



STRUCTURAL SSDA DESIGN REPORT

Catherine Field Public School

PREPARED FOR

Hansen Yuncken
Building 1, Level 3
75-85 O'Riordan Street
Alexandria
Tel: (02) 9770 7600

Ref: SY190518-02

Rev: 2

Date: 08.08.19

Structural Concept Design Report

Revision Schedule

Date	Revision	Issue	Prepared By	Approved By
08.08.19	1	DRAFT issue	J.Low	J.Low

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Table of Contents

1. Introduction	3
2. Structural Engineering	4
2.1 Geotechnical Conditions	4
2.2 Structural Systems	5
2.3 Design Parameters	5
3. Appendix A - Drawings	7

1. Introduction

Northrop Engineers are engaged by Hansen Yuncken to provide structural engineering for Catherine Field Public School as part of the New High Quality Classroom Package 2.

Refer Site Plan below:

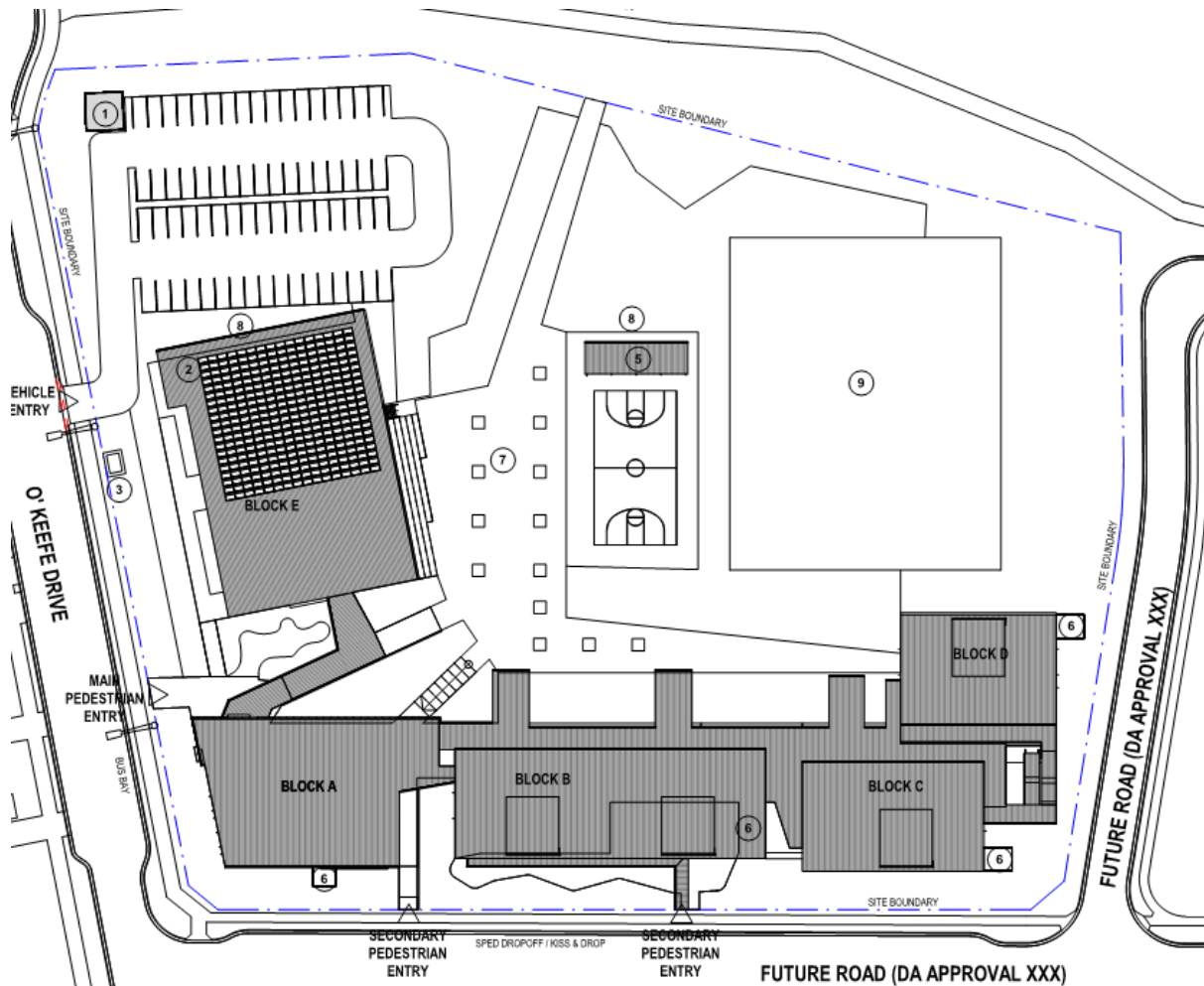


Figure 1 - Site plan

2.2 Structural Systems

The proposed buildings range from one to three storey structures with a mixture of concrete and steel framed floors. The walls are typically lightweight framing and the roofs are steel framed and metal clad. A summary of each building is listed below:

- **Hall**
Combination of reinforced concrete raft slab and reinforced concrete slab-on-grade, steel framed walls and roof.
- **Admin / Library**
Reinforced concrete pad footings, reinforced concrete raft slab, conventionally reinforced suspended concrete floors, concrete lateral stability stair core walls, steel framed walls and roof.
- **Homebases / Special Education**
Steel screw pile foundations, steel framed floors, walls and roofs. The homebase and special education buildings will be constructed using off-site fabrication techniques.
- **Covered Walkways**
Reinforced concrete pad footings, reinforced concrete columns supporting reinforced concrete suspended slabs, steel roof.

2.3 Design Parameters

2.3.1 Design Life

The design life is nominated as follows:

- | | |
|--|----------|
| • Structural elements including sub-structures | 50 years |
| • Floor structures | 50 years |
| • Roof structures (excluding secondary steel, purlins) | 50 years |
| • Internal structural walls | 50 years |

2.3.2 Design Loads

All buildings and structures will be designed with the loads determined from Australian Standards, NCC:2016 and the requirements of the EFSG.

Design Parameters

- Importance Level 2 to AS1170.0
- Dead and Live load to AS1170.1
- Wind loads to AS1170.2
 - o Region A
 - o Terrain Category 2.5
- Earthquake loads to AS1170.4
 - o Probability factor $k_p = 1.0$
 - o Hazard factor $Z = 0.08$ (Sydney)
 - o Site sub-soil class C_e – shallow soil

2.3.3 Deflection of Structural Elements

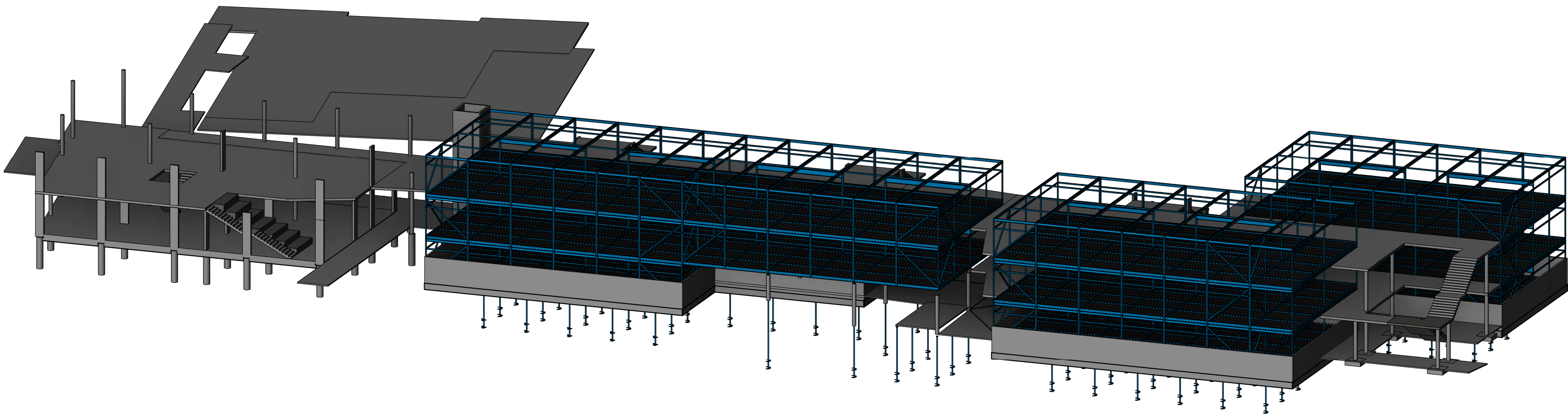
For the design life of the structure, the maximum deflections of structural members and their effect on finishes will comply with the serviceability requirements of the structure. In addition to the requirements of the relevant Australian Standards, the light-weight floors to the off-site fabricated homebase and special education buildings have been designed to 'feel' like in-situ concrete floors. This will be achieved through more stringent deflection controls and minimisation of vibration due to footfall.

Appendix A

Drawings

CATHERINE FIELD PS

NEW HIGH QUALITY CLASSROOMS STRUCTURAL DOCUMENTATION



DRAWING LIST

S00.00	COVER SHEET AND DRAWING LIST
S01.01	STRUCTURAL SPECIFICATION - SHEET 1
S01.02	STRUCTURAL SPECIFICATION - SHEET 2
S01.03	STRUCTURAL SPECIFICATION - SHEET 3
S03.00	FOUNDATION PLAN - OVERALL
S03.11	FOUNDATION PLAN - BLOCK A
S04.00	GROUND SLAB PLAN - OVERALL
S04.11	GROUND SLAB PLAN - BLOCK A
S05.00	LEVEL 1 SLAB PLAN - OVERALL
S05.11	LEVEL 1 SLAB PLAN - BLOCK A
S06.00	LEVEL 2 SLAB PLAN - OVERALL
S07.00	ROOF FRAMING PLAN - OVERALL
S07.11	ROOF FRAMING PLAN - BLOCK A
S15.01	TYPICAL STAIR PLANS AND DETAILS - SHEET 1
S15.02	TYPICAL STAIR PLANS AND DETAILS - SHEET 1

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DRAWN: VERIFIER: JOB MANAGER: JONATHAN LOW DESIGNED: JONATHAN LOW

AMMENDMENTS				
REV	BY	DATE	DESCRIPTION	
A	JL	09.08.19	50% ISSUE	

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ARCHITECTS

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NEW HIGH QUALITY CLASSROOMS
DRAWING NAME
**COVER SHEET AND
DRAWING LIST**

PROJECT NORTH

DRAWN	CHECKED	VERIFIED	DATE
MAEYADA HAMED	JONATHAN LOW		09.08.19

PROJECT CODE	SCH. REF.	DISC.	TYPE	SERIES#	REVISION
NHQC2 - CF - ST - DWG - 00_	S00.00				A

Project Status

9/08/2019 7:38:16 PM

VERIFIER:

JOB MANAGER: JL

DESIGNED: PE

DRAWN:

GENERAL NOTES:

FOR STRUCTURAL SPECIFICATIONS REFER TO DRAWINGS S01.01, S01.02 AND S01.03.

HIGH LEVEL PAD FOOTINGS DESIGNED BASED ON ALLOWABLE BEARING PRESSURE OF 200kPa. BORED CONCRETE PILES BASED ON ALLOWABLE BEARING PRESSURE OF 1200kPa.

FOR FOUNDATION DETAILS REFER DRAWINGS S09.01 AND S09.02.

LEGEND:

 200 DENOTES CONCRETE THICKNESS

 CC10 DENOTES REINFORCED CONCRETE COLUMN OVER

 SC10 DENOTES STEEL COLUMN OVER

FOUNDATION SCHEDULE			
MARK	SIZE	COMMENT(S)	
PAD			
PF1	400 DEEP x 1500 x 1500	6N16 EACH WAY BTM	

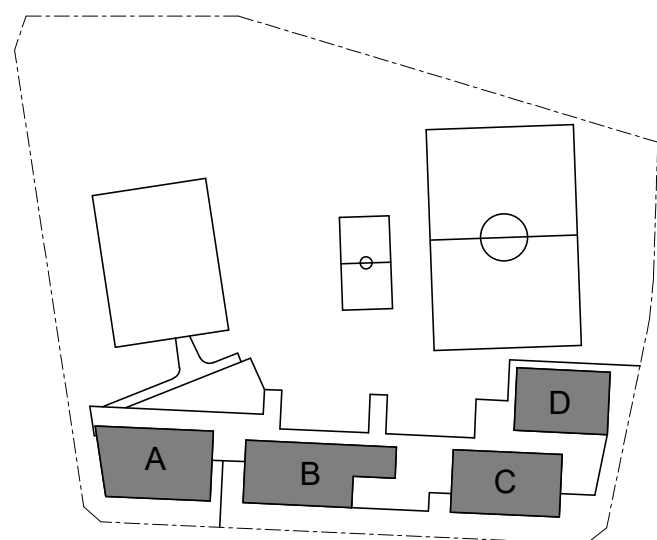
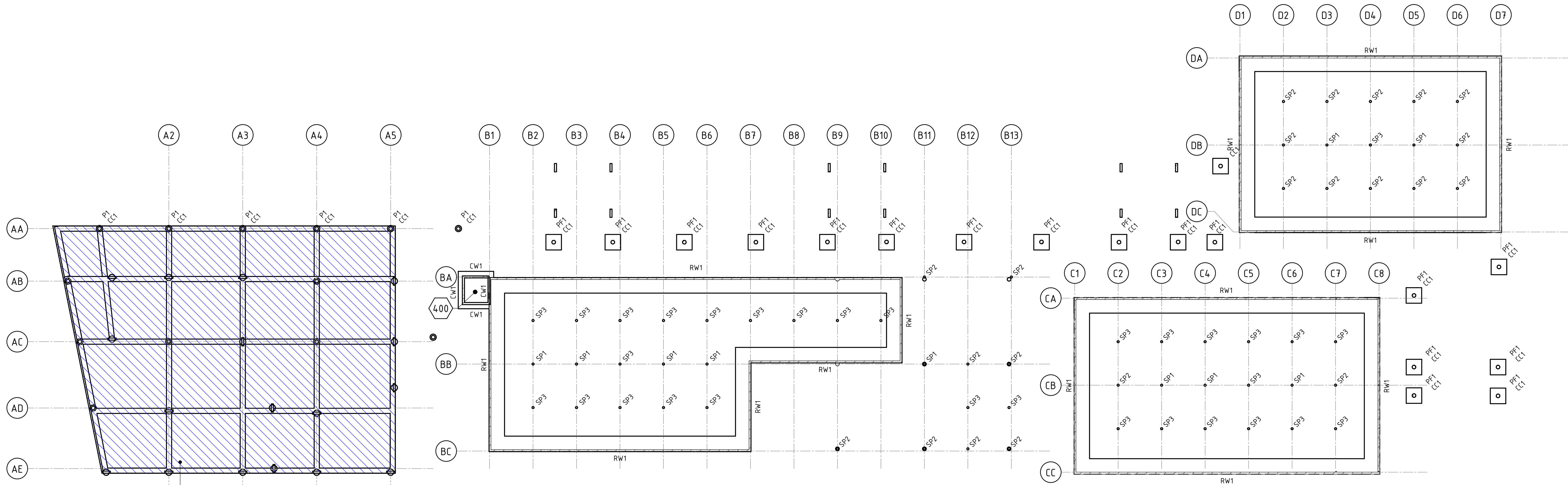
SCREW PILE LOAD SCHEDULE			
MARK	LOAD G (kN)	LOAD Q (kN)	COMMENT(S)
SP1	390	390	
SP2	295	295	
SP3	60	60	

CONCRETE PILE LOAD SCHEDULE				
MARK	SIZE	LOAD G (kN)	LOAD Q (kN)	COMMENT(S)
P1	600 DIA	450	260	SOCKETED 1500 INTO 2000 kPa CLAYSTONE

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m ² REINFORCEMENT RATE

OVERALL FOUNDATION PLAN



AMENDMENTS				DESCRIPTION
REV	BY	DATE	ISSUE	
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FOUNDATION PLAN - OVERALL

PROJECT NORTH	0 2000 4000 6000 8000 10000					200	SCALE 1: 200 @ A
	DRAWN	CHECKED	VERIFIED	DATE			
	MH	JL		09.08.19			
	DRAWING NUMBER						REVISION
	PROJECT CODE	SCH. REF.	DISC.	TYPE	SERIES#		A
	NHQC2 - CF - ST - DWG - 00_S03.00						

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DRAWN:

DESIGNED: PE

JOB MANAGER: JL

VERIFIER:

GENERAL NOTES:

FOR STRUCTURAL SPECIFICATIONS REFER TO DRAWINGS S01.01, S01.02 AND S01.03.

CONCRETE SLAB STRENGTH TO BE $f'c = 25MPa$.

SLAB TO BE 100mm THICK WITH SL82 MESH TOP, POURED ON 0.2mm POLYTHENE SHEETING OVER 50mm DRAINAGE LAYER. SAWCUTS TO BE AT A MAXIMUM SPACING OF 5000mm, WITH DOWELLED EXPANSION JOINTS AT 25000mm MAX.

2-N12 x 1500 LONG TRIMMER BARS IN TOP AT ALL RE-ENTRANT CORNERS (TYPICAL)

PROVIDE SUBSOIL DRAINAGE UNDER SLAB AS PER HYDRAULIC ENGINEER'S DETAIL.

WALL CONCRETE STRENGTH TO BE 32MPa, UNLESS NOTED OTHERWISE.

ALL FALLS AND STEPS TO ARCHITECT'S DETAILS.

NON-STRUCTURAL HOBBS & KERBS ARE NOT SHOWN, REFER TO ARCHITECT'S DRAWINGS FOR EXTENT & LOCATION.

REFER TO DRAWING SERIES S15.## FOR STAIR PLANS AND DETAILS.

LEGEND



DENOTES CONCRETE THICKNESS



DENOTES SLAB STEP



DENOTES REINFORCED CONCRETE COLUMN OVER AND UNDER



DENOTES STEEL COLUMN OVER AND UNDER

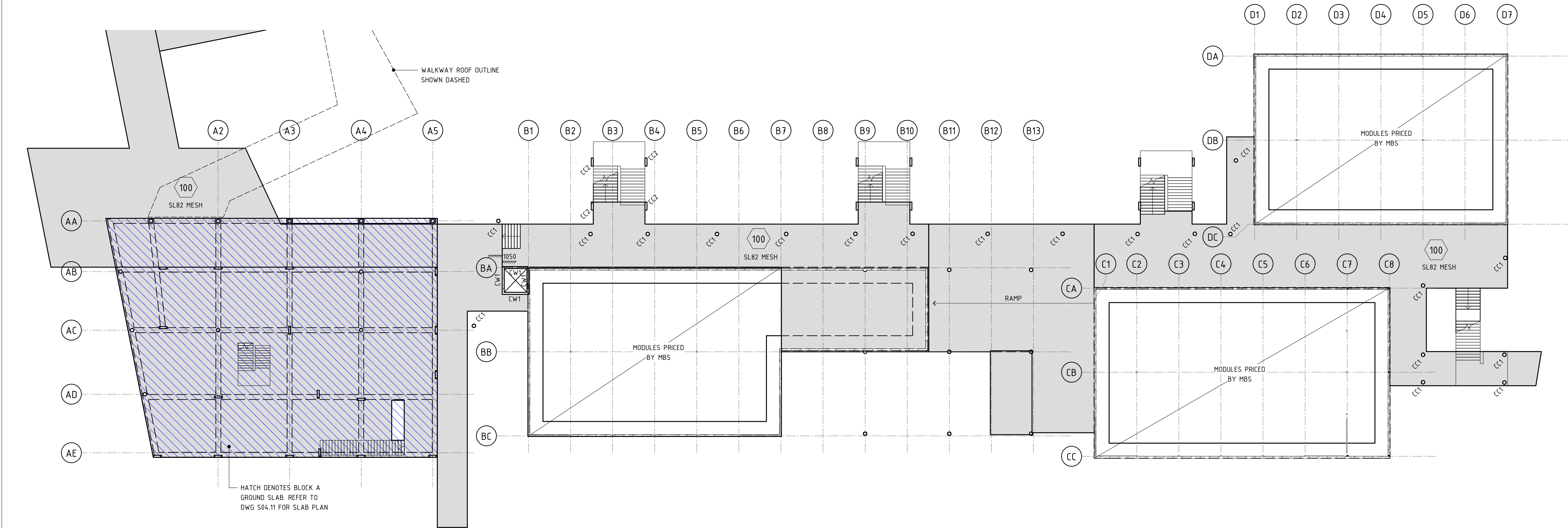


DENOTES LOAD BEARING CONCRETE WALL OVER AND UNDER

OVERALL GROUND FLOOR SLAB PLAN

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m ³ REINFORCEMENT RATE



AMMENDMENTS				
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DRAWING NAME
GROUND SLAB PLAN - OVERALL

PROJECT NORTH

0 2000 4000 6000 8000 10000 20000
SCALE 1:200 @ A1

DRAWN: MH CHECKED: JL VERIFIED: JL DATE: 09.08.19

DRAWING NUMBER: NHQC2 - CF - ST - DWG - 00_S04.00

REVISION: A

Project Status

9/08/2019 7:38:23 PM

VERIFIER: JL
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DESIGNED: PE
DRAWN:

GENERAL NOTES:

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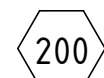
ALL SLABS TO BE 220mm THICK U.N.O

WALL CONCRETE STRENGTH TO BE 32MPa, UNLESS NOTED OTHERWISE.

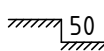
ALL FALLS TO ARCHITECT'S DETAILS.

NON-STRUCTURAL HOBS AND KERBS ARE NOT SHOWN, REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATION.

LEGEND



DENOTES CONCRETE THICKNESS



DENOTES SLAB STEP



DENOTES PENETRATION/VOID IN SLAB,
PROVIDE TRIMMER BARS



DENOTES REINFORCED CONCRETE COLUMN OVER AND UNDER



DENOTES STEEL COLUMN OVER AND UNDER

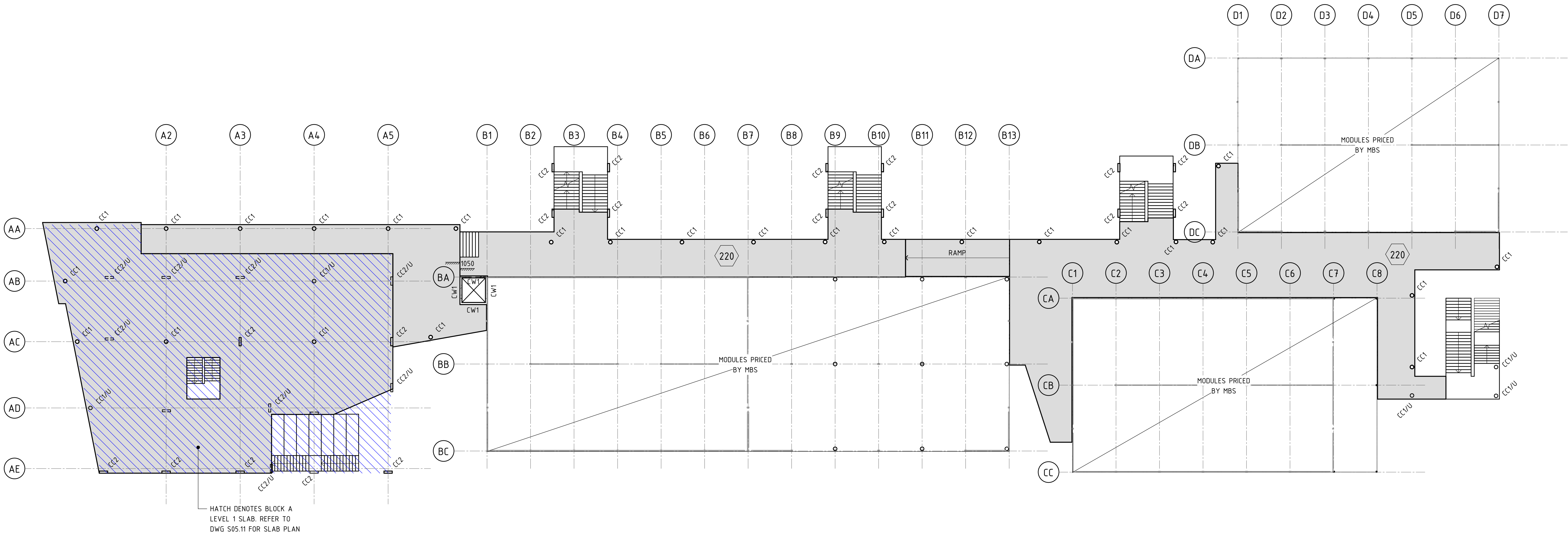


DENOTES LOAD BEARING CONCRETE WALL OVER AND UNDER

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m³ REINFORCEMENT RATE

OVERALL LEVEL 1 SLAB PLAN



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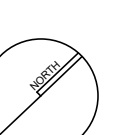
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DRAWING NAME
LEVEL 1 SLAB PLAN - OVERALL

PROJECT NORTH


0 2000 4000 6000 8000 10000 20000
SCALE 1:200 @ A1

DRAWN	CHECKED	VERIFIED	DATE
MH	JL		09.08.19

DRAWING NUMBER	PROJECT CODE	SCH. REF.	DISC.	TYPE	SERIES#	REVISION
NHQC2 - CF - ST - DWG - 00_S05.00						A

Project Status

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VERIFIER: JL
JOB MANAGER: JL
DESIGNED: PE
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GENERAL NOTES:

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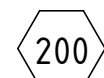
ALL SLABS TO BE 220mm THICK U.N.O

WALL CONCRETE STRENGTH TO BE 32MPa, UNLESS NOTED OTHERWISE.

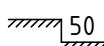
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LEGEND



DENOTES CONCRETE THICKNESS



DENOTES SLAB STEP



DENOTES PENETRATION/VOID IN SLAB,
PROVIDE TRIMMER BARS



DENOTES REINFORCED CONCRETE COLUMN OVER AND UNDER

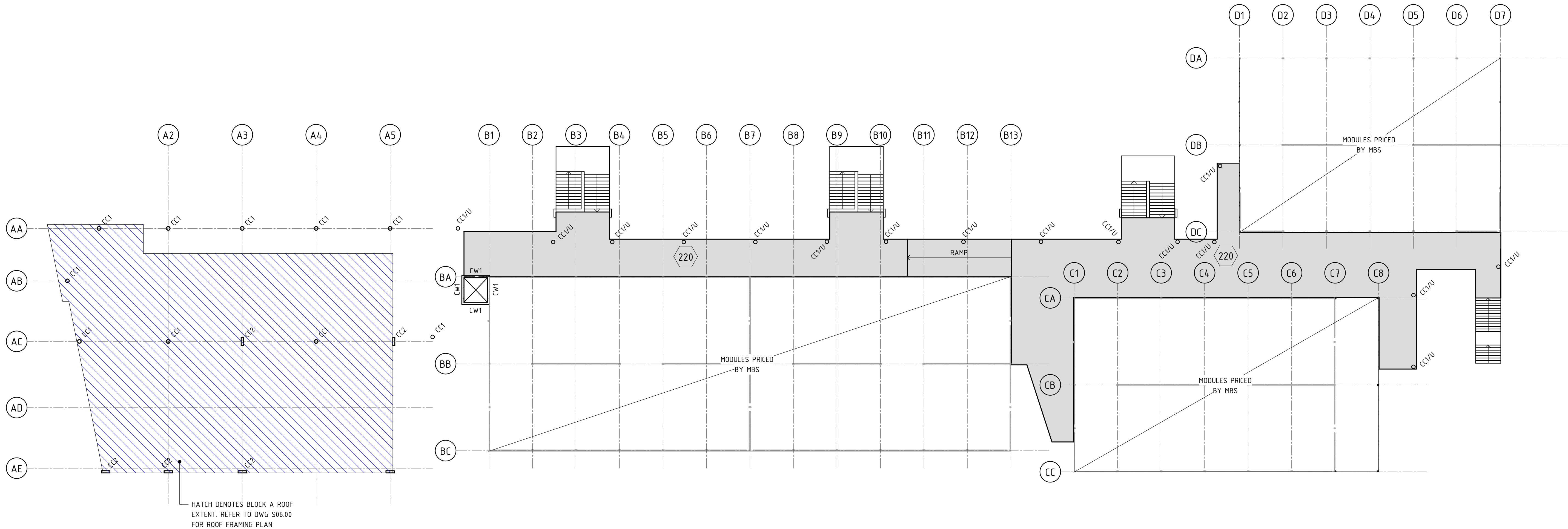


DENOTES STEEL COLUMN OVER AND UNDER



DENOTES LOAD BEARING CONCRETE WALL OVER AND UNDER

OVERALL LEVEL 2 SLAB PLAN



STEEL MEMBER SCHEDULE		
MARK	SIZE	COMMENT(S)

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m ³ REINFORCEMENT RATE

AMMENDMENTS				
REV	BY	DATE	50% ISSUE	DESCRIPTION
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DRAWING NAME
LEVEL 2 SLAB PLAN -
OVERALL

PROJECT NORTH				
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DRAWN	CHECKED	VERIFIED	DATE	
MH	JL		09.08.19	
DRAWING NUMBER				REVISION
PROJECT CODE	SCH. REF.	DISC.	TYPE	SERIES#
NHQ2 - CF - ST - DWG - 00_S06.00				A

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VERIFIER:

JOB MANAGER: JL

DESIGNED: PE

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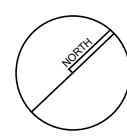
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DRAWING NAME
ROOF FRAMING PLAN - OVERALL

PROJECT NORTH



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SCALE 1: 200 @ A1

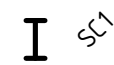
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MH	JL		09.08.19

DRAWING NUMBER	REVISION
PROJECT CODE SCH. REF. DISC. TYPE SERIES# NHQC2 - CF - ST - DWG - 00_S07.00	A

GENERAL NOTES:

FOR STRUCTURAL SPECIFICATIONS REFER TO DRAWINGS S01.01, S01.02 AND S01.03.

LEGEND



CW1

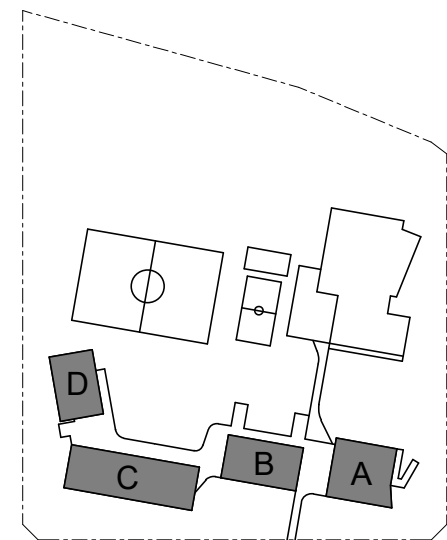
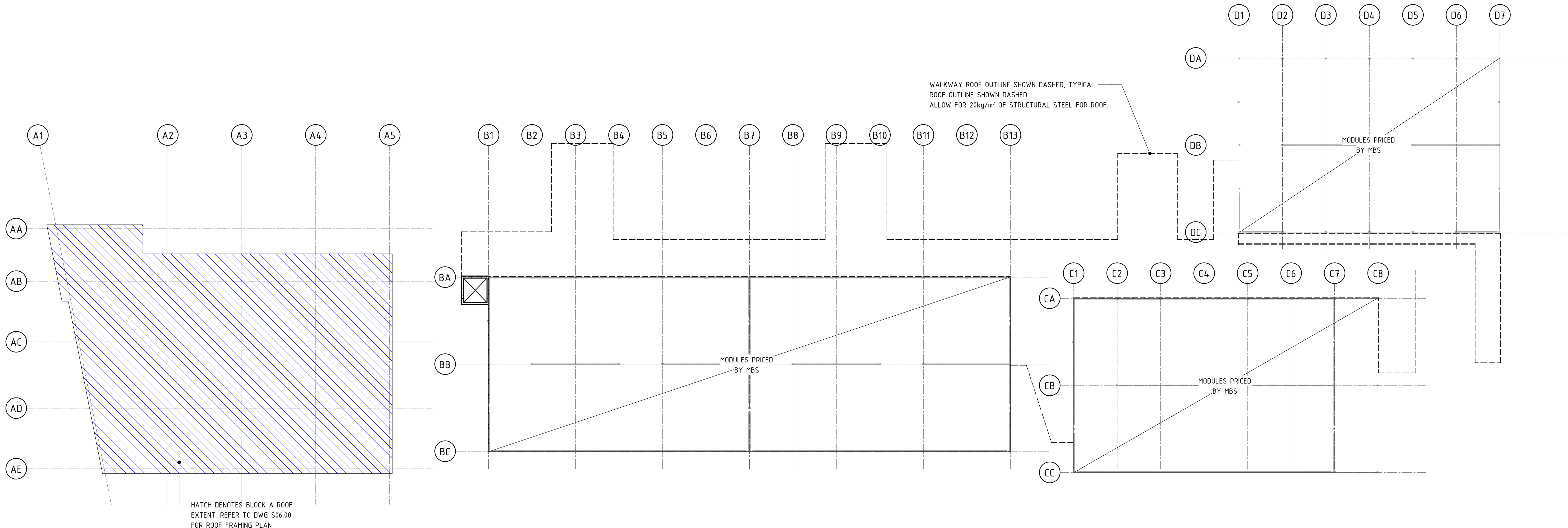
DENOTES STEEL COLUMN OVER AND UNDER

DENOTES LOAD BEARING CONCRETE WALL OVER AND UNDER

OVERALL ROOF FRAMING PLAN

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m ³ REINFORCEMENT RATE



Project Status

9/08/2019 7:38:31 PM

VERIFIER:
JOB MANAGER: JL
DESIGNED: PE
DRAWN:

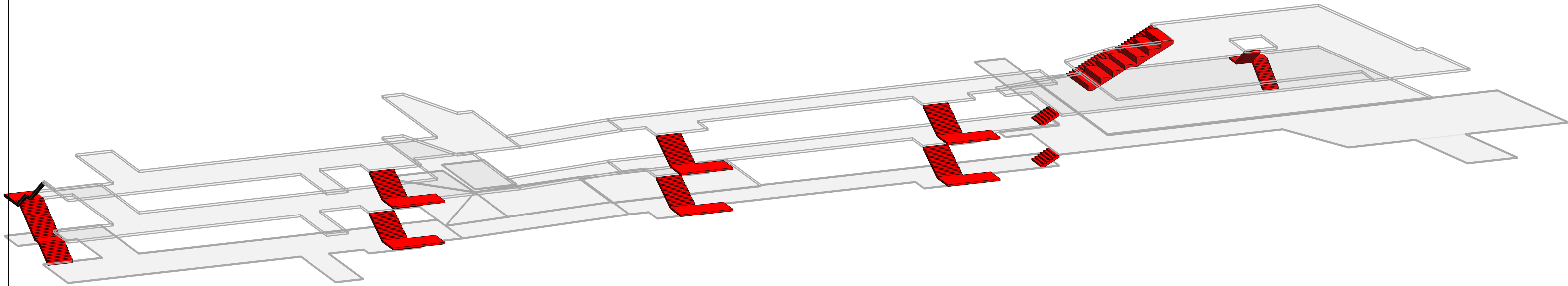
GENERAL NOTES:

FOR STRUCTURAL SPECIFICATIONS REFER TO DRAWINGS S01.01, S01.02 AND S01.03.

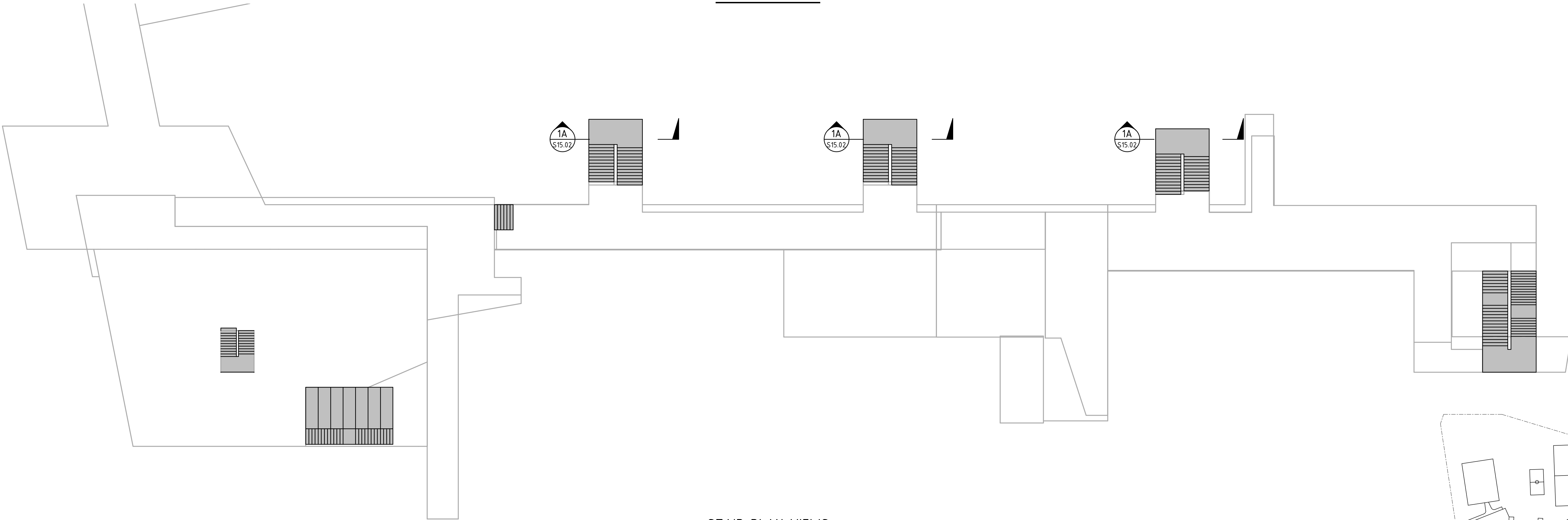
CONCRETE STRENGTH TO BE $f'c = 40MPa$.

REFER TO DW S15.02 FOR STAIR DETAILS

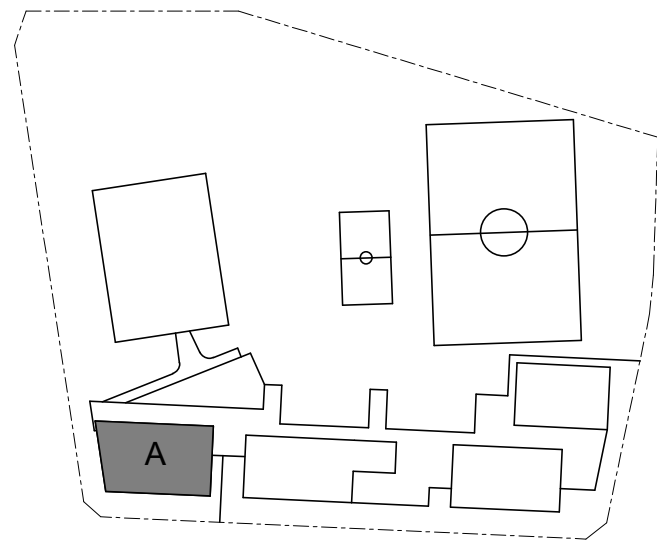
STAIR REINFORCEMENT SCHEDULE						
STAIR	THROAT	THROAT REINFORCEMENT		LANDING THICKNESS	LANDING REINFORCEMENT	
		PRIMARY	SECONDARY		PRIMARY	SECONDARY
TYPICAL STAIRS	180	N12-200	N12-200	180	N12-200	N12-200



STAIRS 3D VIEW



STAIR PLAN VIEWS



AMMENDMENTS					DESCRIPTION
REV	BY	DATE	ISSUE		
A	JL	09.08.19	50% ISSUE		

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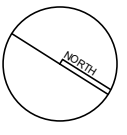
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ARCHITECTS

CATHERINE FIELD PS
NEW HIGH QUALITY CLASSROOMS
DRAWING NAME
TYPICAL STAIR PLANS AND
DETAILS - SHEET 1

PROJECT NORTH


0 2000 4000 6000 8000 10000 20000
SCALE As Indicated @ A1

DRAWN	CHECKED	VERIFIED	DATE
MH	JL		09.08.19

DRAWING NUMBER
PROJECT CODE SCH. REF. DISC. TYPE SERIES# REVISION

NHQ2 - CF - ST - DWG - 00_S15.01
A

9/08/2019 7:38:18 PM

DESIGNED: PE
DRAWN:
JOB MANAGER: JL
VERIFIER:

AMMENDMENTS				
REV	BY	DATE	DESCRIPTION	
A	JL	09.08.19	50% ISSUE	

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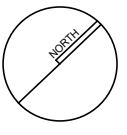
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ARCHITECTS

CATHERINE FIELD PS
NEW HIGH QUALITY CLASSROOMS
DRAWING NAME
FOUNDATION PLAN - BLOCK A

PROJECT NORTH

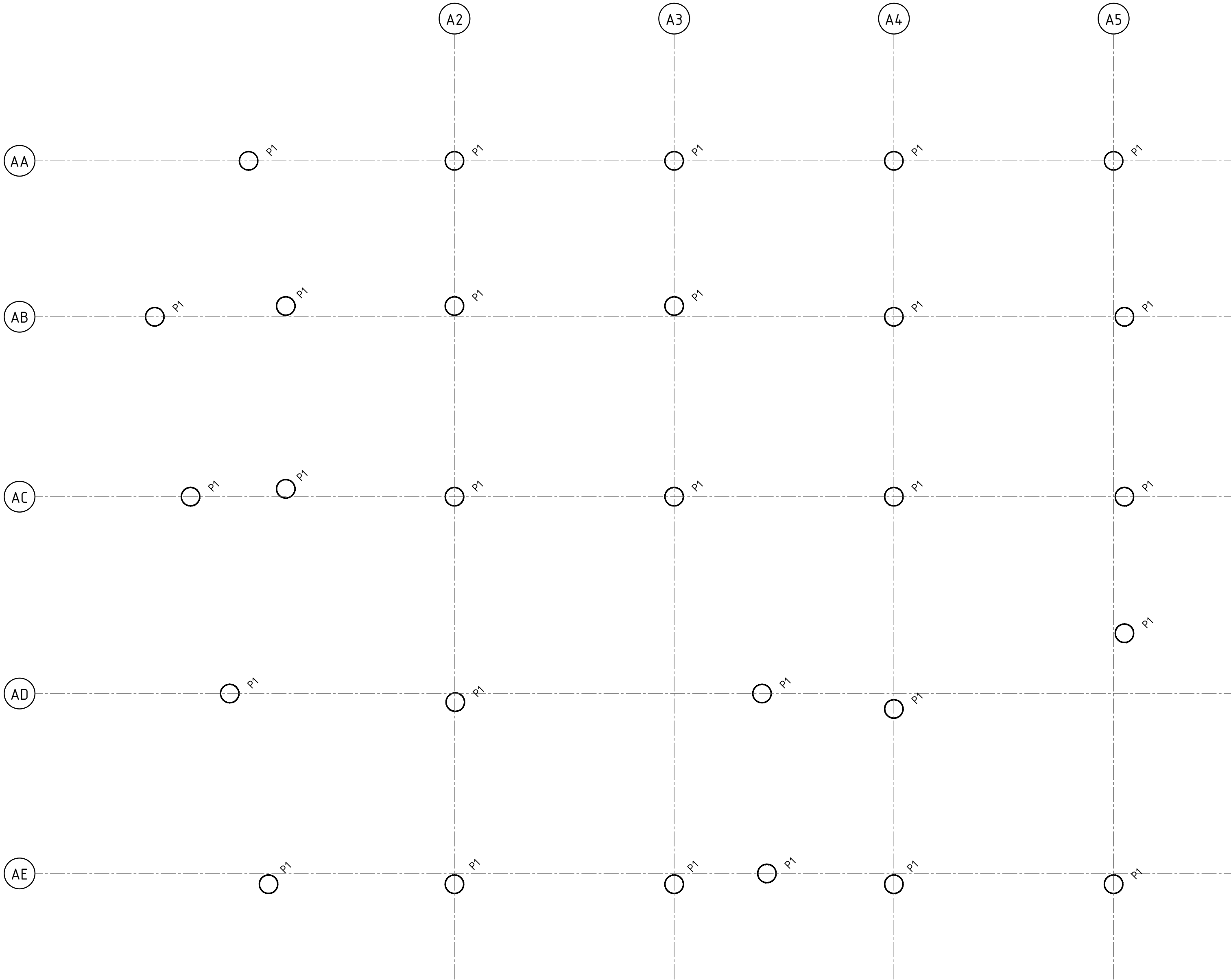


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SCALE 1: 100 @ A1

DRAWN	CHECKED	VERIFIED	DATE
MH	JL		09.08.19

DRAWING NUMBER
NHQC2 - CF - ST - DWG-01_S03.11

REVISION
A



FOUNDATION PLAN - BLOCK A

GENERAL NOTES:

FOR STRUCTURAL SPECIFICATIONS REFER TO DRAWINGS S01.01, S01.02 AND S01.03.

HIGH LEVEL PAD FOOTINGS DESIGNED BASED ON ALLOWABLE BEARING PRESSURE OF 200kPa. BORED CONCRETE PILES BASED ON ALLOWABLE BEARING PRESSURE OF 1200kPa.

FOR FOUNDATION DETAILS REFER DRAWINGS S09.01 AND S09.02.

LEGEND:

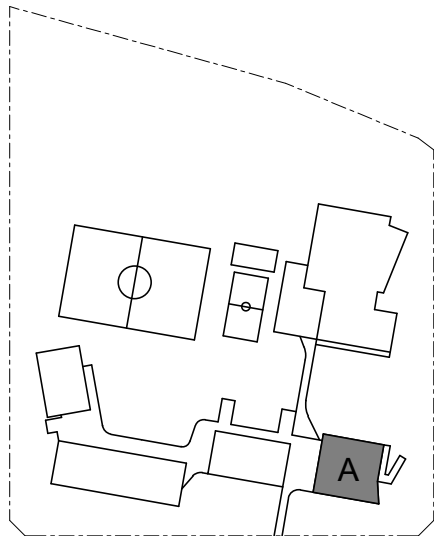
-  200
- Denotes concrete thickness
-  CC10
- Denotes reinforced concrete column over
-  I SC10
- Denotes steel column over

FOUNDATION SCHEDULE		
MARK	SIZE	COMMENT(S)
PAD		
PF1	400 DEEP x 1500 x 1500	6N16 EACH WAY BTM

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m³ REINFORCEMENT RATE

CONCRETE PILE LOAD SCHEDULE				
MARK	SIZE	LOAD G (kN)	LOAD Q (kN)	COMMENT(S)
P1	600 DIA	450	260	SOCKETED 1500 INTO 2000 kPa CLAYSTONE



Project Status

9/08/2019 7:38:21 PM

DRAWN: DESIGNED: PE JOB MANAGER: JL VERIFIER:

AMMENDMENTS				
REV	BY	DATE	DESCRIPTION	
A	JL	09.08.19	50% ISSUE	

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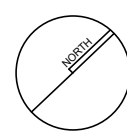
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ARCHITECTS

CATHERINE FIELD PS
NEW HIGH QUALITY CLASSROOMS
DRAWING NAME
GROUND SLAB PLAN - BLOCK A

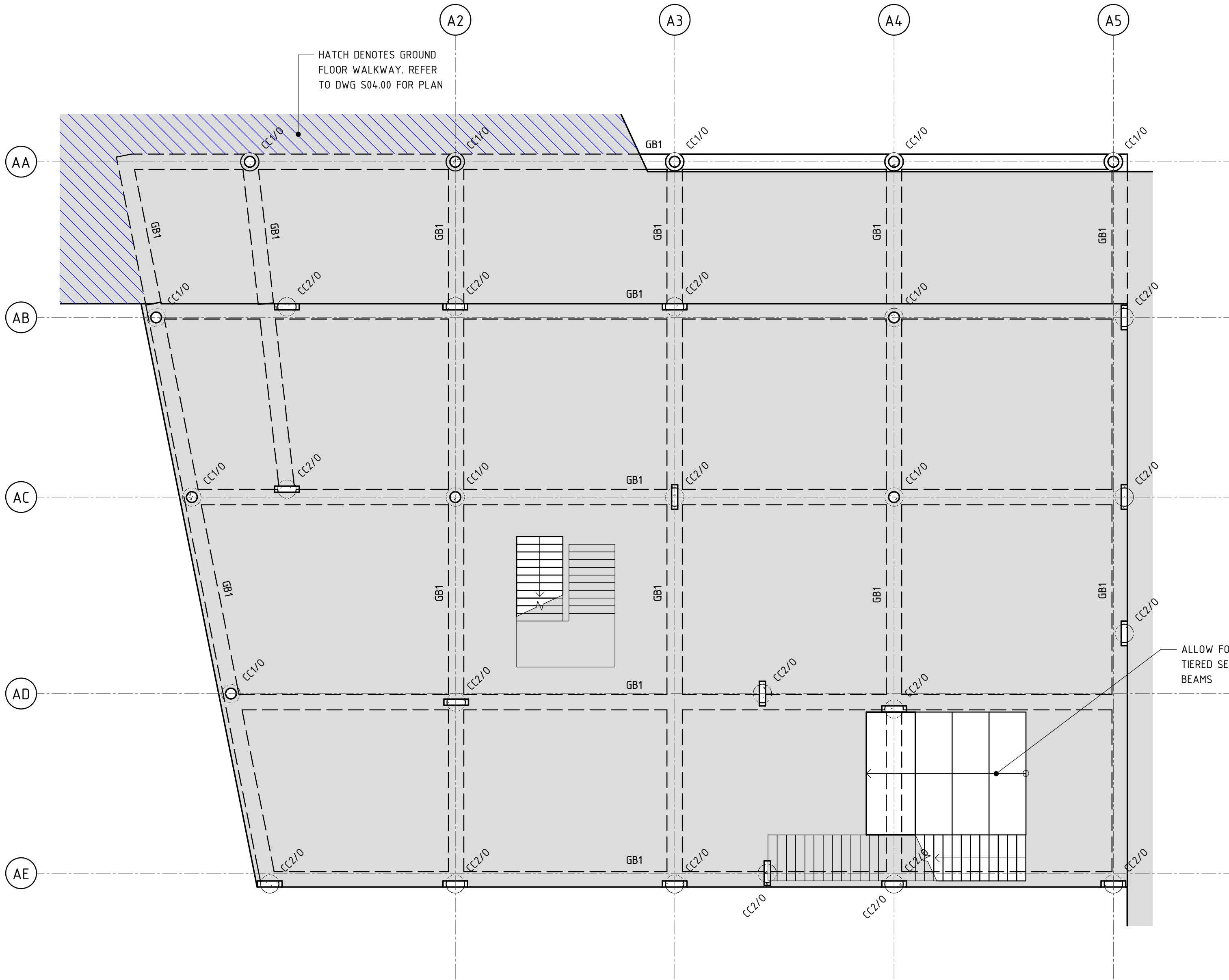
PROJECT NORTH



0 1000 2000 3000 4000 5000 10000
SCALE 1: 100 @ A1

DRAWN	CHECKED	VERIFIED	DATE
MH	JL		09.08.19

DRAWING NUMBER	PROJECT CODE	SCH. REF.	DISC.	TYPE	SERIES#	REVISION
NHQC2 - CF - ST - DWG -01_S04.11						A



BLOCK A GROUND FLOOR SLAB PLAN

GENERAL NOTES:

FOR STRUCTURAL SPECIFICATIONS REFER TO DRAWINGS S01.01, S01.02 AND S01.03.

SLAB TO BE 100 THICK RAFT SLAB WITH RIBS AS SHOWN ON PLAN. SLAB TO BE POURED ON 0.2mm POLYTHENE SHEETING OVER 50mm VOID FORMER (AND 50mm DRAINAGE LAYER)

CONCRETE SLAB STRENGTH TO BE $f'c = 25MPa$.

2-N12 x 1500 LONG TRIMMER BARS IN TOP AT ALL RE-ENTRANT CORNERS (TYPICAL)

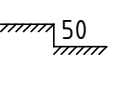
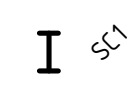
PROVIDE SUBSOIL DRAINAGE UNDER SLAB AND AT BASE OF SHORING WALL AS PER HYDRAULIC ENGINEER'S DETAIL.

WALL CONCRETE STRENGTH TO BE 32MPa, UNLESS NOTED OTHERWISE.

ALL FALLS AND STEPS TO ARCHITECT'S DETAILS.

NON-STRUCTURAL HOBBS & KERBS ARE NOT SHOWN, REFER TO ARCHITECT'S DRAWINGS FOR EXTENT & LOCATION.

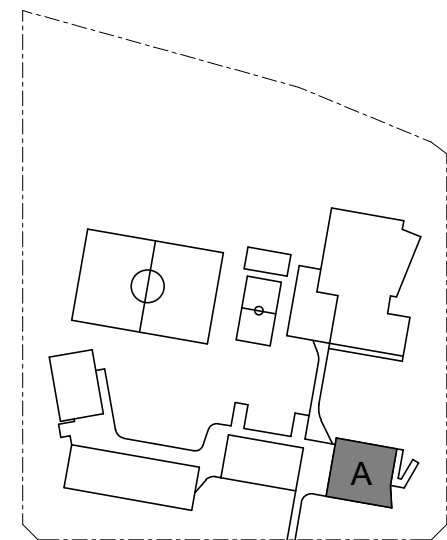
LEGEND

	DENOTES CONCRETE THICKNESS
	DENOTES SLAB STEP
	DENOTES REINFORCED CONCRETE COLUMN OVER AND UNDER
	DENOTES STEEL COLUMN OVER AND UNDER
	DENOTES PRECAST WALL OVER AND UNDER

FOUNDATION SCHEDULE		
MARK	SIZE	COMMENT(S)
PAD		
PF1	400 DEEP x 1500 x 1500	6N16 EACH WAY BTM

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m ³ REINFORCEMENT RATE



Project Status

9/08/2019 7:38:25 PM

VERIFIER: JL
JOB MANAGER: JL
DESIGNED: PE
DRAWN:

AMMENDMENTS				
REV	BY	DATE	DESCRIPTION	
A	JL	09.08.19	50% ISSUE	

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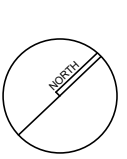
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Nominated Architect
Vince Pedavoli NSW reg No 5045
LANDSCAPING
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(02) 9587 8855

PERUMAL PEDAVOLI
ARCHITECTS

CATHERINE FIELD PS
NEW HIGH QUALITY CLASSROOMS
DRAWING NAME
LEVEL 1 SLAB PLAN - BLOCK A

PROJECT NORTH



0 1000 2000 3000 4000 5000 10000
SCALE 1: 100 @ A1

DRAWN	CHECKED	VERIFIED	DATE
MH	JL		09.08.19

DRAWING NUMBER	PROJECT CODE	SCH. REF.	DISC.	TYPE	SERIES#	REVISION
NHQC2 - CF - ST - DWG - 01_S05.11						A

GENERAL NOTES:

FOR STRUCTURAL SPECIFICATIONS REFER TO DRAWINGS S01.01, S01.02 AND S01.03.

ALL SLABS TO BE 230mm THICK RC. REINFORCEMENT RATE 120kg/m³

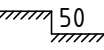
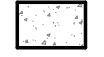
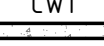
WALL CONCRETE STRENGTH TO BE 40MPa, UNLESS NOTED OTHERWISE.

ALL FALLS TO ARCHITECT'S DETAILS.

NON-STRUCTURAL HOBBS AND KERBS ARE NOT SHOWN, REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATION.

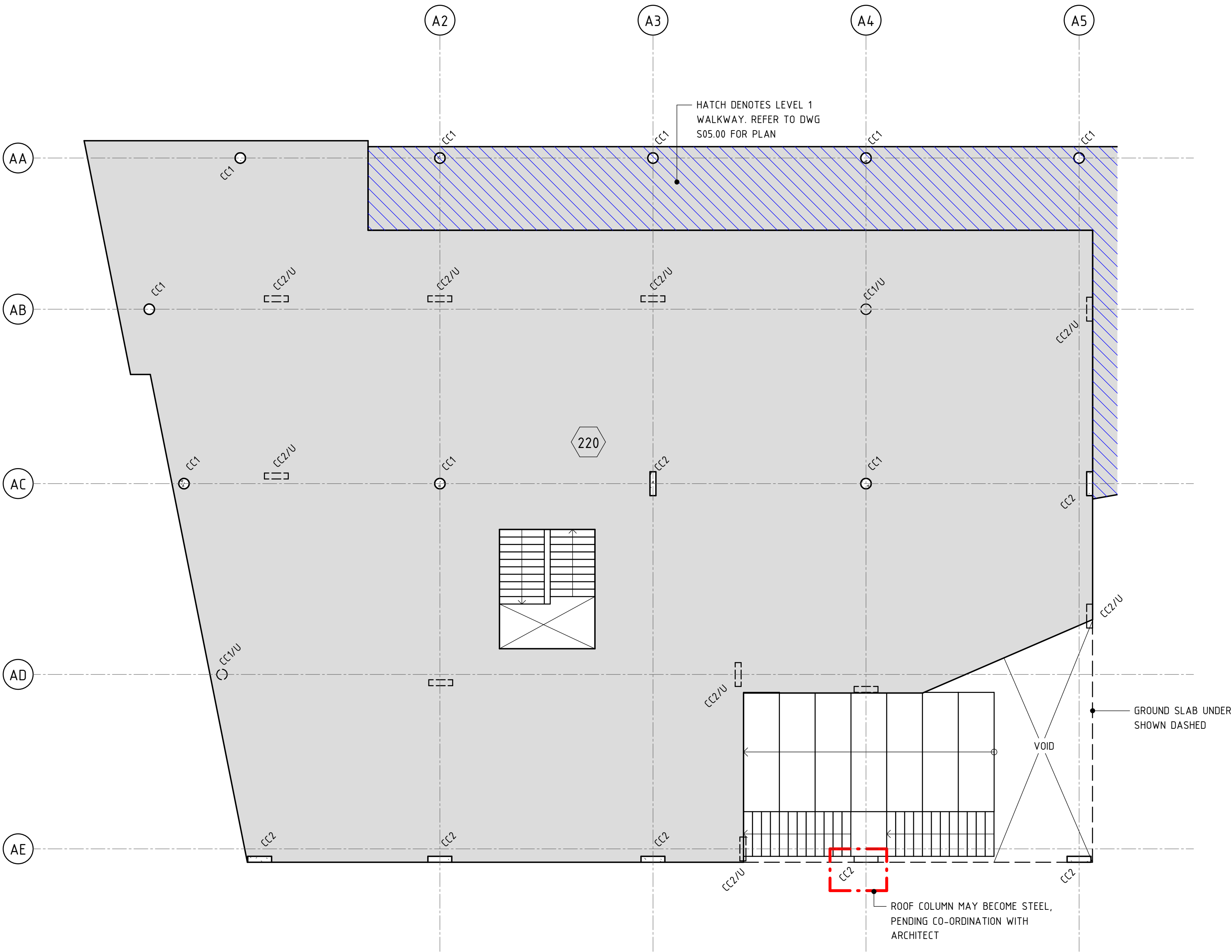
REFER TO DRAWING SERIES S15## FOR STAIR PLANS AND DETAILS

LEGEND

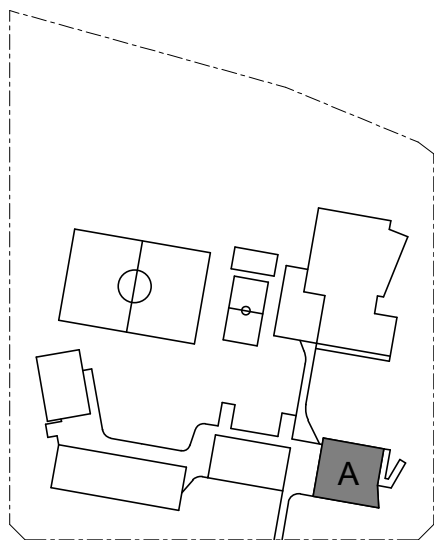
-  DENOTES CONCRETE THICKNESS
-  DENOTES SLAB STEP
-  DENOTES PENETRATION/VOID IN SLAB, PROVIDE TRIMMER BARS
-  DENOTES REINFORCED CONCRETE COLUMN OVER AND UNDER
-  DENOTES STEEL COLUMN OVER AND UNDER
-  DENOTES LOAD BEARING CONCRETE WALL OVER AND UNDER

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m ³ REINFORCEMENT RATE

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES



BLOCK A LEVEL 1 SLAB PLAN



Project Status

9/08/2019 7:38:29 PM

VERIFIER: JOB MANAGER: JL DESIGNED: PE DRAWN:

AMMENDMENTS				
REV	BY	DATE	DESCRIPTION	
A	JL	09.08.19	50% ISSUE	

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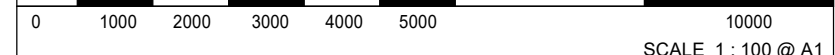
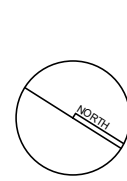
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ARCHITECTS

CATHERINE FIELD PS
NEW HIGH QUALITY CLASSROOMS
DRAWING NAME
ROOF FRAMING PLAN - BLOCK A

PROJECT NORTH



SCALE 1: 100 @ A1

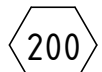
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MH	JL		09.08.19

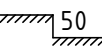
DRAWING NUMBER	PROJECT CODE	SCH. REF.	DISC.	TYPE	SERIES#	REVISION
NHQ2 - CF - ST - DWG-01_S07.11						A

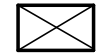
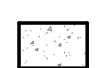
GENERAL NOTES:

- FOR STRUCTURAL SPECIFICATIONS REFER TO DRAWINGS S01.01, S01.02 AND S01.03.
- ALL SLABS TO BE 230mm THICK RC. REINFORCEMENT RATE 120kg/m³
- WALL CONCRETE STRENGTH TO BE 40MPa, UNLESS NOTED OTHERWISE.
- ALL FALLS TO ARCHITECT'S DETAILS.
- NON-STRUCTURAL HOBBS AND KERBS ARE NOT SHOWN, REFER TO ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATION.
- REFER TO DRAWING SERIES S15.## FOR STAIR PLANS AND DETAILS

LEGEND

- 

200
- DENOTES CONCRETE THICKNESS
- 

50
- DENOTES SLAB STEP
- 
- DENOTES PENETRATION/VOID IN SLAB, PROVIDE TRIMMER BARS
- 

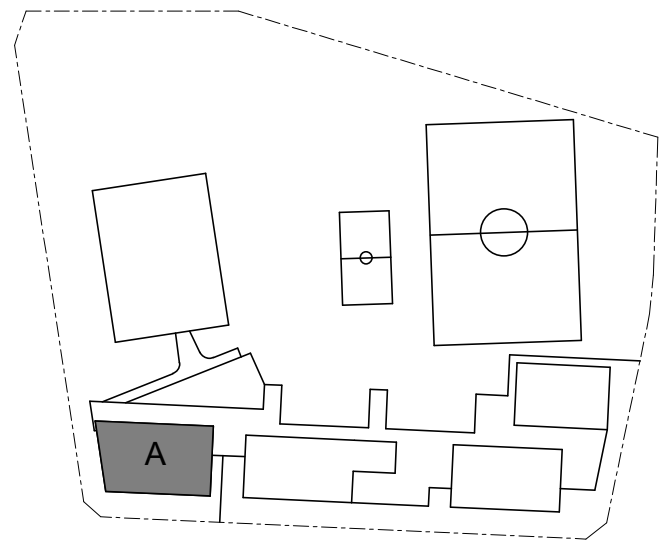
CC1
- DENOTES REINFORCED CONCRETE COLUMN OVER AND UNDER
- 

I S1
- DENOTES STEEL COLUMN OVER AND UNDER
- 

CW1
- DENOTES LOAD BEARING CONCRETE WALL OVER AND UNDER

WALL SCHEDULE		
MARK	THICKNESS	COMMENT(S)
BLOCK RETAINING WALL		
RW1	190	REFER RETAINING WALL DETAILS FOR SIZE AND FOOTINGS
CONCRETE		
CW1	200	150kg/m³ REINFORCEMENT RATE

CONCRETE COLUMN SCHEDULE		
MARK	SIZE	COMMENT(S)
CC1	350 DIA	5N16 VERTICAL, R10-200 TIES
CC2	200 x 800	8N16 VERTICAL, R10-200 TIES



Project Status