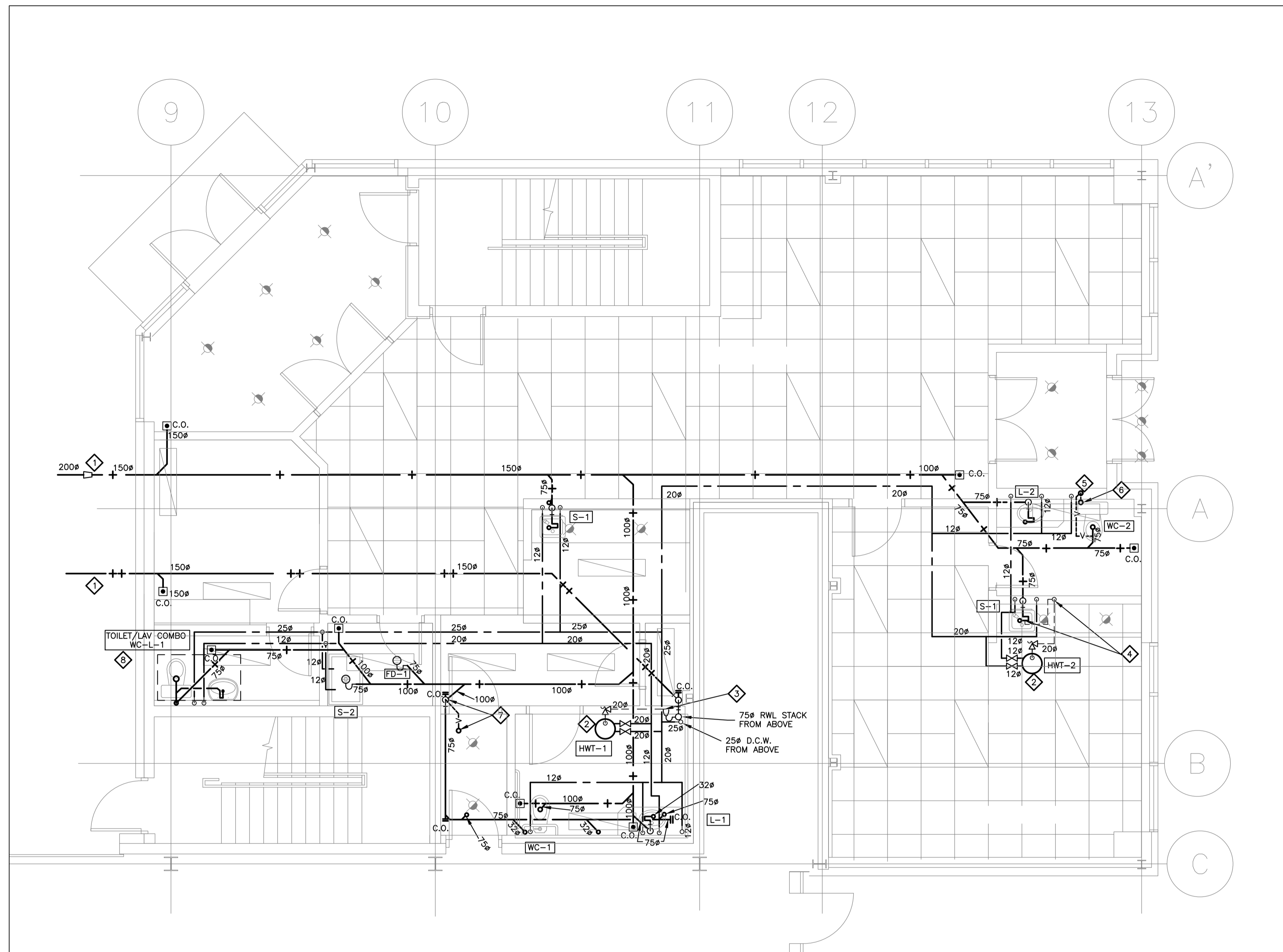


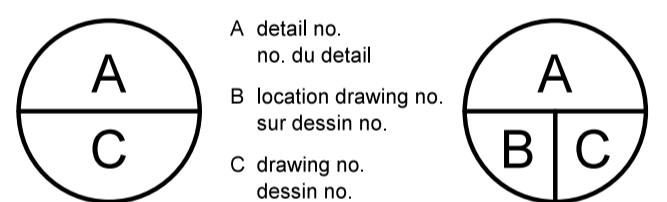
Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.



- MECHANICAL NOTES:**
- 1 TYPICAL: EXTEND NEW SANITARY AND STORM MAINS OUT TO 1.0 M OUTSIDE BUILDING WALL. CONTINUATION BY SITE SERVICES CONTRACTOR. COORDINATE INVERTS WITH SITE SERVICES AND PROVIDE CONNECTIONS TO PIPING INSTALLED BY SITE SERVICES CONTRACTOR. PROVIDE 200#/150# TRANSITION AT CONNECTION OF NEW BUILDING SANITARY SEWER TO NEW SANITARY SERVICE OUTSIDE BUILDING.
  - 2 TYPICAL: D.H.W. TANK IN CEILING SPACE. PROVIDE HANGERS AND SUPPORTS AND SUSPEND FROM BUILDING STRUCTURE.
  - 3 STORM WATER RISER FROM ABOVE TO BELOW FLOOR. PROVIDE 50# HUB DRAIN WITH 32# P-TRAP. CONNECT TO STORM WATER RISER. PROVIDE 20# PIPING FROM HOT WATER TANK'S SAFETY RELIEF VALVE AND INDIRECT CONNECTION TO HUB DRAIN.
  - 4 PROVIDE 20# PIPING FROM HOT WATER TANK'S SAFETY RELIEF VALVE TO BELOW KITCHEN COUNTERTOP AND CONNECT TO SINK DRAIN PIPE UPSTREAM OF P-TRAP.
  - 5 75# VENT STACK INSIDE WALL.
  - 6 OFFSET VENT STACK IN CEILING SPACE AS REQUIRED TO INSTALL VENT PIPING INSIDE WALL AT SECOND FLOOR LEVEL.
  - 7 75# SANITARY DOWN TO FLOOR BELOW. EXTEND TOP OF STACK WITH 75# VENT PIPING AND OFFSET IN CEILING SPACE AS REQUIRED TO INSTALL NEW VENT PIPING ON SECOND FLOOR LEVEL INSIDE WALL.
  - 8 PROVIDE PRISON GRADE, S.S. TOILET AND LAVATORY COMBO WITH FACTORY INSTALLED VALVES AND INTERNAL PIPING CONNECTIONS. FLOOR MOUNTED, COMBINED WASTE, FLOOR DISCHARGE, FRONT ACCESS TYPE. PROVIDE ALL EXTERNAL PIPING CONNECTIONS AND INSTALL COMBO UNIT AS PER MANUFACTURER'S INSTRUCTIONS.

**NEW ADDITION – GROUND FLOOR – PLUMBING**  
SCALE 1:50

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2	ISSUED FOR PERMIT	15.10.13
1	ISSUED FOR TENDER	15.10.05
revisions	description	date



project project

**SAFETY ACCESS TO TARMAC**

drawing dessin

**GROUND FLOOR PLAN PLUMBING**

Designed By	L.M.K. 2015/10	Concu par	
Date	2015/10	(yyyy/mm/dd)	
Drawn By	L.M.K. 2015/10	Dessine par	
Date	2015/10	(yyyy/mm/dd)	
Reviewed By	J.R.P. 2015/10	Examine par	
Date	2015/10	(yyyy/mm/dd)	
Approved By	J.R.P. 2015/10	Approuve par	
Date	2015/10	(yyyy/mm/dd)	
Tender		Soumission	
Project Manager		Administrateur de projets	
Departmental Representative			
Project no.		No. du projet	

**PTS 3043**

Drawing no. No. du dessin

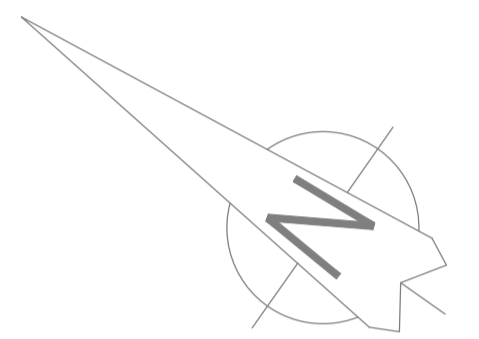
**M-1**

PLUMBING FIXTURE SCHEDULE										
No.*	FIXTURE TYPE	PLUMBING CONNECTIONS				MAKE/ MODEL	TRIM		ACCESSORIES	REMARKS
		D.H.W.	D.C.W.	TRAP	VENT		MAKE	MODEL		
WC-1	BARRIER FREE FLOOR MOUNTED WATER CLOSET	-	1/2"	INTERNAL	1-1/2"	AMERICAN STANDARD CADET, 2467-100	-	-	OPEN FRONT SEAT, WITH COVER	ELONGATED RIM, ULTRA LOW CONSUMPTION, FLUSH TANK. HANDICAPPED USE.
WC-2	FLOOR MOUNTED WATER CLOSET	-	1/2"	INTERNAL	1-1/2"	AMERICAN STANDARD CADET, 2462-100	-	-	OPEN FRONT SEAT, WITH COVER	ELONGATED RIM, ULTRA LOW CONSUMPTION, FLUSH TANK. PRESSURE ASSISTED.
L-1	COUNTERTOP LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"	AMERICAN STANDARD CADET, 9491-001	POWERS	S1910	OFFSET P-TRAP, VALVED SUPPLIES.	HANDICAPPED USE INSTALLATION 2-HOLES, 4" CENTERS.
L-2	COUNTERTOP LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"	AMERICAN STANDARD CADET, 9491-001	POWERS	S1910	P-TRAP, VALVED SUPPLIES.	2-HOLES, 4" CENTERS.
S-1	SS KITCHEN SINK SINGLE BOWL	1/2"	1/2"	1-1/2"	1-1/4"	ARISTALINE LBS2708-1	CAMBRIDGE BRASS	26T2124	P-TRAP, VALVED SUPPLIES, DRAIN ASSEMBLY.	WITH FAUCET LEDGE, SELF RIMMING, 3-HOLE DRILLING 204 mm WIDESPREAD.
S-2	SERVICE SINK	1/2"	1/2"	3"	1-1/2"	FIAT PRODUCTS MSB-36x24	FIAT PRODUCTS	830-AA	MOP BRACKET, BUMPER GUARD, DRAIN CONNECT, HOSE AND BRACKET.	MOLDED STONE MOP BASIN WITH INTEGRAL S.S. DRAIN BODY, STRAINER, LINT BASKET.
WC-L-1	BARRIER FREE TOILET/LAVATORY S.S. COMBO	1/2"	1"	INTERNAL	1-1/2"	ACORN - PENAL-WARE 1435-FA-LO-3-DMS-04M-HET-FVH-CW-HS-PH-SW	ACORN PRODUCTS	-	ALL VALVES AND INTERNAL PIPING PRE-INSTALLED, C/W HINGED SEAT.	STAINLESS STEEL, PENAL-WARE TOILET AND LAV COMBO WITH PAPER HOLDER & WALL SLEEVE

\*CONTRACTOR TO PROVIDE LISTED PLUMBING FIXTURES (REFER TO DRAWINGS FOR QUANTITY) OR CONSULTANT APPROVED EQUIVALENT

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER OR REGISTER		DENOTES NEW
	RETURN AIR GRILLE		DENOTES EXISTING
	LINEAR DIFFUSER		DENOTES REMOVAL
	GRILLE AND DIFFUSER MARKER: SIZE, CAPACITY (L/S); TYPE (REFER TO SCHEDULE)		DENOTES DRAIN PIPING BELOW SLAB
	RELOCATED THERMOSTAT AS SHOWN		DENOTES DRAIN PIPING ABOVE SLAB
	SPEED CONTROLLER		NEW D.C.W. PIPING
	TEMPERATURE SENSOR		EXISTING D.C.W. PIPING
	TIME CLOCK BY DIV. 16.		NEW D.H.W. PIPING
	EXISTING DUCT		EXISTING D.H.W. PIPING
	NEW DUCTWORK		SANITARY VENT PIPING
	THERMAL INSULATION		EXISTING HEATING WATER SUPPLY PIPE
	ACOUSTIC INSULATION		EXISTING HEATING WATER RETURN PIPE
	EXISTING FLEXIBLE DUCT		NEW HEATING WATER SUPPLY PIPE
	NEW FLEXIBLE DUCT		NEW HEATING WATER RETURN PIPE
	CAP DUCT OR PIPE AS INDICATED		GATE OR BALL VALVE
	NEW CONICAL SIDE TAKE-OFF C/W BALANCING DAMPER		BALANCING VALVE
			FLOOR DRAIN WITH P-TRAP
			SAFETY RELIEF VALVE
			PRESSURE REDUCING VALVE
			BACKFLOW PREVENTER

NOT ALL SYMBOLS SHOWN IN LEGEND ARE NECESSARILY USED IN THE DRAWING SET.



Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

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2	ISSUED FOR PERMIT	15.10.13
1	ISSUED FOR TENDER	15.10.05

revisions	description	date
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A	A detail no. no. du detail	A
B	B location drawing no. sur dessin no.	B
C	C drawing no. dessin no.	C

project project

**SAFETY ACCESS TO TARMAC**

drawing dessin

**SECOND FLOOR PLAN**

**PLUMBING**

Designed By L.M.K. Concu par  
Date 2015/10 (yyyy/mm/dd)

Drawn By L.M.K. Dessine par  
Date 2015/10 (yyyy/mm/dd)

Reviewed By J.R.P. Examine par  
Date 2015/10 (yyyy/mm/dd)

Approved By J.R.P. Approuve par  
Date 2015/10 (yyyy/mm/dd)

Tender Soumission

Departmental Representative  
Project Manager Administrateur de projets

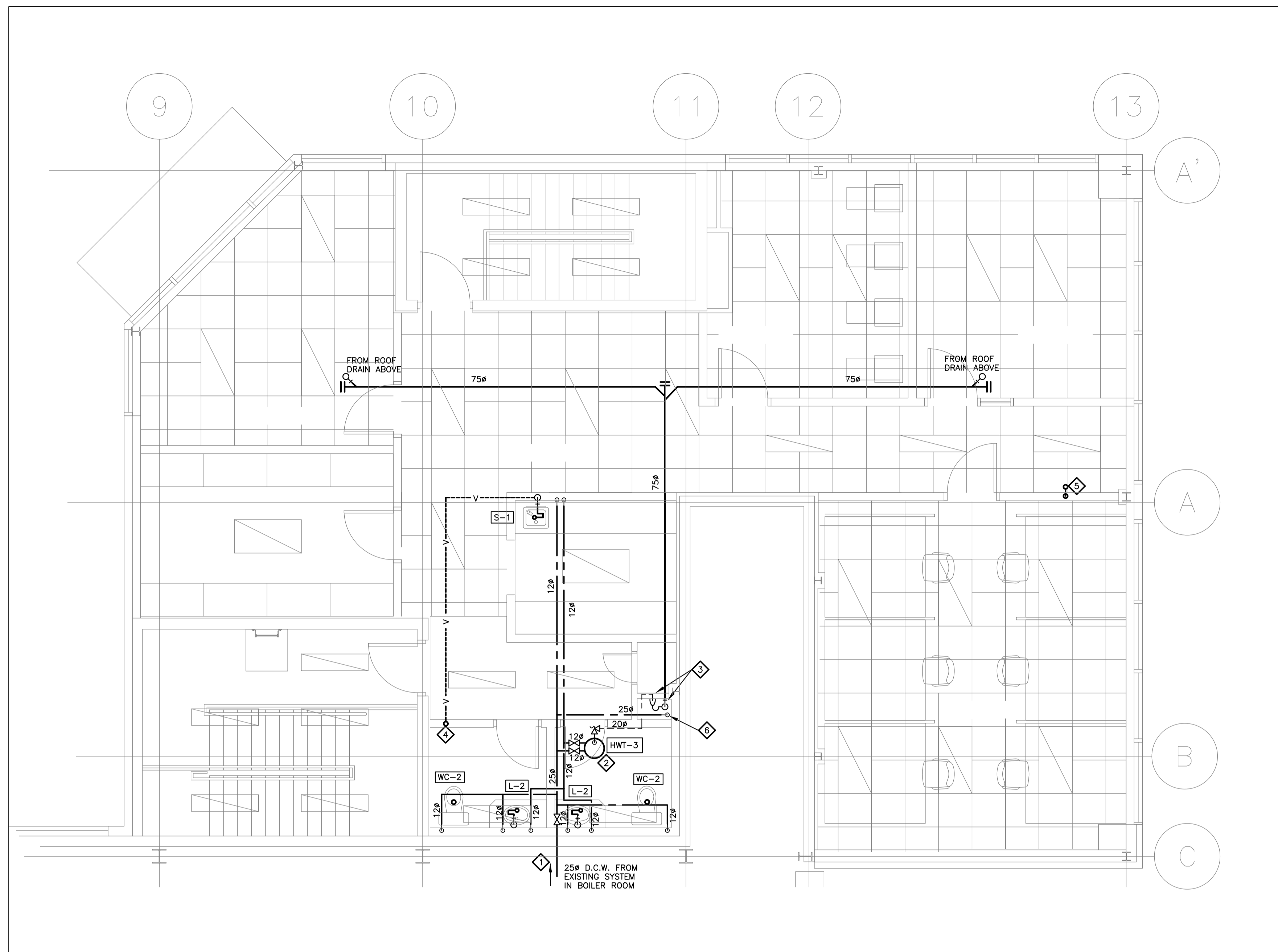
Project no. No. du projet

**PTS 3043**

Drawing no. No. du dessin

**M-2**

- MECHANICAL NOTES:**
- 1 NEW 25# D.C.W. FROM EXISTING SYSTEM IN BASE BUILDING. REFER TO DRAWING M-6 FOR CONTINUATION THROUGH EXISTING BUILDING AND CONNECTION TO EXISTING SYSTEM.
  - 2 TYPICAL: D.H.W. TANK IN CEILING SPACE. PROVIDE HANGERS AND SUPPORTS AND SUSPEND FROM BUILDING STRUCTURE.
  - 3 STORM WATER RISER INSIDE CLOSET. PROVIDE 50# HUB DRAIN WITH 32# P-TRAP. CONNECT TO STORM WATER RISER. PROVIDE 20# PIPING FROM HOT WATER TANK'S SAFETY RELIEF VALVE AND INDIRECT CONNECTION TO HUB DRAIN.
  - 4 75# VENT STACK INSIDE WALL AND UP TO NEW VENT THROUGH ROOF.
  - 5 OFFSET VENT STACK IN CEILING SPACE AS REQUIRED TO AVOID COLLISION WITH ROOF JOIST AND CONNECT TO NEW VENT THROUGH ROOF.
  - 6 25# D.C.W. DOWN TO GROUND FLOOR CEILING SPACE.

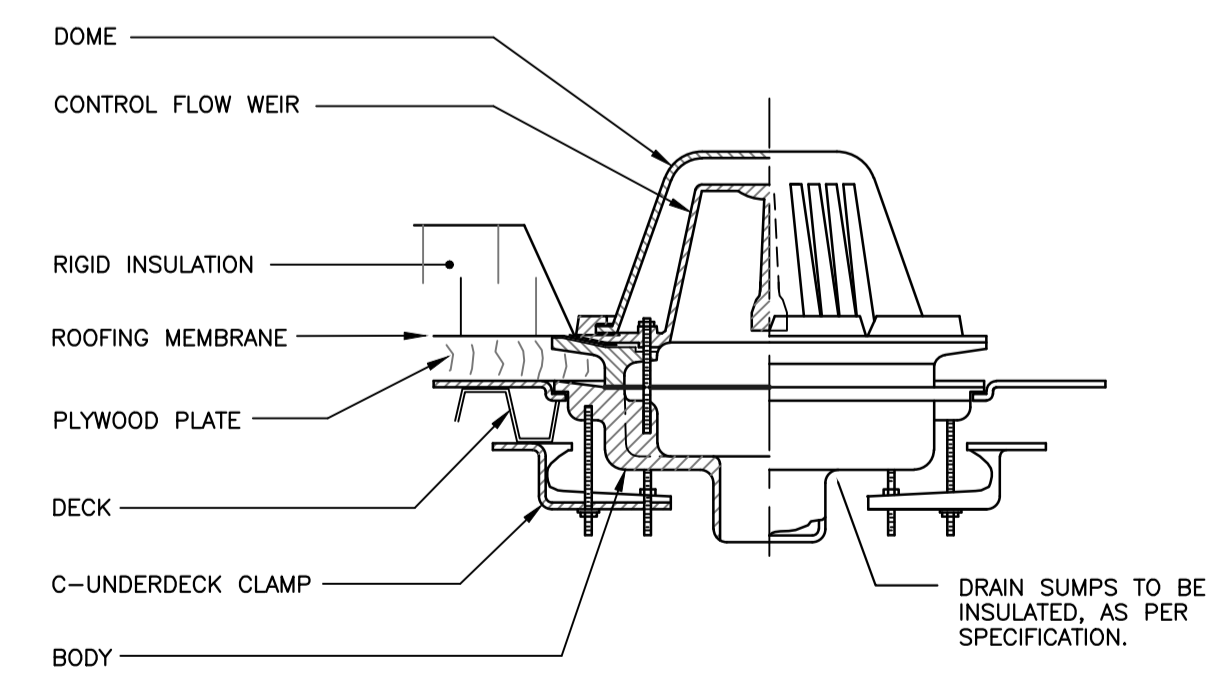


**NEW ADDITION – SECOND FLOOR – PLUMBING**  
SCALE 1:50

**PLUMBING EQUIPMENT SCHEDULE**

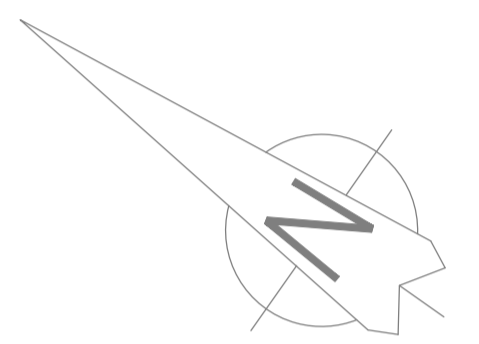
No.*	FIXTURE TYPE	PLUMBING CONNECTIONS				MAKE/ MODEL	TRIM		ACCESSORIES	REMARKS
		D.H.W.	D.C.W.	TRAP	VENT		MAKE	MODEL		
FD-1	ROUND TOP FLOOR DRAIN	-	1/2"	3"	-	WATTS FD-103-C-5.1-5 TPT	-	-	5" NICKEL BRONZE TOP, TRAP PRIMING SEDIMENT BUCKET	PRIME FROM COLD WATER SUPPLY TO NEAREST PLUMBING FIXTURE
C.O.-1	ADJUSTABLE FLOOR CLEANOUT	-	-	-	-	WATTS CO-104-C	-	-	C/W ACCES COVER SUITABLE FOR FLOOR TYPE	
HWT-1	HOT WATER HEATER	3/4"	3/4"	-	-	JOHN WOOD SS-12-SEB-15 12 GALLON TANK	-	-	1 HEATING ELEMENT, 1.5 kW, 120/1/60.	COMPLETE WITH ALL SAFETIES AND CONTROLS.
HWT-2	HOT WATER HEATER	3/4"	3/4"	-	-	JOHN WOOD SS-06-SEB-15 6 GALLON TANK	-	-	1 HEATING ELEMENT, 1.5 kW, 120/1/60.	COMPLETE WITH ALL SAFETIES AND CONTROLS.
HWT-3	HOT WATER HEATER	3/4"	3/4"	-	-	JOHN WOOD SS-06-SEB-15 6 GALLON TANK	-	-	1 HEATING ELEMENT, 1.5 kW, 120/1/60.	COMPLETE WITH ALL SAFETIES AND CONTROLS.

\*CONTRACTOR TO PROVIDE LISTED PLUMBING FIXTURES (REFER TO DRAWINGS FOR QUANTITY) OR CONSULTANT APPROVED EQUIVALENT

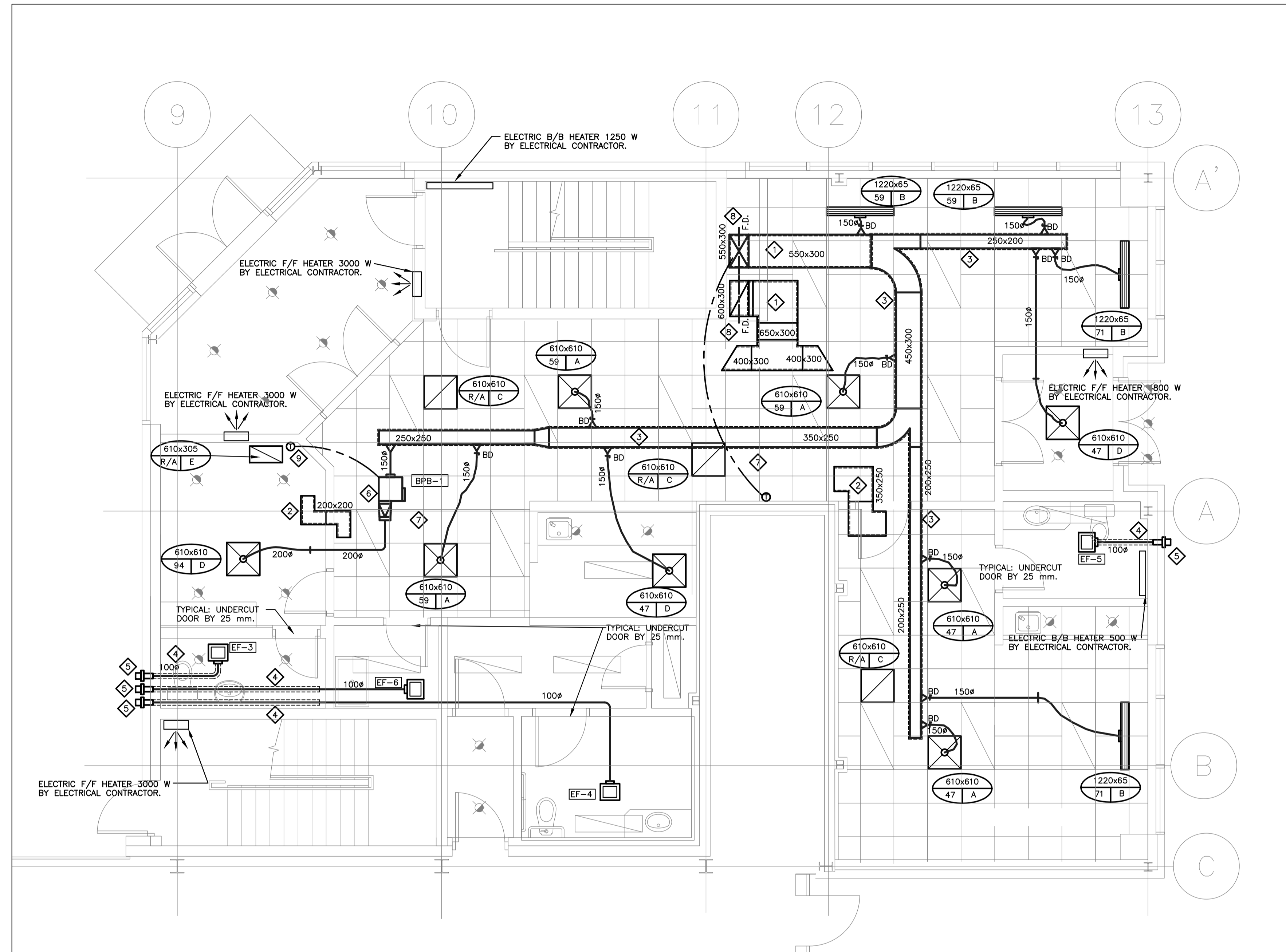


**TYPICAL CONTROL FLOW ROOF DRAIN FOR REGULAR ROOF**

SCALE \_\_\_\_\_ N.T.S.



Contractor to verify all dimensions  
& conditions on site and immediately  
notify the engineer of all discrepancies.



**NEW ADDITION — GROUND FLOOR — H.V.A.C.**  
SCALE 1:50

**MECHANICAL NOTES:**

- 1 TYPICAL: SUPPLY AND RETURN DUCTS C/W 25 mm THICK INTERNAL ACOUSTIC INSULATION AS INDICATED.
- 2 TYPICAL: TRANSFER DUCT C/W 25 mm THICK ACOUSTIC INSULATION.
- 3 TYPICAL: SUPPLY AIR DUCT MAIN C/W 25 mm THICK THERMAL INSULATION AND VAPOUR BARRIER.
- 4 TYPICAL: ALL EXHAUST DUCTS TO BE THERMALLY INSULATED WITH 25 mm THICK THERMAL INSULATION AND VAPOUR BARRIER FOR MINIMUM 3.0 m FROM OUTSIDE WALL PENETRATION.
- 5 TYPICAL: HOODED EXHAUST WALL CAP WITH ROUND CONNECTION TO BE PROVIDED WITH EXHAUST FAN AS PER FAN SCHEDULE NOTES.
- 6 PROVIDE BY-PASS TERMINAL BOX WITH ELECTRONIC THERMOSTAT AND ACTUATOR FOR MODULATING CONTROL. BOX TO BE EQUAL TO EH PRICE, MODEL LGB, SIZE 6.
- 7 TYPICAL: MECHANICAL CONTRACTOR TO BE RESPONSIBLE FOR ALL CONTROL WIRING. WIRING TO EXISTING BASE BUILDING CENTRAL DDC SYSTEM TO BE BY BASE BUILDING CONTROLS CONTRACTOR.
- 8 PROVIDE FIRE DAMPERS FOR SUPPLY AND RETURN AIR DUCTWORK WITHIN MECHANICAL SHAFT BETWEEN FIRST AND SECOND FLOORS.
- 9 ELECTRONIC THERMOSTAT TO BE VANDAL-RESISTANT.

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2	ISSUED FOR PERMIT	15.10.13
1	ISSUED FOR TENDER	15.10.05
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A	A detail no.	A
C	no. du detail	B
	B location drawing no.	C
	sur dessin no.	
	C drawing no.	
	dessin no.	

project project

**SAFETY  
ACCESS TO  
TARMAC**

drawing dessin

**GROUND FLOOR PLAN**

H.V.A.C.

Designed By	L.M.K.	Concu par
Date	2015/10	(yyyy/mm/dd)
Drawn By	L.M.K.	Dessine par
Date	2015/10	(yyyy/mm/dd)
Reviewed By	J.R.P.	Examine par
Date	2015/10	(yyyy/mm/dd)
Approved By	J.R.P.	Approuve par
Date	2015/10	(yyyy/mm/dd)
Tender		Soumission

Departmental Representative  
Project Manager Administrateur de projets

Project no. No. du projet

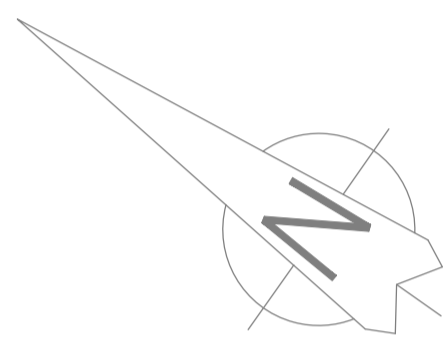
**PTS 3043**

Drawing no. No. du dessin

**M-3**

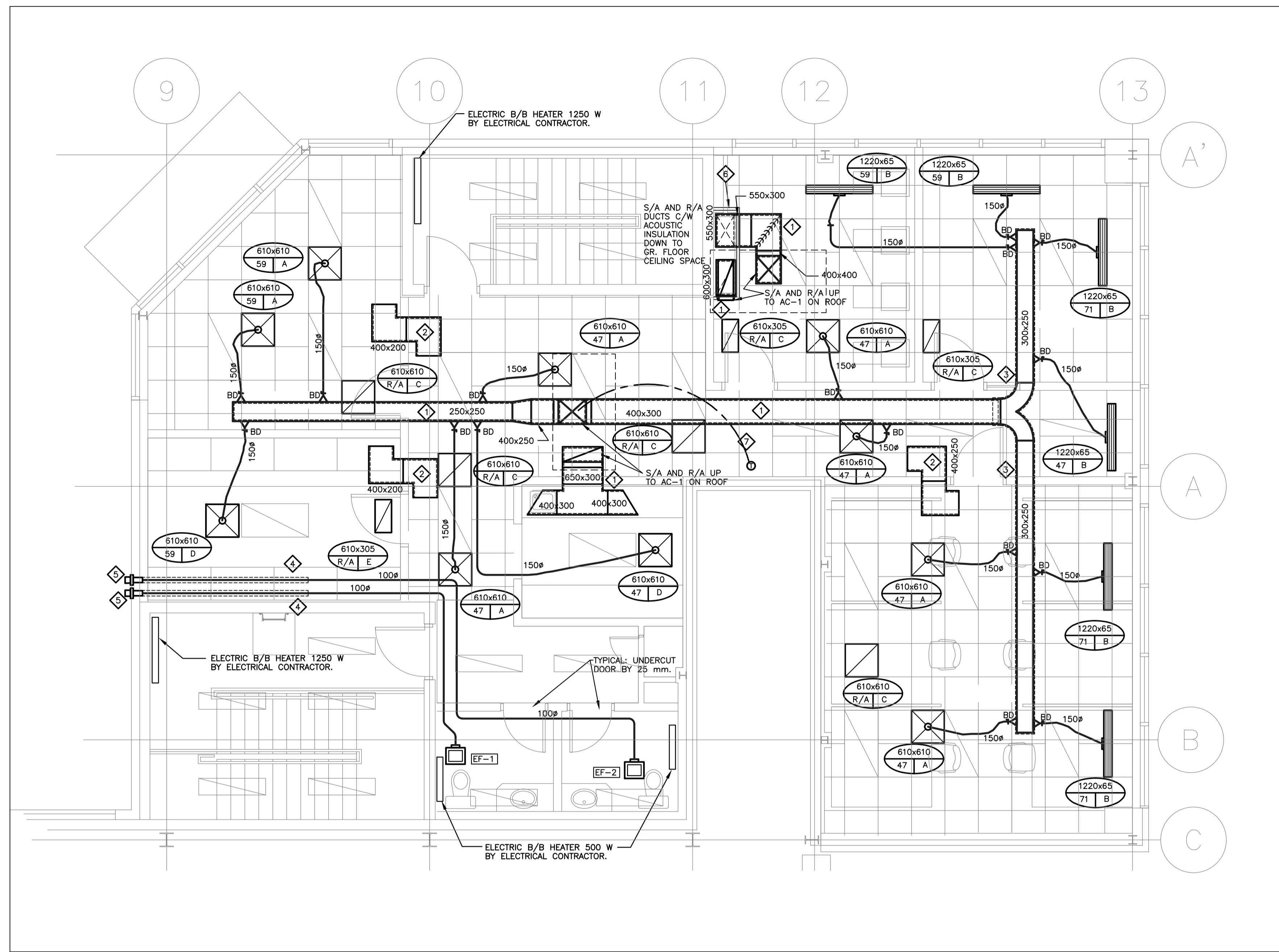
FAN SCHEDULE								
No.*	SERVICE	LOCATION	MAKE/ MODEL	CAPACITY L/S	E.S.P. Pa.	ELECTRICAL VOLT/PHASE	HP or WATTS	REMARKS
EF-1	WASHROOM EXHAUST	WASHROOM CEILING	GREENHECK SP-B-80	29	94.0	115/1/60	54.3 WATT	C/W CEILING GRILLE, INTERNALLY MOUNTED SPEED CONTROLLER, WC-4 ROUND HOODED WALL CAP, 6x4 ROUND DUCT REDUCER.
EF-2	WASHROOM EXHAUST	WASHROOM CEILING	GREENHECK SP-B-80	29	94.0	115/1/60	54.3 WATT	C/W CEILING GRILLE, INTERNALLY MOUNTED SPEED CONTROLLER, WC-4 ROUND HOODED WALL CAP, 6x4 ROUND DUCT REDUCER.
EF-3	WASHROOM EXHAUST	WASHROOM CEILING	GREENHECK SP-B-80	29	94.0	115/1/60	54.3 WATT	C/W CEILING GRILLE, INTERNALLY MOUNTED SPEED CONTROLLER, WC-4 ROUND HOODED WALL CAP, 6x4 ROUND DUCT REDUCER.
EF-4	WASHROOM EXHAUST	WASHROOM CEILING	GREENHECK SP-B-80	29	94.0	115/1/60	54.3 WATT	C/W CEILING GRILLE, INTERNALLY MOUNTED SPEED CONTROLLER, WC-4 ROUND HOODED WALL CAP, 6x4 ROUND DUCT REDUCER.
EF-5	WASHROOM EXHAUST	WASHROOM CEILING	GREENHECK SP-B-80	29	94.0	115/1/60	54.3 WATT	C/W CEILING GRILLE, INTERNALLY MOUNTED SPEED CONTROLLER, WC-4 ROUND HOODED WALL CAP, 6x4 ROUND DUCT REDUCER.
EF-6	JANITOR ROOM EXHAUST	JANITOR ROOM CEILING	GREENHECK SP-B-80	29	94.0	115/1/60	54.3 WATT	C/W CEILING GRILLE, INTERNALLY MOUNTED SPEED CONTROLLER, WC-4 ROUND HOODED WALL CAP, 6x4 ROUND DUCT REDUCER.

\*CONTRACTOR TO PROVIDE LISTED FANS (REFER TO DRAWINGS FOR QUANTITY) OR CONSULTANT APPROVED EQUIVALENT



Contractor to verify all dimensions  
& conditions on site and immediately  
notify the engineer of all discrepancies.

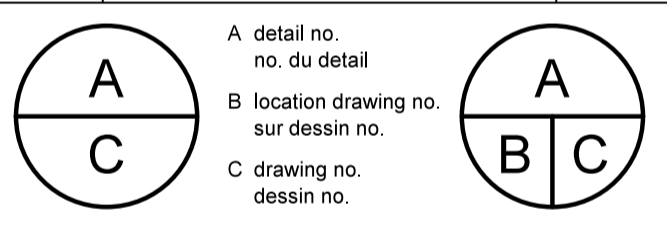
- MECHANICAL NOTES:**
- 1 TYPICAL: SUPPLY AND RETURN DUCTS C/W 25 mm THICK INTERNAL ACOUSTIC INSULATION AS INDICATED.
  - 2 TYPICAL: TRANSFER DUCT C/W 25 mm THICK ACOUSTIC INSULATION.
  - 3 TYPICAL: SUPPLY AIR DUCT MAIN C/W 25 mm THICK THERMAL INSULATION AND VAPOUR BARRIER.
  - 4 TYPICAL: ALL EXHAUST DUCTS TO BE THERMALLY INSULATED WITH 25 mm THICK THERMAL INSULATION AND VAPOUR BARRIER FOR MINIMUM 3.0 m FROM OUTSIDE WALL PENETRATION.
  - 5 TYPICAL: HOODED EXHAUST WALL CAP WITH ROUND CONNECTION TO BE PROVIDED WITH EXHAUST FAN AS PER FAN SCHEDULE NOTES.
  - 6 DUCT SHAFT TO BE PROVIDED BY GENERAL CONTRACTOR.
  - 7 TYPICAL: MECHANICAL CONTRACTOR TO BE RESPONSIBLE FOR ALL CONTROL WIRING.



GRILLES AND DIFFUSERS SCHEDULE							
* TYPE	SERVICE	SIZE		BALANC. DAMPER	FINISH	MODEL	REMARKS
		DUCT COLLAR	FACE				
A	SUPPLY	SAME AS BRANCH DUCT	610x610	NO	OFF-WHITE	SCD /3	FOR T-BAR CEILING
B	SUPPLY	SAME AS BRANCH DUCT	1220x65	NO	OFF-WHITE	SDS/SDA-50	LINEAR SLOT DIFFUSER WITH PLENUM. 1220 LONG, 2-SLOTS AT 13 mm SPACING. C/W TYPE 14 BORDER FOR T-BAR CEILING.
C	RETURN	-	AS SHOWN	NO	OFF-WHITE	CORE 80	FOR T-BAR CEILING
D	SUPPLY	-	610x610	NO	OFF-WHITE	SCD /1	FOR DRYWALL CEILING
E	RETURN	-	AS SHOWN	NO	OFF-WHITE	80 F/D/A	FOR DRYWALL CEILING

\* SELECTION BASED ON "E.H. PRICE" EQUIPMENT  
\* CONTRACTOR TO PROVIDE LISTED GRILLES AND DIFFUSERS (REFER TO DRAWINGS FOR QUANTITY) OR CONSULTANT APPROVED EQUIVALENT

revisions	description	date
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2	ISSUED FOR PERMIT	15.10.13
1	ISSUED FOR TENDER	15.10.05



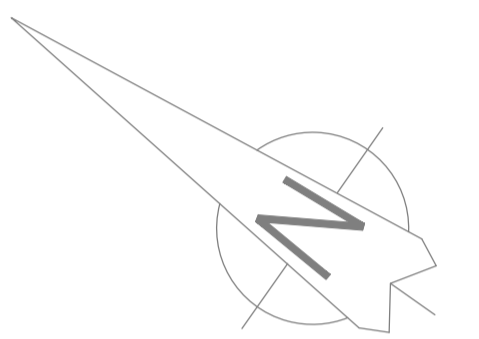
project project

**SAFETY ACCESS TO TARMAC**

drawing dessin

**SECOND FLOOR PLAN**  
**H.V.A.C.**

Designed By	L.M.K.	Concu par	Concu par
Date	2015/10	(yyyy/mm/dd)	(yyyy/mm/dd)
Drawn By	L.M.K.	Dessine par	Dessine par
Date	2015/10	(yyyy/mm/dd)	(yyyy/mm/dd)
Reviewed By	J.R.P.	Examine par	Examine par
Date	2015/10	(yyyy/mm/dd)	(yyyy/mm/dd)
Approved By	J.R.P.	Approuve par	Approuve par
Date	2015/10	(yyyy/mm/dd)	(yyyy/mm/dd)
Tender		Soumission	Soumission
Project Manager	Departmental Representative	Administrateur de projets	Administrateur de projets
Project no.		No. du projet	No. du projet
	<b>PTS 3043</b>		
Drawing no.		No. du dessin	No. du dessin
	<b>M-4</b>		



Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

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2	ISSUED FOR PERMIT	15.10.13
1	ISSUED FOR TENDER	15.10.05
revisions	description	date

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project \_\_\_\_\_ projet \_\_\_\_\_

**SAFETY ACCESS TO TARMAC**

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**ROOF PLAN AND DETAILS**

Designed By	L.M.K.	Concu par	
Date	2015/10	(yyyy/mm/dd)	
Drawn By	L.M.K.	Dessine par	
Date	2015/10	(yyyy/mm/dd)	
Reviewed By	J.R.P.	Examine par	
Date	2015/10	(yyyy/mm/dd)	
Approved By	J.R.P.	Approuve par	
Date	2015/10	(yyyy/mm/dd)	
Tender		Soumission	

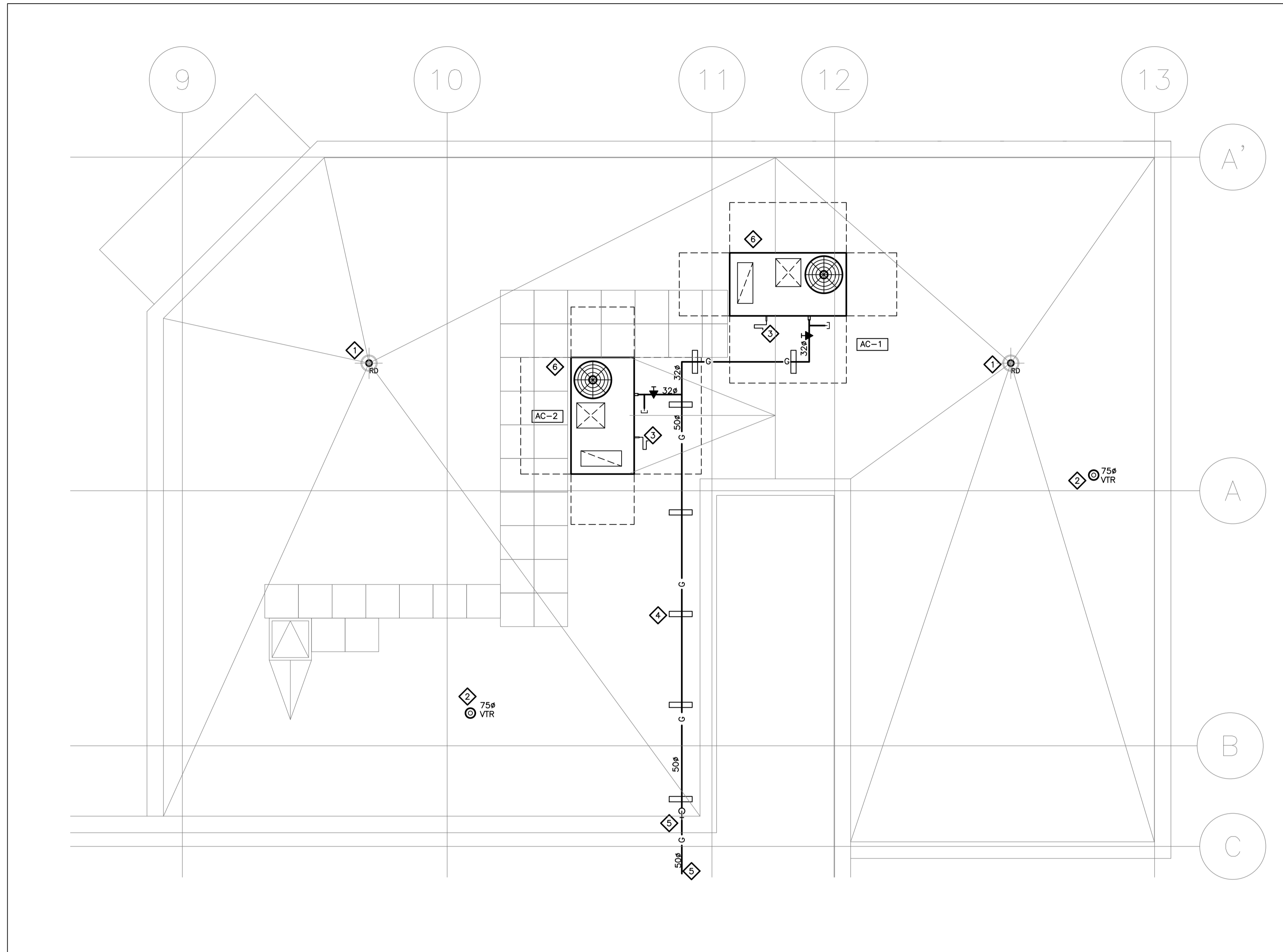
Departmental Representative / Administrateur de projets

Project no. \_\_\_\_\_ No. du projet \_\_\_\_\_

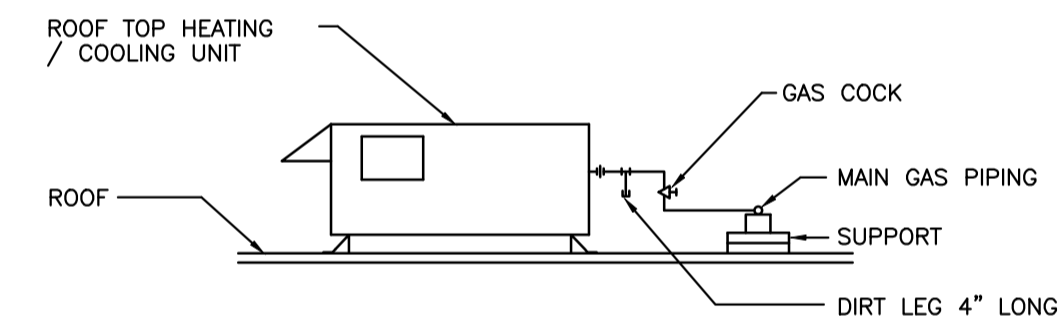
**PTS 3043**

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**M-5**

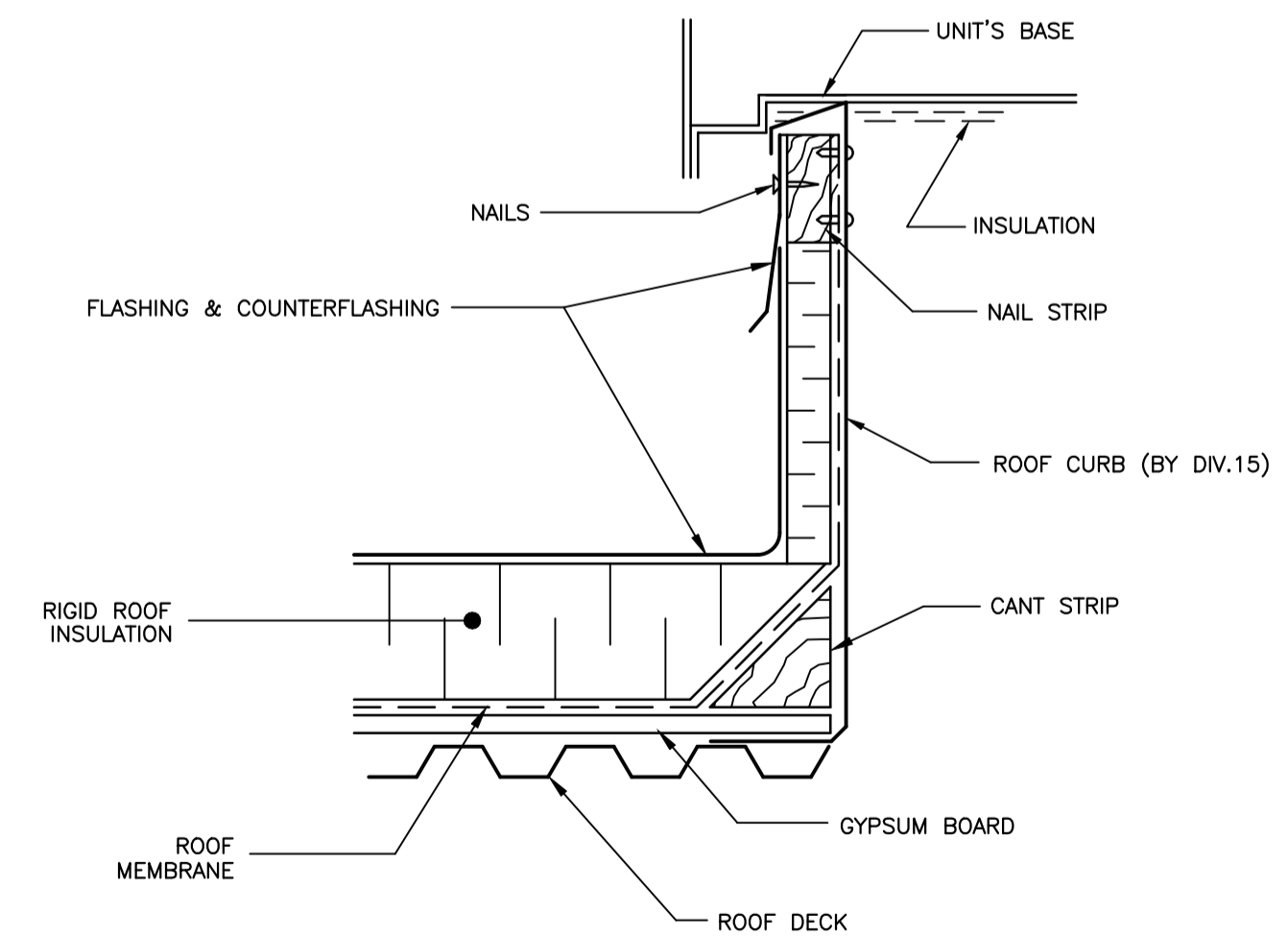


- MECHANICAL NOTES:**
- 1. TYPICAL: PROVIDE NEW CONTROLLED FLOW ROOF DRAIN AS PER SPECIFICATIONS.
  - 2. TYPICAL: PROVIDE 75# VENT THROUGH ROOF ASSEMBLY WITH FLASHING AND COUNTER-FLASHING.
  - 3. CONNECT TO ROOFTOP UNIT'S CONDENSATE DRAIN PAN OUTLET, PROVIDE P-TRAP AND PIPED DRAIN TO ROOF SURFACE.
  - 4. TYPICAL: ALL GAS PIPING ON ROOF TO BE INSTALLED ON SUPPORTS AS PER TYPICAL DETAIL.
  - 5. NEW GAS PIPING FROM EXISTING GAS METER AND FROM EXISTING BUILDING'S ROOF DOWN TO NEW ROOF LEVEL. SEE DRAWING M-6 FOR CONTINUATION AND CONNECTION TO EXISTING METER.
  - 6. TYPICAL: PROVIDE ROOFTOP UNIT AS INDICATED. REFER TO AIR CONDITIONER EQUIPMENT SCHEDULE. NEW ROOFTOP UNIT TO BE CONNECTED TO EXISTING BASCS. MECHANICAL CONTRACTOR TO CARRY COST OF BASE BUILDING CONTROLS CONTRACTOR.



**GAS CONNECTION TO UNIT ON ROOF**

SCALE \_\_\_\_\_ N.T.S.



**ROOF CURB INSTALLATION DETAIL**

SCALE \_\_\_\_\_ N.T.S.

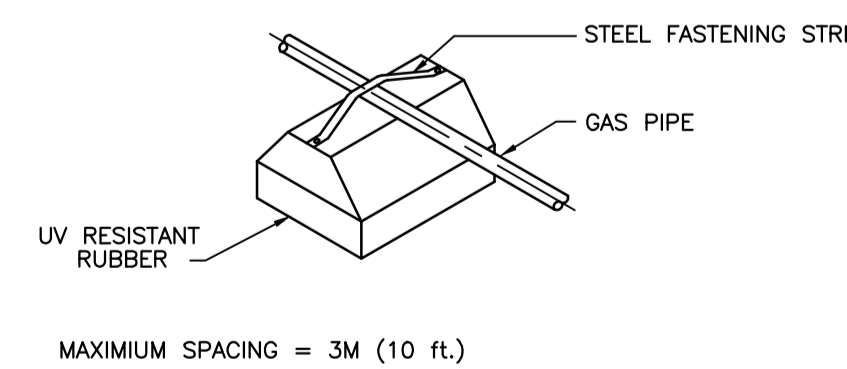
GENERAL NOTE: COORDINATE ROOF ASSEMBLY WITH ARCHITECTURAL DIVISION. TYPE OF ROOF SHOWN HERE IS FOR GENERAL INFORMATION ONLY AND DOES NOT NECESSARILY RESEMBLE ACTUAL ROOF TYPE.

**NEW ADDITION – ROOF PLAN**

SCALE 1:50

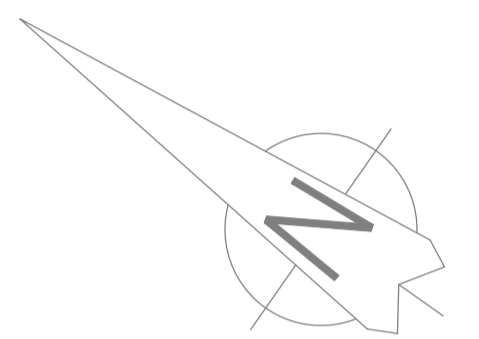
AIR CONDITIONING UNIT SCHEDULE												
No.	MAKE/MODEL	AIR FLOW L/S	E.S.P. Pa.	HEATING INPUT kW	TYPE	TEMP. RISE (°C)	COOLING kW	COOLING TYPE	FAN HP	ELECTR. SERVICE	M.C.A./BREAKER (Amps)	REMARKS
AC-1	LENNOX LGH-048-H4T	755	125	43.9 2-STAGE	NATURAL GAS	46.3	14.7	DX	0.75	575/3/60	11/15	HIGH EFFICIENCY, BELT DRIVEN 2-SPEED, HIGH HEAT 2-STAGE.
AC-2	LENNOX LGH-048-H4T	802	125	43.9 2-STAGE	NATURAL GAS	69.4	14.7	DX	0.75	575/3/60	11/15	HIGH EFFICIENCY, BELT DRIVEN 2-SPEED, HIGH HEAT 2-STAGE.

- EACH UNIT TO BE COMPLETE WITH FOLLOWING:
- TWO STAGE HEATING;
  - STAINLESS STEEL HEAT EXCHANGER,
  - PRODIGY UNIT CONTROLLER WITH DDC COMMUNICATION PROVISIONS;
  - CRANKCASE HEATERS;
  - DUAL ENTHALPY ECONOMIZER CONTROL C/W DAMPERS AND HOODS;
  - CO2 DETECTOR WITH MOUNTING KIT,
  - 450 mm ROOF CURB,
  - SAFETY CONTROLS, INCLUDING HIGH LIMIT, FREEZESTAT, AIR PROVING SWITCH, FLAME SENSING,
  - LOW AMBIENT CONTROLS;
  - WEATHERPROOF DISCONNECT SWITCH,



**GAS PIPING SUPPORT ON ROOF**

SCALE \_\_\_\_\_ N.T.S.



Contractor to verify all dimensions  
& conditions on site and immediately  
notify the engineer of all discrepancies.

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2	ISSUED FOR PERMIT	15.10.13
1	ISSUED FOR TENDER	15.10.05
revisions	description	date

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C	B location drawing no. sur dessin no.	B
	C drawing no. dessin no.	C

project project

**SAFETY  
ACCESS TO  
TARMAC**

drawing dessin

**EXISTING BUILDING AND  
NEW ADDITION –  
WATER AND GAS PIPING  
CONNECTIONS**

Designed By L.M.K. Concu par  
Date 2015/10 (yyyy/mm/dd)

Drawn By L.M.K. Dessine par  
Date 2015/10 (yyyy/mm/dd)

Reviewed By J.R.P. Examine par  
Date 2015/10 (yyyy/mm/dd)

Approved By J.R.P. Approuve par  
Date 2015/10 (yyyy/mm/dd)

Tender Soumission

Project Manager Departmental Representative  
Administrateur de projets

Project no. No. du projet

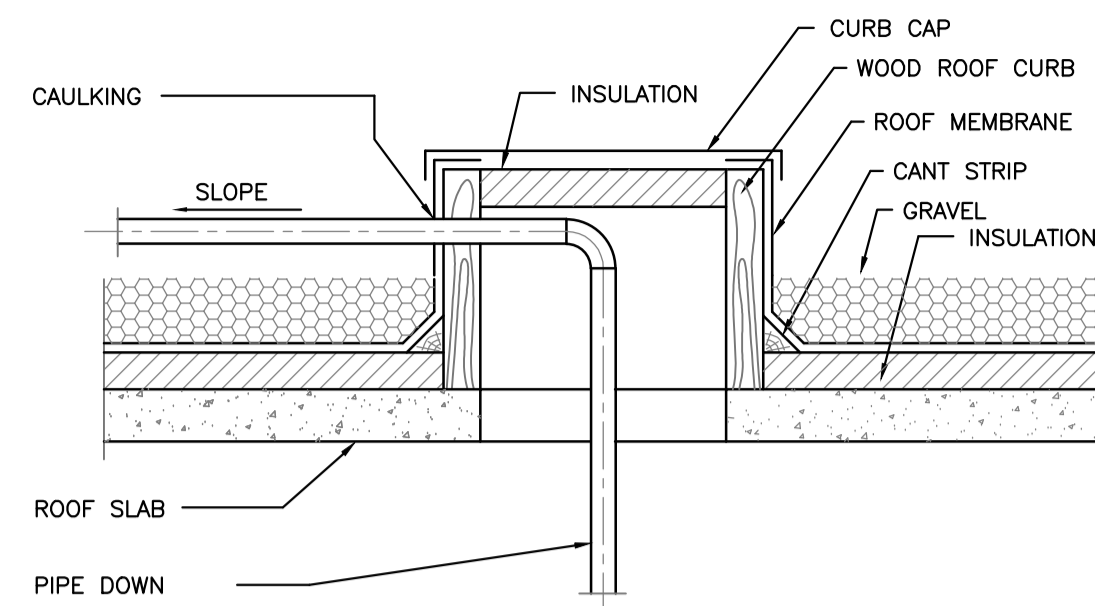
**PTS 3043**

Drawing no. No. du dessin

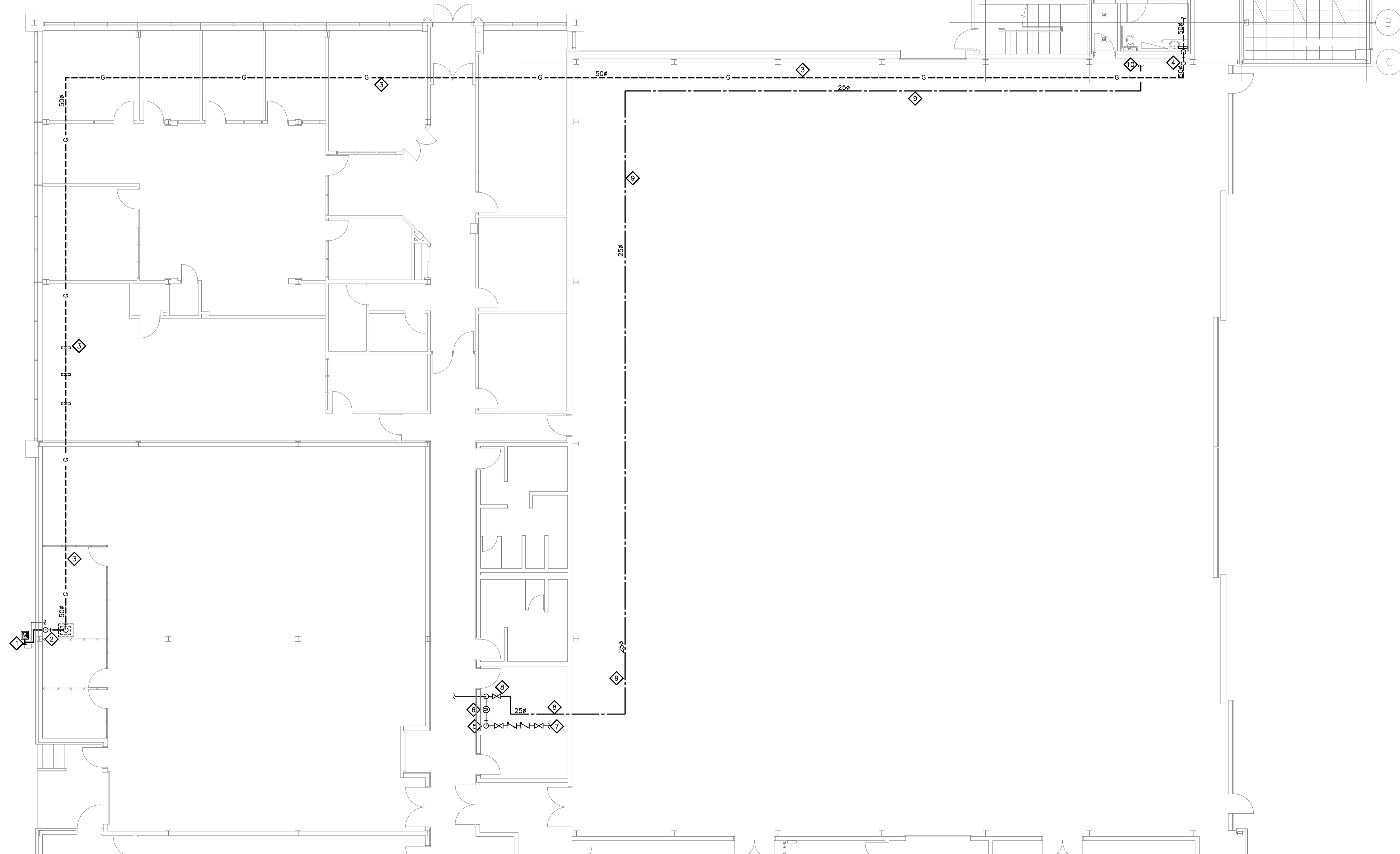
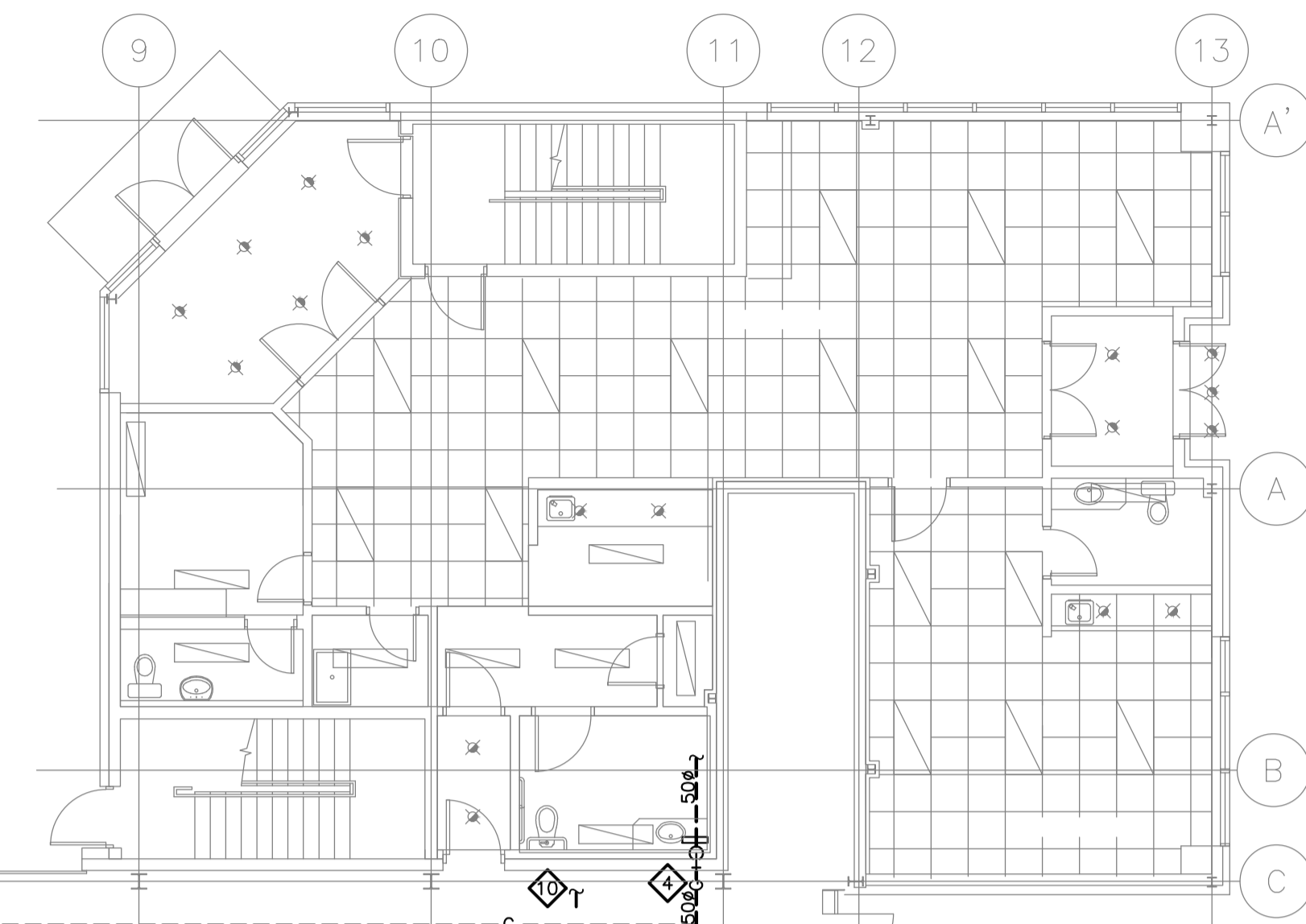
**M-6**

**MECHANICAL NOTES:**

- 1 EXISTING GAS METER TO REMAIN. DISCONNECT EXISTING GAS PIPING FROM METER OUTLET AND REMOVE EXISTING PIPE REDUCER. PROVIDE NEW 75# CONNECTION AND TEE WITH REDUCERS FOR TWO 50# PIPE BRANCHES. RECONNECT EXISTING PIPING TO ONE BRANCH AND PROVIDE NEW 50# PIPING TO NEW ROOFTOP UNITS AT NEW BUILDING ADDITION.
- 2 NEW GAS PIPING UP TO U/S OF ROOF AND THEN UP THROUGH ROOF. PROVIDE ROOF CURB WITH CAP AS PER TYPICAL DETAIL. ROOF CUTTING AND REPAIRS, INCLUDING FLASHING AND WEATHERTIGHT SEALING, BY GENERAL CONTRACTOR.
- 3 TYPICAL: NEW GAS PIPING TO BE RUN ON ROOF OF EXISTING BUILDING. EXACT ROUTING TO BE CONFIRMED ON SITE AS REQUIRED TO AVOID COLLISIONS WITH EXISTING INSTALLATIONS AND BUILDING STRUCTURE. INSTALL ALL PIPING ON SUPPORTS AS PER TYPICAL DETAIL.
- 4 NEW GAS PIPING DOWN TO ROOF OF NEW BUILDING ADDITION. SEE DRAWING M-5 FOR CONTINUATION.
- 5 EXISTING MAIN WATER ENTRY TO REMAIN.
- 6 EXISTING WATER METER AND ALL VALVE ARRANGEMENT (NOT SHOWN HERE) TO REMAIN.
- 7 EXISTING WATER SERVICE FOR FIRE PROTECTION SYSTEM TO REMAIN.
- 8 CONNECT TO EXISTING 25# VALVE (CURRENTLY NOT IN USE) AND PROVIDE NEW 25# D.C.W. PIPING TO NEW BUILDING ADDITION.
- 9 NEW D.C.W. PIPING TO BE INSTALLED AT HIGH LEVEL, CLOSE TO U/S OF ROOF, IN HANGAR PART OF EXISTING BUILDING. EXACT PIPE ROUTING TO BE CONFIRMED ON SITE AS REQUIRED TO AVOID COLLISIONS WITH EXISTING INSTALLATIONS, EQUIPMENT AND BUILDING STRUCTURE.
- 10 NEW D.C.W. PIPING THROUGH WALL AT ELEVATION AS REQUIRED TO ENTER NEW BUILDING ADDITION'S SECOND FLOOR CEILING SPACE. SEE DRAWING M-2 FOR CONTINUATION.



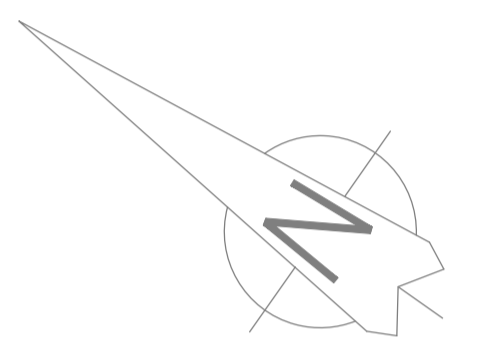
**PIPING THROUGH ROOF – TYPICAL**  
SCALE: N.T.S.  
(ADJUST AS REQUIRED TO SUIT ROOF CONSTRUCTION)



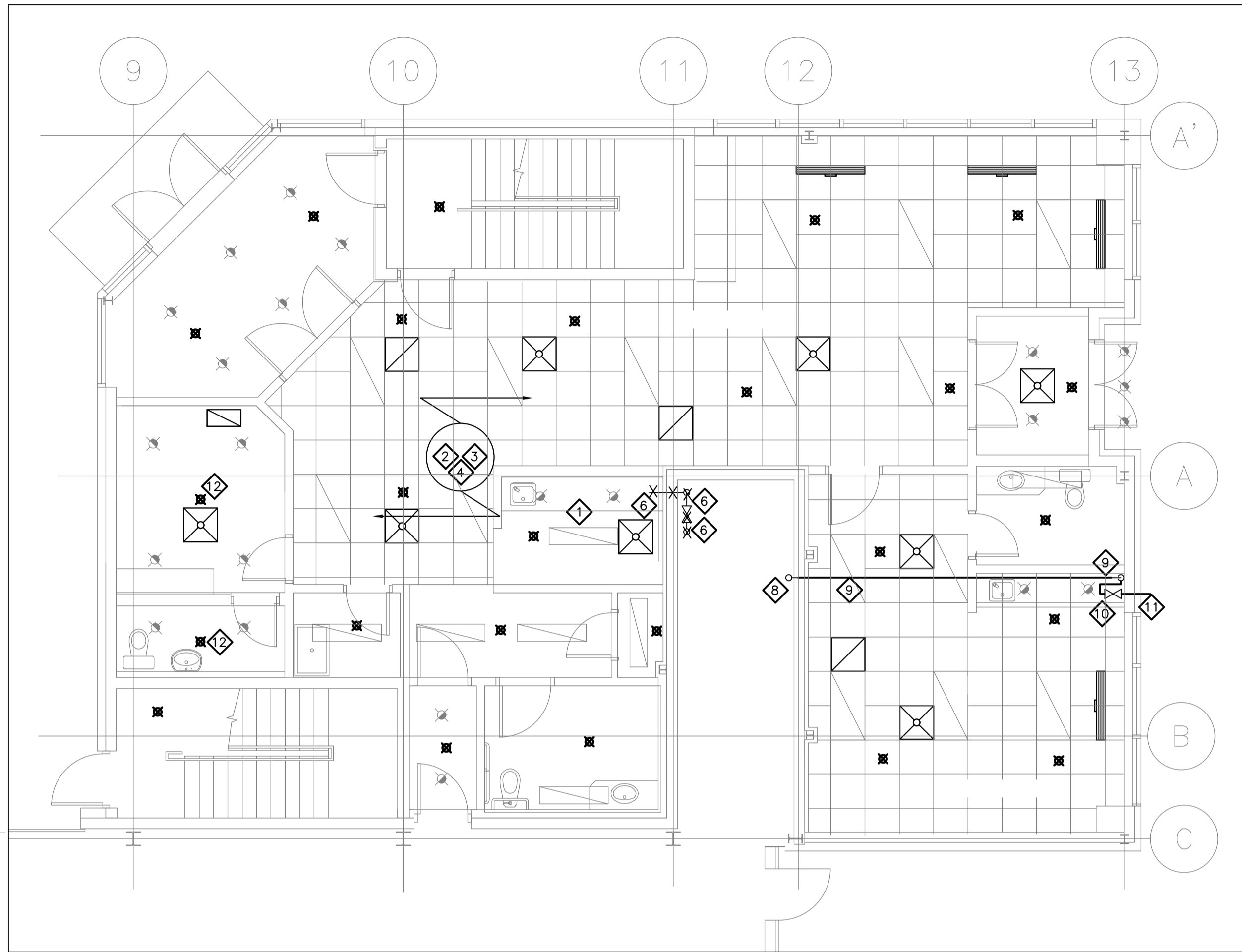
**PARTIAL GROUND FLOOR PLAN – WATER AND GAS SERVICES FOR NEW ADDITION**

SCALE 1:100

C

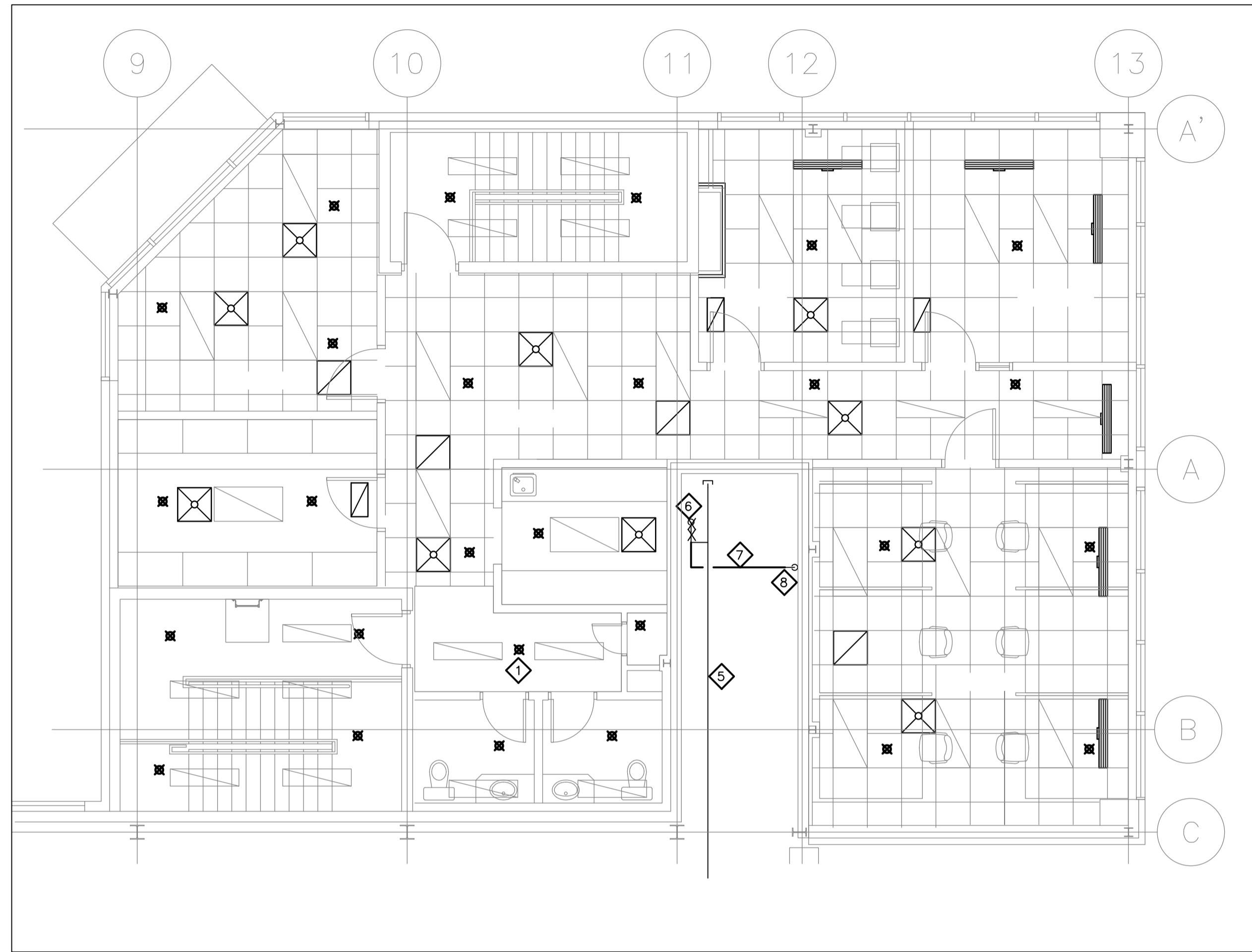


Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.



**NEW ADDITION – GROUND FLOOR – SPRINKLERS**

SCALE 1:75



**NEW ADDITION – SECOND FLOOR – SPRINKLERS**

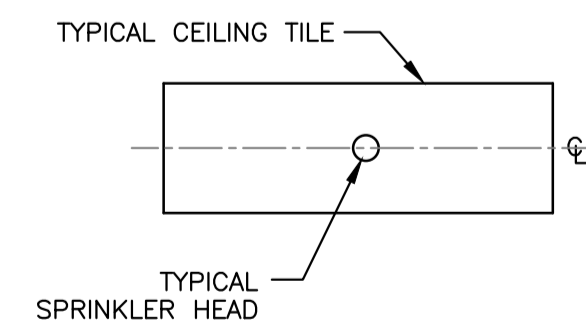
SCALE 1:75

**DRAWING NOTES:**

1. TYPICAL: PROVIDE NEW PENDANT SPRINKLER HEAD AT PROPOSED LOCATION. FIRE PROTECTION CONTRACTOR TO CONFIRM EXACT LOCATION AS REQUIRED FOR COMPLIANCE WITH NFPA-13.
2. TYPICAL: SPRINKLER SYSTEM DISTRIBUTION PIPING (NOT SHOWN HERE) TO BE DESIGNED BY CERTIFIED FIRE PROTECTION CONTRACTOR AS BASED ON HYDRAULIC CALCULATIONS. COPY OF HYDRAULIC CALCULATIONS TO BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER AND TO BE PROVIDED TO THE OWNER.
3. ALL NEW SPRINKLER DISTRIBUTION PIPING TO BE INSTALLED IN JOIST SPACE WHERE POSSIBLE. ALL PIPING LAYOUT AND LOCATIONS TO BE COORDINATED WITH NEW AND EXISTING INSTALLATIONS AND BUILDING STRUCTURE.
4. REFER TO DRAWING M-6 FOR LOCATION OF MAIN WATER ENTRY AND WATER SUPPLY TO FIRE PROTECTION SYSTEM IN BOILER ROOM OF EXISTING BUILDING. EXACT POINT OF CONNECTION OF NEW SPRINKLER SYSTEM SERVING BUILDING ADDITION AND OF ROUTING OF NEW PIPING MAIN THROUGH EXISTING BUILDING TO BE CONFIRMED ON SITE.
5. EXISTING SPRINKLER PIPE LOCATED AT HIGH LEVEL IN HANGAR AREA TO REMAIN.
6. REMOVE EXISTING SPRINKLER TEST VALVE, DISCHARGE PIPING CURRENTLY PENETRATING EXISTING WALL TO OUTSIDE OF EXISTING BUILDING AND PART OF EXISTING PIPING CONNECTION TO EXISTING SPRINKLER MAIN AS INDICATED.
7. CONNECT TO EXISTING PIPE BRANCH AND PROVIDE NEW 25# INSPECTOR TEST PIPING AS INDICATED. EXACT ROUTING OF NEW PIPING TO BE COORDINATED AS REQUIRED TO AVOID COLLISIONS WITH HANGAR DOORS, EXISTING SYSTEMS AND BUILDING STRUCTURE.
8. BRING NEW INSPECTOR TEST PIPING DOWN ALONG WALL TO APPROXIMATELY 3 m A.F.F. AND THROUGH EXISTING WALL TO INSIDE OF GROUND FLOOR CEILING SPACE OF NEW BUILDING ADDITION. EXACT LOCATION AND ELEVATION TO BE CONFIRMED ON SITE.
9. RUN NEW PIPING IN GROUND FLOOR CEILING SPACE AND DOWN ALONG OUTSIDE WALL TO BELOW KITCHEN COUNTER. PIPE FURRING BETWEEN CEILING SPACE AND COUNTERTOP BY GENERAL CONTRACTOR.
10. PROVIDE NEW 25# INSPECTOR TEST VALVE WITH ALL TAGS, LABELS AND PROTECTION AS REQUIRED TO COMPLY WITH NFPA-13. LOCATE NEW VALVE IN SPACE BELOW KITCHEN COUNTER.
11. PROVIDE NEW PIPING DISCHARGE TO OUTSIDE THROUGH NEW BUILDING ADDITION WALL AS PER NFPA-13. WALL CUTTING AND REPAIRS BY GENERAL CONTRACTOR.
12. TYPICAL OF TWO: PROVIDE INSTITUTIONAL SPRINKLER HEAD WITH LOCKING ESCUTCHEON RING.

**GENERAL NOTES:**

1. ALL SPRINKLER WORK TO BE IN ACCORDANCE WITH LATEST EDITION OF NFPA 13.
2. ALL MATERIALS AND WORKMANSHIP SHALL BE IN COMPLIANCE WITH LATEST EDITION OF NFPA-13.
3. ALL WORK SHALL BE DONE BY A CERTIFIED FIRE PROTECTION CONTRACTOR.
4. ALL FINAL LOCATIONS OF SPRINKLER HEADS SHALL COMPLY WITH THE NFPA-13 REQUIREMENTS.

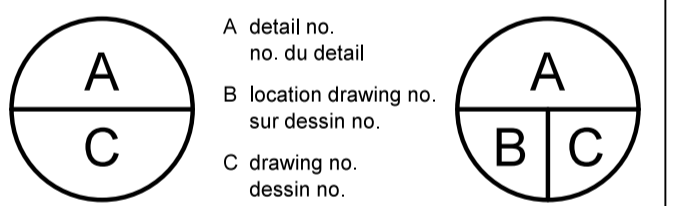


**TYPICAL SPRINKLER HEAD INSTALLATION DETAIL**

SCALE: N.T.S.

NOTE:  
INSTALL HEADS ON CENTERLINE OF LONG DIMENSION OF CEILING TILE. LATERAL DIMENSION IS DEPENDENT ON SPACING REQUIRED IN ACCORDANCE WITH NFPA 13.

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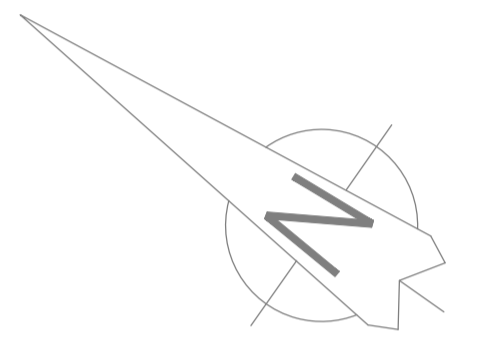
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**SAFETY ACCESS TO TARMAC**

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**NEW BUILDING ADDITION  
SPRINKLER SYSTEM**

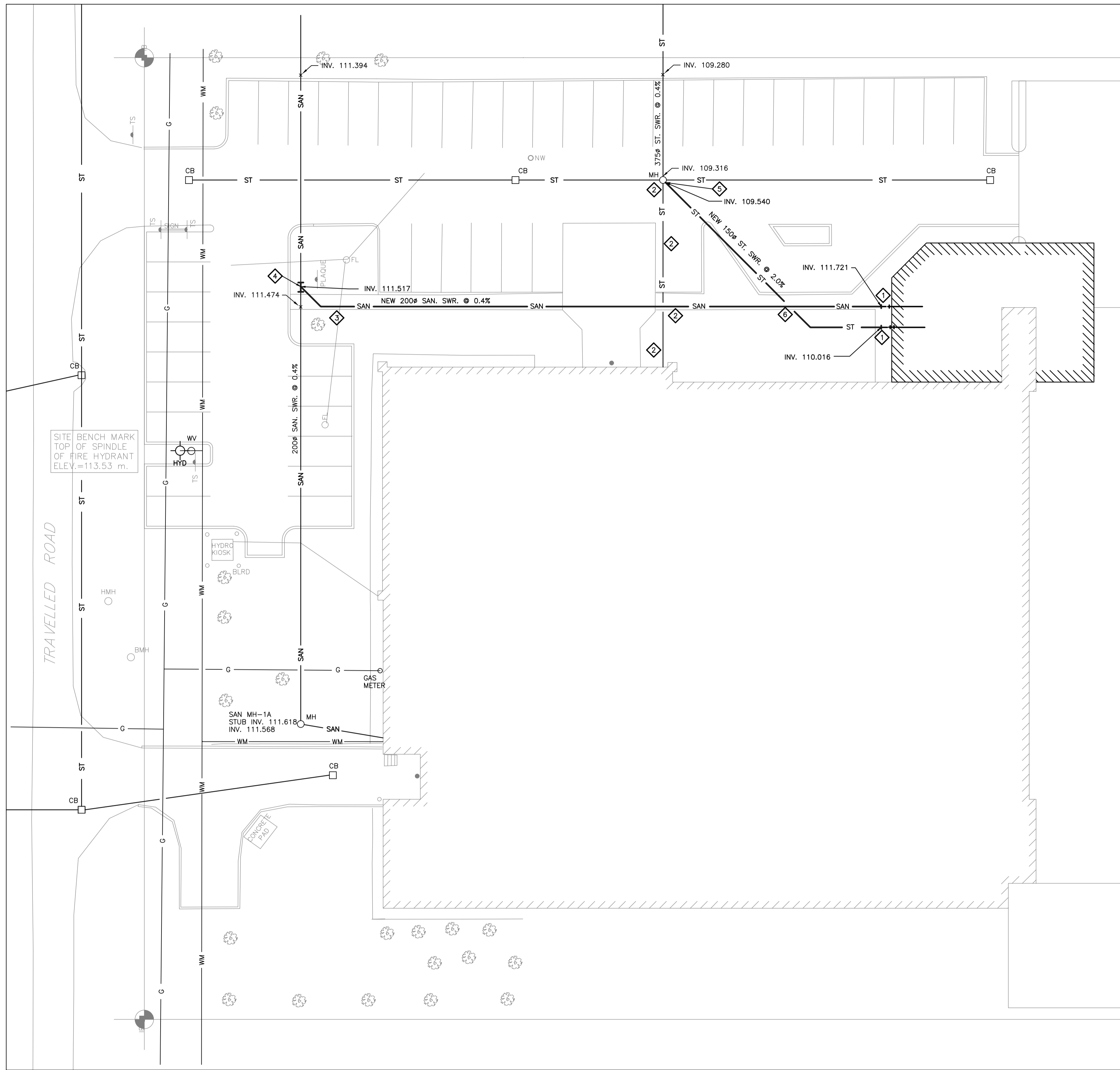
Designed By	L.M.K.	Concu par	
Date	2015/10	(yyyy/mm/dd)	
Drawn By	L.M.K.	Dessine par	
Date	2015/10	(yyyy/mm/dd)	
Reviewed By	J.R.P.	Examine par	
Date	2015/10	(yyyy/mm/dd)	
Approved By	J.R.P.	Approuve par	
Date	2015/10	(yyyy/mm/dd)	
Tender		Soumission	
Project Manager		Administrateur de projets	
Project no.		No. du projet	
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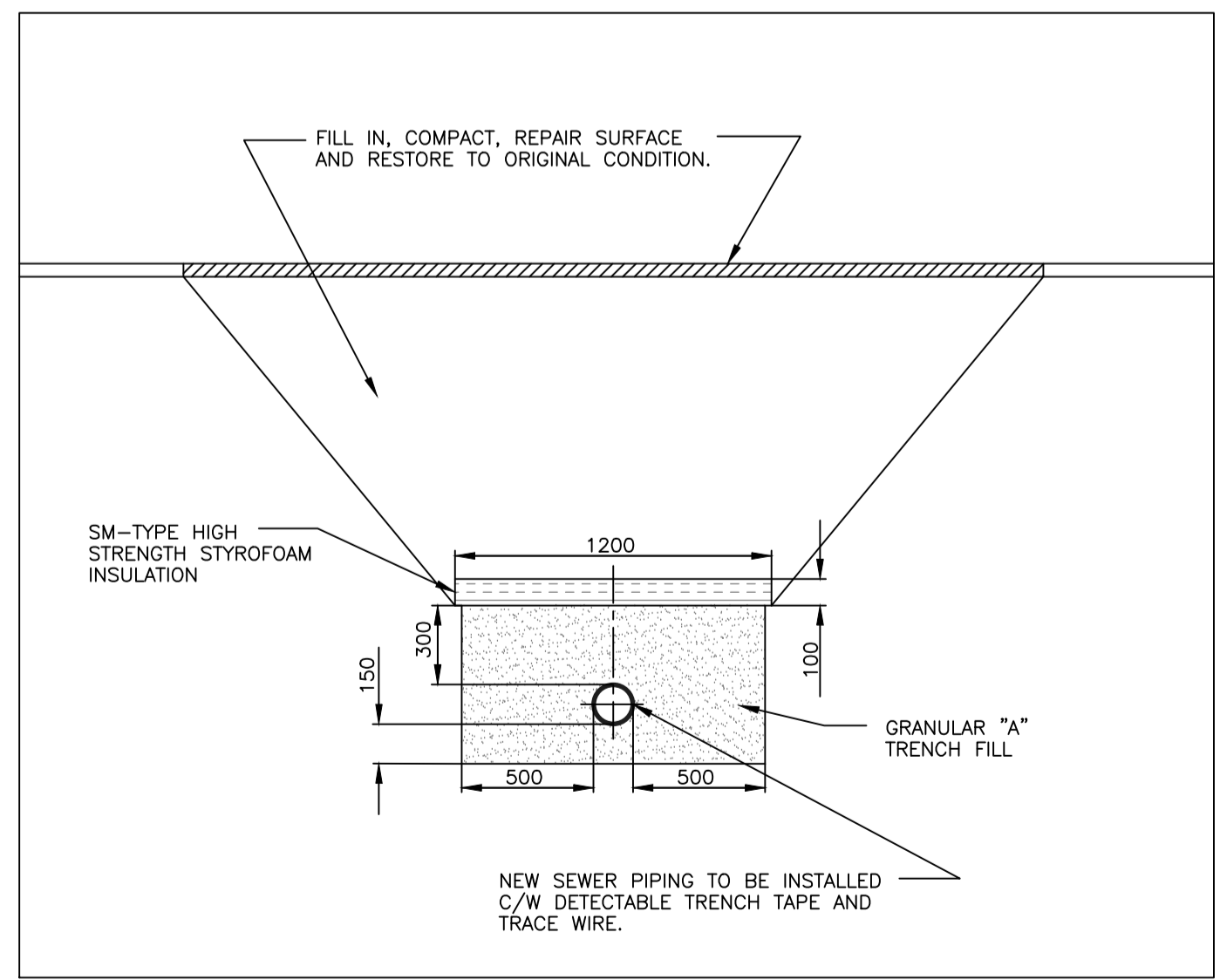
Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

- DRAWING NOTES:**
- 1 TYPICAL: SITE SERVICES CONTRACTOR TO PROVIDE NEW SEWER LINES AND TO BRING NEW PIPING TO WITHIN 900 mm FROM NEW BUILDING WALL. CONNECTIONS TO BUILDING DRAIN SERVICES BY MECHANICAL CONTRACTOR.
  - 2 NEW SANITARY SEWER LINE ABOVE EXISTING STORM SEWER. EXACT INVERT OF EXISTING STORM LINE TO BE CONFIRMED ON SITE. INCLUDE FOR TEST HOLE AT CROSSING OF STORM SEWER LINE BY NEW SANITARY SEWER LINE TO ESTABLISH EXISTING INVERT OF EXISTING STORM SEWER. ALLOW FOR RELOCATION (LOWERING) OF EXISTING STORM SEWER LINE BETWEEN BUILDING EXIT AND EXISTING STORM MANHOLE AND FOR NEW CONNECTION TO EXISTING MANHOLE.
  - 3 NEW SANITARY SEWER LINE BELOW EXISTING HYDRO CABLE. EXACT LOCATION AND ELEVATION OF EXISTING CABLE TO BE CONFIRMED ON SITE.
  - 4 CONNECT TO EXISTING SANITARY SEWER MAIN AS PER ONTARIO MINISTRY OF ENVIRONMENT AND AS PER CITY OF OTTAWA REQUIREMENTS.
  - 5 CONNECT NEW STORM SEWER TO EXISTING STORM MANHOLE AS PER ONTARIO MINISTRY OF ENVIRONMENT AND AS PER CITY OF OTTAWA REQUIREMENTS.
  - 6 NEW SANITARY SEWER LINE CROSSING ABOVE NEW STORM SEWER LINE. APPROXIMATE INVERT DIFFERENCE AT CROSSING 1845 mm.

- GENERAL NOTES:**
1. ALL MATERIALS, WORKMANSHIP AND DETAILS OF INSTALLATION OF NEW SANITARY AND STORM SEWER LINES TO BE AS PER ONTARIO MINISTRY OF ENVIRONMENT GUIDELINES FOR SEWER WORKS 2008 AND AS PER ALL APPLICABLE M.O.E. AND CITY OF OTTAWA REQUIREMENTS.
  2. LOCATIONS OF ALL EXISTING SERVICES, EXACT ELEVATIONS AND INVERTS TO BE CONFIRMED ON SITE.
  3. SITE SERVICES CONTRACTOR SHALL PROVIDE ALL LOCATE SERVICES AS REQUIRED TO EXECUTE THIS CONTRACT AND SHALL INCLUDE ALL ASSOCIATED COSTS IN HIS BASE CONTRACT PRICE.
  4. SITE SERVICES CONTRACTOR RESPONSIBLE FOR BUILDING PERMIT APPLICATION AND APPROVAL RELATED TO SANITARY WORK.



**NEW ADDITION - SITE SERVICES - STORM AND SANITARY SEWER CONNECTIONS**  
SCALE 1:200



**TYPICAL TRENCH DETAIL**  
SCALE NTS

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**NEW BUILDING ADDITION SITE SERVICES**

Designed By	L.M.K.	Concu par	
Date	2015/10	(yyyy/mm/dd)	
Drawn By	L.M.K.	Dessine par	
Date	2015/10	(yyyy/mm/dd)	
Reviewed By	J.R.P.	Examine par	
Date	2015/10	(yyyy/mm/dd)	
Approved By	J.R.P.	Approuve par	
Date	2015/10	(yyyy/mm/dd)	
Tender		Soumission	
Project Manager		Departmental Representative	Administrateur de projets
Project no.		No. du projet	
		<b>PTS 3043</b>	
Drawing no.		No. du dessin	
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