

SIMULATED OFFICE PROJECT 2008
TECHNICAL REPORT

NEW FACILITY FOR ADULT BASIC EDUCATION AND VOCATIONAL TRAINING

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Technical Report

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Note: All figures and photographs are by the author, except where otherwise acknowledged.

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1 INTRODUCTION

Outlined in this report are the various aspects required to technically document the proposed Centre for Adult Basic Education and Vocational Training for construction, during stage four of the standard services for which the architect is responsible. For the purposes of this technical report a portion of the proposed centre was considered, and sample working drawings have been prepared for this portion of the building. The purpose of this report is to illustrate the architect's role as a principal agent of the client in liaising with the various professional consultants. This report is to be read in conjunction with the working drawings attached as Appendix I.

2 STRUCTURAL RESOLUTION

2.1 Introduction

The structural system of the building has been designed in order to allow for the long spans required to accommodate flexible utilisation of space and to provide the most appropriate spaces for the specific functions contained therein. Based on the working drawings produced by the architect, or preferably through a process of consultation and collaboration, a structural engineer will need to prepare a full set of structural design drawings, including designs for foundations, walls, columns, beams, slabs and roofs. The purpose of these drawing would be to clarify and specify overall sizes and materials and structural systems to be used in the proposed building.

NOTE: All concrete and steel work (foundations, surface beds, slabs, beams, columns and roofs), while illustrated and dimensioned in the working drawings, will require the input of a structural engineer in order to finalise all dimensions, spans depths according to accommodation types and specific loads as determined by the engineer.

2.2 Foundations (To Comply with Part H of SABS 0400)

A Geo-technical engineer would need to be employed in order to conduct a survey of the soil conditions of the site. Based on the recommendations arising from this investigation, the structural engineer will be instructed as to the type of foundations which will be appropriate for this particular site. In this case the site is located near the CBD of Durban, in the Warwick Junction Precinct, which has an extremely high water level. It is therefore anticipated that a combination of pile and strip foundation will be used.

2.3 Surface Beds (To Comply with Part J of SABS 0400)

- § Surface beds are to be 150mm reinforced concrete as per the structural engineer's design and specification.
- § The surface bed for the covered walkway is to be 100mm reinforced concrete as per the structural engineer's design and specification.
- § Surface beds are to have saw cuts at maximum 450mm centres, and saw cuts, v-joints in screed and tiling joints are to coincide in order to minimise cracking brought about by settlement.
- § Surface beds are to be on USB green underlay on well compacted fill to the engineer's details and specifications.

2.4 Columns, Slabs and Beams (To Comply with Part B of SABS 0400)

- § Columns which fall within walls are to 230x460mm reinforced concrete columns with 150mmØ PVC rainwater downpipes cast into the columns where indicated on plan, as per the engineer's details and specifications.
- § Where illustrated within the learning resources centre, central aisle columns are to be 500mmØ reinforced concrete on ground floor, and 300mmØ on first and second floors (Re: 1/A02, 1/A03 & 1/A04).
- § Generally slabs are to be 170mm thick reinforced concrete slabs with 25mm saw cut expansion joints at maximum 4500mm centres.
- § Slabs to the book stack areas of the learning resources centre are to be 350mm reinforced concrete coffer slabs.
- § Saw cuts, v-joints in screed and tiling joints are to coincide in order to minimise cracking brought about by settlement.
- § Beam depths vary depending on the location and application, and most beams have a thickness of 230mm reinforced concrete, except where otherwise illustrated.

2.5 Walls (To Comply with Part K of SABS 0400)

- § Walls are either 230mm brick walls or 345mm cavity walls.
- § 230mm clay brickwork double skin walls are either for plaster and paint finish, or facebrick as illustrated on elevations.
- § 345mm cavity walls are to be clay stock for plaster and paint finish with walls ties every four vertical course, spaced at approximately 1m².
- § Internal walls are generally 115mm clay stock brick single skin walls for plaster and paint finish.

2.6 Roof (To Comply with Part L of SABS 0400)

The building consists of two types of roofing systems, namely CHROMADEK profiled roof sheeting on steel girder trusses, and flat concrete slabs. In the sample portion of the building taken for the purposes of illustration for this project, roofs are predominantly flat slabs, except where illustrated at the covered walkways.

- § Generally roof slabs are 170mm deep reinforced concrete slabs as per the engineer's detail and specification.
- § Over the auditorium where the span is greater than the general roof slabs, the slab is 255mm reinforced concrete slab.

- § Roof slabs are to be insulated against solar heat gain with a 40mm thick ISOFOAM 'ISOBOARD' extruded polystyrene insulation board on a minimum 30mm cement screed blinding.
- § Flat roofs are to be waterproofed with DERBIGUM or a similar approved product, to be painted silver, to be laid on a minimum 30mm cement screed to falls to outlets.

2.7 Conclusion

The overall structural system of the proposed facility is a concrete grid system consisting of columns, beams and slabs with brick and glass infill panels. Coffered slabs have been used where necessary in order to cope with the increased loads typical of libraries. The use of a concrete structural grid allows for large spans to accommodate flexible internal design of spaces and allows for large openings which allow the advantages of natural lighting to be incorporated into the scheme.

3. FIRE REPORT

3.1. Introduction

This chapter deals with the steps which are necessary to make a building compliant with the fire safety regulations in terms of Part T of the South African National Building Regulations (SABS 0400). In order to determine the requirements of compliance with the safety regulations the building is classified as follows:

- § A3: Place of Instruction (SABS 0400; Table 1; p. 34).
- § C2: Library (SABS 0400; Table 1; p. 34).

3.2. Fire Fighting Equipment and Escape Routes (To Comply with Part T of SABS 0400)

The requirements stipulated in Part T of the SABS 0400 which have been accommodated and illustrated in the illustrated portion of the proposed building are:

- § One fire extinguisher per 200m².
- § Fire extinguisher to be 9kg portable dry chemical type.
- § One fire hose reel shall be provided per 500m² to accommodate 30m hose lengths.
- § One fire hydrant per 1000m².
- § Fire detection and smoke alarms to be installed throughout the building.
- § An approved sprinkler system shall be installed.
- § Operable windows at roof level to permit smoke ventilation.
- § Not less than 2 escape routes are to be provided with the distance of travel not exceeding 45m.
- § Exit doors shall open in the direction of travel along the escape route.
- § The width of the escape route shall not be less than 1100mm.
- § Water reticulation to fire fighting equipment shall be provided.
- § Emergency routes shall be clearly marked and signposted to indicate the direction to be travelled in the case of an emergency.

3.3. Conclusion

Further consultation with a specialised fire engineer or fire officer would ensure that the building is compliant with the fire safety regulations as laid out in the SABS 0400.

4. MECHANICAL RESOLUTION

4.1. Introduction

The mechanical resolution of this building focuses mainly on the air conditioning system. This system is to be housed in the ceiling void and to be reached from the origin on ground floor below the raked floor of the auditorium, via the services room and vertical ducts.

4.2. HVAC (To Comply with Part TT43 of SABS 0400)

Appropriate size and type of HVAC system is to be determined by the mechanical engineer. Space has been allocated to accommodate the mechanical ventilation system, but the specific design of the system is to be done by the mechanical engineer and is to be coordinated by the architect.

§ Air conditioning is to comply with Part TT43 of SABS 0400.

4.3. Conclusion

Consultation with a mechanical engineer will serve to define the specifics of the HVAC system as well as to improve the efficiency of the system. The possibility of the installation of passive heating and cooling system will be based on the advice given by the mechanical engineer.

5. SERVICES

5.1. Introduction

Outlined in this chapter are the various services which are required in the building. The design of these systems and installations will be in consultation and coordination with the electrical, mechanical and civil engineers.

5.2. Drainage (To Comply with Part P of SABS 0400)

The building will have a standard drainage system linking to the municipal sewer line.

- § Sanitary fixtures are to be supplied based on the population of the building calculated as per Table 2 of Part A and Table 6 of Part P of the SABS 0400.
- § All soil pipes, waste pipes, rodding eyes, inspection eyes and gullies are to comply with Part P of the SABS 0400.

5.3. Stormwater Disposal (To Comply with Part R of SABS 0400)

- § Gutters, valley gutters and downpipes are to comply with Part R of the SABS 0400.
- § Access points to stormwater drains shall not be further apart than 40m.

5.4. Water Supply

The mechanical engineer will be called upon to specify the implementation and installation of the water supply system as required. All piping shall be PVC and shall be sized according to the engineer's specifications.

5.5. Lifts (To Comply with Part SS3 & TT45-TT48 of SABS 0400)

The appropriate lift is to be specified by the mechanical engineer, and the lift shaft and pit are to be designed by the structural engineer to fit within the allocated space.

5.6. Electrical (To Comply with Part OO6 of SABS 0400)

All electrical cabling and conduits are to be specified and designed by the electrical engineer. All work is to comply with:

- § SABS 0142 in terms of the code of practice for the wiring of the building.
- § SABS 0114 in terms of the code for interior artificial lighting.
- § Provision must be made to accommodate telephones, computer, internet and LAN cabling.

5.7. Conclusion

Further consultation with I engineers will be required in order to be able to produce layout drawings which will then be coordinated with the architect's working drawings.

6. CONCLUSION

This report briefly covers the major technical aspects of a building which need to be resolved for the purposes of construction. It also illustrates the roles played by some of the many professional consultants in the construction process. The most important aspect illustrated is that the architect, in the role of principal agent, has the responsibility of coordinating the information from all the consultants on the professional team in order to ensure that there are no clashes of services.

7

Appendix I – Working Drawings

centre for adult basic education and vocational training

design dissertation
december 2008
leigh hartl

DRAWING REGISTER

Page No. 1 of 2

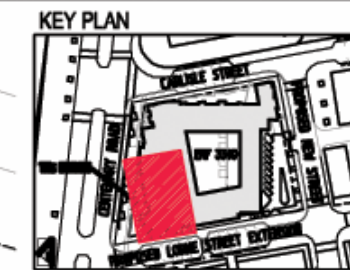
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DRAWING REGISTER

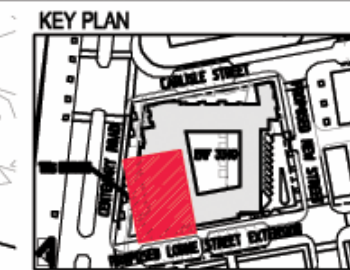
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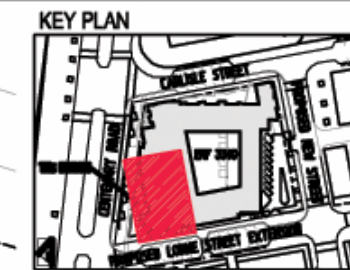
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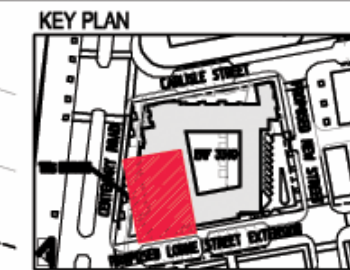
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RE: 1/A1

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 **1 PART FIRST FLOOR PLAN**
SCALE 1:50
RE: 1/A1

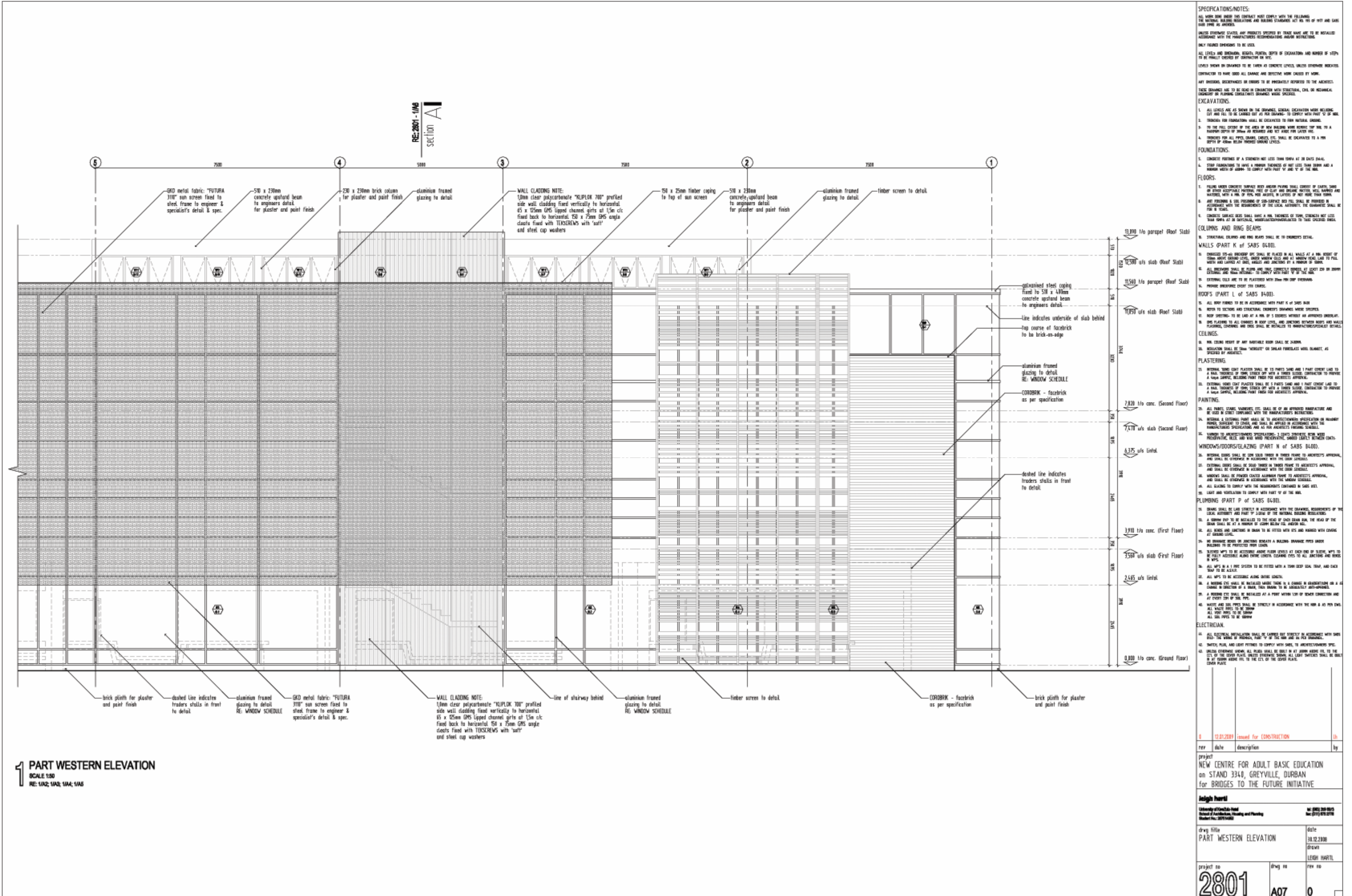
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 **1 PART SECOND FLOOR PLAN**
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RE: 1/A1



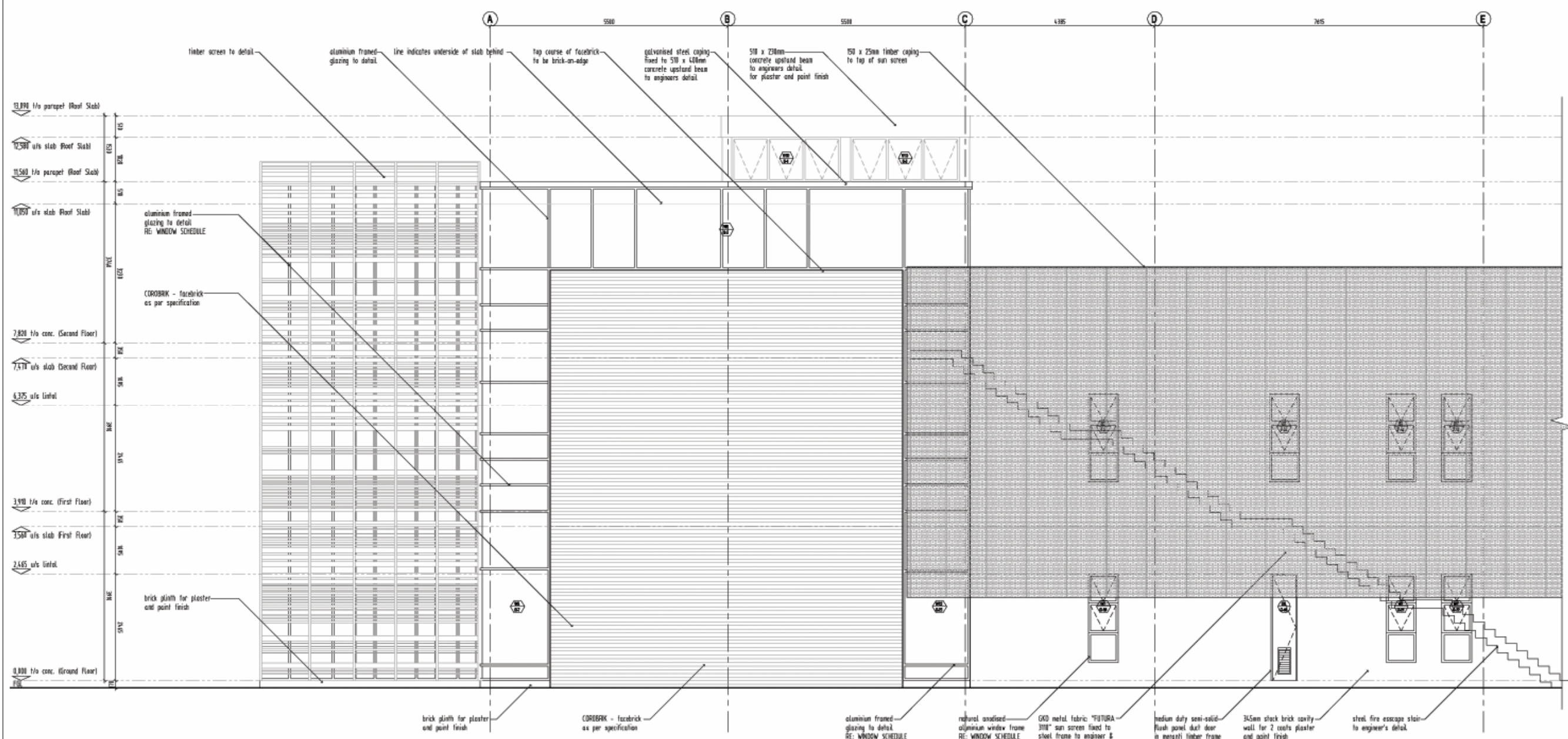
1 ROOF PLAN
SCALE 1:50
RE: 1/A1

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SPECIFICATIONS/NOTES:			
ALL WORK DONE UNDER THIS CONTRACT MUST COMPLY WITH THE FOLLOWING: THE NATIONAL BUILDING REGULATIONS AND BUILDING STANDARDS ACT NO. 103 OF 1977 AND SANS 1040 (SANS 1040) AS AMENDED.			
UNLESS OTHERWISE STATED, ALL PRODUCTS SPECIFIED BY TRADE NAME ARE TO BE INSTALLED ACCORDING WITH THE MANUFACTURER'S RECOMMENDATIONS AND/OR INSTRUCTIONS.			
ONLY FINISHED DIMENSIONS TO BE USED.			
ALL LEVELS AND DIMENSIONS, HEIGHTS, PLUNTS, DEPTH OF EXCAVATIONS AND NUMBER OF STEPS TO BE FINALLY CHECKED BY CONTRACTOR OR SURV.			
LEVELS SHOWN ON DRAWINGS TO BE TAKEN AS CONCRETE LEVELS, UNLESS OTHERWISE INDICATED.			
CONTRACTOR TO HAVE DRAIN ALL DAMAGE AND DEFECTIVE WORK CAUSED BY WORK.			
ANY DISCREPANCIES OR ERRORS TO BE IMMEDIATELY REPORTED TO THE ARCHITECT.			
THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH STRUCTURAL, CIVIL OR MECHANICAL DRAWINGS OR PLUMBING CONSULTANTS DRAWINGS WHERE SPECIFIED.			
EXCAVATIONS:			
1. ALL LEVELS ARE AS SHOWN ON THE DRAWINGS. GENERAL EXCAVATION WORK INCLUDING CUT AND FILL TO BE CARRIED OUT AS PER DRAWINGS TO COMPLY WITH PART 'C' OF SANS 1040.			
2. TRENCHES FOR FOUNDATIONS SHALL BE EXCAVATED TO FIRM NATURAL SOILS.			
3. TO THE FULL EXTENT OF THE AREA OF NEW BUILDING WORK EXISTING TOP SOIL TO A MINIMUM DEPTH OF 300mm AS REQUIRED AND SET ASIDE FOR LATER USE.			
4. TRENCHES FOR ALL PIPES, CABLES, ETC. SHALL BE EXCAVATED TO A MIN DEPTH OF 400mm BELOW FINISHED GROUND LEVELS.			
FOUNDATIONS:			
1. CONCRETE FOOTINGS OF A STRENGTH NOT LESS THAN 20MPa AT 28 DAYS (F40).			
2. STEP FOUNDATIONS TO HAVE A MINIMUM THICKNESS OF NOT LESS THAN 300mm AND A MINIMUM WIDTH OF 400mm TO COMPLY WITH PART 'C' OF SANS 1040.			
FLOORS:			
1. FLOORING UNDER CONCRETE SURFACE WITH ANOTHER FLOORING SHALL CONSIST OF SAND, SAND OR OTHER ACCEPTABLE MATERIAL, FREE OF CLAY AND ORGANIC MATTER, WELL WASHED AND MATCHED, WITH A MIN. OF 10% AND MAX. OF 15% IN LAYERS OF NOT MORE THAN 20mm.			
2. ANY POSITION A USE SPECIFIC OF SUB-SURFACE SOIL FILL SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY. THE QUANTITIES SHALL BE FOR 10 YEARS.			
3. CONCRETE GROUND FLOORS SHALL HAVE A MIN. THICKNESS OF 100mm, STRUCTURE NOT LESS THAN 100mm AS IN STRUCTURAL DRAWINGS/CONSTRUCTION DETAILS TO TAKE OVERLOADS.			
COLUMNS AND RING BEAMS:			
1. STRUCTURAL COLUMNS AND RING BEAMS SHALL BE TO ARCHITECT'S DETAIL.			
WALLS (PART K OF SABS 1040):			
1. PROPOSED 125mm BRICKWORK SHALL BE PLACED IN ALL WALLS AT A MIN. HEIGHT OF 100mm ABOVE GROUND LEVEL, UNDER WINDOW SILL AND AT WINDOW HEAD. LEAD TO FULL WIDTH AND LAYERS AT 90°, 180° AND 270° TO BE PROVIDED.			
2. ALL BRICKWORK SHALL BE PLACED AND LAYED CORRECTLY, AT LEAST 20mm ON EXTERIOR AND 10mm ON INTERIOR. TO COMPLY WITH PART 'C' OF SANS 1040.			
3. EXTERNAL CORNERS ARE TO BE PLASTERED WITH 12mm MIN. THICKNESS.			
4. PROVIDE BRICKWORK EXCEPT THE CORNERS.			
ROOFS (PART L OF SABS 1040):			
1. ALL ROOF FINISHES TO BE IN ACCORDANCE WITH PART K OF SABS 1040.			
2. REFER TO SECTIONS AND STRUCTURAL ENGINEER'S DRAWINGS WHERE SPECIFIED.			
3. ROOF SHEETING TO BE Laid AT AN ANGLE OF 5 DEGREES WITHOUT AN APPROVED UNDERLAY.			
4. ROOF FINISHES TO ALL CORNERS IN ROOF LINES, AND JOINTS BETWEEN ROOFS AND WALLS PLASTERED, CONCRETE AND OTHER SHALL BE INSTALLED TO MANUFACTURER'S/CONSTRUCTION DETAILS.			
CEILING:			
1. MIN. CEILING HEIGHT OF ANY HABITABLE ROOM SHALL BE 2.40m.			
2. INSULATION SHALL BE 100mm "ROCKWOOL" OR SIMILAR FIBREGLASS WOOL BLANKET, AS SPECIFIED BY ARCHITECT.			
PLASTERING:			
1. INTERNAL THIN CRACK PLASTER SHALL BE 15 PARTS SAND AND 1 PART CEMENT Laid TO A MAX. THICKNESS OF 10mm OVER TOP OF A FORMED SURFACE. CONTRACTOR TO PROVIDE A 10mm SURFACE, INCLUDING PLASTER FINISH FOR ARCHITECT'S APPROVAL.			
2. EXTERNAL THIN CRACK PLASTER SHALL BE 5 PARTS SAND AND 1 PART CEMENT Laid TO A MAX. THICKNESS OF 10mm OVER TOP OF A FORMED SURFACE. CONTRACTOR TO PROVIDE A 10mm SURFACE, INCLUDING PLASTER FINISH FOR ARCHITECT'S APPROVAL.			
PAINTING:			
1. ALL PAINTS, STAINS, VARNISHES, ETC. SHALL BE OF AN APPROVED MANUFACTURE AND BE USED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS.			
2. INTERNAL & EXTERNAL PAINT SHALL BE TO ARCHITECT/ENGINEER'S SPECIFICATION OR MANUFACTURER'S SPECIFICATION TO LOCAL AUTHORITY AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AS PER ARCHITECT'S FINISHING SCHEDULE.			
WINDOWS/DOORS/SLIDING (PART N OF SABS 1040):			
1. INTERNAL DOORS SHALL BE 20mm SOLID TIMBER OR TIMBER FRAME TO ARCHITECT'S APPROVAL, AND SHALL BE SPECIFIED IN ACCORDANCE WITH THE DRAWING SCHEDULE.			
2. EXTERNAL DOORS SHALL BE 20mm SOLID TIMBER OR TIMBER FRAME TO ARCHITECT'S APPROVAL, AND SHALL BE SPECIFIED IN ACCORDANCE WITH THE DRAWING SCHEDULE.			
3. WINDOWS SHALL BE POWDER COATED ALUMINUM FRAME TO ARCHITECT'S APPROVAL, AND SHALL BE SPECIFIED IN ACCORDANCE WITH THE WINDOW SCHEDULE.			
4. ALL GLAZING TO COMPLY WITH THE REQUIREMENTS CONTAINED IN SABS 1040.			
5. LATCH AND VENTILATION TO COMPLY WITH PART 'C' OF SANS 1040.			
PLUMBING (PART P OF SABS 1040):			
1. DRAIN SHALL BE Laid STRICTLY IN ACCORDANCE WITH THE DRAWINGS, REQUIREMENTS OF THE LOCAL AUTHORITY AND PART 'P' OF SANS 1040.			
2. A DOWN PIPE TO BE INSTALLED TO THE HEAD OF EACH DRAIN RUN, THE HEAD OF THE DRAIN SHALL BE AT A MINIMUM OF 100mm BELOW THE FINISHED FLOOR.			
3. ALL JOINTS AND JOINTINGS IN DRAIN TO BE FITTED WITH GUTS AND WASHED WITH CEMENT AT GROUND LEVEL.			
4. NO DRAINAGE SHALL BE INSTALLED UNDER A BUILDING DRAINAGE PIPES UNDER BUILDING TO BE PROTECTED FROM DAMAGE.			
5. SLOPED PIPES TO BE ACCESSIBLE ALONG ENTIRE LENGTH AT EACH END OF SLOPE, PIPES TO BE FULLY ACCESSIBLE ALONG ENTIRE LENGTH, CLEANING EYES TO ALL JUNCTIONS AND BENDS IN PIPES.			
6. ALL PIPES IN A 100mm SYSTEM TO BE FITTED WITH A 100mm DEEP SEAL TRAP, AND EACH TRAP TO BE ACCESSIBLE.			
7. ALL PIPES TO BE ACCESSIBLE ALONG ENTIRE LENGTH.			
8. A WINDING EYE SHALL BE INSTALLED WHERE THERE IS A CHANGE IN GRADIENT/ANGLE OR A CHANGE IN DIRECTION OF A DRAIN, THIS DRAIN TO BE IMMEDIATELY IDENTIFIED.			
9. A WINDING EYE SHALL BE INSTALLED AT A POINT WITHIN 10m OF EVERY CONNECTION AND AT EVERY 20m OF 100mm PIPES.			
10. WASTE AND SOIL PIPES SHALL BE INSTALLED IN ACCORDANCE WITH THE MIN. & 40mm DIA. ALL WASTE PIPES TO BE 40mm.			
11. ALL SOIL PIPES TO BE 100mm.			
ELECTRICIAN:			
1. ALL ELECTRICAL INSTALLATION SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH SANS 1018 - THE WIRING OF PREMISES, PART 'W' OF SANS 1018 AND ALL PWS DRAWINGS.			
2. SWITCH, FUSE, AND LIGHT FITTING TO COMPLY WITH SANS 1018 AND ALL PWS DRAWINGS.			
3. DRAINAGE CHANNELS SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWING SCHEDULE.			
4. TO THE FULL EXTENT OF THE AREA OF NEW BUILDING WORK EXISTING TOP SOIL TO A MINIMUM DEPTH OF 300mm AS REQUIRED AND SET ASIDE FOR LATER USE.			
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10	12.02.2019	issued for construction	1h
rev	date	description	by
	project	NEW CENTRE FOR ADULT BASIC EDUCATION on STAND 3340, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE	
Jagah hartl			
University of KwaZulu-Natal Durban School of Architecture and Planning Durban, South Africa Tel: 031 260 1000		No: 0002 2019 0073 Rev: 0070 0073 0078	
dwg title		date	
PART WESTERN ELEVATION		31.12.2018	
project no		rev no	
2001		A07 0	



1 PART SOUTHERN ELEVATION
SCALE 1:50
RE: 1/A2; 1/A3; 1/A4; 1/A5

SPECIFICATIONS/NOTES:

ALL WORK DONE UNDER THIS CONTRACT MUST COMPLY WITH THE FOLLOWING:
THE NATIONAL BUILDING REGULATIONS AND BUILDING STANDARDS ACT NO. 103 OF 1977 AND SARS 5400 PPM AS AMENDS.
UNLESS OTHERWISE STATED, ALL PRODUCTS SPECIFIED BY TRADE NAME ARE TO BE INSTALLED ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND/OR INSTRUCTIONS.
ONLY FINISHED DIMENSIONS TO BE USED.
ALL LEVELS AND DIMENSIONS, HEIGHT, FINISH, DEPTH OF EXCAVATION AND NUMBER OF STEPS TO BE FINALLY CHECKED BY SURVEYOR OR SFC.
LEVELS SHOWN ON DRAWING TO BE TAKEN AS CONCRETE LEVELS, UNLESS OTHERWISE INDICATED.
CONTRACTOR TO HAVE DONE ALL DAMAGE AND OBSTRUCTIVE WORK CAUSED BY WORK.
ANY DISCREPANCIES OR ERRORS TO BE IMMEDIATELY REPORTED TO THE ARCHITECT.
TRADE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH SPECIFICATION, CIVIL OR MECHANICAL SCHEDULES OR TENDING CORRELATIONS DRAWING SPECIES.
EXCAVATIONS:
1. ALL LEVELS ARE AS SHOWN ON THE DRAWING. GENERAL EXCAVATION WORK INCLUDING CUT AND FILL TO BE CARRIED OUT AS PER DRAWING TO COMPLY WITH PART 12 OF THE REG.
2. TRENCHES FOR FOUNDATIONS SHALL BE EXCAVATED TO FIRM NATURAL SOILS.
3. TO THE FULL EXTENT OF THE AREA OF NEW BUILDING WORK BEING TOP SOIL TO A MINIMUM DEPTH OF 300mm AND REINFORCED AND SET BACK FOR LATER USE.
4. TRENCHES FOR ALL PIPES, DRAINS, CABLES, ETC. SHALL BE EXCAVATED TO A MIN DEPTH OF 400mm BELOW FINISHED GROUND LEVELS.
FOUNDATIONS:
5. CONCRETE FOOTINGS OF A STRENGTH NOT LESS THAN 20MPa AT 28 DAYS (F40).
6. STEP FOUNDATIONS TO HAVE A MINIMUM THICKNESS OF NOT LESS THAN 200mm AND A MINIMUM WIDTH OF 300mm TO COMPLY WITH PART 12 OF THE REG.
FLOORS:
7. FLOOR UNDER CONCRETE SURFACE MUST BEING FINISHED SHALL CONSIST OF SAND, GRAVEL OR OTHER ACCEPTABLE MATERIAL FREE OF CLAY AND ORGANIC MATTER, WELL WAMPED AND MIXED WITH A MIN. OF 10% FINE AGGREGATE, IN LAYERS OF NOT MORE THAN 100mm.
8. ANY EXPOSURE & USE OF MATERIALS OF CONSTRUCTION AND FILL SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY. THE GUARANTEE SHALL BE FOR 8 YEARS.
9. CONCRETE SURFACE DECK SHALL HAVE A MIN. THICKNESS OF 100mm, STRENGTH NOT LESS THAN 20MPa AT 28 DAYS (F40), UNLESS OTHERWISE SPECIFIED TO THOSE SPECIFIED UNDER.
COLUMNS AND RING BEAMS:
10. STRUCTURAL COLUMNS AND RING BEAMS SHALL BE TO DIMENSIONS DETAIL.
WALLS (PART K of SABS 0400):
11. EXPOSED 125mm BRICKWORK SHALL BE PLACED IN ALL WALLS AT A MIN. HEIGHT OF 1500mm ABOVE GROUND LEVEL. UNDER WINDOW COLES AND AT WINDOW HEADS LEAD TO FILL WITH AND LAPPED AT MIN. HEIGHT AND JOINTS AT 1.5m FROM TOP.
12. ALL BRICKWORK SHALL BE BURN AND TRUE, CORRECTLY BURNED, AT LEAST 20% OF 200mm EXTERNAL AND 100mm INTERNAL TO COMPLY WITH PART 12 OF THE REG.
13. EXTERNAL COLE ARE TO BE PLASTERED WITH 12mm MIN COLE OVERBOND.
14. PROVIDE UNDERPINNED EXISTING WALLS.
ROOFS (PART L of SABS 0400):
15. ALL ROOF FINISHES TO BE IN ACCORDANCE WITH PART K of SABS 0400.
16. REFER TO SECTIONS AND STRUCTURAL DRAWINGS WHERE SPECIFIED.
17. ROOF SHEETING TO BE Laid AT A MIN. OF 5 DEGREES WITHOUT ANY APPROVED UNDERLAY.
18. ROOF PLASTERING TO ALL CHIMNEYS IN ROOF LEVELS AND JOINTS BETWEEN ROOFS AND WALLS PLASTERED, COVERED AND DRS SHALL BE INSTALLED TO MANUFACTURERS/DEVELOPER DETAILS.
CEILING:
19. MIN. CEILING HEIGHT OF ANY HABITABLE ROOM SHALL BE 2.40m.
20. INSULATION SHALL BE 100mm "WOLLEST" OR SIMILAR FIBREGLASS WOOL INSULANT, AS SPECIFIED BY ARCHITECT.
PLASTERING:
21. INTERNAL THICK COAT PLASTER SHALL BE 15 PARTS SAND AND 1 PART CEMENT Laid TO A MIN. THICKNESS OF 12mm. COAT OFF WITH A THICK COAT. CONTRACTOR TO PROVIDE A 10mm COAT, INCLUDING PLASTER FINISH FOR ARCHITECTS APPROVAL.
22. EXTERNAL THICK COAT PLASTER SHALL BE 5 PARTS SAND AND 1 PART CEMENT Laid TO A MIN. THICKNESS OF 12mm. COAT OFF WITH A THICK COAT. CONTRACTOR TO PROVIDE A 10mm COAT, INCLUDING PLASTER FINISH FOR ARCHITECTS APPROVAL.
PAINTING:
23. ALL PAINTS, STAINS, VARNISHES, ETC. SHALL BE OF AN APPROVED MANUFACTURE AND BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
24. INTERNAL & EXTERNAL PAINT SHALL BE TO ARCHITECTS/ENGINEERS SPECIFICATION OR MANUFACTURERS SPECIFICATION TO EXCEL, AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND AS PER ARCHITECTS FINISHING SCHEDULE.
25. VARNISH TO ARCHITECTS/ENGINEERS SPECIFICATION. 3 COATS MINIMUM, WITH WOOD PRESERVATIVE, BLS AND WOOD WOOD PRESERVATIVE, SHOWN LOCALLY BETWEEN COATS.
WINDOWS/DOORS/GLAZING (PART N of SABS 0400):
26. INTERNAL DOORS SHALL BE 2000mm HIGH IN ROOMS PERMITTED TO ARCHITECTS APPROVAL, AND SHALL BE OFFERED BY ARCHITECTS APPROVAL.
27. EXTERNAL DOORS SHALL BE 2000mm HIGH IN ROOMS PERMITTED TO ARCHITECTS APPROVAL, AND SHALL BE OFFERED BY ARCHITECTS APPROVAL.
28. WINDOWS SHALL BE POWER OPERATED ALUMINUM FRAME TO ARCHITECTS APPROVAL, AND SHALL BE OFFERED BY ARCHITECTS APPROVAL.
29. ALL GLAZING TO COMPLY WITH THE REQUIREMENTS CONTAINED IN SABS 0400.
30. LIGHT AND VENTILATION TO COMPLY WITH PART 12 OF THE REG.
PLUMBING (PART P of SABS 0400):
31. DRAINS SHALL BE Laid STRICTLY IN ACCORDANCE WITH THE DRAWINGS, REQUIREMENTS OF THE LOCAL AUTHORITY AND PART 12 OF THE NATIONAL BUILDING REGULATIONS.
32. A DOWN PIPE TO BE INSTALLED TO THE HEAD OF EACH DOWN PIPE, THE HEAD OF THE DOWN PIPE SHALL BE AT A MINIMUM OF 100mm BELOW FIN. GROUND LEVEL.
33. ALL JUNCTIONS AND JOINTS IN DOWN TO BE FITTED WITH 100% AND WASHED WITH COVERS AT GROUND LEVEL.
34. NO FURNISHING BEHIND OR JOINTS BEHIND A BUILDING DRAINAGE PIPES UNDER BUILDINGS TO BE PROTECTED FROM LEAKS.
35. SLOPED WPS TO BE ACCESSIBLE ALONG DRAIN LENGTH. CLEANING CYPS TO ALL JUNCTIONS AND BENDS IN WPS.
36. ALL WPS IN A 1 PIPE SYSTEM TO BE FITTED WITH A 100mm DEEP SEAL, SEAL, AND EACH SEAL TO BE ACCESSIBLE.
37. ALL WPS TO BE ACCESSIBLE ALONG DRAIN LENGTH.
38. A RAINING CYS SHALL BE INSTALLED WHERE THERE IS A CHANGE IN GRADE/STATION OR A CHANGE IN DIRECTION OF A DRAIN, THEN DRAIN TO BE ADEQUATELY ANTI-BACKFLOW.
39. A RAINING CYS SHALL BE INSTALLED AT A POINT WITHIN 100m OF EACH CONNECTION AND AT EVERY 200m OF DRAIN PIPE.
40. MATE AND JOINT PIPES SHALL BE INSTALLED IN ACCORDANCE WITH THE REG. & AS PER ENGS.
41. ALL WASTE PIPES TO BE 100mm.
42. ALL JOINT PIPES TO BE 100mm.
ELECTRICAL:
43. ALL ELECTRICAL INSTALLATION SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH SARS 5400 THE NATIONAL BUILDING REGULATIONS, PART 12 OF THE REG. AND AS PER DRAWINGS.
44. SWITCH, PLUG, AND LIGHT FITTINGS TO COMPLY WITH SARS, TO ARCHITECTS/ENGINEERS SPEC.
45. UNLESS OTHERWISE SHOWN, ALL PIPES SHALL BE BUILT IN AT 200mm ABOVE FIN. TO THE 100% OF THE DRAIN PIPE, UNLESS OTHERWISE SHOWN, ALL LIGHT SWITCHES SHALL BE BUILT IN AT 100mm ABOVE FIN. TO THE 100% OF THE DRAIN PIPE.

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project
NEW CENTRE FOR ADULT BASIC EDUCATION
on STAND 3340, GREYVILLE, DURBAN
for BRIDGES TO THE FUTURE INITIATIVE

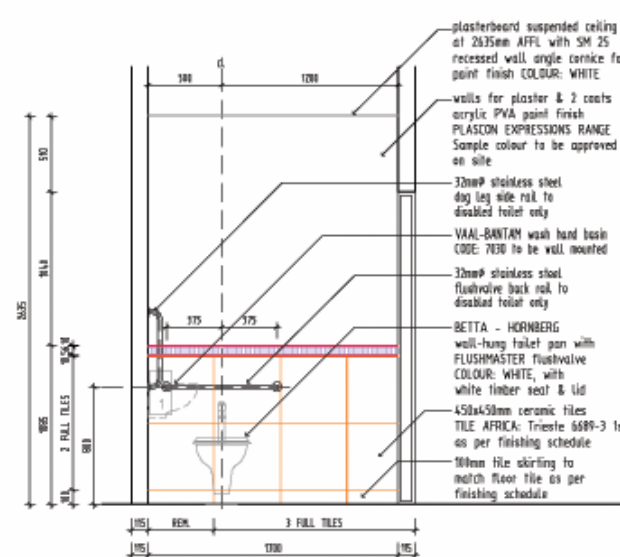
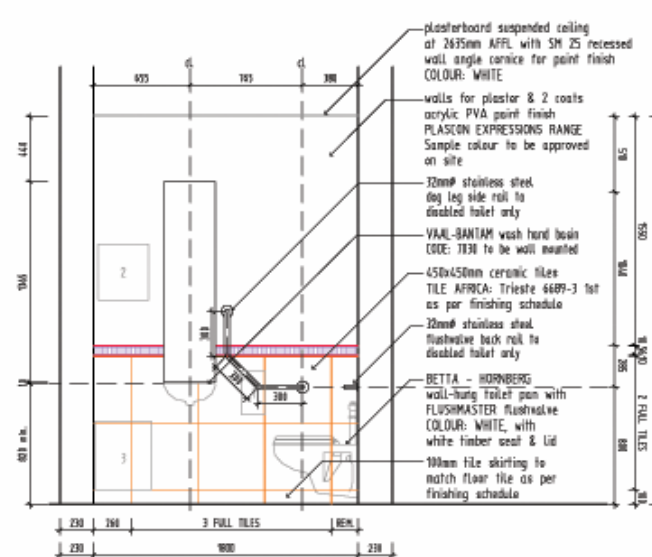
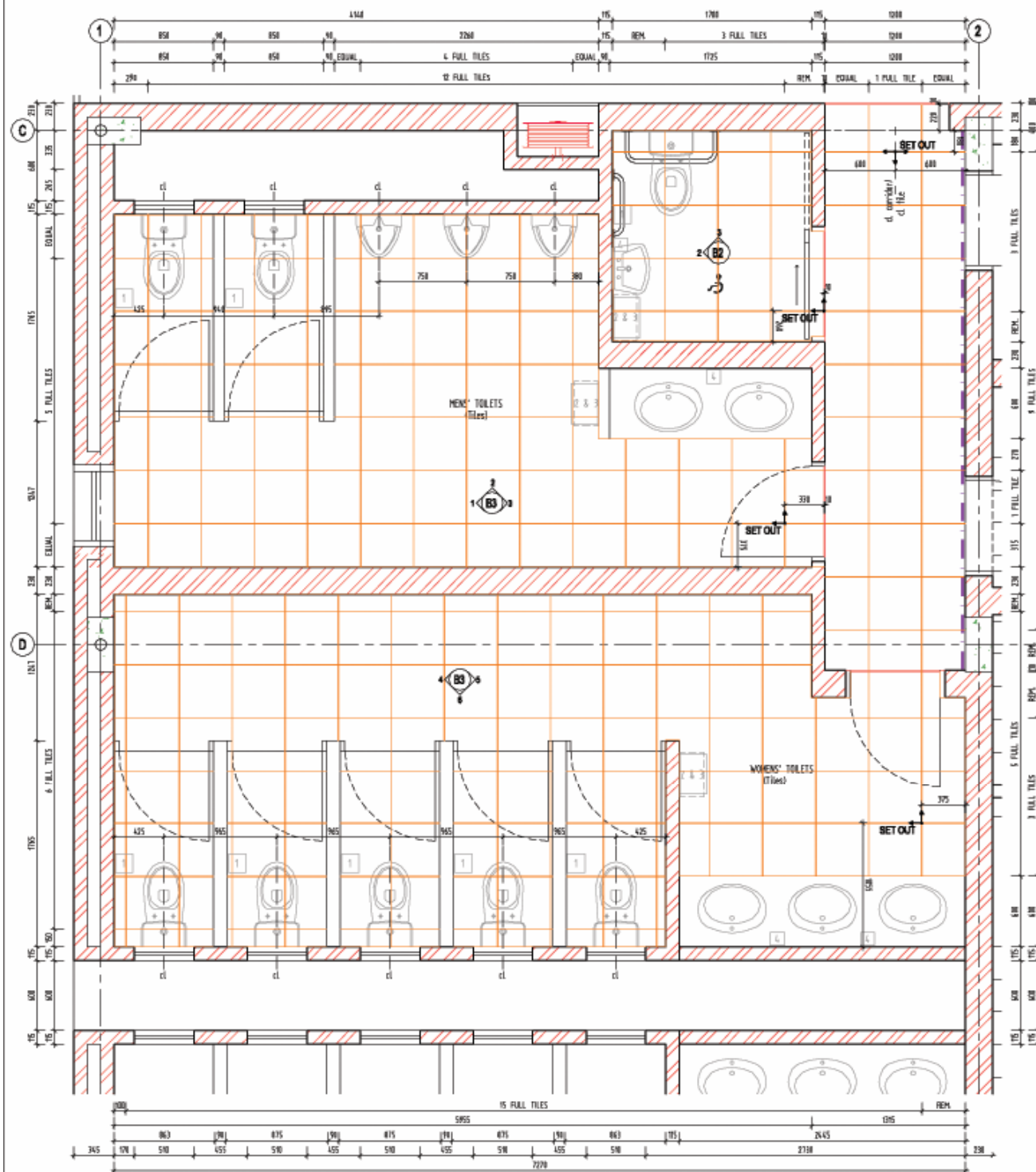
Leigh Hartill
University of KwaZulu Natal
School of Architecture, Planning and Planning
Durban 6001 3070 1400
tel: (031) 260 1015
fax: (031) 679 0770

draw title
PART SOUTHERN ELEVATION
date
19.12.2008
drawn
LEIGH HARTILL
rev no
0

project no
2801
draw no
A08
rev no
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#	12.02.2009	issued for CONSTRUCTION	in
ref	date	description	by
project			
NEW CENTRE FOR ADULT BASIC EDUCATION on STAND 334E, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE			
Leigh Hartel			
University of Witswatersrand School of Architecture, Planning and Planning Student No: 207514040			tel: (031) 260-0615 fax: (031) 260-0778
drawing title WALL SECTION 01			date 29.12.2008 drawn LEIGH HARTL
project no	drawing no	rev no	
2801	B01	0	



SPECIFICATIONS/NOTES:

ALL WORK DONE UNDER THIS CONTRACT MUST COMPLY WITH THE FOLLOWING:
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UNLESS OTHERWISE STATED, ALL PRODUCTS SPECIFIED BY THESE NAME ARE TO BE INSTALLED
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CONTRACTOR TO HAVE DRAIN ALL DAMAGE AND DEFECTIVE WORK CAUSED BY WORK.

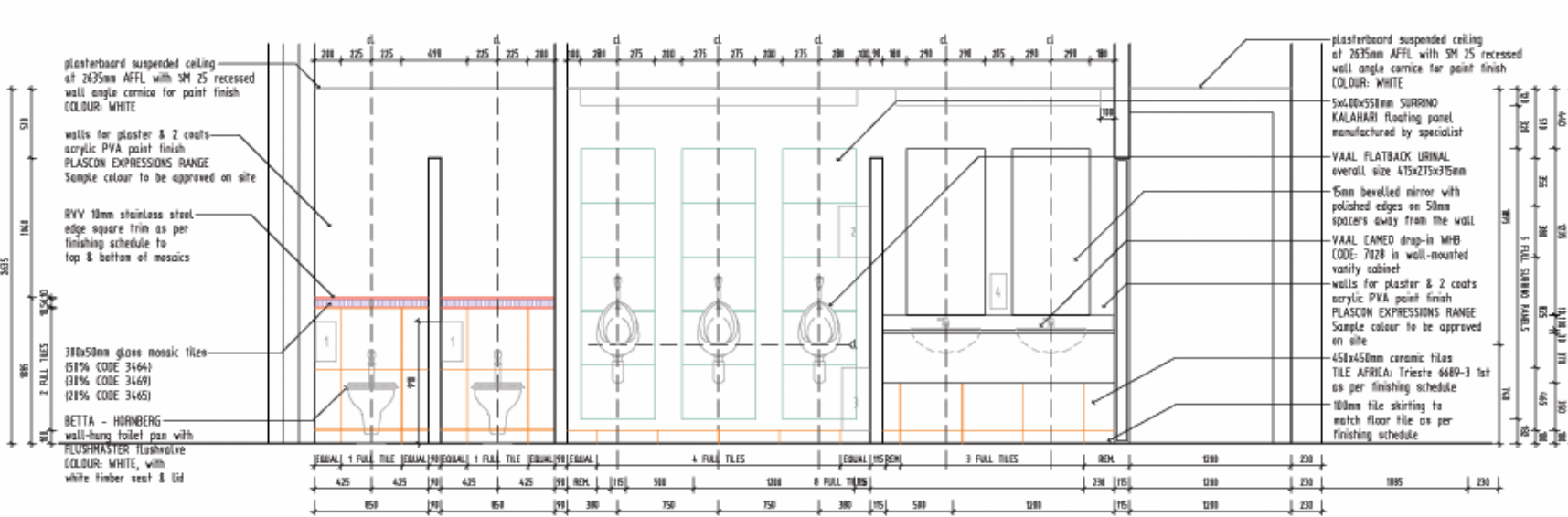
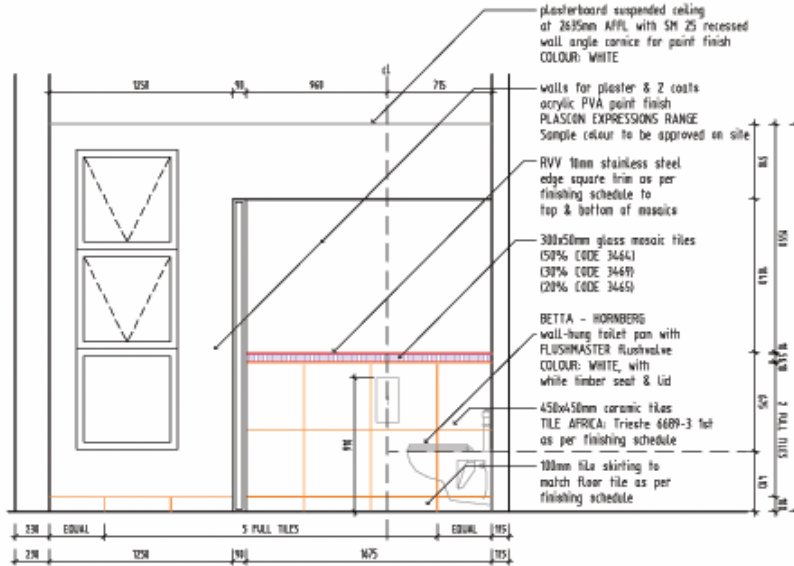
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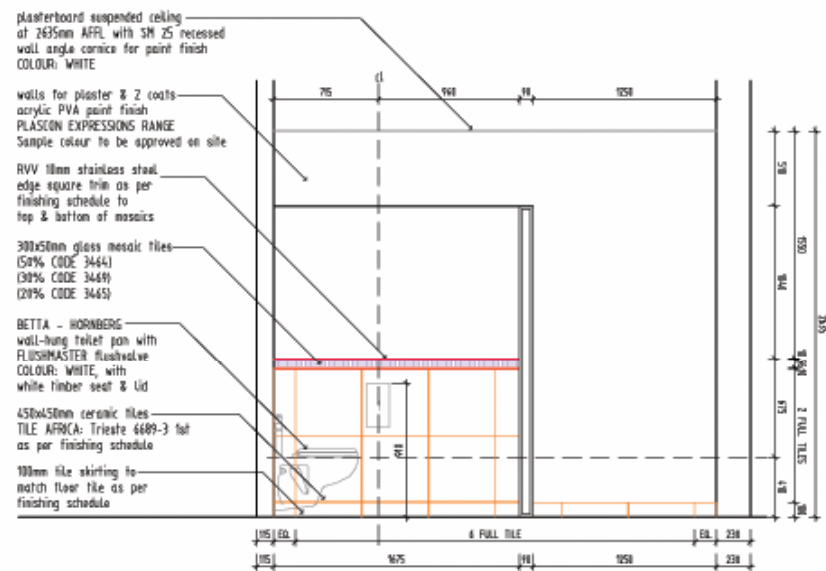
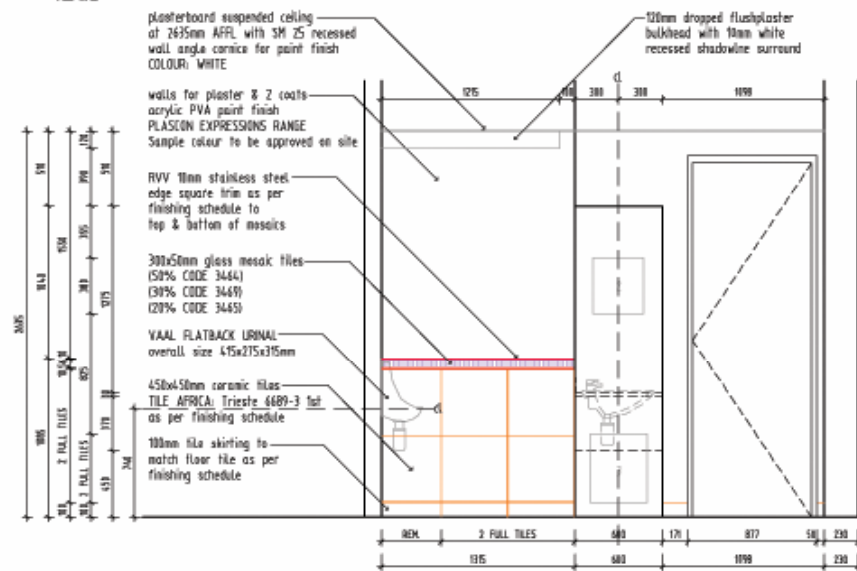
- LEGEND:**
- 450x450mm ceramic tiles
 - TILE AFRICA: Trieste 6689-3 1st
 - grain of floor tile to be laid parallel to aluminium straight edge trim
 - 15mm aluminium straight edge trim as per finishing schedule
 - wallpaper as per finishing schedule
 - 5x40x550mm SURROUND KALAMARIN flooring panel, manufactured by specialist
- SANITARY ACCESSORIES**
- 1 Toilet roll dispenser as per sanitary schedule
 - 2 Hands free dispenser as per sanitary schedule
 - 3 Wall mounted waste bin as per sanitary schedule
 - 4 Soap dispenser as per sanitary schedule

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rev	date	description	by
project NEW CENTRE FOR ADULT BASIC EDUCATION on STAND 3310, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE			
Leigh Harris			
University of KwaZulu Natal School of Architecture, Planning and Planning Student No.: 200710001		MR 0801 200 9015 MR 0710 875 0778	
drawing title TILING LAYOUT INTERNAL ELEVATIONS GROUND FLOOR TOILETS		date 01.01.2009 drawn LEIGH HARRIS	
project no	2801	drawing no	B02
rev no	0		



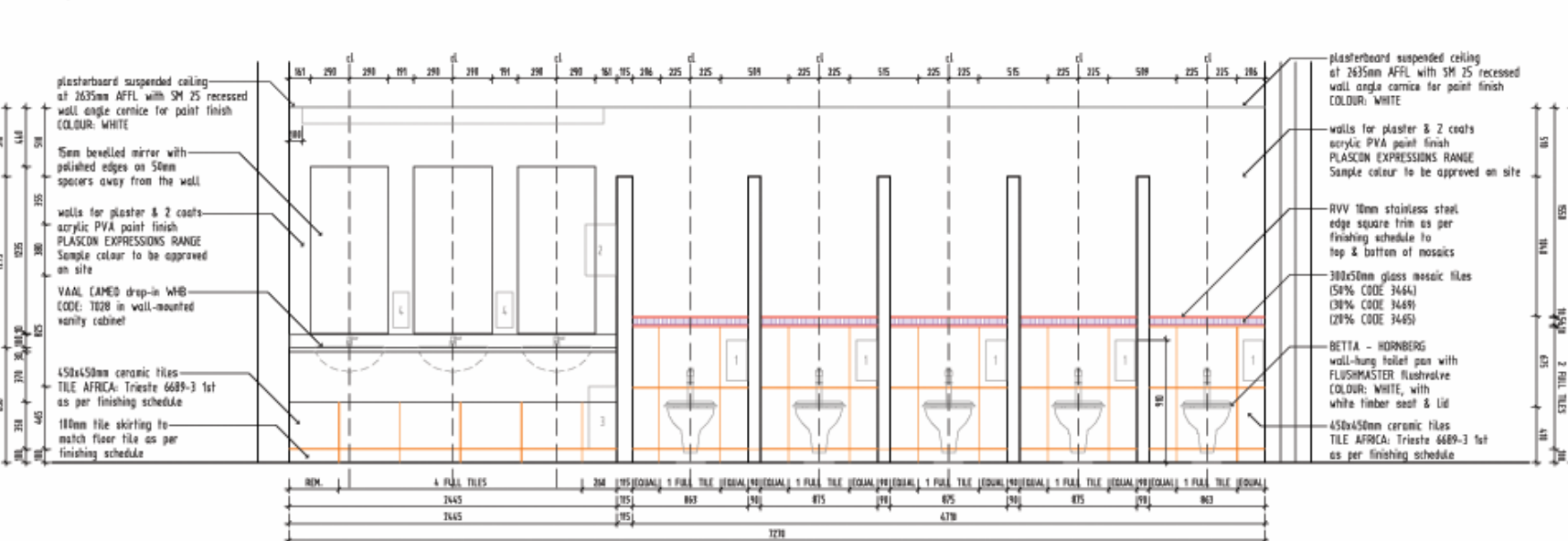
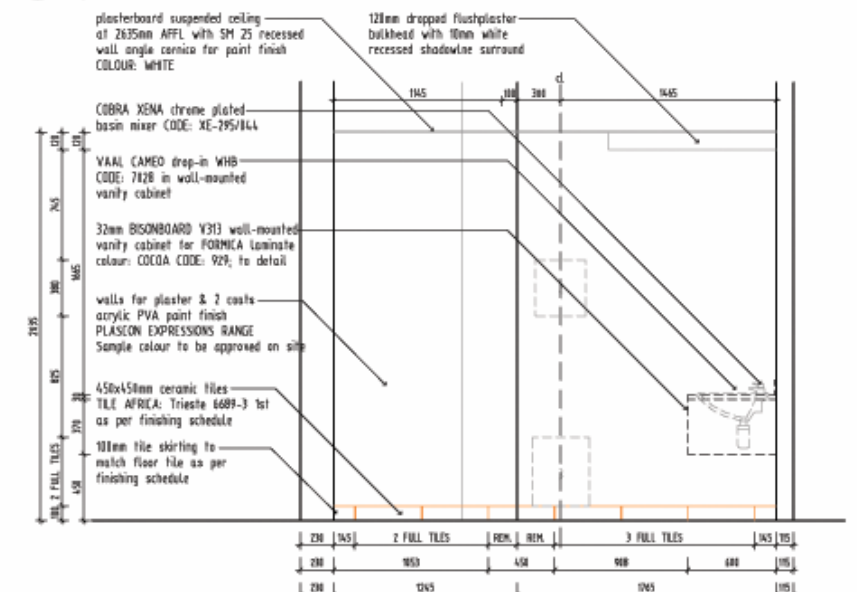
1 TYPICAL ELEVATION - MEN'S TOILETS
SCALE 1:25
RE: 1A2

2 TYPICAL ELEVATION - MEN'S TOILETS
SCALE 1:25
RE: 1A2



3 TYPICAL ELEVATION - MEN'S TOILETS
SCALE 1:25
RE: 1A2

4 TYPICAL ELEVATION - WOMEN'S TOILETS
SCALE 1:25
RE: 1A2



5 TYPICAL ELEVATION - WOMEN'S TOILETS
SCALE 1:25
RE: 1A2

6 TYPICAL ELEVATION - WOMEN'S TOILETS
SCALE 1:25
RE: 1A2

SPECIFICATIONS/NOTES:

ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

THE NATIONAL BUILDING REGULATIONS AND BUILDING STANDARDS ACT NO. 103 OF 1977 AND SANS 5000 PARTS AS AMENDED.

UNLESS OTHERWISE STATED, ALL PRODUCTS SPECIFIED BY TRADE NAME ARE TO BE NOTICED ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND/OR INSTRUCTIONS.

ONLY FINISHED DIMENSIONS TO BE USED.

ALL LEVELS AND ELEVATIONS, HEIGHT, FINISH, DEPTH OF EXCAVATION AND NUMBER OF STOPS TO BE FINALLY CHECKED BY CONTRACTOR OR SFC.

LEVELS SHOWN ON DRAWINGS TO BE TAKEN AS CONCRETE LEVELS, UNLESS OTHERWISE INDICATED.

CONTRACTOR TO HAVE GOOD ALL DRAINAGE AND SUFFICIENT WORK DONE BY WORK.

ANY DISCREPANCIES OR ERRORS TO BE IMMEDIATELY REPORTED TO THE ARCHITECT.

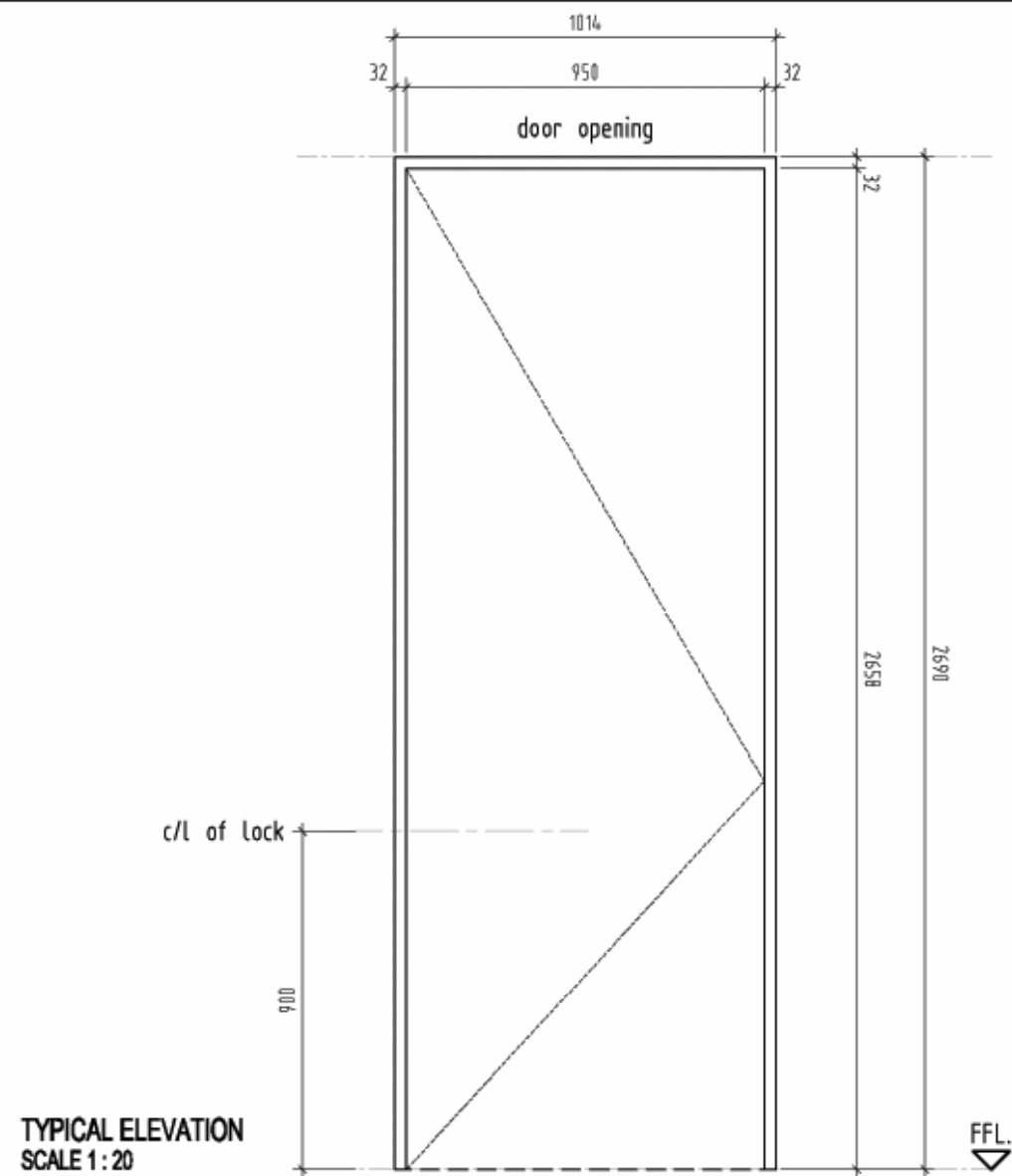
THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH SPECIFICATIONS, CIVIL OR MECHANICAL SCHEDULES OR DRAWINGS, CALCULATIONS, SCHEDULES, AND/OR SPECIFICATIONS.



- LEGEND:**
- 450x450mm ceramic tiles TILE AFRICA Trieste 6689-3 1st as per finishing schedule
 - 15mm aluminium straight edge trim as per finishing schedule
 - wallpaper as per finishing schedule
 - 5x400x550mm SURROUND KALAHARI floating panel manufactured by specialist
- SANITARY ACCESSORIES**
- 1 Toilet roll dispenser as per sanitary schedule
 - 2 Hands free dispenser as per sanitary schedule
 - 3 Wall mounted waste bin as per sanitary schedule
 - 4 Soap dispenser as per sanitary schedule

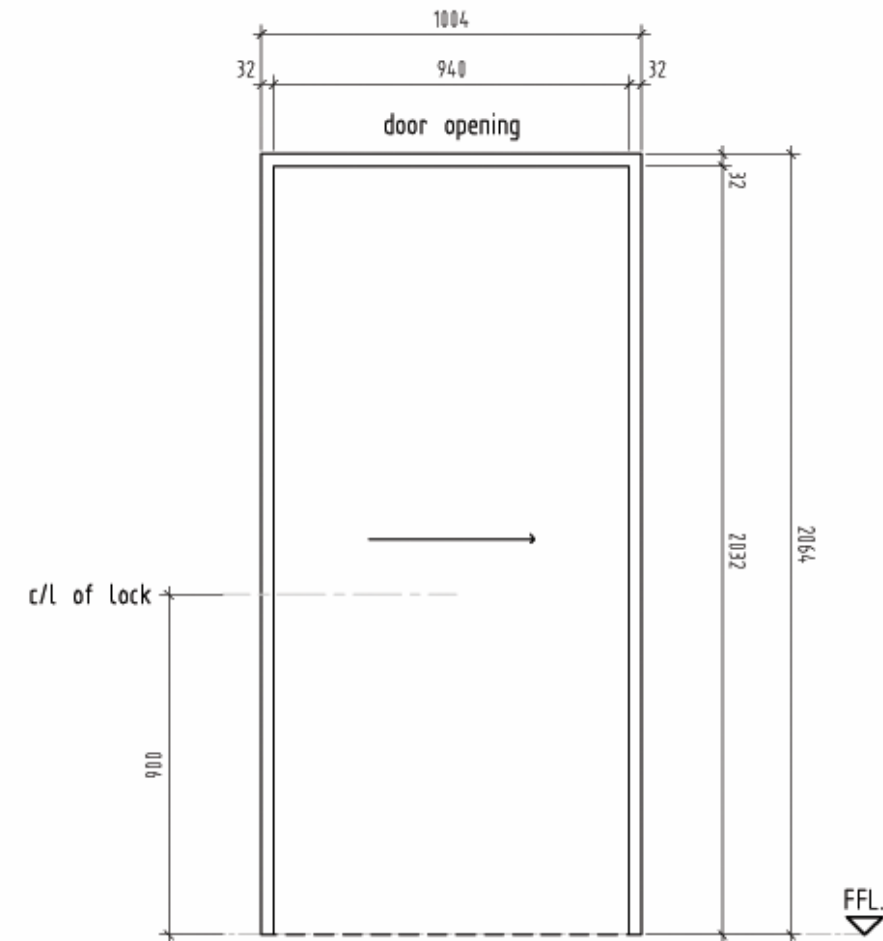
8	12.01.2009	issued for CONSTRUCTION	1b
rev	date	description	by
project	NEW CENTRE FOR ADULT BASIC EDUCATION on STAND 3340, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE		
design	HARTILL		
University of KwaZulu Natal School of Architecture, Planning and Planning	Rev: (002) 200 0015 Fax: (010) 670 0770		
drawn	date	drawn	date
INTERNAL ELEVATIONS	05.11.2009	drawn	
GROUND FLOOR TOILETS		drawn	
project no	2801	drawn no	0
	B03		

project no	project	rev	date	description	dwg no	rev no	leigh hartl University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514952 tel: (083) 358 0973 fax: (011) 675 2778
2801	NEW CENTRE FOR ADULT BASIC EDUCATION	0	12.01.2009	issued for CONSTRUCTION	lh	C01 0	
	on STAND 3340, GREYVILLE, DURBAN						
	for BRIDGES TO THE FUTURE INITIATIVE						



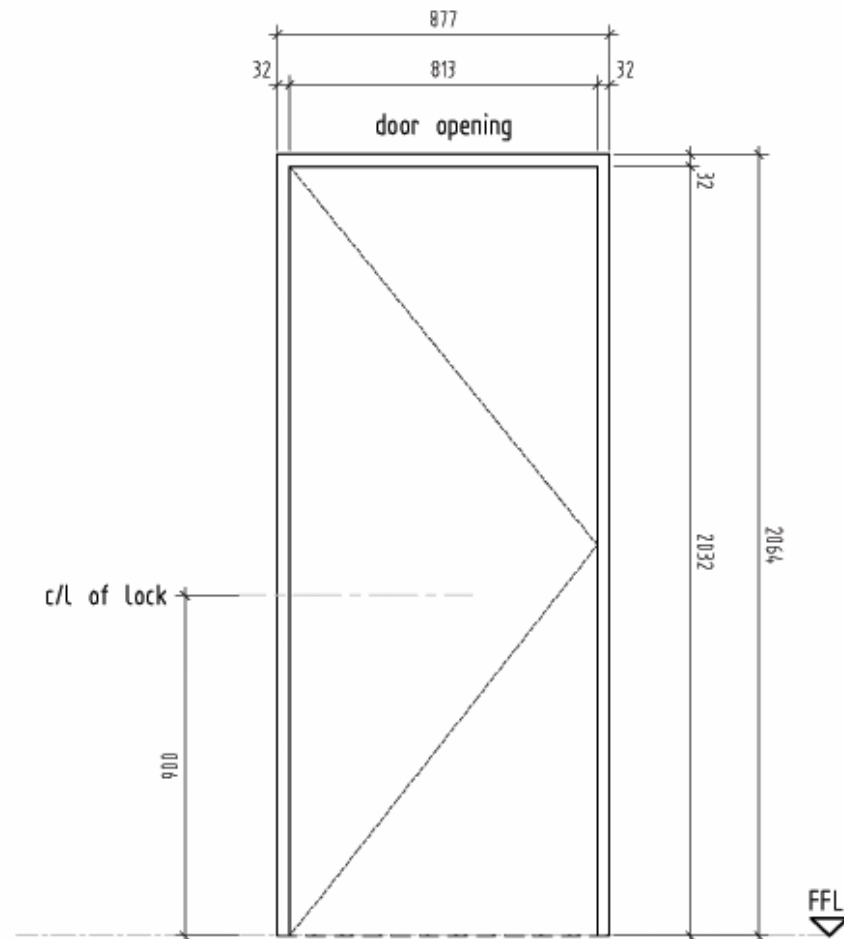
TYPICAL ELEVATION
SCALE 1:20

DESCRIPTION:	TYPE: 1
FRAME: MERANTI TIMBER FRAME	
SINGLE REBATED DOOR FRAME - TO COMPLY WITH SABS REQUIREMENTS - TO TAKE A 2032 H x 950 W DOOR.	
"ROTON" CONTINUOUS GEAR HINGE - TO FIRE DOOR MANUFACTURER'S SPEC.	
TIMBER TO BE TREATED WITH 'WOODOC -30, WEATHER PROOF EXTERIOR WOOD SEALER' OR SIMILARLY APPROVED, AS PER MANUFACTURERS SPECIFICATIONS.	
DOOR: SINGLE LEAF : TO BE CLASS "B" FIRE DOOR TO COMPLY WITH SABS 1253 : 1994.	
2032 H x 950 W x 44mm THICK.	
HEAVY DUTY SEMI-SOLID FLUSH PANEL DOOR WITH CONCEALED EDGES - TO COMPLY WITH SABS 545-1989.	
COMMERCIAL VENEER BOTH SIDES SUITABLE FOR PAINT - TO SABS REQUIREMENTS.	
ALLOWANCE TO BE MADE IN DOOR FOR FIXING OF DOOR CLOSER.	
ADDITIONAL STRENGTHENING TO BE PROVIDED AT LOCK.	



TYPICAL ELEVATION
SCALE 1:20

DESCRIPTION:	TYPE: 2
FRAME: EXTRUDED ALUMINIUM FRAME - NATURAL ANNOXIDISED	
TO COMPLY WITH SABS REQUIREMENTS - TO TAKE A 2032 H x 940 W SLIDING DOOR.	
DOOR: SINGLE LEAF : 2032 H x 940 W	
MEDIUM DUTY SEMI-SOLID FLUSH PANEL DOOR WITH CONCEALED EDGES - TO COMPLY WITH SABS 545-1989.	
COMMERCIAL VENEER BOTH SIDES SUITABLE FOR PAINT - TO SABS REQUIREMENTS.	

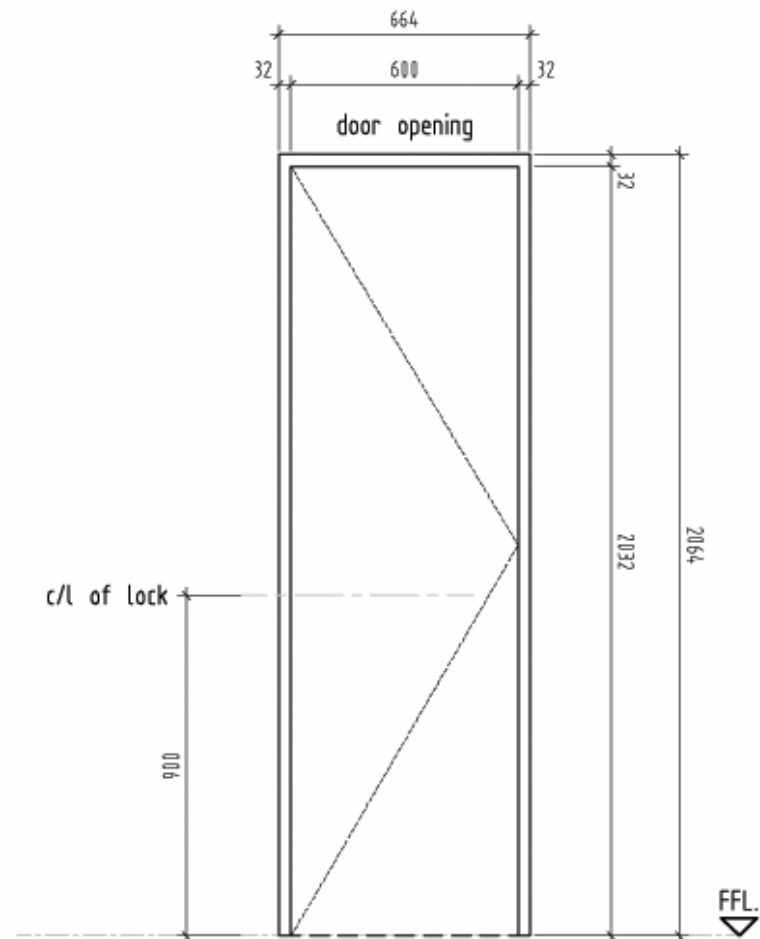


TYPICAL ELEVATION
SCALE 1:20

DESCRIPTION: TYPE: 3

FRAME: EXTRUDED ALUMINIUM FRAME - NATURAL ANNOXIDISED
TO COMPLY WITH SABS REQUIREMENTS - TO TAKE A 2032 H x 813 W DOOR.
FRAME TO TAKE 2 PAIRS OF NATURAL ANOXIDISED ALUMINIUM SINKLESS HINGES TO MANUFACTURER'S SPECIFICATION

DOOR: SINGLE LEAF : 2032 H x 813 W
MEDIUM DUTY SEMI-SOLID FLUSH PANEL DOOR WITH CONCEALED EDGES - TO COMPLY WITH SABS 545-1989.
COMMERCIAL VENEER BOTH SIDES SUITABLE FOR PAINT - TO SABS REQUIREMENTS.

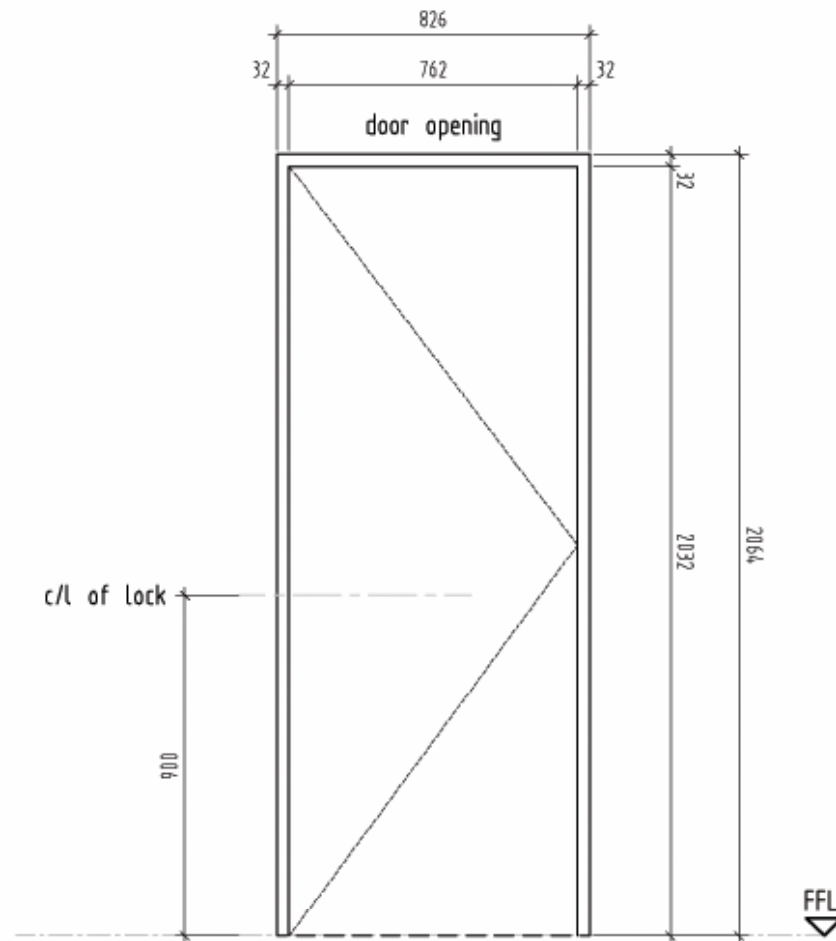


TYPICAL ELEVATION
SCALE 1:20

DESCRIPTION: TYPE: 4

FRAME: EXTRUDED ALUMINIUM FRAME - NATURAL ANNOXIDISED
TO COMPLY WITH SABS REQUIREMENTS - TO TAKE A 2032 H x 600 W DOOR.
FRAME TO TAKE 2 PAIRS OF NATURAL ANOXIDISED ALUMINIUM SINKLESS HINGES TO MANUFACTURER'S SPECIFICATION

DOOR: SINGLE LEAF : 2032 H x 600 W
MEDIUM DUTY SEMI-SOLID FLUSH PANEL DOOR WITH CONCEALED EDGES - TO COMPLY WITH SABS 545-1989.
COMMERCIAL VENEER BOTH SIDES SUITABLE FOR PAINT - TO SABS REQUIREMENTS.

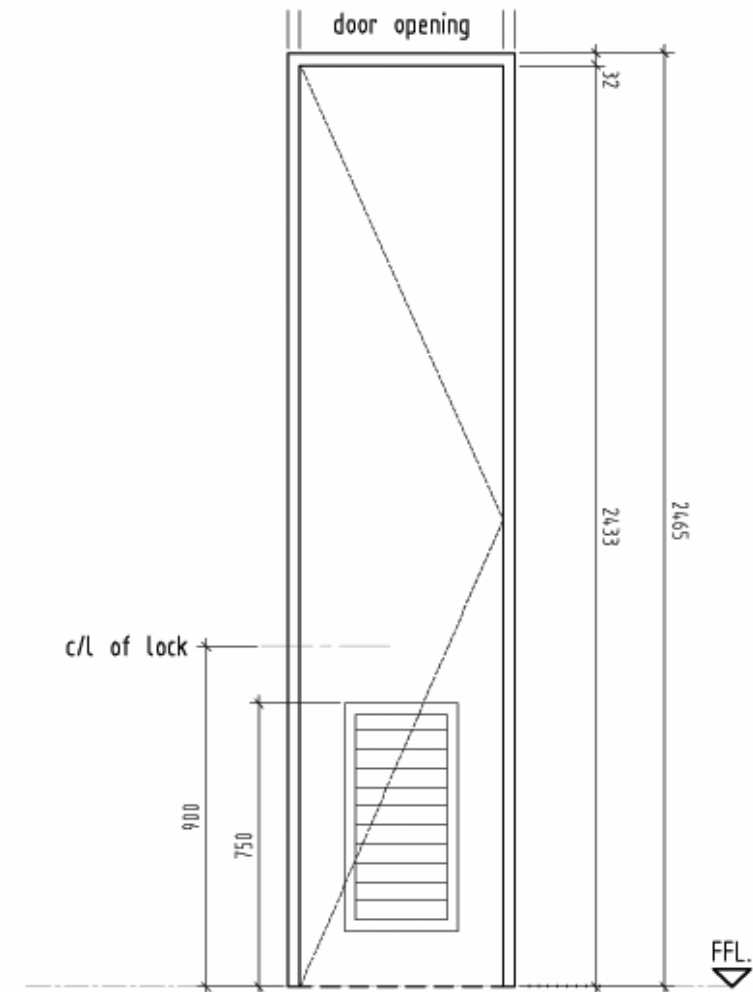


TYPICAL ELEVATION
SCALE 1:20

DESCRIPTION: TYPE: 5

FRAME: EXTRUDED ALUMINIUM FRAME - NATURAL ANNOXIDISED
TO COMPLY WITH SABS REQUIREMENTS - TO TAKE A 2032 H x 762 W DOOR.
FRAME TO TAKE 2 PAIRS OF NATURAL ANODISED ALUMINIUM SINKLESS HINGES TO MANUFACTURER'S SPECIFICATION

DOOR: SINGLE LEAF : 2032 H x 762 W
MEDIUM DUTY SEMI-SOLID FLUSH PANEL DOOR WITH CONCEALED EDGES - TO COMPLY WITH SABS 545-1989.
COMMERCIAL VENEER BOTH SIDES SUITABLE FOR PAINT - TO SABS REQUIREMENTS.

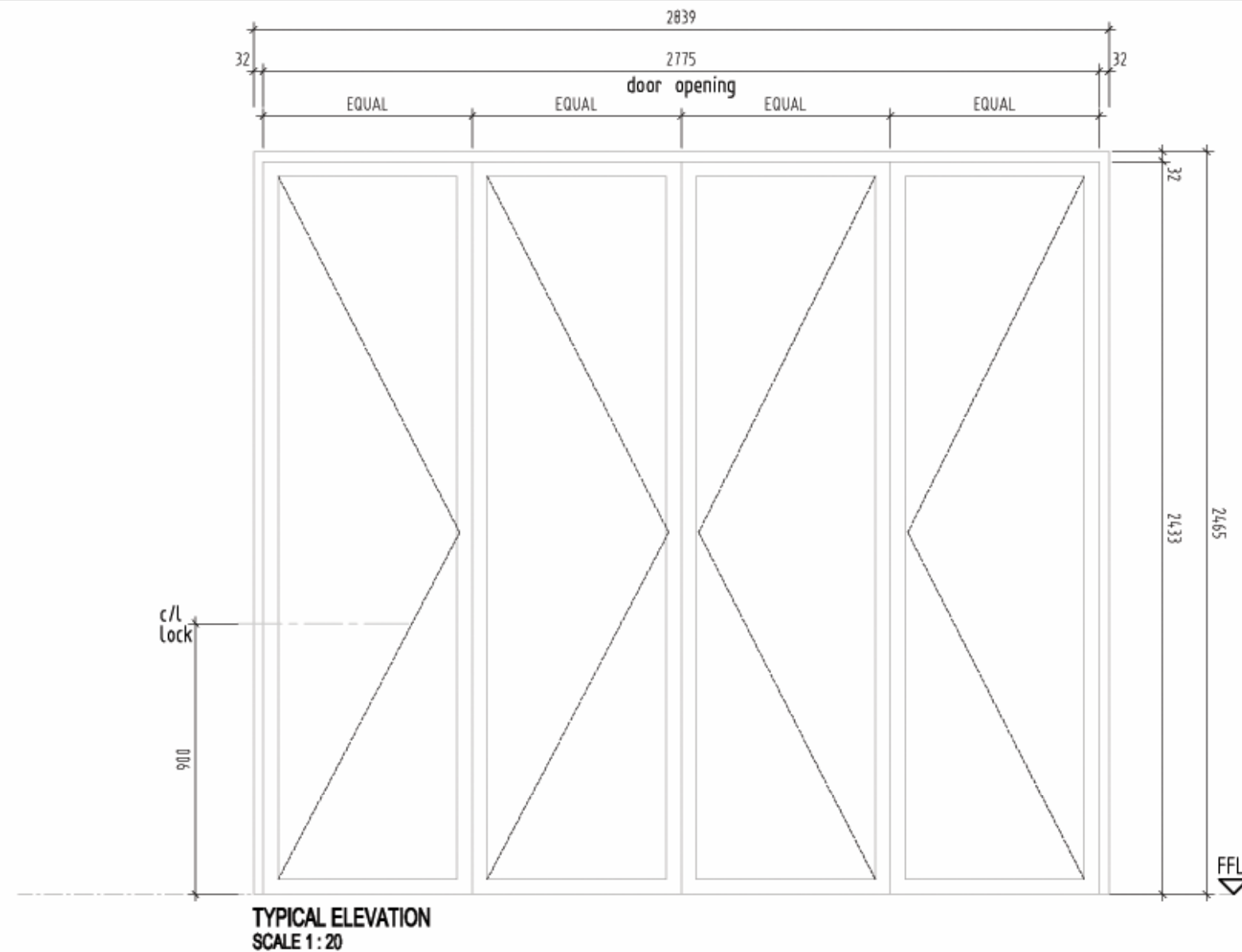


TYPICAL ELEVATION
SCALE 1:20

DESCRIPTION: TYPE: 6

FRAME: MERANTI TIMBER FRAME
SINGLE REBATED DOOR FRAME - TO COMPLY WITH SABS REQUIREMENTS - TO TAKE A 2032 H x 600 W DOOR.
TIMBER TO BE TREATED WITH 'WOODOC -30, WEATHER PROOF EXTERIOR WOOD SEALER' OR SIMILARLY APPROVED, AS
PER MANUFACTURERS SPECIFICATIONS.

DOOR: 2032 H x 600 W x 44mm THICK.
MEDIUM DUTY SEMI-SOLID FLUSH PANEL DOOR WITH CONCEALED EDGES - TO COMPLY WITH SABS 545-1989.
COMMERCIAL VENEER BOTH SIDES SUITABLE FOR PAINT - TO SABS REQUIREMENTS.
WITH STANDARD STEEL LOUVRE



DESCRIPTION:

TYPE: 7

FRAME: MERANTI TIMBER FRAME

TO COMPLY WITH SABS REQUIREMENTS - TO TAKE A 2433 H x 2775 W SLIDING DOOR.

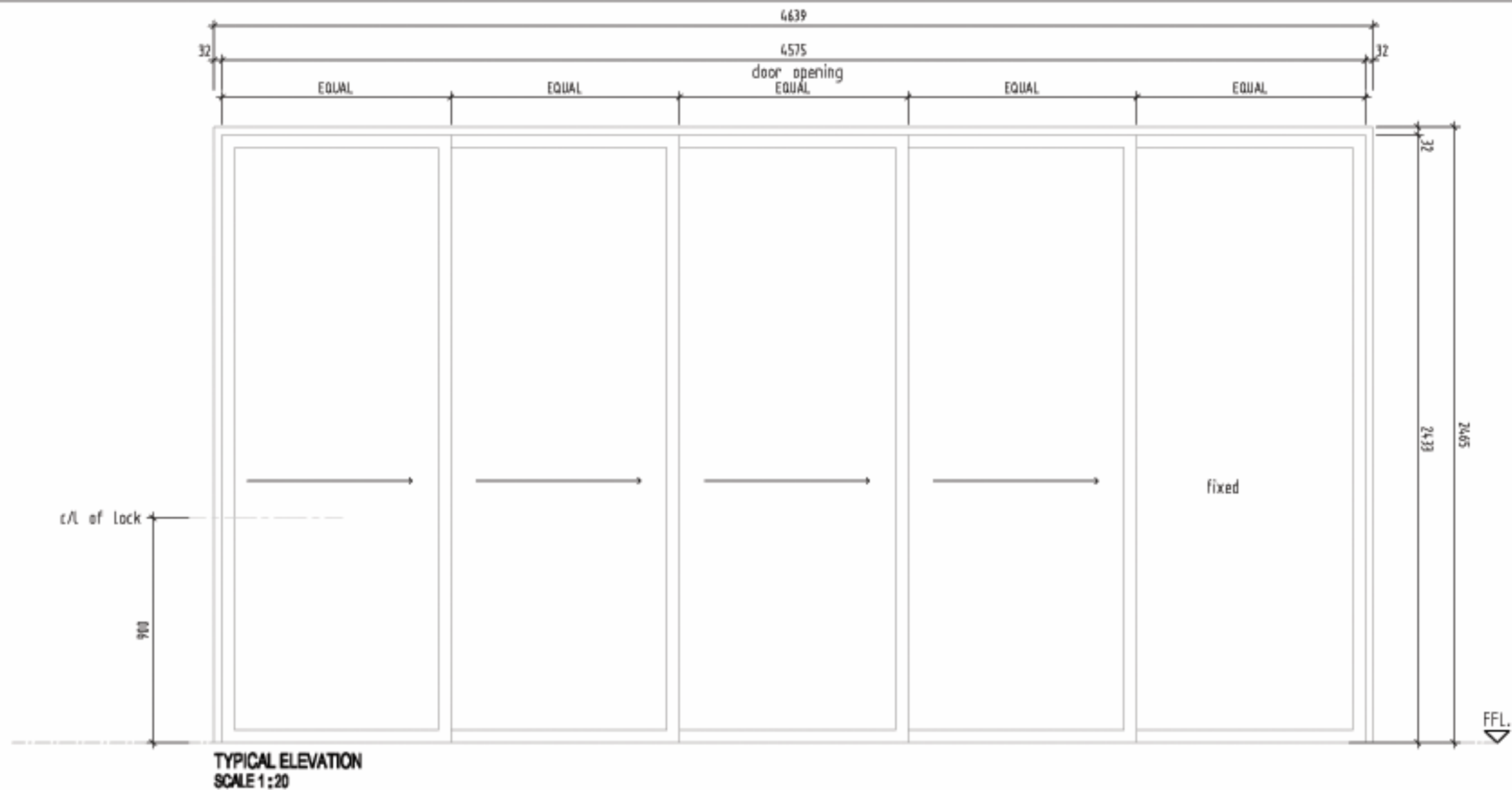
TIMBER TO BE TREATED WITH 'PLASCON ULTRA VARNISH X33 suede finish wood varnish' OR SIMILARLY APPROVED, AS PER MANUFACTURERS SPECIFICATIONS.

DOOR: 2433 H x 2775 W x 44mm THICK.

HEAVY DUTY MERANTI T & G, FRAMED, LEDGED, BRACED, AND BATTONED (OPEN BACK). - TO COMPLY WITH SABS 545-1989

TIMBER TO BE TREATED WITH 'PLASCON ULTRA VARNISH X33 suede finish wood varnish' OR SIMILARLY APPROVED, AS PER MANUFACTURERS SPECIFICATIONS.

project no	project	rev	date	description	dwg no	rev no	
2801	NEW CENTRE FOR ADULT BASIC EDUCATION on STAND 3340, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE	0	12.01.2009	issued for CONSTRUCTION	C05	0	DOOR TYPE SCHEDULE
							leigh hartl
							University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514852
							tel: (083) 358 8973 fax: (011) 675 2778



DESCRIPTION:

TYPE: 8

FRAME: MERANTI TIMBER FRAME

TO COMPLY WITH SABS REQUIREMENTS - TO TAKE A 2433 H x 4575 W SLIDING DOOR.
TIMBER TO BE TREATED WITH 'PLASCON ULTRA VARNISH X33 suede finish wood varnish' OR SIMILARLY APPROVED, AS PER MANUFACTURERS SPECIFICATIONS.

DOOR: 2433 H x 4575 W x 44mm THICK.

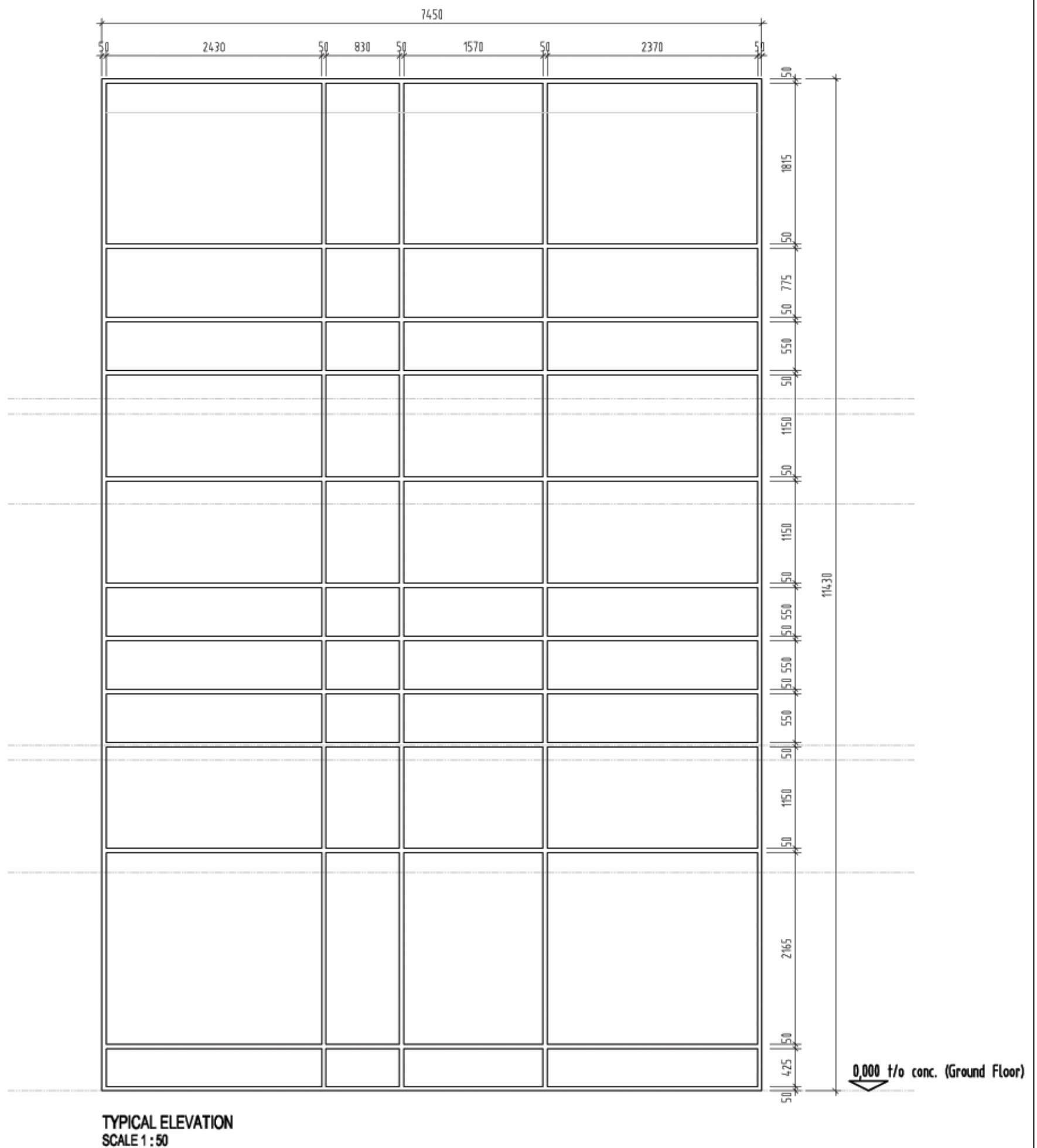
HEAVY DUTY MERANTI T & G, FRAMED, LEDGED, BRACED, AND BATTONED (OPEN BACK). - TO COMPLY WITH SABS 545-1989
TIMBER TO BE TREATED WITH 'PLASCON ULTRA VARNISH X33 suede finish wood varnish' OR SIMILARLY APPROVED, AS PER MANUFACTURERS SPECIFICATIONS.

project no	project	rev	date	description	dwg no	rev no	leigh hart
2801	NEW CENTRE FOR ADULT BASIC EDUCATION	0	12.11.2019	issued for CONSTRUCTION	C06	0	University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207914982
	on STAND 3340, GREYVILLE, DURBAN						tel: (083) 359 8873
	for BRIDGES TO THE FUTURE INITIATIVE						fax: (011) 675 2778

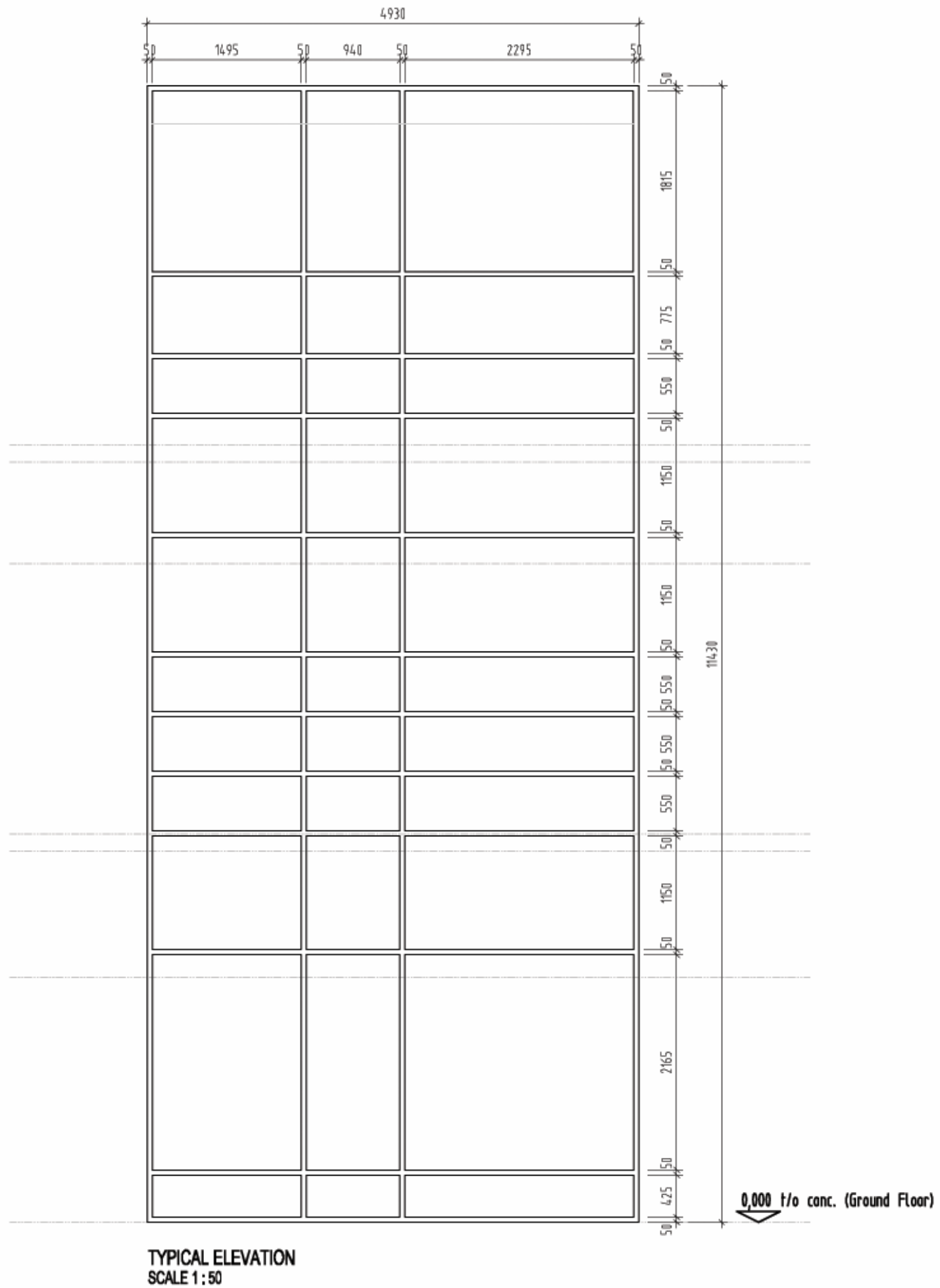
DOOR TYPE SCHEDULE

project no 2801	project NEW CENTRE FOR ADULT BASIC EDUCATION on STAND 3340, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE	rev	date	description		dwg no	rev no	leigh hartl University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514852 tel: (083) 359 8973 fax: (011) 675 2778	
		0	12.01.2009	issued for CONSTRUCTION	lh	C07	0		WINDOW SCHEDULE

project no	project	rev	date	description	dwg no	rev no	<div> <div>leigh hartl</div> <div> University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514952 </div> <div> tel: (083) 358 8973 fax: (011) 675 2778 </div> </div>
2801	NEW CENTRE FOR ADULT BASIC EDUCATION	0	12.01.2009	issued for CONSTRUCTION	C08	0	
	on STAND 3340, GREYVILLE, DURBAN						
	for BRIDGES TO THE FUTURE INITIATIVE						



DESCRIPTION:	ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.	TYPE: 1
FRAME:	ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED GLASS BEADS TO SHOPFITTERS DETAILS.	
FURNITURE:		
GLASS:	CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.	



DESCRIPTION: ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.

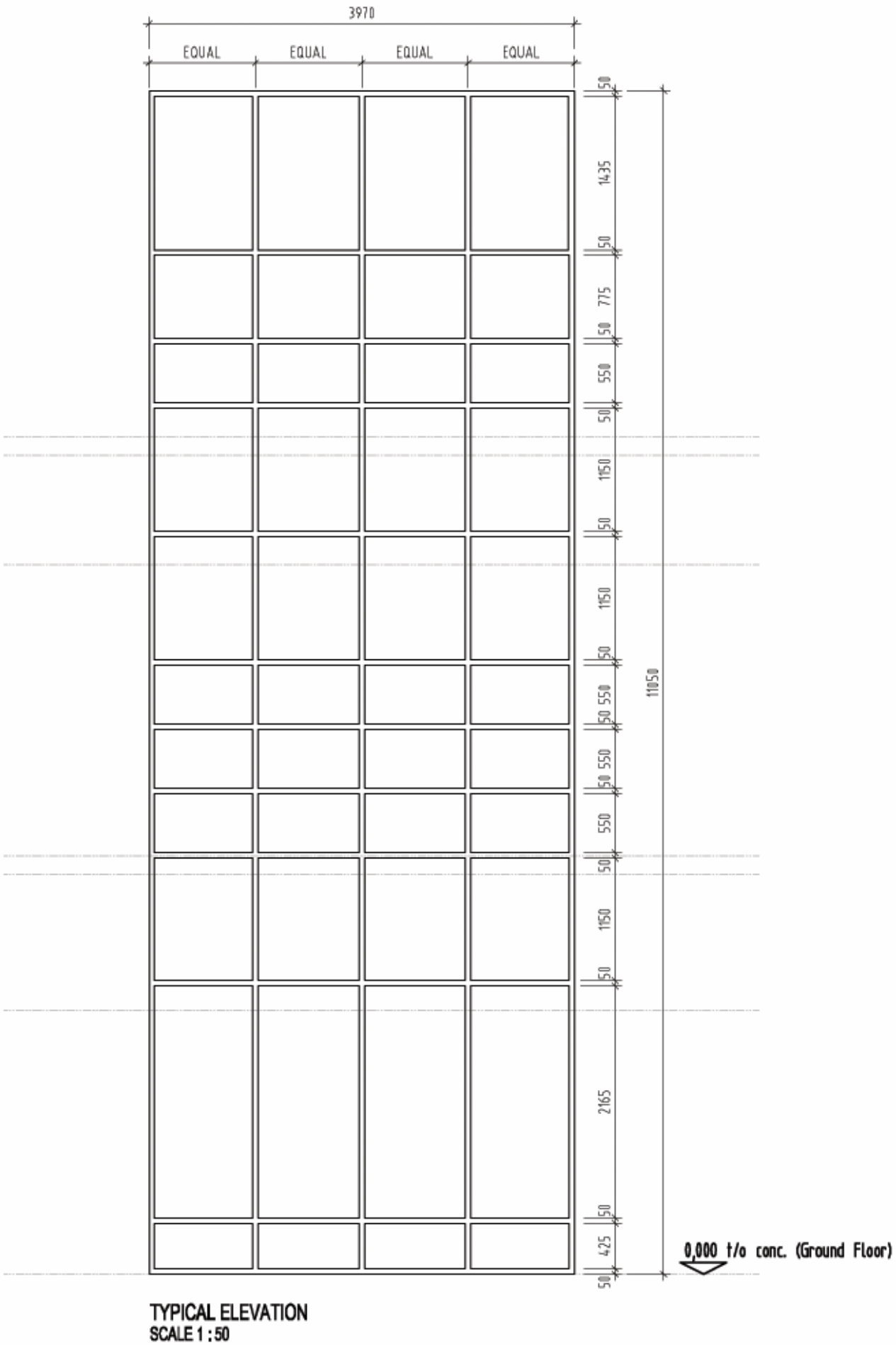
TYPE: 2

FRAME: ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED
GLASS BEADS TO SHOPFITTERS DETAILS.

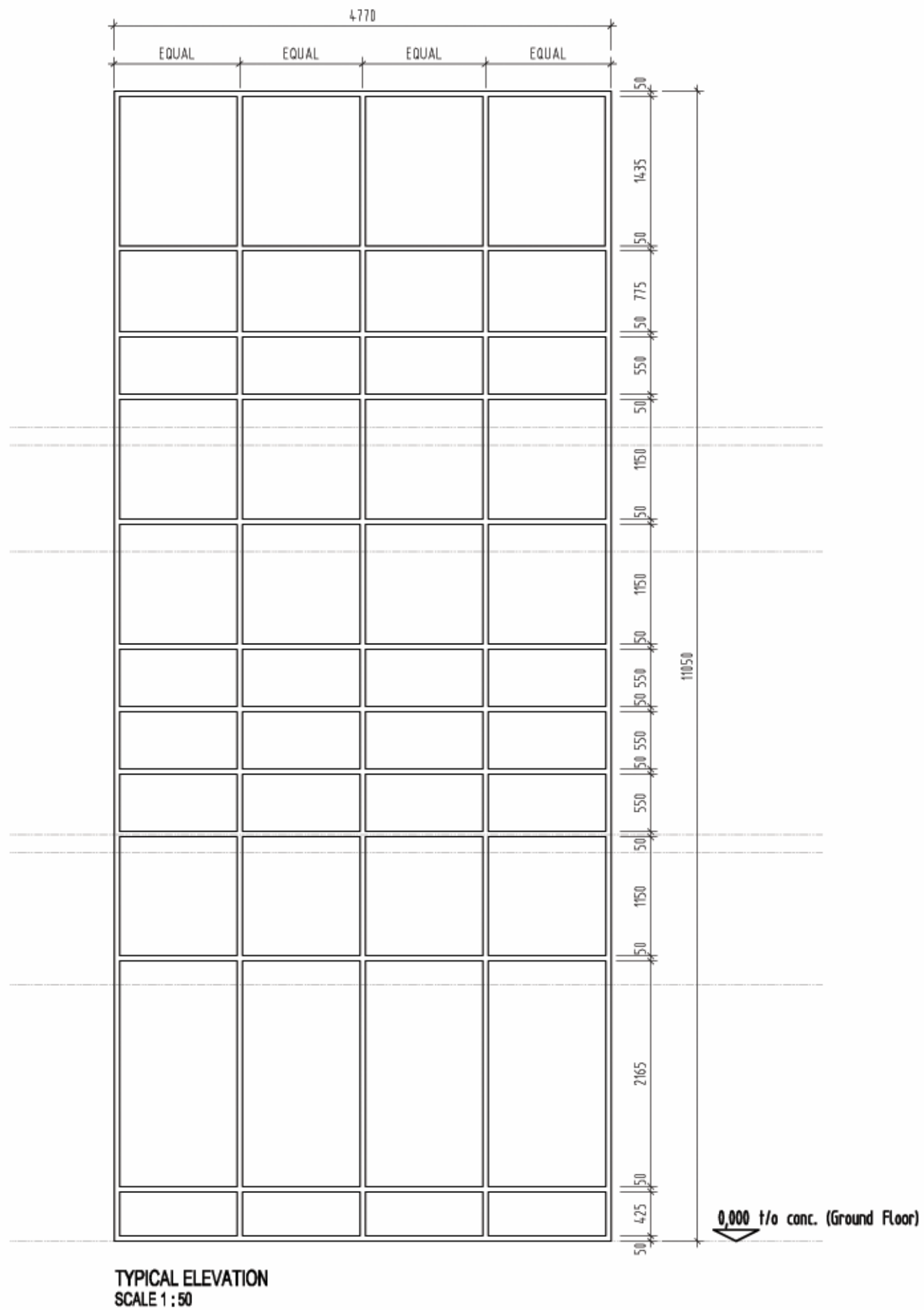
FURNITURE:

GLASS: CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.

project no	project	rev	date	description	dwg no	rev no	WINDOW TYPE SCHEDULE	leigh hartl
2801	CENTRE FOR ADULT BASIC EDUCATION on STAND 3340, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE	0	12.01.2009	issued for CONSTRUCTION	C10	0		University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514952
								tel: (083) 360 6673 fax: (011) 675 2778



DESCRIPTION:	ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.	TYPE:	3
FRAME:	ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED GLASS BEADS TO SHOPFITTERS DETAILS.		
FURNITURE:			
GLASS:	CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.		



DESCRIPTION: ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.

TYPE: 4

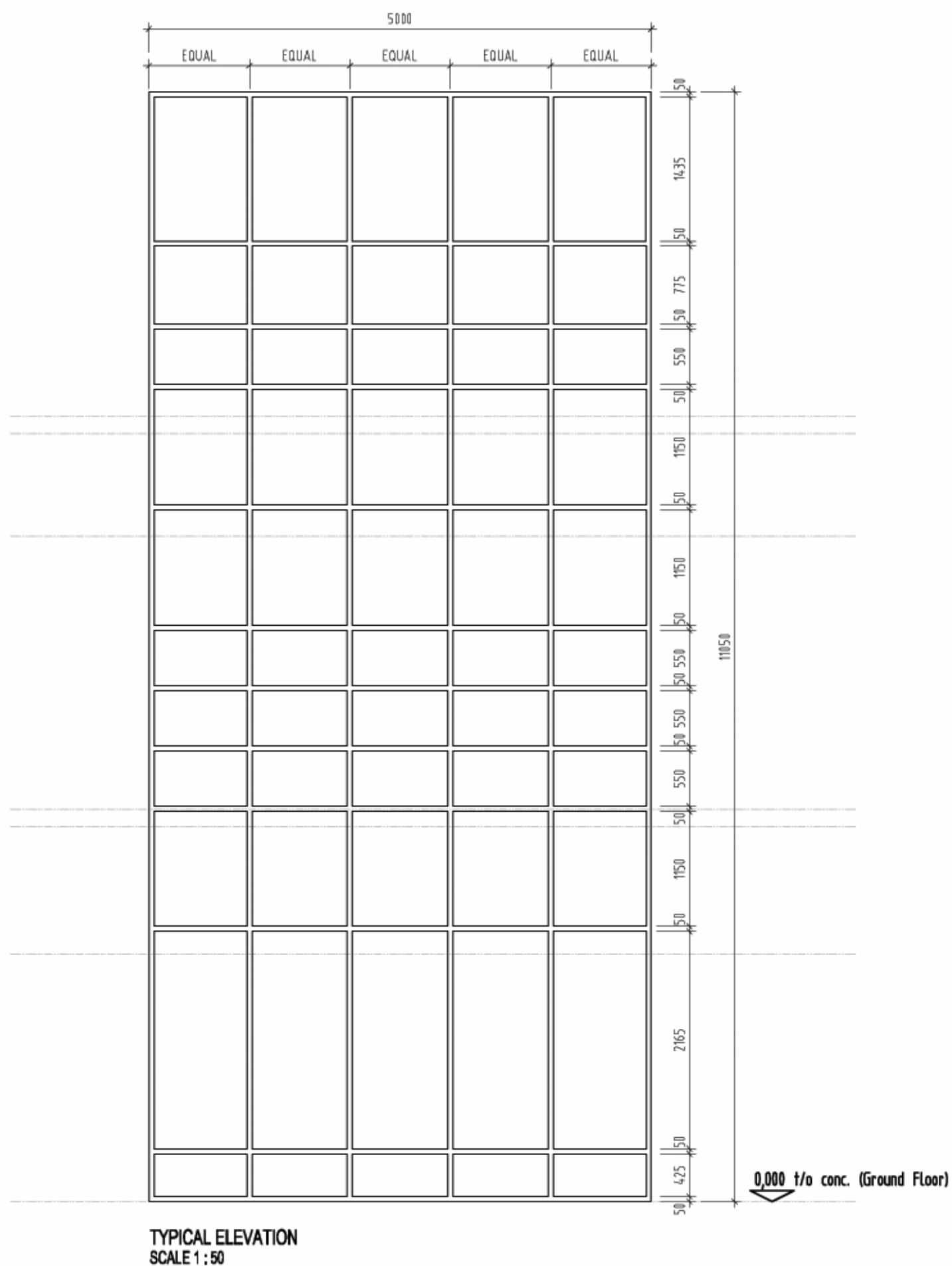
FRAME: ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED
GLASS BEADS TO SHOPFITTERS DETAILS.

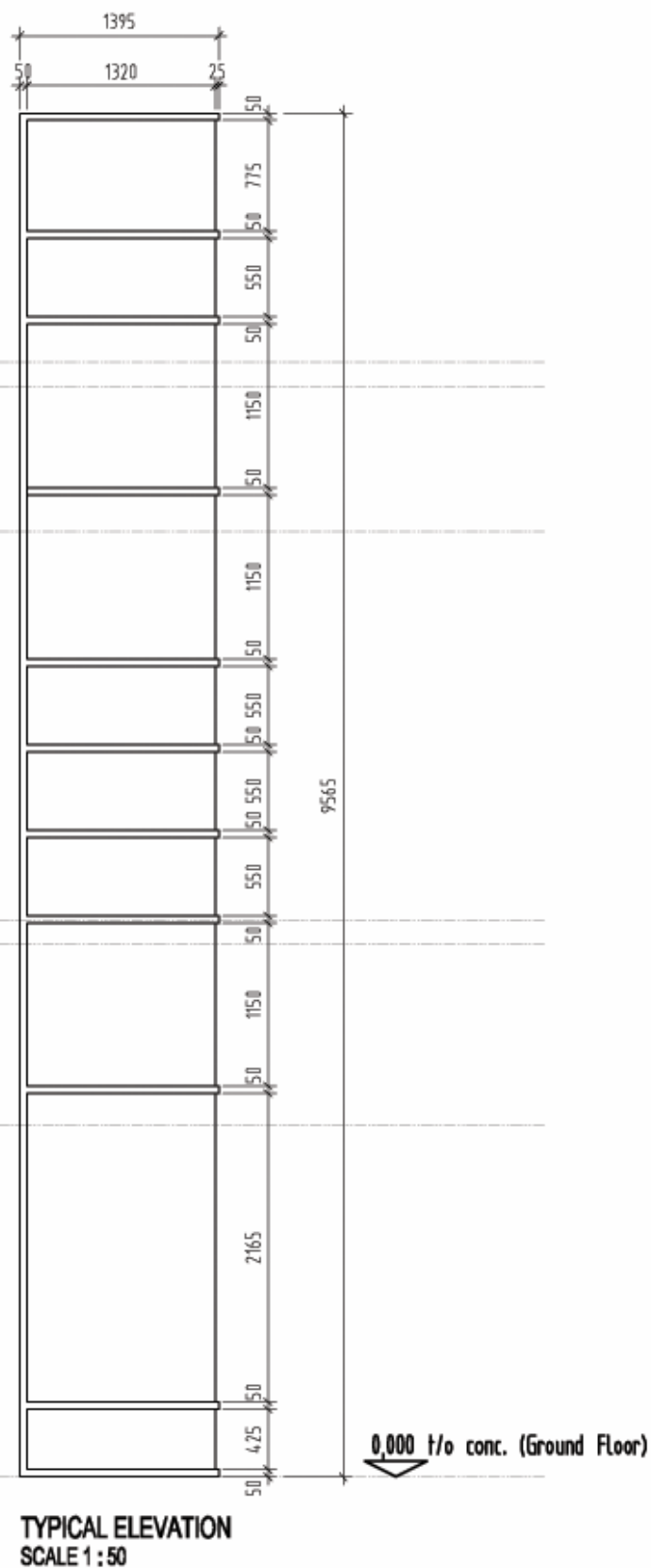
FURNITURE:

GLASS: CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.

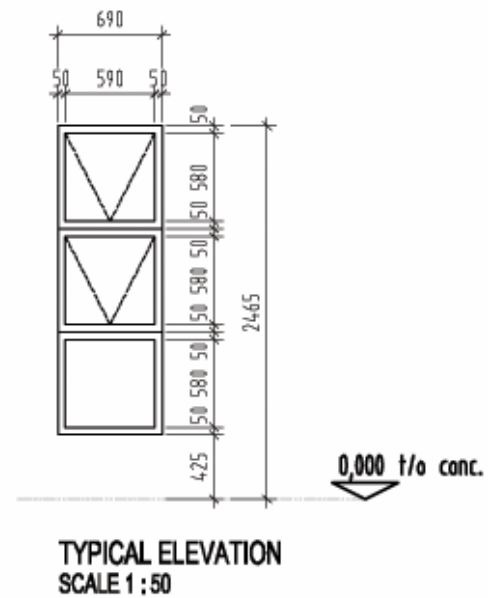
project no	project	rev	date	description	dwg no	rev no	WINDOW TYPE SCHEDULE	leigh hartl University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514962
2801	CENTRE FOR ADULT BASIC EDUCATION	0	12.01.2009	issued for CONSTRUCTION	C12	0		
	on STAND 3340, GREYVILLE, DURBAN							
	for BRIDGES TO THE FUTURE INITIATIVE							

tel: (083) 969 6673
fax: (011) 675 2778

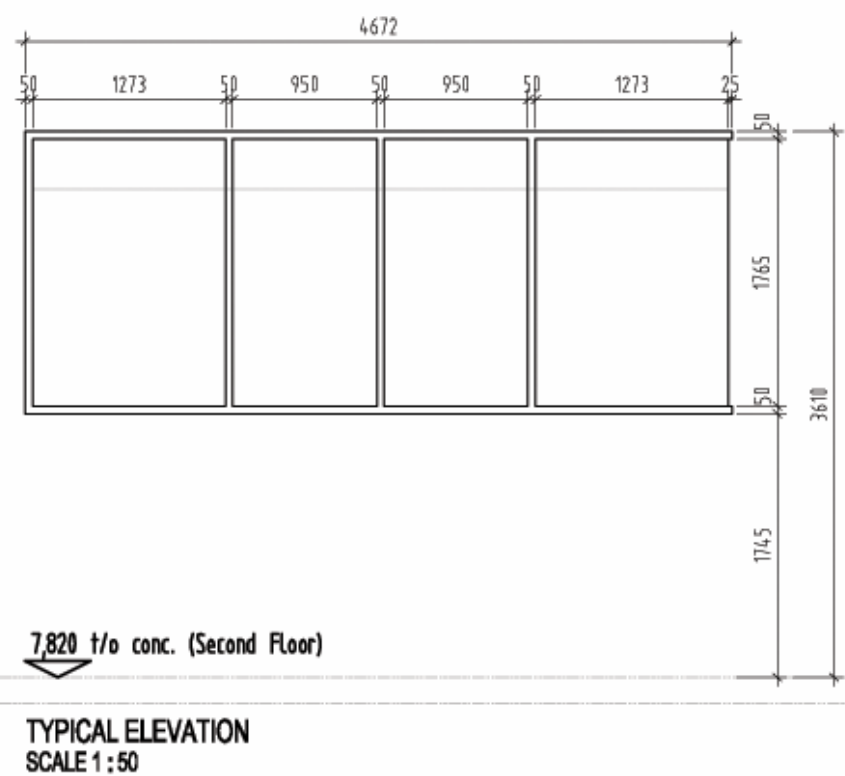
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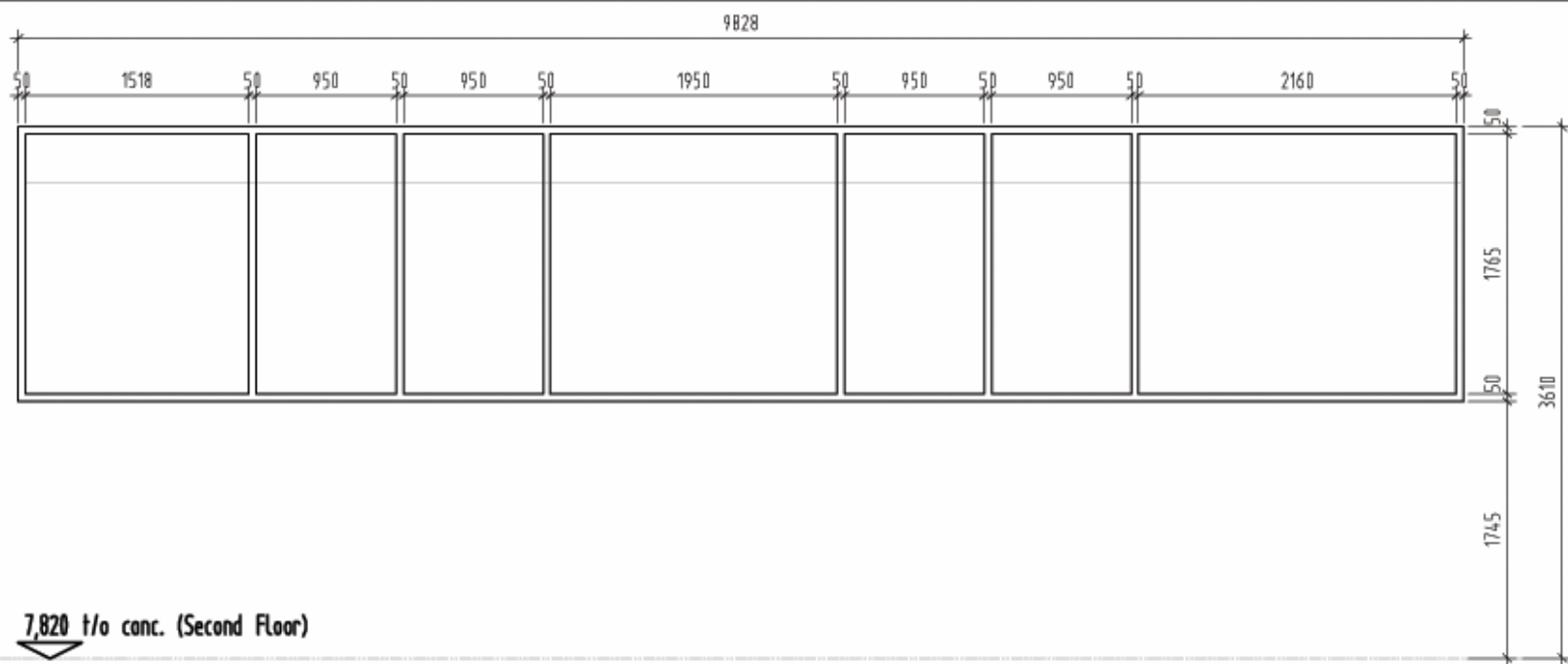
DESCRIPTION:	ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.	TYPE:	6
FRAME:	ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED GLASS BEADS TO SHOPFITTERS DETAILS.		
FURNITURE:			
GLASS:	CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.		



DESCRIPTION:	ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.	TYPE:	7
FRAME:	ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED GLASS BEADS TO SHOPFITTERS DETAILS.		
FURNITURE:	2 X FRICTION STAYS PER OPENING SECTION AS SPECIFIED BY SHOPFITTER, & STANDARD BLACK ANODISED ALUMINIUM CASEMENT WINDOW HANDLE PER OPENING SECTION TO MATCH EXISTING.		
GLASS:	SAFETY GLASS TO COMPLY WITH SABS 0137.		



DESCRIPTION:	ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.	TYPE:	8
FRAME:	ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED GLASS BEADS TO SHOPFITTERS DETAILS.		
FURNITURE:			
GLASS:	CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.		



TYPICAL ELEVATION
SCALE 1:50

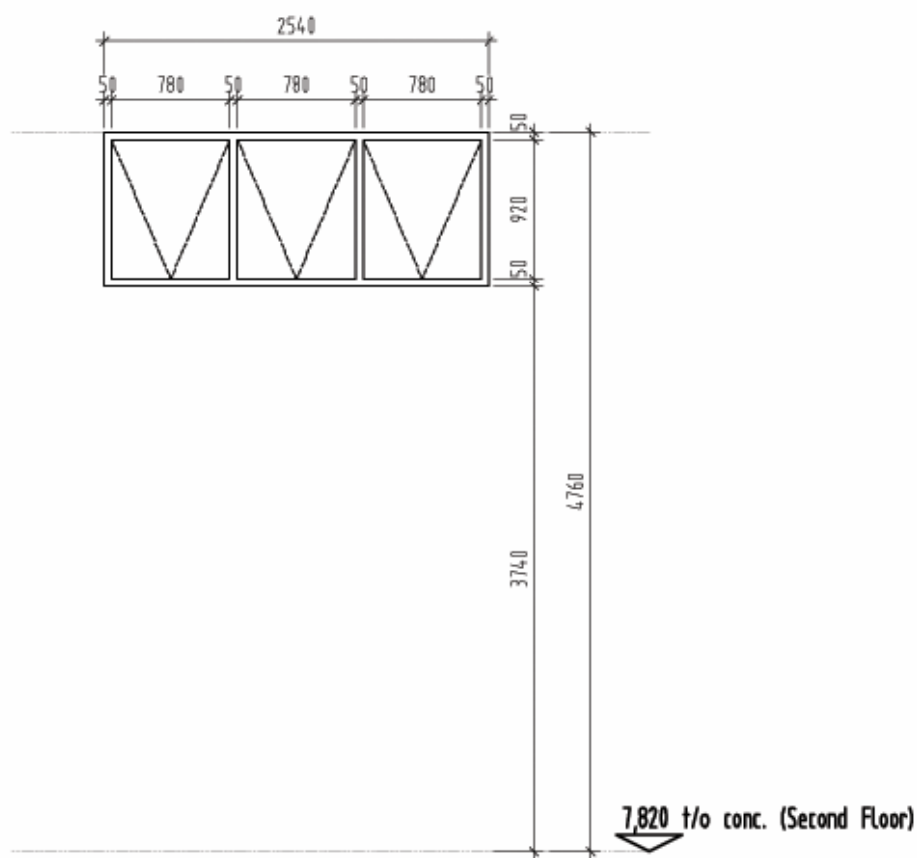
DESCRIPTION: ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.

TYPE: 9

FRAME: ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED GLASS BEADS TO SHOPFITTERS DETAILS.

FURNITURE:

GLASS: CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.



TYPICAL ELEVATION
SCALE 1:50

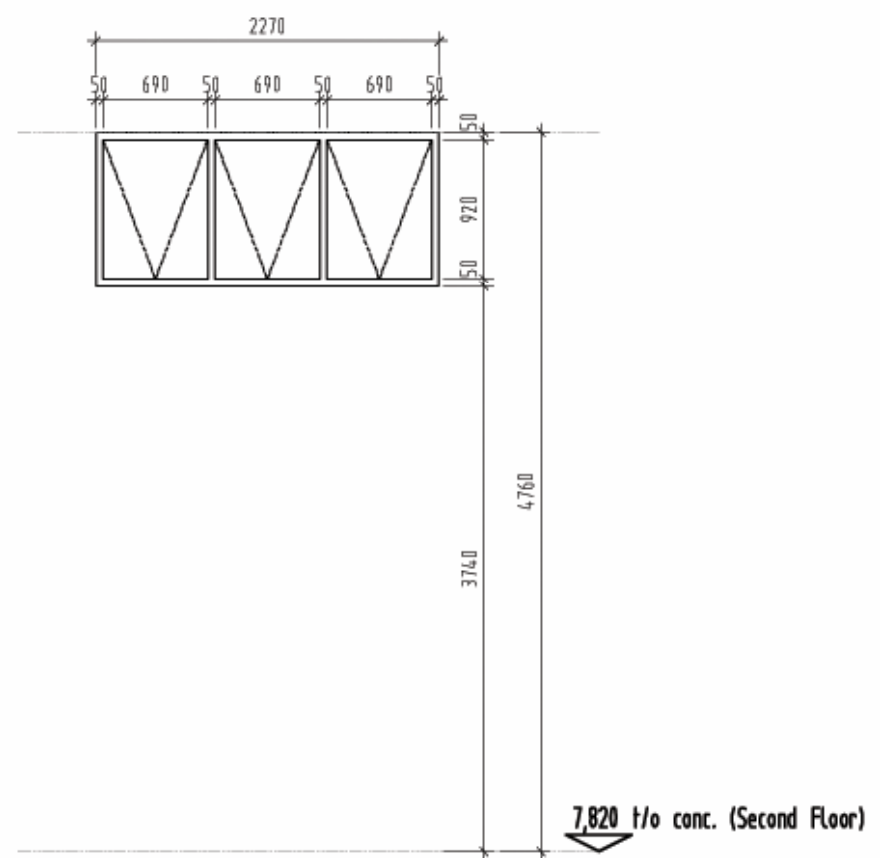
TYPE: 10

DESCRIPTION: ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.

FRAME: ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED GLASS BEADS TO SHOPFITTERS DETAILS.

FURNITURE: 2 X FRICTION STAYS PER OPENING SECTION AS SPECIFIED BY SHOPFITTER, & STANDARD BLACK ANODISED ALUMINIUM CASEMENT WINDOW HANDLE PER OPENING SECTION TO MATCH EXISTING.

GLASS: CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.



TYPICAL ELEVATION
SCALE 1:50

TYPE: 11

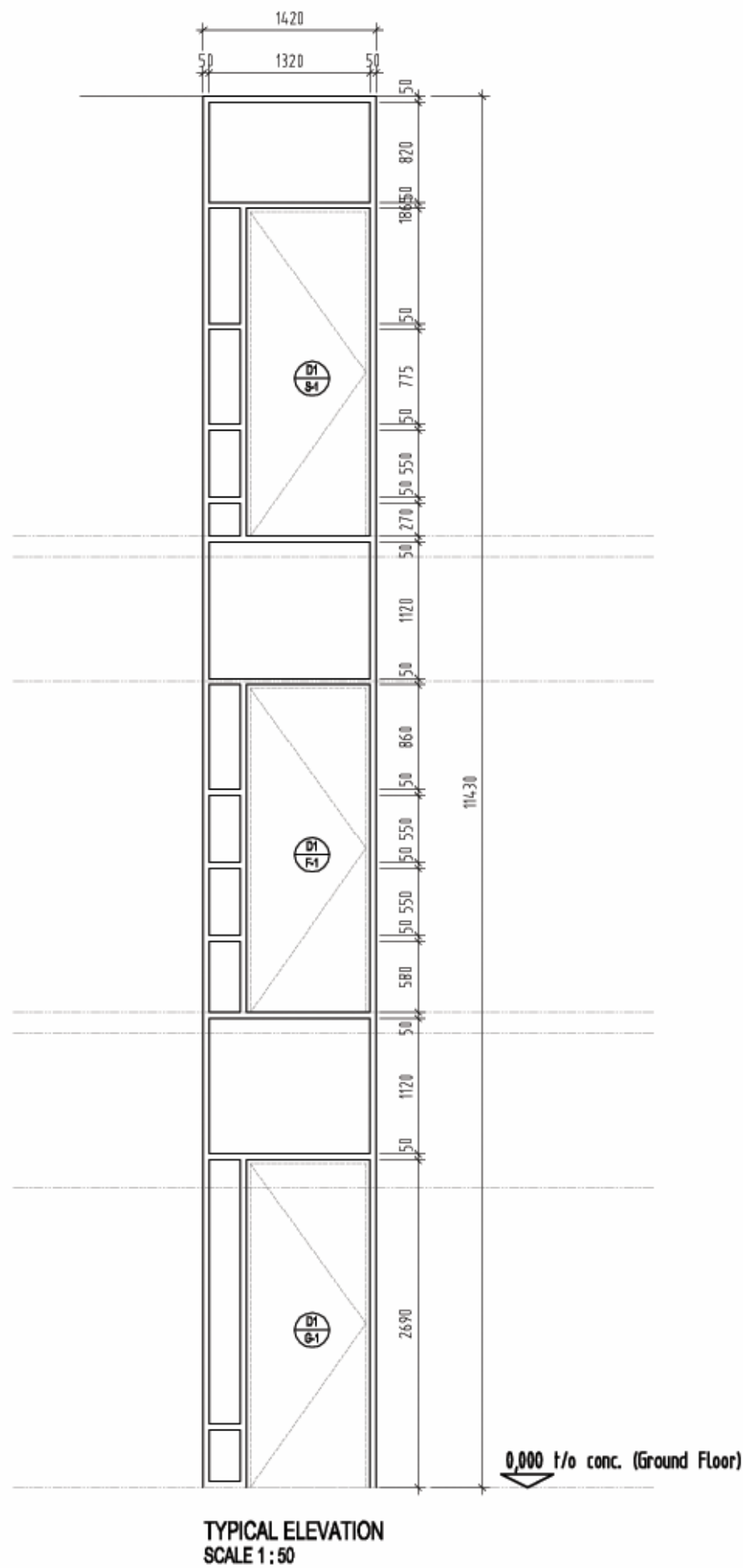
DESCRIPTION: ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.

FRAME: ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED GLASS BEADS TO SHOPFITTERS DETAILS.

FURNITURE: 2 X FRICTION STAYS PER OPENING SECTION AS SPECIFIED BY SHOPFITTER, & STANDARD BLACK ANODISED ALUMINIUM CASEMENT WINDOW HANDLE PER OPENING SECTION TO MATCH EXISTING.

GLASS: CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.

project no	project	rev	date	description	dwg no	rev no	WINDOW TYPE SCHEDULE	leigh hartl University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514962
2801	CENTRE FOR ADULT BASIC EDUCATION on STAND 3340, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE	0	12.01.2009	issued for CONSTRUCTION	C15	0		



DESCRIPTION: ALUMINIUM WINDOW/SHOPFRONT TO LEARNING RESOURCES CENTRE.

TYPE: 12

FRAME: ALUMINIUM CITY 'NUKLIP SYSTEM' PROFILES OR SIMILAR APPROVED, NATURAL ANODISED FRAME & POWDER COATED
GLASS BEADS TO SHOPFITTERS DETAILS.

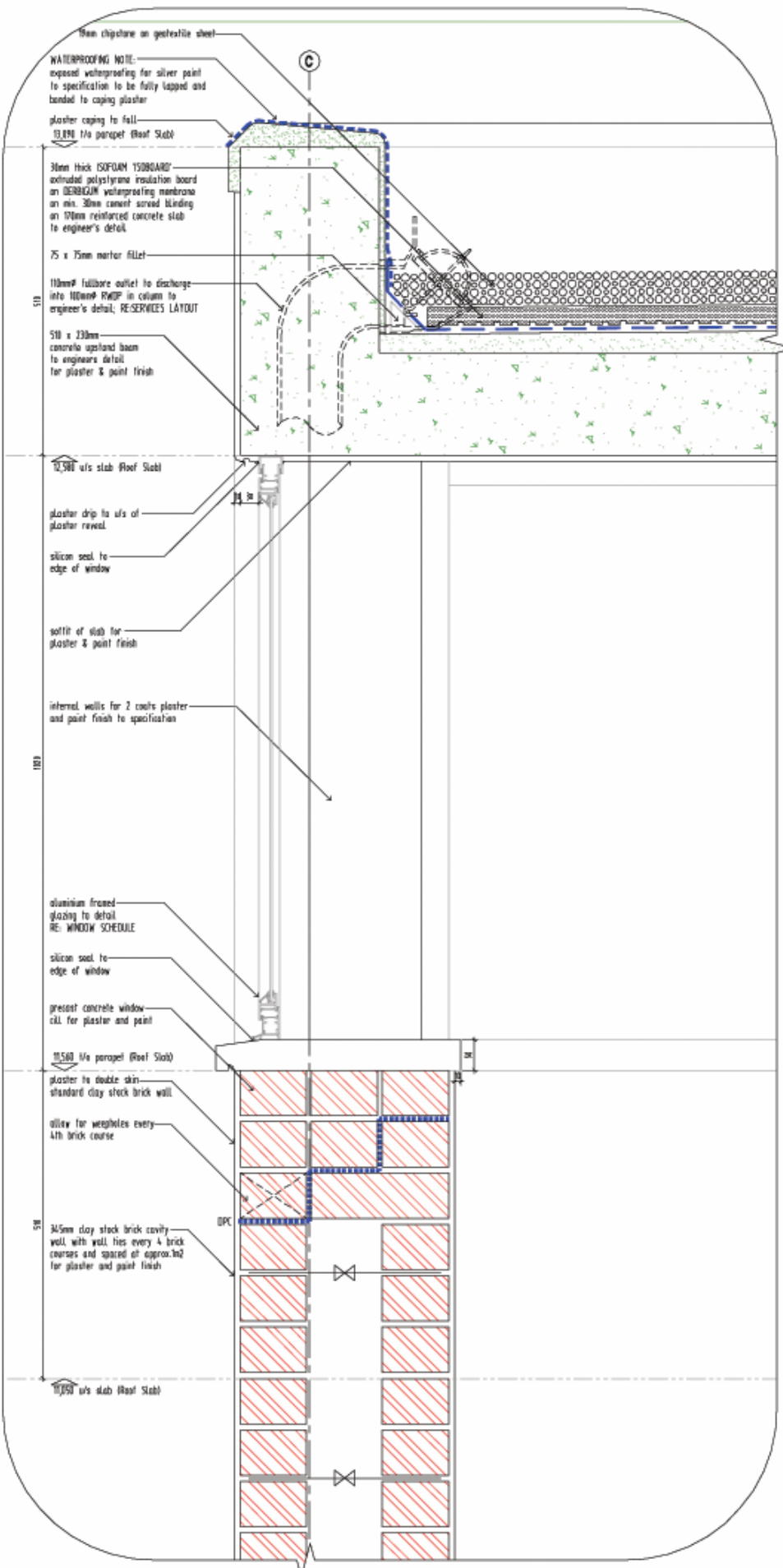
FURNITURE:

GLASS: CLEAR SAFETY GLASS TO COMPLY WITH SABS 0137.

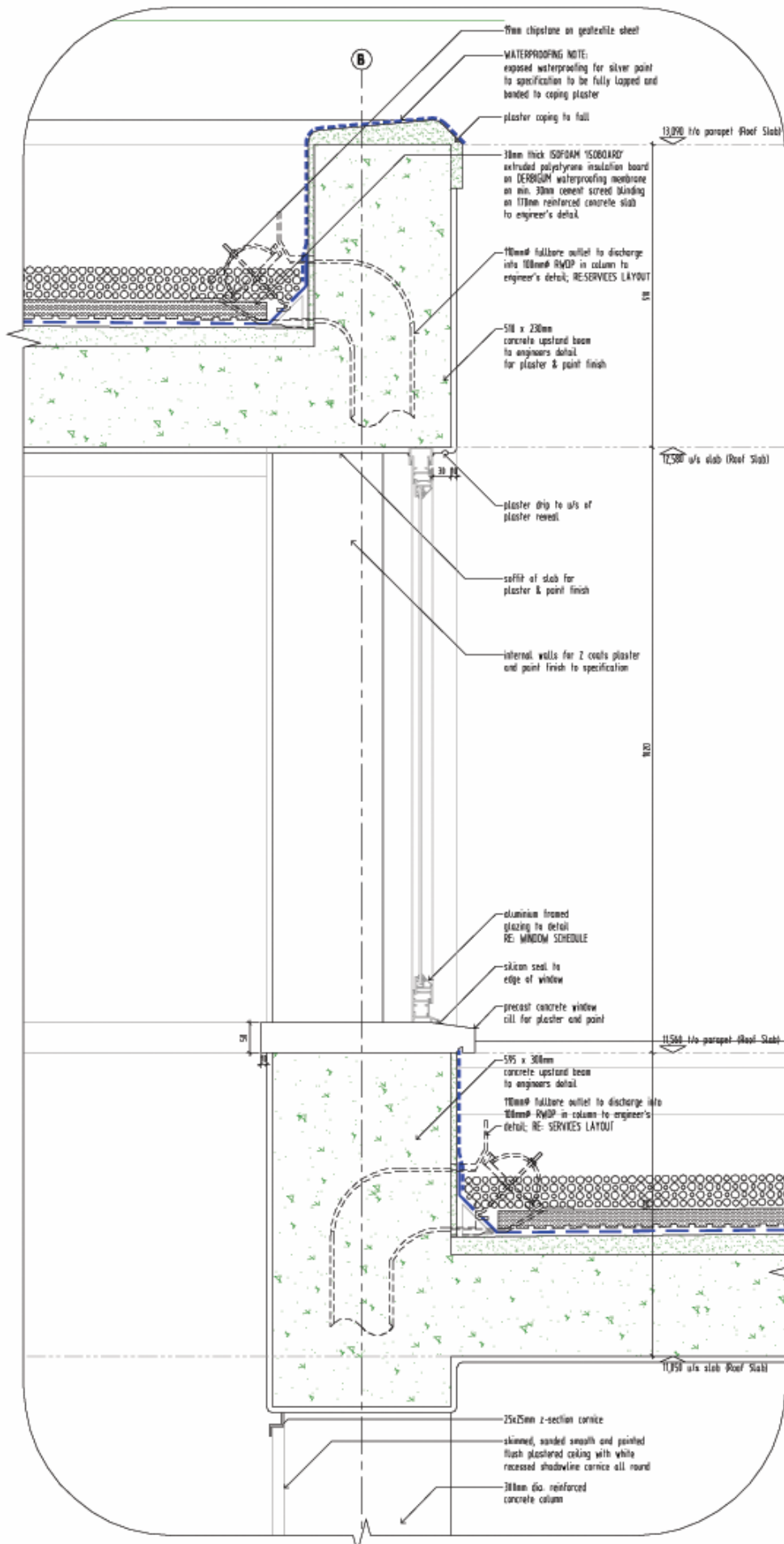
project no	project	rev	date	description	dwg no	rev no	WINDOW TYPE SCHEDULE	leigh hartl University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514952	tel: (083) 959 6673 fax: (011) 675 2778
2801	CENTRE FOR ADULT BASIC EDUCATION on STAND 3340, GREYVILLE, DURBAN for BRIDGES TO THE FUTURE INITIATIVE	0	12.01.2009	issued for CONSTRUCTION	C16	0			

DESCRIPTION		ROOM NAME						
		FEMALE TOILET (Ground Flr)	MALE TOILET (Ground Flr)	DISABLED TOILET (Ground Flr)		FEMALE TOILET (First Flr)	MALE TOILET (First Flr)	DISABLED TOILET (First Flr)
WHB's	VAAL-CAMEO drop-in whb CODE 7028, Colour-WHITE, mounted in wall-mounted vanity unit	●	●			●	●	
	VAAL-BANTAM basin 455x290mm, CODE 7030, with 2 semi-punched tapholes, bolted to wall, COLOUR - WHITE			●				●
	COBRA No.340 chrome plated bottle trap	●	●	●		●	●	●
TAP	COBRA-XENA single lever basin mixer with plug, chain and stay in chrome finish - CODE XE-295/044	●	●	●		●	●	●
WC's	BETTA-HORNBERG wall hung washdown pan, Colour-WHITE, with timber seat & lid and GEBERIT-CONCEALED CISTERN with GEBERIT-Chrome plated TWINLINE ACUATOR PLATE CODE: 115.888.46.1	●	●	●		●	●	●
URINAL	VAAL-FLATBACK wall mounted urinal with top inlet CODE 7053, with chrome plated domical grating CODE 8787, chrome plated spreader CODE 8543 and 2 hanger brackets CODE 8127 COLOUR: white		●				●	
ACCESSORIES OR SIMILAR APPROVED	32mm stainless steel side grab rail CODE DL2 32mm stainless steel rear grab around cistern CODE SR1			●				●
	NAMPAK-Stainless steel toilet roll dispenser -CODE 0469	●	●	●		●	●	●
	NAMPAK-Stainless steel handsfree paper towel dispenser -CODE 0473	●	●	●		●	●	●
	NAMPAK-Stainless steel auto soap dispenser -CODE 0548	●	●	●		●	●	●
	NAMPAK-Stainless steel waste bin -CODE 0486	●	●	●		●	●	●

project no	project	rev	date	description	dwg no	rev no	leigh hartl	University of KwaZulu-Natal School of Architecture, Housing and Planning Student No.: 207514952	tel: (083) 359 8973 fax: (011) 675 2778	
2801	NEW CENTRE FOR ADULT BASIC EDUCATION	0	12.01.2009	issued for CONSTRUCTION	lh	C18 0				SANITARY SCHEDULE
	on STAND 3340, GREYVILLE, DURBAN									
	for BRIDGES TO THE FUTURE INITIATIVE									



1 DETAIL 01 - DETAIL OF FLAT SLAB AND WINDOW IN 345mm BRICK WALL
SCALE 1:5
RE: 1/AS



2 DETAIL 02 - DETAIL OF FLAT SLAB AND WINDOW AT CONCRETE BEAMS
SCALE 1:5
RE: 1/AS

<p>SPECIFICATIONS/NOTES:</p> <p>ALL WORK DONE UNDER THIS CONTRACT MUST COMPLY WITH THE FOLLOWING:</p> <p>THE NATIONAL BUILDING REGULATIONS AND BUILDING STANDARDS ACT NO. 103 OF 1977 AND CAPS 1000 (2004) AS AMENDED.</p> <p>UNLESS OTHERWISE STATED, ANY PRODUCTS SPECIFIED BY TRADE NAME ARE TO BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND/OR INSTRUCTIONS.</p> <p>ONLY QUALIFIED ENGINEERS TO BE USED.</p> <p>ALL LEVELS AND DIMENSIONS, HEIGHT, PUNCH, DEPTH OF EXCAVATIONS AND NUMBER OF STEPS TO BE FINALLY CHECKED BY CONTRACTOR OR SITE.</p> <p>LEVELS SHOWN ON DRAWINGS TO BE TAKEN AS CONCRETE LEVELS, UNLESS OTHERWISE INDICATED.</p> <p>CONTRACTOR TO HAVE GOOD ALL DAMAGE AND DEFECTIVE WORK DONE BY WORK.</p> <p>ANY DISCREPANCIES OR CONFLICTS TO BE IMMEDIATELY REPORTED TO THE ARCHITECT.</p> <p>THESE DRAWINGS ARE TO BE READ IN CONNECTION WITH STRUCTURAL, CIVIL OR MECHANICAL DRAWINGS OR PLUMBING CONSULTANTS DRAWINGS WHERE SPECIFIED.</p> <p>EXCAVATIONS:</p> <ol style="list-style-type: none"> ALL LEVELS ARE AS SHOWN ON THE DRAWINGS. EXCAVATION WORK INCLUDING CUT AND FILL TO BE CARRIED OUT AS PER DRAWING. TO CORRECT WITH PART 'C' OF THE DRAWING. TRACING FOR FOUNDATIONS SHALL BE CARRIED OUT TO FORM NATURAL GRADE. TO THE FULL EXTENT OF THE AREA OF NEW BUILDING WORK EXISTING TOP SOIL TO A MAXIMUM DEPTH OF 300mm AS REQUIRED AND SET BACK FOR LATER USE. TRACING FOR ALL PIPES (DRAIN, CATCHES ETC) SHALL BE EXCAVATED TO A MIN DEPTH OF 300mm BELOW FINISHED GRADE LEVELS. <p>FOUNDATIONS:</p> <ol style="list-style-type: none"> CONCRETE FOOTINGS OF A STRENGTH NOT LESS THAN 20MPa AT 28 DAYS (PAAL). STEP FOUNDATIONS TO HAVE A MINIMUM THICKNESS OF NOT LESS THAN 200mm AND A MINIMUM WIDTH OF 400mm TO CORRECT WITH PART 'C' OF THE DRAWING. <p>FLOORS:</p> <ol style="list-style-type: none"> FLOOR UNDER CONCRETE SURFACE MUST BE UNDER PAVING SHALL CONSIST OF CARBON SLAB OF 100mm THICKNESS MINIMUM, FREE OF CLUMP AND CRACKS, WITH REINFORCING BARS AND MATING, WITH A MIN OF 10% MIN ASPHALT IN LAYERS OF NOT MORE THAN 100mm. ANY FLOORING & SOIL PROTECTING OF SUB-SURFACE SOIL FILL SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY. THE GUARANTEE SHALL BE FOR 10 YEARS. CONCRETE SURFACE MUST HAVE A MIN THICKNESS OF 100mm, STRENGTH NOT LESS THAN 20MPa AT 28 DAYS, MINIMUM THICKNESS OF 100mm, STRENGTH NOT LESS THAN 20MPa AT 28 DAYS. <p>COLUMNS AND RING BEAMS:</p> <p>STRUCTURAL COLUMNS AND RING BEAMS SHALL BE TO ENGINEER'S DETAIL.</p> <p>WALLS (PART K of SABS 0400):</p> <ol style="list-style-type: none"> CONCRETE 150mm THICK RWP SHALL BE PLACED IN ALL WALLS AT A MIN. HEIGHT OF 100mm ABOVE FINISHED LEVEL, UNDER WINDOW SILL AND AT WINDOW HEAD LAIN TO FULL WIDTH AND LAPPED AT ONE, HEIGHT AND JUNCTION BY A MINIMUM OF 500mm. ALL WINDOW SILL SHALL BE PLACED AND MUST CORRECTLY COVER, AT LEAST 200mm EXTERNAL AND 100mm INTERNAL. TO CORRECT WITH PART 'C' OF THE DRAWING. EXTERNAL SILL ARE TO BE PLASTERED WITH 20mm MIN CORP OVERHANG. PROVIDE IMPROVED EXIST 100mm CORP. <p>ROOFS (PART L of SABS 0400):</p> <ol style="list-style-type: none"> ALL ROOF FINISHES TO BE IN ACCORDANCE WITH PART K of SABS 0400. REFER TO SECTIONS AND STRUCTURAL ENGINEER'S DRAWINGS WHERE SPECIFIED. ROOF FINISHES TO BE Laid AT A MIN OF 1 DEGREE WITHOUT AN APPROVED UNDERLAY. DOES PLASTERED TO ALL CHIMNEYS IN ROOF LEVEL, AND SLOTTING BETWEEN ROOFS AND WALLS PLASTERED, CONCRETE AND ROOF SHALL BE INSTALLED TO MANUFACTURER'S DETAILS. <p>CEILING:</p> <ol style="list-style-type: none"> MIN. CEILING HEIGHT OF ANY VARIABLE ROOF SHALL BE 2.00m. INSULATION SHALL BE 100mm 'ROOFLOUT' OR SIMILAR FIRE-RESISTANT INSULATION, AS SPECIFIED BY ARCHITECT. <p>PLASTERING:</p> <ol style="list-style-type: none"> INTERNAL THICK CORN PLASTER SHALL BE 15 PARTS SAND AND 1 PART CEMENT LAD TO A MAX. THICKNESS OF 10mm LAYER UP WITH A THICK CORN PLASTER. CONTRACTOR TO PROVIDE A SILENCE CORNICE, INCLUDING PLASTER FINISH FOR ARCHITECT'S APPROVAL. EXTERNAL THICK CORN PLASTER SHALL BE 5 PARTS SAND AND 1 PART CEMENT LAD TO A MAX. THICKNESS OF 10mm LAYER UP WITH A THICK CORN PLASTER. CONTRACTOR TO PROVIDE A SILENCE CORNICE, INCLUDING PLASTER FINISH FOR ARCHITECT'S APPROVAL. <p>PAINTING:</p> <ol style="list-style-type: none"> ALL PAINTS, STAIN, VARNISHES ETC. SHALL BE OF AN APPROVED MANUFACTURE AND BE USED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS. INTERIOR & EXTERIOR PAINT SHALL BE TO ARCHITECT'S SPECIFICATION OR NEAREST FINISH, SUBJECT TO COLOR AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AS PER ARCHITECT'S FINISHING SCHEDULE. PAINTING TO ARCHITECT'S SPECIFICATIONS. 1 COAT PRIMER, WITH 2 COATS FINISH. PRIMER, FILL, AND 2ND COAT PRIMER. SHOULD COMPLY WITH THE LOCAL AUTHORITY. <p>WINDOWS/DOORS/GLAZING (PART N of SABS 0400):</p> <ol style="list-style-type: none"> INTERNAL DOORS SHALL BE 100mm THICK IN 100mm FRAME TO ARCHITECT'S APPROVAL, AND SHALL BE OVERHUNG IN ACCORDANCE WITH THE DRAWING SCHEDULE. EXTERNAL DOORS SHALL BE 100mm THICK IN 100mm FRAME TO ARCHITECT'S APPROVAL, AND SHALL BE OVERHUNG IN ACCORDANCE WITH THE DRAWING SCHEDULE. WINDOWS SHALL BE PROVIDED CENTER ALUMINUM FRAME TO ARCHITECT'S APPROVAL, AND SHALL BE OVERHUNG IN ACCORDANCE WITH THE DRAWING SCHEDULE. ALL GLAZING TO COMPLY WITH THE REQUIREMENTS CONTAINED IN THIS SPEC. LIGHT AND VENTILATION TO COMPLY WITH PART 'C' OF THE DRAWING. <p>PLUMBING (PART P of SABS 0400):</p> <ol style="list-style-type: none"> DRAIN SHALL BE Laid TO COMPLY WITH THE DRAWING, REQUIREMENTS OF THE LOCAL AUTHORITY AND PART 'P' OF THE NATIONAL BUILDING REGULATIONS. A DOWN PIPE TO BE INSTALLED TO THE HEAD OF EACH DRAIN RUN. THE HEAD OF THE DRAIN SHALL BE AT A MINIMUM OF 100mm BELOW FIN. GRADE SOIL. ALL SINKS AND JUNCTIONS IN DRAIN TO BE SET WITH ITS AND RANDED WITH CORNICE AT FINISHED LEVEL. NO DRAINAGE RUNS ON ANYTHING REMAIN A BUILDING DRAINAGE PIPES UNDER BUILDING TO BE PROTECTED FROM LEAKS. SLATED WPS TO BE ACCESSIBLE AND WPS LEVELS AT EACH END OF SLOPE, WPS TO BE FULLY ACCESSIBLE ALONG ENTIRE LENGTH, CLEANING EYES TO ALL JUNCTIONS AND BENDS IN WPS. ALL WPS IN A 100mm SYSTEM TO BE FITTED WITH A 100mm DEEP SEAL TRAP, AND EACH TRAP TO BE AS SET. ALL WPS TO BE ACCESSIBLE ALONG ENTIRE LENGTH. A DOWN PIPE SHALL BE INSTALLED WHERE THERE IS A CHANGE IN GRADE/LEVEL OR IN A CHANGE IN DIRECTION OF A DRAIN, THEN DRAIN TO BE INSTALLED WITH-WINDINGS. A DOWN PIPE SHALL BE INSTALLED AT A POINT WITHIN 100mm OF DOWN CONNECTION AND AT EVERY 200mm OF SOIL PIPE. WASTE AND SOIL PIPES SHALL BE INSTALLED IN ACCORDANCE WITH THE MIN & 40mm DIA. ALL WASTE PIPES TO BE 200mm. ALL SOIL PIPES TO BE 100mm. <p>ELECTRICIAN:</p> <ol style="list-style-type: none"> ALL ELECTRICAL INSTALLATION SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH SABS 0102- THE WIRING OF BUILDINGS, PART 'T' OF THE MIN AND BE PERMITS. SWITCH, FUSE, AND LIGHT FITTING TO COMPLY WITH SABS, TO ARCHITECT'S SPEC. GROUNDING REQUIREMENTS: ALL ROOFS SHALL BE BUILT IN AT LEAST 100mm DIA. TO THE 100mm OF THE SEVER PLATE. GROUNDING REQUIREMENTS: ALL LIGHT SWITCHES SHALL BE BUILT IN AT LEAST 100mm DIA. TO THE 100mm OF THE SEVER PLATE. 			
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