

DRAWING INDEX
GENERAL G-001 - COVER SHEET G-002 - DRAWING INDEX / LEGENDS/ GENERAL NOTES
ARCHITECTURAL A-001 - DEMOLITION PLAN ARCHITECTURAL A-101 - ARCHITECTURAL FLOOR PLAN A-102 - REFLECTED CEILING PLAN A-103 - DETAILS A-103.1 - DETAILS A-103.2 - CASEWORK DETAILS A-104 - INTERIOR ELEVATIONS A-105 - SCHEDULES
MECHANICAL AND PLUMBING M-001 - MEP DEMOLITION PLAN M-101 - HVAC PLAN M-201 - HYDRONIC PLAN AND CONTROLS SCHEMATICS M-501 - MECHANICAL AND PLUMBING DETAILS AND SCHEDULES P-101 - PLUMBING PLAN AND SCHEDULES
ELECTRICAL EP-101 - POWER PLAN EP-102 - PANEL SCHEDULE ET-101 - LOW VOLTAGE EL-101 - LIGHTING PLAN EF-101 - FIRE ALARM PLAN E-101 - ELECTRICAL DETAILS

SYMBOL	DESCRIPTION
	WALL TYPE
	EQUIPMENT / FURNITURE AND FIXTURES TAG
	WINDOW TAG
	INTERIOR ELEVATION INDICATOR
	DOOR TAG
	DETAIL / PLAN ENLARGEMENT REFERENCE
	DETAIL / SECTION REFERENCE
	EXISTING TO BE DEMOLISHED
	EXISTING TO REMAIN
	NEW CONSTRUCTION
	NORTH INDICATOR

SYMBOL	DESCRIPTION
	COMPRESSED AIR
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	HEATING WATER SUPPLY
	HEATING WATER RETURN
	CONDENSATE DRAIN
	LOW PRESSURE STEAM
	LOW PRESSURE CONDENSATE
	LABORATORY COLD WATER
	LABORATORY HOT WATER
	LAB HOT WATER CIRCULATION
	LABORATORY WASTE
	LABORATORY VENT
	NATURAL GAS
	VACUUM PIPING
	REVERSE OSMOSIS (RO) WATER
	DEIONIZED (DI) WATER
	VALVE, SEE SPECIFICATIONS FOR VALVE TYPE
	CHECK VALVE
	TWO WAY CONTROL VALVE
	THREE WAY CONTROL VALVE
	BALANCING VALVE
	SOLENOID CONTROL VALVE
	PRESSURE REDUCING VALVE
	STRAINER WITH VALVE AND HOSE CONNECTION
	STRAINER
	STEAM TRAP
	FLEXIBLE CONNECTION
	TEST PLUG
	PRESSURE GAUGE
	PRESSURE RELIEF VENT
	PIPE BREAK
	PIPE SLOPE
	DIRECTION OF FLOW
	PIPE UP
	PIPE DOWN
	PIPE T DOWN
	PIPE T UP
	PIPE CAP
	UNION
	REDUCER
	PIPE ANCHOR
	PIPE GUIDE
	THERMOMETER OR SIGHT GLASS
	FLOW METER

SYMBOL	DESCRIPTION
	INSIDE DUCT SIZE (FIRST FIGURE IS SIDE SHOWN)
	MOTORIZED DAMPER
	BACKDRAFT OR BAROMETRIC DAMPER
	SUPPLY AIR - DUCT DOWN
	RETURN AIR - DUCT DOWN
	EXHAUST AIR - DUCT DOWN
	SUPPLY AIR - DUCT UP
	RETURN AIR - DUCT UP
	EXHAUST AIR - DUCT UP
	FLEXIBLE DUCT CONNECTION
	DIRECTION OF FLOW
	MITERED ELBOW WITH TURNING VANES
	LONG RADIUS ELBOW
	RECTANGULAR MAIN DUCT WITH RECTANGULAR BRANCH, BOOT FITTING
	MANUAL VOLUME DAMPER
	ROUND MAIN DUCT WITH ROUND BRANCH, CONICAL FITTING
	RECTANGULAR MAIN DUCT WITH ROUND BRANCH, CONICAL FITTING
	MANUAL VOLUME DAMPER
	ROUND MAIN DUCT WITH ROUND BRANCH, STRAIGHT FITTING
	REHEAT COIL

SYMBOL	DESCRIPTION
	HEAT DETECTOR (COMBINATION FIXED RATE AND RATE OF RISE - 57°F) - CR 135

SYMBOL	DESCRIPTION
	EQUIPMENT DESIGNATION
	KEYNOTE
	CONNECT NEW TO EXISTING AT THIS POINT
	DEMOLISH TO THIS POINT

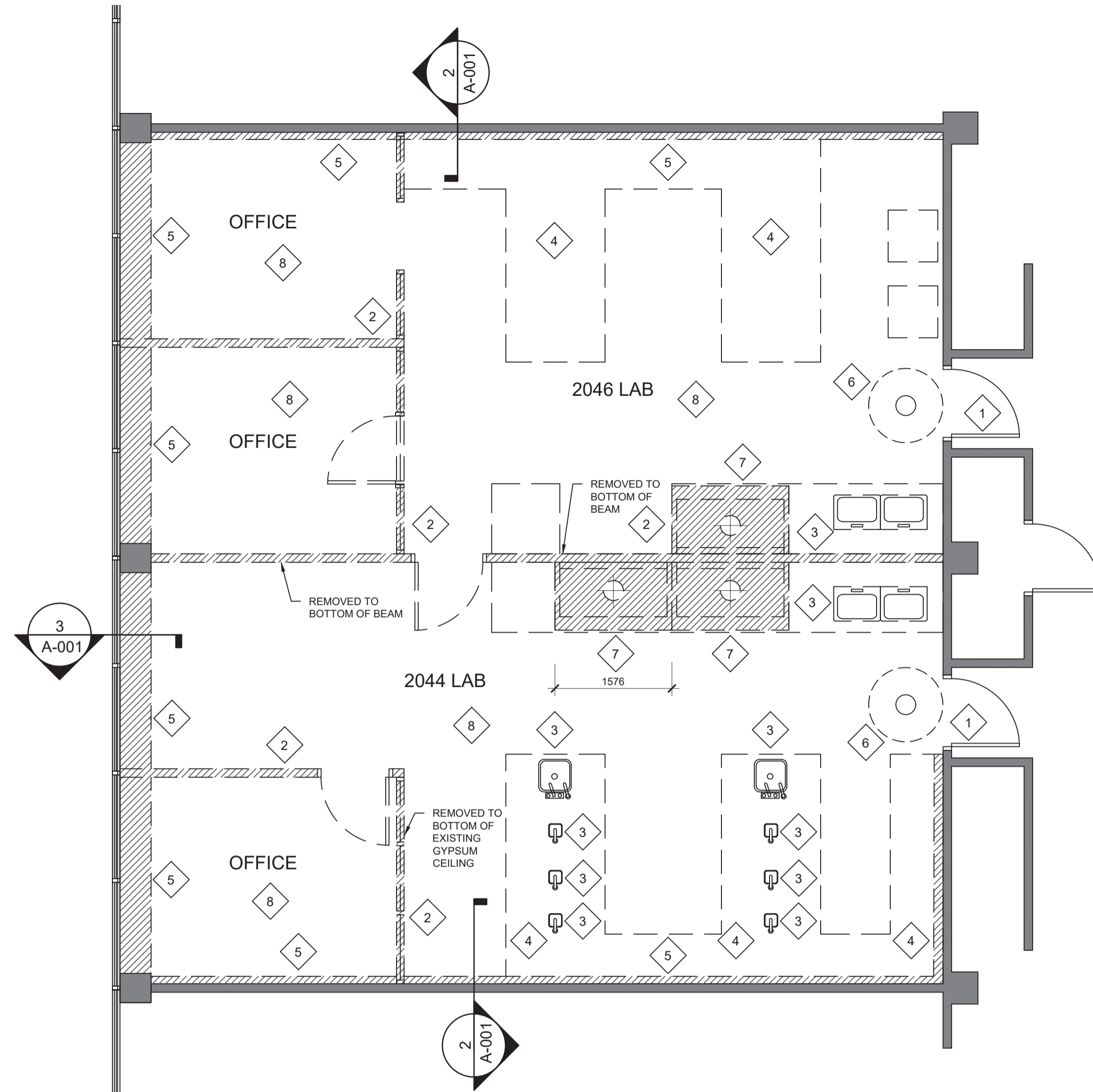
SYMBOL	DESCRIPTION
	CEILING SUPPLY AIR DIFFUSER ARROW INDICATES DIRECTION OF THROW CEILING EXHAUST AIR GRILLE
DIFFUSER DESIGNATION	
	TYPE, REFER TO DIFFUSER, REGISTER AND GRILLE OR HEPA FILTER SCHEDULE AIR QUANTITY (L/s) [CFM]
DESIGNATE OUTSIDE AIR SUPPLY DUCT ON FLOOR PLANS (ALL DUCTWORK SIZES ARE IN MILLIMETERS [INCHES] UNLESS NOTED OTHERWISE)	
	DUCT SIZE OUTSIDE AIR

SYMBOL	DESCRIPTION
	1x4 LED LIGHT FIXTURE, RECESSED CEILING MOUNTED
	2x2 LED LIGHT FIXTURE, RECESSED CEILING MOUNTED
	LINE VOLTAGE TOGGLE SWITCH
	LINE VOLTAGE THREE-WAY TOGGLE SWITCH
	LINE VOLTAGE FOUR-WAY TOGGLE SWITCH
	DUAL CHANNEL RACEWAY
	NEMA 5-20R RECEPTACLE
	NEMA 5-20R RECEPTACLE WITH USB PORT
	JUNCTION BOX
	RECESSED ELECTRICAL PANEL
	SINGLE PHONE OUTLET
	DUAL DATA OUTLET
	SINGLE ALARM MONITORING BOX
	PENETRATION POINT TO THE RACEWAY INSIDE NEW WALL CAVITY (VERTICAL DROP FROM THE CEILING)

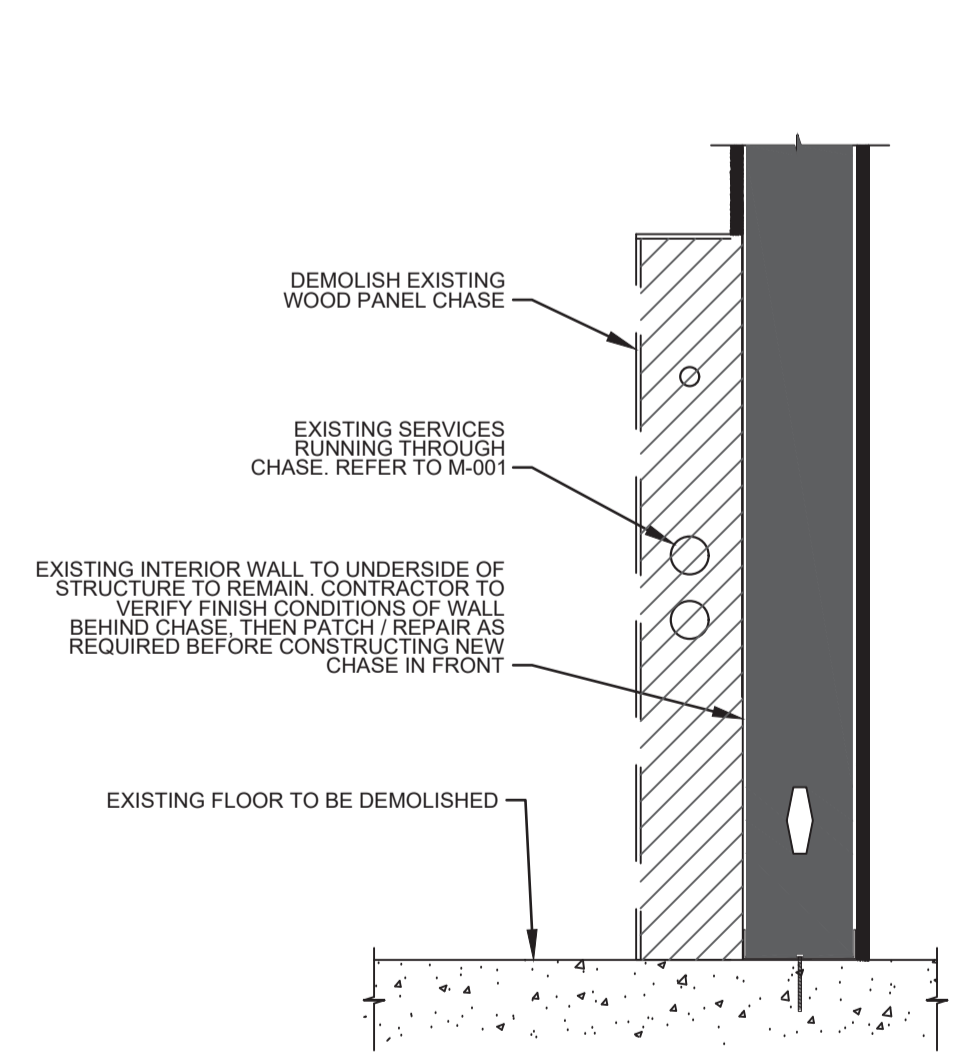
- GENERAL NOTES**
- A. DRAWINGS ARE TO BE READ AS A PACKAGE AND ARE NOT INTENDED TO BE SEPARATED AND VIEWED INDIVIDUALLY BY DISCIPLINE.
- B. ALL SHUTDOWNS OR DISRUPTIONS OF ANY SYSTEM OR SPACE ARE TO BE COORDINATED WITH THE OWNER IN ORDER TO MINIMIZE DISRUPTIONS TO OPERATING LABORATORIES.
- GENERAL NOTES - ARCHITECTURAL**
- A. DEMOLITION AND RENOVATION
CONTRACTOR TO MAKE GOOD ALL WALLS, FLOOR AND CEILING AFTER DEMOLITION IS COMPLETE. ALL SURFACES AND SERVICES SHALL BE MADE SUITABLE FOR SUBSEQUENT WORK AS DETAILED WITHIN THIS DRAWING PACKAGE AND FOR CODE COMPLIANCE.
- CONTRACTOR TO FIELD VERIFY DIMENSIONS AND LOCATION OF ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL AND MISCELLANEOUS FIXTURES TO BE DEMOLISHED OR RELOCATED BEFORE RENOVATION OR CONSTRUCTION WORK BEGINS.
- CONTRACTOR TO REVIEW FACILITY'S HAZARDOUS MATERIALS STUDY TO IDENTIFY ANY HAZARDOUS MATERIALS AND ABIDE BY ALL FINDINGS AND RECOMMENDATIONS CONTAINED THEREIN. REMOVAL OF ALL HAZARDOUS MATERIALS AS PART OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH LOCAL, PROVINCIAL, AND FEDERAL REGULATIONS.
- CONTRACTOR TO PROTECT EXISTING WALLS AND WINDOW IN ADJACENT TO LABORATORIES LABS 2044 & 2046. SEAL DOOR AND WINDOWS AGAINST DUST AND OTHER PARTICLES BEFORE RENOVATION WORK BEGINS.
- DIMENSIONS ARE TO FACE OF FINISHED MATERIALS, UNLESS OTHERWISE NOTED.

- GENERAL NOTES - MECHANICAL**
- A. DEMOLITION AND RENOVATION
CONTRACTOR TO FIELD VERIFY DIMENSIONS AND LOCATION OF ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL
- GENERAL NOTES - ELECTRICAL**
- A. CUTTING AND PATCHING
ARRANGE FOR THE GENERAL CONTRACTOR TO DO ALL CUTTING/CORE DRILLING AND PATCHING REQUIRED FOR THE ELECTRICAL INSTALLATIONS. BEFORE CARRYING OUT ANY CUTTING, OBTAIN WRITTEN APPROVAL FROM THE OWNER.
- B. FIREPROOF PATCHING
WHERE CONDUITS OR SINGLE CONDUCTOR CABLES PASS THROUGH FIRE RATED FLOOR SLABS, FIRE RATED CEILINGS OR FIRE RATED WALLS, SEAL OPENING AROUND WITH SAME TO MAINTAIN FIRE SEPARATION USING APPROVED ULC RATED FIRE PATCHING MATERIAL.
- C. CLEAN UP AND REPAIR
CARRY OUT THE REQUIRED CLEANUP AT THE END OF EACH DAY IN WORK AREAS. REMOVE ALL TOOLS, EQUIPMENT, LADDERS AND EMPTY CARDBOARD BOXES ETC. AND LEAVE THE PREMISES CLEAN.
THE ELECTRICAL CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE TO WALLS, FLOORS, CEILINGS, WOODWORK, FINISHES, ETC. CAUSED DIRECTLY OR INDIRECTLY AS A RESULT OF HIS WORK.
- D. SEISMIC REQUIREMENTS
COMPLY WITH ALL PERTINENT CODE REQUIREMENTS. LIGHT FIXTURES IN T-BAR CEILINGS ARE TO BE SUPPORTED BY VERTICAL CHAINS.
- E. OWNER SUPPLIED EQUIPMENT
MAKE FINAL CONNECTIONS TO OWNER SUPPLIED EQUIPMENT. CONFIRM ELECTRICAL REQUIREMENTS SUCH AS PLUG ARRANGEMENT AND OR HARD WIRE CONNECTIONS PRIOR TO PULLING OF WIRES, CONDUIT ROUGH-IN AND ORDERING MATERIALS SUCH AS BREAKERS IN PANELS, DISCONNECT SWITCHES, ETC.

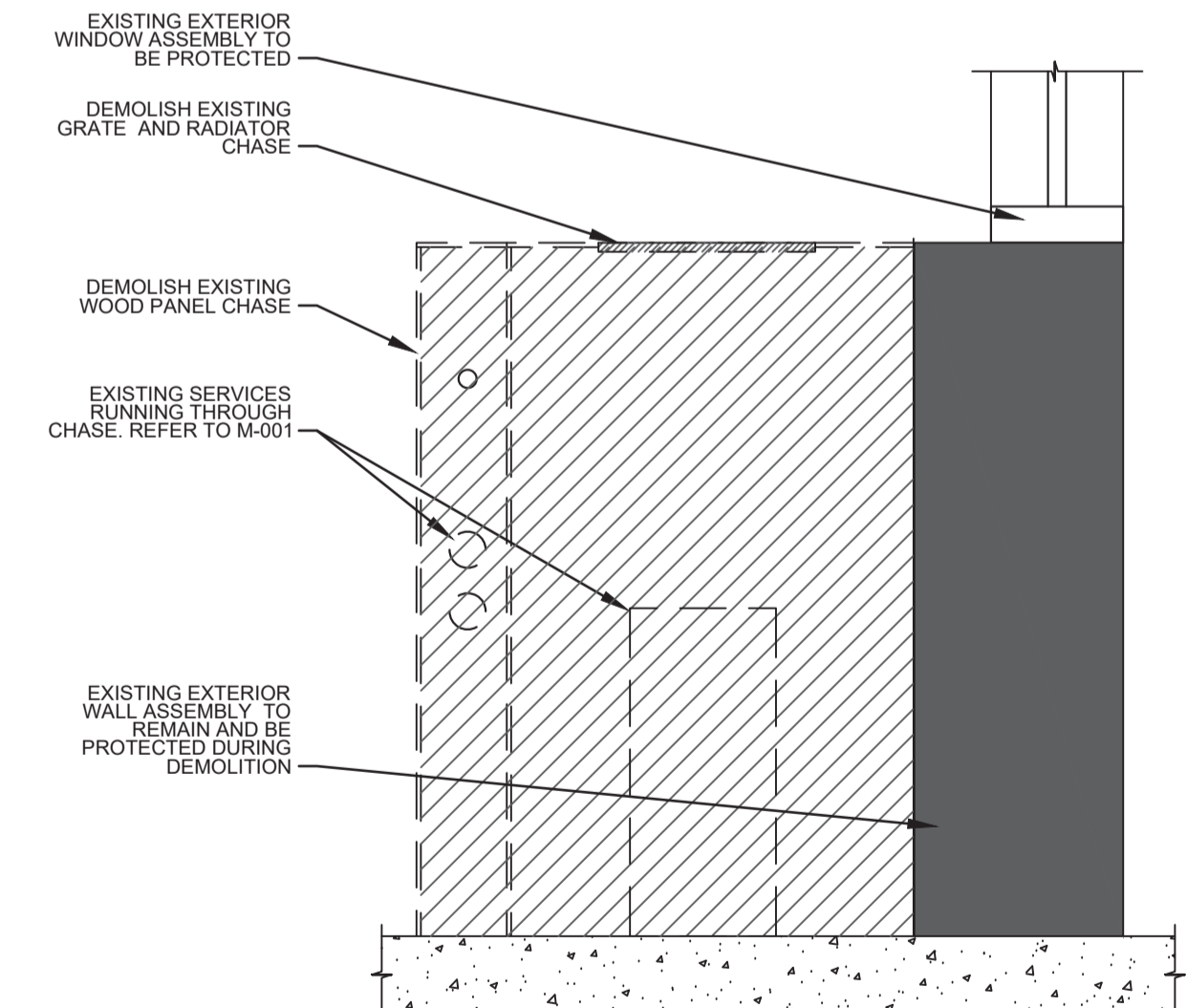
ISSUE	DESCRIPTION	DATE
A	95% CD	5/17/2017
B	99% CD	6/7/2017
C	100% CD	7/10/2017



1
A-001
DEMOLITION PLAN - ARCHITECTURAL
SCALE 1:50



2
A-001
INTERIOR WALL CHASE DEMO
SCALE 1:10



3
A-001
EXTERIOR WALL CHASE DEMO
SCALE 1:10



GENERAL NOTES

- CONTRACTOR TO FIELD VERIFY DIMENSIONS AND LOCATION OF ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL AND MISCELLANEOUS FIXTURES TO BE DEMOLISHED OR RELOCATED BEFORE RENOVATION WORK BEGINS.
- CONTRACTOR TO MAKE GOOD ALL WALLS, FLOOR AND CEILING AFTER DEMOLITION IS COMPLETE. ALL SURFACES AND SERVICES SHALL BE MADE SUITABLE FOR SUBSEQUENT WORK AS DETAILED BY THIS DRAWING PACKAGE AND FOR CODE COMPLIANCE.
- DIMENSIONS ARE TO FACE OF FINISHED MATERIALS, UNLESS OTHERWISE NOTED.
- CONTRACTOR TO REVIEW FACILITY'S HAZARDOUS MATERIALS STUDY TO IDENTIFY ANY HAZARDOUS MATERIALS AND ABIDE BY ALL FINDINGS AND RECOMMENDATIONS CONTAINED THEREIN. REMOVAL OF ALL HAZARDOUS MATERIALS AS PART OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH LOCAL, PROVINCIAL, AND FEDERAL REGULATIONS.
- FUMEHOOD ENCLOSURE TO BE REMOVED. FOLLOW REGULATIONS AND PROCEDURES FOR ASBESTOS ABATEMENT IN ACCORDANCE TO ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT
- CONTRACTOR TO PROVIDE ADEQUATE NOISE AND DUST CONTROL BETWEEN CORRIDOR AND CONSTRUCTION SPACE
- CONTRACTOR TO DEMOLISH EXISTING ACOUSTIC TILE CEILING LAYER WITH SUSPENSION SYSTEM. COORDINATE WITH ELECTRICAL AND MECHANICAL FOR REMOVAL OF ALL FIXTURES. SECONDARY GYPSUM CEILING TO REMAIN - PROTECT AS REQUIRED

KEY NOTES

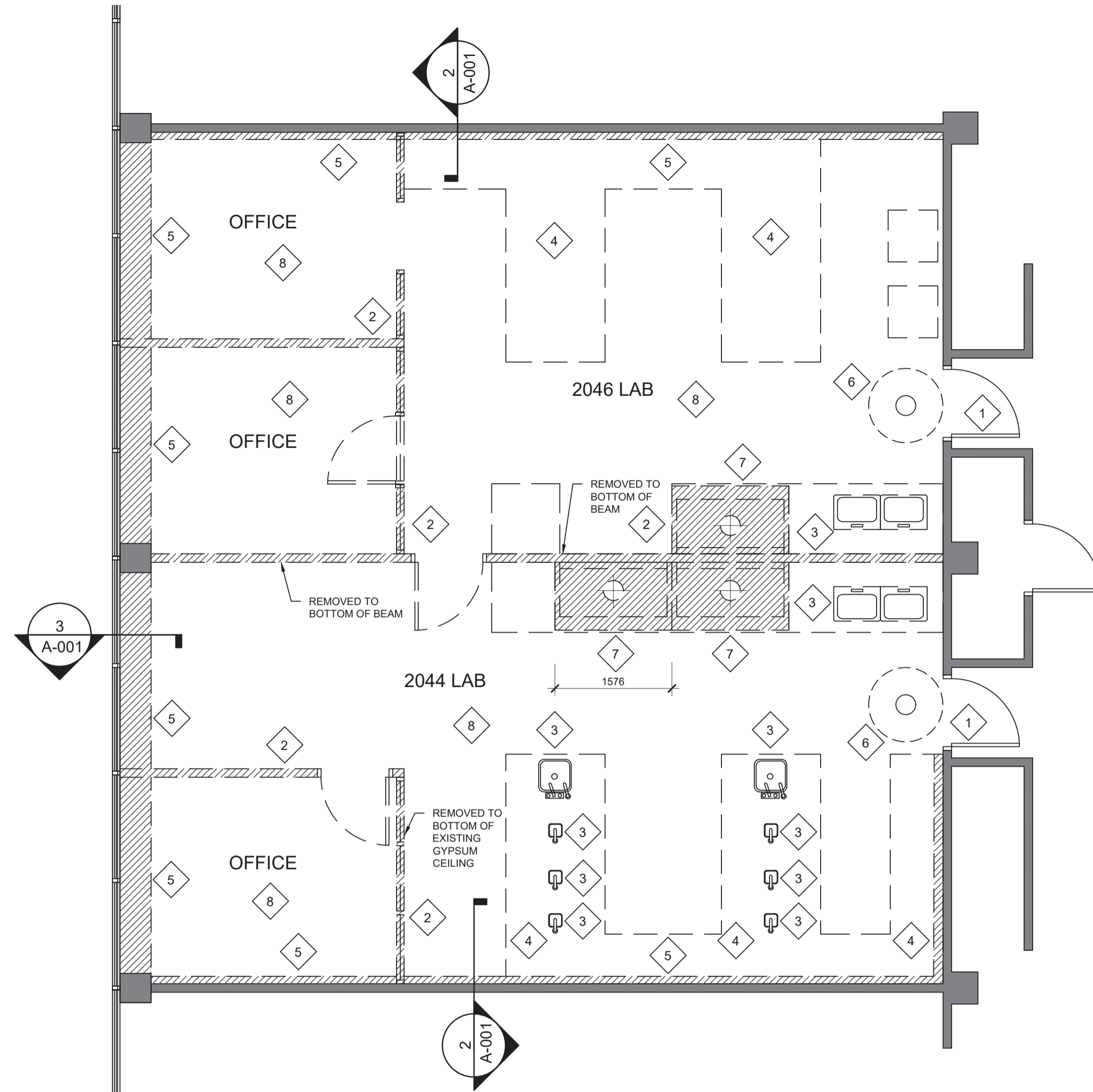
- EXISTING CORRIDOR DOORS. CONTRACTOR TO REMOVE PRIOR TO DEMOLITION AND PROTECT DURING NEW CONSTRUCTION.
- DEMOLISH EXISTING WALL / SERVICE CHASE. REFER TO M-001 FOR SERVICES TO REMAIN AND/OR DEMOLISHED.
- EXISTING PLUMBING FIXTURES TO BE REMOVED. REFER TO M-001
- ALL EXISTING CASEWORK TO BE DEMOLISHED
- EXISTING SERVICE CHASE TO BE DEMOLISHED
- EMERGENCY SHOWER. REFER TO M-001
- EXISTING FUME HOOD AND STORAGE CABINET ASSEMBLY TO BE REMOVED. COORDINATE WITH MECHANICAL AND ELECTRICAL
- CONTRACTOR TO DEMOLISH EXISTING SHEET VINYL TILE FLOOR FINISH. PATCH AND REPAIR FLOOR SURFACE PRIOR TO NEW CONSTRUCTION.

LEGEND

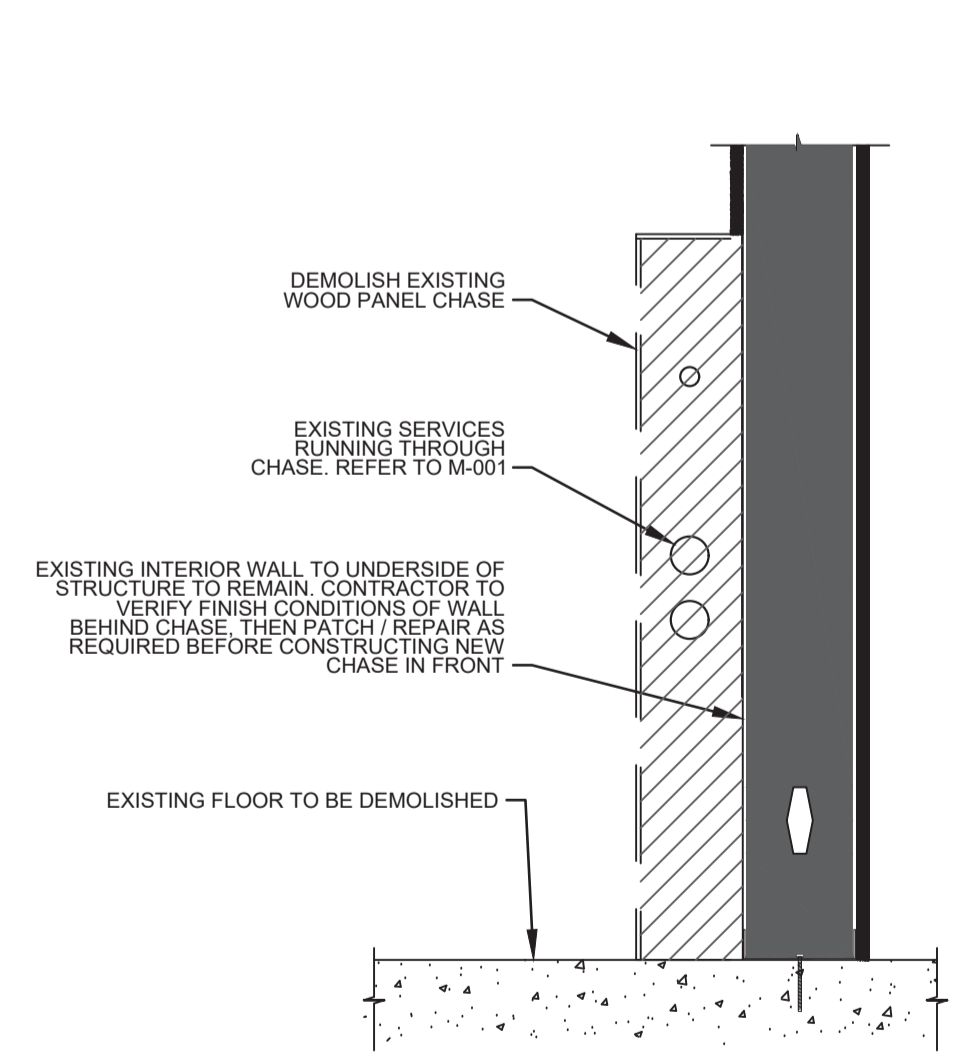
-  EXISTING TO BE DEMOLISHED
-  EXISTING TO REMAIN

DATE	DESCRIPTION
5/17/2017	A. 50% CD
6/7/2017	B. 80% CD
7/10/2017	C. 100% CD

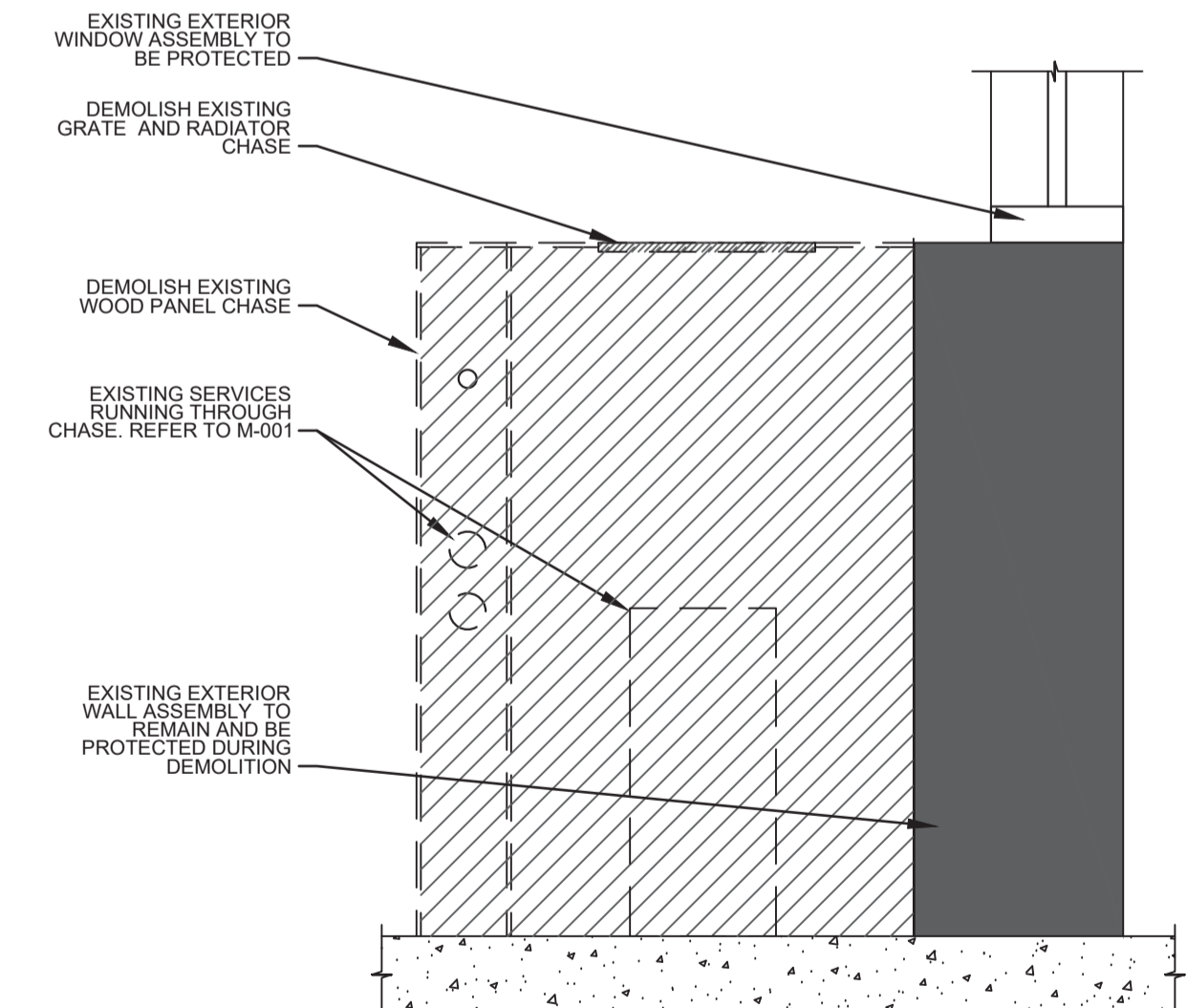
SCALE:	NA
DATE:	7-10-2017
DRAWN:	SC
CHECKED:	SE
PROJECT:	74019494



1
A-001
DEMOLITION PLAN - ARCHITECTURAL
SCALE 1:50



2
A-001
INTERIOR WALL CHASE DEMO
SCALE 1:10



3
A-001
EXTERIOR WALL CHASE DEMO
SCALE 1:10



GENERAL NOTES

- CONTRACTOR TO FIELD VERIFY DIMENSIONS AND LOCATION OF ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL AND MISCELLANEOUS FIXTURES TO BE DEMOLISHED OR RELOCATED BEFORE RENOVATION WORK BEGINS.
- CONTRACTOR TO MAKE GOOD ALL WALLS, FLOOR AND CEILING AFTER DEMOLITION IS COMPLETE. ALL SURFACES AND SERVICES SHALL BE MADE SUITABLE FOR SUBSEQUENT WORK AS DETAILED BY THIS DRAWING PACKAGE AND FOR CODE COMPLIANCE.
- DIMENSIONS ARE TO FACE OF FINISHED MATERIALS, UNLESS OTHERWISE NOTED.
- CONTRACTOR TO REVIEW FACILITY'S HAZARDOUS MATERIALS STUDY TO IDENTIFY ANY HAZARDOUS MATERIALS AND ABIDE BY ALL FINDINGS AND RECOMMENDATIONS CONTAINED THEREIN. REMOVAL OF ALL HAZARDOUS MATERIALS AS PART OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH LOCAL, PROVINCIAL, AND FEDERAL REGULATIONS.
- FUMEHOOD ENCLOSURE TO BE REMOVED. FOLLOW REGULATIONS AND PROCEDURES FOR ASBESTOS ABATEMENT IN ACCORDANCE TO ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT
- CONTRACTOR TO PROVIDE ADEQUATE NOISE AND DUST CONTROL BETWEEN CORRIDOR AND CONSTRUCTION SPACE
- CONTRACTOR TO DEMOLISH EXISTING ACOUSTIC TILE CEILING LAYER WITH SUSPENSION SYSTEM. COORDINATE WITH ELECTRICAL AND MECHANICAL FOR REMOVAL OF ALL FIXTURES. SECONDARY GYPSUM CEILING TO REMAIN - PROTECT AS REQUIRED

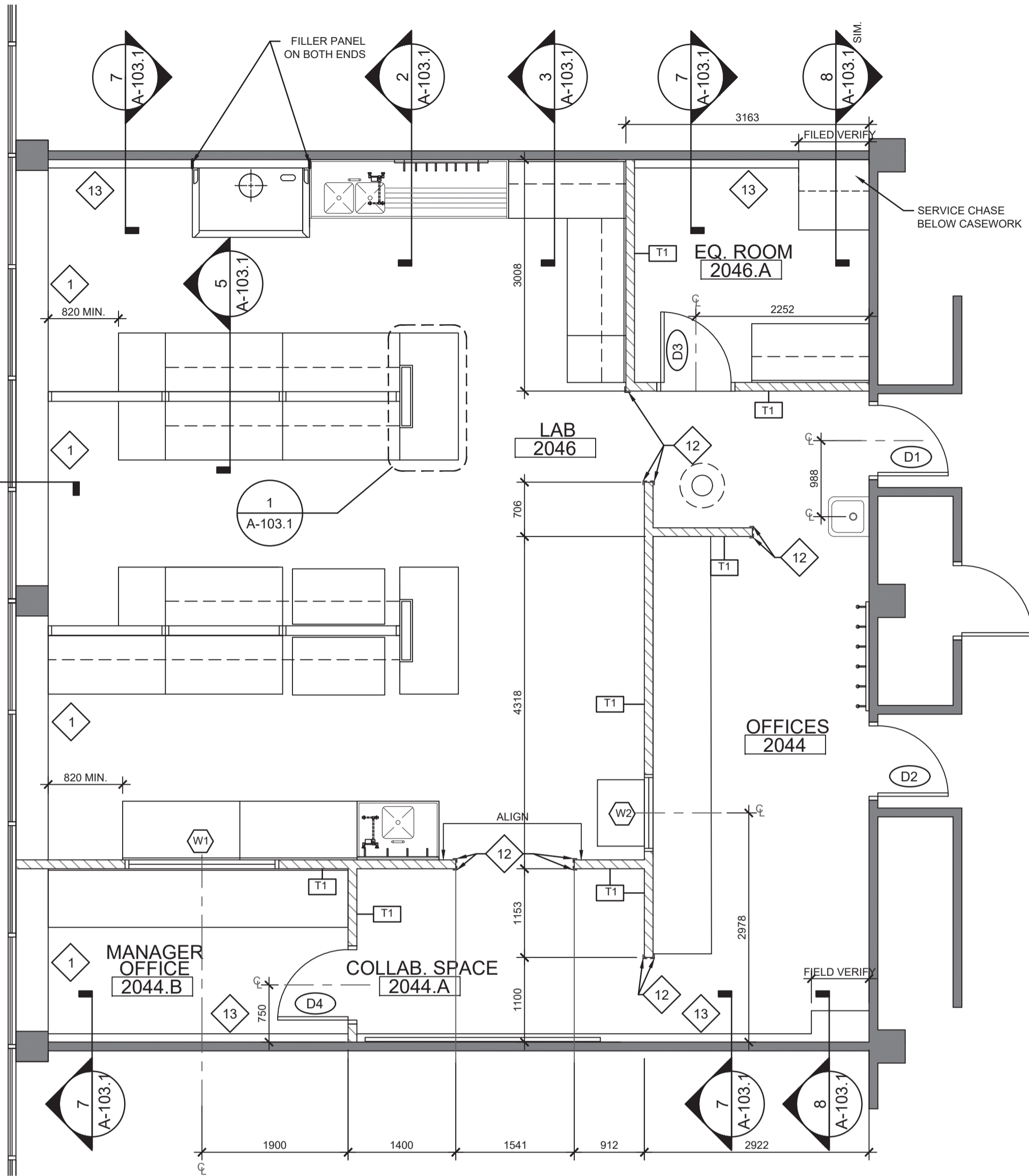
KEY NOTES

- EXISTING CORRIDOR DOORS. CONTRACTOR TO REMOVE PRIOR TO DEMOLITION AND PROTECT DURING NEW CONSTRUCTION.
- DEMOLISH EXISTING WALL / SERVICE CHASE. REFER TO M-001 FOR SERVICES TO REMAIN AND/OR DEMOLISHED.
- EXISTING PLUMBING FIXTURES TO BE REMOVED. REFER TO M-001
- ALL EXISTING CASEWORK TO BE DEMOLISHED
- EXISTING SERVICE CHASE TO BE DEMOLISHED
- EMERGENCY SHOWER. REFER TO M-001
- EXISTING FUME HOOD AND STORAGE CABINET ASSEMBLY TO BE REMOVED. COORDINATE WITH MECHANICAL AND ELECTRICAL
- CONTRACTOR TO DEMOLISH EXISTING SHEET VINYL TILE FLOOR FINISH. PATCH AND REPAIR FLOOR SURFACE PRIOR TO NEW CONSTRUCTION.

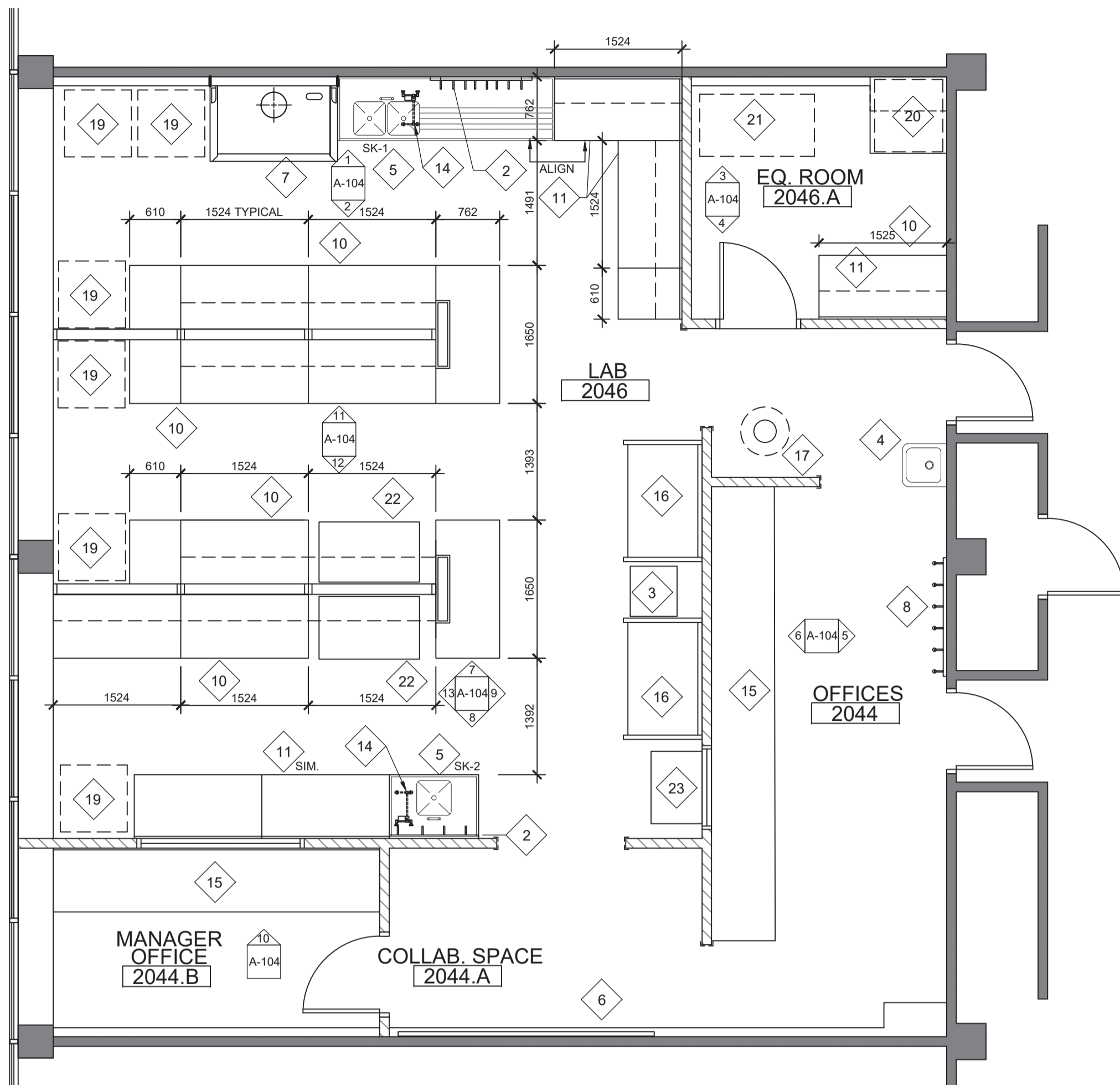
LEGEND

-  EXISTING TO BE DEMOLISHED
-  EXISTING TO REMAIN

DATE	DESCRIPTION
5/17/2017	A. 50% CD
6/7/2017	B. 80% CD
7/10/2017	C. 100% CD



1
A-101
ARCHITECTURAL FLOOR PLAN
SCALE 1:50



2
A-101
ARCHITECTURAL CASEWORK/EQUIPMENT PLAN
SCALE 1:50

GENERAL NOTES

- CONTRACTOR TO FIELD VERIFY DIMENSIONS AND LOCATION OF ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL AND MISCELLANEOUS FIXTURES TO BE DEMOLISHED OR RELOCATED BEFORE RENOVATION WORK BEGINS.
- DIMENSIONS ARE TO FACE OF FINISHED MATERIALS, UNLESS OTHERWISE NOTED.
- CONTRACTOR TO REVIEW FACILITY'S HAZARDOUS MATERIALS STUDY TO IDENTIFY ANY HAZARDOUS MATERIALS AND ABIDE BY ALL FINDINGS AND RECOMMENDATIONS CONTAINED THEREIN. REMOVAL OF ALL HAZARDOUS MATERIALS AS PART OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH LOCAL, PROVINCIAL, AND FEDERAL REGULATIONS.
- REFER TO A-105 FOR PARTITION TYPES.
- REFER TO A-105 FOR WINDOW, DOOR AND FRAME SCHEDULE.

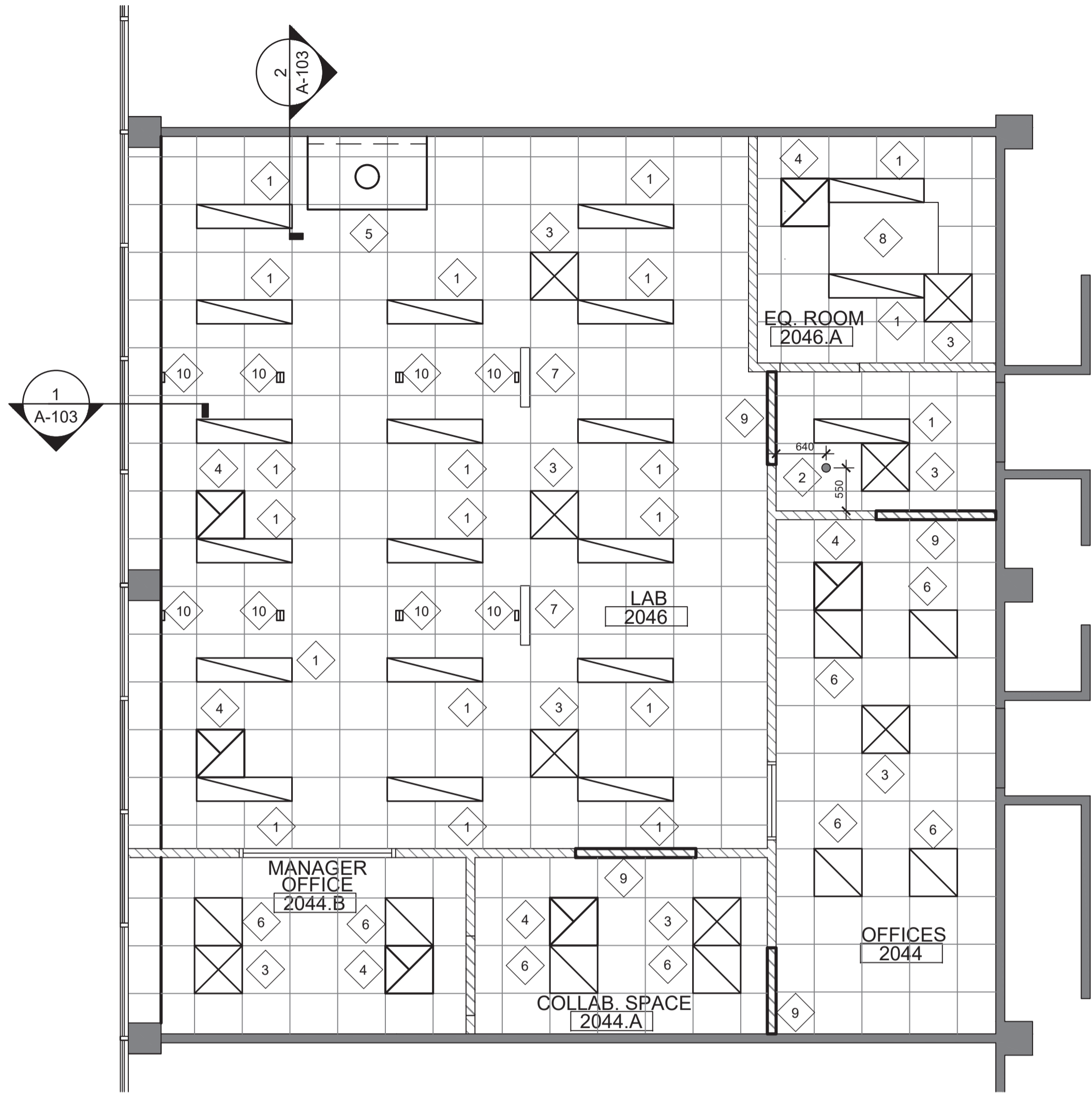
SPECIFIC NOTES

- FUMEHOOD - BASIS OF DESIGN PRODUCT BY BEDCO, OR EQUIVALENT. 60 INCH WIDE CONSTANT AIR VOLUME VERTICAL SASH HOOD, FRP FINISH (C10-60A-100). INCLUDE BOTH CORROSIVE CHEMICAL BASE CABINET (FI-A25-30) AND FLAMMABLE SOLVENT BASE CABINET (FI-A23-30-UL) COMPLETE WITH APPROPRIATE VENTILATION KITS (VVK-01 & VVK-02). INCLUDE BLACK EPOXY RESIN COUNTERTOP (VT-EP-6030) WITH MATCHING OVAL CUP SINK (VCS-04). INCLUDE CEILING ENCLOSURE FOR 2450MM CEILING, AND BOTH LEFT AND RIGHT SIDE END FILLER PANELS. SERVICES REQUIRED FOR FUMEHOOD AS SHOWN ON DRAWING P-101. PRE-PIPE PLUMBING TO 6" OVER TOP OF HOOD. COMPLETE WITH INTERNAL FAUCETS AND SPIGOTS REFER TO PLUMBING. INCLUDE SASH VELOCITY AIRFLOW MONITOR AND ALARMING (BOD. TEL AFA 1000 AIRFLOW MONITOR, OR EQUIVALENT).

KEY NOTES

- CONTRACTOR FURNISHED / INSTALLED OFCI**
- NEW RADIATOR. SEE DETAIL 4/A-103
 - PEG BOARD. BASIS OF DESIGN MOTT PPB3630
 - ROLLING CABINET. REFER TO A-103.2
 - HAND SINK
 - STAINLESS STEEL LAB SINK. REFER TO A-105
 - WHITEBOARD 2159mm x 1220mm BASIS OF DESIGN QUARTER #G8548HT
 - FUMEHOOD. SEE SPECIFIC NOTE 1
 - COAT HOOK. BASIS OF DESIGN RIDALCO 6CH/36-4SS
 - NOT USED
 - MODULAR CASEWORK AND SHELVING. SEE 5/A-103.1
 - MODULAR CASEWORK AND SHELVING. SEE 3/A-103.1
 - 50mm x 50mm x 2045mm STAINLESS STEEL CORNER GUARDS
 - NEW SERVICE CHASE. SEE DETAILS ON A-103.1
 - EMERGENCY EYE WASH. BASIS OF DESIGN GUARDIAN G1849
 - MODULAR CASEWORK. SEE A-103.2
- OWNER FURNISHED CONTRACTOR INSTALLED OFCI**
- LAMINAR FLOW HOOD
 - EMERGENCY SHOWER. REFER TO MECHANICAL
 - NOT USED
- OWNER FURNISHED / OWNER INSTALLED OFOI**
- EQUIPMENT - FRIDGE / FREEZER
 - EQUIPMENT - BENCH TOP SHAKER
 - EQUIPMENT - SHAKER (STACKED)
 - BALANCE TABLE
 - MICROSCOPE TABLE

ISSUE	DESCRIPTION	DATE
A	95% CD	5/17/2017
B	95% CD	6/7/2017
C	100% CD	7/10/2017



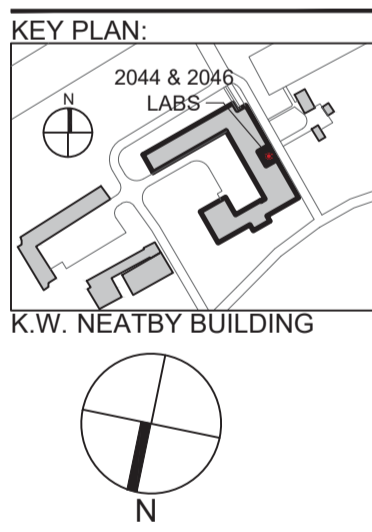
1 REFLECTED CEILING PLAN
A-102 SCALE 1:50

GENERAL NOTES

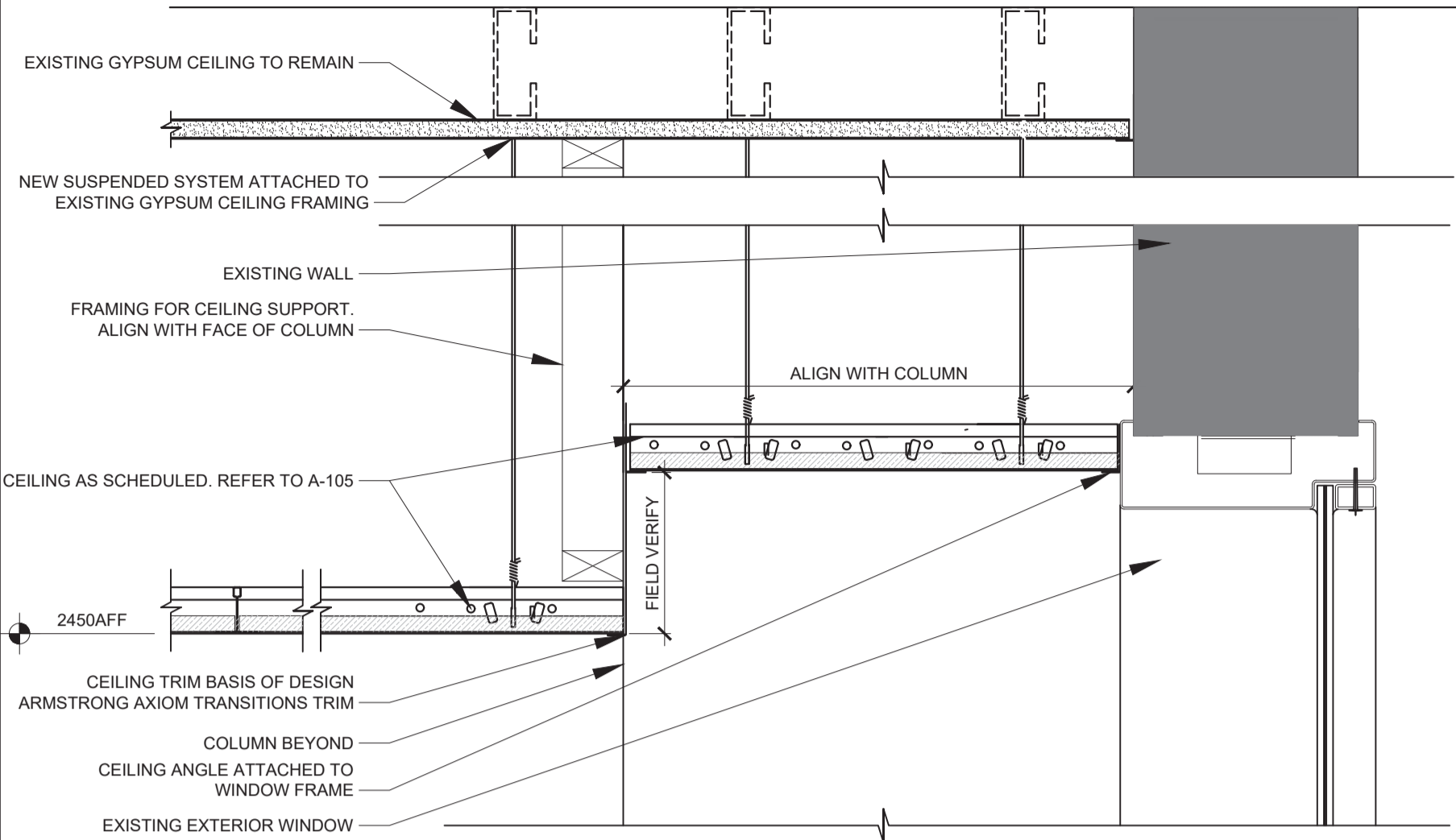
- A. CONTRACTOR TO FIELD VERIFY DIMENSIONS AND LOCATION OF ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL AND MISCELLANEOUS FIXTURES TO BE DEMOLISHED OR RELOCATED BEFORE RENOVATION WORK BEGINS.
- B. DIMENSIONS ARE TO FACE OF FINISHED MATERIALS, UNLESS OTHERWISE NOTED.
- C. NEW SUSPENDED CEILING HEIGHT IS 2450 MM. [8'-0"] UNLESS OTHERWISE NOTED.
- D. REFER TO A-105 FOR FINISH SCHEDULE.

KEY NOTES

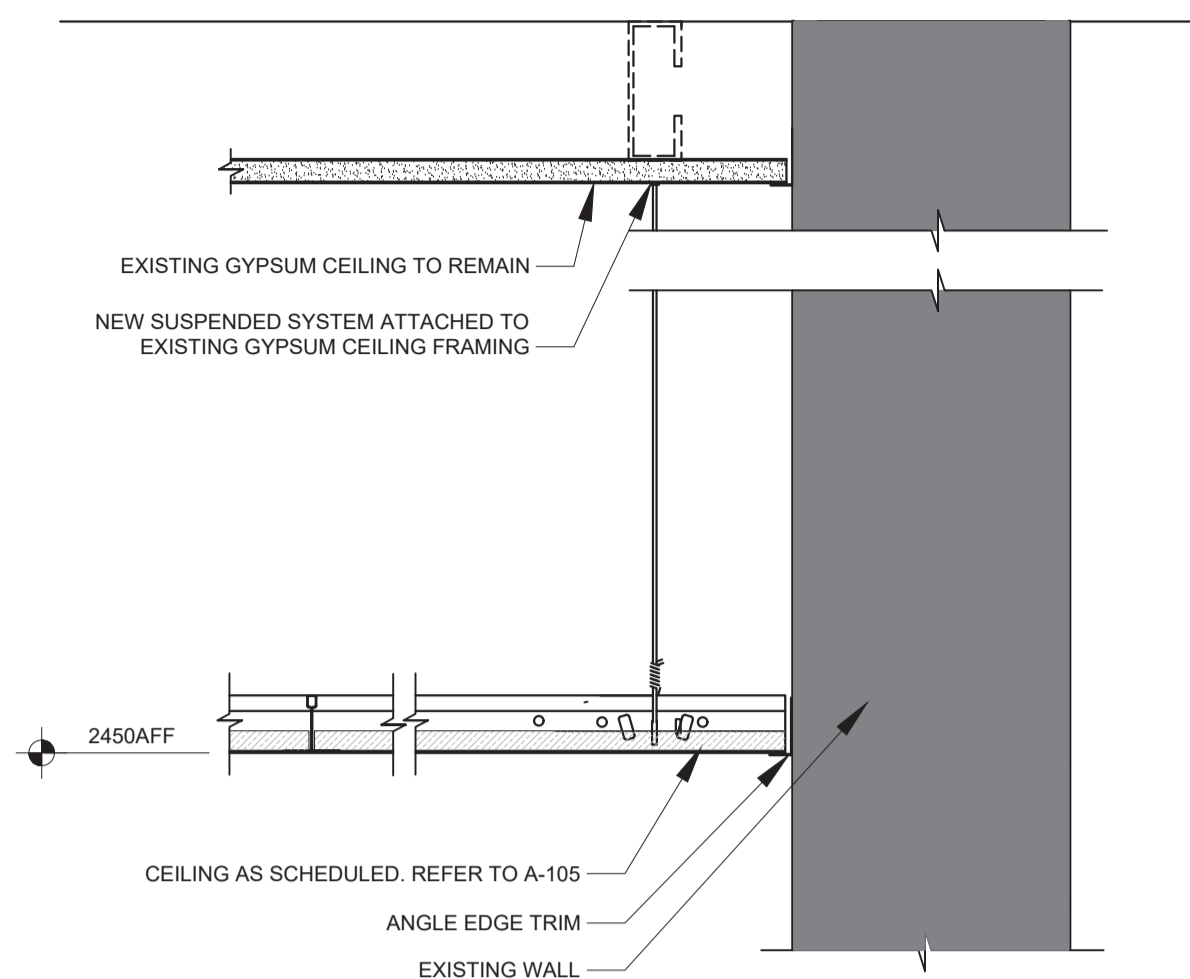
- 1 305x1220 [1'x4'] - SLIM LED LUMINAIRE RECESSED FIXTURE. REFER TO ELECTRICAL
- 2 EMERGENCY SHOWER HEAD PIPE OPENING. REFER TO MECHANICAL
- 3 HVAC SUPPLY DIFFUSER
- 4 HVAC EXHAUST GRILLE
- 5 FUME HOOD EXHAUST. COORDINATE LOCATION WITH MEP
- 6 610x610 [2'x2'] - LED LUMINAIRE RECESSED FIXTURE. REFER TO ELECTRICAL
- 7 UTILITY CHASE UP FROM CASEWORK. REFER TO DETAIL 1/A-103.1. COORDINATE LOCATION WITH CASEWORK PLAN
- 8 FAN COIL UNIT. COORDINATE LOCATION WITH MECHANICAL AND ELECTRICAL
- 9 GYPSUM BOARD BULK HEAD @ 2145 A.F.F.
- 10 CASWORK VERTICAL SUPPORT



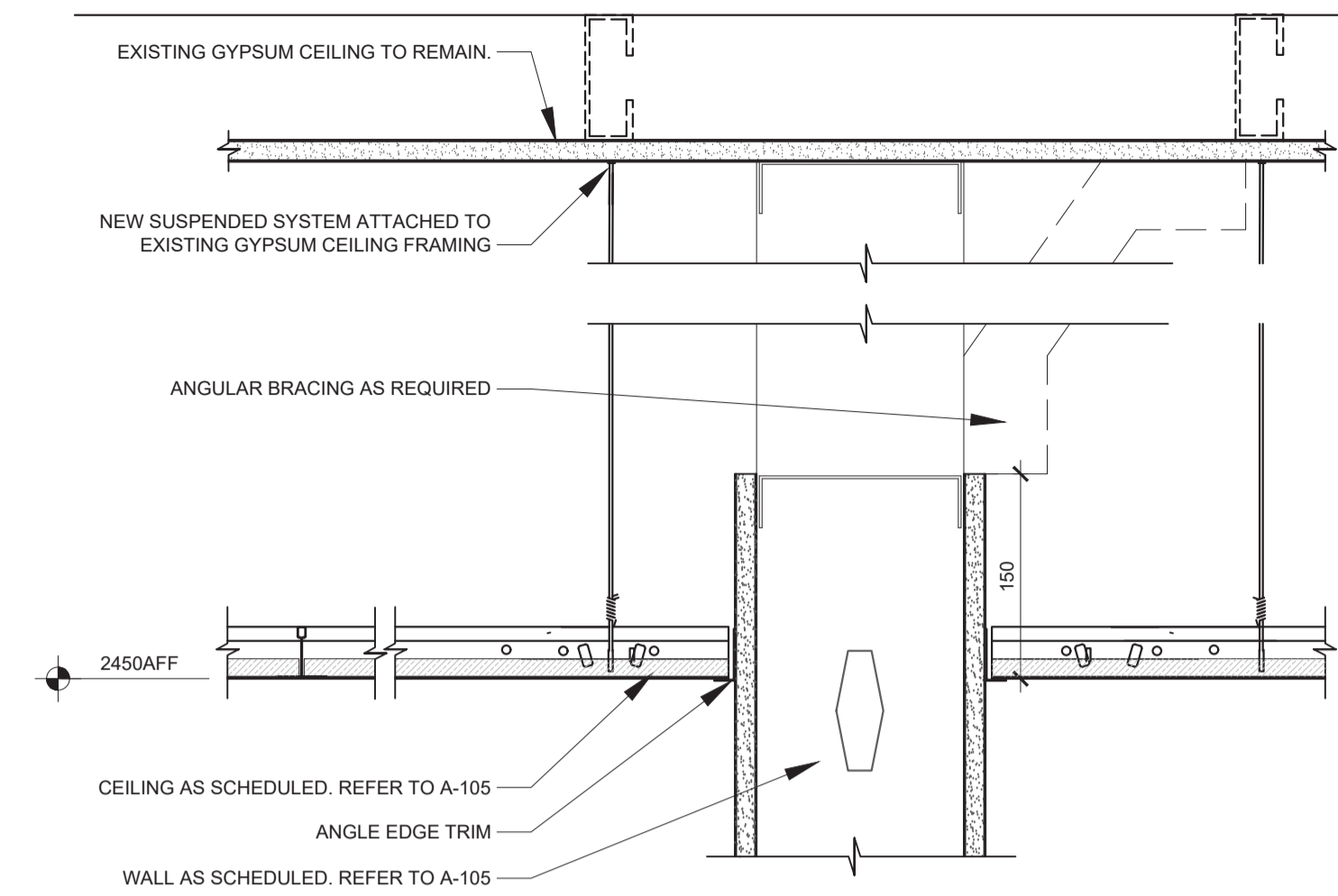
ISSUE	DESCRIPTION	DATE
A	50% CD	5/17/2017
B	80% CD	6/7/2017
C	100% CD	7/10/2017



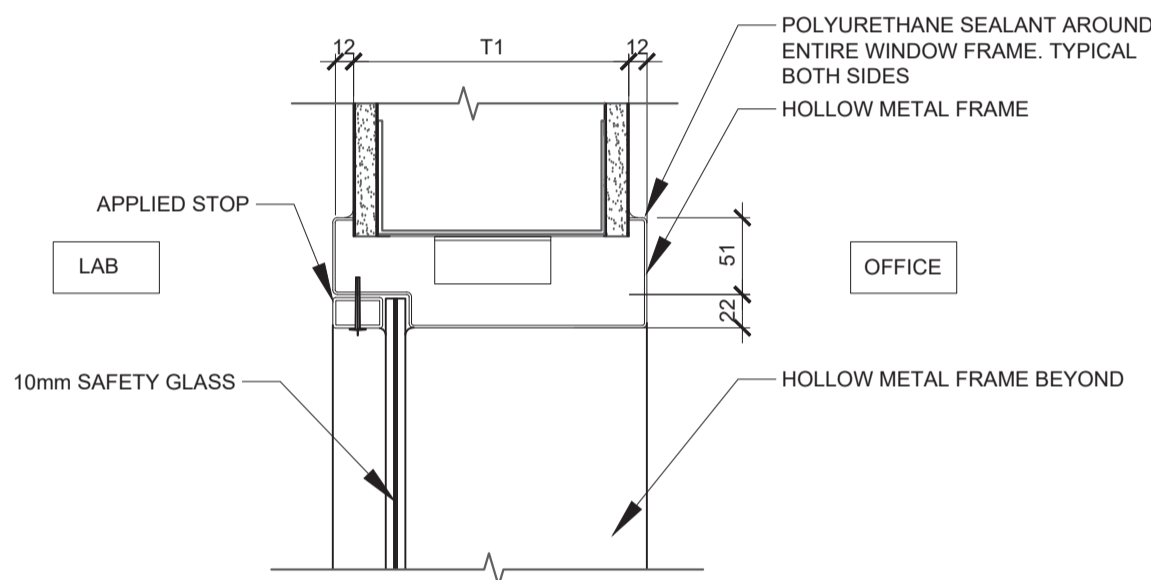
1
A-103
NEW CEILING TO EXISTING WINDOW DETAIL
SCALE 1:5



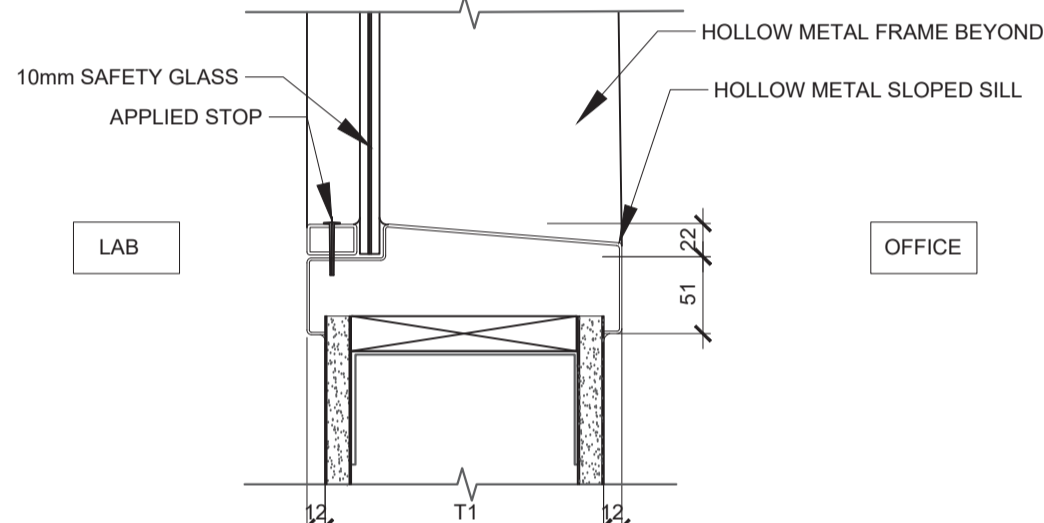
2
A-103
NEW CEILING TO EXISTING WALL DETAIL
SCALE 1:5



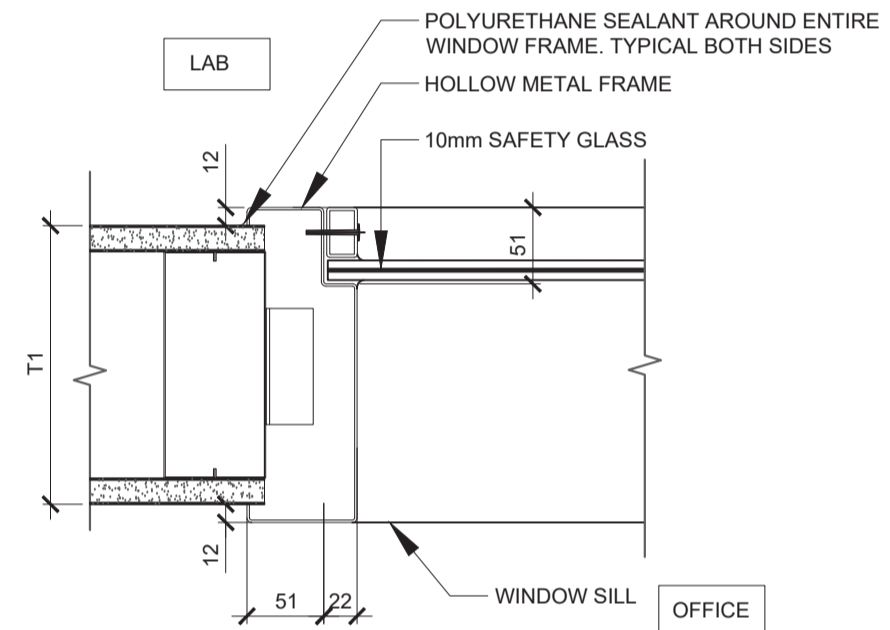
3
A-103
CEILING DETAIL @ WALL TYPE 1 (T1)
SCALE 1:5



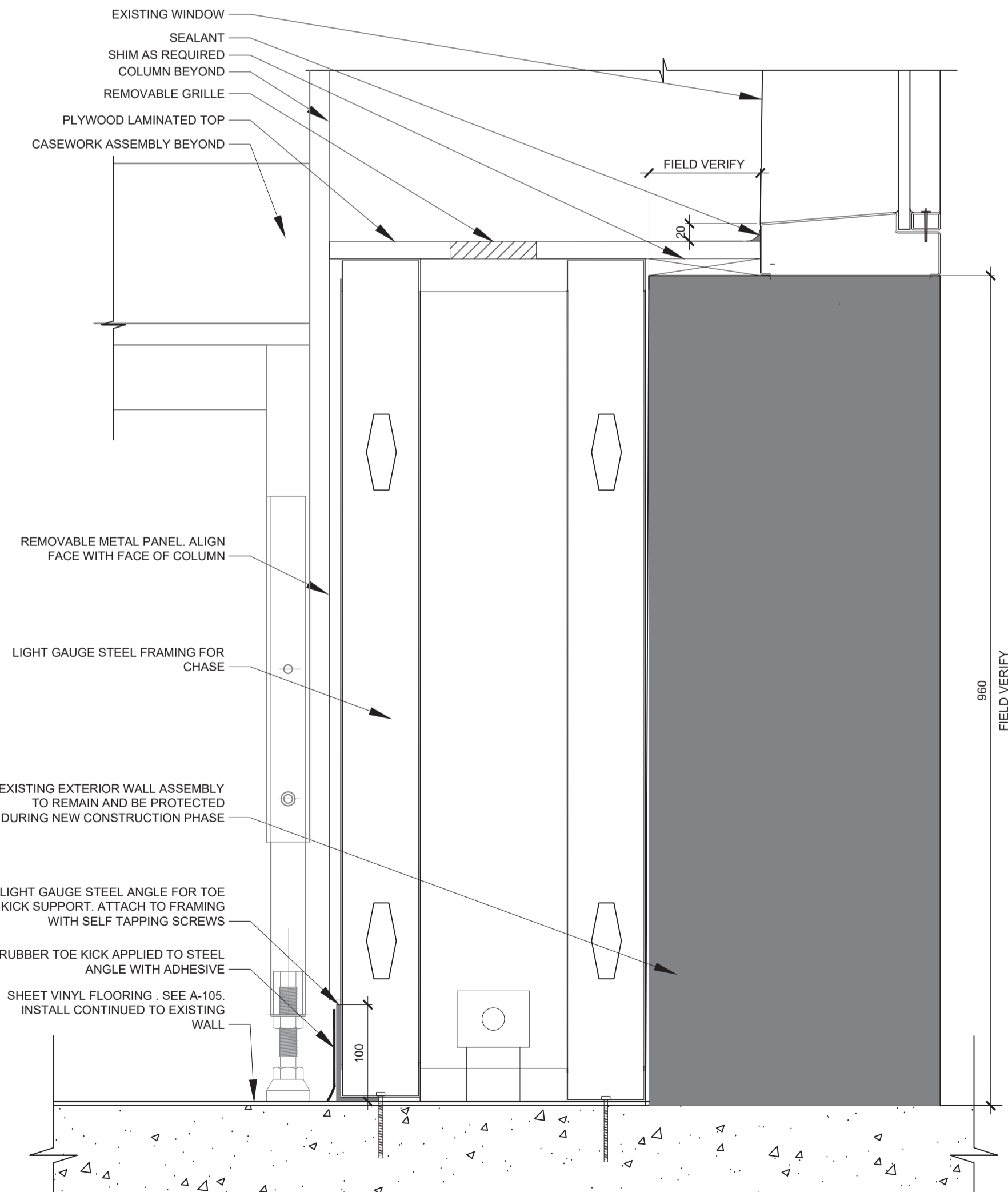
5
A-103
WINDOW HEAD DETAIL
SCALE 1:5



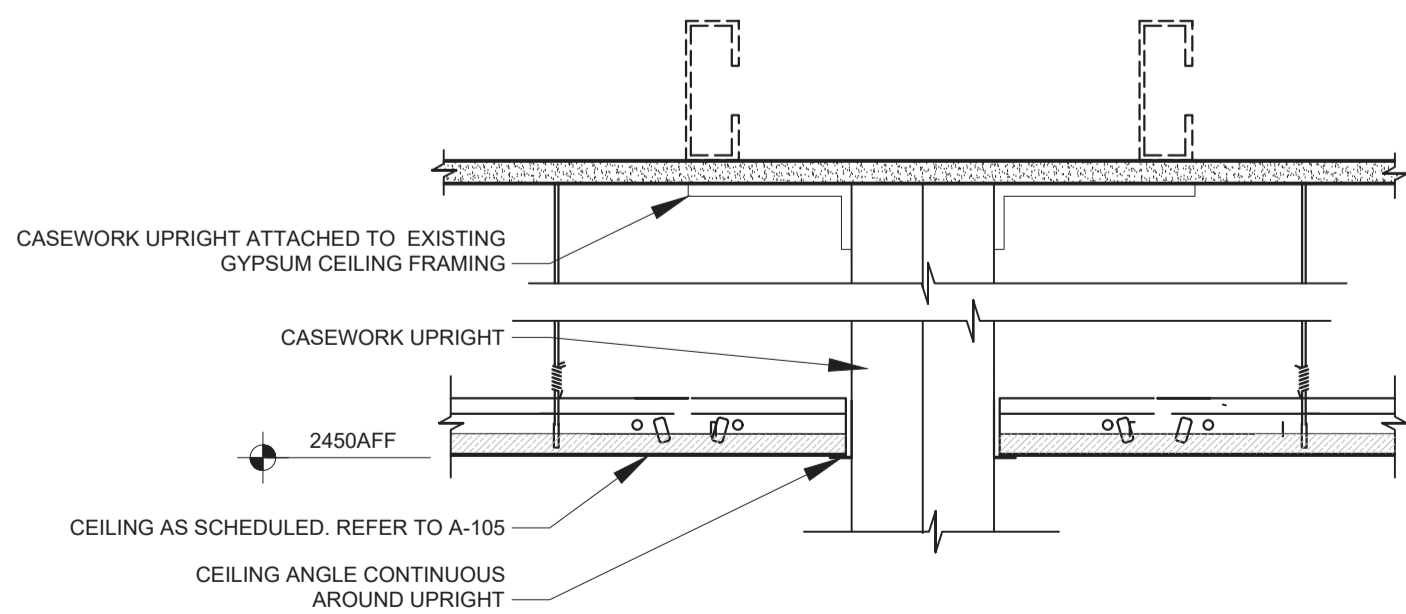
6
A-103
WINDOW SILL DETAIL
SCALE 1:5



7
A-103
WINDOW JAMB DETAIL
SCALE 1:5

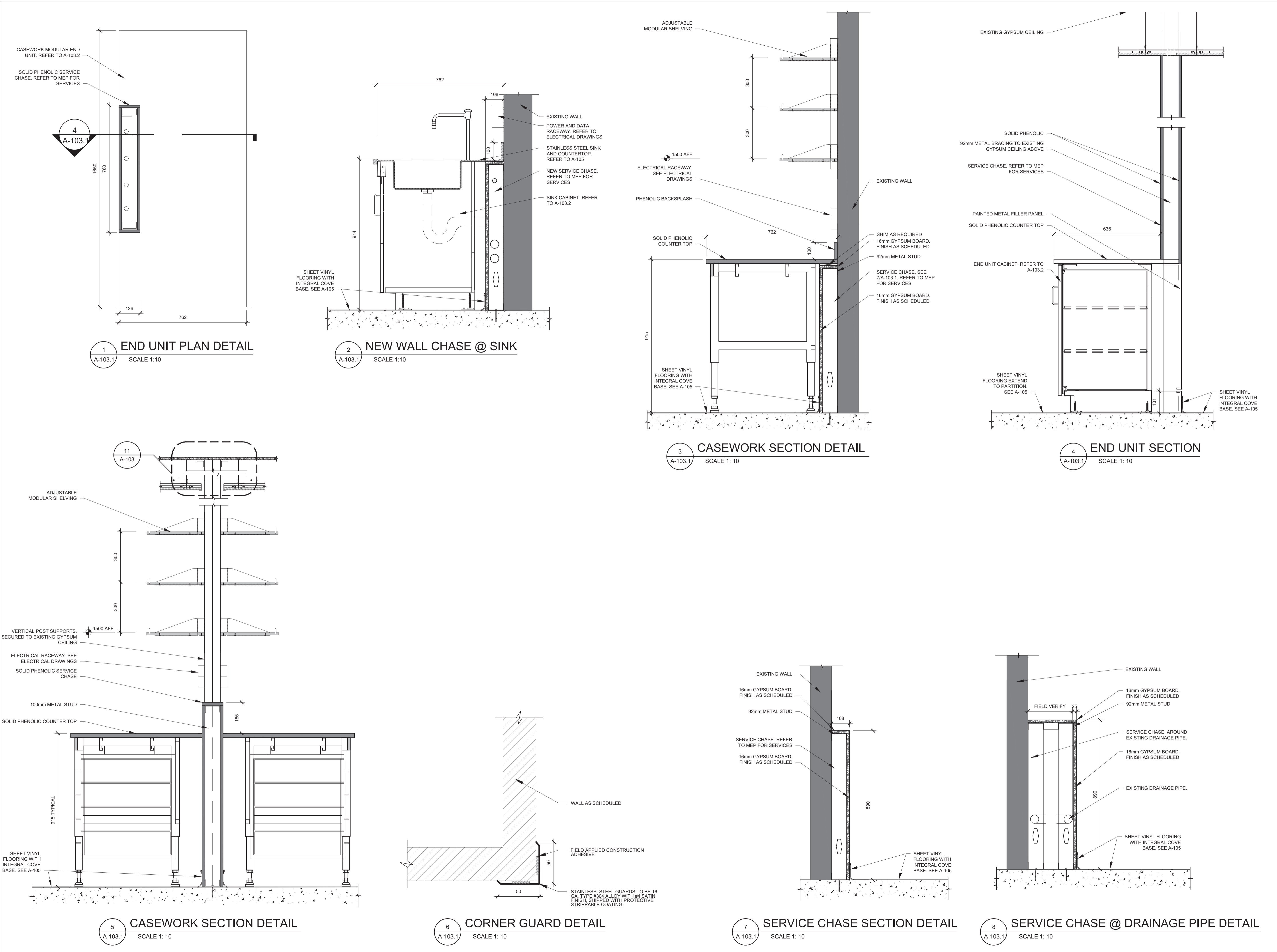


4
A-103
NEW RADIATOR DETAIL
SCALE 1: 5



11
A-103
CASEWORK UPRIGHT DETAIL
SCALE 1: 5

ISSUE	DESCRIPTION	DATE
A	95% CD	5/17/2017
B	99% CD	6/7/2017
C	100% CD	7/10/2017





Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada (AAFC)



MERRICK & COMPANY
Prom. 580 Terry Fox Drive, Suite 201
Kanata, Ontario, K2L 4B9
CANADA
Phone: (613)-592-5289
Fax: (613)-592-2181
www.merrick.com



ONTARIO ASSOCIATION OF ARCHITECTS
10 JULY, 2017
JAMES SANDROCK ELLIS
LICENCE 7395
(Professional)

ISSUE	DESCRIPTION	DATE
B	95% CD	6/7/2017
C	100% CD	7/10/2017



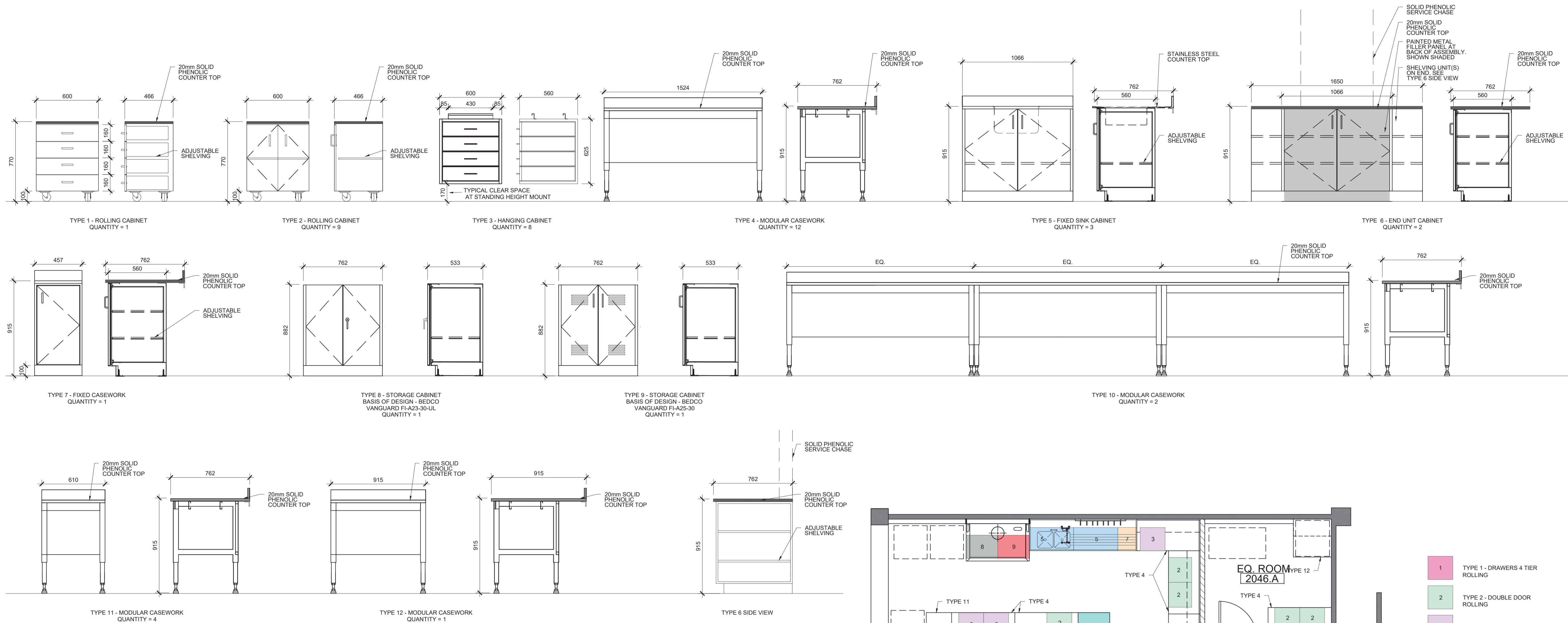
Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada

K.W. NEATBY BUILDING-BUILDING 20
RENOVATION OF LABS 2344 & 2346
480 GERRARD STREET EAST, ONTARIO, CANADA
M5C 1H7

SHEET TITLE:
DETAILS

SCALE:	N/A
DATE:	7-10-2017
DRAWN:	SC
CHECKED:	SE
PROJECT:	74019494
SHEET NO.:	

A-103.1

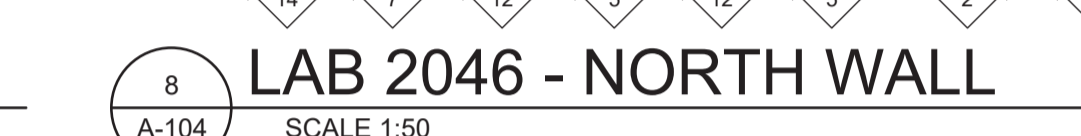
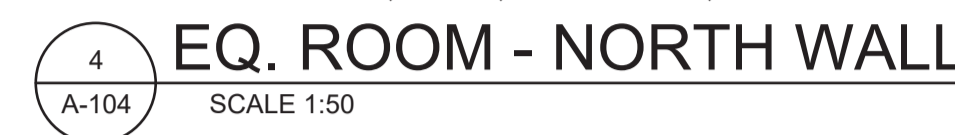
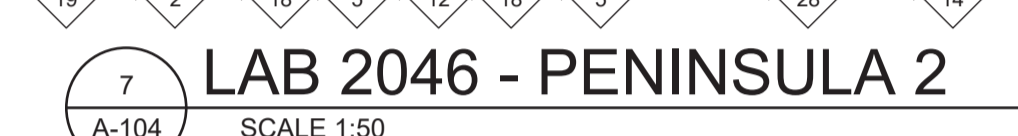
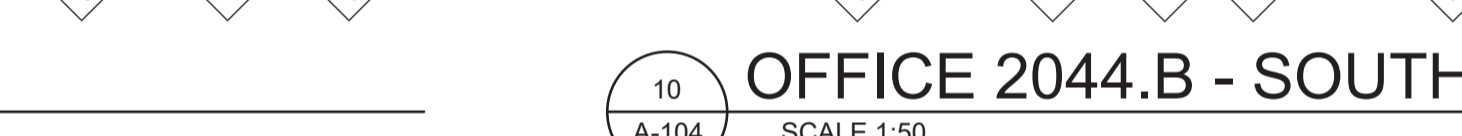


1 CASEWORK TYPES
A-103.2 SCALE 1:10



2 CASEWORK PLAN
A-103.2 SCALE 1:10

ISSUE	DESCRIPTION	DATE
B	95% CD	6/7/2017
C	100% CD	7/10/2017

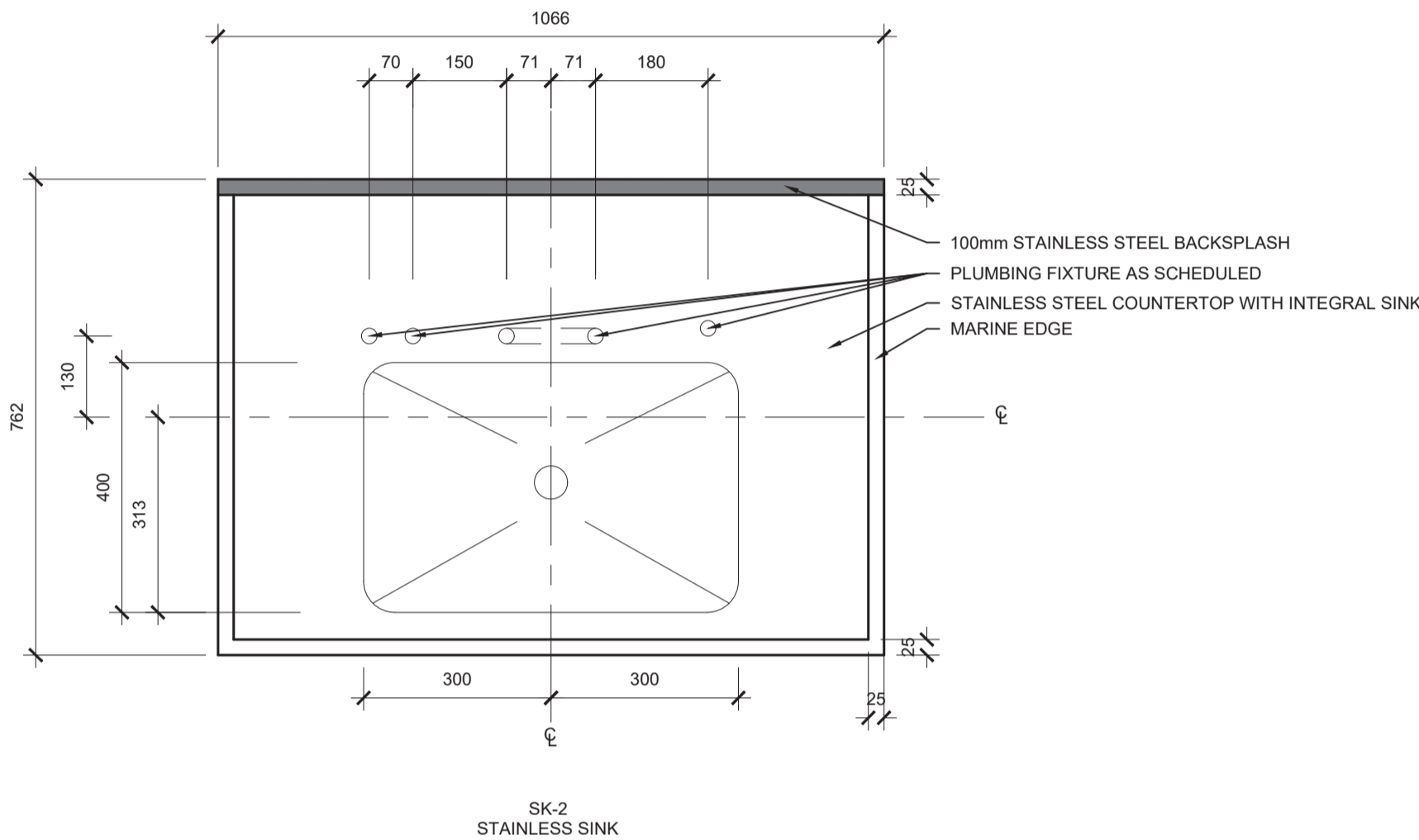
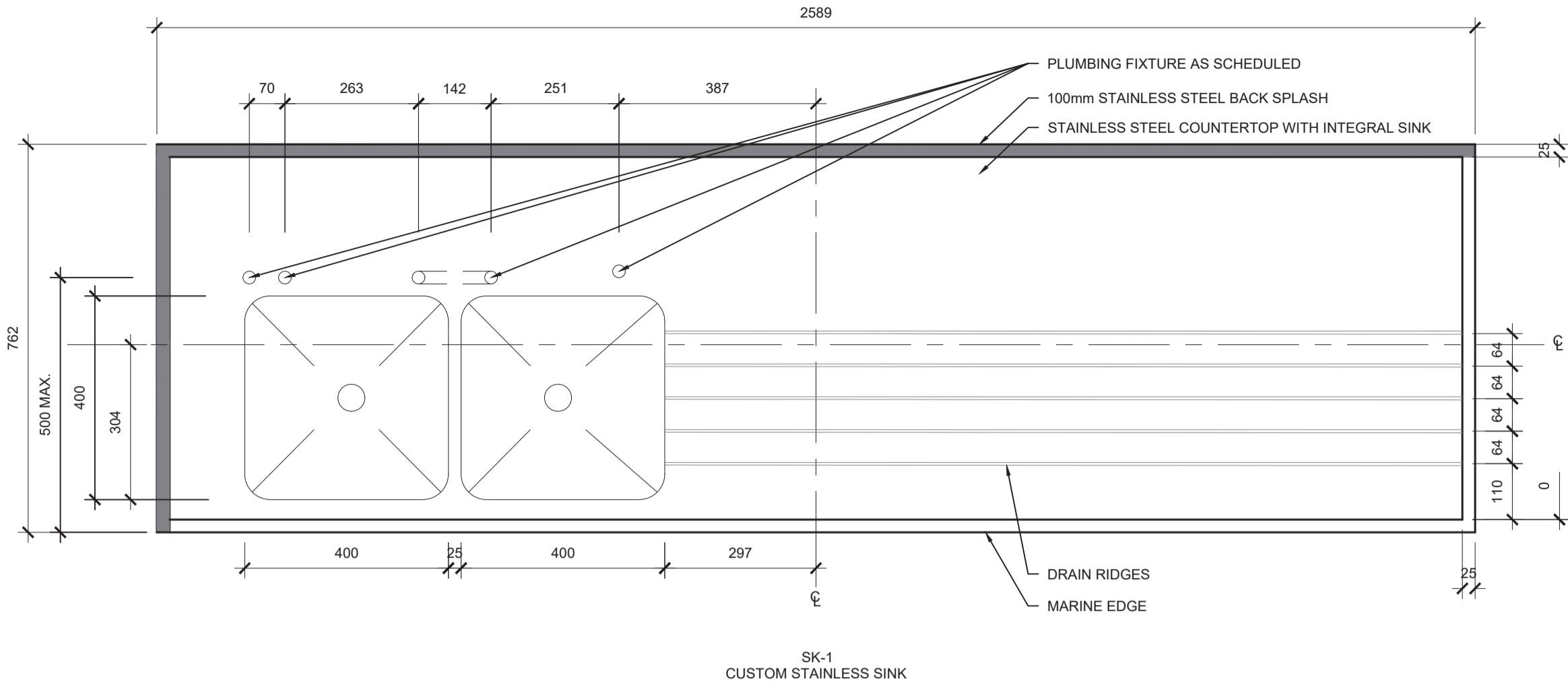


ROOM FINISH SCHEDULE										
ROOM DESCRIPTION	ROOM NUMBER			WALLS				CEILING		SPECIAL NOTES
		FLOOR FINISH	BASE	NORTH	SOUTH	EAST	WEST	MATERIAL	FINISH	
OFFICES	2044	SSV-1	SSV-1	PT-1	PT-1	PT-1	PT-1	MWT	--	
COLLABORATION SPACE	2044.A	SSV-1	SSV-1	PT-1	PT-1	PT-1	PT-1	MWT	--	
MANAGER'S OFFICE	2044.B	SSV-1	SSV-1	PT-1	PT-1	PT-1	PT-1	MWT	--	
LABORATORY	2046	SSV-1	SSV-1	PT-1	PT-1	PT-1	PT-1	MWT	--	
EQUIPMENT ROOM	2046.A	SSV-1	SSV-1	PT-1	PT-1	PT-1	PT-1	MWT	--	

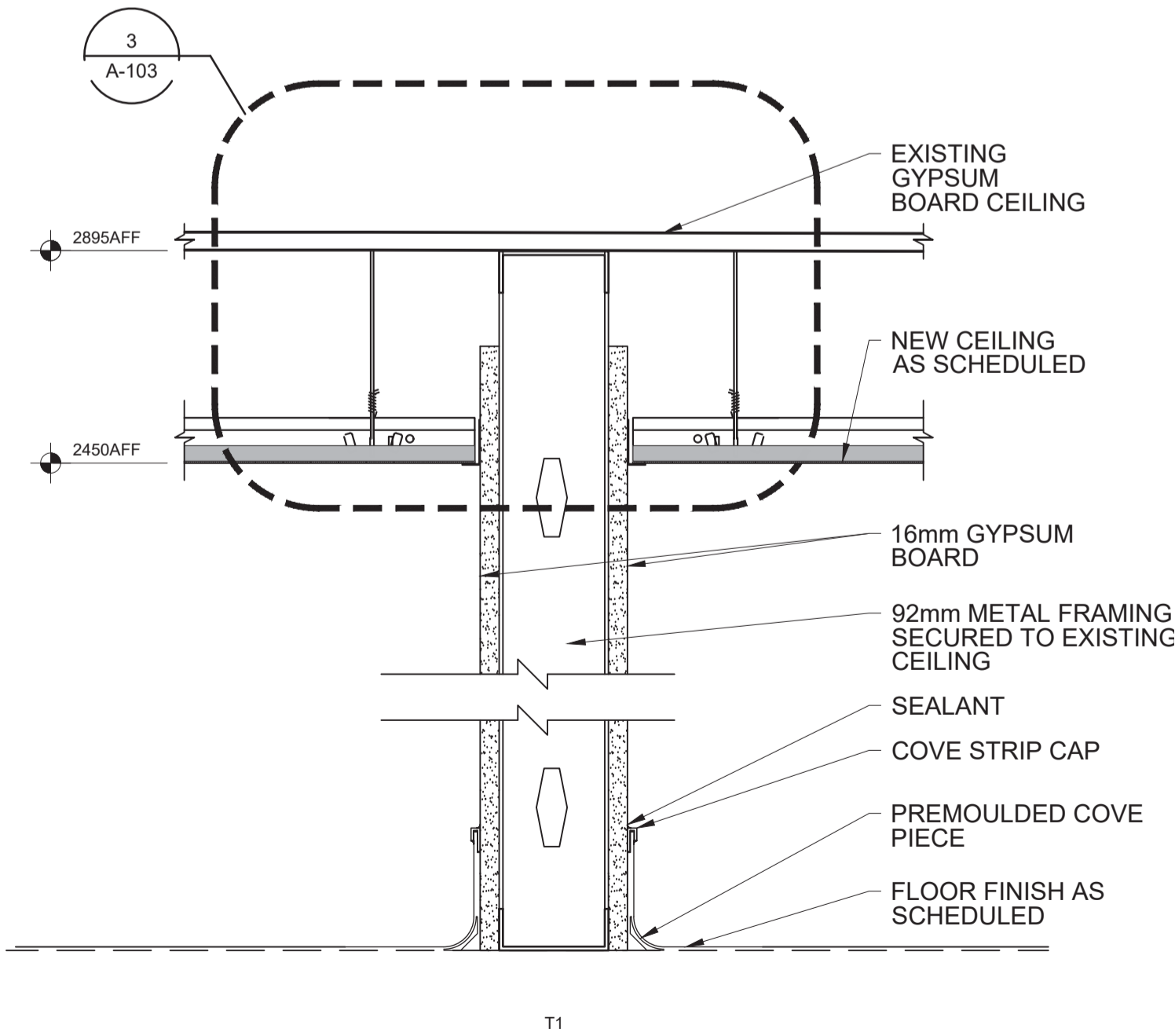
FINISH LEGEND			
KEY	DESCRIPTION	COLOUR	SPECIAL NOTES
SSV-1	WELDED SEAM SHEET VINYL WITH INTEGRAL FLASH COVE BASE	COLOUR TO BE DETERMINED FROM MANUFACTURER'S CATALOGUE	BASIS OF DESIGN: ARMSTRONG MEDINTECH
PT-1	EPOXY PAINT	COLOUR TO BE DETERMINED FROM MANUFACTURER'S CATALOGUE	
PT-2	ENAMEL PAINT	COLOUR TO BE DETERMINED FROM MANUFACTURER'S CATALOGUE	
MWT	CLEAN ROOM MYLAR SQUARE LAY-IN CEILING, DIMENSIONS: [24"x24"x5/8"] [610mmX610mmX16mm] TILE, WASHABLE / SCRUBBABLE, SOIL-RESISTANT, SAG RESISTANT.	WHITE	BASIS OF DESIGN: ARMSTRONG CLEAN ROOM VL 868. INSTALL PER MANUFACTURER'S RECOMMENDATION

DOOR AND FRAME SCHEDULE												
DOOR							FRAME		HARDWARE SETS	SPECIAL NOTES		
NO.	WIDTH	HEIGHT	THICKNESS	TYPE	MAT.	FINISH	TYPE	MAT.	FINISH			
D1	--	--	--	--	--	--	--	--	PT-2	1	EXISTING DOOR AND FRAME TO REMAIN. REMOVE AND PROTECT PRIOR DEMO. AND NEW CONSTRUCTION	
D2	--	--	--	--	--	--	--	--	PT-2	1		
D3	915	2130	50	A	HM	PT-2	A	HM	PT-2	1		
D4	915	2130	50	A	HM	PT-2	A	HM	PT-2	1		

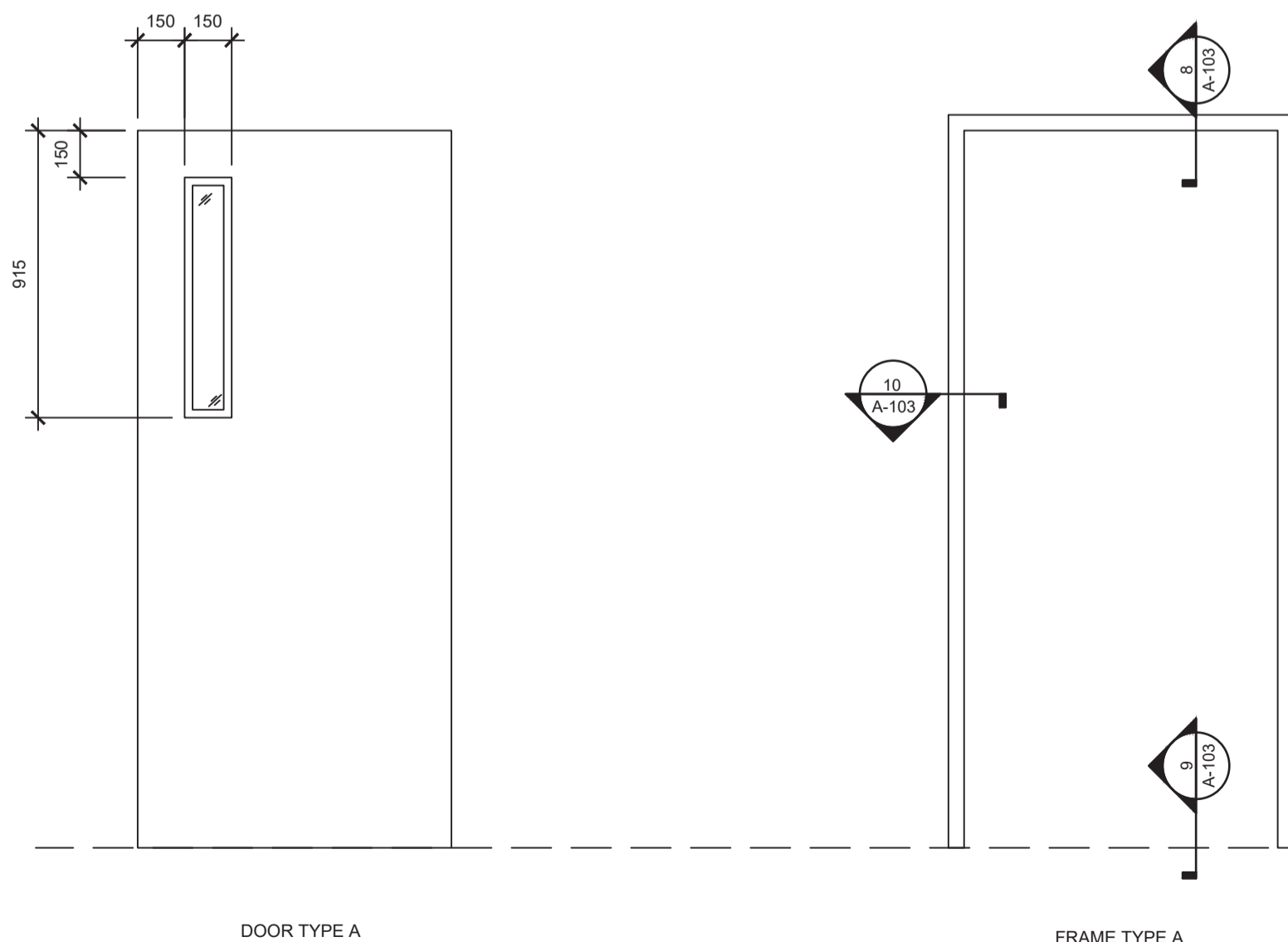
HARDWARE SCHEDULE			
NO.	QUANTITY	DESCRIPTION	BASIS OF DESIGN
		HM DOOR, TYPICAL OFFICE AND LAB	
1	1	LOCKING LATCH	SCHLAGE L SERIES 03
1	1	LOCK CYLINDER	SCHLAGE L9050
1	3	HINGES, NON-REMOVABLE PIN	HAGER BB1168
1	1	DOOR CLOSER, WITH INTEGRAL STOP	LCN 4041
1	3	SILENCERS	



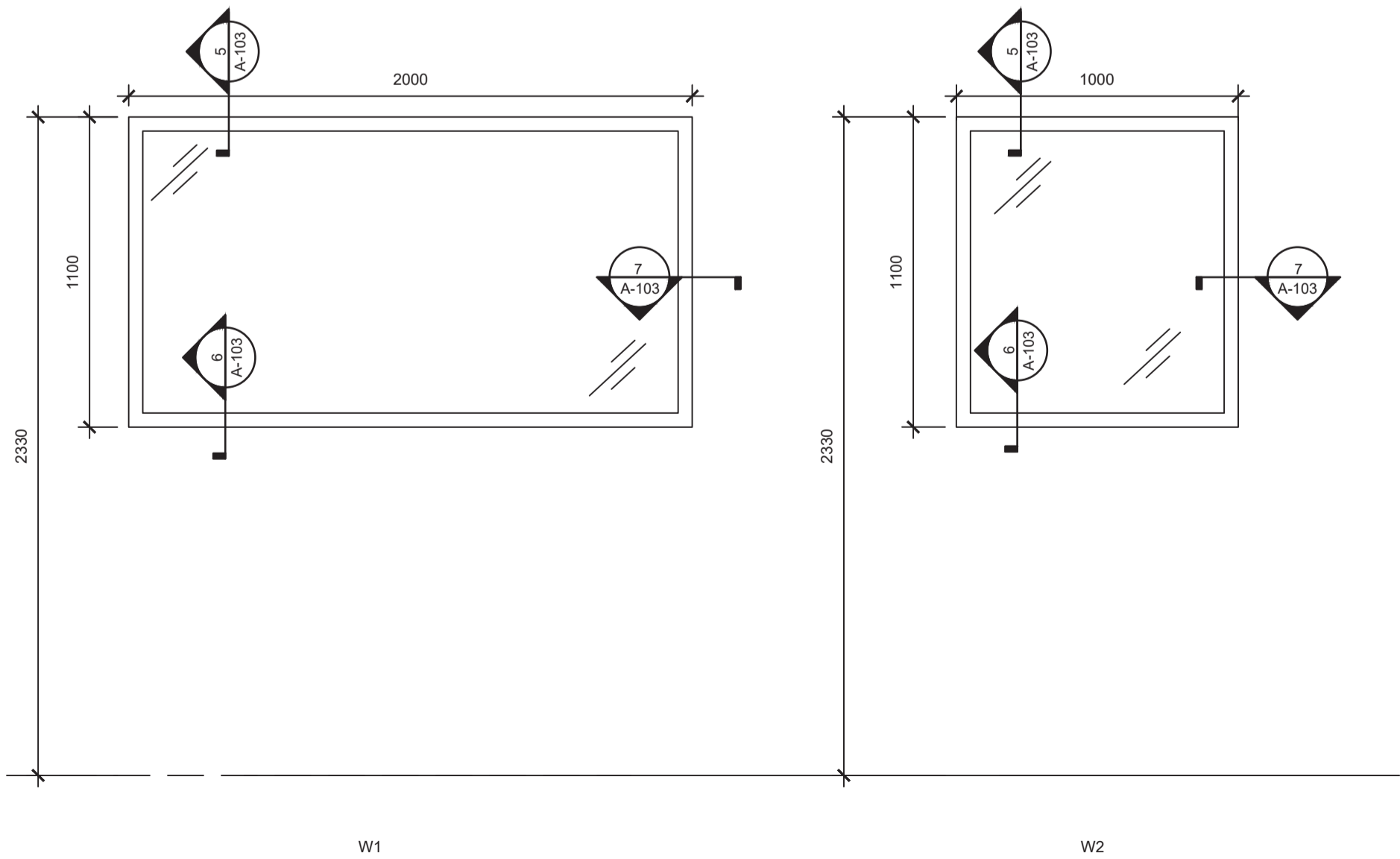
2 SINK TYPES
A-105 SCALE 1:10



3 WALL TYPES
A-105 SCALE 1:5



4 DOOR & FRAME TYPES
A-105 SCALE 1:20



5 WINDOW TYPES
A-105 SCALE 1:20

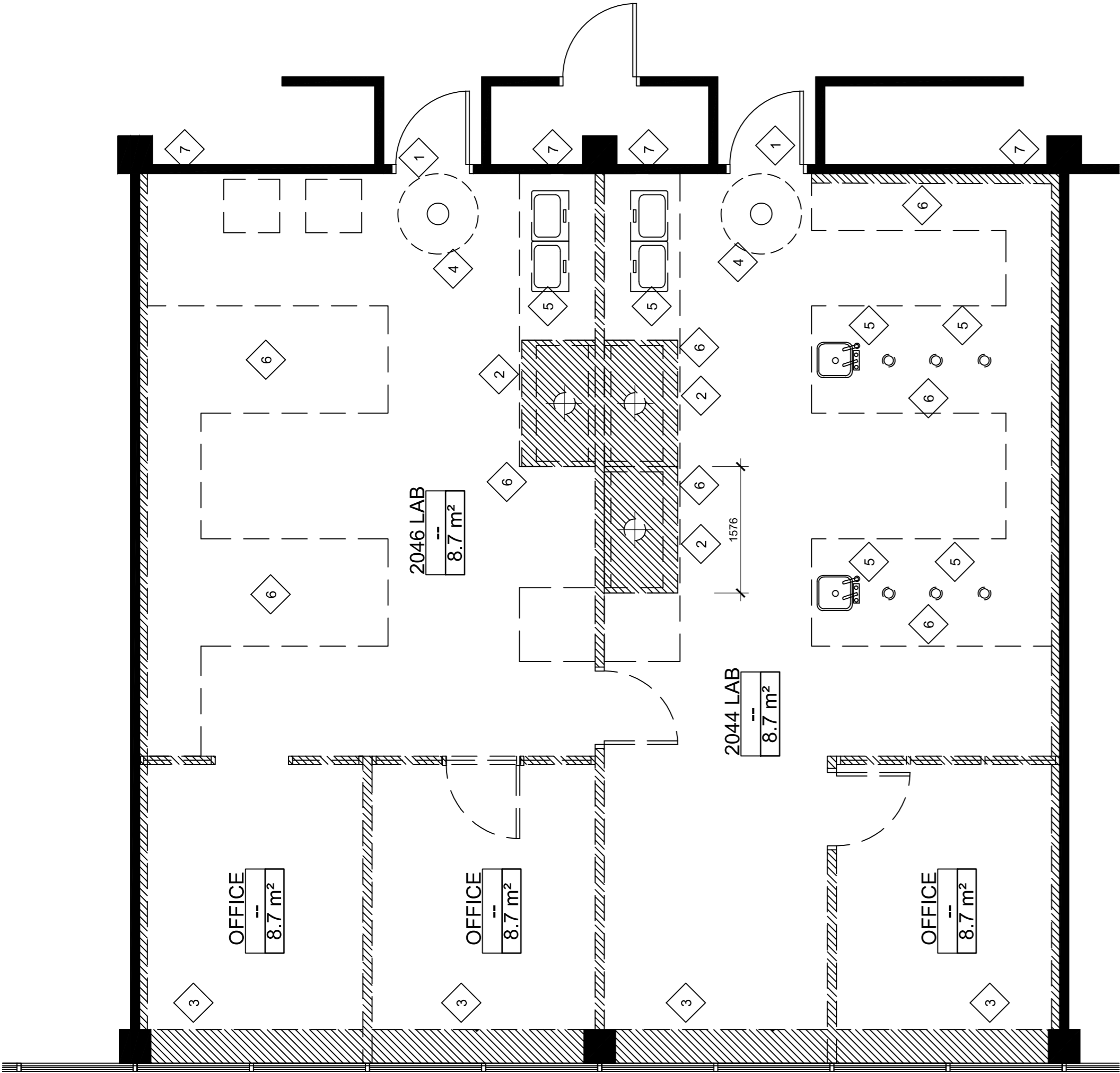
ISSUE	DESCRIPTION	DATE
A	95% CD	5/17/2017
B	99% CD	6/7/2017
C	100% CD	7/10/2017

1

M-001

DEMOLITION PLAN - MECHANICAL, ELECTRICAL, PLUMBING

SCALE 1:50



GENERAL NOTES

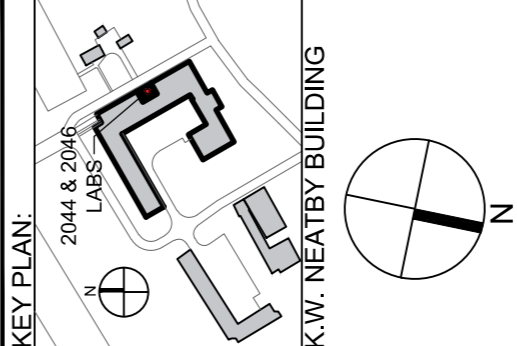
- A. CONTRACTOR TO FIELD VERIFY DIMENSIONS AND LOCATION OF ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL AND MISCELLANEOUS FIXTURES TO BE DEMOLISHED OR RELOCATED BEFORE RENOVATION WORK BEGINS.
- B. CONTRACTOR TO VERIFY AND CONFIRM EXTENTS OF DEMOLITION BASED ON SITE VISIT DURING BID PHASE.
- C. CONTRACTOR TO MAKE GOOD ALL WALLS, FLOOR AND CEILING AFTER DEMOLITION IS COMPLETE. ALL SURFACES AND SERVICES SHALL BE MADE SUITABLE FOR SUBSEQUENT WORK AS DETAILED BY THIS DRAWING PACKAGE AND FOR CODE COMPLIANCE.
- D. DIMENSIONS ARE TO FACE OF FINISHED MATERIALS, UNLESS OTHERWISE NOTED.
- E. CONTRACTOR TO REVIEW FACILITY HAZARDOUS MATERIALS STUDY AND ASSOCIATED DOCUMENTS WITHIN THIS PACKAGE TO DETERMINE ANY HAZARDOUS MATERIALS AND ABIDE BY ALL FINDINGS AND RECOMMENDATIONS CONTAINED THEREIN. REMOVAL OF ALL HAZARDOUS MATERIALS AS PART OF THIS CONTRACT SHALL BE IN ACCORDANCE WITH LOCAL, PROVINCIAL, AND FEDERAL REGULATIONS.
- F. CONTRACTOR TO ENSURE ALL FUME HOODS MEET THE REQUIREMENTS OF THE MOST RECENT EDITIONS OF CSA Z316.5 AND PWSCC MD15128 FOR THE AS MANUFACTURED AND AS INSTALLED CONDITIONS.
- G. CONTRACTOR TO ENSURE FIRE ALARM DETECTORS ARE ACTIVE DURING DEMOLITION AND CONSTRUCTION. ANY DOWN TIME IN FIRE ALARM SYSTEM MUST BE PROTECTED BY HUMAN GUARD.
- H. CONTRACTOR TO ENSURE TEMPORARY LIGHT IS SETUP DURING CONSTRUCTION AND DEMOLITION.
- I. ANY PENETRATION TO THE REMAINING WALLS ARE TO BE FILLED, FIRE RATED TO MEET ULC REQUIREMENTS FOR THE PARTITION RATING.
- J. REMOVE ALL LIGHT FIXTURES AND SWITCHES FROM THE CEILING SPACE. ALL REMAINING WIRES TO BE REUSED MUST BE MEGGER TESTED. THE EXISTING LIGHTING SYSTEM WIRING IS DASH CHAINED AND MUST BE DECOMMISSIONED.
- K. REMOVE ALL RECEPTACLES, WIRES AND JUNCTION BOXES. ALL REMAINING WIRES TO BE REUSED MUST BE MEGGER TESTED.
- L. REMOVE ALL DATA AND PHONE JACKS. CABLES CAN REMAIN ONLY IF THEY ARE LONG ENOUGH TO REACH THE NEW LOCATIONS, AND MEET THE REQUIREMENTS OF THE PROJECT.
- M. PANEL BOARDS TO BE DECOMMISSIONED AFTER HOURS. SHUTDOWN OF ELECTRICAL SYSTEM MUST BE SCHEDULED. PANEL TUBES TO REMAIN.
- N. FOR ALL SERVICES DESCRIBED ON THIS PAGE, COORDINATE ALL TIE-INS WITH EXISTING SERVICES. ALL SERVICES TO BE REMOVED OR RELOCATED MUST BE CONDUCTED DURING OFF HOURS IF SERVICE ISOLATION IS REQUIRED. PROVIDE ALL REQUIRED SHUTOFF VALVES FOR PIPING SERVICE BRANCH LINES.

KEY NOTES

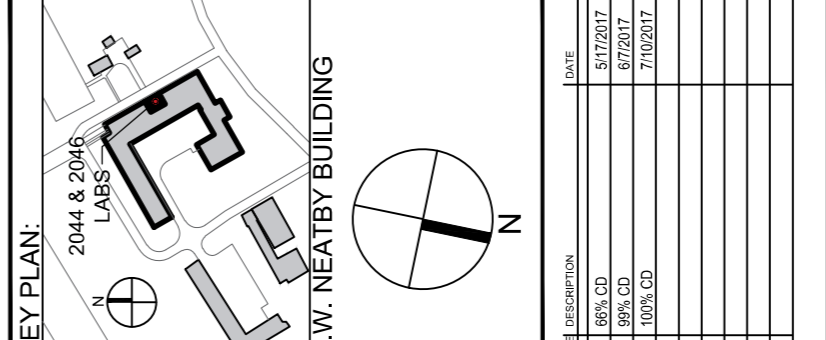
- 1 REMOVE ALL SUPPLY AIR DUCTWORK IN CEILING SPACE, INCLUDING DIFFUSERS BACK TO THE CONNECTION TO THE RE-HEAT COIL. ENSURE AIRFLOW CONTROL DAMPER AND RE-HEAT COIL ARE PROTECTED DURING CONSTRUCTION AND ARE ACCEPTABLE FOR REUSE. REMOVE ALL EXISTING EXHAUST AIR DUCTWORK, EXHAUST PIPING AND CONTROL COMPONENTS. REMOVE GRILLES AND DUCTWORK EXTENSION FOR CEILING FLENUM GENERAL EXHAUST BACK TO AIRFLOW CONTROL DAMPER. PROTECT DAMPER DURING CONSTRUCTION AND ENSURE IT IS SUITABLE FOR REUSE.
- 2 REMOVE FUME HOOD DUCTWORK BACK TO 300MM FROM PIPE CHASE. SOUTH FUME HOOD DUCT TO BE CAPPED IN LAB CEILING SPACE. NORTH FUME HOOD DUCT RISER TO BE REUSED FOR NEW FUME HOOD CONNECTION. ENSURE ANY UNUSED FUME HOOD AND DRAIN LINES ARE DISCONNECTED AND TAGGED APPROPRIATELY IN THE PENTHOUSE.
- 3 EXISTING STEAM FIN TUBE RADIATORS TO BE REMOVED ALONG WITH RADIATOR RISER LOCATED AT SOUTH COLUMN OF 2046 AND NORTH COLUMN OF 2044. ISOLATE WITH SHUTOFF VALVE AND CAP WHEN NOT IN USE. REUSE EXISTING TEE OFF RISER MANS IF IN ACCEPTABLE CONDITION TO MEET THE REQUIREMENTS.
- 4 REMOVE CEILING MOUNTED EMERGENCY SHOWERS. NORTH SHOWER TO BE REUSED IF IN ACCEPTABLE CONDITION TO MEET THE REQUIREMENTS. REMOVE TEMPERED WATER SUPPLY PIPING FOR SOUTH SHOWER BACK TO PIPING CHASE. CAP OFF AND ISOLATE EXISTING TEMPERED WATER SUPPLY PIPING. REMOVE EXISTING NORTH SHOWER POSITION OF NORTH SHOWER. REFER TO P-101. ISOLATE AND CAP WHILE NOT IN USE.
- 5 EXISTING PLUMBING FIXTURES TO BE REMOVED. REMOVE WASTE, VENT, AND SUPPLY PIPING REQUIRING CLOSURE. REMOVE EXISTING SINKS AND BACK TO MAIN BRINS RISER CHASES. ADJACENT TO CORRIDOR. ISOLATE WITH SHUTOFF VALVE AND CAP ALL WASTE, VENT AND SUPPLY PIPING IN CHASE AND PROTECT FOR REUSE IF REQUIRED AND IF IN ACCEPTABLE CONDITION. REFER TO P-101.
- 6 LAB GASES AND SPECIALTY WATER (VACUUM, COMPRESSED AIR, NATURAL GAS, RO WATER, DI WATER AND OTHER CASEWORK SERVICES) SPRIGS AND PIPING TO BE REMOVED. REMOVE PIPING BACK FROM FOOT LOCKER. REMOVE CASEWORK TO WASTE CHASE. THIS WORK SHALL BE IN ACCORDANCE WITH THE ULC REQUIREMENTS AND CAP ALL SERVICES IN CHASE, AND PROTECT FOR REUSE IF REQUIRED AND PIPING IS IN ACCEPTABLE CONDITION. REFER TO P-101.
- 7 REPAIR AND SEAL ANY REMOVED SERVICE PENETRATIONS THROUGH FIRE SEPARATION AT PIPE CHASES ALONG CENTER CORRIDOR. ANY REPAIRS TO MEET ULC REQUIREMENTS FOR THE PARTITION RATING.

LEGEND

- EXISTING TO BE DEMOLISHED
- EXISTING TO REMAIN



DATE	DESCRIPTION
2024.10.20	ISSUED FOR PERMIT
2024.10.20	ISSUED FOR CONSTRUCTION
2024.10.20	ISSUED FOR CONSTRUCTION
2024.10.20	ISSUED FOR CONSTRUCTION
2024.10.20	ISSUED FOR CONSTRUCTION
2024.10.20	ISSUED FOR CONSTRUCTION
2024.10.20	ISSUED FOR CONSTRUCTION
2024.10.20	ISSUED FOR CONSTRUCTION
2024.10.20	ISSUED FOR CONSTRUCTION
2024.10.20	ISSUED FOR CONSTRUCTION



SHEET TITLE:
ELECTRICAL
DETAILS

DATE:	AS INDICATED
DATE:	06/07/2017
NAME:	JT
CHECKED:	SR
PROJECT:	74019494
SHEET NO:	

E-101



NOTES:

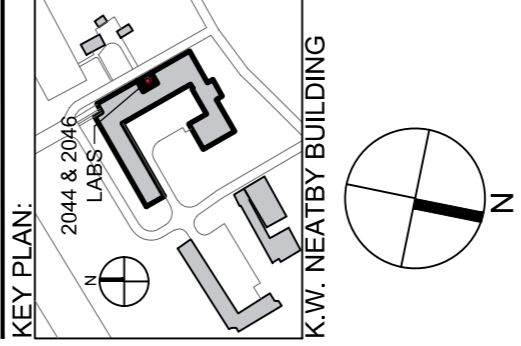
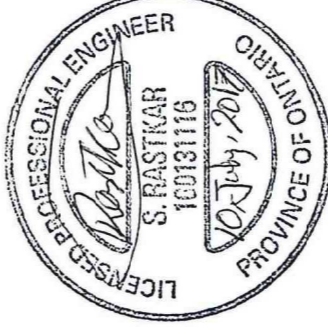
1. WIRE PENETRATION TO THE RACEWAY MUST BE EITHER FROM THE SIDE OF BACK RACEWAY CHANNEL BASED ON SITE CONDITION.
2. ALUMINUM DUAL CHANNEL RACEWAY (AL-5200) OR APPROVED EQUAL IS THE BASE OF DESIGN.
3. REFER TO LAYOUT DRAWING FOR HEIGHT OF RACEWAY.



1. GROUND WIRE (NOT SHOWN) WILL FLOW FROM POWER SOURCE THROUGH TO LIGHTS.



E-10

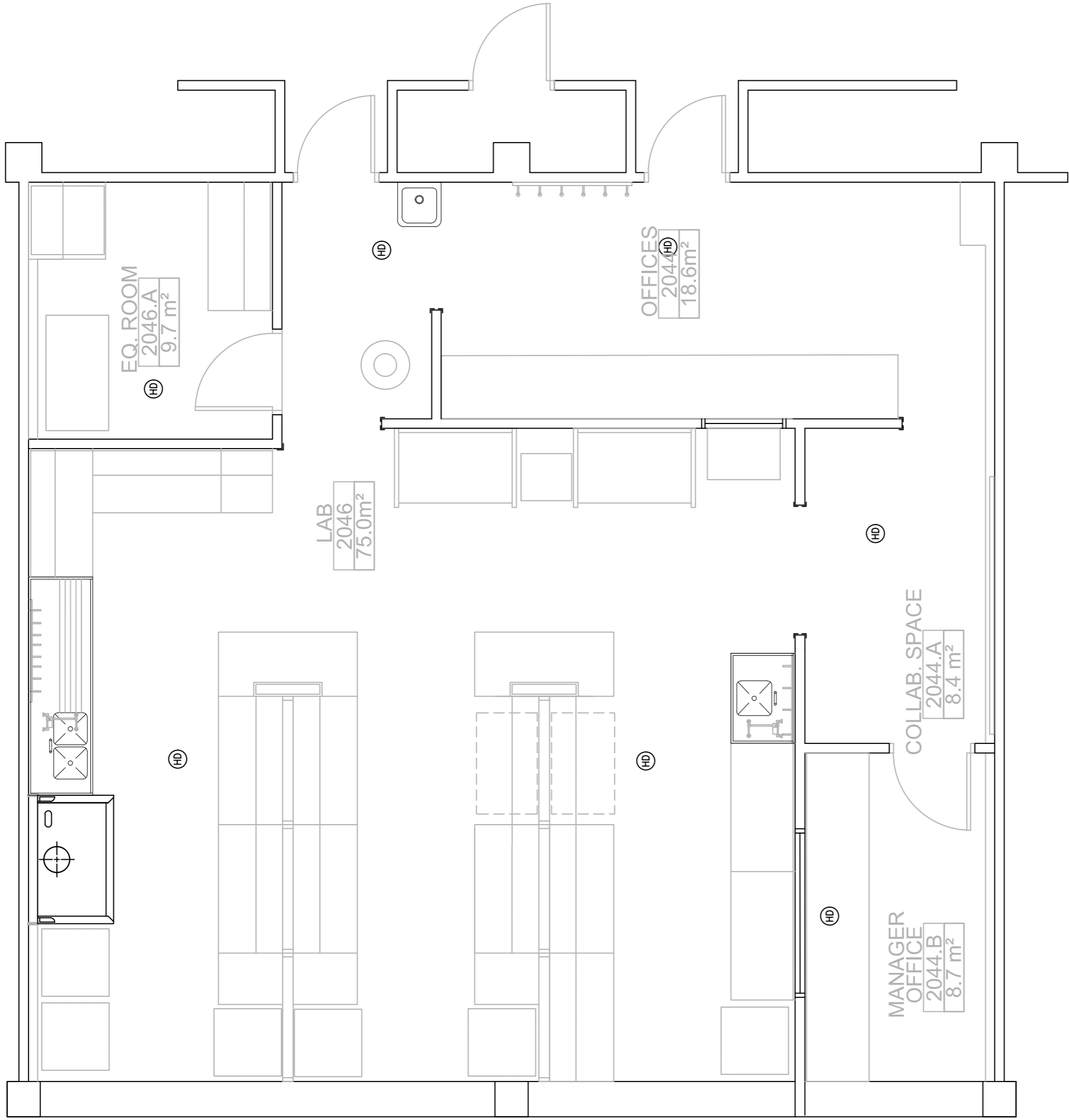


NO.	REVISIONS	DATE
1	ISSUED	07/10/2017
2	REVISED	07/10/2017
3	REVISED	07/10/2017
4	REVISED	07/10/2017
5	REVISED	07/10/2017
6	REVISED	07/10/2017
7	REVISED	07/10/2017
8	REVISED	07/10/2017
9	REVISED	07/10/2017
10	REVISED	07/10/2017

SHEET TITLE:
FIRE ALARM PLAN

SCALE:	AS INDICATED
DATE:	07/10/2017
DRAWN:	JT
CHECKED:	SR
PROJECT:	7401944
SHEET NO:	

EF-101



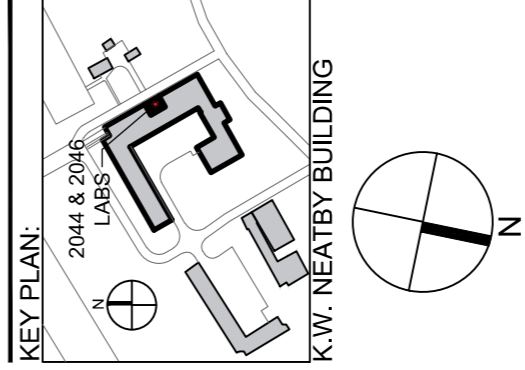
AAFC LAB RENOVATION - FIRE ALARM PLAN

SCALE 1:50

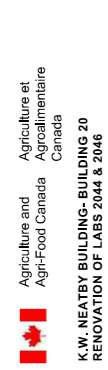
GENERAL NOTES:

1. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE ADDITIONAL HEAT DETECTORS (CR135) IN THE SPACE AND CONNECT THEM TO THE EXISTING FIRE ALARM LOOP IN THE SAME MANNER AS EXISTING DETECTOR COMPONENTS ARE CONNECTED.
2. CONTRACTOR MUST ENSURE FIRE ALARM DETECTOR IS ACTIVE DURING DEMOLITION AND CONSTRUCTION. ANY DOWN TIME IN FIRE ALARM SYSTEM MUST BE PROTECTED BY HUMAN GUARD.
3. ALL INSTALLATIONS MUST COMPLY WITH CANULC S524-14 STANDARD.
4. CONTRACTOR IS RESPONSIBLE TO PROVIDE UPDATED VERIFICATION REPORT.

FIRE ALARM	
SYMBOL	DESCRIPTION
(FID)	HEAT DETECTOR (COMBINATION FIXED RATE AND RATE OF RISE - 57°F) - CR 135



ISSUE	DESCRIPTION	DATE
A	66% CD	5/17/2017
B	95% CD	6/7/2017
C	100% CD	7/10/2017



SHEET TITLE:
POWER PLAN

SCALE:	AS INDICATED
DATE:	07/10/2017
DRAWN:	JT
CHECKED:	SR
PROJECT:	74018494
SHEET NO:	

EP-101

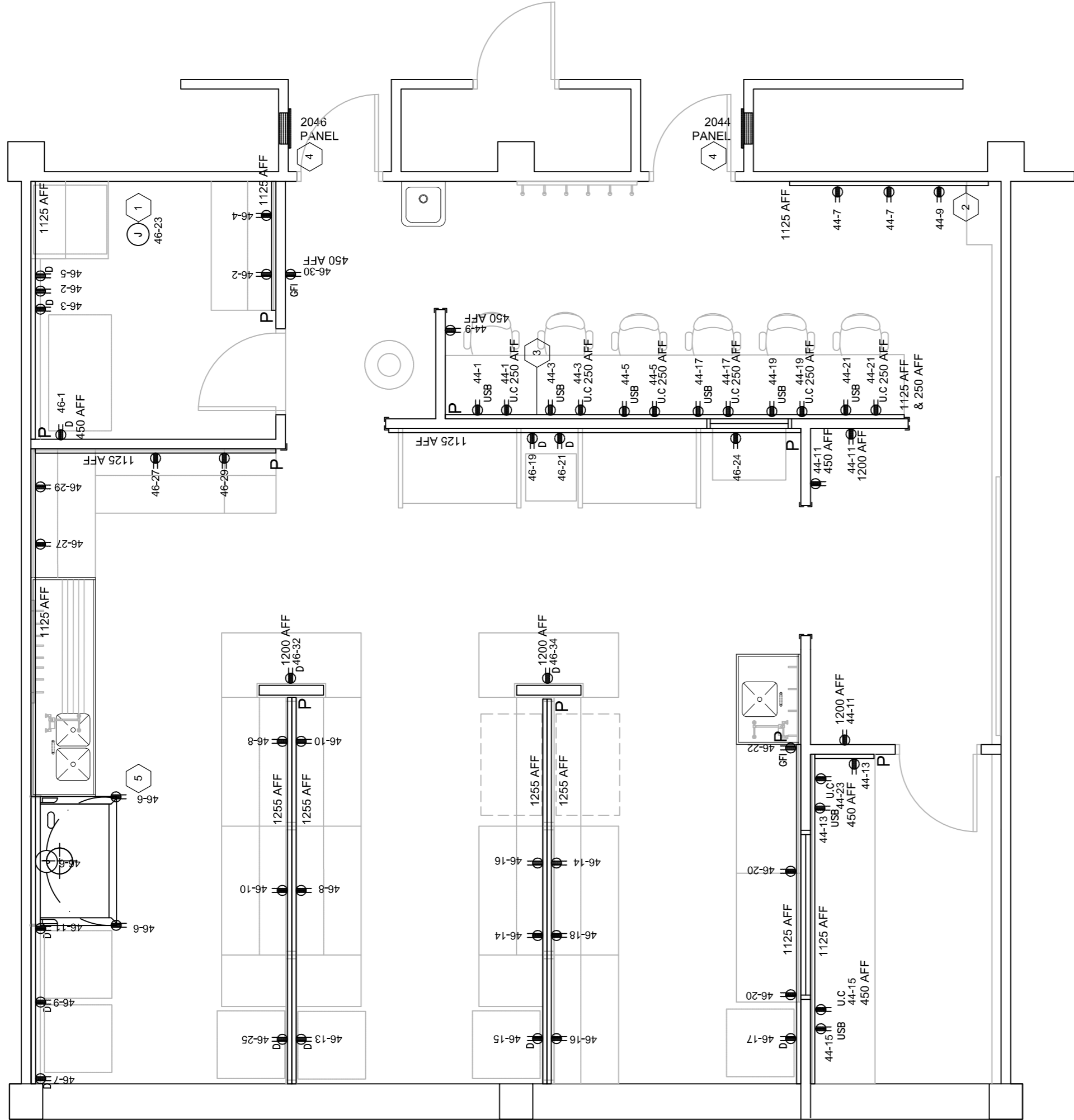
GENERAL NOTES:

1. PROVIDE JUNCTION BOXES FOR POWER AND DATA DISTRIBUTION FOR EACH ISLAND BENCH INSIDE THE VERTICAL CHASSIS. FLEX CABLE IS NOT ALLOWED. SERVICE FOR ISLAND BENCHES MUST RUN THROUGH VERTICAL CHASSIS.
2. ELECTRICAL DISTRIBUTION SYSTEM IS SINGLE PHASE 240-120V 3 WIRE SYSTEM.
3. ELECTRICAL PANEL INSTALLATION REQUIRES SCHEDULED POWER SHUTDOWN IN THE BUILDING AFTER REGULAR HOURS.
4. EXISTING PANEL TUBS MUST REMAIN. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO RETROFIT THE PANEL BOARDS WITH THE NEW CHASSIS. BOTTOM ENTRANCE CABLE IS REQUIRED.
5. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE LABEL FOR RECEPTACLES AND JUNCTION BOXES TO MATCH THE EXISTING BUILDING STANDARD.
6. PROVIDE CONNECTION TO THE FUME HOOD FROM THE RACEWAY SYSTEM RUNNING BEHIND IT. ADDITIONAL SURFACE MOUNT, JUNCTION BOX INSTALLATION ABOVE THE FUME HOOD MAY BE REQUIRED. RUN SURFACE MOUNT CONDUIT FOR CONNECTION BETWEEN THE J-BOX AND THE RACEWAY.
7. ALL RACEWAY HEIGHTS ARE TAKEN FROM THE TOP OF THE FINISHED FLOOR TO THE CENTER OF THE RACEWAY.
8. ALL INDIVIDUAL RECEPTACLE HEIGHTS ARE TAKEN FROM THE TOP OF THE FINISHED FLOOR TO THE CENTER OF EACH BACK BOX.
9. PROVIDE STAINLESS STEEL FACEPLATE FOR SWITCHES AND NON-RACEWAY RECEPTACLES.
10. ALL CIRCUITS MUST HAVE SEPARATE NEUTRAL, MINIMUM WIRE SIZE FOR HOT AND NEUTRAL SHALL BE:

10-1.1.1. #12AWG FOR RUNS UP TO 21M
10-1.1.2. #10AWG FOR RUNS IN EXCESS OF 21M
11. TYPE AC-90 WILL BE PERMITTED FROM CONDUIT SYSTEM JUNCTION BOXES TO INDIVIDUAL RECESSED LIGHT FIXTURES. DO NOT LOOP FROM FIXTURE TO FIXTURE. SINGLE RUN TO EACH LIGHT FIXTURE WITH MAXIMUM 3 METER LENGTH.
12. CONTRACTOR MUST ALLOW FOR UP TO 4 CONNECTIONS AND TO FEED EQUIPMENT THAT ARE FED FROM PANEL 2044 AND 2046 THAT ARE NOT LOCATED INSIDE LAB AREA AND HAS NOT BEEN IDENTIFIED IN THIS DRAWING SET.
13. CONTRACTOR MUST ALLOW TO PROVIDE AND FEED FOR UP TO 2 JUNCTION BOXES IN THE CEILING SPACE TO FEED CONTROL TRANSFORMERS (CLASS II-100VA) FED FROM PANEL 2044. COORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT LOCATION.







KEY NOTES:

- 1 PROVIDE JUNCTION BOX AND DISCONNECT SWITCH ON THE UNIT FOR FAN COIL.
- 2 PROVIDE PENETRATION INTO THE RACEWAY FROM THE SHAFT BEHIND. FIRE RATED SEALING MUST APPLY FOR SHAFT PENETRATION.
- 3 PROVIDE AND INSTALL SINGLE CHANNEL RACEWAY FOR UNDER COUNTER AT 250mm AFF AND DUAL CHANNEL ABOVE COUNTER AT 1125AFF.
- 4 CONTRACTOR IS TO REMOVE EXISTING INTERIOR AND INSTALL NEW INTERIOR CENTER-TO-CENTER OF THE EXISTING TUB AND CUSTOM MOUNT INTERIOR SO THAT THE DEPTH OF THE PANEL WILL MOUNT FLUSH WITH THE EXISTING TUB SURFACE. CONTRACTOR IS TO INSTALL NEW CUSTOM CUTTRIM TO FIT EXISTING TUB.
- 5 CONTRACTOR IS TO REPLACE PROVIDED EQUIPMENT RECEPTACLE WITH GFI TYPE IF NOT PROVIDED. FACE PLATE COLOR TO MATCH THE OTHER SIDE RECEPTACLE.



AAFC LAB RENOVATION - POWER PLAN

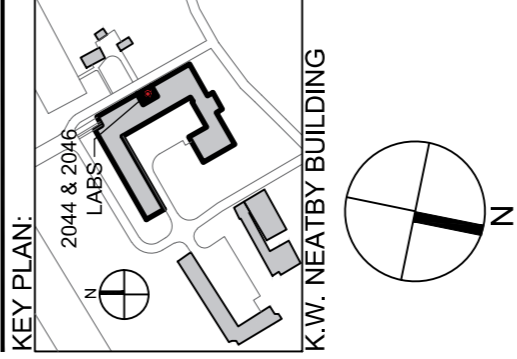
SCALE 1:50

POWER	
SYMBOL	DESCRIPTION
	RACEWAY
	NEMA 5-20R RECEPTACLE
	NEMA 5-20R RECEPTACLE WITH USB PORT
	NEMA 5-20R DEDICATED RECEPTACLE
	ELECTRICAL PANEL
	JUNCTION BOX
P	PENETRATION POINT TO THE RACEWAY INSIDE NEW WALL CAVITY (VERTICAL DROP FROM THE CEILING)

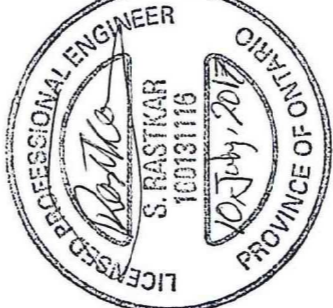
GENERAL NOTES:

1. PROVIDE JUNCTION BOXES FOR POWER AND DATA DISTRIBUTION FOR EACH ISLAND BENCH INSIDE THE VERTICAL CHASE. FLEX CABLE IS NOT ALLOWED. SERVICE FOR ISLAND BENCHES MUST RUN THROUGH VERTICAL CHASE.
2. ELECTRICAL DISTRIBUTION SYSTEM IS SINGLE PHASE 240-120V 3 WIRE SYSTEM.
3. ELECTRICAL PANEL INSTALLATION REQUIRES SCHEDULED POWER SHUTDOWN IN THE BUILDING AFTER REGULAR HOURS.
4. EXISTING PANEL TUBS MUST REMAIN. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO RETROFIT THE PANELBOARDS WITH THE NEW CHASSIS. BOTTOM ENTRANCE CABLE IS REQUIRED.
5. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE LABEL FOR RECEPTACLES AND JUNCTION BOXES TO MATCH THE EXISTING BUILDING STANDARD.
6. PROVIDE CONNECTION TO THE FUME HOOD FROM THE RACEWAY SYSTEM RUNNING BEHIND IT.
7. ALL RACEWAY HEIGHTS ARE TAKEN FROM THE TOP OF THE FINISHED FLOOR TO THE CENTER OF THE RACEWAY.
8. ALL INDIVIDUAL RECEPTACLE HEIGHTS ARE TAKEN FROM THE TOP OF THE FINISHED FLOOR TO THE CENTER OF EACH BACK BOX.
9. PROVIDE STAINLESS STEEL FACEPLATE FOR SWITCHES AND NON-RACEWAY RECEPTACLES.
10. ALL CIRCUITS MUST HAVE SEPARATE NEUTRAL. MINIMUM WIRE SIZE FOR HOT AND NEUTRAL SHALL BE:
10.1.1.1. #12AWG FOR RUNS UP TO 21M
10.1.1.2. #10AWG FOR RUNS IN EXCESS OF 21M

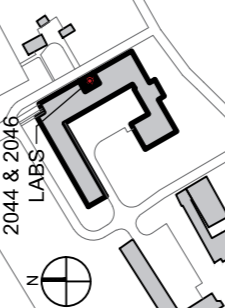
11. TYPE AC-90 WILL BE PERMITTED FROM CONDUIT SYSTEM JUNCTION BOXES. INDIVIDUAL RECESSED LIGHT FIXTURES DO NOT LOOP FROM FIXTURE TO FIXTURE. SINGLE RUN TO EACH LIGHT FIXTURE WITH MAXIMUM 3 METER LENGTH.
12. CONTRACTOR MUST ALLOW FOR CONNECTIONS AND TO FEED EQUIPMENT THAT ARE FED FROM PANEL 2044 AND 2046 THAT ARE NOT LOCATED INSIDE LAB AREA AND HAS NOT BEEN IDENTIFIED IN THIS DRAWING SET.
13. CONTRACTOR MUST ALLOW TO PROVIDE AND FEED FOR UP TO 2 JUNCTION BOXES IN THE CEILING SPACE TO FEED CONTROL TRANSFORMERS GLASS IH-100VA) FED FROM PANEL 2044. COORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT LOCATION.



ISSUE	DESCRIPTION	DATE
A	66% CD	5/17/2017
B	99% CD	6/7/2017
0	100% CD	7/10/2017
		</

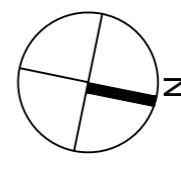


KEY PLAN:



2044 & 2046
LABS

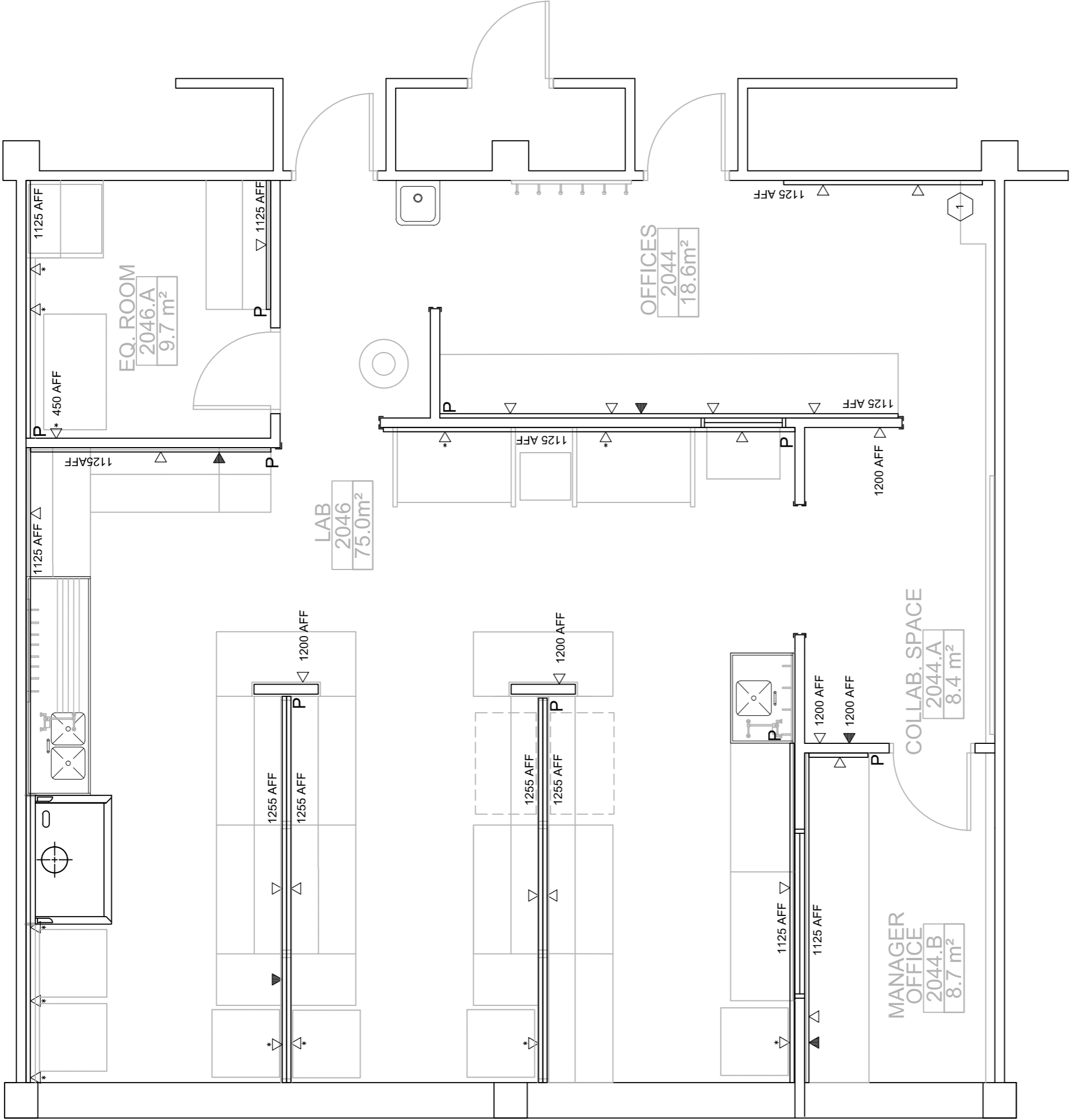
K.W. NEATBY BUILDING



NO.	DESCRIPTION	DATE
1	ISSUED	07/2017
2	REVISED	02/2017
3	REVISED	02/2017
4	REVISED	02/2017
5	REVISED	02/2017
6	REVISED	02/2017
7	REVISED	02/2017
8	REVISED	02/2017
9	REVISED	02/2017
10	REVISED	02/2017

SHEET TITLE:
AAFC LAB
RENOVATION -
LOW VOLTAGE

SCALE:
DATE: AS INDICATED
DRAWN: 06/07/2017
CHECKED: JT
PROJECT: 74019494
SHEET NO:







AAFC LAB RENOVATION - LOW VOLTAGE

SCALE 1:50

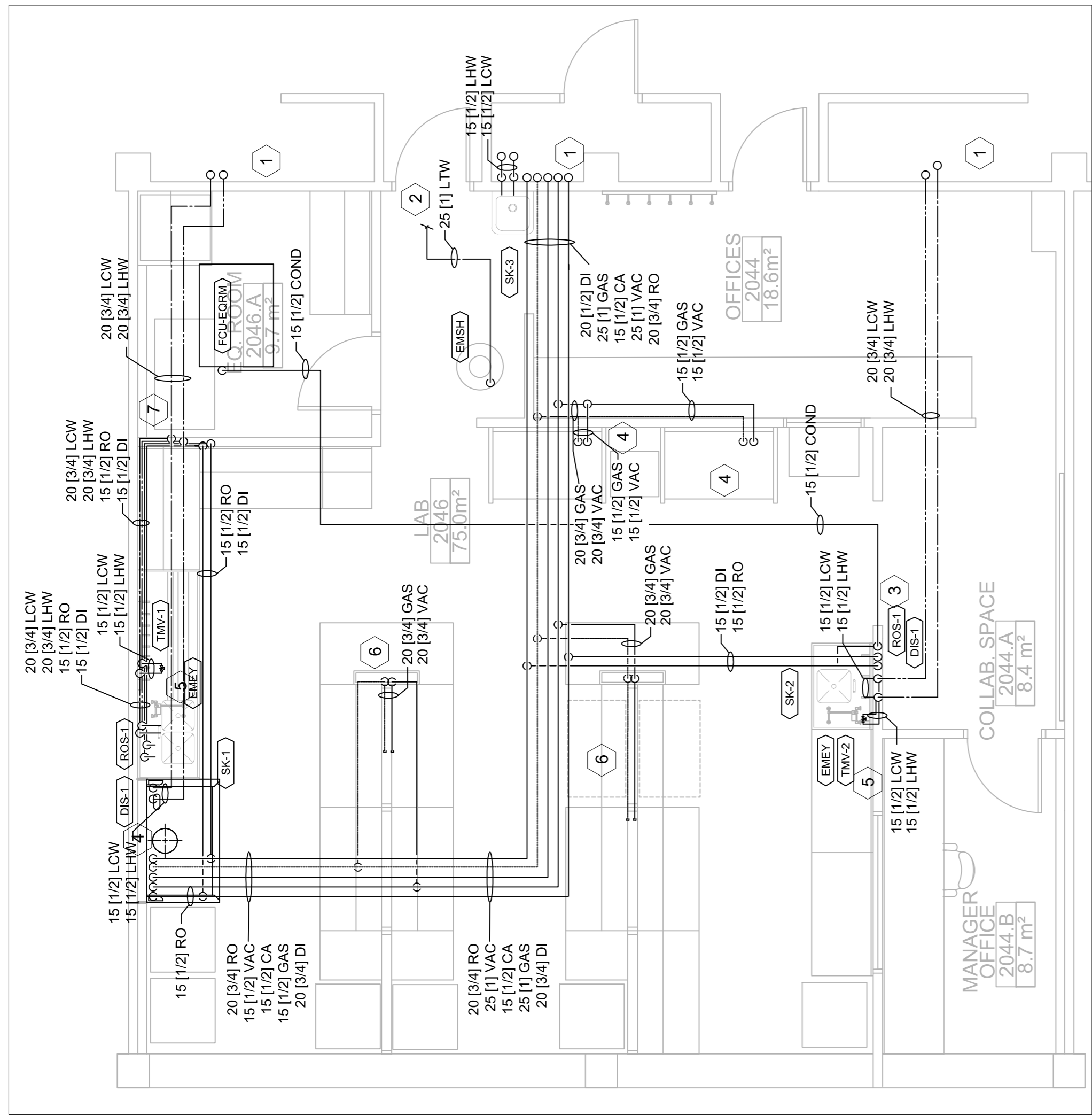
GENERAL NOTES:

- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE ROUGH-IN CONDUITS WITH PULL STRING BETWEEN THE DATA PORTS AND THE COMMON CORRIDOR. CABLE TRAY OR CONDUITS MUST BE EXTENDED TO THE COMMON CORRIDOR BASED ON THE CEILING SPACE ACCESSIBILITY.
- SHARED SERVICES MUST PROVIDE, PULL, TERMINATE AND TEST DATA AND PHONE CABLES AND ASSOCIATED JACKS.
- SHARED SERVICE IS RESPONSIBLE TO PROVIDE LABEL FOR DATA AND PHONE TO MATCH THE EXISTING BUILDING STANDARD.
- SHARED SERVICES OR CLIENT IS RESPONSIBLE TO PROVIDE, PULL, TERMINATE AND TEST ALARM MONITORING WIRES.
- PROVIDE STAINLESS STEEL COVER PLATE WITH CENTER HOLE FOR ALARM MONITORING BOXES.
- RACEWAY HEIGHTS ARE FROM THE FINISHED FLOOR TO THE CENTER OF THE RACEWAY.
- INDIVIDUAL PORT HEIGHTS ARE FROM THE FINISHED FLOOR TO THE CENTER OF THE BACK BOX.
- CONTRACTOR MUST PROVIDE STAINLESS STEEL DUPLEX FACEPLATE FOR INDIVIDUAL DATA PORTS AND RACEWAY RECOMMENDED FACEPLATE FOR DATA PORTS LOCATED IN THE RACEWAY.

LOW VOLTAGE	
SYMBOL	DESCRIPTION
	RACEWAY
	SINGLE PHONE OUTLET
	DUAL DATA OUTLET
	SINGLE ALARM MONITORING BOX
P	PENETRATION POINT TO THE RACEWAY INSIDE NEW WALL CAVITY (VERTICAL DROP FROM THE CEILING)

KEY NOTES:

- PROVIDE PENETRATION FROM THE SHAFT BEHIND. FIRE SEALING MATERIAL MUST BE APPLIED FOR PENETRATION THROUGH THE FIRE RATED SHAFT.



1
P-101
PLUMBING SUPPLY PIPING LAYOUT

SCALE 1:50

MIXING VALVE SCHEDULE

PLAN MARK	SERVICE	CONNECTION SIZE (MM)	FLOW (LPM)	PRESSURE DROP (KPA)	BASIS OF DESIGN	REMARKS
TMV-1	DECK MOUNTED EYEWASH	15	16.6	35	HAWS 9201EW	
TMV-2	DECK MOUNTED EYEWASH	15	16.6	35	HAWS 9201EW	
REMARKS:						

PLUMBING FIXTURE SCHEDULE

FIXTURE MARK	FIXTURE DESCRIPTION	SYSTEM					BASIS OF DESIGN	
		DRAIN	VENT	HOT WATER	COLD WATER	TEMP	PSI	
SK-1	LABORATORY DOUBLE SINK, STAINLESS STEEL INTEGRAL TO CASEWORK, WITH DRAINBOARD. DECK MOUNTED GOOSENECK FAUCET WITH VACUUM BREAKER AND WRIST BLADES	LW	50	40	20	-	-	SINK - CUSTOM STAINLESS STEEL SINK INTEGRAL TO SS COUNTERTOP. CW DRAINBOARD. SEE A-105 FAUCET - CHICAGO FAUCETS 895-317GN2VBVEYCP
SK-2	INTEGRAL TO CASEWORK WITH DECK MOUNTED GOOSENECK FAUCET WITH VACUUM BREAKER AND WRIST BLADES	LW	50	40	15	-	-	SINK - CUSTOM STAINLESS STEEL SINK INTEGRAL TO SS COUNTERTOP. SEE A-105 FOR DETAILS FAUCET - CHICAGO FAUCETS 895-317GN2VBVEYCP
SK-3	LAVATORY, 316 STAINLESS STEEL, WALL HUNG WITH DECK MOUNTED GOOSENECK FAUCET WITH AUTO SENSOR AND WATER TURBINE	LW	50	40	15	-	-	SINK - AMI NOVANNI 8101/316ADJ-10 FAUCET - CHICAGO FAUCETS 116.973.AB.1
EMSH	EMERGENCY SHOWER, CEILING HUNG WITH CHAIN PULL FOR SHOWER ACTIVATION. ALL STAINLESS STEEL	SAN	-	-	-	25	-	EXISTING TO BE RESUED AND RELOCATED
EMEY	DECK MOUNTED STAINLESS STEEL EMERGENCY EYEWASH WITH PADDLE ACTIVATION	SAN	-	-	-	15	-	HAWS 7612
ROS-1	RO WATER POINT OF USE FAUCET, DECK MOUNTED GOOSENECK, MATERIAL TO MATCH PIPING	RO	-	-	15	-	-	CHICAGO FAUCETS 828-ASAM
DIS-1	DI WATER POINT OF USE FACUET, DECK MOUNTED, GOOSENECK, MATERIAL TO MATCH PIPING.	DI	-	-	15	-	-	CHICAGO FAUCETS 870-PVDF

NOTES:
LW = LABORATORY WASTE SYSTEM

- GENERAL NOTES:
- PIPING IS LOCATED IN THE CEILING SPACE OF THE FLOOR PLAN SHOWN, EXCEPT WHERE INDICATED.
 - SEE SCHEMATIC DRAWINGS AND DETAILS FOR VALVE REQUIREMENTS
 - CONTRACTOR TO PROVIDE AIR BLEED VALVES AS REQUIRED TO ENSURE NO AIR IN PRESENT IN HYDRONIC LINES DURING REGULAR OPERATION
 - ROUTE ALL PIPING AS NECESSARY TO AVOID DUCTWORK, LIGHTING, ETC.
 - CONTRACTOR TO VERIFY ALL CONNECTIONS TO OLD AND NEW AND INCORPORATE ACCURATE DIMENSIONING ON SHOP DRAWING SUBMITTAL.
 - INCLUDE CIRCUIT SETTER BALANCING VALVES AND ISOLATION VALVES ON ALL LHWR BRANCHES

KEY NOTES:

- CONNECT TO EXISTING SERVICE RISERS LOCATED IN SERVICE SHAFTS. CONFIRM EXACT LOCATIONS OF EACH SERVICE. IF FEASIBLE, USE EXISTING TEE OFF RISER, AND PIPE UP TO REACH CEILING SPACE WITHIN CHASE. PROVIDE ISOLATION VALVES AT EACH TAKEOFF. ENSURE ANY NEW PENETRATIONS ARE PROPERLY FIRE SEALED.
- RELOCATE EXISTING EMERGENCY SHOWER AND CONNECT TO EXISTING LTV PIPING.
- PIPE FAN COIL UNIT CONDENSATE FROM UNIT THROUGH CEILING SPACE AND DOWN WALL CAVITY. PENETRATE WALL AND CONNECT TO SINK DRAIN, UPSTREAM OF TRAP.
- SERVICE DROPS FROM CEILING DOWN TO FUME HOOD OR LAMINAR FLOW HOOD EQUIPMENT. CONFIRM EXACT DROP LOCATIONS WITH CONTRACTOR PROVIDED FUME HOOD AND OWNER FURNISHED LAMINAR FLOW HOODS.
- PIPE TAKEOFF FROM SUPPLY LINE TO SINK TO THERMOSTATIC MIXING VALVE SERVING DECK MOUNTED EMERGENCY EYEWASH. LOCATE THERMOSTATIC MIXING VALVE BELOW SINK IN ACCESSIBLE LOCATION.
- PIPING FOR FUTURE SERVICES TO CASEWORK ISLANDS PIPED FROM CEILING DOWN THROUGH UPRIGHT CHASE. CONTINUE THROUGH CASEWORK AND CAP OFF WITHIN CASEWORK CW ISOLATION VALVES .
- LOW, LHW, AND RO PIPED FROM CEILING SPACE, DOWN THROUGH NEW WALL TO HIP WALL CHASE. PIPE THROUGH HIP WALL CHASE TO SINK.
- LAB WASTE DRAINAGE ROUTED LOW THROUGH HIP WALL CHASE, AND CONNECT TO EXISTING DRAINAGE STACK IN SERVICE CHASE. AT SK-1, ROUTE VENT LINE THROUGH HIP WALL CHASE AND RISE TO CEILING SPACE AT EQUIPMENT ROOM WALL JUNCTION.
- LAB WASTE DRAINAGE CONNECTION TO FUMEHOOD CUP SINK DRAIN. TRAP DRAIN CONNECTION WITHIN WALL CHASE.

2
P-101
PLUMBING WASTE AND VENT LAYOUT

SCALE 1:50

