



Rural development & agrarian reform

Department:
Rural Development & Agrarian Reform
PROVINCE OF THE EASTERN CAPE

BID FOR THE CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

LOCATION: TSOLO

VOLUME 4 – DRAWINGS & DETAILS

BID NO - SCMU8-22/23-0063

Head Office: Supply Chain Management Private Bag X 0040 Bhisho 5605 Contact: Name: Nosibusiso Mateta Telephone: 040 605 5263 / 079 505 9722	Consultants: Intsika Architects & Principal Agents 1 st Floor, Leadwood House, Cedarsquare Bonza Bay Road, Beacon Bay, East London 5241 Contact: Name: Rob Gillard Telephone: 043 748 2949
Tenderer	
CSD Number:	
OGIS Number:	
Preference Points Claimed:	
Closing date on tender: Thursday 3rd November 2022 Time at: 11:00 am	

CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL
AND RURAL DEVELOPMENT INSTITUTE
FOR
DEPARTMENT OF RURAL DEVELOPMENT AND AGRARIAN REFORM



TABLE OF CONTENTS

VOLUME 1	TENDERING PROCEDURES
	T1.1 Notice and Invitation to Tender
	T1.2 Tender Data
	T1.3 Standard Conditions of Tender
VOLUME 2	RETURNABLE DOCUMENTS
	T2.1. List of Returnable Documents
	T2.2 Returnable Schedules required only for Tender Evaluation Purposes
	T2.2. Other Documents required only for Tender Evaluation Purposes
	T2.2 Returnable Schedules that will be incorporated into the Contract
	T2.2 Other Documents that will be incorporated into the Contract
	C1.1 Form of Offer and Acceptance
	C1.2 Contract Data (Data provided by the Contractor)
	<i>C2. Pricing Data</i>
	C2.1 Pricing Instructions
	C2.2 Bills of Quantities
VOLUME 3	THE CONTRACT
	<i>C1 Agreement and Contract Data</i>
	C1.2 Contract Data
	C1.2 Occupational Health and Safety Agreement
	C1.3 Form of Guarantee
	<i>C2. Pricing Data</i>
	C2.1 Pricing Instructions
	<i>C3 Scope of Work</i>
	C3.1 Scope of Work
	<i>C3.2 SPECIFICATIONS - Particular and Generic Specifications</i>
	C3.2.1 Architectural Specifications
	C3.2.2 Electrical Detailed Project Specific Specifications
	C3.2.3 Occupational Health and Safety Specification
	C3.2.4 HIV/AIDS Specification
	C3.2.5 Environmental Management Plan
	C3.2.6 Local Content Guidelines & Completed Example of Template
	<i>C4 Site Information</i>
	C4.1 Site Information
VOLUME 4	DRAWINGS AND DETAILS
	<i>C5 DRAWINGS</i>
	C5.1 Schedule of Contract Drawings

PART C5: DRAWINGS & DETAILS

**EASTERN CAPE PROVINCIAL GOVERNMENT
DEPARTMENT OF RURAL DEVELOPMENT AND AGRARIAN REFORM**

**BID FOR THE CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO
AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE AT TSOLO**

C.5.1 Schedule of Contract Drawings

The following drawings form part of this contract:

Architectural Drawings:

DRAWING NUMBER	DESCRIPTION
253 A.01.1	Site Locality Plan
253 A.01.2	Site Plan
253 A.01.3	Floor Plans
253 A.01.4	Elevations
253 A.01.5	Sections
253 A.02.1	Kitchen Joinery Schedule
253 A.01.6.1.1 – 6.1.9	Door Schedules D01 – D09
253 A.01.6.2.1 – 6.2.4	Window Schedules W01 – W04
253 A.01.6.3.1 – 6.3.2	Shop Front 01 – Shop Front 04
-	Glazed Stainless Steel Balustrades

Civil Drawings:

DRAWING NUMBER	DESCRIPTION
34435-CIV-0	Survey Layout
34435-CIV-1	Civil Services Layout
34435-CIV-2	Earthworks Layout
34435-DET-1	Standard Details
34435-DET-2	Water Meter & Isolating Valve Chamber Details

Structural Drawings:

DRAWING NUMBER	DESCRIPTION
D34435S – 200-01 Rev A	Structural General Notes
D34435S – 201-01 Rev A	Foundations
D34435S – 201-02 Rev A	Surface Beds
D34435S – 201-03 Rev A	First Floor Slabs
D34435S – 202-01 Rev A	Building Sections
D34435S – 210-01 Rev A	Steel Roof Layout
D34435S – 210-02 Rev A	Sliding Gate
D34435S – 210-03 Rev A	Steel Stairs
D34435S – 211-01 Rev A	Steel Roof Sections & Details
D34435S – 220-01 Rev B	Timber Roof & Stage

Electrical Drawings:

DRAWING NUMBER	DESCRIPTION
D34435.00-340-01 Rev A	Fire Detection Layout
D34435.00-350-01 Rev A	Lightning Protection Layout
D34435.00-370-01 Rev A	GF Small Power Layout
D34435.00-370-02 Rev A	Balcony Small Power Layout
D34435.00-380-01 Rev A	Electrical Lighting Layout
D34435.00-380-02 Rev A	FF Electrical Lighting Layout
D34435.00-380-03 Rev A	General Area Electrical Lighting Layout

Mechanical Drawings:

DRAWING NUMBER	DESCRIPTION
34435.00-720-01	Fire Layout
34435.00-741-01	HVAC Layout

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All work and material used to comply with SARS standards and NATIONAL BUILDING REGULATIONS ACT 103 of 1977 and amendments thereto as well as the by-laws of the relevant local authority.

All new construction HEALTH AND SAFETY Regulations to be strictly complied with.

REVISIONS

RevID	ChID	Change Name	Date

PROJECT TEAM

Principal Consultant / Architect:
INTSIKA Architects (Pty) Ltd.
 Phone (+27) 043 748 2949
 Cell (+27) 082 572 8748
 Fax (+27) 043 748 1702
 E-Mail rob@intsika.com
 Web www.intsika.com

1st Floor, Leadwood House, Cedarsquare
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Quantity Surveyors:
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 Cell: 0824921695
 E-mail: willem@biswi.co.za

Structural, Civil, Mechanical & Electrical Engineers:
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 E-mail: Werner@bvi.co.za

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rural development & agrarian reform
 Department of Rural Development & Agrarian Reform
OFFICE OF THE DIRECTOR: ENGINEERING SERVICES

PROJECT

300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE.

LOCATION

FARM NO: 61
 Tsoilo

ISSUED FOR

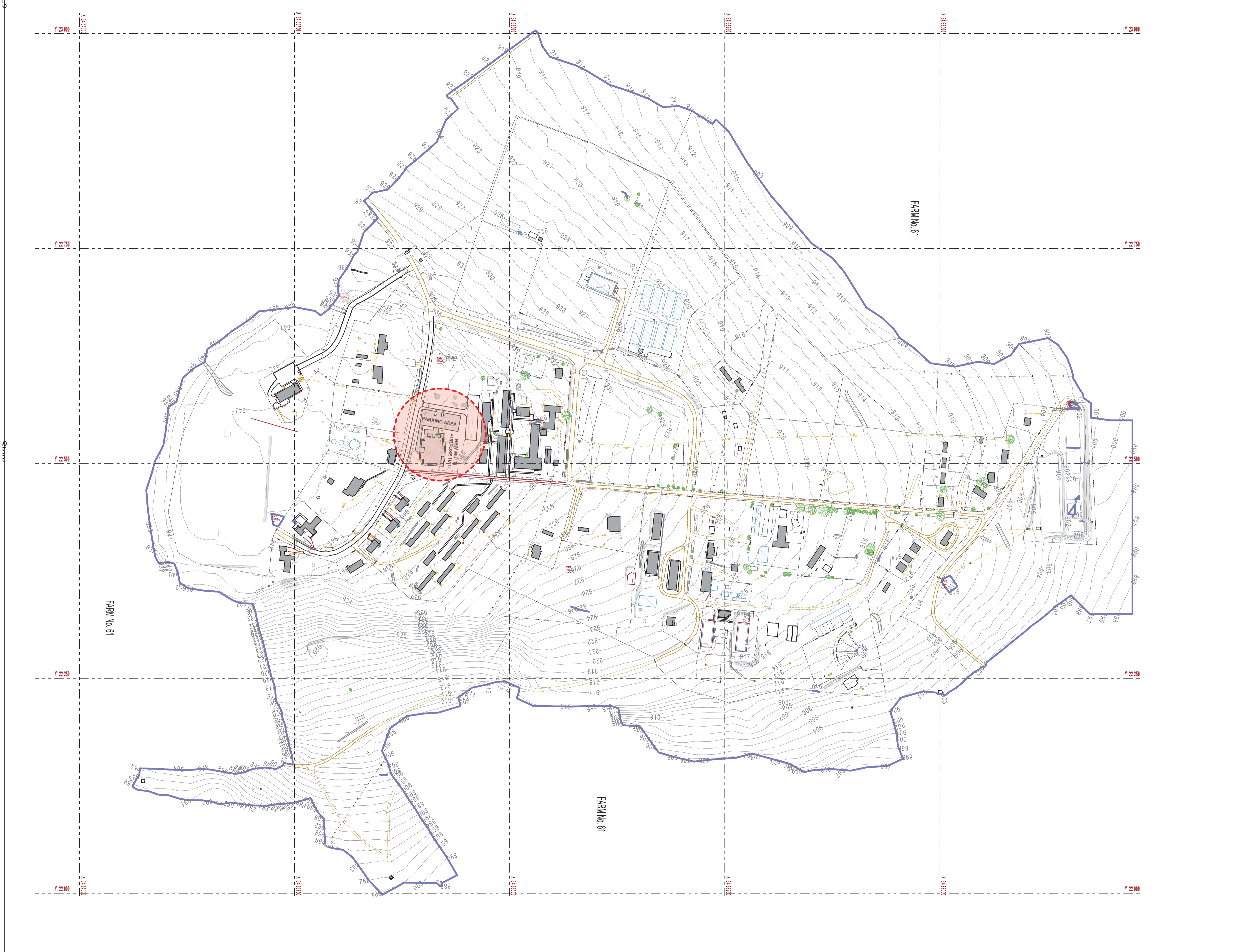
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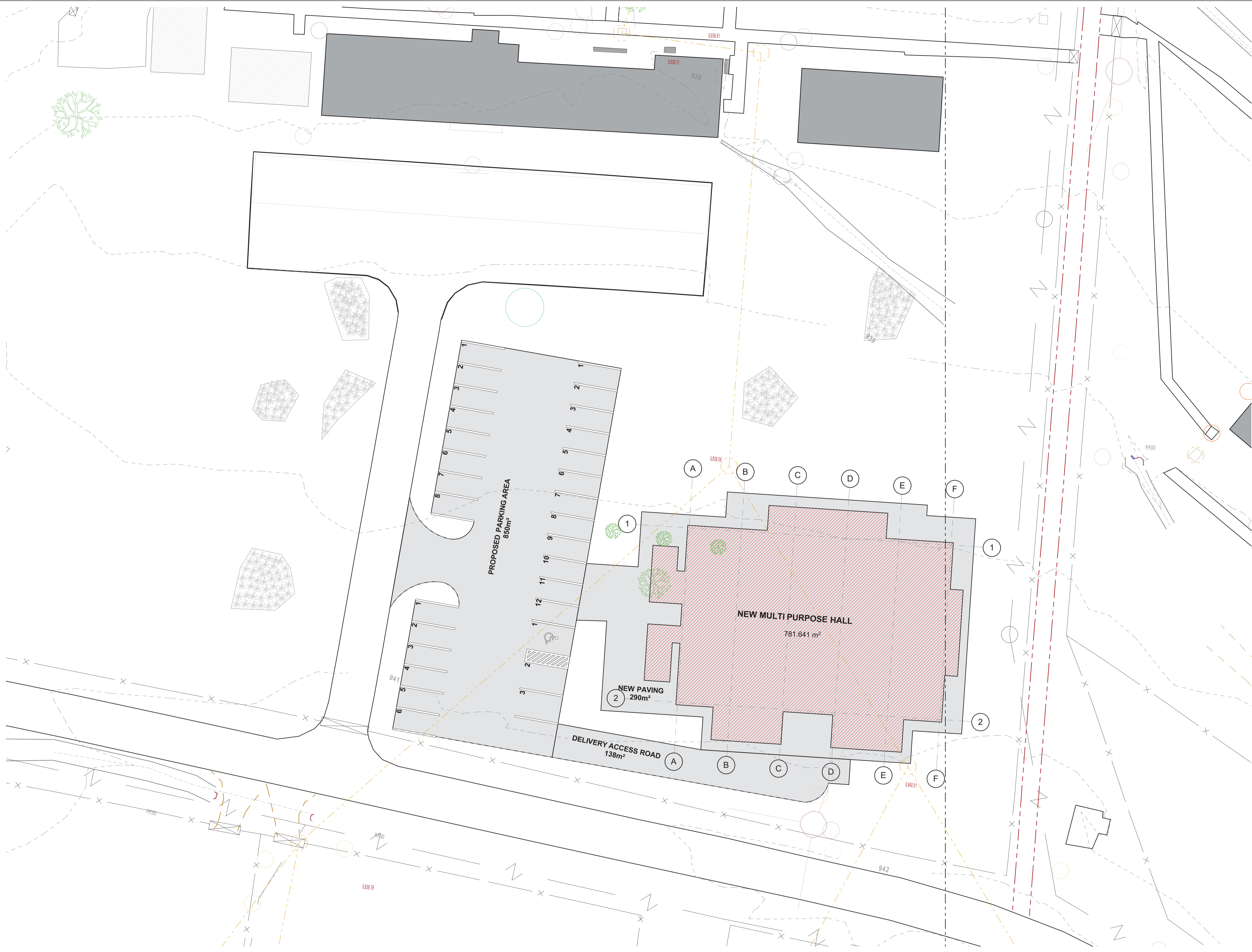
DRAWING

SITE LOCALITY PLAN

PROJECT NO.	253
DRAWING NO.	A.01.1
Scale:	See Drawing
Date:	10/22/2021
DRAFTING AND DESIGN TEAM	
Drawn by:	Cobus Gouws
Checked by:	Cobus Gouws

APPROVAL DRAWING	
Name: J.J. Gouws	SACAP No. 21345
Signed:	Date:
Practice: Intsika Architects	SAA No. P13725





-1.

Story (2)

This drawing is property of Intsika Architects (Pty) Ltd. Copyright is reserved by them and the drawing is issued on the condition that it is not copied, reproduced, required or disclosed to any unauthorized person, without consent of Intsika Architects (Pty) Ltd.

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OFFICE OF THE DIRECTOR: ENGINEERING SERVICES

PROJECT

300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE.

LOCATION

FARM NO: 61
Tsolo

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TENDER

DRAWING

SITE PLAN

PROJECT NO.	253
DRAWING NO.	A.012
Scale:	See Drawing
Date:	10/22/2021
DRAFTING AND DESIGN TEAM	
Drawn by:	Cobus Gouws
Checked by:	Cobus Gouws

APPROVAL DRAWING

Name: J.J. Gouws SACAP No. 21345
Signed: Date:
Practice: Intsika Architects SAIA No. P13725

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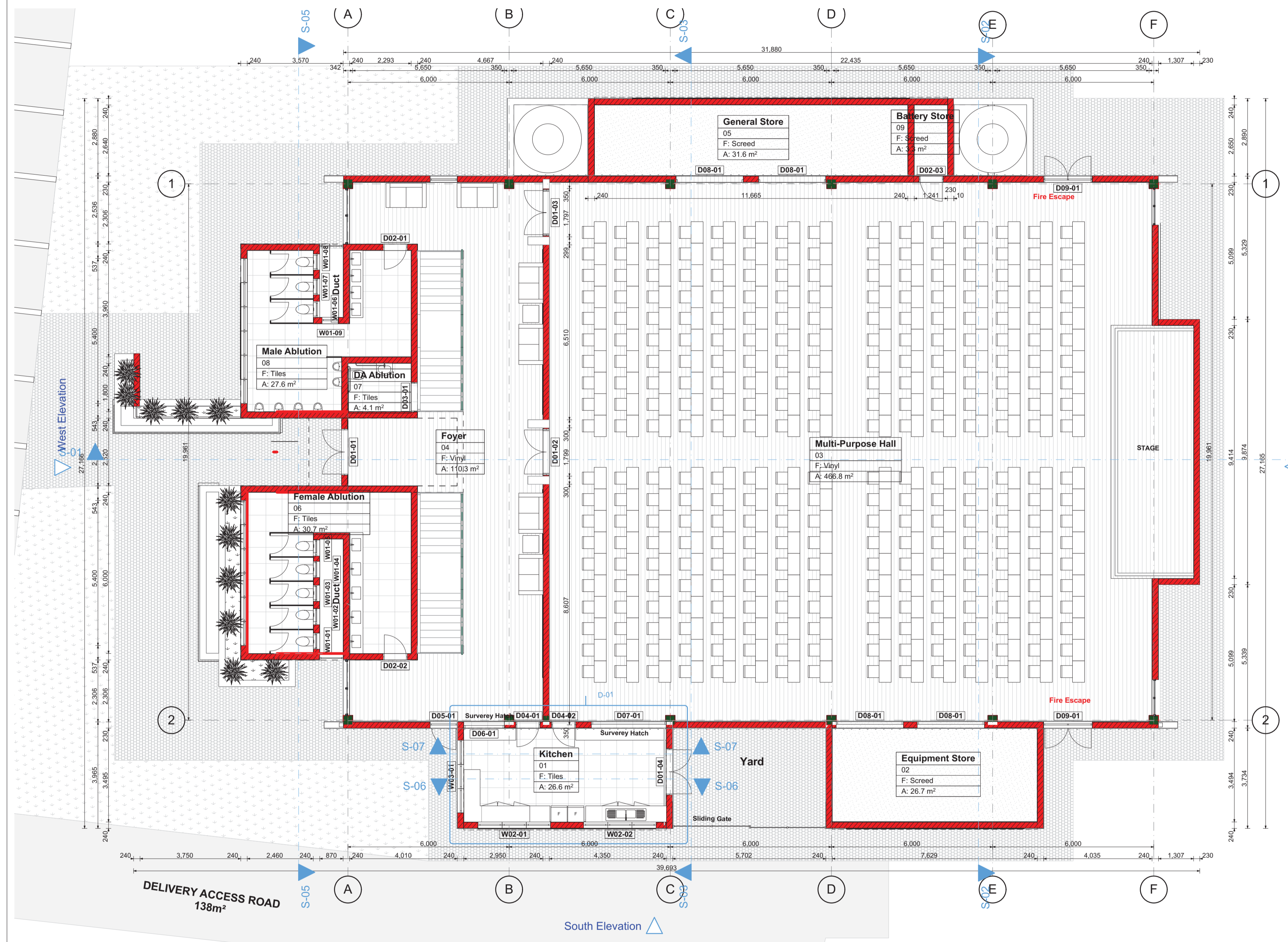
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FLOOR PLANS

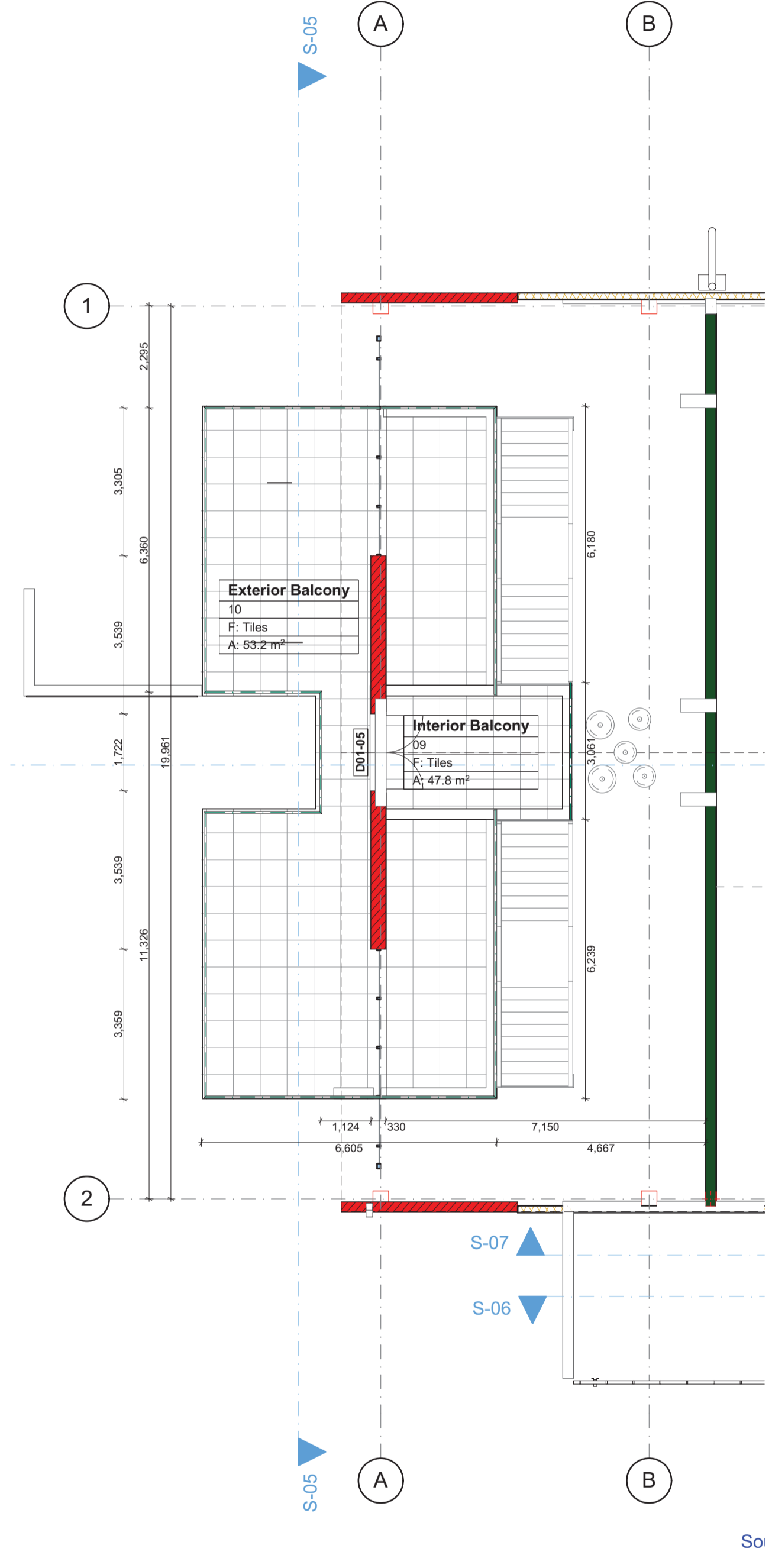
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DRAWING NO.	A.01.3
Scale:	See Drawing
Date:	10/22/2021
DRAFTING AND DESIGN TEAM	
Drawn by:	Cobus Gouws
Checked by:	Cobus Gouws

APPROVAL DRAWING

Name: J.J. Gouws	SACAP No. 21345
Signed:	Date:
Practice: Intsika Architects	SAIA No. P13725



0. Ground Floor 1:100



1. Story 1:100

East Elevation
S-01

0.

1.

So

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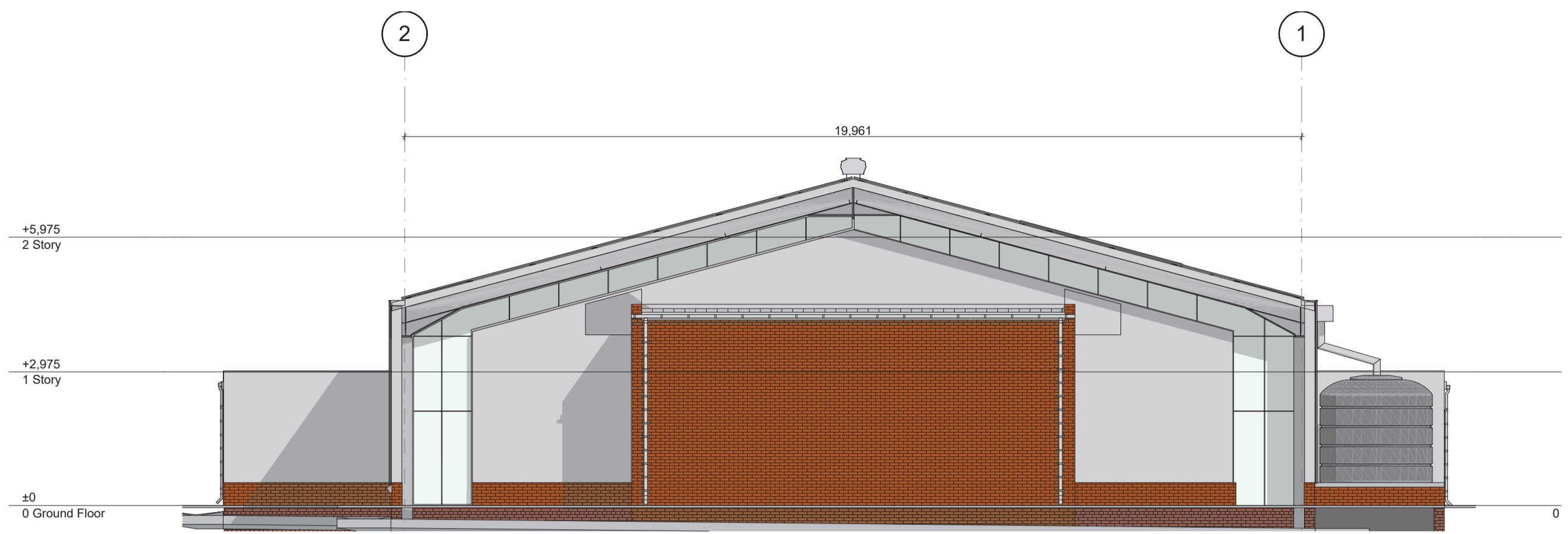
ISSUED FOR

TENDER

DRAWING

ELEVATIONS

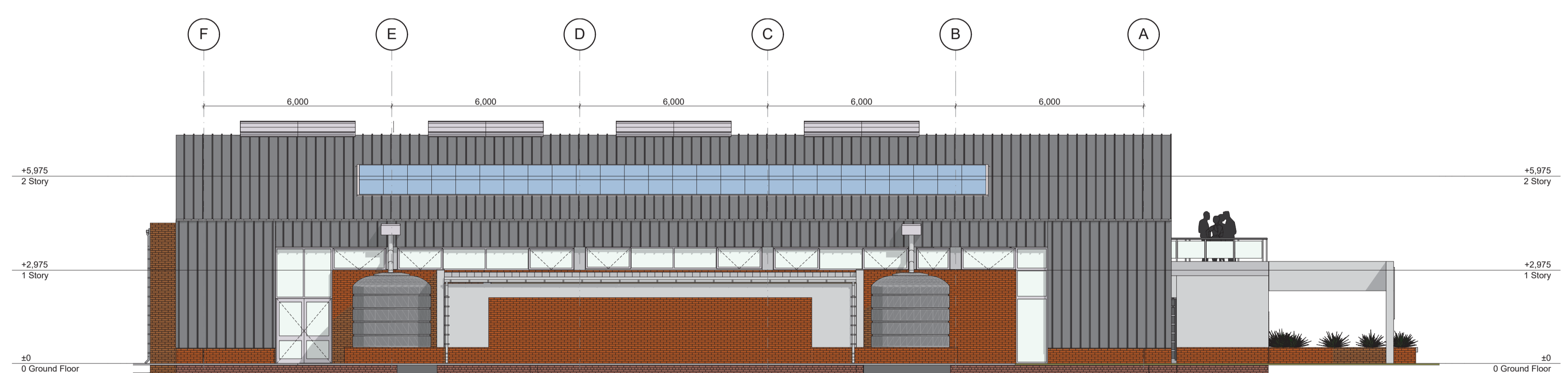
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DRAWING NO:	A.014
Scale:	See Drawing
Date:	10/22/2021
DRAFTING AND DESIGN TEAM	
Drawn by:	Cobus Gouws
Checked by:	Cobus Gouws
APPROVAL DRAWING	
Name: J.J. Gouws	SACAP No. 21345
Signed:	Date:
Practice: Intsika Architects	SAA No. P13725



East Elevation 1:100



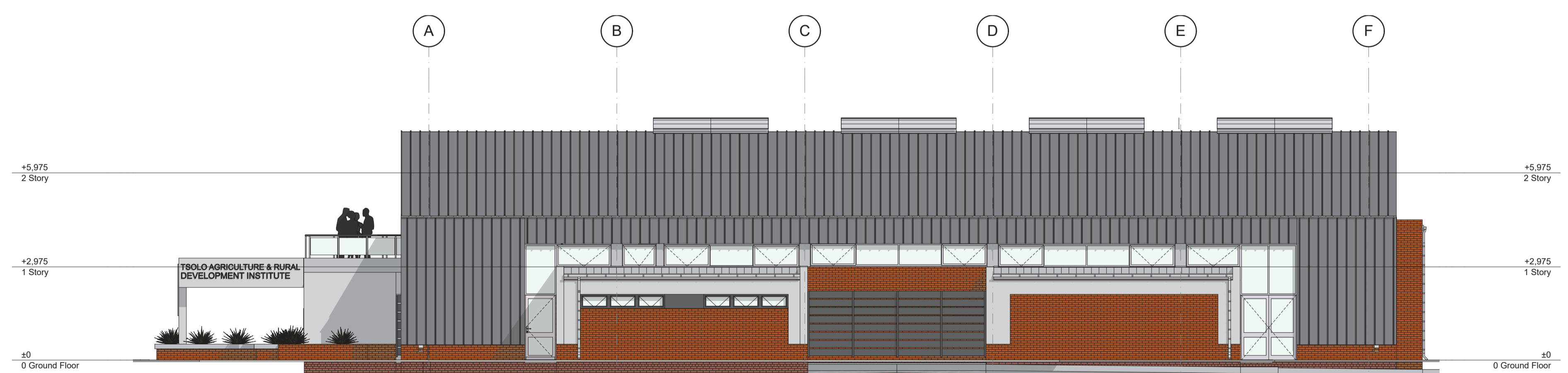
West Elevation 1:100



North Elevation 1:100



Generic Perspective (1)



South Elevation 1:100



Generic Perspective (2)

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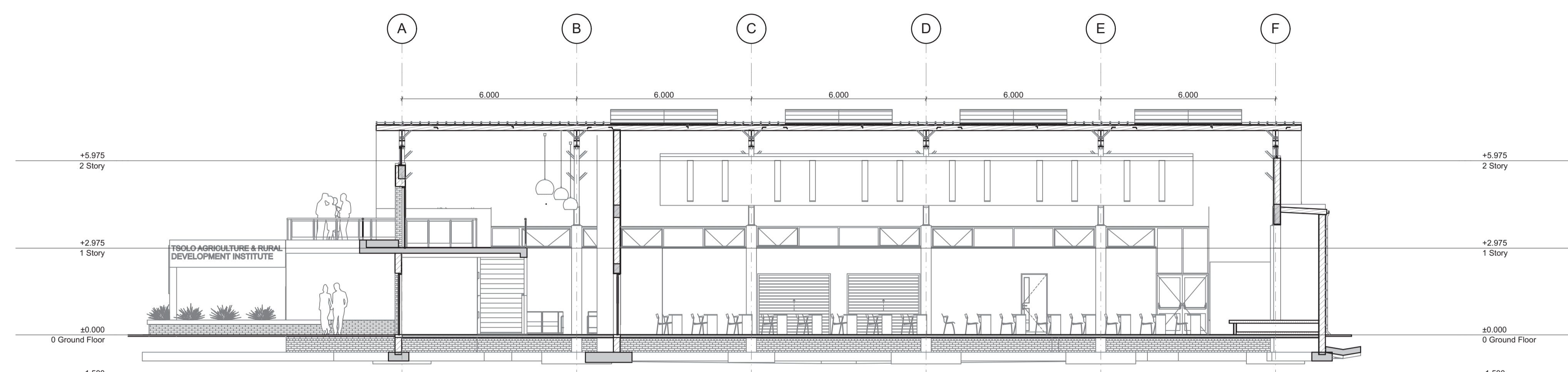
DRAWING

SECTIONS

PROJECT NO. 253
DRAWING NO. A.01.5
Scale: See Drawing
Date: 10/22/2021
DRAFTING AND DESIGN TEAM
Drawn by: Cobus Gouws
Checked by: Cobus Gouws

APPROVAL DRAWING

Name: J.J. Gouws SACAP No. 21345
Signed: Date:
Practice: Intsika Architects SAIA No. P13725



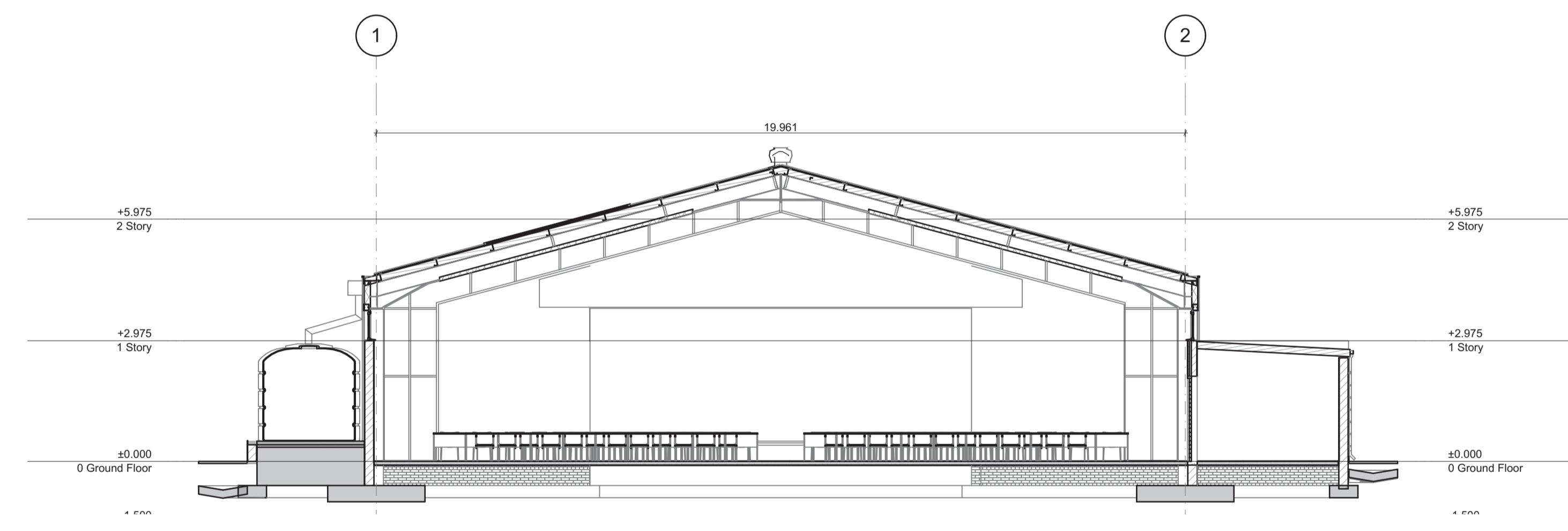
S-01

Building Section

1:100



Generic Perspective (3)



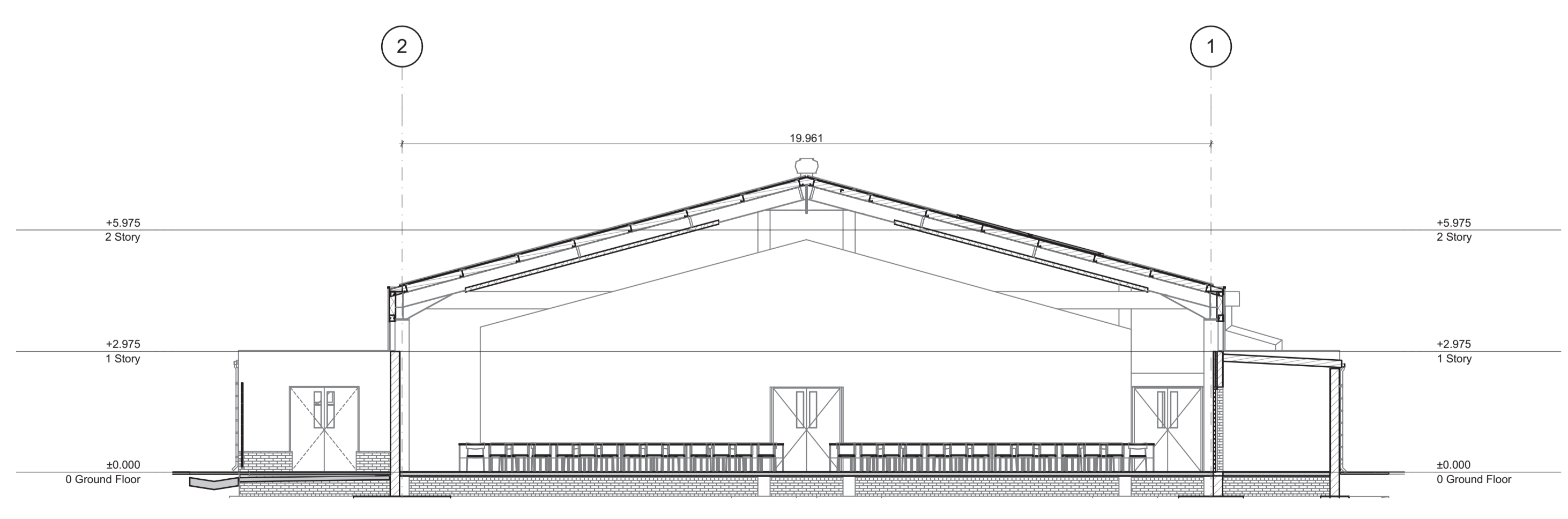
S-02

Building Section

1:100



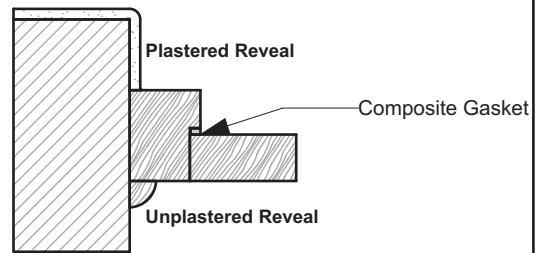
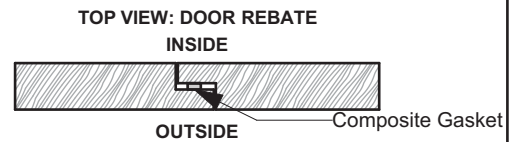
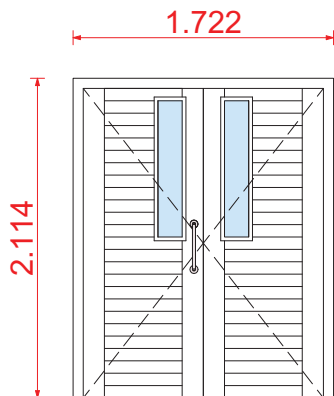
Generic Perspective (4)



S-03

Building Section

1:100



GENERAL NOTES TO CONTRACTOR

- 1.) Door frame profiles are manufactured according to SABS specification No. 1129 of 1977
- 2.) Always check the frames when building for squareness and plumb as they cannot be corrected afterwards
- 3.) After building in the contractor is to take all necessary measures to protect the frames from any on-site damage.

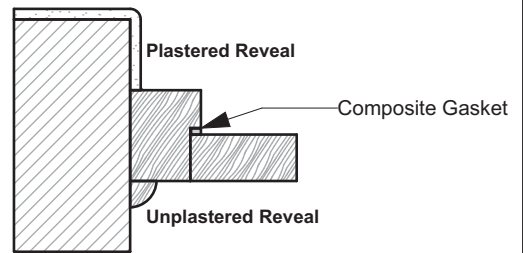
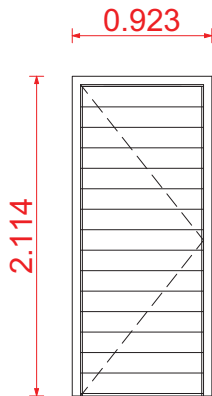
	Type:	Quantity:	Type Mark:
	1722 x 2114mm	05	D 01
<p>Doors Discription: Swartland Cape Culture SD30 horizontal slatted hardwood door, each panel size 813 x 2032mm high.</p> <ul style="list-style-type: none"> • Door range: Cape Culture • Door: SD 30 • Size: 813 x 2032mm high • Guarantee: 10 year. <p>Finish: Plascon Velvagio Satin to exterior new wood.</p> <p>Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment.</p>	<p>Frame Discription: Swartland Cape Culture Heavy duty SK3 Door Frame. 2144(H) x 1722(W) 86mm X 76mm with 44mm rebate. Constructed from solid laminated wood and fitted with Composite Gaskets to prevent drafts. Outward opening</p> <p>Finish: Plascon Velvagio Satin to exterior new wood.</p> <p>Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment.</p>		
<p>Ironmongery: Refer to Ironmongery Schedule</p>	<p>Glazing: 6.35mm GSA SmartGlass™ Intruderprufe@NS Clear laminated safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.</p>		

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



1st Floor, Office 4A,
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Bonza Bay Road, Beacon Bay,
East London 5241
TEL 043 726 7786
rob@intsika.com

MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D01	DRAWING NO: A.01.6.1.1	REVISION



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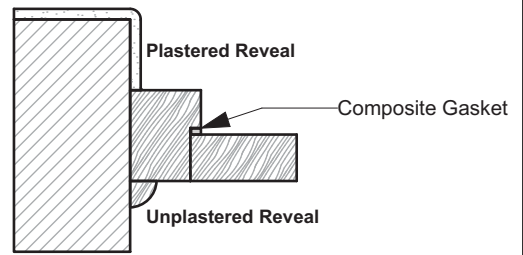
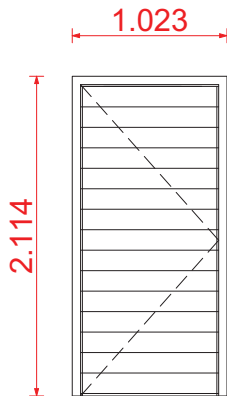
	Type:	Quantity:	Type Mark:
	923 x 2114mm	03	D 02
<p>Doors Discription: Swartland Cape Culture MDF - Horizontal MDFHRZH Heavy Duty Interior Doors</p> <ul style="list-style-type: none"> • Door range: Cape Culture • Door: SD 30 • Size: 813 x 2032mm high • Guarantee: 10 year. <p>Finish: Plascon Velvagio Satin to exterior new wood.</p> <p>Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment.</p>	<p>Frame Discription: Swartland Cape Culture Heavy duty SK1 Door Frame. 2114(H) x 923(W) 86mm X 76mm with 44mm rebate. Constructed from solid laminated wood and fitted with Composite Gaskets to prevent drafts.</p> <p>Finish: Plascon Velvagio Satin to exterior new wood.</p> <p>Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment.</p>		
<p>Ironmongery: Refer to Ironmongery Schedule</p>	<p>Glazing:</p>		

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
 MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
 SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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 East London 5241
 TEL 043 726 7786
 rob@intsika.com

MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D02	DRAWING NO: A.01.6.1.2	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) Door frame profiles are manufactured according to SABS specification No. 1129 of 1977
- 2.) Always check the frames when building for squareness and plumb as they cannot be corrected afterwards
- 3.) After building in the contractor is to take all necessary measures to protect the frames from any on-site damage.

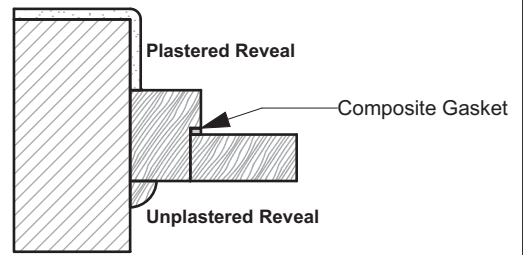
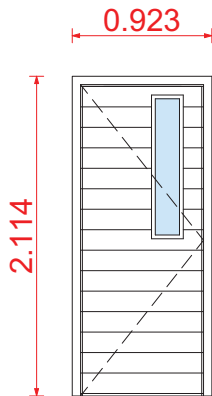
	Type: 923 x 2114mm	Quantity: 01	Type Mark: D 03
<p>Doors Discription: Swartland Cape Culture MDF - Horizontal MDFHRZH Heavy Duty Interior Doors</p> <ul style="list-style-type: none"> • Door range: Cape Culture • Door: SD 30 • Size: 913 x 2032mm high • Guarantee: 10 year. <p>Finish: Plascon Velvagio Satin to exterior new wood.</p> <p>Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment.</p>	<p>Frame Discription: Swartland Cape Culture Heavy duty SK1 Door Frame. 2114(H) x 1023(W) 86mm X 76mm with 44mm rebate. Constructed from solid laminated wood and fitted with Composite Gaskets to prevent drafts.</p> <p>Finish: Plascon Velvagio Satin to exterior new wood.</p> <p>Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment.</p>		
<p>Ironmongery: Refer to Ironmongery Schedule</p>	<p>Glazing:</p>		

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D03	DRAWING NO: A.01.6.1.3	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) Door frame profiles are manufactured according to SABS specification No. 1129 of 1977
- 2.) Always check the frames when building for squareness and plumb as they cannot be corrected afterwards
- 3.) After building in the contractor is to take all necessary measures to protect the frames from any on-site damage.

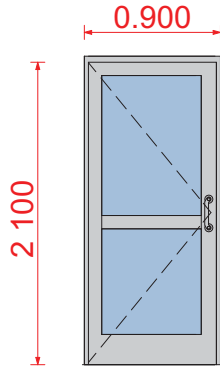
	Type:	Quantity:	Type Mark:
	923 x 2114mm	02	D 04
<p>Doors Discription: Swartland Cape Culture MDF - Horizontal MDFHRZH Heavy Duty Interior Doors</p> <ul style="list-style-type: none"> • Door range: Cape Culture • Door: SD 30 • Size: 813 x 2032mm high • Guarantee: 10 year. <p>Finish: Plascon Velvagio Satin to exterior new wood.</p> <p>Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment.</p>	<p>Frame Discription: Swartland Cape Culture Heavy duty SK1 Door Frame. 2114(H) x 923(W) 86mm X 76mm with 44mm rebate. Constructed from solid laminated wood and fitted with Composite Gaskets to prevent drafts.</p> <p>Finish: Plascon Velvagio Satin to exterior new wood.</p> <p>Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment.</p>		
<p>Ironmongery: Refer to Ironmongery Schedule</p>	<p>Glazing: 6.35mm GSA SmartGlass™ Intruderprufe@NS Clear laminated safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.</p>		

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
 MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
 SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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 rob@intsika.com

MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D04	DRAWING NO: A.01.6.1.4	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
- 2.) Aluminium frames are not to be built in but must be installed in opening prepared by the contractor.
- 3.) The contractor is to inform the aluminium manufacturer as to when the openings are ready for measurement - All dimensions to be checked and verified on site prior to commencement of manufacture.
- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
- 5.) After installation the contractor is to take all necessary measures to protect the aluminium units from any on site damage including scratched glass and mortar stained aluminium frames. Any and all damaged units will be replaced at the contractors cost.
- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

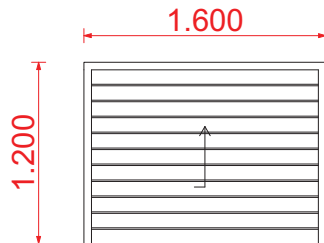
Type: 900 x 2100mm	Quantity: 01	Type Mark: D05
Discription: Wispeco Aluminium, Cealco CLIP 44 Hinged Door, with R4 (85mm) Bottom Rail		
Frame: 25 micron Natural Anodised Aluminium protective coating		
Ironmongery: Refer to Ironmongery Schedule		
Glazing: 6.35mm PG SmartGlass, SolarVue® PVB laminated safety safety glass, Grey HL complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.		

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D05	DRAWING NO: A.01.6.1.5	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
- 2.) Aluminium frames are not to be built in but must be installed in opening prepared by the contractor.
- 3.) The contractor is to inform the aluminium manufacturer as to when the openings are ready for measurement - All dimensions to be checked and verified on site prior to commencement of manufacture.
- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
- 5.) After installation the contractor is to take all necessary measures to protect the aluminium units from any on site damage including scratched glass and mortar stained aluminium frames. Any and all damaged units will be replaced at the contractors cost.
- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

Type:

1600 x 1200mm

Quantity:

01

Type Mark:

D06

Discription:

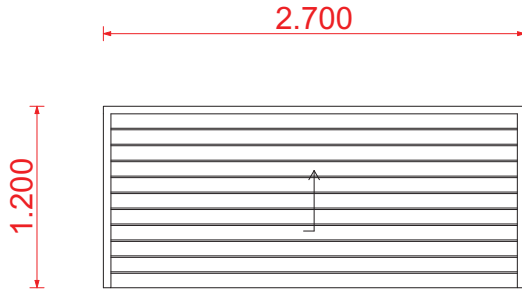
Xpanda Aluminium push pull roller shutter in natural anodised finish, size 1600 x 1,200mm high with 450mm headroom with 130mm clearance on free side and 130mm clearance on operator side, 50mm wide extruded slates, 75mm wide side guides, Xpanda Rol-Lok, with pressed steel canopy cover and weather strip T-bar to bottom edge, with perimeter framing plugged and screwed to reveal at maximum 300mm centres to concrete or brickwork.

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D06	DRAWING NO: A.01.6.1.6	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
- 2.) Aluminium frames are not to be built in but must be installed in opening prepared by the contractor.
- 3.) The contractor is to inform the aluminium manufacturer as to when the openings are ready for measurement - All dimensions to be checked and verified on site prior to commencement of manufacture.
- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
- 5.) After installation the contractor is to take all necessary measures to protect the aluminium units from any on site damage including scratched glass and mortar stained aluminium frames. Any and all damaged units will be replaced at the contractors cost.
- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

Type:

2700 x 1200mm

Quantity:

01

Type Mark:

D07

Discription:

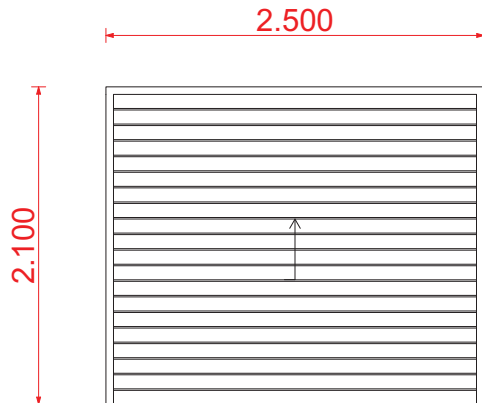
Xpanda Aluminium push pull roller shutter in natural anodised finish, size 2700 x 1,200mm high with 450mm headroom with 130mm clearance on free side and 130mm clearance on operator side, 50mm wide extruded slates, 75mm wide side guides, Xpanda Rol-Lok, with pressed steel canopy cover and weather strip T-bar to bottom edge, with perimeter framing plugged and screwed to reveal at maximum 300mm centres to concrete or brickwork.

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D07	DRAWING NO: A.01.6.1.7	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
- 2.) Aluminium frames are not to be built in but must be installed in opening prepared by the contractor.
- 3.) The contractor is to inform the aluminium manufacturer as to when the openings are ready for measurement - All dimensions to be checked and verified on site prior to commencement of manufacture.
- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
- 5.) After installation the contractor is to take all necessary measures to protect the aluminium units from any on site damage including scratched glass and mortar stained aluminium frames. Any and all damaged units will be replaced at the contractors cost.
- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

Type:

2440 x 2100mm

Quantity:

04

Type Mark:

D08

Discription:

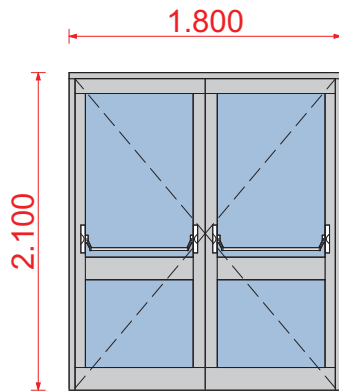
Xpanda Aluminium push pull roller shutter in natural anodised finish, size 2440 x 2,100mm high with 450mm headroom with 130mm clearance on free side and 130mm clearance on operator side, 50mm wide extruded slates, 75mm wide side guides, Xpanda Rol-Lok, with pressed steel canopy cover and weather strip T-bar to bottom edge, with perimeter framing plugged and screwed to reveal at maximum 300mm centres to concrete or brickwork.

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D08	DRAWING NO: A.01.6.1.8	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
- 2.) Aluminium frames are not to be built in but must be installed in opening prepared by the contractor.
- 3.) The contractor is to inform the aluminium manufacturer as to when the openings are ready for measurement - All dimensions to be checked and verified on site prior to commencement of manufacture.
- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
- 5.) After installation the contractor is to take all necessary measures to protect the aluminium units from any on site damage including scratched glass and mortar stained aluminium frames. Any and all damaged units will be replaced at the contractors cost.
- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

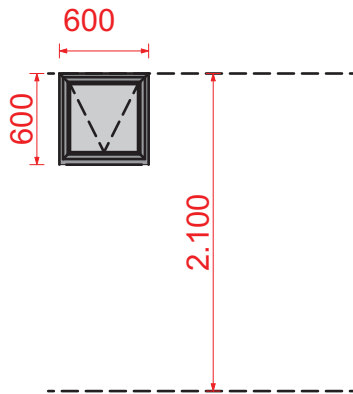
Type: 1800 x 2100mm	Quantity: 02	Type Mark: D09
Discription: Wispeco Aluminium, Cealco CLIP 44 Hinged Door, with R4 (85mm) Bottom Rail		
Frame: 25 micron Natural Anodised Aluminium protective coating		
Ironmongery: Refer to Ironmongery Schedule		
Glazing: 6.35mm PG SmartGlass, SolarVue® PVB laminated safety safety glass, Grey HL complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.		

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIED AND FITTED IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME D09	DRAWING NO: A.01.6.1.9	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
- 2.) Aluminium frames are not to be built in but must be installed in opening prepared by the contractor.
- 3.) The contractor is to inform the aluminium manufacturer as to when the openings are ready for measurement - All dimensions to be checked and verified on site prior to commencement of manufacture.
- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
- 5.) After installation the contractor is to take all necessary measures to protect the aluminium units from any on site damage including scratched glass and mortar stained aluminium frames. Any and all damaged units will be replaced at the contractors cost.
- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

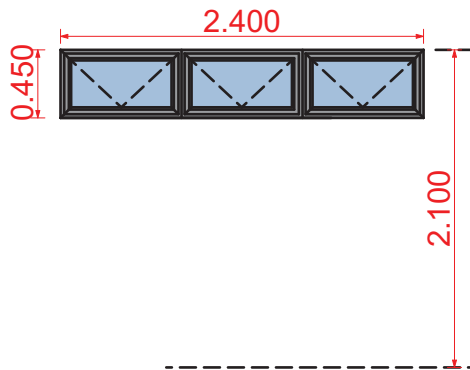
Type: 600 x 600mm	Quantity: 09	Type Mark: W 01
Discription: Wispeco Aluminium top hung aluminium window, size 600 x 600mm able to meet the mechanical performance requirements of SANS 613 for wind loads of up to 1500Pa with surfaces to receive 60-80µm Matt Black powder coating (for architectural applications), supplied by a manufacturer complying with SANS 1578 and applied in accordance with SANS 1796 by an approved applicator, glazing shall be executed strictly in conformance with glass manufacturer's recommendations and SANS 10137:2011 all in accordance with SANS 10400 Parts B, N, XA, fitted in accordance with Wispeco Casement 340 system, plugged and screwed to brickwork or concrete.		
Frame: 60-80µm CHARCOAL powder coating		
Ironmongery: As supplied by manufacturer		
Glazing: 6.75mm Decorlam laminated safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.		
Burglar Bars:		

QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIER TO BE IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS



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East London 5241
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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME W01	DRAWING NO: A.01.6.2.1	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
- 2.) Aluminium frames are not to be built in but must be installed in opening prepared by the contractor.
- 3.) The contractor is to inform the aluminium manufacturer as to when the openings are ready for measurement - All dimensions to be checked and verified on site prior to commencement of manufacture.
- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
- 5.) After installation the contractor is to take all necessary measures to protect the aluminium units from any on site damage including scratched glass and mortar stained aluminium frames. Any and all damaged units will be replaced at the contractors cost.
- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

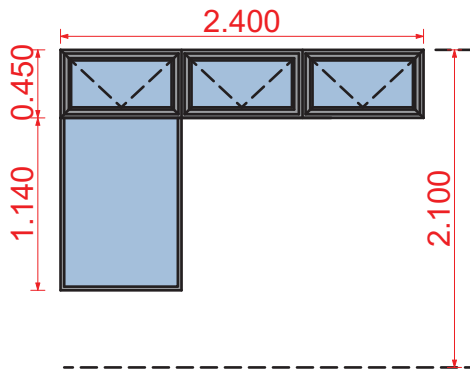
Type: 2400 x 450mm	Quantity: 02	Type Mark: W 02
Discription: Wispeco Aluminium top hung aluminium window, size 2400 x 600mm able to meet the mechanical performance requirements of SANS 613 for wind loads of up to 1500Pa with surfaces to receive 60-80µm Matt Black powder coating (for architectural applications), supplied by a manufacturer complying with SANS 1578 and applied in accordance with SANS 1796 by an approved applicator, glazing shall be executed strictly in conformance with glass manufacturer's recommendations and SANS 10137:2011 all in accordance with SANS 10400 Parts B, N, XA, fitted in accordance with Wispeco Casement 340 system, plugged and screwed to brickwork or concrete.		
Frame: 60-80µm CHARCOAL powder coating		
Ironmongery: As supplied by manufacturer		
Glazing: 6.35mm GSA SmartGlass™ Intruderprufe@NS Clear laminated safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.		
Burglar Bars: 6 mm thick, 30 mm wide, clear polycarbonate InvisiBars™ Fitted directly into wooden and aluminium frames over opening sections. Maximum distance of 120mm-130mm between each bar. Stainless steel pop rivets. Polyethylene cover caps (colour matched to frame) fitted over installation points. If bar spans greater than 950mm, a vertical support or aluminium support is required to reduce flexibility in horizontal bar.		

QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIER TO BE IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS



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 Bonza Bay Road, Beacon Bay,
 East London 5241
 TEL 043 726 7786
 rob@intsika.com

MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME W02	DRAWING NO: A.01.6.2.2	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
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- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
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- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

Type:

1590 x 2400mm

Quantity:

01

Type Mark:

W 03

Description:

Wispeco Aluminium top hung aluminium window, size 1590 x 2400mm able to meet the mechanical performance requirements of SANS 613 for wind loads of up to 1500Pa with surfaces to receive 60-80µm Matt Black powder coating (for architectural applications), supplied by a manufacturer complying with SANS 1578 and applied in accordance with SANS 1796 by an approved applicator, glazing shall be executed strictly in conformance with glass manufacturer's recommendations and SANS 10137:2011 all in accordance with SANS 10400 Parts B, N, XA, fitted in accordance with Wispeco Casement 340 system, plugged and screwed to brickwork or concrete.

Frame:

60-80µm CHARCOAL powder coating

Ironmongery:

As supplied by manufacturer

Glazing:

6.35mm GSA SmartGlass™ Intruderprufe@NS Clear laminated safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.

Burglar Bars:

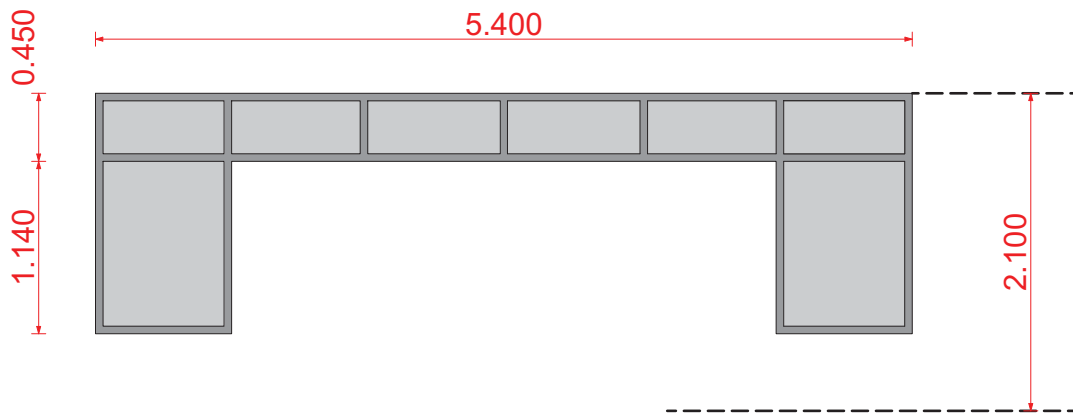
6 mm thick, 30 mm wide, clear polycarbonate InvisiBars™ Fitted directly into wooden and aluminium frames over opening sections. Maximum distance of 120mm-130mm between each bar. Stainless steel pop rivets. Polyethylene cover caps (colour matched to frame) fitted over installation points. If bar spans greater than 950mm, a vertical support or aluminium support is required to reduce flexibility in horizontal bar.

**QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIER TO BE IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS**



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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME W03	DRAWING NO: A.01.6.2.3	REVISION



GENERAL NOTES TO CONTRACTOR

- 1.) All aluminium glazed doors, windows, curtain walls and louvred doors and panels that are purpose / custom made are to be manufactured as per manufacturers specifications all in accordance with AAMSA, SAGA, NBR and SABS regulations.
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- 4.) As far as possible all glazed aluminium doors and windows to be factory glazed and wrapped in protective plastic.
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- 6.) Curtain wall design to be as per AGI Sheerline design endorsed by AGI Solutions (Pty) Ltd.
- 7.) All glazing to be in strict accordance with SAGA regulations and illustrate the appropriate mark to confirm type of glass used, i.e. toughend glass.

Type: 5400x 1590mm	Quantity: 02	Type Mark: W 04
Discription: Wispeco Aluminium top hung aluminium window, size 5400 x 1590mm able to meet the mechanical performance requirements of SANS 613 for wind loads of up to 1500Pa with surfaces to receive 60-80µm Matt Black powder coating (for architectural applications), supplied by a manufacturer complying with SANS 1578 and applied in accordance with SANS 1796 by an approved applicator, glazing shall be executed strictly in conformance with glass manufacturer's recommendations and SANS 10137:2011 all in accordance with SANS 10400 Parts B, N, XA, fitted in accordance with Wispeco Casement 340 system, plugged and screwed to brickwork or concrete.		
Frame: 60-80µm CHARCOAL powder coating		
Ironmongery: As supplied by manufacturer		
Glazing: 6.35mm GSA SmartGlass™ Intruderprufe@NS Clear laminated safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.		
Burglar Bars:		

QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER.
MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE.
SUPPLIER TO BE IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS



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MANUFACTURING FACILITY -IW4 IN ZONE 1A	DRAWN BY: C.G.	CHECKED BY: C.G
ERF NO: 92817	SCALE: 1: 50	
ISSUED FOR TENDER	DATE: 10/22/2021	PRINTING DATE: 10/22/2021
DRAWING NAME W04	DRAWING NO: A.01.6.2.4	REVISION

316 stainless steel bushed
8mm toughened safety glass

Top Rail

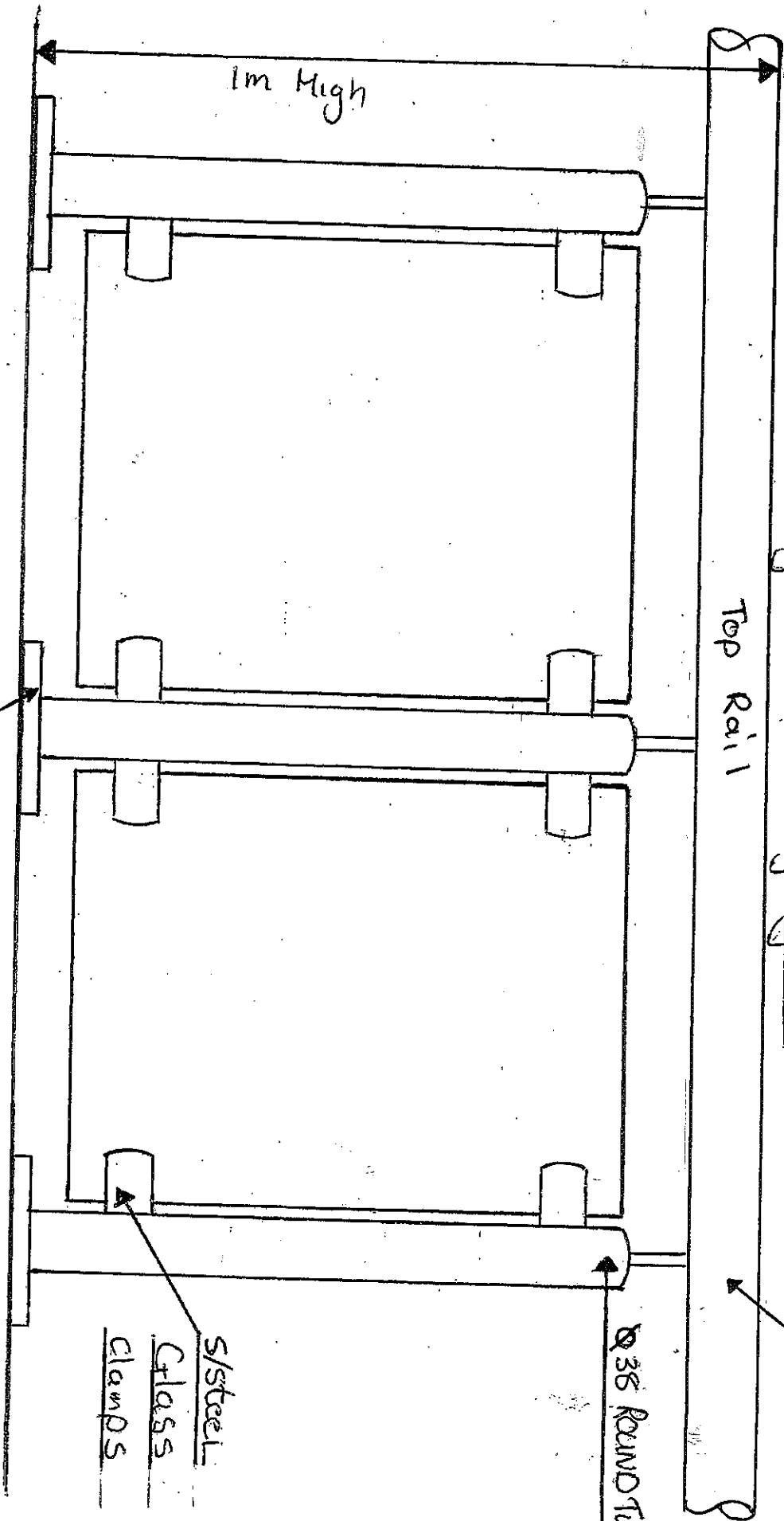
Ø80mm Round Tub

1m High

Ø38 Round Tub

s/steel
Glass
clamps

s/steel washer to
COVER HOLE



GENERAL NOTES

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All work and material used to comply with SABS standards and NATIONAL BUILDING REGULATIONS ACT 103 of 1977 and amendments thereto as well as the by-laws of the relevant local authority.

All new construction HEALTH AND SAFETY Regulations to be strictly complied with.

REVISIONS

RevID	ChID	Change Name	Date

PROJECT TEAM

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 E-mail: WernerDL@bvi.co.za

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OFFICE OF THE DIRECTOR: ENGINEERING SERVICES

PROJECT

300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE.

LOCATION

FARM NO: 61
 Tsoilo

ISSUED FOR

TENDER

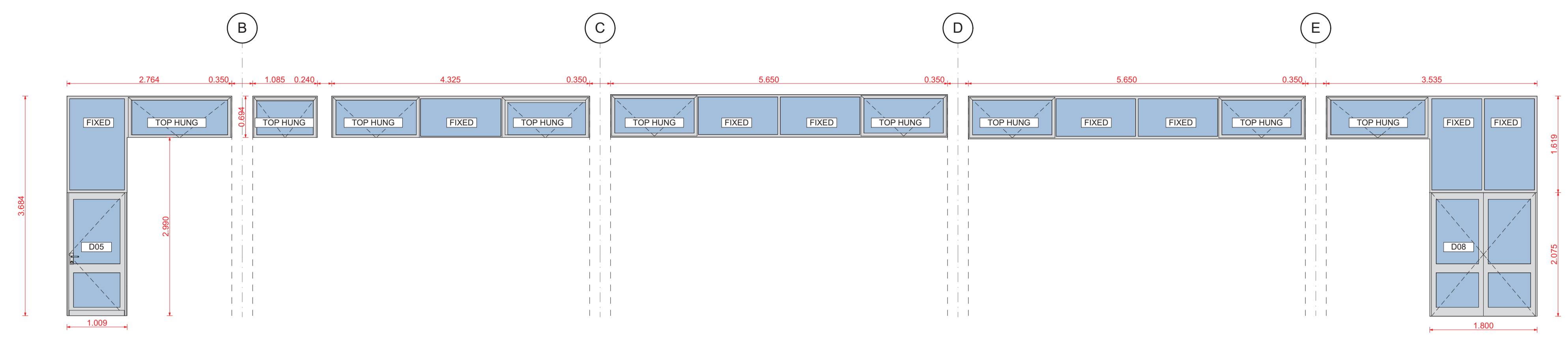
DRAWING

SF 01 & 02

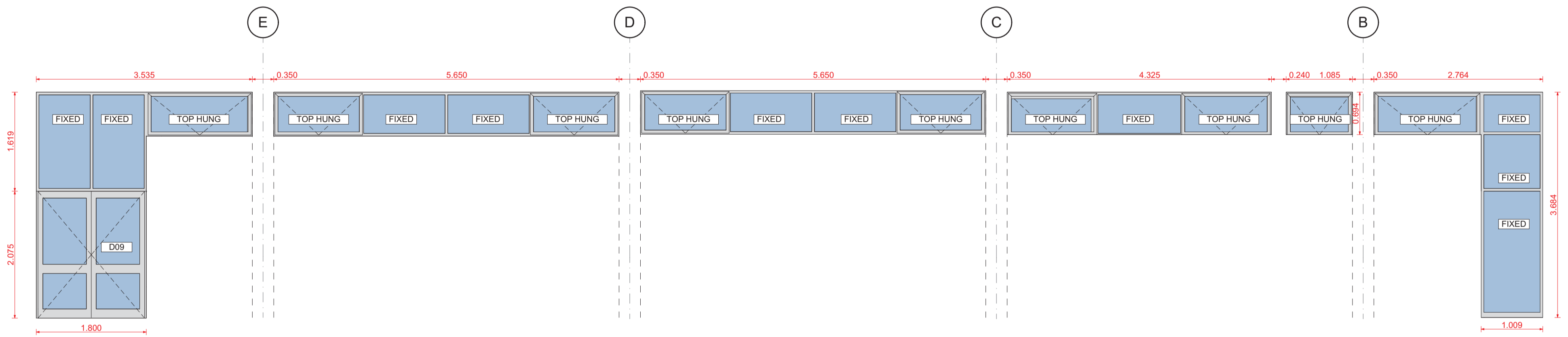
PROJECT NO.	253
DRAWING NO.	A.01.6.3.1
Scale:	See Drawing
Date:	10/22/2021
DRAFTING AND DESIGN TEAM	
Drawn by:	Cobus Gouws
Checked by:	Cobus Gouws

APPROVAL DRAWING

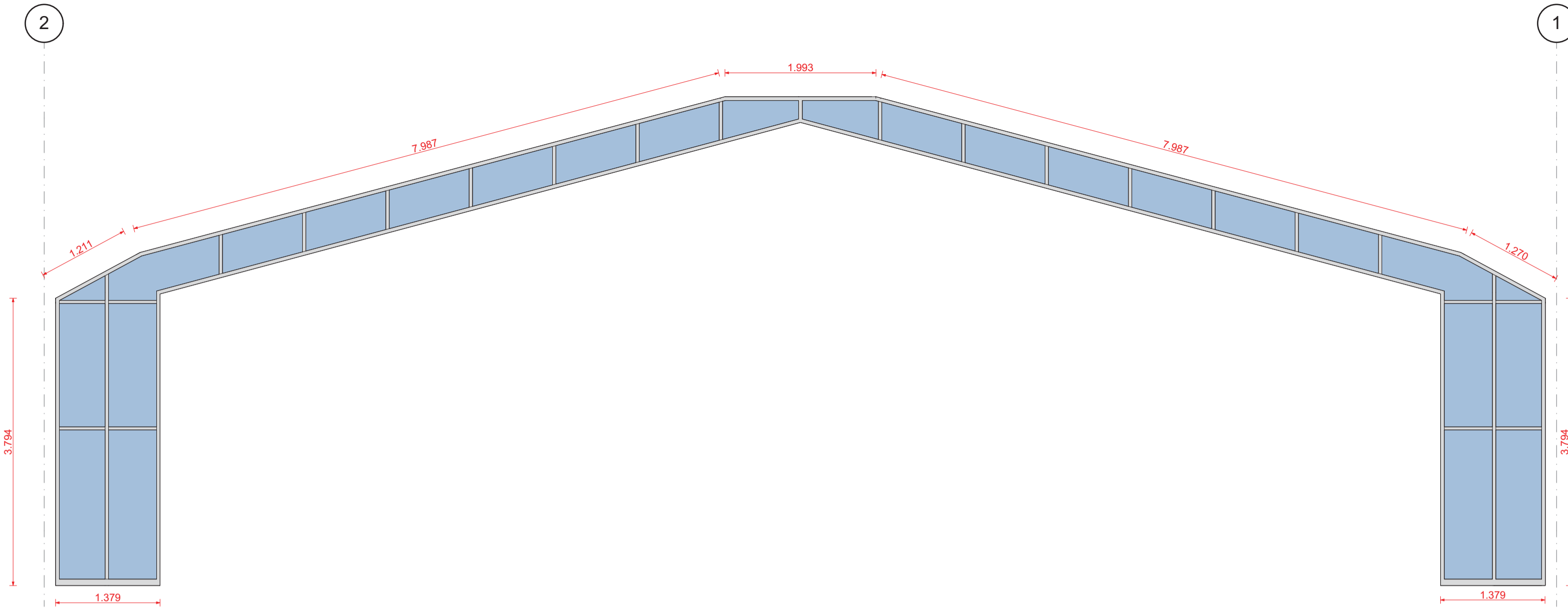
Name: J.J. Gouws SACAP No. 21345
 Signed: Date:
 Practice: Intsika Architects SAIA No. P13725



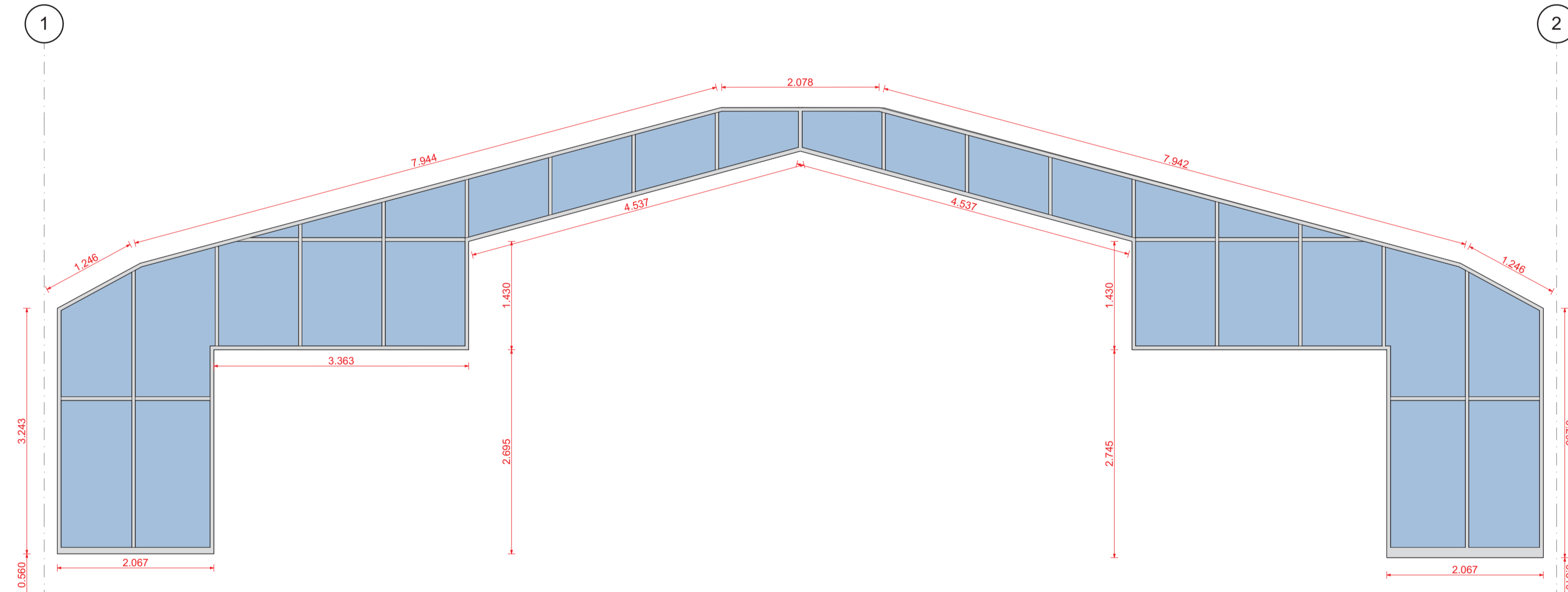
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QUANTITIES TO BE VERIFIED PRIOR TO PLACEMENT OF ORDER. MASONRY OPENINGS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF MANUFACTURE. SUPPLIER TO BE IN ACCORDANCE WITH ALL SABS AND NBR STANDARDS			



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	SHEERLINE CLIP 44 Shopfront System, with R4 (85mm) Bottom Rail	01	SF 03
	Description:		
	Frame:	25 micron Natural Anodised Aluminium protective coating	
	Ironmongery:	As supplied by manufacturer	
	Glazing:	6.35mm GSA SmartGlass™ Solarshield® S30 Grey laminated safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.	
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	SHEERLINE CLIP 44 Shopfront System, with R4 (85mm) Bottom Rail	01	SF 04
	Description:		
	Frame:	25 micron Natural Anodised Aluminium protective coating	
	Ironmongery:	As supplied by manufacturer	
	Glazing:	6.35mm GSA SmartGlass™ Solarshield® S30 Grey laminated safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.	
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REVISIONS

RevID	Chd	Change Name	Date

PROJECT TEAM

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rural development & agrarian reform
Department of Rural Development & Agrarian Reform
MINISTRY OF THE EASTERN CAPE

OFFICE OF THE DIRECTOR: ENGINEERING SERVICES

PROJECT
300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE.

LOCATION
FARM NO: 61
Tsolo

ISSUED FOR
TENDER

DRAWING
SF 03 & 04

PROJECT NO: 253
DRAWING NO: A.01.6.3.2
Scale: See Drawing
Date: 10/22/2021
DRAFTING AND DESIGN TEAM
Drawn by: Cobus Gouws
Checked by: Cobus Gouws

APPROVAL DRAWING
Name: J.J. Gouws SACAP No. 21345
Signed: Date:
Practice: Intsika Architects SAIA No. P13725

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RevID	ChID	Change Name	Date

PROJECT TEAM

Principal Consultant / Architect:
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OFFICE OF THE DIRECTOR: ENGINEERING SERVICES

PROJECT
300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE.

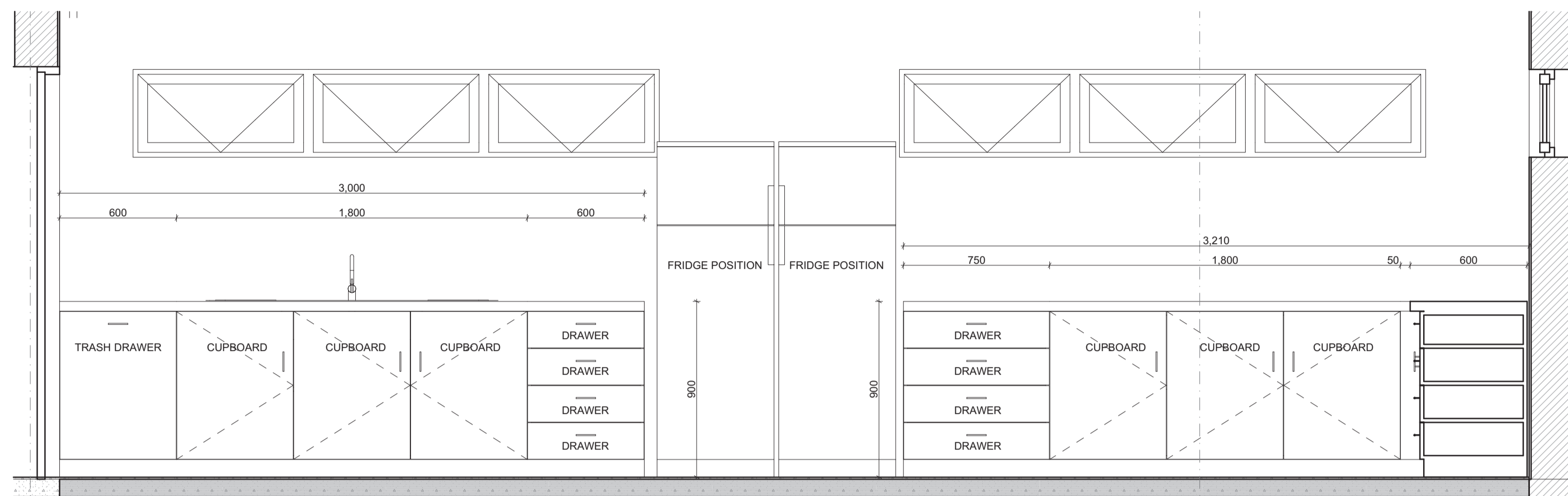
LOCATION
FARM NO: 61
Tsoilo

ISSUED FOR
TENDER

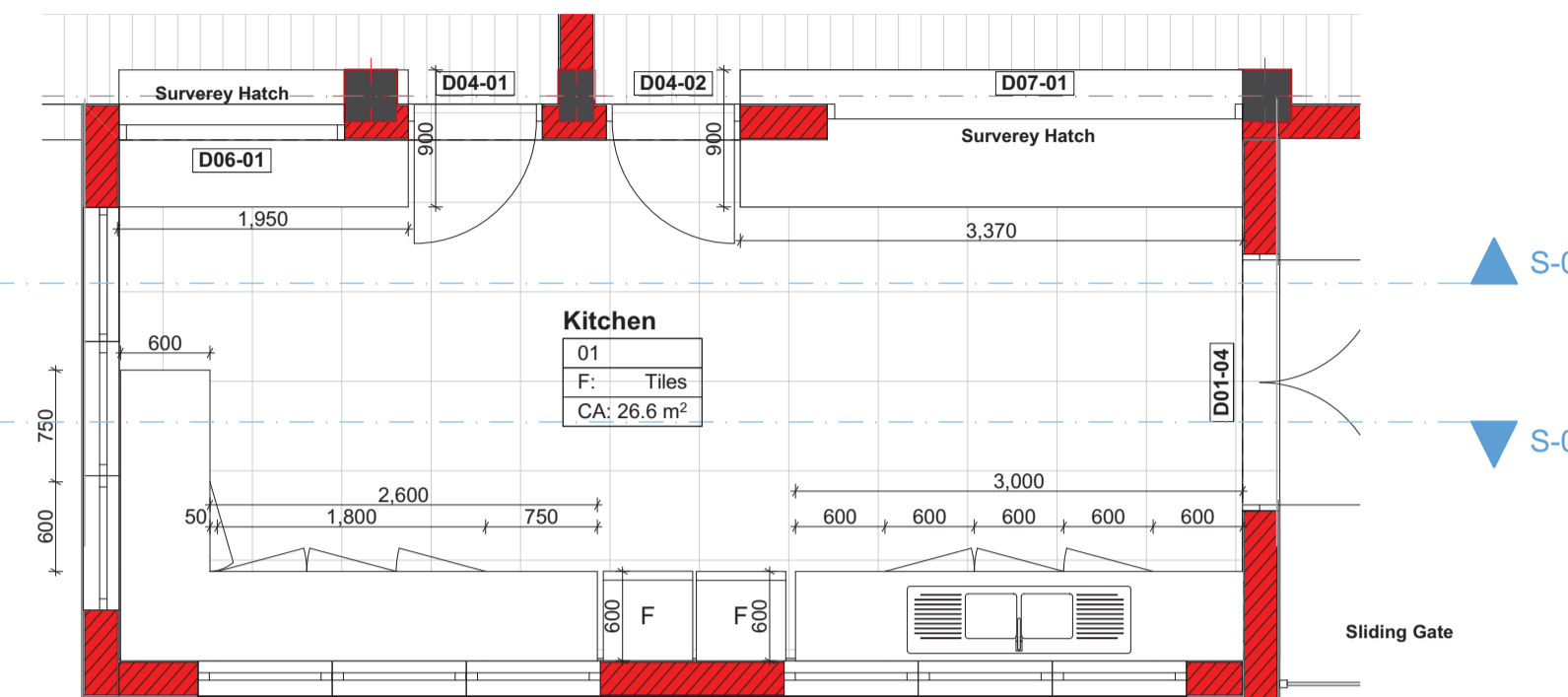
DRAWING
Kitchen Joinery Schedule

PROJECT NO.	253
DRAWING NO.	A.02.1
Scale:	See Drawing
Date:	10/22/2021
DRAFTING AND DESIGN TEAM	
Drawn by:	Cobus Gouwes
Checked by:	Cobus Gouwes

APPROVAL DRAWING
Name: J.J. Gouwes SACAP No. 21345
Signed: Date:
Practice: IntsiKa Architects SAIA No. P13725



S-06 Building Section 1:20



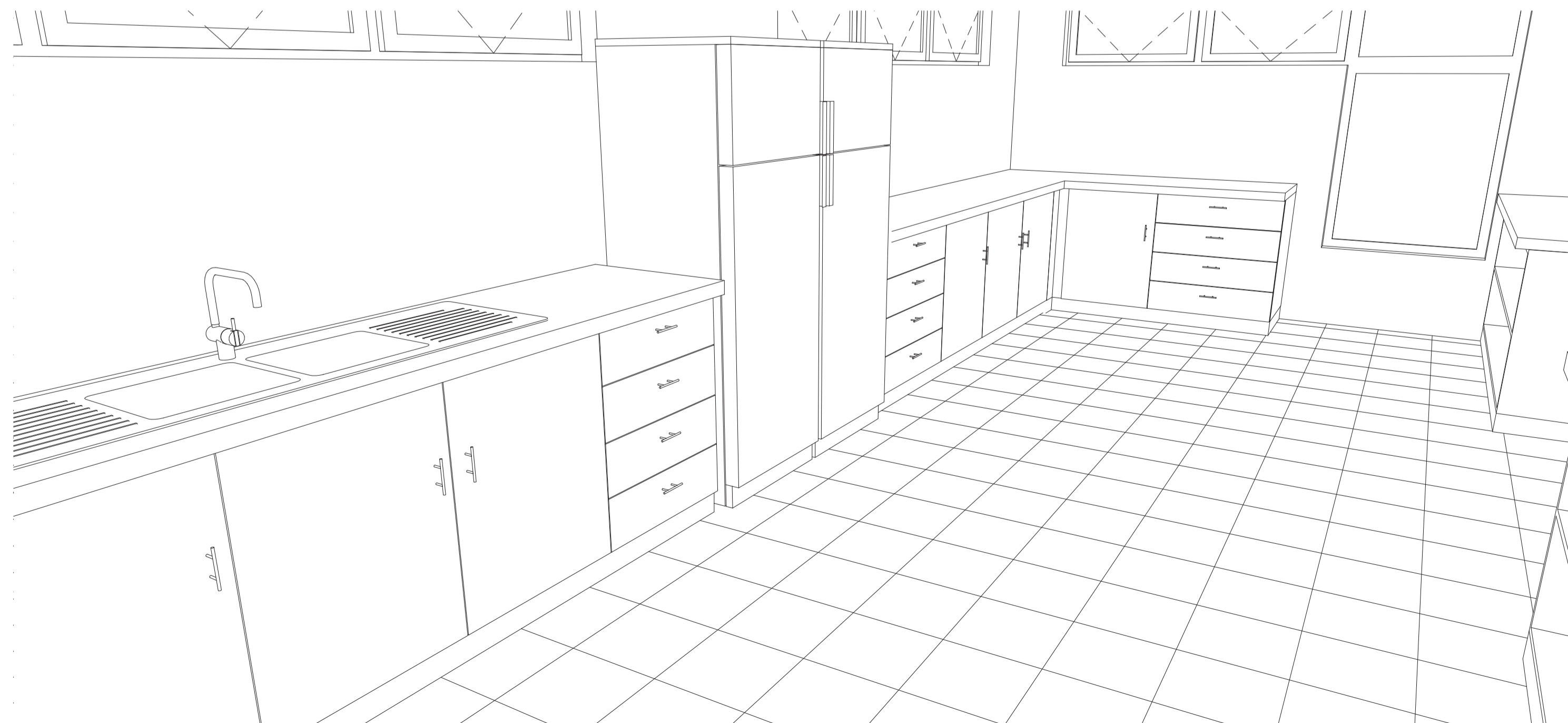
D-01 Detail 1:50

Joinery Specifications

- Kitchen Tops**
32mm Rustenburg Granite fixed with silicone and polished edges
- Faces of Cupboards & Drawers**
PG Bison 16mm thick MelaWood® in Verzasca Oak™Linear™, manufactured in accordance with SANS 1763:1998, constructed using 1830mm wide BisonBord® boards in accordance with the approved shop drawings.
• 2mm Heavy duty impact edging
- Carcasses**
PG Bison 16mm thick MelaWood® in Folkstone Grey™Peen™, manufactured in accordance with SANS 1763:1998, constructed using 1830mm wide BisonBord® boards in accordance with the approved shop drawings.
- Kick Plate**
100x 20mm Meranti Kickplate with 1mm Brushed Stainless steel 204 cover.
- Hinges**
GRASS® Nexis Click-on 110° opening angle screw-in hinge in nickel plated finish (Item No: 146.322.53.0815) with 2D-cross mounting plate with 2 point fixing (Item No: 314.493.71.0215) and plain hinge cover cap, fixed with 3,5 x 15mm nickel plated chipboard screws including Soft Close closing mechanism (Item No: 924.200.40.0215).
- Drawer Runners**
500mm Heavy Duty bearing drawer runners with soft closers.
- Handles**
170mm Brushed Satin Nickel bar handle SKU# 8373



S-07 Building Section 1:20



3D-03 Perspective

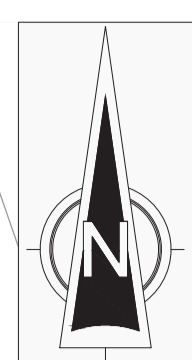
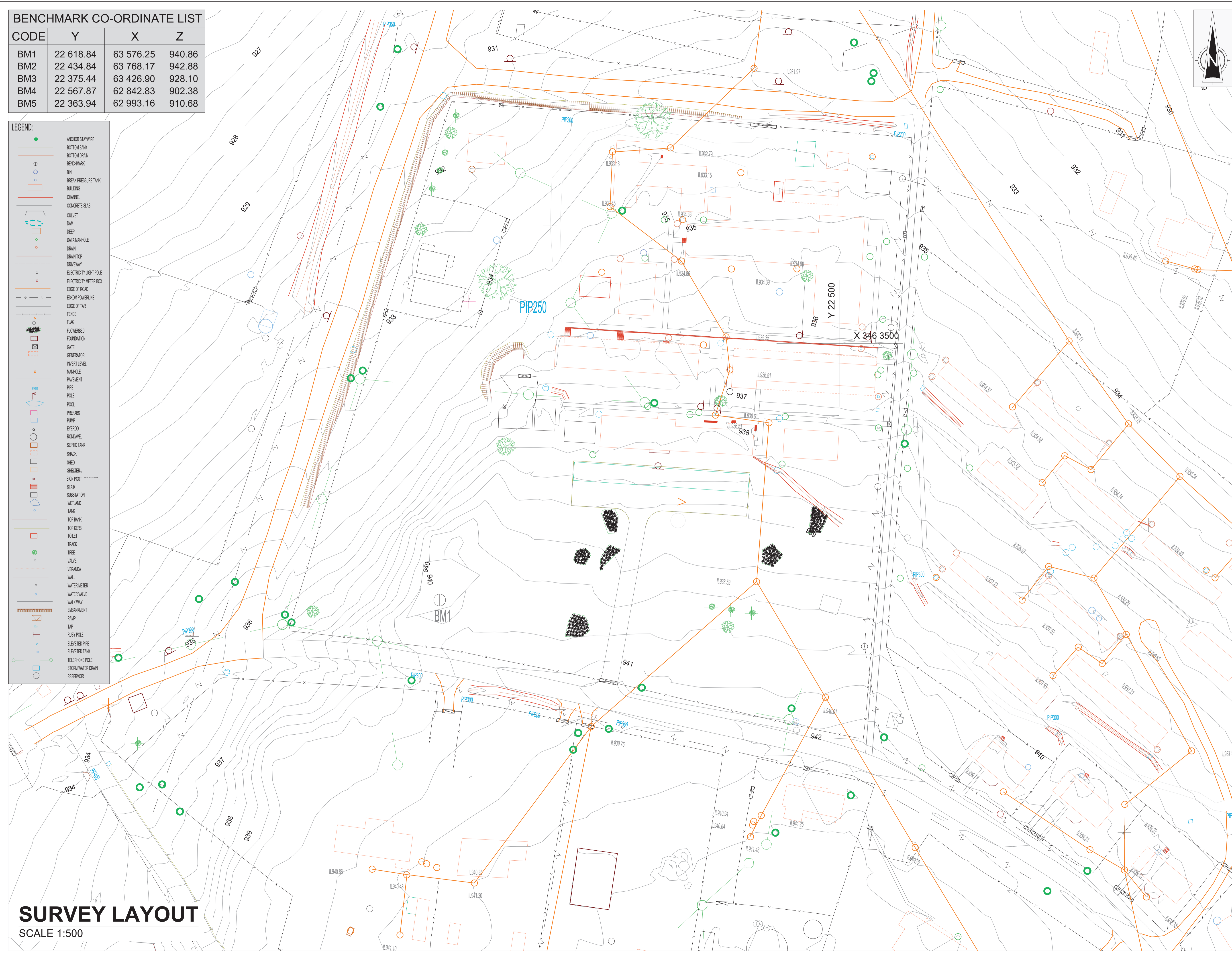
BENCHMARK CO-ORDINATE LIST

CODE	Y	X	Z
BM1	22 618.84	63 576.25	940.86
BM2	22 434.84	63 768.17	942.88
BM3	22 375.44	63 426.90	928.10
BM4	22 567.87	62 842.83	902.38
BM5	22 363.94	62 993.16	910.68

LEGEND:

- ANCHOR STAYWIRE
- BOTTOM BANK
- BOTTOM DRAIN
- BENCHMARK
- BIN
- BREAK PRESSURE TANK
- BUILDING
- CHANNEL
- CONCRETE SLAB
- CULVERT
- DAM
- DEEP
- DATA MANHOLE
- DRAIN
- DRAIN TOP
- DRIVEWAY
- ELECTRICITY LIGHT POLE
- ELECTRICITY METER BOX
- EDGE OF ROAD
- ESOM POWERLINE
- EDGE OF FAR
- FENCE
- FLAG
- FLOWERBED
- FOUNDATION
- GATE
- GENERATOR
- INVERT LEVEL
- MANHOLE
- PAVEMENT
- PIPE
- POLE
- POOL
- PREFABS
- PUMP
- EYEROD
- RONDVEL
- SEPTIC TANK
- SHACK
- SHED
- SHELTER
- SIGN POST
- STAR
- SUBSTATION
- WETLAND
- TANK
- TOP BANK
- TOP KERB
- TOILET
- TRACK
- TREE
- VALVE
- VERANDA
- WALL
- WATER METER
- WATER VALVE
- WALK WAY
- EMBANKMENT
- RAMP
- TAP
- RUBBISH POLE
- ELEVATED PIPE
- ELEVATED TANK
- TELEPHONE POLE
- STORM WATER DRAIN
- RESERVOIR

SURVEY LAYOUT
SCALE 1:500



**ENGINEERING
PROCUREMENT
MANAGEMENT**

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REVISIONS

REV.	DATE	DESCRIPTION	BY
T	09/21	FIRST ISSUE FOR TENDER	M.S

PROJECT TEAM

Principal Agent / Architect:
INTSIKA Architects (Pty) Ltd.

2nd Floor The Ridge, 3 Bera Terrace Bera
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rob@intsika.com

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CLIENT

TSOLO AGRICULTURE & RURAL DEVELOPMENT INSTITUTE.
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Tel: 047 - 542 3700

rural development & agrarian reform
Department:
Rural Development & Agrarian Reform
PROVINCE OF THE EASTERN CAPE

PROJECT

300 SEATER EXAM HALL AT THE
TSOLO AGRICULTURAL &
RURAL DEVELOPMENT INSTITUTE.

LOCATION

FARM NO: 61
TSOLO

ISSUED FOR

MUNICIPAL SUBMISSION

DRAWING

SURVEY LAYOUT

PROJECT NO.	34435
DRAWING NO.	34435-CIV-0
Scale:	1:500
Date:	26/08/2021
DRAFTING AND DESIGN TEAM	
Designed by:	M.A. STEYN
Drawn by:	J.A. JONKER
Checked by:	W. DE LANGE
APPROVAL DRAWING	
Name:	M. STEYN
Signed:	Date:
Practice: BVI BORDER	

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BENCHMARK CO-ORDINATE LIST			
CODE	Y	X	Z
BM1	22 618.84	34 63576.25	940.86
BM2	22 434.84	34 63768.17	942.88
BM3	22 375.44	34 63426.90	928.10
BM4	22 567.87	34 62842.83	902.38
BM5	22 363.94	34 62993.16	910.68

REVISIONS		
REV.	DATE	DESCRIPTION
T	09/21	FIRST ISSUE FOR TENDER

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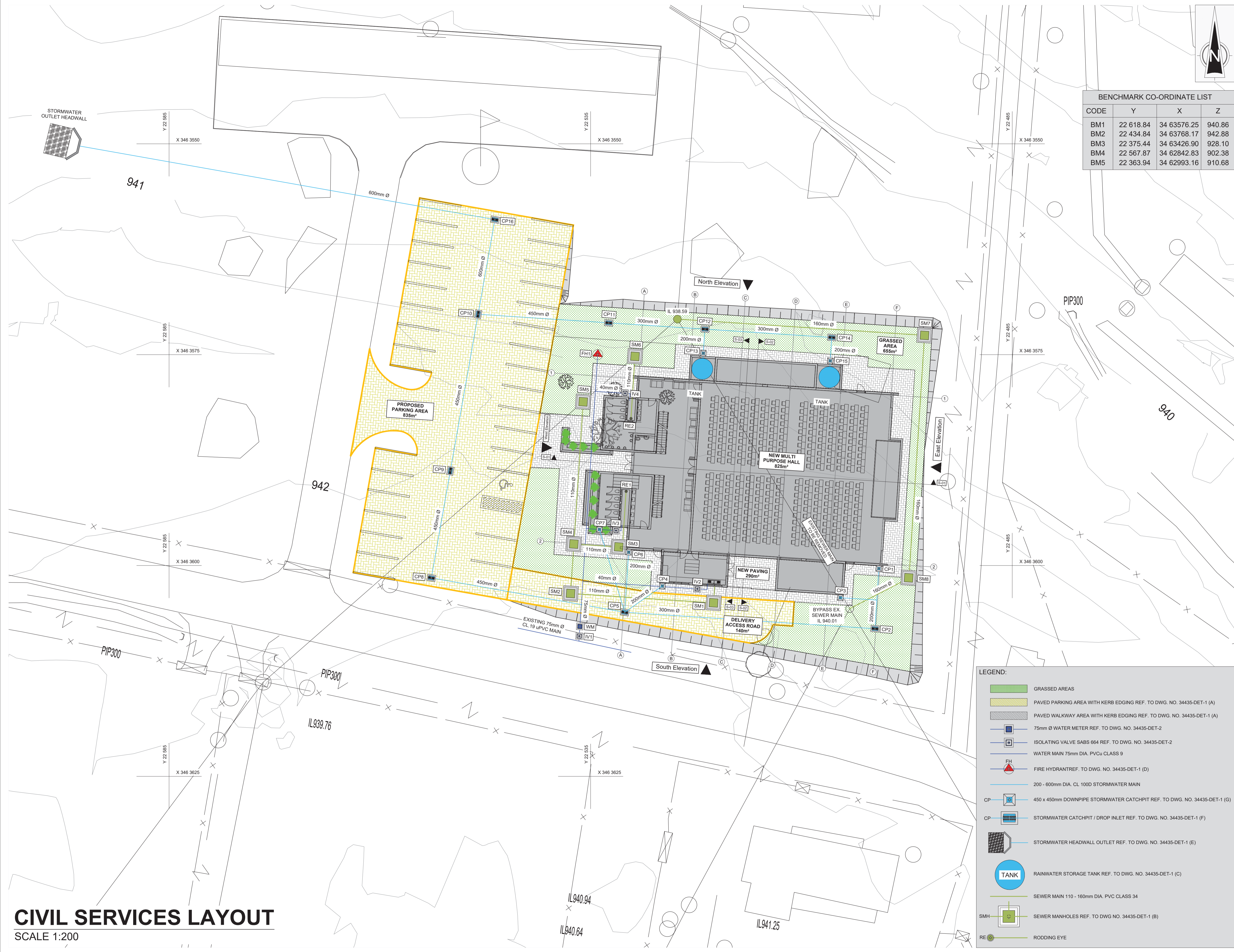
CIVIL SERVICES LAYOUT

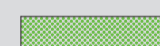









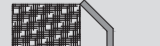




PROJECT NO. 34435
DRAWING NO. 34435-CIV-1
Scale: 1:200
Date: 26/08/2021
DRAFTING AND DESIGN TEAM
Designed by: M.A. STEYN
Drawn by: J.A. JONKER
Checked by: W.D. LANGE

APPROVAL DRAWING

Name: M. STEYN
Signed: _____ Date: _____

Practice: BVI BORDER



LEGEND:	
	GRASSED AREAS
	PAVED PARKING AREA WITH KERB EDGING REF. TO DWG. NO. 34435-DET-1 (A)
	PAVED WALKWAY AREA WITH KERB EDGING REF. TO DWG. NO. 34435-DET-1 (A)
	75mm Ø WATER METER REF. TO DWG. NO. 34435-DET-2
	ISOLATING VALVE SABS 664 REF. TO DWG. NO. 34435-DET-2
	WATER MAIN 75mm DIA. PVCu CLASS 9
	FIRE HYDRANTREF. TO DWG. NO. 34435-DET-1 (D)
	200 - 600mm DIA. CL 100D STORMWATER MAIN
	450 x 450mm DOWNPIPE STORMWATER CATCHPIT REF. TO DWG. NO. 34435-DET-1 (G)
	STORMWATER CATCHPIT / DROP INLET REF. TO DWG. NO. 34435-DET-1 (F)
	STORMWATER HEADWALL OUTLET REF. TO DWG. NO. 34435-DET-1 (E)
	RAINWATER STORAGE TANK REF. TO DWG. NO. 34435-DET-1 (C)
	SEWER MAIN 110 - 160mm DIA. PVC CLASS 34
	SEWER MANHOLES REF. TO DWG. NO. 34435-DET-1 (B)
	RODDING EYE

CIVIL SERVICES LAYOUT

SCALE 1:200

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BM5	22 363.94	34 62993.16	910.68

PLATFORM SETTING OUT CO-ORDINATES			
CODE	Y	X	Z
P1	22 544.950	34 63604.058	940.530
P2	22 497.131	34 63612.571	940.530
P3	22 494.464	34 63571.886	940.130
P4	22 538.706	34 63568.986	940.130

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FARM NO: 61
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DRAWING

EARTHWORKS LAYOUT

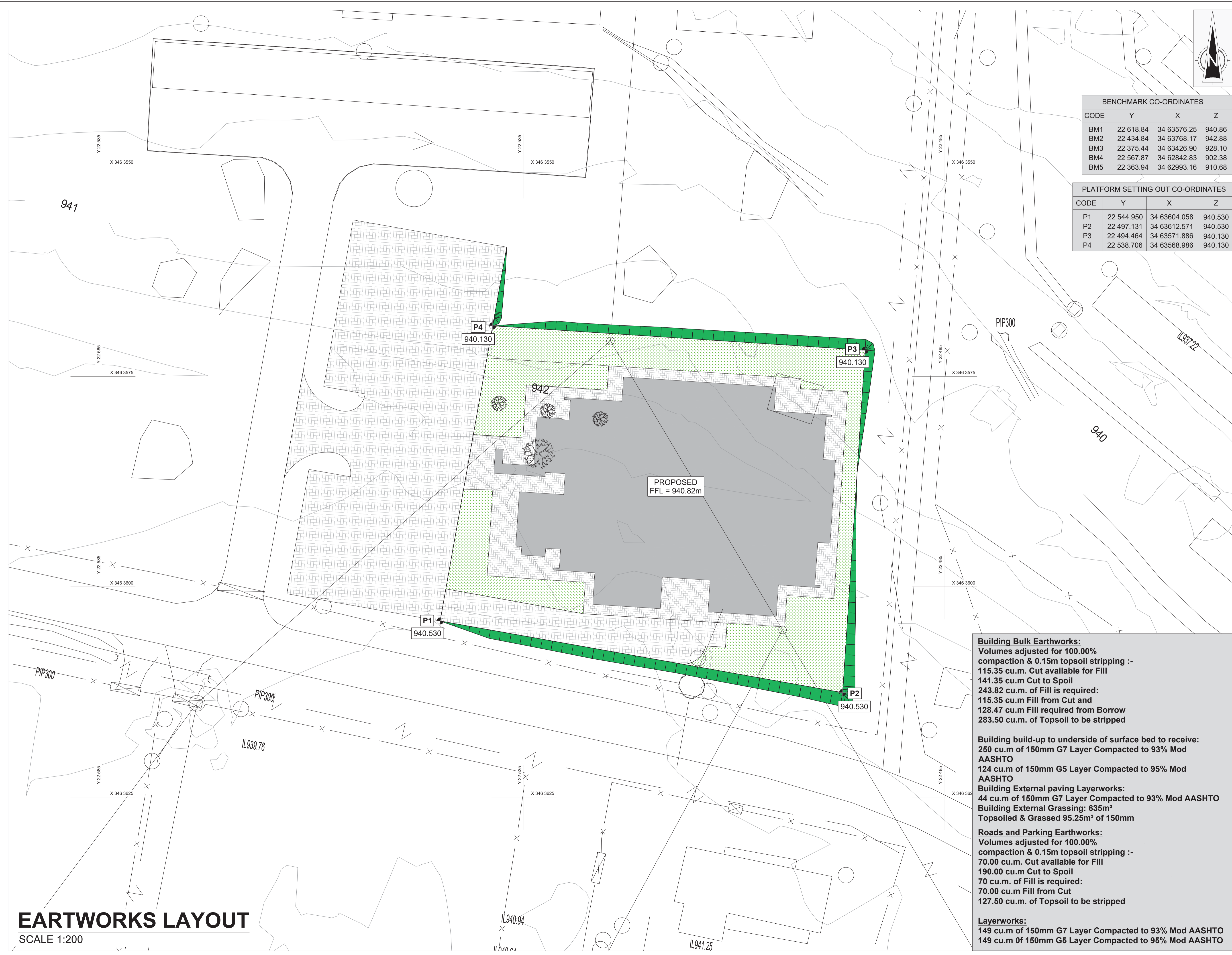
PROJECT NO. 34435
DRAWING NO. 34435-CIV-2
Scale: 1:200
Date: 26/08/2021

DRAFTING AND DESIGN TEAM
Designed by: M.A. STEYN
Drawn by: J.A. JONKER
Checked by: W.D. LANGE

APPROVAL DRAWING

Name: M. STEYN
Signed: _____ Date: _____

Practise: BVI BORDER



Building Bulk Earthworks:
Volumes adjusted for 100.00% compaction & 0.15m topsoil stripping :-
115.35 cu.m. Cut available for Fill
141.35 cu.m Cut to Spoil
243.82 cu.m. of Fill is required:
115.35 cu.m Fill from Cut and
128.47 cu.m Fill required from Borrow
283.50 cu.m. of Topsoil to be stripped

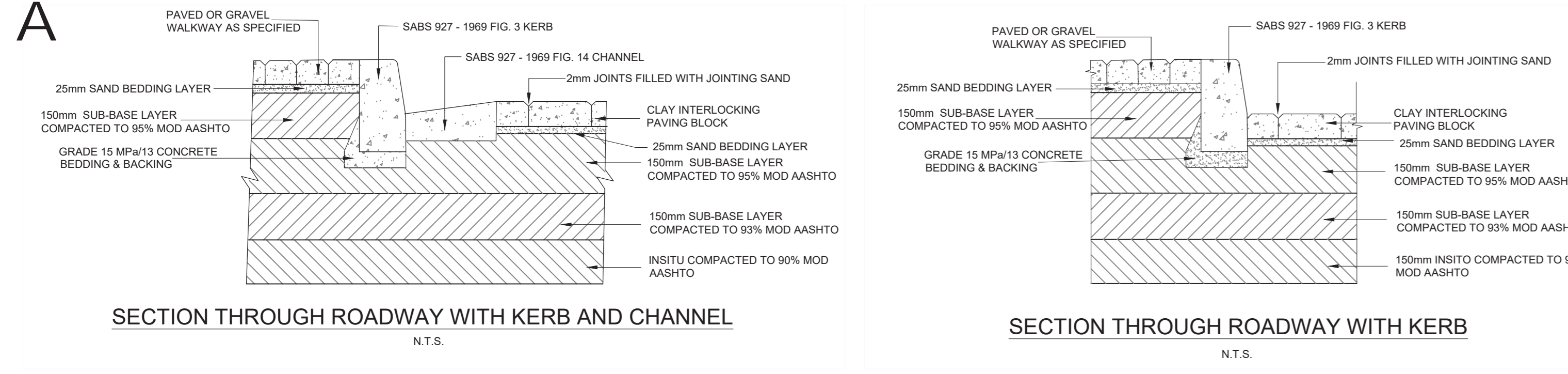
Building build-up to underside of surface bed to receive:
250 cu.m of 150mm G7 Layer Compacted to 93% Mod AASHTO
124 cu.m of 150mm G5 Layer Compacted to 95% Mod AASHTO
Building External paving Layerworks:
44 cu.m of 150mm G7 Layer Compacted to 93% Mod AASHTO
Building External Grassing: 635m²
Topsoiled & Grassed 95.25m³ of 150mm

Roads and Parking Earthworks:
Volumes adjusted for 100.00% compaction & 0.15m topsoil stripping :-
70.00 cu.m. Cut available for Fill
190.00 cu.m Cut to Spoil
70 cu.m. of Fill is required:
70.00 cu.m Fill from Cut
127.50 cu.m. of Topsoil to be stripped

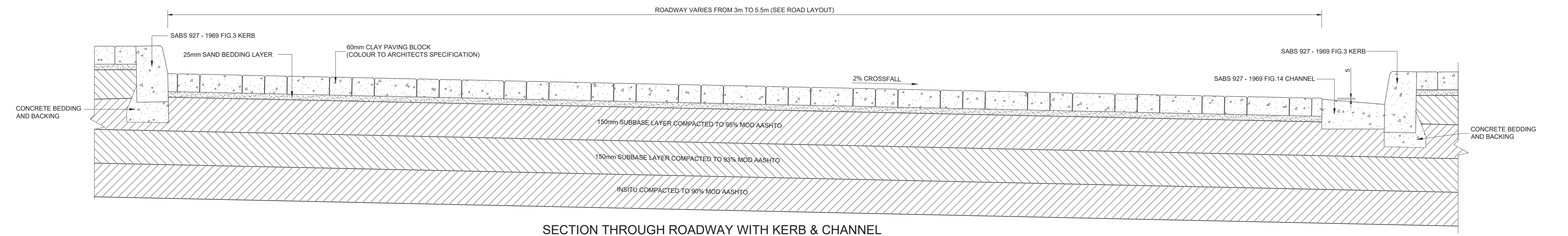
Layerworks:
149 cu.m of 150mm G7 Layer Compacted to 93% Mod AASHTO
149 cu.m of 150mm G5 Layer Compacted to 95% Mod AASHTO

EARTWORKS LAYOUT
SCALE 1:200

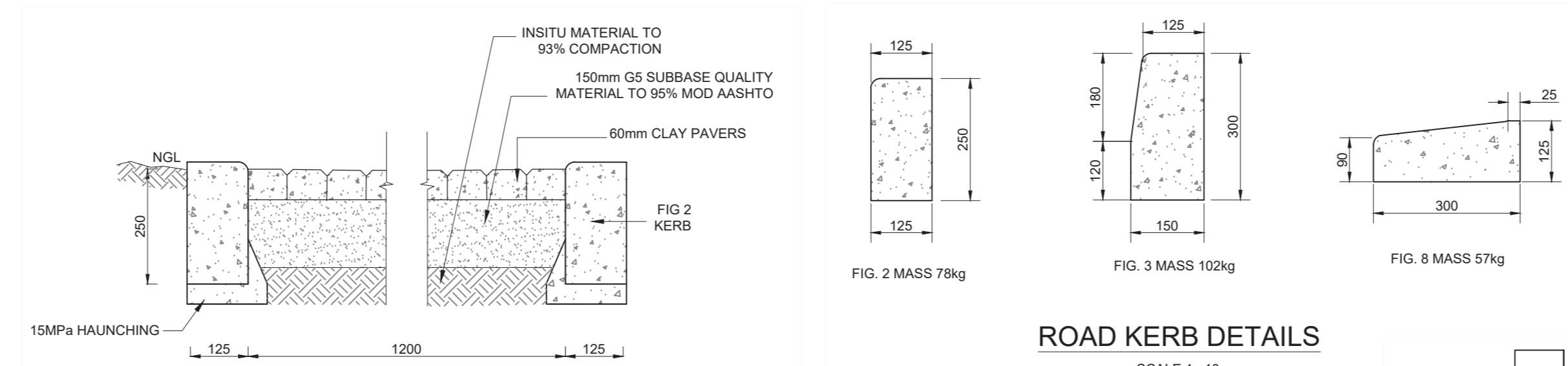
A



SECTION THROUGH ROADWAY WITH KERB AND CHANNEL
N.T.S.

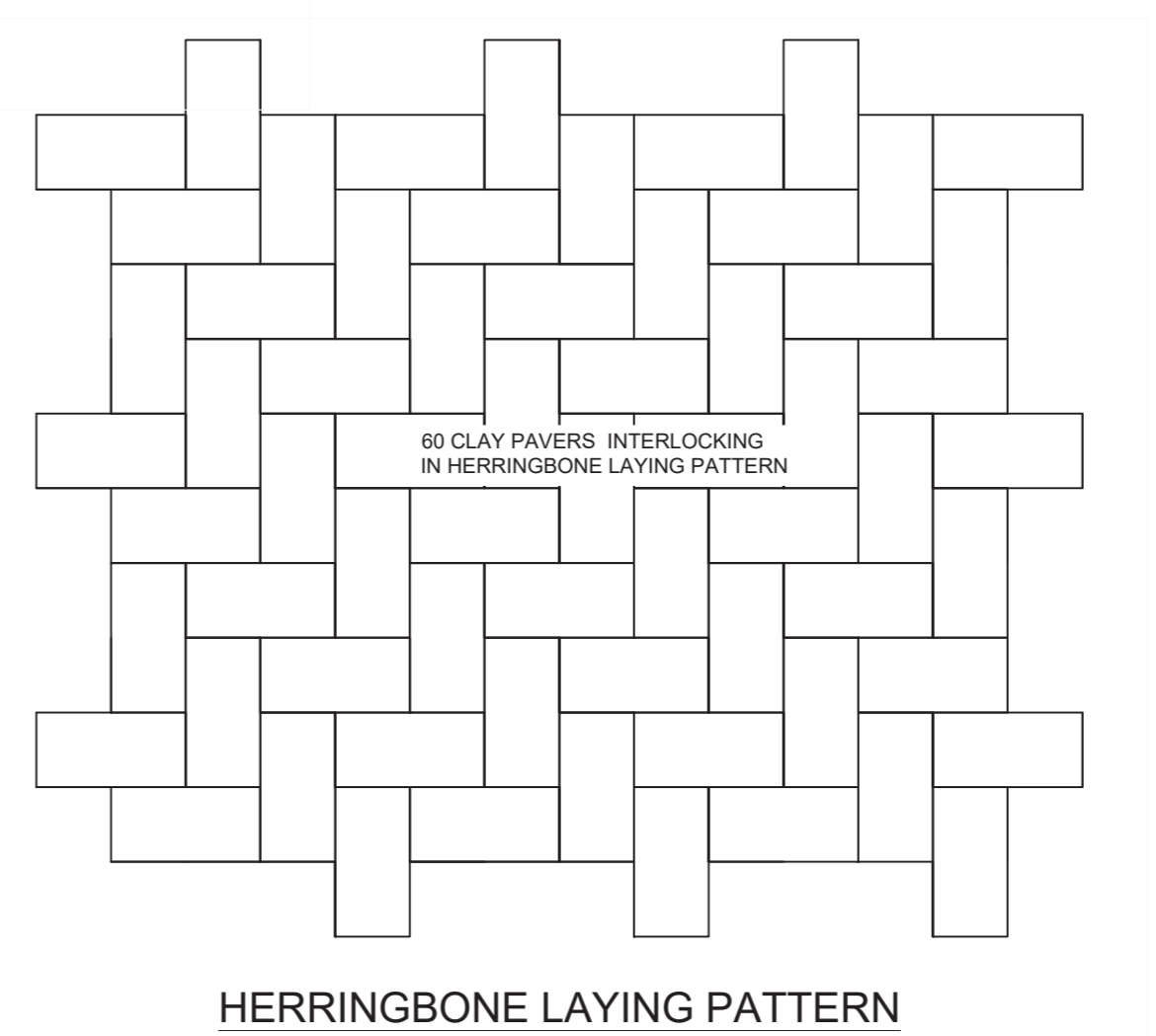
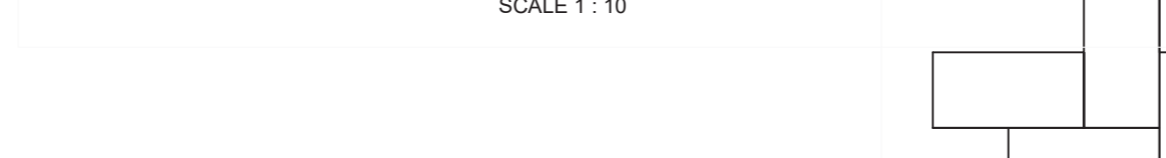


SECTION THROUGH ROADWAY WITH KERB
N.T.S.



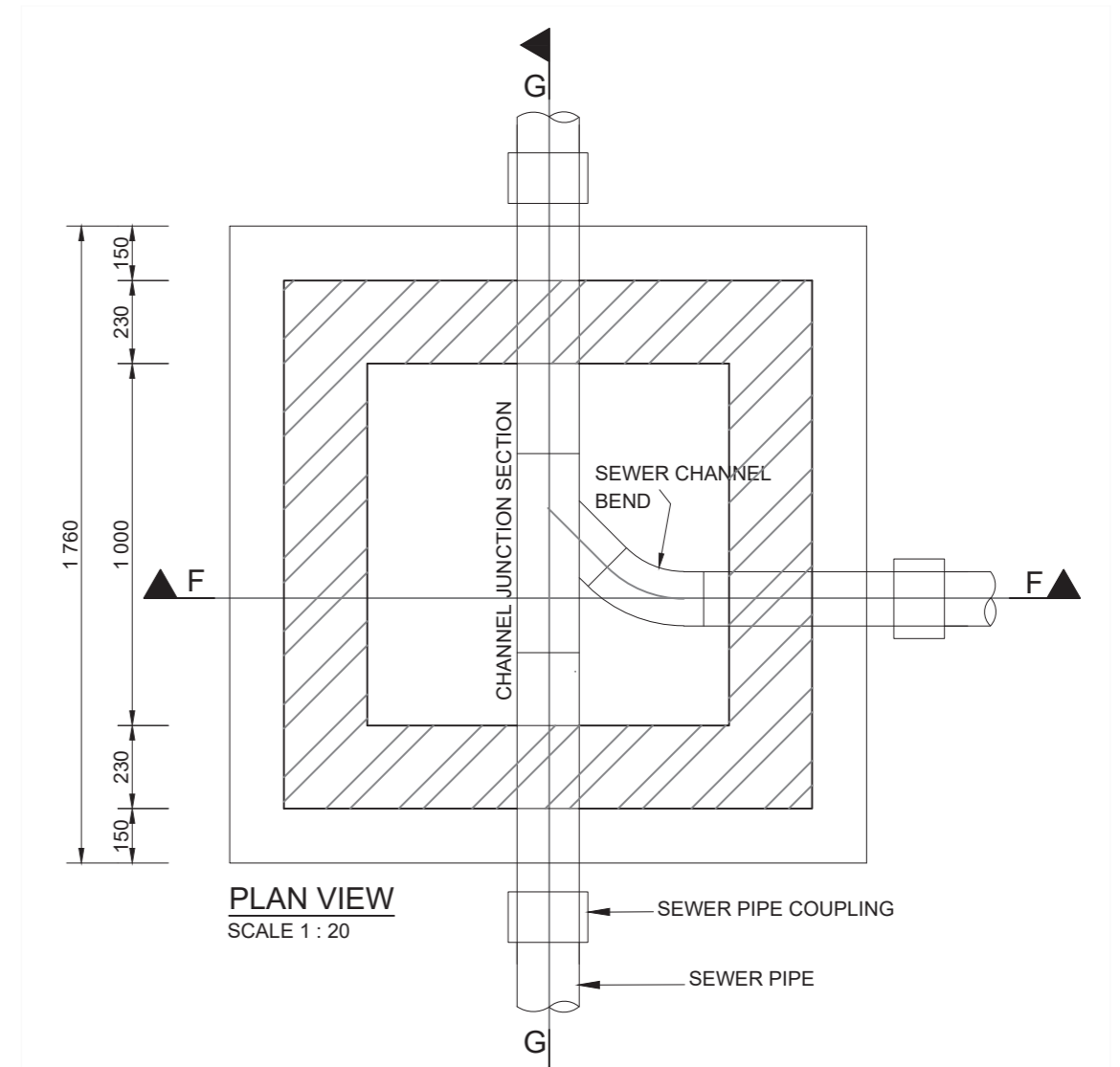
SECTION THROUGH WALKWAYS
SCALE 1:10

ROAD KERB DETAILS
SCALE 1:10

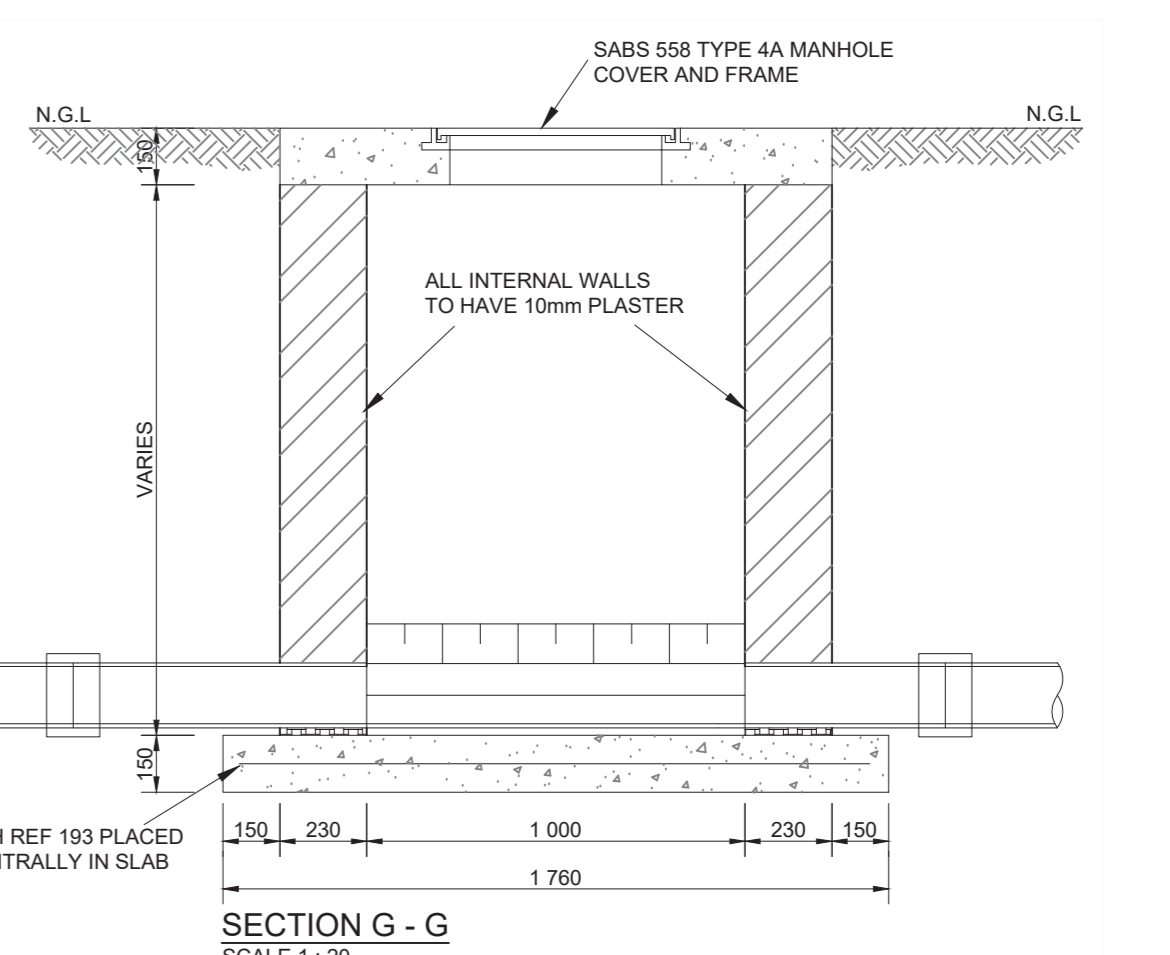


HERRINGBONE LAYING PATTERN
SCALE 1:10

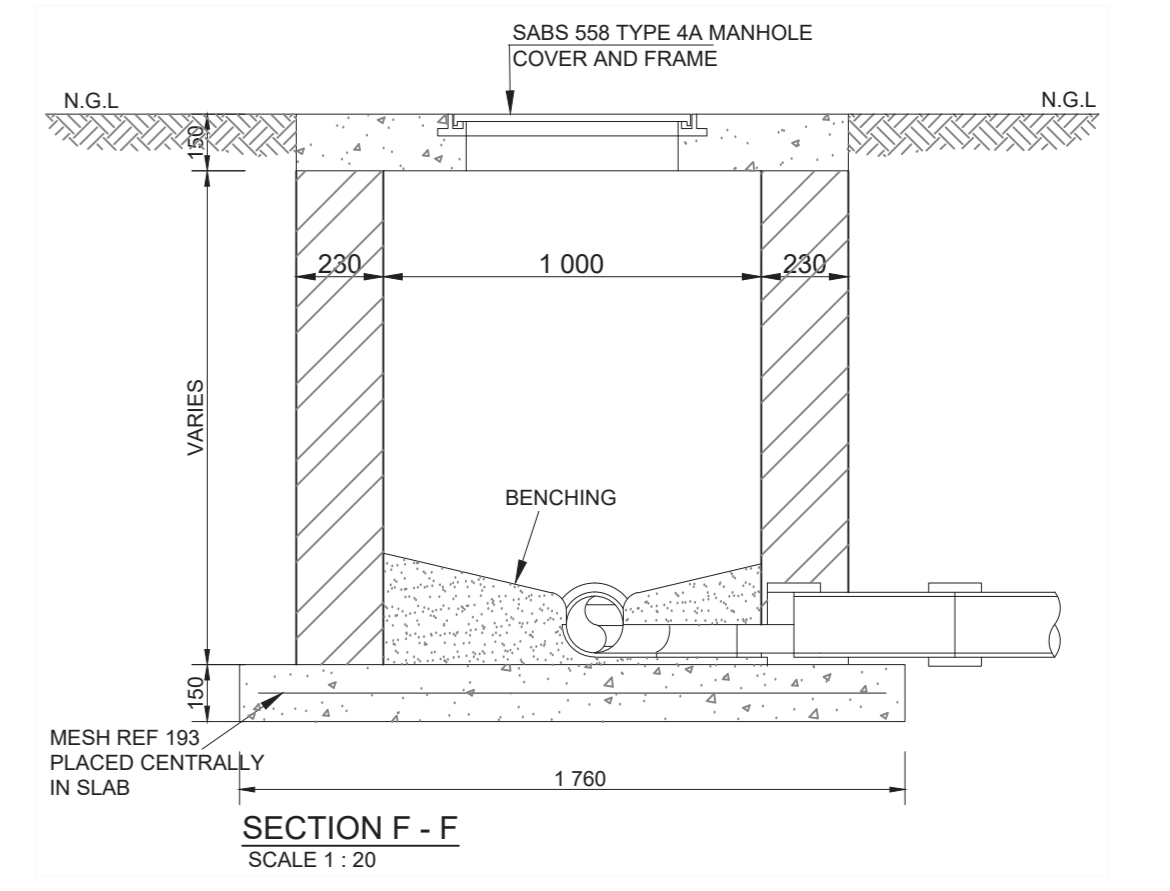
B



PLAN VIEW
SCALE 1:20

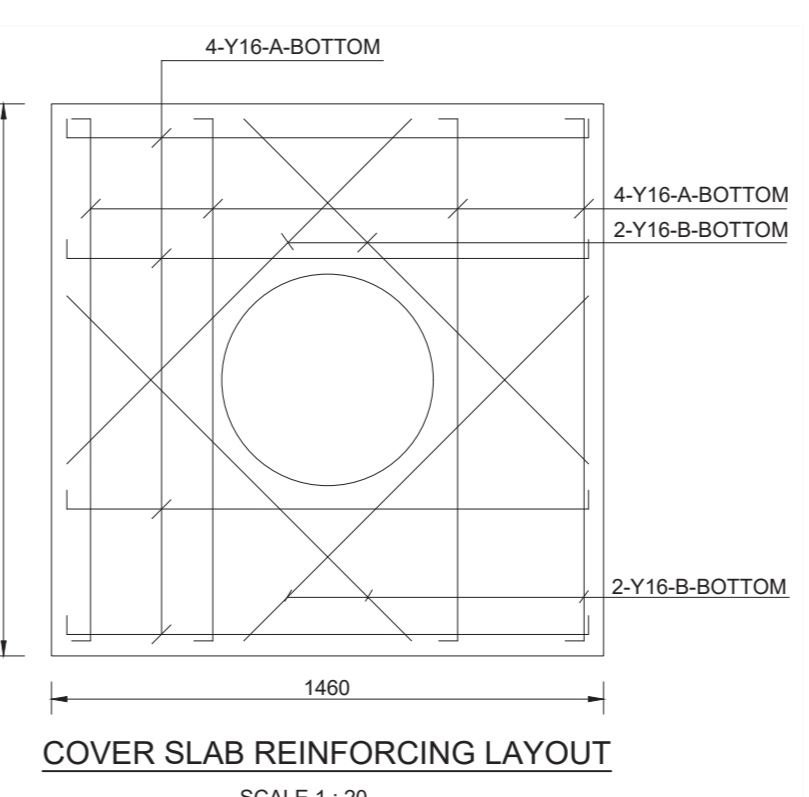


SECTION G - G
SCALE 1:20



SECTION F - F
SCALE 1:20

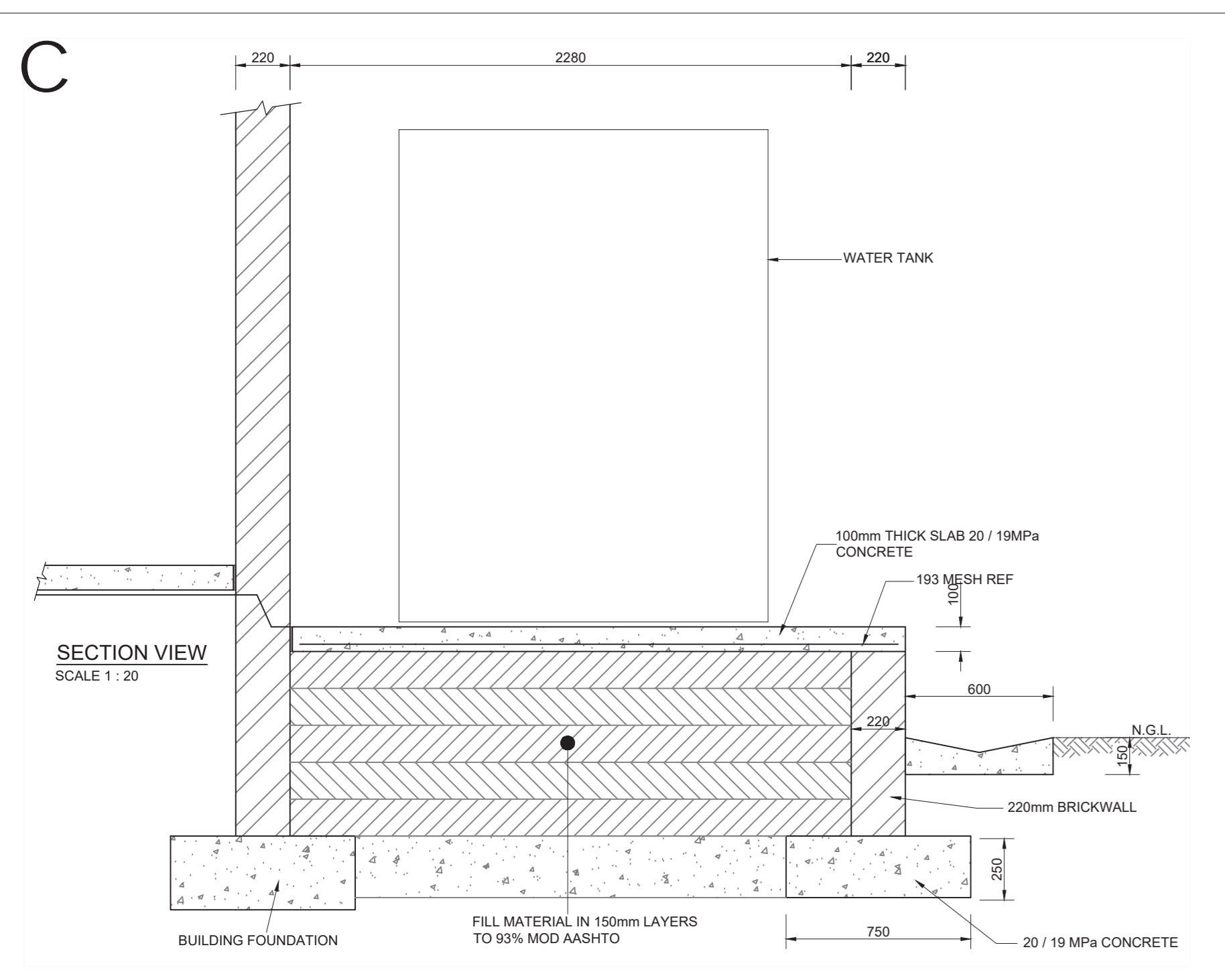
Mark	No	Diam	Length	Bending
A	8	Y16	1700	1400
B	4	Y16	1200	



COVER SLAB REINFORCING LAYOUT
SCALE 1:20

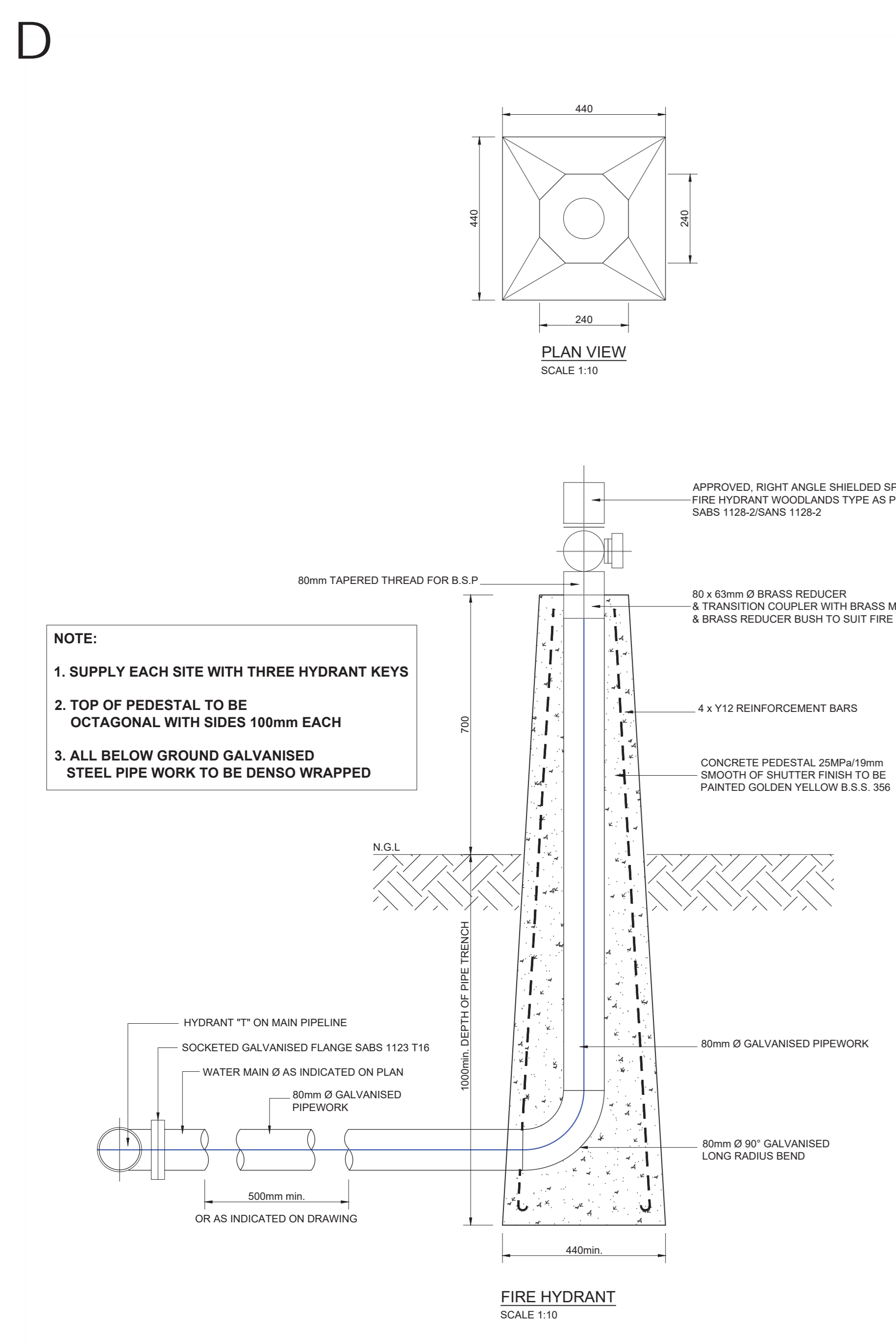
SEWER MANHOLE DETAILS

C



WATER TANK BASE DETAIL
SCALE 1:20

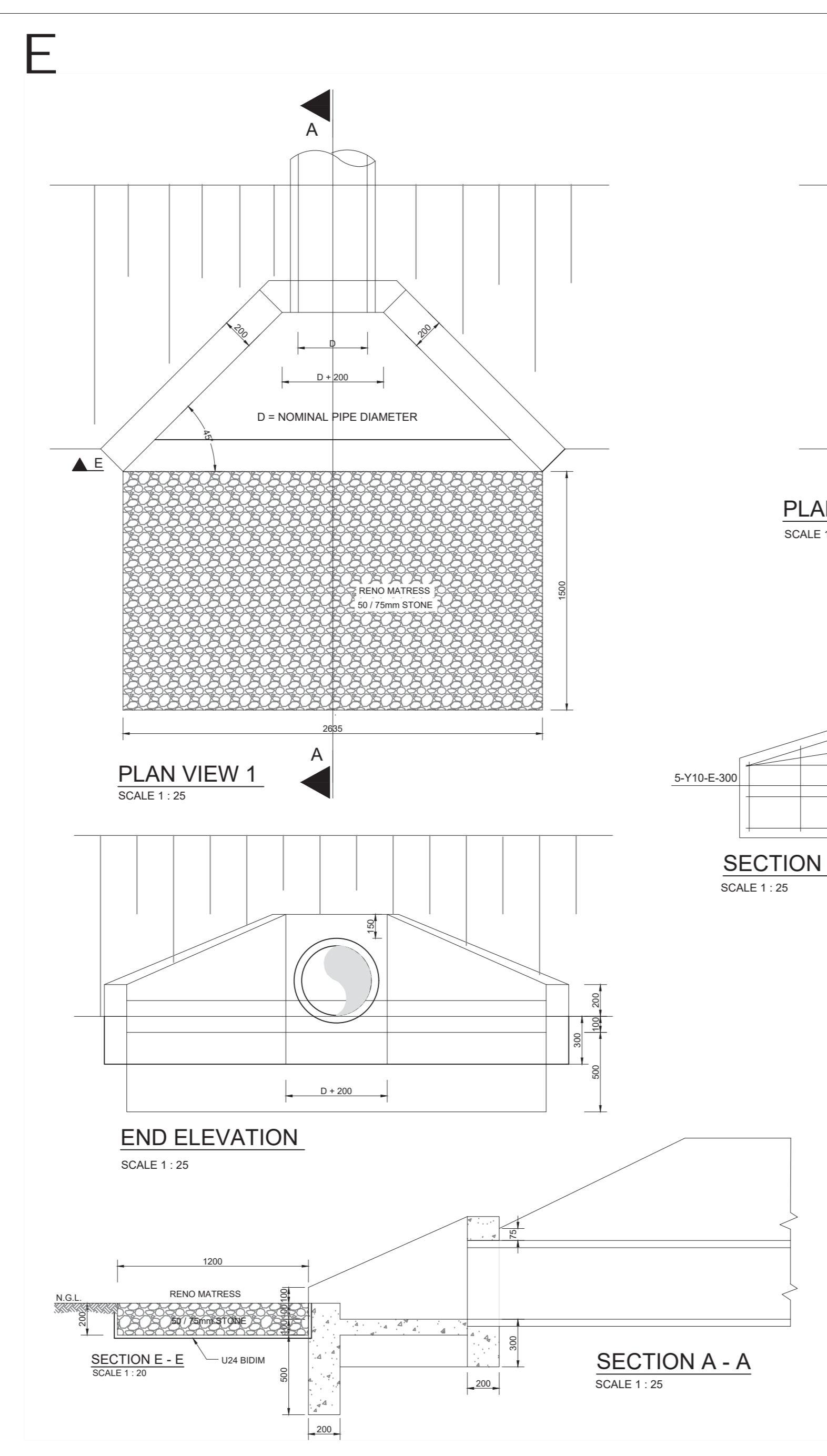
D



FIRE HYDRANT
SCALE 1:10

- NOTE:**
- SUPPLY EACH SITE WITH THREE HYDRANT KEYS
 - TOP OF PEDESTAL TO BE OCTAGONAL WITH SIDES 100mm EACH
 - ALL BELOW GROUND GALVANISED STEEL PIPE WORK TO BE DENSO WRAPPED

E



STORMWATER OUTLET & HEADWALL DETAIL
SCALE 1:25

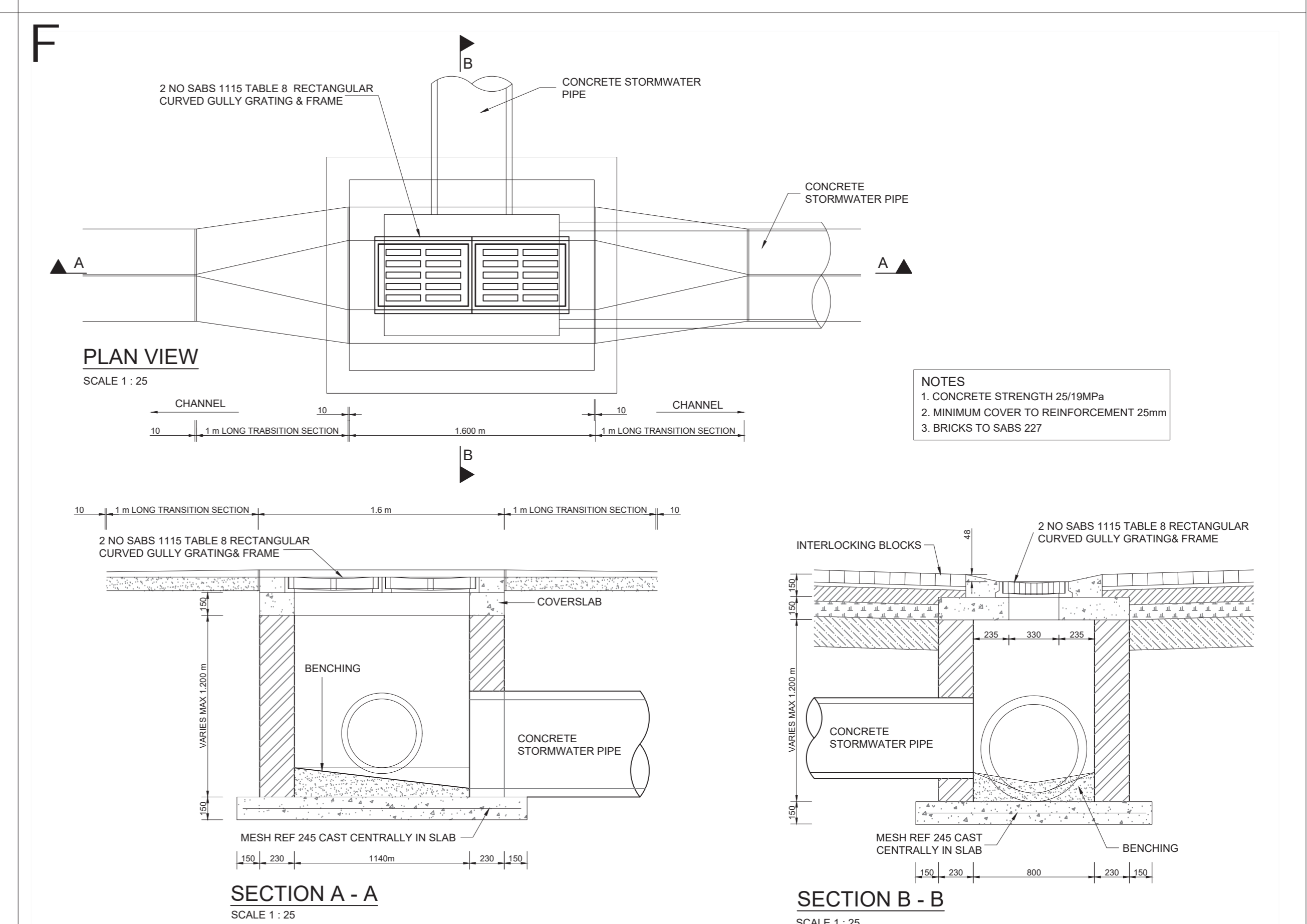
BENDING SCHEDULE
SCALE 1:25

PART	MARK	600mm Ø PIPE		450mm Ø PIPE		BENDING DETAILS
		No	LENGTH	No	LENGTH	
STORMWATER OUTLET	C	4	Y10	4	Y10	D=450
	D	10	Y10	10	Y10	300
	E	12	Y10	12	Y10	13800(T)
	F	3	Y10	3	Y10	10500(T)
	G	3	Y10	3	Y10	2400
	H	4	Y10	4	Y10	8000(T)
	J	10	Y10	10	Y10	8000(T)
	S	12	Y10	12	Y10	11000(T)

(T) - TOTAL LENGTH OF SPECIFIC BAR

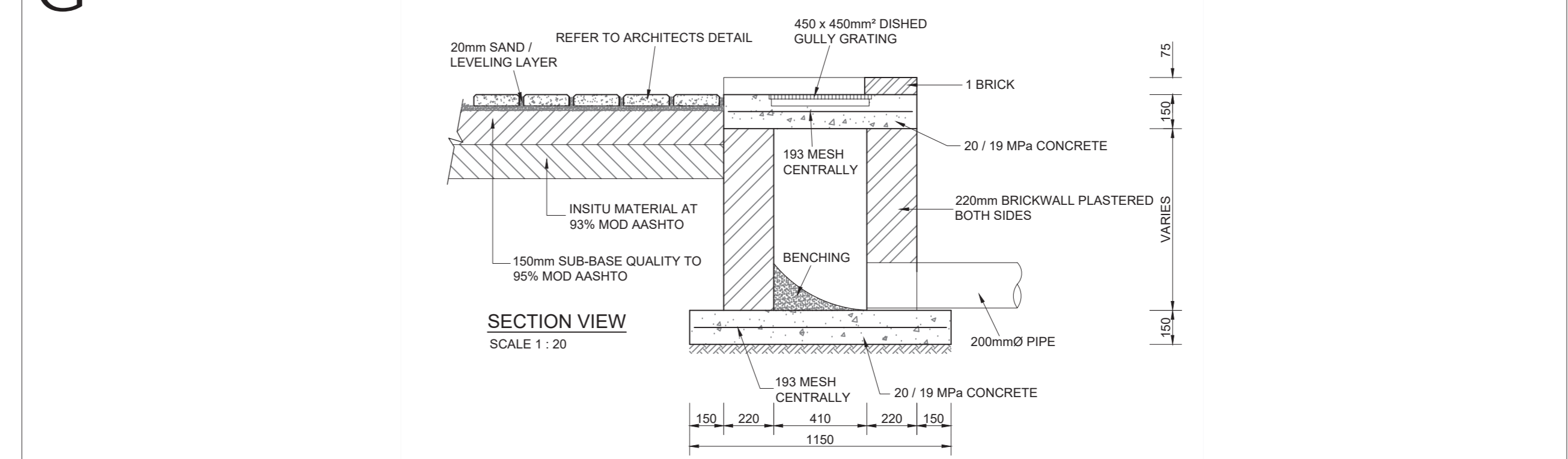
BENDING SCHEDULE
SCALE 1:25

F



STORMWATER GRID INLET DETAIL
SCALE 1:25

G



DROP INLET CATCHPIT DETAIL
SCALE 1:20

bvi ENGINEERING PROCUREMENT MANAGEMENT

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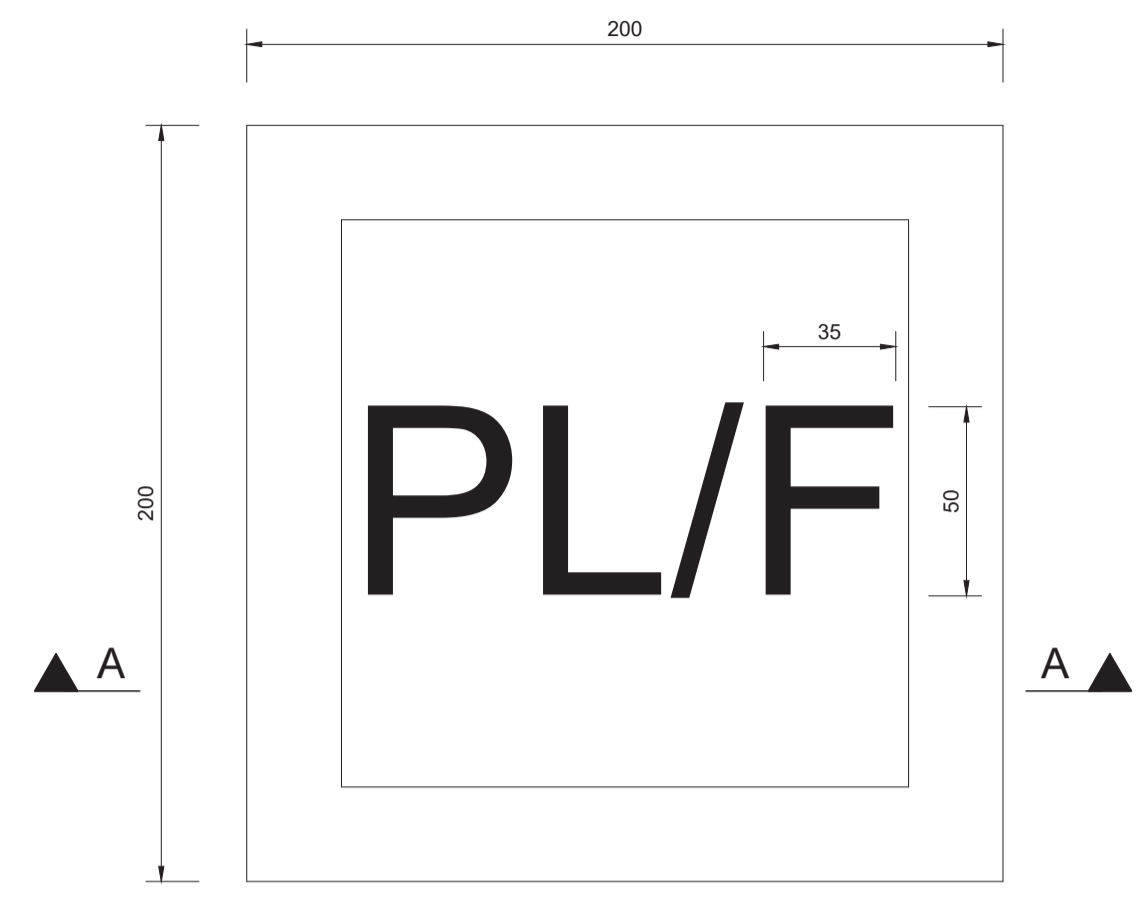
DRAWING
STANDARD DETAILS

PROJECT NO. 34435
DRAWING NO. 34435-DET-1
Scale: AS SHOWN
Date: 25/08/2021

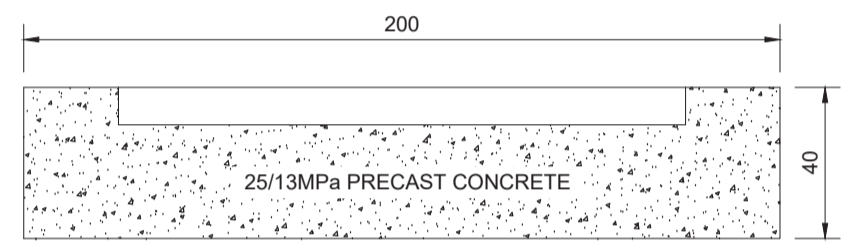
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APPROVAL DRAWING
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Signed: _____ Date: _____

Practice: BVI BORDER

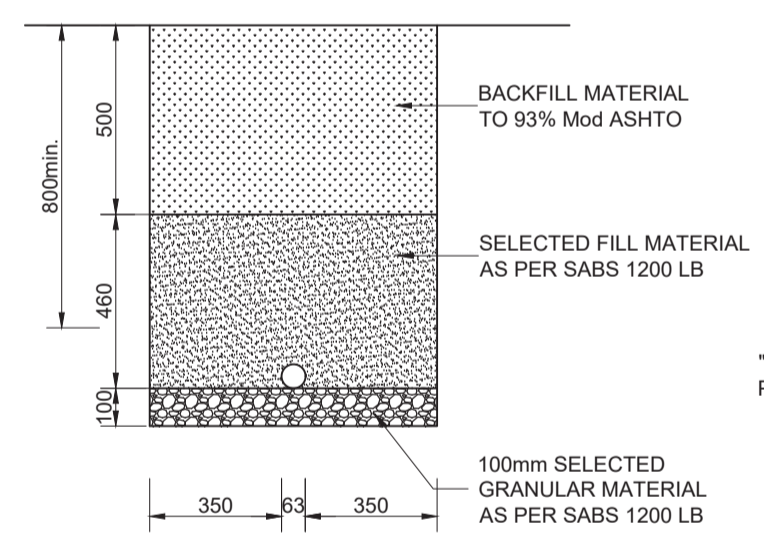


PLAN & LETTERING DETAIL
SCALE 1:2

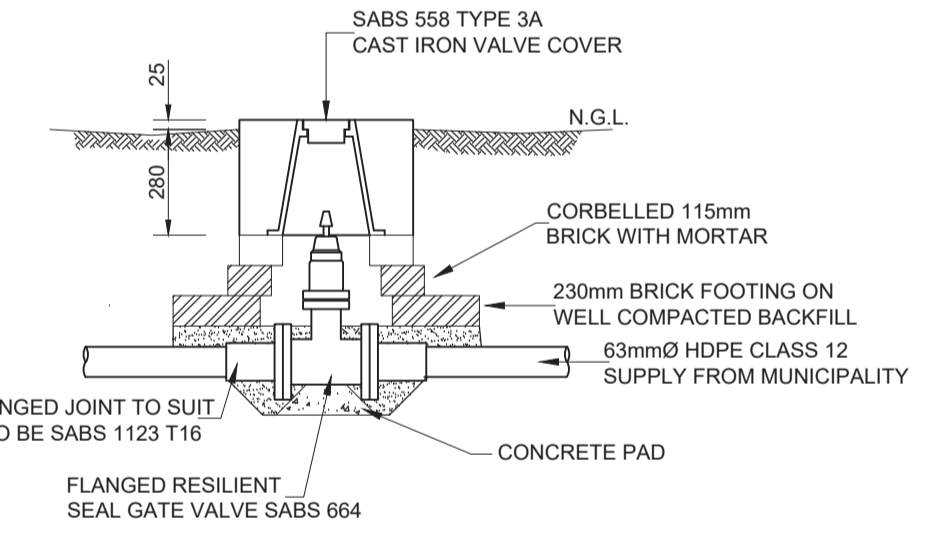


SECTION A - A
SCALE 1:2

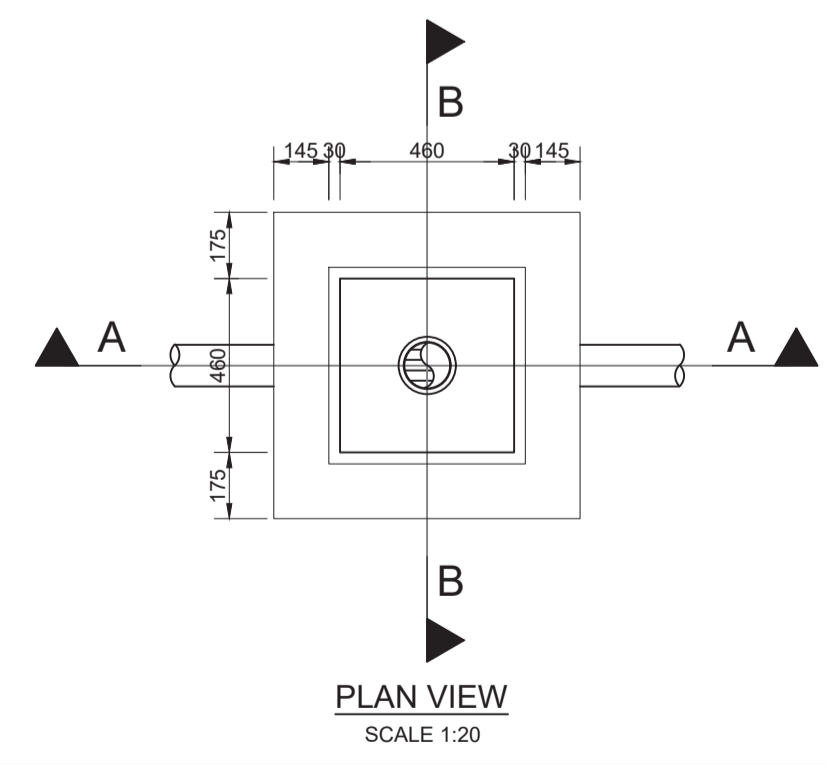
PIPELINE MARKER SET IN CONCRETE SURFACE



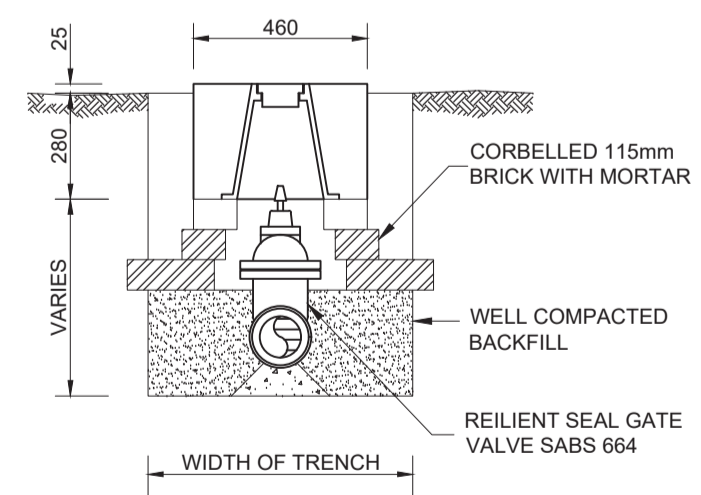
TYPICAL TRENCH EXCAVATION
SCALE 1:20



SECTION A - A
SCALE 1:20



PLAN VIEW
SCALE 1:20

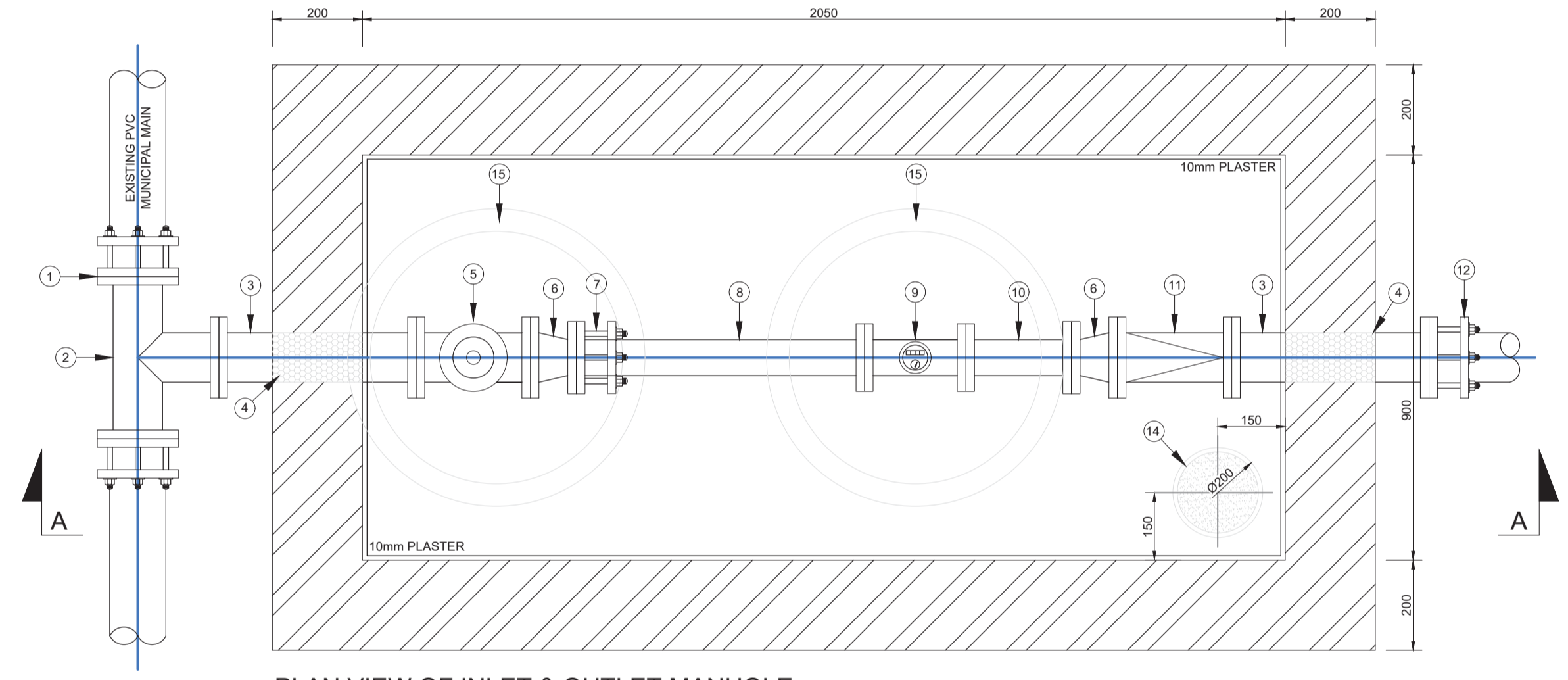


SECTION B - B
SCALE 1:20

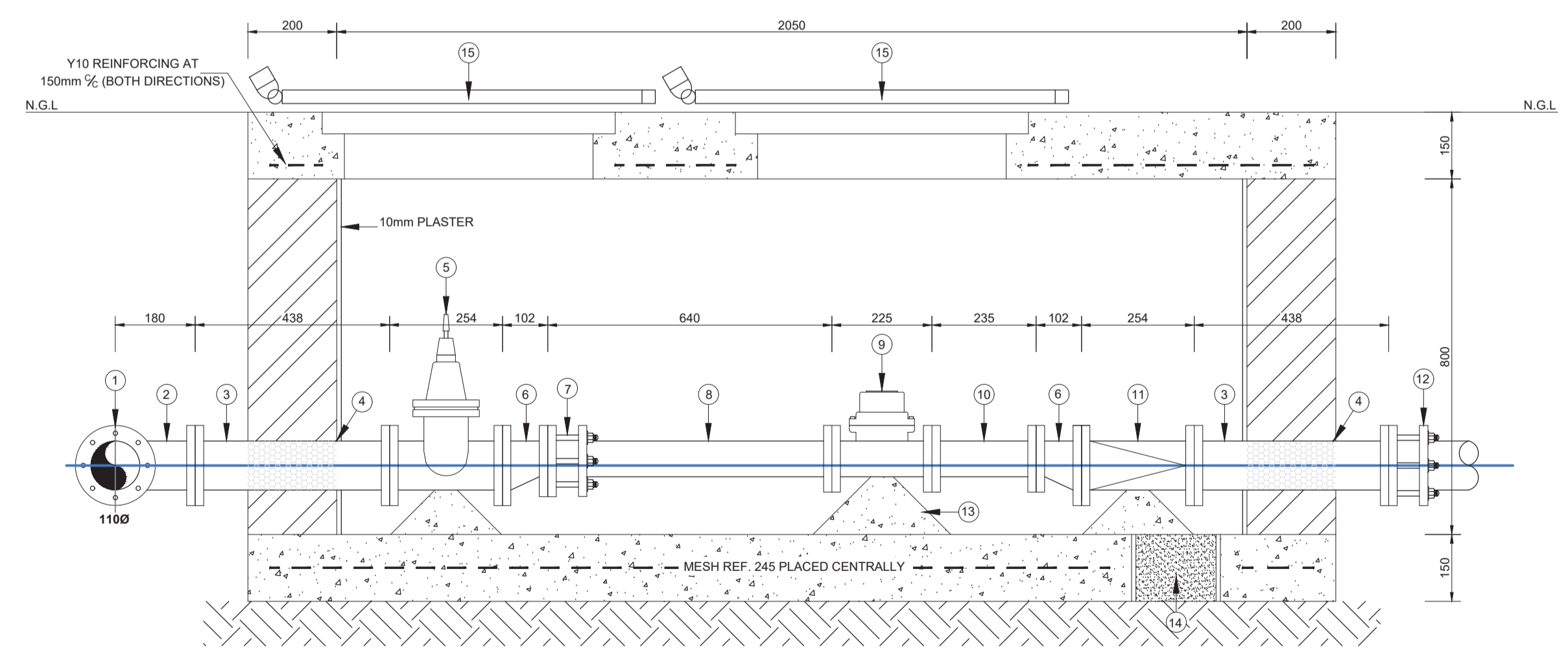
ISOLATING VALVE & TRENCH DETAIL

LEGEND:

- ① 125mm Ø VJ FLANGED ADAPTOR STEPPED COUPLING TO SUIT MUNICIPAL MAIN
- ② 110mm Ø S/S GRADE 304 EQUAL TEE FLANGED ALL ENDS TO SABS 1123 T16
- ③ 438mm LONG x 110mm Ø S/S GRADE 304 EXTENSION PIECE FLANGED BOTH ENDS
- ④ DENZO WRAPPED PIPE PROTECTION
- ⑤ 100mm Ø CLASS 16 RSV SABS 664 GATE VALVE RIGHT HAND CLOSING WITH VALVE CAP FLANGED TO SABS 1123 T16
- ⑥ 100 x 80mm Ø S/S GRADE 304 ECCENTRIC REDUCER FLANGED BOTH ENDS SABS 1123 T16
- ⑦ 80mm Ø FLANGE ADAPTOR FLANGES SABS 1123 T16
- ⑧ 640mm LONG x 80mm Ø S/S GRADE 304 EXTENSION PIECE FLANGED BOTH ENDS SABS 1123 T16
- ⑨ 80mm Ø BULK WATER METER HELIX 4000 WITH PULSE OUTPUT FLANGED BOTH ENDS SABS 1123 T16
- ⑩ 235mm LONG x 80mm Ø S/S GRADE 304 EXTENSION PIECE FLANGED BOTH ENDS SABS 1123 T16
- ⑪ 100mm Ø CAST IRON NON - RETURN VALVE OF THE SWING TYPE
- ⑫ 110mm Ø VJ FLANGE ADAPTOR TO SUIT MAIN PIPELINE
- ⑬ HAUNCHING
- ⑭ 200mm Ø DRAIN WITH 13mm NO-FINES CONCRETE
- ⑮ TYPE 1B MANHOLE COVER & FRAME COMPLETE WITH LOCKING DEVICE AS PER MUNICIPAL DETAILS



PLAN VIEW OF INLET & OUTLET MANHOLE
SCALE 1:10



SECTION A - A
SCALE 1:10

80mm Ø WATER METER INSTALLATION



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Civil Engineers:

bvi
1st Floor, Esprit House, St Helena Drive
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Werner@bvi.co.za

CLIENT

TSOLO AGRICULTURE & RURAL DEVELOPMENT INSTITUTE.

Private Bag K1008,
Tsole, 5170
Tel: 047 - 542 3700



PROJECT

300 SEATER EXAM HALL AT THE
TSOLO AGRICULTURAL &
RURAL DEVELOPMENT INSTITUTE.

LOCATION

FARM NO: 61
TSOLO

ISSUED FOR

MUNICIPAL SUBMISSION

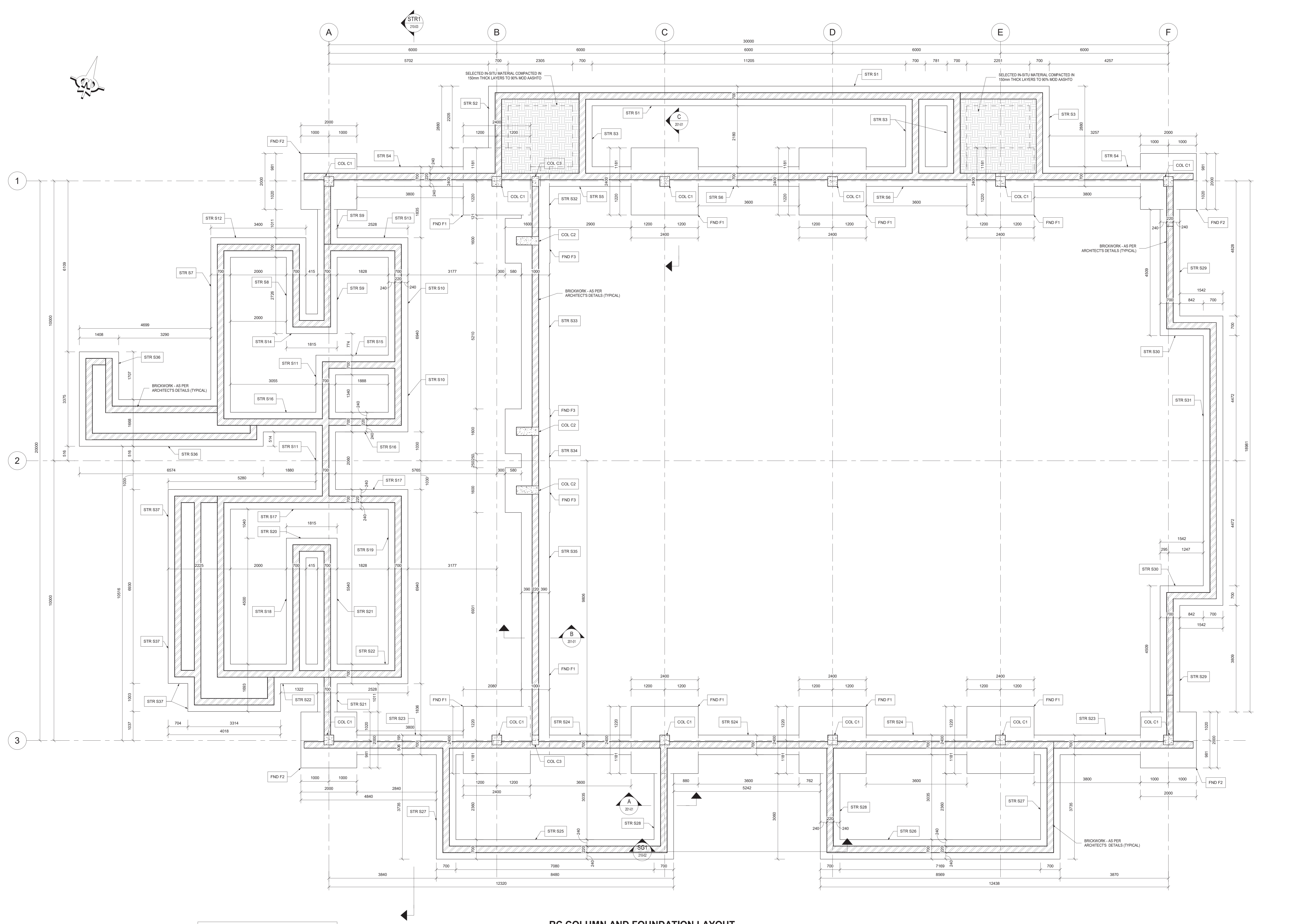
DRAWING

WATER METER & ISOLATING
VALVE CHAMBER DETAIL

PROJECT NO. 34435
DRAWING NO. 34435-DET-2
Scale: AS SHOWN
Date: 26/08/2021
DRAFTING AND DESIGN TEAM
Designed by: M.A. STEYN
Drawn by: J.A. JONKER
Checked by: W.D. LANGE

APPROVAL DRAWING

Name: M. STEYN
Signed: _____ Date: _____
Practice: BVI BORDER



RC PAD FOUNDATION LEGEND:		
No.	SIZE	QTY
FND F1	2400x2400x400mm THICK RC PAD FOUNDATION	8
FND F2	3000x2400x400mm THICK RC PAD FOUNDATION	4
FND F3	1500x1500x400mm THICK RC PAD FOUNDATION	3

RC STRIP FOUNDATION LEGEND:		
No.	SIZE	QTY
STR S1	700x300mm THICK RC STRIP FOUNDATION	1
STR S2	700x300mm THICK RC STRIP FOUNDATION	1
STR S3	700x300mm THICK RC STRIP FOUNDATION	4
STR S4	700x300mm THICK RC STRIP FOUNDATION	2
STR S5	700x300mm THICK RC STRIP FOUNDATION	1
STR S6	700x300mm THICK RC STRIP FOUNDATION	1
STR S7	700x300mm THICK RC STRIP FOUNDATION	1
STR S8	700x300mm THICK RC STRIP FOUNDATION	1
STR S9	700x300mm THICK RC STRIP FOUNDATION	1
STR S10	700x300mm THICK RC STRIP FOUNDATION	1
STR S11	700x300mm THICK RC STRIP FOUNDATION	1
STR S12	700x300mm THICK RC STRIP FOUNDATION	1
STR S13	700x300mm THICK RC STRIP FOUNDATION	1
STR S14	700x300mm THICK RC STRIP FOUNDATION	1
STR S15	700x300mm THICK RC STRIP FOUNDATION	1
STR S16	700x300mm THICK RC STRIP FOUNDATION	1
STR S17	700x300mm THICK RC STRIP FOUNDATION	1
STR S18	700x300mm THICK RC STRIP FOUNDATION	1
STR S19	700x300mm THICK RC STRIP FOUNDATION	1
STR S20	700x300mm THICK RC STRIP FOUNDATION	1
STR S21	700x300mm THICK RC STRIP FOUNDATION	1
STR S22	700x300mm THICK RC STRIP FOUNDATION	1
STR S23	700x300mm THICK RC STRIP FOUNDATION	1
STR S24	700x300mm THICK RC STRIP FOUNDATION	1
STR S25	700x300mm THICK RC STRIP FOUNDATION	1
STR S26	700x300mm THICK RC STRIP FOUNDATION	1
STR S27	700x300mm THICK RC STRIP FOUNDATION	1
STR S28	700x300mm THICK RC STRIP FOUNDATION	1
STR S29	700x300mm THICK RC STRIP FOUNDATION	1
STR S30	700x300mm THICK RC STRIP FOUNDATION	1
STR S31	700x300mm THICK RC STRIP FOUNDATION	1
STR S32	700x300mm THICK RC STRIP FOUNDATION	1
STR S33	700x300mm THICK RC STRIP FOUNDATION	1
STR S34	700x300mm THICK RC STRIP FOUNDATION	1
STR S35	700x300mm THICK RC STRIP FOUNDATION	1
STR S36	700x300mm THICK RC STRIP FOUNDATION	1
STR S37	700x300mm THICK RC STRIP FOUNDATION	1

RC COLUMNS LEGEND:		
No.	SIZE	QTY
COL C1	350x350mm RC COLUMN	12
COL C2	800x400mm RC COLUMN	3
COL C3	350x350mm RC COLUMN	2

NOTES / LEGEND

GENERAL

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL MATERIALS AND WORKMANSHIP CONFORM WITH THE DETAILS AND SPECIFICATIONS SHOWN ON THIS DRAWING AND ALL RELEVANT SABS SPECIFICATIONS, RESPECTIVE OF WHETHER THE ENGINEER HAS INSPECTED THE WORKS ON SITE OR NOT.
2. ALL DIMENSIONS AND LEVELS TO BE CHECKED ON SITE AND CORRELATED WITH THE ARCHITECT'S DRAWINGS BEFORE CONSTRUCTION COMMENCES.
3. ALL WRITTEN DIMENSIONS USED IN PREFERENCE TO SCALING.
4. ALL WATERPROOFING DETAILS TO BE IN ACCORDANCE WITH THE ARCHITECT'S SPECIFICATION AND INSTRUCTIONS.

FOUNDATIONS:

1. EXCAVATIONS FOR ALL FOUNDATIONS TO BE CHECKED AND APPROVED BY THE ENGINEER PRIOR TO CASTING OF ANY CONCRETE.
2. ALL FOUNDATIONS TO BE FOUNDED ON SOUND IN-SITU MATERIAL. NO FOUNDATION WILL BE ALLOWED ON ANY FILL.
3. TOP OF FOUNDATION LEVEL TO BE MIN 300mm BELOW FINAL OUTSIDE CURB AND LEVEL OR FFL, WHICHEVER IS THE LOWER.

CONCRETE:

CONCRETE CUBE STRENGTH MIN AT 28 DAYS:

- BLINDING LAYER: -15MPa/15mm STONE
- RC PAD FOUNDATIONS: -15MPa/15mm STONE
- RC STRIP FOUNDATIONS: -15MPa/15mm STONE
- RC APPROX / V-DRAINS: -15MPa/15mm STONE
- RC SURFACE BEDS: -15MPa/15mm STONE
- RC COLUMNS: -15MPa/15mm STONE
- RC BEAMS: -15MPa/15mm STONE
- RC SLABS: -15MPa/15mm STONE

3. CONCRETE COVER TO REINFORCING:

- RC PAD FOUNDATIONS: 50mm (ALL SIDES)
- RC STRIP FOUNDATIONS: 50mm (ALL SIDES)
- RC APPROX / V-DRAINS: 50mm (FROM TOP)
- RC SURFACE BEDS: 50mm (FROM TOP)
- RC COLUMNS: 40mm (ALL SIDES)
- RC BEAMS: 40mm (ALL SIDES)
- RC SLABS: 40mm (ALL SIDES)

3. ALL REINFORCING FIXED WITH THE SPECIFIED COVER MUST BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO ANY CONCRETE BEING CAST.

4. THE STANDARD SPECIFICATIONS SABS 100 (EXCLUDING PAYMENTS CLAUSES) IS APPLICABLE.

5. ALL CONCRETE TO BE PROPERLY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP, AT LEAST 7 DAYS AFTER CASTING. CONCRETE SLABS TO BE COVERED WITH MOST SAND OR PLASTIC MEMBRANE DURING THIS PERIOD. COLUMNS TO BE WRAPPED IN PLASTIC IMMEDIATELY AFTER REMOVAL OF SHEETINGS.

6. ROOF SHEETING AS PER ARCHITECT'S DETAILS. ALL FLASHINGS AS PER ARCHITECT'S DETAILS.

DO NOT SCALE DRAWING
IF IN DOUBT REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER
D34435S-201-01

NUMBER	DRAWING DESCRIPTION
D34435S-201-01	GENERAL STRUCTURAL NOTES

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT REG. NO. DATE

AMENDMENTS CODE

A.Y. / REPORT DESIGN TENDER / A: BY CLIENT
 00-99 / CONSTRUCTION / B: BY ARCHITECT
 Z / AS BUILT / C: BY MECHANICAL OR ELECTRICAL
 / D: BY BVI
 / E: BY OTHER ()

DATE	INITIAL CODE	REVISION DESCRIPTION
2021/10/27	C.P. TD	ISSUED FOR TENDER PURPOSES ONLY

OFFICES

bvi ENGINEERING PROFESSIONAL MANAGEMENT
 BVI Consulting Engineers KZN PTY (Ltd)
 Registration no. 1580902207

Visit or contact us online at www.bvigroup.co.za

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 KZN Durban +27 31 268 8382 dbv@bvi.co.za

CLIENT
TSOLO AGRICULTURE & RURAL DEVELOPMENT INSTITUTE
 Private Bag X1008, Tsoelo, 5170
 Tel: +27 (47) 542 3700
 rural development & agrarian reform

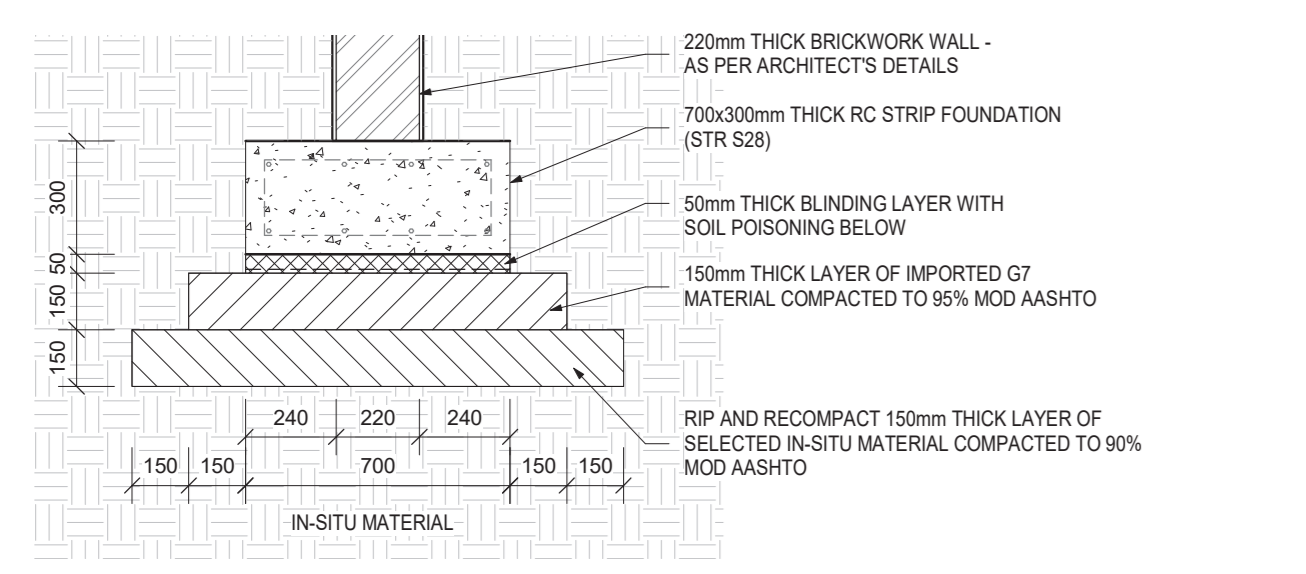
OFFICE OF THE DIRECTOR, ENGINEERING SERVICES
PROJECT:
300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE
RC FOUNDATION - LAYOUT AND DETAILS

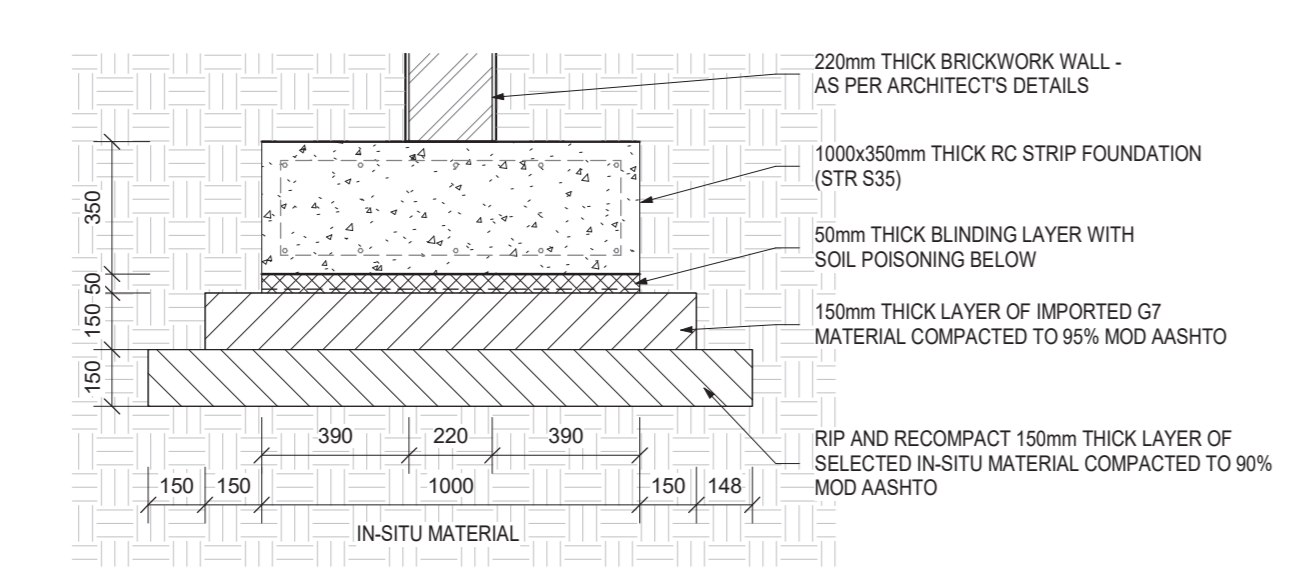
APPROVED BY BVI	
ENGINEER/TECHNOLOGIST	DATE
20201098	
SCALE As Indicated	DRAWN C.P.
DESIGNED P.v.N	CHECKED P.v.N
PLAN NUMBER	REV. NO.
D34435S-201-01	T
	DATE SAVED
	2021/10/27 08:20:55

NOTE:
ALL RC STRIP FOUNDATIONS AND RC PAD FOUNDATIONS TOP OF CONCRETE LEVEL TO BE 300mm BELOW THE SURFACE BED LEVEL.

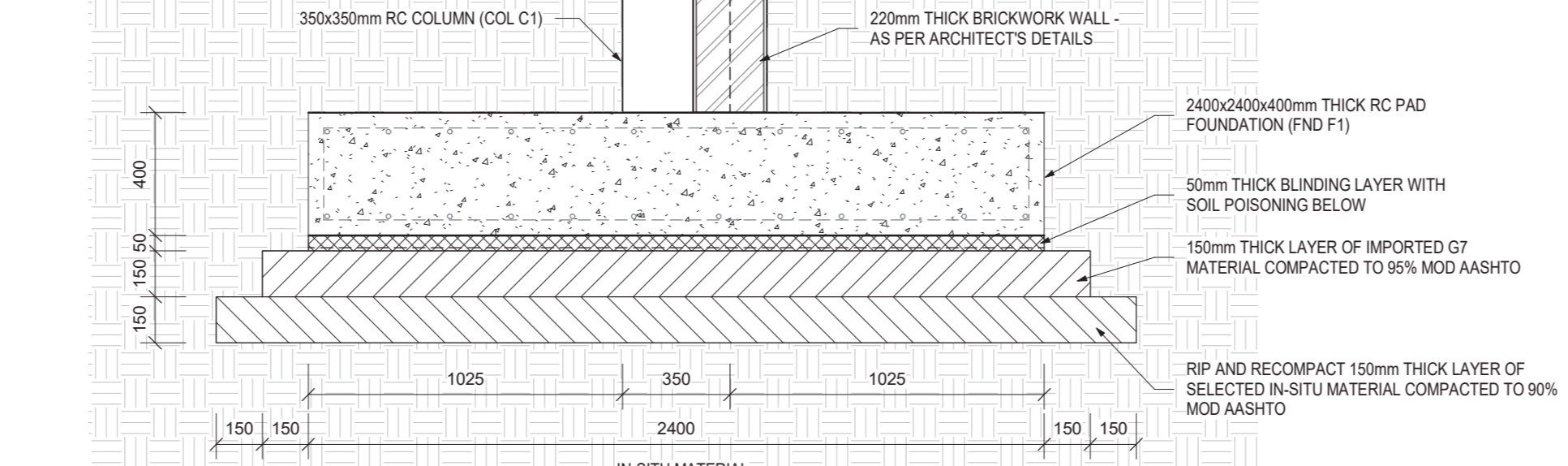
RC COLUMN AND FOUNDATION LAYOUT
SCALE 1:50



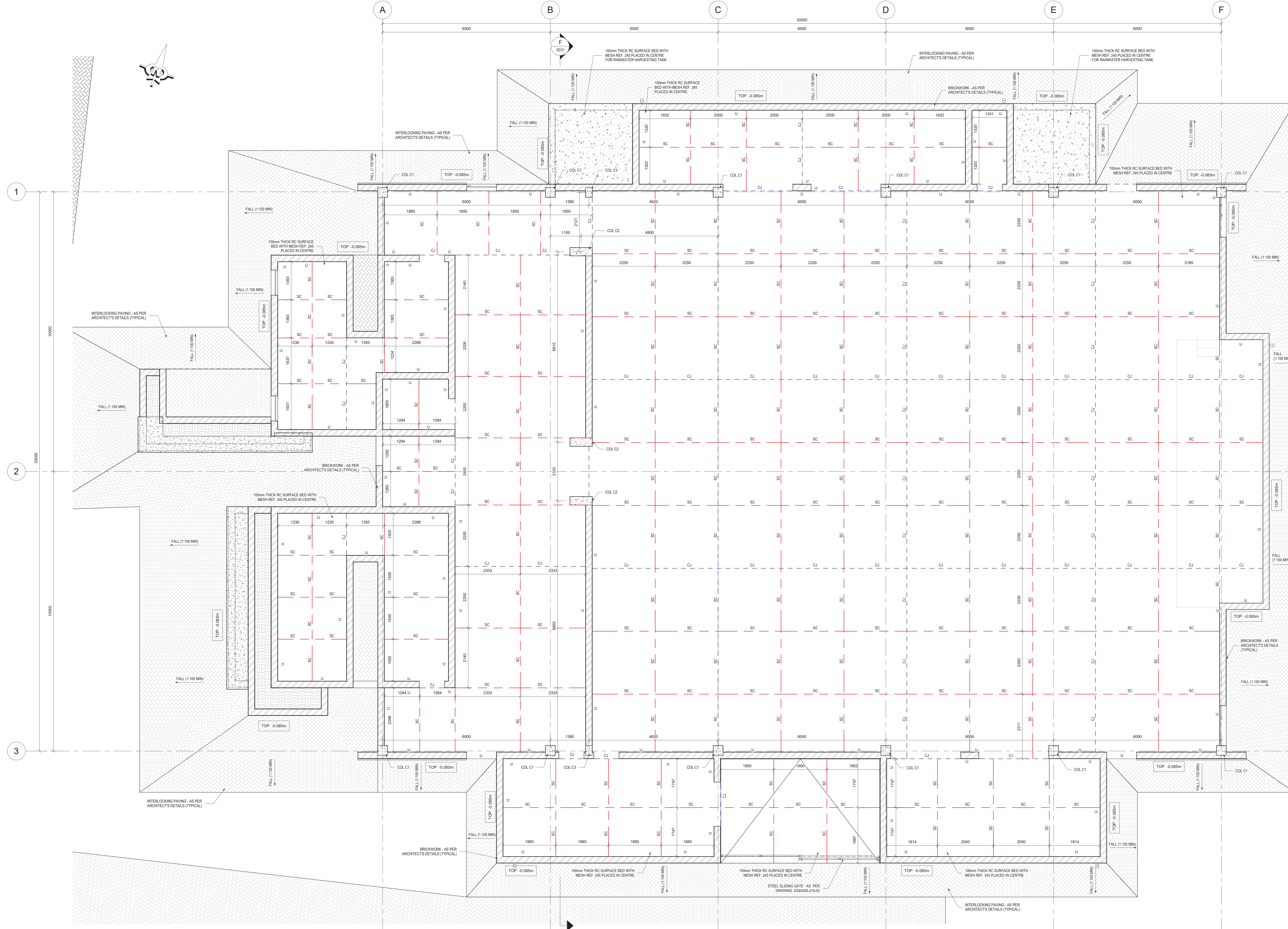
SECTION A-A
SCALE 1:20



SECTION B-B
SCALE 1:20



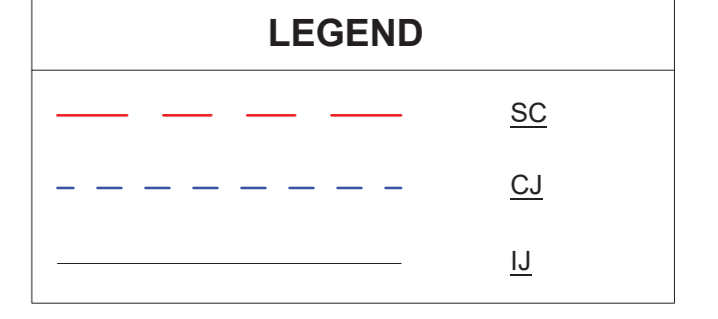
SECTION C-C
SCALE 1:20



RC COLUMNS LEGEND		
No.	SIZE	QTY
COL C1	300x300mm RC COLUMN	12
COL C2	800x300mm RC COLUMN	3
COL C3	350x200mm RC COLUMN	2

- NOTES / LEGEND**
- GENERAL
1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL MATERIALS AND WORKMANSHIP CONFORM WITH THE DETAILS AND SPECIFICATIONS SHOWN ON THIS DRAWING AND ALL RELEVANT SABS SPECIFICATIONS, IRRESPECTIVE OF WHETHER THE ENGINEER HAS INSPECTED THE WORKS ON SITE OR NOT.
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- FOUNDATIONS
1. EXCAVATIONS FOR ALL FOUNDATIONS TO BE CHECKED AND APPROVED BY THE ENGINEER PRIOR TO CASTING OF ANY CONCRETE.
 2. ALL FOUNDATIONS TO BE FOUND ON SOUND NATURAL MATERIAL. NO FOUNDATION WILL BE ALLOWED ON ANY FILL.
 3. TOP OF FOUNDATION LEVEL TO BE MIN 300mm BELOW FINAL OUTSIDE GROUND LEVEL OR FFL, WHICHEVER IS THE LOWER.

- CONCRETE
- CONCRETE CURE STRENGTH MIN. AT 28 DAYS
- BINDING LAYER - 100mm² 19mm STONE
 - RC PAD FOUNDATIONS - 200mm² 19mm STONE
 - RC STRIP FOUNDATIONS - 200mm² 19mm STONE
 - RC APPROX. V-DRAINS - 200mm² 19mm STONE
 - RC SURFACE BEDS - 200mm² 19mm STONE
 - RC COLUMNS - 300mm² 19mm STONE
 - RC BEAMS - 300mm² 19mm STONE
 - RC SLABS - 300mm² 19mm STONE
2. CONCRETE COVER TO REINFORCING
- RC PAD FOUNDATIONS - 50mm (ALL SIDES)
 - RC STRIP FOUNDATIONS - 50mm (ALL SIDES)
 - RC APPROX. V-DRAINS - 50mm (FROM TOP)
 - RC SURFACE BEDS - 40mm (ALL SIDES)
 - RC COLUMNS - 40mm (ALL SIDES)
 - RC BEAMS - 40mm (ALL SIDES)
 - RC SLABS - 40mm (ALL SIDES)
3. ALL REINFORCING FIXED WITH THE SPECIFIED COVER MUST BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO ANY CONCRETE BEING CAST.
4. THE STANDARD SPECIFICATIONS SABS 1200 (EXCLUDING PAYMENTS CLAUSES) IS APPLICABLE.
5. ALL CONCRETE TO BE PROPERLY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP, AT LEAST 7 DAYS AFTER CASTING. CONCRETE SLABS TO BE COVERED WITH MOIST SAND OR PLASTIC MEMBRANE DURING THIS PERIOD. COLUMNS TO BE WRAPPED IN PLASTIC IMMEDIATELY AFTER REMOVAL OF SHUTTERS.
6. ROOF SHEETING AS PER ARCHITECT'S DETAILS. ALL FLASHINGS AS PER ARCHITECT'S DETAILS.



- ABBREVIATIONS**
- SC - SAW-CUT JOINT
 - C1 - CONSTRUCTION JOINT
 - U - ISOLATION JOINT
 - RC - REINFORCED CONCRETE

DO NOT SCALE DRAWING
IF IN DOUBT, REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER
D34435S-201-02

NUMBER	DRAWING DESCRIPTION
D34435S-200-01	GENERAL STRUCTURAL NOTES
D34435S-202-01	BUILDING SECTIONS

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT	REG. NO.	DATE

A.Y.	REPORT/DESIGN/ISSUE	BY	DATE
1	REPORT/DESIGN/ISSUE	BY ARCHITECT	
2	AS BUILT	BY MECHANICAL OR ELECTRICAL	
		BY CIVIL	
		BY OTHER ()	

DATE	INITIAL CODE	REVISION DESCRIPTION
2021/10/27	C.P. TD	ISSUED FOR TENDER PURPOSES ONLY

OFFICES

bvi ENGINEERING CONSULTANTS
PROFESSIONAL ENGINEERS
BVI Consulting Engineers KZN PTY (LTD)
Registration no. 1688030227

Visit or contact us online at www.bvi.co.za

PROVINCE OFFICE KZN Durban +27 31 296 8382 dbr@bvi.co.za

CLIENT

TSOLO AGRICULTURE & RURAL DEVELOPMENT INSTITUTE
Private Bag X1008, Tsoilo, 5170
Tel: +27 (47) 542 3700

Office of the Director: Engineering Services

PROJECT

300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE

RC SURFACE BED - LAYOUT AND DETAILS

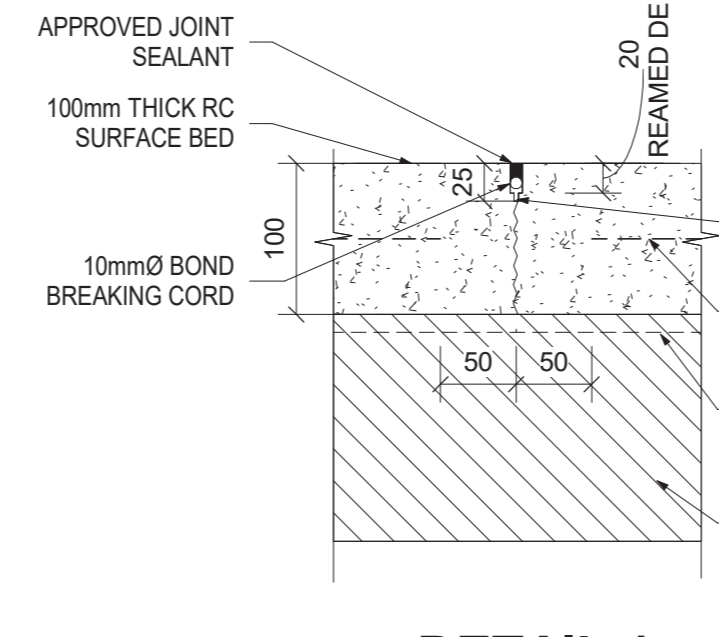
APPROVED BY BVI

ENGINEER/TECHNOLOGIST	REG. NO.	DATE

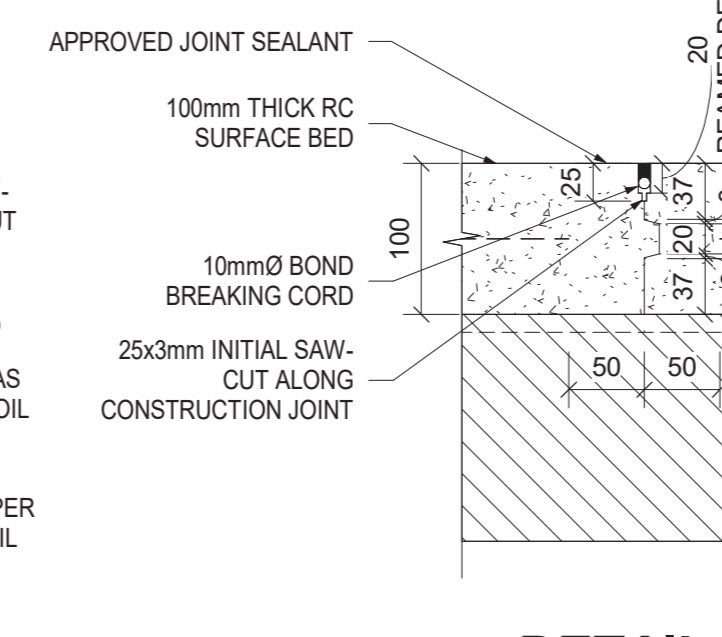
SCALE	As indicated	DRAWN	C.P.
DESIGNED	P.V.N	CHECKED	P.V.N
PLAN NUMBER	REV. NO.	DATE SAVED	

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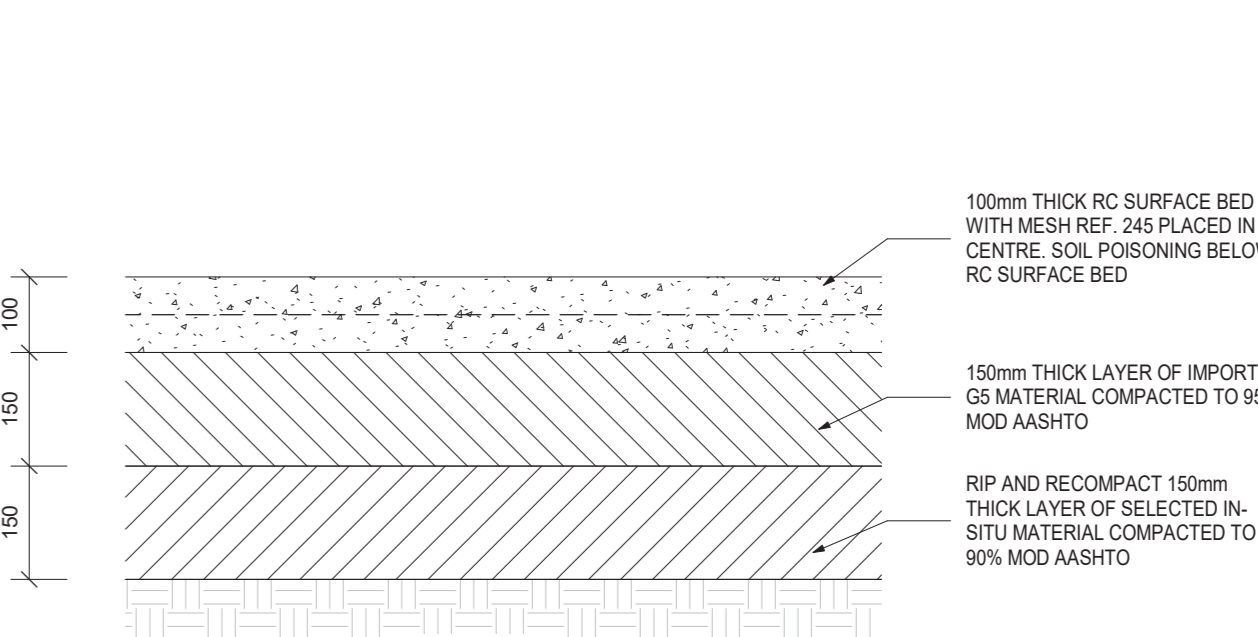
RC SURFACE BED LAYOUT
SCALE 1:30



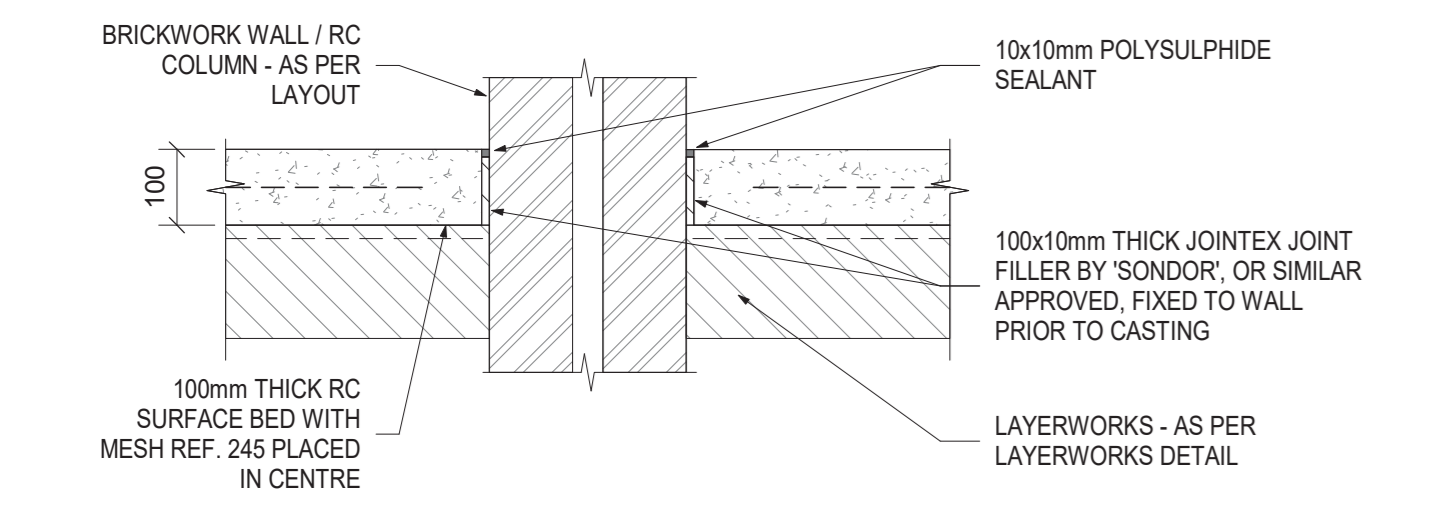
DETAIL 1
1:10



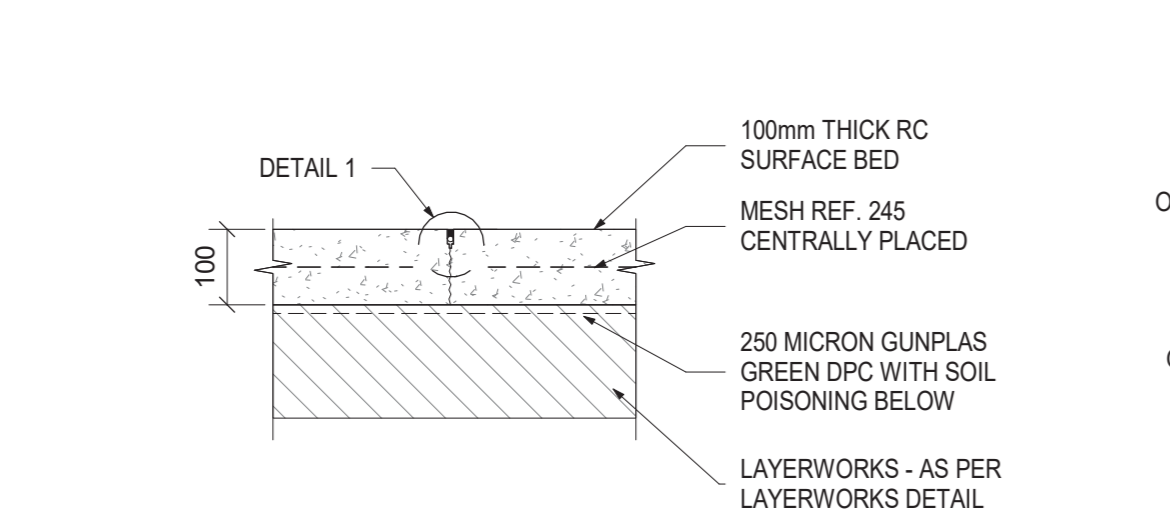
DETAIL 2
1:10



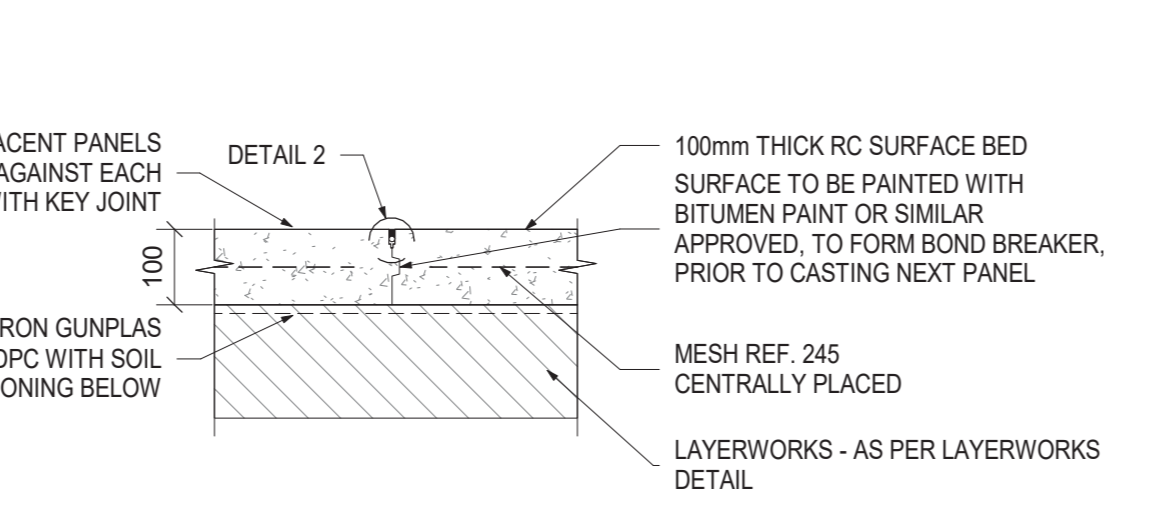
LAYERWORKS DETAIL
SCALE 1:10



ISOLATION JOINT DETAIL (I.J)
1:10



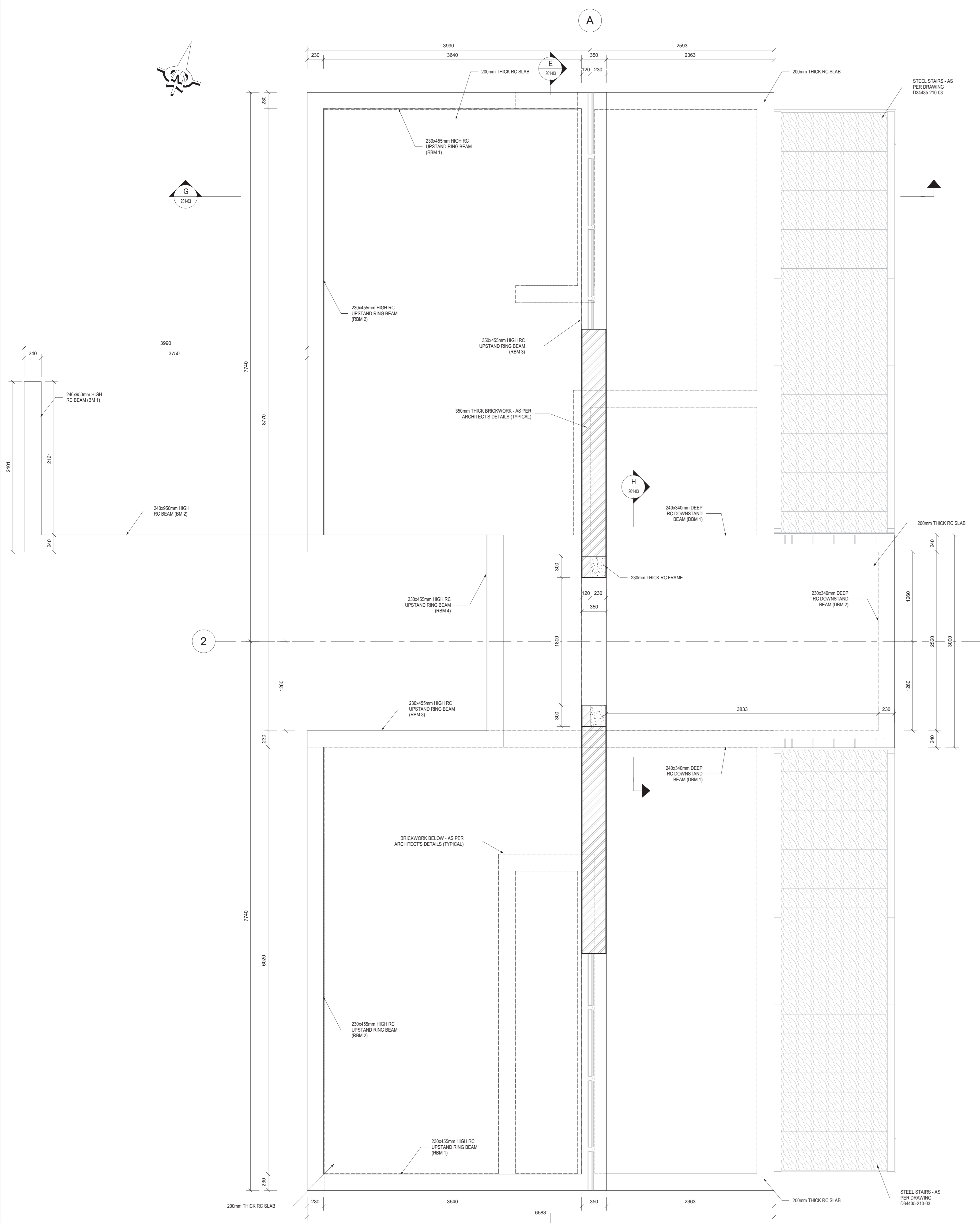
KEY-LESS SAW-CUT JOINT DETAIL (S.C)
1:10



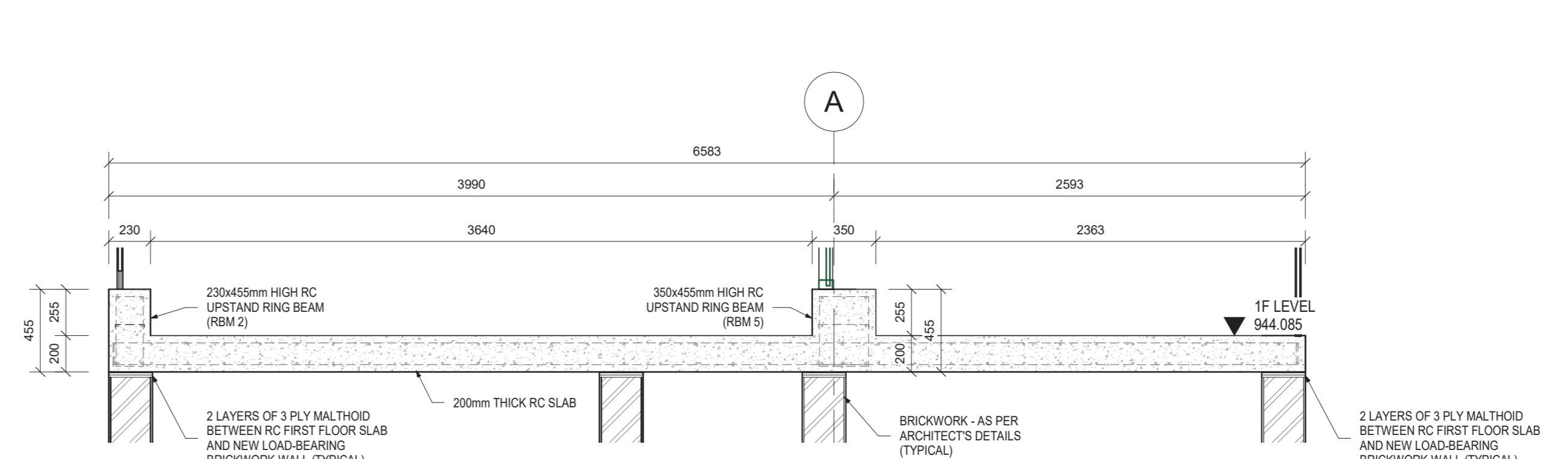
KEY CONSTRUCTION JOINT DETAIL (C.J.)
1:10

- NOTE:**
- CUT WHEN AGGREGATE IS NO LONGER RIPPED OUT.
 - KEY JOINTS AND SAW-CUT JOINTS ARE INTERCHANGEABLE.
 - SAW-CUTTING TO BE DONE WITHIN 48 HOURS OF CASTING.

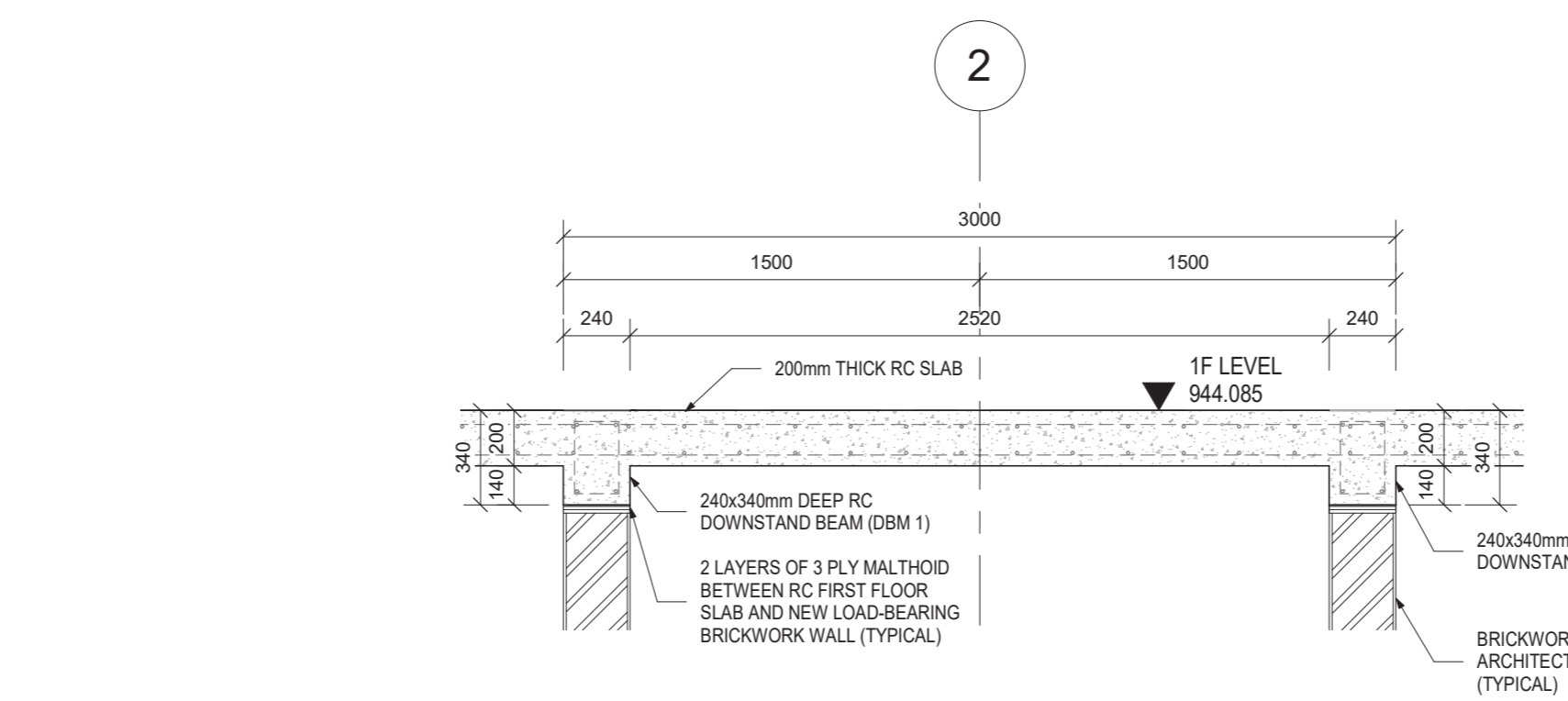
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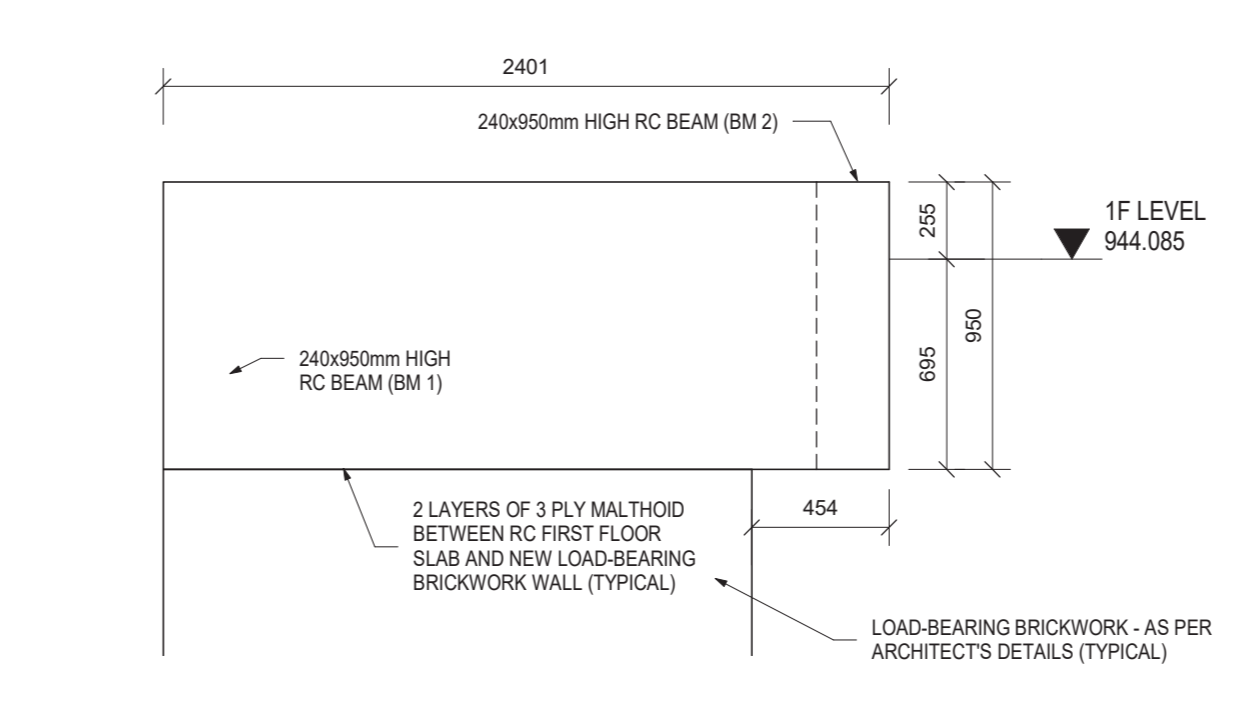
RC BEAM AND FIRST FLOOR LAYOUT
SCALE 1:25



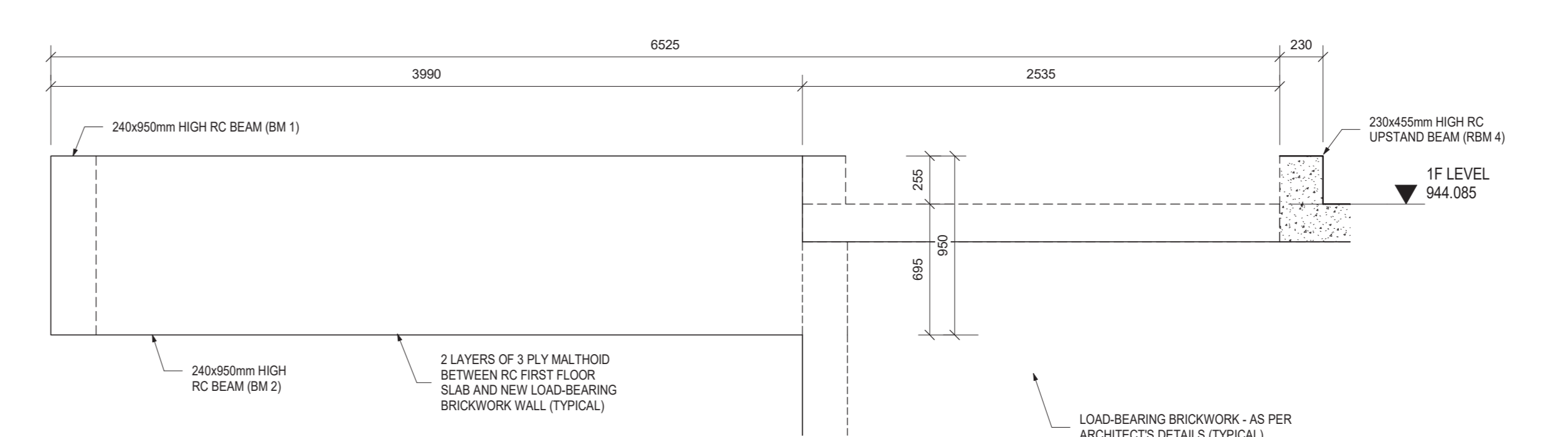
SECTION G-G
SCALE 1:25



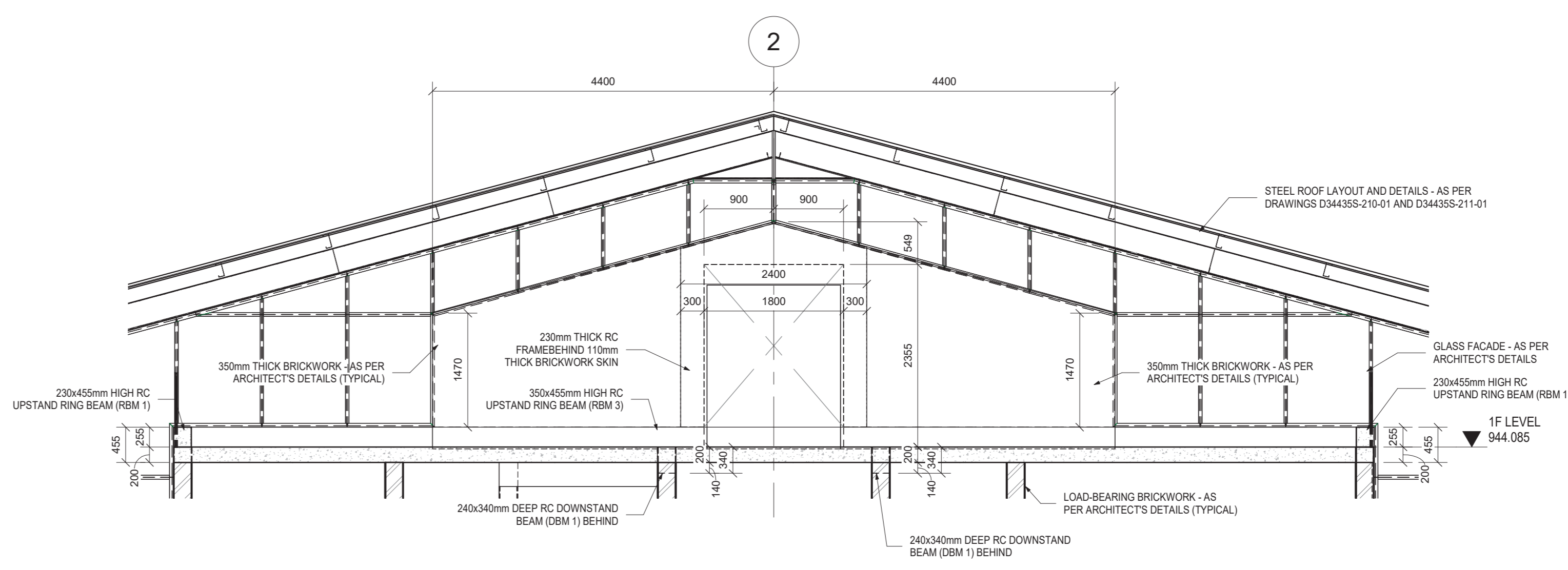
SECTION H-H
SCALE 1:25



ELEVATION - RC BEAM 1 (BM 1 - 240x950mm HIGH)
SCALE 1:25



ELEVATION - RC BEAM 2 (BM 2 - 240x950mm HIGH)
SCALE 1:25



SECTION E-E
SCALE 1:50

RC BEAM LEGEND		
No.	SIZE	QTY
RBM 1	230x455mm HIGH RC UPSTAND RING BEAM	2
RBM 2	230x455mm HIGH RC UPSTAND RING BEAM	2
RBM 3	300x455mm HIGH RC UPSTAND RING BEAM	1
RBM 4	230x455mm HIGH RC UPSTAND RING BEAM	1
DBM 1	240x950mm HIGH RC DOWNSTAND BEAM	2
DBM 2	230x455mm HIGH RC DOWNSTAND BEAM	1
BM 1	240x950mm HIGH RC BEAM	1
BM 2	240x950mm HIGH RC BEAM	1

- NOTES / LEGEND**
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 3. TOP OF FOUNDATION LEVEL TO BE MIN 300mm BELOW FINAL OUTSIDE GROUND LEVEL OR FILL, WHICHEVER IS THE LOWER.
- CONCRETE**
- CONCRETE CUBE STRENGTH MIN. AT 28 DAYS
- BLINDING LAYER: - 100mm² STONE
 RC PAD FOUNDATIONS: - 200mm² STONE
 RC STRIP FOUNDATIONS: - 200mm² STONE
 RC APPROX. / V-DRAINS: - 200mm² STONE
 RC SURFACE BEDS: - 200mm² STONE
 RC COLUMNS: - 200mm² STONE
 RC BEAMS: - 200mm² STONE
 RC SLABS: - 200mm² STONE
2. CONCRETE COVER TO REINFORCING:
- RC PAD FOUNDATIONS: - 50mm (ALL SIDES)
 RC STRIP FOUNDATIONS: - 50mm (ALL SIDES)
 RC APPROX. / V-DRAINS: - 50mm (FROM TOP)
 RC SURFACE BEDS: - 50mm (FROM TOP)
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6. ROOF SHEETING AS PER ARCHITECT'S DETAILS. ALL FLASHINGS AS PER ARCHITECT'S DETAILS.

- ABBREVIATIONS**
- RC: REINFORCED CONCRETE
 RBM: RING BEAM
 DBM: DOWNSTAND BEAM

DO NOT SCALE DRAWING
IF IN DOUBT, REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER
D34435S-201-03

NUMBER	DRAWING DESCRIPTION
D34435S-200-01	GENERAL STRUCTURAL NOTES

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT	REG. NO.	DATE

AMENDMENTS CODE	
A.Y. / : REPORT/DESIGN/TENDER	IA: BY CLIENT
00-99 / : CONSTRUCTION	IB: BY ARCHITECT
Z / : AS BUILT	IC: BY MECHANICAL OR ELECTRICAL
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2021/10/27	C.P. / T.D.	ISSUED FOR TENDER PURPOSES ONLY

OFFICES

bvi ENGINEERING PROCUREMENT MANAGEMENT
 BVI Consulting Engineers KZN PTY (Ltd)
 Visit or contact us online at www.bvigroup.co.za

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 KZN Durban +27 31 266 8382 dbn@bvigroup.co.za

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 Private Bag X1008, Tsolo, 5170
 Tel: +27 (47) 542 3700
 rural development & agrarian reform
 OFFICE OF THE DIRECTOR ENGINEERING SERVICES

300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE

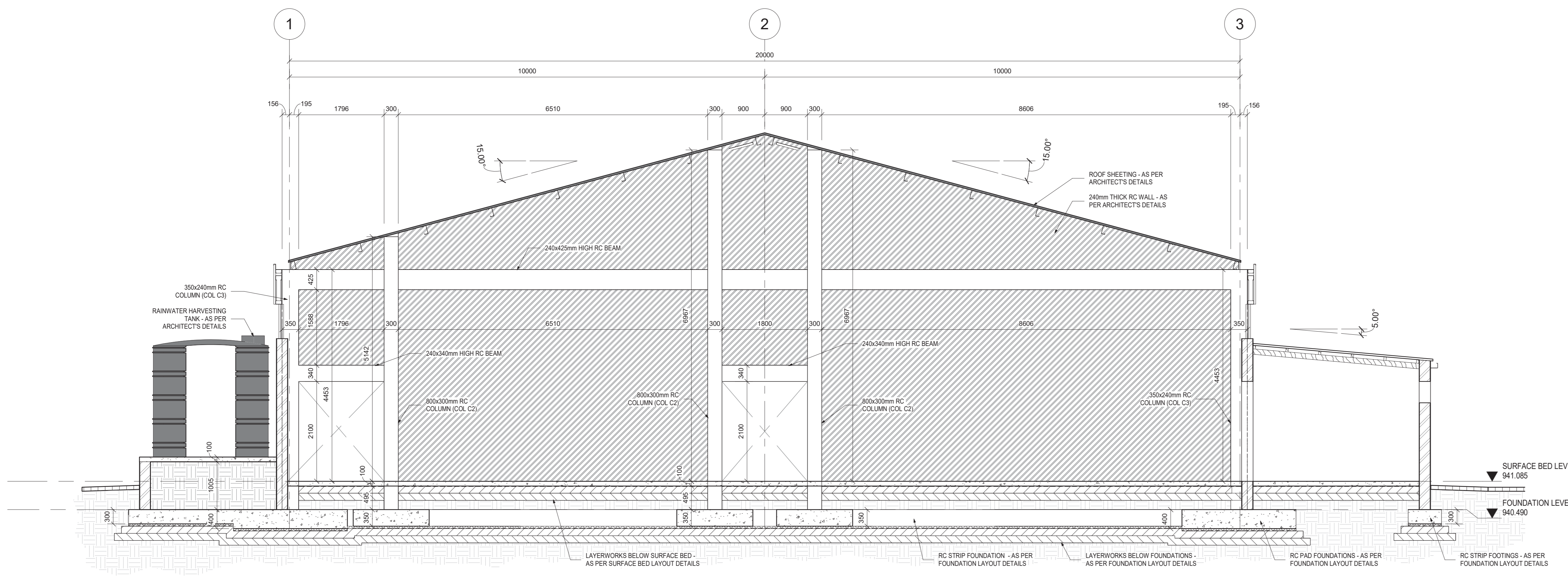
RC FIRST FLOOR - LAYOUT AND DETAILS

APPROVED BY BVI

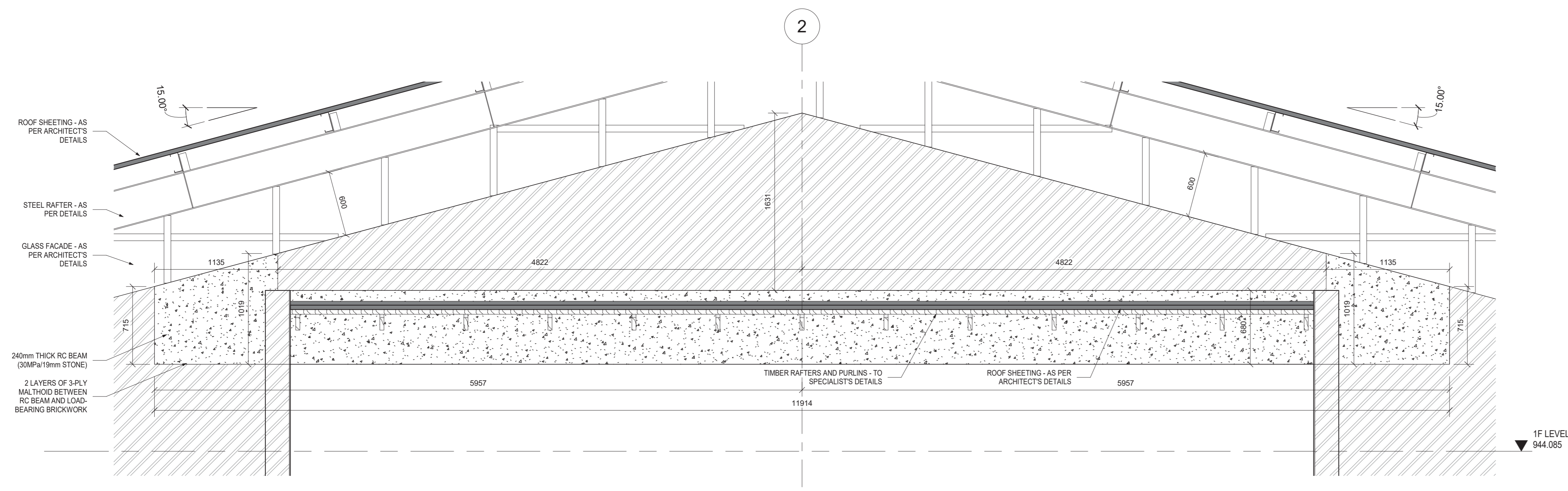
ENGINEER/TECHNOLOGIST	REG. NO.	DATE
202001098		

SCALE	As indicated	DRAWN	C.P.
DESIGNED	PvN	CHECKED	PvN

PLAN NUMBER	REV. NO.	DATE SAVED
D34435S-201-03	T	2021/10/27 08:19:33



SECTION F-F
SCALE 1:50



SECTION B1-B1 - RC BEAM AT GRIDLINE F
SCALE 1:25

NOTES / LEGEND

- GENERAL
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL MATERIALS AND WORKMANSHIP CONFORM WITH THE DETAILS AND SPECIFICATIONS SHOWN ON THIS DRAWING, AND ALL RELEVANT SABS SPECIFICATIONS, RESPECTIVE OF WHETHER THE ENGINEER HAS RESPECTED THE WORKS ON SITE OR NOT.
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 - ALL WATERPROOFING DETAILS TO BE IN ACCORDANCE WITH THE ARCHITECT'S SPECIFICATION AND INSTRUCTIONS.
- FOUNDATIONS
- EXCAVATIONS FOR ALL FOUNDATIONS TO BE CHECKED AND APPROVED BY THE ENGINEER PRIOR TO CASTING OF ANY CONCRETE.
 - ALL FOUNDATIONS TO BE FOUNDED ON SOUND INSITU MATERIAL, NO FOUNDATION WILL BE ALLOWED ON ANY FILL.
 - TOP OF FOUNDATION LEVEL TO BE MIN 300mm BELOW FINAL OUTSIDE GROUND LEVEL OR FFL, WHICHEVER IS THE LOWER.
- CONCRETE
- CONCRETE CURE STRENGTH MIN. AT 28 DAYS:
- BLINDING LAYER: - 15MPa/15mm STONE
 - RC PAD FOUNDATIONS: - 25MPa/15mm STONE
 - RC STRIP FOUNDATIONS: - 25MPa/15mm STONE
 - RC ANCHORS / V GRABS: - 25MPa/15mm STONE
 - RC SURFACE BEDS: - 25MPa/15mm STONE
 - RC COLUMNS: - 30MPa/15mm STONE
 - RC BEAMS: - 30MPa/15mm STONE
 - RC SLABS: - 30MPa/15mm STONE
3. CONCRETE COVER TO REINFORCING:
- RC PAD FOUNDATIONS: - 50mm (ALL SIDES)
 - RC STRIP FOUNDATIONS: - 50mm (FROM TOP)
 - RC ANCHORS / V GRABS: - 50mm (FROM TOP)
 - RC SURFACE BEDS: - 50mm (FROM TOP)
 - RC COLUMNS: - 40mm (ALL SIDES)
 - RC BEAMS: - 40mm (ALL SIDES)
 - RC SLABS: - 40mm (ALL SIDES)
3. ALL REINFORCING FIXED WITH THE SPECIFIED COVER MUST BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO ANY CONCRETE BEING CAST.
4. THE STANDARD SPECIFICATIONS SABS 1200 (EXCLUDING PAYMENTS CLAUSES) IS APPLICABLE.
5. ALL CONCRETE TO BE PROPERLY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP, AT LEAST 7 DAYS AFTER CASTING. CONCRETE SLABS TO BE COVERED WITH MOIST SAND OR PLASTIC MEMBRANE DURING THIS PERIOD. COLUMNS TO BE WRAPPED IN PLASTIC IMMEDIATELY AFTER REMOVAL OF SHUTTLERS.
6. ROOF SHEETING AS PER ARCHITECT'S DETAILS. ALL FLASHINGS AS PER ARCHITECT'S DETAILS.

DO NOT SCALE DRAWING
IF IN DOUBT, REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER
D34435S-202-01

NUMBER	DRAWING DESCRIPTION
D34435S-202-01	GENERAL STRUCTURAL NOTES

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT	REG. NO.	DATE

AMENDMENTS CODE	
A.Y. / REPORT DESIGN TENDER /	A: BY CLIENT
00-99 / CONSTRUCTION	B: BY ARCHITECT
Z / AS BUILT	C: BY MECHANICAL OR ELECTRICAL
	D: BY BVI
	E: BY OTHER ()

DATE	INITIAL CODE	REVISION DESCRIPTION
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BVI Consulting Engineers KZN PTY (Ltd)
Registration No: 158-0502327

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CLIENT

TSOLO AGRICULTURE & RURAL DEVELOPMENT INSTITUTE
Private Bag X1008, Tsoelo, 5170
Tel: +27 (47) 542 3700

rural development & agrarian reform

OFFICE OF THE DIRECTOR, ENGINEERING SERVICES

PROJECT

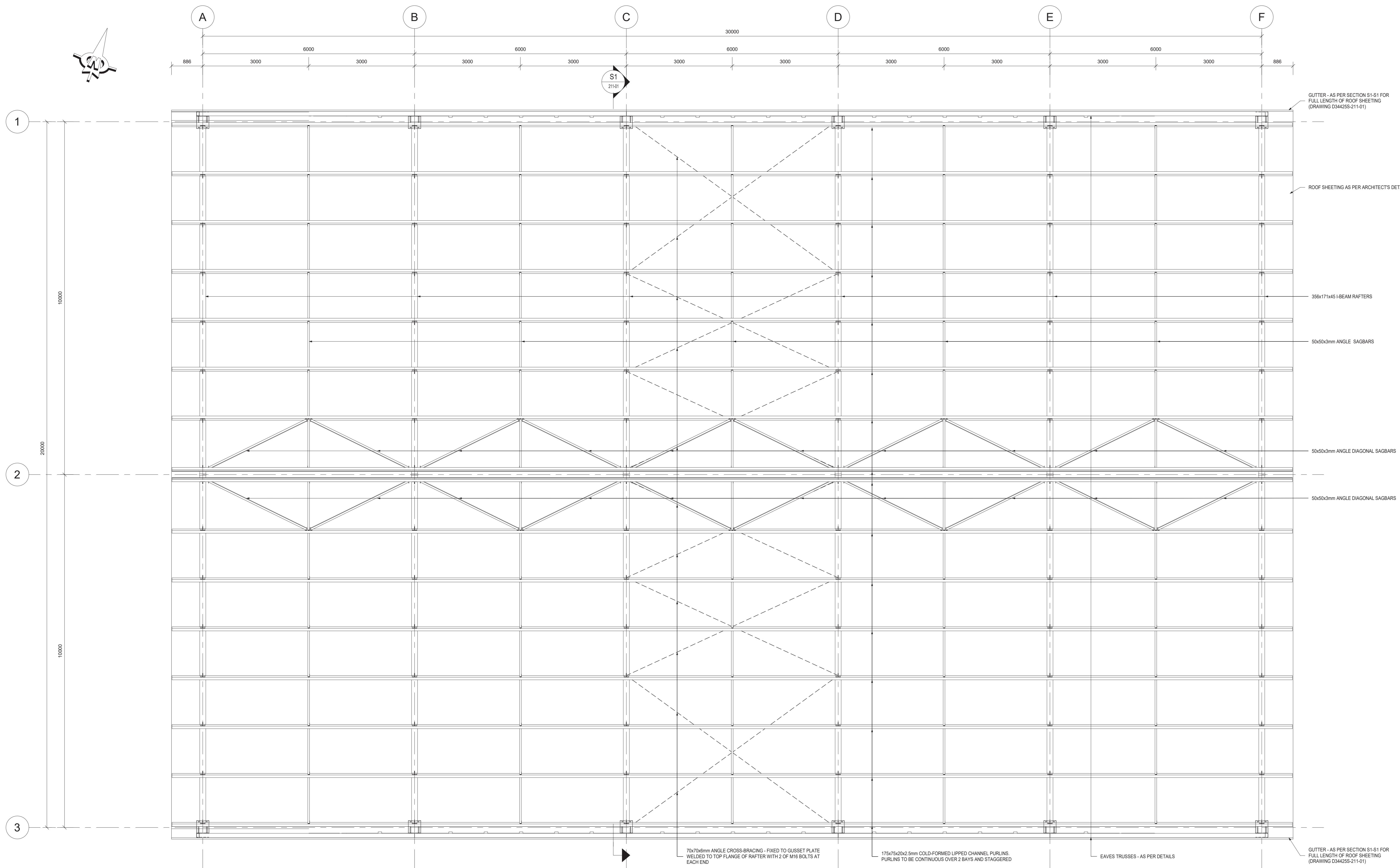
300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE

BUILDING SECTIONS

APPROVED BY BVI

ENGINEER/TECHNOLOGIST	REG. NO.	DATE
	202001098	
SCALE As Indicated	DRAWN C.P.	
DESIGNED P.v.N	CHECKED P.v.N	
PLAN NUMBER	REV. NO.	DATE SAVED
D34435S-202-01	T	2021/10/27 08:17:26



STEEL ROOF LAYOUT
SCALE 1:50

- NOTES / LEGEND**
1. ALL MATERIAL, FABRICATION AND ERECTION OF STRUCTURAL STEEL TO COMPLY WITH SABS 0162 - 1984 AND SABS 1204 - 1993
 2. ALL WELDS TO BE 6mm CONTINUOUS FILLET OR THE WELD THROAT THICKNESS TO BE THE THICKNESS OF THE THINNESS OF THE TWO PARENT METALS.
 3. WELDING CODE:
- SIZE OF WELD TOP OF LINE FAR SIDE FILLET WELD ALL ROUND
- SIZE OF WELD BOTTOM OF LINE NEAR SIDE SITE WELD
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. ONLY STRUCTURAL SIZES, CONNECTIONS AND SPLICES WILL BE CHECKED. FINAL DIMENSIONS AND FITTING OF MEMBERS SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
 5. THE CONTRACTOR IS RESPONSIBLE FOR STABILISING THE STRUCTURE AND MAINTAINING IT IN THE CORRECT POSITION DURING ERECTION.
 6. STRUCTURAL STEELWORK SHALL BE COMPLETED BY THE MANUFACTURER, CLEANED AND PAINTED WITH SPECIFIED PRIMER IN WORKSHOP BEFORE TRANSPORTATION TO SITE.
 7. STRUCTURAL STEEL TO BE OF GRADE S355W.
 8. ALL BOLTS TO BE OF GALVANISED GRADE 8.8.
 9. BOLTS SHALL NOT HAVE THREADS WITHIN THE SHEAR PLANES.
 10. ALL HOLES TO BE DRILLED AT STANDARD BACKMARK.
 11. BASE PLATES TO BE PROPERLY GROUDED UP AND PAINTED PRIOR TO BACKLIFTING BEING DONE.
 12. ALL BOX OR CIRCULAR SECTION ENDS TO BE CLOSED WITH 14mm THICK PLATES.
 13. WHERE THICKER PLATES ARE USED, LONGER BOLTS MUST BE USED TO ENSURE THAT SUFFICIENT LENGTH OF THREAD ARE TAKEN UP BY THE NUTS.
 14. ALL STEEL MEMBERS TO BE HOT-DIPPED GALVANISED.

DO NOT SCALE DRAWING
IF IN DOUBT, REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER
D34435S-210-01

NUMBER	DRAWING DESCRIPTION
D34435S-210-01	GENERAL STRUCTURAL NOTES
D34435S-211-01	STEEL ROOF - SECTIONS AND DETAILS

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT	REG. NO.	DATE

AMENDMENTS CODE	
A-Y : REPORT DESIGN TENDER	A : BY CLIENT
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DATE	INITIAL CODE	REVISION DESCRIPTION
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Tel: +27 (47) 542 5700

rural development & agrarian reform

Office of the Director, Engineering Services

300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE

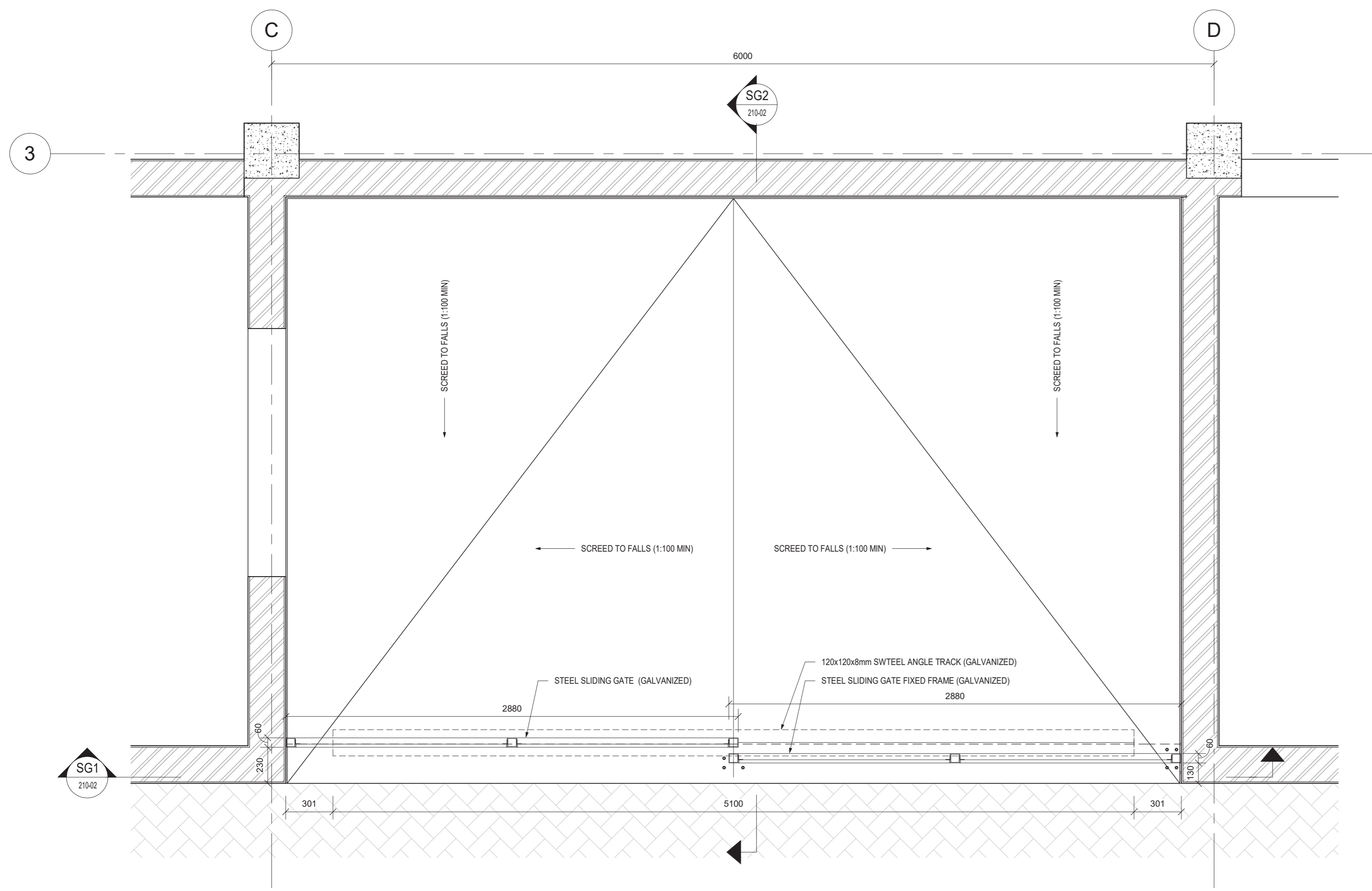
STEEL ROOF - LAYOUT

APPROVED BY BVI

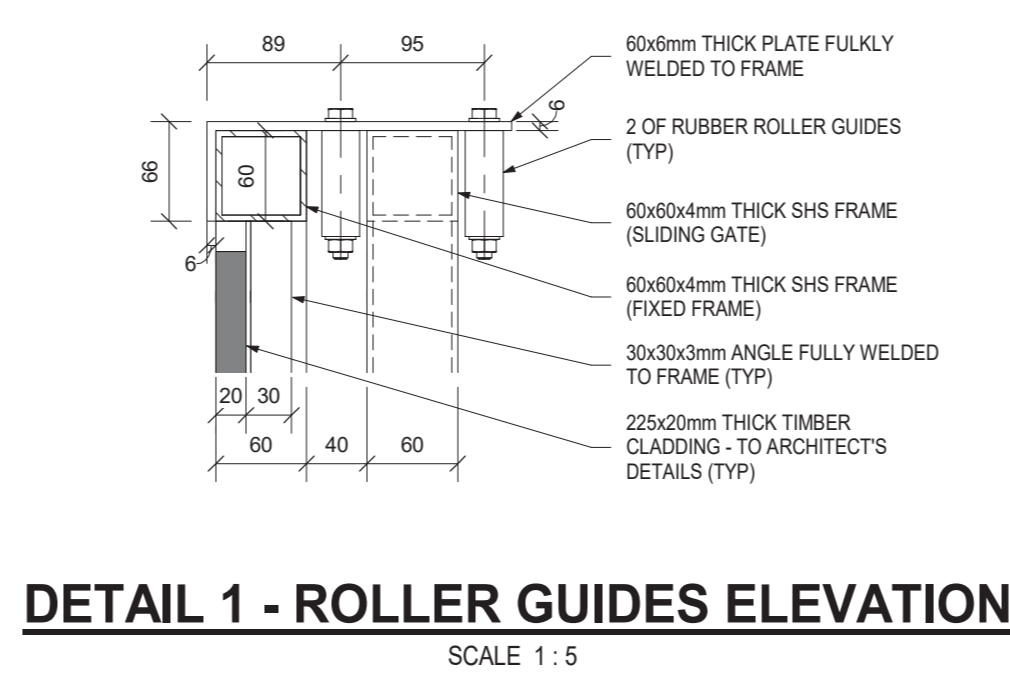
ENGINEER/TECHNOLOGIST	REG. NO.	DATE
	202001098	

SCALE	As indicated	DRAWN	C.P.
DESIGNED	PvN	CHECKED	PvN

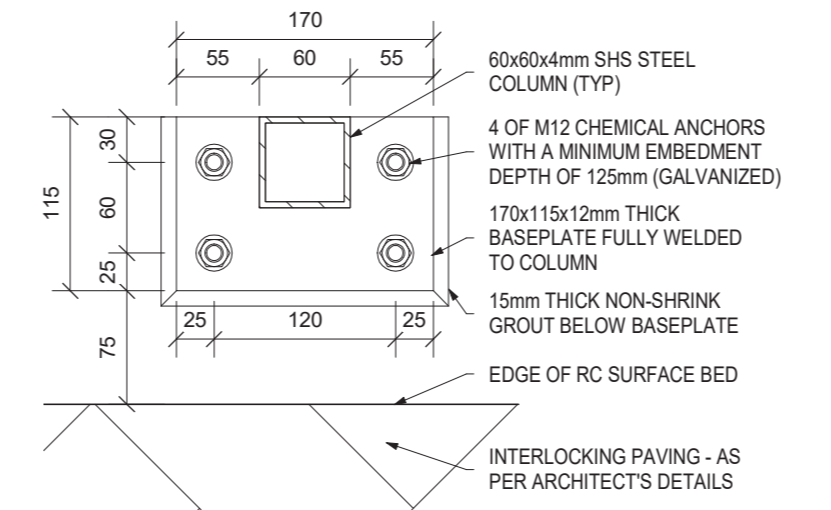
PLAN NUMBER	REV. NO.	DATE SAVED
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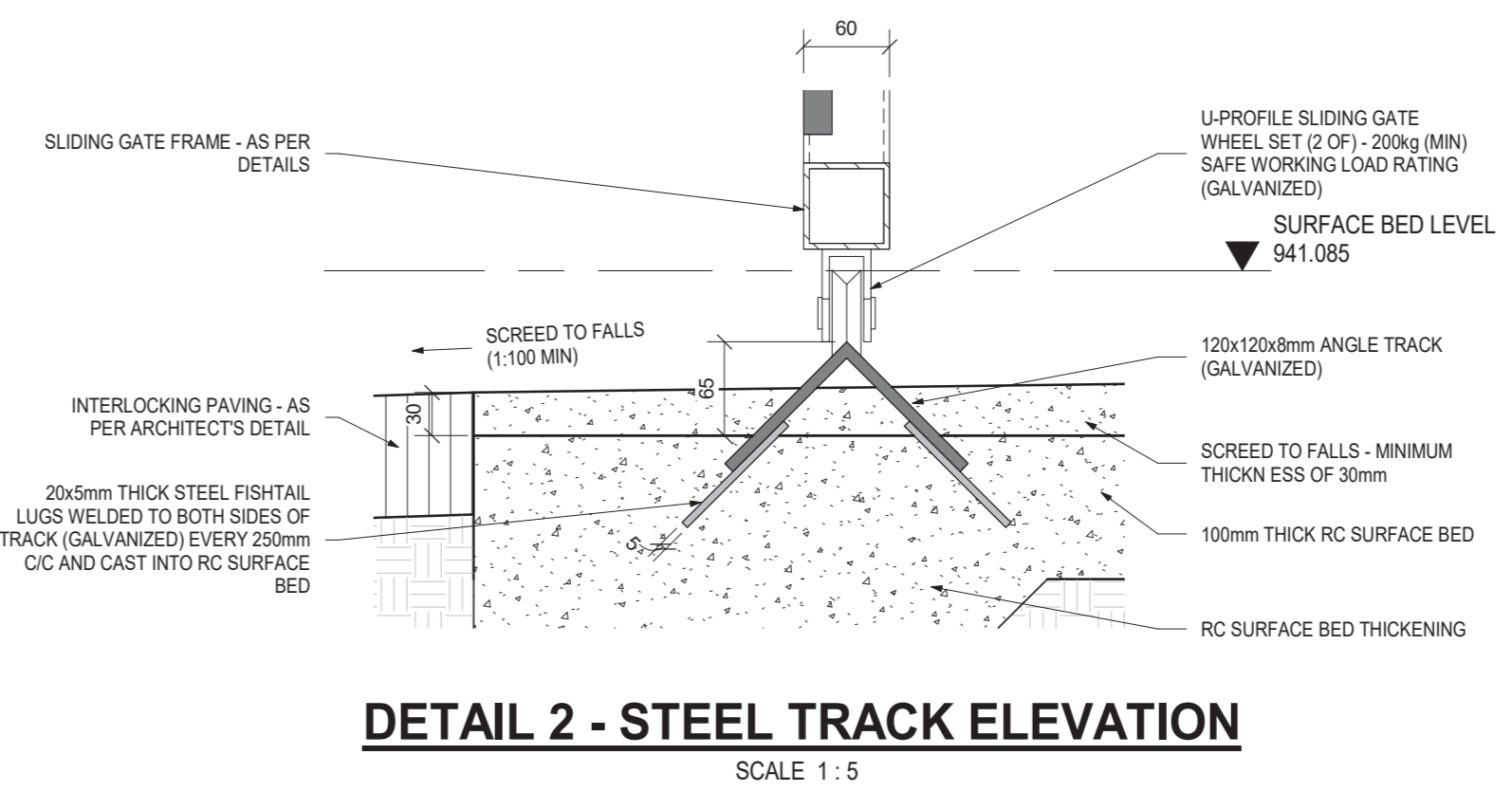
STEEL SLIDING GATE - LAYOUT
SCALE 1:20



DETAIL 1 - ROLLER GUIDES ELEVATION
SCALE 1:5



DETAIL 3 - BASEPLATE DETAIL - PLAN VIEW
SCALE 1:5



DETAIL 2 - STEEL TRACK ELEVATION
SCALE 1:5

- NOTES / LEGEND**
- GENERAL**
1. ALL MATERIAL, FABRICATION AND ERECTION OF STRUCTURAL STEEL TO COMPLY WITH SABS 0162 - 1984 AND SABS 12001 - 1983.
 2. ALL WELDS TO BE 6mm CONTINUOUS FILLET OR THE WELD THROAT THICKNESS TO BE THE THICKNESS OF THE THINNEST OF THE TWO PARENT METALS.
 3. WELDING CODE:
- SIZE OF WELD TOP OF LINE FAR SIDE**
FILLET WELD ALL ROUND
- BOTTOM OF LINE NEAR SIDE**
SITE WELD
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. ONLY STRUCTURAL SIZES, CONNECTIONS AND SPICES WILL BE CHECKED. FINAL DIMENSIONS AND FITTING OF MEMBERS SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
 5. THE CONTRACTOR IS RESPONSIBLE FOR STABILISING THE STRUCTURE AND MAINTAINING IT IN THE CORRECT POSITION DURING ERECTION.
 6. STRUCTURAL STEELWORK SHALL BE COMPLETED BY THE MANUFACTURER - CLEANED AND PAINTED WITH SPECIFIED PRIMER IN WORKSHOP BEFORE TRANSPORTATION TO SITE.
 7. STRUCTURAL STEEL TO BE OF GRADE S355.
 8. ALL BOLTS SHALL NOT HAVE THREADS WITHIN THE SHEAR PLANES.
 9. ALL HOLES TO BE DRILLED AT STANDARD BACKMARK.
 10. BASE PLATES TO BE PROPERLY GROUTED UP AND PAINTED PRIOR TO BACKFILLING BEING DONE.
 11. ALL BOX OR CIRCULAR SECTION ENDS TO BE CLOSED WITH 16mm THICK PLATES.
 12. WHERE PACKER PLATES ARE USED, LONGER BOLTS MUST BE USED TO ENSURE THAT SUFFICIENT LENGTH OF THREAD ARE TAKEN UP BY THE NUTS.
 13. ALL STEEL MEMBERS TO BE HOT-DIPPED GALVANISED.
- FOUNDATIONS**
1. EXCAVATIONS FOR ALL FOUNDATIONS TO BE CHECKED AND APPROVED BY THE ENGINEER PRIOR TO CASTING OF ANY CONCRETE.
 2. ALL FOUNDATIONS TO BE FOUND ON SOUND INSITU MATERIAL. NO FOUNDATION WILL BE ALLOWED ON ANY FILL.
 3. TOP OF FOUNDATION LEVEL TO BE MN 340mm BELOW FINAL OUTSIDE GROUND LEVEL OR FFL, WHICHEVER IS THE LOWER.
- CONCRETE**
- CONCRETE CURE STRENGTH MIN. AT 28 DAYS:
- SLABING: -15MPa/19
 - RC PAD FOUNDATIONS, RC STRIP FOOTINGS: -20MPa/19
 - RC SLABS AND SURFACE BEDS: -30MPa/19
2. CONCRETE COVER TO REINFORCING: RC PAD FOUNDATIONS -50mm (ALL SIDES) RC STRIP WALLS -40mm (ALL SIDES)
 3. ALL REINFORCING FIXED WITH THE SPECIFIED COVER MUST BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO ANY CONCRETE BEING CAST.
 4. THE STANDARD SPECIFICATIONS SABS 1200 (EXCLUDING PAYMENTS CLAUSES) IS APPLICABLE.
 5. ALL CONCRETE TO BE PROPERLY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP AT LEAST 7 DAYS AFTER CASTING. CONCRETE SLABS TO BE COVERED WITH MOIST SAND OR PLASTIC MEMBRANE DURING THIS PERIOD. COLUMNS TO BE WRAPPED IN PLASTIC IMMEDIATELY AFTER REMOVAL OF SHUTTERS.

DO NOT SCALE DRAWING IF IN DOUBT REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER
D34435S-210-01

REFERENCE DRAWINGS	
NUMBER	DRAWING DESCRIPTION
D34435S-210-01	GENERAL STRUCTURAL NOTES

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT REG. NO. DATE

AMENDMENTS CODE

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Registration No. 18603/2017

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rural development & agrarian reform
Cooperation & Agrarian Reform
Initiative under the National Land

OFFICE OF THE DIRECTOR, ENGINEERING SERVICES

PROJECT TITLE

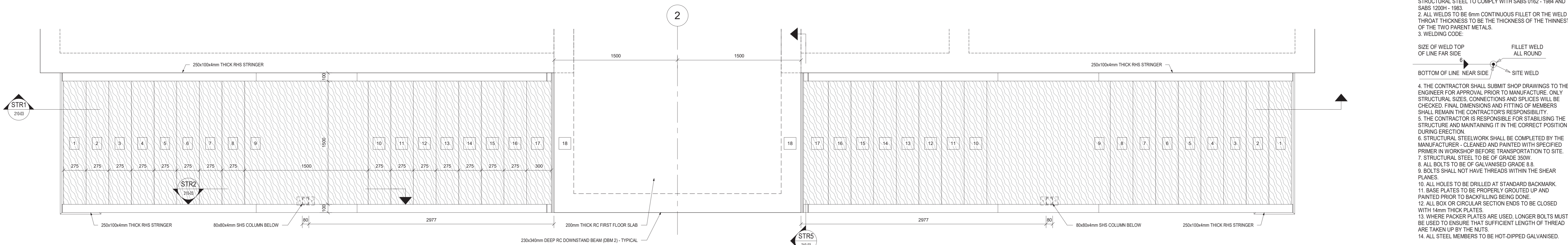
300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE

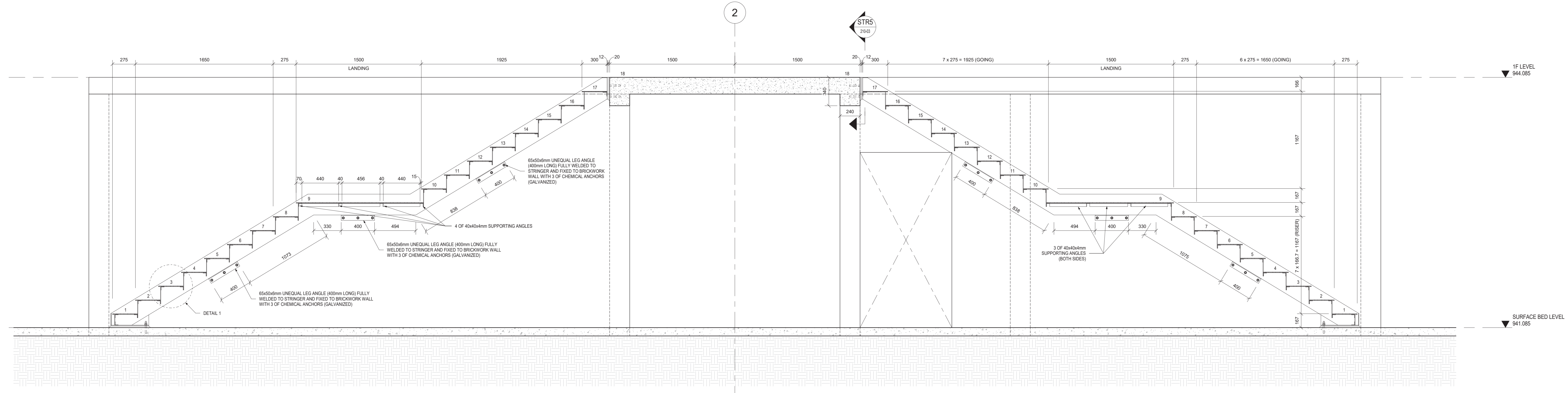
STEEL SLIDING GATE - LAYOUT AND DETAILS

APPROVED BY BVI

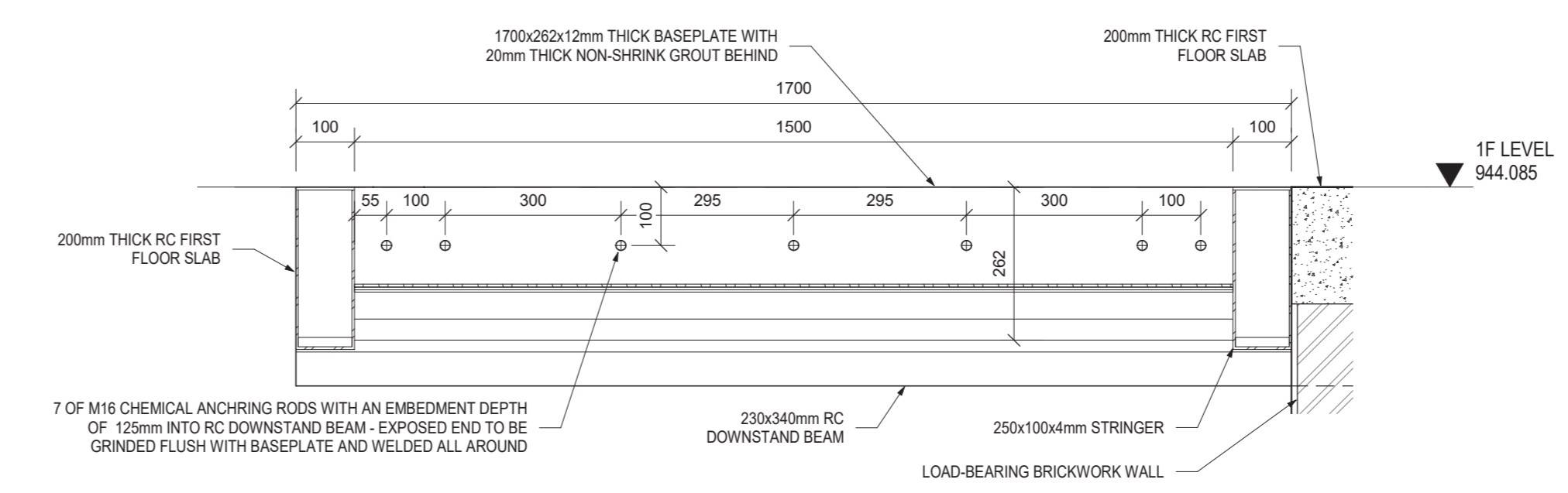
ENGINEER/TECHNOLOGIST	REG. NO.	DATE
SCALE	As indicated	DRAWN
DESIGNED	PvN	CHECKED
PLAN NUMBER	REV. NO.	DATE SAVED
D34435S-210-02	T	2021/10/27 08:16:03



STEEL STAIRS - LAYOUT
SCALE 1 : 20

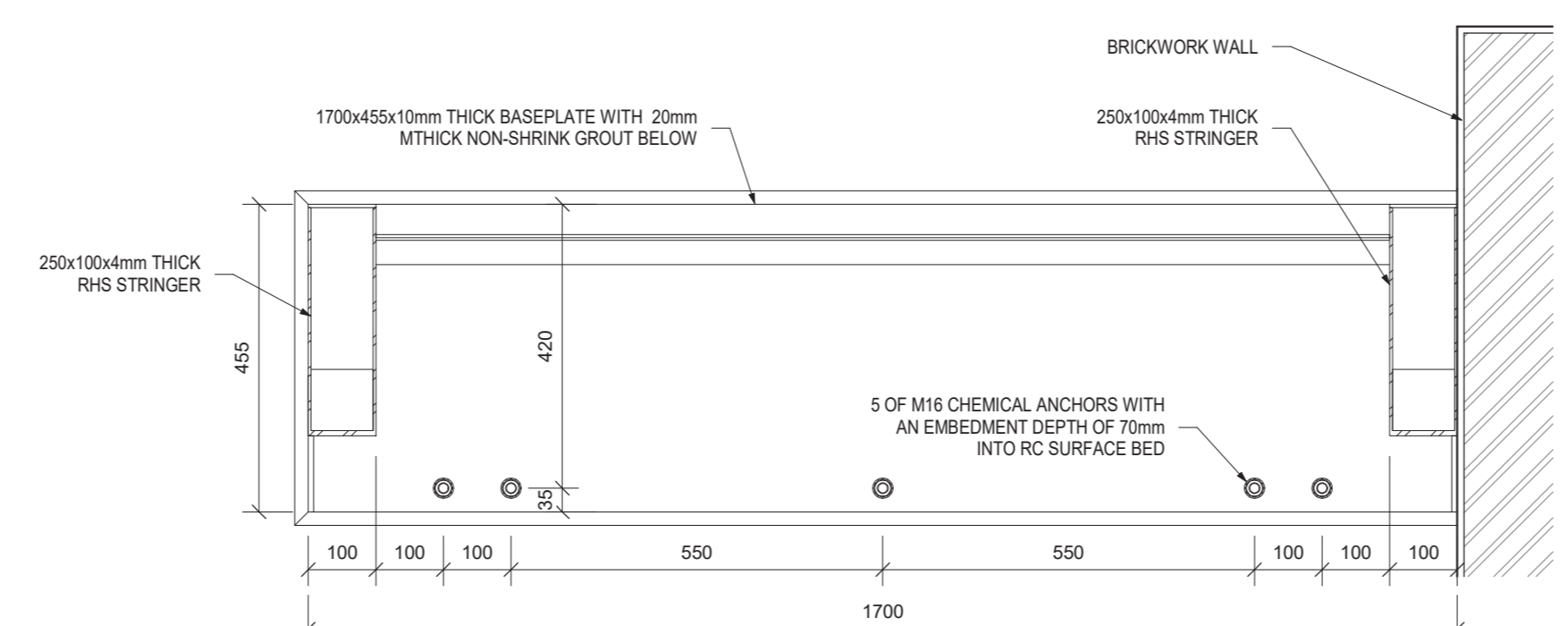


SECTION STR1-STR1
SCALE 1 : 20



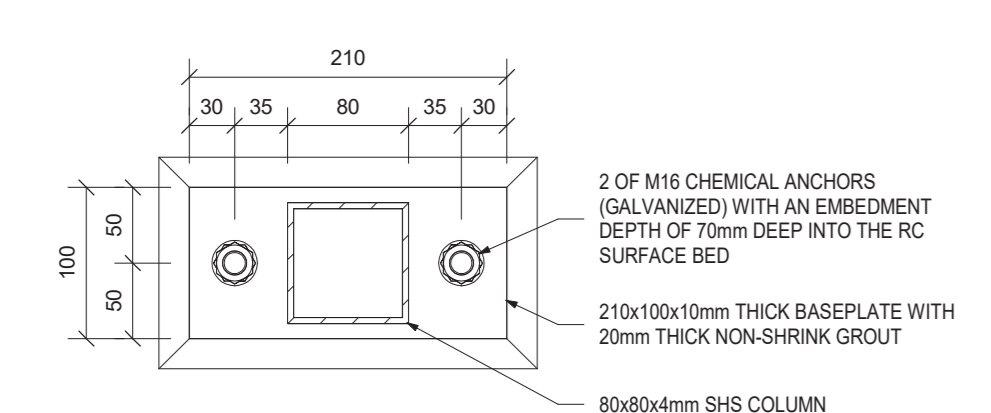
SECTION STR5-STR5
SCALE 1 : 10

DETAIL 1 - STAIR TREADS TYPICAL DETAILS
SCALE 1 : 5

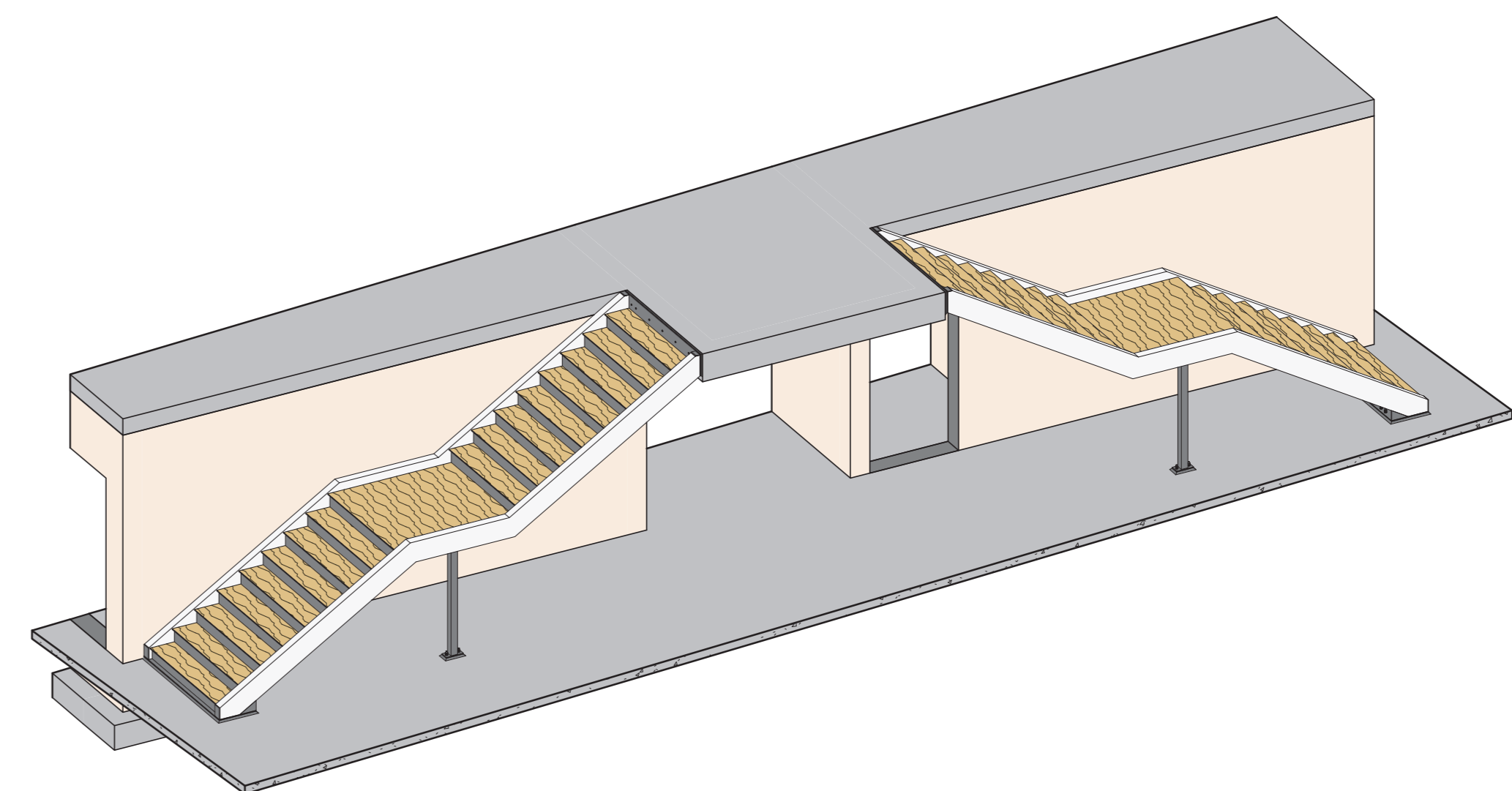


SECTION STR4-STR4
SCALE 1 : 10

SECTION STR2-STR2
SCALE 1 : 10



SECTION STR3-STR3
SCALE 1 : 5



ISOMETRIC VIEW - STEEL STAIRS
SCALE

- NOTES / LEGEND**
- GENERAL**
1. ALL MATERIAL, FABRICATION AND ERECTION OF STRUCTURAL STEEL TO COMPLY WITH SABS 0182 - 1984 AND SABS 1004-1983.
 2. ALL WELDS TO BE 6mm CONTINUOUS FILLET OR THE WELD THROAT THICKNESS TO BE THE THICKNESS OF THE THINNEST OF THE TWO PARENT METALS.
 3. WELDING CODE:
 - SIZE OF WELD TOP OF LINE FAR SIDE
 - FILLET WELD ALL ROUND
 - SITE WELD
 4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. ONLY STRUCTURAL SIZES, CONNECTIONS AND SPLICES WILL BE CHECKED. FINAL DIMENSIONS AND FITTING OF MEMBERS SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
 5. THE CONTRACTOR IS RESPONSIBLE FOR STABILISING THE STRUCTURE AND MAINTAINING IT IN THE CORRECT POSITION DURING ERECTION.
 6. STRUCTURAL STEELWORK SHALL BE COMPLETED BY THE MANUFACTURER - CLEANED AND PAINTED WITH SPECIFIED PRIMER IN WORKSHOP BEFORE TRANSPORTATION TO SITE.
 7. STRUCTURAL STEEL TO BE OF GRADE S355W.
 8. ALL BOLTS TO BE OF GALVANIZED GRADE 8.8.
 9. BOLTS SHALL NOT HAVE THREADS WITHIN THE SHEAR PLANES.
 10. ALL HOLES TO BE DRILLED AT STANDARD BACKMARK.
 11. BASE PLATES TO BE PROPERLY GROUTED UP AND PAINTED PRIOR TO BACKFILLING BEING DONE.
 12. ALL BOX OR CIRCULAR SECTION ENDS TO BE CLOSED WITH 14mm THICK PLATES.
 13. WHERE PACKER PLATES ARE USED, LONGER BOLTS MUST BE USED TO ENSURE THAT SUFFICIENT LENGTH OF THREAD ARE TAKEN UP BY THE NUTS.
 14. ALL STEEL MEMBERS TO BE HOT-DIPPED GALVANIZED.
- FOUNDATIONS**
1. EXCAVATIONS FOR ALL FOUNDATIONS TO BE CHECKED AND APPROVED BY THE ENGINEER PRIOR TO CASTING OF ANY CONCRETE.
 2. ALL FOUNDATIONS TO BE FOUNDED ON SOUND IN SITU MATERIAL. NO FOUNDATION WILL BE ALLOWED ON ANY FILL.
 3. TOP OF FOUNDATION LEVEL TO BE MIN 340mm BELOW FINAL OUTSIDE GROUND LEVEL OR FFL, WHICHEVER IS THE LOWER.
- CONCRETE**
- CONCRETE CUBE STRENGTH MIN. AT 28 DAYS:
- BLINDING: -15MPa/19
 - RC PAD FOUNDATIONS: -15MPa/19
 - RC STRIP FOOTINGS: -15MPa/19
 - RC SLABS AND SURFACE BEDS: -30MPa/19
2. CONCRETE COVER TO REINFORCING:
 - RC PAD FOUNDATIONS: -50mm (ALL SIDES)
 - RC SHEAR WALLS: -40mm (ALL SIDES)
 3. ALL REINFORCING FIXED WITH THE SPECIFIED COVER MUST BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO ANY CONCRETE BEING CAST.
 4. THE STANDARD SPECIFICATIONS SABS 1200 (EXCLUDING PAYMENTS CLAUSES) IS APPLICABLE.
 5. ALL CONCRETE TO BE PROPERLY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP. AT LEAST 7 DAYS AFTER CASTING. CONCRETE SLABS TO BE COVERED WITH MOIST SAND OR PLASTIC MEMBRANE DURING THIS PERIOD. COLUMNS TO BE WRAPPED IN PLASTIC IMMEDIATELY AFTER REMOVAL OF SHUTTERS.

DO NOT SCALE DRAWING
IF IN DOUBT REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER

NUMBER	DRAWING DESCRIPTION
D34435S-210-01	GENERAL STRUCTURAL NOTES

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT REG. NO. DATE

AMENDMENTS CODE

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OFFICE OF THE DIRECTOR, ENGINEERING SERVICES

300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE

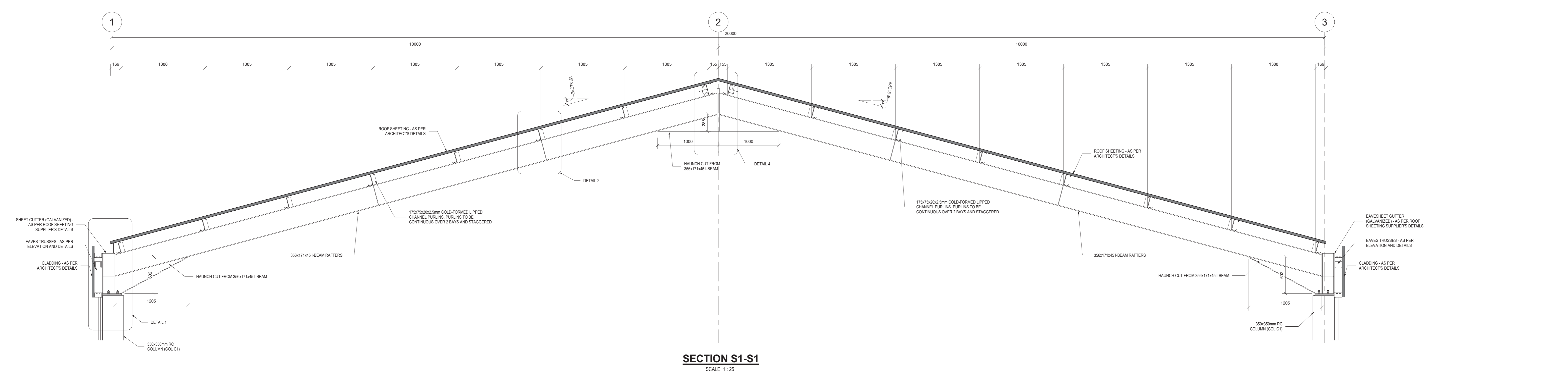
STEEL STAIRS - LAYOUT AND DETAILS

APPROVED BY BVI

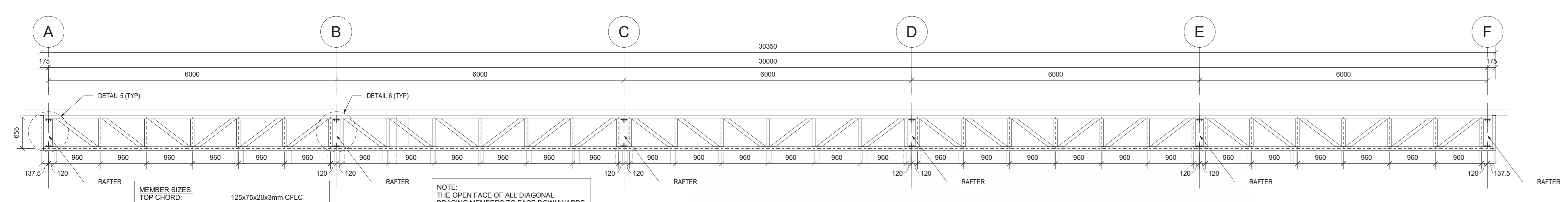
ENGINEER/TECHNOLOGIST	REG. NO.	DATE
	202001098	

SCALE	As indicated	DRAWN	C.P.
DESIGNED	PvN	CHECKED	PvN

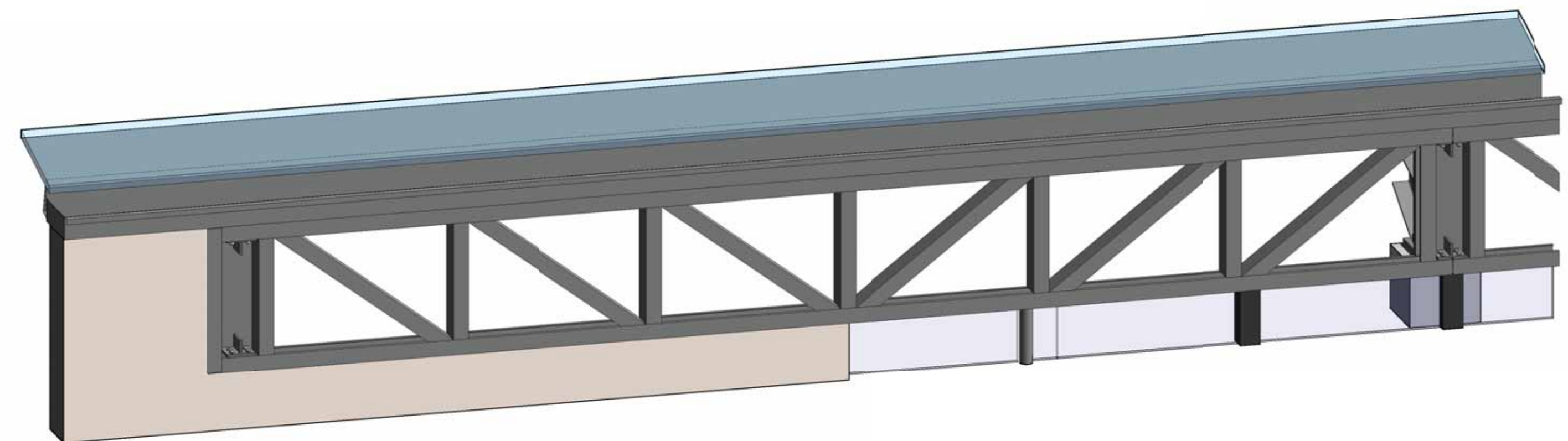
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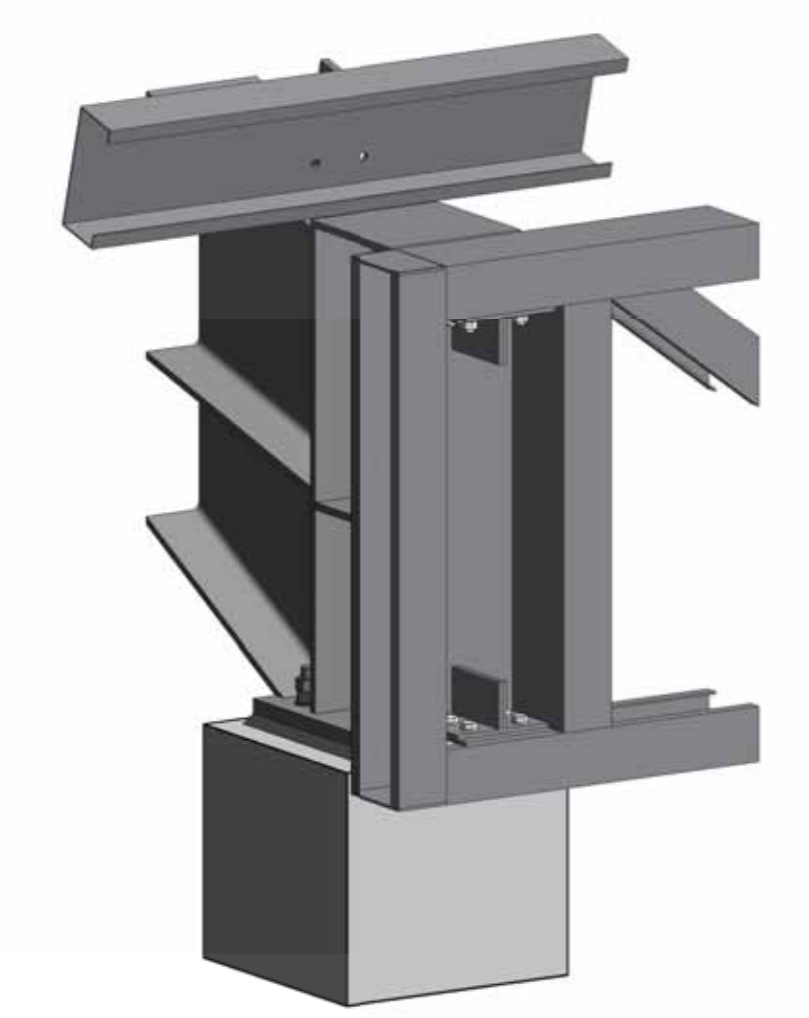
SECTION S1-S1
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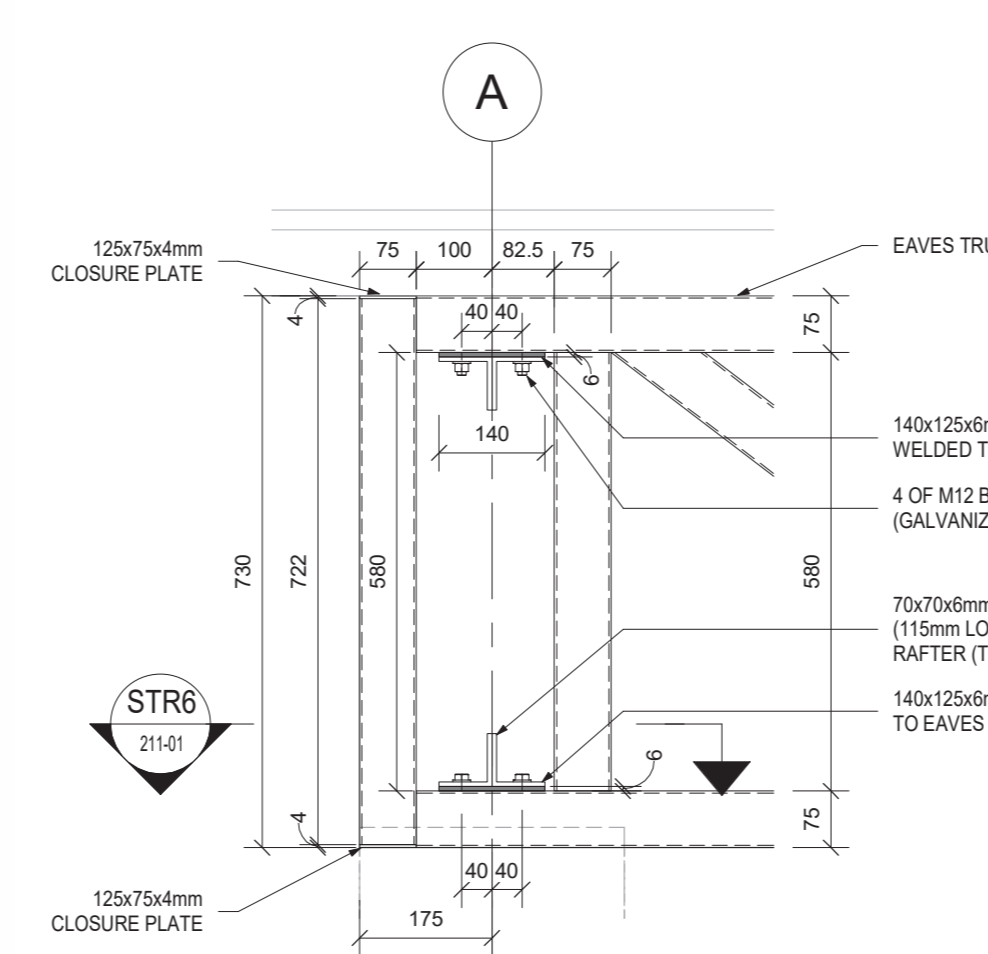
EAVES TRUSS - ELEVATION
SCALE 1:50



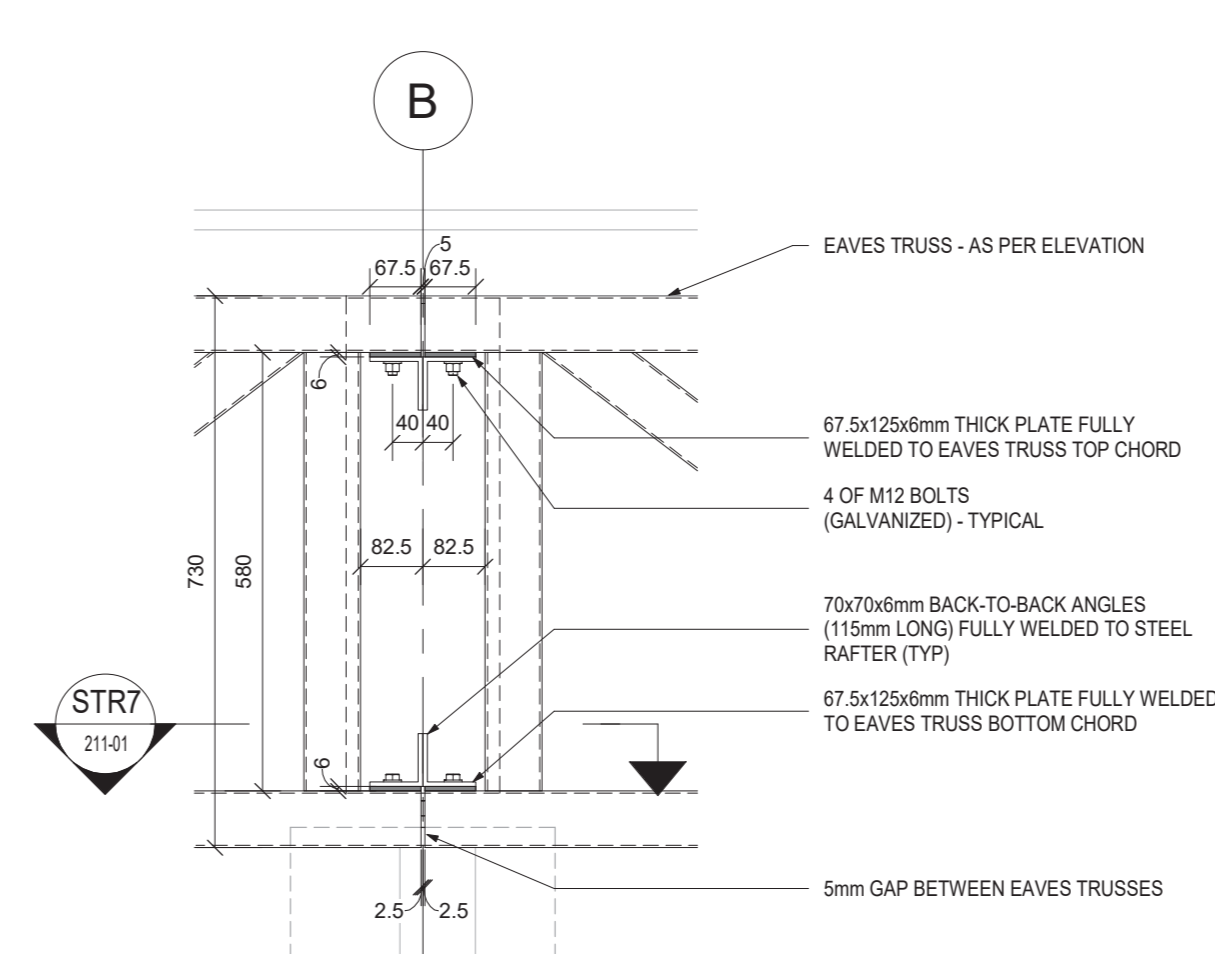
ISOMETRIC VIEW - EAVES TRUSS
SCALE



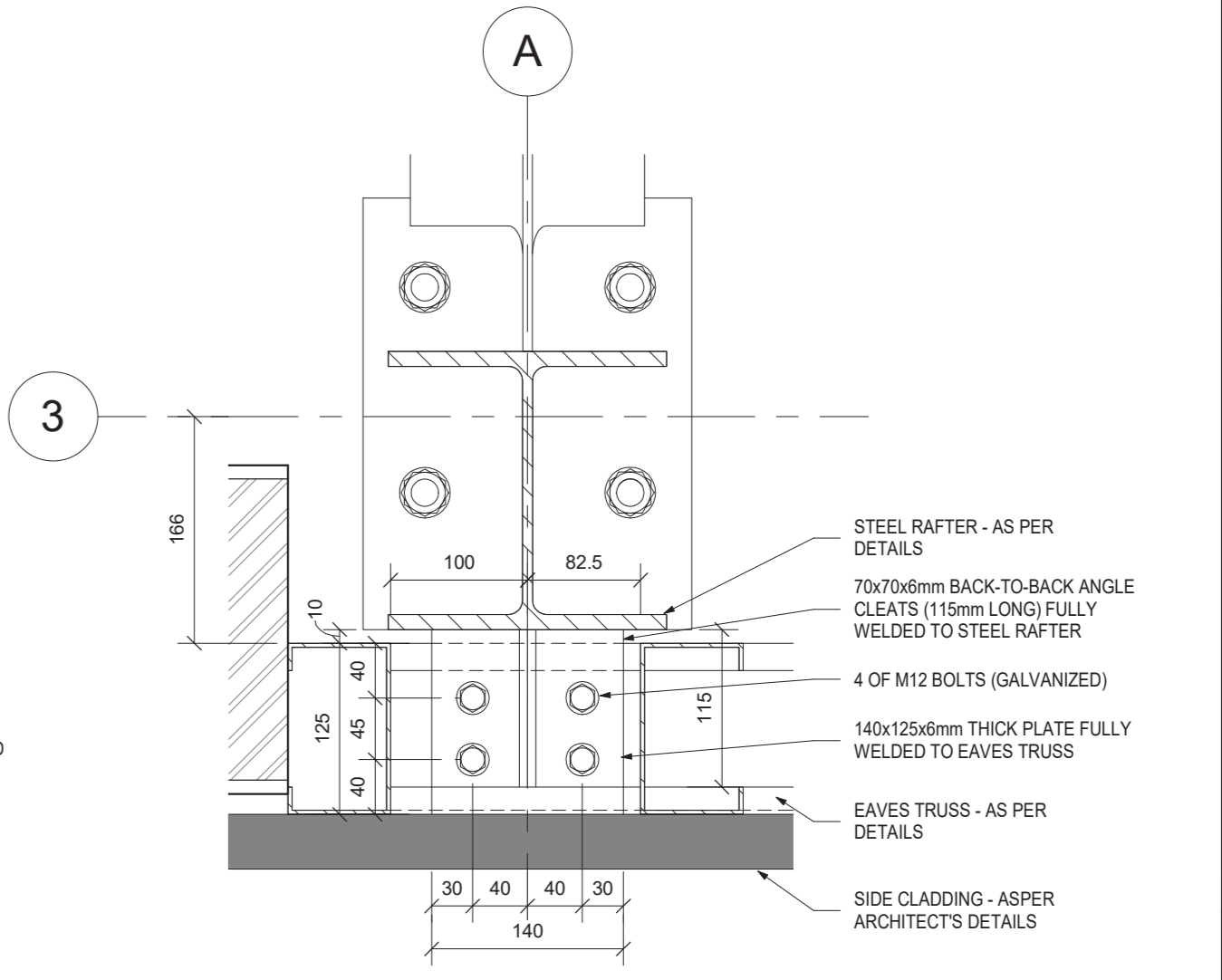
ISOMETRIC VIEW - EAVES TRUSS CONNECTION
SCALE



DETAIL 5 - EAVES TRUSS
SCALE 1:10

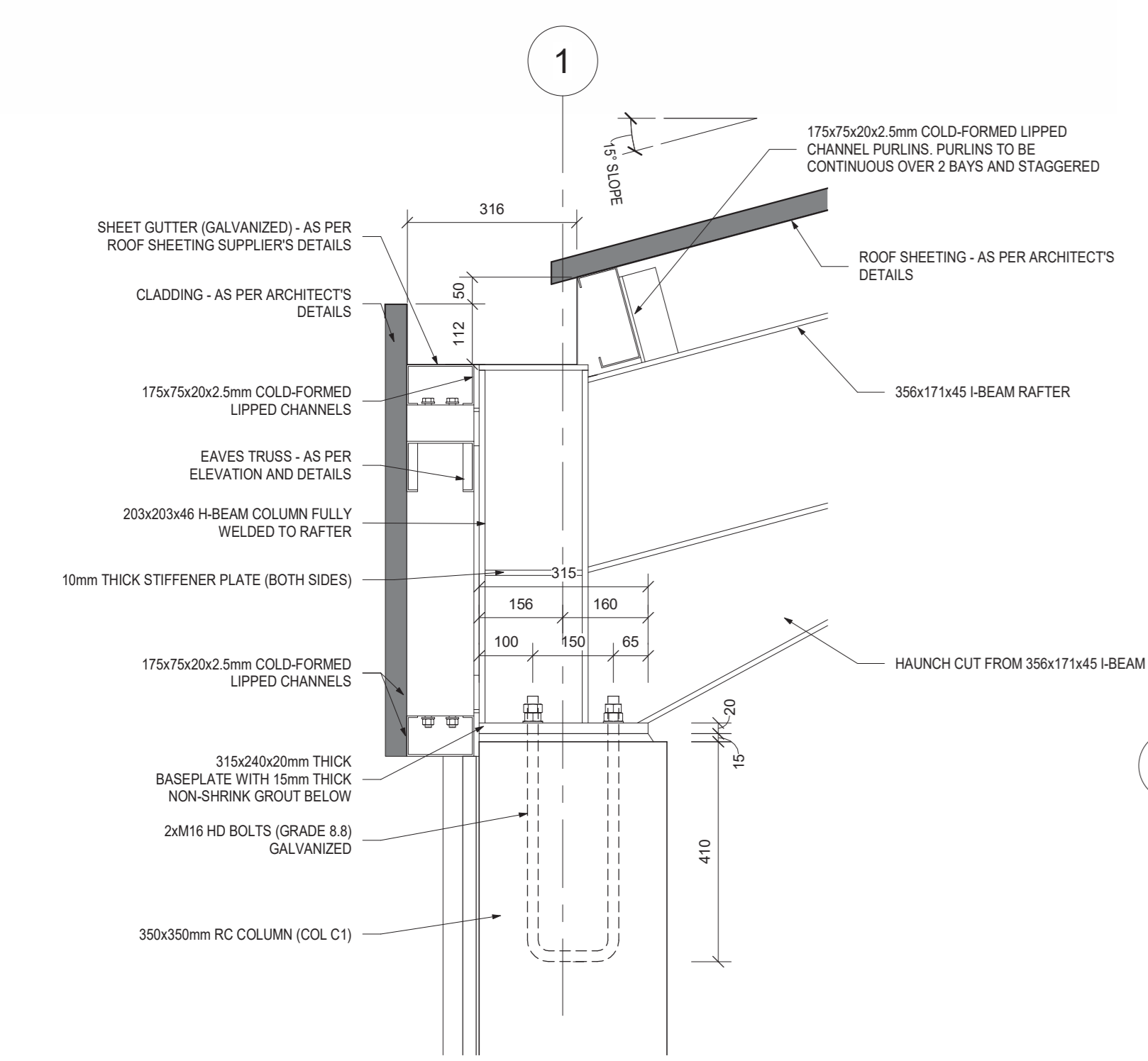


DETAIL 6 - EAVES TRUSS
SCALE 1:10

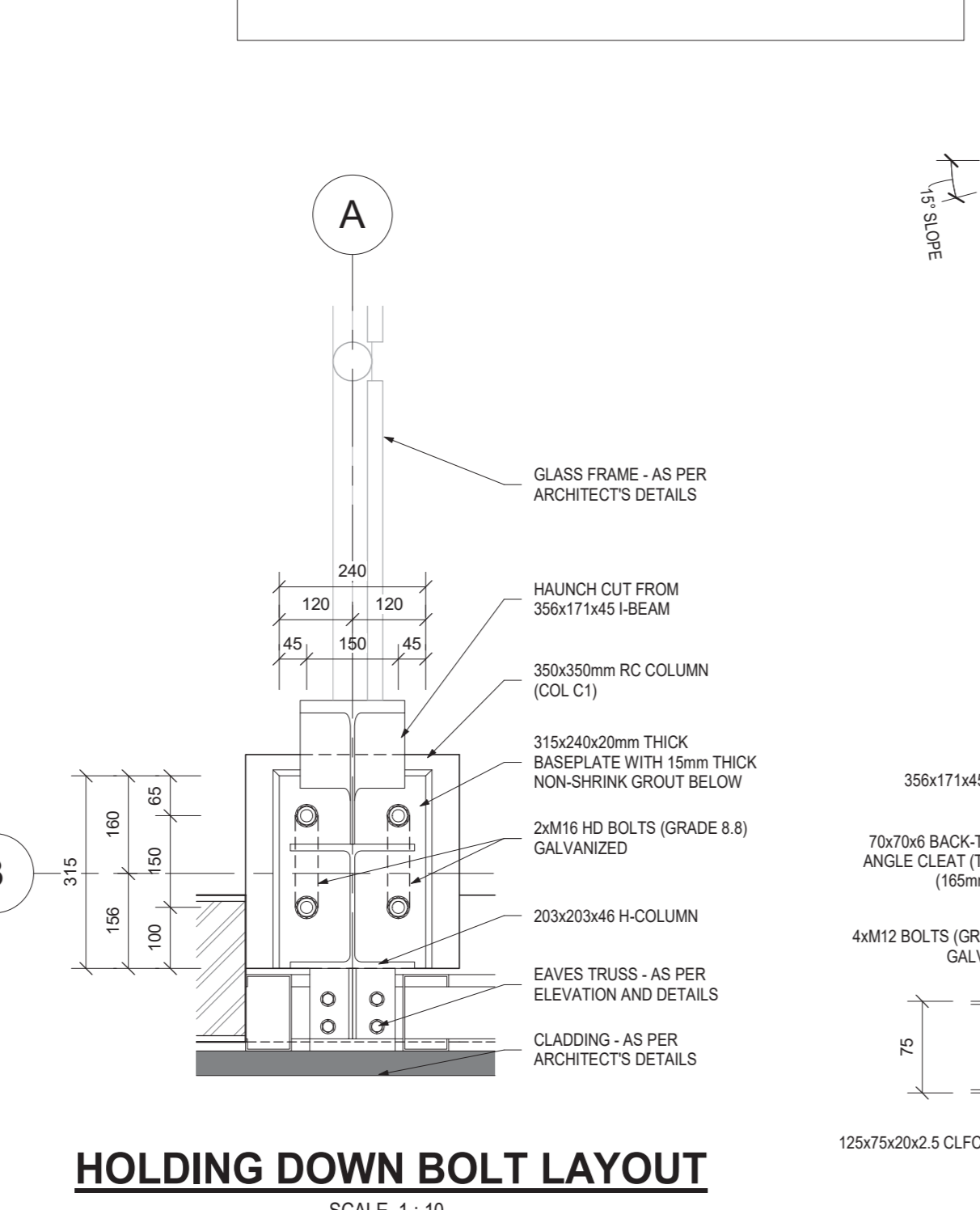


SECTION STR6-STR6
SCALE 1:5

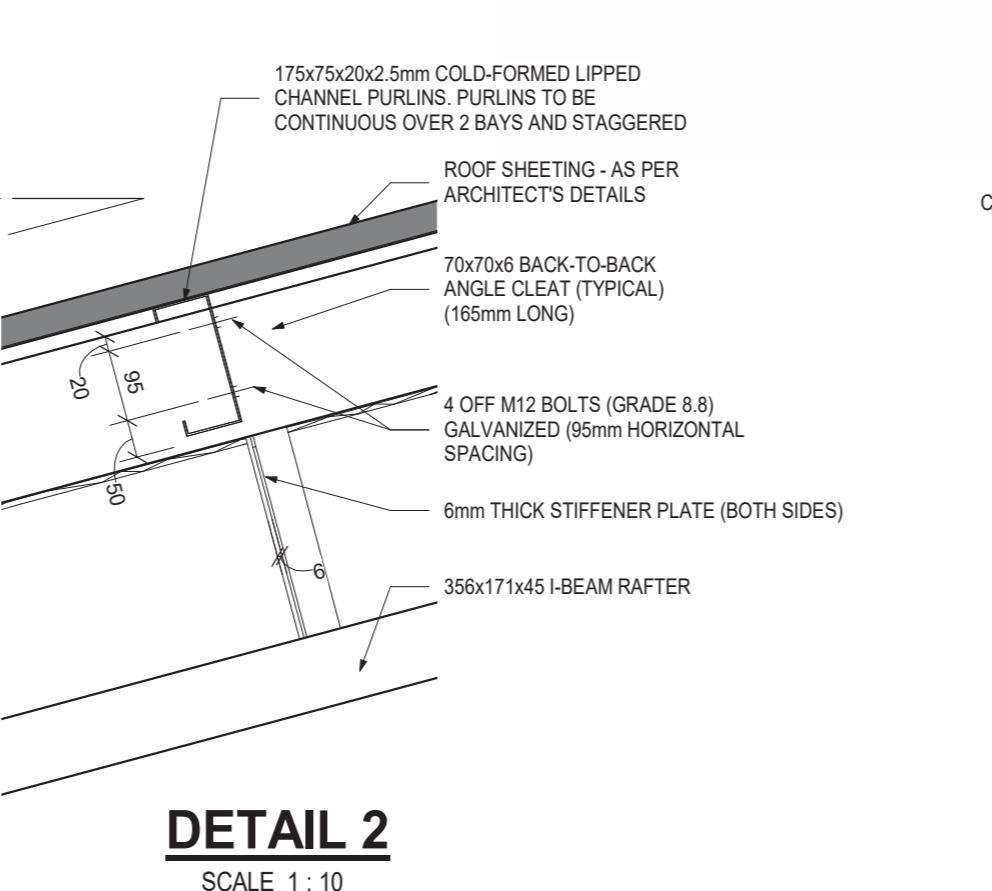
NOTE:
ALL STEEL MEMBERS TO BE HOT-DIPPED GALVANIZED



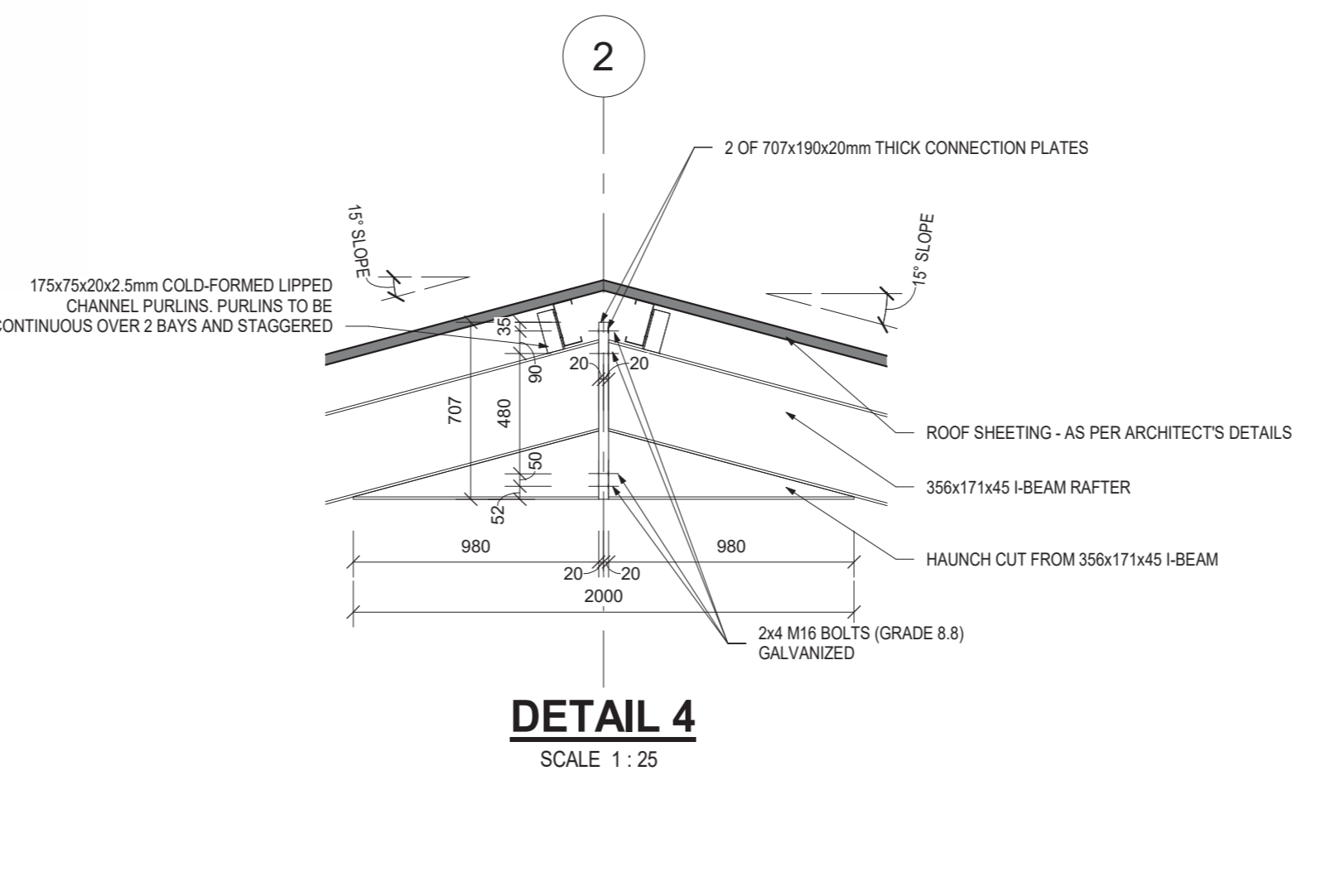
DETAIL 1 - HOLDING DOWN BOLT
SCALE 1:10



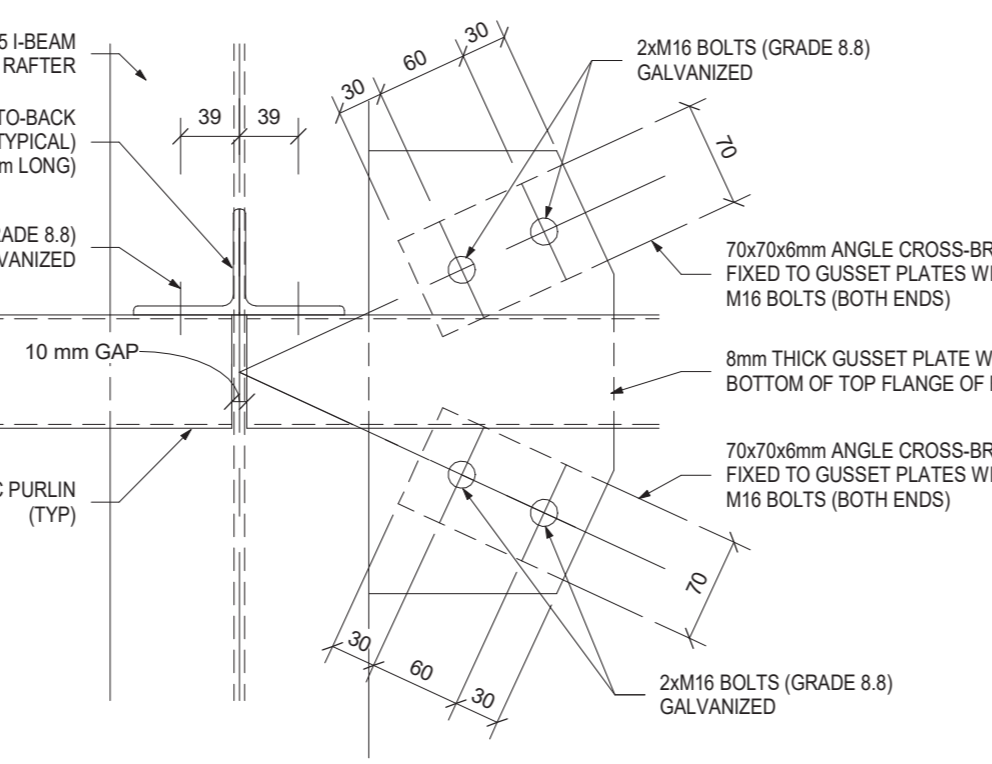
HOLDING DOWN BOLT LAYOUT
SCALE 1:10



DETAIL 2
SCALE 1:10



DETAIL 4 - CONNECTION PLATE - TYPICAL SECTION
SCALE 1:10



DETAIL 3 - PLAN VIEW
SCALE 1:5

- NOTES / LEGEND**
1. ALL MATERIAL, FABRICATION AND ERECTION OF STRUCTURAL STEEL TO COMPLY WITH SABS 0162 - 1984 AND SABS 12004 - 1983.
 2. ALL WELDS TO BE 6mm CONTINUOUS FILLET OR THE WELD THROAT THICKNESS TO BE THE THICKNESS OF THE THINNEST OF THE TWO PARENT METALS.
 3. WELDING CODE:
 - SIZE OF WELD TOP OF LINE FAR SIDE
 - SIZE OF WELD BOTTOM OF LINE NEAR SIDE
 - FILLET WELD ALL ROUND
 - SITE WELD
 4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. ONLY STRUCTURAL SIZES, CONNECTIONS AND SPLICES WILL BE CHECKED. FINAL DIMENSIONS AND FITTING OF MEMBERS SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
 5. THE CONTRACTOR IS RESPONSIBLE FOR STABILISING THE STRUCTURE AND MAINTAINING IT IN THE CORRECT POSITION DURING ERECTION.
 6. STRUCTURAL STEELWORK SHALL BE COMPLETED BY THE MANUFACTURER - CLEANED AND PAINTED WITH SPECIFIED PRIMER IN WORKSHOP BEFORE TRANSPORTATION TO SITE.
 7. STRUCTURAL STEEL TO BE OF GRADE S355.
 8. ALL BOLTS TO BE OF GALVANIZED GRADE 8.8.
 9. BOLTS SHALL NOT HAVE THREADS WITHIN THE SHEAR PLANES.
 10. ALL HOLES TO BE DRILLED AT STANDARD BACKMARK.
 11. BASE PLATES TO BE PROPERLY GROUTED UP AND PAINTED PRIOR TO BACKLIFTING BEING DONE.
 12. ALL BOX OR CIRCULAR SECTION ENDS TO BE CLOSED WITH 14mm THICK PLATES.
 13. WHERE PACKER PLATES ARE USED, LONGER BOLTS MUST BE USED TO ENSURE THAT SUFFICIENT LENGTH OF THREAD ARE TAKEN UP BY THE NUTS.
 14. ALL STEEL MEMBERS TO BE HOT-DIPPED GALVANIZED.

DO NOT SCALE DRAWING IF IN DOUBT REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER
D34435S-211-01

NUMBER	DRAWING DESCRIPTION
D34435S-201-01	GENERAL STRUCTURAL NOTES
D34435S-201-01	RC FOUNDATION - LAYOUT AND DETAILS
D34435S-201-02	RC SURFACE BED - LAYOUT AND DETAILS
D34435S-201-03	BUILDING SECTIONS
D34435S-210-01	STEEL ROOF - LAYOUT

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT	REG. NO.	DATE

AMENDMENTS CODE	DESCRIPTION
A.Y. 1	REPORT DESIGN/RENDER
00-99	CONSTRUCTION
Z	AS-BUILT

DATE	INITIAL CODE	REVISION DESCRIPTION
2021/10/27	C.P.	ISSUED FOR TENDER PURPOSES ONLY

OFFICES

bvi ENGINEERING PROFESSIONAL MEMBERSHIP
Bvi Consulting Engineers KZN PTY (Ltd)
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PROVINCE OFFICE KZN Durban +27 31 268 8382

CLIENT
TSOLO AGRICULTURE & RURAL DEVELOPMENT INSTITUTE
Private Bag X1008, Tsoelo, 5170
Tel: +27 (47) 542 3700
rural development & agrarian reform

PROJECT
300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

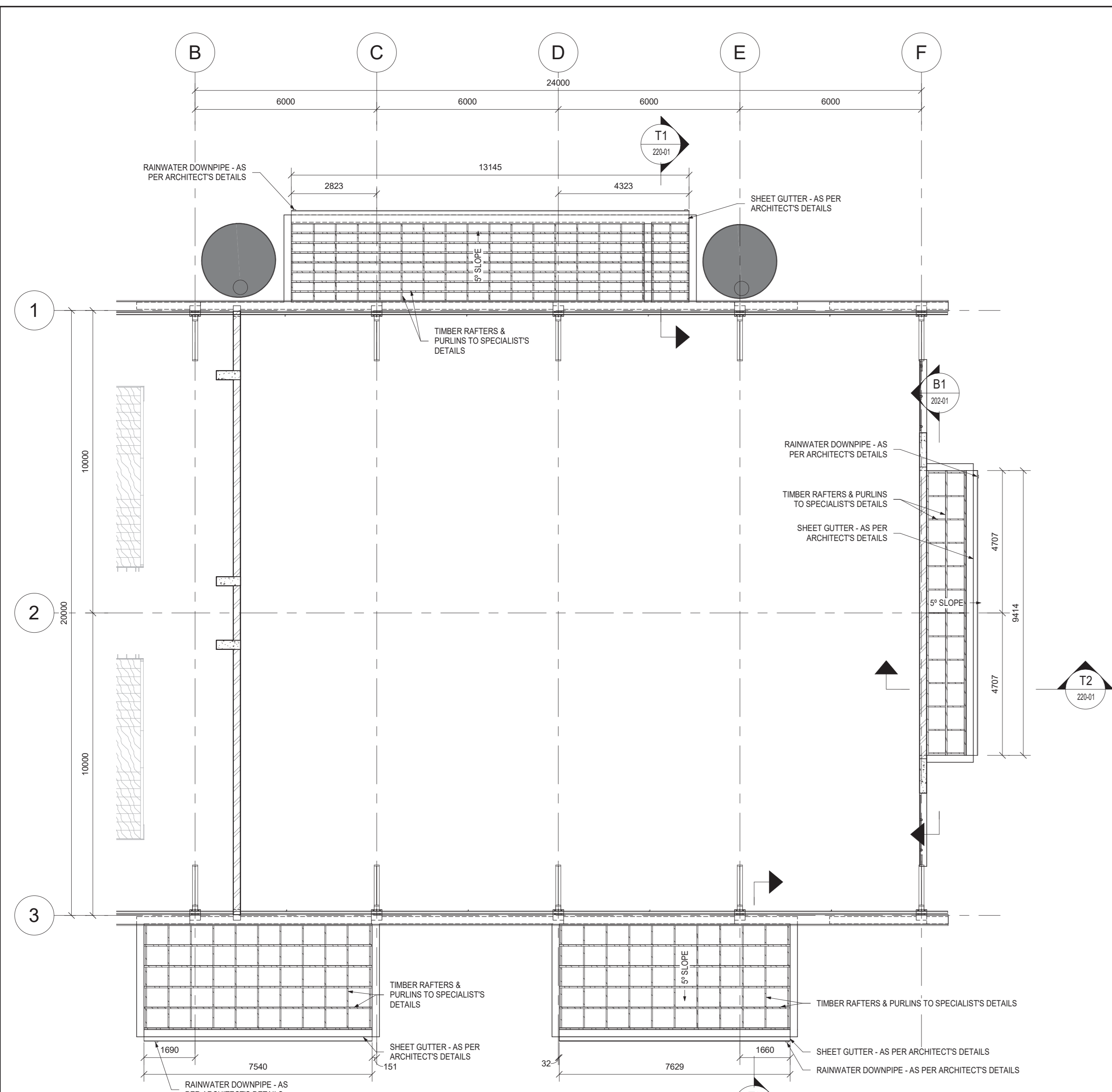
DRAWING TITLE
STEEL ROOF - SECTIONS AND DETAILS

APPROVED BY BVI

ENGINEER/TECHNOLOGIST	REG. NO.	DATE

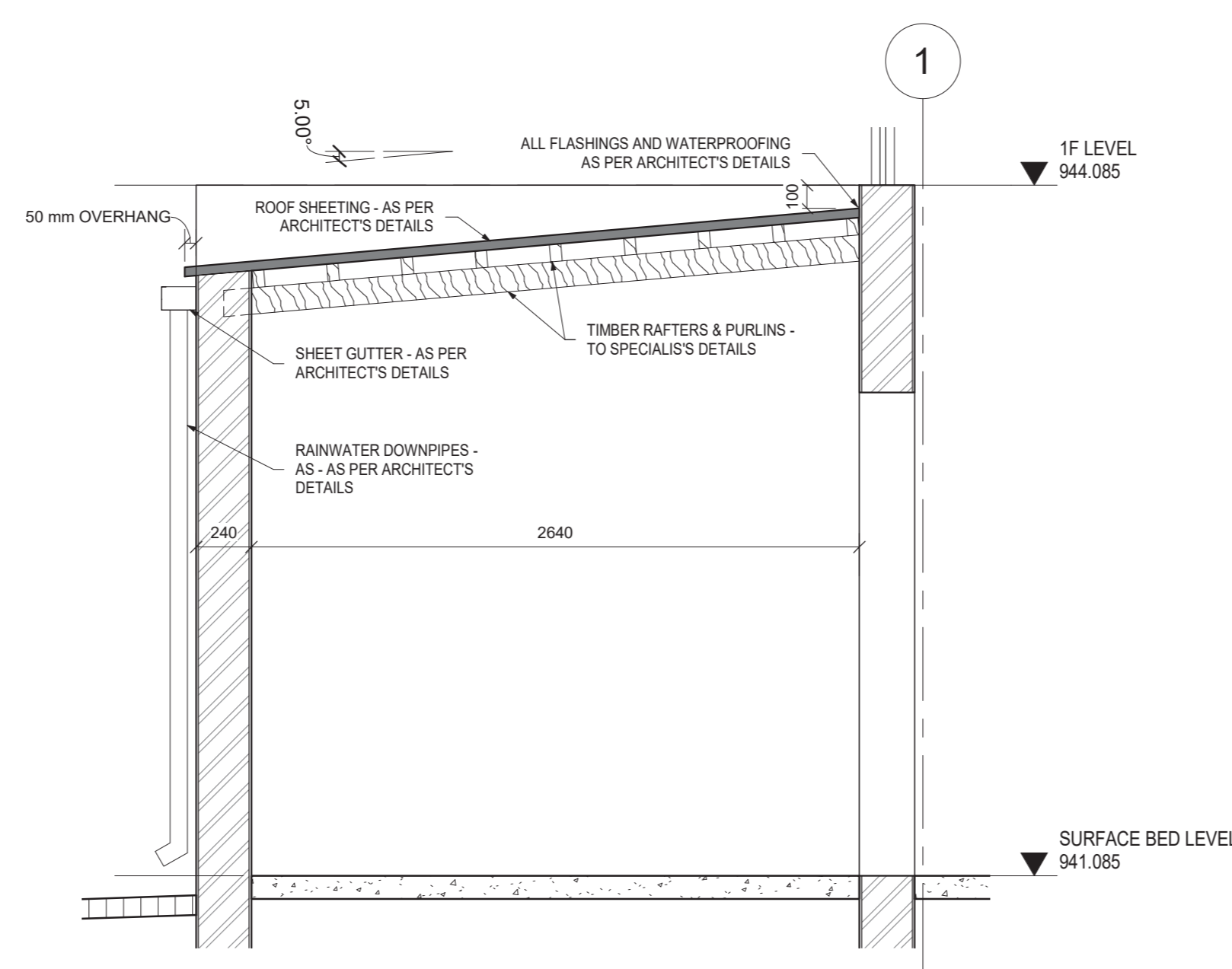
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DESIGNED	PvN	CHECKED	PvN

PLAN NUMBER	REV. NO.	DATE SAVED
D34435S-211-01	T	2021/10/27 08:12:47

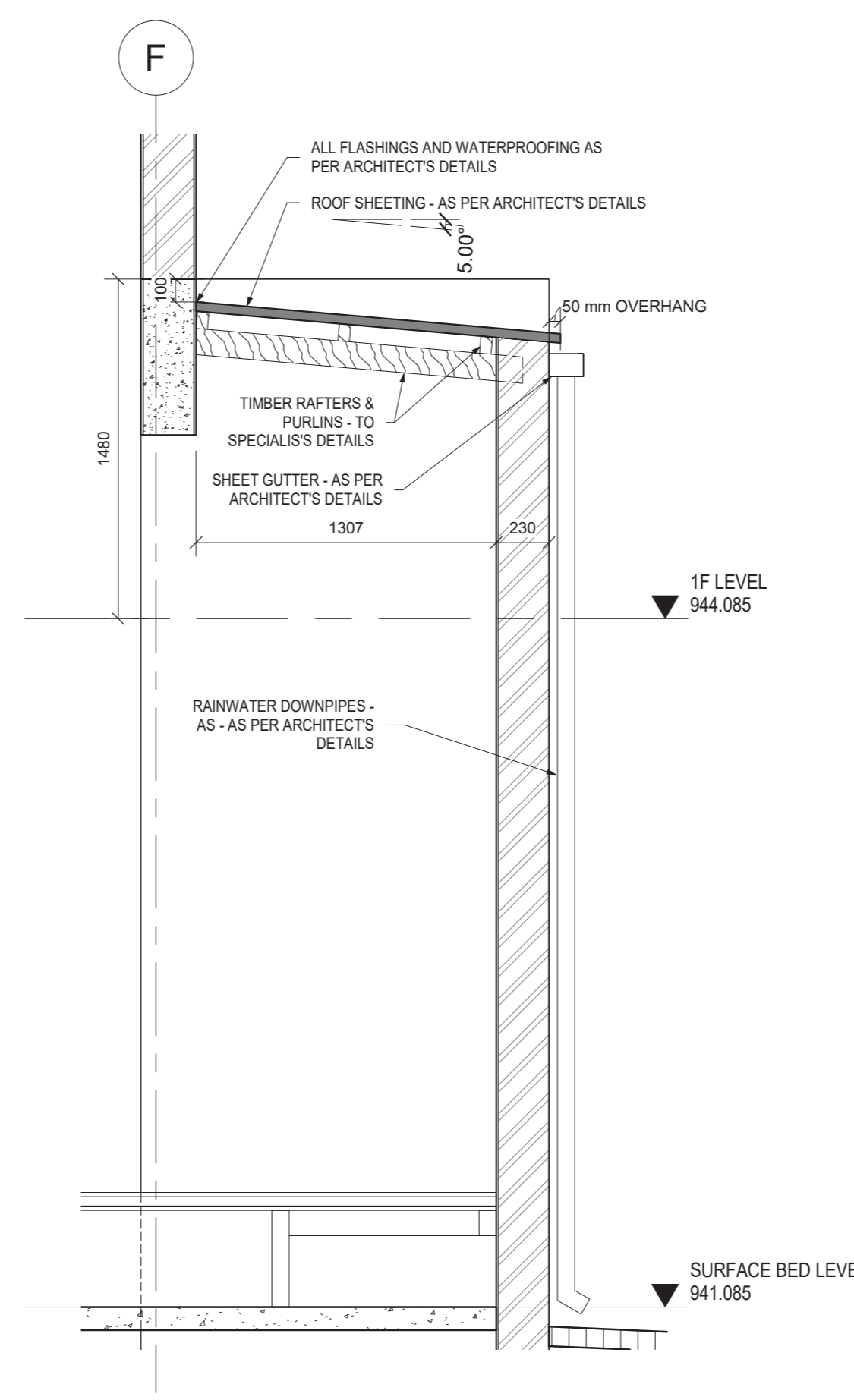


TIMBER ROOFS LAYOUT
SCALE 1:100

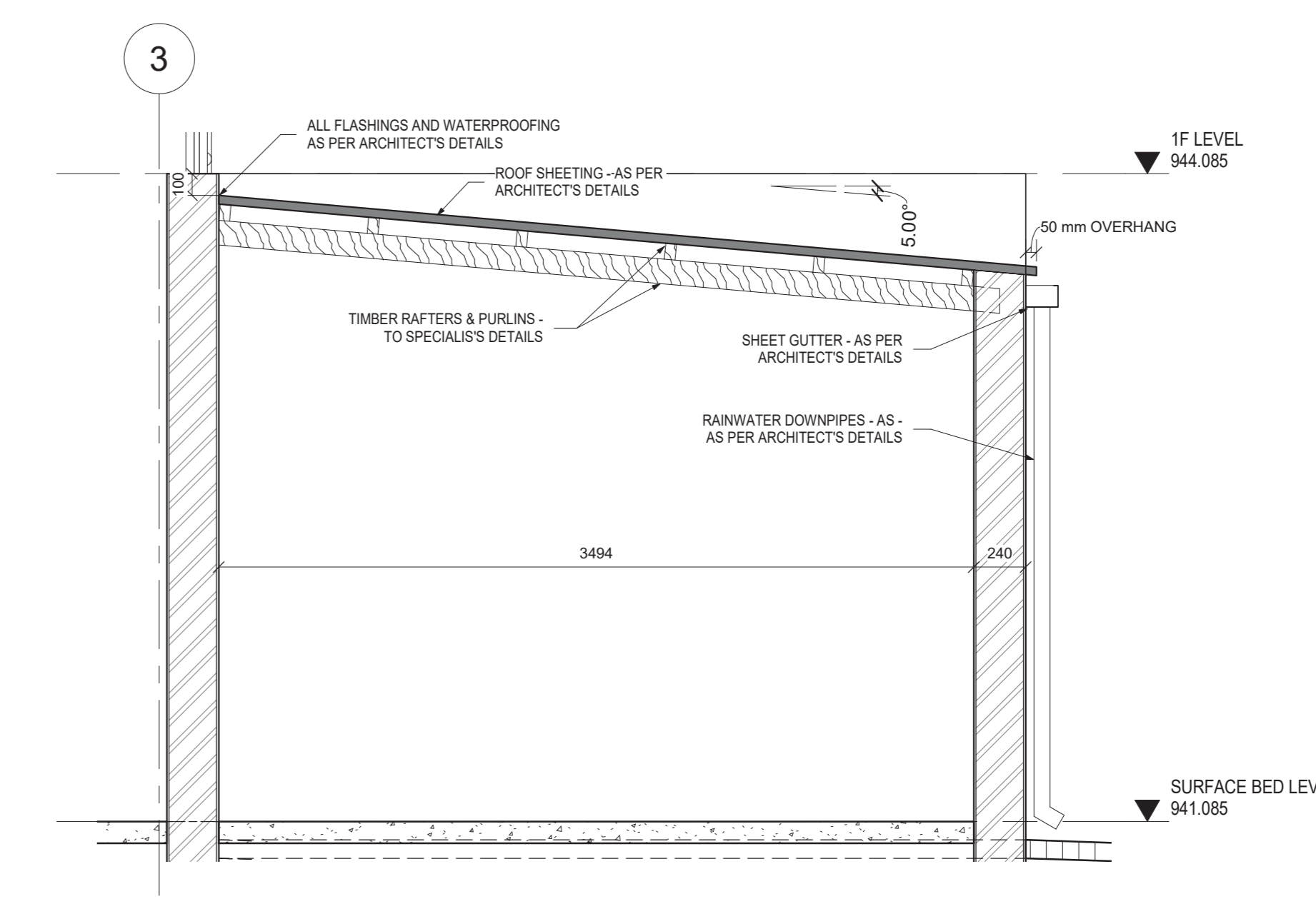
NOTE:
ALL TIMBER RAFTERS AND PURLINS TO BE SABS APPROVED GRADE 5 STRUCTURAL TIMBER MEMBERS



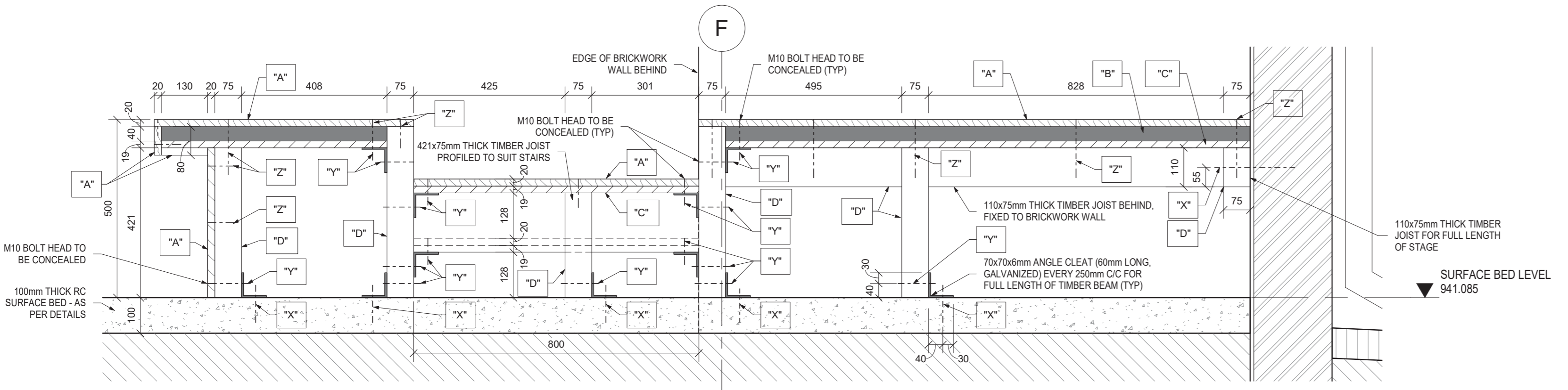
SECTION T1-T1
SCALE 1:25



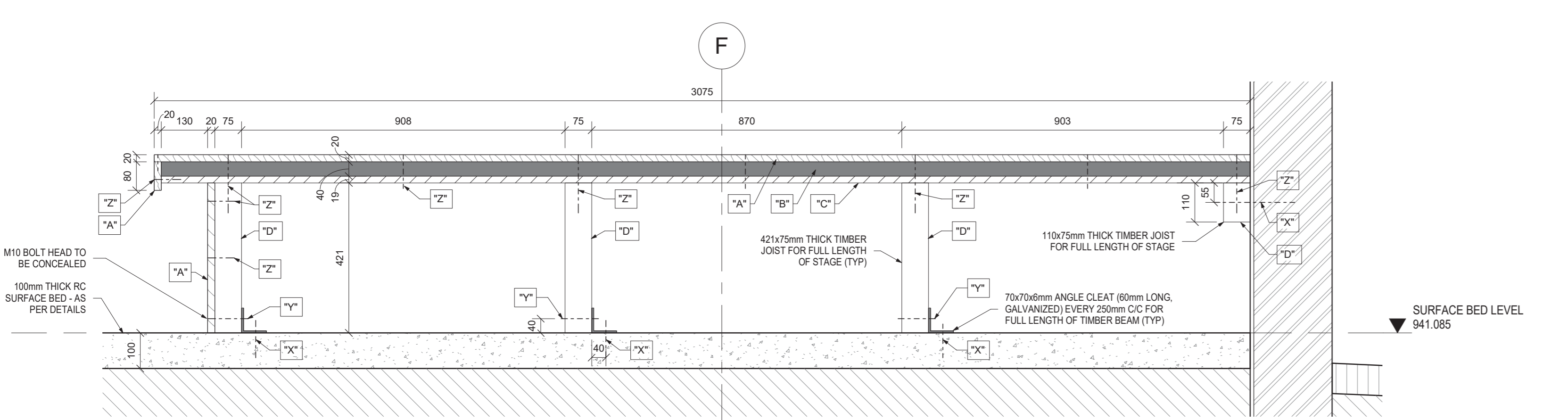
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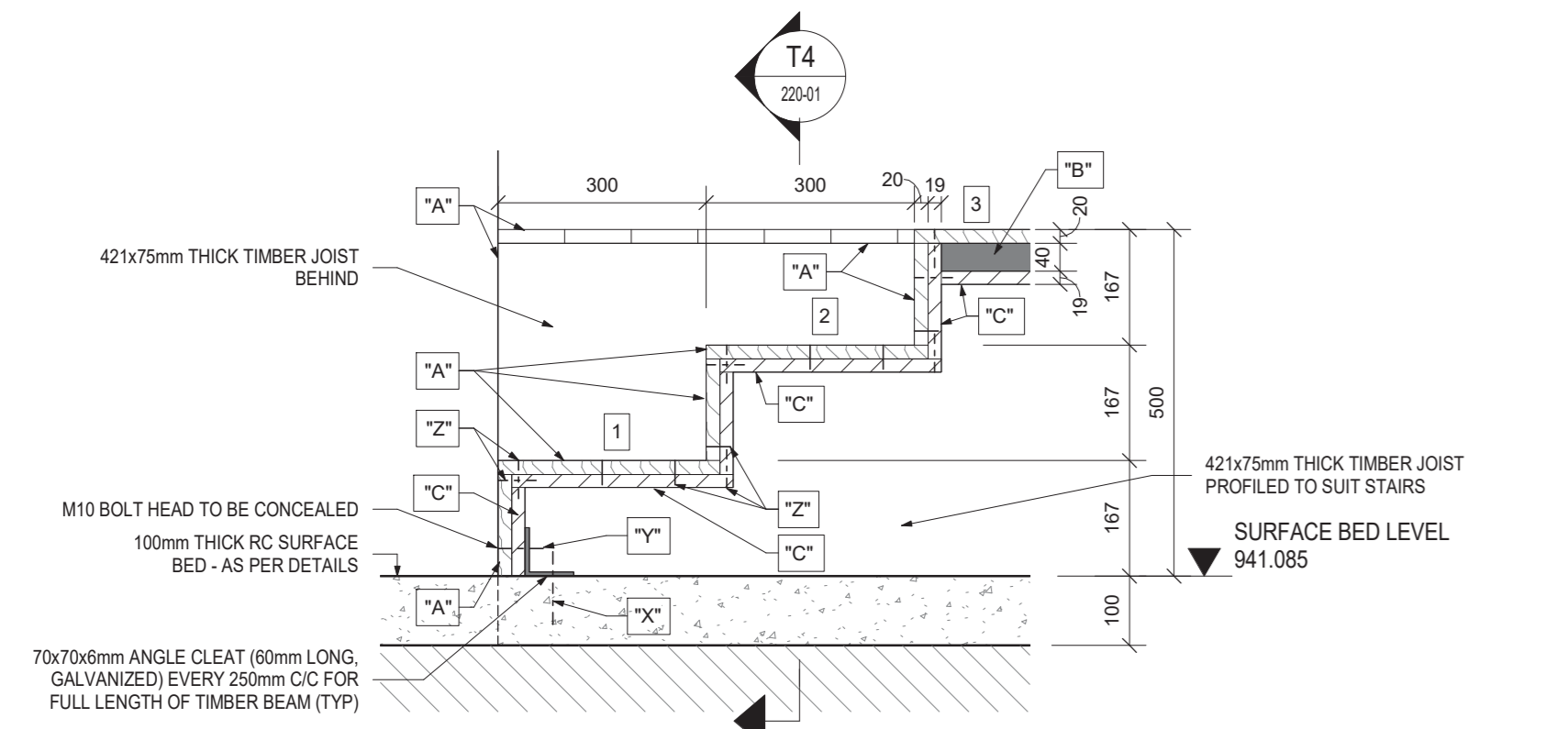
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SCALE 1:25



SECTION T4-T4
SCALE 1:10

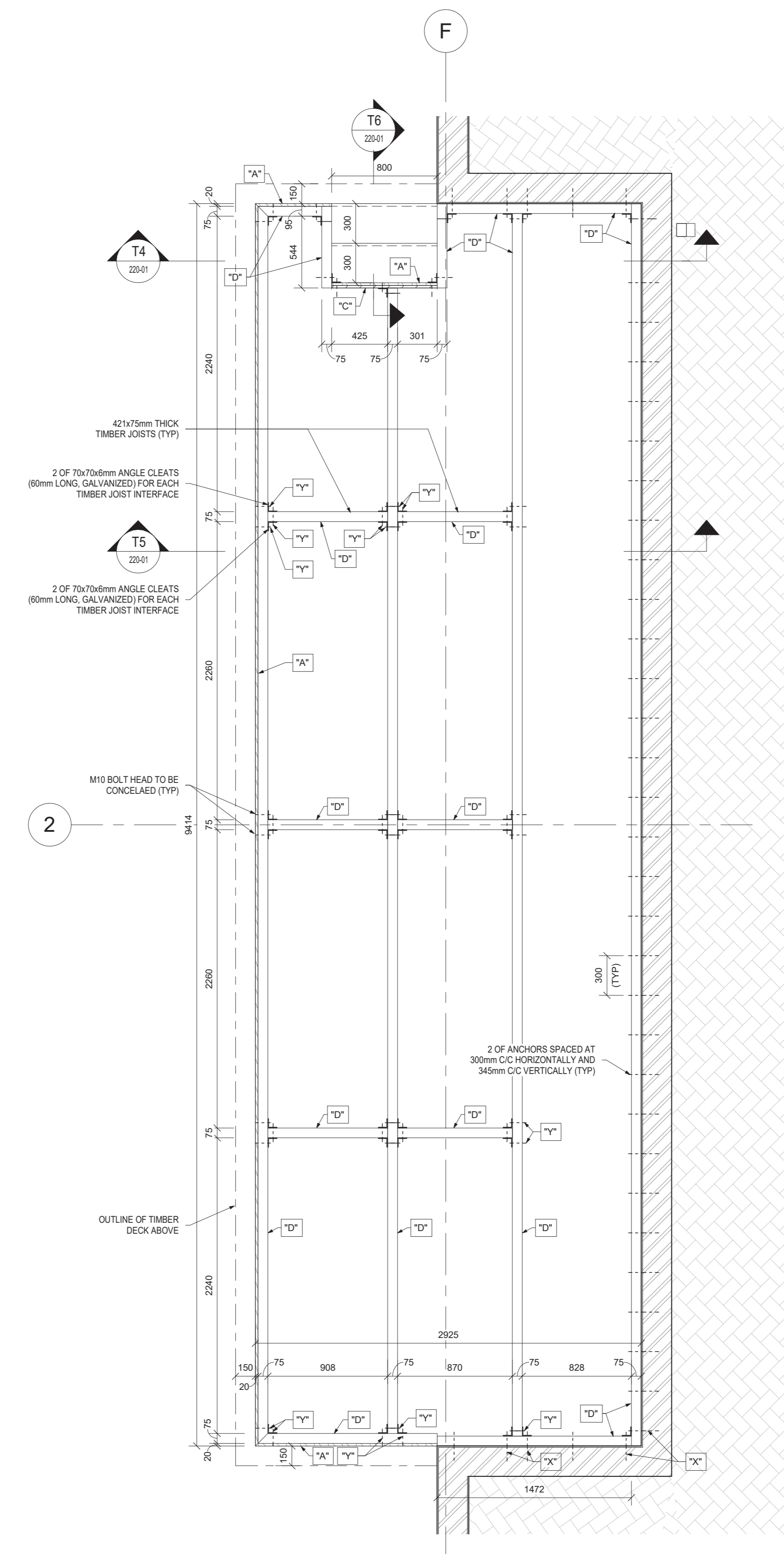


SECTION T5-T5
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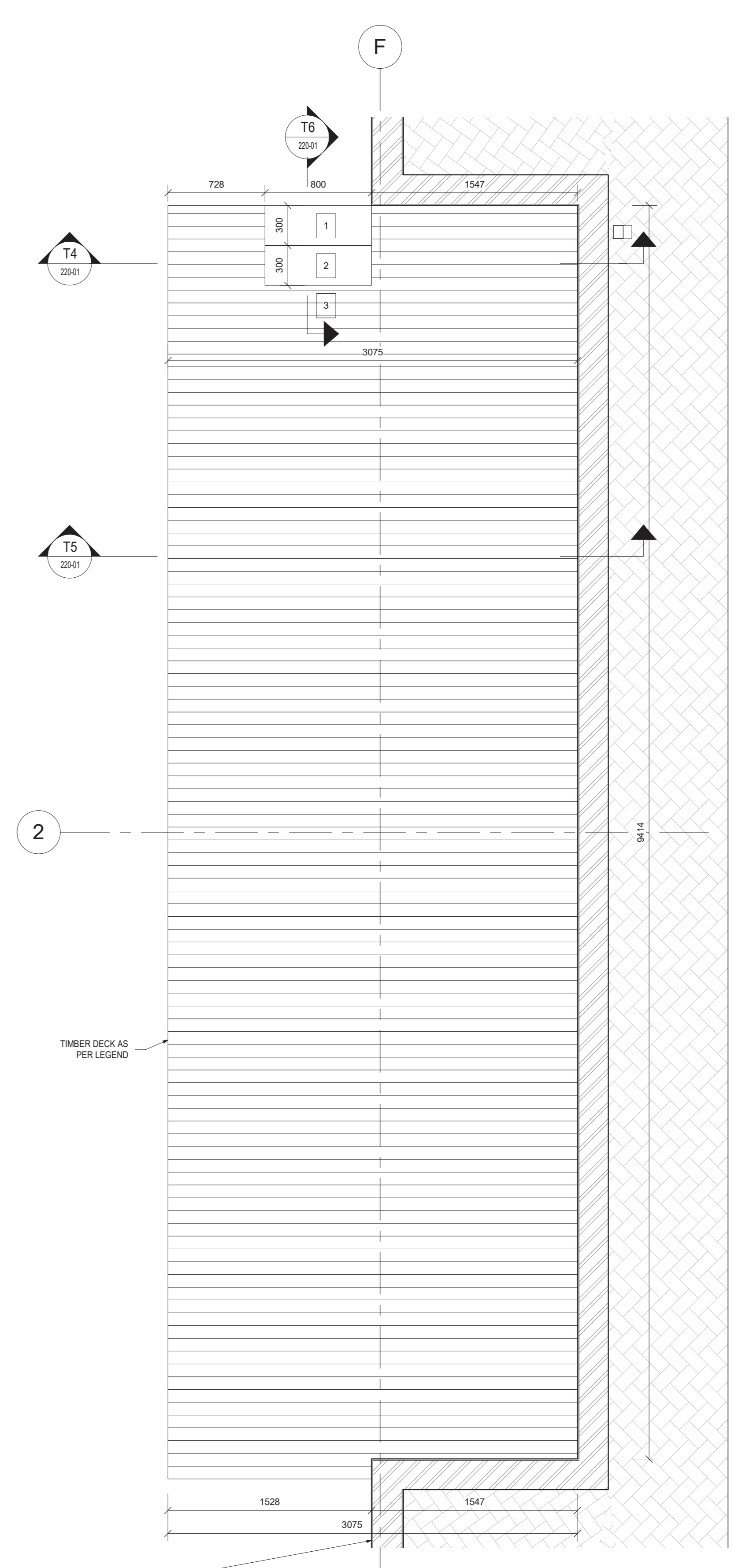


SECTION T6-T6
SCALE 1:10

LEGEND:
MATERIAL MARKED AS TYPE "A": STAGE TOP FINISH - USE 96x20mm THICK TONGUE AND GROOVE SALIGNA WOOD FLOORING WITH 3 COATS OF VARNISH.
MATERIAL MARKED AS TYPE "B": 40mm THICK "GETZNER" SYLOMER PAD LAYER TO ABSORB VIBRATION. TO SPECIALIST'S DETAILS
MATERIAL MARKED AS TYPE "C": 19mm THICK SHUTTERBOARD LAYER
MATERIAL MARKED AS TYPE "D": STRUCTURAL SUPPORTING JOISTS. USE SABS APPROVED GRADE 5 STRUCTURAL TIMBER MEMBERS (DIMENSIONS OF MEMBERS AS PER DETAILS)
BOLTS MARKED AS TYPE "X": USE HELIX M10x100mm LONG "HUB3-H" SCREW ANCHORS - GALVANIZED (OR SIMILAR APPROVED) WITH A MINIMUM CONCRETE EMBEDMENT DEPTH OF 50mm
BOLTS MARKED AS TYPE "Y": USE M10 BOLTS (GRADE 4.8) - GALVANIZED
BOLTS MARKED AS TYPE "Z": SUITABLE CONCEALED NAILS TO BE USED TO NAIL THE WOOD FLOORING PLANKS TO THE SHUTTERBOARDS AND TO NAIL THE PERIMETER WOOD FINISH PLANKS TO THE STRUCTURAL TIMBER FRAME
ALL BOLTS, NUTS & WASHERS TO BE HOT-DIPPED GALVANIZED



TIMBER STAGE SUPPORTING FRAME LAYOUT
SCALE 1:25



TIMBER STAGE DECK LAYOUT
SCALE 1:25

NOTES / LEGEND

GENERAL
1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL MATERIALS AND WORKMANSHIP CONFORM WITH THE DETAILS AND SPECIFICATIONS SHOWN ON THIS DRAWING, AND ALL RELEVANT SABS SPECIFICATIONS, IRRESPECTIVE OF WHETHER THE ENGINEER HAS INSPECTED THE WORKS ON SITE OR NOT.
2. ALL DIMENSIONS AND LEVELS TO BE CHECKED ON SITE AND CORRELATED WITH THE ARCHITECT'S DRAWINGS BEFORE CONSTRUCTION COMMENCES.
3. ALL WRITTEN DIMENSIONS USED IN PREFERENCE TO SCALING.
4. ALL WATERPROOFING DETAILS TO BE IN ACCORDANCE WITH THE ARCHITECT'S SPECIFICATION AND INSTRUCTIONS.

FOUNDATIONS
1. EXCAVATIONS FOR ALL FOUNDATIONS TO BE CHECKED AND APPROVED BY THE ENGINEER PRIOR TO CASTING OF ANY CONCRETE.
2. ALL FOUNDATIONS TO BE FOUNDED ON SOUND IN-SITU MATERIAL. NO FOUNDATION WILL BE ALLOWED ON ANY FILL.
3. TOP OF FOUNDATION LEVEL TO BE MIN 30mm BELOW FINAL OUTSIDE GROUND LEVEL OR F.F.L. WHICHEVER IS THE LOWER.

CONCRETE
CONCRETE CURE STRONG MIN. AT 28 DAYS:
BLINDING: -15MPa/19
RC PAD FOUNDATIONS, RC STRIP FOOTINGS, RC SLABS AND SURFACE BEDS: -30MPa/19
2. CONCRETE COVER TO REINFORCING:
RC PAD FOUNDATIONS: -50mm (ALL SIDES)
RC SHEAR WALLS: -40mm (ALL SIDES)
3. ALL REINFORCING FIXED WITH THE SPECIFIED COVER MUST BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO ANY CONCRETE BEING CAST.
4. THE STANDARD SPECIFICATIONS SABS 1200 (EXCLUDING PAYMENTS CLAUSES) IS APPLICABLE.
5. ALL CONCRETE TO BE PROPERLY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP AT LEAST 7 DAYS AFTER CASTING. CONCRETE SLABS TO BE COVERED WITH MOIST SAND OR PLASTIC MEMBRANE DURING THIS PERIOD. COLUMNS TO BE WRAPPED IN PLASTIC IMMEDIATELY AFTER REMOVAL OF SHUTTERS.

DO NOT SCALE DRAWING IF IN DOUBT REFER TO DRAWING OFFICE

CLIENT PLAN NUMBER		
D34435S-211-01		
REFERENCE DRAWINGS		
NUMBER	DRAWING DESCRIPTION	
D34435S-200-01	GENERAL STRUCTURAL NOTES	
APPROVED BY COUNCIL / CLIENT		
CITY ENGINEER / CLIENT	REG. NO. DATE	
AMENDMENTS CODE		
A.Y. 1: REPORT DESIGN TENDER	A: BY CLIENT	
00-99: CONSTRUCTION	B: BY ARCHITECT	
Z: AS BUILT	C: BY MECHANICAL OR ELECTRICAL	
	D: BY BVI	
	E: BY OTHER	
DATE INITIAL CODE REVISION DESCRIPTION		
2021/10/27	C.P. T.D.	ISSUED FOR TENDER PURPOSES ONLY

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Registration no: 1583002027

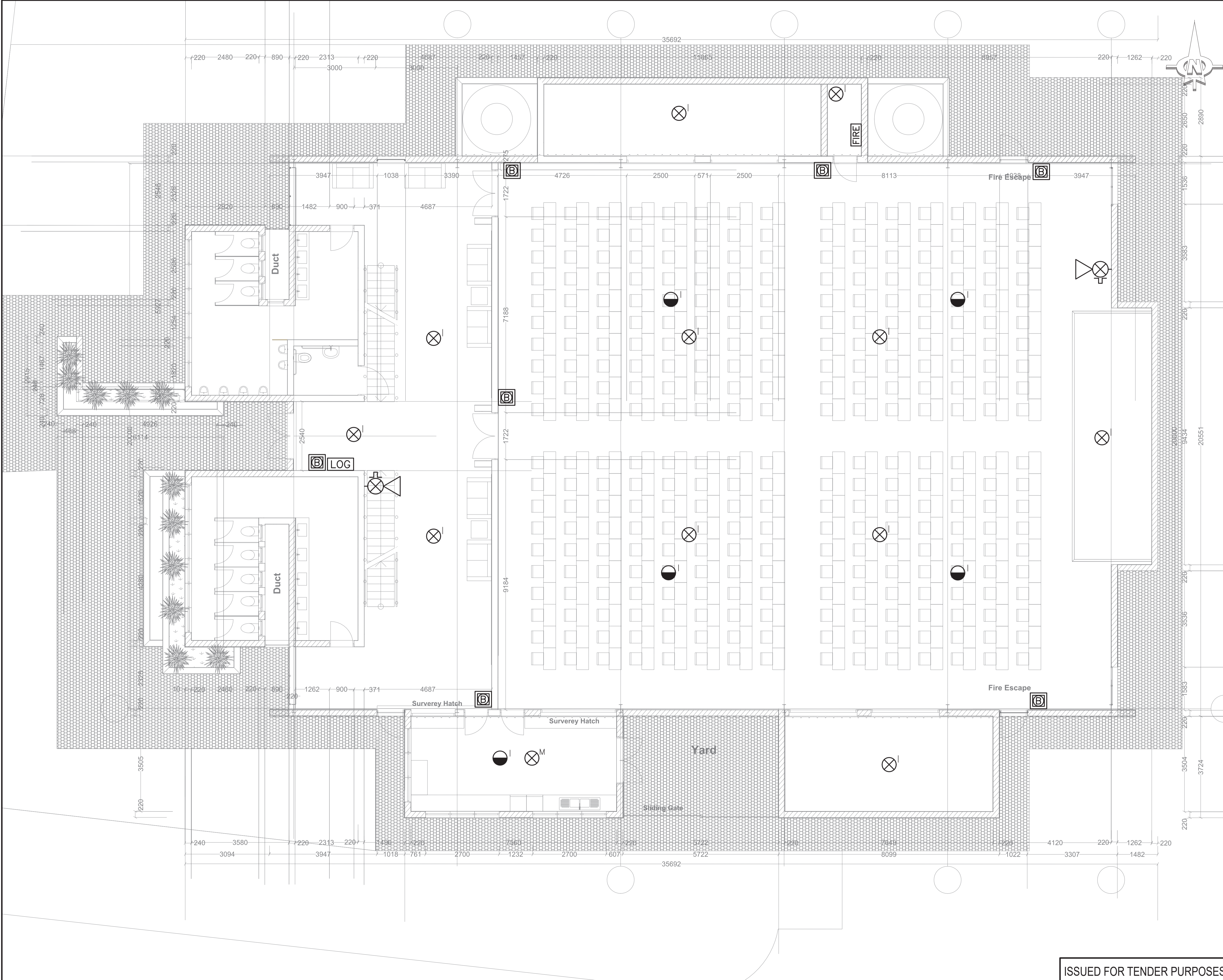
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PROVINCE OFFICE REG. NO. EMAIL
KZN Durban +27 31 268 8382 dbn@bvi.co.za

CLIENT
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rural development & agrarian reform
Department of Agriculture, Forestry and Fisheries
Minister of the Southern Cape
OFFICE OF THE DIRECTOR, ENGINEERING SERVICES

300-SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE	
TIMBER ROOFS & TIMBER STAGE - LAYOUT AND DETAILS	
APPROVED BY BVI	
ENGINEER/TECHNOLOGIST	202001098
SCALE	As indicated
DESIGNED	PvN
PLAN NUMBER	REV. NO.
D34435S-220-01	T
DATE	2021/10/27
DATE SAVED	08:10:36



NOTES / LEGEND

DETECTOR TYPES & POSITIONS
 M = MULTI CRITERIA
 I = IONISATION

- DETECTOR IN CEILING VOID
- DETECTOR AT CEILING LEVEL
- SIREN & STROBE
- BREAK-GLASS UNIT (FIRE)
- FIRE ALARM PANEL
- LOGBOOK HOLDER

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT _____ REG. NO. _____ DATE _____

AMENDMENTS CODE

A.B.C.J. BEFORE TENDER
 TO / TENDER DRAWING
 0,1,2,3. / AFTER TENDER
 Z / AS BUILT

A. BY CLIENT
 B. BY ARCHITECT
 C. BY MECHANICAL OR ELECTRICAL
 D. BY BN
 E. BY OTHER ()

DATE	INITIAL	No./CODE	REVISION DESCRIPTION
17/09/2021	Z.N	AID	ISSUED FOR APPROVAL
22/10/2021	Z.N	TO/D	ISSUED FOR TENDER PURPOSES

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	Benoni	(011) 441-2107	info@bvi.co.za
Free State	Worcester	(053) 353-3400	info@bvi.co.za
Northern Cape	Upington	(054) 337-6000	info@bvi.co.za
	Springs	(011) 710-3014	info@bvi.co.za
KwaZulu Natal	Durban	(031) 298-8300	info@bvi.co.za
	Empangeni	(035) 770-8112	info@bvi.co.za
Eastern Cape	Port Elizabeth	(041) 374-4343	info@bvi.co.za
	East London	(043) 735-3888	info@bvi.co.za
Western Cape	Cape Town	(021) 527-7000	info@bvi.co.za

bvi ENGINEERING PROCUREMENT MANAGEMENT

Registration no. 19860015107

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 Tel: +27 (47) 542 3700

rural development & agrarian reform
 Department of Agriculture, Forestry and Fisheries
 REPUBLIC OF SOUTH AFRICA

OFFICE OF THE DIRECTOR: ENGINEERING SERVICES

PROJECT

TSOLO AGRI 300 SEATER EXAM HALL

DRAWING TITLE

FIRE DETECTION LAYOUT

APPROVED BY BVI

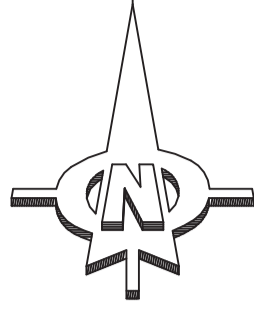
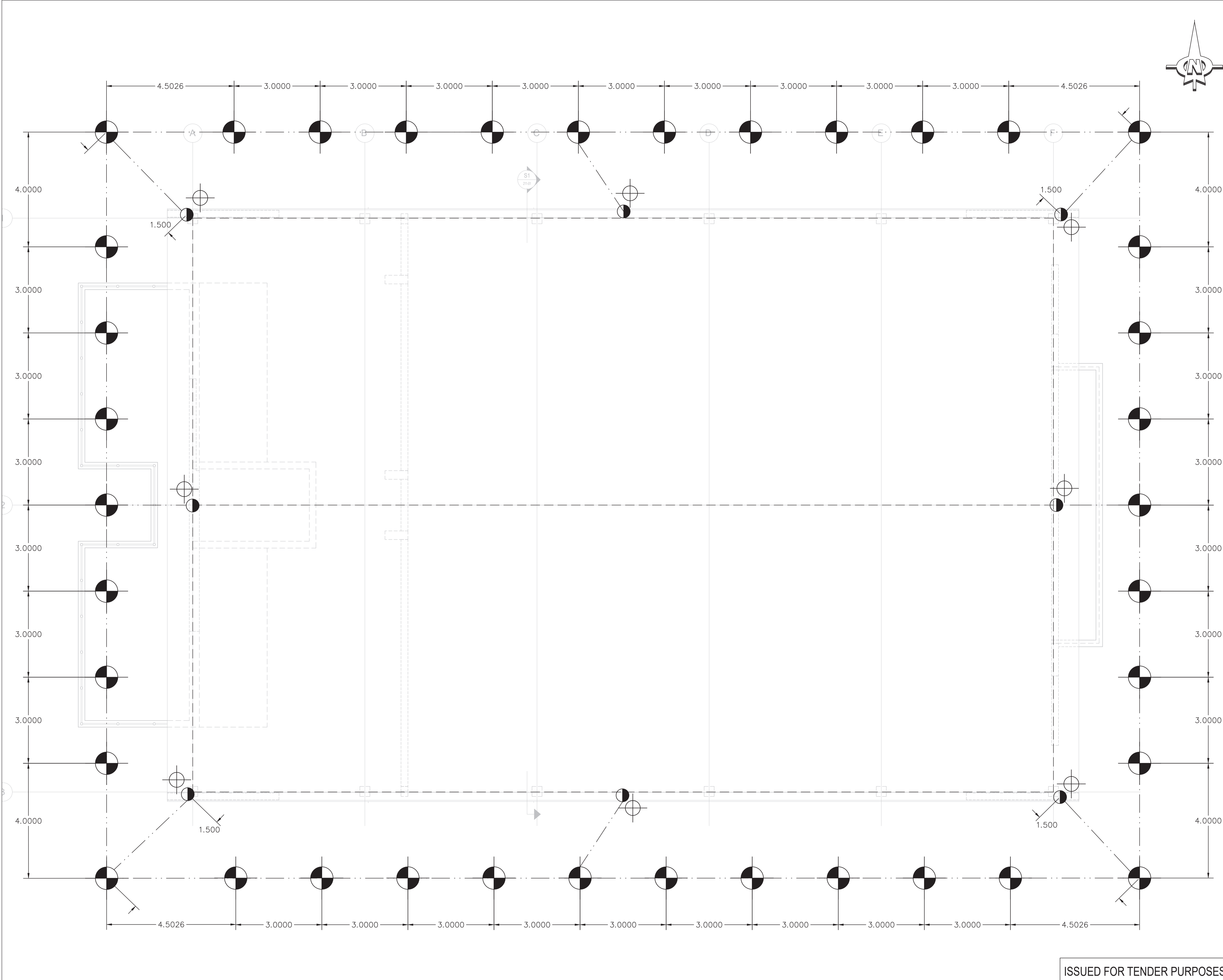
ENGINEER _____ 20110101 _____ DATE
 REG. NO. _____

SCALE: N.T.S. DRAWN: P.L.
 DESIGNED: Z.N. CHECKED: Z.N.

ISSUED FOR TENDER PURPOSES

DRAWING NUMBER: D34435.00-340-01
 REVISION NO.: T0
 DATE SAVED: 22 October 2021

D34435.00-340-01 REV10.DWG



NOTES / LEGEND

LEGEND	
50mm ² Bare Copper Trench Earth Conductor Installed Not More Than 500mm Away From Building	---
10mm ² Aluminium Down Conductor Installed in 20mm \varnothing BOSAL Conduit	----
10mm \varnothing Aluminium Lightning Conductor on Aluminium Mounted Fixed to Roof with 2 Pack Epoxy Adhesive	----
1.5m SABS Approved Earth rod driven from 500mm Below Final Ground Level, 3m apart and tall to test point. Castweld joint at the rod and lug connection at test point.	⊕
Surface Mounted S15 Duo Weatherproof York Box Complete with PVC Sliding Lid and Stainless Steel Screws. Earth test point mounted on insulator on wall at 500mm above paving level. Connections lugged to test point. Risers to roof in PVC clad 70mm ² insulated copper earth conductors in PVC conduit on wall/concrete	⊕
Special connections copper to steel or copper to aluminium or aluminium to aluminium using Denso Paste or standard copper to copper connection as may be applicable	●

NOTES:

1. Compensate earth ring to be stranded bare copper material.
2. All metal doors in the buildings to be earthed and bonded.
3. All cable trays in the buildings to be earthed and bonded.
4. All metal equipment in the buildings to be earthed and bonded.
5. Contractor to ensure the buildings and equipment are earthed and bonded as per South African National Standards.
6. Interconnect All Buildings Earthing and Lightning Protection Systems to form an Equipotential Bonded System.
7. THIS DRAWING IS NOT FOR CONSTRUCTION. LIGHTNING PROTECTION SPECIALIST CONTRACTOR TO CONDUCT SOIL RESISTIVITY INVESTIGATIONS, RISK ASSESSMENT AND PRODUCE CONSTRUCTION DRAWINGS BASED ON THE RESULTS FOR ENGINEER'S COMMENT PRIOR TO PROCUREMENT OF MATERIALS AND EXECUTION OF WORKS.

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT _____ REG. NO. _____ DATE _____

AMENDMENTS CODE

A.B.C.J. BEFORE TENDER	A. BY CLIENT
T.O. / TENDER DRAWING	B. BY ARCHITECT
0.1.2.3. / AFTER TENDER	C. BY MECHANICAL OR ELECTRICAL
Z. / AS BUILT	D. BY SA
	E. BY OTHER ()

DATE	INITIAL	No./CODE	REVISION DESCRIPTION
21/09/2021	Z.N	AID	ISSUED FOR APPROVAL
22/10/2021	Z.N	T0/D	ISSUED FOR TENDER PURPOSES

OFFICES

PROVINCE	OFFICE	No./CODE	E-MAIL
Gauteng	Johannesburg	(011) 940-1000	jo@bvi.co.za
Free State	Polokwane	(015) 291-5400	pf@bvi.co.za
	Bloemfontein	(051) 442-2100	bf@bvi.co.za
Northern Cape	Worcester	(053) 353-3400	wor@bvi.co.za
	Upington	(054) 337-6000	up@bvi.co.za
KwaZulu Natal	Springs	(031) 713-3014	sp@bvi.co.za
	Durban	(031) 298-4300	dur@bvi.co.za
	Empangeni	(035) 710-0100	emp@bvi.co.za
Eastern Cape	Port Elizabeth	(041) 375-4343	pe@bvi.co.za
	East London	(043) 735-3888	ed@bvi.co.za
Western Cape	Cape Town	(021) 527-7000	ct@bvi.co.za

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CLIENT

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Tel: +27 (47) 542 3700

OFFICE OF THE DIRECTOR: ENGINEERING SERVICES

PROJECT

TSOLO AGRI 300 SEATER EXAM HALL

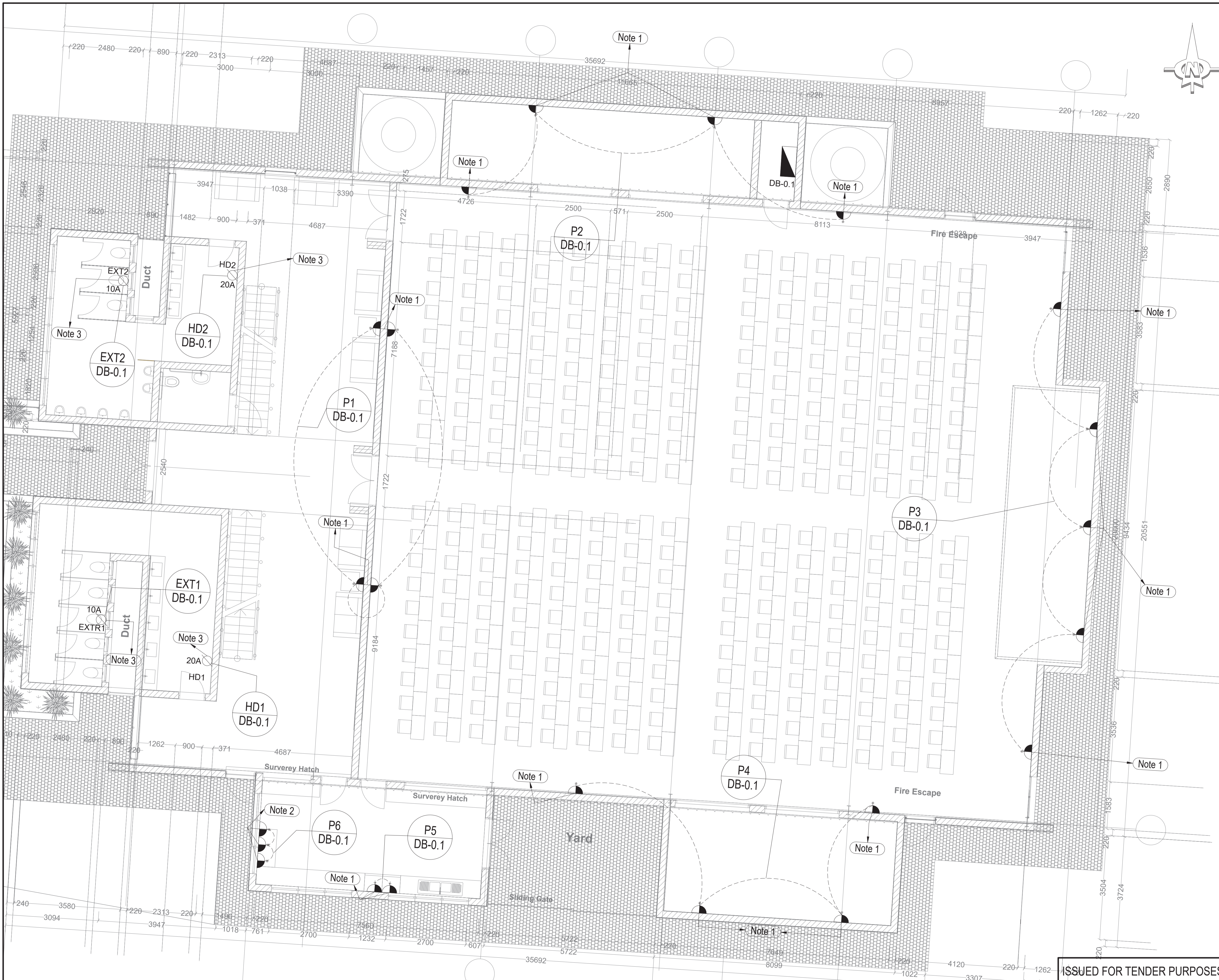
DRAWING TITLE

LIGHTNING PROTECTION LAYOUT

APPROVED BY BVI

ENGINEER	20/10/2021	DATE
SCALE	N.T.S	DRAWN
DESIGNED	Z.N	CHECKED
PLAN NUMBER	REVISION NO.	DATE SAVED

ISSUED FOR TENDER PURPOSES **D34435.00-350-01 T0** 22 October 2021



NOTES / LEGEND

- DB DISTRIBUTION BOARD
- EXT SINGLE POLE EXTRACTOR FAN ISOLATOR POINT
- HD SINGLE POLE HAND DRYER ISOLATOR POINT
- 16A SWITCHED SOCKET
- 16A SWITCHED SOCKET + EURO SOCKET
- CB CIRCUIT IDENTIFIER

NOTE LEGEND

- Note 1 16A SWITCHED SOCKET + EURO SOCKET, MOUNTED 300mm AFFL.
- Note 2 16A SWITCHED SOCKET + EURO SOCKET, MOUNTED 200mm ABOVE WORKTOP
- Note 3 ISOLATOR MOUNTED 300MM BELOW CEILING HEIGHT

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT	REG. NO.	DATE
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AMENDMENTS CODE

A.B.C.J. BEFORE TENDER	A. BY CLIENT
K. L.M.N. AFTER TENDER	B. BY ARCHITECT
P. Q. AS BUILT	C. BY MECHANICAL OR ELECTRICAL
	D. BY B/E
	E. BY OTHER

REVISION DESCRIPTION

DATE	INITIAL	No./CODE	REVISION DESCRIPTION
21/09/2021	Z.N	A/D	ISSUED FOR APPROVAL
22/10/2021	Z.N	T/D	ISSUED FOR TENDER PURPOSES

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Free State	Stellenbosch	(021) 445 1237	stello@bvi.co.za
Free State	Worcester	(053) 534 5889	worces@bvi.co.za
Northern Cape	Upington	(054) 537 4800	up@bvi.co.za
Northern Cape	Sunyani	(027) 712 3014	sunya@bvi.co.za
Northern Cape	Kimberley	(053) 284 8582	kimber@bvi.co.za
Northern Cape	Erasmusburg	(053) 774 8112	erasma@bvi.co.za
Eastern Cape	Port Elizabeth	(041) 374 4343	portel@bvi.co.za
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OFFICE OF THE DIRECTOR: ENGINEERING SERVICES

PROJECT

TSOLO AGRI 300 SEATER EXAM HALL

DRAWING TITLE

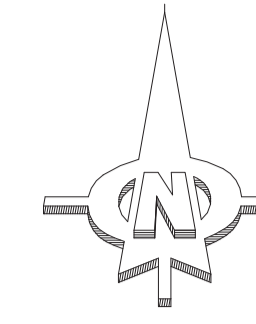
GROUND FLOOR SMALL POWER LAYOUT

APPROVED BY BV

ENGINEER	2010/01	DATE	
SCALE	N.T.S.	DRAWN	H.M.
DESIGNED	Z.N	CHECKED	Z.N
PLAN NUMBER	REVISION NO.	DATE SAVED	
DRAWING NUMBER	D34435.00-370-01	T0	22 October 2021

ISSUED FOR TENDER PURPOSES

D34435.00-370-01 REV T0.DWG



LEGEND

- 16A SWITCHED SOCKET + EURO SOCKET, WEATHERPROOF
- CB / DB

NOTE LEGEND

- Note 1** 16A SWITCHED SOCKET + EURO SOCKET, MOUNTED 300mm AFFL

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT	REG. NO.	DATE
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AMENDMENTS CODE

- | | |
|------------------------------|---------------------------------|
| A, B, C, J / BEFORE TENDER | I, K / BY CLIENT |
| T0 / TENDER DRAWING | B / BY ARCHITECT |
| 0, 1, 2, 3, J / AFTER TENDER | C / BY MECHANICAL OR ELECTRICAL |
| Z / AS BUILT | D / BY BVI |
| | E / BY OTHER () |

DATE	INITIAL	No./CODE	REVISION DESCRIPTION
16/09/2021	Z.N	AID	ISSUED FOR APPROVAL
22/10/2021	Z.N	T0/D	ISSUED FOR TENDER PURPOSES

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Free State	Polokwane	(015) 291-5400	fs@bvi.co.za
	Bloemfontein	(051) 442-2121	bf@bvi.co.za
Northern Cape	Worcester	(027) 353-3400	nc@bvi.co.za
	Upington	(054) 337-6000	up@bvi.co.za
	Springsbok	(027) 713-3014	sp@bvi.co.za
KwaZulu Natal	Durban	(031) 298-8300	kn@bvi.co.za
	Empangeni	(035) 724-8112	emp@bvi.co.za
Eastern Cape	Port Elizabeth	(041) 374-4343	ec@bvi.co.za
	East London	(043) 726-3888	ed@bvi.co.za
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Registration no. 19860013107

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 Private Bag X1008, Tsoelo, 5170
 Tel: +27 (47) 542 3700



PROJECT

TSOLO AGRI 300 SEATER EXAM HALL

DRAWING TITLE

FIRST FLOOR SMALL POWER LAYOUT

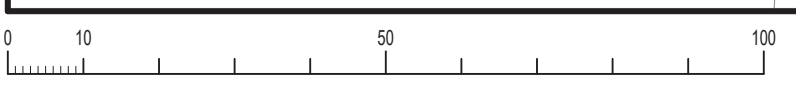
APPROVED BY BVI

ENGINEER/TECHNOLOGIST	REG. NO.	DATE
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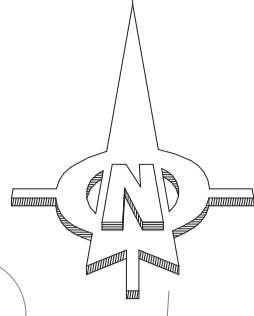
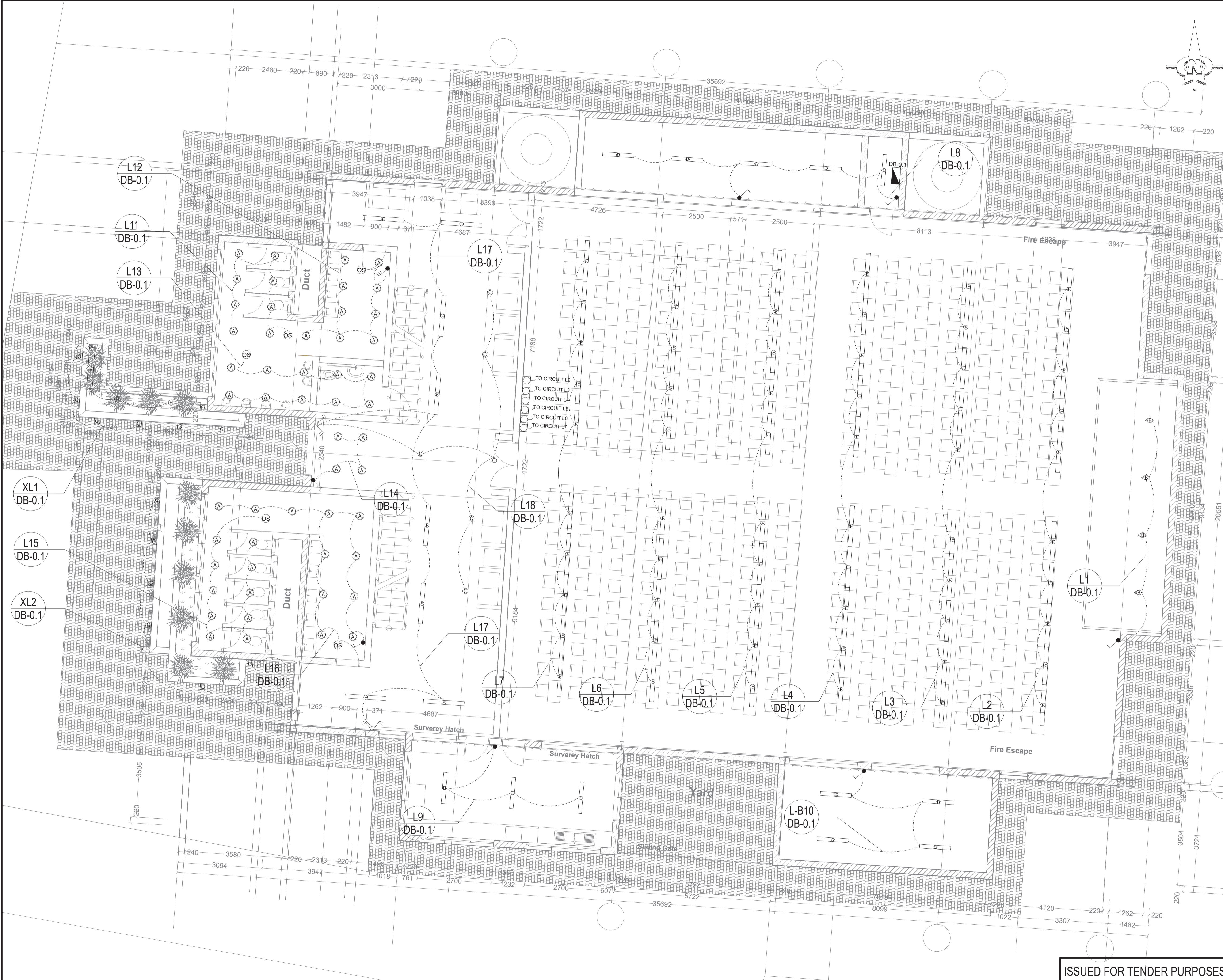
SCALE	N.T.S	DRAWN	H.M
DESIGNED	Z.N	CHECKED	Z.N

DRAWING NUMBER	REVISION NO.	DATE SAVED
D34435.00-370-02	T0	22 October 2021

ISSUED FOR TENDER PURPOSES



D34435.00-370-02 REV10.DWG



NOTES / LEGEND

- (A) 12W LED BULKHEAD
- (B) 32W LED SPOT LIGHT
- (C) 58W LED PENDANT
- (D) 35W 1150mm LED LINEAR LUMINAIRE
- (E) 24W 800mm LED FACADE LIGHT
- (F) 55W 1500mm LED LINEAR LUMINAIRE
- (G) 4W WALL MOUNTED LED LUMINAIRE
- (H) 6W LED DOWNLIGHT
- (I) SINGLE LEVER, ONE WAY SWITCH
- (J) THREE LEVER, ONE WAY SWITCH
- (K) TWO LEVER, TWO WAY SWITCH
- (L) DIMMER SWITCH
- (M) OCCUPANCY SENSOR
- (N) PHOTOCELL

APPROVED BY COUNCIL / CLIENT

CITY ENGINEER / CLIENT	REG. NO.	DATE
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AMENDMENTS CODE

A.B.C.J. BEFORE TENDER	K. BY CLIENT
T. / TENDER DRAWING	L. BY ARCHITECT
U.V.W. / AFTER TENDER	M. BY MECHANICAL OR ELECTRICAL
X. / AS BUILT	N. BY BN
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REVISION DESCRIPTION

DATE	INITIAL	No./CODE	REVISION DESCRIPTION
21/09/2021	Z.N	A/D	ISSUED FOR APPROVAL
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OFFICES

PROVINCE	OFFICE	PHONE	EMAIL
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ENGINEERING PROCUREMENT MANAGEMENT

CLIENT

TSOLO AGRICULTURE & RURAL DEVELOPMENT INSTITUTE

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PROJECT

TSOLO AGRI 300 SEATER EXAM HALL

DRAWING TITLE

GROUND FLOOR ELECTRICAL LIGHTING LAYOUT

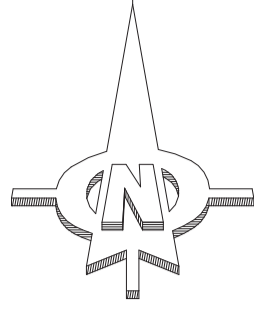
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ENGINEER	20110101	DATE
SCALE	N.T.S	DRAWN
DESIGNED	Z.N	CHECKED
PLAN NUMBER	REVISION NO.	DATE SAVED

ISSUED FOR TENDER PURPOSES

DRAWING NUMBER	T0	DATE SAVED
D34435.00-380-01		22 October 2021

D34435.00-380-01 REV10.DWG



NOTES / LEGEND

- 1 18W WALL MOUNTED LED LUMINAIRE
- PC PHOTOCELL

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AMENDMENTS CODE

- A, B, C, J / BEFORE TENDER
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PROJECT

TSOLO AGRI 300 SEATER EXAM HALL

DRAWING TITLE

FIRST FLOOR ELECTRICAL LIGHTING LAYOUT

APPROVED BY BVI

ENGINEER _____ 20110101 _____ DATE
 REG. NO. _____

SCALE	N.T.S	DRAWN	P.L
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DRAWING NUMBER	REVISION NO.	DATE SAVED
D34435.00-380-02	T0	22 October 2021

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NOTES / LEGEND

- Ⓧ 50W LED POLE MOUNTED LUMINAIRE
- Ⓧ PHOTOCELL

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DATE	INITIAL	No./CODE	REVISION DESCRIPTION
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PROJECT

TSOLO AGRI 300 SEATER EXAM HALL

DRAWING TITLE

GENERAL AREA ELECTRICAL LIGHTING LAYOUT

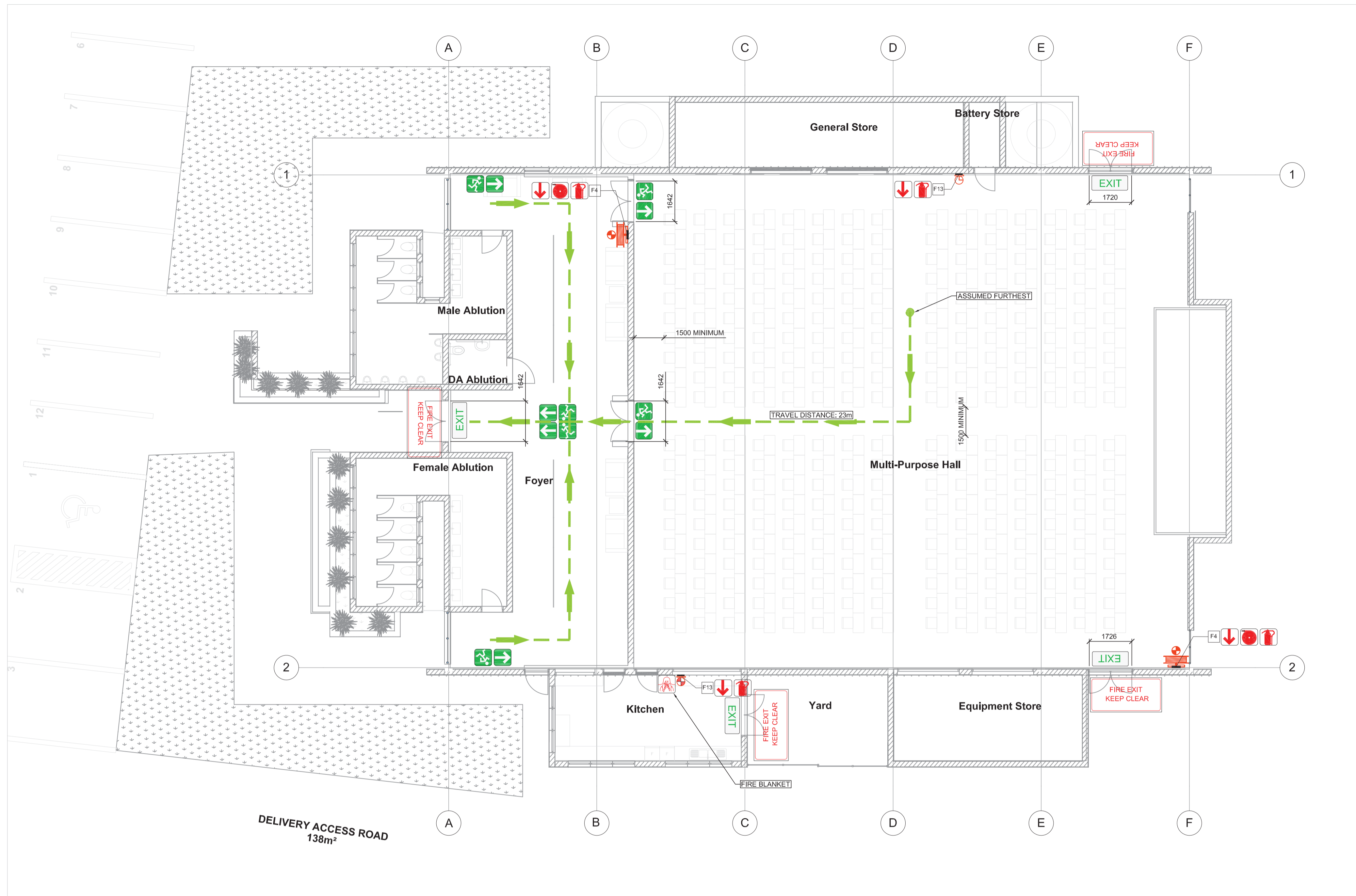
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PLAN NUMBER	REVISION NO.	DATE SAVED
DRAWING NUMBER	D34435.00-380-03	T0
REVISION NO.	T0	22 October 2021

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FIRE NOTES

1. FIRE EXTINGUISHERS, FIRE HOSE REELS AND FIRE HYDRANTS TO SANS 10400-T
2. PRESSURE GAUGES TO BE INSTALLED AT EACH FIRE HOSE REEL
3. ALL FIRE EQUIPMENT SIGNAGE SHALL CONFORM TO SANS 1186.
4. ALL EQUIPMENT SIGNAGE SHALL BE PHOTO-LUMINESCENT TYPE, SIZE:290x290mm.
5. ALL SIGNAGE TO BE MECHANICALLY FIXED. HANGING SIGNAGE TO BE SUSPENDED FROM SOLID ROD/BRAKETS AND NOT CHAINS/ CABLES.
6. INTERNAL FIRE WATER RETICULATION SHALL BE CLASS 2 COPPER
7. PIPING RETICULATION SHALL BE PAINTED SIGNAL RED
8. FIRE SUPPLY CONNECTION 1 meter FROM BUILDING BY CIVIL ENGINEER AS INDICATED.
9. SITE FIRE HYDRANTS BY CIVIL ENGINEER

FIRE EQUIPMENT SIGNAGE

SIZE REQUIRED: 290x290 mm
TYPE: FRAMED SINGLE-SIDED

- E1: Exit sign with arrow
- E2: Exit sign with arrow
- E3: Exit sign with arrow
- E6: Exit sign
- F4: Fire extinguisher symbol
- F13: Fire hose reel symbol
- F35: Fire blanket symbol
- F45: Fire exit 'KEEP CLEAR' sign

FIRE DESIGN SUMMARY SCHEDULE	
OCCUPANCY CLASSIFICATION	A3 - PLACE OF INSTRUCTION
FLOOR AREA	732m²
POPULATION	300
NUMBER OF ESCAPE ROUTES	4
TYPE OF FIRE EQUIPMENT INSTALLED	FIRE HOSE REELS & FIRE EXTINGUISHERS
NUMBER OF FIRE HYDRANTS	EXISTING EXTERNAL HYDRANTS
NUMBER OF FIRE HOSE REELS	2
NUMBER OF FIRE EXTINGUISHERS	3-OFF 4.5kg DCP & 5kg CO ₂
FIRE DETECTION	MANUAL FIRE DETECTION IN ACCORDANCE WITH SANS 10139. DESIGN BY ELECTRICAL ENGINEER.
SPRINKLER PROTECTED	NO
MECHANICAL SMOKE CONTROL / NATURAL VENTILATION	NATURAL VENTILATION - MINIMUM 3% OF FLOOR AREA IN UPPER THIRD OF EXTERNAL WALL.

FIRE LEGEND

SYMBOL	DESCRIPTION
	FIRE SUPPLY
	30m PVC FIRE HOSE REEL
	65mm RIGHT-ANGLE FIRE HYDRANT
	BOOSTER CONNECTION
	4.5kg DCP FIRE EXTINGUISHER
	5kg CO ₂ FIRE EXTINGUISHER

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PROJECT

THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE

300-SEATER EXAM HALL HVAC LAYOUT

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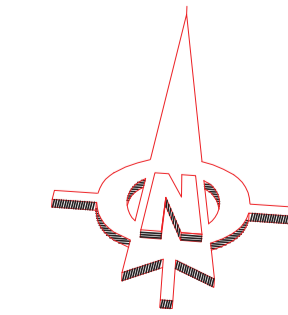
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200970062 20/10/2021

SCALE	DRAWN	DATE
1:100 @ A1	A.NTOYISE	
DESIGNED	CHECKED	
J.DU PLESSIS	A.MALGAS	
PLAN NUMBER	REVISION NO.	DATE SAVED
34435.00-720-01	T0	20 October 2021



- KEY PLAN -



GENERAL NOTES:

1. SHEET METAL DUCTING MUST BE GALVANISED MILD STEEL WITH MEZZ-FLANGES. ALL HVAC EQUIPMENT TO BE ADEQUATELY SUPPORTED AT REGULAR INTERVALS WITH SUITABLE THREADED ROD AND ANGLE BAR AS PER SABS 0193.
2. ALL DUCTWORK JOINTS MUST BE PROPERLY SEALED AND AIRTIGHT.
3. ALL DOORS TO TOILETS WITH MECHANICAL VENTILATION TO BE UNDERCUT MINIMUM 20mm.
4. THE HVAC CONTRACTOR TO WIRE BETWEEN THE HVAC EQUIPMENT AND HVAC DB OR ISOLATOR.
5. ALL ARTIFICIAL VENTILATION SYSTEMS MUST NOT EMIT A NOISE LEVEL OF WHICH CAUSE THE AMBIENT NOISE LEVEL TO EXCEED 50DBA MEASURED AT THE BOUNDARY OF PROPERTY.
6. ALL EQUIPMENT MUST BE MOUNTED ON ANTI-VIBRATION MOUNTINGS.
7. FINAL DISK VALVE POSITIONS AS PER ARCHITECT'S CO-ORDINATED CEILING LAYOUT - COLOUR TO ARCHITECT'S SPECIFICATION.
8. FINAL WEATHER LOUVRE POSITIONS AS PER ARCHITECT'S ELEVATION DRAWINGS COLOUR TO ARCHITECT'S SPECIFICATION.
9. SOUND ATTENUATORS MUST HAVE 100mm AIRGAPS WITH LENGTHS AS INDICATED.

NOTES TO BUILDER:

1. BUILDER TO PROVIDE PENETRATIONS THROUGH CONCRETE SLABS & BRICK WALLS FOR HVAC EQUIPMENT AND MAKE GOOD AFTER INSTALLATION OF HVAC EQUIPMENT.
2. FIRE STOPPING & SEALING OF ALL DUCT & PIPE ENTRIES TO ARCHITECT'S DETAIL.
3. ALL WEATHER LOUVRE PENETRATIONS THROUGH WALLS MUST BE COMPLETE WITH 25mm TIMBER FRAME FOR THE SCREW FIXING OF WEATHER LOUVRES & GRILLES.
4. DOOR GRILLES - 500x300 (UNLESS NOTED OTHERWISE) SUPPLIED BY AIR-CONDITIONING CONTRACTOR AND CUT AND FITTED - BY BUILDER.

NOTES TO ELECTRICAL CONTRACTOR:

1. PROVIDE POWER SUPPLY TO ALL HVAC ISOLATORS AS INDICATED ON DRAWING COMPLETE WITH CONDUITS, DRAW-WIRES & JUNCTION BOXES.
2. ELECTRICAL POWER SUPPLIES & ISOLATORS TO BE PROVIDED WITHIN A METER OF HVAC EQUIPMENT.
3. ISOLATORS TO FANS TO BE IN CEILING SPACE WITHIN A METER OF HVAC EQUIPMENT.

SYMBOL LEGEND

	ELECTRICAL POWER SUPPLY: 220V/SINGLE PHASE.
	DOORS TO BE UNDERCUT BY 20mm
	UNINSULATED DUCTING
	500x300mm DOOR GRILLE
	SOUND ATTENUATOR
	FAN

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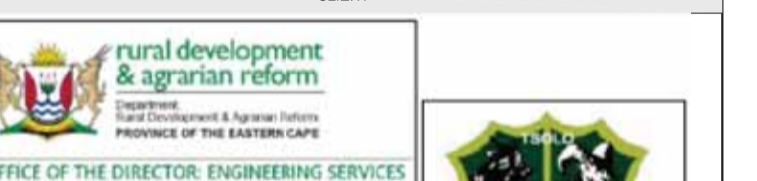
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Registration no. 10660215707



PROJECT

THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

DRAWING TITLE

300-SEATER EXAM HALL HVAC LAYOUT

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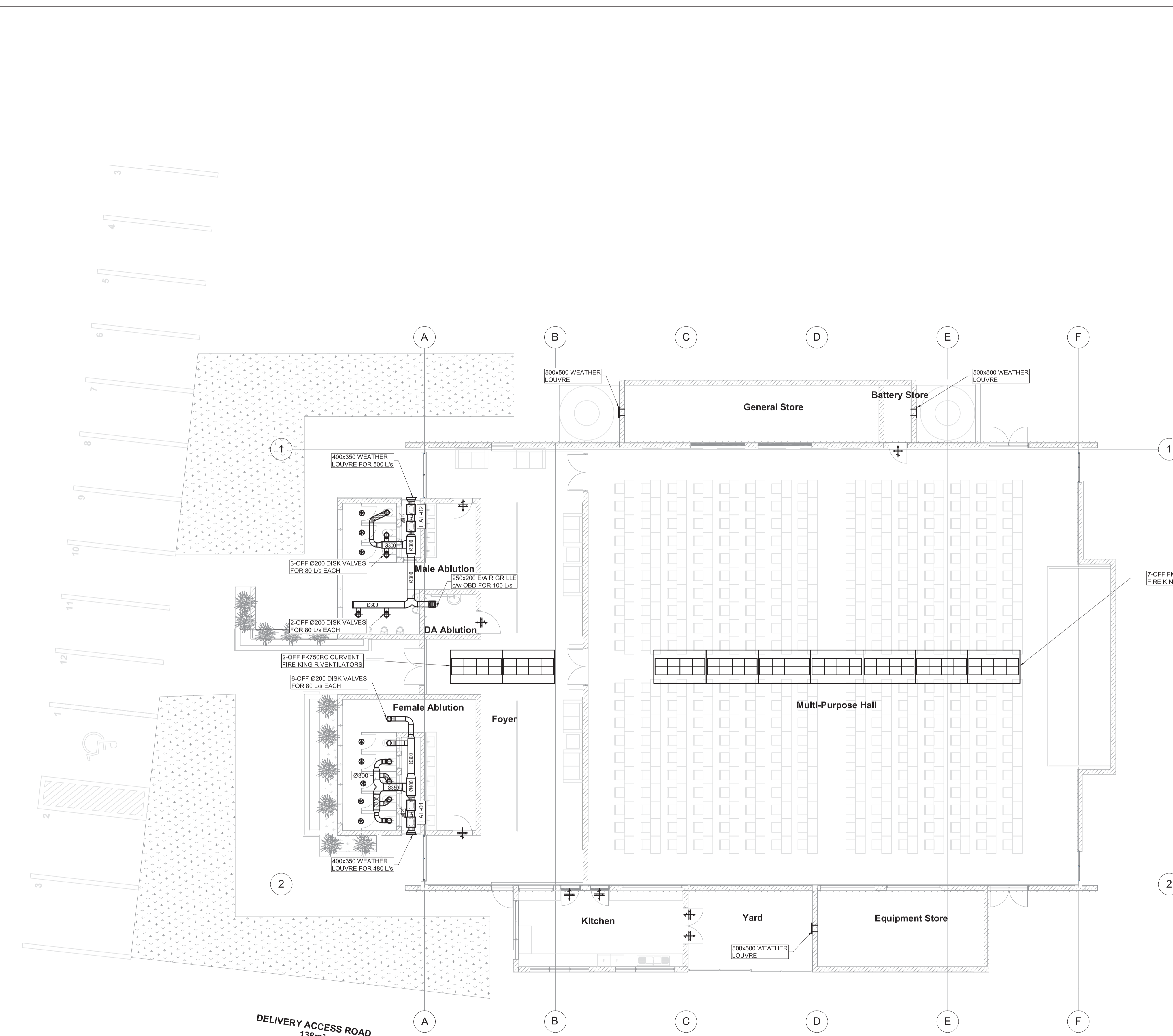
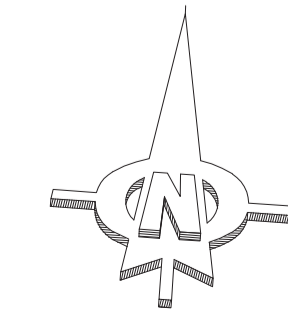
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SCALE	1:100 @ A1	DRAWN	A.NTOYISE
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PLAN NUMBER	REVISION NO.	DATE SAVED
34435.00-741-01	T0	20 October 2021



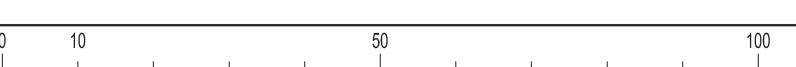
- KEY PLAN -



EQUIPMENT SCHEDULE MECHANICAL VENTILATION FANS

FAN REFERENCE NUMBER	EAF-01	EAF-02
AREA SERVED	FEMALE ABLUTIONS	MALE ABLUTIONS & DA ABLUTIONS
AIR VOLUME (m³/s)	0.480	0.500
SIZE (Ø mm)	315	315
STATIC PRESSURE (Pa)	150	150
MOTOR (kW)	0.400	0.400
SPEED - MAXIMUM (rpm)	2880	2880
SOUND ATTENUATORS (discharge)	1.5D	1.5D
(suction)	1.5D	1.5D
(V / Ph / Hz)	230 / 1 / 50	230 / 1 / 50

DELIVERY ACCESS ROAD 138m²



34435.00-741-01 REV 0- 300-SEATER EXAM HALL HVAC LAYOUT.DWG