



Maher Ahmd Bilal Engineering Consulting Co.

شركة ماهر أحمد بلال للاستشارات الهندسية



GROUP - I 4+B مركز حضانة اطفال

المشروع
PROJECT TITLE

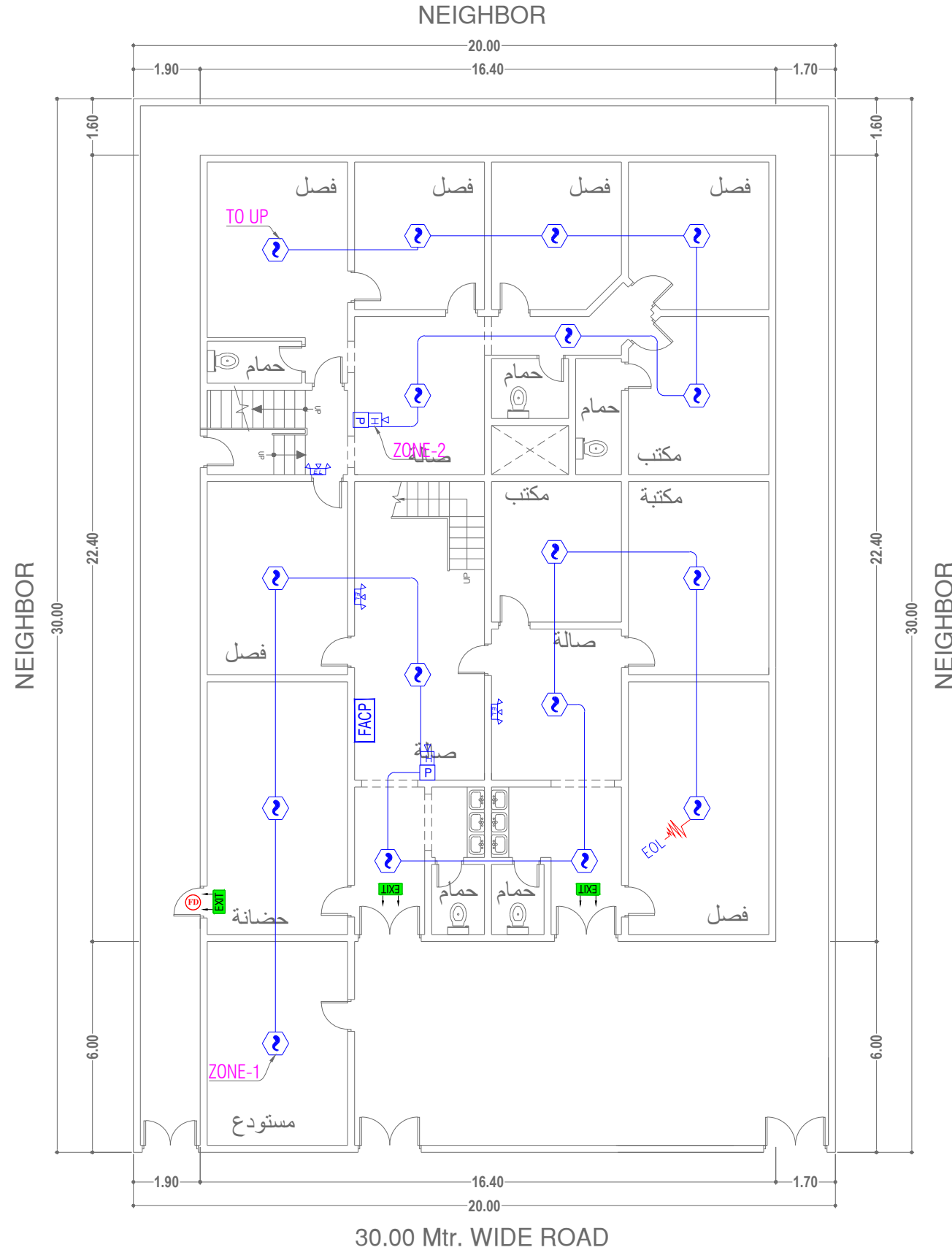
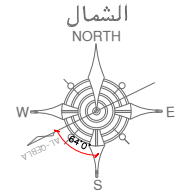
مركز افاق الكون لحضانة الاطفال

المستثمر
INVESTOR

مدينة الجبيل
مخطط رقم - ٢٠٤/٧
قطعة رقم / ٢٤٨

الموقع
LOCATION

GRCOV.AREA =376 M2



الملاحظات	NOTES
FIRE ALARM MATERIAL SPECIFICATION	
ALL FIRE ALARM MATERIAL SPECIFICATION ACCORDING TO NFPA 70 & NFPA 72	
1- SMOKE & HEAT DETECTORS (LINEAR SPOT TYPE SHALL BE APPROVED & COMPLY WITH MOST RECENT EDITION OF NFPA 70 & 72	
2- DETECTOR-SMOKE,HEAT (16-28) VOLT 30 MICRO AMPERE, TEMPERATURE 60-80 DEGREE CELSIUS(SASO APPROVED)	
3- HORN WITH STROBE, RED COLOR, BELL DIAMETER 6INCH SOUND LEVEL 70 DECIBELS	
4- FIRE ALARM DETECTION SYSTEM WIRES SHOULD BE FIRE RATED COVER PVC	
5- FIRE RATED DOORS 100CM WIDTH, 60 MIN. FIRE RATED SASO APPROVED	
6- EMERGENCY LIGHT DUAL 120/277 VAC , 60 HZ INPUT 2 WATT.	
7- CALL POINT HEIGHT FROM FLOOR LEVEL 1.45-1.55M BELL HEIGHT 2.2M	

FIRE ALARM GENERAL LEGEND	
SYMBOL	DESCRIPTION
	FIRE ALARM CONTROL PANEL / CONVENTIONAL PANEL
	SMOKE DETECTOR / SENSOR CEILING MOUNTED
	HEAT DETECTOR / SENSOR (THERMAL DETECTION)
	PULL STATION / FIRE ALARM BOX
	AUDIBLE APPLIANCE (BELL SINGLE STROKE)
	AUDIBLE APPLIANCE (HORN ONLY)
	EMERGENCY LIGHT FEED FROM EMERGENCY POWER SYSTEM & WITH BACKUP BATTERY 1.5 HOUR
	END OF LINE RESISTOR
	EMERGENCY EXIT SIGN WITH BACKUP BATTERY 1.5 HOUR
	FIRE RESISTANCE DOOR WITH AUTOMATIC DOOR CLOSER
	EXIT SIGN DIRECTIONAL - ONE WAY
	ASSEMBLY POINT

اسم المشروع	PROJECT NAME
مركز حضارة اطفال	GROUP - I 4+B

بيانات المشروع	PROJECT DATA
مدينة الجبيل	رقم المخطط ٢٤٨/٧
قطعة رقم / ٢٤٨	

المستثمر/	المستثمر
مركز افاق الكون لحضارة الاطفال	

الاستشاري	CONSULTANT
شركة ماهر احمد بلال للاستشارات الهندسية	Maher Ahmd Bilal Engineering Consulting Co.

ختم الاستشاري	ختم الاستشاري
MAHER AHMED BILAL Consulting Co	

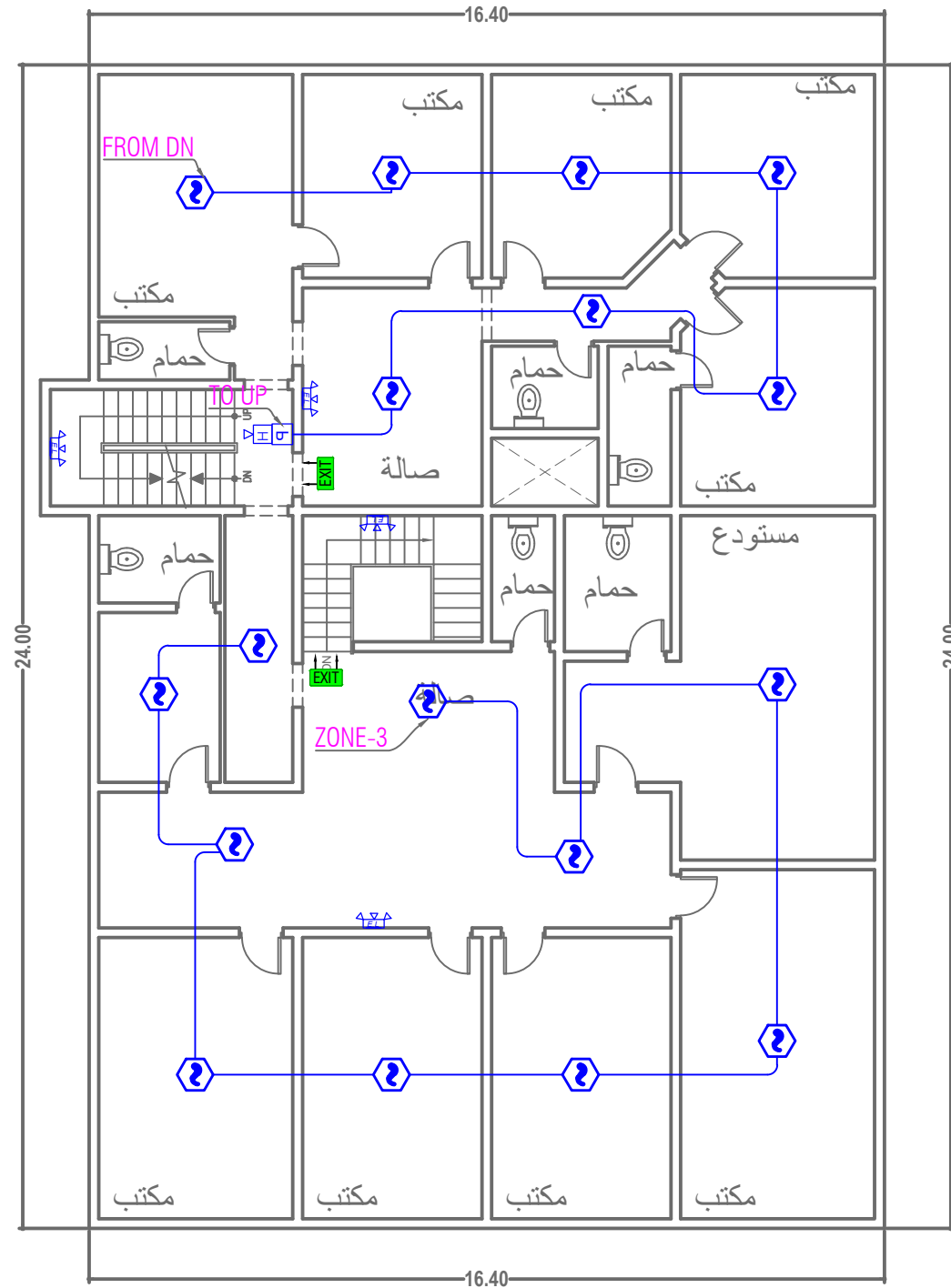
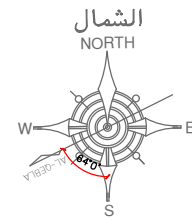
عنوان الرسم	DRAWING TITLE
GROUND FLOOR PLAN	
Fire Safety Engineer:-	
محمد مواجدة	PAPER SIZE: A3
Signature:-	SCALE : 1:150
	DATED : 26/ 05 /2024
	SHEET No. 1-7



SCALE
1:150

GROUND FLOOR PLAN FIRE ALARM LAYOUT

FR COV.AREA =377.6 M2



الملاحظات	NOTES
FIRE ALARM MATERIAL SPECIFICATION	
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3- HORN WITH STROBE, RED COLOR, BELL DIAMETER 6INCH SOUND LEVEL 70 DECIBELS	
4- FIRE ALARM DETECTION SYSTEM WIRES SHOULD BE FIRE RATED COVER PVC	
5- FIRE RATED DOORS 100CM WIDTH, 60 MIN. FIRE RATED SASO APPROVED	
6- EMERGENCY LIGHT DUAL 120/277 VAC , 60 HZ INPUT 2 WATT.	
7- CALL POINT HEIGHT FROM FLOOR LEVEL 1.45-1.55M BELL HEIGHT 2.2M	

FIRE ALARM GENERAL LEGEND	
SYMBOL	DESCRIPTION
	FIRE ALARM CONTROL PANEL / CONVENTIONAL PANEL
	SMOKE DETECTOR / SENSOR CEILING MOUNTED
	HEAT DETECTOR / SENSOR (THERMAL DETECTION)
	PULL STATION / FIRE ALARM BOX
	AUDIBLE APPLIANCE (BELL SINGLE STROKE)
	AUDIBLE APPLIANCE (HORN ONLY)
	EMERGENCY LIGHT FEED FROM EMERGENCY POWER SYSTEM & WITH BACKUP BATTERY 1.5 HOUR
	END OF LINE RESISTOR
	EMERGENCY EXIT SIGN WITHHE BACKUP BATTERY 1.5 HOUR
	FIRE RESISTANCE DOOR WITH AUTOMATIC DOOR CLOSER
	EXIT SIGN DIRECTIONAL - ONE WAY
	ASSEMBLY POINT

اسم المشروع	PROJECT NAME
مركز حضنة اطفال	GROUP - I 4+B

بيانات المشروع	PROJECT DATA
مدينة الجبيل	
رقم / ٢٤٨	رقم المخطط ٢٠٤/٧

المستثمر/	المستثمر/
مركز افاق الكون لحضنة الاطفال	

الاستشاري	CONSULTANT
شركة ماهر أحمد بلال للاستشارات الهندسية	Maher Ahmd Bilal Engineering Consulting Co.

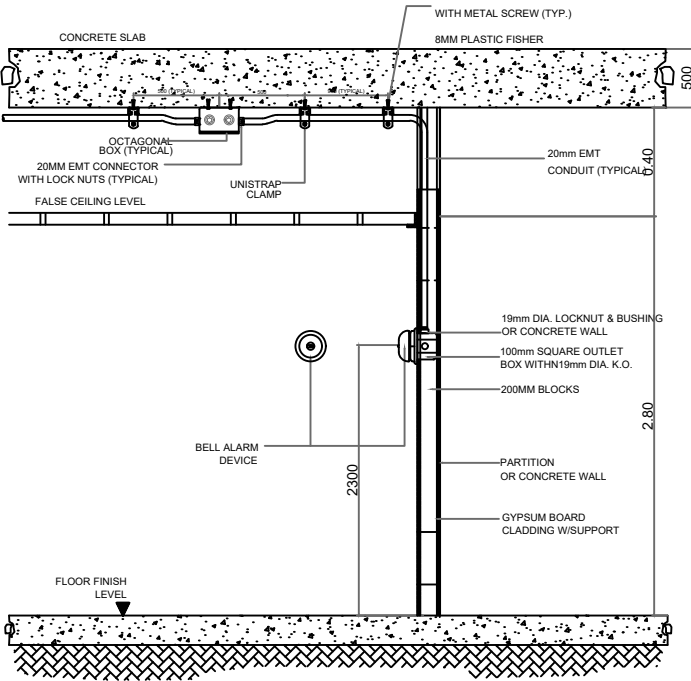
ختم الاستشاري	ختم الاستشاري

عنوان الرسم	DRAWING TITLE
FIRE ALARM SYSTEM LAYOUT	
FIRST FLOOR PLAN	

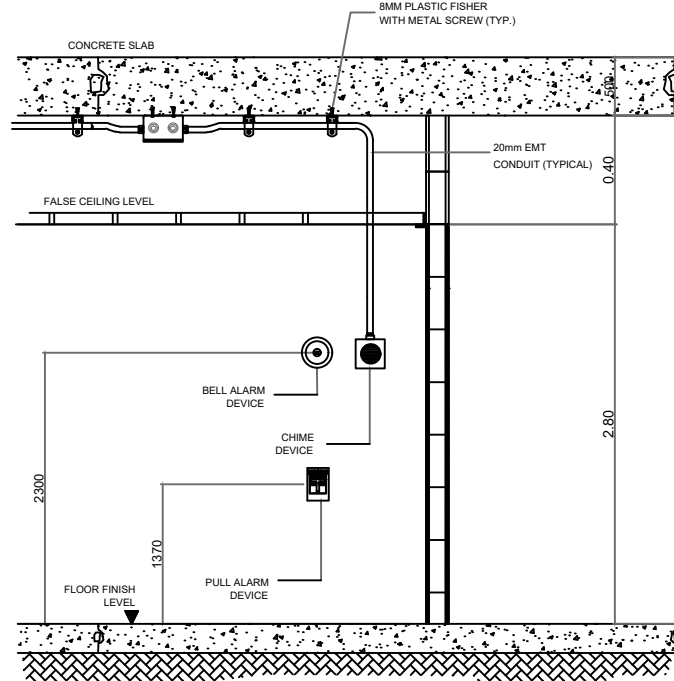
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Signature:- محمد مواجدة	DATED : 26/ 05 /2024	
	SHEET No. 2-7	



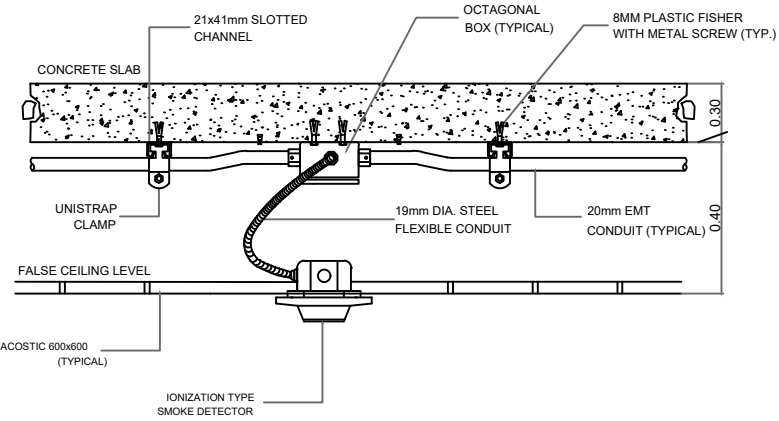
SCALE 1:120 FIRST FLOOR PLAN
FIRE ALARM LAYOUT



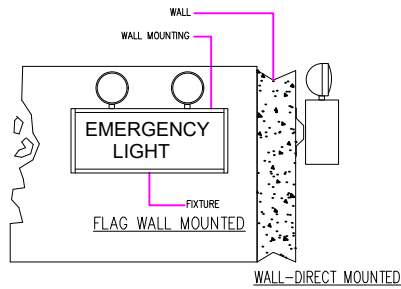
CEILING MOUNTED IONIZATION TYPE SMOKE DETECTOR
SCALE : NTS.



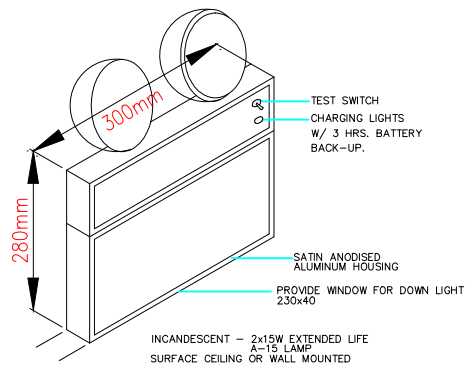
ELEVATION
SCALE : NTS.



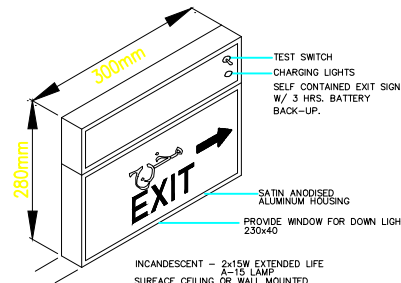
CEILING MOUNTED IONIZATION TYPE SMOKE DETECTOR
SCALE : NTS.



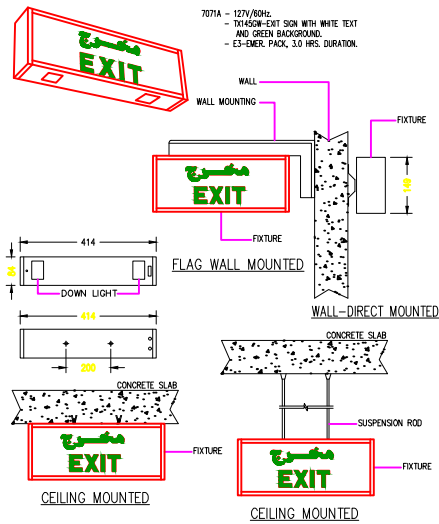
EMERGENCY LIGHT DETAIL
SCALE : NTS.



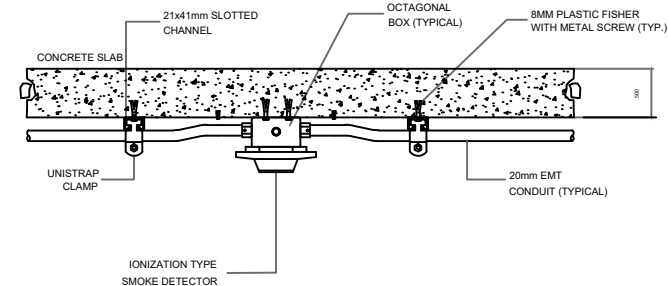
EMERGENCY LIGHT DETAIL
SCALE : NTS.



NOTE: SAME SPECIFICATIONS EXCEPT THE NUMBER OF ARROWS AS SHOWN ON LAYOUT.



EXIT LIGHT DETAIL
SCALE : NTS.



SURFACE MOUNTED IONIZATION TYPE SMOKE DETECTOR
SCALE : NTS.

FIRE ALARM SYSTEM MATERIAL SPECIFICATION

ALL FIRE ALARM MATERIAL SPECIFICATION COMPNETEN ACCORDING TO NFPA70&NFPA72:-

SMOKE &HEAT DETECTORS (LINEAR SPOT TYPE SHALL BE APPROVED BY UL/FM &COMPLY WITH THE MOST RECENT EDITION OF SAEM -M-100 NFPA 70 &NFPA72

Detector- Smoke , Heat (16-28) VOLT 30 MICRO Ampere , TEMPERATURE 60-80 DEGREE CELSIUS

Horn with Strobe. Red Color . bell diameter 6 inch , sound level 70 decibels

Fire Alarm Detection System Wires Should be Fire Rated Wires (1mm) cover PVC

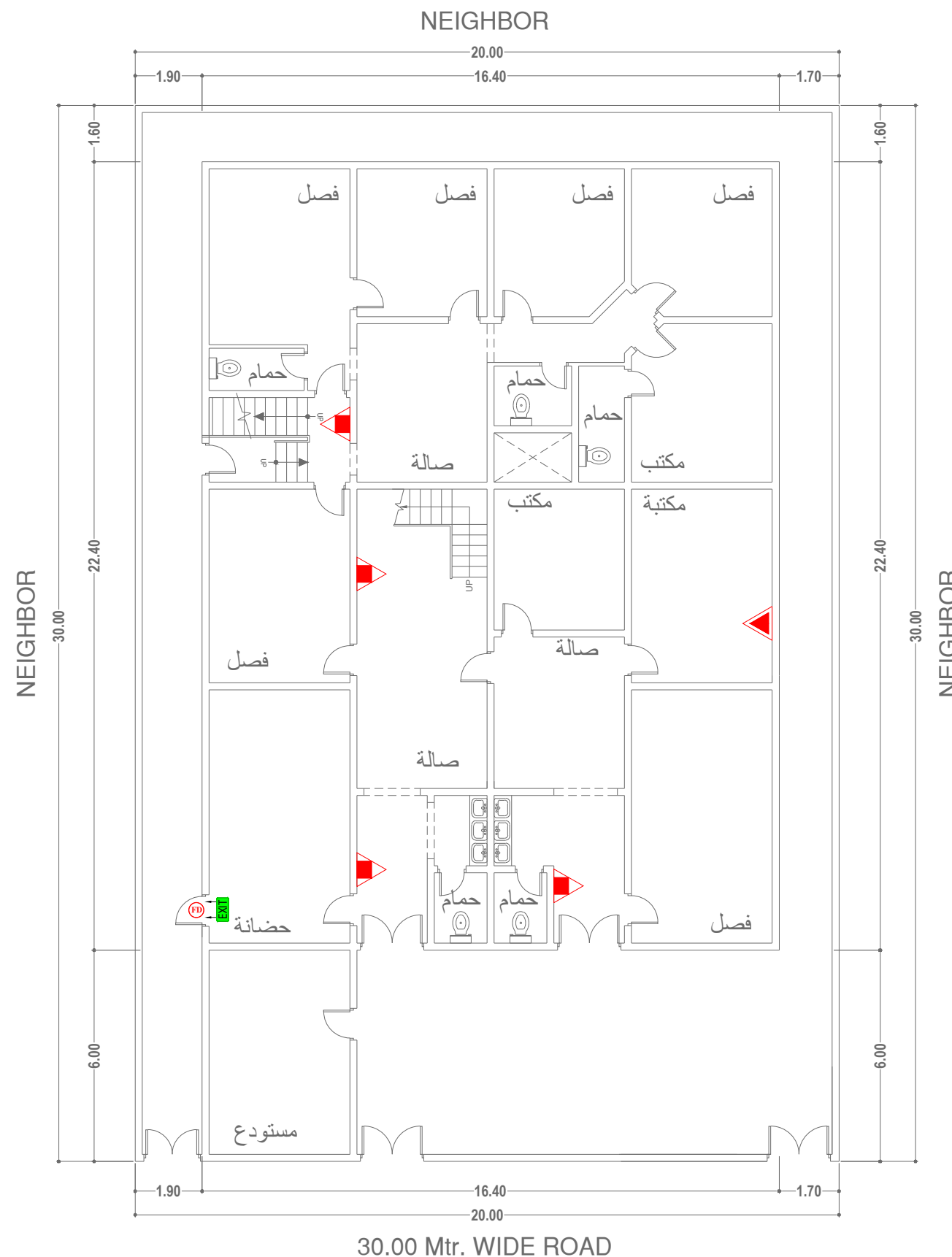
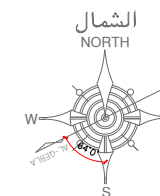
ALL FIRE RATED DOORS 100 CM WIDTH , 60 MIN FIRE RATED SASO APPROVED

EMERGENCY LIGHT DUAL 120/277 VAC , 60 HZ INPUT , 2 WATT

CALL POINT HEIGHT FROM FLOOR LEVEL 1.45-1.55 M , BELL HEIGHT 2.2M

الملاحظات	
NOTES	
PROJECT NAME	
GROUP - I 4+B	
PROJECT DATA	
مدينة الجبيل	
رقم المخطط ٢٤٨/٧	
المستثمر/	
مركز افاق الكون لحضانة الاطفال	
CONSULTANT	
الاستشارى	
DRAWING TITLE	
FIRE ALARM SYSTEM INSTALLATION DETAIL'S	
Fire Safety Engineer:-	PAPER SIZE: A3
Signature:-	DATED : 26/ 05 /2024
محمّد مواجدة	SHEET NO. 3 -7

GRCOV.AREA =376 M2



30.00 Mtr. WIDE ROAD



SCALE
1:150

GROUND FLOOR PLAN FIRE FIGHTING LAYOUT

NOTES الملاحظات

FIRE FIGHTING MATERIAL SPECIFICATION

ALL MECHANICAL SPECIFICATION ACCORDING TO SBC-501

- 1-ALL FIRE PROTECTION SYSTEM SPECIFICATION ACCORDING TO SBC 801-CR-18 CHAPTER 9
- 2- BLACK STEEL PIPE SCH.40,SEAMLESS,SASO APPROVED
- 3- FIRE RATED DOORS 100 CM WIDTH 60 MIN RATED ACCORDING TO SBC -201-CR-18
- 4- FIRE DEPARTMENT CONNECTION (FDC-100x65x65mm) SIAMSE,STRAIGHT SINGLE CLAPPER,TWO WAY INLET
- 5- SPRINKLER HEADS WITH $\frac{1}{2}$ " ,68°C TEMPERATURE RATING, K FACTOR = 5.6
- 6- HVAC SYSTEM HEATING & VENTILATION AS SBC 501 & 801 REQUIREMENTS
- 7- 6KG DRY POWDER FIRE EXTINGUISHER ABC TYPE, HEIGHT 1 METER
- 8- 6KG (13.2lbs) DRY POWDER,PORABLE ABC TYPE (MODE PD6) , HEIGHT 1 METER

FIRE FIGHTING GENERAL LEGEND

SYMBOL	DESCRIPTION
	PIPING & BRANCH LINE
	DRY CHEMICAL EXTINGUISHER FOR FIRE OF ALL TYPES (EXPECT METALS) 1M HEIGHT - 6 Kg
	CO2 PORTABLE FIRE EXTINGUISHER 1M HEIGHT - 4.5 Kg

PROJECT NAME	اسم المشروع
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GROUP - I 4+B مركز حضانة اطفال

بيانات المشروع PROJECT DATA

رقم المخطط ٢٠٤/٧	قطعة رقم / ٢٤٨
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المستثمر /

مركز افاق الكون لحضاعة الاطفال

CONSULTANT	الاستشارة
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Maher Ahmd Bilal Engineering Consulting Co.
شركة ماهر أحمد بلال للاستشارات الهندسية

ختم الاستشاری
احمد بلال لال



DRAWING TITLE	عنوان الرسم
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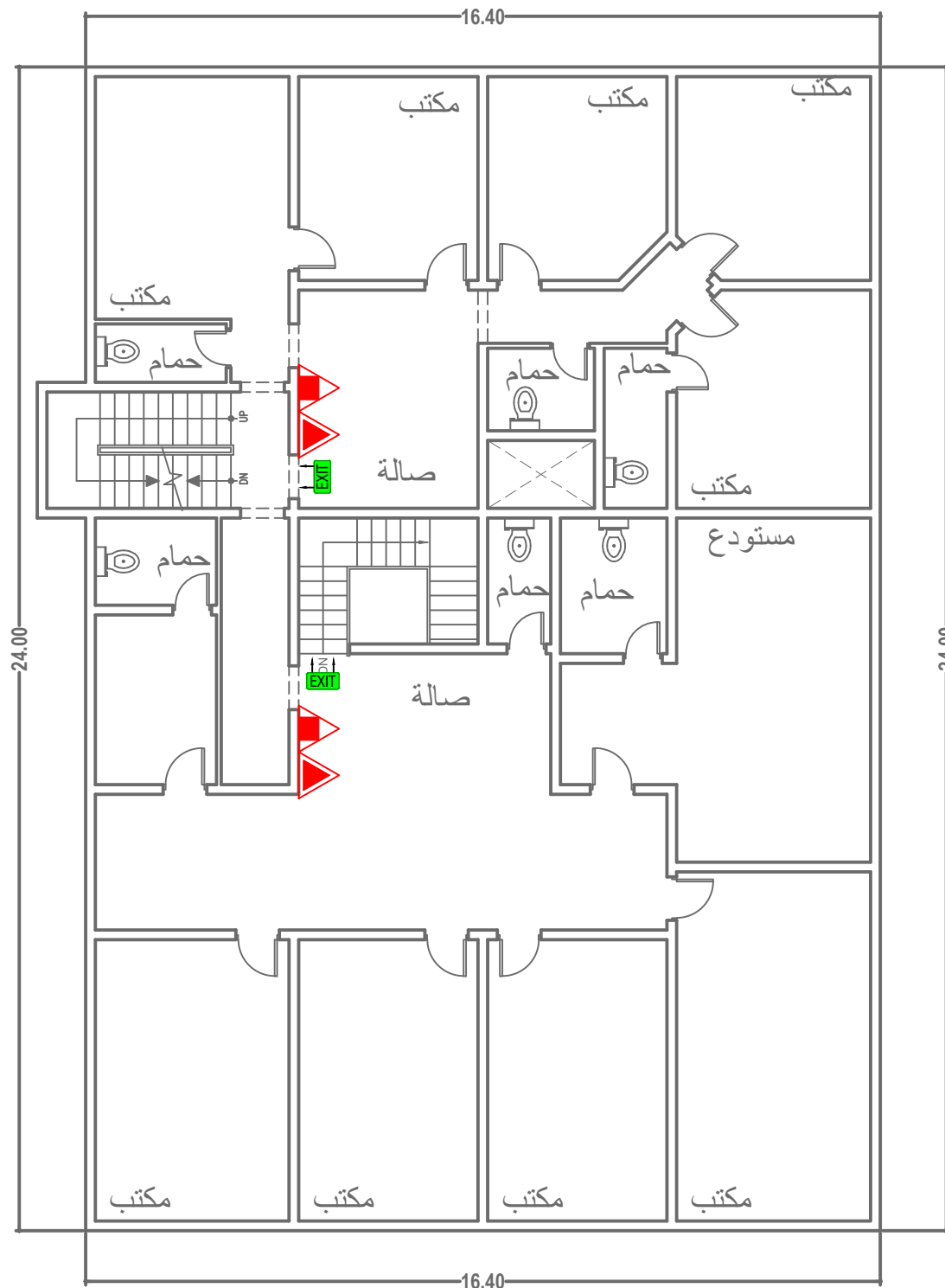
FIRE FIGHTING SYSTEM LAYOUT
GROUND FLOOR PLAN

Fire Safety Engineer:-	PAPER SIZE: A3	SCALE: 1:100
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Signature: محمد مواجدة	PAPER SIZE: A3	SCALE : 1:150
	DATED : 26/05/2024	

Signature:	DATED : 20/ 03 /2024
	SHEET No. 4-7

FR COV.AREA =377.6 M2



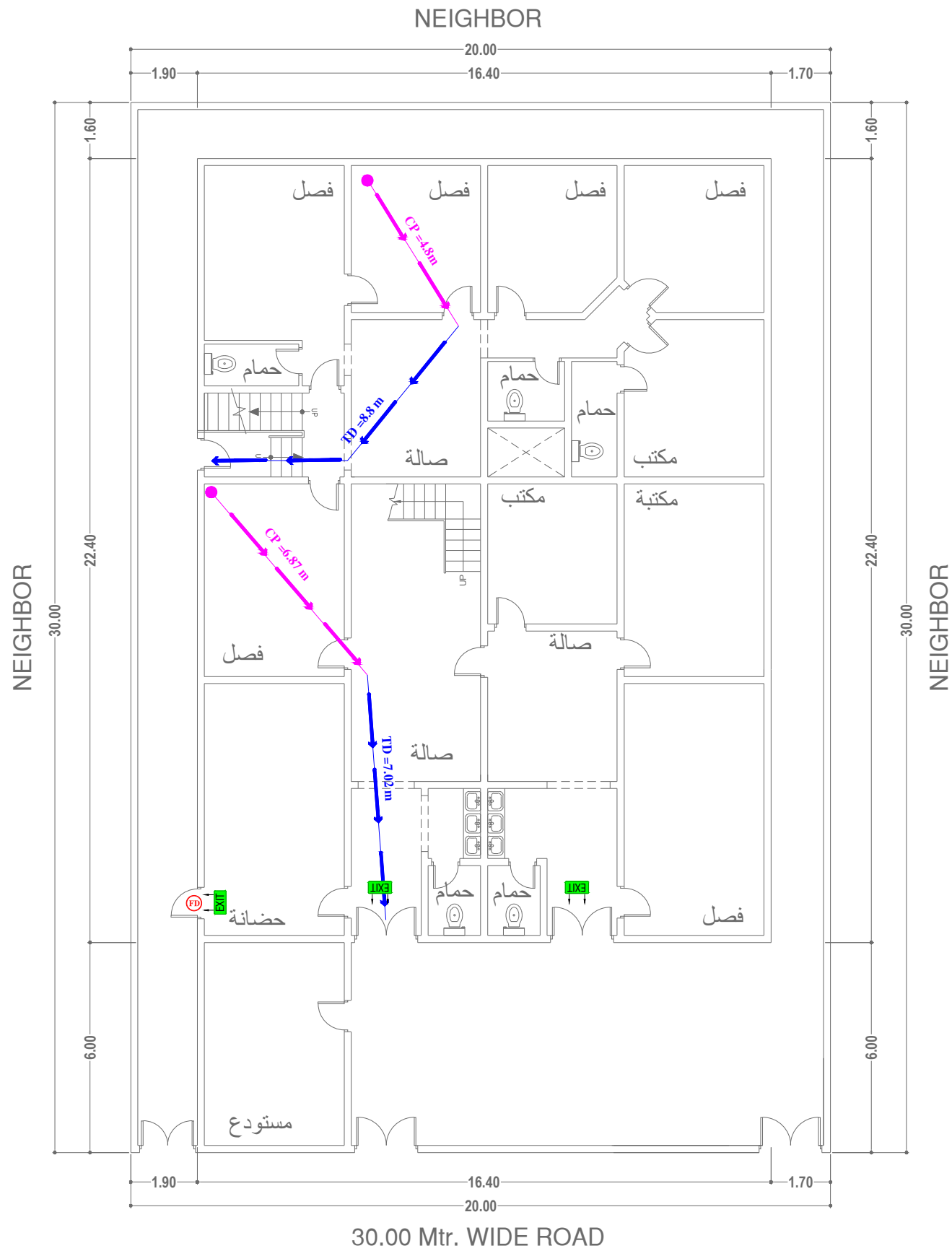
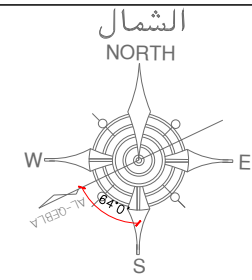
الملاحظات		NOTES
FIRE FIGHTING MATERIAL SPECIFICATION		
ALL MECHANICAL SPECIFICATION ACCORDING TO SBC-501		
1-ALL FIRE PROTECTION SYSTEM SPECIFICATION ACCORDING TO SBC 801-CR-18 CHAPTER 9		
2- BLACK STEEL PIPE SCH.40,SEAMLESS,SASO APPROVED		
3- FIRE RATED DOORS 100 CM WIDTH 60 MIN RATED ACCORDING TO SBC -201-CR-18		
4- FIRE DEPARTMENT CONNECTION (FDC-100x65x65mm) SIAMESE,STRAIGHT SINGLE CLAPPER,TWO WAY INLET		
5- SPRINKLER HEADS WITH 1/2",68°C TEMPERATURE RATING, K FACTOR = 5.6		
6- HVAC SYSTEM HEATING & VENTILATION AS SBC 501 & 801 REQUIREMENTS		
7- 6KG DRY POWDER FIRE EXTINGUISHER ABC TYPE, HEIGHT 1 METER		
8- 6KG (13.2lbs) DRY POWDER,PORTABLE ABC TYPE (MODE PD6) , HEIGHT 1 METER		
FIRE FIGHTING GENERAL LEGEND		
SYMBOL	DESCRIPTION	
—	PIPING & BRANCH LINE	
▲	DRY CHEMICAL EXTINGUISHER FOR FIRE OF ALL TYPES (EXCEPT METALS) 1M HEIGHT - 6 Kg	
▲	CO2 PORTABLE FIRE EXTINGUISHER 1M HEIGHT - 4.5 Kg	
PROJECT NAME		اسم المشروع
GROUP - I 4+B		مركز حضنة اطفال
PROJECT DATA		بيانات المشروع
مدينة الجبيل		
رقم المخطط ٢٠٤/٧		قطعة رقم / ٢٤٨
المستثمر/		
مركز افاق الكون لحضنة الاطفال		
CONSULTANT		الاستشارى
MBEC		
Maher Ahmd Bilal Engineering Consulting Co.		
شركة ماهر أحمد بلال للاستشارات الهندسية		
ختم الاستشارى		
MAHER AHMED BILAL Consulting Co		
DRAWING TITLE		عنوان الرسم
FIRE FIGHTING SYSTEM LAYOUT		
FIRST FLOOR PLAN		
Fire Safety Engineer:-	PAPER SIZE: A3	SCALE : 1:120
Signature:-	محمد مواجدة	DATED : 26/ 05 /2024
		SHEET No. 5-7



SCALE
1:120

FIRST FLOOR PLAN FIRE FIGHTING LAYOUT

GRCOV.AREA =376 M2



الملاحظات	NOTES
ALL FIRE ALARM MATERIAL SPECIFICATION ACCORDING TO NFPA 70 & NFPA 72	
1- SMOKE & HEAT DETECTORS (LINEAR SPOT TYPE SHALL BE APPROVED & COMPLY WITH MOST RECENT EDITION OF NFPA 70 & 72	
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4- FIRE ALARM DETECTION SYSTEM WIRES SHOULD BE FIRE RATED COVER PVC	
5- FIRE RATED DOORS 100CM WIDTH, 60 MIN. FIRE RATED SASO APPROVED	
6- EMERGENCY LIGHT DUAL 120/277 VAC , 60 HZ INPUT 2 WATT.	
7- CALL POINT HEIGHT FROM FLOOR LEVEL 1.45-1.55M BELL HEIGHT 2.2M	

EVACUATION LEGEND	
SYMBOL	DESCRIPTION
	FIRE RESISTANCE DOOR WITH AUTOMATIC DOOR CLOSER
	EXIT LIGHT
	EXIT SIGN DIRECTIONAL - ONE WAY
	EMERGENCY ASSEMBLY POINT
	COMMON PATH OF TRAVEL
	TRAVEL DISTANCE WITHIN THE UNIT

اسم المشروع	PROJECT NAME
مركز حضارة اطفال	GROUP - I 4+B

بيانات المشروع	PROJECT DATA
مدينة الجبيل	رقم المخطط ٢٤٨ / ٧

المستثمر	مركز افاق الكون لحضارة الاطفال
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الاستشاري	CONSULTANT
	Maher Ahmd Bilal Engineering Consulting Co.
	شركة ماهر احمد بلال للاستشارات الهندسية

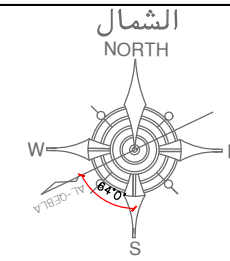
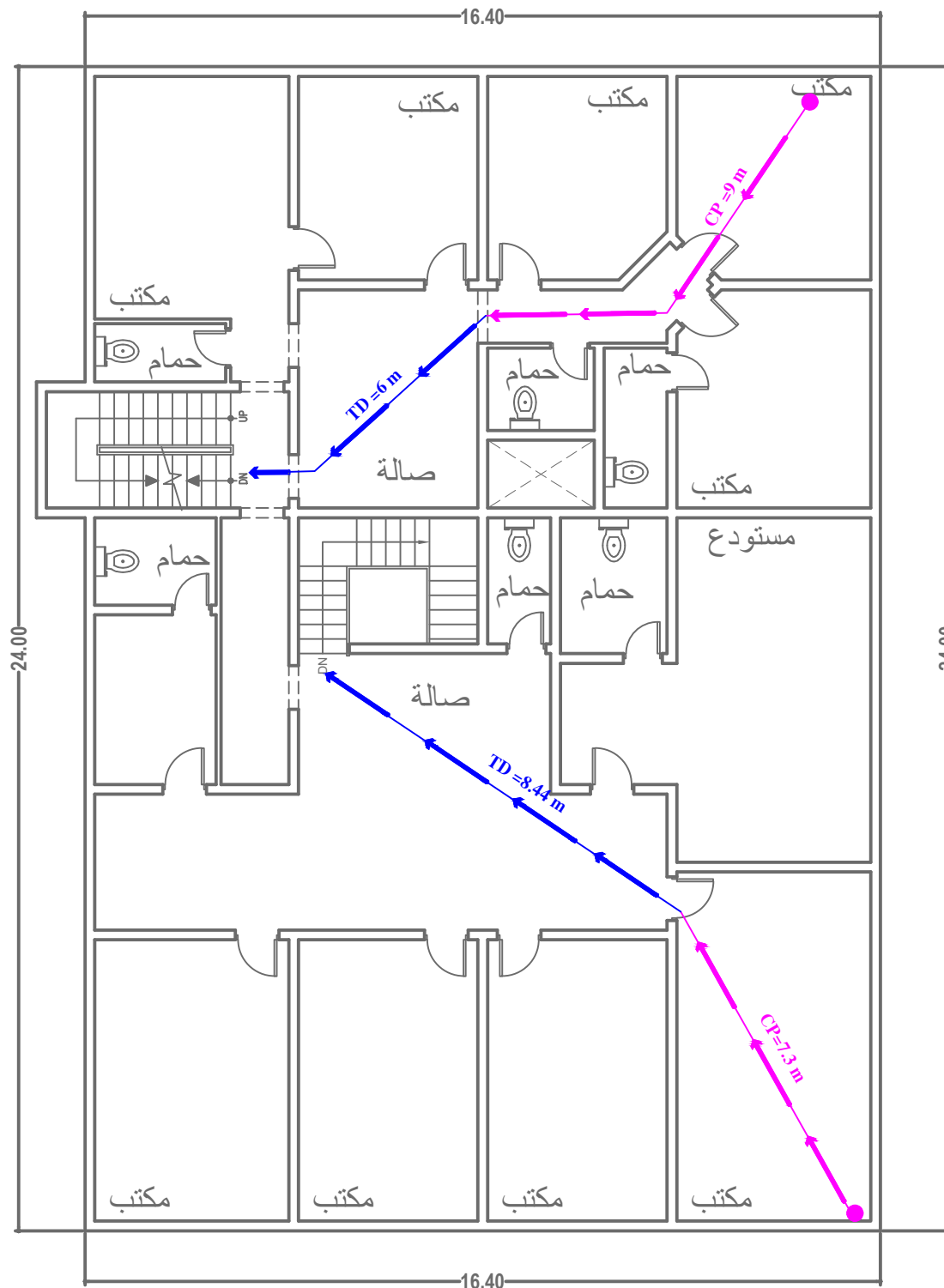
ختم الاستشاري	
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عنوان الرسم	DRAWING TITLE
	GROUND FLOOR PLAN
	LIFE SAFETY LAYOUT

Fire Safety Engineer:-	SCALE : 1:150
Signature:- محمد مواجدة	DATED : 26/ 05 /2024
	SHEET No. 6-7



FR COV.AREA =377.6 M2



الملاحظات		NOTES	
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6- EMERGENCY LIGHT DUAL 120/277 VAC , 60 HZ INPUT 2 WATT.			
7- CALL POINT HEIGHT FROM FLOOR LEVEL 1.45-1.55M BELL HEIGHT 2.2M			
EVACUATION LEGEND			
SYMBOL	DESCRIPTION		
	FIRE RESISTANCE DOOR WITH AUTOMATIC DOOR CLOSER		
	EXIT LIGHT		
	EXIT SIGN DIRECTIONAL - ONE WAY		
	EMERGENCY ASSEMBLY POINT		
	COMMON PATH OF TRAVEL		
	TRAVEL DISTANCE WITHIN THE UNIT		
PROJECT NAME		اسم المشروع	
GROUP - I 4+B		مركز حضانة اطفال	
PROJECT DATA		بيانات المشروع	
مدينة الجبيل		قطعة رقم / ٢٤٨	
رقم المخطط ٢٠٤/٧			
المستثمر/			
مركز افاق الكون لحضانة الاطفال			
CONSULTANT		الاستشاري	
Maher Ahmd Bilal Engineering Consulting Co.			
شركة ماهر أحمد بلال للاستشارات الهندسية			
		ختم الاستشاري	
DRAWING TITLE			
عنوان الرسم			
FIRST FLOOR PLAN			
LIFE SAFETY LAYOUT			
Fire Safety Engineer:-		SCALE : 1:120	
Signature:- محمد مواجدة		DATED : 26/ 05 /2024	
		SHEET No. 7-7	

