



Our Reference: BR210028-buildingA_rev02
Your Reference:

Level 2
6 Palmer Pde
CREMORNE VIC 3121

15.09.23

T 03 9885 4335

www.acor.com.au

Richard Crookes Construction P/L
Level 3, 4 Broadcast Way
Artarmon, NSW 2064

ENGINEERS
MANAGERS
INFRASTRUCTURE
PLANNERS
DEVELOPMENT
CONSULTANTS

Attention: Mr Lachlan Box

Dear Lachlan,

**Re: Kingscliff High School, Kingscliff NSW
Structural Certification – Building A Admin**

STRUCTURAL

Site Details:

Project Name: Kingscliff High School
Street no. / Street name: 33 Oxford Street
Suburb: Kingscliff State: NSW Postcode: 2487

Description of Work: Alterations and Additions to the Existing Building A (Administration Building)

Consent:

SSD No. SSD-8744305 Consent authority: N/A
Dated:

Pursuant to the provisions of the Environment Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 and Clause A5.2 of the Building Code of Australia 2019:

I, Rudy Susanto of ACOR CONSULTANTS
(name) (company)

hereby certify that the structural works have been installed / implemented / constructed in the above building/development and they have been inspected, assessed, and tested (where appropriate) in accordance with:

- a) The following conditions of Development Consent: SSD Condition D11



b)	The relevant clauses of the Building Code of Australia, as follows:	BCA clauses B1.2 & B1.4
c)	The following Australian Standards:	AS 1170.0:2002, AS1170.1-2002, AS1170.2-2011, AS1170.4-2007, AS2159:2009, AS2870:2011, AS3600-2018 & AS3700-2011, AS4100:2020

This is to certify that structural inspections were carried out during construction of this project by a practising Structural Engineer in accordance with the following schedule and accepted engineering practice and principles.

List of inspections undertaken during construction by a suitably qualified structural engineer:

Inspection No.	Date of Inspection	Item/s Inspected	Relevant Drawings (beginning with KHS-S-A-*)	Approved/ Rejected
031	22/03/2023	Existing Retaining Wall Footing Extension	01.80, 04.01	Approved
032	03/04/2023	Footings as per extent shown	04.03, 00.24	Approved
036	05/05/2023	Ground Slab Reinforcement	02.00	Approved
039	05/06/2023	Structural Steel Framing	02.00, 03.00, 03.01, X-00.26, X-00.27	Approved

At the time of each inspection, the work inspected generally conformed, in our opinion with the structural engineering drawings. Where minor corrections were required, instructions were issued to the Builder for their correction.

This certificate does not relieve the Builder or any other party of their responsibilities for the project.

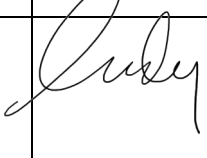
The plans that the inspections were inspected off were the 'For Construction' set of drawings which will be rebadged and reissued at the end of the project as 'As-Built'.

Exclusions: Yes

Details of any exclusions: All light gauge steel members, to be certified by others

Where there are no exclusions, I certify that this certificate covers all structural works, including footings, reinforced concrete and structural steel for the areas inspected as outlined in the above list.

I also certify that I am an appropriately qualified and competent person practicing in the relevant area of work. I have recognised relevant experience in the area of work being certified. I / my employer hold/s appropriate current professional indemnity insurance to the satisfaction of the building owner or the principal authorising the design work being certified.

Name:	Rudy Susanto	Licence No.:	PE0003143
Company Name:	ACOR CONSULTANTS	ABN No:	40079306246
Company Address:	Level 2, Palmer Pde, Cremorne VIC 3121	Tel:	03 9885 4335
Signature:		Position Title:	Associate – Senior Structural Engineer
		Date:	15.09.23

SITE INSPECTION REPORT

Project: Kingscliff High School		Contractor: RCC	
Date of Inspection: 22/3/23		Start Time: 1:30 pm	
Inspection by: Richard Smith		Finish Time: 1:45 pm	
ACOR Project No: BR210028		Weather: RAINING.	
Inspection Report No: KHS-031	No. Pages: 2	Site Manager Name:	
Works Inspected: Building A - FOOTING EXTENSION			
Drawing Reference: KHS-S-A01-80 / KHS-SA-0401			

Engineered (engaged by ACOR Consultants) were invited to site to undertake an inspection to examine and check for congruence with the latest issued For Construction documentation and any issued site advices. Please refer to the accompanying Comment Plan for the scope of the areas inspected. The works were found to be generally in accordance with the structural documentation, with the exception of the following outstanding items and comments:

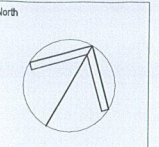
EXISTING REFER FROM MARK-UP

1. * REINFORCEMENT PLACED CORRECTLY
2.
3. * NEED EXTRA CHAIRS TO ACHIEVE COVER
4. * REMOVE BRICK & SOIL DEBRIS FROM BASE
5. AT EXISTING FOOTING JUNCTIONS
6.
7. WHEN ABOVE COMPLETE OK TO PAUL
8.
9.
10.
11.

Inspecting Engineer Signature: _____



Site Manager Signature: _____



LEGEND

- XXX DENOTES SLAB THICKNESS. REFER PLAN FOR THICKNESS.
- LOADBEARING ELEMENTS UNDER ARE SHOWN SHADED TYPICALLY
- S.J. DENOTES SAWN JOINT REFER TO DRG KHS-S-X-00.21 FOR DETAILS.
- D.J. DENOTES DOWEL JOINT REFER TO DRG KHS-S-X-00.21 FOR DETAILS.
- A-SC1 DENOTES STEEL COLUMN REFER SCHEDULE
- A-RW1 DENOTES 190 THICK REINFORCED BLOCKWORK RETAINING WALL REFER TO DRG KHS-S-A-04.01 FOR DETAILS

SLAB AND REINFORCEMENT NOTES:

- RAFT SLAB NOTES:**
- 100 THICK CONCRETE SLAB U.N.O.
 - SL92 MESH LAID TOP. REFER BELOW FOR REINFORCEMENT TO 200 THICK SLAB
 - CONCRETE BEAMS AS PER SCHEDULE.
 - PROVIDE 50mm BEDDING SAND WITH 0.2mm POLYTHENE SHEETING. REFER TO CIVIL ENGINEERING DRAWINGS FOR GROUND PREPARATION REQUIREMENTS.
- 120 DENOTES 120 THK CONCRETE SLAB ON GROUND ON 0.2mm POLYTHENE SHEETING AND 50mm BEDDING SAND. SL82 MESH LAID TOP. 100kPa ALLOWABLE BEARING CAPACITY TO BE CONFIRMED BY A SUITABLY QUALIFIED GEOTECH ENGINEER.
 - 200 DENOTES 200 THICK CONCRETE SLAB WITH SL92 MESH LAID TOP AND BTM

FOOTING NOTES:

- REFER TO DRAWINGS X-0010 - X-0011 FOR ALL STRUCTURAL GENERAL NOTES.
- REFER TO X-0020 FOR FOOTING TYPICAL DETAILS
- ALL FALLS, SETDOWNS & WATERPROOFING ARE TO ARCHITECTS DETAILS U.N.O.
- STRIP FOOTINGS TO BE FOUNDED ON NATURAL SAND WITH MIN 100kPa ALLOWABLE BEARING CAPACITY.
- PAD FOOTINGS TO BE FOUNDED 1000mm BELOW NATURAL SAND WITH MIN 100kPa ALLOWABLE BEARING CAPACITY.
- RAFT SLAB TO BE CAST ON LEVEL 1 SUPERVISION AS PER CIVIL DRAWINGS.
- GEOTECH CONDITIONS TO BE CONFIRMED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.

EXCAVATION NOTE

INTEGRITY OF TRENCH WALLS TO BE MAINTAINED DURING EXCAVATION/CONSTRUCTION. PROVIDE SHORING IF REQUIRED.

BUILDING A - CONCRETE BEAM SCHEDULE

MARK	DEPTH (A) x WIDTH (B)		REINFORCEMENT			COMMENTS
	A	B	BOTTOM	TOP	TIES	
A-EB1	400	300	3L11TM	2N12	R6-900	
A-EB2	400	500	5L11TM	2N12	R6-900	
A-ET1	300	500	3-N12	3-N12	R10-600	CURVE TOP AND BTM BARS WHERE NECESSARY
A-ET2	200	300	3-L11TM	NA	R6-900	
A-IB1	400	300	3L11TM	NA	R6-900	

BUILDING A - STEEL COLUMN SCHEDULE

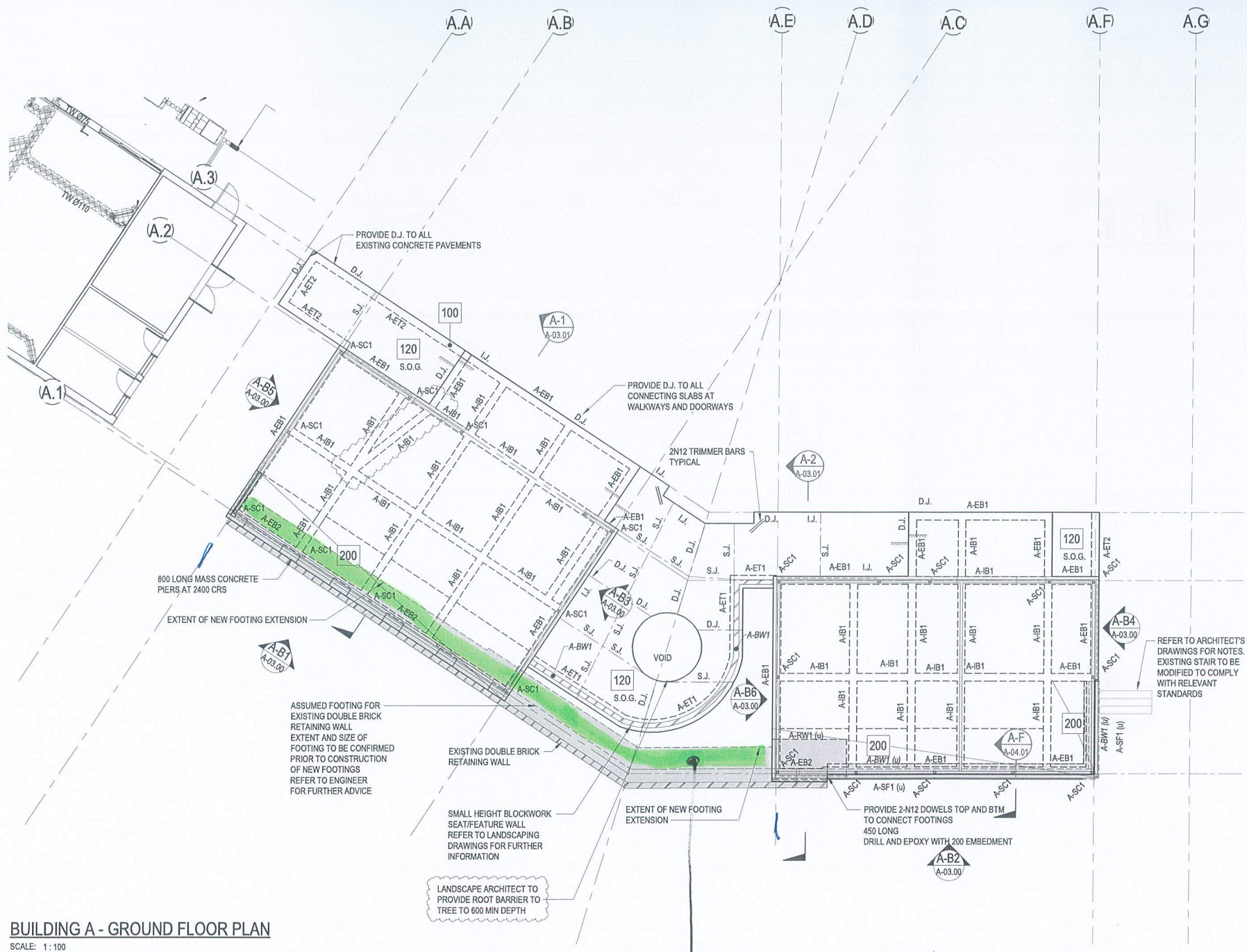
MARK	SIZE	COMMENTS
A-SC1	89x89x5.0SHS	STEEL COLUMN

BUILDING A - REINFORCED BLOCKWORK WALL

MARK	SIZE & TYPE	WALL REINFORCEMENT		COMMENTS
		HORIZONTAL	VERTICAL	
A-BW1	190 BLOCKWORK WALL	N12-400	N12-400	BARS LAID CENTRAL

BUILDING A - CONCRETE FOOTING SCHEDULE

MARK	DEPTH (A) x WIDTH (B)		REINFORCEMENT	COMMENTS
	A	B		
A-SF1	500	600	3-N12 TOP AND BTM	R10-600 TIES

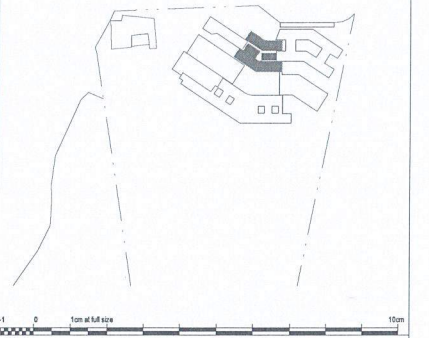


BUILDING A - GROUND FLOOR PLAN
SCALE: 1:100

Footing additional instead 22/3/23

This drawing has been assigned an electronic code that signifies the drawing has been checked and approved by:

Issue	Description	Date	Drawn	Approved
A	50% DD ISSUE	02/03/2021	DC	JH
B	100% DD ISSUE	23/04/2021	PRS	JH
1	CONSTRUCTION ISSUE	11/06/2021	PRS	BR
2	CONSTRUCTION ISSUE REVISED	04/08/2021	DJN	JH



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Level 4, 43 Peel Street
South Brisbane QLD 4101
T +61 7 3844 5900

ENGINEERS/MANAGERS/INFRASTRUCTURE PLANNERS/DEVELOPMENT CONSULTANTS

Drawing Title: **STRUCTURAL BUILDING A - ADMINISTRATION SLAB PLAN**

Drawn	Date	Scale	A1	Q.A. Check	Date
PRS	MAR 2021	1:100	DL		JUN 2021

Design	Project No.	Dwg No.	Issue
BR	BR210028	KHS-S-A-01.00	2

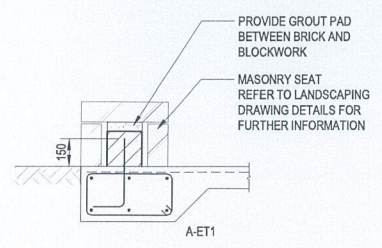
FOR CONSTRUCTION

REFER DRG. NO. KHS-S-X-00.10 TO KHS-S-X-00.32 FOR TYPICAL DETAILS AND GENERAL NOTES.

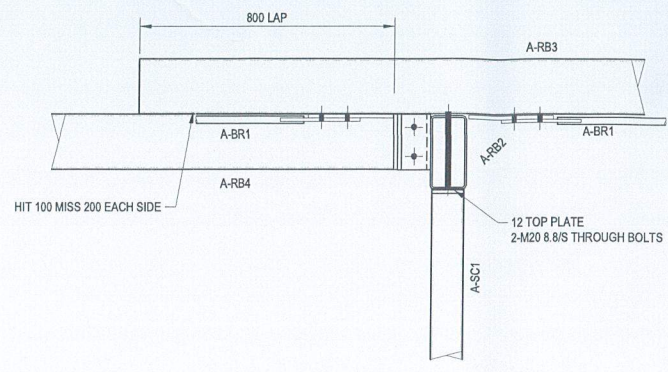
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This drawing has been assigned an electronic code that signifies the drawing has been checked and approved by: Approver

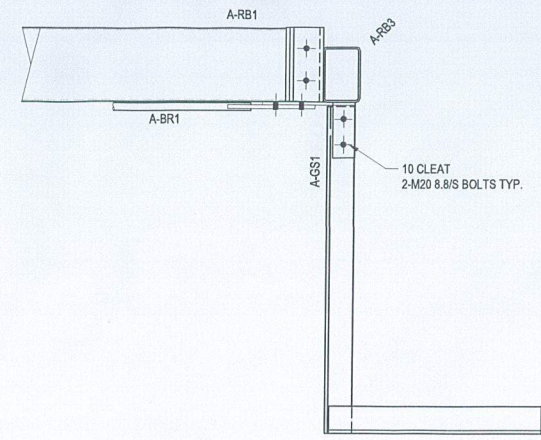
Issue	Description	Date	Drawn	Approved
A	100% DD ISSUE	23/04/2021	PRS	JH
1	CONSTRUCTION ISSUE	11/06/2021	PRS	BR
2	CONSTRUCTION ISSUE REVISED	04/08/2021	DJN	JH



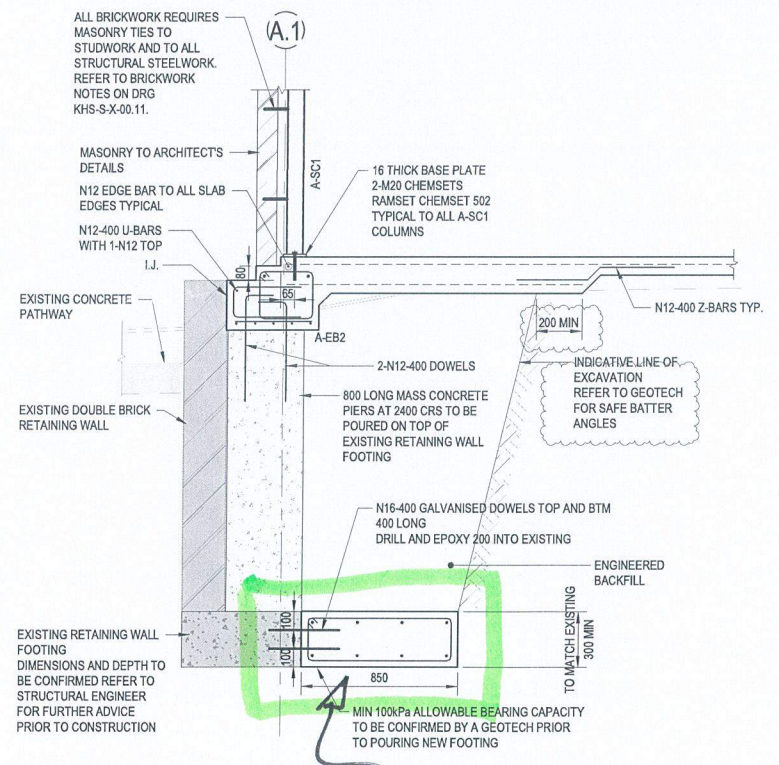
DETAIL A-A
SCALE = 1 : 20
A-03.00



DETAIL A-C
SCALE = 1 : 10
A-03.00

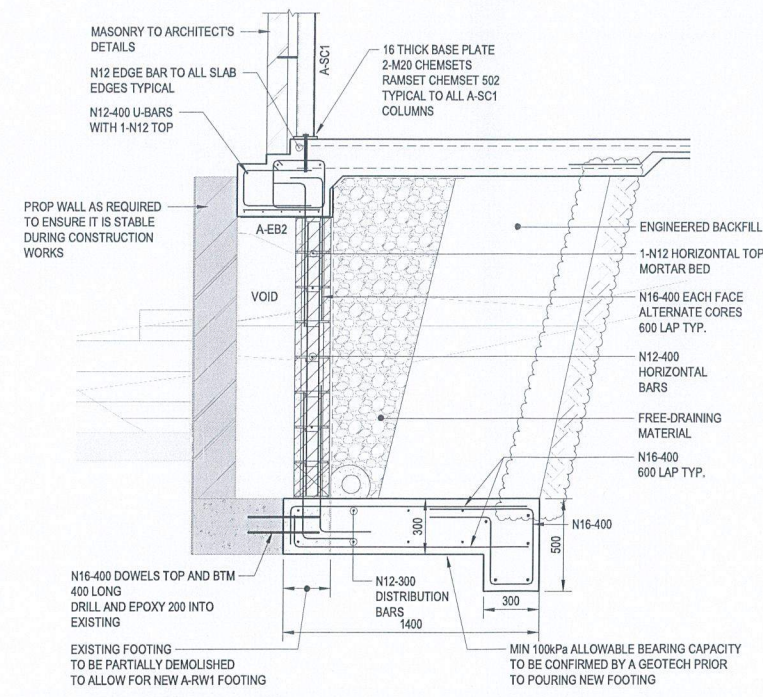


DETAIL A-D
SCALE = 1 : 10
A-03.01



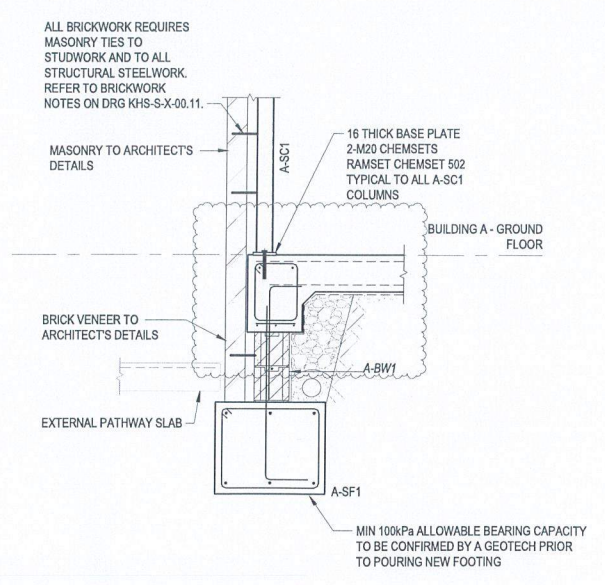
DETAIL A-B
SCALE = 1 : 20
A-03.01

INSPECTED 22/3/23

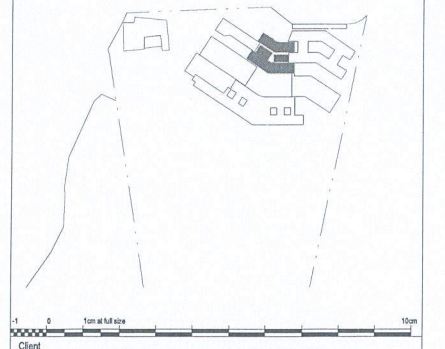


TYPICAL A-RW1 RETAINING WALL DETAILS
SCALE = 1 : 20

SECTION A-E
SCALE = 1 : 20
A-03.01



DETAIL A-F
SCALE = 1 : 20
A-01.00



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Project
KINGSCLIFF HIGH SCHOOL - STAGE 2 MAIN WORKS
33 OXFORD ST. KINGSCLIFF, NSW

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T +61 7 3844 5900

ENGINEERS | MANAGERS | INFRASTRUCTURE PLANNERS | DEVELOPMENT CONSULTANTS
Drawing Title
STRUCTURAL BUILDING A - ADMINISTRATION DETAILS

Drawn	Date	Scale	A1	Q/A Check	Date
PRS	MAR 2021	As indicated	DL		JUN 2021

Designed	Project No.	Dwg No.	Issue
BR	BR210028	KHS-S-A-04.01	2

FOR CONSTRUCTION

SITE INSPECTION REPORT

Project: Kingscliff High School		Contractor: RCC	
Date of Inspection: 03.04.2023		Start Time: 8 AM	
Inspection by: Richard Smith		Finish Time: 8:20 AM	
ACOR Project No: BR210028		Weather: RAIN	
Inspection Report No: KHS-032	No. Pages: 2	Site Manager Name: TODD	
Works Inspected: Building A Footings EXTENT REFER MARK-UP			
Drawing Reference: KHS-S-A 01.00 KHS-S-A 04.01			

Engineered (engaged by ACOR Consultants) were invited to site to undertake an inspection to examine and check for congruence with the latest issued For Construction documentation and any issued site advices. Please refer to the accompanying Comment Plan for the scope of the areas inspected. The works were found to be generally in accordance with the structural documentation, with the exception of the following outstanding items and comments:

1.	
2.	ENSURE COVER, AND FOOTING BASE
3.	IS FREE OF DEBRIS
4.	
5.	
6.	
7.	OK TO POUR
8.	
9.	
10.	
11.	

Inspecting Engineer Signature:



Site Manager Signature:



This drawing has been assigned an electronic code that signifies the drawing has been checked and approved by:

Issue	Description	Date	Drawn	Approved
A	50% DD ISSUE	02/05/2021	DC	JH
B	100% DD ISSUE	23/04/2021	PRS	JH
1	CONSTRUCTION ISSUE	11/02/2021	PRS	BR
2	CONSTRUCTION ISSUE REVISED	04/08/2021	DJN	JH

LEGEND

- XXX DENOTES SLAB THICKNESS. REFER PLAN FOR THICKNESS.
- LOADBEARING ELEMENTS UNDER ARE SHOWN SHADED TYPICALLY
- S.J. DENOTES SAWN JOINT REFER TO DRG KHS-S-X-00.21 FOR DETAILS.
- D.J. DENOTES DOWEL JOINT REFER TO DRG KHS-S-X-00.21 FOR DETAILS.
- A-SC# DENOTES STEEL COLUMN REFER SCHEDULE
- A-RW1 DENOTES 190 THICK REINFORCED BLOCKWORK RETAINING WALL REFER TO DRG KHS-S-A-04.01 FOR DETAILS
- PROVIDE 3-N12 TRIMMERS x 2000 LONG. TIED TO THE UNDERSIDE OF MESH AT SLAB RE-ENTRANT CORNERS, AND AT ALL PENETRATION CORNERS U.N.O.

SLAB AND REINFORCEMENT NOTES:

- RAFT SLAB NOTES:**
- 100 THICK CONCRETE SLAB U.N.O.
 - SL92 MESH LAID TOP. REFER BELOW FOR REINFORCEMENT TO 200 THICK SLAB
 - CONCRETE BEAMS AS PER SCHEDULE.
 - PROVIDE 50mm BEDDING SAND WITH 0.2mm POLYTHENE SHEETING. REFER TO CIVIL ENGINEERING DRAWINGS FOR GROUND PREPARATION REQUIREMENTS.
- 120 DENOTES 120 THK CONCRETE SLAB ON GROUND ON 0.2mm POLYTHENE SHEETING AND 50mm BEDDING SAND. SL82 MESH LAID TOP. 100kPa ALLOWABLE BEARING CAPACITY TO BE CONFIRMED BY A SUITABLY QUALIFIED GEOTECH ENGINEER.
 - 200 DENOTES 200 THICK CONCRETE SLAB WITH SL92 MESH LAID TOP AND BTM

FOOTING NOTES:

- REFER TO DRAWINGS X-0010 - X-0011 FOR ALL STRUCTURAL GENERAL NOTES.
- REFER TO X-0020 FOR FOOTING TYPICAL DETAILS
- ALL FALLS, SETDOWNS & WATERPROOFING ARE TO ARCHITECTS DETAILS U.N.O.
- STRIP FOOTINGS TO BE FOUNDED ON NATURAL SAND WITH MIN 100kPa ALLOWABLE BEARING CAPACITY.
- PAD FOOTINGS TO BE FOUNDED 1000mm BELOW NATURAL SAND WITH MIN 100kPa ALLOWABLE BEARING CAPACITY.
- RAFT SLAB TO BE CAST ON LEVEL 1 SUPERVISION AS PER CIVIL DRAWINGS.
- GEOTECH CONDITIONS TO BE CONFIRMED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.

EXCAVATION NOTE

INTEGRITY OF TRENCH WALLS TO BE MAINTAINED DURING EXCAVATION/CONSTRUCTION. PROVIDE SHORING IF REQUIRED.

BUILDING A - CONCRETE BEAM SCHEDULE

MARK	DEPTH (A) x WIDTH (B)		REINFORCEMENT			COMMENTS
	A	B	BOTTOM	TOP	TIES	
A-EB1	400	300	3L11TM	2N12	R6-900	
A-EB2	400	500	3L11TM	2N12	R6-900	
A-ET1	300	500	3-N12	3-N12	R10-600	CURVE TOP AND BTM BARS WHERE NECESSARY
A-ET2	200	300	3L11TM	NA	R6-900	
A-IB1	400	300	3L11TM	NA	R6-900	

BUILDING A - STEEL COLUMN SCHEDULE

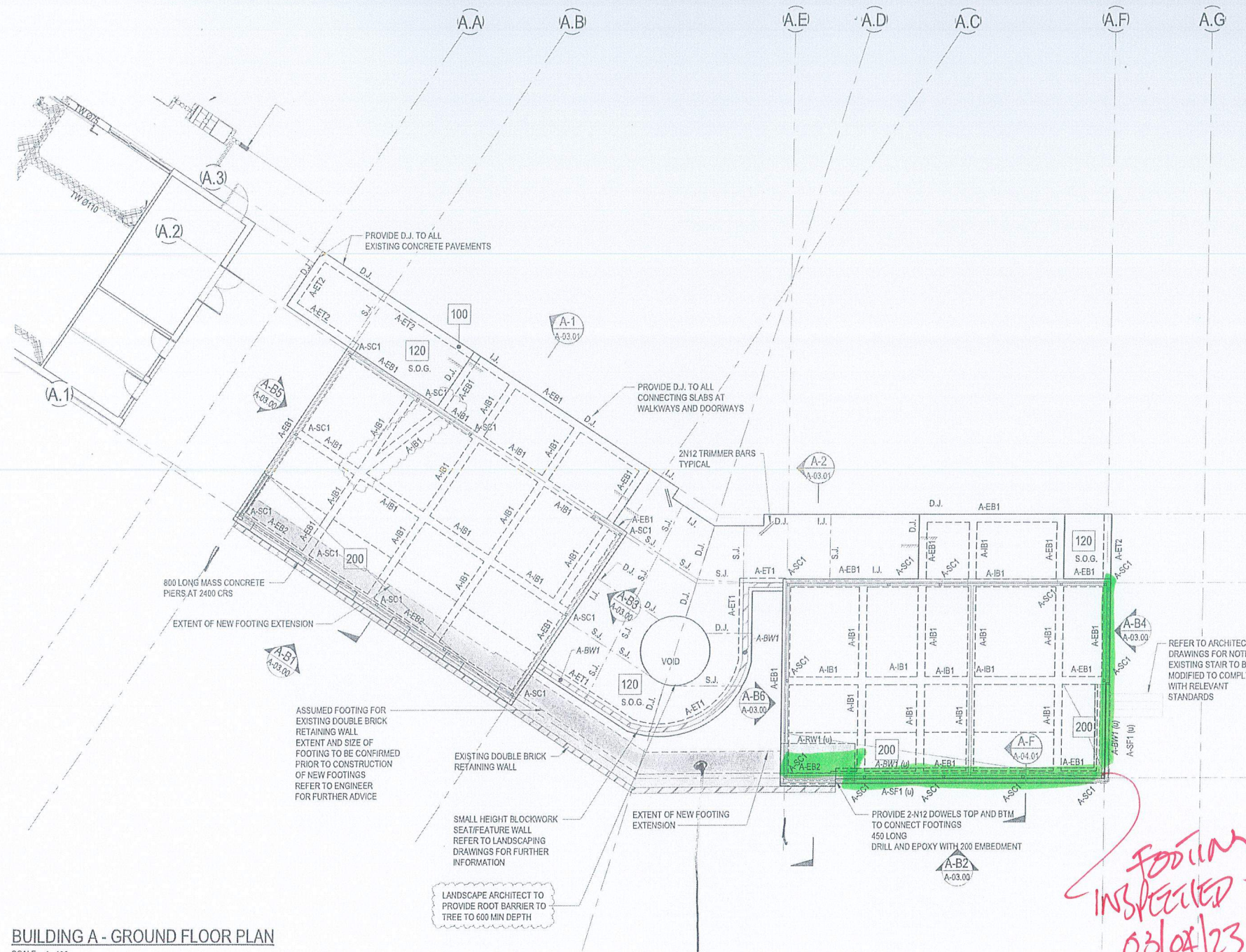
MARK	SIZE	COMMENTS
A-SC1	69.69x45.05HS	STEEL COLUMN

BUILDING A - REINFORCED BLOCKWORK WALL

MARK	SIZE & TYPE	WALL REINFORCEMENT		COMMENTS
		HORIZONTAL	VERTICAL	
A-BW1	190 BLOCKWORK WALL	N12-400	N12-400	BARS LAID CENTRAL

BUILDING A - CONCRETE FOOTING SCHEDULE

MARK	DEPTH (A) x WIDTH (B)		REINFORCEMENT	COMMENTS
	A	B		
A-SF1	500	600	3-N12 TOP AND BTM	R10-600 TIES

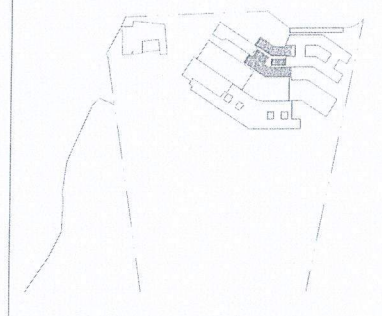


BUILDING A - GROUND FLOOR PLAN
SCALE: 1:100

Footings additional inspected 22/3/23

Footings inspected 03/04/23

FOR CONSTRUCTION



RICHARD CROOKES CONSTRUCTIONS

Education School Infrastructure



KINGSCLIFF HIGH SCHOOL - STAGE 2 MAIN WORKS
33 OXFORD ST. KINGSCLIFF, NSW

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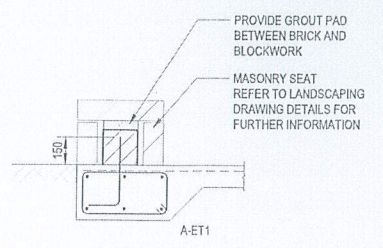
Drawn	Date	Scale	A1	Q.A. Check	Date
PRS	MAR 2021	1:100	DL		JUN 2021
Designed	Project No.	Dwg. No.	Issue		
BR	BR210028	KHS-S-A-01.00	2		

REFER DRG. NO. KHS-S-X-00.10 TO KHS-S-X-00.32 FOR TYPICAL DETAILS AND GENERAL NOTES.

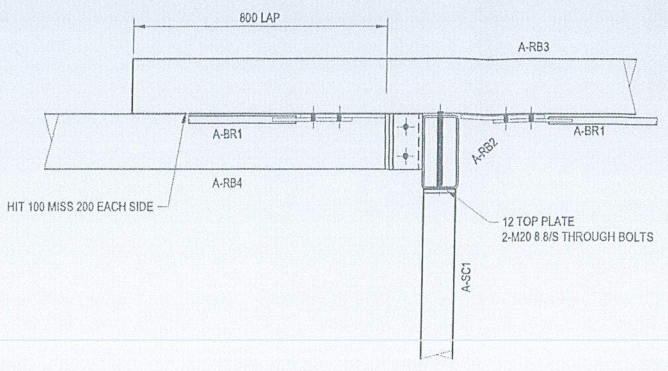
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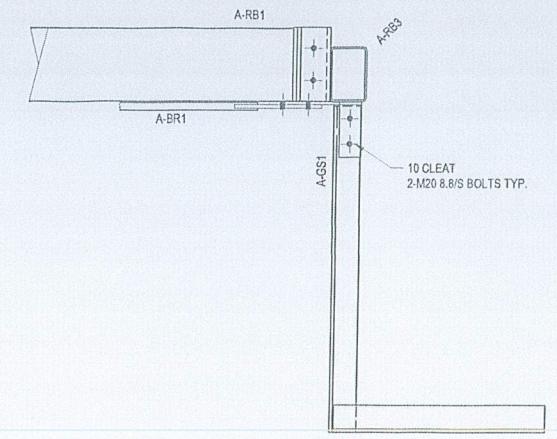
Issue	Description	Date	Drawn	Approved
A	100% DO ISSUE	23/04/2021	FRS	JH
1	CONSTRUCTION ISSUE	11/05/2021	FRS	BR
2	CONSTRUCTION ISSUE REVISED	04/08/2021	DJN	JH



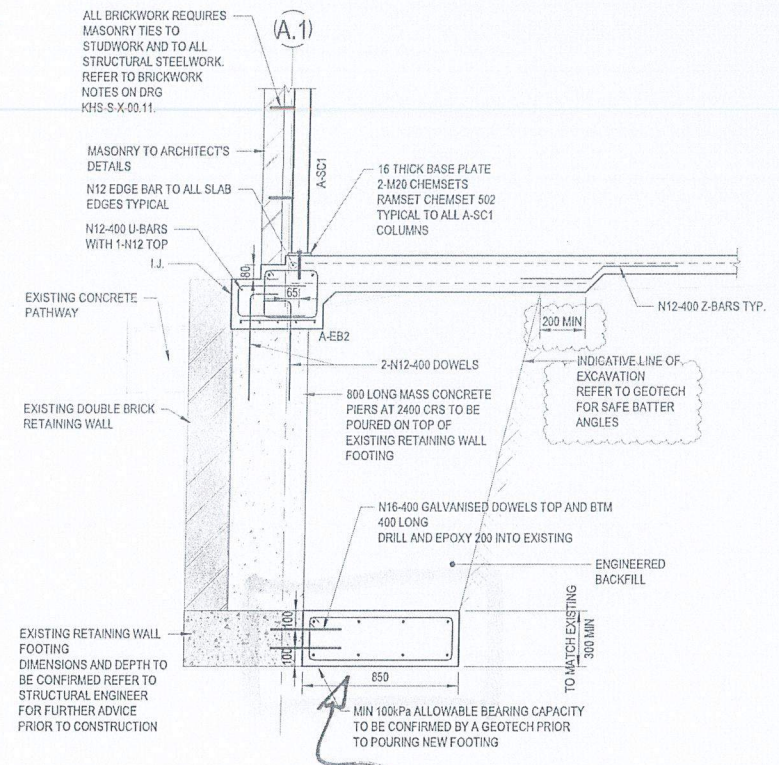
DETAIL A-A
SCALE = 1:20



DETAIL A-C
SCALE = 1:10

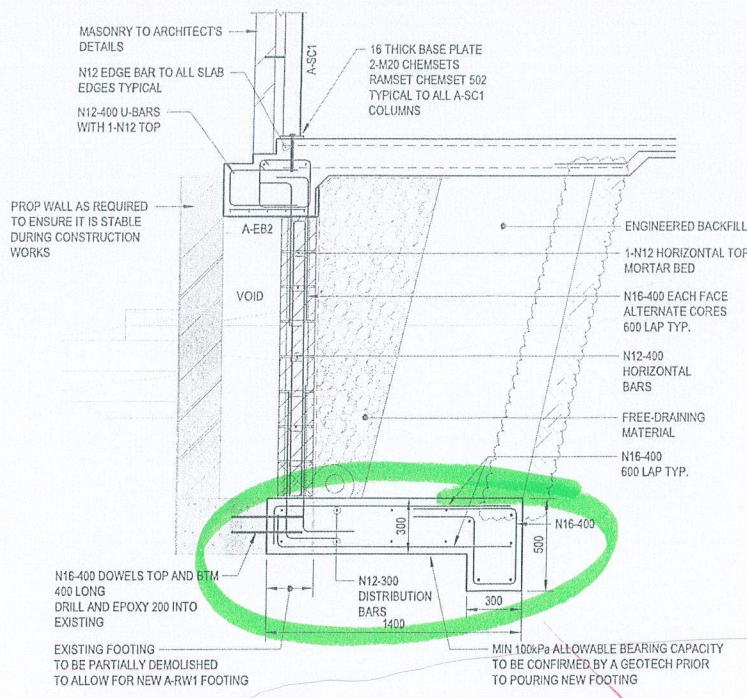


DETAIL A-D
SCALE = 1:10



DETAIL A-B
SCALE = 1:20

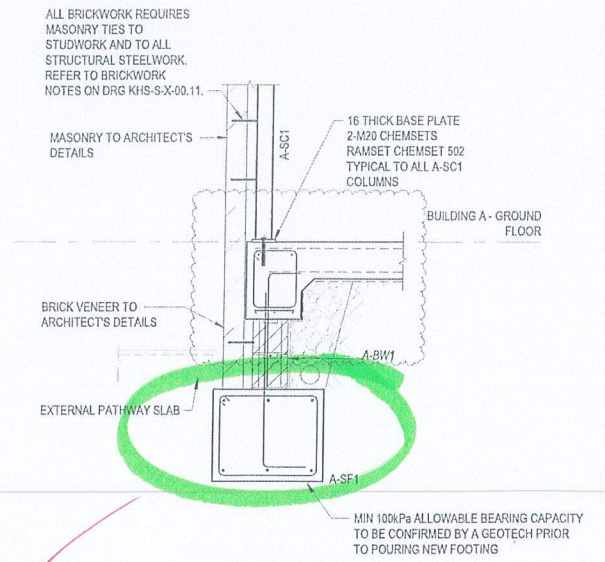
INSPECTED 22/3/23



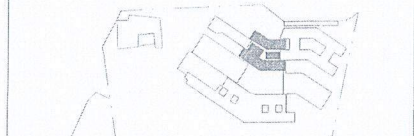
TYPICAL A-RW1 RETAINING WALL DETAILS
SCALE: 1:20

SECTION A-E
SCALE = 1:20

INSPECTED 03/04/23



DETAIL A-F
SCALE = 1:20



Client

RICHARD CROOKES CONSTRUCTIONS

Education School Infrastructure

Architect

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www.bickelmeisters.com.au

Project
KINGSLIFF HIGH SCHOOL - STAGE 2 MAIN WORKS
33 OXFORD ST. KINGSLIFF, NSW

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ENGINEERS/MANAGERS/INFRASTRUCTURE PLANNERS/DEVELOPMENT CONSULTANTS

Drawn	Date	Scale	A1	QA Check	Date
FRS	MAR 2021	As indicated	DL	DL	JUN 2021

Designed	Project No	Drawn	Issue
BR	BR210028	KHS-S-A-04.01	2

FOR CONSTRUCTION

SITE INSPECTION REPORT

Project: Kingscliff High School		Contractor: RCC
Date of Inspection: 5/5/23		Start Time: 9am
Inspection by: Richard Smith		Finish Time: 9:30 am
ACOR Project No: BR210028		Weather: RAIN (light)
Inspection Report No: KHS-o 36	No. Pages: 2	Site Manager Name: Todd
Works Inspected: GROUND SLAB REINFORCEMENT BUILDING A.		
Drawing Reference: KHS - S-A-200		

Engineered (engaged by ACOR Consultants) were invited to site to undertake an inspection to examine and check for congruence with the latest issued For Construction documentation and any issued site advices. Please refer to the accompanying Comment Plan for the scope of the areas inspected. The works were found to be generally in accordance with the structural documentation, with the exception of the following outstanding items and comments:

1.
2. * ADD REMAINING CHAIRS
3. * N12 TRIMMER BARS WHERE NEEDED
4.
5. * ENSURE CORRECT COVER
6.
7.
8. OK TO POUR
9.
10.
11.

Inspecting Engineer Signature: 

Site Manager Signature: _____



CONSULTANTS

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ABN 18 126 011 087
BRISBANE OFFICE
Level 4, 43 Peel Street
South Brisbane QLD 4101
Telephone: T +61 7 3844 5900
www.acor.com.au

SITE INSPECTION REPORT

Table with inspection details: Project: Kingscliff High School, Contractor: RCC, Date of Inspection: 5/6/23, Start Time: 1:15 PM, Inspection by: Richard Smith, Finish Time: 1:45 PM, ACOR Project No: BR210028, Weather: FINE, Inspection Report No: KHS-o 39, No. Pages: [blank], Site Manager Name: ETMAN, Works Inspected: BUILDING A STRUCTURAL STEEL FRAMING, Drawing Reference: KHS-S-A.2.00/3.00/3.01 AND X00.26/27

Ingenieered (engaged by ACOR Consultants) were invited to site to undertake an inspection to examine and check for congruence with the latest issued For Construction documentation and any issued site advices. Please refer to the accompanying Comment Plan for the scope of the areas inspected. The works were found to be generally in accordance with the structural documentation, with the exception of the following outstanding items and comments:

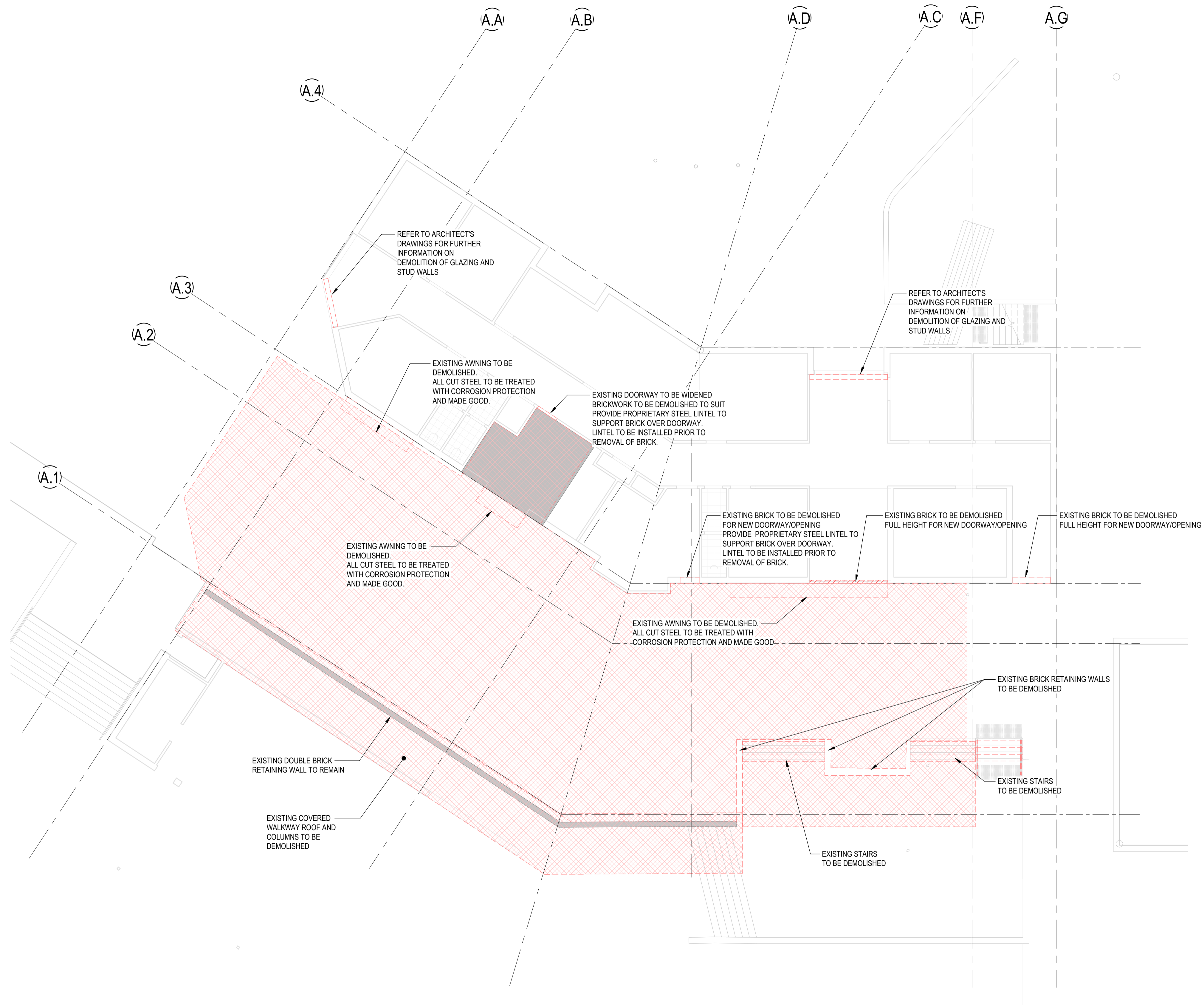
- 1. EXTENT REFER PLANS.
2.
* 3. ADD STRUCTURAL GROUT TO COLUMN BASE'S
4.
* 5. ADD BRACING TO ROOF (A-BR2) GRID A.1-AE-AF
6.
* 7. SITE WELD BOX GUTTER MEMBERS A-GS1
8.
9. WHEN ABOVE COMPLETE - ALL SATISFACTORY.
10.
11.

Inspecting Engineer Signature:

[Handwritten signature]

Site Manager Signature:

[Blank line for signature]

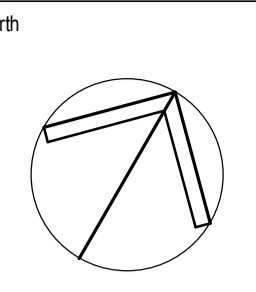


REFER DRG. NO: KHS-S-X-00.10 TO KHS-S-X-00.32 FOR TYPICAL DETAILS AND GENERAL NOTES.

LEGEND

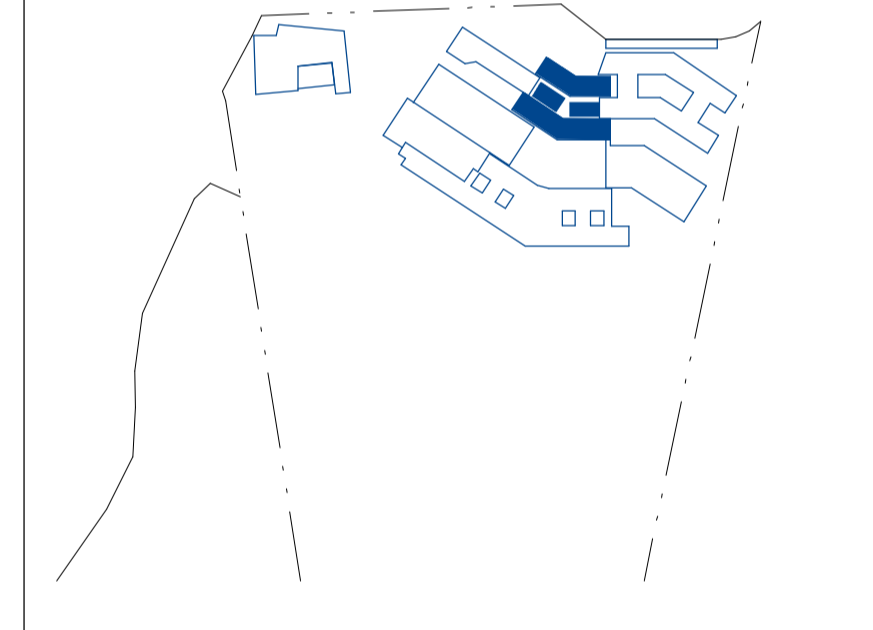
 DENOTES DEMOLISHED

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Issue	Description	Date	Drawn	Approved
A	50% DD ISSUE	02/03/2021	DC	JH
B	100% DD ISSUE	23/04/2021	PRS	JH
1	CONSTRUCTION ISSUE	11/06/2021	PRS	BR



1 2 10m at full size 10mm

Client

RICHARD CROOKES CONSTRUCTIONS


 **Education School Infrastructure**


Architect

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4006, QLD
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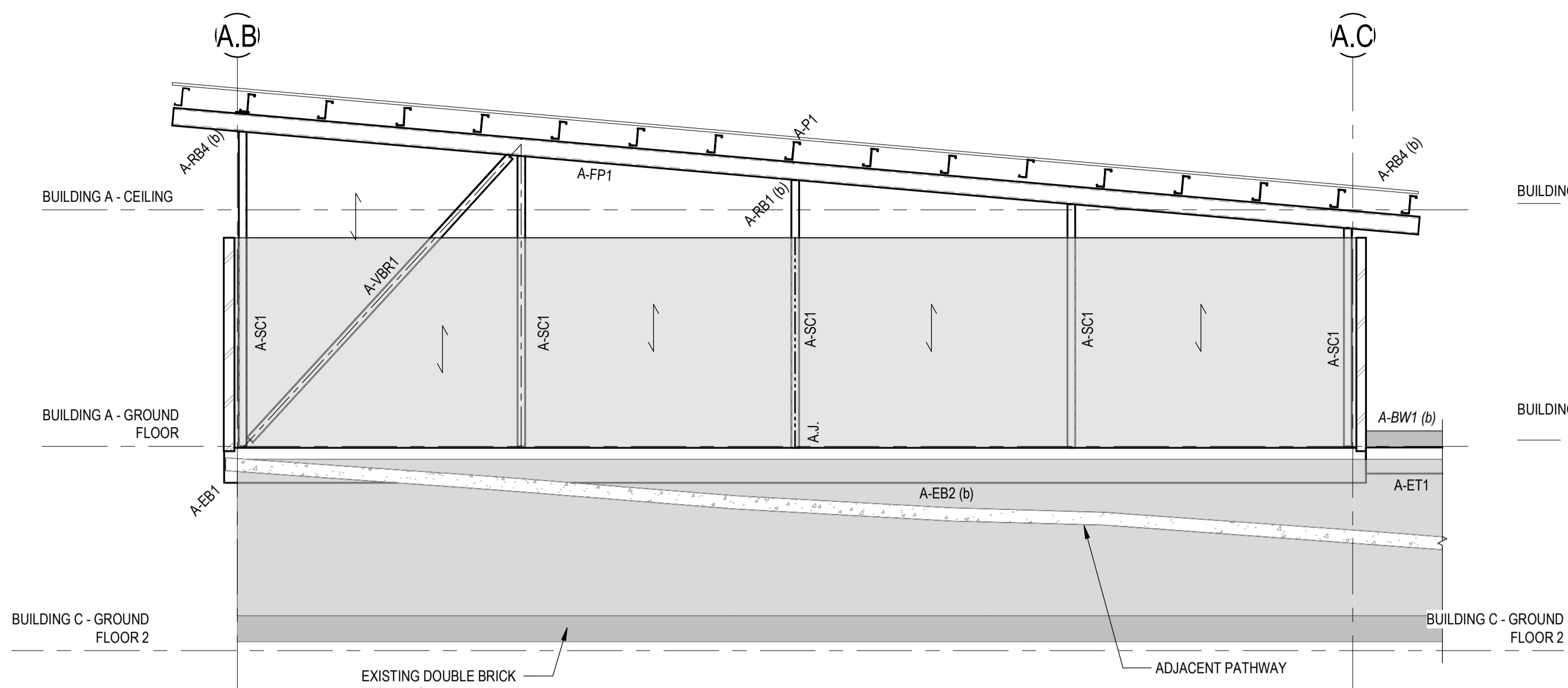
Drawing Title
STRUCTURAL BUILDING A - ADMINISTRATION DEMOLISHED PLAN

Drawn PRS	Date MAR 2021	Scale 1:100	A1	O.A. Check DL	Date JUN 2021
Designed BR	Project No. BR210028	Dwg No. KHS-S-A-00.50	Issue 1		

FOR CONSTRUCTION

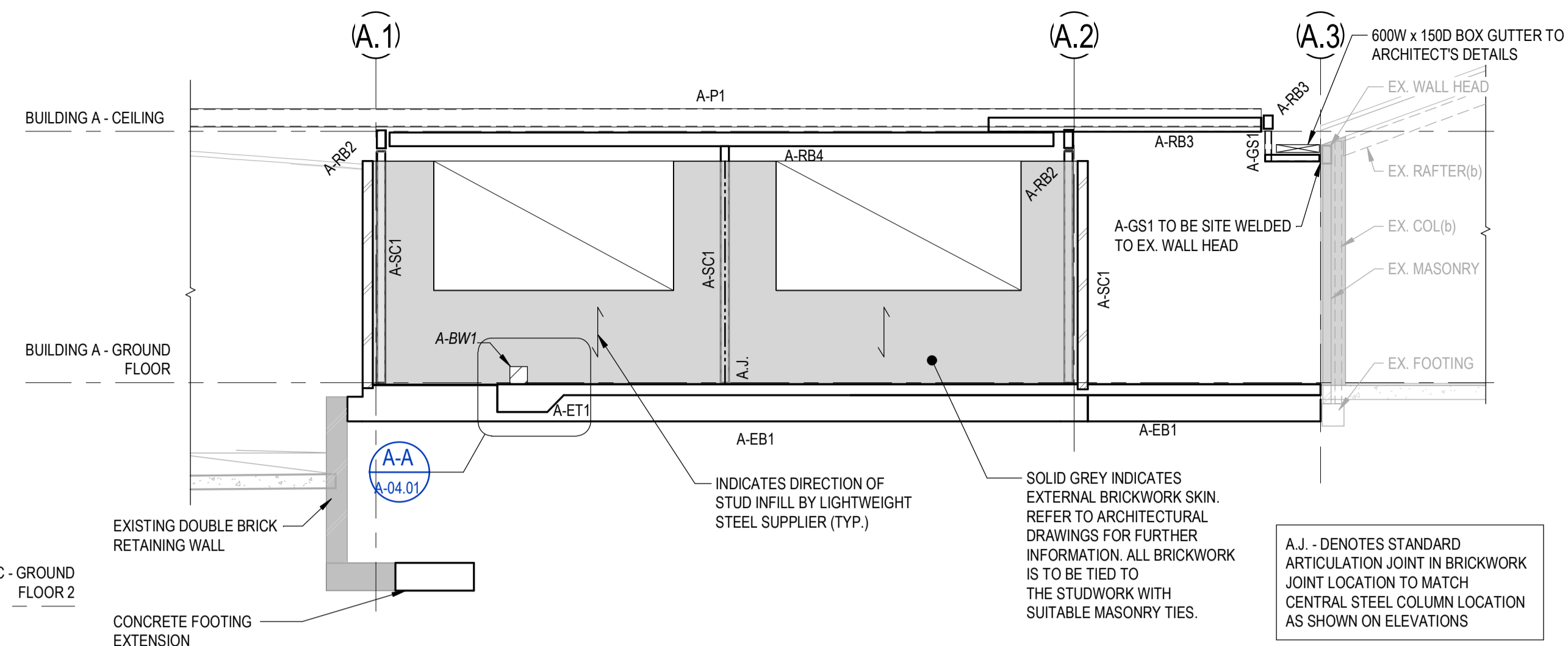
BUILDING A - DEMOLISHED GROUND FLOOR PLAN
SCALE: 1:100

BIM:20210621 14:09 PM



ELEVATION A-B1
SCALE = 1 : 50

EXISTING DOUBLE BRICK RETAINING WALL AND FOOTING SIZE AND EXTENT TO BE CONFIRMED PRIOR TO CONSTRUCTION OF NEW FOOTINGS REFER TO STRUCTURAL ENGINEER FOR FURTHER ADVICE



ELEVATION A-B3
SCALE = 1 : 50

REFER DRG. NO: KHS-S-X-00.10 TO KHS-S-X-00.32 FOR TYPICAL DETAILS AND GENERAL NOTES.

600W x 150D BOX GUTTER TO ARCHITECT'S DETAILS

EX. WALL HEAD

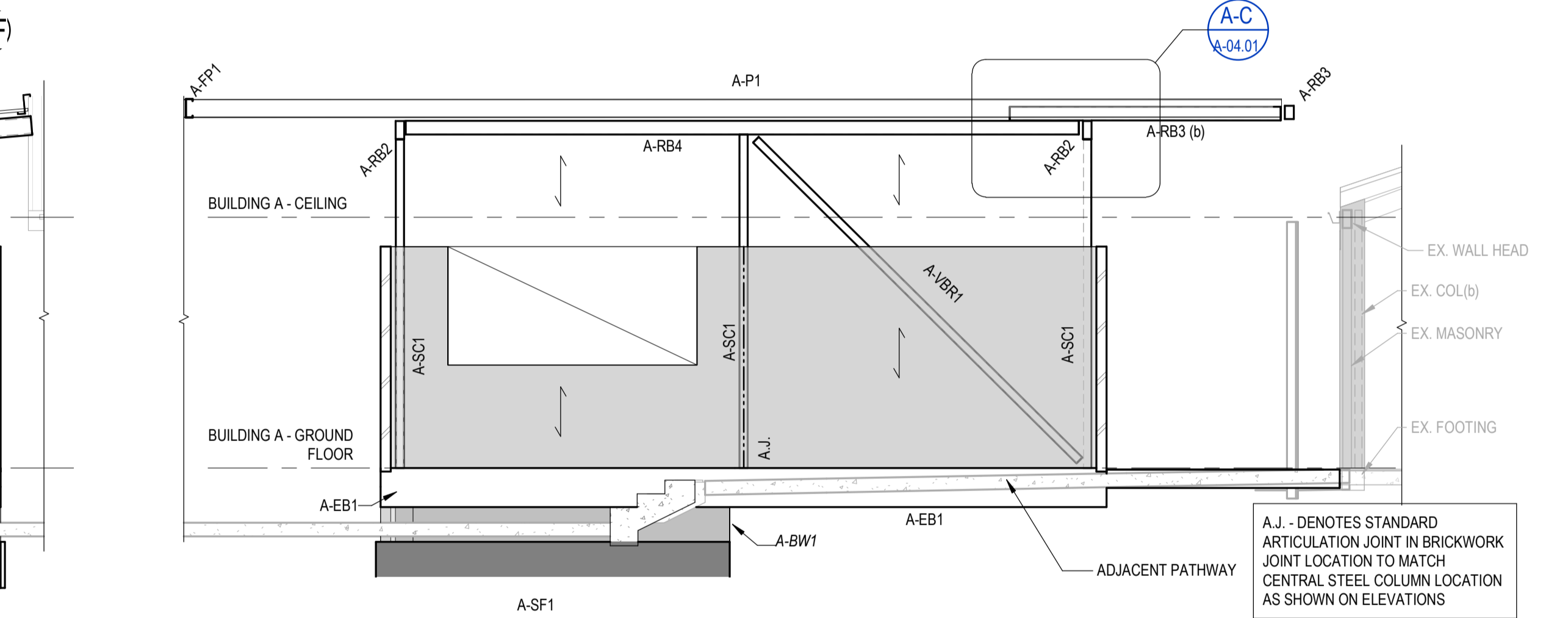
EX. RAFTER(b)

EX. COL(b)

EX. MASONRY

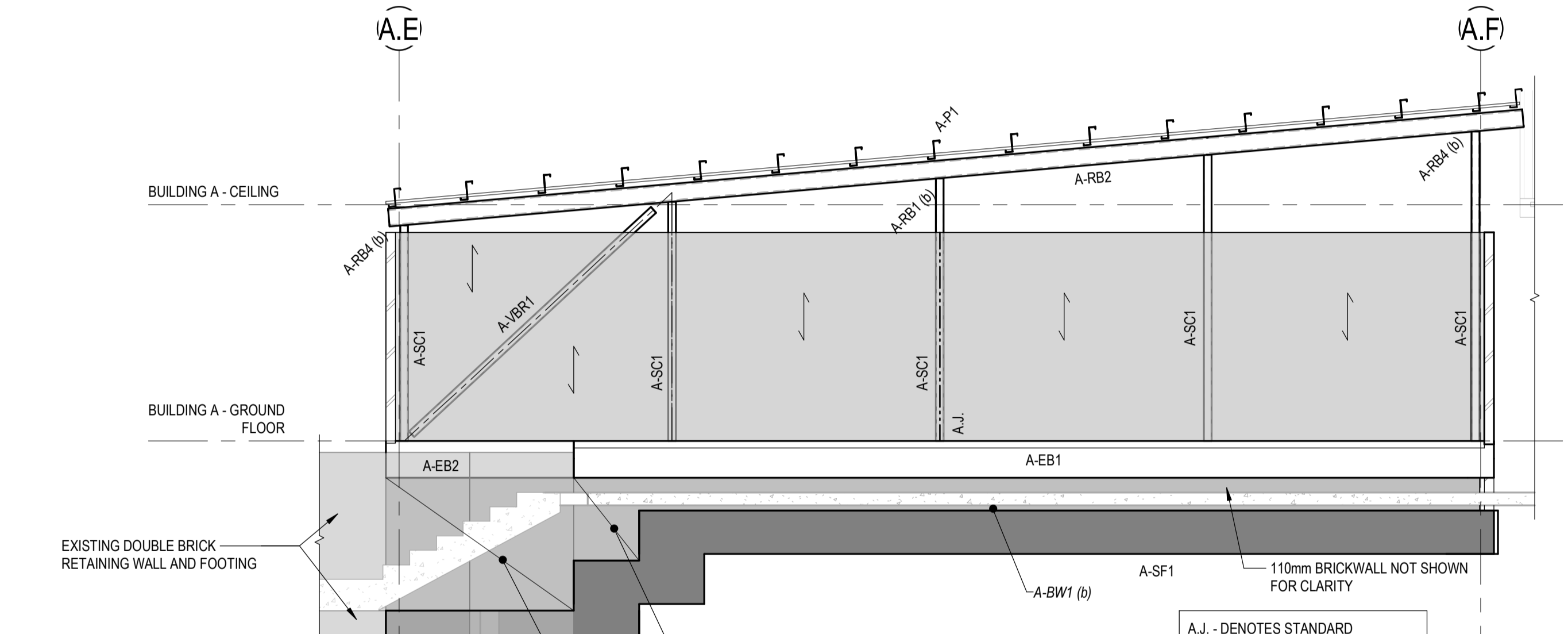
EX. FOOTING

A.J. - DENOTES STANDARD ARTICULATION JOINT IN BRICKWORK JOINT LOCATION TO MATCH CENTRAL STEEL COLUMN LOCATION AS SHOWN ON ELEVATIONS



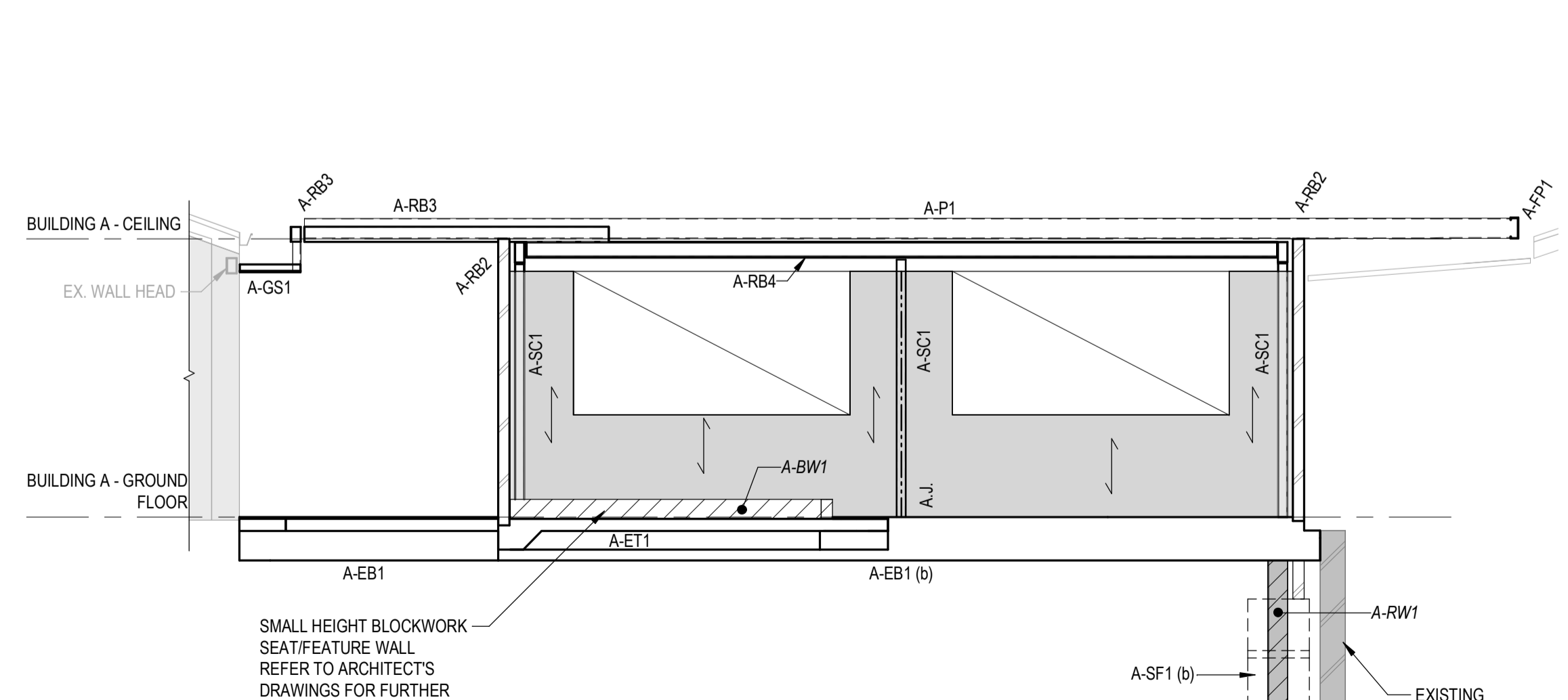
ELEVATION A-B4
SCALE = 1 : 50

A.J. - DENOTES STANDARD ARTICULATION JOINT IN BRICKWORK JOINT LOCATION TO MATCH CENTRAL STEEL COLUMN LOCATION AS SHOWN ON ELEVATIONS



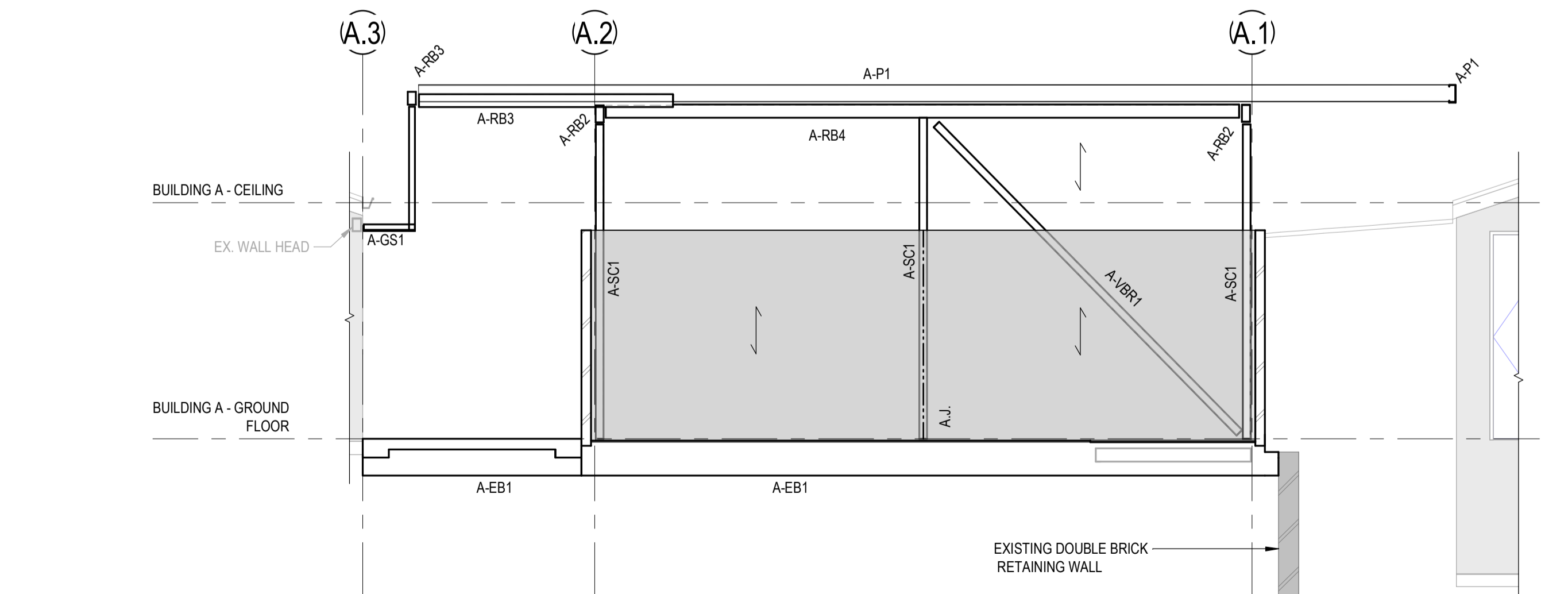
ELEVATION A-B2
SCALE = 1 : 50

A.J. - DENOTES STANDARD ARTICULATION JOINT IN BRICKWORK JOINT LOCATION TO MATCH CENTRAL STEEL COLUMN LOCATION AS SHOWN ON ELEVATIONS



ELEVATION A-B6
SCALE = 1 : 50

A.J. - DENOTES STANDARD ARTICULATION JOINT IN BRICKWORK JOINT LOCATION TO MATCH CENTRAL STEEL COLUMN LOCATION AS SHOWN ON ELEVATIONS



ELEVATION A-B5
SCALE = 1 : 50

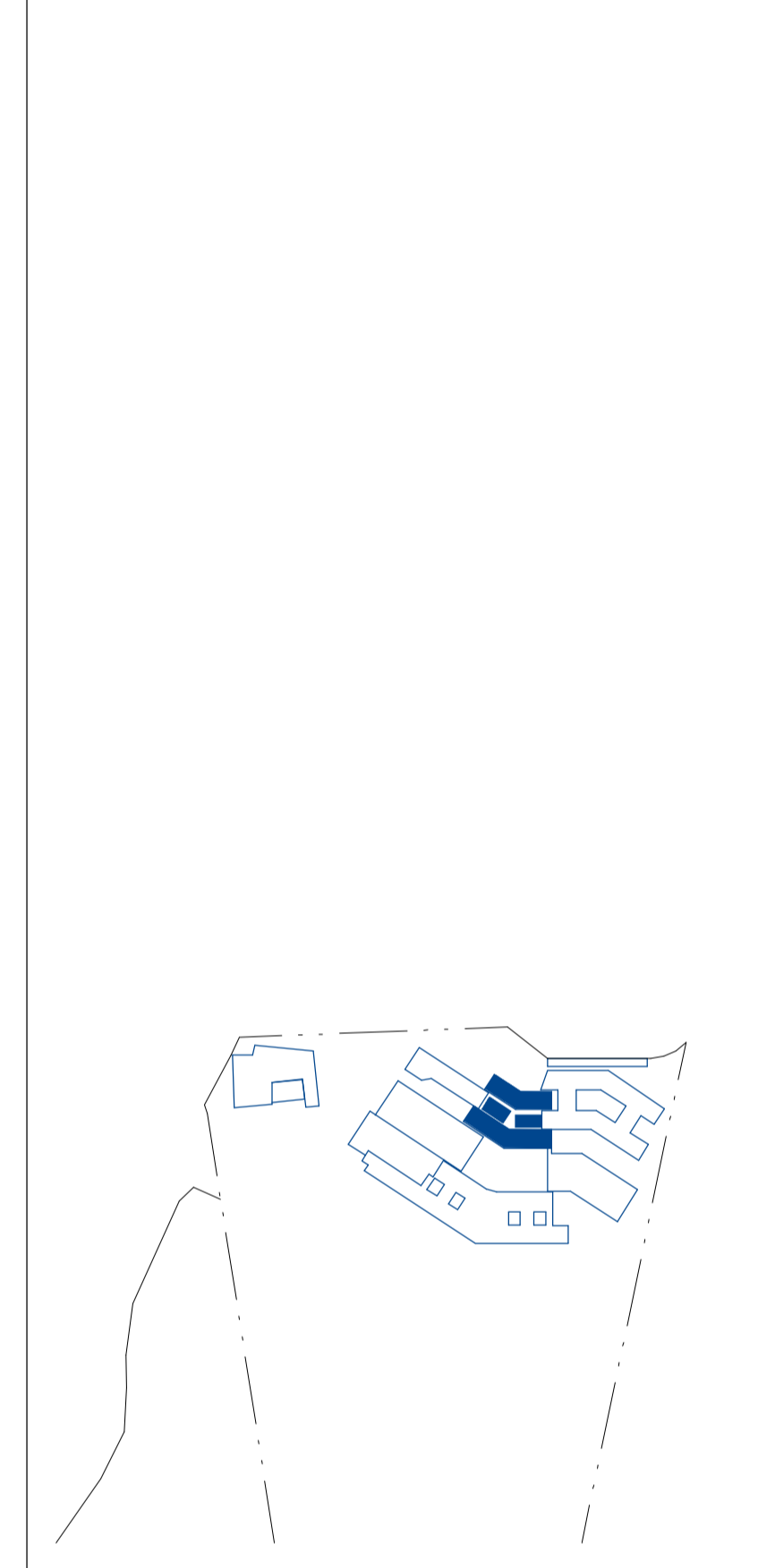
A.J. - DENOTES STANDARD ARTICULATION JOINT IN BRICKWORK JOINT LOCATION TO MATCH CENTRAL STEEL COLUMN LOCATION AS SHOWN ON ELEVATIONS

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B	100% DD ISSUE	23/04/2021	PRS	JH
1	CONSTRUCTION ISSUE	11/06/2021	PRS	BR



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Drawing Title

STRUCTURAL BUILDING A - ADMINISTRATION ELEVATION SHEET 1

Drawn	Date	Scale	A1	O.A. Check	Date
PRS	MAR 2021	1 : 50		DL	JUN 2021

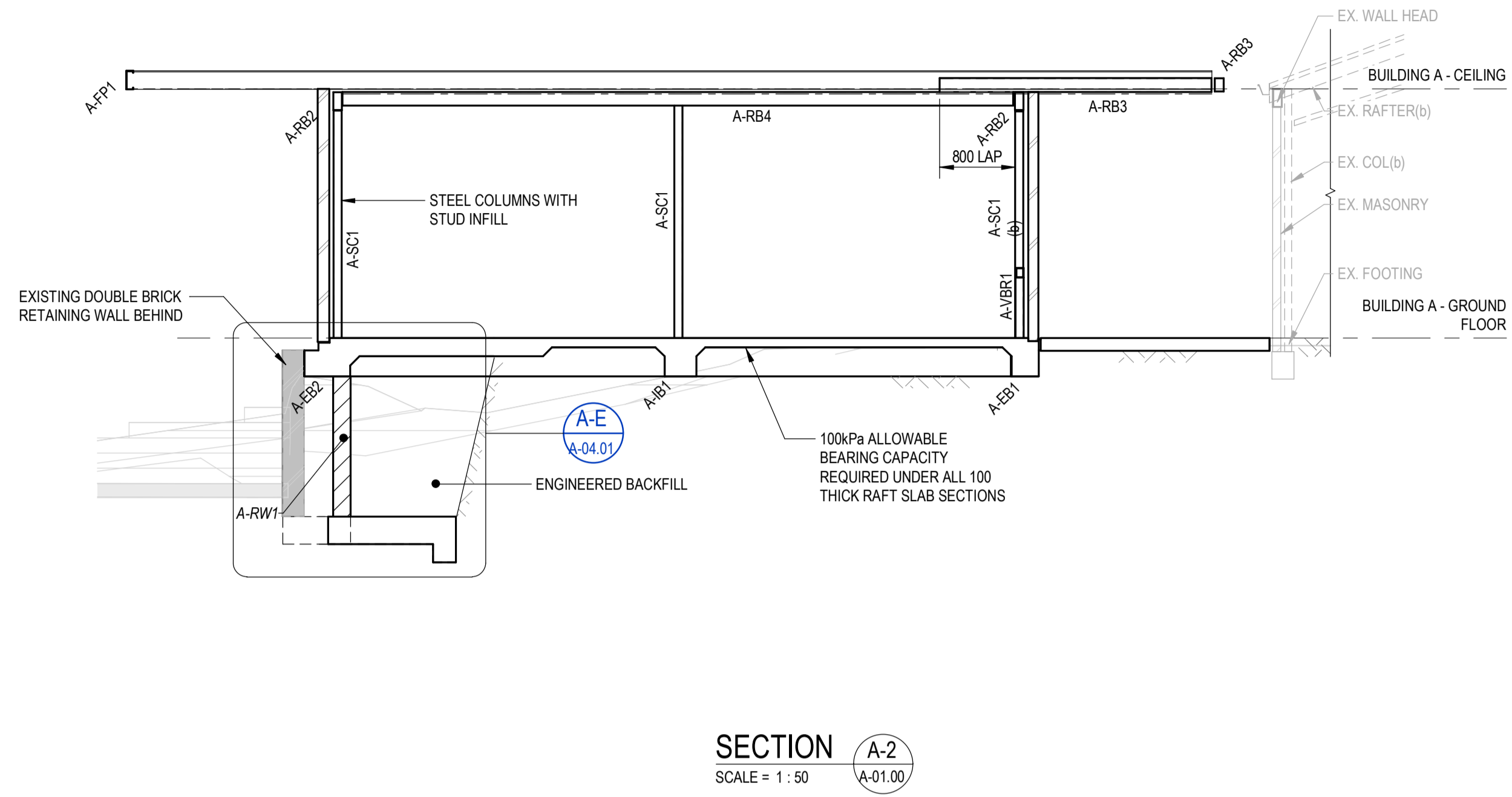
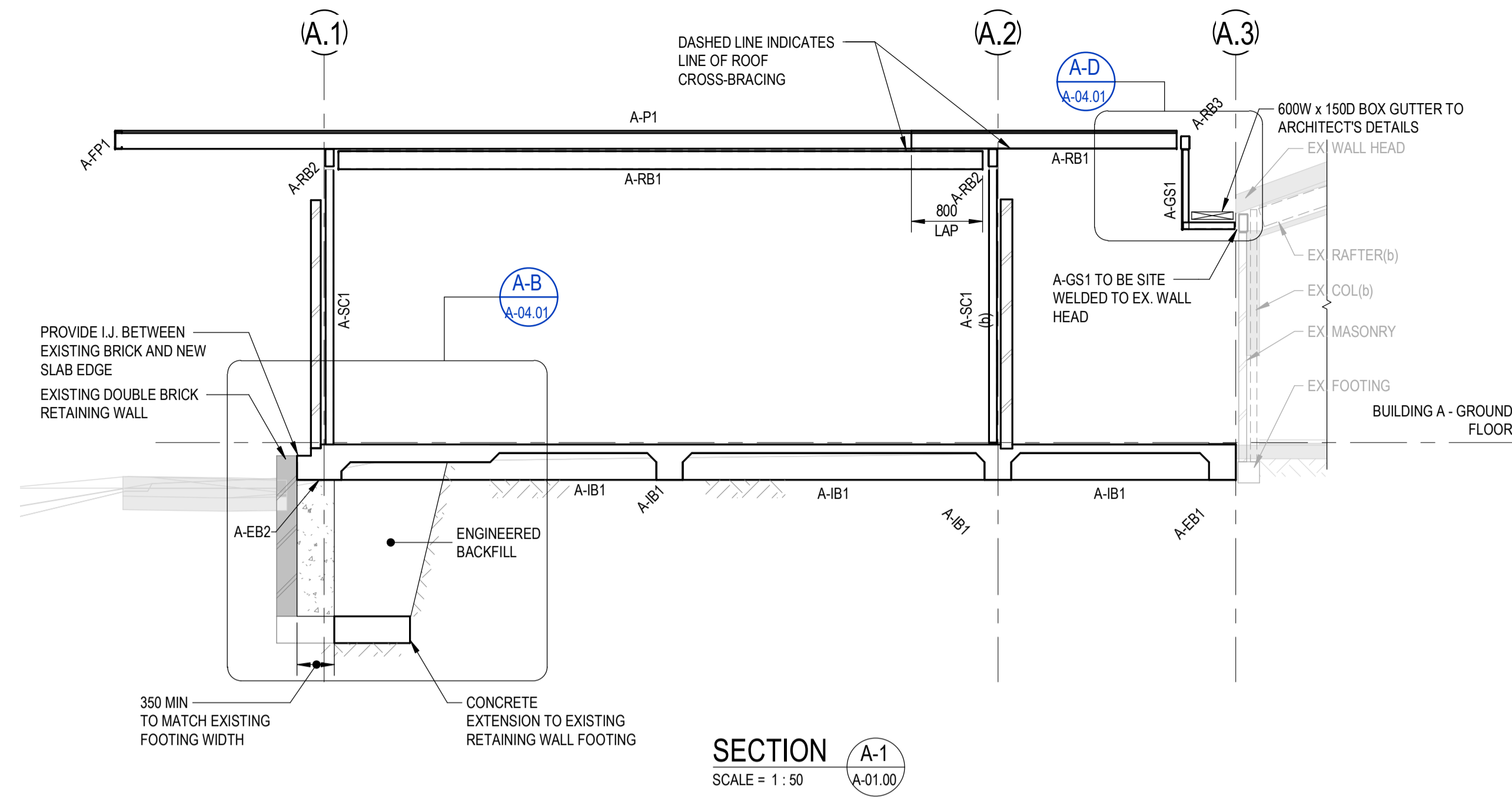
Designed By: BR210028
Project No: BR210028
Drawn By: PRS
Issue No: 1

FOR CONSTRUCTION

REFER DRG. NO: KHS-S-X-00.10 TO KHS-S-X-00.32 FOR TYPICAL DETAILS AND GENERAL NOTES.

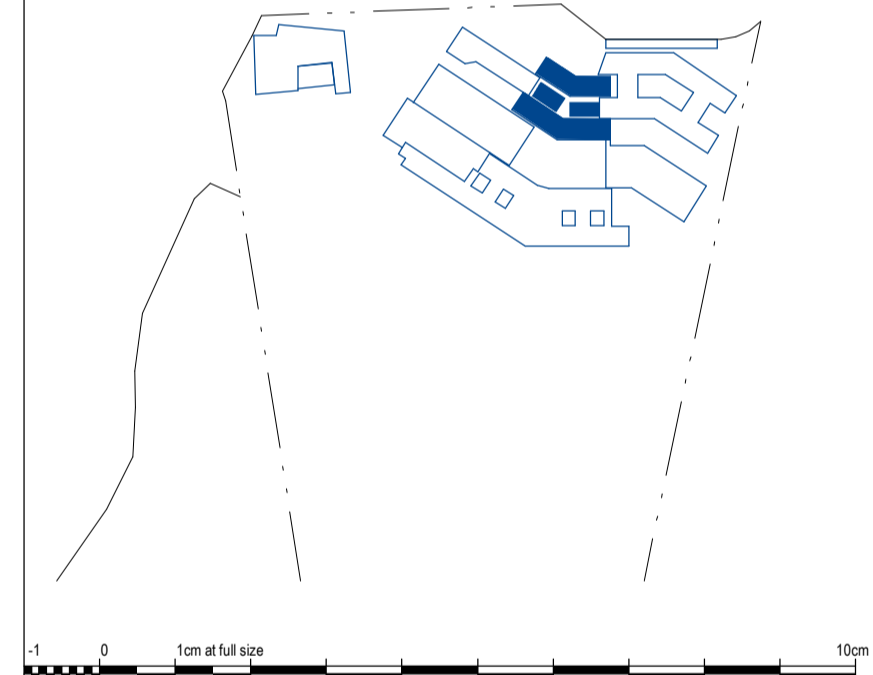
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Drawing Title
STRUCTURAL BUILDING A - ADMINISTRATION SECTION SHEET 1

Drawn PRS	Date MAR 2021	Scale 1 : 50	A1	O.A. Check DL	Date JUN 2021
Designed BR	Project No. BR210028	Dwg No. KHS-S-A-03.01	Issue 1		

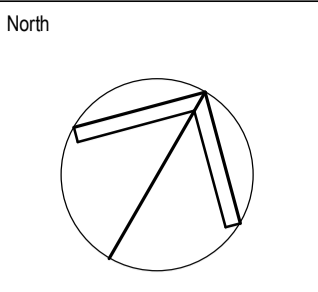
FOR CONSTRUCTION

BIM: 20210621 14:05 PM

REFER DRG. NO: KHS-S-X-00.10 TO KHS-S-X-00.32 FOR TYPICAL DETAILS AND GENERAL NOTES.

ALL STRUCTURAL STEEL FRAMING MEMBERS THAT ARE FULLY OR PARTIALLY LOCATED IN THE ZONE BELOW 500mm ABOVE FFL ARE TO BE FULLY HOT DIP GALVANISED

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LEGEND

- xxx DENOTES SLAB THICKNESS. REFER PLAN FOR THICKNESS.
- LOADBEARING ELEMENTS UNDER ARE SHOWN SHADED TYPICALLY
- S.J. DENOTES SAWN JOINT REFER TO DRG KHS-S-X-00.21 FOR DETAILS.
- D.J. DENOTES DOWEL JOINT REFER TO DRG KHS-S-X-00.21 FOR DETAILS.
- A-SC1 DENOTES STEEL COLUMN REFER SCHEDULE
- A-RW1 DENOTES 190 THICK REINFORCED BLOCKWORK RETAINING WALL REFER TO DRG KHS-S-A-04.01 FOR DETAILS
- PROVIDE 3-N12 TRIMMERS x 2000 LONG. TIED TO THE UNDERSIDE OF MESH AT SLAB RE-ENTRANT CORNERS, AND AT ALL PENETRATION CORNERS U.N.O.

SLAB AND REINFORCEMENT NOTES:

- RAFT SLAB NOTES:**
- 100 THICK CONCRETE SLAB U.N.O.
 - SL92 MESH LAID TOP. REFER BELOW FOR REINFORCEMENT TO 200 THICK SLAB
 - CONCRETE BEAMS AS PER SCHEDULE.
 - PROVIDE 50mm BEDDING SAND WITH 0.2mm POLYTHENE SHEETING. REFER TO CIVIL ENGINEERING DRAWINGS FOR GROUND PREPARATION REQUIREMENTS.
- 120 DENOTES 120 THK CONCRETE SLAB ON GROUND ON 0.2mm POLYTHENE SHEETING AND 50mm BEDDING SAND. SL82 MESH LAID TOP. 100kPa ALLOWABLE BEARING CAPACITY TO BE CONFIRMED BY A SUITABLY QUALIFIED GEOTECH ENGINEER.
- 200 DENOTES 200 THICK CONCRETE SLAB WITH SL92 MESH LAID TOP AND BTM

FOOTING NOTES:

- REFER TO DRAWINGS X-0010 - X-0011 FOR ALL STRUCTURAL GENERAL NOTES.
- REFER TO X-0020 FOR FOOTING TYPICAL DETAILS
- ALL FALLS, SETDOWNS & WATERPROOFING ARE TO ARCHITECTS DETAILS U.N.O.
- STRIP FOOTINGS TO BE FOUNDED ON NATURAL SAND WITH MIN 100kPa ALLOWABLE BEARING CAPACITY.
- PAD FOOTINGS TO BE FOUNDED 1000mm BELOW NATURAL SAND WITH MIN 100kPa ALLOWABLE BEARING CAPACITY.
- RAFT SLAB TO BE CAST ON LEVEL 1 SUPERVISION AS PER CIVIL DRAWINGS.
- GEOTECH CONDITIONS TO BE CONFIRMED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.

EXCAVATION NOTE

INTEGRITY OF TRENCH WALLS TO BE MAINTAINED DURING EXCAVATION/CONSTRUCTION. PROVIDE SHORING IF REQUIRED.

BUILDING A - CONCRETE BEAM SCHEDULE

MARK	DEPTH (A) x WIDTH (B)		REINFORCEMENT			COMMENTS
	A	B	BOTTOM	TOP	TIES	
A-EB1	400	300	3L11TM	2N12	R6-900	
A-EB2	400	500	5L11TM	2N12	R6-900	
A-ET1	300	500	3-N12	3-N12	R10-600	CURVE TOP AND BTM BARS WHERE NECESSARY
A-ET2	200	300	3-L11TM	NA	R6-900	
A-IB1	400	300	3L11TM	NA	R6-900	

BUILDING A - STEEL COLUMN SCHEDULE

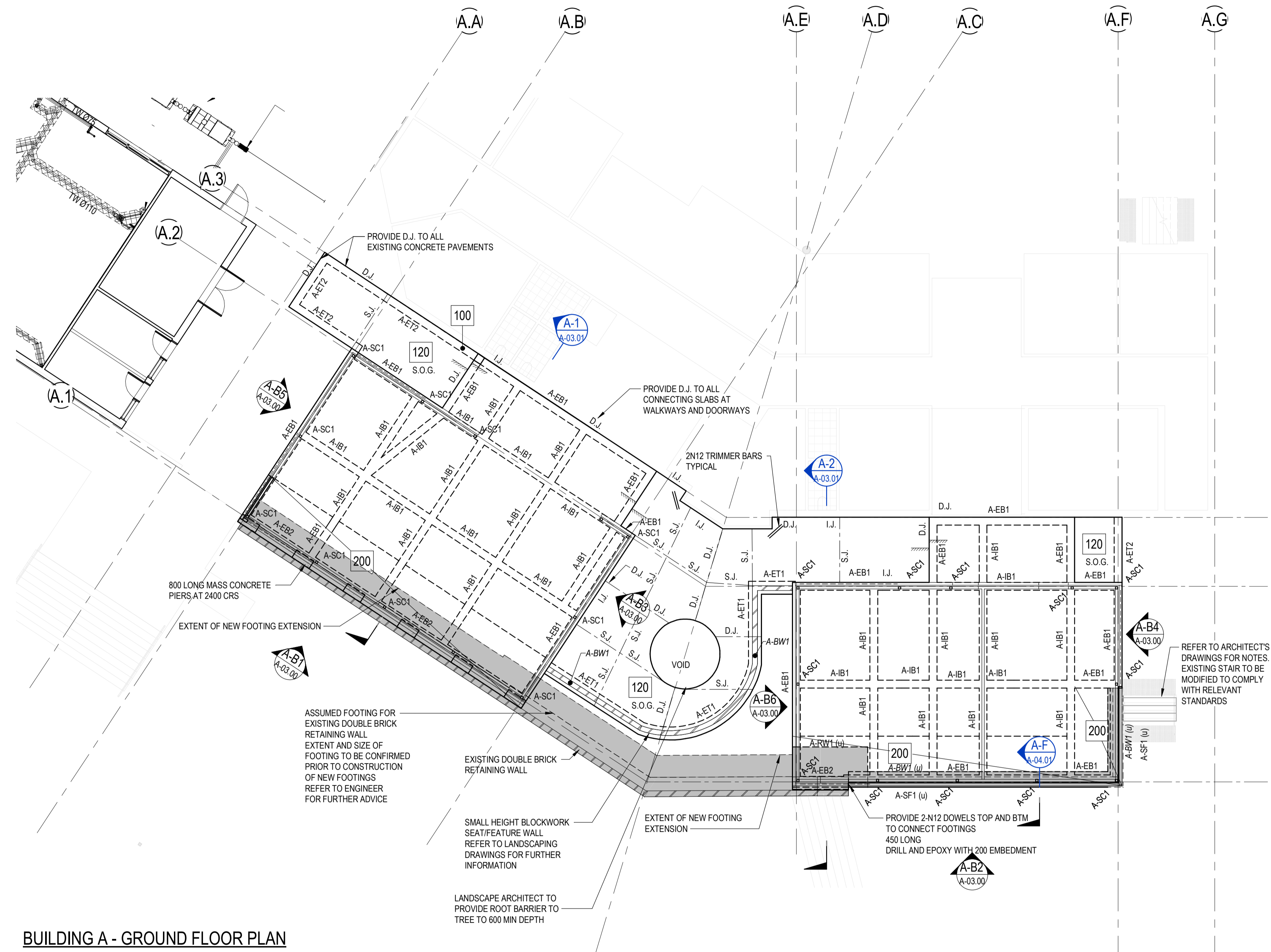
MARK	SIZE	COMMENTS
A-SC1	89x89x5.0SHS	STEEL COLUMN

BUILDING A - REINFORCED BLOCKWORK WALL

MARK	SIZE & TYPE	WALL REINFORCEMENT		COMMENTS
		HORIZONTAL	VERTICAL	
A-BW1	190 BLOCKWORK WALL	N12-400	N12-400	BARs LAID CENTRAL

BUILDING A - CONCRETE FOOTING SCHEDULE

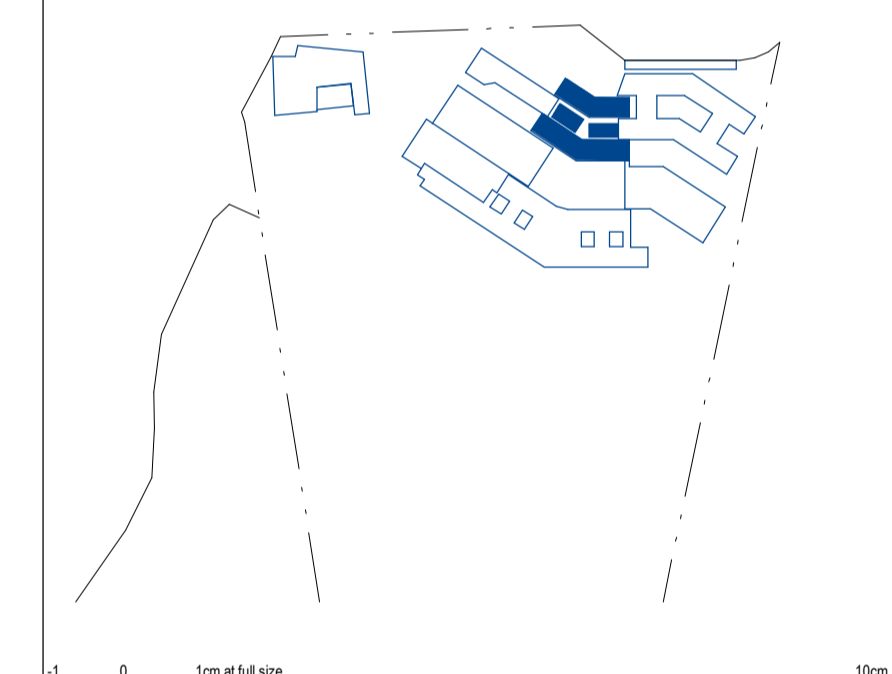
MARK	DEPTH (A) x WIDTH (B)		REINFORCEMENT	COMMENTS
	A	B		
A-SF1	500	600	3-N12 TOP AND BTM	R10-600 TIES



BUILDING A - GROUND FLOOR PLAN
SCALE: 1: 100

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1	CONSTRUCTION ISSUE	11/06/2021	PRS	BR
2	CONSTRUCTION ISSUE REVISED	04/06/2021	DJN	JH
3	HDS NOTE ADDED TO BUILDING A	17.11.2021	BR	RS



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CONSULTANTS

ENGINEERS|MANAGERS|INFRASTRUCTURE PLANNERS|DEVELOPMENT CONSULTANTS

Drawing Title
STRUCTURAL BUILDING A - ADMINISTRATION SLAB PLAN

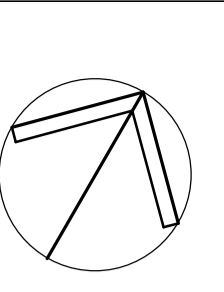
Drawn	Date	Scale	A1	O.A. Check	Date
PRS	MAR 2021	As indicated	DL		JUN 2021

Designed	Project No.	Dwg No.	Issue
BR	BR210028	KHS-S-A-01.00	3

FOR CONSTRUCTION

REFER DRG. NO: KHS-S-X-00.10 TO KHS-S-X-00.32 FOR TYPICAL DETAILS AND GENERAL NOTES.

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2	HDG NOTE ADDED TO BUILDING A	17.11.2021	BR	RS

LEGEND

- DENOTES NON-LOAD BEARING ELEMENTS UNDER ARE SHOWN TYPICALLY.
- DENOTES STEEL COLUMN UNDER REFER SCHEDULE ON DRG.
- REFER TO ARCHITECT'S DRAWINGS FOR ROOF SLOPES

ALL EXPOSED STEEL TO BE HOT DIP GALVANISED

ALL STRUCTURAL STEEL FRAMING MEMBERS THAT ARE FULLY OR PARTIALLY LOCATED IN THE ZONE BELOW 500mm ABOVE FFL ARE TO BE FULLY HOT DIP GALVANISED

BUILDING A - STEEL COLUMN SCHEDULE

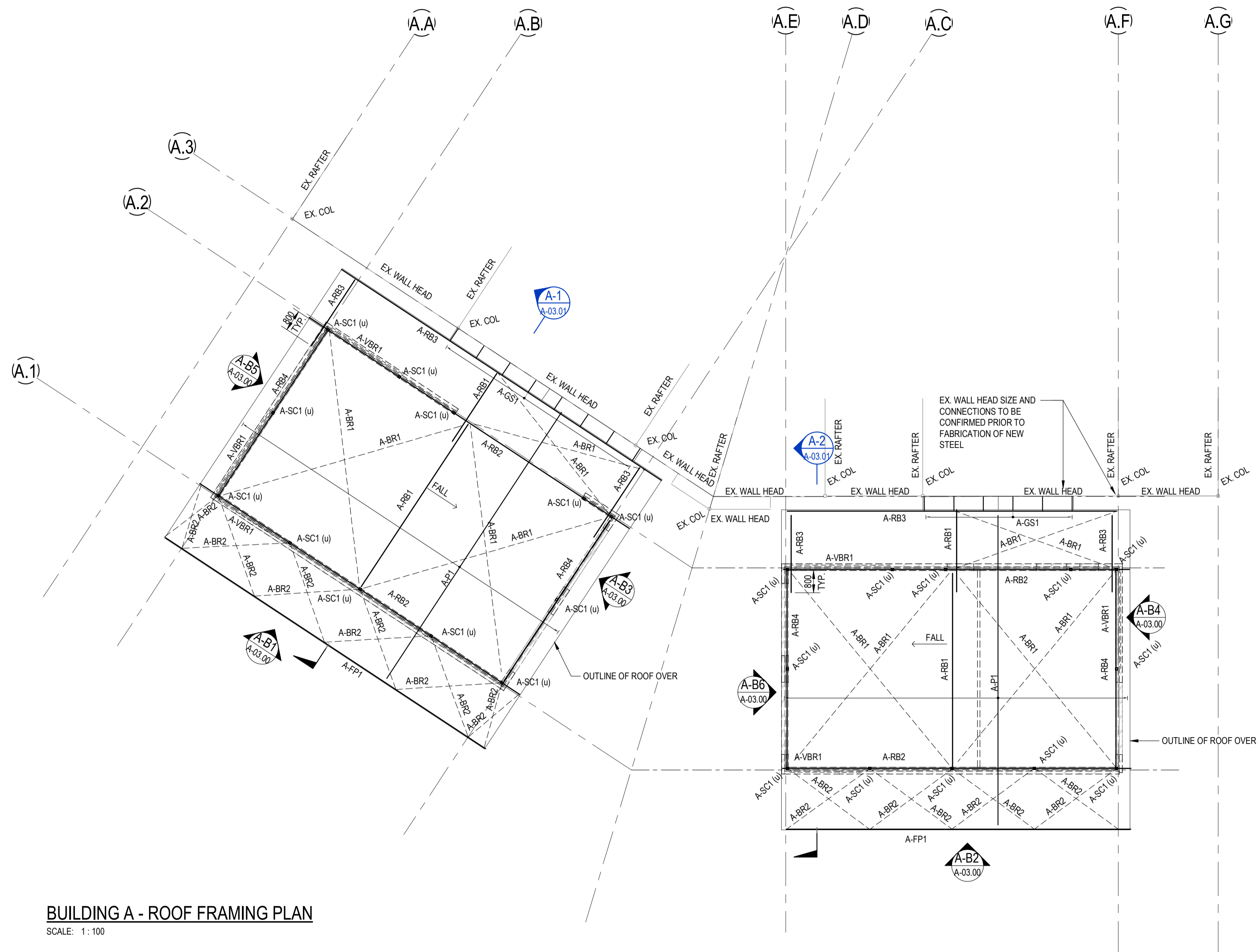
MARK	SIZE	COMMENTS
A-SC1	89x89x5.0SHS	STEEL COLUMN

BUILDING A - FRAMING SCHEDULE

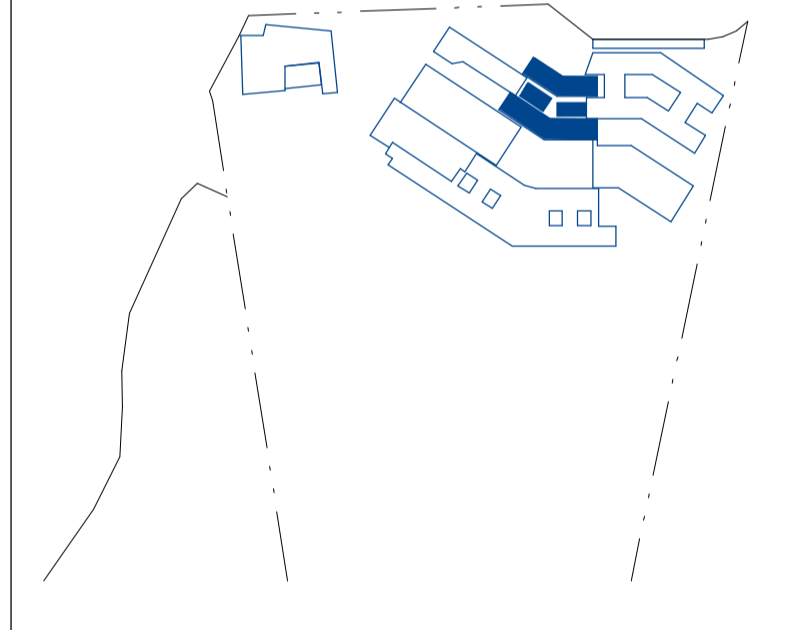
MARK	SIZE AND TYPE	COMMENTS
A-BR1	Ø20mm BAR	20 DIA ROD WITH TURNBUCKLE
A-BR2	1mmx30.0	STRAP BRACING SCREW FIXED TO BOTTOM FLANGE OF PURLINS
A-FP1	C20019	FASCIA PURLIN
A-GS1	75x75x10EA	L-SHAPED GUTTER SUPPORT AT 1200 MAX CRS
A-P1	Z20019	900 CRS WITH 2x ROWS OF BRIDGING 1x ROW OF BRIDGING REQUIRED FOR SPAN < 3000 AND CANTILEVER SPANS
A-RB1	200x100x5.0RHS	ROOF BEAM
A-RB2	200x100x6.0RHS	ROOF BEAM
A-RB3	150x100x5.0RHS	ROOF BEAM
A-RB4	150x150x5.0SHS	ROOF BEAM
A-VBR1	89x89x5.0SHS	VERTICAL BRACING

FIRE RATING:

ALL STRUCTURAL STEELWORK MUST MEET FIRE RATING REQUIREMENTS PER BUILDING CERTIFIER. REFER ARCH. FOR SPECIFICATION



BUILDING A - ROOF FRAMING PLAN
SCALE: 1:100



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PRS	MAR 2021	As indicated	DL	JUN 2021	

Designed	Project No.	Dwg No.	Issue
BR	BR210028	KHS-S-A-02.00	2

FOR CONSTRUCTION

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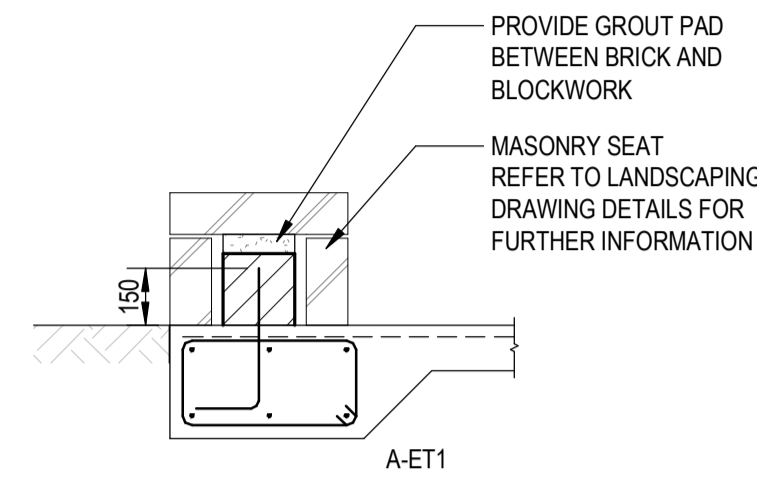
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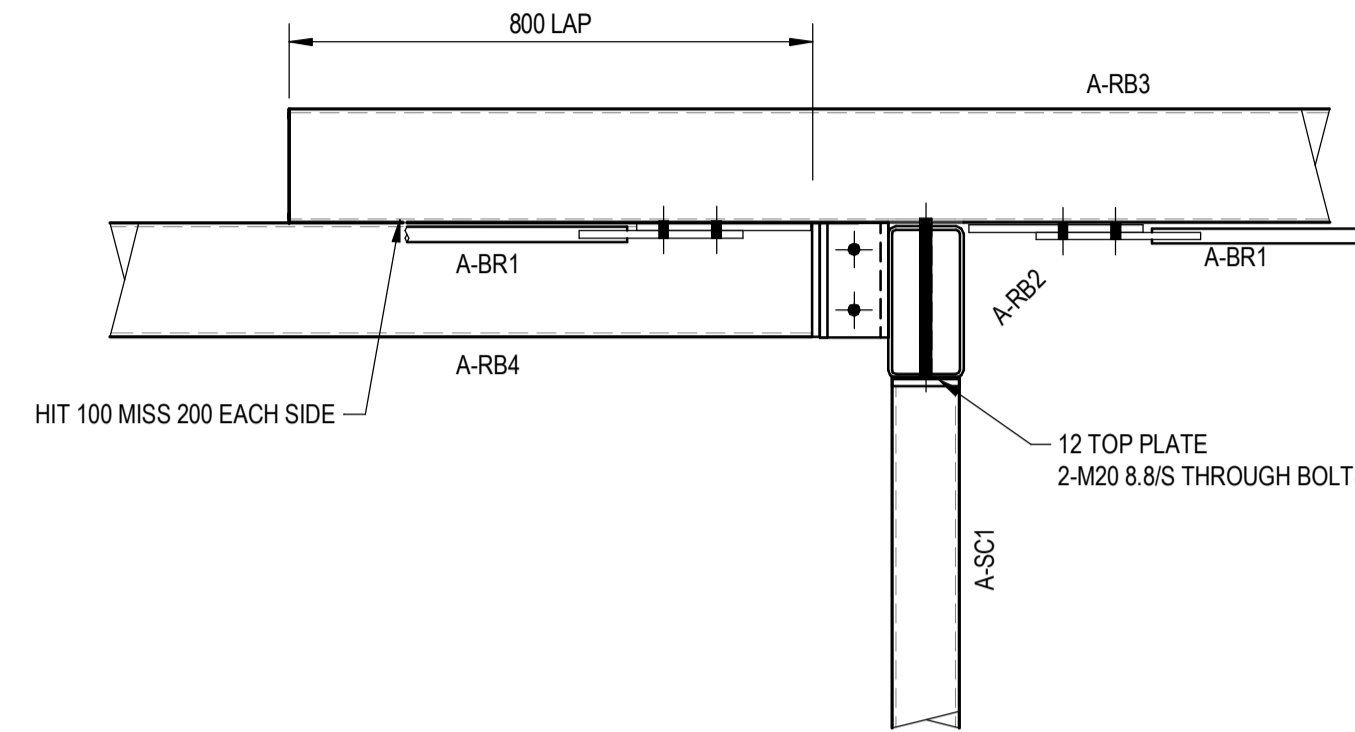
North

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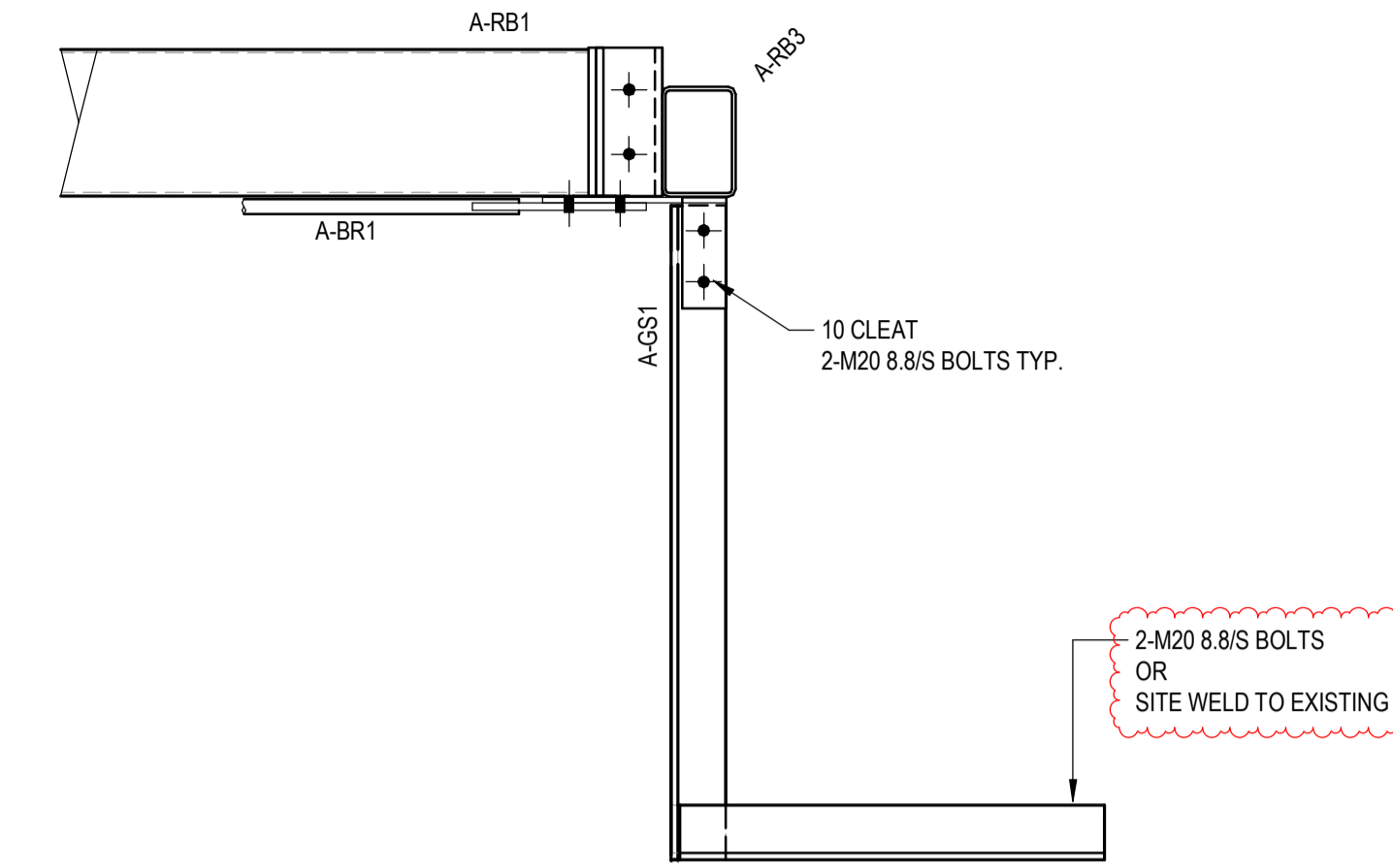
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2	CONSTRUCTION ISSUE	11/06/2021	PRS	BR
3	CONSTRUCTION ISSUE REVISED	04/08/2021	DJN	JH
4	BOG A SLAB EDGE REBATE UPDATE	09/03/2023	BR	BR



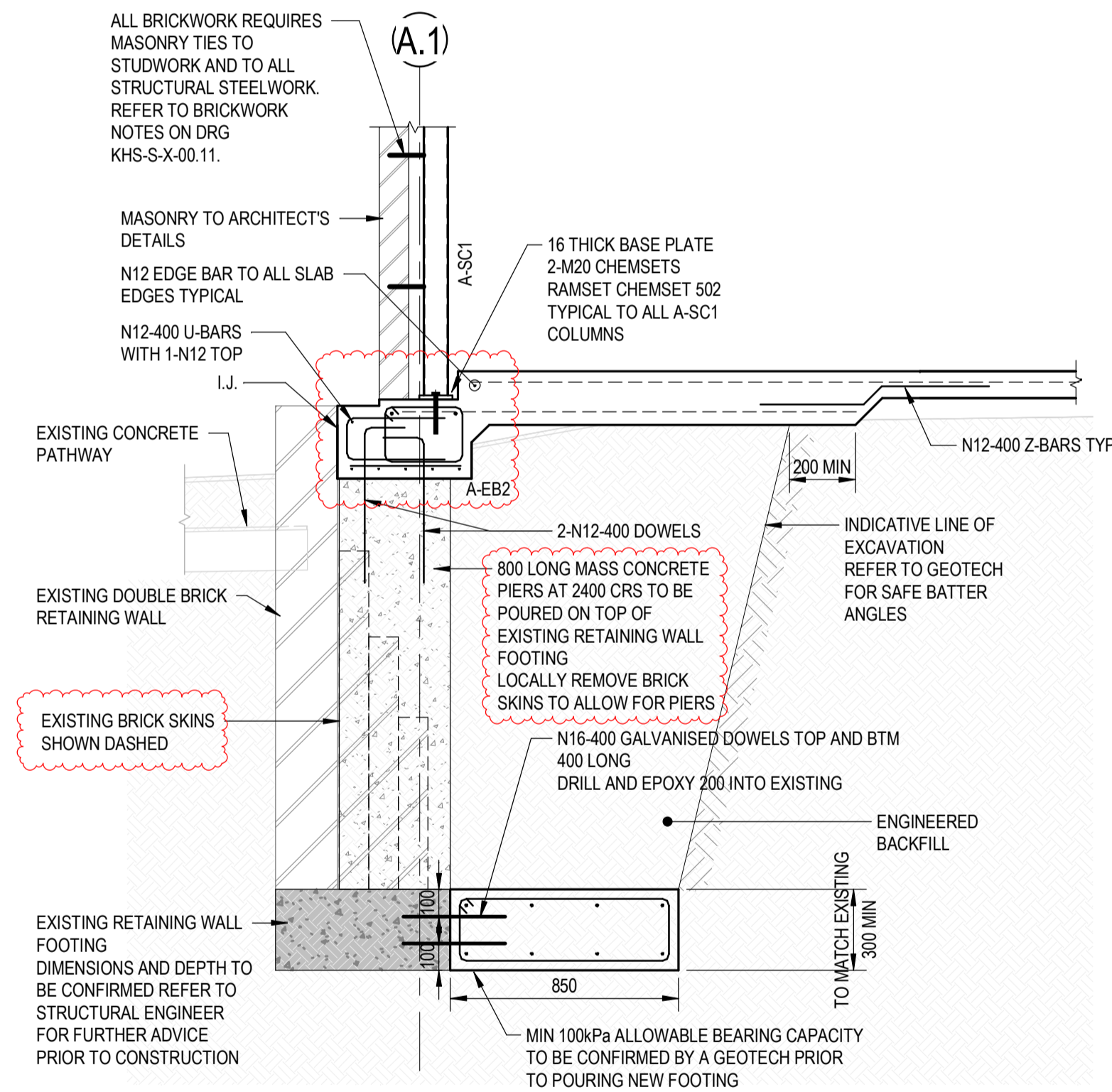
DETAIL A-A
SCALE = 1 : 20
A-03.00



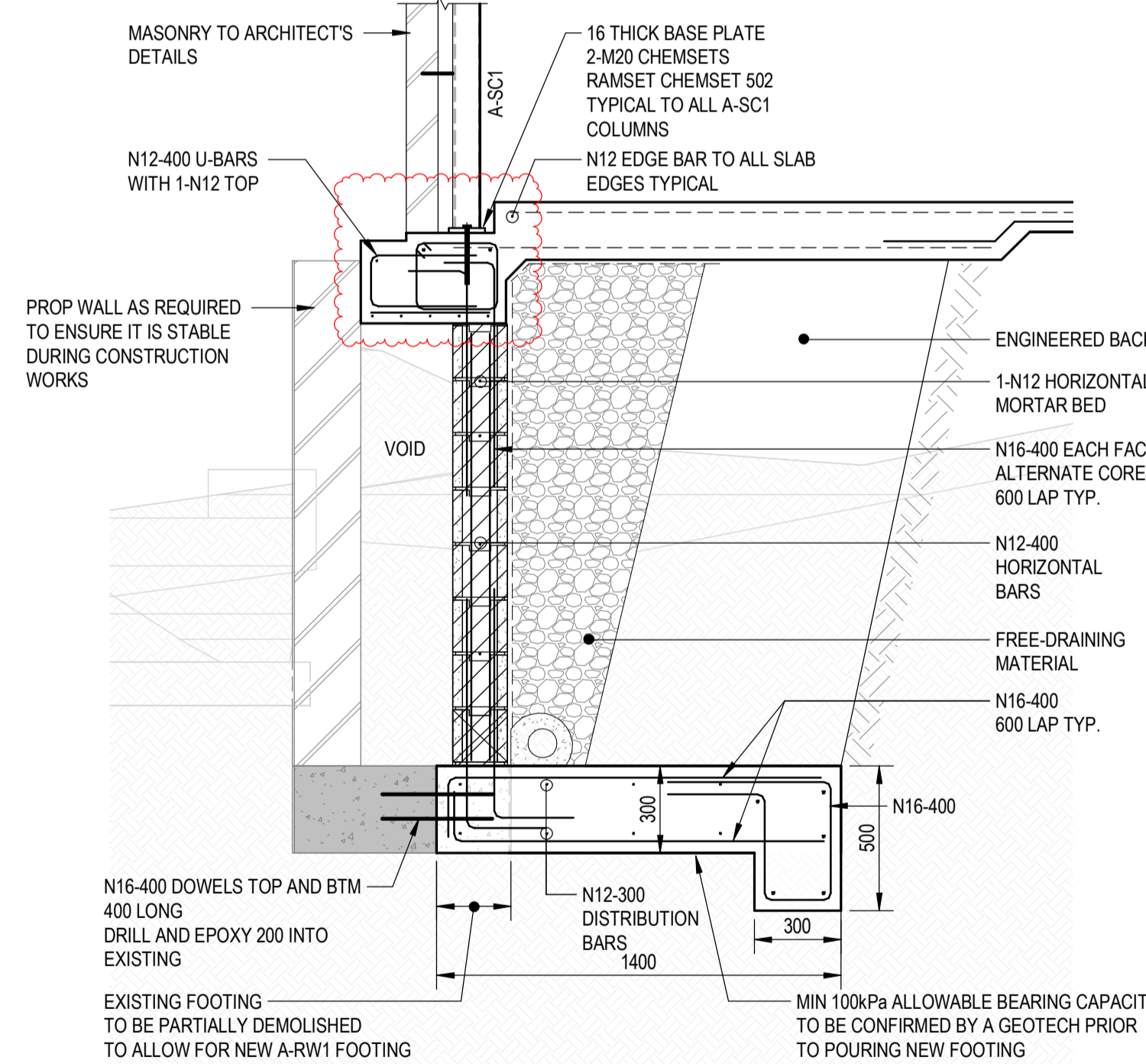
DETAIL A-C
SCALE = 1 : 10
A-03.00



DETAIL A-D
SCALE = 1 : 10
A-03.01

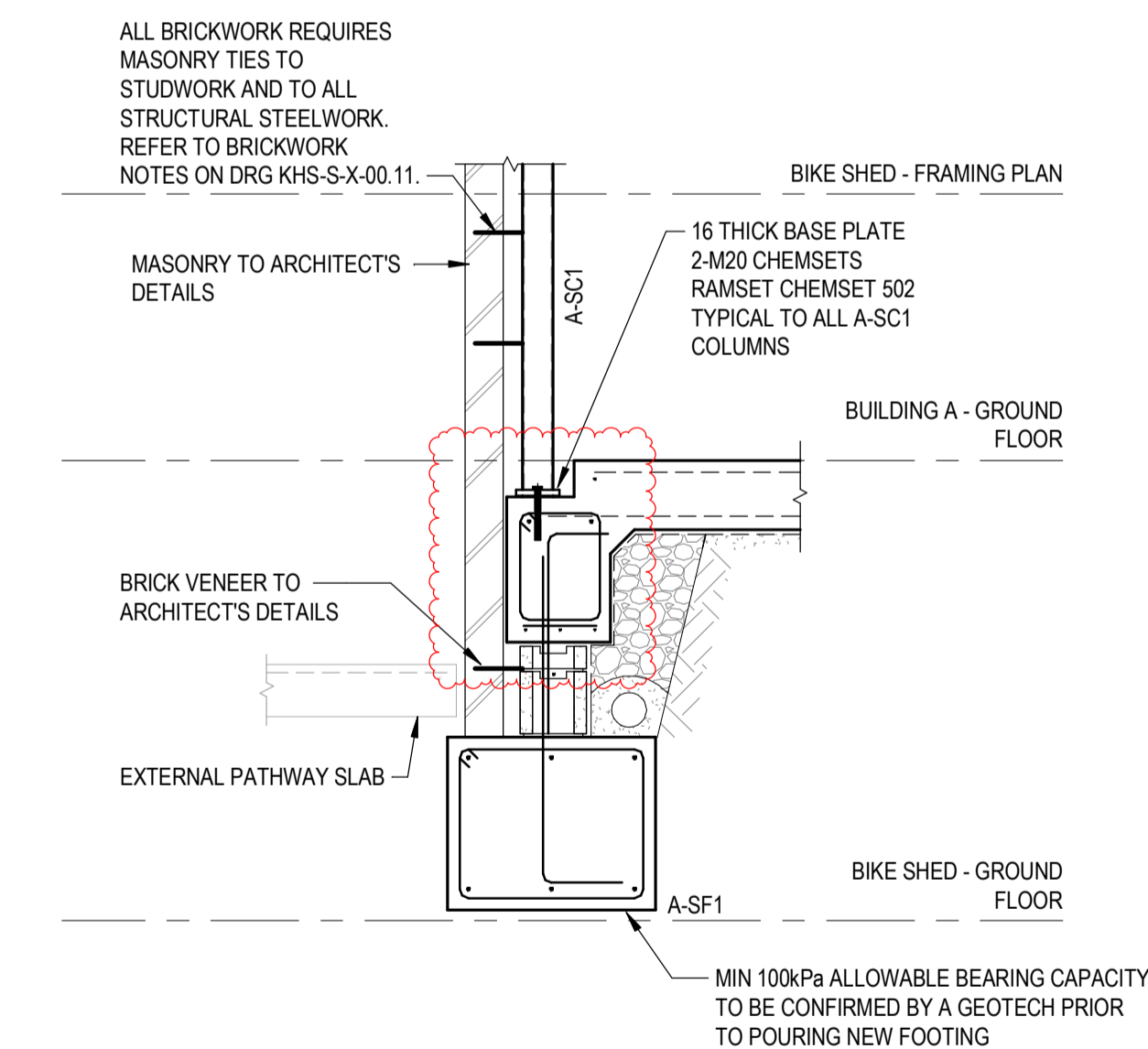


DETAIL A-B
SCALE = 1 : 20
A-03.01

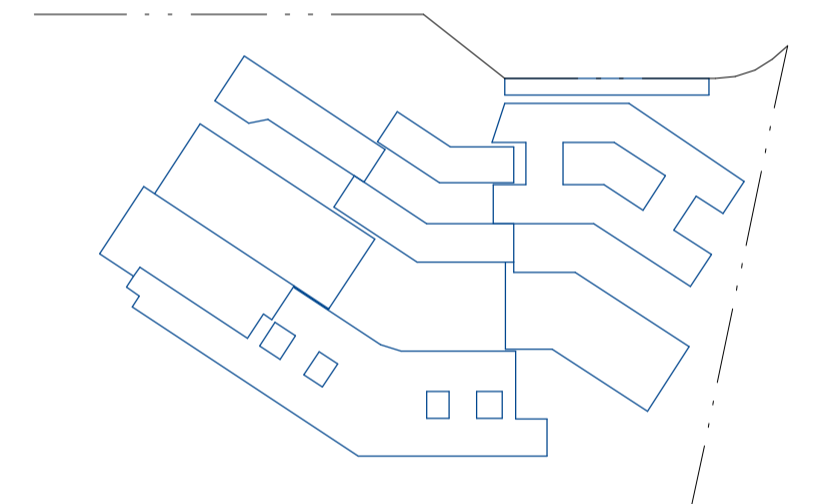


TYPICAL A-RW1 RETAINING WALL DETAILS
SCALE = 1 : 20

SECTION A-E
SCALE = 1 : 20
A-03.01



DETAIL A-F
SCALE = 1 : 20
A-01.00



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Drawing Title
STRUCTURAL BUILDING A - ADMINISTRATION DETAILS

Drawn	Date	Scale	A1	O.A. Check	Date
PRS	MAR 2021	As indicated	DL		JUN 2021
Designed	Project No.	Dwg No.	Issue		
BR	BR210028	KHS-S-A-04.01	3		

FOR CONSTRUCTION

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