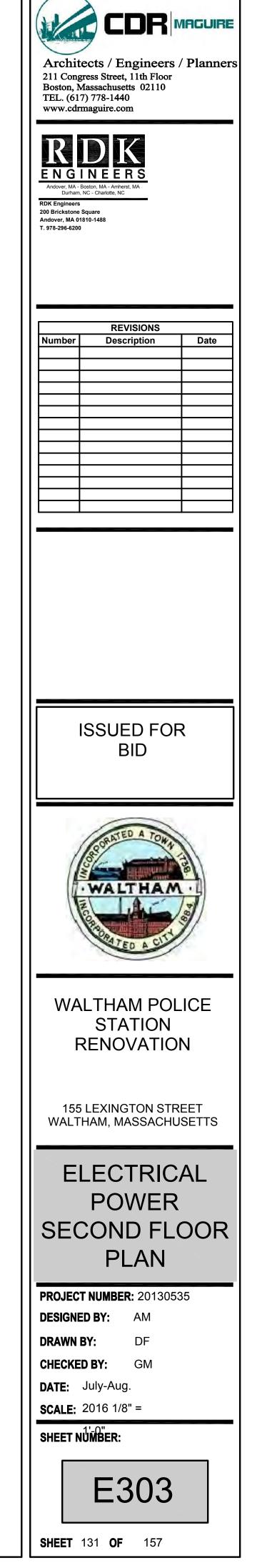
E302



POWER NOTES:

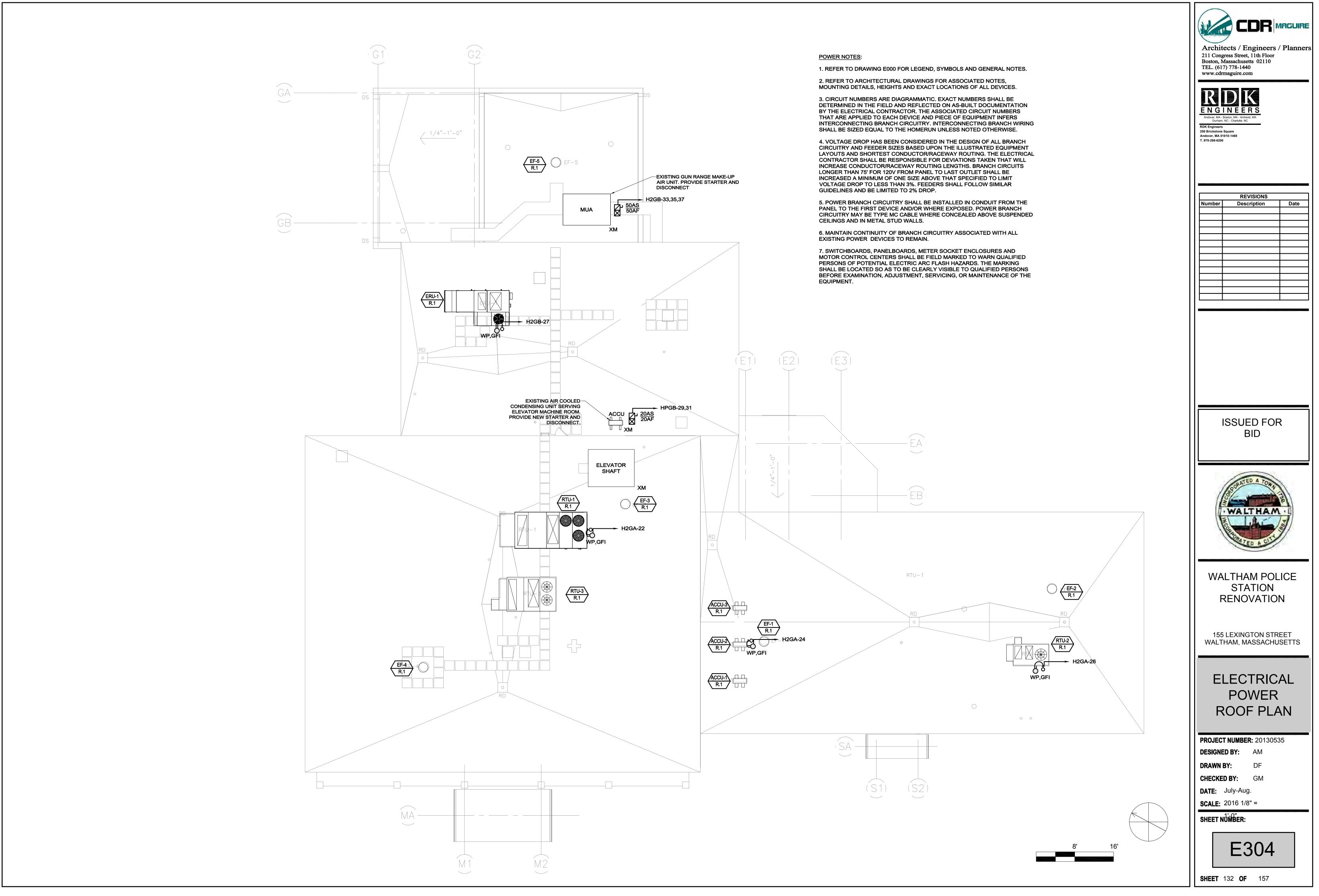
- 1. REFER TO DRAWING E000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.
- 2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.
- 3. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBERS THAT ARE APPLIED TO EACH DEVICE AND PIECE OF EQUIPMENT INFERS INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.
- 4. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUITRY AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. FEEDERS SHALL FOLLOW SIMILAR GUIDELINES AND BE LIMITED TO 2% DROP.
- 5. POWER BRANCH CIRCUITRY SHALL BE INSTALLED IN CONDUIT FROM THE PANEL TO THE FIRST DEVICE AND/OR WHERE EXPOSED. POWER BRANCH CIRCUITRY MAY BE TYPE MC CABLE WHERE CONCEALED ABOVE SUSPENDED CEILINGS AND IN METAL STUD WALLS.
- 6. MAINTAIN CONTINUITY OF BRANCH CIRCUITRY ASSOCIATED WITH ALL EXISTING POWER DEVICES TO REMAIN.
- 7. SWITCHBOARDS, PANELBOARDS, METER SOCKET ENCLOSURES AND MOTOR CONTROL CENTERS SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMEN
- 8. PROVIDE RECEPTACLES FOR OUTSIDE MOUNTED CAMERA LOW VOLTAGE TRANSFORMER. CAMERAS AND TRANSFORMERS BY OTHER. VERIFY EXACT LOCATION WITH SECURITY IN FIELD.
- 9. RECEPTACLES SHALL NOT BE INSTALLED BACK TO BACK.



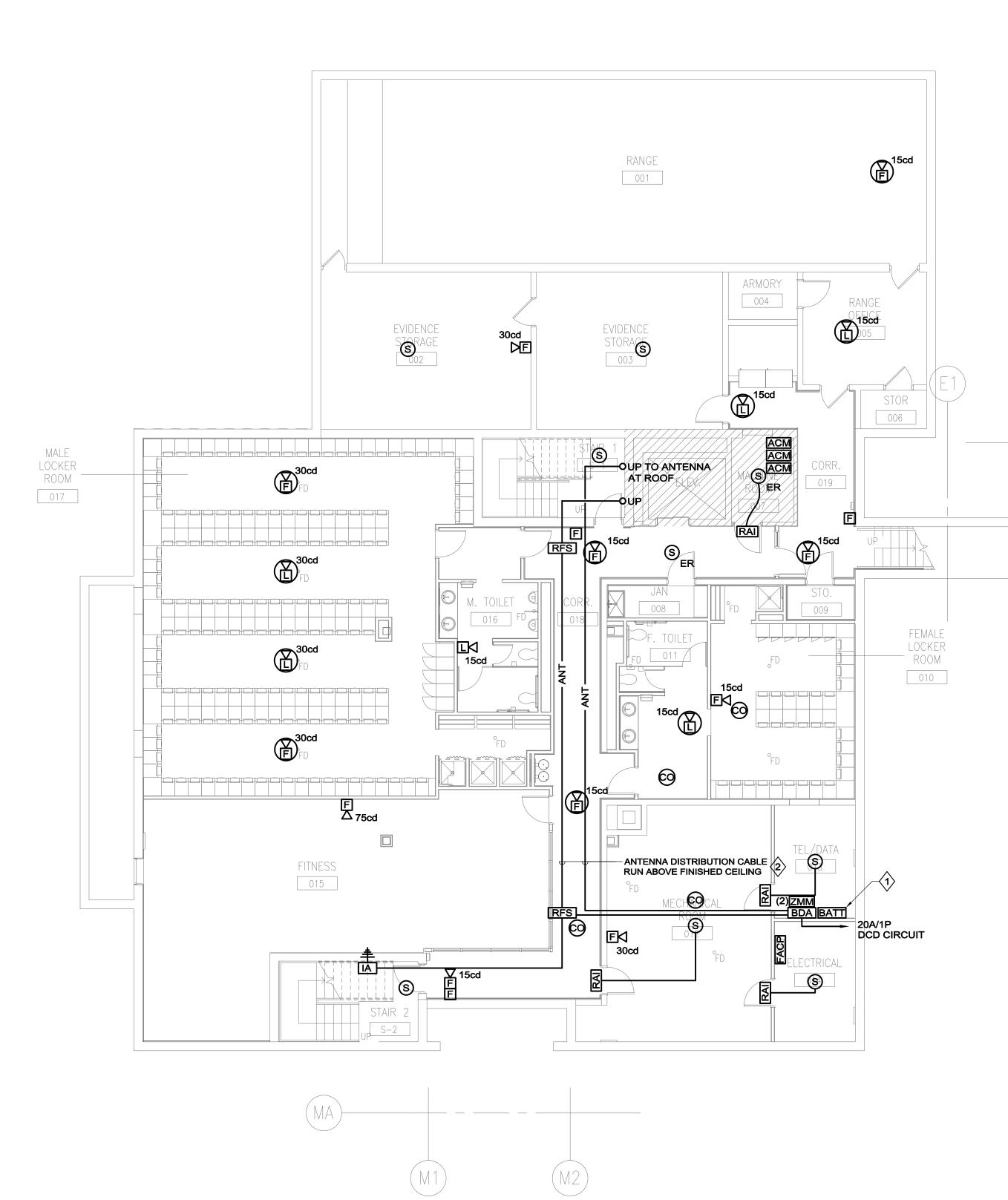


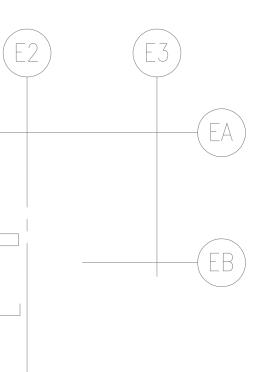
0130535 - Waltham Police HQ Renovation/1200 Drawings/1204 Electrical/Plot Files/20130535 E304 ELECTRICAL POWER ROOF PLAN.dwg [Work] July 14, 2014 - 5:45pm dfranzek

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(320130535 - Waltham Police HQ Renovation/1200 Drawings/1204 Electrical/Plot Files/20130535 E401 ELECTRICAL FIRE ALARM BASEMENT FLOOR PLAN.dwg [Work] July 14, 2014 - 5:45pm dfranzek





FIRE ALARM NOTES:

1. REFER TO DRAWING E000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. FIRE ALARM BRANCH CIRCUITRY SHALL BE INSTALLED IN CONDUIT FROM THE PANEL TO THE FIRST DEVICE AND/OR WHERE EXPOSED. FIRE ALARM BRANCH CIRCUITRY MAY BE TYPE MC CABLE WHERE CONCEALED ABOVE SUSPENDED CEILINGS AND IN METAL STUD WALLS.

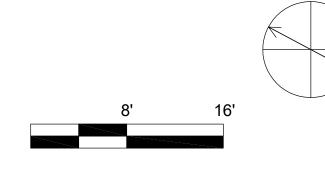
4. MC CABLE FOR FIRE ALARM SERVICE SHALL HAVE A RED IDENTIFIER ALONG ITS ENTIRE LENGTH. JUNCTION BOX COVERS AND CONDUIT COUPLINGS FOR ALL FIRE ALARM WIRING RACEWAYS SHALL BE PAINTED RED PRIOR TO INSTALLATION.

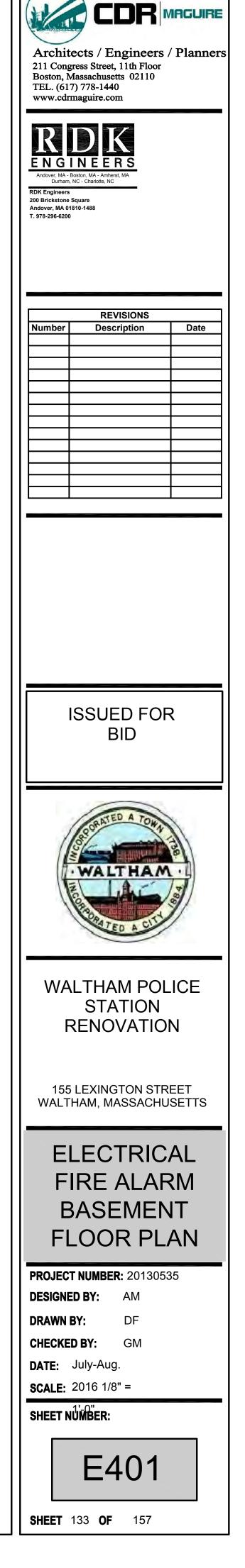
5. MAINTAIN CONTINUITY OF BRANCH CIRCUITRY ASSOCIATED WITH ALL EXISTING FIRE ALARM DEVICES TO REMAIN.

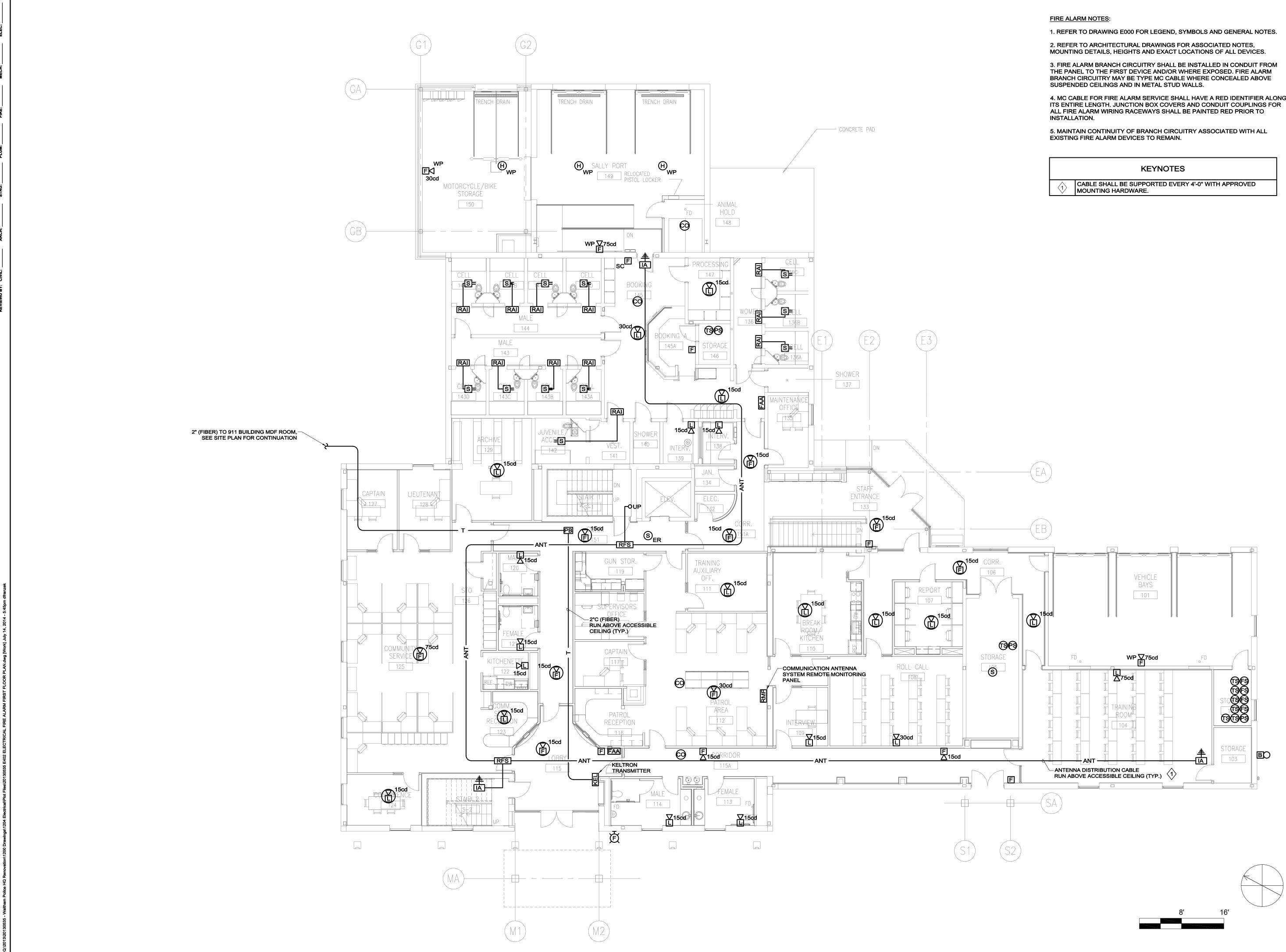
KEYNOTES

 $\langle 1 \rangle$ $\langle 2 \rangle$

- PROVIDE (2) ZONE MONITORING MODULES (ZMM) FOR TROUBLE NOTIFICATION AT THE SUPERVISORY STATION.
- CABLE SHALL BE SUPPORTED EVERY 4'-0" WITH APPROVED MOUNTING HARDWARE.

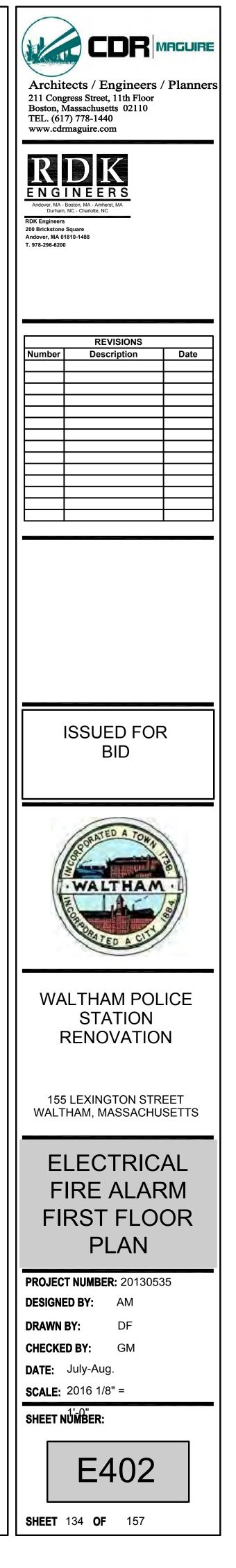




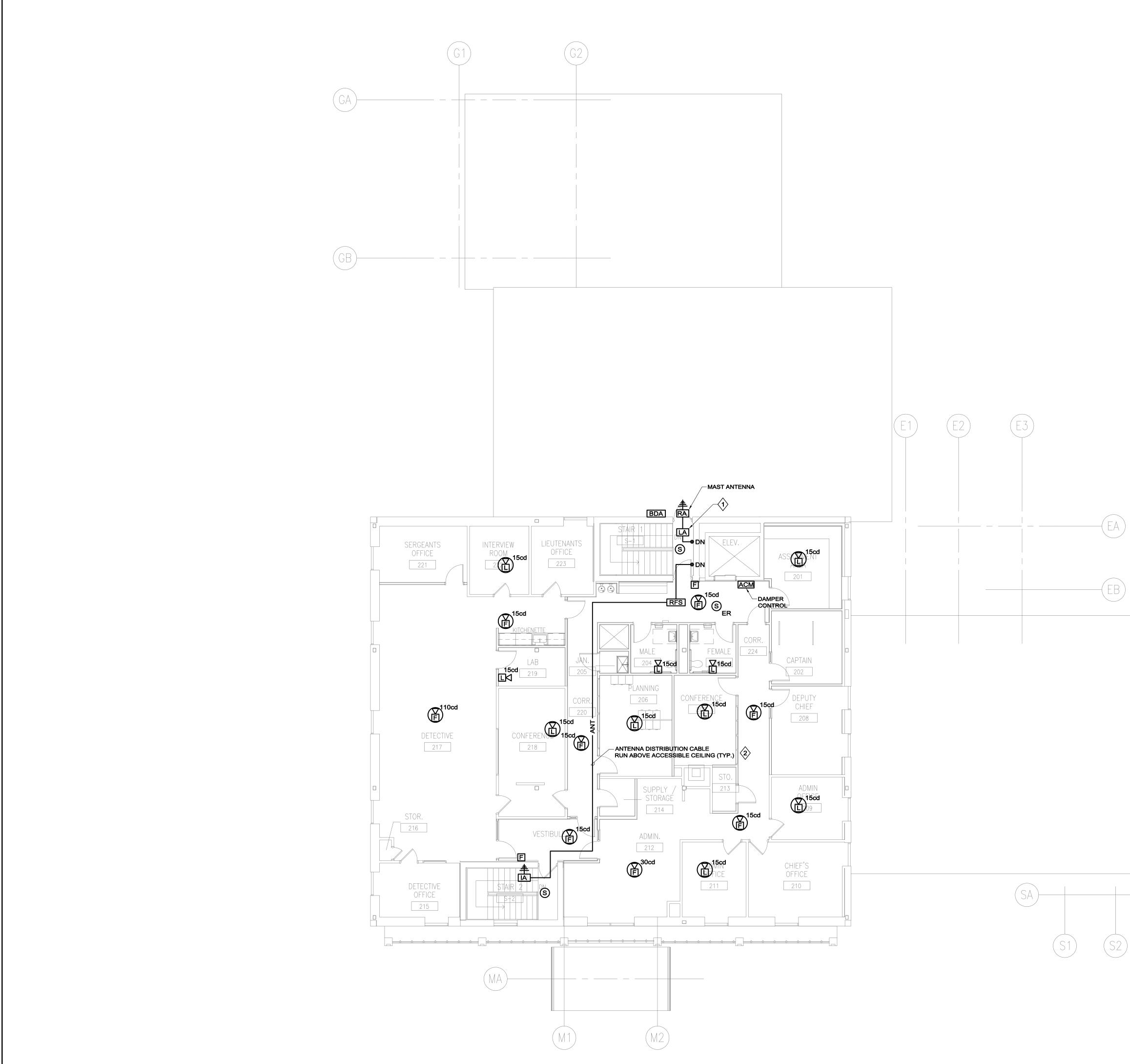


4. MC CABLE FOR FIRE ALARM SERVICE SHALL HAVE A RED IDENTIFIER ALONG









FIRE ALARM NOTES:

1. REFER TO DRAWING E000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

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5. MAINTAIN CONTINUITY OF BRANCH CIRCUITRY ASSOCIATED WITH ALL EXISTING FIRE ALARM DEVICES TO REMAIN.

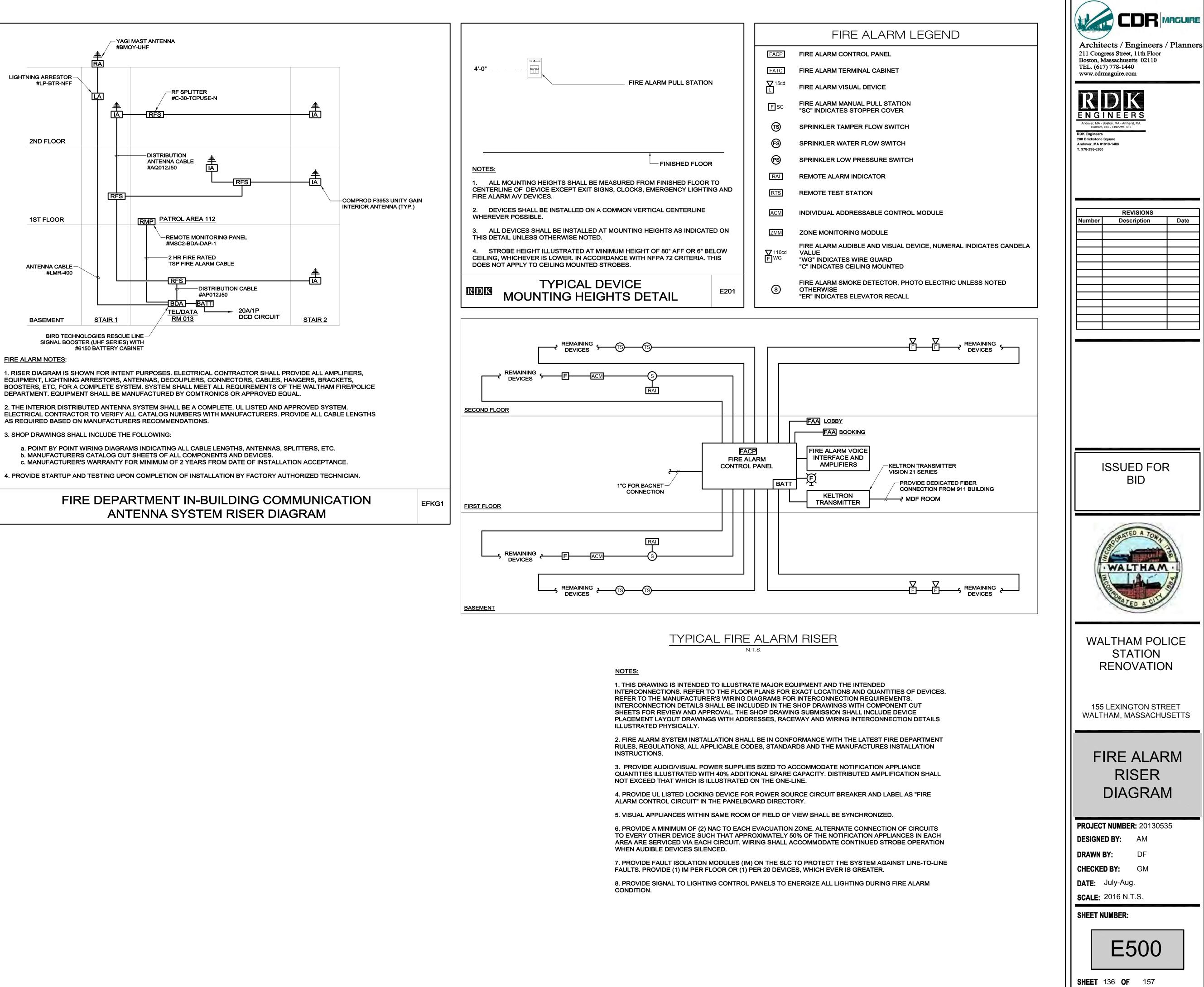
KEYNOTES

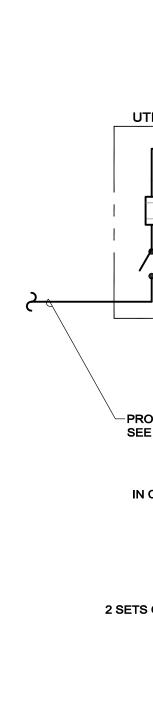
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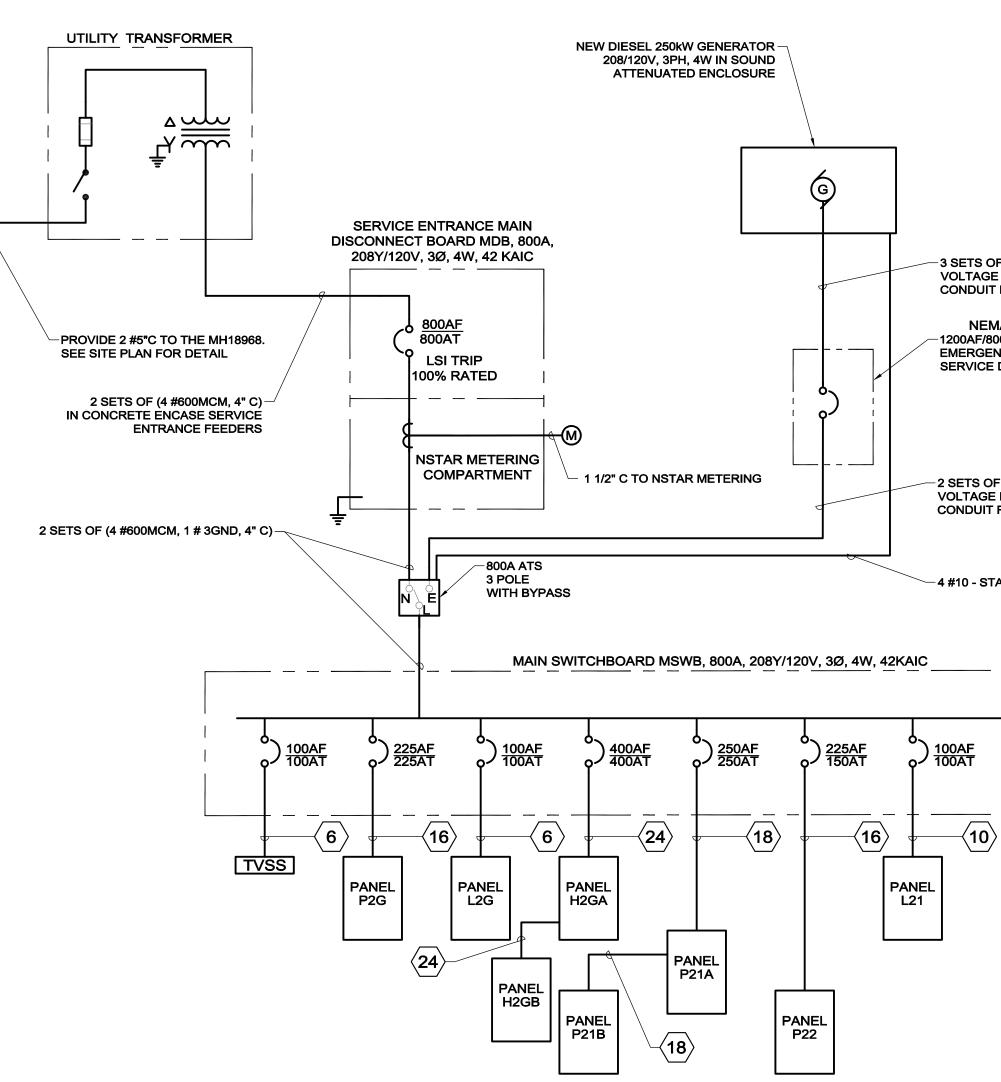
- LOCATE LIGHTNING PROTECTION UNIT AT CABLE ROOF PENETRATION. BOND TO BUILDING GROUND SYSTEM.
- CABLE SHALL BE SUPPORTED EVERY 4'-0" WITH APPROVED MOUNTING HARDWARE.



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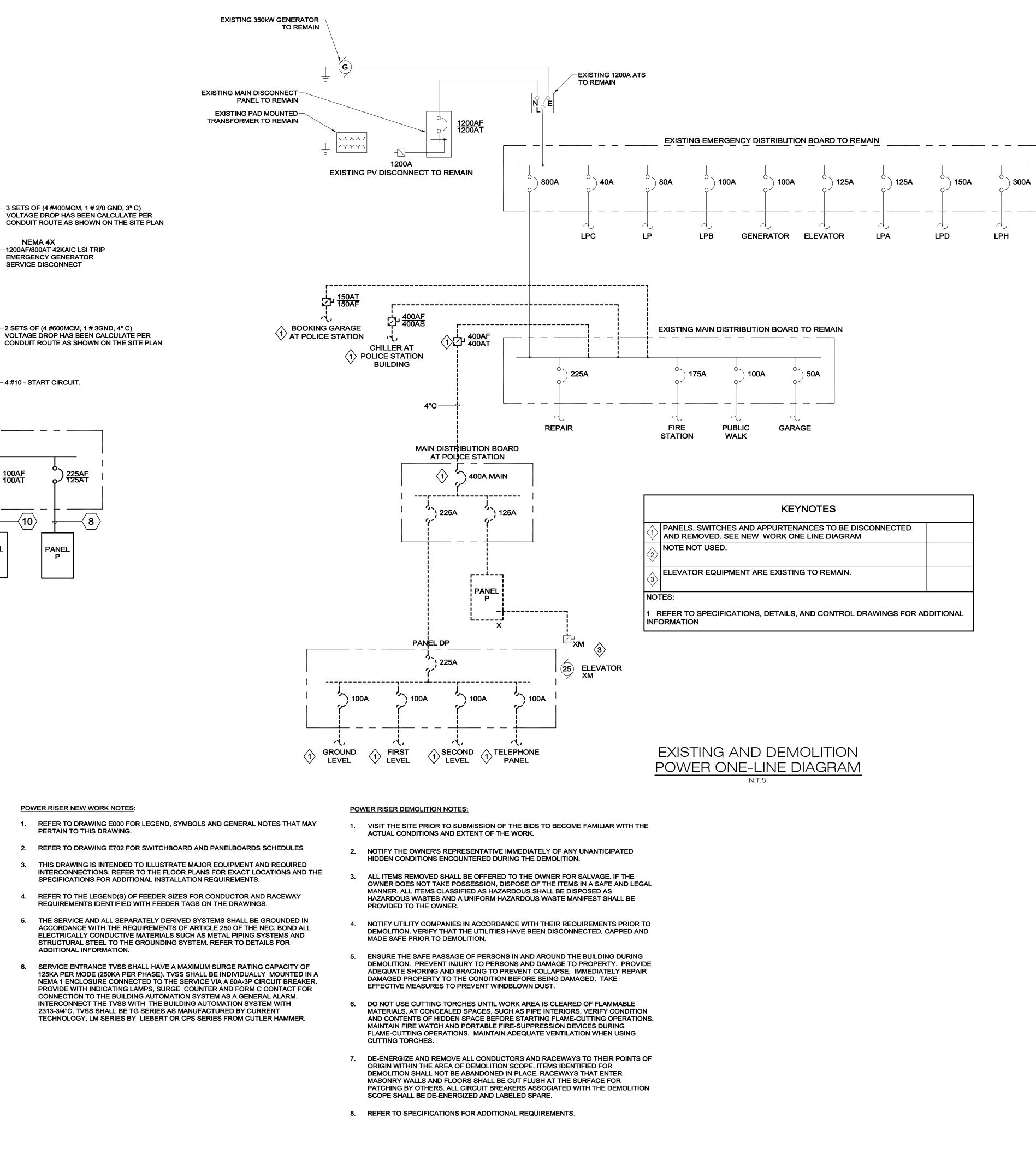


NEW WORK POWER ONE-LINE DIAGRAM N.T.S.

FEEDER SYMBOL	CONDUCTORS (3 PHASE, 3 WIRE) WITH GROUND	RACEWAY SIZE	CONDUCTORS (3 PHASE 4 WIRE) WITH GROUND	RACEWAY SIZE	NOMINAL			
1	3#6 & 1#10G.	3/4"						
2			4#6 & 1#10G.	1"	- 60			
3	3#4 & 1#8G.	1"			70			
4			4#4 & 1#8G.	1 1/4"	- 70			
5	3#2 & #8G.	1 1/4"			100			
6			4#2 & 1#8G.	1 1/2"	100			
7	3#1 & 1#6G.	1 1/2"			405			
8			4#1 & 1#6G.	1 1/2"	125			
9	3#1/0 & 1#6G.	1 1/2"			450			
10			4#1/0 & 1#6G.	2"	150			
11	3#2/0 & 1#6G.	2"			475			
12			4#2/0 & 1#6G.	2"	175			
13	3#3/0 & 1#6G.	2"			000			
14			4#3/0 & 1#6G.	2"	200			
15	3#4/0 & 1#4G.	2"			005			
16			4#4/0 & 1#4G.	2 1/2"	225			
17	3#250kcmil & 1#4G.	2 1/2"			0.50			
18			4#250kcmil & 1#4G.	3"	250			
19	3#350kcmil & 1#4G.	3"						
20			4#350kcmil & 1#4G.	3"	- 300			
21	3#500kcmil & 1#3G.	3"			050			
22			4#500kcmil & 1#3G.	4"	- 350			
23	3#500kcmil & 1#3G.	3"			(00)			
24			4#500kcmil & 1#3G.	4"	400			

NEC TABLE 310.15(B)(16) WITH NO GREATER THAN THREE CURRENT CARRYING CONDUCTORS PER RACEWAY IN AN AMBIENT NOT TO EXCEED 30 DEGREES C. FEEDER TAGS MAY BE OVERSIZED FOR THE ASSOCIATED OVERCURRENT PROTECTION TO ACCOUNT FOR DERATING FACTORS OR LIMIT VOLTAGE DROP. 2) RACEWAY SIZES ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE C1 FOR THHN/THWN CONDUCTORS IN EMT. RACEWAY SIZES SHALL BE INCREASED TO ACCOMMODATE DIFFERING INSULATION SYSTEMS AND RACEWAY TYPES TO LIMIT RACEWAY FILL TO LESS THAN 40%.

3) FEEDERS DESIGNATED IN MULTIPLE SETS SHALL HAVE THE REQUIRED SETS INSTALLED IN PARALLEL.



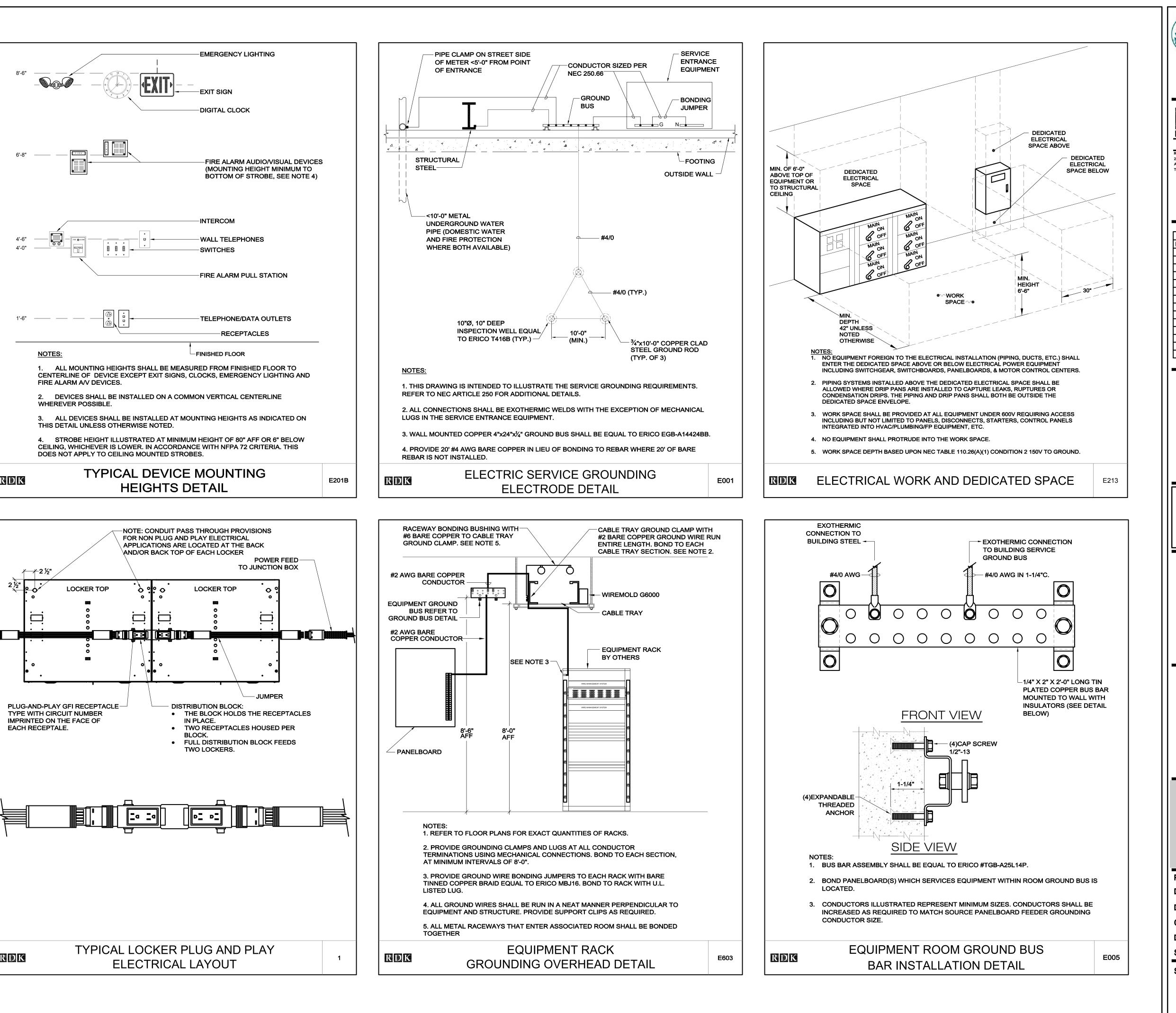
POWER RISER NEW WORK NOTES:

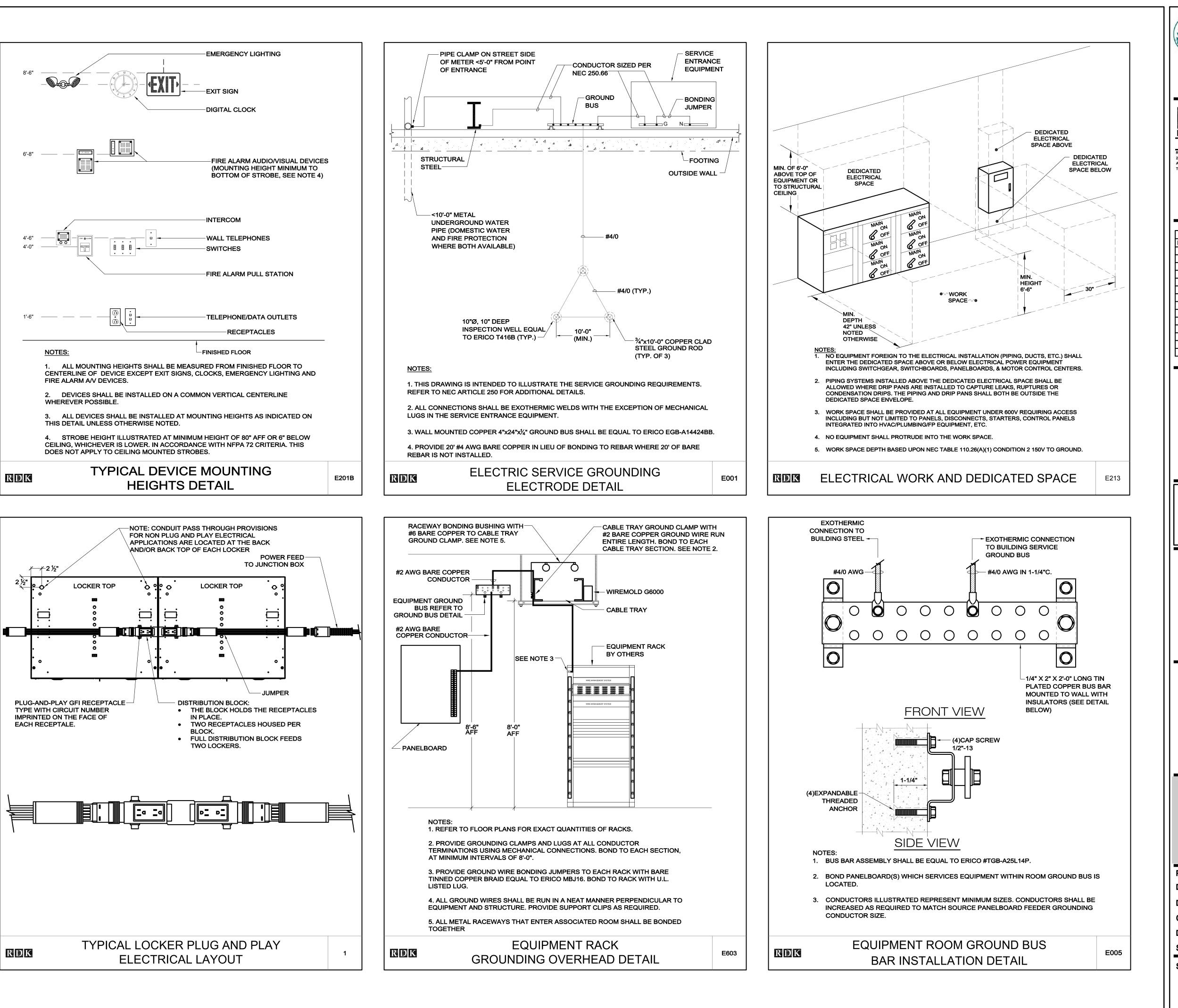
3.

4.

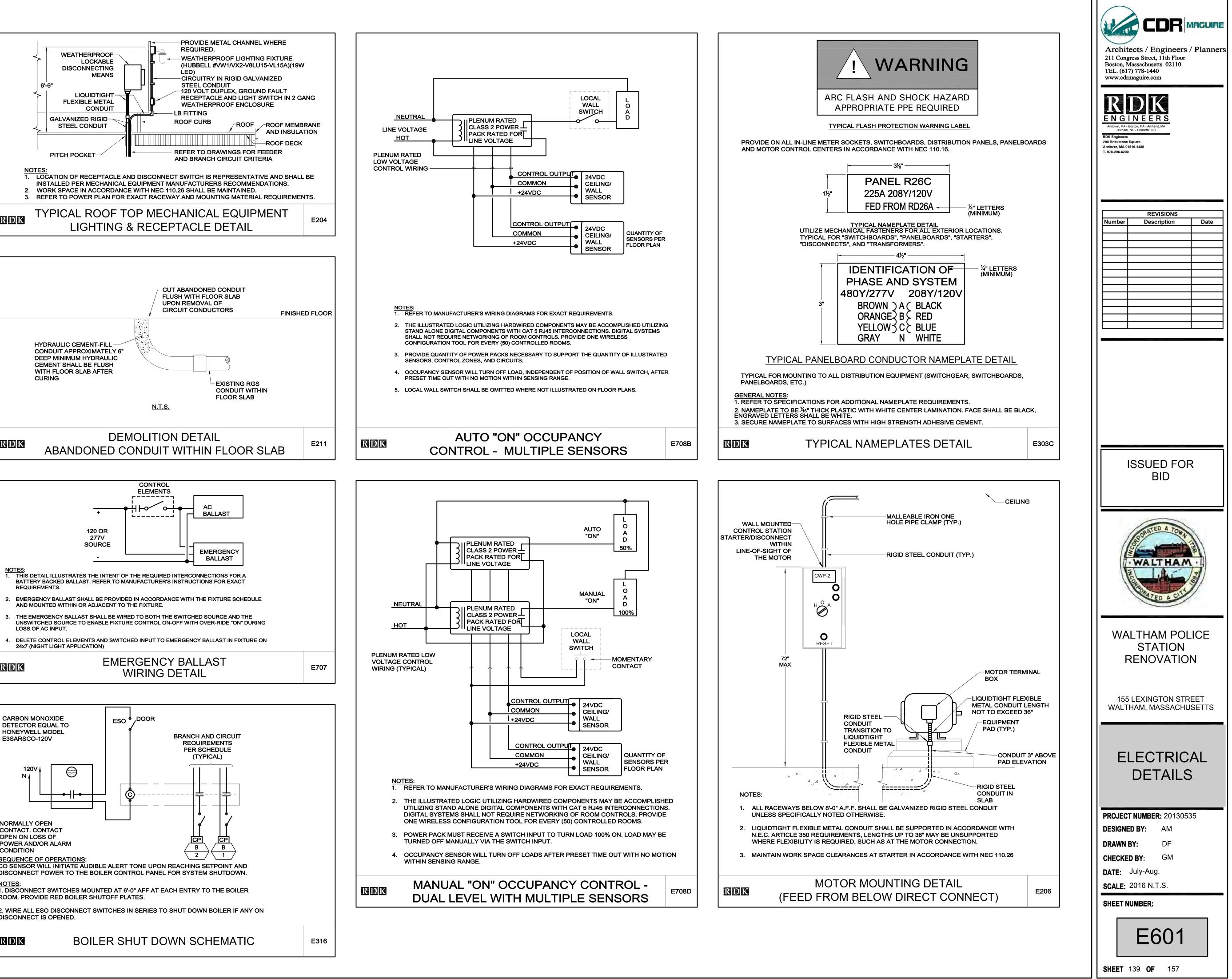
- REFER TO DRAWING E000 FOR LEGEND, SYMBOLS AND GENERAL NOTES THAT MAY PERTAIN TO THIS DRAWING.
- INTERCONNECTIONS. REFER TO THE FLOOR PLANS FOR EXACT LOCATIONS AND THE
- 5. THE SERVICE AND ALL SEPARATELY DERIVED SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 250 OF THE NEC. BOND ALL ELECTRICALLY CONDUCTIVE MATERIALS SUCH AS METAL PIPING SYSTEMS AND STRUCTURAL STEEL TO THE GROUNDING SYSTEM. REFER TO DETAILS FOR
- 125KA PER MODE (250KA PER PHASE). TVSS SHALL BE INDIVIDUALLY MOUNTED IN A NEMA 1 ENCLOSURE CONNECTED TO THE SERVICE VIA A 60A-3P CIRCUIT BREAKER. PROVIDE WITH INDICATING LAMPS, SURGE COUNTER AND FORM C CONTACT FOR CONNECTION TO THE BUILDING AUTOMATION SYSTEM AS A GENERAL ALARM. INTERCONNECT THE TVSS WITH THE BUILDING AUTOMATION SYSTEM WITH 2313-3/4"C. TVSS SHALL BE TG SERIES AS MANUFACTURED BY CURRENT

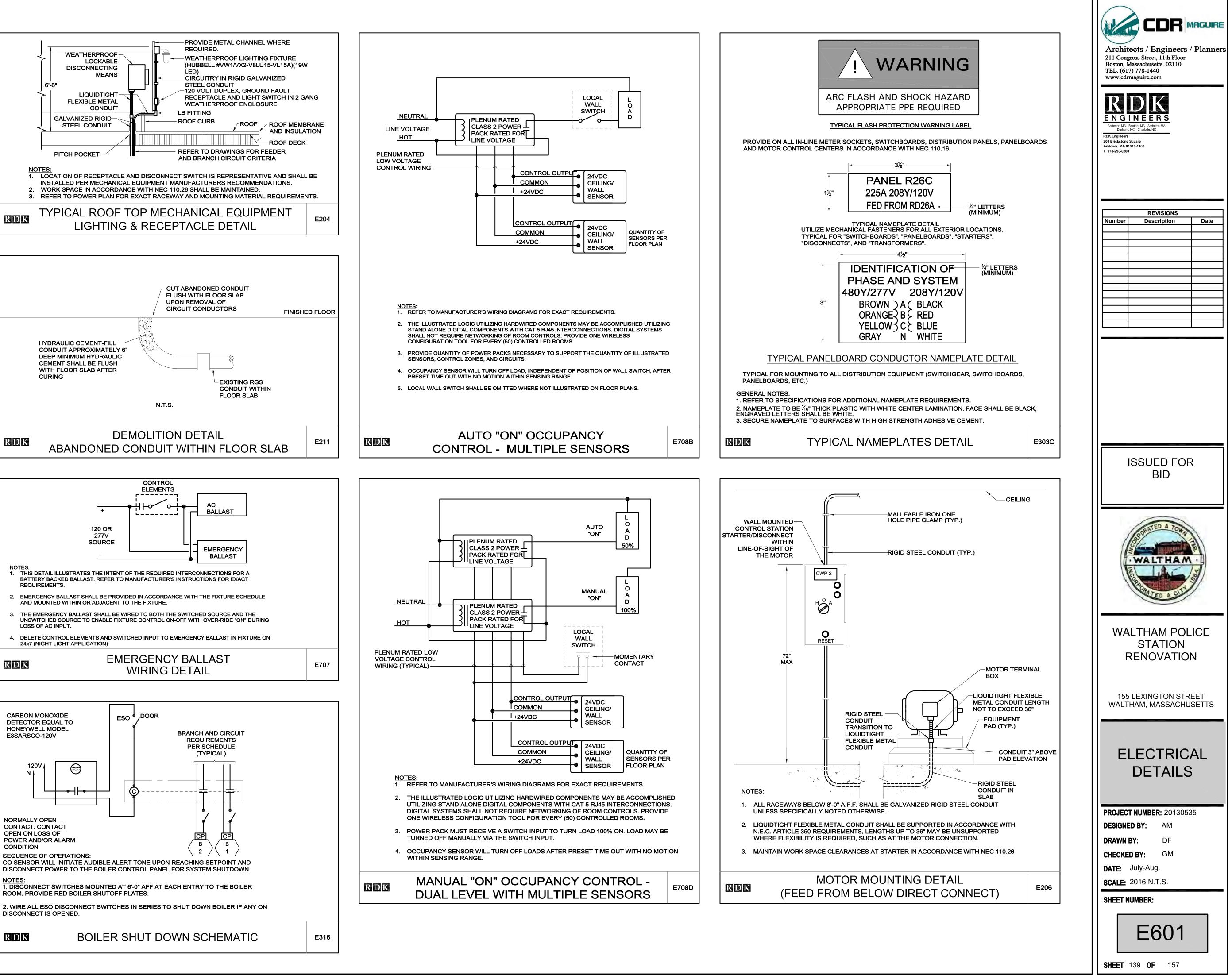
<image/> <section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>									
Number	REVISIONS Description Date								
	ISSUED FOR BID								
	WALTHAM								
	LTHAM POLICE STATION RENOVATION								
	ELEXINGTON STREET HAM, MASSACHUSETTS	_							
	ELECTRICAL ONE-LINE DIAGRAM								
DESIGNE DRAWN CHECKE DATE:	D BY: GM July-Aug. 2016 N.T.S.								
	E501								

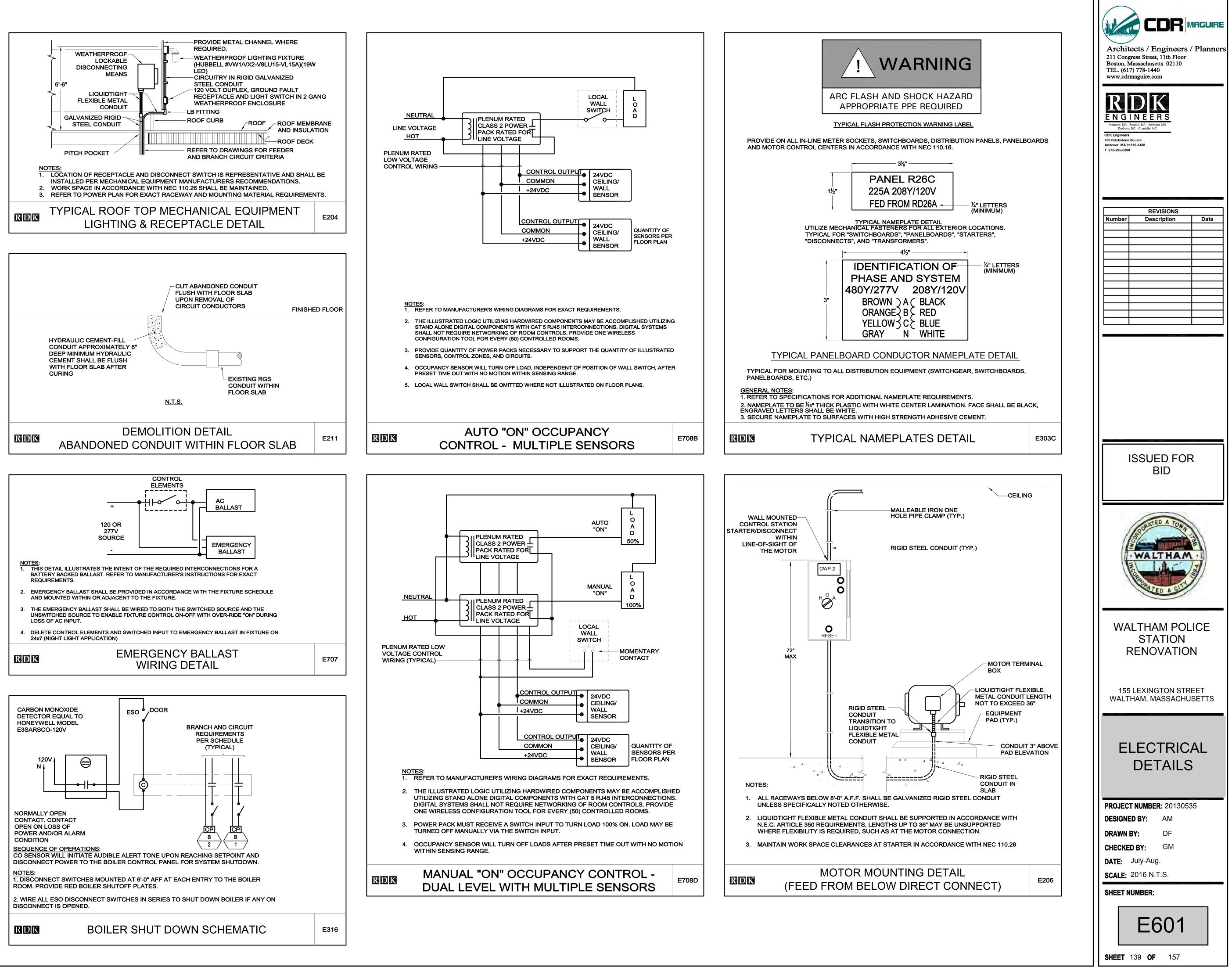




Architects / Engineers / Planners 211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
REDEERS Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200
REVISIONS Number Description Date
ISSUED FOR BID
BORATED A TOWN
WALTHAM
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
ELECTRICAL DETAILS
PROJECT NUMBER: 20130535 DESIGNED BY: AM DRAWN BY: DF
CHECKED BY: GM DATE: July-Aug.
SCALE: 2016 N.T.S. SHEET NUMBER:
E600
SHEET 138 OF 157







	SPECIAL	PURPOSE REC	EPTACLE	SCHEDULE
TAG	NEMACONF.	RATING	CIRCUIT	BRANCH CIRCU
			BREAKER	
1	5-30R	30A, 125V, 2P, 3W	30A-1P	2#10 & 1#10G 3
2	5-50R	50A, 125V, 2P, 3W	50A-1P	2#6 & 1#10G 3/
3	6-15R	15A, 250V, 2P, 3W	15A-2P	2#12 & 1#12G 3
4	6-20R	20A, 250V, 2P, 3W	20A-2P	2#12 & 1#12G 3
5	6-30R	30A, 250V, 2P, 3W	30A-2P	2#10 & 1#10G 3
6	6-50R	50A, 250V, 2P, 3W	50A-2P	2#6 & 1#10G 3
7	14-20R	20A, 125/250V, 3P, 4W	20A-2P	3#12 & 1#12G 3
8	14-30R	30A, 125/250V, 3P, 4W	30A-2P	3#10 & 1#10G 3
9	14-50R	50A, 125/250V, 3P, 4W	50A-2P	3#6 & 1#10G 3/
10	14-60R	60A, 125/250V, 3P, 4W	60A-2P	3#6 & 1#10G 3/
11	15-20R	20A, 250V, 3P, 4W	20A-3P	3#12 & 1#12G 3
12	15-30R	30A, 250V, 3P, 4W	30A-3P	3#10 & 1#10G 3
13	15-50R	50A, 250V, 3P, 4W	50A-3P	3#6 & 1#10G 3/
14	15-60R	60A, 250V, 3P, 4W	60A-3P	3#6 & 1#10G 3
15	L5-15R	15A, 125V, 2P, 3W	15A-1P	2#12 & 1#12G 3
16	L5-20R	20A, 125V, 2P, 3W	20A-1P	2#12 & 1#12G 3
17	L5-30R	30A, 125V, 2P, 3W	30A-1P	2#10 & 1#10G 3
18	L6-15R	15A, 250V, 2P, 3W	15A-2P	2#12 & 1#12G 3
19	L6-20R	20A, 250V, 2P, 3W	20A-2P	2#12 & 1#12G 3
20	L6-30R	30A, 250V, 2P, 3W	30A-2P	2#10 & 1#10G 3
21	L14-20R	20A, 125/250V, 3P, 4W	20A-2P	3#12 & 1#12G 3
22	L14-30R	30A, 125/250V, 3P, 4W	30A-2P	3#10 & 1#10G 3
23	L15-20R	20A, 250V, 3P, 4W	20A-3P	3#12 & 1#12G 3
24	L15-30R	30A, 250V, 3P, 4W	30A-3P	3#10 & 1#10G 3
25	L16-20R	20A, 480V, 3P, 4W	20A-3P	3#12 & 1#12G 3
26	L16-30R	30A, 480V, 3P, 4W	30A-3P	3#10 & 1#10G 3
27	L21-20R	20A, 208V, 4P, 5W	20A-3P	4#12 & 1#12G 3
28	L21-30R	30A, 208V, 4P, 5W	30A-3P	4#10 & 1#10G 3
29	L22-20R	20A, 480V, 4P, 5W	20A-3P	4#12 & 1#12G 3
30	L22-30R	30A, 480V, 4P, 5W	30A-3P	4#10 & 1#10G 3

NOTES: 1. DEVICE NEMA CONFIGURATION SHALL BE CONFIRMED PRIOR TO INSTALLATION. MATCH CONFIGURATION OF EQUIPMENT CORD CAP. NOTIFY OWNER'S REPRESENTATIVE OF RATING DISCREPANCY. 2. CONDUCTOR SIZES ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE 310.15(B)(16) WITH NO GREATER THAN THREE CURRENT CARRYING CONDUCTORS PER RACEWAY IN AN AMBIENT NOT TO EXCEED 30 DEGREI 3. VOLTAGE DROP IS NOT CONSIDERED IN BRANCH CIRCUIT SIZES. ALL BRANCH CIRCUITS WHICH EXCEED 75 FEET SHALL BE INCREASED A MINIMUM OF ONE SIZE TO LIMIT VOLTAGE DROP TO LESS THAN 3%. 4. RACEWAY SIZES ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE C1 FOR THHN/THWN CONDUCTORS EMT. RACEWAY SIZES SHALL BE INCREASED TO ACCOMMODATE DIFFERING INSULATION SYSTEMS AND RACEWAY TYPES TO LIMIT RACEWAY FILL TO LESS THAN 40%.

		DIS	TRIE	BUTIO	N P	ANEL	SCH	IEDU	JLE		
	PANEL:	D2G	-	VOLT:	208/120	/	3	PHASE	4	WIRE	
	BUS:	800	AMPS	MAIN:	MLO	AMPS	AIC		AMP	SSYM	
CIRCUIT	LOAD	DESIGN	ATION	OVERC	URRENT	DEVICE	LC	DAD		REM	ARKS
NO.		1		FRAME	TRIP	POLE	KVA	HP			
1	TVSS			100	100	3	-	1 65 C		1.1	
2	PANEL	P2G		225	225	3	55.25	1.7.4			
3	PANEL	L2G	-	100	100	3	7.33	1.4.0			
4	PANEL	H2GA	H2GB	400	400	3	115.86				
5	PANEL	P21A	P21B	250	250	3	68.57	-			
6	PANEL	L21	10.7.0	100	100	3	28.12	1.0.4.1			
7	PANEL	P22		225	150	3	25.83				
8	PANEL	P		225	125	3	30.79				
											-
						-		-			
NOTES:			1						1	1	
1.				MODATE FI						R DIAGR	AMFOR
				THIS NOTE							
2	"SPACE"	SHALL C	ONSTITU	TE ALL REC	QUIRED	BUS, SUP	PORTS A	ND HARD	WARE		
	NECESS	ARYTOI	NSTALL T	HE PROTE	CTIVE DE	EVICEUP	TO THE F	RAME LIN	ITATI	ON INDIC	ATED.
3	NOTES 4	-8 ARE C	PTIONS V	VHICH SHA	LL BE SP	PECIFCAL	LYNOTED	IN REM	ARKS	FOR INC	LUSION.
4	PROVIDE	E WITH FE	EED THRU	JLUGS.							
5.	PROVIDE	E WITH 20	00% NEUT	TRAL							
6	PROVIDE	E WITH IS	OLATED (GROUND B	US.						
7.	PROVIDE	E SHUNT	TRIP AUX	LIARYATT	ACHMEN	T TO THE	CIRCUIT	BREAKE	R.		
8	PROVIDE	TRANSI	ENT VOLT	AGE SURG	E SUPP	RESSION.	REFER T	O SPECI	FICAT	IONS FOR	CLASS

LE
CIRCUIT
0.0/110
)G3/4"C.
G3/4"C.
2G 3/4"C.
2G 3/4"C.
)G3/4"C.
G 3/4"C.
G 3/4"C

ULE										ľ	MEC	HAN	ICA	LEQ	UIP	MEN	IT S	CHE	DUL	E
CHCIRCUIT	LOAD							. 200 - L	STARTER											
	LOAD	STARTER						Sec.		OVE	ERCURR	ENT		1. Ca	INDIC	ATING L	IGHTS	1	AUXILIARY	Y
#10G 3/4"C.	TAG	LOCATION	HP	FLA	KVA	VOLT	PH	NEMA	TYPE	CB	RK1	MCP	PB	HOA	R	G	A	CPT	CONT	AC
#10G3/4"C.								SIZE			FUSE	1		· · · · · ·			:	_	NO	
#12G 3/4"C.	ACU-1	TEL/DATA013	1.20	0.36	0.07	208	1	102	NOTE 8	4	12	-			18.00	1.73		-		_
#12G 3/4"C.		condensate Pump		0.50	0.07	120	1	-	NOTED				-	-		-	-	-	-	_
#10G 3/4"C.	ACU-1 mini	LOWER ROOF		0.75	0.08	208	1	-	NOTE 8		-		-					-		_
#10G 3/4"C.	ACCU-1	LOWERROOF		0.75	0.16	200	1	-	NOTEO	-	-	-	•	-		-		-	-	_
#12G 3/4"C.	HP-1	FITNESS 015	-	0.36	0.07	208	1		NOTE 8	-		10.4	-					-	-	_
#10G 3/4"C.	HP-1 mini co	ondensate Pump	-	1.040.0	0.08	120	1	-	0.004-001	1.4	-	÷	-	-	1 Drept 1			141	- et 1	
#10G 3/4"C.	ACCU-2	LOWER ROOF	-	0.75	0.16	208	1	-	NOTE 8	-			-	-	4	-	÷	-	1.0	
#10G 3/4"C.															-					_
#12G3/4"C.	HP-2	FITNESS 015		0.36	0.07	208	1	· •	NOTE 8			-	•		- (* P	•	-			
#10G 3/4"C.		ondensate Pump	-	-	0.08	120	1	-	-	-	-	-	-	•		-	-	-		
#10G3/4"C.	ACCU-3	LOWER ROOF	-	0.75	0.16	208	1	-	NOTE 8	-		-				-		-		
#10G3/4"C.	RTU-1	UPPER ROOF	7.50	56.10	20.21	208	3	1	NOTE 8	-		-		1.1.4	1.1	1004	-	-		
#12G3/4"C.	RTU-2	LOWER ROOF	1.00	32.20	11.60	208	3		NOTE 8	-	-	-				-	-	-	-	_
#12G3/4"C.	RTU-3	UPPER ROOF	5.00	72.00	25.94	208	3	-	NOTE 8		-	-	-		-	-	-	-	-	
#10G 3/4"C.				-											1					_
#12G 3/4"C.	UH-1	MECHANICAL RM	-	0.80	0.09	115	1	0	NOTE 8					-		•	. 13 - 51	-	-	
#12G 3/4"C.	EF-1	LOWER ROOF	1/4	3.70	0.43	115	1	0	FVNR	15	-	7		X	X	X	X	-	2	
#10G 3/4"C.	EF-2	LOWER ROOF	1/4	3.70	0.43	115	1	0	FVNR	15		7		X	X	X	X		2	-
#12G 3/4"C.	EF-3	UPPER ROOF	1/6	3.40	0.39	115	1	0	FVNR	15	-	7		X	X	X	X	-	2	-
#10G 3/4"C.	EF-4	NOTUSED	1/0	0.40	0.00	110			T VIVIX	10		,			~	~	A		-	
#12G 3/4"C.	EF-5	UPPER ROOF	1/4	3.70	0.43	115	1	0	FVNR	15	-	7	-	X	Х	X	X	-	2	-
#10G 3/4"C.	2. 0		1/4	0.10	0.40	110				10				~	~	~	~		-	_
#12G 3/4"C.	ERU-1	LOWER ROOF	-	67.7	24.37	208	3	2-14	NOTE 8		-	0 - 0	-	-	10.00		-	-		
#10G 3/4"C.	CUH-1	STAIR #2 BASEMENT	1/15	0.0	0.1	115	1		NOTE 8											_
#12G 3/4"C. #10G 3/4"C.		LOBBY 115		0.8	0.1		1	-				-		-			-	-		_
#10G 3/4 C. #12G 3/4"C.	CUH-2 CUH-3	LOBBY 115 LOBBY 115	1/10 1/10	1.4 2.2	0.2	115 115	1	-	NOTE 8	-	-	-	-	-	•	-	-	-	-	_
#10G 3/4"C.	CUH-3 CUH-4	STAFF ENTRANCE	1/10	2.2	0.3	115	1		NOTE 8	-			-					-		_
#1003/4 0.	CUH-5	STAFF ENTRANCE	1/10	0.8	0.3	115	1	-	NOTE 8	-	-	-	-	-			-	-	-	Ē
FIGURATION	CUH-6	STAIR #2 2ND FLOOR	1/15	0.8	0.1	115	1	-	NOTE 8	-	-	-	-					-		_
IGUILATION	000-0	STAR #5 2ND FLOOR	1/10	0.0	0.1	115		-	NOTED											
H NO GREATER	GUH-1	VEHICLE BAYS	1/8	2.2	0.3	115	1	-	NOTE 8	-	10 P	-	•	-	1.00					
ED 30 DEGREES C.	GUH-2	SALLYPORT	1/8	1.3	0.1	115	1	-	NOTE 8	-		(10 - 11)	-	-	1.14	-	1.7.40	-	-	
ICH EXCEED	GUH-3	SALLYPORT	1/8	1.3	0.1	115	1	÷	NOTE 8	-	6 e 70	-	4	1.06	11.54 13		-		- 19 E	
3%.	GUH-4	MOTO/BIKE STORAGE	1/8	1.3	0.1	115	1		NOTE 8	-				· ·	- 19 A. 19					
CONDUCTORS IN	D 4			0.7	0.0	100	4	00	NOTE 8	45		7		V	V	V	V			_
MS AN D	B-1	MECHANICAL RM		2.7	0.3	120	1	00		15	-			X	X	X	X	-	2	_
011000	B-2	MECHANICAL RM		2.7	0.3	120	1	00	NOTE 8	15	-	7		Х	Х	X	X	-	2	_
	P-1	MECHANICAL RM	3/4	3.0	1.08	208	3	0	FVNR	30		15	-	X	Х	X	X		2	
	P-2	MECHANICAL RM	3/4	3.0	1.08	208	3	0	FVNR	30	-	15	-	X	Х	Х	X	÷	2	
	P-3	MECHANICAL RM	1 1/2	6.6	2.38	208	3	-	VFD		-	-		X	Х	Х	X	-	2	
1	P-4	MECHANICAL RM	1 1/2	6.6	2.38	208	3	-	VFD	1.0.0		-	-	Х	Х	Х	X	-	2	
WIRE			410	10	0.40	445				45		-		×	V	X				
SYM	RP-1	MECHANICAL RM	1/8	1.2	0.13	115	1	00	FVNR	15		7	-	X	X	X		-	2	_
REMARKS	RP-2	MECHANICAL RM	1/8	1.2	0.13	115	1	00	FVNR	15		7	- ÷	Х	Х	X	-	-	2	
ILLIVEI (ILO	GWH-1	MECHANICAL RM		1 CO. 1	0.12	120	1						•	1.00		-	1.1.4		-	
	DWCH-1	MECHANICAL RM	-	9.0	1.0	115	1	-		-		-		-		-	-			
	GB-1	MECHANICAL RM	1/2	3.0	1.08	208	3	0	FVNR	30	1 .	15	19.01	X	Х	Х	X	-	2	
				1.0						1										_
																-				-
	NOTES		-										1			1			KEY:	
		NOTES 2-6 APPLY TO A		ICABLE	LOADS.														FVNR	
	2	PROVIDE THERMAL OV	ERLOAD	UNITS	FOR ALL	STARTE	RS SIZ	ED TO MA	TCH LOAD N	AMEPLAT	E AND N	EC REQ	UIREME	NTS .					FVR	
	3	BRANCH CIRCUIT WIR	ING MET	THODS S	HALL BE	AS NOT	ED ON	THE DRA	WINGS AND/C	OR SPEC	IFICATIO	NS FOR	THE APP	PLICABLE					2S1W	
		LOCATION. THE FINAL																	2S2W	
	4	COPPER BRANCH CIR					and the local dates				KE ADJUS	STMENT	s то со	NDUCTO	ORS FOR	2			RVAT	1
		TEMPERATURE OR VO		the second second second						IA.			_						RVPW	
		RACEWAY SIZES ARE E									TO 0 51		_						RVYDOT	
		VFD SHALL BE CONTR									ALC CON	RACTO	к.						RVYDCT	_
		. REQUIRED DISCONNE . REQUIRED STARTER I																-	MMS CB	
RDIAGRAMFOR		DISCONNECT FOR 25			and the second second					IN L.	-								MCP	-
		PROVIDE NEUTRAL FR								OF 208	3PH LINI	TS							PB	
	10 CO 10 C	FUSES FOR DISCONNI														-	-		HOA	
N INDICATED.																	-		CPT	
OR INCLUSION		1	1	-	1	1	ĺ .	1			1			1		Ì.	1		VED	

S FOR CLASS.

SCHEDULE OF

PANEL	SERVICE	MAINS	MTG	AIC	TOTAL							_				BR	ANCI		CUI	T BR	EAK	ERS										Т
TAG		MCB MLO			POLES			1-P	OLE					2-P	OLE									3	-POL	E				1.1	1.2.3	
						15	20	25	30	40	50	15	20	25	30	40	50	15	20	25	30	40	50	60	70	80	90	100	125	150	175 2	00
P2G	208/120V, 3PH, 4W	225A	S	10,000	80		77						1									1										+
L2G	208/120V, 3PH, 4W	100A	S	10,000	30		25	1													1					10.71						
H2GA	208/120V, 3PH, 4W	400A	S	10,000	42	5	17	1		1		2		3						·			2	-		1						1
H2GB	208/120V, 3PH, 4W	400A	S	10,000	42	-	19						1					4	1							1	1					
P21A	208/120V, 3PH, 4W	250A	S	10,000	72	1	78	1-1		[1				1		1-1- m	1.000				1						1
P21B	208/120V, 3PH, 4W	250A	S	10,000	72		72												1							1						
L21	208/120V, 3PH, 4W	100A	R	10,000	42	0.000	42	1	1003	1				-							121			10								
P22	208/120V, 3PH, 4W	150A	R	10,000	42	1	41				1			11			-				1					1						
Р	208/120V, 3PH, 4W	250A	R	10,000	18		12	1			·			1.1	1				1			1							1			
				12										1																		
																	1.	1			1	1	1									
																	1.1			1		, level (1.000						_
									_					1									1			1.1.1						
NOTES:						1				1									EY:													
	NOTES 2 & 3 APPLY T																		MCE		1000					ER						_
2	. PROVIDE LUGS TO A									ISER	DIA	GRA	I FO	R								N LU										_
	SUPPLY AND ALL LO										0.05	0.710			_				S			RFAC				_						_
	PANEL SHALL BE FUI													-					F	=	FLU	SH M	1001	NIEL)							_
	NOTES 5-13 ARE OPT												_	UN.	-	-		-	410		MAINT			FDD				10.01			-	-
5.	ACCORDANCE WITH												5 111		-		-		AIC	-												_
6	. PROVIDE WITH FEED			SIDENT	IF TING SI		SRA	(TINC	5 APF	LICA		N.				-	-			-	DRE	ARE	RSI	1317	ALLE		REF		ICEL	PAN	IEL.	-
	. PROVIDE WITH FEED		1			-	-			-	-									-		-			-							-
	. PROVIDE WITH 200%									-																						-
	. 120V SHUNT TRIP MA			R																						-						_
	. GROUND FAULT CIR				OR 4-6 n	na Fi		FRS	ONN	FIP	ROT	ECTI	ON									-		-	-							-
	GROUND FAULT EAR														-				-			-			-	-		-				-
	ARC FAULT CIRCUIT					1										-		1				-										-
	TRANSIENT VOLTAGE					L	1	-			1	1			-	-		-			·	-	-	-		-	-		<u> </u>	1		

E	DU	ILI	E														_				
			,			POW	ER S		RCE			-		INE	CTI		<u> </u>		D	DANICH	DEMARKS
T	-		ACTS		PA	NEL			C/B		FLE	X JI	B R	EC	AS	_	SC NEM	1A		RANCH	REMARKS
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				-		3-7,9			80A/3		X			-	•	•<	-		3#4, 1#8N	& #8G - 1 1/4"C	NOTE 7,10
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	2	-	2			GA-6			5A/1		X			-	30		1			#12G - 3/4"C	
	2		2	-	H2	GA-6	6	1	5A/1	P	X			•	30	-	1	_	2#12 &	#12G - 3/4"C	
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	2	_	2	-		-8,10	5,12 6,18	/	5A/3	·	X			-	30 30	-	1	-		#12G - 3/4"C #12G - 3/4"C	NOTE 6
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	2		2		H2	GA-2	7	1	5A/1	Ρ	X	-		-	30	-	1		2#12 &	#12G - 3/4"C	
			÷.		H2	GA-2	9	2	20A/1	P	X	>	(÷					2#12 &	#12G - 3/4"C	
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WALTHAM . WALTHAM
WALTHAM POLICE STATION RENOVATION
155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
ELECTRICAL SCHEDULES
PROJECT NUMBER: 20130535 DESIGNED BY: AM DRAWN BY: DF CHECKED BY: GM DATE: July-Aug. SCALE: 2016 N.T.S. SHEET NUMBER:
SHEET NOMBER: E700 SHEET 140 OF 157

LIGHTING FIXTURE SCHEDULE								┨ ┝──- _┲ ─────		LIG			CHEDULE									
PE MANUFACTURERS	CATALOG NUMBER	DESCRIPTION	QTY	LAMPS TYPE COLOR CF	ι ατγ	-	LLAST	TYPE	INP WATTS		REMARKS	TYPE MANUFACTURERS	CATALOG NUMBER	DESCRIPTION	QTY	-	MPS COLOR (B/ CRI QTY BF	LUMENS TY	INP YPE WATTS		REMARK
GOTHAM INDY H.E. WILLIAMS	EVO 35/10 6DFR 120 SD6-11351-SAQF3 SD6-SAQF-PF/WET HB-TL LEDSL60-OS11/835-EDD*OS-120	6" RECESSED APERATURE LED DOWNLIGHT. UL LISTED WET LOCATION	1	LED 3500K 83	3 1		661	LED	22	120		ES1	LQC-W1R-ELN	SINGLE FACED SELF CONTAINED	1	LED				.71	UNIV N	IOTE 9
GOTHAM INDY	AF 1/32TRT 6WR 120 C6H-126-42T C650-CL-WH HB-TL	6" RECESSED COMPACT FLUORESCENT DOWNLIGHT	1	32W TRT	1		2400	ELB	32	120		ES2	LQC-W2R-ELN	DOUBLE FACED SELF CONTAINEE	1	LED				.71		IOTE 9
H.E. WILLIAMS PHILIPS OR EQUAL	PBD60-1-32T-CS-EB1-120 COLORGRAZE MX4 POWERCORE	EXTERIOR LED DECORATIVE		LED				LED	37	120		<u>NOTES:</u> 1. NOTES 2-9 APPLY TO AL	_ APPLICABLE LIGHTING FIXTURES.	THE REMARKS COLUMN SHALL NOTE								
GOTHAM INDY	AF 1/32TRT 6WR 120 EL C6H-126-42T-BR C650-CL-WH HB-TL	6" RECESSED COMPACT FLUORESCENT DOWNLIGHT WITH	1	32W	1		2400	ELB	32	120 51	E NOTE 12	2. FIXTURES SPECIFIED W WITHOUT CATALOG NUM 3. VERIFY EXACT MOUNTIN	TH CATALOG NUMBERS ESTABLISH IBERS. WHERE ONLY ONE MANUFA IG CONDITIONS AND PROVIDE APPF	QUALITY LEVEL FOR EQUAL FIXTURE CTURER LISTED, THERE SHALL BE NO ROPRIATE ACCESSORIES AND HARDW. HALL BE TYPICAL OF ALL FIXTURES IN	S FROM MA SUBSTITUT ARE TO ACC	NUFACTU FION. FIXT COMMODA	RERS LISTED URES SHALL I .TE REQUIREN	BE DLC COMPLAINT UNI /IENTS.	ESS OTHERWISE	E INDICATED.		
H.E. WILLIAMS GOTHAM	PBD60-1-32T-CS-EM-EB1-120 AF 1/32TRT 6WR 120 ECOS	EMERGENCY BALLAST		32W	'							5. CONTINUOUS ROWS OF LENGTHS AS INDICATED 6. PROVIDE ALL FLUORES	FIXTURES SHALL BE PROVIDED WIT ON THE PLANS. FIXTURES IN SOFF CENT FIXTURES WITH ELECTRONIC	THALL BE THREAD OF ALL PATCHALS IN TH ALL NECESSARY HARDWARE AND F ITS SHALL BE CONTINUOUS END TO E BALLASTS WITH MAXIMUM THD OF 109 APID START WITH END-OF-LAMP-LIFE	ILLERS TO ND. 6, PF GREA	PROVIDE	THE EXACT 97% AND BF	MGL.				
D INDY H.E. WILLAIAMS LITECONTROL	C6H-126-42T-D10 C650-CL-WH HB-TL PBD60-1-32T-CS-EBD1-120 P-ID-5924T8-PBCWM-TCWM-ELB-1CWQ-120	FLUORESCENT DIMMABLE DOWNLIGHT	1	TRT	1		2400	ELB	32	120 SE	EE NOTE 10	OTHERWISE. BALLASTS 7. BALLAST EFFICIENCY SI 8. FLUORESCENT LAMPS S	SHALL BE UL LISTED AND MANUFAC IALL BE GREATER THAN THAT REQU HALL HAVE A MINIMUM CRI OF 82. L	TURED BY ADVANCE ELECTRIC, GE, O JIRED TO ENSURE THAT THE VALUE LI AMP SHALL BE MANUFACTURED BY O	SRAM SYLV STED FOR I SRAM SYLV	VANIA OR INPUT WA	JNIVERSAL. FTS IS NOT EX	CEEDED.				
1 PINNACLE PEERLESS LITHONIA	G9CA-2T8-4'-AC48G1-UNV-1C-W PRM4-2-32-WHR-OPD-WPB-4-R4-120-GEB10-SCT-LP835-F3 L 2 32 120	ARCOS ID 4' PENDANT-MOUNTED INDIRECT/DIRECT	2	Т8	1			ELB	59	120		10. FLUORESCENT DIMMIN 11. FLUORESCENT DIMMIN HILUME SERIES. COORD	B BALLAST SHALL HAVE FULL RANG B BALLAST SHALL HAVE FULL RANG INATE SPECIFIED DIMMER CONTRO	SSORIES AS INDICATED ON THE PLANS E ENERGY MANAGEMENT CAPABILITIE E ARCHITECTURAL CAPABILITIES FRO DL TO MATCH REQUIREMENTS FOR OP	S FROM 10 M 1% TO 10 FIMAL CONT	0% EQUA	. TO LUTRON HE SUPPLIED	SYSTEM.				
2 H.E. WILLIAMS	80-4-2 32-VBY-2-EB2-UNV KW 48 S 2 32 120 SO AH5 CSP	4' SUSPENDED INDUSTRIAL STRIP LIGHT	2	тв	1	.88	2900	ELB	55	120		FOR 90 MINUTES. BALLA 13. ALL FIXTURES SHALL BI	ST SHALL UL LISTED, COMPATIBLE	DE 600-1325 LUMENS OF ILLUMINATION TO THE SPECIFIED LAMPS AND BE EQI				5				
LITHONIA E H.E. WILLIAMS LIGHTOLIER	L 2 32 120 EL 80-4-2 32-VBY-2-EB2-UNV-EM1400(T8)/1 KW 48 S 2 32 120 SO AH5 CSP EM	4' SUSPENDED INDUSTRIAL STRIP LIGHT WITH EMERGENCY BATTERY PACK	2	Т8	1	.88	2900	ELB	55	120 SI	EE NOTE 12											
LITECONTROL 3 FINELITE LIGHTOLIER	P-ID-5234T8-PBSS-CWM-ELB-1CWQ-120 S12-ID-DCO-6-3T8-SC-91W-OPEN-120-FA-FE-C1-0.88 EG-1-3-B-H-P-4-1-W	CIROS 4' PENDANT-MOUNTED INDIRECT/DIRECT	3	тв	1			ELB	86	120												
LITECONTROL BD FINELITE	P-ID-5234T8-PBSS-CWM-DIM-1CWQ-120 S12-ID-DCO-6-3T8-CRD-91W-OPEN-120-FA-FE-C1-0.88	CIROS 4' PENDANT-MOUNTED INDIRECT/DIRECT DIMMABLE	3	Т8	1			ELB	86	120 SE	EE NOTE 10		TURERS MODEL # DESCRIPT	LIGHTING CO			ECHNOLOGY	COVERAGE	VOLTAGE	NOTES		
LIGHTOLIER PRUDENTIAL LIGHTING FOCAL POINT	EG-1-3-B-H-P-4-1-W P3940 7T5 PRA YGW D9 SC 120 CA48 X1 FSD 44 D 7T5 E 120 C48 CX WH	4' DIAMETER SUSPENDED	7	Т5	7		2850	ELB	145	120								360° TWO-SIDED,				
H.E. WILLIAMS LITECONTROL PINNACLE	RNDP-4-5-32U-FXA-EB4/1-UNV G-D-LRC222T8-PFO-CWM-ELB-120 LU22A-2T5-G1-UNV-1C-W	2' x 2' RECESSED INDIRECT	2	Т8/Т5				ELB	33	120				SENSORS CORRIDOR	CEILIN		SONIC	90 LINEAR FT	24VDC			
LIGHTOLIER LITECONTROL	H9-S-2-G-L-R-2-17-120-HI G-D-LRC222T8-PFO-CWM-ELB-EF-120	2' X 2' RECESSED INDIRECT											PPER DT-355 DUAL TECHNOLOGY CE	EILING SENSORS BREAKROOM	CEILIN	ANDU	/EINFRARED (PIR LTRASONIC IOLOGIES	1,000FT2	120V			
E PINNACLE LIGHTOLIER LITECONTROL	LU22A-2T5-G1-UNV-1E-W H9-S-2-G-L-R-2-17-120-HI-EM G-D-LRC242T8-PFO-CWM-ELB-120	EMERGENCY BALLAST	2	T8/T5	1			ELB	33	120 SE	EE NOTE 12			RESTROOMS/	CEILIN	NG	JLTRASONIC	500 FT2		ROVIDE WITH ADDIT		
4 PINNACLE LIGHTOLIER LITECONTROL	LU24A-2T5-G1-UNV-1C-W H9-S-2-G-L-R-2-32-120-HI G-D-LRC242T8-PFO-CWM-ELB-EF-120	2' x 4' RECESSED INDIRECT	2	T8/T5	1			ELB	55	120			ULTRASONIC CEILING S	OPEN LARGE OFFICE	CEILIN	NG	JLTRASONIC	2,000FT2	24VDC PR	ROVIDE LOW VOLTA	GE	
E PINNACLE LIGHTOLIER	LU24A-2T5-G1-UNV-1E-W H9-S-2-G-L-R-2-32-120-HI-EM	2' x 4' RECESSED INDIRECT WITH EMERGENCY BALLAST	2	T8/T5	1			ELB	55	120 SI	EE NOTE 12	S ^{O1a} WATTSTO	PPER UW-100-W ULTRASONIC WALL SW AUTO ON/OFF SWITCH.		WALL		JLTRASONIC	MAJOR MOTION: 20' X 20' MINOR MOTION: 15' X 15	120V			
DESIGNPLAN 5 LITHONIA JUNO LIGHTING	RDL-8-E8-4-01-C-C-0 LF6N 2/26DTT F602A 120 CH6-226Q-650C-WH	FLUORESCENT DOWNLIGHT	1	2-26W 3500K	1			ELB	52	120		s ^{O1} WATTSTO	PPER DW-100-W WALL SWITCH SENSOR	SINGLE CIRCUIT SMALL OFFICE/SMALL BREAK	ROOM WALL	ANDU	/E INFRARED (PIR LTRASONIC IOLOGIES	MAJOR MOTION, PIR 35' X 30 ULTRASONIC 20' X 20' MINOR MOTION, PIR 20' X 15 ULTRASONIC 15' X 15				
DESIGNPLAN E LITHONIA JUNO LIGHTING	RDL-8-E8-4-01-C-C-1 LF6N 2/26DTT F602A 120 EL CH6-226Q-650C-WH-PLK-E	FLUORESCENT DOWNLIGHT WITH EMERGENCY BALLAST	1	2-26W 3500K	1			ELB	52	120 SE	EE NOTE 12	OR EQUAL	MANUAL ON/ AUTO OFF ULTRASONIC DUAL REL SWITCH SEN SOR. WITH	LAY WALL	iL		/EINFRARED (PIR LTRASONIC	MAJOR MOTION, PIR 35' X 30 (1) ULTRASONIC 20' X 20' MINOR MOTION, PIR 20' X 15				
COOPER LIGHTING H.E. WILLIAMS LITHONIA	MC-228T5A-120-EBT1 11-4-2 28T5S-F A12125-EB2-UNV M 2 28T5 A12 MVOLT GEB10PS	1' x 4' SURFACE MOUNTED ACRYLIC LENS FLUORESCENT	2	T5	1	1.0		ELB	60	120		S ^{O2} WATTSTO		CIRCUITS. SMALL OFFICE/	WALL		IOLOGIES	ULTRASONIC 15' X 15	120V PR	ROVIDE WITH ADDIT		
2 COOPER LIGHTING H.E. WILLIAMS LITHONIA	ICF-232-120V-EL4-EB81 80-4-2 32-EB2-UNV L 2 32 MVOLT GEB10PS	4' INDUSTRIAL STRIP FLUORESCENT	2	тв	1		2850	ELB	53	120												
COOPER LIGHTING CD LIGHTING KENALL	FCC-X-232-120-EB51-SPK DCA-4-T-2-32-120-EB-18CP CD 4 1/1 2 32 RS 120 1/G 1 SK	8" x 48" CORNER MOUNTED FLUORESCENT WITH MICROPHONE VANDAL RESISTANT - CORRECTIONAL GRADE	2	Т8	1			ELB	71	120												
LITECONTROL V1 LINEAR LIGHTING LIGHTOLIER	2114T5-CWM-ELB/PS-DP WW5-D-1SG-ET5-120-NNS-R-BW-4' PTS5-1-S-O-120-4	48" RECESSED PERIMETER	1	Т5	1			ELB	32	120												
LITECONTROL 1E LINEAR LIGHTING LIGHTOLIER	2114T5-CWM-ELB/PS-DP-EF-120 WW5-D-1SG-ET5-120-NNS-R-BW-EC-4' PTS5-1-S-O-E1-4	48" RECESSED PERIMETER WITH EMERGENCY BALLAST	1	T5	1			ELB	32	120 SE	EE NOTE 12											
LITHONIA /2 H.E. WILLIAMS COOPER	CA 2 32 MVOLT 20-4-232-A-EB2-UNV 23DW-2T8-4-1EB	48" WALL MOUNT CORRIDOR	2	тв	1	.88	2850	ELB	61	120				LIGHTING PANEL: LC1A								
LITHONIA COOPER	TWA 42TRT 120 PE DBL LPI CF-WP-PL-42-120-PE	MINI WALL-PACK	1	42W TRT	1			ELB	48	120		-		RELAY ZONE 1 1 FRONT BU	SERVICE			CONTROL				
H.E. WILLIAMS PHILIPS LGHTOLIER CORELITE	WL5-1 42T-GX24Q-4-120 CL08-T01-E-N-#-1-D-E-W AW-SN-1T8-1C-120-SU-WA-8'-ET	COVE UPLIGHT	1	тв	1		2950	ELB	32		INDICATES FIXTURE	-		2 2 BACK BUIL	ding Aylightin	1G	L21-10 L21-24 L21-26	NOTE 5. NOTE 5.				
OR EQUAL LITHONIA 1 COOPER	ELM LEMR2	GENERAL PURPOSE EMERGENCY	2						1.2	120				NOTES: 1 "ZONE" INDICATES SV 2 LIGHTING ENERGIZE	MTCH CON							
H.E. WILLIAMS LITHONIA	EMER/MR16/CP-WHT ELA T QWP L0304	UIGHT										-		3 LIGHTING ON/OFF MA TIMED SWEEP. 4 LIGHTING ON/OFF MA	SWITCH IN	NPUT, OFF	MA					
2 JUNO LIGHTING HOLOPHANE LITHONIA	NRL-WP-2-GY-SD ELA-CZ11-WP-L0304 ELM2 LED SD WRS	EMERGENCY HEAD	2	LED				LED	1.44	120		-		5 LIGHTING ON VAPHO			E CLOCK.					
3 H.E. WILLIAMS	EMER/CP/ADJ/LED WHT NRL-SQ-2-WH-SD	6V EMERGENCY BATTERY UNIT	2	LED				LED	1.5	120												

NOTES 2-9 APPLY TO ALL APPLICABLE LIGHTING FIXTURES. THE REMARKS COLUMN SHALL NOTE ADDITIONAL REQUIREMENTS.
 FIXTURES SPECIFIED WITH CATALOG NUMBERS ESTABLISH QUALITY LEVEL FOR EQUAL FIXTURES FROM MANUFACTURERS LISTED WITHOUT CATALOG NUMBERS. WHERE ONLY ONE MANUFACTURER LISTED, THERE SHALL BE NO SUBSTITUTION.

VERIFY EXACT MOUNTING CONDITIONS AND PROVIDE APPROPRIATE ACCESSORIES AND HARDWARE TO ACCOMMODATE REQUIREMENTS.
 FIXTURE TYPE INDICATED ONCE ON A CONTINUOUS ROW SHALL BE TYPICAL OF ALL FIXTURES IN THE ROW UNLESS NOTED OTHERWISE.

5. CONTINUOUS ROWS OF FIXTURES SHALL BE PROVIDED WITH ALL NECESSARY HARDWARE AND FILLERS TO PROVIDE THE EXACT

CONTINUOUS ROWS OF FIXTURES SHALL BE PROVIDED WITH ALL NECESSARY HARDWARE AND FILLERS TO PROVIDE THE EXACT LENGTHS AS INDICATED ON THE PLANS. FIXTURES IN SOFFITS SHALL BE CONTINUOUS END TO END.
 PROVIDE ALL FLUORESCENT FIXTURES WITH ELECTRONIC BALLASTS WITH MAXIMUM THD OF 10%, PF GREATER THAN 97% AND BF GREATER THAN 0.88. BALLASTS SHALL BE PROGRAMMED RAPID START WITH END-OF-LAMP-LIFE PROTECTION UNLESS NOTED OTHERWISE. BALLASTS SHALL BE UL LISTED AND MANUFACTURED BY ADVANCE ELECTRIC, GE, OSRAM SYLVANIA OR UNIVERSAL.
 BALLAST EFFICIENCY SHALL BE GREATER THAN THAT REQUIRED TO ENSURE THAT THE VALUE LISTED FOR INPUT WATTS IS NOT EXCEEDED.
 FLUORESCENT LAMPS SHALL HAVE A MINIMUM CRI OF 82. LAMP SHALL BE MANUFACTURED BY OSRAM SYLVANIA, GE OR PHILLIPS.
 PROVIDE EXIT SIGNS WITH ARROWS AND MOUNTING ACCESSORIES AS INDICATED ON THE PLANS.

10. FLUORESCENT DIMMING BALLAST SHALL HAVE FULL RANGE ENERGY MANAGEMENT CAPABILITIES FROM 10% TO 100% EQUAL TO LUTRON.

11. FLUORESCENT DIMMING BALLAST SHALL HAVE FULL RANGE ARCHITECTURAL CAPABILITIES FROM 1% TO 100% EQUAL TO LUTRON HILUME SERIES. COORDINATE SPECIFIED DIMMER CONTROL TO MATCH REQUIREMENTS FOR OPTIMAL CONTROL OF THE SUPPLIED SYSTEM.

12. BATTERY BACKED FLUORESCENT BALLASTS SHALL PROVIDE 600-1325 LUMENS OF ILLUMINATION FROM (1) STDN OR HO T5/T8 LAMP FOR 90 MINUTES. BALLAST SHALL UL LISTED, COMPATIBLE TO THE SPECIFIED LAMPS AND BE EQUAL TO TYPE LP600 BY BODINE.

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	WALTHAM POLICE STATION RENOVATION
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	DATE: July-Aug. SCALE: 2016 N.T.S.
	E701
	SHEET 141 OF 157

AUDIOVISUAL COORDINATION LEGEND

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VIDEO: PROJECTION SCREENS						
PROJECTION SCREENS FURNISHED BY PROJECTION SCREENS INSTALLED BY			X X			_
ELECTRIC PROJECTION SCREEN LVC AND SWITCH FURNISHED BY			X			-
ELECTRIC PROJECTION SCREEN LVC AND SWITCH INSTALLED BY			Х			
VIDEO: PROJECTIONS		_				
VIDEO PROJECTOR FURNISHED BY			х			-
VIDEO PROJECTOR INSTALLED BY			Х			_
CEILING MOUNTED/LIFT FURNISHED BY			Х			
CEILING MOUNTED/LIFT INSTALLED BY UNISTRUT FURNISHED BY			X X			_
UNISTRUT INSTALLED BY			X			-
VIDEO: LCD/PLASMA DISPLAY DISPLAY FURNISHED BY		1	v			_
DISPLAY INSTALLED BY			X X			-
DISPLAY MOUNT FURNISHED BY			X			-
DISPLAY MOUNT INSTALLED BY			Х			
DISPLAY WALL BLOCKING PROVIDED BY	X					_
AUDIO: LOUDSPEAKERS AND MICROPHONES		_				_
CEILING LOUDSPEAKER FURNISHED BY			Х			
CEILING LOUDSPEAKER INSTALLED BY			Х			
CEILING LOUDSPEAKER BACK BOXES FURNISHED BY CEILING LOUDSPEAKER BACK BOXES (IF ANY) INSTALLED BY	-					
IN-WALL LOUDSPEAKER FURNISHED BY	-		>	<		
IN-WALL LOUDSPEAKER BACK BOX (IF ANY) INSTALLED BY			-			
DISPLAY MOUNTED SPEAKERS FURNISHED BY						
DISPLAY MOUNTED SPEAKERS INSTALLED BY TABLETOP WIRED MICROPHONES FURNISHED BY	_					
TABLETOP WIRED MICROPHONES FORNISHED BY						_
NETWORK / IT	_	1				
LAN OUTLETS REQUIRED FOR AV EQUIPMENT FURNISHED BY LAN OUTLETS REQUIRED FOR AV EQUIPMENT INSTALLED BY				X		_
NETWORK BACKBONE FURNISHED BY				X X		_
NETWORK BACKBONE INSTALLED BY				х		
ELECTRICAL: AV CABLE AV HIGH-VOLTAGE CABLE FURNISHED BY		V				_
AV HIGH-VOLTAGE CABLE I VINISHED BY		X X				-
AV LOW-VOLTAGE CABLE FURNISHED BY			Х			
AV LOW-VOLTAGE CABLE INSTALLED BY			Х			
AV CONDUIT & CONDUIT SLEEVE REQUIREMENTS FURNISHED BY AV CONDUIT & CONDUIT SLEEVE INSTALLED WITH PULL STRINGS BY		X X				_
AV HIGH-VOLTAGE PROJECTION SCREEN WIRING PROVIDED BY		X				-
AV LOW-VOLTAGE PROJECTION SCREEN WIRING PROVIDED BY		Х				
WALL MOUNTED JUNCTION BOXES FOR AV REQUIREMENTS FURNISHED BY		X				
WALL MOUNTED JUNCTION BOXES FOR AV REQUIREMENTS INSTALLED BY FLOOR BOXES FOR AV REQUIREMENTS FURNISHED BY		X X				-
FLOOR BOXES FOR AV REQUIREMENTS INSTALLED BY		X				-
POKE-THROUGH FOR AV REQUIREMENTS FURNISHED BY		Х				
POKE-THROUGH FOR AV REQUIREMENTS INSTALLED BY		Х				_
AV FURNITURE:						
VENTILATED AV FURNITURE/CREDENZAS FURNISHED BY						+
VENTILATED AV FURNITURE/CREDENZAS INSTALLED BY						
AV FURNITURE/CREDENZAS ADDITIONAL COOLING AV FANS FURNISHED BY						\neg
AV FURNITURE/CREDENZAS ADDITIONAL COOLING AV FANS INSTALLED BY AV FURNITURE/CREDENZAS CUTTING CORING FOR AV CABLE PATHWAYS BY						-
AV FURNITURE/TABLETOP CUTTING CORING FOR AV DEVICES BY						+
						\downarrow
AV LIGHTING SYSTEM FURNISHED AND INSTALLED BY AV LIGHTING SYSTEM PROGRAMMED BY	+					
LIGHTING SCENES SETTINGS BY			>	<		
AV SHADE SYSTEM FURNISHED AND INSTALLED BY						
AV SHADE SYSTEM PROGRAMMED BY AV CONTROL SYSTEMS FURNISHED BY	\checkmark					$ \downarrow $
AV CONTROL STSTEMS FORMSFILD BT	_					\neg
	_	_	_			
CATV / CABLE CATV HOME RUN CABLE SUPPLIED BY				x		-
CATV HOME RUN CABLE INSTALLED BY				X		
CATV BACKBONE SUPPLIED BY				Х		
CATV BACKBONE INSTALLED BY	\vdash	$ \sqsubseteq$		Х		
CABLE/SAT TUNER BOXES FURNISHED BY CABLE/SAT TUNER BOXES INSTALLED BY		\geq	>	<	_	
WALL PLATES BY:	-	1				\square
AV WALL PLATES FOR AV REQUIREMENTS FURNISHED BY AV WALL PLATES FOR AV REQUIREMENTS INSTALLED BY	+		X X			\neg
AV WALL PLATES FOR AV REQUIREMENTS INSTALLED BY LAN WALL PLATES REQUIRED FOR AV EQUIPMENT FURNISHED BY	+			х		\neg
LAN WALL PLATES REQUIRED FOR AV EQUIPMENT INSTALLED BY	+	1		X		
		_				
ELECTRICAL WALL PLATES FOR AV REQUIREMENTS FURNISHED BY ELECTRICAL WALL PLATES FOR AV REQUIREMENTS INSTALLED BY		X X				

	GENERAL AUDIOVIS	SUAL /	ABBREVIATIONS
AC	ALTERNATING CURRENT	NEC	NATIONAL ELECTRICAL CODE
ADA	AMERICANS WITH DISABILITIES ACT	NEXT	NEAR END CROSS TALK
AFF	ABOVE FINISH FLOOR	NIC	NOT IN CONTRACT
AIA	AMERICAN INSTITUTE OF ARCHITECTS	OFE	OWNER FURNISHED EQUIPMENT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
AWG	AMERICAN WIRE GAUGE	PABX	PRIVATE AUTOMATIC BRANCH EXCHANGE
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL	PBX	PRIVATE BRANCH EXCHANGE
BTU	BRITISH THERMAL UNIT	POTS	PLAIN OLD TELEPHONE SERVICE
CATV	CABLE TELEVISION	PR	PAIR
CO	CENTRAL OFFICE	PVC	POLYVINYL CHLORIDE
CODEC	CODER DECODER	RCDD	REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
CTS	CERTIFIED TECHNOLOGY SPECIALIST	REF	REFERENCE
CPU	CENTRAL PROCESSING UNIT	RFI	RADIO FREQUENCY INTERFERENCE
dB	DECIBEL	RFP	REQUEST FOR PROPOSAL
DC	DIRECT CURRENT	RFQ	REQUEST FOR QUOTE
DEMARC	DEMARCATION POINT	RMS	RACK MOUNT SPACE
EIA	ELECTRONICS INDUSTRIES ASSOCIATION	SP	SERVICE PROVIDER
EMC	ELECTROMAGNETIC COMPATIBILITY	STP	SHIELDED TWISTED-PAIR
EMI	ELECTROMAGNETIC INTERFERENCE	SWB	SWITCHBOARD
EMR	ELECTROMAGNETIC RADIATION	SYS	SYSTEM
EMT	ELECTRIC METALLIC TUBING	ТВ	TERMINAL BLOCK
FCC	FEDERAL COMMUNICATIONS COMMISSION	TEL	TELEPHONE
FEXT	FAR END CROSS TALK	TELCO	TELEPHONE COMPANY
GEC	GROUNDING ELECTRODE CONDUCTOR	TYP	TYPICAL
GND	GROUND	UG	UNDERGROUND
нс	HORIZONTAL CROSS-CONNECT	UL	UNDERWRITERS LABORATORIES, INC.
HF	HIGH FREQUENCY	UPS	UNINTERRUPTIBLE POWER SUPPLY
нн	HANDHOLE	UTP	UNSHIELDED TWISTED-PAIR
HVAC	HEATING, VENTILATION, AND AIR-CONDITIONING	WA	WORK AREA
Hz	HERTZ	WP	WATERPROOF OUTLET
ICIA	INTERNATIONAL COMMUNICATIONS INDUSTRIES ASSOCIATION, INC.	x	CROSS-CONNECT
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS. INC.		ON DISPLAY:
ISDN	INTEGRATED SERVICES DIGITAL NETWORK	VGA	640 x 480 VIDEO RESOLUTION 4:3 ASPECT RATIO
ISO	INTERNATIONAL STANDARDS ORGANIZATION	SVGA	800 x 600 VIDEO RESOLUTION 4:3 ASPECT RATIO
kHz	KILOHERTZ	XGA	1024 x 768 VIDEO RESOLUTION 4:3 ASPECT RATIO
kwh	KILOWATT-HOURS	QVGA	1280 x 800 VIDEO RESOLUTION 4:3 ASPECT RATIO
LAN	LOCAL AREA NETWORK	WXGA	1280 x 960 VIDEO RESOLUTION 16:9 ASPECT RATIO
LCD	LIQUID CRYSTAL DISPLAY	WXGA+	1440 x 900 VIDEO RESOLUTION 16:9 ASPECT RATIO
LED	LIGHT-EMMITTING DIODE	SXGA	1280 x 1024 VIDEO RESOLUTION 16:9 ASPECT RATIO
MH	MANHOLE	SXGA+	1400 x 1050 VIDEO RESOLUTION 4:3 ASPECT RATIO
MODEM	MODULATOR DEMODULATOR	UXGA	1600 x 1200 VIDEO RESOLUTION 4:3 ASPECT RATIO
MTT	MAIN TELEPHONE TERMINAL	WSXGA+	1680 x 1050 VIDEO RESOLUTION 16:9 ASPECT RATIO
···· ·		MONO/	

GENERAL AUDIOVISUAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR PROPOSED PATHWAYS.

2. THIS CONTRACTOR SHALL COORDINATE EXACT MOUNTING HEIGHTS AND LOCATION OF EQUIPMENT WITH ARCHITECT.

3. REFER TO AUDIOVISUAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

4. THIS CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS FOR ALL AUDIOVISUAL DEVICES PRIOR TO INSTALLATION.

5. ALL VOICE/DATA/VIDEO CABLES SHALL BE PLENUM RATED.

6. VERIFY LABELING STANDARD WITH OWNER, SUBMIT LABELING SCHEME FOR APPROVAL. LABELING SHALL BE IN ACCORDANCE WITH ANSI/EIA/TIA-606A STANDARDS.

7. THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, PLATES AND INSERTS TO ACCEPT THE CONNECTIVITY PRODUCTS WITHIN THE ELECTRICAL CONTRACTOR PROVIDED FLOOR BOXES, POKE THRU BOXES AND SURFACE RACEWAY.

8. THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, PLATES AND INSERTS TO ACCEPT THE CONNECTIVITY PRODUCTS WITHIN THE CONFERENCE ROOM CABLE CUBBY DEVICES.

AUDIOVISUAL STANDARD CABLE TYPES								
DESIGNATION	APPLICATION	MANUFACTURER	MODEL NUMBER	NOMINAL O.D. (INCHES)	UNIT AREA (INCHES)	CABLE CODED		
А	AUDIO/MICROPHONE	WEST PENN	25292	0.143	0.016	MXXX		
С	RS-232 CONTROL/CONTACT CLOSURE	WEST PENN	253270B	0.183	0.026	CXXX		
СТ	CRESTRON CRESNET	CRESTRON	CRESNET-P	0.216	0.037	CTXXX		
IR	INFRA RED EMITTER PROBE	CRESTRON	IRP2	-	-	IRXXX		
NT6	CATEGORY 6	MOHAWK	M58281	0.208	0.037	NTXXX		
Р	DC REMOTE POWER	WEST PENN	25224	0.141	0.016	PXXX		
QM	QUICK MEDIA CABLE	CRESTRON	CRESCAT-QM-P	0.431	0.146	QMXXX		
RGBHV	RGBHV/VGA	EXTRON	22-103-02 (MHR-5P)	0.304	0.072	RGBHXXX		
RF	WIRELESS MICROPHONE ANTENNA	BELDEN	88240	0.159	0.019	RFXXX		
S	SPEAKER, 70V	WEST PENN	25224	0.141	0.016	SXXX		
SS	SPEAKER, 8 OHM	WEST PENN	25227	0.221	0.038	SSXXX		
UTP	SKEW FREE A/V TWISTED PAIR	EXTRON	22-142-03 (UTP23SF-4P)	0.240	0.045	UTPXXX		
V	COMPOSITE VIDEO	EXTRON	22-146-02 (RG59P)	0.204	0.033	VXXX		
YC	S-VIDEO	EXTRON	22-129-02 (MHR-2P)	0.245	0.047	YCXXX		
RGB	COMPONENT VIDEO	EXTRON	22-103-02 (MHR-5P)	0.304	0.072	RGBXXX		

	Al						
୲୷୷	Wall Moui "Xg" - Indic						
H₩ _{XG}	INTERACTI\ "XG" - INDIC						
HWB4 AV	FOUR COMP EVOLUTION INSTALLATIC AV-INDICAT						
HWB2 VD	TWO COMP/ EVOLUTION INSTALLATION VD-INDICAT						
€₽	AUDIO SPEA						
HAV	WALL MOUN						
AVR	AUDIO VIDE						
VCC	VIDEO PRES						
L	.an / 1						
ROOM							

REQUIRED LAN	N/NETWORK COM
	WORK CONNEC /UNICATIONS TH INCE ROOM.
LAN/NETWORH LAN/NETWORH THE STANDAR DRAWINGS/SP	TES REQUIRED COUTLET CABLIE CABLE TYPE AI D TELECOMMUN ECIFICATIONS F CLOCATION(S) W
DESIGNATION	
PM3	HDMI MALE
PM4	RGBHV / 5-\
PM12	3.5 MM STE
PM14	MALE TO M
PM17	HDMI. MALE

		DESIGNATIC
		PM3
		PM4
ΞA	CABLE CODED	PM12
S)	IDENTIFIERS	PM14
	MXXX	PM17
	CXXX	PM19
	CTXXX	PM24
	IRXXX	PM25
	NTXXX	PM62
	PXXX	PM64

AUDIOVISUAL LEGEND

DUNTED A/V CONTROL PANEL DICATES THE SIZE OF BOX

TIVE WHITEBOARD DICATES THE SIZE OF BOX

MPARTMENT MULTI-SERVICE RECESSED WALL BOX, WIREMOLD LEGRAND ON SERIES #EFSB4. PROVIDE ALL REQUIRED ACCESSORIES FOR A COMPLETE NTION, BY ELECTRICAL CONTRACTOR INCLUDING TWO (2) EFB-MAAP. ATES FOR AV RACK

MPARTMENT MULTI-SERVICE RECESSED WALL BOX, WIREMOLD LEGRAND ION SERIES #EFSB2. PROVIDE ALL REQUIRED ACCESSORIES FOR A COMPLETE ATION, BY ELECTRICAL CONTRACTOR. CATES FOR VIDEO DISPLAY

EAKER, CEILING MOUNTED

JNTED A/V CONNECTION PLATE

DEO RACK LOCATION, SEE DETAILS

ESENTATION CAMERA (CEILING MOUNTED)

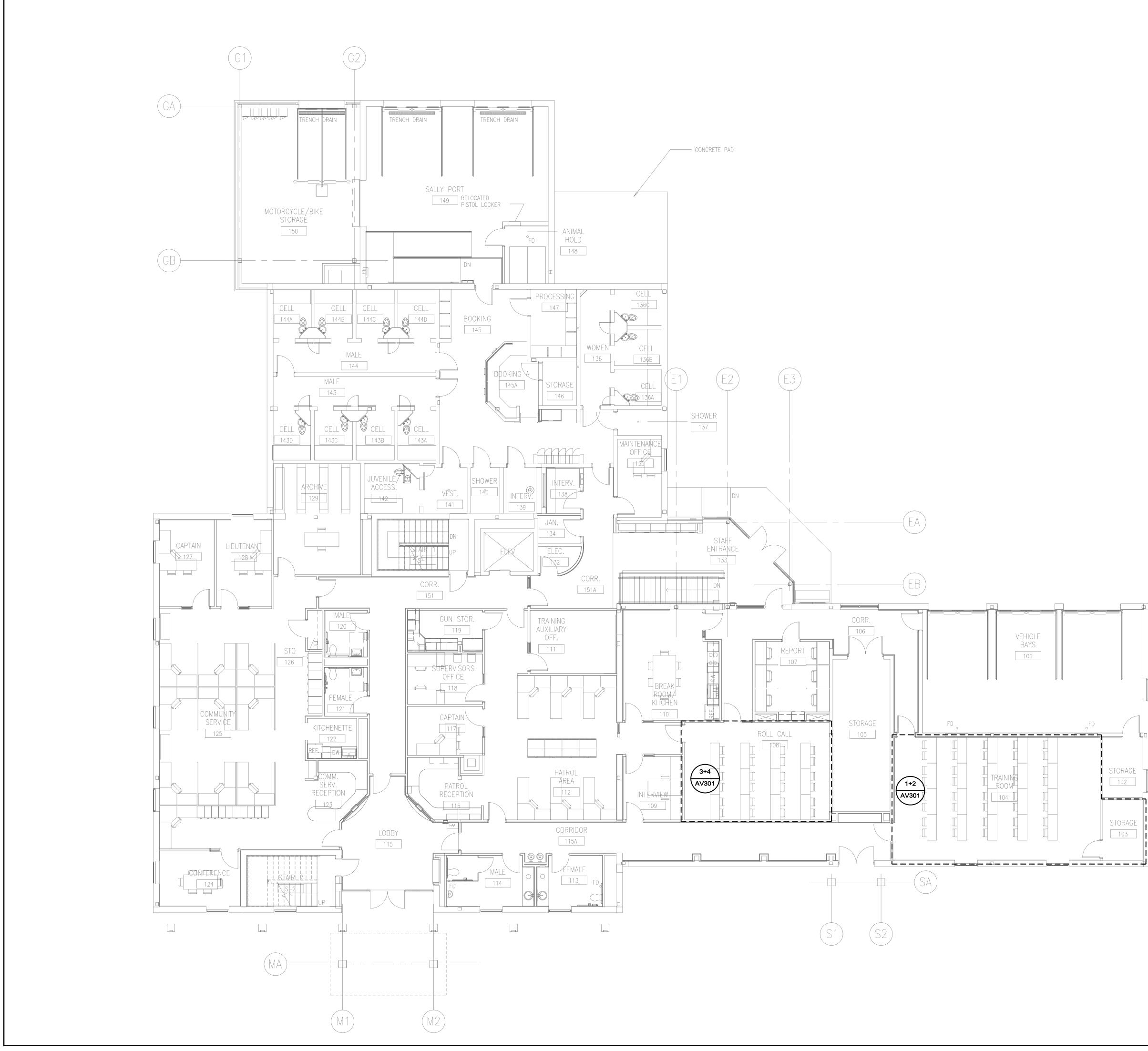
Ν	NETWORK CONNECTIONS									
	LOCATION	CONNECTIONS								
	SINGLE DISPLAY -WALL MOUNTED	NONE								
:01	ONNECTIONS									

INECTION PROVISIONS FOR CONFERENCE ROOMS SHOULD BE SUFFICIENT TO NS THAT ARE NEEDED BY THE AUDIOVISUAL SYSTEM COMPONENTS WITHIN

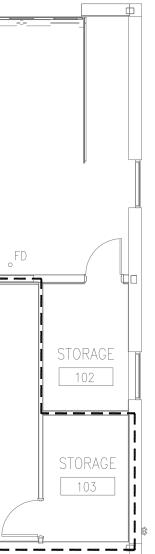
UIRED LAN/NETWORK CONNECTIONS FOR AUDIOVISUAL EQUIPMENT. CABLING, FACEPLATE AND JACK SHALL BE BY LOW VOLTAGE CONTRACTOR. YPE AND PERFORMANCE LEVEL (CAT5e, cat6) SHALL BE THE SAME TYPE AS DMMUNICATIONS OUTLET. SEE TELECOMMUNICATIONS IONS FOR DETAILS. AV INSTALLER TO COORDINATE EXACT LOCATIONS OF DN(S) WITH ARCHITECT AND LOW VOLTAGE CONTRACTOR.

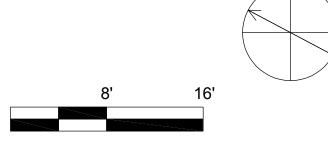
AUDIOVISUAL STANDARD PRE-MADE CABLE TYPES						
	APPLICATION	MANUFACTURER	MODEL NUMBER			
HC	DMI MALE TO MALE, 3', MICRO	EXTRON	26-667-03			
R	GBHV / 5-WAY BNC /6'	EXTRON	26-260-01			
3.	5 MM STEREO AUDIO MALE TO MALE, 50'	CABLES TO GO	2233			
M	ALE TO MALE VGA MICRO HR CABLE, W/ AUDIO, 6'	EXTRON	26-566-02			
HC	DMI, MALE TO MALE, 6'	EXTRON	26-663-06			
HC	DMI, MALE TO MALE, 15'	EXTRON	26-663-15			
M/	ALE TO MALE VGA WITH AUDIO CABLE, PLENUM, 35'	CABLES TO GO	40683			
HD	DMI, MALE TO MALE, PLENUM, 35'	CABLE TO GO	41192			
U	TP PATCH CABLE, CATEGORY 5E, 3'	OTRONICS	OR-MC5E03-00			
H	DMI MALE TO MALE, PLENUM, 50'	CABLES TO GO	41193			

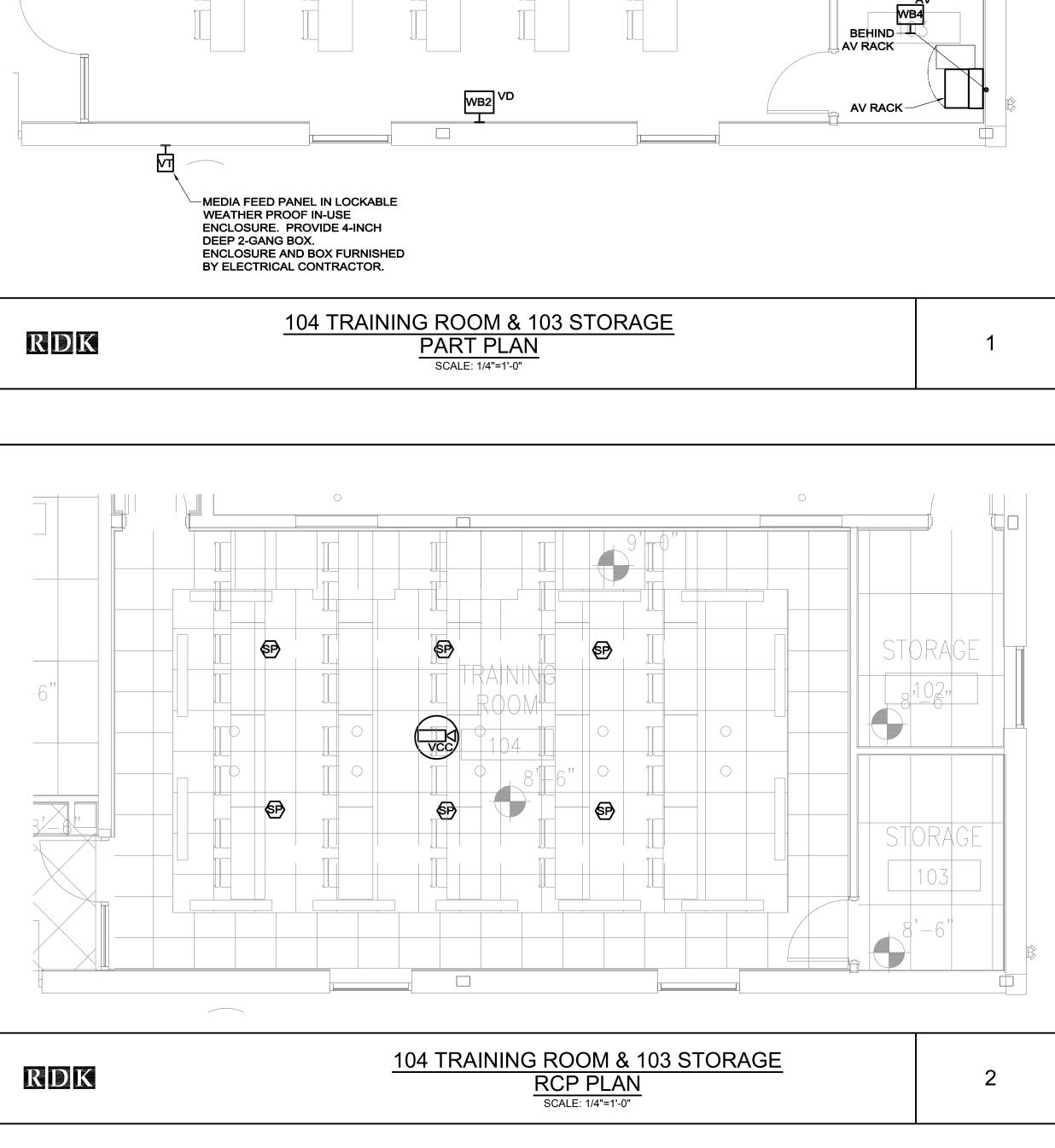
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	Architects / Engineers / Planners
	211 Congress Street, 11th Floor Boston, Massachusetts 02110 TEL. (617) 778-1440 www.cdrmaguire.com
	RDK
	Andover, MA - Boston, MA - Amherst, MA Durham, NC - Charlotte, NC
	RDK Engineers 200 Brickstone Square Andover, MA 01810-1488 T. 978-296-6200
	REVISIONS
	Number Description Date
	ISSUED FOR
	BID
	SOORATED A TOWAT
	WALTHAM
	CARATED A CITY
	WALTHAM POLICE STATION
	RENOVATION
	155 LEXINGTON STREET
	WALTHAM, MASSACHUSETTS
	AUDIOVISUAL
	LEGEND, NOTES
	& ABBRVS.
	PROJECT NUMBER: 20130535 DESIGNED BY: MH
	DRAWN BY: MH CHECKED BY: PC
	DATE: July-Aug.
	SCALE: 2016 N.T.S. SHEET NUMBER:
	AV000
	SHEET 152 OF 157

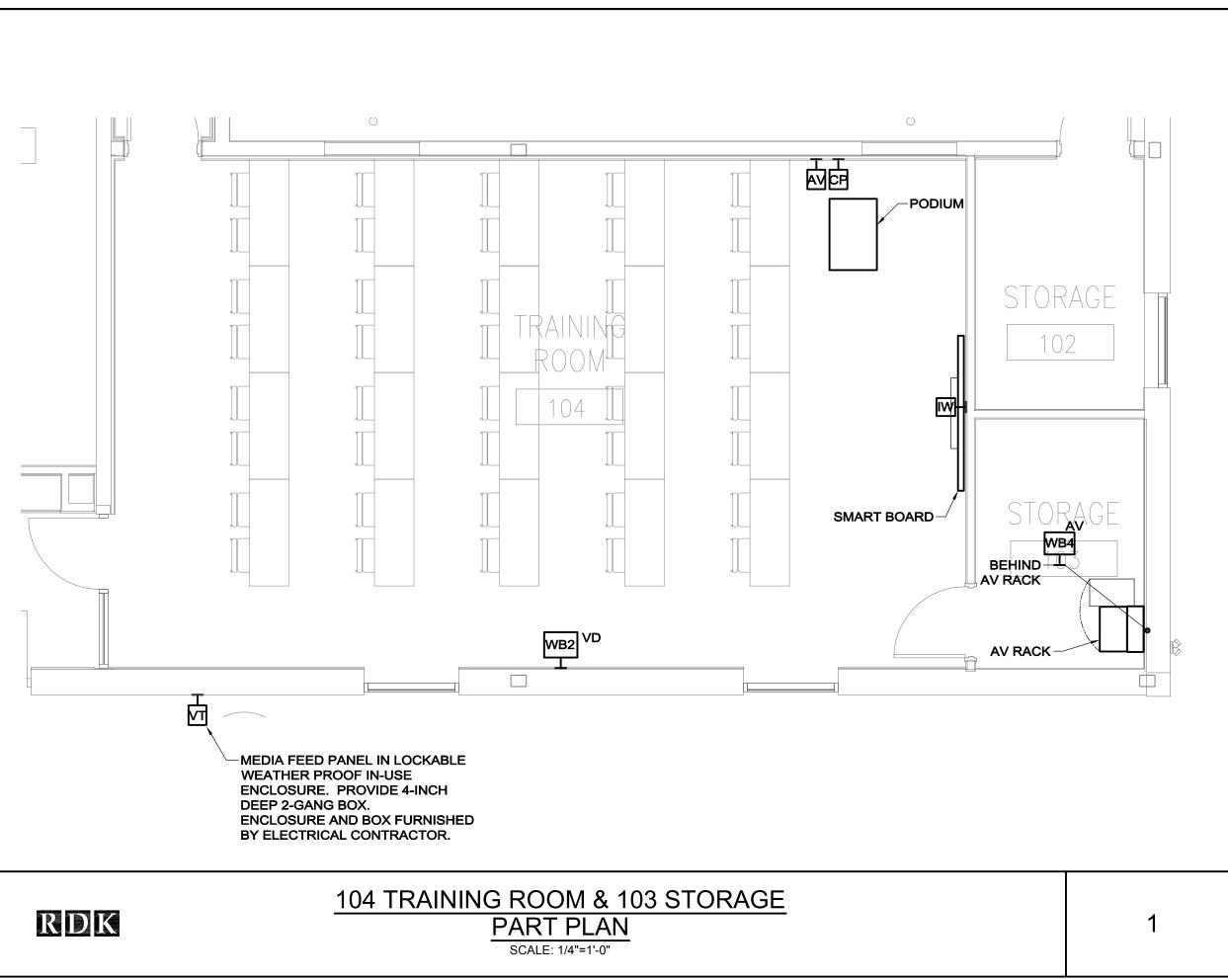


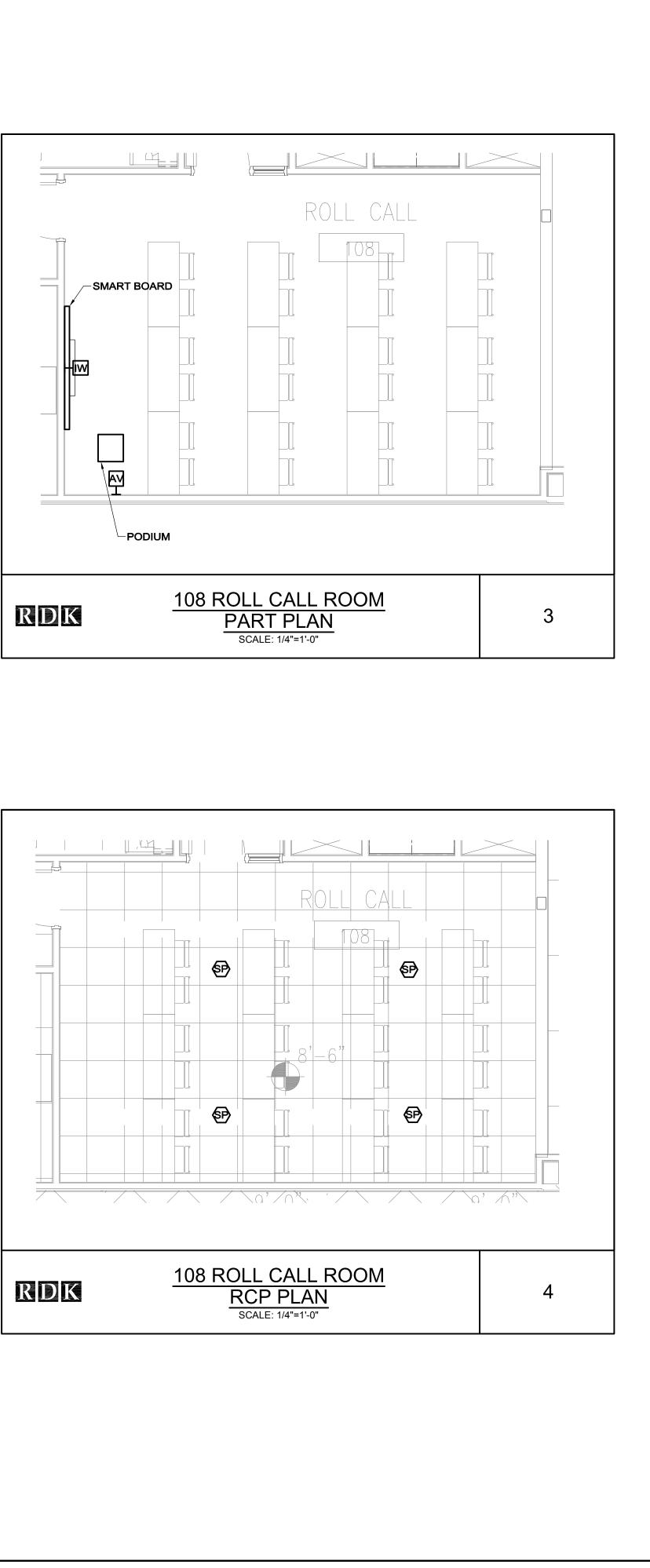
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REVISIONS Number Description Date			
ISSUED FOR BID			
WALTHAM . Based a city of the second			
WALTHAM POLICE STATION RENOVATION 155 LEXINGTON STREET WALTHAM, MASSACHUSETTS			
AUDIOVISUAL FIRST FLOOR PLAN PROJECT NUMBER: 20130535			
DESIGNED BY: MH DRAWN BY: MH CHECKED BY: PC DATE: July-Aug. SCALE: 2016 1/8" = SHEET NÜMBER:			
AV202 SHEET 153 OF 157			

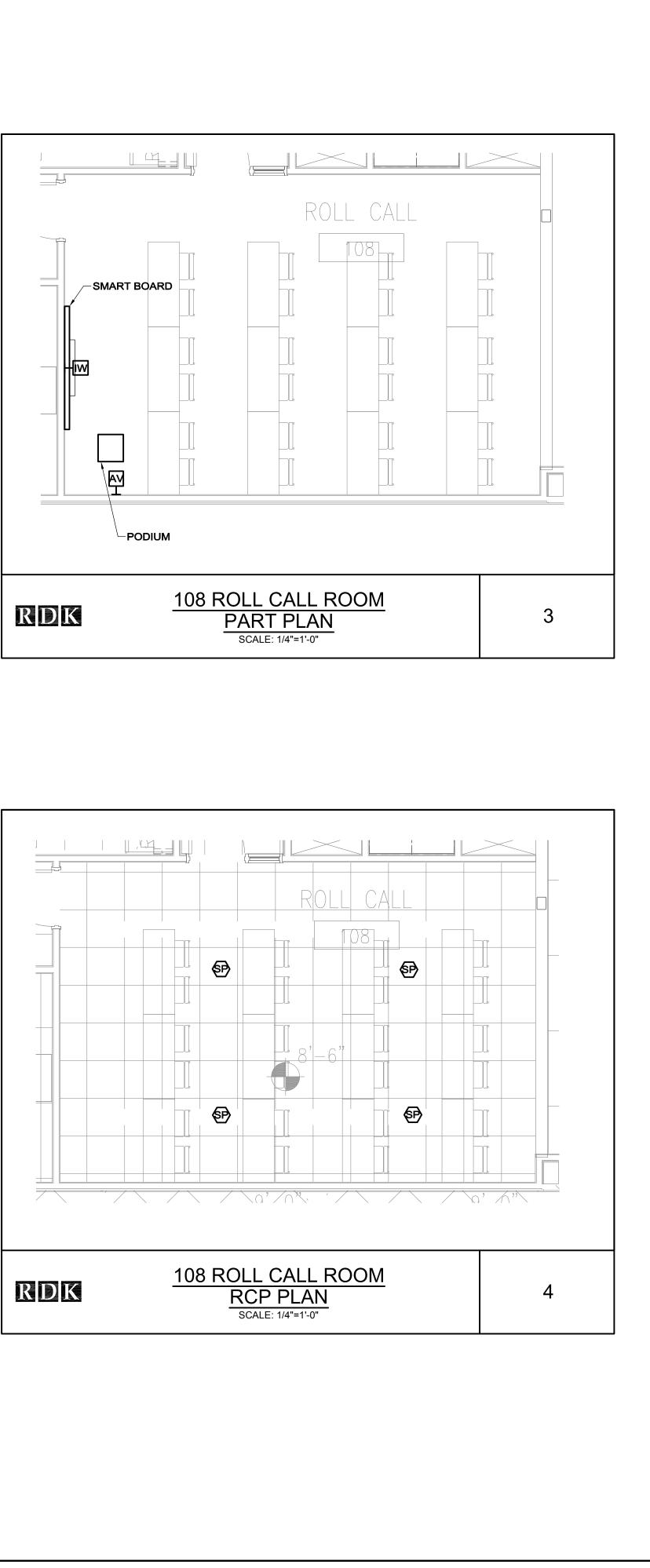


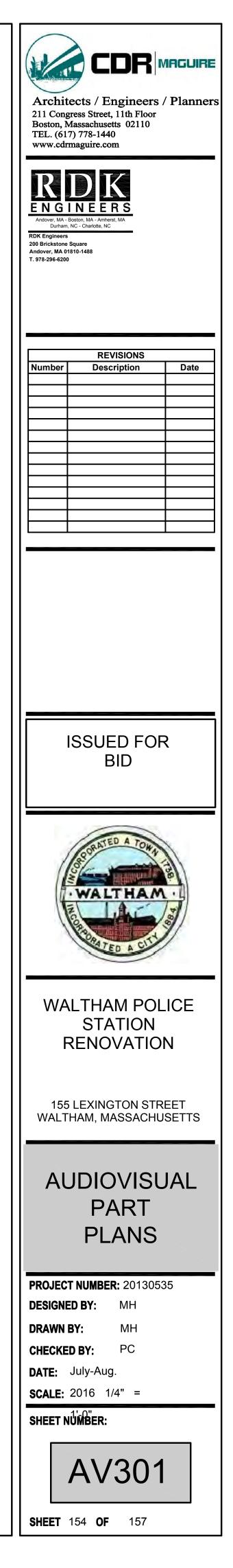


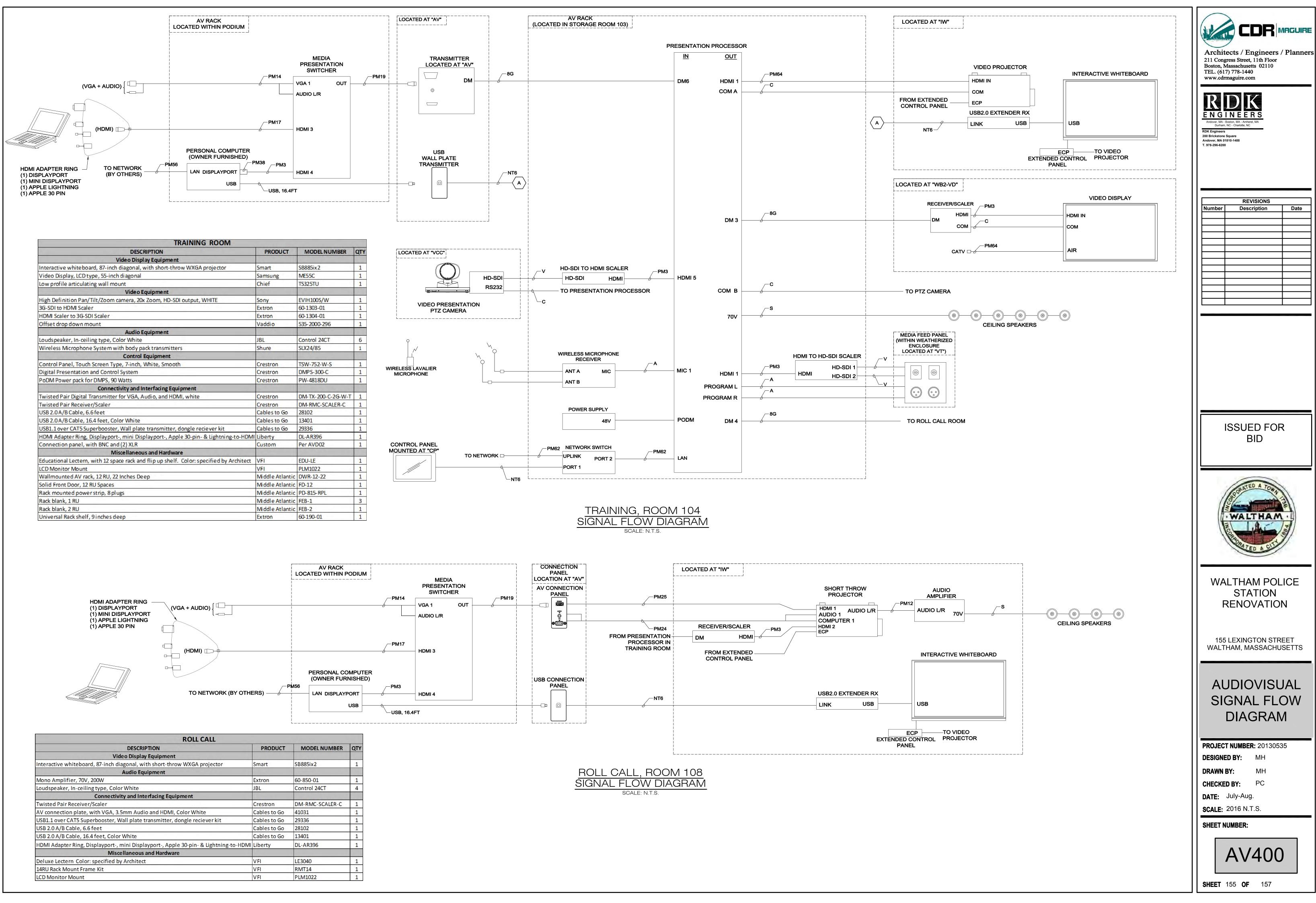




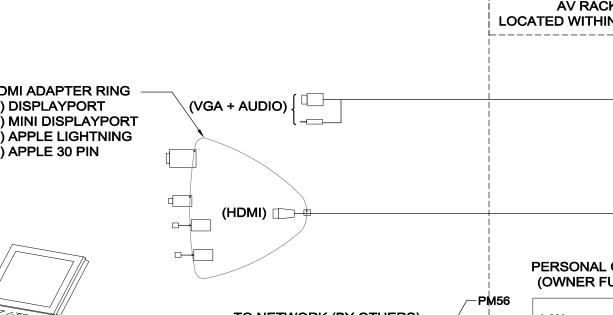


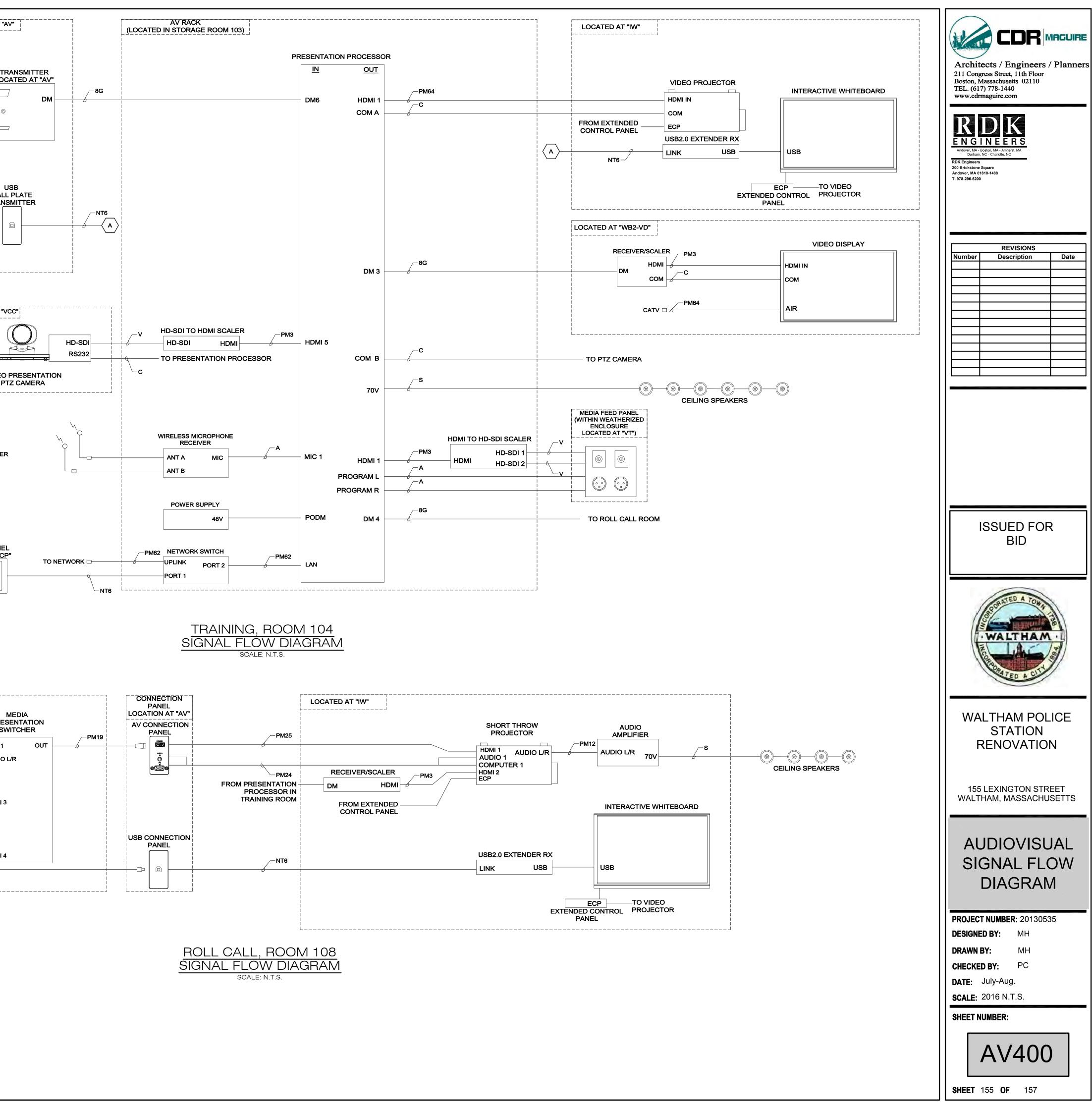




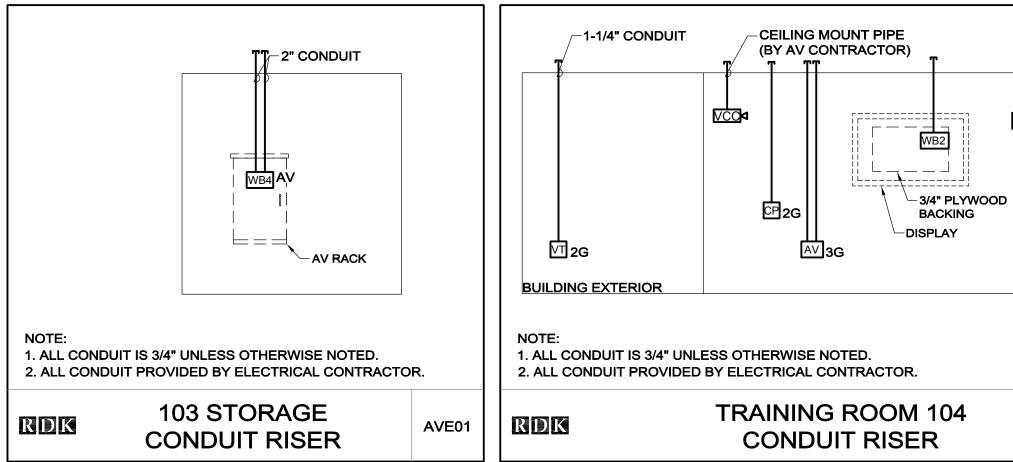


TRAINING ROOM			
DESCRIPTION	PRODUCT	MODELNUMBER	QTY
Video Display Equipment	1		
Interactive whiteboard, 87-inch diagonal, with short-throw WXGA projector	Smart	SB885ix2	1
Video Display, LCD type, 55-inch diagonal	Samsung	ME55C	1
Low profile articulating wall mount	Chief	TS325TU	1
Video Equipment			
High Definition Pan/Tilt/Zoom camera, 20x Zoom, HD-SDI output, WHITE	Sony	EVIH100S/W	1
3G-SDI to HDMI Scaler	Extron	60-1303-01	1
HDMI Scaler to 3G-SDI Scaler	Extron	60-1304-01	1
Offset drop down mount	Vaddio	535-2000-296	1
Audio Equipment			
Loudspeaker, In-ceiling type, Color White	JBL	Control 24CT	6
Wireless Microphone System with body pack transmitters	Shure	SLX24/85	1
Control Equipment			
Control Panel, Touch Screen Type, 7-inch, White, Smooth	Crestron	TSW-752-W-S	1
Digital Presentation and Control System	Crestron	DMPS-300-C	1
PoDM Power pack for DMPS, 90 Watts	Crestron	PW-4818DU	1
Connectivity and Interfacing Equipment			
Twisted Pair Digital Transmitter for VGA, Audio, and HDMI, white	Crestron	DM-TX-200-C-2G-W-T	1
Twisted Pair Receiver/Scaler	Crestron	DM-RMC-SCALER-C	1
USB 2.0 A/B Cable, 6.6 feet	Cables to Go	28102	1
USB 2.0 A/B Cable, 16.4 feet, Color White	Cables to Go	13401	1
USB1.1 over CAT5 Superbooster, Wall plate transmitter, dongle reciever kit	Cables to Go	29336	1
HDMI Adapter Ring, Displayport-, mini Displayport-, Apple 30-pin- & Lightning-to-HDMI	Liberty	DL-AR396	1
Connection panel, with BNC and (2) XLR	Custom	Per AVD02	1
Miscellaneous and Hardware			
Educational Lectern, with 12 space rack and flip up shelf. Color: specified by Architect	VFI	EDU-LE	1
LCD Monitor Mount	VFI	PLM1022	1
Wallmounted AV rack, 12 RU, 22 Inches Deep	Middle Atlantic	DWR-12-22	1
Solid Front Door, 12 RU Spaces	Middle Atlantic	FD-12	1
Rack mounted power strip, 8 plugs	Middle Atlantic	PD-815-RPL	1
Rack blank, 1 RU	Middle Atlantic	FEB-1	3
Rack blank, 2 RU	Middle Atlantic	FEB-2	1
	in the second se	60 4 00 04	1 .

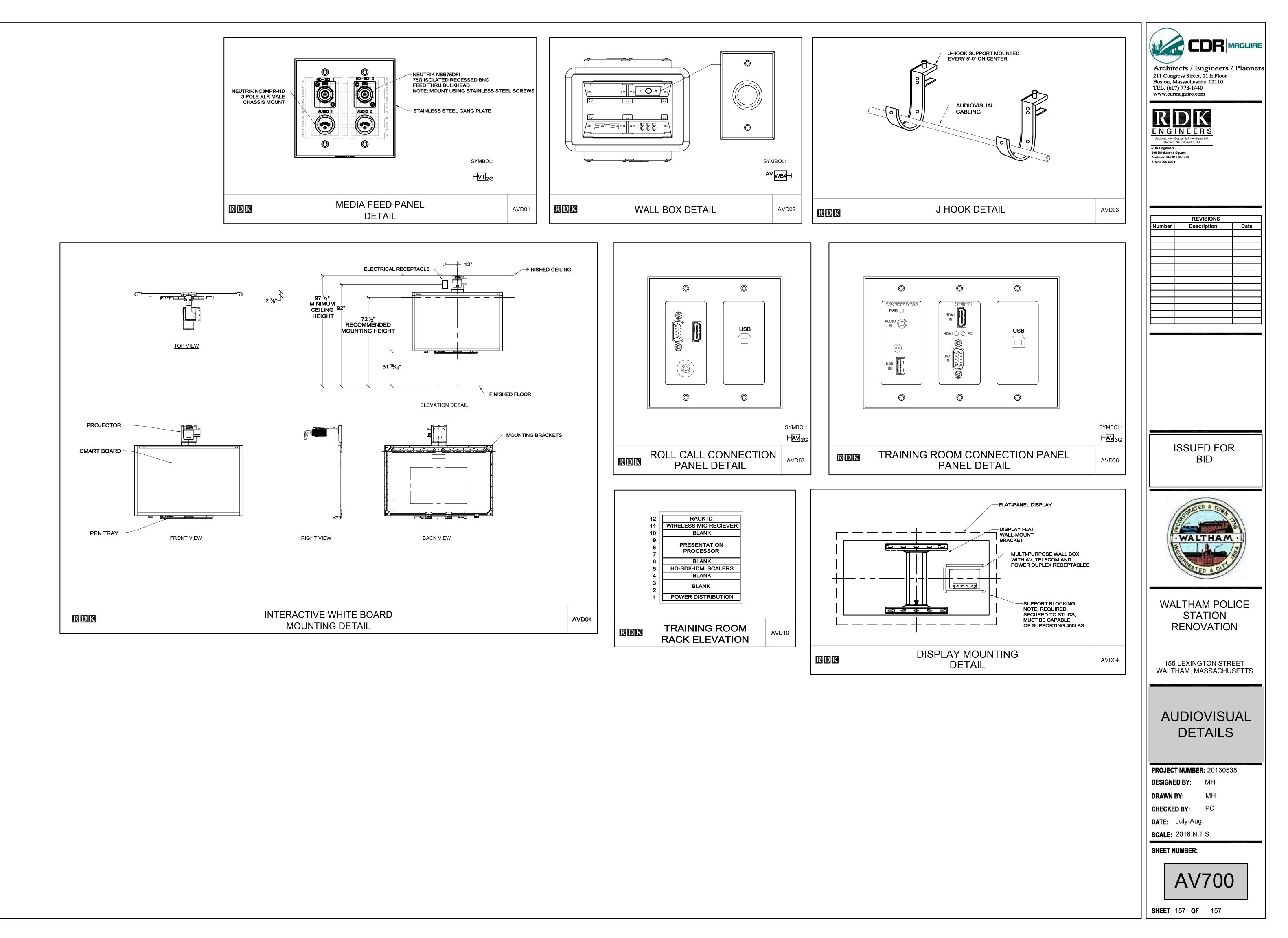




13/20130535 - Waltham Police HQ, Renovation/1200 Drawings/1206 AWPlot Files/20130535 AV500 AUDIOVISUAL CONDUIT RISER.dwg [Work] July 14, 2014 - 5:36pm dfranzek



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D D D D D D D D D D D D D D D D D D D	1-1/2" CONDUIT 1-1/2" CONDUIT Image: Imag	<image/> <section-header><text><text><text><text></text></text></text></text></section-header>
AVE02	NDIS ROLL CALL 108 CONDUIT RISER AVE03	REVISIONS Number Description Date Image:
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		WALTHAM POLICE STATION RENOVATION
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		SHEET 156 OF 157



	SEC	100	Q			SEC
ELECTRONIC SECURITY COORDINATION LEGEND	SECURITY CONTRACTOR	DOOR HT	OWNER		SE07	DOOR DETAIL, N NUMBER
COORDINATION					DR	DOOR RELEASE
LEGEND	ACT C	I CONTRACTOR	VENDOR	\	DO	DOOR CONTACT
	N Q	\ %	N DA		CR	CARD READER
PATHWAYS:					-RD-	REQUEST TO E
IN HARD WALL DEVICE BOXES, DEVICE RINGS, PROVIDED BY	>					
JUNCTION BOXES, CONDUIT, CONDUIT SLEEVES PROVIDED BY	>	-		_	ES	ELECTRIC DOO
LADDER RACK INSIDE SECURITY ROOM PROVIDED BY		X		_	ML	MAGNETIC LOC
					EM	MORTISE HINGE
DOOR HARDWARE: ELECTRONIC LOCKS & ELECTRIFIED HINGES PROVIDED BY				_		
ELECTRONIC LOCKS & ELECTRIFIED HINGES PROVIDED BY		x	X	_	EL	ELECTRIC LOCK
ELECTRONIC LOCKING DEVICE POWER SUPPLIES PROVIDED BY		×		_	PB	PUSH BUTTON
ELECTRONIC LOCKING DEVICE POWER SUPPLY LOW VOLTAGE WIRING BY				_		PUSH BUTTON
ELECTRONIC LOCKING DEVICE POWER SUPPLY 120 VOLTAGE WIRING BY	>	<			ACP	ACCESS CONTR
					PTZ	
SECURITY SYSTEMS ROOM:						CCTV CAMERA "A" - INDICATES
PLYWOOD BACKBOARD PROVIDED BY	X			_	Ă	"PTZ" - INDICAT
GROUND BAR PROVIDED BY		< –		_		
RACK AND TRAY GROUNDING PROVIDED BY		<		_	NVR	NETWORK VIDE
120V POWER PROVIDED BY		<				
LAN CONNECTIONS TO CONTROL PNL EQUIP PROVIDED BY			X		MON	MONITOR
DEVICES:					UPS	UPS
REX, CARD READERS, MAG CONTACTS, CCTV CAMERAS, ETC. PROVIDED BY		X		_		MOTION DETEC
HEAD END POWER SUPPLIES, RECORDING EQUIP, CNTRL PNLS, BY		X				"CCTV" - INDICA
					PS	POWER SUPPL
					OH	OVERHEAD DOO
					RB	PNEUMATIC DO
					BHR	BIOMETRIC HAN
					M	CCTV MICROPH
					DB	DURESS BUTTO
					Q	DURESS STROE

	CCTV CAMERA MATRIX													
CAMERA									STORAGE					
ID#	I/O RATING	LOCATION	TYPE	RESOLUTION	LENS TYPE	IR	IPS	ALARM IPS	MOUNTING	RECORDING	MOTION	AUDIO	COMPRESSION	TIMEFRAME
1	EXTERIOR		FIXED	3MP	3-9MM	YES	7		GOOSENECK WALL MOUNT	100%			H.264	30 DAYS
2	EXTERIOR		PTZ	2MP/1080P	4.7-94MM	NO	7		GOOSENECK WALL MOUNT	100%			H.264	30 DAYS
3	INTERIOR	CELL ROOM	FIXED	720P	1.8MM	YES	15		CORNER	10%		INTERNAL	H.264	90 DAYS
4	INTERIOR	INTERVIEW ROOM	FIXED	720P	1.8	NO	7	15	CEILING	10%	EXTERNAL	EXTERNAL	H.264	30 DAYS
5	INTERIOR	GARAGE BAY	FIXED	720P	3-9MM	NO	7		WALL	30%	INTERNAL		H.264	30 DAYS
6	INTERIOR	HALLWAY	FIXED	720P	3-9MM	NO	7		CEILING	50%	INTERNAL		H.264	30 DAYS
7	INTERIOR	OPEN AREA	FIXED	720P	2.8	NO	7		CEILING	50%	INTERNAL		H.264	30 DAYS
8	INTERIOR	STAIRWELL	FIXED	720P	3-9MM	NO	7		WALL	20%	INTERNAL		H.264	30 DAYS
9	INTERIOR	BOOKING	FIXED	720P	3-9MM	NO	7	15	CEILING	10%	INTERNAL	EXTERNAL	H.264	1 YEAR

120130535 - Waltham Police HQ Renovation/1200 Drawings/1207 Security/Plot Files/20130535 ES000 SECURITY LEGEND, NOTES AND ABBREVIATIONS.dwg [24x36] July 14, 2014 - 5:39pm dfran:

SECURITY LEG	END
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	SECONTILECEND
SE07	DOOR DETAIL, NUMBER CORRESPONDS TO DETAIL DRAWING NUMBER
DR	DOOR RELEASE BUTTON
DC	DOOR CONTACT
CR	CARD READER
Ð	REQUEST TO EXIT MOTION DET
ES	ELECTRIC DOOR STRIKE
ML	MAGNETIC LOCK
EM	MORTISE HINGE/DOOR HARDWARE
EL	ELECTRIC LOCK
PB	PUSH BUTTON
ACP	ACCESS CONTROL PANEL
PTZ	CCTV CAMERA "A" - INDICATES AUDIO "PTZ" - INDICATES PAN / TILT / ZOOM
NVR	NETWORK VIDEO RECORDER-NVR
MON	MONITOR
UPS	UPS
	MOTION DETECTOR "CCTV" - INDICATES CCTV SYSTEM DETECTOR
PS	POWER SUPPLY
DH	OVERHEAD DOOR CONTACT
RB	PNEUMATIC DOOR RELEASE BUTTON
BHR	BIOMETRIC HAND READER
$\langle M \rangle$	CCTV MICROPHONE
DB	DURESS BUTTON
S	DURESS STROBE
	FER TO DETAIL DRAWINGS FOR EXACT QUANTITY OF CABLES AND REQUIRED AT EACH TYPICAL DOOR.

		GENE	RAL SECURITY ABBREVIATIONS	5	
AC	ALTERNATING CURRENT	Hz	HERTZ	RMS	RACK MOUNT SPACE
ADA	AMERICANS WITH DISABILITIES ACT	IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.	ScTP	SCREENED TWISTED-PAIR
AFF	ABOVE FINISH FLOOR	ISDN	INTEGRATED SERVICES DIGITAL NETWORK	SP	SERVICE PROVIDER
ACU	ACCESS CONTROL UNIT	ISO	INTERNATIONAL STANDARDS ORGANIZATION	STP	SHIELDED TWISTED-PAIR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	kHz	KILOHERTZ	SWB	SWITCHBOARD
AWG	AMERICAN WIRE GAUGE	kwh	KILOWATT-HOURS	SYS	SYSTEM
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL	LAN	LOCAL AREA NETWORK	SCP	SECURITY CONTROL PANEL
BTU	BRITISH THERMAL UNIT	LASER	LIGHT AMPLIFICATION BY STIMULATED EMISSION OF RADIATION	тв	TERMINAL BLOCK
CATV	CABLE TELEVISION	LED	LIGHT-EMMITTING DIODE	твв	TELECOMMUNICATIONS BONDING BACKBONE
CCTV	CLOSED CIRCUIT TELEVISION	МС	MAIN CROSS-CONNECT	TBBC	TELECOMMUNICATIONS BACKBONE BONDING CONDUCTOR
dB	DECIBEL	MDF	MAIN DISTRIBUTION FRAME	TR	TELECOMMUNICATIONS ROOM
DC	DIRECT CURRENT	МН	MANHOLE	TEL	TELEPHONE
DEMARC	DEMARCATION POINT	MODEM	MODULATOR DEMODULATOR	TELCO	TELEPHONE COMPANY
DVMS	DIGITAL VIDEO MANAGEMENT SYSTEM	MTT	MAIN TELEPHONE TERMINAL	TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
EIA	ELECTRONICS INDUSTRIES ASSOCIATION	NEC	NATIONAL ELECTRICAL CODE	TIA	TELECOMMUNICATIONS INDUSTRIES ASSOCIATION
ESS	ELECTRONIC SECURITY SYSTEM	NESC	NATIONAL ELECTRICAL SAFETY CODE	TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
EMI	ELECTROMAGNETIC INTERFERENCE	NEXT	NEAR END CROSSTALK	то	TELECOMMUNICATIONS OUTLET
EMR	ELECTROMAGNETIC RADIATION	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	TSB	TELECOMMUNICATIONS SYSTEM BULLETIN
ЕМТ	ELECTRIC METALLIC TUBING	OSP	OUTSIDE PLANT	TYP	TYPICAL
EL	ELECTRIC LOCK	PABX	PRIVATE AUTOMATIC BRANCH EXCHANGE	UG	UNDERGROUND
FCC	FEDERAL COMMUNICATIONS COMMISSION	PBX	PRIVATE BRANCH EXCHANGE	UL	UNDERWRITERS LABORATORIES, INC.
FEXT	FAR END CROSSTALK	POTS	PLAIN OLD TELEPHONE SERVICE	UPS	UNINTERRUPTIBLE POWER SUPPLY
GEC	GROUNDING ELECTRODE CONDUCTOR	PR	PAIR	UTP	UNSHIELDED TWISTED-PAIR
GND	GROUND	PVC	POLYVINYL CHLORIDE	WA	WORK AREA
HC	HORIZONTAL CROSS-CONNECT	RCDD	REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER	WP	WATERPROOF OUTLET
HF	HIGH FREQUENCY	REF	REFERENCE	X	CROSS-CONNECT
нн	HANDHOLE	REX	REQUEST TO EXIT		
ICP	INTRUSION CONTROL PANEL	RFI	RADIO FREQUENCY INTERFERENCE		
HVAC	HEATING, VENTILATION, AND AIR-CONDITIONING	RFQ	REQUEST FOR QUOTE		

GENERAL SECURITY NOTES

- I. REFER TO DRAWINGS FOR PROPOSED PATHWAYS.
- 2. COORDINATE WITH CONTRACTORS, UTILITIES, TRADES, AND ARCHITECT AS REQUIRED.
- 3. REFER TO ELECTRONIC SECURITY DRAWINGS AND SPECIFICATIONS FOR DETAILS.
- 4. FIELD VERIFY EXACT LOCATIONS OF ALL ELECTRONIC SECURITY DEVICES.
- 5. PROVIDE SUPERVISED INPUTS AND END OF LINE SUPERVISION COMPONENTS CONNECTED TO EACH DEVICE TO MONITOR DEVICE. CONNECT MONITOR DEVICE AT FAR END AND PROVIDE 4-STATE SUPERVISION.
- 6. ALL ELECTRONIC SECURITY CABLING SHALL BE PLENUM RATED.
- 7. VERIFY LABELING STANDARD WITH OWNER, SUBMIT LABELING SCHEME FOR APPROVAL. LABELING SHALL BE IN ACCORDANCE WITH ANSI/EIA/TIA-606A STANDARDS.
- 8. SECURITY CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, PLATES AND INSERTS TO ACCEPT THE CONNECTIVITY AND DEVICE PRODUCTS WITHIN THE ELECTRICAL CONTRACTOR PROVIDED BOXES, CONDUIT, AND SURFACE RACEWAY.
- 9. REFER TO DOOR DETAIL DRAWINGS FOR EXACT QUANTITY OF CABLES AND DEVICES REQUIRED AT EACH DOOR.
- 10. SECURITY CONTRACTOR SHALL COORDINATE ALL ELECTRONIC LOCKING HARDWARE WITH ARCHITECTURAL DOOR HARDWARE SCHEDULE.

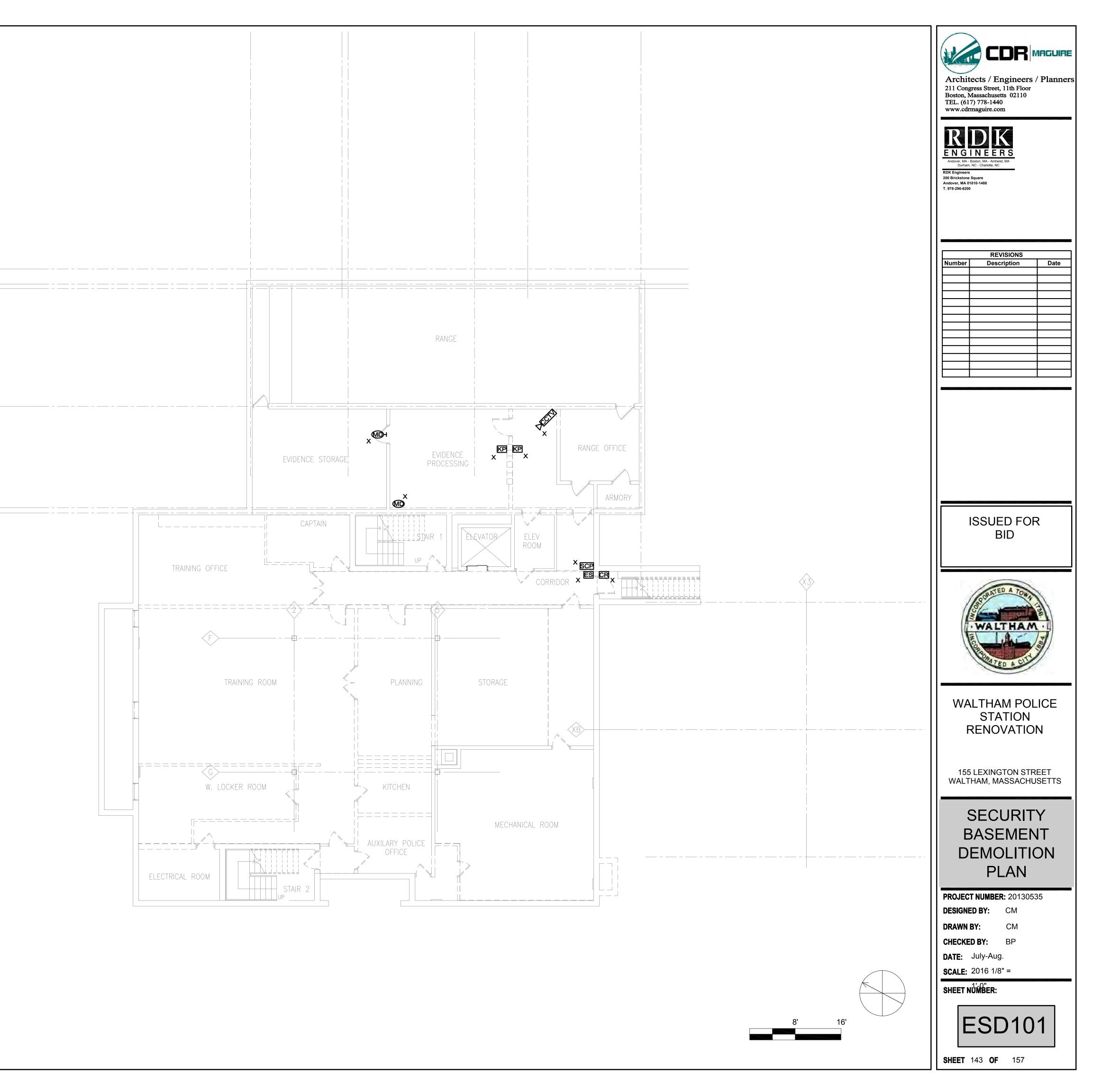
E	EXISTING EQUIPMENT LEGEND
ХМ	EXISTING EQUIPMENT AND CABLING TO REMAIN
x	EXISTING EQUIPMENT AND CABLING TO BE REMOVED
XR	EXISTING EQUIPMENT AND CABLING TO BE RELOCATED
XN	EXISTING EQUIPMENT AND CABLING TO BE REMOVED AND NEW CABLING TO BE INSTALLED IN EXISTING OUTLET
XNL	EXISTING EQUIPMENT AND CABLING TO BE RELOCATED TO THIS LOCATION

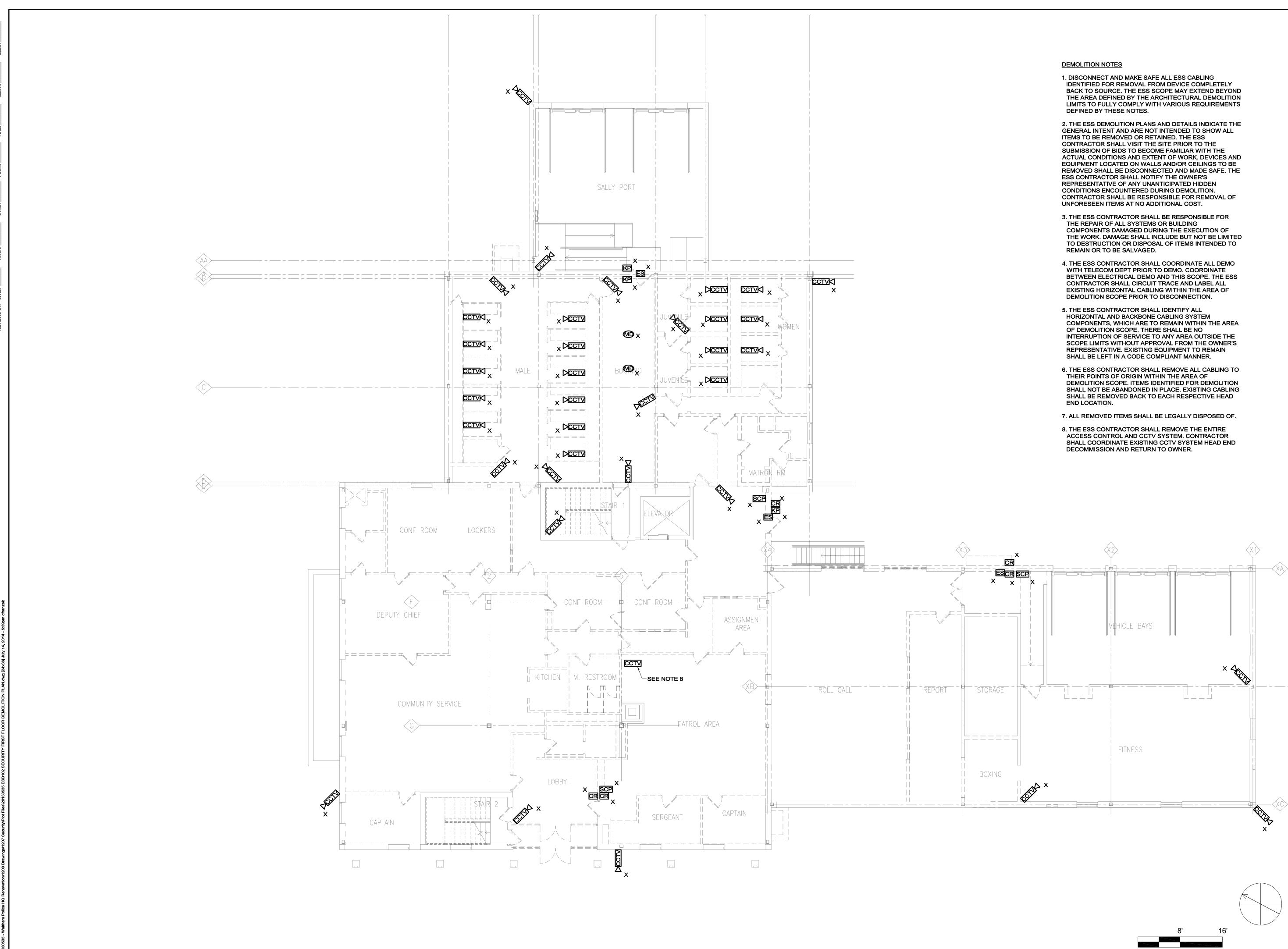


SHEET 142 **OF** 157

DEMOLITION NOTES

- 1. DISCONNECT AND MAKE SAFE ALL ESS CABLING IDENTIFIED FOR REMOVAL FROM DEVICE COMPLETELY BACK TO SOURCE. THE ESS SCOPE MAY EXTEND BEYOND THE AREA DEFINED BY THE ARCHITECTURAL DEMOLITION LIMITS TO FULLY COMPLY WITH VARIOUS REQUIREMENTS DEFINED BY THESE NOTES.
- 2. THE ESS DEMOLITION PLANS AND DETAILS INDICATE THE GENERAL INTENT AND ARE NOT INTENDED TO SHOW ALL ITEMS TO BE REMOVED OR RETAINED. THE ESS CONTRACTOR SHALL VISIT THE SITE PRIOR TO THE SUBMISSION OF BIDS TO BECOME FAMILIAR WITH THE ACTUAL CONDITIONS AND EXTENT OF WORK. DEVICES AND EQUIPMENT LOCATED ON WALLS AND/OR CEILINGS TO BE REMOVED SHALL BE DISCONNECTED AND MADE SAFE. THE ESS CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY UNANTICIPATED HIDDEN CONDITIONS ENCOUNTERED DURING DEMOLITION. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF UNFORESEEN ITEMS AT NO ADDITIONAL COST.
- 3. THE ESS CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ALL SYSTEMS OR BUILDING COMPONENTS DAMAGED DURING THE EXECUTION OF THE WORK. DAMAGE SHALL INCLUDE BUT NOT BE LIMITED TO DESTRUCTION OR DISPOSAL OF ITEMS INTENDED TO REMAIN OR TO BE SALVAGED.
- 4. THE ESS CONTRACTOR SHALL COORDINATE ALL DEMO WITH TELECOM DEPT PRIOR TO DEMO. COORDINATE BETWEEN ELECTRICAL DEMO AND THIS SCOPE. THE ESS CONTRACTOR SHALL CIRCUIT TRACE AND LABEL ALL EXISTING HORIZONTAL CABLING WITHIN THE AREA OF DEMOLITION SCOPE PRIOR TO DISCONNECTION.
- 5. THE ESS CONTRACTOR SHALL IDENTIFY ALL HORIZONTAL AND BACKBONE CABLING SYSTEM COMPONENTS, WHICH ARE TO REMAIN WITHIN THE AREA OF DEMOLITION SCOPE. THERE SHALL BE NO INTERRUPTION OF SERVICE TO ANY AREA OUTSIDE THE SCOPE LIMITS WITHOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE. EXISTING EQUIPMENT TO REMAIN SHALL BE LEFT IN A CODE COMPLIANT MANNER.
- 6. THE ESS CONTRACTOR SHALL REMOVE ALL CABLING TO THEIR POINTS OF ORIGIN WITHIN THE AREA OF DEMOLITION SCOPE. ITEMS IDENTIFIED FOR DEMOLITION SHALL NOT BE ABANDONED IN PLACE. EXISTING CABLING SHALL BE REMOVED BACK TO EACH RESPECTIVE HEAD END LOCATION.
- 7. ALL REMOVED ITEMS SHALL BE LEGALLY DISPOSED OF.
- 8. THE ESS CONTRACTOR SHALL REMOVE THE ENTIRE ACCESS CONTROL AND CCTV SYSTEM. CONTRACTOR SHALL COORDINATE EXISTING CCTV SYSTEM HEAD END DECOMMISSION AND RETURN TO OWNER.





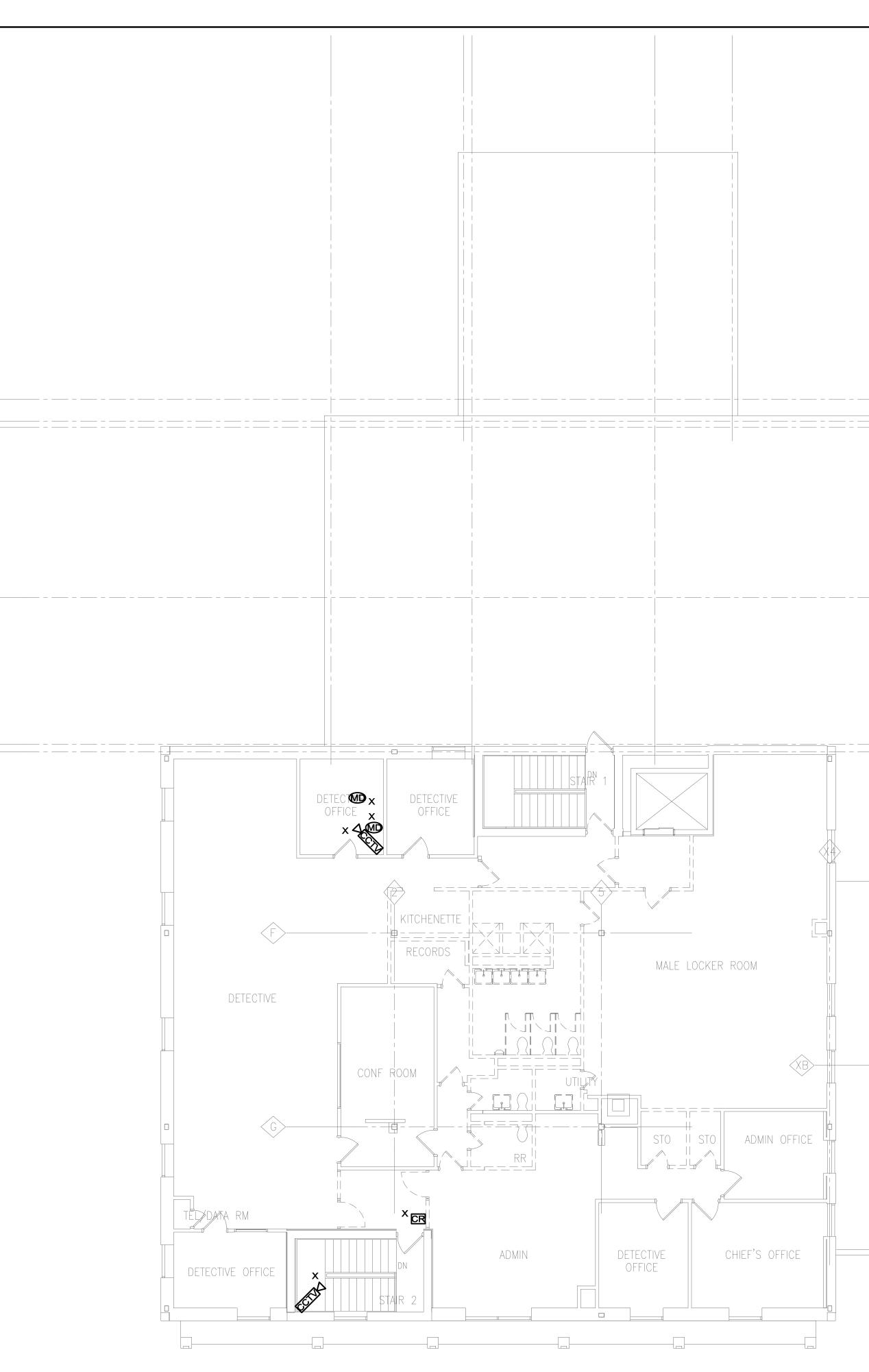
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 WALTHAM POLICE STATION RENOVATION 155 LEXINGTON STREET							
SECURITY FIRST FLOOR DEMOLITION PLAN							
PROJECT NUMBER: 20130535 DESIGNED BY: CM DRAWN BY: CM CHECKED BY: BP DATE: July-Aug. SCALE: 2016 1/8" = SHEET NÜMBER:							
ESD102 SHEET 144 OF 157							

DEMOLITION NOTES

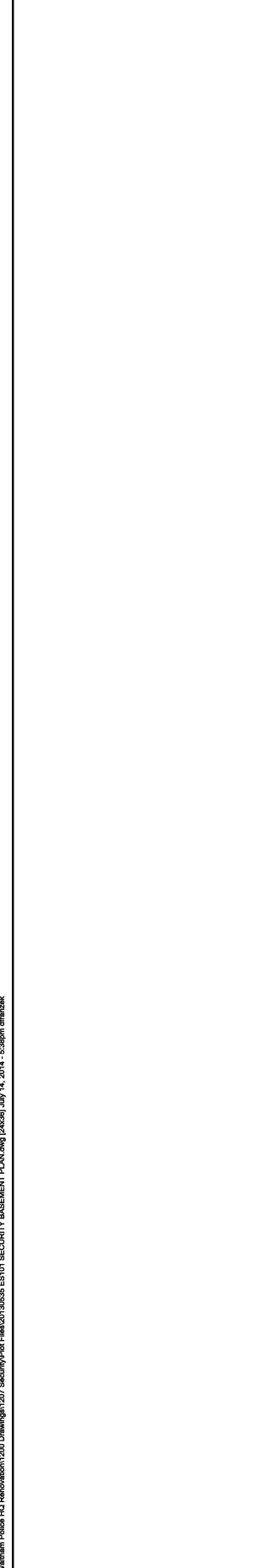
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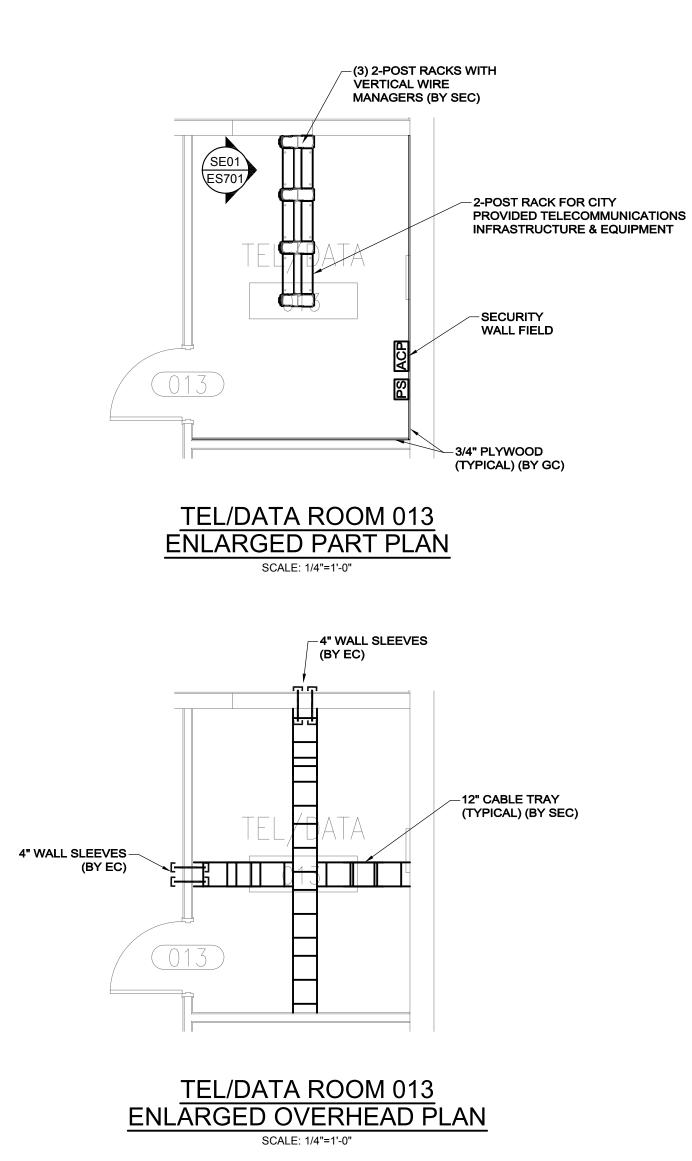
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- 4. THE ESS CONTRACTOR SHALL COORDINATE ALL DEMO WITH TELECOM DEPT PRIOR TO DEMO. COORDINATE BETWEEN ELECTRICAL DEMO AND THIS SCOPE. THE ESS CONTRACTOR SHALL CIRCUIT TRACE AND LABEL ALL EXISTING HORIZONTAL CABLING WITHIN THE AREA OF DEMOLITION SCOPE PRIOR TO DISCONNECTION.
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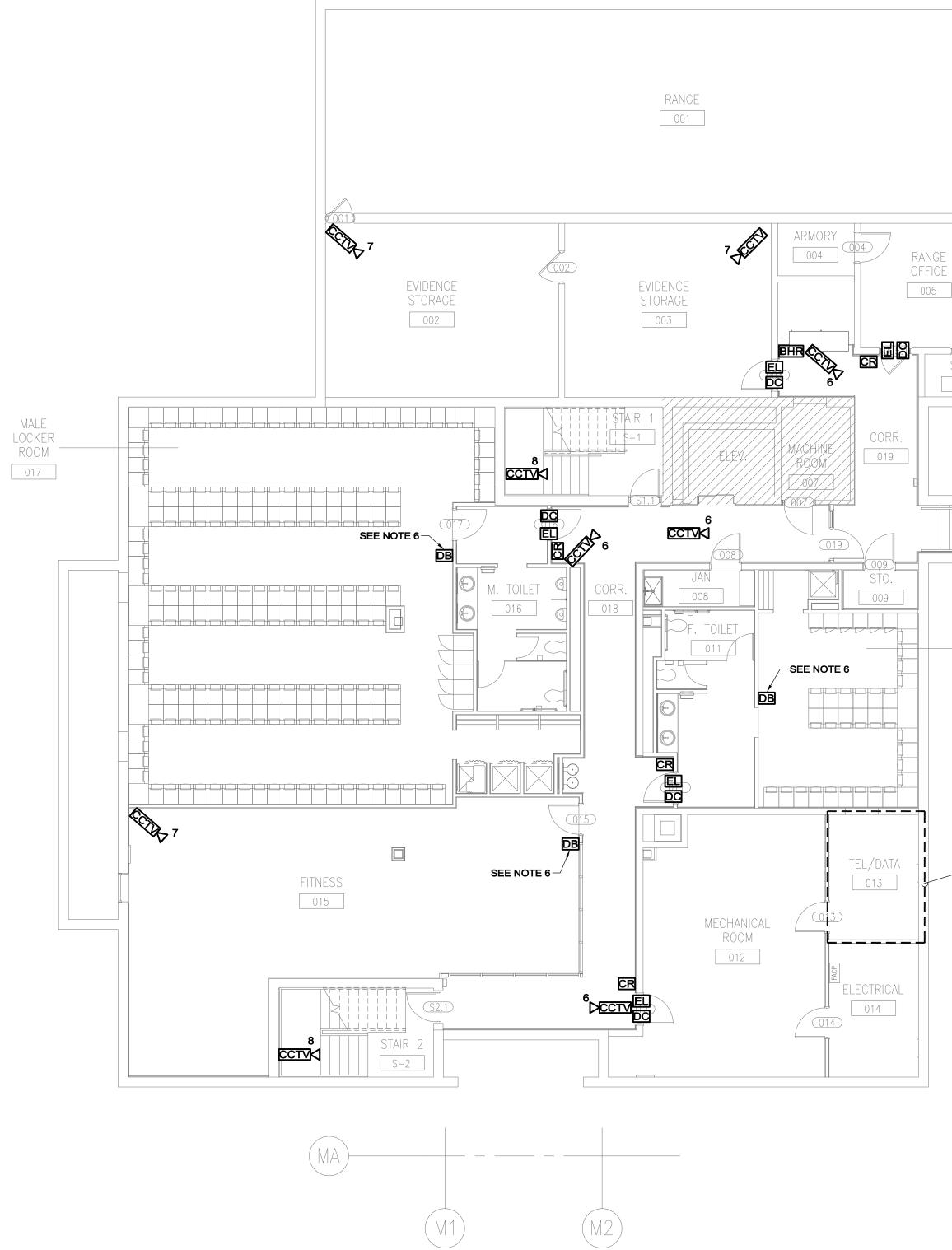


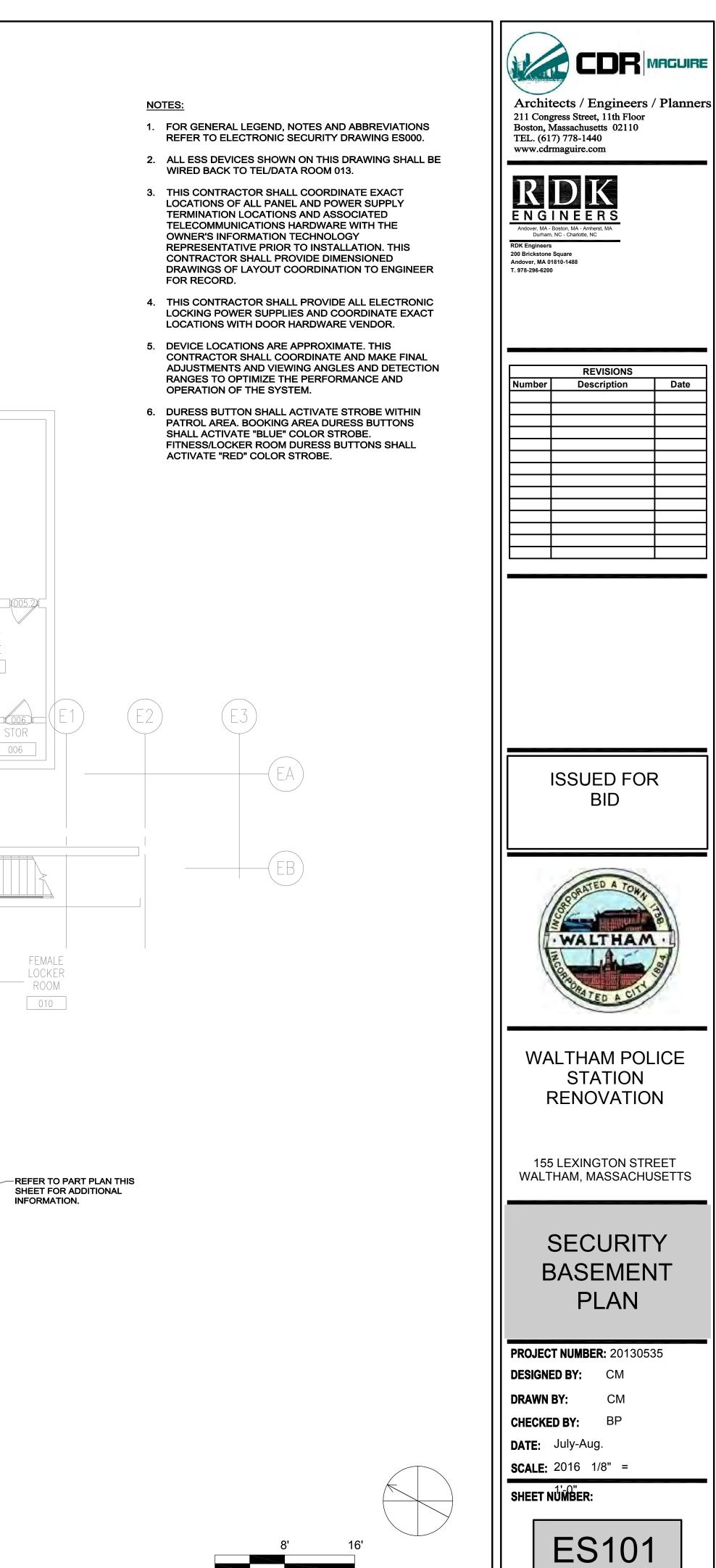
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	WALTHAM POLICE STATION RENOVATION		
	155 LEXINGTON STREET WALTHAM, MASSACHUSETTSSECURITY SECOND FLOOR DEMOLITION 		
8' 16'	CHECKED BY: BP DATE: July-Aug. SCALE: 2016 1/8" = SHEET NUMBER: ESD103 SHEET 145 OF 157		





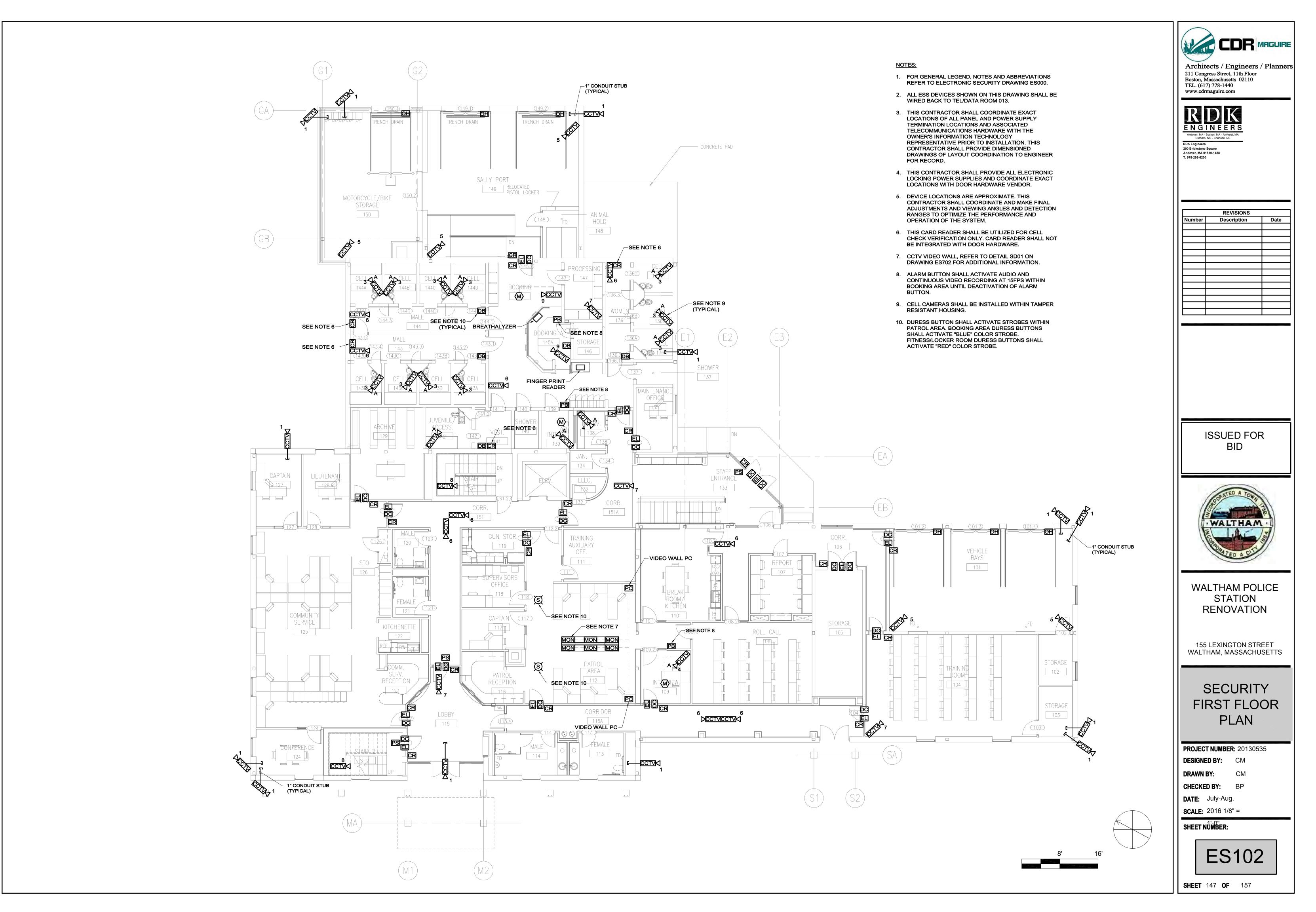




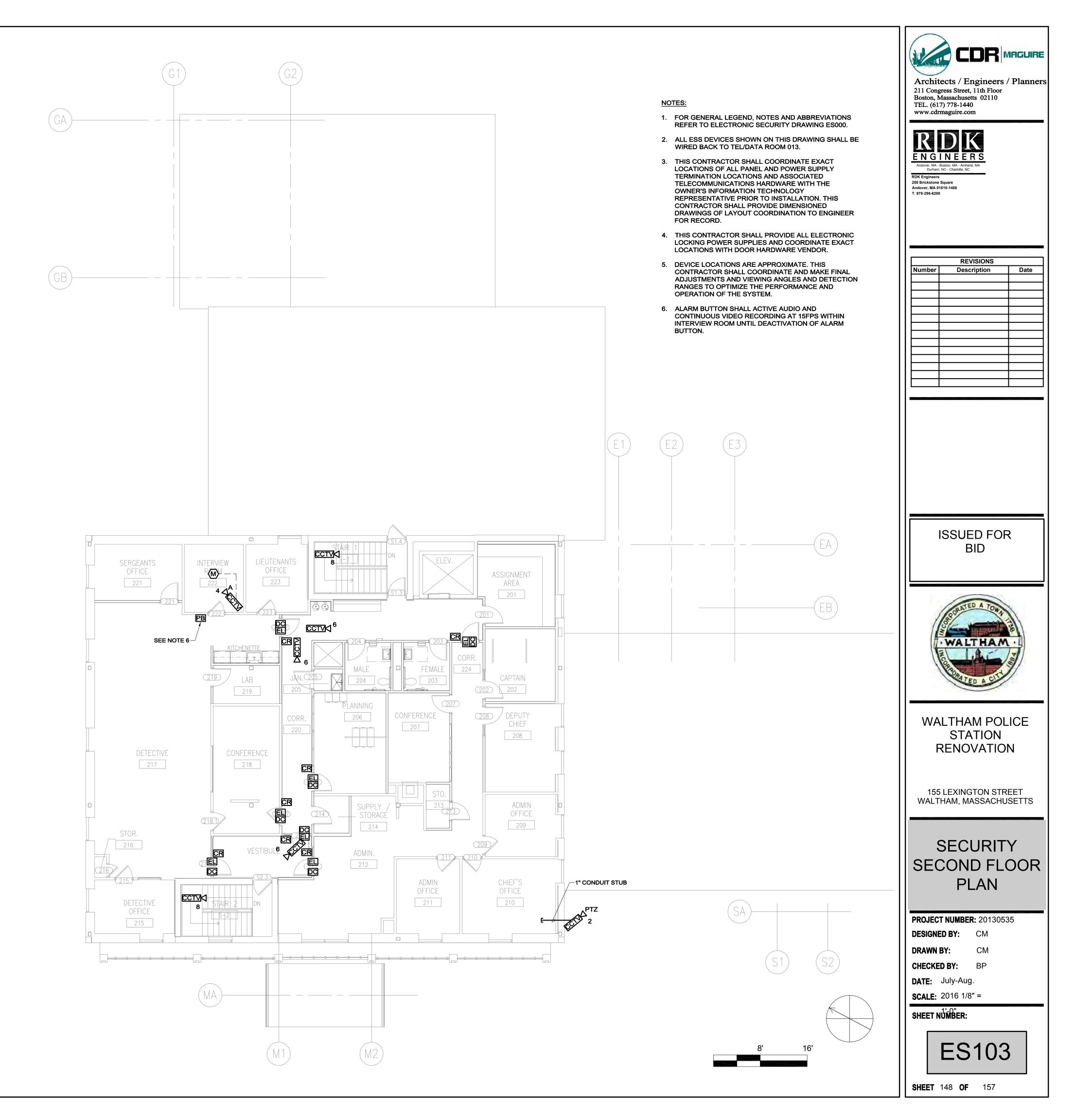


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3/20130535 - Waltham Police HQ Renovation/1200 Drawings/1207 Security/Plot Files/20130535 ES103 SECURITY SECOND FLOOR PLAN.dwg [24x36] July 14, 2014 - 5:38pm dfranzek



	4	
STRUCTURAL -		
STUB DOWN IN WALL FOR WIRING TO MOTION DETECTOR		
MOTION DETECTOR MOUN		
STUB INTO DOOR FRAME F WIRING OF ELECTRIC LOC SEE NOTE 5)		
MAGNETIC LOCK MOUNTE DOOR JAMB (SECURED SIL		
DOOR CONTACTS CONCEA N DOOR FRAME AND IN DO		
DOOR FRAME	 ELECTRIC DOOR STRIKE	

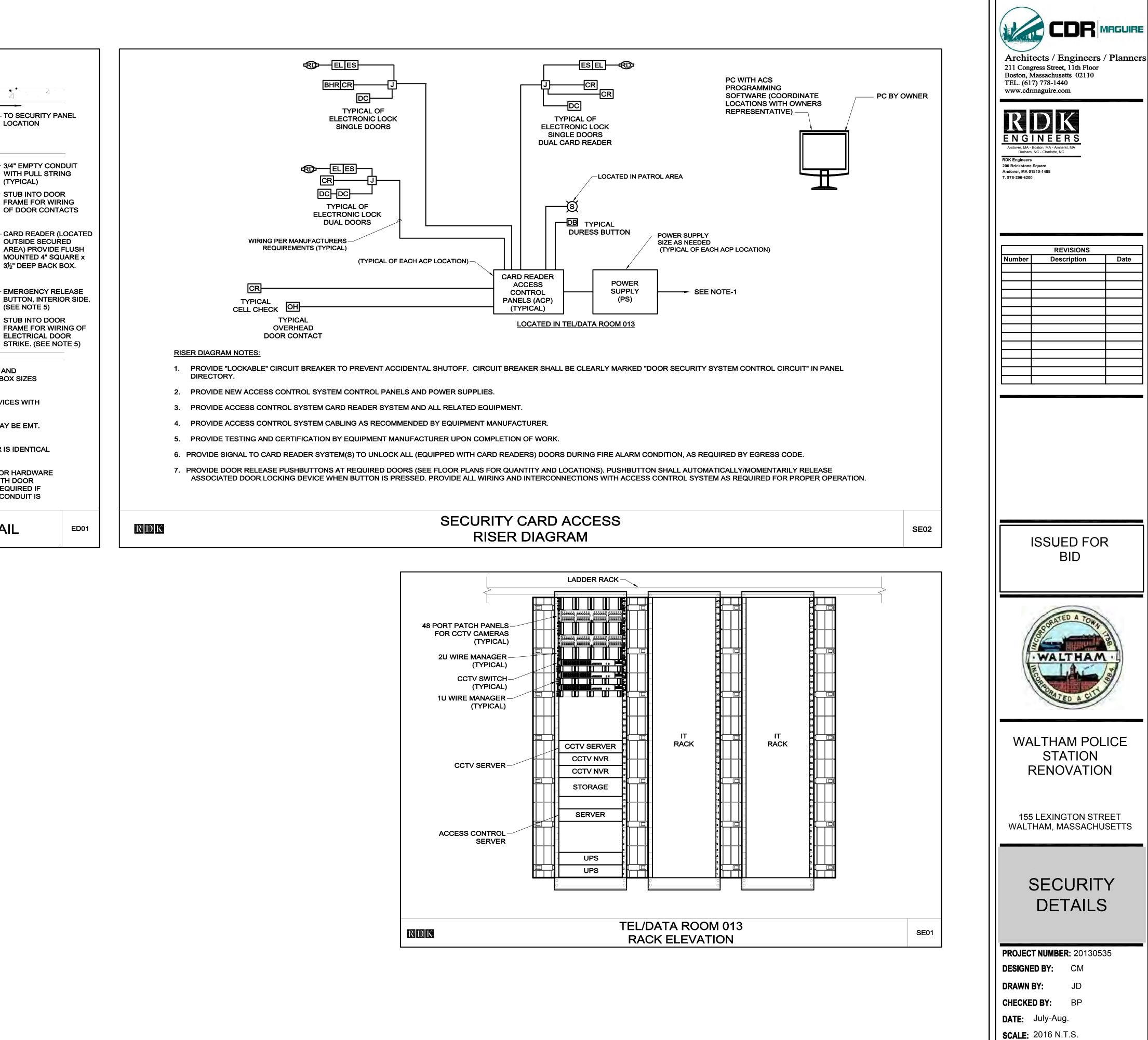
3. PROVIDE INSULATED BUSHINGS ON ALL CONDUITS. CONCEALED RACEWAY MAY BE EMT. ALL EXPOSED RACEWAY SHALL BE GALVANIZED RIGID METAL CONDUIT.

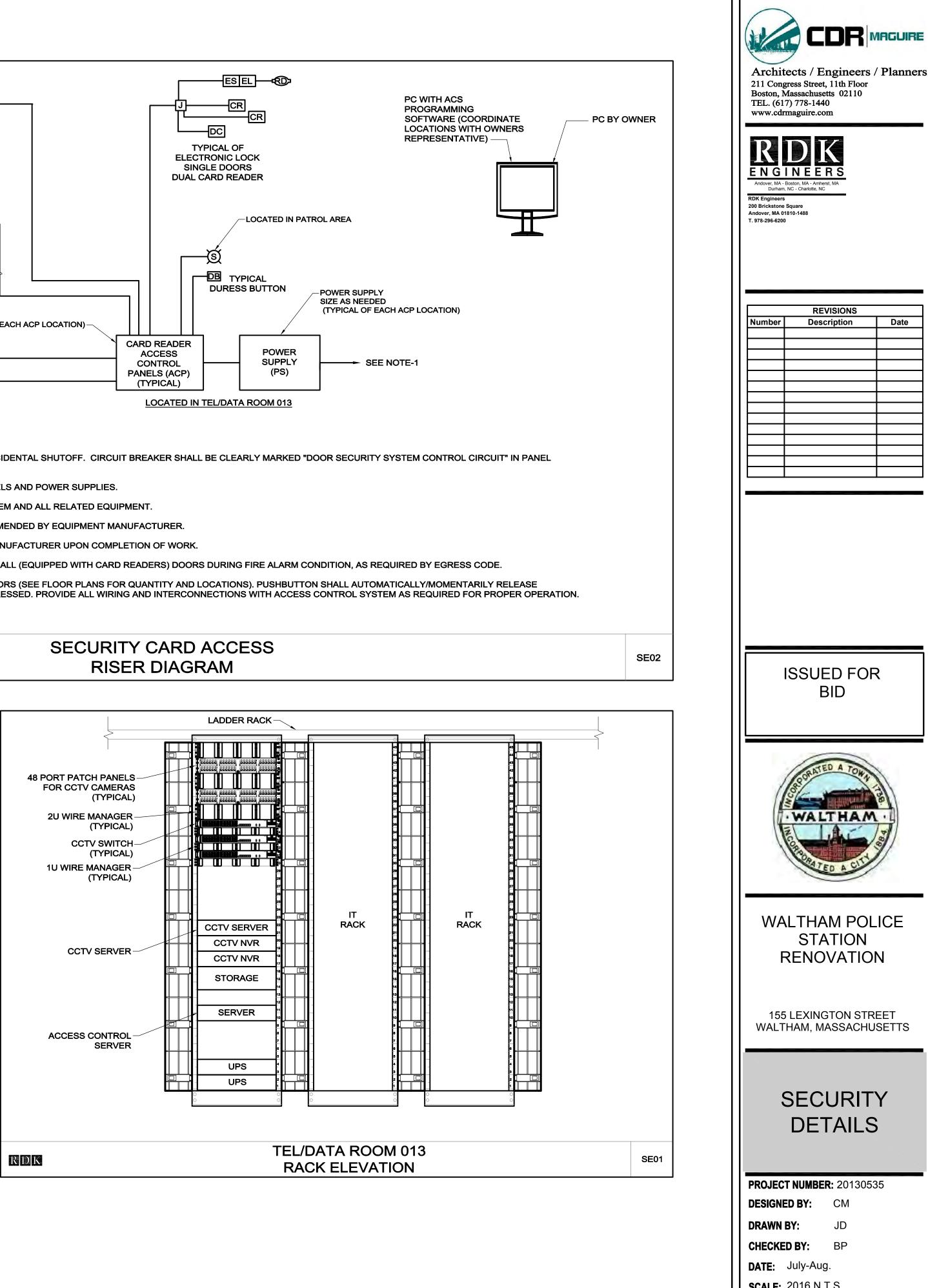
4. THE SCOPE ILLUSTRATED (RACEWAY AND BACKBOXES) FOR A DOUBLE DOOR IS IDENTICAL WITH ONE DOOR CONTACT AND MAG LOCK PER DOOR.

5. DETAIL INDICATED ABOVE INCLUDES CONDUIT PATHWAYS FOR MULTIPLE DOOR HARDWARE SCENARIOS. THIS CONTRACTOR CAN ELIMINATE CONDUIT IN COORDINATION WITH DOOR SECURITY HARDWARE SELECTION. (I.E. CONDUIT FOR ELECTRIC LOCK IS NOT REQUIRED IF DOOR IS SELECTED TO USE ELECTRIC STRIKE. EMERGENCY RELEASE BUTTON CONDUIT IS NOT REQUIRED IF MAGNETIC LOCKS ARE NOT SELECTED.

RDK

TYPICAL DOOR SECURITY DETAIL

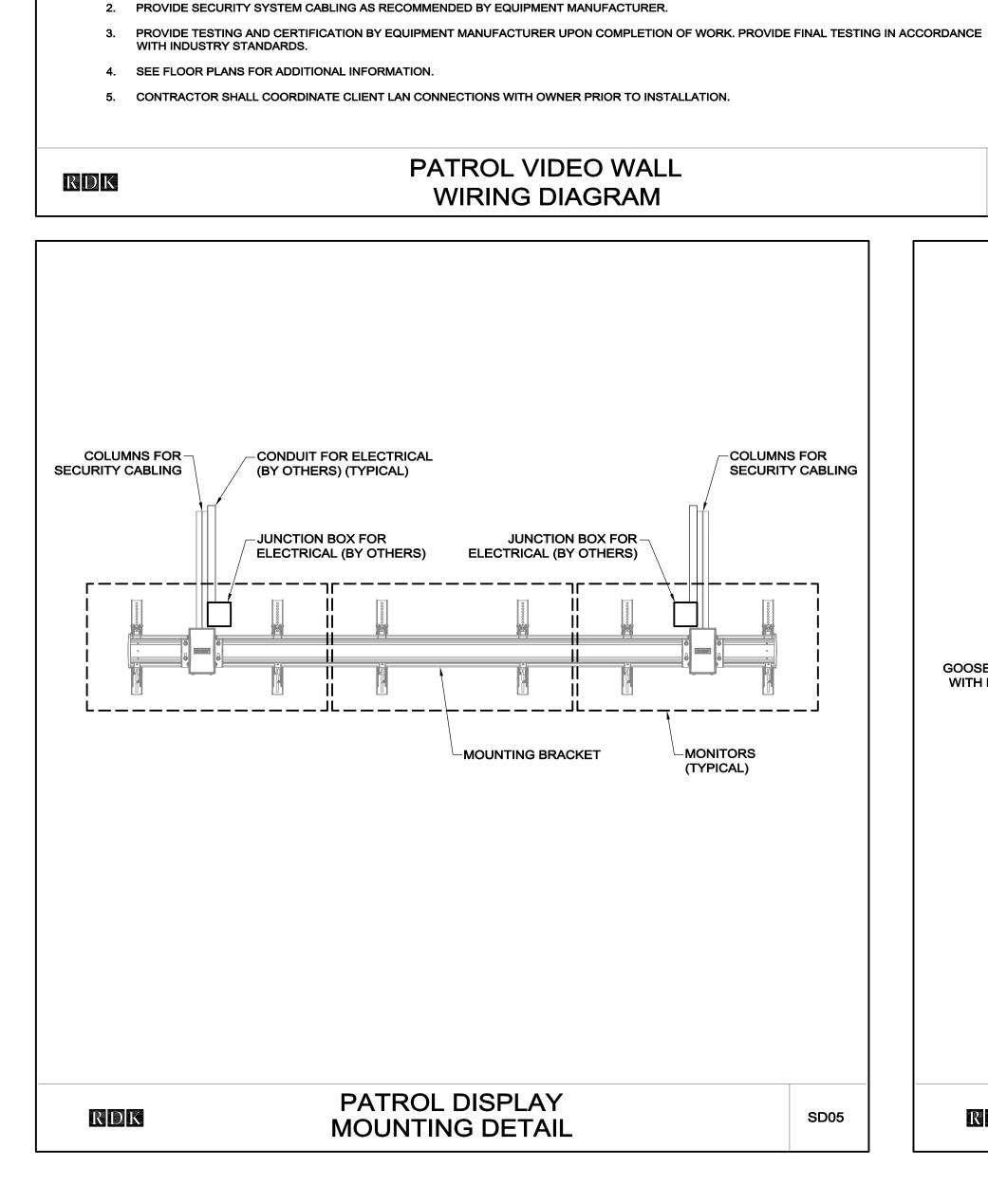




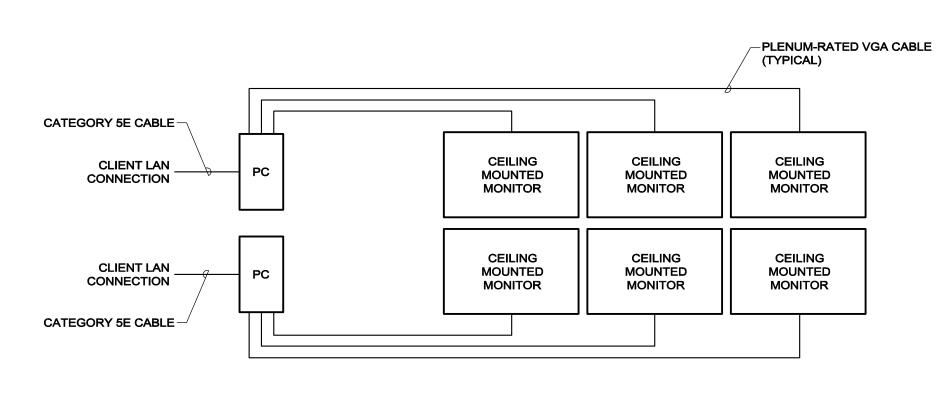
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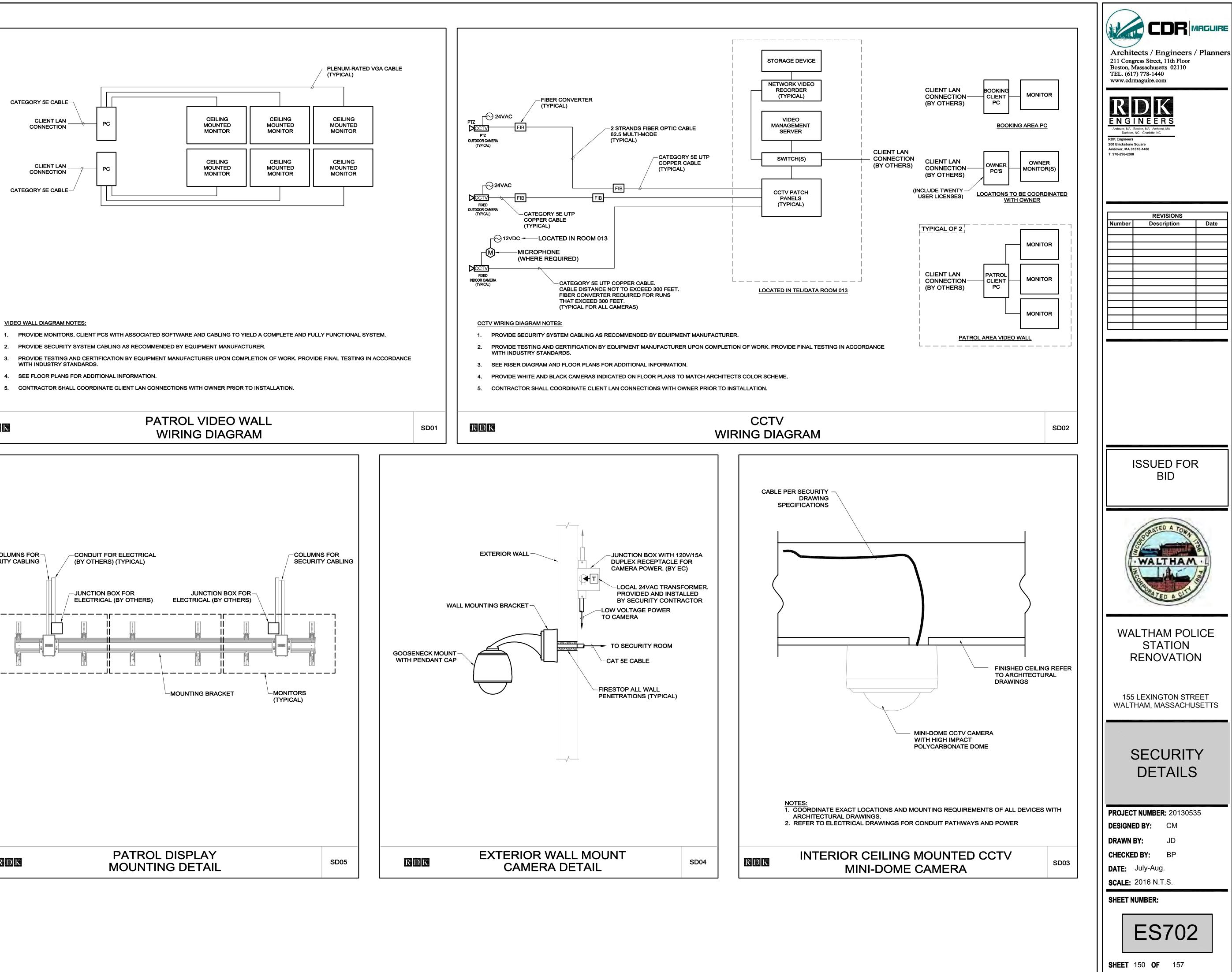
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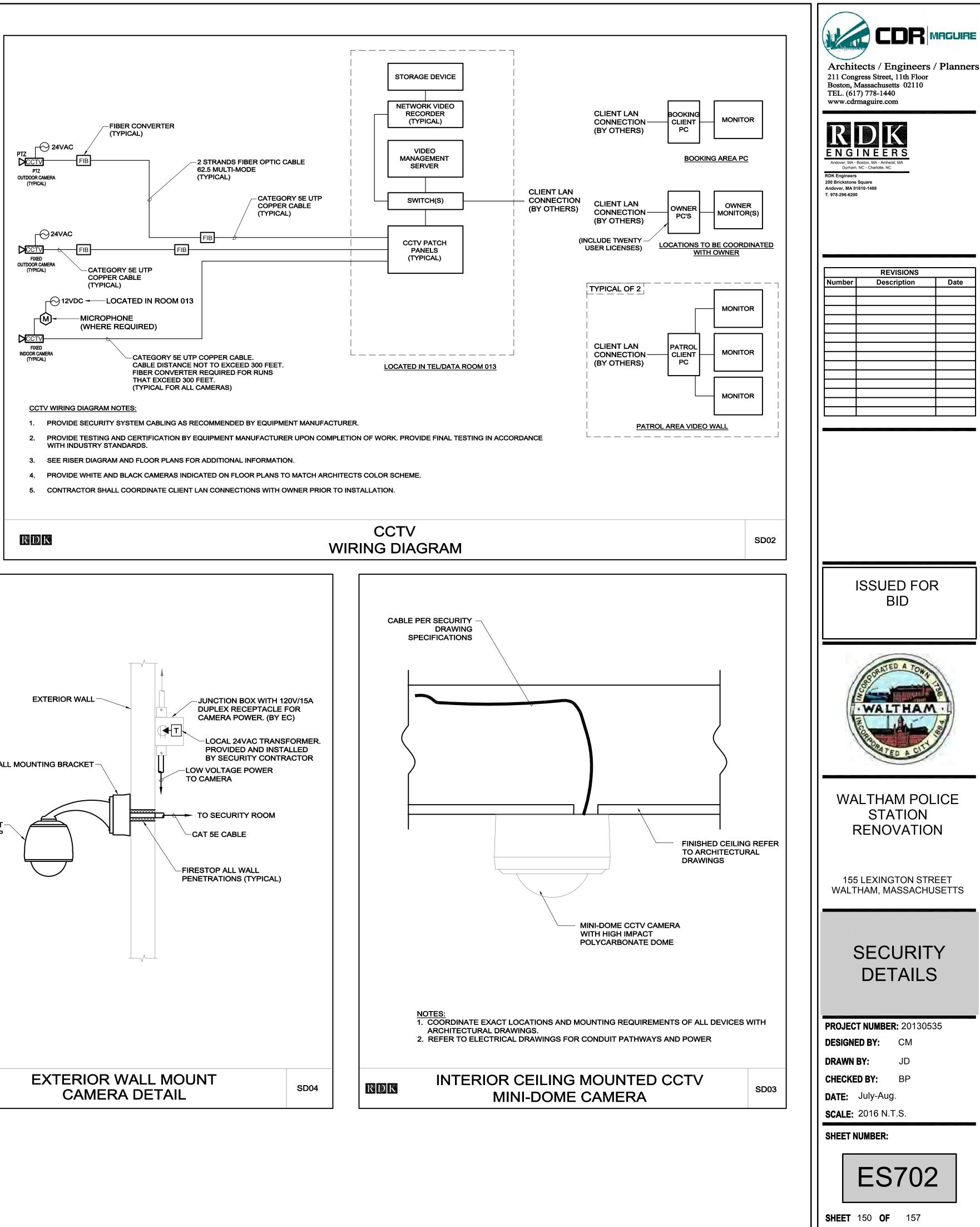
SHEET 149 **OF** 157

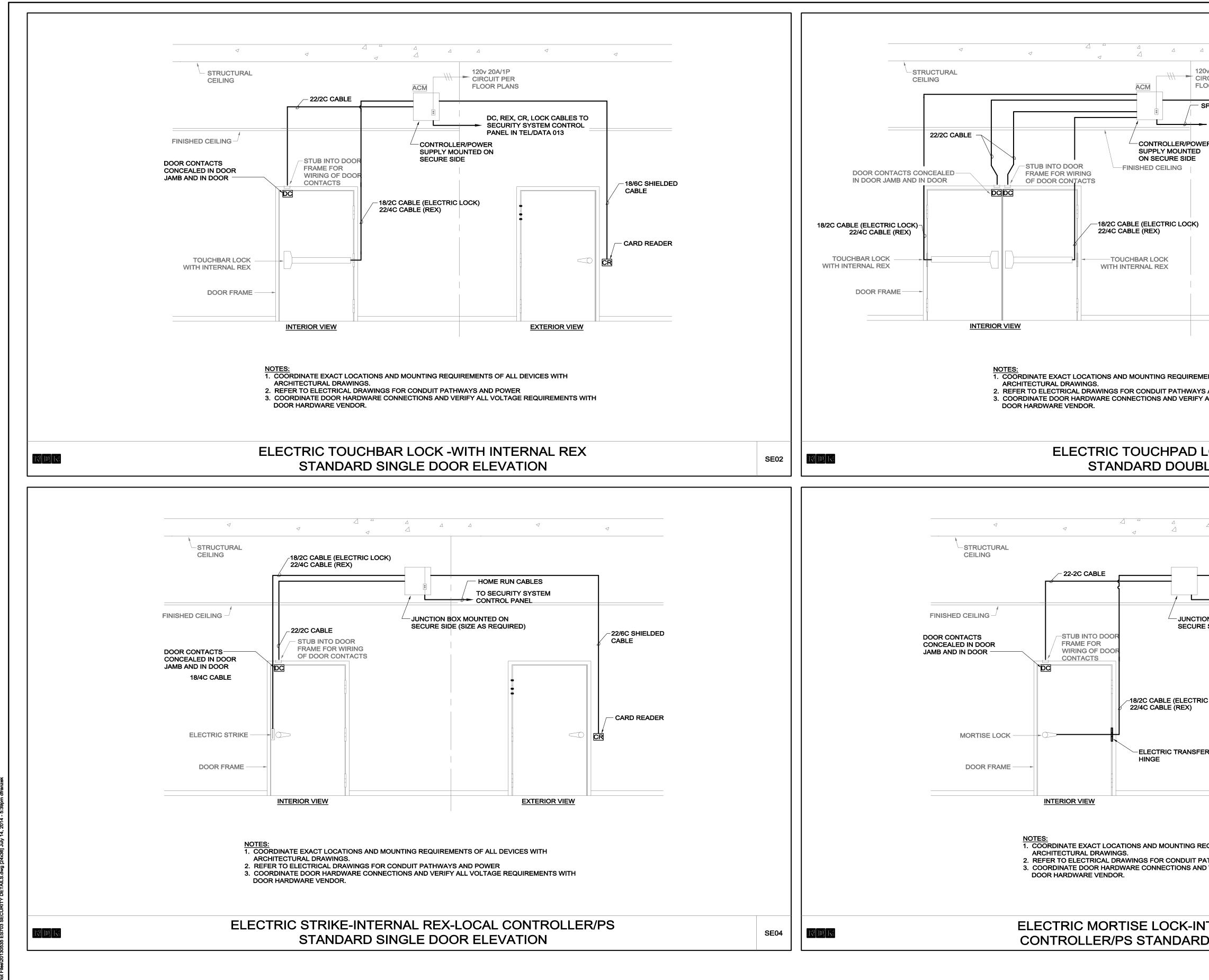


VIDEO WALL DIAGRAM NOTES:









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SPECIFY CABLE (LAN, RS485) DC, REX, CR, LOCK CABLES TO - SECURITY SYSTEM CONTROL PANEL IN TEL/DATA 013 ER	Right Right <th< th=""></th<>
ENTS OF ALL DEVICES WITH	REVISIONS Number Description Date
LE DOOR ELEVATION	
	ISSUED FOR BID
HOME RUN CABLES TO SECURITY SYSTEM CONTROL PANEL	
C LOCK)	WALTHAM POLICE
EXTERIOR VIEW	STATION RENOVATION
EQUIREMENTS OF ALL DEVICES WITH ATHWAYS AND POWER D VERIFY ALL VOLTAGE REQUIREMENTS WITH	155 LEXINGTON STREET WALTHAM, MASSACHUSETTS
ITERNAL REX-CENTRALIZED D SINGLE DOOR ELEVATION	SECURITY DETAILS
	PROJECT NUMBER: 20130535DESIGNED BY:CMDRAWN BY:JDCHECKED BY:BPDATE:July-Aug.SCALE:2016 N.T.S.SHEET NUMBER:
	ES703 SHEET 151 OF 157