

## MECHANICAL LEGEND

DRAINAGE SYSTEM	
ABBR. & SYMBOLS	DESIGNATION
— — — — —	DRAIN PIPE
— VP — — —	VENT PIPE
FD	FLOOR DRAIN
CO	FLOOR CLEAN OUT
TD	TRENCH DRAIN
MH	MANHOLE
uPVC	UNPLASTICIZED POLYVINYL CHLORIDE
IL	INVERT LEVEL
T/B	TO BELOW
F/B	FROM BELOW
T/A	TO ABOVE
F/A	FROM ABOVE
D/D	DROP DOWN
A/F	ABOVE FALSE CEILING
SP	SUBMERSIBLE PUMP

WATER SYSTEM	
ABBR. & SYMBOLS	DESIGNATION
DHWS	DOMESTIC HOT WATER SUPPLY
DCWS	DOMESTIC COLD WATER SUPPLY
— — — — —	IRRIGATION PIPE
	HAND SPRAY
	FLOAT VALVE
	STRAINER
	WATER CABINET
	GLOBE VALVE
	CHECK VALVE (NON RETURN VALVE)
	PRESSURE VESSEL
	BLADDER VESSEL
	PUMP
E.W.H.	ELECTRIC WATER HEATER
	WATER METER
	SUSPENDE CLEAN OUT
DCWP	DOMESTIC COLD WATER PUMP
BP	BOOSTER PUMP
IRP	IRRIGATION PUMP
N.C	NORMALLY CLOSED
GSP	GALVANIZED STEEL PIPE
cPVC	CHLORINATED POLYVINYL CHLORIDE
H/L	HIGH LEVEL
T/B	TO BELOW
F/B	FROM BELOW
T/A	TO ABOVE
F/A	FROM ABOVE
U/T	UNDER TILE
I/W	IN WALL
A/F	ABOVE FALSE CEILING

FIRE FIGHTING SYSTEM	
ABBR. & SYMBOLS	DESIGNATION
— F — — —	FIRE HOSE REEL PIPE
	FIRE EXTINGUISHER
	FIRE HOSE REEL
	FIRE HOSE REEL CABINET
H/L	HIGH LEVEL
T/B	TO BELOW
F/B	FROM BELOW
T/A	TO ABOVE
A/F	ABOVE FALSE CEILING

HVAC SYSTEM	
ABBR. & SYMBOLS	DESIGNATION
— — — — —	HOT WATER SUPPLY
— — — — —	HOT WATER RETURN
	PACKAGED AIR CONDITIONING UNIT
	SOUND ATTENUATOR
	VOLUME DAMPER
	OUTDOOR SPLIT UNIT
	REFRIGERANT PIPE
	BELL MOUTH
	THERMOSTAT
	SUPPLY DIFFUSER
	RETURN DIFFUSER
	AIR GRILLE
	EXHAUST DIFFUSER
	VERTICAL DUCT
	INDOOR SPLIT UNIT
	HEATING CABINET
	EXHAUST FAN
	RADIATOR
T.R	TON OF REFRIGERATION
EX.D	EXHAUST DUCT
EX.F	EXHAUST FAN
HWB	HOT WATER BOILER
WSD	WAY SUPPLY DIFFUSER
WRD	WAY RETURN DIFFUSER
DB	DRY BULB TEMPERATURE
WB	WET BULB TEMPERATURE
H/L	HIGH LEVEL
T/B	TO BELOW
F/B	FROM BELOW
T/A	TO ABOVE
F/A	FROM ABOVE
U/T	UNDER TILE
I/W	IN WALL
D/D	DROP DOWN
A/F , AFC	ABOVE FALSE CEILING

### NOTE:

1—CONTRACTOR SHALL CALCULATE PRESSURE LOSSES THROUGH VALVE, FITTINGS, STRAINERS, DOUBLE REGULATING VALVE, ETC....., FOR DETERMINATION OF PUMP HEAD ACCORDING TO SUGGESTED LAYOUT.

2—CONTRACTOR SHALL CALCULATE PRESSURE LOSSES THROUGH DAMPERS, FITTINGS, COIL, SOUND ATTENUATES ETC.... , FOR DETERMINATION OF FAN HEAD ACCORDING TO SUGGESTED LAYOUT.

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NOTES:

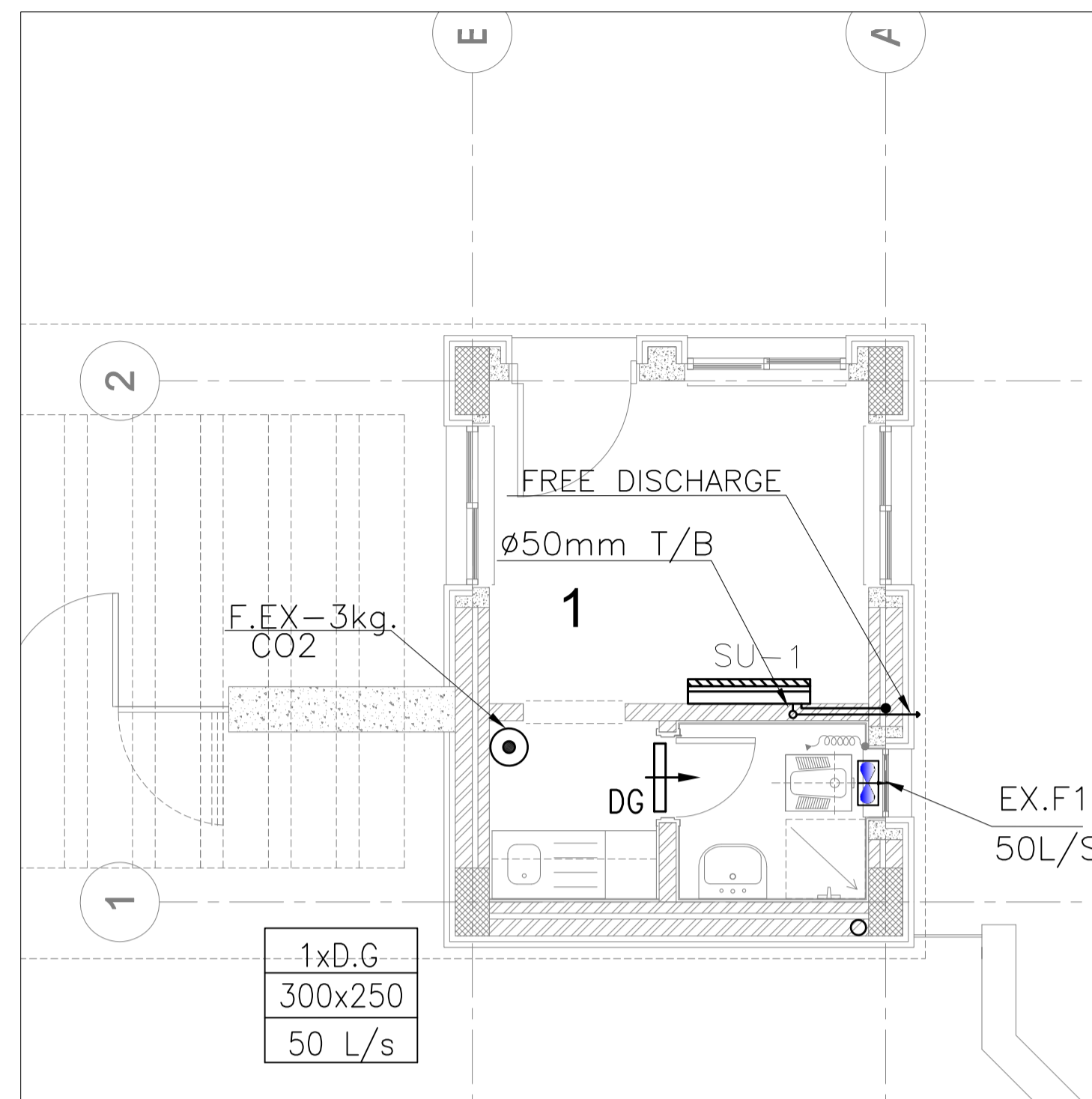


PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC (AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY PROJECT (USAID SKEP)

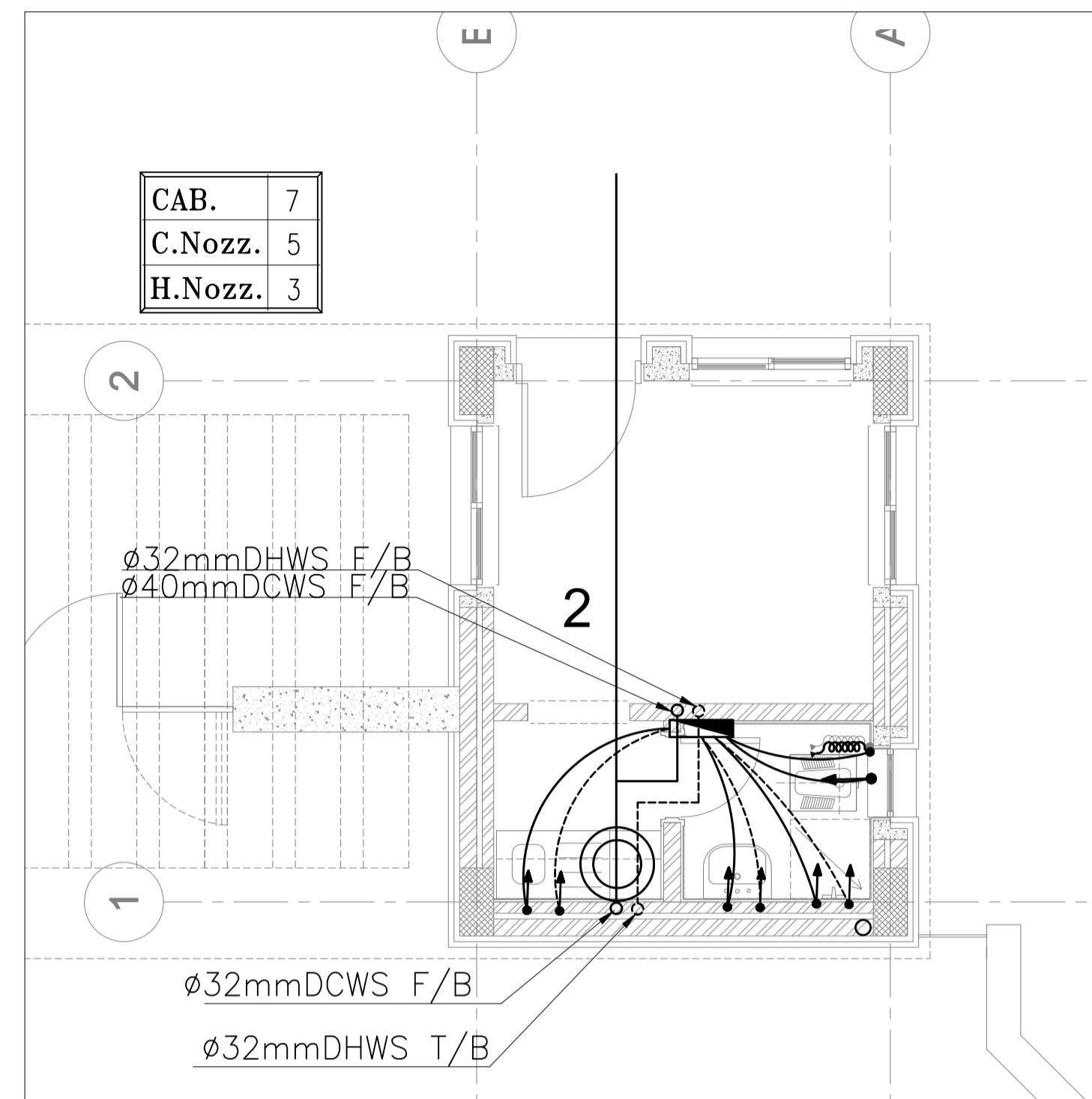
DRAWING NAME:  
**Mechanical Legend**  
PLOT No: 696  
LOCATION: Southern Shouneh  
BASIN NO: 35 AL SAKNH

Design: E.J.  
SCALE: N.T.S.  
Date: JUNE 2020  
Checked: A.J.  
Approved: W.Z.  
DRAWING NUMBER: **SKEP 17-GM001**

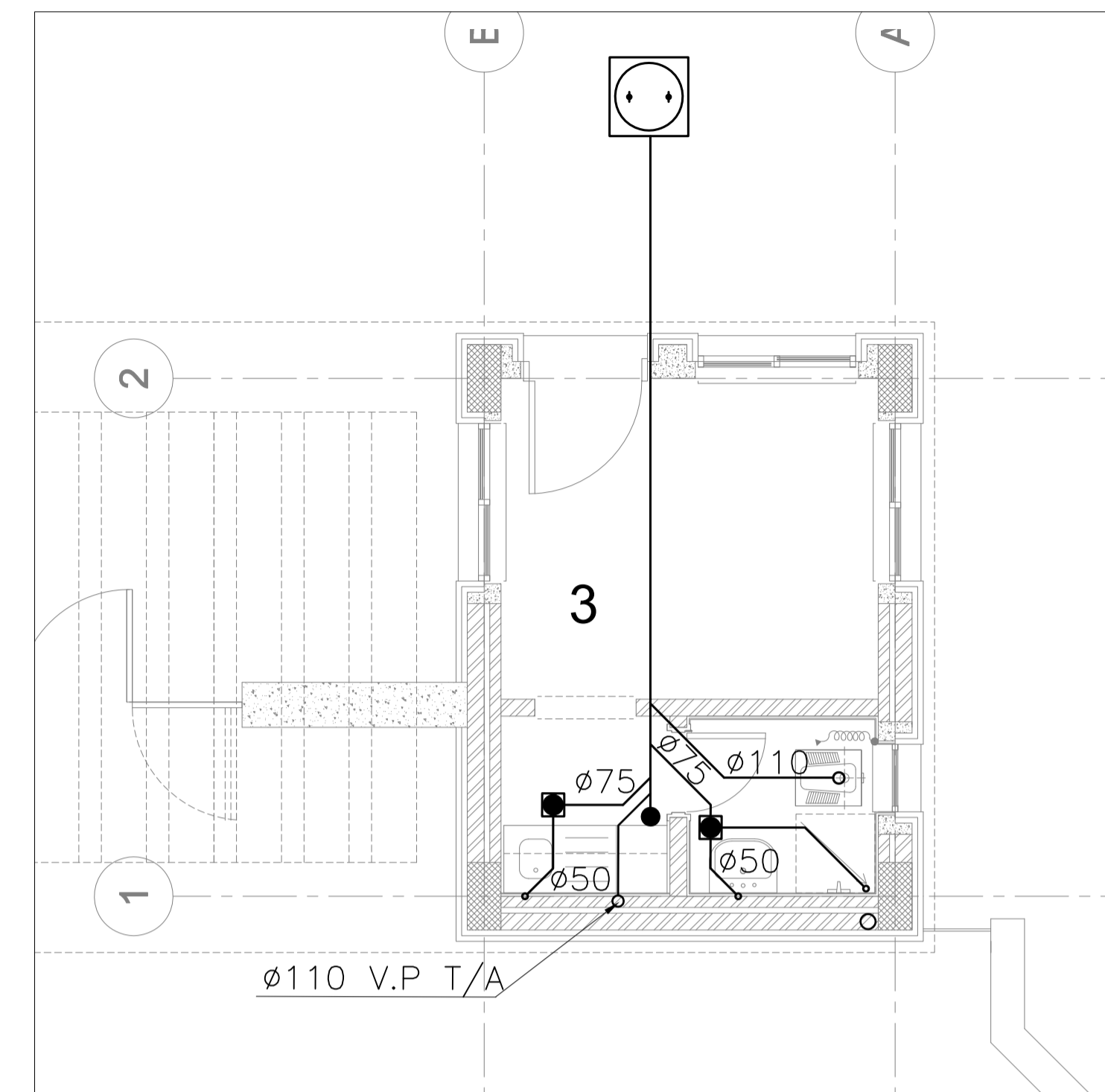
North:   
Rev.: 0



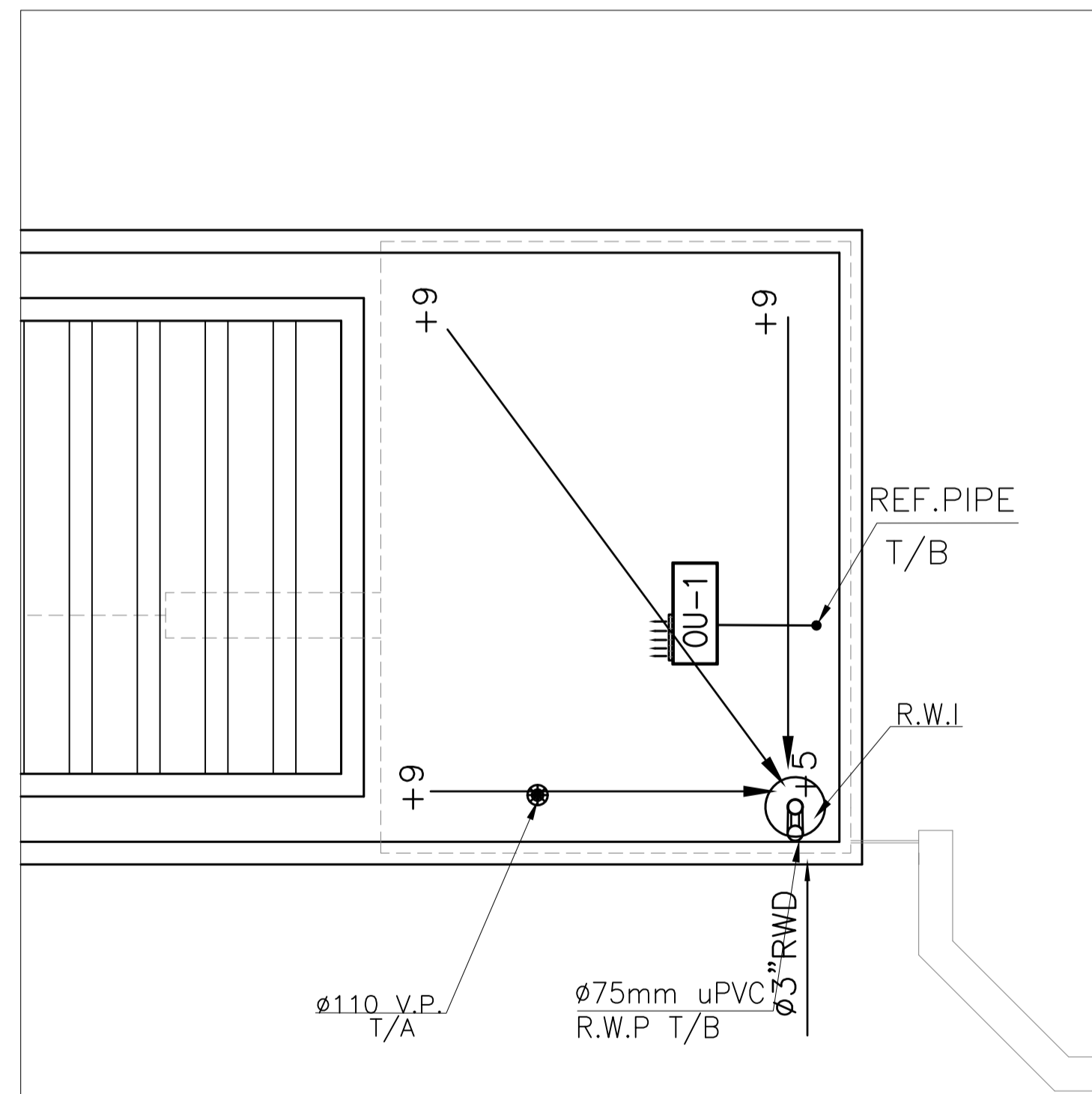
1 GUARD HOUSE HVAC SYSTEM LAYOUT



2 GUARD HOUSE WATER SYSTEM LAYOUT



3 GUARD HOUSE DRAIN SYSTEM LAYOUT



4 GUARD HOUSE ROOF DRAIN LAYOUT

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NOTES:



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PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME:  
GUARD HOUSE  
MECHANICAL SYSTEM LAYOUT

Design: E.J.	Drawn: CAD	Checked: A.J.	North:
SCALE: 1:50	Date: JUNE 2020	Approved: W.Z.	
PLOT No: 696	LOCATION: Southern Shouneh	BASIN NO: 35 AL SAKNH	DRAWING NUMBER: SKEP 17-GH100
			Rev.: 0

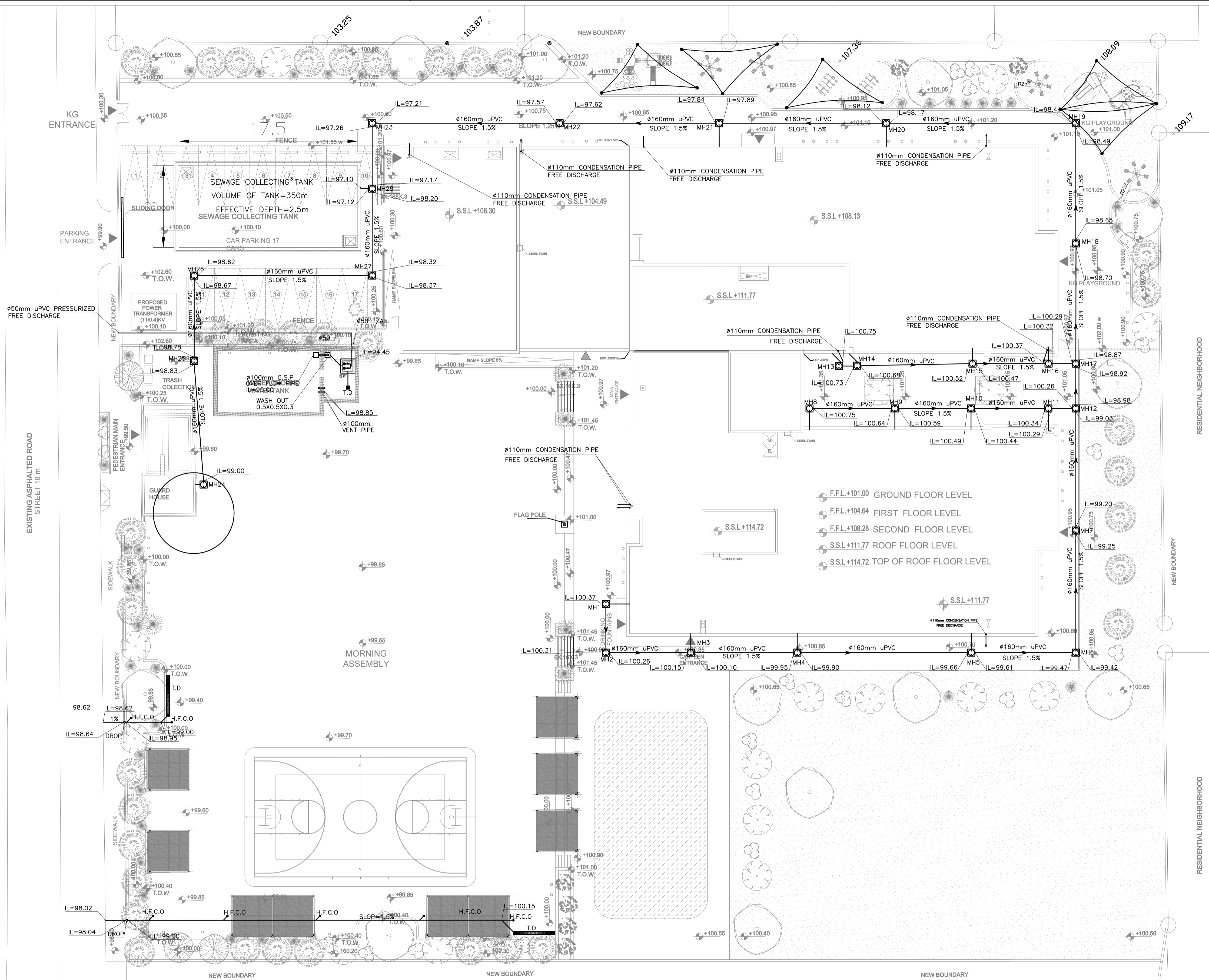
SANITARY SEWER MANHOLE SCHEDULE								
Manhole No.	COVER Level	Pipe Level (m1)	Pipe Level (m2)	Depth (m)	Manhole Dim. (cm)	Cover Dim. (cm)	Cover	
MH1	+100.97	--	--	+100.37	0.60	60X60	#60	M.D
MH2	+100.95	+100.31	--	+100.26	0.69	60X60	#60	M.D
MH3	+100.85	+100.15	--	+100.10	0.75	60X60	#60	M.D
MH4	+100.85	+99.95	--	+99.90	0.95	60X60	#60	M.D
MH5	+100.70	+99.66	--	+99.61	1.09	60X60	#60	M.D
MH6	+100.80	+99.47	--	+99.42	1.38	60X60	#60	M.D
MH7	+100.95	+99.25	--	+99.20	1.75	#90	#60	M.D
MH8	+101.35	--	--	+100.75	0.60	60X60	#60	M.D
MH9	+101.25	+100.64	--	+100.59	0.66	60X60	#60	M.D
MH10	+101.19	+100.49	--	+100.44	0.75	60X60	#60	M.D
MH11	+101.11	+100.34	--	+100.29	0.82	60X60	#60	M.D
DRCP MH12 TYPE II	+101.05	+100.26	+99.03	+98.98	2.07	#90	#60	M.D
MH13	+101.35	--	--	+100.75	0.60	60X60	#60	M.D
MH14	+101.29	+100.73	--	+100.68	0.61	60X60	#60	M.D
MH15	+101.20	+100.52	--	+100.47	0.73	60X60	#60	M.D
MH16	+101.12	+100.37	--	+100.32	0.8	60X60	#60	M.D
DRCP MH17 TYPE II	+101.05	+100.29	+98.92	+98.87	2.18	#90	#60	M.D
MH18	+100.97	+98.70	--	+98.65	2.32	#90	#60	M.D
MH19	+101.10	+98.49	--	+98.44	2.66	#90	#60	M.D
MH20	+101.14	+98.17	--	+98.12	3.02	#90	#60	M.D
MH21	+100.95	+97.89	--	+97.84	3.11	#90	#60	M.D
MH22	+100.81	+97.62	--	+97.57	3.24	#90	#60	H.D
MH23	+100.60	+97.31	--	+97.26	3.34	#90	#60	H.D
MH24	+99.60	--	--	+99	0.60	60X60	#60	M.D
MH25	+99.75	+98.83	--	+98.78	0.97	60X60	#60	M.D
MH26	+99.87	+98.67	--	+98.62	1.25	60X60	#60	H.D
MH27	+100.20	+98.37	--	+98.32	1.88	#90	#60	H.D
DRCP MH28 TYPE II	+100.20	+98.20	+97.17	+97.12	3.08	#90	#60	H.D

**NOTE:**

1. THE VOLUME OF THE SEWER COLLECTING TANK WILL BE SUFFICIENT FOR 5 DAYS.
2. THE VOLUME HAS BEEN CALCULATED BASED ON THE CODE REQUIREMENT OF 76 L/day

**CALCULATION OF SEWER COLLECTING TANK :**

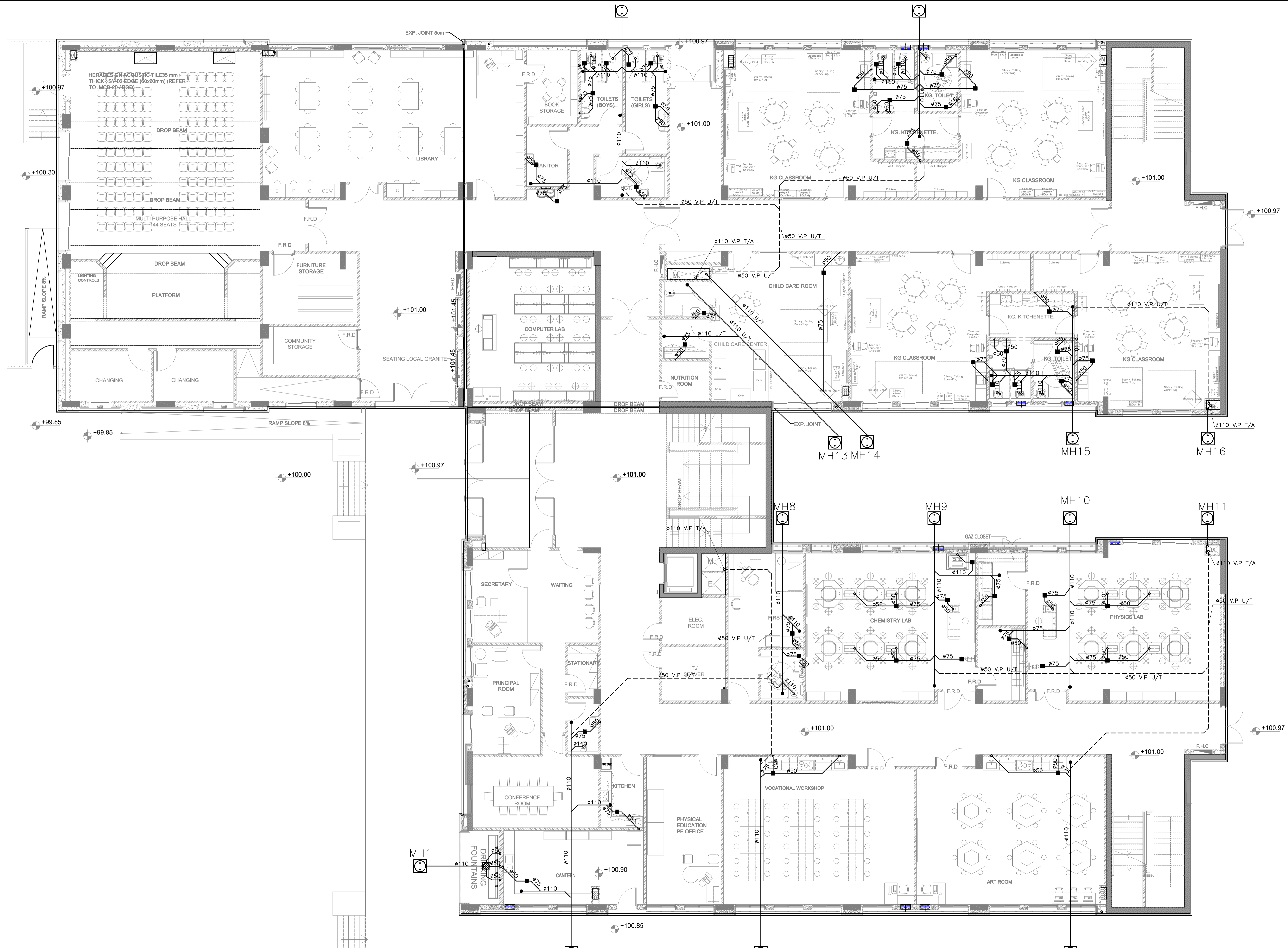
- NUMBER OF STUDENTS: 920
- THE SEWER FLOW RATE PER STUDENT ACCORDING TO CODE =76 L/day
- VOLUME PER DAY = 920X76 L/DAY = 70m<sup>3</sup>/day
- THE VOLUME FOR 5 DAYS STORAGE= 70m<sup>3</sup>/day X 5 days =350m<sup>3</sup>



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NOTES:

<p><b>USAID</b> FROM THE AMERICAN PEOPLE</p>	<p>وزارة التعليم والتربية</p>	<p><b>engicon</b></p>	<p>PHASE III PACKAGE 1</p>	<p><b>KHADIJA BINT KHWAILED BASIC (AL SHOUNA AL JANOBIA) SCHOOLS FOR A KNOWLEDGE ECONOMY PROJECT (USAID SKEP)</b></p>	<p>DRAWING NAME: <b>SITE PLAN DRAINAGE SYSTEM</b></p>	<p>Design: E.J. Drawn: CAD Checked: A.J. Date: JUNE 2020 Approved: W.Z.</p>	<p>DRAWING NUMBER: <b>SKEP 17-PD100</b></p>	<p>North: </p>
<p>PLOT No: 696    LOCATION: Southern Shounah    BASIN NO: 35 AL SAKHN</p>								<p>Rev.: 0</p>



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PHASE III  
PACKAGE 1

KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME  
**GROUND FLOOR PLAN  
DRAINAGE SYSTEM**

Design: E.J.	Drawn: CAD	Checked: A.J.	North:
SCALE:	Date: JUNE 2020	Approved: W.Z.	Rev.: 0
DRAWING NUMBER: SKEP 17-PD101			



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PHASE III  
PACKAGE 1  
KHADIJA BINT KHAWALED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME:  
FIRST FLOOR PLAN  
DRAINAGE SYSTEM  
PLOT No: 696  
LOCATION: Southern Shouneh  
BASIN NO: 35 AL SAKNIH

Design: E.J.  
Scale: 1:100  
Date: JUNE 2020  
Drawing Number: SKEP 17-PD102  
Drawn: CAD  
Date: JUNE 2020  
Checked: A.J.  
Approved: W.Z.  
North: [North Arrow]  
Rev.: 0

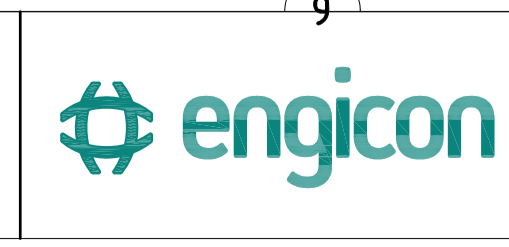


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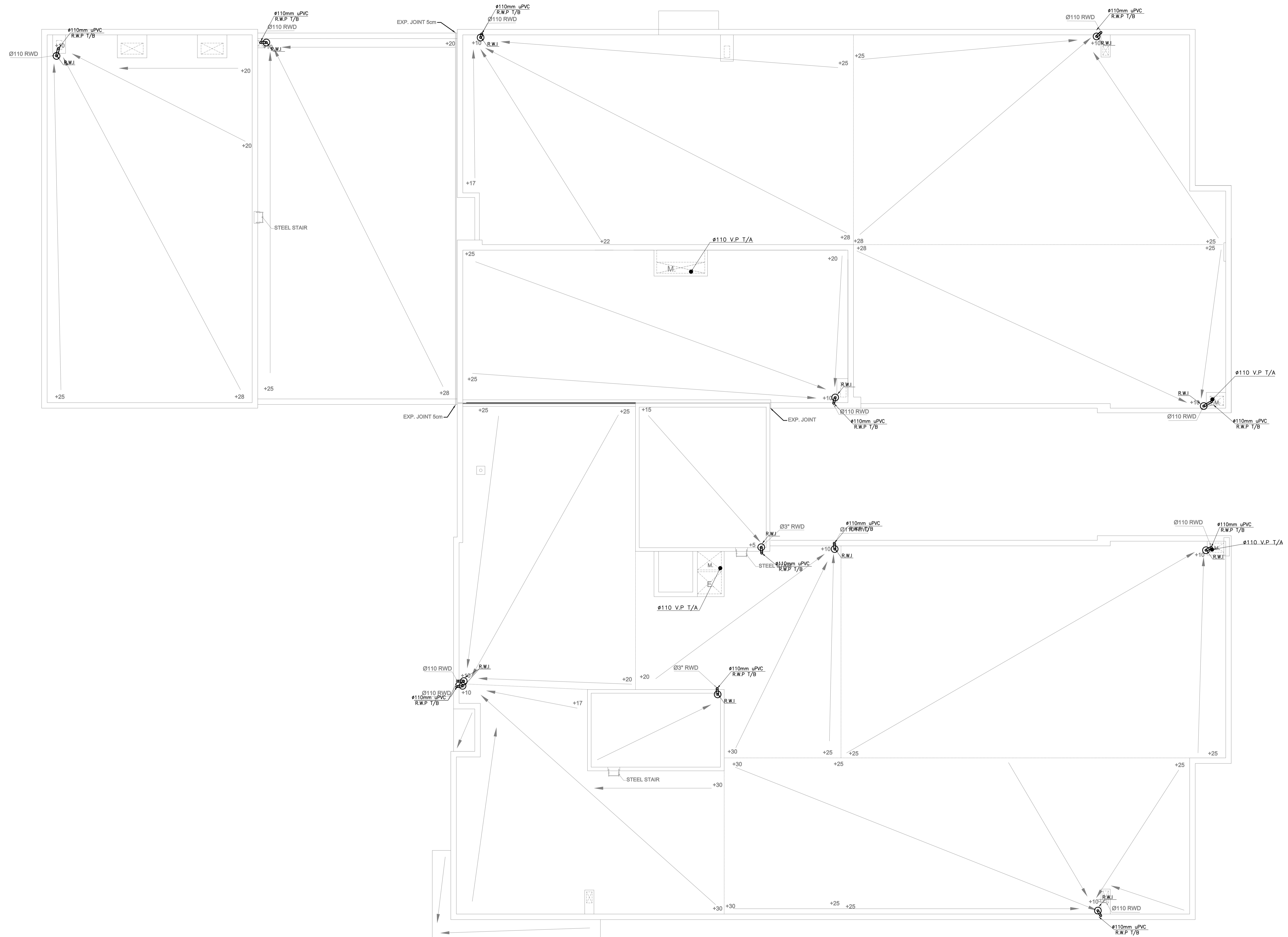
PHASE III  
PACKAGE 1

**KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)**

DRAWING NAME:  
**SECOND FLOOR PLAN  
DRAINAGE SYSTEM**

PLOT No: 696  
LOCATION: Southern Shouneh  
BASIN NO: 35 AL SAKNH

Design: E.J.	Drawn: CAD	Checked: A.J.	North:
SCALE: 1:100	Date: JUNE 2020	Approved: W.Z.	Rev.: 0
DRAWING NUMBER: <b>SKEP 17-PD103</b>			



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PHASE III  
PACKAGE 1

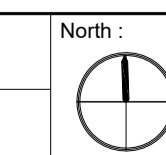
**KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)**

DRAWING NAME:  
**ROOF FLOOR PLAN  
DRAINAGE SYSTEM**

PLOT No	LOCATION	BASIN NO
896	Southern Shouneh	35 AL SAKNH

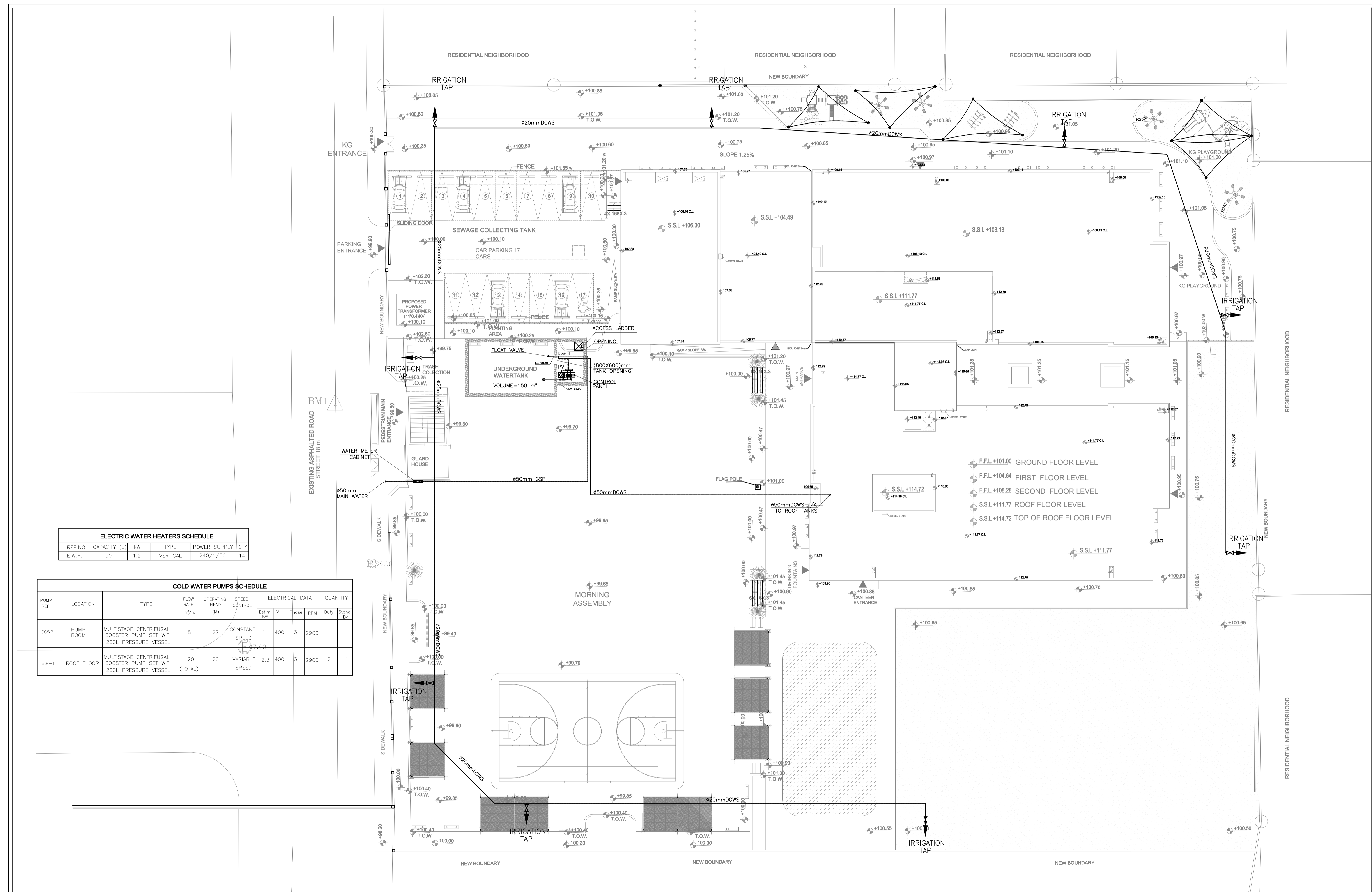
Design: E.J.  
SCALE:  
Date: JUNE 2020

Drawn: CAD  
Date: JUNE 2020  
Approved: W.Z.



Rev.: 0

DRAWING NUMBER:  
**SKEP 17-PD104**



**ELECTRIC WATER HEATERS SCHEDULE**

REF.NO	CAPACITY (L)	kW	TYPE	POWER SUPPLY	QTY
E.W.H.	50	1.2	VERTICAL	240/1/50	14

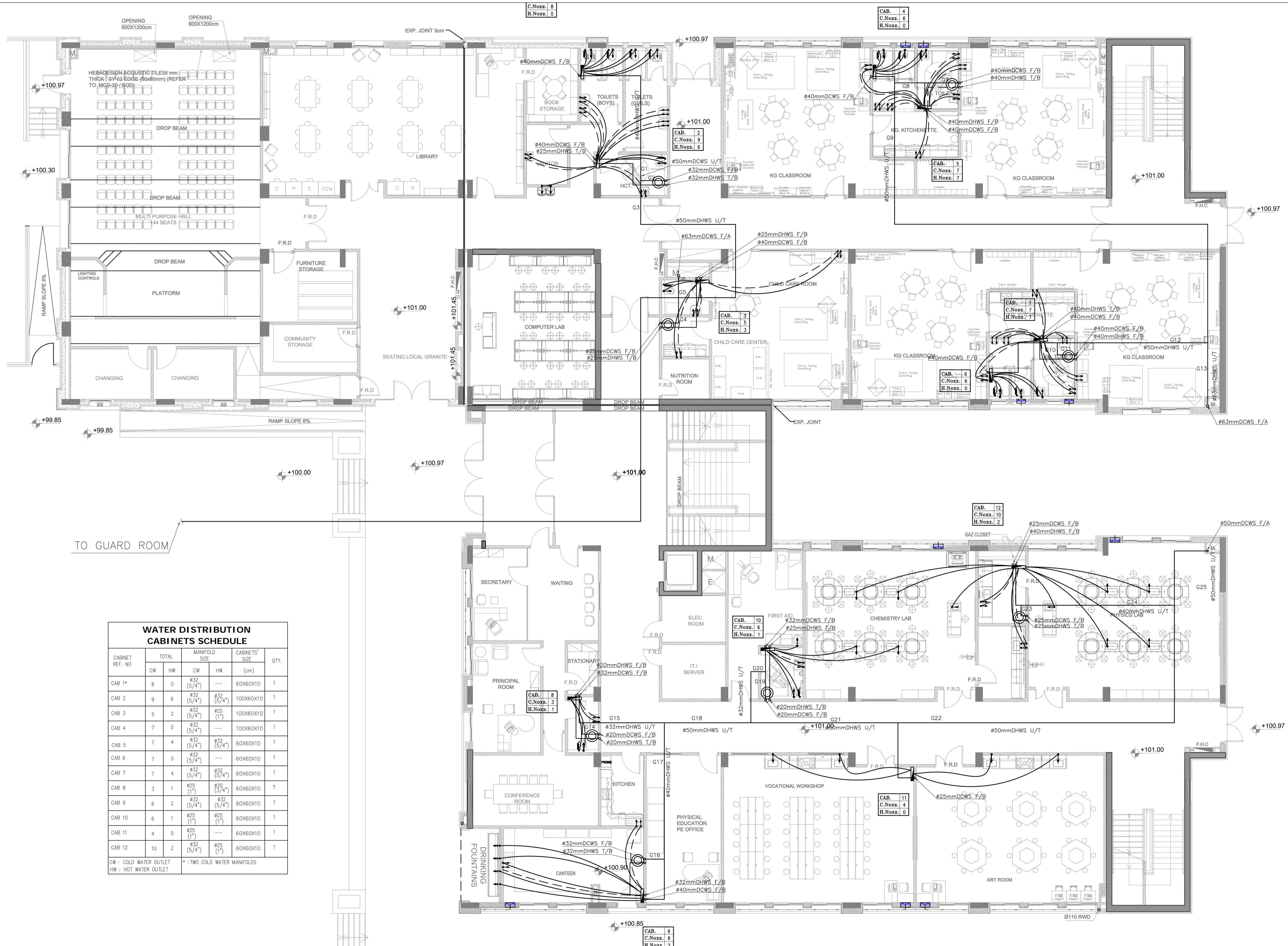
**COLD WATER PUMPS SCHEDULE**

PUMP REF.	LOCATION	TYPE	FLOW RATE m³/h.	OPERATING HEAD (M)	SPEED CONTROL	ELECTRICAL DATA				QUANTITY	
						Estim. Kw	V	Phase	RPM	Duty	Stand By
DCWP-1	PUMP ROOM	MULTISTAGE CENTRIFUGAL BOOSTER PUMP SET WITH 200L PRESSURE VESSEL	8	27	CONSTANT SPEED	1	400	3	2900	1	1
B.P-1	ROOF FLOOR	MULTISTAGE CENTRIFUGAL BOOSTER PUMP SET WITH 200L PRESSURE VESSEL	20 (TOTAL)	20	VARIABLE SPEED	2.3	400	3	2900	2	1

NOTES:

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			REV. DATE REMARKS	PLOT No: 696 LOCATION: Southern Shouneh BASIN NO: 35 AL SAKNH	Rev.: 0			





**WATER DISTRIBUTION CABINETS SCHEDULE**

CABINET REF. NO	TOTAL		MANIFOLD SIZE		CABINETS' SIZE (cm)	QTY.
	CW	HW	CW	HW		
CAB 1*	8	0	ø32 (5/4")	--	60X60X10	1
CAB 2	9	6	ø32 (5/4")	ø32 (5/4")	100X60X10	1
CAB 3	5	2	ø32 (5/4")	ø25 (1")	100X60X10	1
CAB 4	7	0	ø32 (5/4")	--	100X60X10	1
CAB 5	7	4	ø32 (5/4")	ø32 (5/4")	60X60X10	1
CAB 6	7	0	ø32 (5/4")	--	60X60X10	1
CAB 7	7	4	ø32 (5/4")	ø32 (5/4")	60X60X10	1
CAB 8	3	1	ø25 (1")	ø20 (3/4")	60X60X10	1
CAB 9	6	2	ø32 (5/4")	ø32 (5/4")	60X60X10	1
CAB 10	6	1	ø25 (1")	ø25 (1")	60X60X10	1
CAB 11	4	0	ø25 (1")	--	60X60X10	1
CAB 12	10	2	ø32 (5/4")	ø25 (1")	60X60X10	1

CW : COLD WATER OUTLET  
HW : HOT WATER OUTLET

\* : TWO COLD WATER MANIFOLDS

NOTES:



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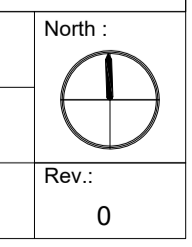
PHASE III  
PACKAGE 1

KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME:  
**GROUND FLOOR PLAN  
WATER DISTRIBUTION SYSTEM PLAN**

Design: E.J.  
Date: JUNE 2020  
Drawn: CAD  
Approved: W.Z.  
Checked: A.J.  
Drawing Number: SKEP 17-PW101

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**WATER DISTRIBUTION CABINETS SCHEDULE**

CABINET REF. NO	TOTAL		MANIFOLD SIZE		CABINETS' SIZE (cm)	QTY.
	CW	HW	CW	HW		
CAB 1	4	2	3/2 (5/4")	2/25 (1")	60X60X10	1
CAB 2	7	5	3/2 (5/4")	2/25 (1")	80X60X10	1
CAB 3*	12	0	4/0 (6/4")	---	60X60X10	1
CAB 4*	10	0	3/2 (5/4")	2/25 (1")	60X60X10	1
CAB 5*	6	0	3/2 (5/4")	---	60X60X10	1
CAB 6	9	6	3/2 (5/4")	3/2 (5/4")	100X60X10	1

CW : COLD WATER OUTLET  
 HW : HOT WATER OUTLET  
 \* : TWO COLD WATER MANIFOLDS

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PHASE III  
 PACKAGE 1  
 KHADIJA BINT KHAWLED BASIC (AL SHOUNA AL JANOBIA)  
 SCHOOLS FOR A KNOWLEDGE ECONOMY PROJECT (USAID SKEP)

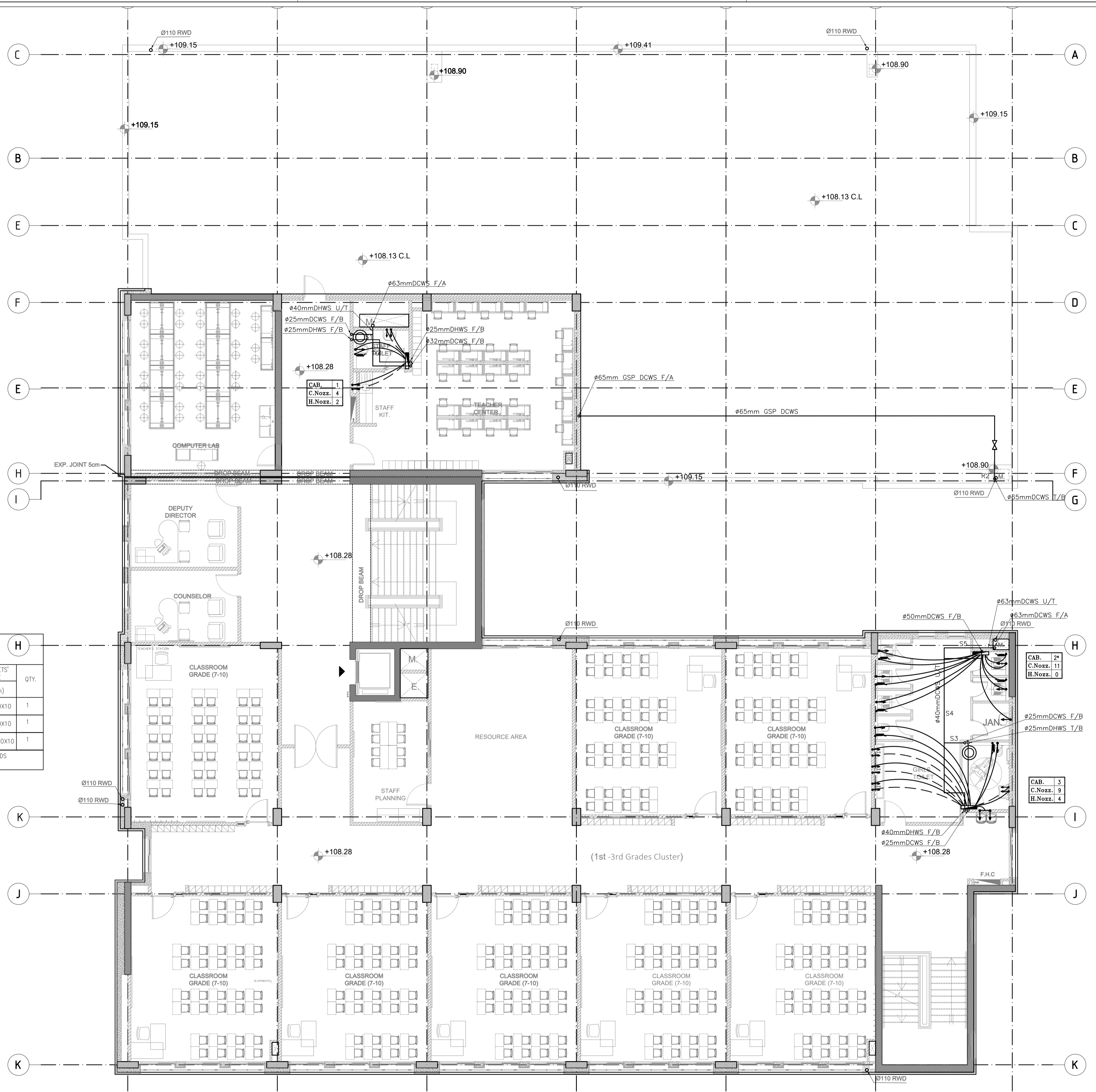
DRAWING NAME:  
**FIRST FLOOR PLAN WATER DISTRIBUTION SYSTEM PLAN**

PLOT No: 696  
 LOCATION: Southern Shouneh  
 BASIN NO: 35 AL SAKNIH

Design: E.J.  
 Drawn: CAD  
 Date: JUNE 2020  
 Checked: A.J.  
 Approved: W.Z.  
 DRAWING NUMBER:  
**SKEP 17-PW102**

North:

Rev.: 0



**WATER DISTRIBUTION CABINETS SCHEDULE**

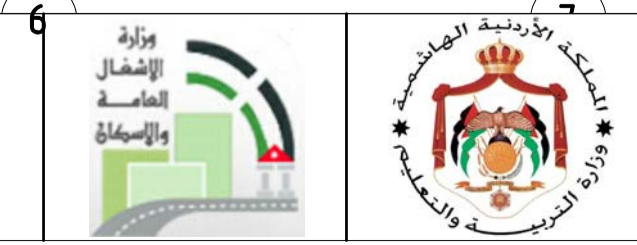
CABINET REF. NO	TOTAL		MANIFOLD SIZE		CABINETS' SIZE (cm)	QTY.
	CW	HW	CW	HW		
CAB 1	4	2	3/2 (5/4")	2/5 (1")	60X60X10	1
CAB 2*	11	0	3/2 (5/4")	--	60X60X10	1
CAB 3	9	4	3/4 (6/4")	2/5 (1")	100X60X10	1

CW : COLD WATER OUTLET  
HW : HOT WATER OUTLET

\* TWO COLD WATER MANIFOLDS

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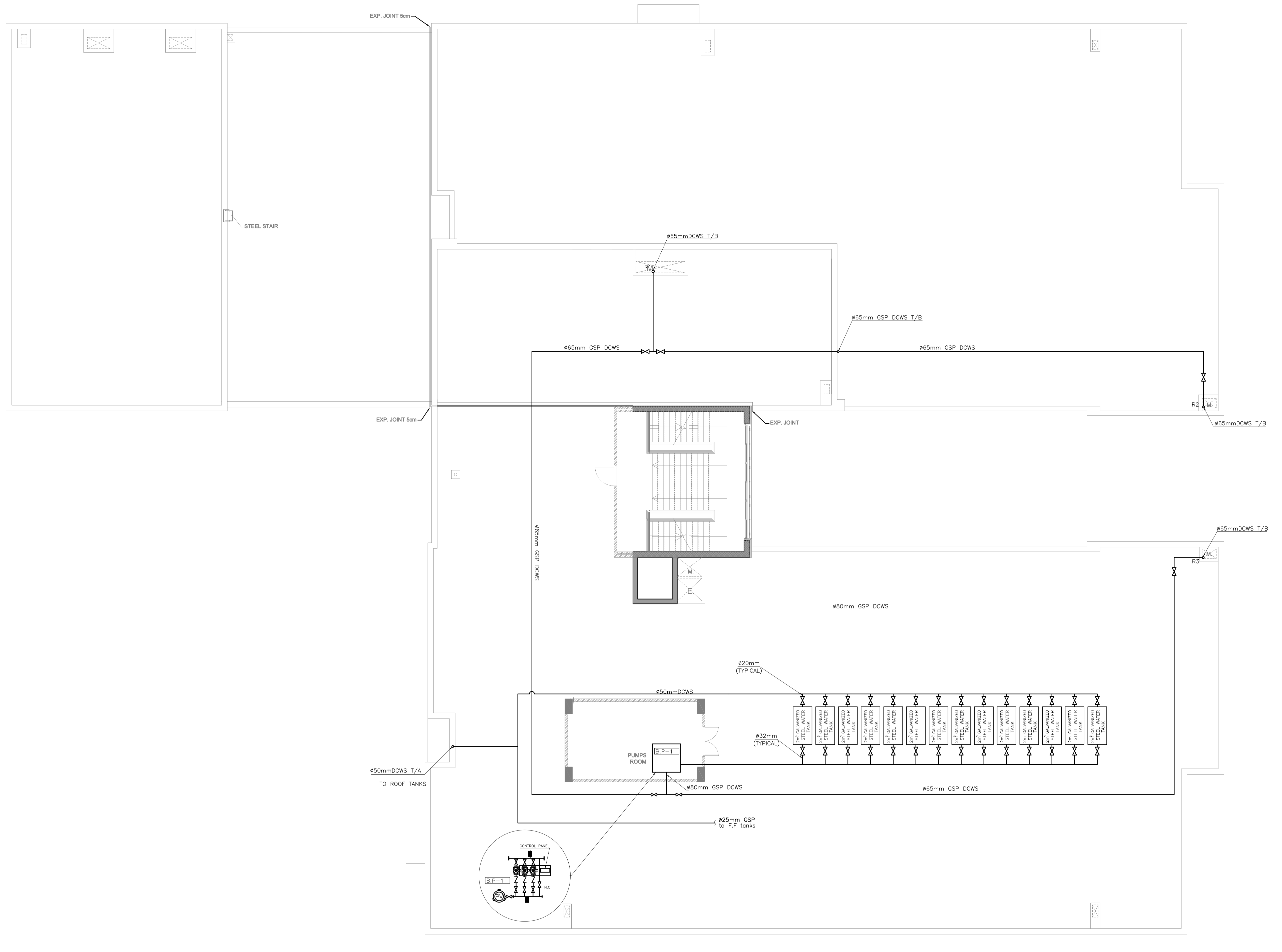
PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC (AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY PROJECT (USAID SKEP)

DRAWING NAME:  
SECOND FLOOR PLAN  
WATER DISTRIBUTION SYSTEM PLAN

SCALE: 1:100

PLOT No: 896  
LOCATION: Southern Shouneh  
BASIN NO: 35 AL SAKNH

Design: E.J.  
Date: JUNE 2020  
Checked: A.J.  
Approved: W.Z.  
Drawing Number: SKEP 17-PW103  
Rev.: 0



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PHASE III  
PACKAGE 1

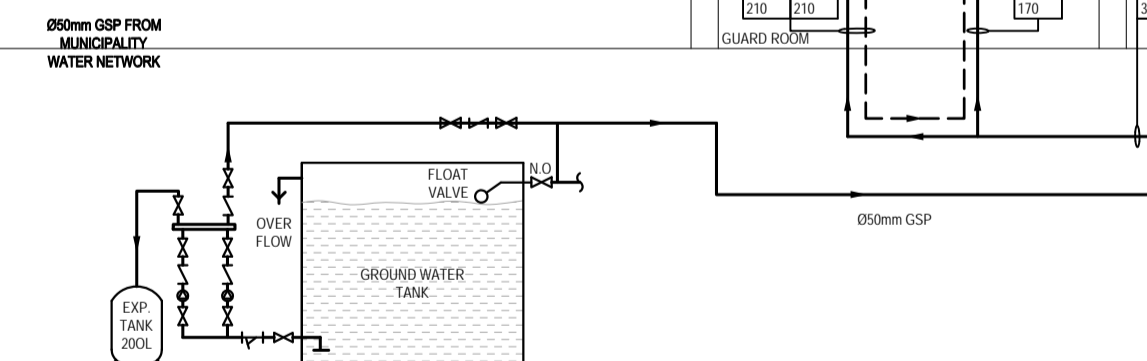
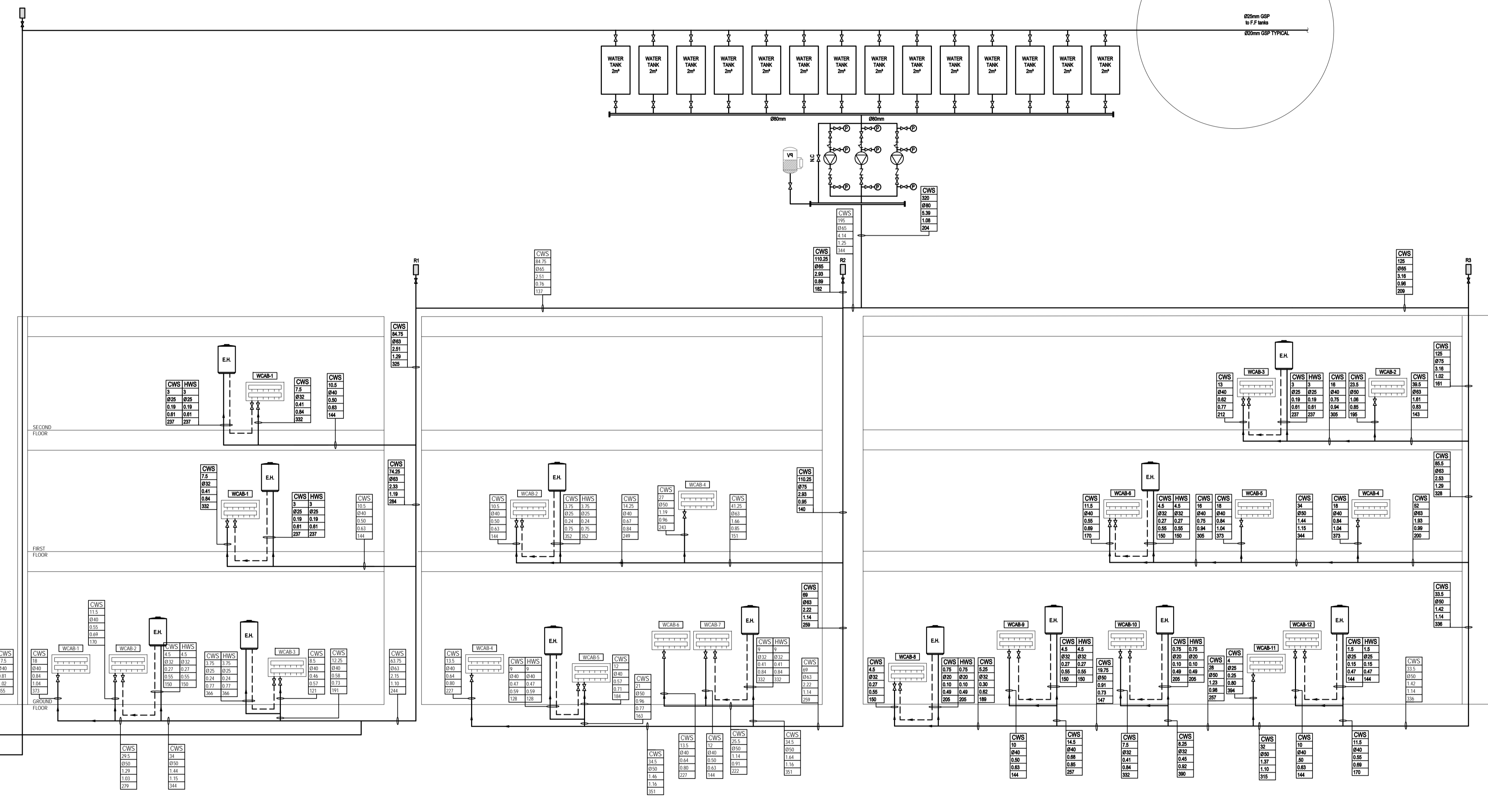
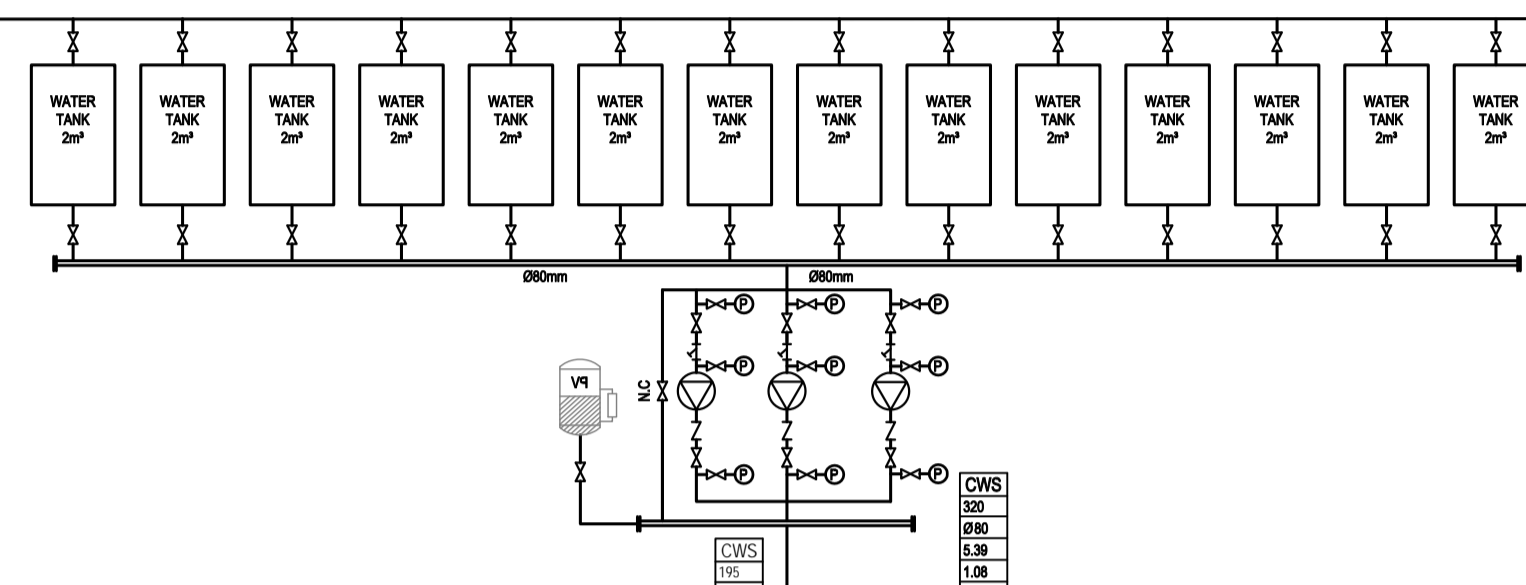
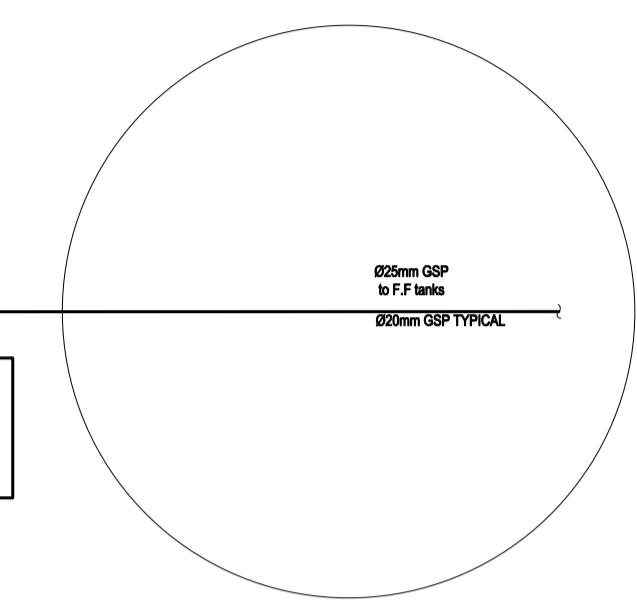
**KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)**

DRAWING NAME:  
**ROOF FLOOR PLAN  
WATER DISTRIBUTION SYSTEM PLAN**

DESIGN: E.J.  
SCALE:   
DATE: JUNE 2020  
DRAWING NUMBER: **SKEP 17-PW104**

Design: E.J.	Drawn: CAD	Checked: A.J.	North:
Approved: W.Z.	Rev.: 0		

CWS	HWS	WATER FIXTURE UNITS
0.75	0.25	PIPE DIAMETER (mm)
0.3	0.3	WATER FLOW (l/s)
0.033	0.03	WATER VELOCITY (m/s)
352	352	WATER PRESSURE DROP (Pa/m)



REV.	DATE	REMARKS
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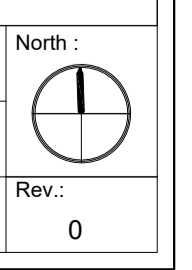
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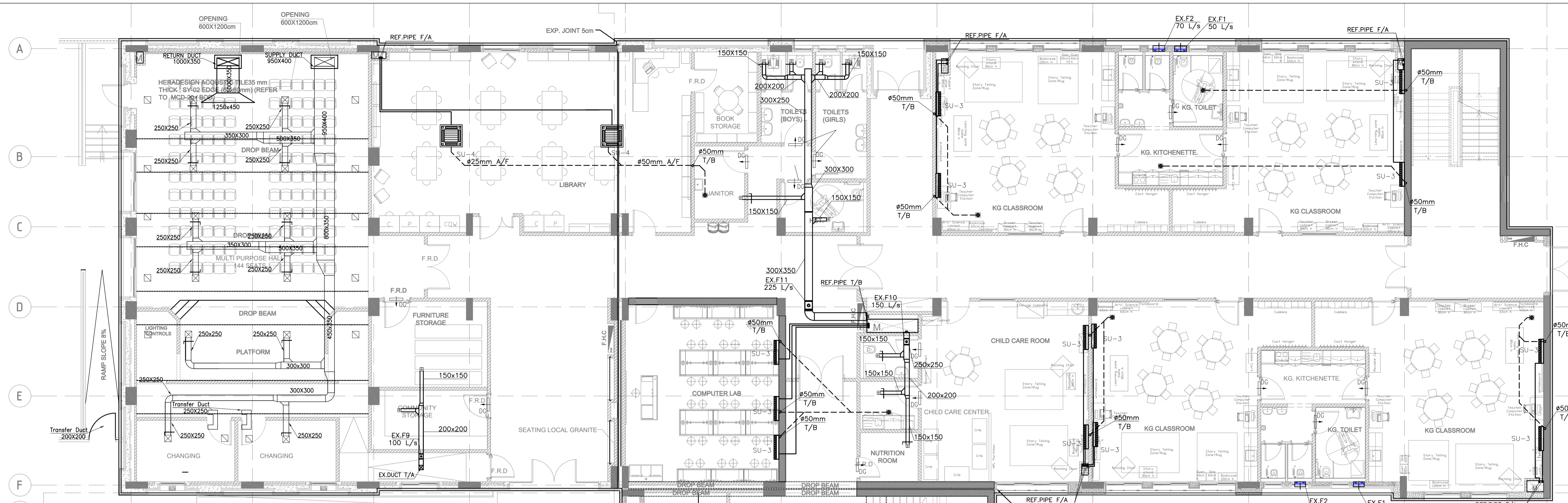


PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME:  
WATER DISTRIBUTION SYSTEM  
RISER DIAGRAM  
PLOT No: 696  
LOCATION: Southern Shouneh  
BASIN NO: 35 AL SAKNH

Design: E.J.  
SCALE: N.T.S.  
DRAWING NUMBER: SKEP 17-PW601  
Drawn: CAD  
Date: JUNE 2020  
Checked: A.J.  
Approved: W.Z.





**G HEAT PUMP ROOF TOP PACKAGED UNIT SCHEDULE**

REF.	TYPE	SUPPLY AIR FLOW (L/S)	FRESH AIR FLOW (L/S)	ENTERING AIR TEMPERATURE DB / WB	ESP Pascal	COOLING CAPACITY (KW) TOTAL	HEATING LOAD (KW) SENSIBLE	INPUT POWER (KW)	VOLT (V)	PHASE (Φ)	FREQ. REQ.	QTY.	
RTP	ROOF TOP PACKAGE UNIT WITH ECONOMIZER AND HYDRONIC HOT WATER COIL FOR HEATING	2166	416	30.9/21.5	200	44.2	34.6	13.9	16	400	3	50	1

- SELECTION SHALL BE BASED ON :
- AMBIENT TEMPERATURE = 42°C DB
- ALL UNITS TO BE CONTROLLED BY ROOM THERMOSTATS
- ALL INDOOR THERMOSTATS TO BE INSTALLED AGAINST WALLS AS SHOWN ON DRAWINGS
- SELECTION SHALL BE BASED ON MEDIUM SPEED
- THE POWER CONSUMPTION IN (KW) IS BASED ON PRELIMINARY EQUIPMENT SELECTION.
- FINAL FANS STATIC PRESSURE SHALL BE VERIFIED AND RECALCULATED BY THE CONTRACTOR ACCORDING TO HIS APPROVED SHOP DRAWINGS AND MATERIALS

**EXHAUST FANS SCHEDULE**

FAN REF.	SERVED AREA	LOCATION	TYPE	AIR CAP. L/S	ESTIM. S.F. Pa	Estim. kW	ELECTRICAL DATA			QTY.
							V	Phase	RPM	Duty
EX.F-1	QUARDROOM, TOILET, STORAGE	GROUND FLOOR	WALL-MOUNTED	50	15	0.1	230	1	1290	7
EX.F-2	TOILETS	GROUND FLOOR	WALL-MOUNTED	70	15	0.1	230	1	1290	2
EX.F-3	TOILETS	FIRST FLOOR	WALL-MOUNTED	140	20	0.2	230	1	1425	3
EX.F-4	CANTEEN	GROUND FLOOR	WALL-MOUNTED	150	20	0.2	230	1	1425	1
EX.F-5	TOILETS	FIRST FLOOR	WALL-MOUNTED	175	25	0.2	230	1	1425	1
EX.F-6	LABS	GROUND FLOOR	WALL-MOUNTED	230	25	0.2	230	1	1425	4
EX.F-7	TOILETS	1st, 2nd	WALL-MOUNTED	245	25	0.2	230	1	1425	1
EX.F-8	TOILETS	GF, 1st	INLINE CENTRIFUGAL	50	20	0.2	230	1	1425	2
EX.F-9	PREP ROOMS	GROUND FLOOR	INLINE CENTRIFUGAL	100	20	0.2	230	1	1425	2
EX.F-10	CONFERENCE ROOM, KIT, TOILET	GROUND FLOOR	INLINE CENTRIFUGAL	120	25	0.2	230	1	1425	0
EX.F-11	CONFERENCE ROOM, KIT, TOILET	GROUND FLOOR	INLINE CENTRIFUGAL	150	25	0.2	230	1	1425	2
EX.F-12	TOILETS	GROUND FLOOR	INLINE CENTRIFUGAL	225	100	0.3	230	1	1425	1

- NOTES:-
- PROVIDE AUTOMATIC SHUTTER TO ALL FANS
  - THE POWER CONSUMPTION IN (KW) IS BASED ON PRELIMINARY EQUIPMENT SELECTION.
  - THE ACTUAL POWER CONSUMPTION AND NOMINAL RATING SHOULD BE VERIFIED BY THE CONTRACTOR BASED ON FINAL EQUIPMENT SELECTION.
  - FINAL FANS STATIC PRESSURE SHALL BE VERIFIED AND RECALCULATED BY THE CONTRACTOR ACCORDING TO HIS APPROVED SHOP DRAWINGS AND MATERIALS

**SPLIT UNIT SCHEDULE**

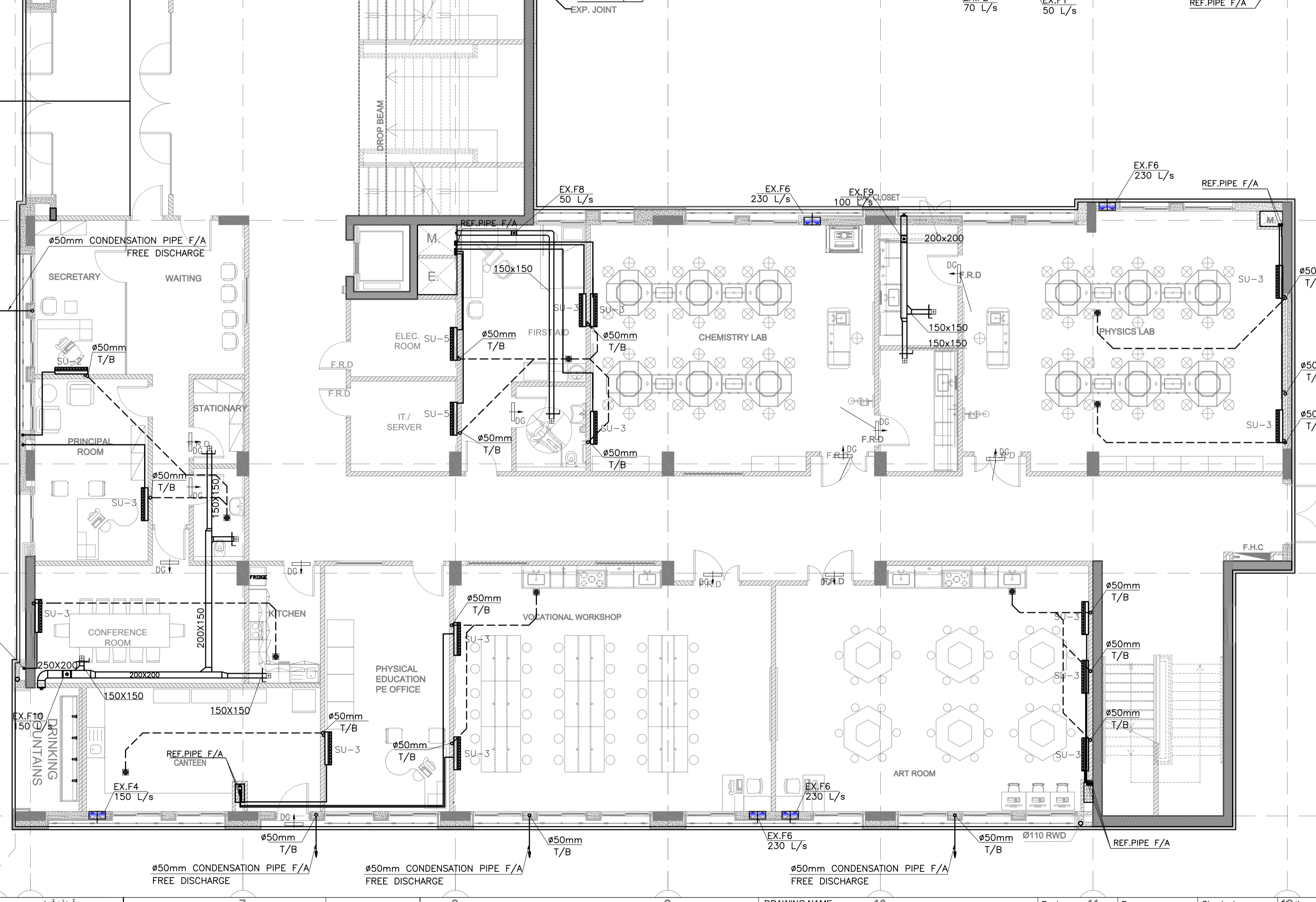
REF.	LOCATION	TYPE	ON COIL TEMPERATURE DB / WB	NOMINAL COOLING CAPACITY (KW) TOTAL	INPUT POWER (KW)	VOLT. (V)	PHASE (Φ)	FREQ. REQ.	QTY.
SU-5	IT SERVER ELECTRICAL ROOM	WALL MOUNTED	22.0/16.0	2.8	2.0	230	1	50	02

- SELECTION SHALL BE BASED ON :
- AMBIENT TEMPERATURE (SUMMER) = 42°C DB
  - AMBIENT TEMPERATURE (WINTER) = 5°C DB
  - ALL UNITS TO BE CONTROLLED BY ROOM THERMOSTATS
  - ALL INDOOR THERMOSTATS TO BE INSTALLED AGAINST WALLS AS SHOWN ON DRAWINGS
  - SELECTION SHALL BE BASED ON MEDIUM SPEED

**SPLIT UNIT HEAT PUMP SCHEDULE**

REF.	TYPE	ON COIL TEMPERATURE DB / WB	NOMINAL COOLING CAPACITY (KW) TOTAL	INPUT POWER (KW)	VOLT. (V)	PHASE (Φ)	FREQ. REQ.	QTY.
SU-01	WALL MOUNTED	22.0/16.0	2.8	1.2	230	1	50	3
SU-02	WALL MOUNTED	22.0/16.0	4.3	3.0	380	1	50	32
SU-03	WALL MOUNTED	22.0/16.0	5.1	3.5	380	1	50	59
SU-04	CASSETTE	22.0/16.0	8.0	6.5	450	3	50	7

- SELECTION SHALL BE BASED ON :
- AMBIENT TEMPERATURE (SUMMER) = 42°C DB
  - AMBIENT TEMPERATURE (WINTER) = 5°C DB
  - ALL UNITS TO BE CONTROLLED BY ROOM THERMOSTATS
  - ALL INDOOR THERMOSTATS TO BE INSTALLED AGAINST WALLS AS SHOWN ON DRAWINGS
  - SELECTION SHALL BE BASED ON MEDIUM SPEED



NOTES:

1	Jan. 2020	MODIFIED DRAWINGS
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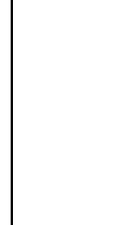
REV.	DATE	REMARKS



PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC (AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY PROJECT (USAID SKEP)

DRAWING NAME: 11  
GROUND FLOOR PLAN  
HVAC DUCTING SYSTEM PLAN

Design: 11 M.Y.  
Date: JUNE 2020  
Scale: 1:100  
Drawing Number: SKEP 17-MH101





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PHASE III  
PACKAGE 1

**KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)**

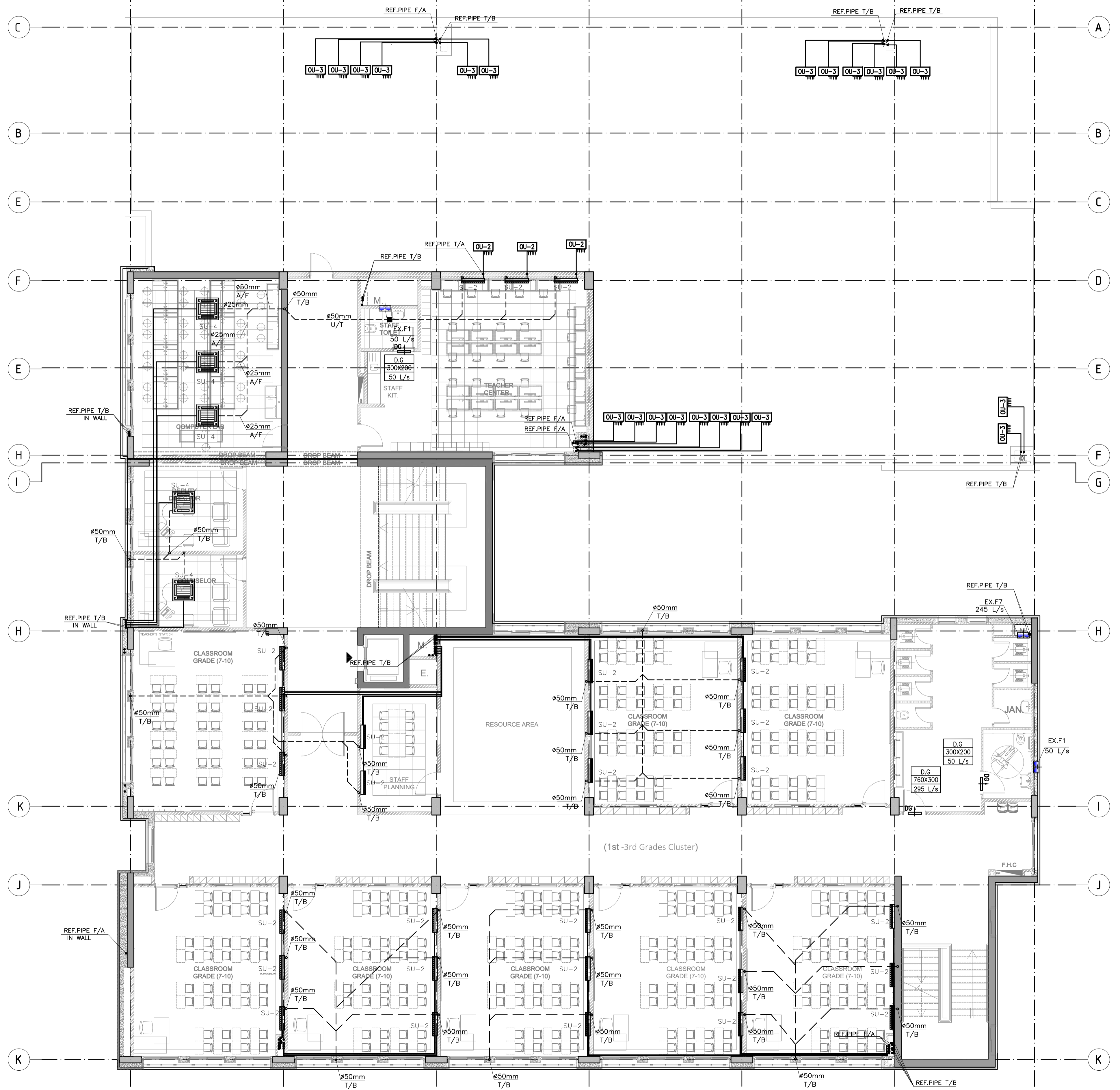
DRAWING NAME:  
**FIRST FLOOR PLAN  
HVAC DUCTING SYSTEM PLAN**

PLOT No: 696    LOCATION: Southern Shouneh    BASIN NO: 35 AL SAKNH

Design: M.Y.    Drawn: CAD    Checked: A.J.    North:

SCALE:    Date: JUNE 2020    Approved: W.Z.

DRAWING NUMBER: **SKEP 17-MH102**    Rev.: 0



REV.	DATE	REMARKS
0	JUNE 2020	VOL. IV - TENDER DRAWINGS

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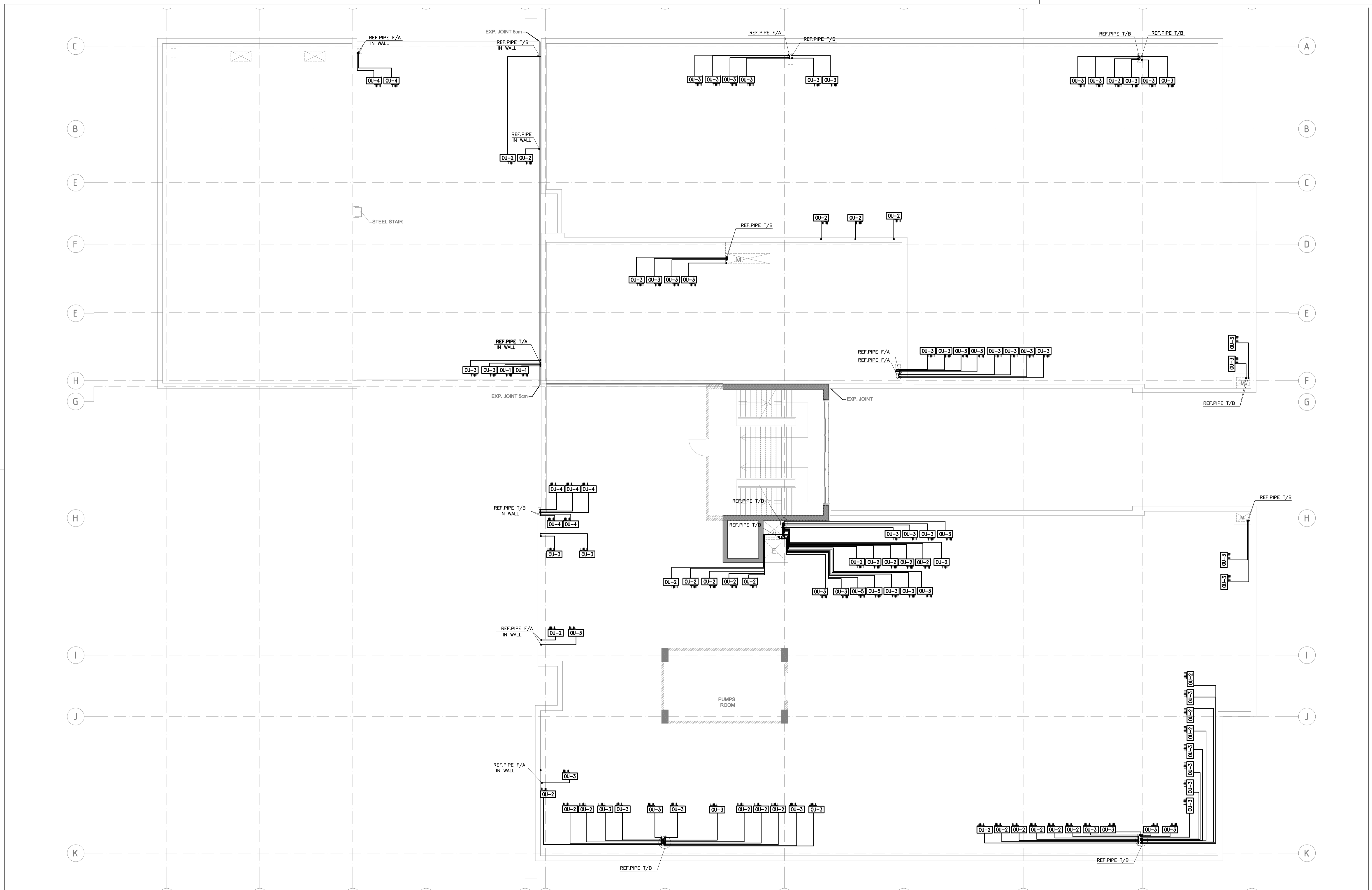
PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME:  
SECOND FLOOR PLAN  
HVAC DUCTING SYSTEM PLAN

Design: M.Y. CAD  
Checked: A.J.  
SCALE: 1:100  
Date: JUNE 2020  
Approved: W.Z.  
DRAWING NUMBER:  
SKEP 17-MH103  
Rev.: 0

PLOT No	LOCATION	BASIN NO
696	Southern Shouneh	35 AL SAKHN





REV.	DATE	REMARKS
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PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME: SECOND FLOOR PLAN HVAC DUCTING SYSTEM PLAN		Design: M.Y.	Drawn: CAD	Checked: A.J.	North:
PLOT No: 896		SCALE:	Date: JUNE 2020	Approved: W.Z.	Rev.: 0
LOCATION: Southern Shouneh	BASIN NO: 35 AL SAKNH	DRAWING NUMBER: SKEP 17-MH104			



REV.	DATE	REMARKS
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PHASE III  
PACKAGE 1

**KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)**

DRAWING NAME:  
**GROUND FLOOR PLAN  
FIRE FIGHTING SYSTEM PLAN**

Design: E.J. Drawn: CAD Checked: A.J. North:  
SCALE: 1:100 Date: JUNE 2020 Approved: W.Z.  
DRAWING NUMBER: **SKEP 17-FX101**

PLOT No	LOCATION	BASIN NO
898	Southern Shounah	35 AL SAKNH



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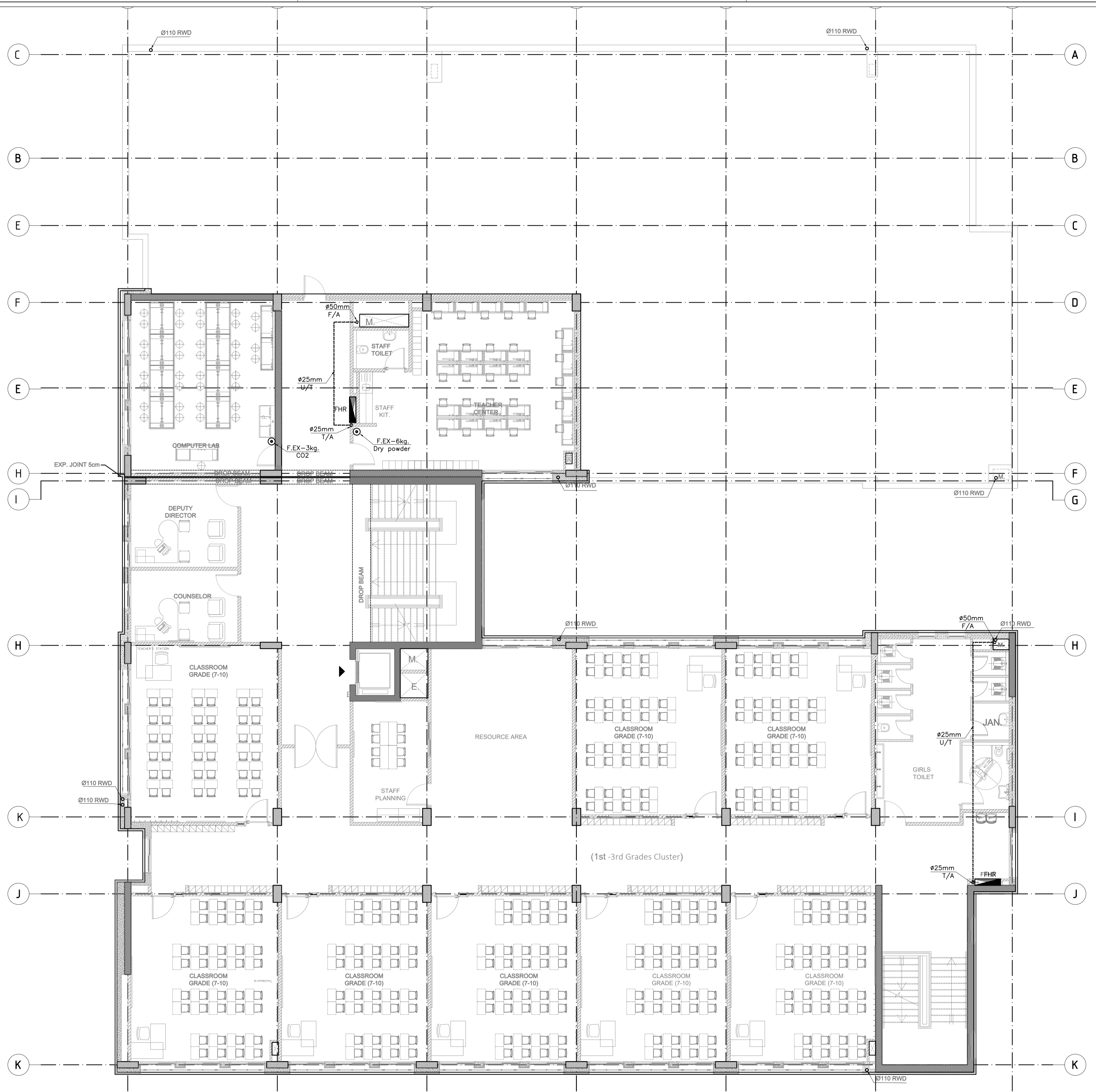
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(AL SHOUNA AL JANOBIA)**  
**SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)**

DRAWING NAME:  
**FIRST FLOOR PLAN  
FIRE FIGHTING SYSTEM PLAN**

PLOT No: 696    LOCATION: Southern Shouneh    BASIN NO: 35 AL SAKNIH

Design: E.J.    Drawn: CAD    Checked: A.J.  
SCALE: 1:100    Date: JUNE 2020    Approved: W.Z.  
DRAWING NUMBER: **SKEP 17-FX102**

North:   
Rev.: 0



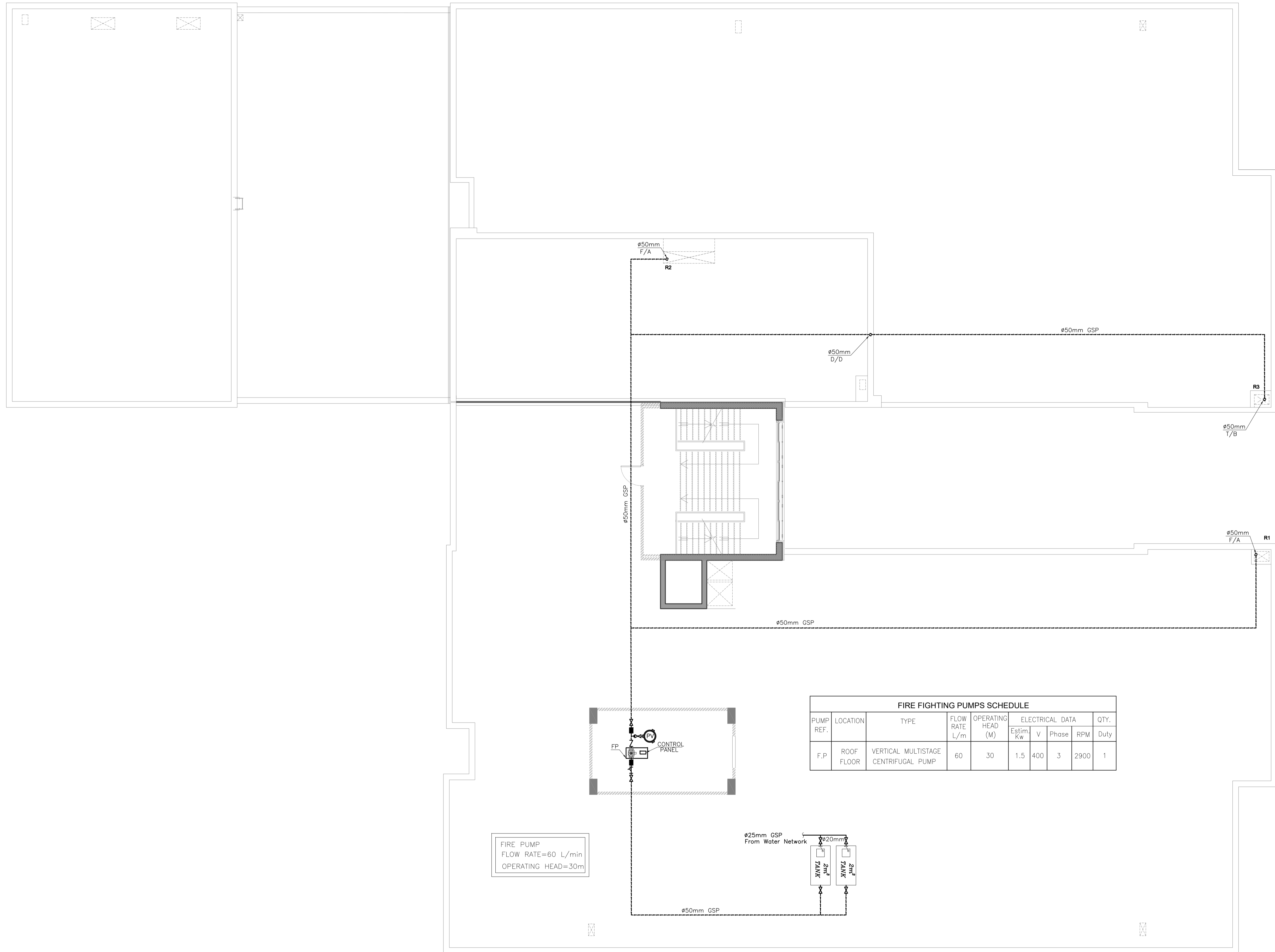
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PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME: <b>SECOND FLOOR PLAN FIRE FIGHTING SYSTEM PLAN</b>		Design: E.J.	Checked: A.J.	North:
PLOT No: 896		SCALE: 1:100	Date: JUNE 2020	Approved: W.Z.
LOCATION: Southern Shouneh	BASIN NO: 35 AL SAKNH	DRAWING NUMBER: <b>SKEP 17-FX103</b>		Rev.: 0



FIRE FIGHTING PUMPS SCHEDULE									
PUMP REF.	LOCATION	TYPE	FLOW RATE L/m	OPERATING HEAD (M)	ELECTRICAL DATA				QTY.
					Estim Kw	V	Phase	RPM	
F.P	ROOF FLOOR	VERTICAL MULTISTAGE CENTRIFUGAL PUMP	60	30	1.5	400	3	2900	1

FIRE PUMP  
FLOW RATE=60 L/min  
OPERATING HEAD=30m

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NOTES:

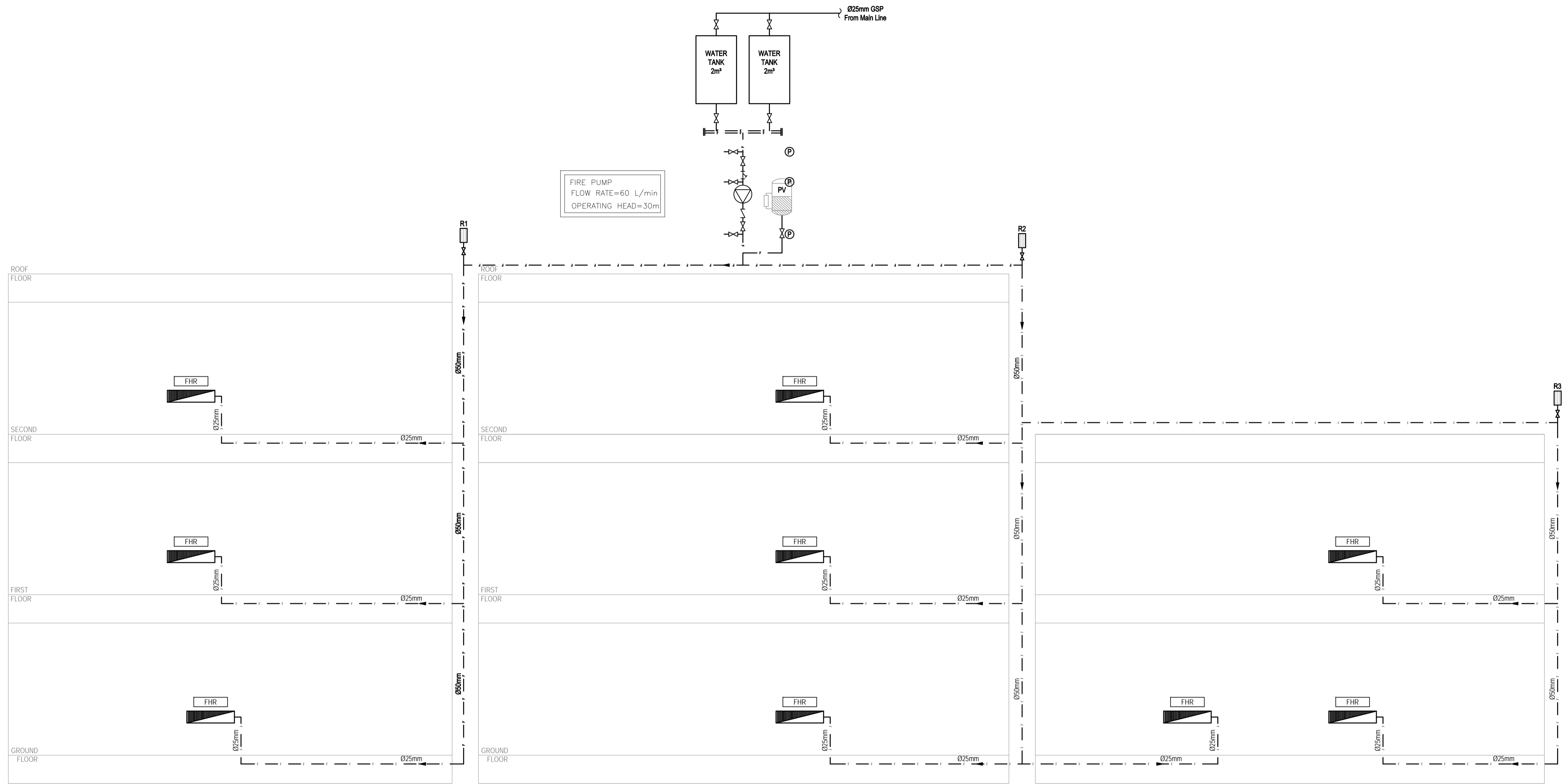


PHASE III  
PACKAGE 1  
KHADIJA BINT KHWAILED BASIC (AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY PROJECT (USAID SKEP)

DRAWING NAME:  
SECOND FLOOR PLAN  
FIRE FIGHTING SYSTEM PLAN

Design: E.J.  
Drawn: CAD  
Checked: A.J.  
SCALE: 1:100  
Date: JUNE 2020  
Approved: W.Z.

DRAWING NUMBER:  
SKEP 17-FX104  
PLOT No: 896  
LOCATION: Southern Shouneh  
BASIN NO: 35 AL SAKNH  
Rev.: 0



REV.	DATE	REMARKS
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PHASE III  
PACKAGE 1

KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)

SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME:  
Fire Fighting System  
Riser Daigram

PLOT No 898  
LOCATION Southern Shouneh  
BASIN NO 35 AL SAKNH

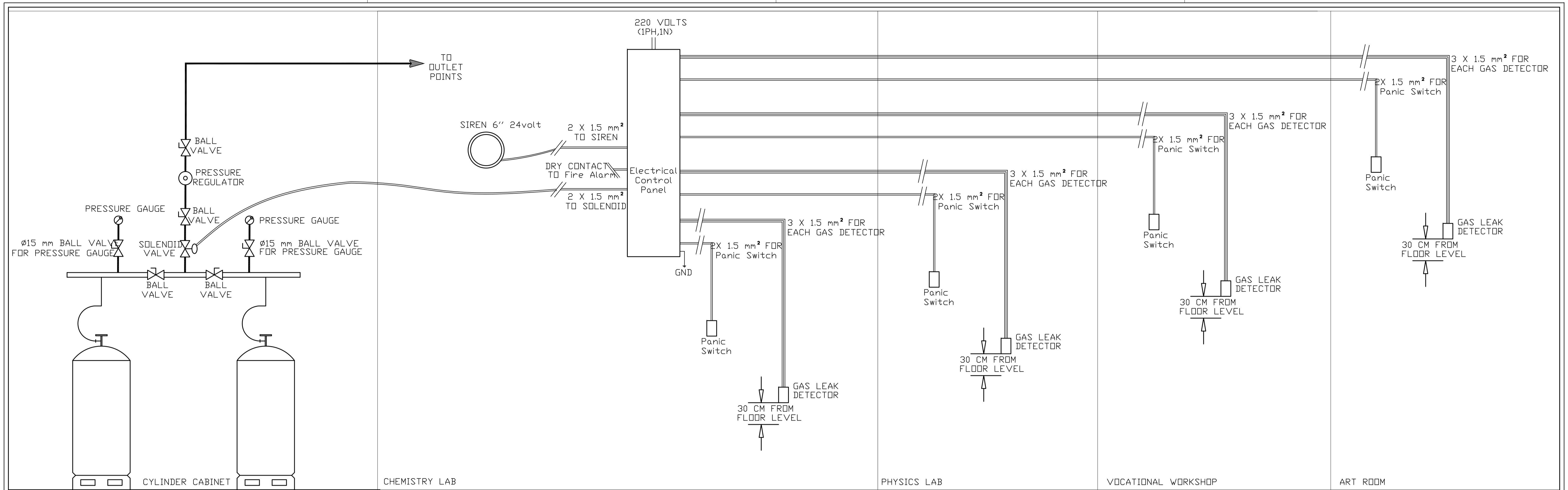
Design: E.J.  
SCALE: N.T.S.  
DRAWING NUMBER: SKEP 17-FX601

Drawn: CAD  
Date: JUNE 2020

Checked: A.J.  
Approved: W.Z.

North:

Rev.: 0



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PHASE III  
PACKAGE 1

KHADIJA BINT KHWAILED BASIC  
(AL SHOUNA AL JANOBIA)  
SCHOOLS FOR A KNOWLEDGE ECONOMY  
PROJECT (USAID SKEP)

DRAWING NAME:  
**GROUND FLOOR PLAN  
LPG SYSTEM PLAN**

Design: M.Y. Drawn: CAD Checked: A.J. North:  
SCALE: Date: JUNE 2020 Approved: W.Z.  
DRAWING NUMBER: **SKEP 17PF101**

PLOT No: 696 LOCATION: Southern Shouneh BASIN NO: 35 AL SAKNIH

Rev:	0
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