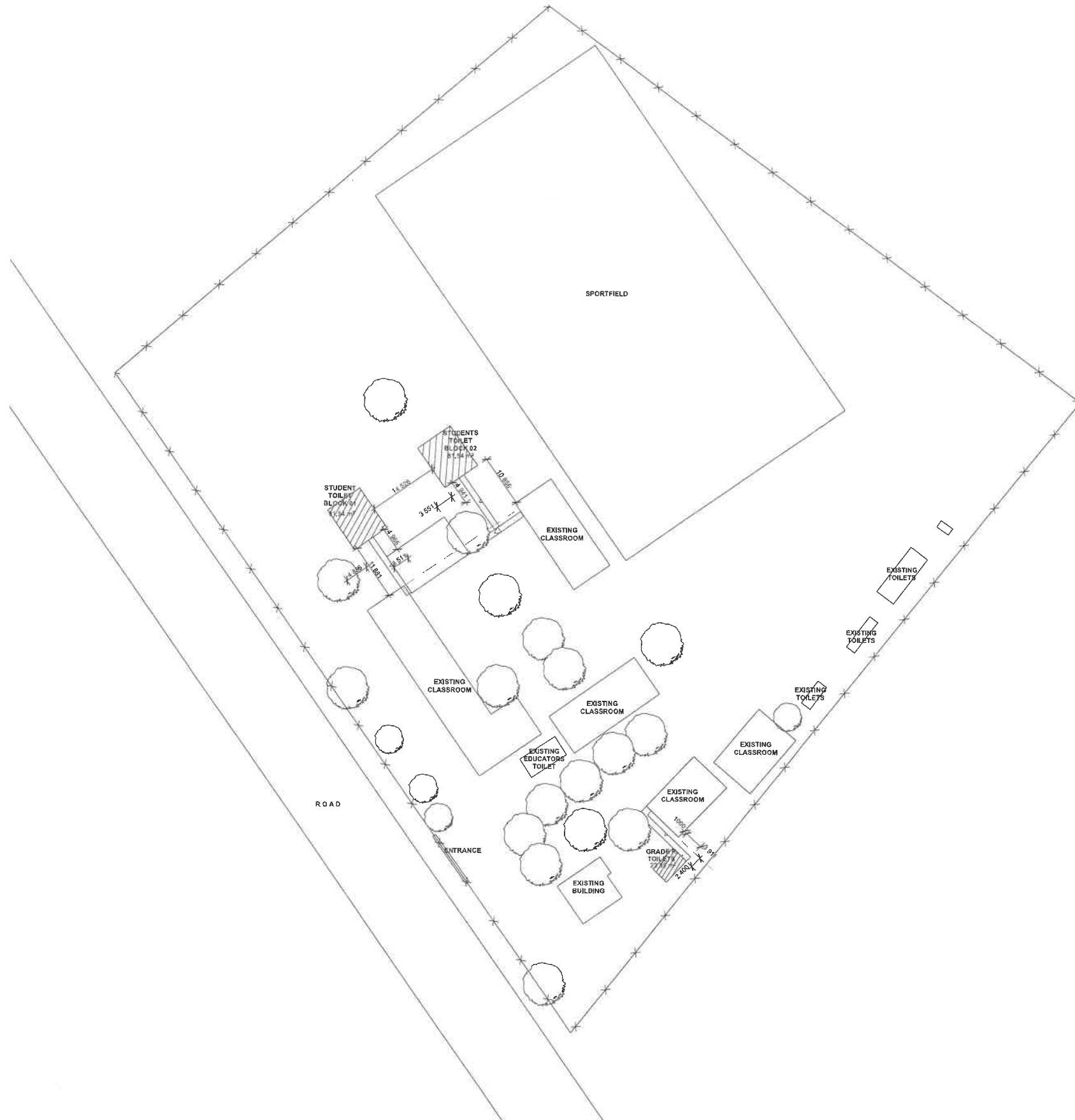




0.

SITE PLAN

1:500

Contractor to check all dimensions and levels before setting out of any work. Figured dimensions are to be preferred to scaled dimensions. Any discrepancies to be brought to the Architects attention immediately for clarification before commencement of any work. All work to be in accordance with SABS 0400 codes and to comply with Local Authority rules, regulations and requirements. Provide P.C. lintels to openings up to 3000mm wide laid to manufacturers specification with min. 4 courses brickwork above lintels. All glazing to comply with part N of N.B.R. Satellite dishes or arials to be out of sight from road and below eaves. Solar panels to be out of sight from road.

Rev/D	CHD	Change Name	Date

Project Manager

Urban Planners

Architects **SIVAGO ARCHITECTS CC.**

Quantity Surveyors

Structural Engineers

Civil Engineers

Electrical Engineers

Mechanical Engineers

Landscape Architects

Contractor

CLIENT



IMPLIMENTING AGENT



PROJECT

**M L SULTAN PRIMARY SCHOOL
UPGRADES AND ADDITIONS**



Unit 2a, 1 Builders Way, Hillcrest
Durban
South Africa
3650

F: 072 338 6635
Cell: 072 338 6635
Email: info@sivago.co.za

DRAWING

SITE PLAN

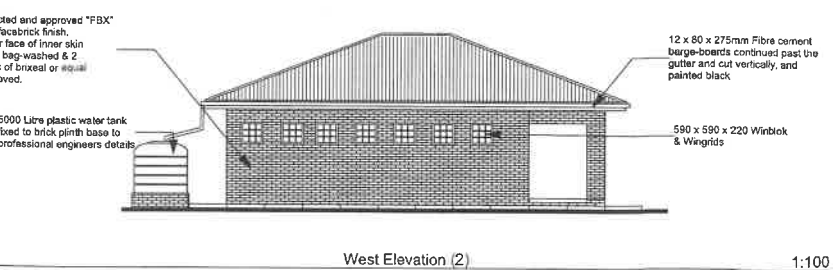
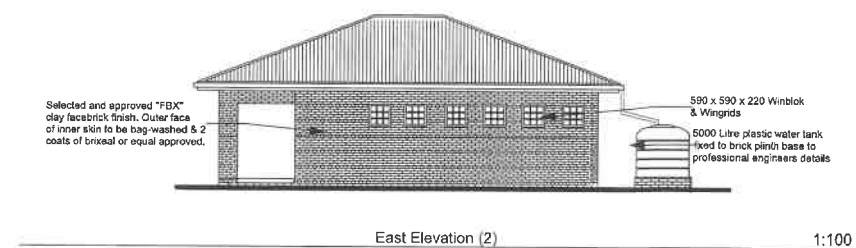
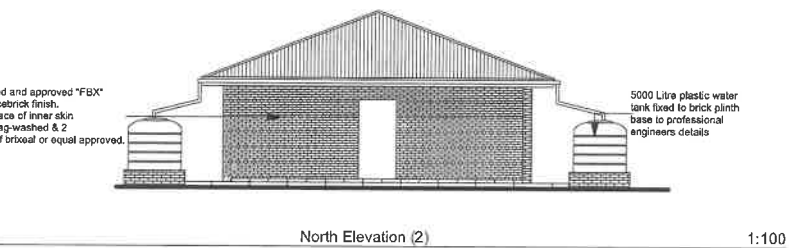
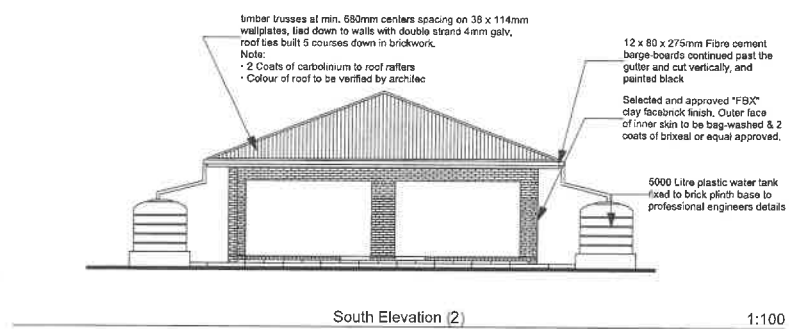
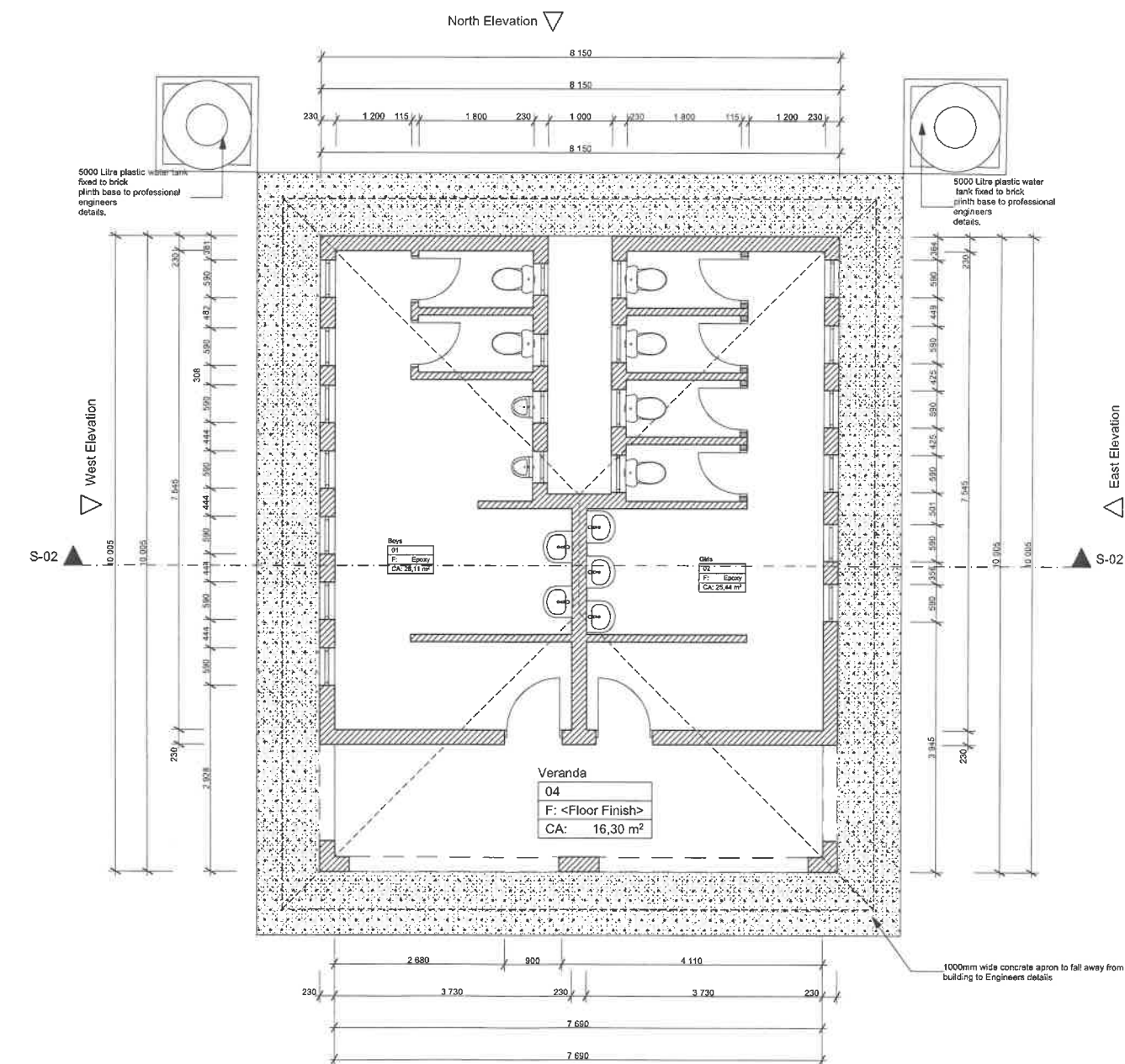
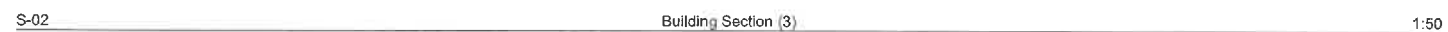
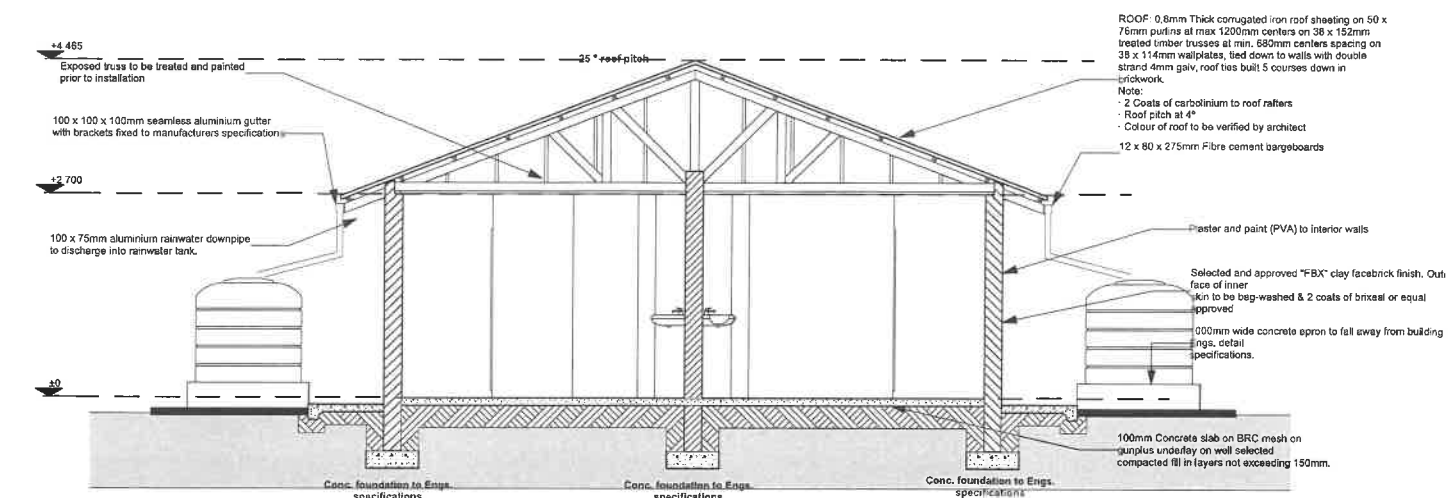
STAGE **DESIGN DEVELOPMENT**

CLIENT'S SIGNATURE

DRAWING USAGE

APPROVED	Client	Project No
	Tenant	#Ptn
Drawn by Miso Sibindi	Date	Date Drawn 2024/02/16
Checked by Midingwa Nyathi	Date	Print date 2024/02/16
Scale: As Shown	@A1 SIZE	

Layout ID 1001	Revision	Status
--------------------------	----------	--------



Contractor to check all dimensions and levels before setting out of any work.
Figured dimensions are to be preferred to scaled dimensions.
Any discrepancies to be brought to the Architects attention immediately for clarification before commencement of any work.
All work to be in accordance with SABS 0400 codes and to comply with Local Authority rules, regulations and requirements.
Provide P.C. limits to openings up to 3000mm wide (aid to manufacturers specification with min. 4 courses brickwork above lintels. All glazing to comply with SABS 0400 of N.B.S.
Satellite dishes or antennas to be out of sight from road and below eaves
Solar panels to be out of sight from road.

[illegible]

Project Manager	
Urban Planners	
Architects	SIVAGO ARCHITECTS CC.
Quantity Surveyors	-
Structural Engineers	-
Civil Engineers	-
Electrical Engineers	
Mechanical Engineers	
Landscape Architects	-

Contractor

CLIENT

 **KWAZULU-NATAL PROVINCE**
EDUCATION
REPUBLIC OF SOUTH AFRICA

IMPLIMENTING AGENT



KWAZULU-NATAL PROVINCE
PUBLIC WORKS
REPUBLIC OF SOUTH AFRICA

PROJECT

M L SULTAN PRIMARY SCHOOL UPGRADES AND ADDITIONS

SIVGO
ARCHITECTS

Unit 2a, 1 Builders Way, Hillcrest
Urban
South Africa
350

F:
Cell : 072 338 6835
Email : info@sivago.co.za

DRAWING

FLOOR PLAN, North Elevation (2), South
Elevation (2), East Elevation (2), West
Elevation (2), Building Section (3)

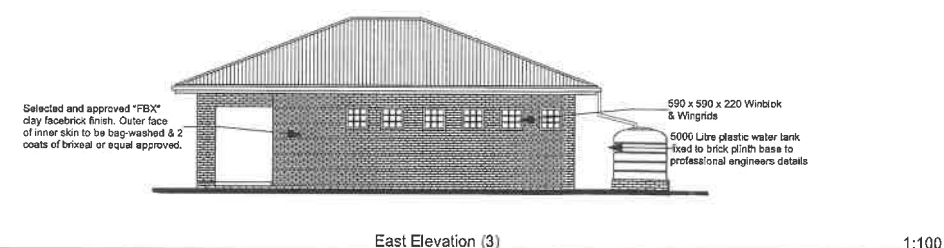
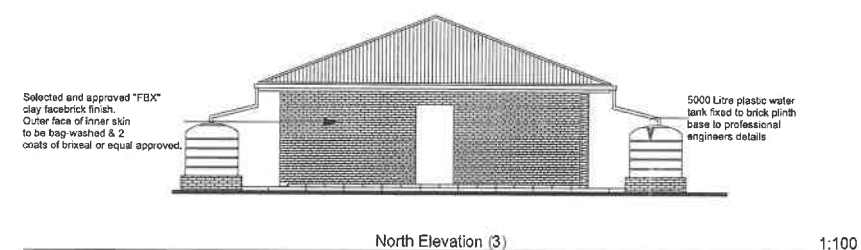
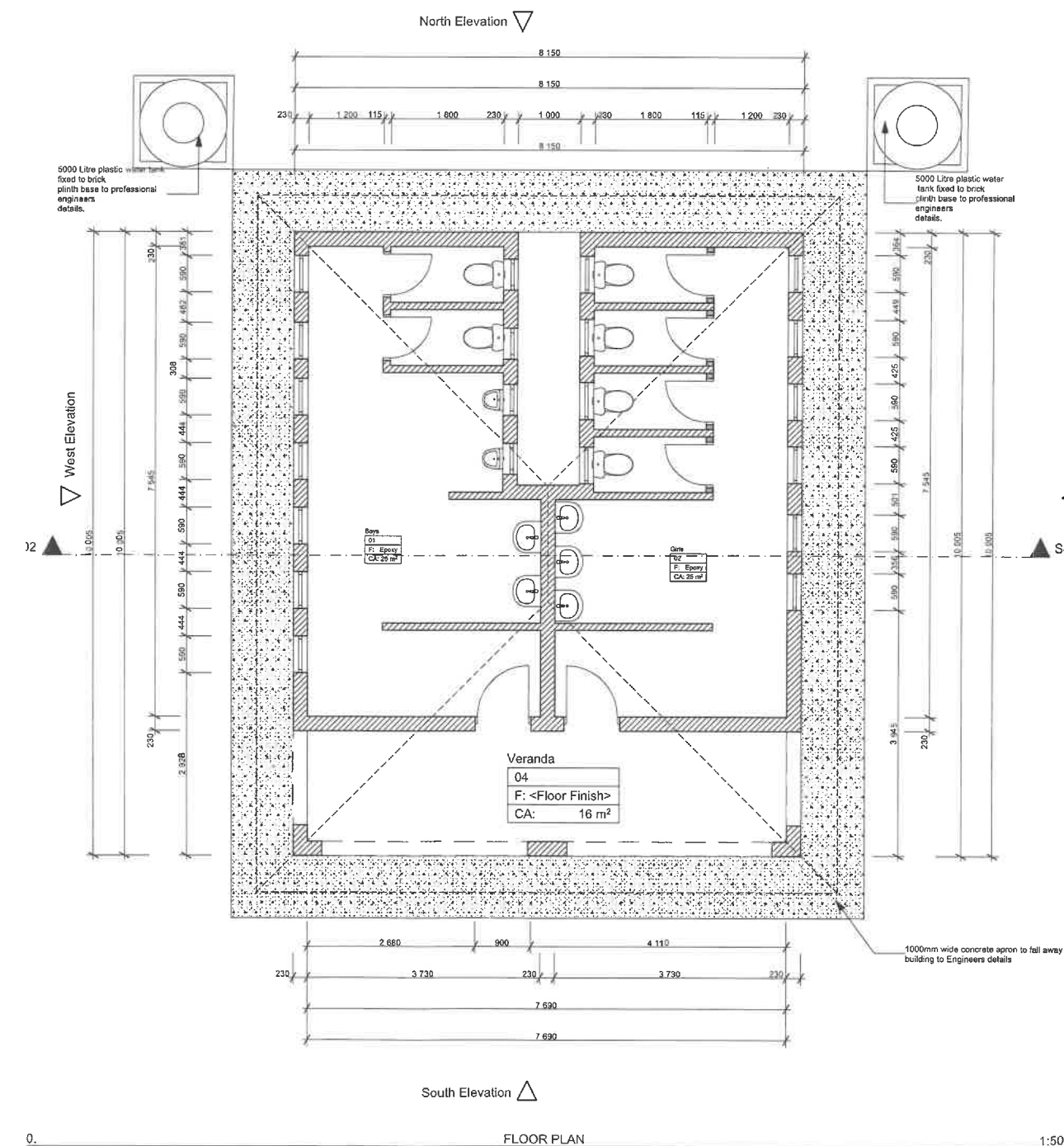
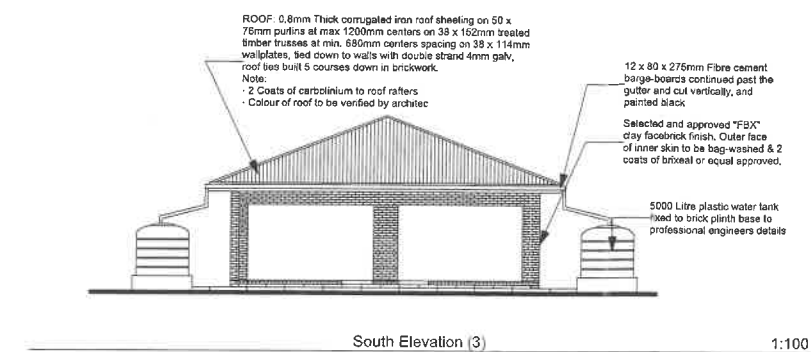
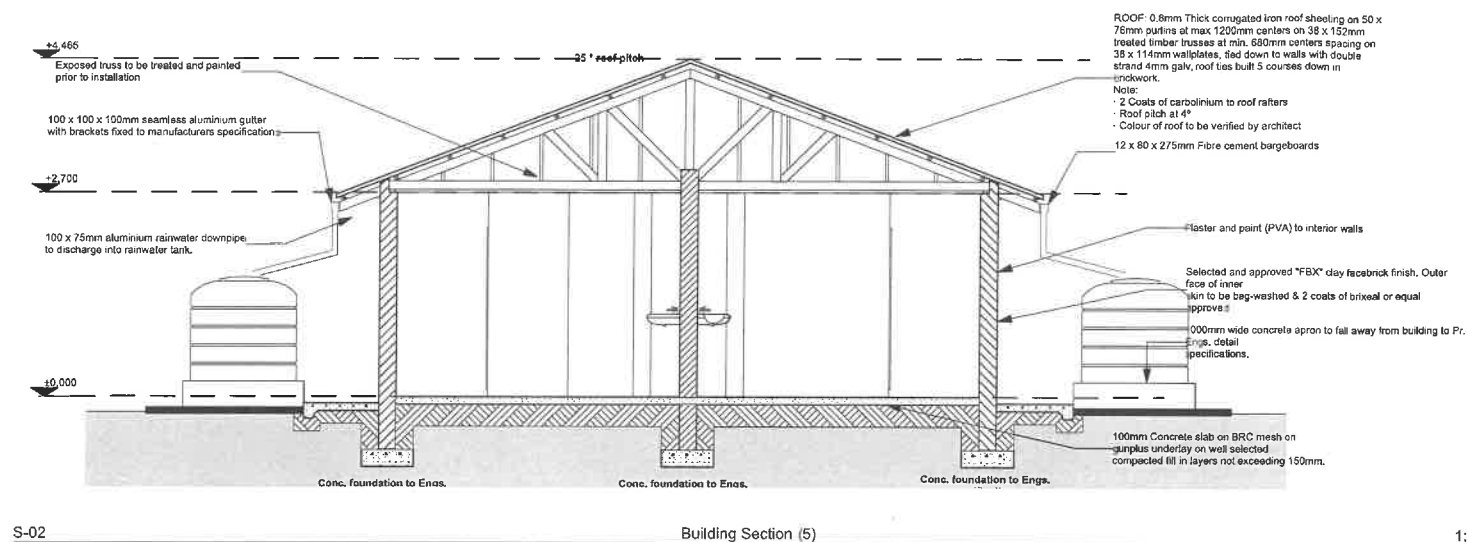
STAGE	DESIGN DEVELOPMENT
-------	--------------------

CLIENT'S SIGNATURE

DRAWING USAGE

APPROVED	Client	Project No #Pin
	Tenant	
Drawn by Mwato Sibindi		Date Drawn: 2024/02/16
Checked by Mdingwa Nyathi		
Date		Print date: 2024/02/16
Scale:	As Shown	
@ A1 SIZE		

Layout ID 1002	Revision	Status
--------------------------	----------	--------



Contractor to check all dimensions and levels before setting out any work. Figured dimensions are to be preferred to scaled dimensions. Any discrepancy to be brought to the Architects attention immediately for clarification before commencement of any work.

All work to be in accordance with SABS 0430 codes and to comply with Local Authority rules, regulations and requirements.

Provide P.C. lintols to openings up to 3000mm wide laid to manufacturers specification with 4 courses brickwork above lintols. All glazing to comply with part N of N.B.R.

Satellite dishes or aerials to be out of sight from road and below eaves

Solar panels to be out of sight from road.

[illegible]

Project Manager	
Urban Planners	
Architects	SIVAGO ARCHITECTS CC.
Quantity Surveyors	-
Structural Engineers	-
Civil Engineers	-
Electrical Engineers	
Mechanical Engineers	
Landscape Architects	-
Contractor	
CLIENT	



PROJECT

**M L SULTAN PRIMARY SCHOOL
UPGRADES AND ADDITIONS**



Unit 2a, 1 Builders Way, Hillcrest
Durban
South Africa
3650

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Email : info@alvago.co.za

DRAWING

**FLOOR PLAN, South Elevation (3), North
Elevation (3), East Elevation (3), West
Elevation (3), Building Section (5)**

STAGE	DESIGN DEVELOPMENT
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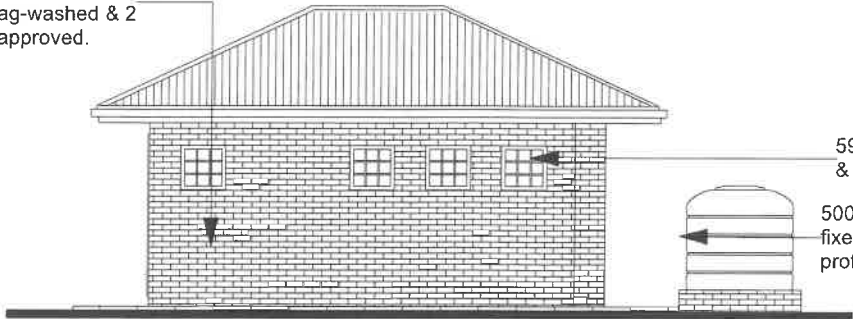
CLIENT'S SIGNATURE

DRAWING USAGE

APPROVED	Client	Project No #PIN
	Tenant	
Drawn by Mihalo Sibindi	Date	Scale Drawn: 2024/02/18
Checked by Mdingwa Nyathi	Date	Print date: 2024/02/18
Scale: As Shown	@ A1 SIZE	

Layout ID	Revision	Status
1003		

Selected and approved "FBX" clay facebrick finish. Outer face of inner skin to be bag-washed & 2 coats of brixal or equal approved.



E-04

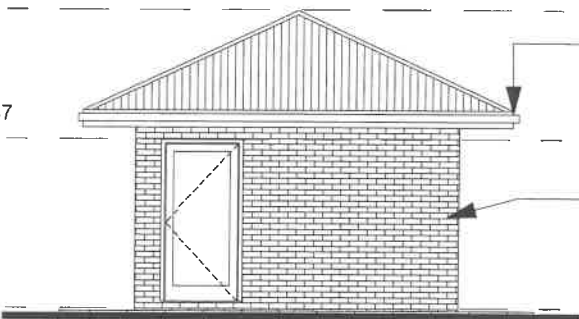
Elevation (2)

1:50

ROOF APEX +3,945

WINDOW HEAD LEVEL +2,237

F.F.L. ±0,000



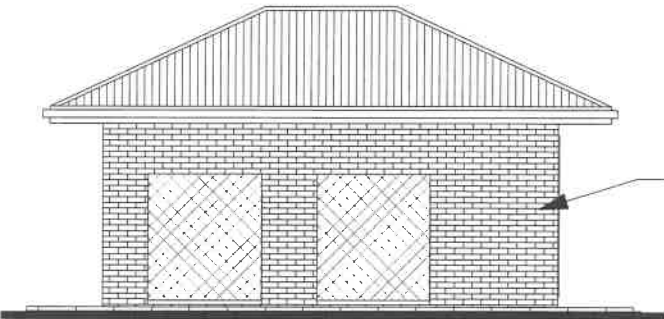
E-02

Elevation (2)

1:50

12 x 80 x 275mm Fibre cement barge-boards continued past the gutter and cut vertically, and painted black

Selected and approved "FBX" clay facebrick finish. Outer face of inner skin to be bag-washed & 2 coats of brixal or equal approved.

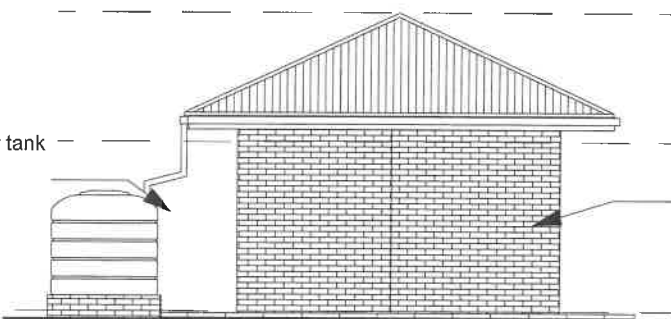


E-03

Elevation (2)

1:50

5000 Litre plastic water tank fixed to brick plinth base to professional engineers details

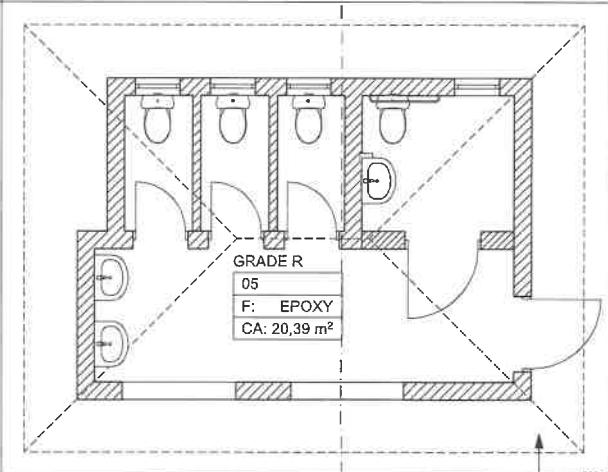
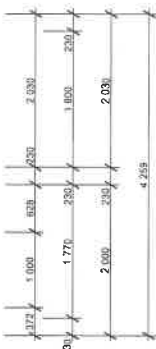
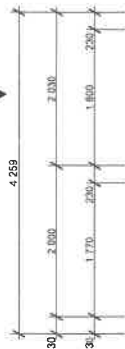
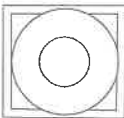
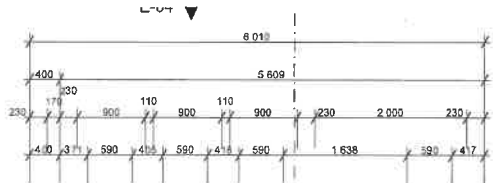


E-01

Elevation (2)

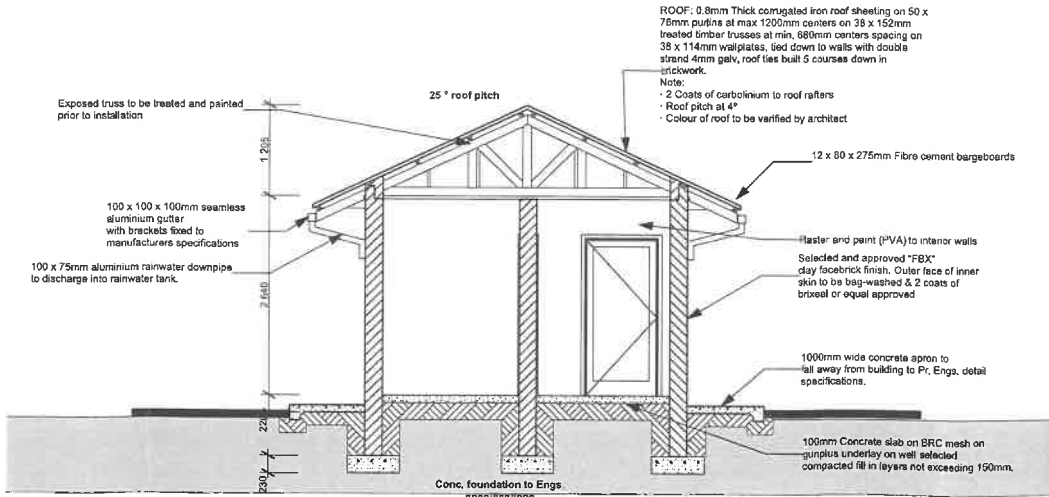
1:50

Selected and approved "FBX" clay facebrick finish. Outer face of inner skin to be bag-washed & 2 coats of brixal or equal approved.



FLOOR PLAN

1:50



S-01

Building Section (4)

1:50

Contractor to check all dimensions and levels before setting out of any work. Figured dimensions are to be preferred to scaled dimensions. Any discrepancies to be brought to the Architects attention immediately for clarification before commencement of any work. All work to be in accordance with SABS 0400 codes and to comply with Local Authority rules, regulations and requirements. Provide P.C. lintels to openings up to 3000mm wide laid to manufacturers specification with min. 4 courses brickwork above lintels. All glazing to comply with part N of N.B.R. Satellite dishes or aereals to be out of sight from road and below eaves. Solar panels to be out of sight from road.

Rev/ID	CHD	Change Name	Date

Project Manager	
Urban Planners	
Architects	SIVAGO ARCHITECTS CC.
Quantity Surveyors	
Structural Engineers	
Civil Engineers	
Electrical Engineers	
Mechanical Engineers	
Landscape Architects	
Contractor	
CLIENT	



PROJECT
M L SULTAN PRIMARY SCHOOL
UPGRADES AND ADDITIONS



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E: info@sivago.co.za

DRAWING
Elevation (2), FLOOR PLAN, Building
Section (4)

STAGE DESIGN DEVELOPMENT
CLIENT'S SIGNATURE
DRAWING USAGE

APPROVED	Client	Project No
	Tenant	#P/n
Drawn by	Date	Date Drawn
Mheto Sibindi		2024/02/16
Checked by	Date	Print date
Mdingwa Nyathi		2024/02/16
Scale	As Shown	@ A1 SIZE
Layout ID	Revision	Status
1004		



BLOCK TYPE No.	BLOCK TYPE	DISCRIPTION	DRAWING No.	No. OF BLOCKS
BG02	Boys & Girls	B(2T+2U+2W) + G(4T+3W)	1248 / S98 / G02 / 200001	2
GR15	Grade R	R(3T+2W) + D(1T+1W)	1248 / S98 / GR05 / 200001	1

PLATFORM SETTING OUT TABLE			
POINT	Y COORDINATE	X COORDINATE	ELEVATION
P01	81797.579923	-3182470.667516	977.869
P02	81802.668829	-3182475.547915	977.869
P03	81795.200366	-3182453.335455	977.869
P04	81790.111461	-3182478.455056	977.869
P05	81791.689703	-3182476.811533	977.869
P06	81798.550435	-3182473.803618	977.507
P07	81789.362371	-3182472.936138	977.507
P08	81792.519204	-3182475.944446	977.869
P09	81728.652293	-3182383.225967	975.728
P10	81738.103239	-3182395.377654	975.580
P11	81725.200610	-3182404.350846	975.580
P12	81716.749664	-3182392.199159	975.728
P13	81748.268921	-3182370.278949	975.564
P14	81756.723524	-3182382.428092	975.416
P15	81743.820895	-3182391.401285	975.416
P16	81735.366291	-3182379.252141	975.564

NOTES:
1. FINAL POSITIONING OF NEW ABLUTION BLOCKS TO BE CONFIRMED WITH THE PRINCIPAL AND VERIFIED ON SITE BY THE ENGINEER PRIOR TO CONSTRUCTION.

FOR PLATFORM SECTIONS SEE DRAWING 100002

LEGEND	
M	MALE ABLUTIONS
F	FEMALE ABLUTIONS
D	DISABLED ABLUTIONS
G	GIRLS ABLUTIONS
B	BOYS ABLUTIONS
R	GRADE R ABLUTIONS
U	URINAL
T	TOILET SEAT
W	WASH BASIN
[Symbol]	NEW ABLUTION BLOCKS
[Symbol]	CONTROL POINT

CONTROL WG31			
	20.00V	20.00X	Z
189699A	-31836.140	3182389.670	975.061
189699B	-31836.358	3182365.909	973.682
189699C	-31770.454	3182282.459	973.698
189699D	-31977.667	3182361.038	974.194
189699E	-31783.163	3182438.865	978.745

01	REVISED TO SUIT NEW DESIGN CONCEPT	NGIH	01/03/2024
00	FOR CONSTRUCTION	NGIH	22/09/2023
B	GEN. AMENDMENTS TO SURVEYORS DETAIL	NGIH	11/04/2017
A	FOR TENDER	NN	20/09/2015
REV	DESCRIPTION	BY	DATE

CLIENT

191 PRINCE ALFRED STREET
PEETERMARITZBURG
3200

TEL: (033) 250-4052
FAX: (033) 682-1720



IMPLEMENTING AGENT

12 CHURCH STREET
DANNHAUSER
3038

TEL: (034) 621-3484
FAX: (034) 621-3194



CONSULTANT

DARTINGO CONSULTING ENGINEERS (Pty) Ltd.
CONSULTING CIVIL & STRUCTURAL ENGINEERS

64 Underwood Road
Pinetown
3610

P O Box 65595
Reservoir Hills
4090

Tel: 031 - 2660903
Fax: 031 - 2660906
Email: admin@dartingo.co.za

APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS

CAPACITY : DIRECTOR

DATE : 04/03/2024

Pr No : 200570114

PROJECT

**KZN SCHOOLS
WATER AND SANITATION**

**PHASE 2
CLUSTER 5A
CLUSTER GROUP 04**

DRAWING TITLE

**M.L SULTAN COLENZO PRIMARY
SCHOOL**

SITE LAYOUT

WMIS No. : 059517

EMIS No. : 189699

DESIGNED : TK

DATE : MAY 2016

DRAWN : NGIH

SHEET : 01

CHECKED : TK

REV : 01

SCALE : 1:500

DRAWING No : 1248/S98 / 100001



STRUCTURAL NOTES:
GENERAL:

1. THESE NOTES MUST BE READ IN CONJUNCTION WITH THE SPECIFICATIONS IN THE BILL OF QUANTITIES. WHERE DISCREPANCIES ARISE, SUCH DISCREPANCIES MUST BE DRAWN TO THE ATTENTION OF THE ENGINEER, IMMEDIATELY, IN WRITING.
2. ANY DISCREPANCIES IN DIMENSIONS AND SETTING OUT MUST BE REPORTED TO THE ENGINEER IMMEDIATELY, IN WRITING BEFORE CONSTRUCTION COMMENCES.
3. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECT'S DRAWINGS.
4. ALL WATER-PROOFING TO BE TO ARCHITECT'S DETAILS.
5. ALL WORK TO BE IN ACCORDANCE WITH THE NATIONAL BUILDING REGULATIONS.
6. PLEASE NOTIFY ENGINEER FOR INSPECTION 24 HOURS BEFORE POURING OF CONCRETE.

FOUNDING:

1. FOUNDATIONS ARE SUBJECT TO ALTERATIONS AS EXCAVATIONS PROCEED.
2. NO FOUNDATIONS ARE TO BE CAST OR REINFORCEMENT FIXED UNTIL EXCAVATIONS HAVE BEEN APPROVED BY THE ENGINEER.
3. DESIGN SOIL PRESSURE IS 75 kPa.

CONCRETE WORKS:

1. EXCEPT WHERE MENTIONED OTHERWISE ON DRAWING NOTES THE CONCRETE WORK MUST CONFORM WITH THE CONDITIONS SET OUT IN SANS 10100 PART 2 AND SANS 1202 SECTION G.
2. A SET OF THREE TEST CUBES MUST BE MADE OF EVERY 50m³ (OR PORTION THEREOF) OF EVERY GRADE OF CONCRETE POURED ON ANY SPECIFIC DAY CURED IN ACCORDANCE WITH THE METHODS SET OUT IN THE NBR AND TESTED BY LABORATORIES APPROVED BY THE ENGINEER.
3. NO CONCRETE IS TO BE POURED BEFORE THE ENGINEER HAS INSPECTED AND APPROVED THE FIXING OF THE REINFORCEMENT.
4. BREAKS IN CONCRETE AT JOINTS OR CONSTRUCTION JOINTS ARE TO BE MADE ONLY WITH THE APPROVAL OF THE ENGINEER.
5. SHOULD THERE BE A BREAK OF MORE THAN 45 MINUTES AT ANY TIME IN THE POURING OF CONCRETE, THIS FACT MUST BE DRAWN TO THE ATTENTION OF THE ENGINEER.
6. SHUTTERING AND PROPPING MAY BE STRUCK ONLY AFTER THE LAPSE OF THE FOLLOWING TIMES, UNLESS OTHERWISE AUTHORISED:

SHUTTERING/PROPS	STRIKING TIMES (DAYS)
BEAM SIDES, WALLS AND UNLOADED COLS.	2
SLAB SOFFITS WITHOUT REMOVAL OF SLAB PROPS	4
BEAM SOFFITS WITHOUT REMOVAL OF BEAM PROPS	7
PROPS - UNLOADED SLABS	10
PROPS - UNLOADED BEAMS	14

7. CONCRETE COVER TO THE REINFORCEMENT TO BE:

STRUCTURAL ELEMENT	MIN. COVER (mm)
RAFT FOUNDATIONS	50
STRIP FOOTINGS	30
COLUMNS	30
BEAMS	25
SLABS	25
WALLS	30
RC RETAINING WALLS	40

8. SPACER BLOCKS, APPROVED BY THE ENGINEER, ARE TO BE USED TO MAINTAIN THE NECESSARY CONCRETE COVER TO THE REINFORCEMENT.
9. CONCRETE STRENGTHS:
CONCRETE WORKS CUBE STRENGTH AT 28 DAYS TO BE AS FOLLOWS:

	MPa
BLINDING	15
FOUNDATIONS	25
COLUMNS	30
BEAMS AND SLABS	25

1. ALL REINFORCING TO BE HIGH TENSILE STEEL

50						100mm	
ORIGINAL SCALE							
TYPICAL STRUCTURAL DETAILS 2 OF 2							
FOR CONSTRUCTION							
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00	FOR CONSTRUCTION			NGIH		22/08/2023	
REV	DESCRIPTION			BY		DATE	
CLIENT							
131 PRINCE ALFRED STREET PEETERMARITZBURG 3200				public works			
TEL.: (033) 260-4052 FAX.: (033) 683-1720		Department, Public Works REPUBLIC OF SOUTH AFRICA					
IMPLEMENTING AGENT							
12 CHURCH STREET DANNHAUSER 3638							
TEL.: (034) 621-2454 FAX.: (034) 621-2194		B. PRINSLOO & ASSOCIATES PTY. LTD.					
CONSULTANT							
 DARTINGO CONSULTING ENGINEERS (PTY) LTD. CONSULTING CIVIL & STRUCTURAL ENGINEERS							
64 Underwood Road Pinetown 3610		P O Box 65596 Reservoir Hills 4090		Tel: 031 - 2660903 Fax: 031 - 2660906 Email: admin@dartingo.co.za			
APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS							
CAPACITY: DIRECTOR							
DATE: 04/03/2024							
Pr No: 200576114							
PROJECT							
KZN SCHOOLS WATER AND SANITATION PHASE 2 CLUSTER 5A							
DRAWING TITLE							
M.L SULTAN COLENZO PRIMARY SCHOOL TYPICAL STRUCTURAL DETAILS 2 OF 2 STRUCTURAL DETAILS							
EMIS No.: 189693				WMIS No.: 059517			
DESIGNED : NN				DATE : 24/04/2019			
DRAWN : NGIH				SHEET : 02/02			
CHECKED : TK				REV : 00			
SCALE : AS SHOWN							
DRAWING No : 1248 / S98 / 100102							



BLOCK TYPE No.	BLOCK TYPE	DISCRPTION	DRAWING No.	No. OF BLOCKS
BG02	Boys & Girls	B(2T+2U+2W) + G(4T+3W)	1248 / S98 / G02 / 200001	2
GR15	Grade R	R(3T+2W) + D(1T+1W)	1248 / S98 / GR05 / 200001	1

PLATFORM SETTING OUT TABLE			
POINT	Y COORDINATE	X COORDINATE	ELEVATION
P01	81797.578923	-3182470.567516	977.869
P02	81802.668629	-3182475.547915	977.869
P03	81795.200368	-3182483.335455	977.869
P04	81750.111461	-3182478.455055	977.869
P05	81791.689703	-3182476.811583	977.869
P06	81788.550435	-3182473.803618	977.507
P07	81789.382371	-3182472.936138	977.507
P08	81792.519204	-3182475.944445	977.889
P09	81729.852293	-3182383.225967	975.728
P10	81738.103239	-3182395.377654	975.580
P11	81725.200610	-3182404.350846	975.580
P12	81716.749684	-3182392.199159	975.728
P13	81748.268921	-3182370.278949	975.564
P14	81756.723524	-3182382.428092	975.416
P15	81743.820895	-3182391.401285	975.416
P16	81735.366291	-3182379.252141	975.564

NOTES:
1. FINAL POSITIONING OF NEW ABLUTION BLOCKS TO BE CONFIRMED WITH THE PRINCIPAL AND VERIFIED ON SITE BY THE ENGINEER PRIOR TO CONSTRUCTION.

FOR PLATFORM SECTIONS SEE DRAWING 100002

LEGEND	
M	- MALE ABLUTIONS
F	- FEMALE ABLUTIONS
D	- DISABLED ABLUTIONS
G	- GIRLS ABLUTIONS
B	- BOYS ABLUTIONS
R	- GRADE R-ABLUTIONS
U	- URINAL
T	- TOILET SEAT
W	- WASH BASIN
	- NEW ABLUTION BLOCKS
	- CONTROL POINT

CONTROL WG31			
	20.00Y	20.00X	Z
189699A	-81836.140	3182389.870	975.081
189699B	-81886.368	3182365.909	973.682
189699C	-81770.494	3182282.459	973.688
189699D	-81677.687	3182361.036	974.194
189699E	-81783.163	3182498.855	978.745

REV	DESCRIPTION	BY	DATE
01	REVISED TO SUIT NEW DESIGN CONCEPT	NGH	01/03/2024
00	FOR CONSTRUCTION	NGH	22/08/2023
B	GEN. AMENDMENTS TO SURVEYORS DETAIL	NGH	11/04/2017
A	FOR TENDER	NN	20/05/2016

CLIENT
191 PRINCE ALFRED STREET
PEETERMARITZBURG
3205
TEL: (033) 260-4052
FAX: (033) 682-1720
 public works
Department of Public Works
REPUBLIC OF SOUTH AFRICA

IMPLEMENTING AGENT
12 CHURCH STREET
DANNHAUSER
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TEL: (034) 621-2484
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APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS

CAPACITY: DIRECTOR

DATE: 04/03/2024

Pr No: 200570114

PROJECT
**KZN SCHOOLS
WATER AND SANITATION**

**PHASE 2
CLUSTER 5A
CLUSTER GROUP 04**

DRAWING TITLE
**M.L SULTAN COLENZO PRIMARY
SCHOOL (NO IMAGERY)**

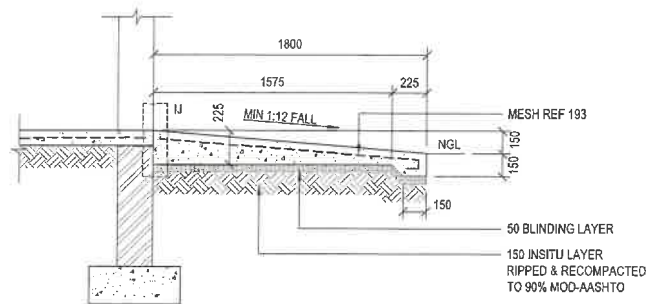
SITE LAYOUT

WMIS No.: 059517 EMS No.: 189699

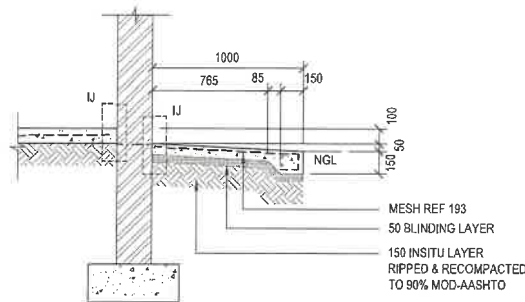
DESIGNED: TK	DATE: MAY 2016
DRAWN: NGH	SHEET: 01
CHECKED: TK	REV: 01

SCALE: 1:500

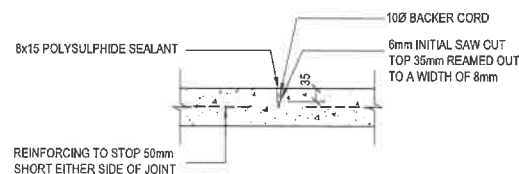
DRAWING No: 1248/S98 / 100003



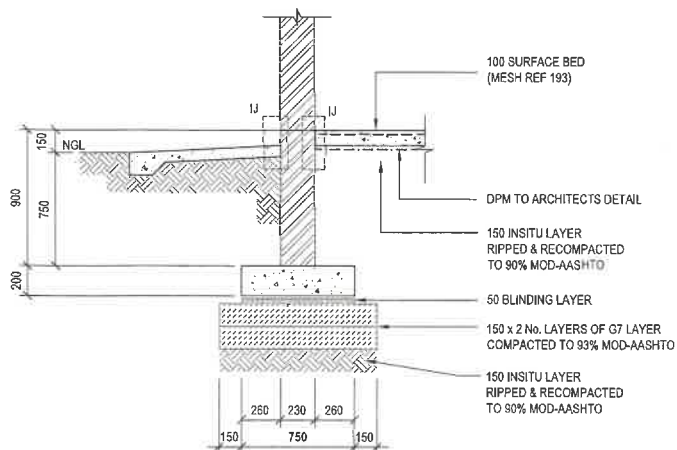
TYPICAL RAMP DETAIL
SCALE: 1:25



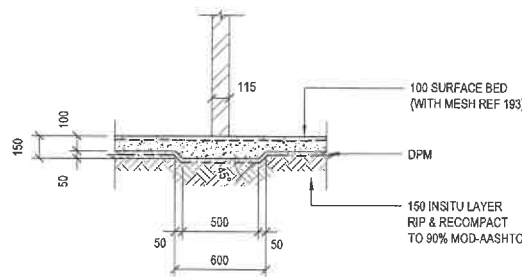
TYPICAL APRON SLAB DETAIL
SCALE: 1:25



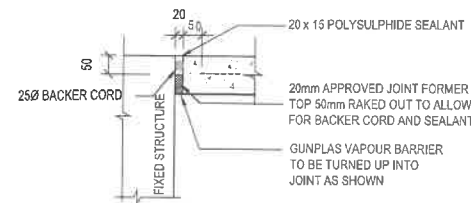
TYPICAL SAW CUT JOINT DETAIL
(SJ)
SCALE: 1:10



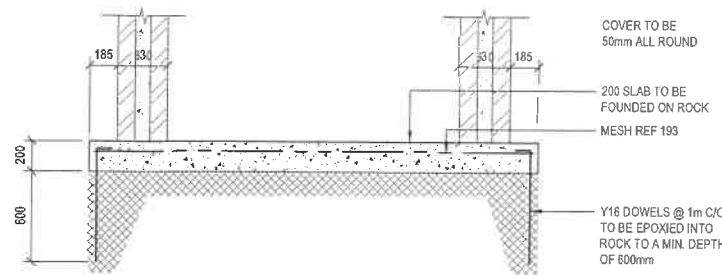
750 x 250 STRIP FOOTING DETAIL
SCALE: 1:25



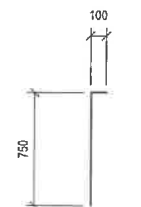
SURFACE BED THICKENING DETAIL
SCALE: 1:25



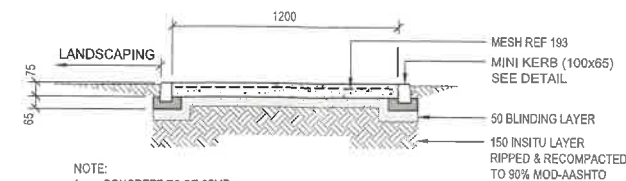
TYPICAL ISOLATION JOINT DETAIL
(IJ)
SCALE: 1:10



FOUNDATION SLAB FOR
PITS ON ROCK
SCALE: 1:25

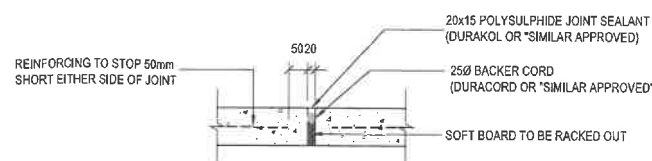


Y16 DOWELS
SCALE: 1:25

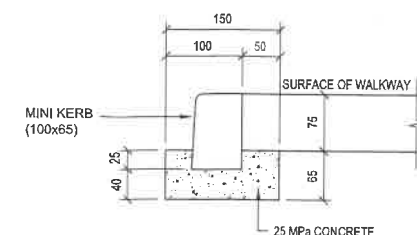


- NOTE:
- CONCRETE TO BE 25MPa.
 - SAW CUT JOINTS TO BE A MAXIMUM OF 2.25m APART
 - EXPANSION JOINTS TO BE A MAXIMUM OF 4.5m APART

TYPICAL DETAIL OF FOOTPATH
SCALE: 1:20



TYPICAL ISOLATION JOINT DETAIL
(IJ)
SCALE: 1:10



NOTE:
HAUNCHING FOR FULL KERB LENGTH
TYPICAL MINI KERB (100x65) DETAIL
SCALE: 1:5

STRUCTURAL NOTES:

GENERAL:

- THESE NOTES MUST BE READ IN CONJUNCTION WITH THE SPECIFICATIONS IN THE BILL OF QUANTITIES. WHERE DISCREPANCIES ARISE, SUCH DISCREPANCIES MUST BE DRAWN TO THE ATTENTION OF THE ENGINEER IMMEDIATELY, IN WRITING.
- ANY DISCREPANCIES IN DIMENSIONS AND SETTING OUT MUST BE REPORTED TO THE ENGINEER IMMEDIATELY, IN WRITING BEFORE CONSTRUCTION COMMENCES.
- ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THE ARCHITECT'S DRAWINGS.
- ALL WATER-PROOFING TO BE TO ARCHITECT'S DETAILS
- ALL WORK TO BE IN ACCORDANCE WITH THE NATIONAL BUILDING REGULATIONS.
- PLEASE NOTIFY ENGINEER FOR INSPECTION 24 HOURS BEFORE POURING OF CONCRETE.

FOUNDING:

- FOUNDATIONS ARE SUBJECT TO ALTERATIONS AS EXCAVATIONS PROCEED.
- NO FOUNDATIONS ARE TO BE CAST OR REINFORCEMENT FIXED UNTIL EXCAVATIONS HAVE BEEN APPROVED BY THE ENGINEER.
- DESIGN SOIL PRESSURE IS 75 KPa.

CONCRETE WORKS:

- EXCEPT WHERE MENTIONED OTHERWISE ON DRAWING NOTES THE CONCRETE WORK MUST CONFORM WITH THE CONDITIONS SET OUT IN SANS 10100 PART 2 AND SANS 1200 SECTION G.
- A SET OF THREE TEST CUBES MUST BE MADE OF EVERY 50m³ (OR PORTION THEREOF) OF EVERY GRADE OF CONCRETE POURED ON ANY SPECIFIC DAY CURED IN ACCORDANCE WITH THE METHODS SET OUT IN THE NBR AND TESTED BY LABORATORIES APPROVED BY THE ENGINEER.
- NO CONCRETE IS TO BE POURED BEFORE THE ENGINEER HAS INSPECTED AND APPROVED THE FIXING OF THE REINFORCEMENT.
- BREAKS IN CONCRETE AND CONSTRUCTION JOINTS ARE TO BE MADE ONLY WITH THE APPROVAL OF THE ENGINEER.
- SHOULD THERE BE A BREAK OF MORE THAN 45 MINUTES AT ANY TIME IN THE POURING OF CONCRETE, THIS FACT MUST BE DRAWN TO THE ATTENTION OF THE ENGINEER.
- SHUTTERING AND PROPPING MAY BE STRUCK ONLY AFTER THE LAPSE OF THE FOLLOWING TIMES, UNLESS OTHERWISE AUTHORISED:

SHUTTERING/PROPS	STRIKING TIMES (DAYS)
BEAM SIDES, WALLS AND UNLOADED COLS.	2
SLAB SOFFITS WITHOUT REMOVAL OF SLAB PROPS	4
BEAM SOFFITS WITHOUT REMOVAL OF BEAM PROPS	7
PROPS - UNLOADED SLABS	10
PROPS - UNLOADED BEAMS	14

7. CONCRETE COVER TO THE REINFORCEMENT TO BE:

STRUCTURAL ELEMENT	MIN. COVER (mm)
RAFT FOUNDATIONS	50
STRIP FOOTINGS	30
COLUMNS	30
BEAMS	25
SLABS	25
WALLS	30
RC RETAINING WALLS	40

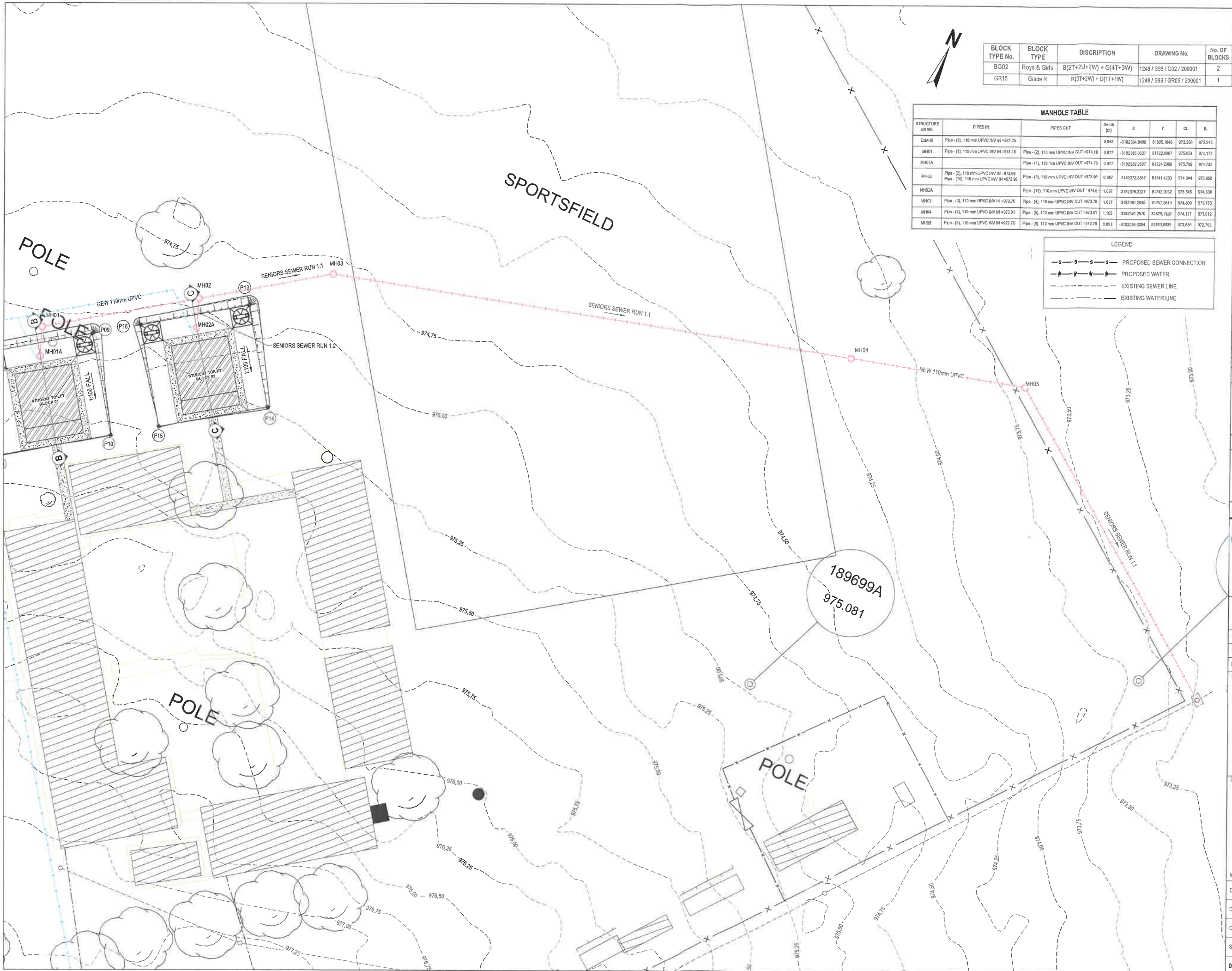
- SPACER BLOCKS, APPROVED BY THE ENGINEER, ARE TO BE USED TO MAINTAIN THE NECESSARY CONCRETE COVER TO THE REINFORCEMENT.
- CONCRETE STRENGTHS:
CONCRETE WORKS CUBE STRENGTH AT 28 DAYS TO BE AS FOLLOWS:

	MPa
BLINDING	15
FOUNDATIONS	25
COLUMNS	30
BEAMS AND SLABS	25

REINFORCING

- ALL REINFORCING TO BE HIGH TENSILE STEEL

0 50 100mm	
ORIGINAL SCALE	
TYPICAL STRUCTURAL DETAILS 1 OF 2	
FOR CONSTRUCTION	
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00	FOR CONSTRUCTION
REV	DESCRIPTION
00	FOR CONSTRUCTION
NGIH	22/08/2023
BY	DATE
CLIENT	
191 PRINCE ALFRED STREET PETERMARITZBURG 3209	
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APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS	
CAPACITY: DIRECTOR	
DATE: 04/03/2024	
Pr No: 200570114	
PROJECT	
KZN SCHOOLS WATER AND SANITATION PHASE 2 CLUSTER 5A	
DRAWING TITLE	
M.L SULTAN COLENSO PRIMARY SCHOOL TYPICAL STRUCTURAL DETAILS 1 OF 2 STRUCTURAL DETAILS	
EMIS No.: 189639	
WMIS No.: 059517	
DESIGNED: NN	DATE: 24/04/2019
DRAWN: NGIH	SHEET: 01/02
CHECKED: TK	REV: 00
SCALE: AS SHOWN	
DRAWING No: 1248 / S98 / 100101	



BLOCK TYPE No.	BLOCK TYPE	DISCRPTION	DRAWING No.	No. OF BLOCKS
BG02	Boys & Girls	B(2T+2U+2W) + G(4T+3W)	1248 / S98 / G02 / 200001	2
GR15	Grade R	R(3T+2W) + D(1T+1W)	1248 / S98 / GR05 / 200001	1

MANHOLE TABLE							
STRUCTURE NAME:	PIPES IN:	PIPES OUT	Depth (m)	X	Y	CL	IL
ExMH6	Pipe - (6), 110 mm UPVC INV IN +972.25		0.963	-3182364.8400	81895.1840	973.208	972.245
MH01	Pipe - (1), 110 mm UPVC INV IN +974.18	Pipe - (2), 110 mm UPVC INV OUT +974.19	0.877	-3182385.3027	81722.8067	975.054	974.177
MH01A		Pipe - (1), 110 mm UPVC INV OUT +974.73	0.977	-3182388.2897	81724.2386	975.790	974.732
MH02	Pipe - (2), 110 mm UPVC INV IN +973.99 Pipe - (10), 110 mm UPVC INV IN +973.96	Pipe - (3), 110 mm UPVC INV OUT +973.96	0.987	-3182372.3557	81741.4733	974.944	973.950
MH02A		Pipe - (19), 110 mm UPVC INV OUT +974.5	1.037	-3182376.3227	81742.9032	975.545	974.508
MH03	Pipe - (3), 110 mm UPVC INV IN +973.76	Pipe - (6), 110 mm UPVC INV OUT +973.76	1.037	-3182361.2085	81757.3619	974.800	973.783
MH04	Pipe - (4), 110 mm UPVC INV IN +973.91	Pipe - (5), 110 mm UPVC INV OUT +973.01	1.165	-3182341.2570	81629.7807	974.177	973.012
MH05	Pipe - (5), 110 mm UPVC INV IN +972.76	Pipe - (5), 110 mm UPVC INV OUT +972.76	0.893	-3182334.6064	81853.8839	973.655	972.762

LEGEND	
—S—S—S—	PROPOSED SEWER CONNECTION
—W—W—W—	PROPOSED WATER
---	EXISTING SEWER LINE
---	EXISTING WATER LINE

NOTES:
1. FINAL POSITIONING OF NEW ABLUTION BLOCKS TO BE CONFIRMED WITH THE PRINCIPAL AND VERIFIED ON SITE BY THE ENGINEER PRIOR TO CONSTRUCTION.
FOR PLATFORM SECTIONS SEE DRAWING 100002

LEGEND	
M	MALE ABLUTIONS
F	FEMALE ABLUTIONS
D	DISABLED ABLUTIONS
G	GIRLS ABLUTIONS
B	BOYS ABLUTIONS
R	GRADE R ABLUTIONS
U	URINAL
T	TOILET SEAT
W	WASH BASIN
[Symbol]	NEW ABLUTION BLOCKS
[Symbol]	CONTROL POINT

CONTROL WG31			
	±0.00V	±0.00X	Z
189699A	-31836.140	3182369.670	975.061
189699B	-31896.358	3182365.909	973.682
189699C	-31770.494	3182282.459	973.698
189699D	-31677.587	3182361.036	974.194
189699E	-31753.163	3182368.965	976.745

01	REVISED TO SUIT NEW DESIGN CONCEPT	NGIH	19/03/2024
00	FOR CONSTRUCTION	NGIH	22/09/2023
B	GEN. AMENDMENTS TO SURVEYORS DETAIL	NGIH	11/04/2017
A	FOR TENDER	NN	20/05/2016
REV	DESCRIPTION	BY	DATE

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APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS

CAPACITY : DIRECTOR
DATE : 19/03/2024
Pr No : 200570114

PROJECT

**KZN SCHOOLS
WATER AND SANITATION**

**PHASE 2
CLUSTER 5A
CLUSTER GROUP 04**

DRAWING TITLE

**M.L SULTAN COLENZO PRIMARY
SCHOOL NEW SEWER AND
WATER OPTION 3**

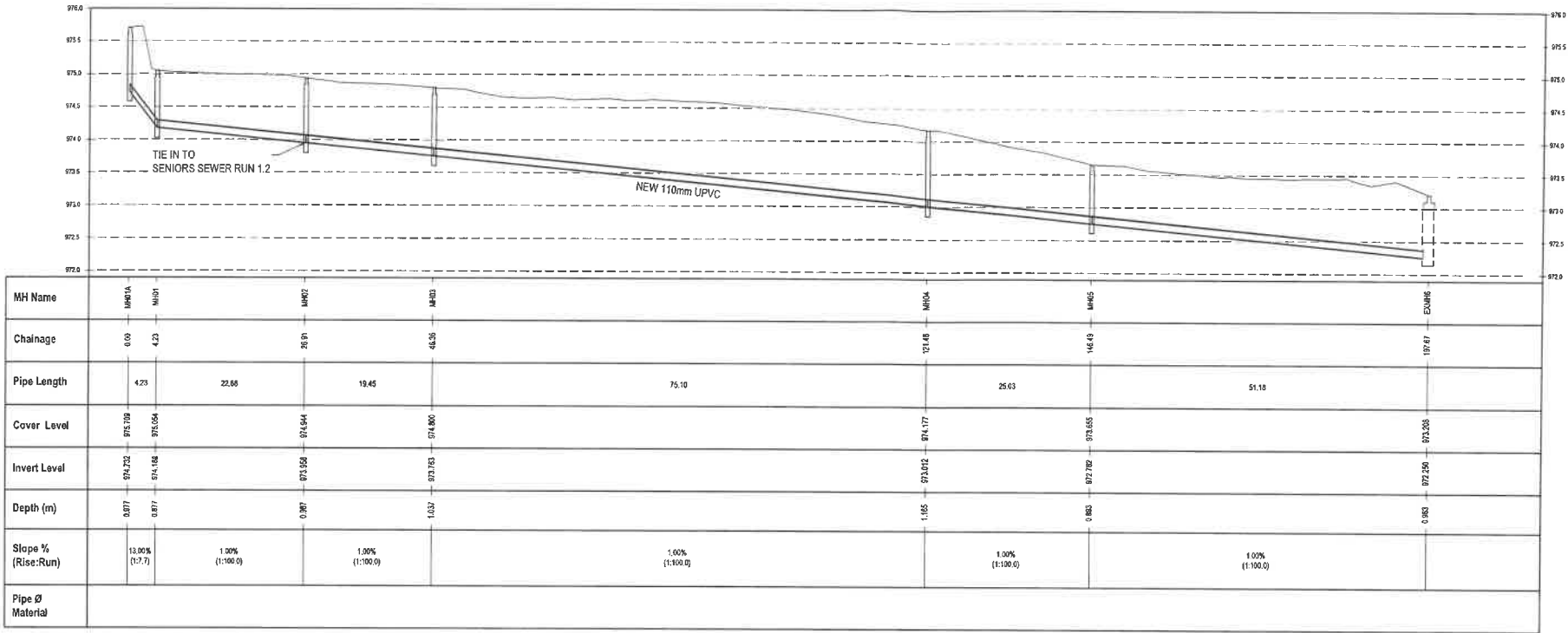
STRUCTURAL DETAILS

WMIS No.: 059517 EMIS No.: 189699

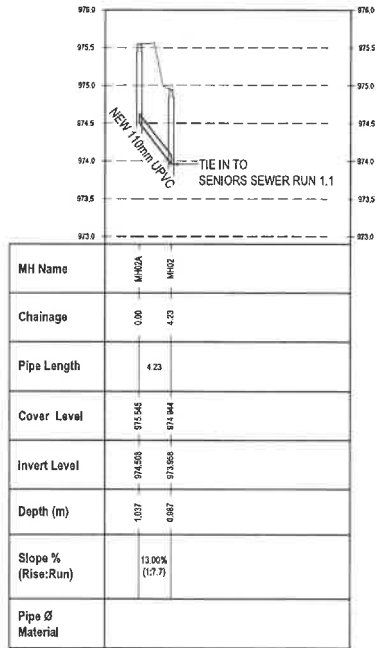
DESIGNED : TK	DATE : MAY 2016
DRAWN : NGIH	SHEET : 01
CHECKED : TK	REV : 01

SCALE : 1:250

DRAWING No : 1248/S98 / 100331



SENIORS SEWER RUN 1.1 LONG SECTION
VERTICAL SCALE: 1:50
HORIZONTAL SCALE: 1:500



SENIORS SEWER RUN 1.2 LONG SECTION
VERTICAL SCALE: 1:50
HORIZONTAL SCALE: 1:500

50 100mm

ORIGINAL SCALE

NOTES:
1. FINAL POSITIONING OF NEW ABLUTION BLOCKS TO BE CONFIRMED WITH THE PRINCIPAL AND VERIFIED ON SITE BY THE ENGINEER PRIOR TO CONSTRUCTION.
FOR PLATFORM SECTIONS SEE DRAWING 100302

LEGEND

M - MALE ABLUTIONS
F - FEMALE ABLUTIONS
D - DISABLED ABLUTIONS
G - GIRLS ABLUTIONS
B - BOYS ABLUTIONS
R - GRADE R-ABLUTIONS
U - URINAL
T - TOILET SEAT
W - WASH BASIN

NEW ABLUTION BLOCKS
CONTROL POINT

REV	DESCRIPTION	BY	DATE
01	REVISED TO SUIT NEW DESIGN CONCEPT	NGIH	19/03/2024
00	FOR CONSTRUCTION	NGIH	22/09/2023

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APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS

CAPACITY: DIRECTOR

DATE: 19/03/2024

Pr No: 200570114

PROJECT

KZN SCHOOLS
WATER AND SANITATION

PHASE 2
CLUSTER 5A
CLUSTER GROUP 04

DRAWING TITLE

SEWER LONG SECTIONS OPTION
3

WMIS No.: 059517

EMIS No.: 189699

DESIGNED: NN

DATE: MAY 2016

DRAWN: NGIH

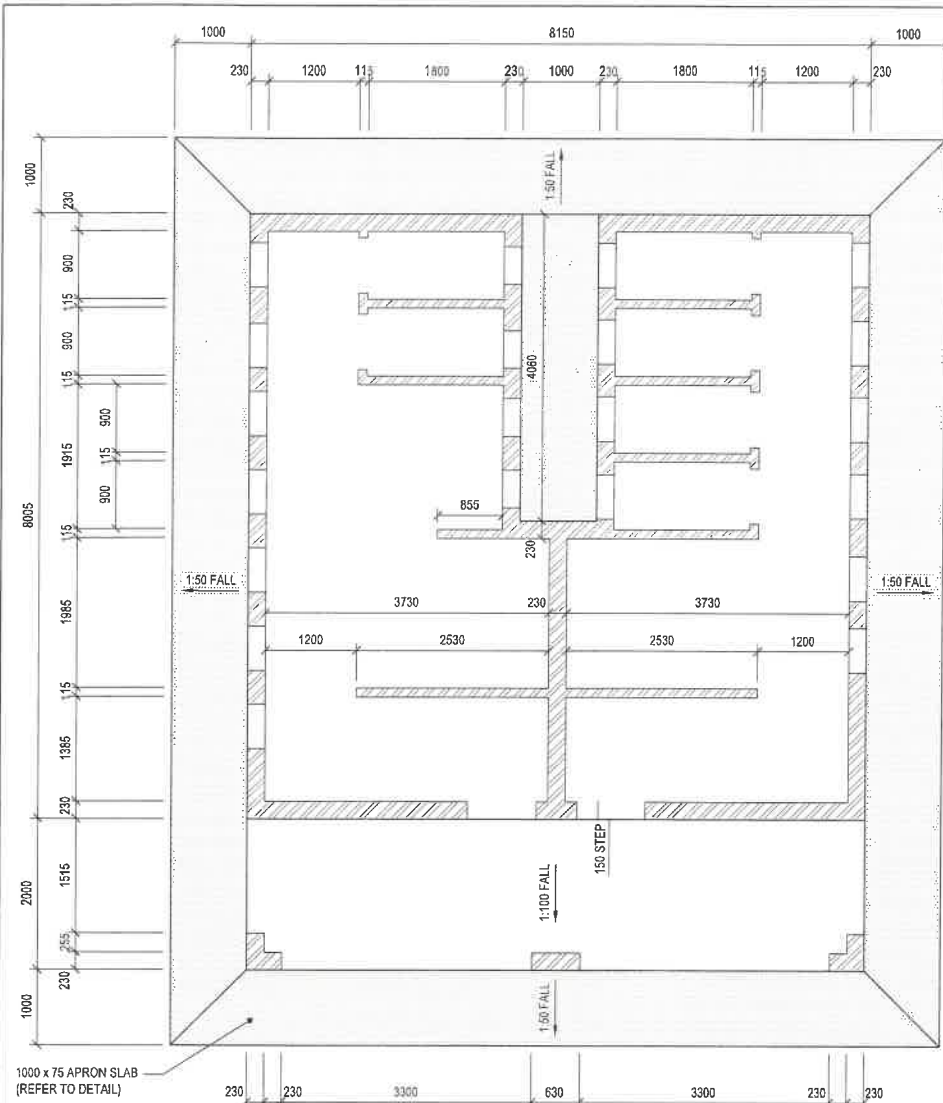
SHEET: 01

CHECKED: TK

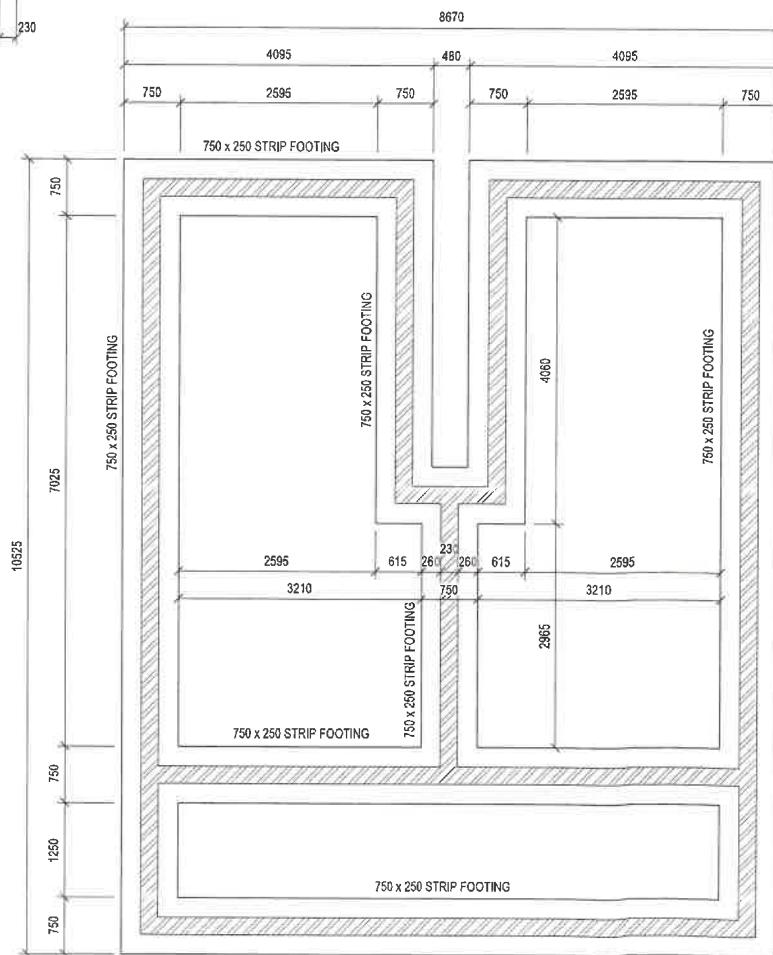
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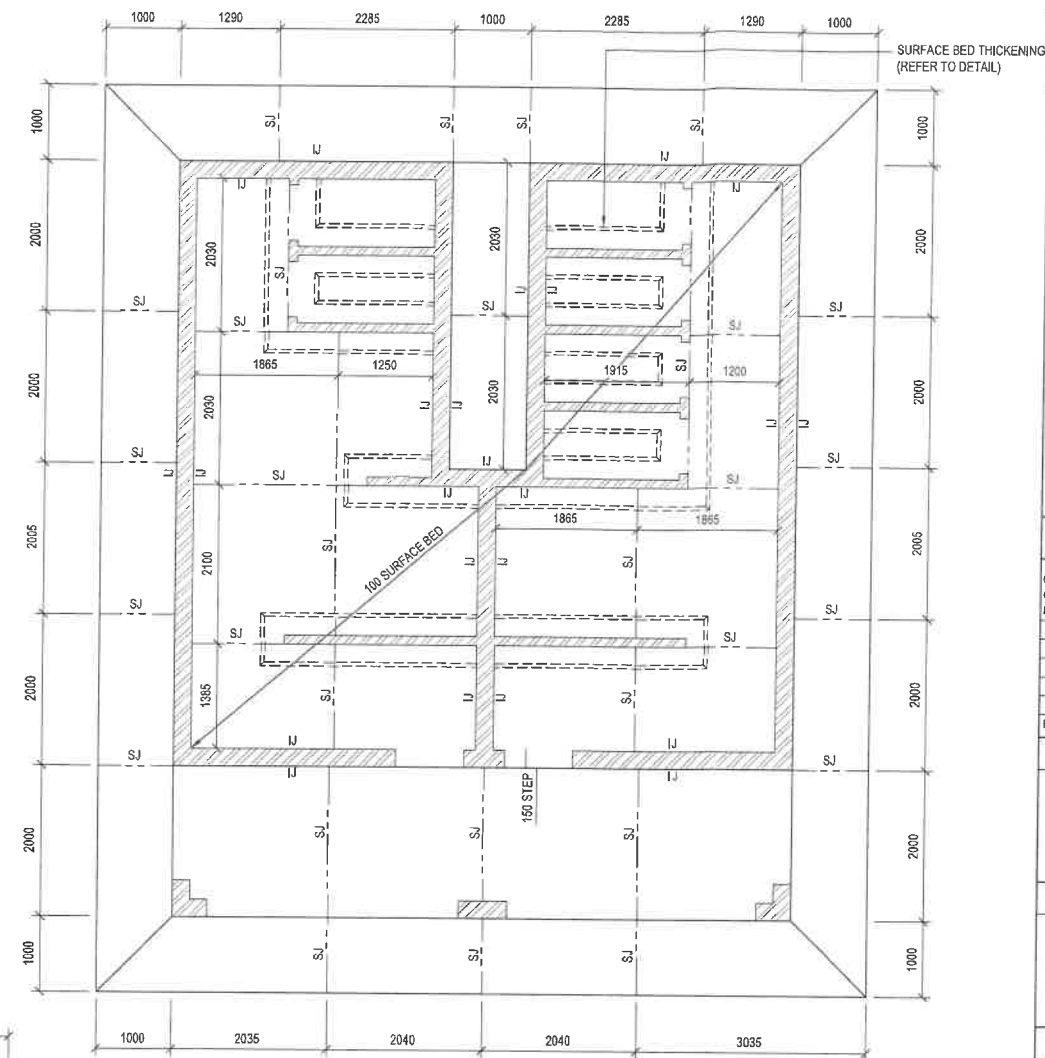
DRAWING No: 1248/S98 / 100332



PLAN
SCALE: 1:50

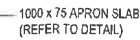


FOUNDATION LAYOUT
SCALE: 1:50



SURFACE BED LAYOUT
SCALE: 1:50

50100mm	
ORIGINAL SCALE	
BOYS AND GIRLS B(2T+2U+2W)+G(4T+3W)	
NOTE: FOR GENERAL NOTES, CONCRETE COVER & STRENGTH, AND TYPICAL SLAB DETAILS SEE DRAWINGS NO. 1248/S98/100101 AND 1248/S98/100102	
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REV	DESCRIPTION
NGIH	28/02/2024
BY	DATE
CLIENT	
191 PRINCE ALFRED STREET PEETERMARITZBURG 5206 TEL.: (033) 266-4052 FAX.: (033) 682-1720	
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IMPLEMENTING AGENT	
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APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS	
CAPACITY : DIRECTOR	
DATE :	
Pr No : 200570114	
PROJECT	
KZN SCHOOLS WATER AND SANITATION PHASE 2 CLUSTER 5A	
DRAWING TITLE	
M.L SULTAN COLENZO PRIMARY SCHOOL BLOCK TYPE - BG02 STRUCTURAL DETAILS	
EMIS No. : 189699	WMIS No. : 059517
DESIGNED : SD	DATE : 28/02/2024
DRAWN : NGIH	SHEET : 01/01
CHECKED : TK	REV : 00
SCALE : AS SHOWN	
DRAWING No : 1248 / S98 / BG02 / 200001	

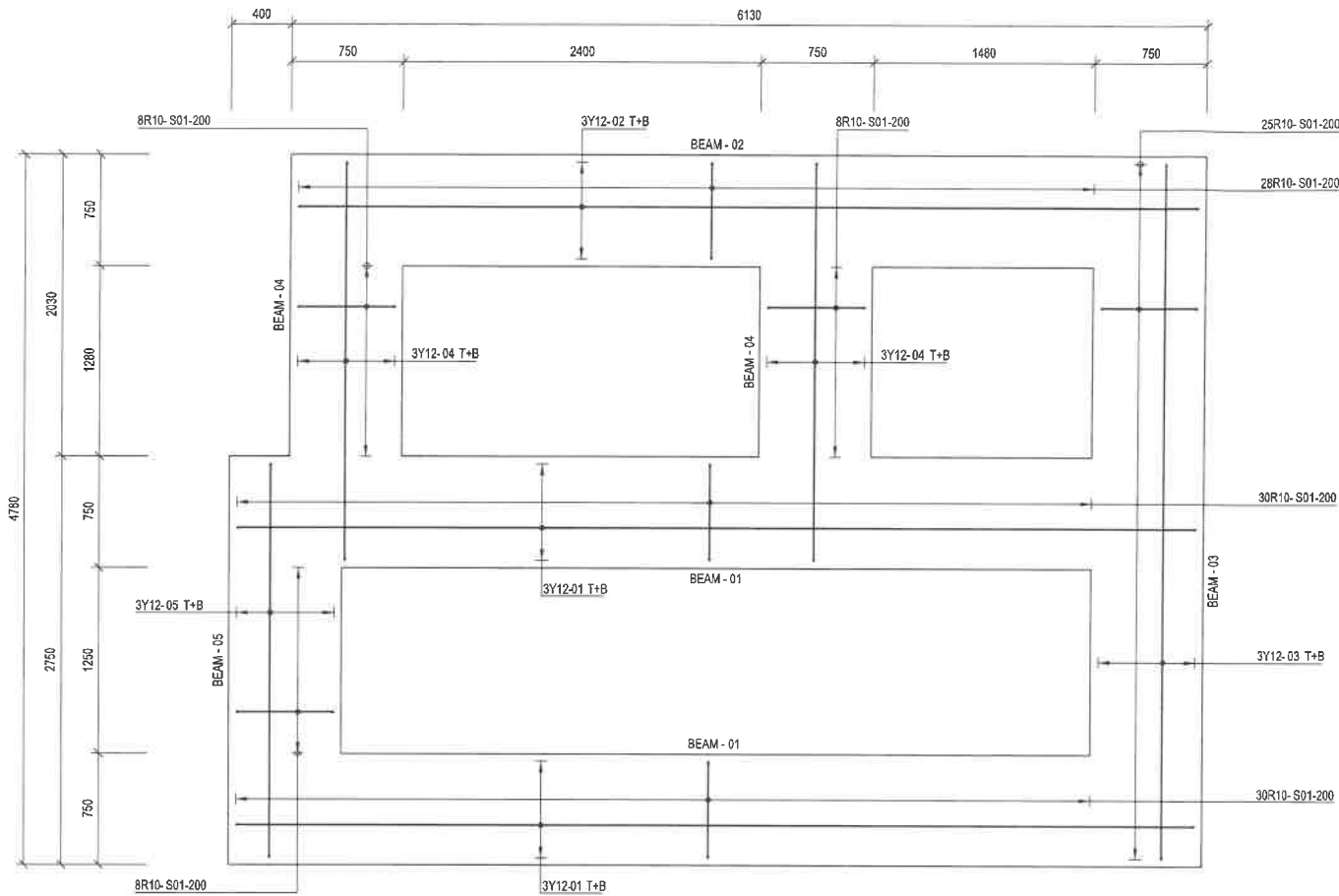


SURFACE BED LAYOUT
SCALE: 1:50

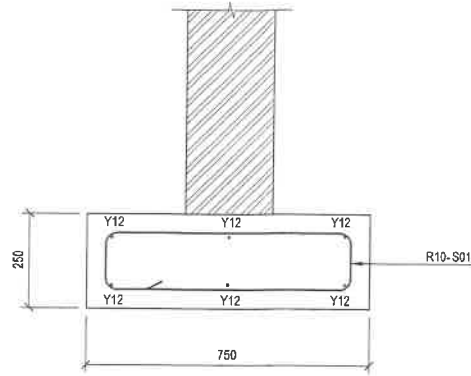


FOUNDATION LAYOUT
SCALE: 1:50



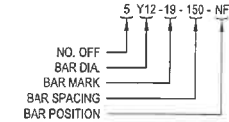


STRIP FOOTING REBAR DETAIL
N.T.S.



TYPICAL SECTION THROUGH STRIP FOOTING
Scale: 1:10

- GENERAL NOTES:
1. ALL CONCRETE STRENGTH IS TO BE 30MPa/19, UNLESS OTHERWISE STATED.
 2. ALL CONCRETE COVER TO REINFORCEMENT IS TO BE 50mm, UNLESS OTHERWISE STATED.
 3. REINFORCEMENT TO BE INSPECTED AND APPROVED BY ENGINEER BEFORE CASTING OF CONCRETE
 4. RE-BAR CALL OFF LEGEND:

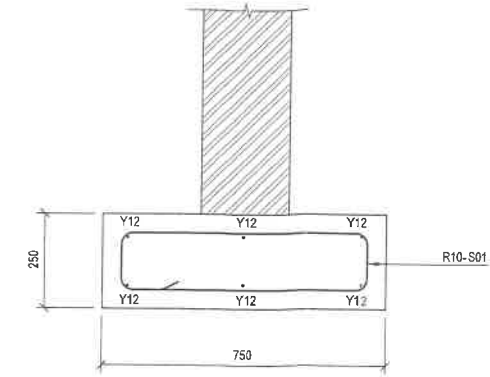


- ABBREVIATIONS:
- | | |
|------------------|-------------------------------|
| NF - NEAR FACE, | T - TOP |
| IF - INSIDE FACE | B - BOTTOM |
| FF - FAR FACE, | STG - STAGGERED |
| EF - EACH FACE | ABR - ALTERNATE BARS REVERSED |

MEMBER	NO OF	TYPE DIA	BAR MARK	NO BARS	TOTAL	CUT LENGTH	SHAPE CODE	A	B	C	D	E/R
BEAM - 01	2	Y12	01	6	12	6610	38	120	6430	120		
	2	R10	S01	30	60	1740	60	150	650			
BEAM - 02	1	Y12	02	6	6	6200	38	120	6020	120		
	1	R10	S01	28	28	1740	60	150	650			
BEAM - 03	1	Y12	03	6	6	4850	38	120	4670	120		
	1	R10	S01	25	25	1740	60	150	650			
BEAM - 04	2	Y12	04	6	12	2850	38	120	2670	120		
	2	R10	S01	8	16	1740	60	150	650			
BEAM - 05	1	Y12	05	6	6	2830	38	120	2650	120		
	1	R10	S01	8	8	1740	60	150	650			

	6	8	10	12	16	20	25	32	40	TOTAL
R			147							147
Y				175						175
TOTAL			147	175						322

050100mm	
ORIGINAL SCALE	
GRADE R R(3T+2W)+D(1T+1W) REBAR	
NOTE: FOR GENERAL NOTES, CONCRETE COVER & CONCRETE STRENGTH SEE DRAWING NO.: 1248/S98/100001	
FOR CONSTRUCTION	
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REV	DESCRIPTION
NGH	28/02/2024
BY	DATE
CLIENT	
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APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS	
CAPACITY : DIRECTOR	
DATE : 04/03/2024	
Pr No : 200570114	
PROJECT	
KZN SCHOOLS WATER AND SANITATION PHASE 2 CLUSTER 5A	
DRAWING TITLE	
M.L. SULTAN COLENZO PRIMARY SCHOOL GRADE R R(3T+2W)+D(1T+1W) REBAR REINFORCING DETAILS	
EMIS No.: 189699	
WMIS No.: 059617	
DESIGNED : SD	DATE : 28/02/2024
DRAWN : NGH	SHEET : 02/02
CHECKED : TK	REV : 00
SCALE : AS SHOWN	
DRAWING No : 1248 / S98 / 200101	



GENERAL NOTES:

1. ALL CONCRETE STRENGTH IS TO BE 30MPa/19, **UNLESS OTHERWISE STATED.**
2. ALL CONCRETE COVER TO REINFORCEMENT IS TO BE 50mm, **UNLESS OTHERWISE STATED.**
3. REINFORCEMENT TO BE INSPECTED AND APPROVED BY ENGINEER BEFORE CASTING OF CONCRETE
4. RE-BAR CALL OFF LEGEND:

ABBREVIATIONS:

NF - NEAR FACE,	T - TOP
INSIDE FACE,	B - BOTTOM
FF - FAR FACE,	STG - STAGGERED
EARTH FACE	ABR - ALTERNATE BARS
EF - EACH FACE	REVERSED

MEMBER	NO OF	TYPE DIA	BAR MARK	NO BARS	TOTAL	CUT LENGTH	SHAPE CODE	A	B	C	D	E/R
BEAM - 01	2	Y12	01	6	12	10600	38	120	10420	120		
	2	R10	S01	54	108	1740	60	150	650			
BEAM - 02	2	Y12	02	6	12	8740	38	120	8560	120		
	2	R8	S01	37	74	1760	60	150	650			
BEAM - 03	2	Y12	03	6	12	4170	38	120	3990	120		
	2	R8	S01	14	28	1760	60	150	650			
BEAM - 04	2	Y12	04	6	12	4890	38	120	4710	120		
	2	R10	S01	22	44	1740	60	150	650			
BEAM - 05	1	Y12	05	6	6	2060	38	120	1880	120		
	1	R6	S01	11	11	1760	60	150	650			
BEAM - 06	1	Y12	06	6	6	4540	38	120	4360	120		
	1	R10	S01	16	16	1740	60	150	650			

	6	8	10	12	16	20	25	32	40	TOTAL
R	44		180							224
Y				338						338
TOTAL			180	338						562

0 50 100mm ORIGINAL SCALE							
BOYS AND GIRLS B(2T+2U+2W)+G(4T+3W) REBAR							
NOTE: FOR GENERAL NOTES, CONCRETE COVER & CONCRETE STRENGTH SEE DRAWING NO.: 1248/S98/100/01							
FOR CONSTRUCTION							
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00	FOR CONSTRUCTION	NGIH	28/02/2024				
REV	DESCRIPTION	BY	DATE				
CLIENT							
191 PRINCE ALFRED STREET PEETERMARITZBURG 3200 TEL.: (013) 290-4052 FAX.: (013) 682-1720		 Department of Public Works REPUBLIC OF SOUTH AFRICA public works					
IMPLEMENTING AGENT							
12 CHURCH STREET DANNHAUSER 3538 TEL.: (034) 621-2484 FAX.: (034) 621-2194		 S. RAMODIGLAM & ASSOCIATES S. RAMODIGLAM & ASSOCIATES					
CONSULTANT							
 DARTINGO CONSULTING ENGINEERS (Pty) Ltd. CONSULTING CIVIL & STRUCTURAL ENGINEERS							
64 Underwood Road Pinetown 3610		P O Box 65596 Reservoir Hills 4090		Tel: 031 - 2660903 Fax: 031 - 2560906 Email: admin@dartingo.co.za			
APPROVED ON BEHALF OF DARTINGO CONSULTING ENGINEERS							
CAPACITY: DIRECTOR							
DATE:							
Pr No: 200570114							
PROJECT							
KZN SCHOOLS WATER AND SANITATION PHASE 2 CLUSTER 5A							
DRAWING TITLE							
M.L SULTAN COLENZO PRIMARY SCHOOL BLOCK TYPE - BG02 REINFORCING DETAILS							
EMIS No.: 189699				VIMS No.: 05917			
DESIGNED: SD				DATE: 28/02/2024			
DRAWN: NGIH				SHEET: 01/02			
CHECKED: TK				REV: 00			
SCALE: AS SHOWN							
DRAWING No.: 1248 / S98 / BG02 / 200101							