

		The state of the state of	RETAIL DES	IGN &	DELIVERY	r SUBI	RETAIL DESIGN & DELIVERY SUBMITTAL & TRANSMITTAL FORM	TTAL FORM			
MAII	MAI! / DRODEDTY NAME.	AL KOHTE MALL		EDAND NAME	NAME.			OI ABVIC		HANT MILADED.	20.0
7		AL NOOTH PIREE	4	STANIS	WALTE.			CLARIN 3		UNI NUMBER:	6-07
	SUBMITTAL / TRANSMITTAL NO.:	NSMITTAL NO.:			001	J	603	SUBMIT	SUBMITTAL DATE:	24-S	24-Sep-17
jud.	INVESTOR and/or	NAME of Investor / Authorized Representative	rized Represent	ative		CON	CONTACT No. of Investor / Authorized	/ Authorized	E-mail Addres	E-mail Address of Investor / Authorized Representative	ized Representative
CC	AUTHORIZED REPRESENTATIVE	JASHANMAL	IAL				90022060			rafat@jashanmal.net	et.
	CONTRACTOR'S	COMPANY NAME	NAME		Z	AME	NAME of Contractor's Project Manager	ct Manager	CONTACT No.	E-mail.	E-mail Address
ΩĽ	AUTHORIZED REPRESENTATIVE	Lanouvelle Interiors	teriors				Eng.Dory Hanna	Saak	99825584	dory@lanou	dory@lanouvelleint.com
		ONE (1) SUBMITTAL / TRANSMITTAL for each SUBMITTAL TYPE	TAL for each SUB	MITTAL	TYPE			✓ NEW SUBMITTAL		RE-SUBMITTAL	ртнекз
	DRAWING TITL	DRAWING TITLE / DESCRIPTION			NO. OF				RD&D ACTION		
	SUBMIT	SUBMITTAL TYPE		ON	COPIES		CODE				
ITEM		CONCEPT DESIGN; ARCHITECTURAL & MEP DETAILED	DRAWING NO.	NOI	Ad	A	APPROVED				
Š.	DESIGN; SIGNAGE; HOARD.	DESIGN; SIGNAGE; HOARDING; KFD/FIRE ALARM, FIRE FIGHTING. EMERGENCY & EXIT: AS BUILT: MATERIAL		SIA	CD)	m	APPROVED AS NOTED		COMME	COMMENTS / REMARKS	
	SAMPLE; SPECIFICATIONS;	SAMPLE; SPECIFICATIONS; SURVEYS; INSURANCE, ETC.			AAH	×	REVISE & RESUBMIT				
П	COMPOSIT LAYOUT		CO-01		1 1						
2	FIRE FIGHTING LAYOUT		FF-01		1 1						
8	LIGHTING LAYOUT		LI-01		1 1						
4	HVAC LAYOUT		AC-01		1 1						
15	POWER LAYOUT		PW-01		1 1						
9	SMOKE DETECTOR LAYOUT		SM-01		H						
7	EM-&-EX-LAYOUT		EMX-01		1 1						
80	SPEAKER LAYOUT		SP-01		1 1						
6	DB SCHDULE management of (WLL)	ū			1 1						
6	HEAT LOAD				1 1						
	2 4 SEP 2017										
	Time:	RETAIL DESIGN & DELIVERY	& DELIVERY						Invest	Investor / Contractor	
	Received By: C. Delivery D	Received By: & Delivery Dept. RD&D Coordinator MM	Sr. MEP / MEP Engineer	P Engin	NV TO	Manag	Sr. Manager and/or General Manager	Name:	THOMAS JOY	I hereby certify that the abov reviewed in detail and comformance with the conf	I hereby certify that the above submitted Items have been reviewed in detail and are correct in the strict comformance with the contact requirement except as
								Tel. No.:	90020031	otherwise O	otherwise stated.
ž	Name / Signature / Date	Name / Signature / Date	Name / Signature / Date	ure / Dat	gų	Name	Name / Signature / Date	Date:	24-Sep-17	Authorized Sig	Authorized Signature / Date

NOTE: DOCUMENTS & DRAWING SUBMITTED AT BE SUBMITTED AT GLA OFFICE FROM %GONDAY TO THURSDAY. SUBMITTAL(S) AFTER 5:00PM WILL BE STAMPED THE NEXT WORKING DAY'S DATE.

• ALL DRAWING SUBMITTED IN OTHER PAPER. SIZE PAPER; B) COLOR; C) SOFFICOPY ON CD WHICH INCLUDES ATTOCAD DRAWINGS (DWG) & ACROBAT (PDF) FILES.

• DRAWINGS SUBMITTED IN OTHER PAPER SIZE SUCH AS AQ, A1, A2, FTC. SHOULD BE SUBMITTED IN THREE (3) HARDCOPIES TOGETHER WITH A SOFTCOPY ON CD;

• OTHER DOCUMENTS SUCH AS INSURANCE (Original), CERTFICATIONS, LETTERS, CATALOGUES, SPECIFICATIONS, FTC. SHOULD BE SUBMITTED ONLY IN A4 or A3 PAPER SIZE TOGETHER WITH SOFTCOPY ON CD.

NO. OF PAGES: Page Of

A for		m			180			150			300			300			110						400			009			400			20	2510	
ELCB 30m	LOAD (W)	>		210			140			300			300			300						400			400			250					2600	
0A 4P CO		œ	215			120			250			300			300			300			400			400			400						2685	
for Lighting , 4	Watts per point		6x25 + 1x15 + 1x50	5x25 + 3x15 + 2x20	6x25 + 2x15	4x20 + 2x20	5x25 + 1x15	2x75	5x50	3×100	3x100	3×100	3x100	3×100	3×100	1x300	8X10 + 3X10	0 2 X9			2x200	2×200	2×200	2×200	2×200	3×200	2×200	250	2x200					
Clarks - AL Kout Mall 40A 4P COELCB 300mA with contactor for Lighting , 40A 4P COELCB 30mA for	DESCRIPTION	THE RESIDENCE CONTRACTOR OF THE PROPERTY OF TH	L1 (P0532 + P4401 + womens pendant)	L2 (P0532 + P4401 + P4402)	L3 (P0532 + P4401)	Entrance (P4402 + D4477)	L4 (P0532 + P4401)	Display (S4307JA)	Chandilier	Furniture Display D -1	Furniture Display D -2	Furniture Display D -3	Furniture Display D -4	Furniture Display D -5	Furniture Display D -6	Signage	EX & EM	L - Store	Spare	Spare	Cashier - 1	Cashier - 2	Store	Utility - 1	Utility - 2	Utility Store	P-IT	AC	P - CCTV	Spare	Spare	Spare	7795	TOTAL LOAD = 7.795 KW
	Controlled by				١	/0 <i>†</i>	ЯО	TO/	ΑTV	100) X 8	a 0	37	108	ΙΤΝ	00					SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket					TOTAL LOA
N on load type,	WIRE	SIZE	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5			4	4	4	4	4	4	4	4	4					
A TPN on	MCB	Kating	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	20	20	20	20	20	20	20	20	20	20	20	20		
ator 100 /	PHASE	No.	œ	>	В	Я	γ	В	Я	\	В	æ	٨	В	Ж	٨	В	Ж	>	В	Я	Υ	В	R	٨	В	Я	Υ	В	22	\	В		
DB - 10 ways Isolator 100 A TPI	CKT			-			7			က			4			5			9						80			တ	GLAP) open	OF Man	nag	eme at Co	nt (w.c.
DB - 10 w						4			ε	NI.	LHS	דוכ													5	ΙΞΛ	۸٥			2 <i>l</i>			201	

	Cross Innut Data	
	Space Input Data	
Clarks		07/25/2017
Lenovelle		08:15AM

G-01 RETAIL			
1. General Details: Floor Area	ft lb/ft² CFM/person	2.4. People:	
Fixture Type Recessed (Unvented) Wattage 1.86 Ballast Multiplier 1.08 Schedule LIGHTING	W/ft²	Occupancy 4.0 Activity Level User defined Sensible 230.0 BTU/hr/person 104.1 BTU/hr/person Schedule PEOPLE	People
2.2. Task Lighting: Wattage	W/ft²	2.5. Miscellaneous Loads: 0 Sensible 0 Schedule None Latent 0 Schedule None	BTU/hr BTU/hr
2.3. Electrical Equipment: Wattage	Watts		

3. Walls, Windows, Doors:

Ехр.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
NNW	327.2	0	0	0

3.1. Construction Types for Exposure NNW
Wall Type Wall

4. Roofs, Skylights:
(No Roof or Skylight data).

5. Infiltration:

militration.		
Design Cooling	0.00	CFM
Design Heating		
Energy Analysis	0.00	CFM
Infiltration occurs only when the fan is off.		

6. Floors:

Type Floor Above Conditioned Space (No additional input required for this floor type).

7. Partitions: (No partition data).



Page 1 of 2 Hourly Analysis Program v4.61

User defined 230.0 BTU/hr/person 104.1 BTU/hr/person PEOPLE		
0	BTU/hr	
None	BTU/hr	
None		
OLA manageme Property Management 6	ent ca.(WLL)	
2 4 SEP 20	1 <mark>17</mark>	
ECEIN	VED	

	Space Input Data	
Clarks		07/25/2017
Lenovelle		08:15AM

G-02 RETAIL

6. Floors:

7. Partitions: (No partition data).

1. General Details:	
Floor Area	ft²
Avg. Ceiling Height	ft
Building Weight	lb/ft²
1.1. OA Ventilation Requirements:	10/11
Space Usage RETAIL: Sales	
OA Requirement 1 8.1	CFM/pe
OA Requirement 2 0.12	CFM/ft ²
Space Usage Defaults ASHRAE Std 62.1-2007	
2. Internals:	
2.1. Overhead Lighting:	
Fixture Type Recessed (Unvented)	
	W/ft²
Ballast Multiplier	
Schedule LIGHTING	
2.2. Task Lighting:	
Wattage 0.00	W/ft²
Schedule None	
swer sole o	
2.3. Electrical Equipment:	141-41-
Wattage	Watts
Scriedule ELECRICAL	
3. Walls, Windows, Doors:	
(No Wall, Window, Door data).	
4. Roofs, Skylights:	
(No Roof or Skylight data).	
5. Infiltration:	
Design Cooling	CFM
Design Heating 0.00	CFM
Energy Analysis 0.00	CFM
Infiltration occurs only when the fan is off.	

Type Floor Above Conditioned Space (No additional input required for this floor type).



Hourly Analysis Program v4.61 Page 2 of 2

n		
	2.4. People:	Doonlo
	Occupancy	People
	Sensible 220.0	
	Latent	
	Schedule PÉOPLE	
	2.5. Miscellaneous Loads:	
	Sensible	BTU/hr
	Schedule None	
	Latent 0 Schedule	BTU/hr
	Concedito	

Air System Sizing Summary for FCU-11 CLARKS

Project Name: Clarks Prepared by: Lenovelle 07/25/2017 08:15AM

Air System Information Air System Name FCU-11 CLARKS Equipment Class CW AHU Air System Type SZCAV Sizing Calculation Information Zone and Space Sizing Method:		Number of zones	ft²
Zone CFM Peak zone sensible load Space CFM Coincident space loads		Calculation Months Jan to Dec Sizing Data User-Modified	
Central Cooling Coil Sizing Data			
Total coil load 3.5 Total coil load 42.4 Sensible coil load 34.2 Coil CFM at Jul 1900 1700 Max block CFM 1700 Sum of peak zone CFM 1700 Sensible heat ratio 0.806 ft²/Ton 422.7 BTU/(hr-ft²) 28.4 Water flow @ 10.0 °F rise 8.49	MBH MBH CFM CFM CFM	Load occurs at Jul 1900 OA DB / WB 112.8 / 79.7 Entering DB / WB 75.2 / 65.1 Leaving DB / WB 57.9 / 56.8 Coil ADP 55.8 Bypass Factor 0.100 Resulting RH 52 Design supply temp. 59.9 Zone T-stat Check 0 of 1 Max zone temperature deviation 0.0	*F *F *F *F OK *F
Central Heating Coil Sizing Data			
Max coil load 8.6 Coil CFM at Des Htg 1700 Max coil CFM 1700 Water flow @ 20.0 °F drop 0.86	CFM CFM	Load occurs at	°F
Precool Coil Sizing Data			
Total coil load 1.1 Total coil load 13.6 Sensible coil load 13.6 Coil CFM at Jul 1500 300 Max coil CFM 300 Sensible heat ratio 1.000 Water flow @ 10.0 °F rise 2.72	MBH MBH CFM CFM	Load occurs at Jul 1500 OA DB / WB 117.3 / 80.8 Entering DB / WB 117.3 / 80.8 Leaving DB / WB 75.0 / 69.6 Bypass Factor 0.100	°F °F
Supply Fan Sizing Data			
Actual max CFM 1700 Standard CFM 1689 Actual max CFM/ft² 1.14	CFM	Fan motor BHP	
Outdoor Ventilation Air Data Design airflow CFM		CFM/person	CFM/per



Hourly Analysis Program v4.61 Page 1 of 4

900 9.7 °F 5.1 °F 66.8 °F 55.8 °F 100 52 % 99.9 °F OK 0.0 °F					
Htg 5.7 '0.9 °F					
500 10.8 °F 10.8 °F 19.6 °F 100					
1.26 BHP 1.00 kW 3.75 CFM/person					
P 2017 Delivery Dept.					
Page 1 of 4					
Htg 5.7 70.9 500 80.8 80.8 89.6 1.00	°F °F °F °F CFM/person	°F °F °F BHP kW CFM/person	*F *	*F *F *F *F *F *F *F *F *F *F	"F "F BHP KW CFM/person

Zone Sizing Summary for FCU-11 CLARKS

Project Name: Clarks Prepared by: Lenovelle

07/25/2017 08:15AM

Air System Information
Air System Name
Equipment Class FCU-11 CLARKS CW AHU SZCAV

Number of zones .. . 1495.1 ft² Floor Area ... Location ... Kuwait City, Kuwait

. Peak zone sensible load ... Coincident space loads Space CFM

Calculation Months Jan to Dec Sizing Data ... **User-Modified**

Zone Sizing Data

	Maximum	Design	Minimum	Time	Maximum	Zone	
	Cooling	Air	Air	of	Heating	Floor	
	Sensible	Flow	Flow	Peak	Load	Area	Zone
Zone Name	(MBH)	(CFM)	(CFM)	Load	(MBH)	(ft²)	CFM/ft ²
FCU-11 CLARKS	28.0	1700	1700	Jul 1900	1.0	1495.1	1.14

Zone Terminal Sizing Data

No Zone Terminal Sizing Data required for this system.

Space Loads and Airflows

Zone Name / Space Name	Mult	Cooling Sensible (MBH)	Time of Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft²)	Space CFM/ft²
FCU-11 CLARKS							7022 (002000000000
G-01 RETAIL	1	8.4	Jul 1900	507	1.0	572.6	0.89
G-02 RETAIL	1	19.7	Jul 1900	1193	0.0	922.5	1.29



Hourly Analysis Program v4.61 Page 2 of 4

Air System Design Load Summary for FCU-11 CLARKS

Project Name: Clarks Prepared by: Lenovelle 07/25/2017 08:15AM

	DES	GN COOLING	3	DESIGN HEATING HEATING DATA AT DES HTG			
	COOLING DATA A	T Jul 1900					
	COOLING OA DB /	WB 112.8 °	F / 79.7 °F	HEATING OA DB /	WB 40.1 °F /	36.6 °F	
		Sensible	Latent		Sensible	Latent	
ZONE LOADS	Details	(BTU/hr)	(BTU/hr)	Details	(BTU/hr)	(BTU/hr)	
Window & Skylight Solar Loads	0 ft²	0	-	0 ft²	-		
Wall Transmission	327 ft²	1626	-	327 ft²	1023		
Roof Transmission	O ft²	0	-	0 ft²	0		
Window Transmission	0 ft²	0	-	0 ft²	0	-	
Skylight Transmission	O ft²	0	-	0 ft²	0	-	
Door Loads	O ft²	0	-	0 ft²	0		
Floor Transmission	O ft²	0) -	0 ft²	0		
Partitions	O ft²	0	-	0 ft²	0		
Ceiling	O ft²	0	-	0 ft²	0		
Overhead Lighting	3000 W	6385	-	0	0	12	
Task Lighting	0 W	0	(<u>2</u>	0	0		
Electric Equipment	4300 W	13932	(=	0	0	-	
People	16	3065	1665	0	0	C	
Infiltration	-	0	0	-	0	C	
Miscellaneous		0	0	-	0	C	
Safety Factor	12% / 7%	3001	117	0%	0	0	
>> Total Zone Loads		28008	1782	-	1023	0	
Zone Conditioning	_	28103	1782	-	1771	C	
Plenum Wall Load	0%	0	-	0	0		
Plenum Roof Load	70%	0	-	0	0		
Plenum Lighting Load	30%	3071	-	0	0		
Return Fan Load	1700 CFM	0		1700 CFM	0		
Ventilation Load	300 CFM	11520	6434	300 CFM	10188	C	
Supply Fan Load	1700 CFM	3412	1-	1700 CFM	-3412		
Space Fan Coil Fans	-	0	_	-	0	(•	
Duct Heat Gain / Loss	1%	280		1%	10		
>> Total System Loads	-	46386	8215	-	8558	C	
Central Cooling Coil		34226	8217	-	0	C	
Central Heating Coil	_	0	į	-	8558	2	
Precool Coil	-	12161	0	-	0	0	
>> Total Conditioning	-	46386	8217	_	8558	0	
Key:	Positive v	alues are cig	loads	Positive values are htg loads			
Williams ▼ Mass	Negative v	alues are htg	loads	Negative values are clg loads			



Hourly Analysis Program v4.61 Page 3 of 4



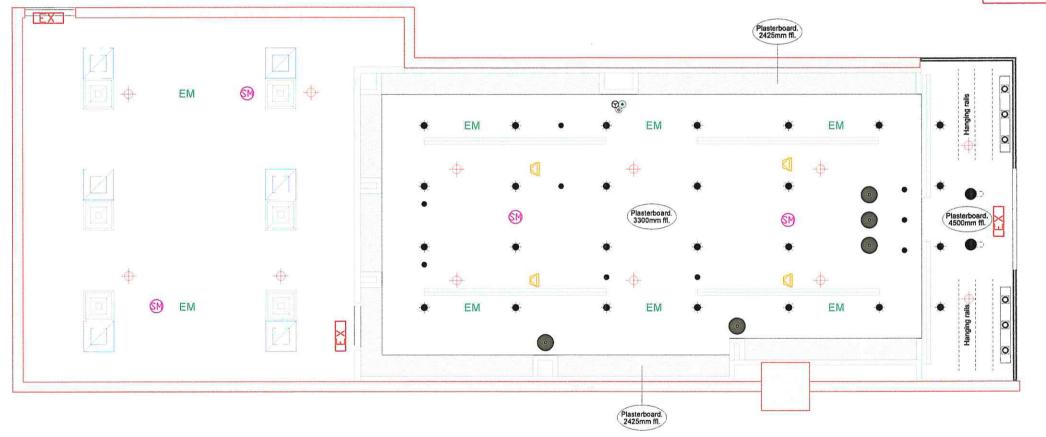
Location: Kuwait City, Kuwait Altitude: 180.0 ft. Data for: July DESIGN COOLING DAY, 1900 30 1. Outdoor Air 2. Vrecool Coil Outlet 3. Wixed Air 3. Wixed Air 5. Supply Fan Outlet 6. Duct Heat 6. Duct Heat 7. Return Plenum Outlet 40 50 60 70 80 Temperature(°F) 90 100 110 Specific Humidity (lb/lb) 0.000 0.018 0.020 0.002 0.004 0.016 OLA management GLA Property Management Co. (WLL) 2 4 SEP 2017

Hourly Analysis Program v4.61

Page 4 of 4

Project Name: Clarks Prepared by: Lenovelle Psychrometric Analysis for FCU-11 CLARKS 07/25/2017 08:15AM



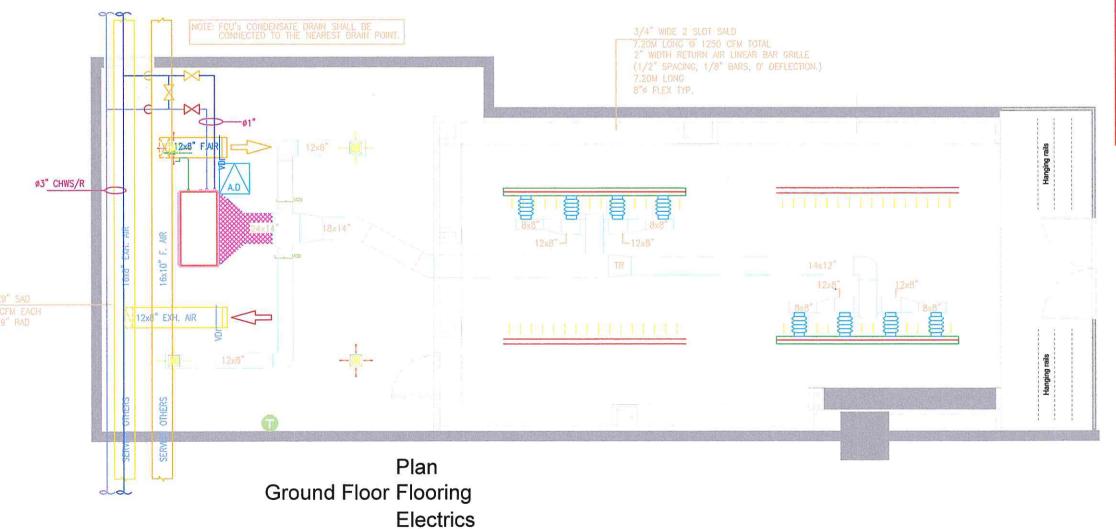


D.B. N.A. DDL. Ef. ATI AL

30

LEGEND PENDENT & UPRIGHT SPRINKLER PENDENT SPRINKLER SMOKE DETECTOR SPEAKER EMERGENCY LIGHT EM EX M AC DEFUSER AC GRILL

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT



DUCTED FAN COIL UNIT SCHEDULE - GROUND FLOOR (HV-104-00) (INVESTER'S SCOPE OF WORK)

60.0

SUPPLY COOLING CAPACITY

AIR SENSIBLE TOTAL TOTAL

CFM (BTUH) (BTUH) (TR)

1800 35640 42687 3.6

75.0

63.0

57.0

56.0

46.0

MARK

N N

AL

AT

E

00

Ž

DE

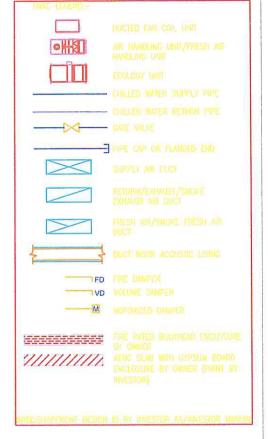
DE

CHILLED WATER

MAX. PD COIL

FT. H₂O ROWS

6.1 10 4 0.3







AC-01

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

E.S.P. T.S.P. FILTER

ELECTRICAL DATA

PH

HZ

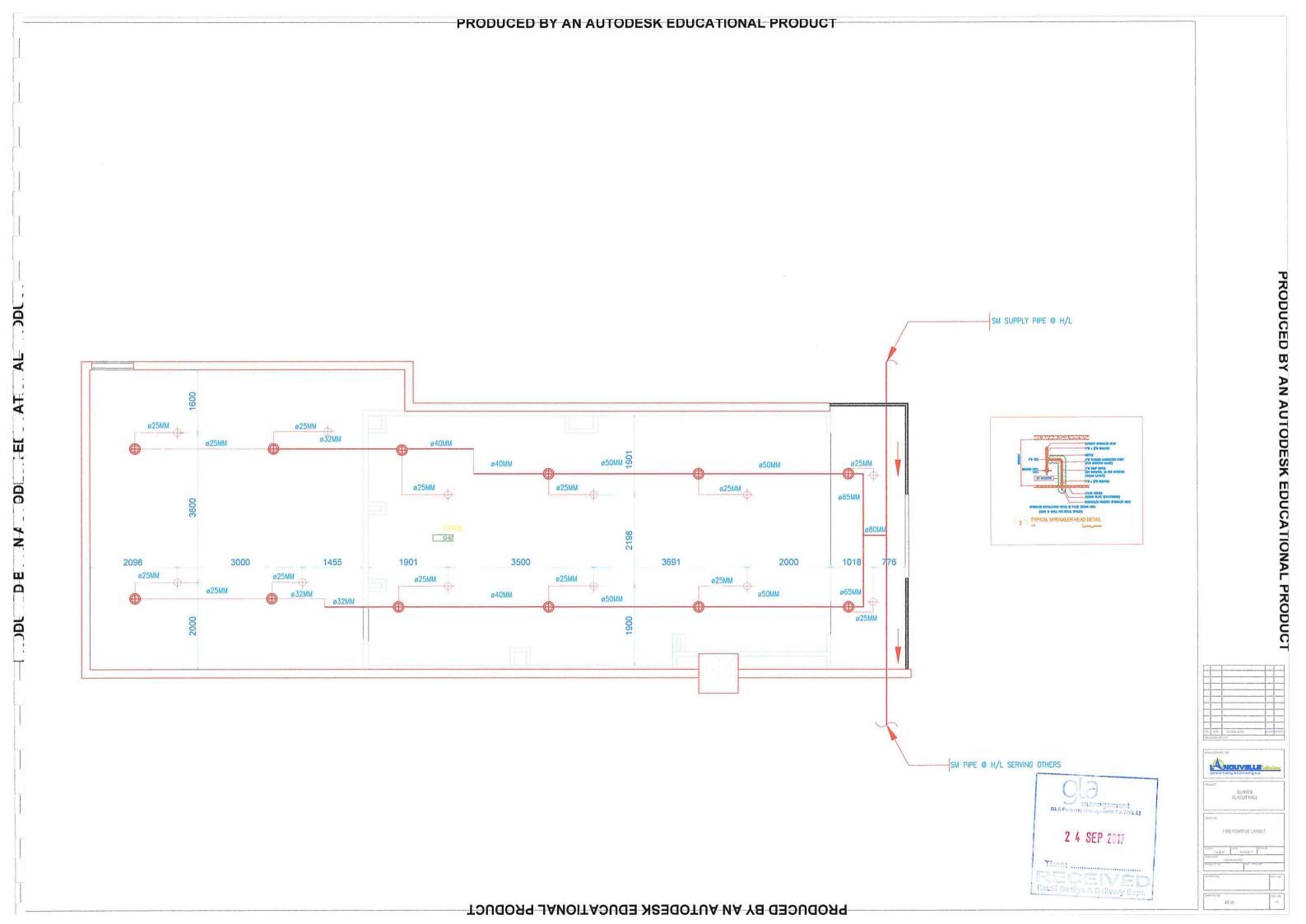
REMARKS

SEE NOTE (1)

THK./ WATTS VOLTS

TYPE

1.0 2" FLAT



AL... DDL

AT

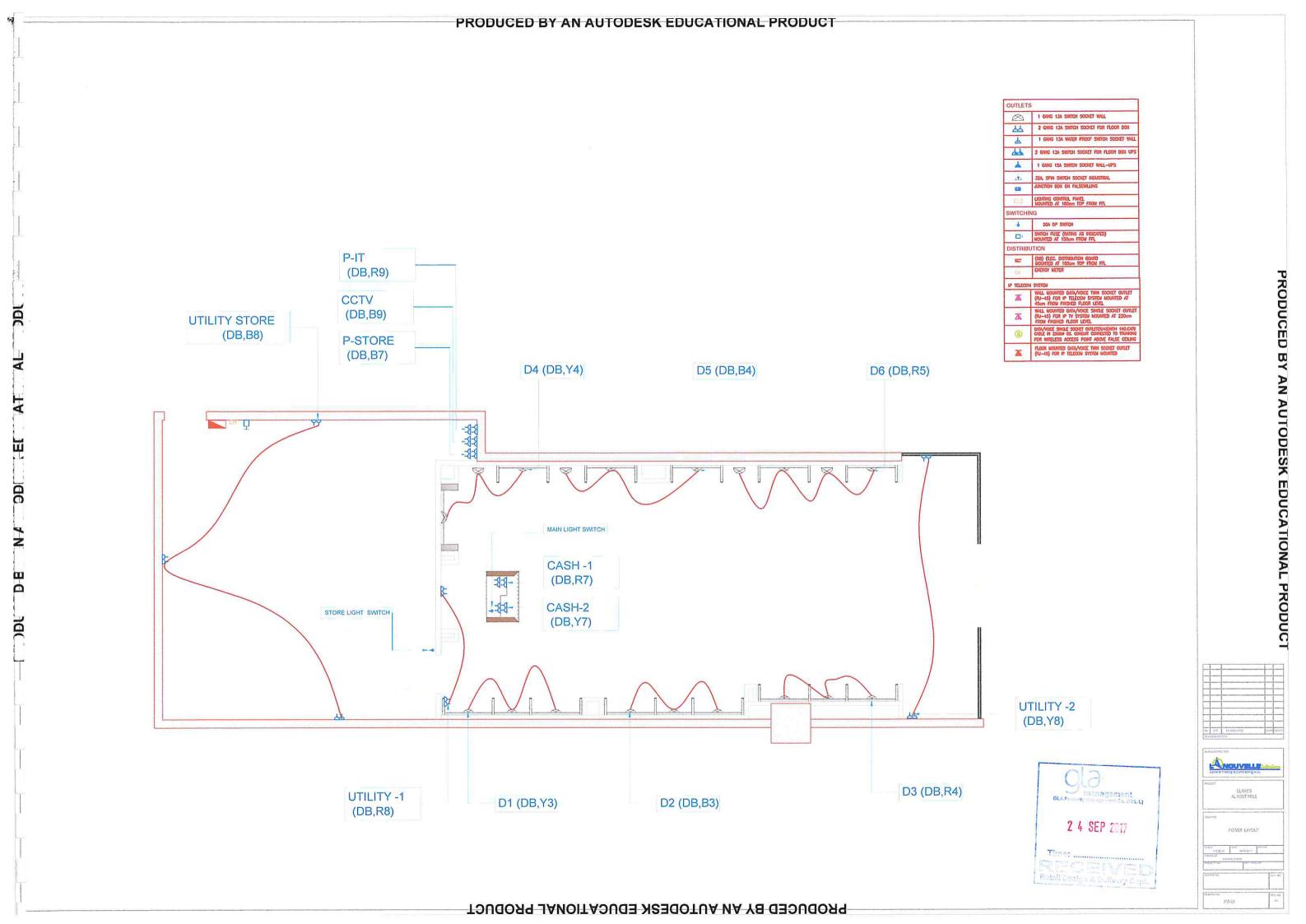
OD

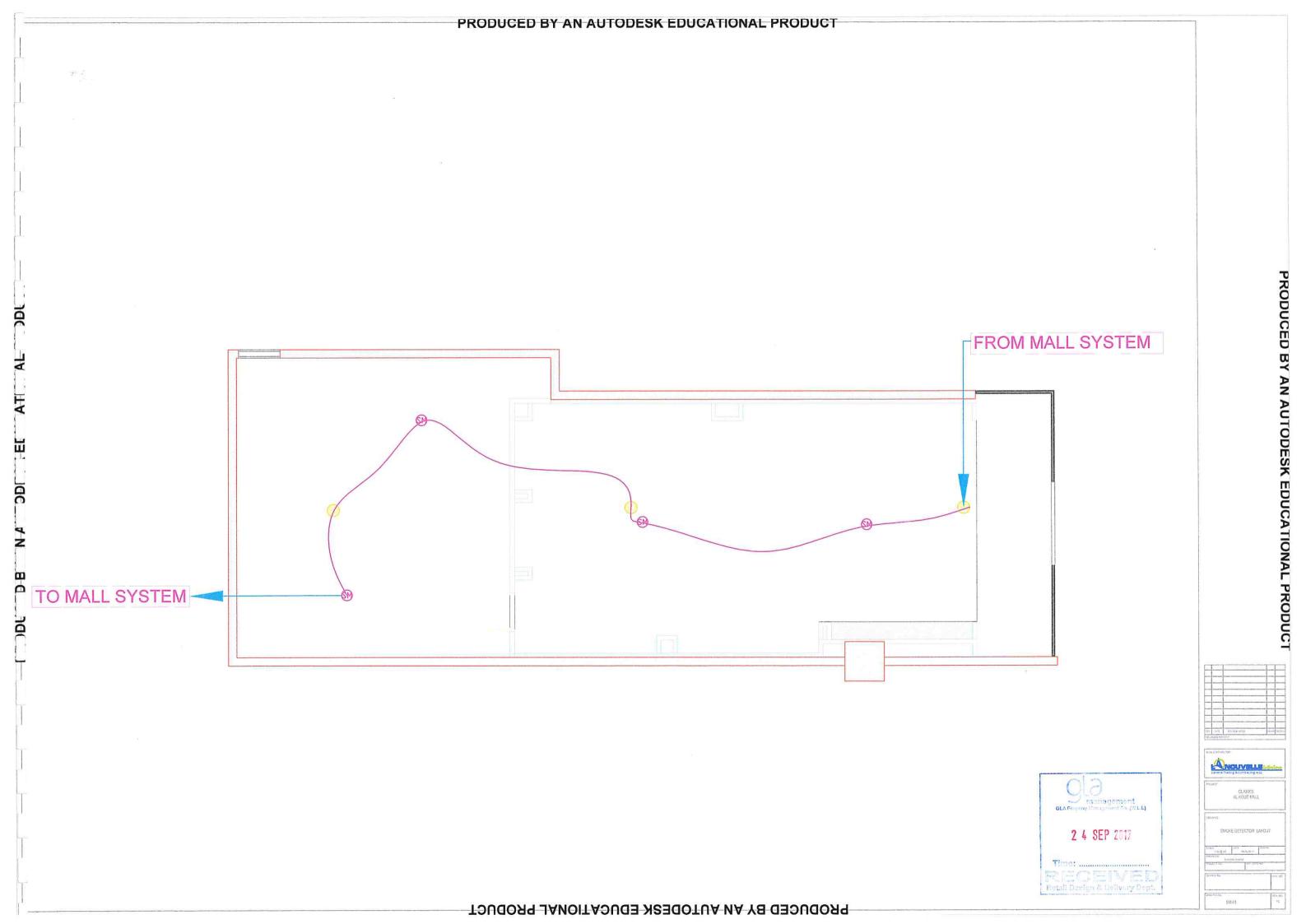
N.

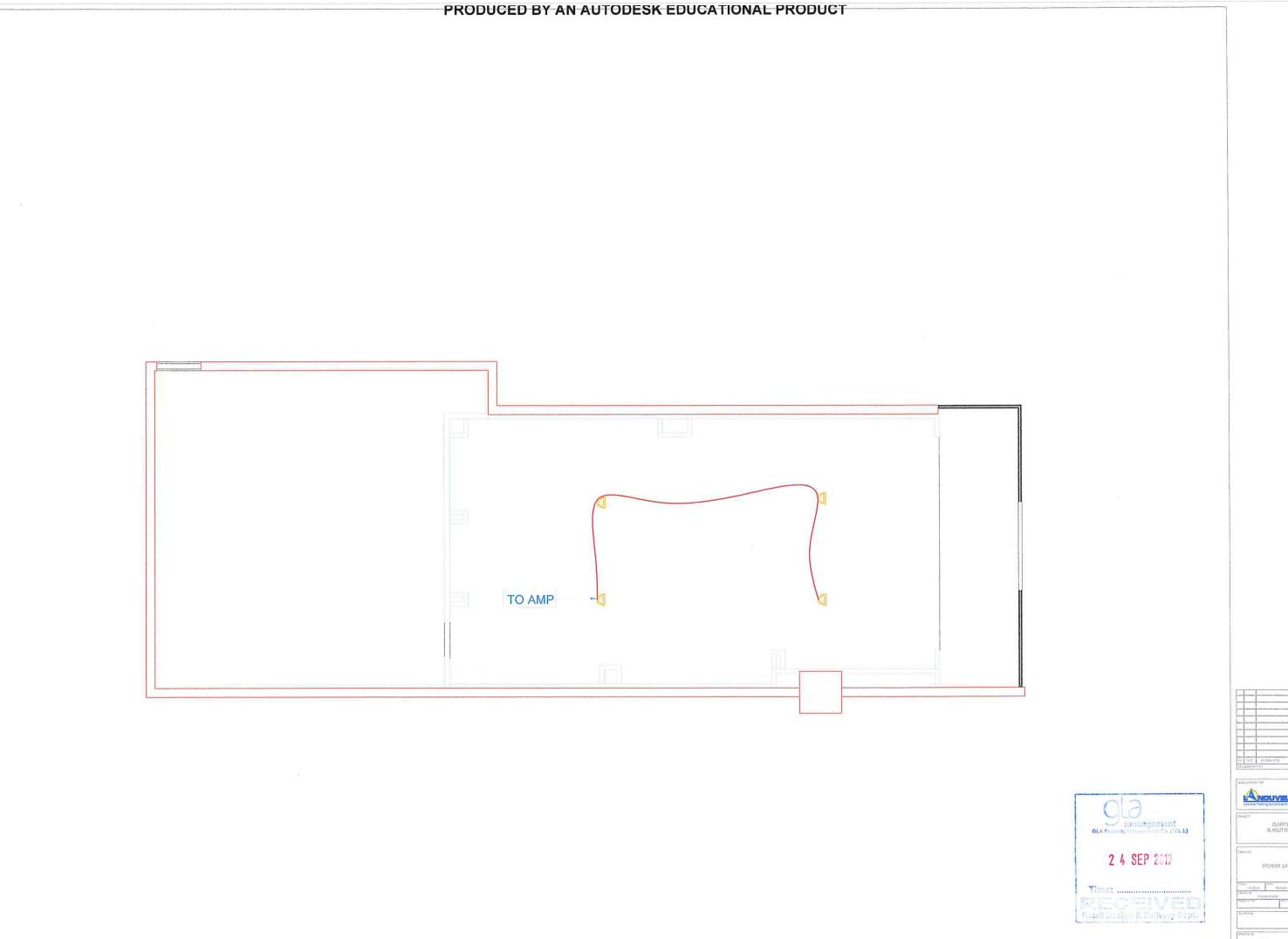
DE

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT NOUVELLE





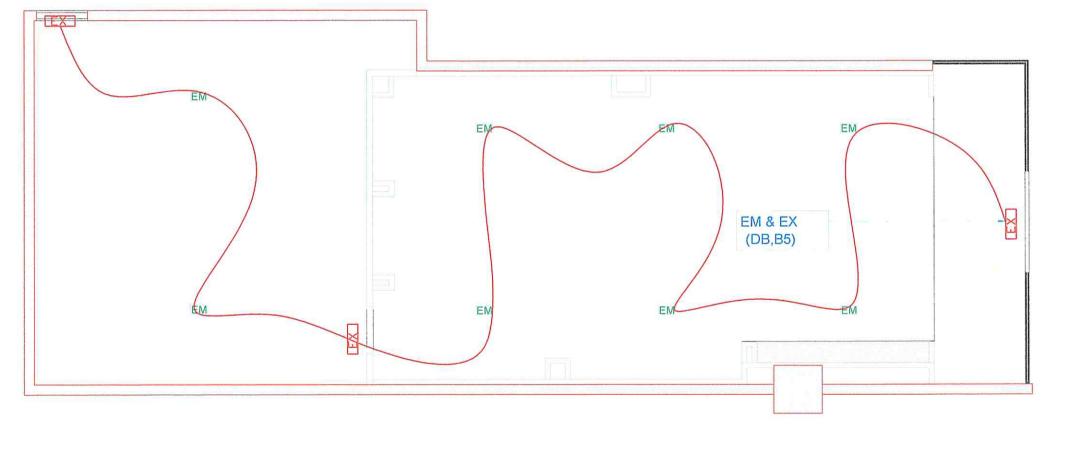


PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

DE

DDU DB NA DDI EL ATI AL

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT Ceneral fracing & Contracting with



PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

D

EL ATI AL

Jac

A N

96

DO

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT