

# ARCH 2121 TDS Project 4 – Planning Application: Office Development, 288 Bannow Road, Broombridge, Cabra, Dublin 7

DT 175-02 ARCHITECTURAL TECHNOLOGY

**Emma Harrington** 

4/10/19

Student Number: C17750321

		1	2	3	4	56	
BASEMENT BASEMENT BUILDINGS	<b>CONSTRUCTION NOTES:</b> RUNS UNDER ALL FOUR SEE P001 & P204 FOR	31	1 1(A)				
SITE SERVI FIRE NOTE ALL FIRE E DISTANCES WITH TGD REQUIREM	ICES PLAN SCAPE TRAVEL S LESS THAN 45M IN LINE B ESCAPE ENTS FOR CAR PARKS	32			7500	7500 2500	7500
BASEMENT SURFACE S MANUFACT	FLOOR: IKO CAR PARK SYSTEM (INSTALL TO						
SPECIFICA PROTECTIV PERMAPAR COURSE O POLYMER V 400MM REI	TION): AUTOPARK /E COATING ON; KK ASPHALT WEARLING N; 1.5MM - 2MM WATERPROOFING ON; NFORCED CONCRETE					TGD-M CLEAR ACCESS 1800 X 1800 X	
FLOOR SLA SPECIFICA HYLOAD 20 80MM XPS 65MM SANI 150MM LAY	AB (TO ENGINEER'S TION) ON; IKO TANKING 000 SA MEMBRANE; RIGID INSULATION ON; D BLINDING LAYER; 2 X 'ERS OF CLEAN WELL				RAINWA TA (5.92M	С         IGP MLE           CLEAR         ACCESS           1800 X         1800           NK (10.000L)         ILIFT           LLIFT         222M (W) X	
GRADED H. OF STONES CONFORM (TGD c - AM	ARDCORE - 40MM SIZE ∞ S. HARDCORE TO WITH IS EN 13242:2002 ∕IENDMENTS SEPT 2004)				DRAINS & DRAIN SYSTEM MULTI I		
STAIRS: 15 IN SITU (CF CONCRETE REINFORCI	OMM CAST REAGH 8 E) 80 ED				3211		
CONCRETE (RISER 175 GOING 300 WIDE WITH LANDINGS REFUGE AF (COMPLIES	E STAIRS MM X MM) 1.2M I 1.2M PLUS REA S WITH TGD			1800 <sup>200</sup>			
M ACCESS REQUIREM STAIRS NO ALL STAIRV DESIGNED	ENTS)		LIFT & STAIR 250MM REINI	CORE: FORCED	BASEMENT COLU 300MM X450MM	MNS: BASEMENT FOUNDATIONS: CAST	BASEN - 300MN CONC
B PARA - 1. TO PROTEC DISTANCE AREA IN TH THE BUILD AREA IN TH PROTECTE	3.60 EXTERNAL PROTECTION CT STAIRWAYS WHERE THE BETWEEN ANY UNPROTECTED IE EXTERNAL ENCLOSURE TO ING & ANY UNPROTECTED IE ENCLOSURE TO THE ID STAIRWAY SHOULD BE AT		LIFT CORE W ENGINEER'S SPECIFICATI MINUTES FIF	VALLS (TO ON) 120 RE RATING	ENGINEER'S SPECIFICATION) PRECAST RECTANGULAR CONCRETE COLU WITH DROP CAPS	600MM CONCRETE PAD FOUNDATION UNDER COLUMNS (PI ENGINEERS MNS SPECIFICATIONS)	BASEM (TO EN ER SPECI IKO TA MEMB ON; 12 INSUL
AREA IN TH PROTECTE LEAST 1.8M	HE ENCLOSURE TO THE ED STAIRWAY SHOULD BE AT 1.				WITH DROP CAPS		on; 1 Insul
1	Basement 1 : 200						
anisation Name <b>Dublin</b>	Client Name	Scale		Project numb	per D	late	
	DT175 02	1 : 200		TDS	4 17	May 2019	
ject Name S Project - ncrete Building	Sheet Name <b>Basement Plan</b>	Checked by EJH			P101		

Concrete Building



Drawn by Emma Harrington



Emma Harrington DT175-02 2018\_19







7440

(**12**)

GROUND FLOOR: **400MM REINFORCED** CAST IN SITU FLOOR SLAB (TO ENGINEERS SPECIFICATION) ON; 130MM KINGSPAN STYROZONE RIGID -XPS INSULATION. NOTE: AS GROUND FLOOR IS ABOVE NATURALLY VENTILATED CAR PARK THERE IS NO REQUIREMENT FOR A VCL AT THIS LEVEL

400 X 250MM PRECAST CONCRETE COLUMN AT PERIMETER OF **BUILDING B (PRIMARY** STRUCTURE)

LIFT & STAIR CORE: 250MM REINFORCED CAST IN SITU STAIR / LIFT CORE WALLS (TO ENGINEER'S SPECIFICATION) 120 MINUTES FIRE RATING

90MM - 250MM PRECAST CONCRETE PANELS WHITE CEMENT WITH MARBLE AGGREGATE SURFACE ACIDIFIED HYDROPHOBICISED -ON; 160MM MINERAL WOOL INSULATION ON 200MM REINFORCED CONCRETE INNER WALL (LOAD BEARING) ON; 13MM GYROC PLASTERBOARD (U VALUE 0.194W/m2K)

1,100MM SAFETY GUARD RAIL AROUND CAR PARK RAMP

**CURTAIN WALL** WINDOW ELEMENT -LIMITED OPENING RANGE 8MM FLOAT GLASS+16MM CAVITY+6MM HEAT -STRENGTHENED PRESTRESSED GLASS+14MM CAVITY+8MM LAMINATED SAFETY **GLASSIN ALUMINIUM** PROFILE FRAME

> FOUL WATER -MANHOLE COVER 600MM DIAMETER

GROUP 3 - OFFICES BS 5588: Part 11: 1997, FIRE PRECAUTIONS IN THE DESIGN, CONSTRUCTION & USE OF BUILDINGS (PART 11). - ALL TRAVEL DISTANCESARE LESS THAN 45M (OTHER AREAS) IN MORE THAN ONE DIRECTION. - TWO ESCAPE ROUTES AS BUILDING WILL FACILITATE BETWEEN 1- 500 PEOPLE. - BUILDING HAS BEEN FITTED WITH AUTOMATIC FIRE DETECTION & ALARM SYSTEM WITH DRY SPRINKLER SYSTEM - ALL STAIRCASES ARE 1.2M WIDE WITH ADDITIONAL REFUGE AREAS FOR LESS AMBULANT VISITORS. FIRE SAFETY - THERE ARE 2 x CLASS A EXTINGUISHERS ON ALL FLOOR LOCATED BESIDE EXITS PLUS ADDITIONAL IN COFFEE DOCK KITCHEN. **NOTES ON SANITARY FACILITIES:** 

NOTES ON TGD B FIRE: MEANS OF ESCAPE

BUILDING FACILITATES 375 PEOPLE ASSUME 50 / 50 SPILT - c. 190 LADIES TOILETS: - 2XWC FOR 50 - 250 FEMALES, PLUS 1 FOR EVERY ADDITIONAL (OR PART OF 100) - 1 X WHB PER TOILÈT - 1 X HANDRYER PER 2 x WHB MALE TOILETS: - 1 X WC PER 100 - 400 MALES - 1 X URINAL PER 50 MALES - 1 X WHB PER WC & 1 PER 5 URINALS WHEELCHAIR ACCESSIBLE UNISEX: - 1,800MM x 2,500MM TO ENABLE 1800MM x 1800MM WHEELCHAIR TURNING CIRCLE REF: METRIC HANDBOOK





CURTAIN WALL WINDOW ELEMENT -LIMITED OPENING RANGE 8MM FLOAT GLASS+16MM CAVITY+6MM HEAT -STRENGTHENED PRESTRESSED GLASS+14MM CAVITY+8MM LAMINATED SAFETY GLASSIN ALUMINIUM PROFILE FRAME

North

(11)

90MM - 250MM PRECAST CONCRETE PANELS WHITE CEMENT WITH MARBLE AGGREGATE SURFACE ACIDIFIED HYDROPHOBICISED -ON; 160MM MINERAL WOOL INSULATION ON; 200MM REINFORCED CONCRETE INNER WALL (LOAD BEARING) ON; 13MM GYROC PLASTERBOARD (U VALUE 0.194W/m2K)

ENSURE RAILING EXTENDS 300MM ON TOP & BOTTOM STEP OF FLIGHT

 RAISED FLOOR:
 PEDESTAL LAYOUT FOR
 KINGSPAN ALPHA V PEDESTALS WITH KINGSPAN RMG600 RAISED ACCESS FLOOR (600X600MM). CLASS O TOBS476 FIRE RATING. THIS FLOOR IS SIUITABLE FOR GENERAL OFFICE USE WITH HEAVY EQUIPMENT & PUBLIC ACCESS. FIT ACCORDING TO MANUFACTURER'S INSTRUCTIONS





**Concrete Building** 





90MM - 250MM PRECAST CONCRETE PANELS WHITE CEMENT WITH MARBLE AGGREGATE SURFACE ACIDIFIED HYDROPHOBICISED -ON; 160MM MINERAL WOOL INSULATION ON; 200MM REINFORCED CONCRETE INNER WALL (LOAD BEARING) ON; 13MM GYROC PLASTERBOARD (U VALUE 0.194W/m2K)

ROOF: 50MM GRAVEL LAYER ON, 30MM DRAINAGE LAYER ON; 3MM POLYMER MODIFIED BITUMEN CAP SHEET ON; 4MM POLYER MODIFIED BITUMEN BASE LAYER ON; 300MM RIGID -FOAM INSULATION TO FALLS BITUMINOUS SHEETING, ON VAPOUR RETARDER ON; 340MM PRECAST REINFORCED CONCRETE, OF THAT 50MM PREFABRICATED SLIM DECK FLOOR LEVELLING COAT

140° AOV VENTILATOR COLT SYSTEMS AXS140 COMBINED SMOKE VENTILATOR & ROOF ACCESS HATCH (1.5M2) MEASURED FREE AREA IN ACCORDANCE WITH TGD B - APPENDIX C. COMPLIES WITH BS EN 12101-2:2003. THERMAL PERFORMANCE DEPENDING ON SIZE RANGES FROM 1.3 TO 2.4 W/M2K

SVP IN ROOF (100MM DIAMETER) BLACK UPVC PIPES. ENSURE PIPES FINISH AT LEAST 900MM ABOVE ANY OPENING INTO THE **BUILDING WITHIN 3M** AND ENSURE THE PIPES ARE FITTED WITH A CAGE OR OTHER PERFORATED COVER WHICH DOES NOT RESTRICT THE FLOW OF AIR (TGD H DRAINAGE & WASTE WATER DISPOSAL -PARA1.2.3.5)

ACTIV8 SOLAR PV PANEL (960 X 1210MM) ANGLE OF **INCLINATION 35** DEGREES

NOTES ON PV PANELS: SEE TDS PROJECT 2/3 PART D FOR FULL BREAKDOWN ON NZEB REQUIREMENTS FOR BUILDINGS AND PV PANEL CALCULATIONS





ROOF: 50MM GRAVEL LAYER ON, 30MM DRAINAGE LAYER ON; 3MM POLYMER MODIFIED BITUMEN CAP SHEET ON; 4MM POLYER MODIFIED BITUMEN BASE LAYER ON; 300MM RIGID FOAM INSULATION TO FALLS BITUMINOUS SHEETING, ON Wall Legend VAPOUR RETARDER ON; 340MM PRECAST 1:100 REINFORCED CONCRETE, OF THAT 50MM PREFABRICATED . SLIM DECK FLOOR LEVELLING COAT **BUILDING A WALL:** KINGSPAN RG5 PRECAST SANDWICH PANEL COMMERCIAL RAISED COMPRISING OF 80-240MM CONCRETE ACCESS FLOOR PANEL PANEL ON;180MM MINERAL WOOL (600X600MM) WITH INSULATION ON; 200MM REINFORCED ALPHA V PEDESTAL CONCRETE SHELL INNER LEAF (LOAD ON; 250MM BEARING) ON ADHESIVE GYPSUM REINFORCED CAST IN PLASTER SITU CONCRETE SLAB <u>م , م</u> **BUILDING B WALL:** 90MM - 250MM 90-250MM PRECAST CONCRETE PRECAST CONCRETE PANELS WHITE CEMENT WITH PANELS WHITE MARBLE AGGREGATE SURFACES CEMENT WITH MARBLE ACIDIFIED HYDROPHOBICISED ON; AGGREGATE SURFACE 180MM MINERAL WOOL INSULATION ACIDIFIED ON; ON 200MM REINFORCED HYDROPHOBICISED CONCRETE INNER LEAF (LOAD -ON; 160MM MINERAL BEARING) ON; 12.5MM GYPROC WALL WOOL INSULATION ON; BOARD 200MM REINFORCED CONCRETE INNER , d' . WALL (LOAD BEARING) BASEMENT RETAINING WALL: ON; 13MM GYROC 300MM CAST IN SITU REINFORCED PLASTERBOARD (U CONCRETE WALLS (TO ENGINEER'S VALUE 0.194W/m2K) SPECIFICATION) ON; IKO TANKING HYLOAD MEMBRANE 2000 SA ON; 120MM KINGSPAN XPS RIGID INSULATION **CURTAIN WALL** 4 A. WINDOW ELEMENT LIFT CORE WALL: LIMITED OPENING CAST IN SITU 250MM REINFORCED **RANGE 8MM FLOAT** CONCRETE WALL TO ENGINEERS GLASS+16MM SPECIFICATION CAVITY+6MM HEAT -STRENGTHENED / // PRESTRESSED **BOUNDARY WALL:** GLASS+14MM 215MM BRICK WALL WITH CAVITY+8MM FOUNDATIONS TO ENGINEERS LAMINATED SAFETY SPECIFICATIONS **GLASSIN ALUMINIUM** ENSURE MOVEMENT JOINTS EVERY PROFILE FRAME 10 - 12M AS PER TGD A STRUCTURE BASEMENT FLOOR: IKO \_\_\_\_\_ CAR PARK SURFACE INTERNAL PARTITION WALL 120 SYSTEM (INSTALL TO MINUTES FIRE RATING: MANUFACTURERS 12.5MM X 2 GYPROC WALL BOARD SPECIFICATION): (FIRE RATING 0) ON; 70MM METAL AUTOPARK STUD ON; 12.5MM X 2 GYPROC WALL PROTECTIVE COATING BOARD (INSTALL TO MANUFACTURES ON: PERMAPARK SPECIFICATIONS) ASPHALT WEARLING COURSE ON; 1.5MM · 2MM POLYMER WATERPROOFING ON; 400MM REINFORCED CONCRETE FLOOR SLAB (TO ENGINEER'S SPECIFICATION) ON; IKO TANKING HYLOAD 2000 SA MEMBRANE: 80MM XPS RIGID **INSULATION ON; 65MM** SAND BLINDING Door Legend LAYER; 2 X 150MM LAYERS OF CLEAN 1:100 WELL GRADED HARDCORE - 40MM SIZE OF STONES. HARDCORE TO

CONFORM WITH IS EN

13242:2002 (TGD c -

AMENDMENTS SEPT

2004)

Internal Flush<br/>DoorExternal Double<br/>Flush Door↓↓↓</td

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Project Name TDS Project - Concrete Building	Sheet Name Elevations to Bannow Road	Checked by	P301 & 302

Emma Harrington

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LEVELING COAT CARAGE SMART TO THE COAT CARAGE	ROOF: 50MM GRAVEL LAYER ON, 30MM DRAINAGE LAYER ON; 3MM POLYMER MODIFIED BITUMEN CAP SHEET ON; 4MM POLYER MODIFIED BITUMEN BASE LAYER ON; 300MM RIGID FOAM INSULATION TO FALLS BITUMINOUS SHEETING, ON VAPOUR RETARDER ON; 340MM PRECAST REINFORCED CONCRETE, OF THAT 50MM PREFABRICATED SLIM DECK FLOOR	TGD B - APPENDIX C. COMPLIES WITH BS EN 12101-2:2003. THERMAL PERFORMANCE DEPENDING ON SIZE RANGES FROM 1.3 TO 2.4 W/M2K
BUILDING D BUILDING BUILDING BUILDING BUILDING BUILDING BUILDING BUILDING BUILDING BUILD		UNDOW ELEMENT - LIMITED OPENING RANGE 8MM FLOAT GLASS+16MM CAVITY+6MM HEAT —STRENGTHENED PRESTRESSED GLASS+14MM CAVITY+8MM
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	BUILDING D	
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DULSCOIL TEICNEOLAÍOCHTA BHAILE ÁTHA CLIATH DUSCENTA TECHNOLOGICAL UNIVERSITY DURI IN		
DUSCOIL TEICNEOLAÍOCHTA BHAILE ÁTHA CLIATH DUSCENTA TECHNOLOGICAL UNVERSITY DURI IN		





Place Map

# ITM CENTRE PT. COORDS.

713223,737094

### DESCRIPTION

**Owens** Design 49 Saint Mobhi Road, Glasnevin, Dublin 9

## MAP SHEETS

1:1000 3197-07 A2 ORDNANCE SURVEY IRELAND  $\bigcirc$ Ösi

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