



SECTION | A-A
SCALE 1:100

SECTION | B-B
SCALE 1:100

GLAZING | SCHEDULE

GLAZING TYPE	GA	GB	GC	GD	GE
GLAZING NUMBER	6-1, 6-2, 5-1, 5-2, 4-1, 4-2, 3-1, 3-2, 2-1, 2-2, 1-1, 1-2.	6-1, 6-2, 5-1, 5-2, 4-1, 4-2, 3-1, 3-2, 2-1, 2-2, 1-1, 1-2.	1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-12, 1-13, 1-4, 1-15, 1-16, 5-1, 5-2, 5-3, 5-4, 5-5, 5-6, 5-7, 5-8, 5-9, 5-10, 5-11, 5-12, 5-13, 5-4, 5-15, 5-16, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 4-7, 4-8, 4-9, 4-10, 4-11, 4-12, 4-13, 4-4, 4-15, 4-16, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-4, 3-15, 3-16, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12, 2-13, 2-4, 2-15, 2-16, 1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-12, 1-13, 1-4, 1-15, 1-16	6-1, 6-2, 6-3, 6-4, 5-1, 5-2, 5-3, 5-4, 4-1, 4-2, 4-3, 4-4, 3-1, 3-2, 3-3, 3-4, 2-1, 2-2, 2-3, 2-4, 1-1, 1-2, 1-3, 1-4.	6-1, 6-2, 6-3, 6-4, 5-1, 5-2, 5-3, 5-4, 4-1, 4-2, 4-3, 4-4, 3-1, 3-2, 3-3, 3-4, 2-1, 2-2, 2-3, 2-4, 1-1, 1-2, 1-3, 1-4.
FFL					
GLAZING DESCRIPTION	ALUMINIUM FRAMED GLAZED WINDOW TO SUIT ABOVE DESIGN AND DIMENSIONS	ALUMINIUM FRAMED TIMBER DOOR WITH GLAZED SIDELIGHTS TO SUIT ABOVE DESIGN AND DIMENSIONS	ALUMINIUM FRAMED GLAZED WINDOW TO SUIT ABOVE DESIGN AND DIMENSIONS	ALUMINIUM FRAMED GLAZED WINDOW TO SUIT ABOVE DESIGN AND DIMENSIONS	ALUMINIUM FRAMED GLAZED DOOR TO SUIT ABOVE DESIGN AND DIMENSIONS
FINISH	POWDERCOATED - CHARCOAL GREY	POWDERCOATED - CHARCOAL GREY	POWDERCOATED - CHARCOAL GREY	POWDERCOATED - CHARCOAL GREY	POWDERCOATED - CHARCOAL GREY
GLAZING SPECIFICATION	LAMINATED SAFETY GLASS THICKNESS OF GLAZING TO COMPLY WITH TABLE 1 OF SANS 10400 PART N	LAMINATED SAFETY GLASS THICKNESS OF GLAZING TO COMPLY WITH TABLE 1 OF SANS 10400 PART N	LAMINATED SAFETY GLASS THICKNESS OF GLAZING TO COMPLY WITH TABLE 1 OF SANS 10400 PART N	LAMINATED SAFETY GLASS THICKNESS OF GLAZING TO COMPLY WITH TABLE 1 OF SANS 10400 PART N	LAMINATED SAFETY GLASS THICKNESS OF GLAZING TO COMPLY WITH TABLE 1 OF SANS 10400 PART N
GLAZING AREA	5.0m²	2.3m²	1.2m²	1.8m²	2.7m²
OPENING AREA	0.9m²	2.2m²	0.4m²	0.4m²	2.1m²

SANS 10400 PART XA | BUILDING ENVELOPE

ROOF ASSEMBLY
R-VALUE REQUIREMENT: **2.7m²·KW**

150mm THICK REINFORCED CONCRETE	0.6 m²·KW
50mm THICK ISOBORD INSULATION LAYER	2.083 m²·KW
50mm THICK STONE CHIP LAYER	0.16 m²·KW
TOTAL	2.843 m²·KW

*DEEMED TO SATISFY REQUIREMENT OF SANS 10400 PART XA

EXTERNAL WALLS
DOUBLE SKIN MASONRY PLASTERED INSIDE AND OUT
*DEEMED TO SATISFY REQUIREMENT OF SANS 10400 PART XA

FENESTRATION REQUIREMENT: **MAX. 15%**

NET FLOOR AREA PER STOREY	150 m²
GLAZING AREA PER STOREY	58 m²
GLAZING/FLOOR AREA	39%

*DOES NOT SATISFY REQUIREMENT OF SANS 10400 PART XA
*REFER TO SANS 204 FENESTRATION CALCULATIONS

FLOORS
REINFORCED CONCRETE SURFACE BED
*DEEMED TO SATISFY REQUIREMENT OF SANS 10400 PART XA

SANS 10400 PART XA | ENERGY DEMAND

LIGHTING + POWER OCCUPANCY CLASSIFICATION: H3

FLOOR AREA: 1073

MAX. ALLOWABLE ENERGY DEMAND REQUIREMENT @ 5W/m²: 5365 W/m²

MAX. ALLOWABLE ENERGY CONSUMPTION REQ. @ 5KWh/m²: 5365 KWh/m²

PROPOSED LIGHTING:
ALL LIGHT FITTINGS TO BE MAX 6W LED
TOTAL LIGHT FITTINGS @ 1 FITTING PER 5m²: 215

HOURS PER DAY: 8 kWh

TOTAL ANNUAL LIGHTING DEMAND: 2825 kWh

TOTAL LIGHTING + POWER DEMAND: **2825 kWh**

*DEEMED TO SATISFY REQUIREMENT OF SANS 10400 PART XA

WATER HEATING:
POPULATION: 96

TOTAL DAILY HOT WATER DEMAND @ 140l PER PERSON PER DAY: 13440 l

TOTAL ANNUAL HOT WATER CONSUMPTION: 4905600 l

REQUIRED STORAGE VOLUME @ 25l PER PERSON: 2400 l

PROPOSED WATER HEATING SYSTEM:
12 x KWIKOT KWIKOSOL Direct System 200lit – SOLAR GEYSER WITH PANEL

NOTE: WATER HEATING SYSTEM TO BE INSTALLED IN ACCORDANCE WITH SANS 1307, SANS 10254 AND SANS 10252-1.

SANS 204 | FENESTRATION

*THESE FENESTRATION CALCULATIONS PERTAIN TO THE FIRST STOREY OF THE PROPOSED BUILDING. THE REMAINING STOREYS (2-6) ARE IDENTICAL IN DESIGN. THEREFORE THE SAME CALCULATIONS APPLY TO THESE STOREYS

GLAZING SPEC.	GA 1-1	GA 1-2	GB 1-1	GB 1-2	GC 1-1	GC 1-2	GC 1-3	GC 1-4	GC 1-5	GC 1-6	GC 1-7	GC 1-8	GC 1-9	GC 1-10	GC 1-11	GC 1-12	GC 1-13	GC 1-14	GC 1-15	GC 1-16	GD 1-1	GD 1-2	GD 1-3	GD 1-4	GE 1-1	GE 1-2	GE 1-3	GE 1-4				
CONDUCTANCE	NET FLOOR AREA PER STOREY: 150																															
	CONDUCTANCE CONSTANT: 1.4																															
	MAXIMUM ALLOWABLE CONDUCTANCE VALUE: 210																															
	TOTAL U-VALUE PER STOREY: 191.66																															
	*DEEMED TO SATISFY REQUIREMENT OF SANS 204																															
SHGC	NET FLOOR AREA PER STOREY: 150																															
	SOLAR HEAT GAIN CONSTANT: 0.11																															
	MAXIMUM ALLOWABLE SHGC VALUE: 16.50																															
	TOTAL SHGC PER STOREY: 15.89																															
	*DEEMED TO SATISFY REQUIREMENT OF SANS 204																															
GLAZING NUMBER	GA 1-1	GA 1-2	GB 1-1	GB 1-2	GC 1-1	GC 1-2	GC 1-3	GC 1-4	GC 1-5	GC 1-6	GC 1-7	GC 1-8	GC 1-9	GC 1-10	GC 1-11	GC 1-12	GC 1-13	GC 1-14	GC 1-15	GC 1-16	GD 1-1	GD 1-2	GD 1-3	GD 1-4	GE 1-1	GE 1-2	GE 1-3	GE 1-4				
GLAZING AREA (A)	5.0	5.0	2.3	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8	2.7	2.7	2.7	2.7				
GLAZING SPEC.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A				
GLAZING SHGC (S)	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43				
EXPOSURE FACTOR (E)	1.15	1.11	0.23	0.28	0.55	0.55	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	0.25	0.34	0.25	0.34				
SUBTOTAL (A x S x E)	2.47	2.39	0.23	0.28	0.28	0.28	0.52	0.52	0.52	0.52	0.19	0.19	0.28	0.28	0.52	0.52	0.52	0.52	0.52	0.19	0.19	0.78	0.78	0.77	0.77	0.29	0.39	0.29	0.39			

OWNER: DAVID WALKER P.O.A. NINE BORNICK ROAD (PTY) LTD

ARCHITECT: MARK BELLINGAN

PROJECT INFO: PROJECT NO: 19/006

LOCATION: PROPOSED NEW DOMESTIC RESIDENCE FOR NINE BORNICK ROAD (PTY) LTD ON PTIN 9 OF ERF 225, DURBAN AT 9 BORNICK ROAD IN MORNINGSIDE, SOUTH AFRICA.

SHEET DETAILS: SECTIONS, PART XA, GLAZING

DATE: APR 2021

common architecture