

BUILDING INFORMATION MODEL COMMON FILE

BARRACKS 101

NATIONAL INSTITUTE OF BUILDING SCIENCES
buildingSMART alliance

WASHINGTON, DC



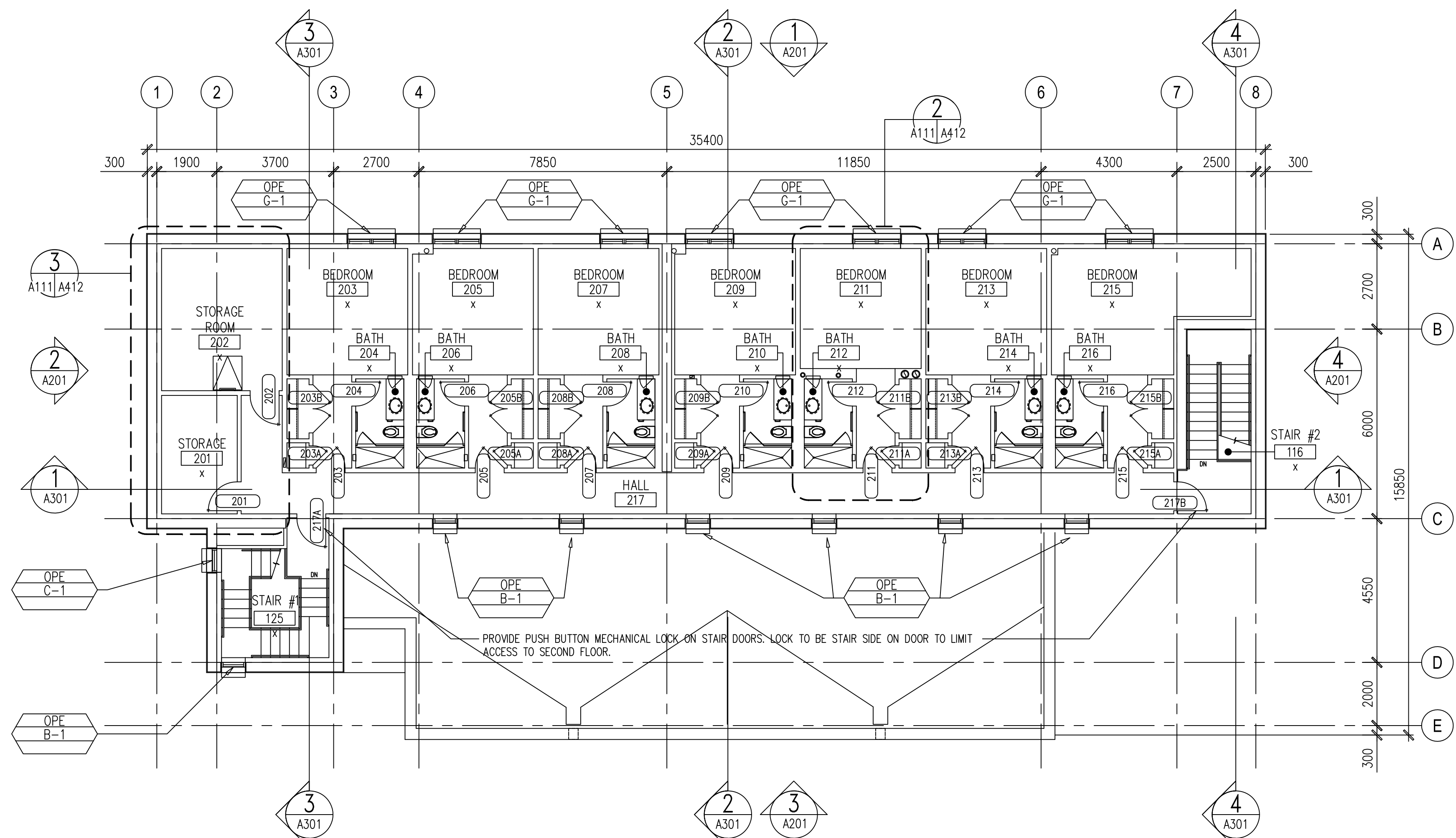
National Institute of Building Sciences
Building Smart Alliance
Washington, DC

Barracks 101
Building Information Model
Common File

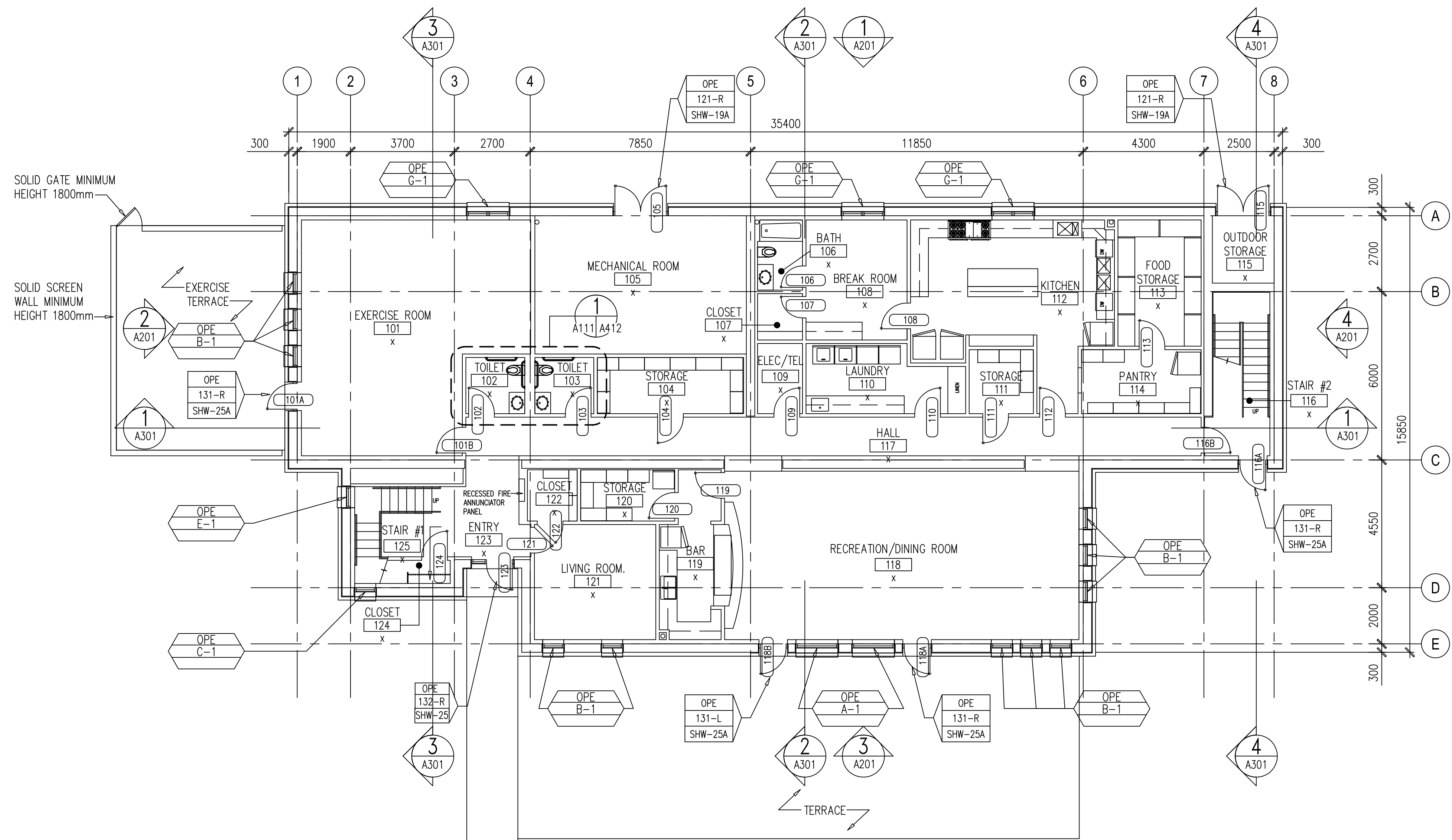
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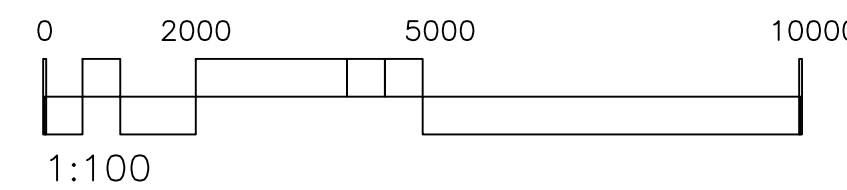
COVER SHEET
G001



1 LEVEL TWO FLOOR PLAN
1:100



2 LEVEL ONE FLOOR PLAN
1:100



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LEGEND

OPE DOOR IDENTIFICATION

OPE WINDOW IDENTIFICATION

* DOOR IS AVAILABLE IN BOTH LHRB AND RHRB

OPE DOOR NUMBER

SWH HARDWARE

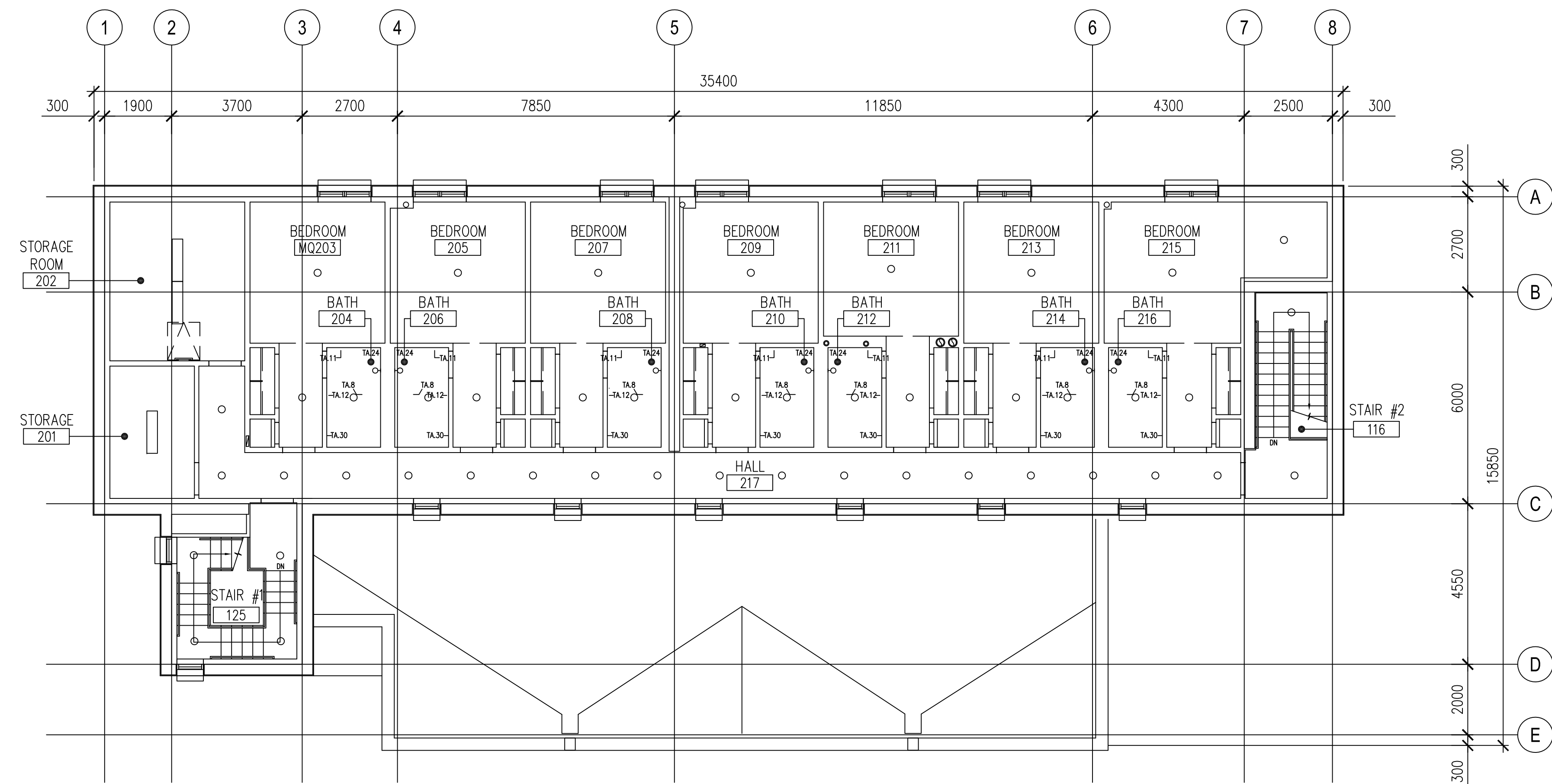
OPE WINDOW NUMBER

NOTE:
HEAVY DUTY METAL SHELVING IN ALL STORAGE ROOMS OFCL.

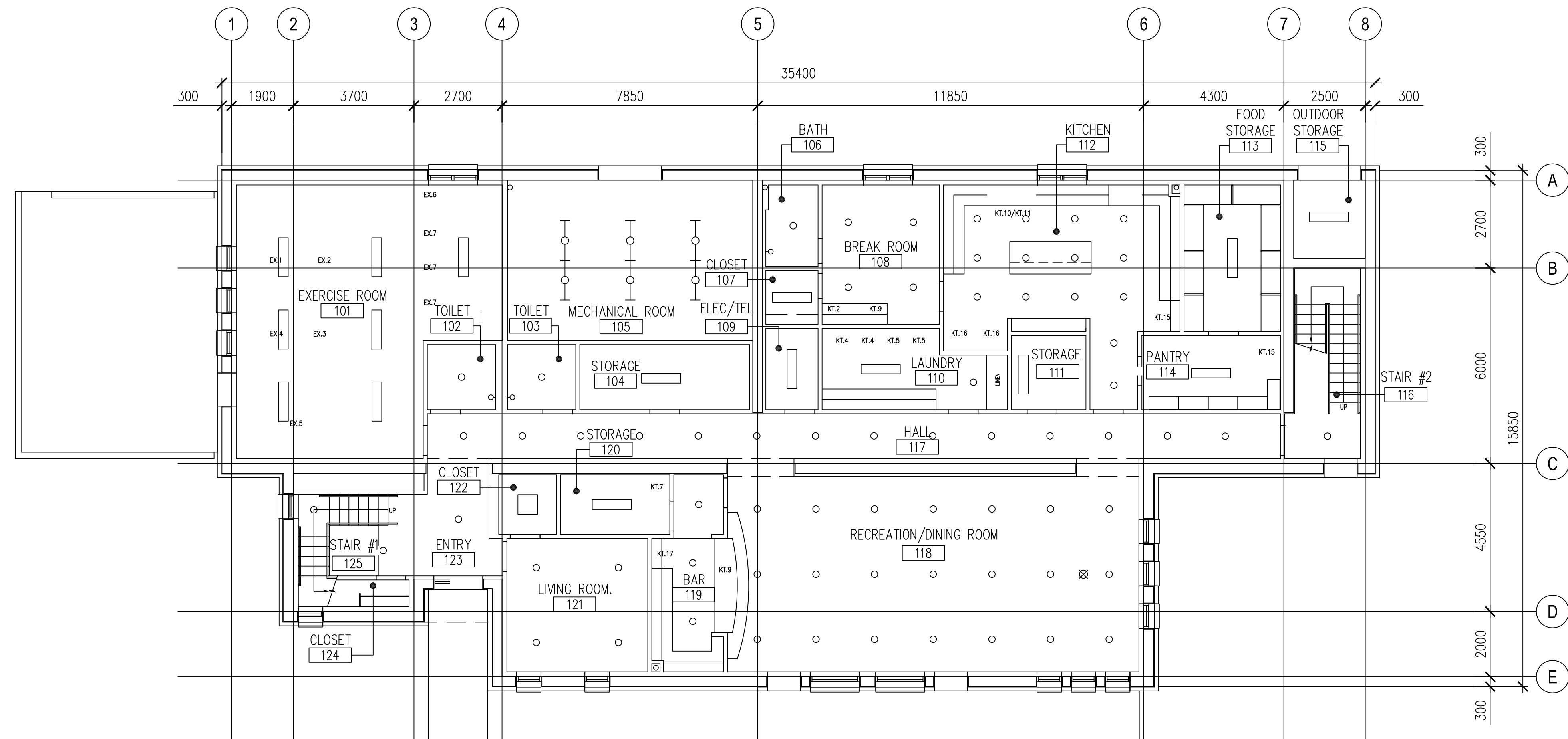
Rev. Number	Description	Date
Revisions		

Release For Construction:	
NIBS/bsa	NIBS/bsa
Drawing Title	
FLOOR PLANS	
GEO Project Number	Phase
CBMA111.DWG	NOTED
CADD File Name	Scale
CBMA111.DWG	1:1
Date	Sheet Number
NOV-2012	
Drawn By	Checked By
NIBS/bsa	NIBS/bsa
Project Number	
Classification	UNCLASSIFIED

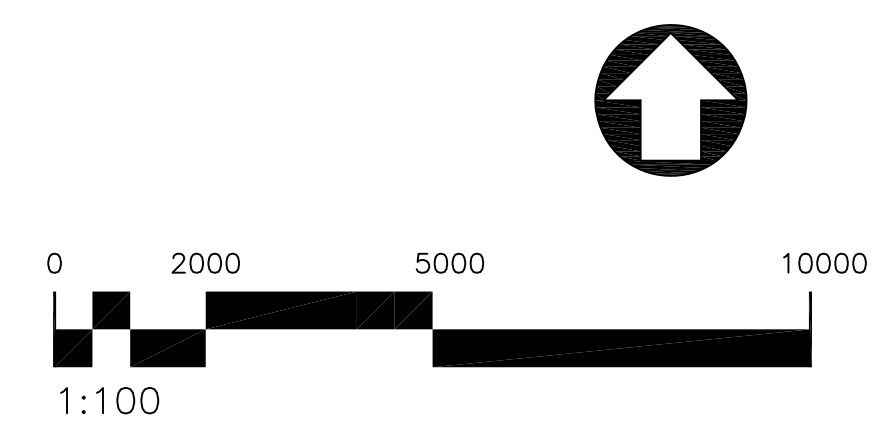
Barracks
A111



1 LEVEL TWO REFLECTED CEILING PLAN
A112 1:100



2 LEVEL ONE REFLECTED CEILING PLAN
A112 1:100



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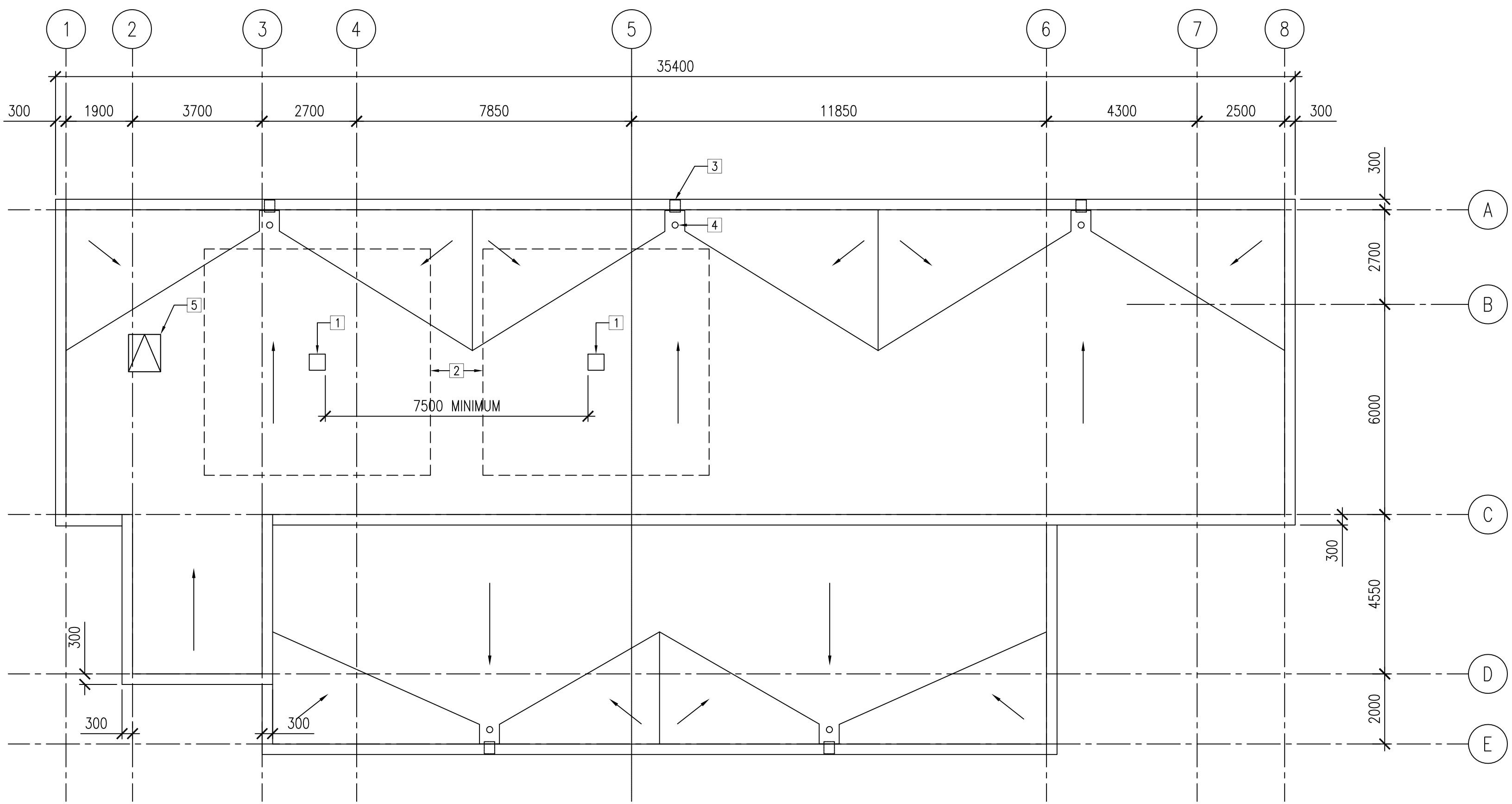
Barracks 101

Building Information Model Common File

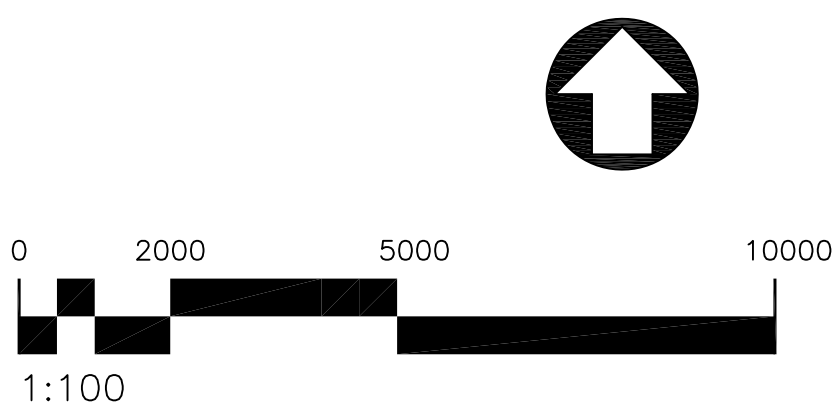
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Rev. Number	Description	Date
Revisions		

Release For Construction:	
NBS/Asa	NBS/Asa
Drawing Title	
REFLECTED CEILING PLANS	
GEO Project Number	Drawing Scale Phase
AS NOTED	DDP
CADD File Name	CADD Plot Scale
CBMA112.DWG	1:1
Date	Sheet Number
NOV-2012	Barracks
Drawn By	NBS
Checked By	NBS
Project Number	A112
Classification	UNCLASSIFIED



1 ROOF PLAN
A121 1:100



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SITE SPECIFIC DESIGN NOTES:

- SCUPPER AND ROOF DRAINS INDICATED SHALL BE CONSIDERED SITE SPECIFIC MINIMUMS.

KEYNOTES:

- VHF / UHF ANTENNA PADS MINIMUM 460mm X 460mm WITH GALVANIZED J-BOLTS (4 PER PAD) WITH MINIMUM 25.4mm CONDUIT RUNS TO EMERGENCY RESIDENTIAL RESPONSE ROOM.
- MINIMUM CLEAR ZONE FOR ANTENNA GUY LINE ANCHORS
- OVER FLOW SCUPPER TYP. SEE DETAIL 2/GEN A541
- ROOF DRAIN TYP. SEE DETAIL 4/GEN A541
- ROOF HATCH

Rev Number	Description	Date
Revisions		

Release For Construction:		
NBS/Ida	NBS/Ida	
Drawing Title		
ROOF PLAN		
DBO Project Number	Drawing Scale	Phase
AS NOTED	5000	5000
CADD File Name	CADD Plot Scale	1:1
CBMA121.DWG	1:1	
Date	NOV-2012	Sheet Number
Drawn By	NBS	Barracks
Checked By	NBS	A121
Project Number		
Classification	UNCLASSIFIED	

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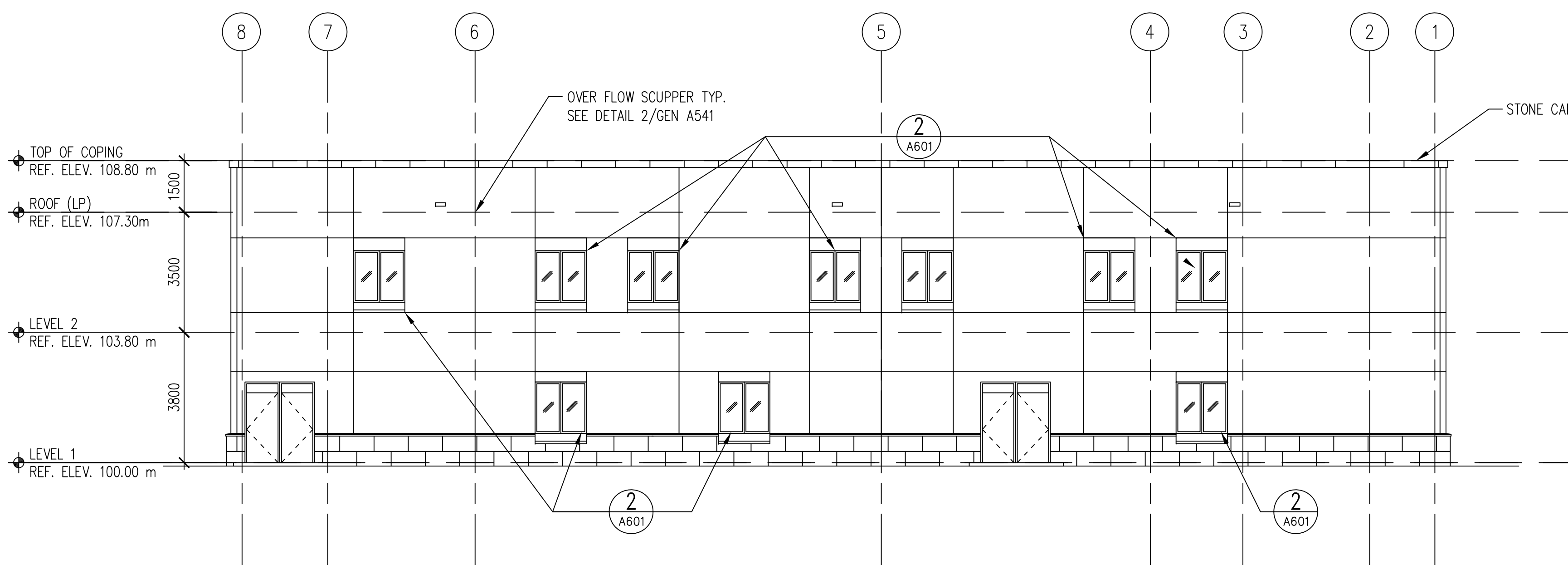
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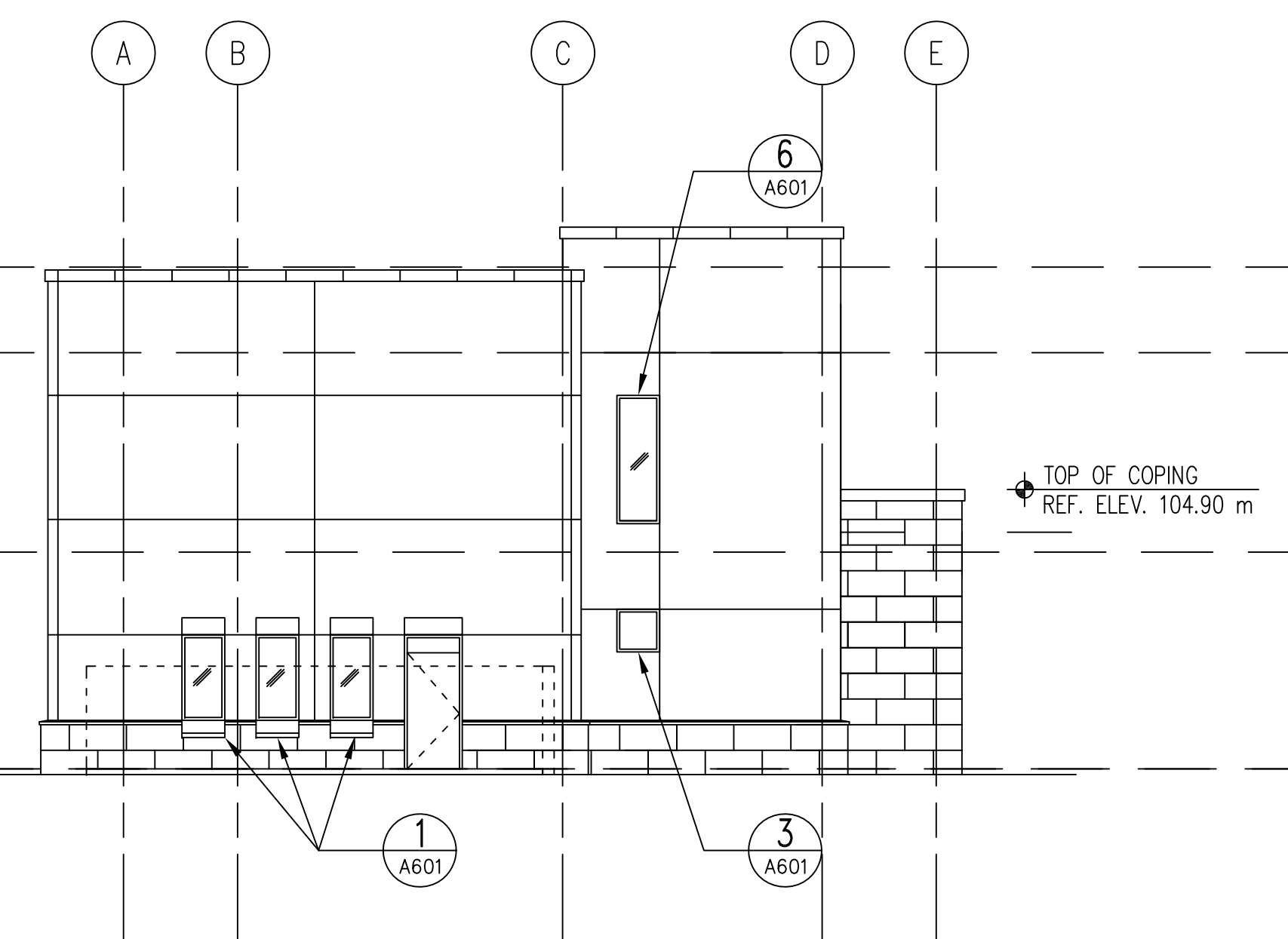
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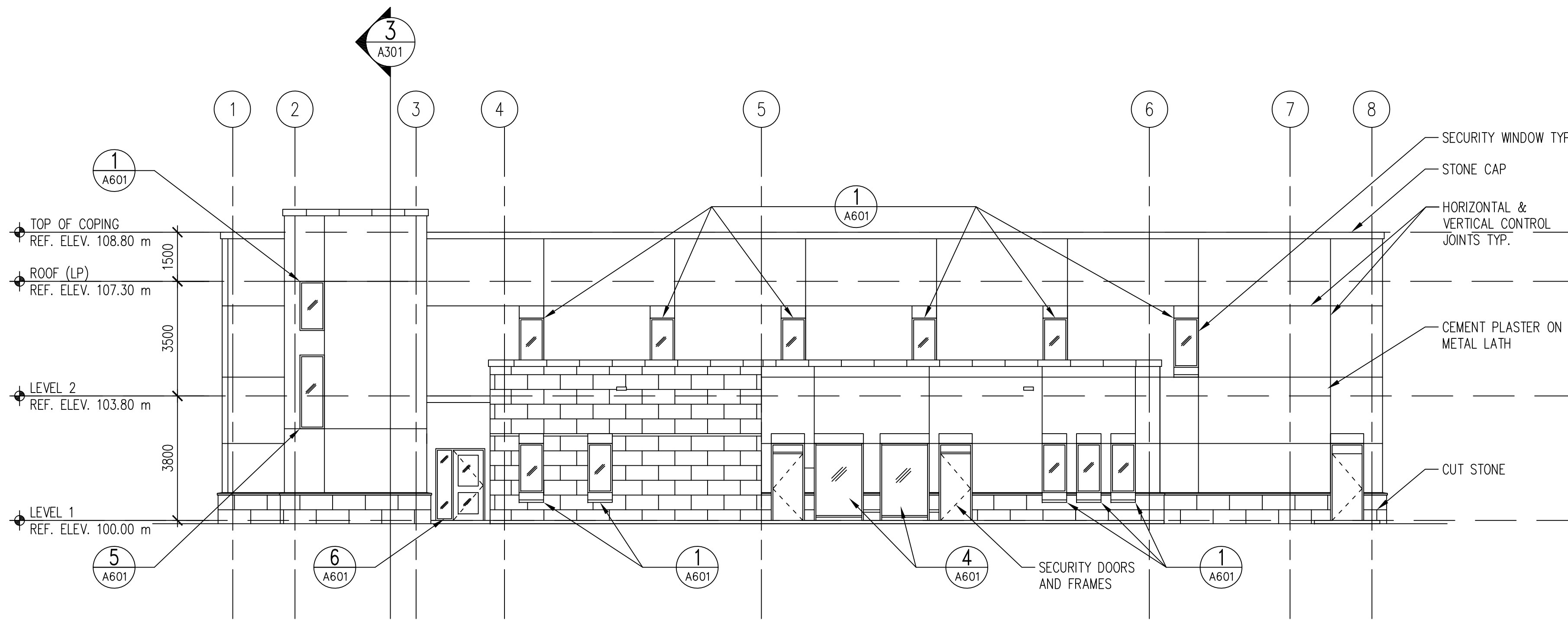
GENERAL NOTES:
1. PROVIDE SITE SPECIFIC DESIGN FOR WINDOW
SHADING DEVICES.



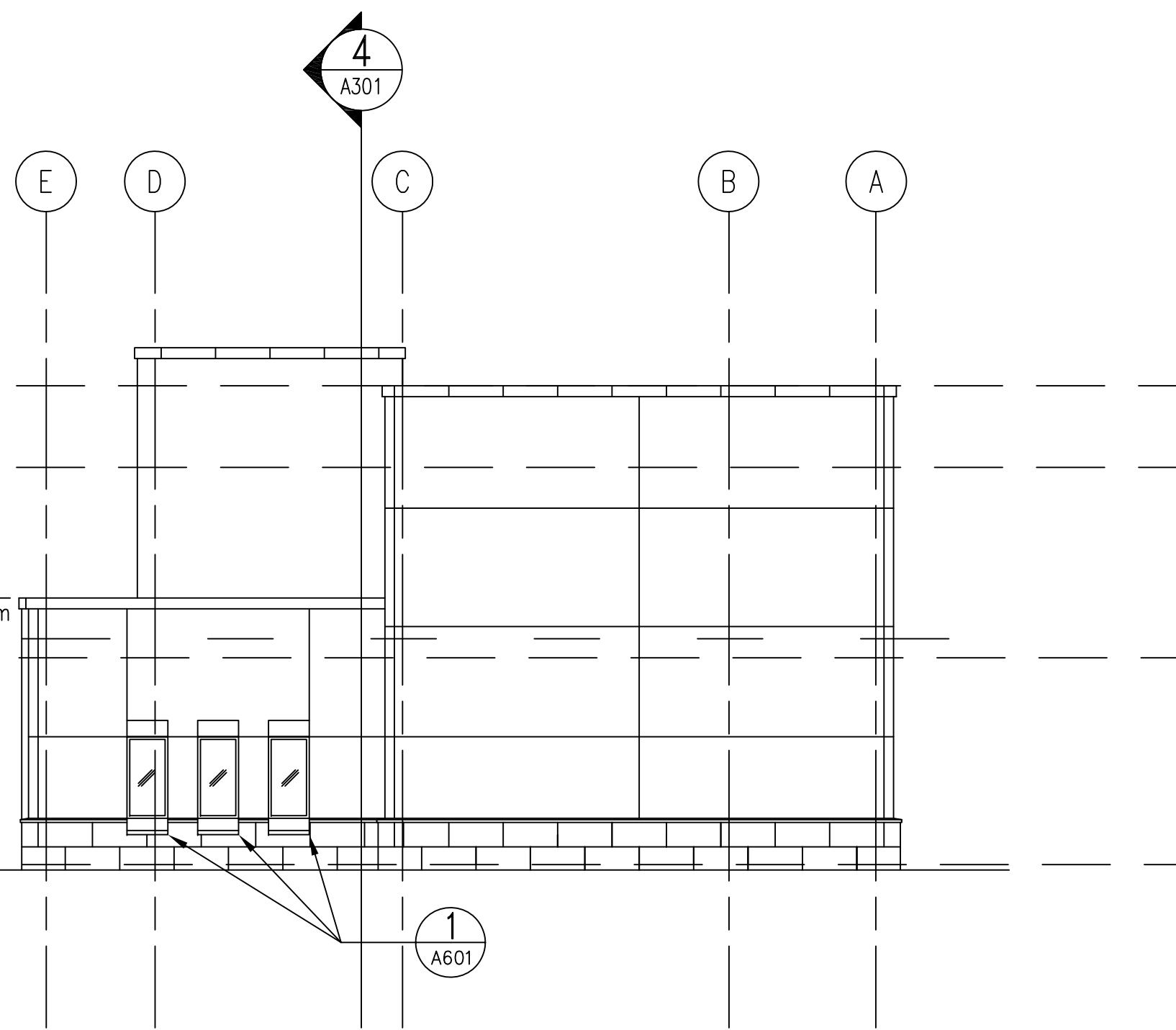
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A111|A201 1:100



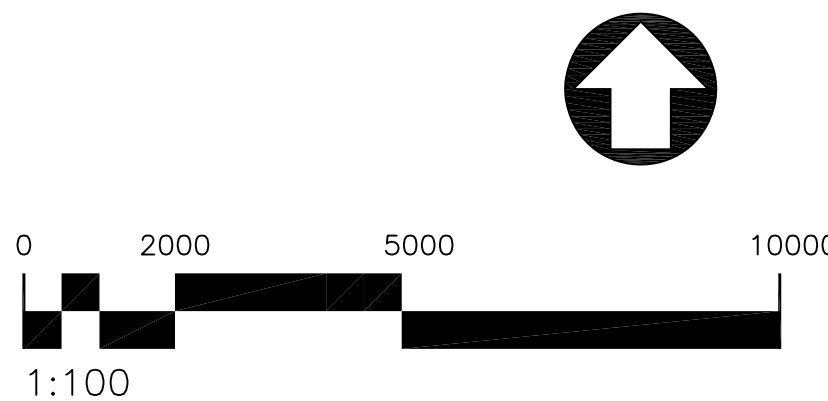
2 WEST ELEVATION
A111|A201 1:100



3 SOUTH ELEVATION
A111|A201 1:100



4 EAST ELEVATION
A111|A201 1:100



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DECIMAL ARE IN METERS UNO.

Rev Number Description Date

Revisions

Release For Construction:

NBS/NSA NBS/NSA

Drawing Title

BUILDING ELEVATIONS

DBO Project Number Drawing Scale Phase

AS NOTED 50% NOV-2012

CAO File Name CAO Proj Scale 1:1

CBMA201.DWG

Date

NOV-2012

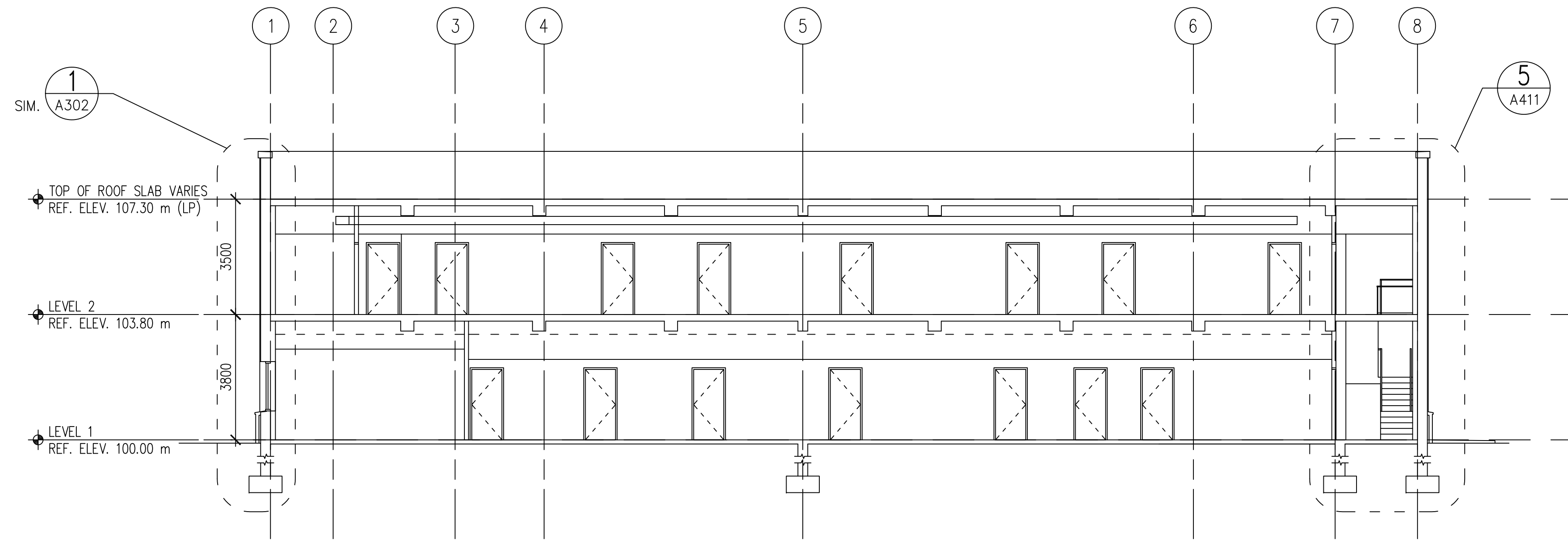
Sheet Number

Barracks

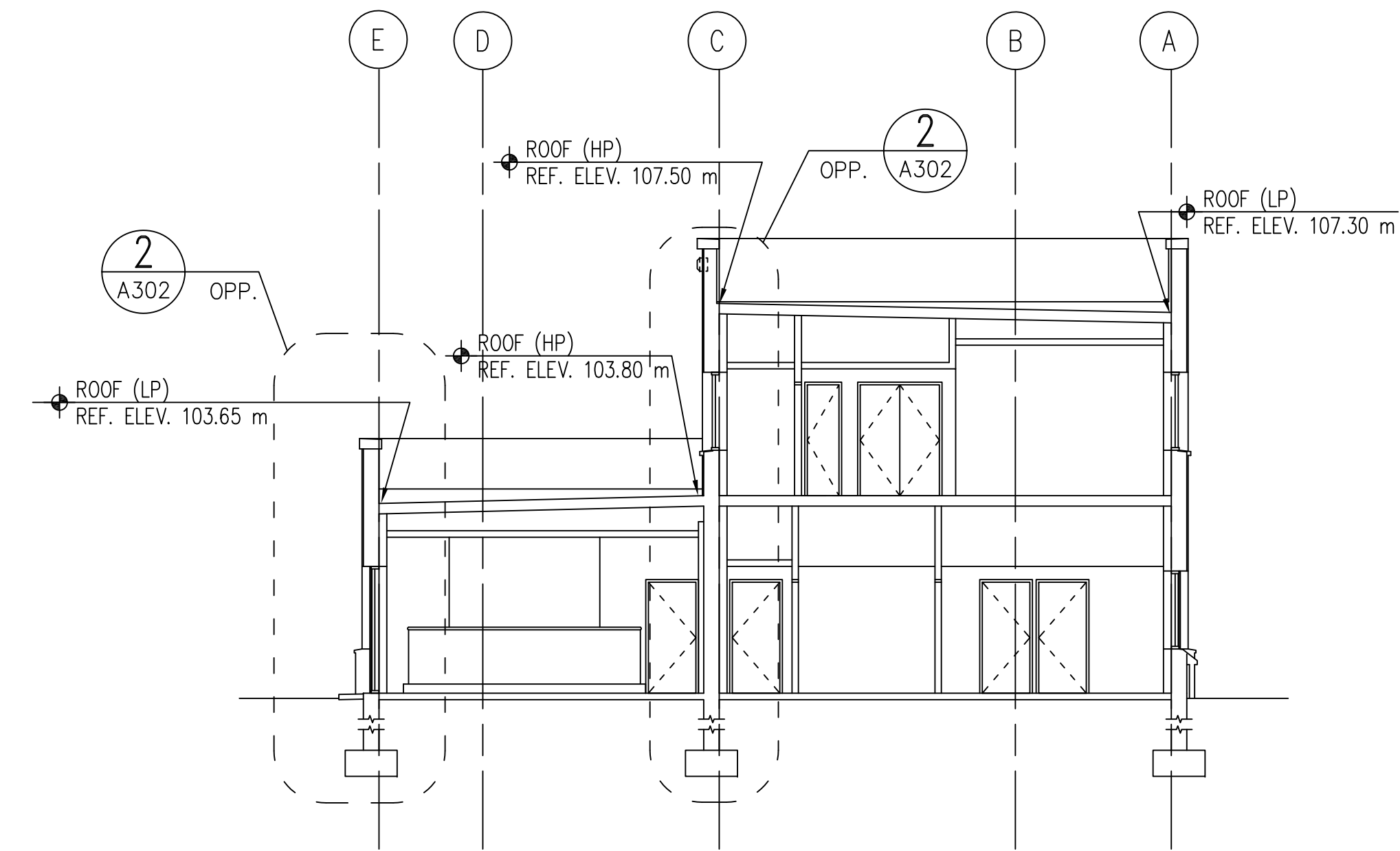
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Classification

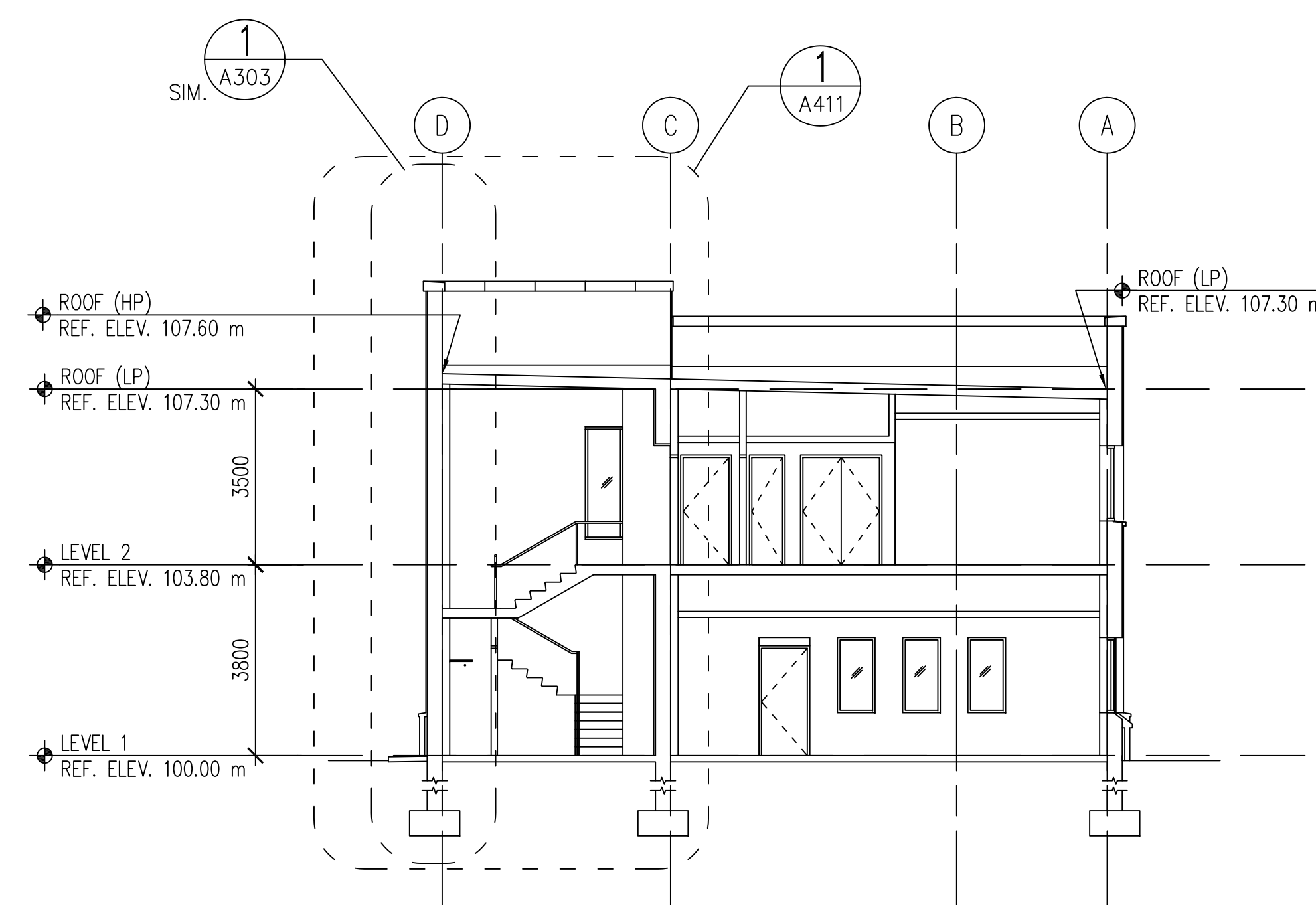
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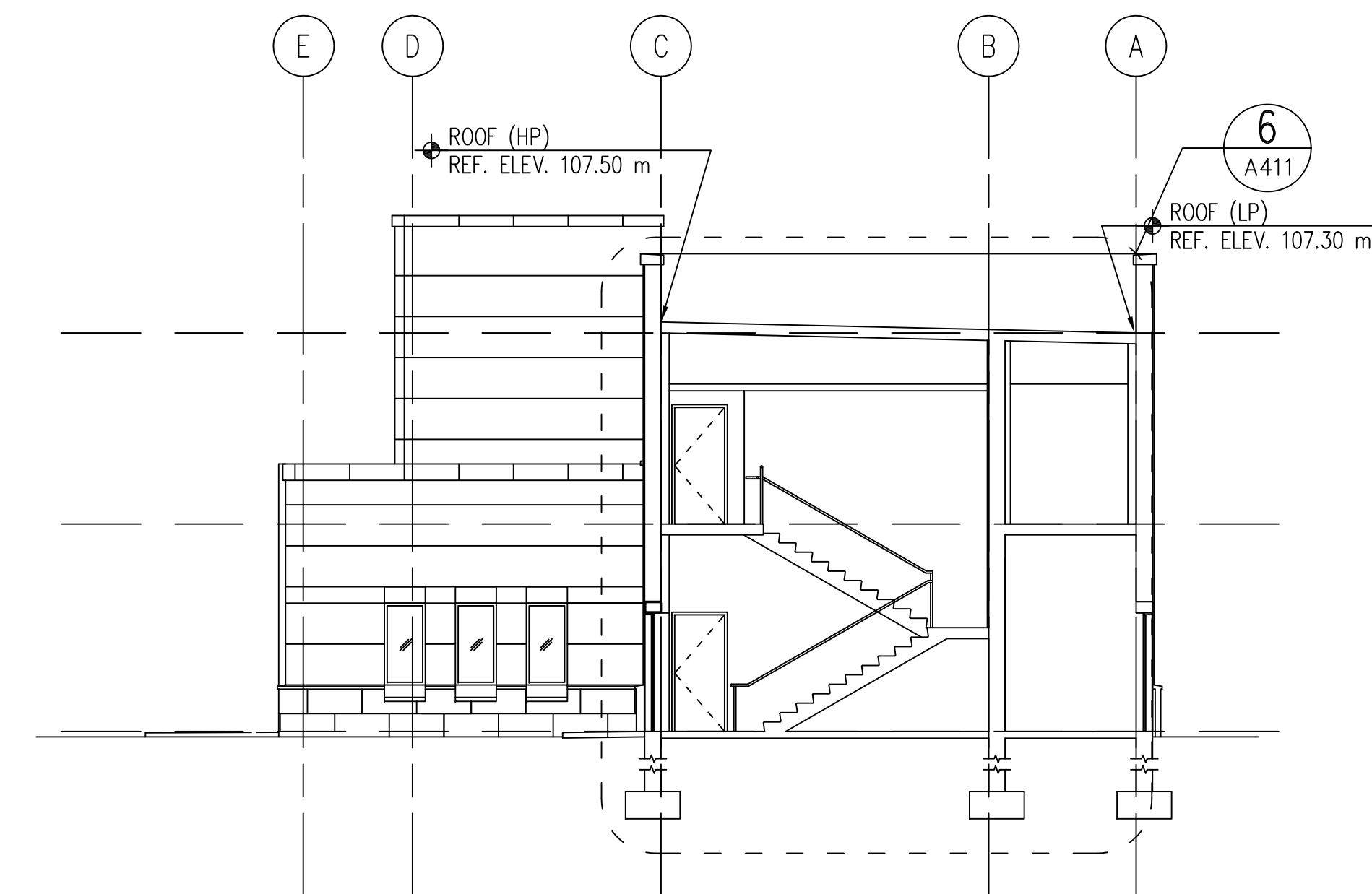
1 BUILDING SECTION
A111/A301 1:100



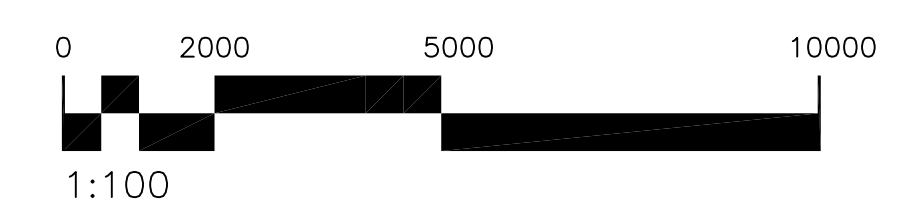
2 BUILDING SECTION
A111/A301 1:100



3 STAIR SECTION
A111/A301 1:100



4 STAIR SECTION
A111/A301 1:100



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Rev Number	Description	Date
Revisions		

Release For Construction: NIBS/Ida

Drawing Title

BUILDING SECTIONS

DBO Project Number	Drawing Scale	Phase
AS NOTED	1:100	CONCEPT
CMO File Name	CMO Plot Scale	1:1
CBMA301.DWG		

Date	NOV -2012	Sheet Number
Drawn By	NIBS	Barracks A301
Checked By	NIBS	
Project Number		
Classification	UNCLASSIFIED	

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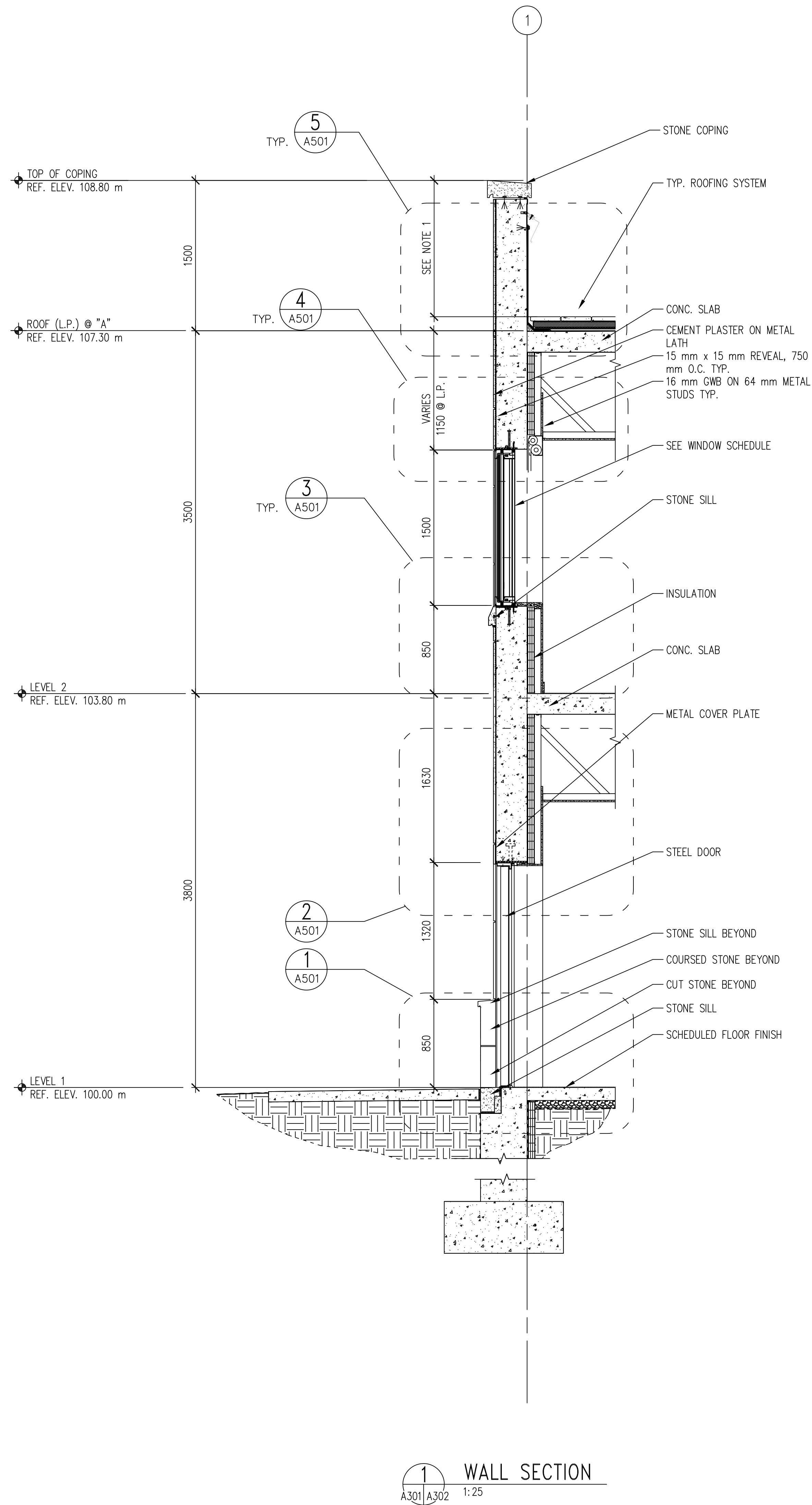
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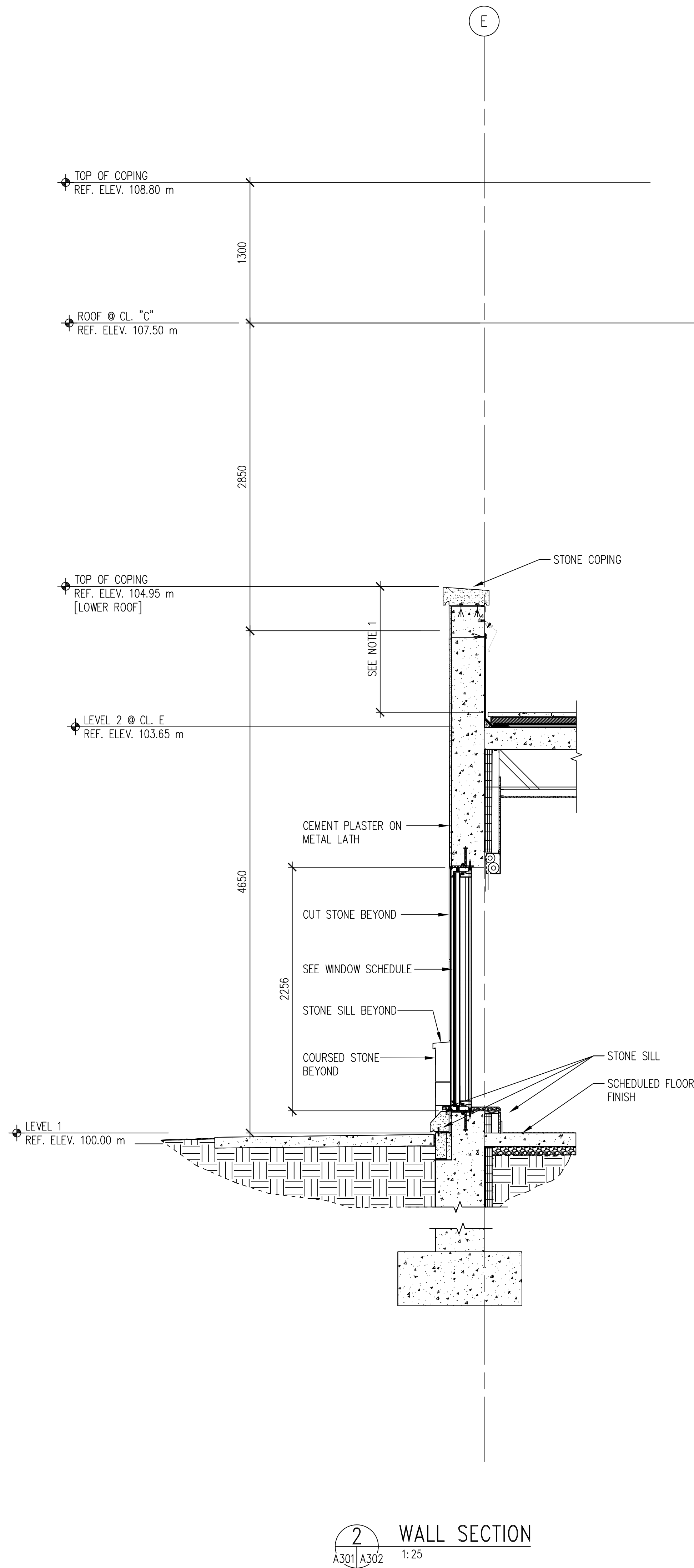
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Common File

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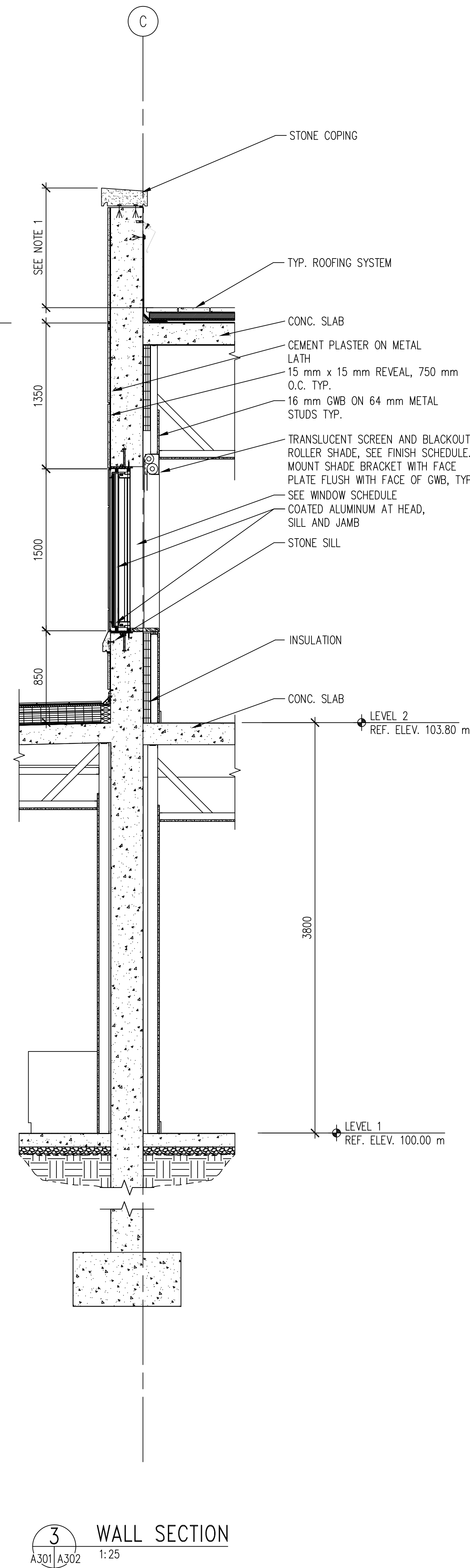
SITE SPECIFIC DESIGN CRITERIA:
1. PARAPET HEIGHT SHALL BE MINIMUM 1080 mm AS MEASURED
FROM ABOVE THE ADJACENT WALKING SURFACE TO THE
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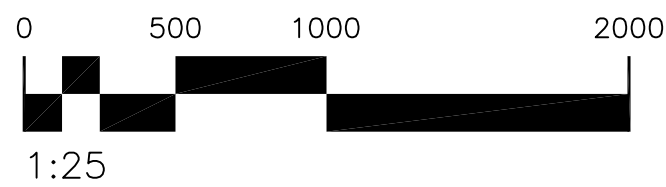
1 WALL SECTION
A301 A302 1:25



2 WALL SECTION
A301 A302 1:25



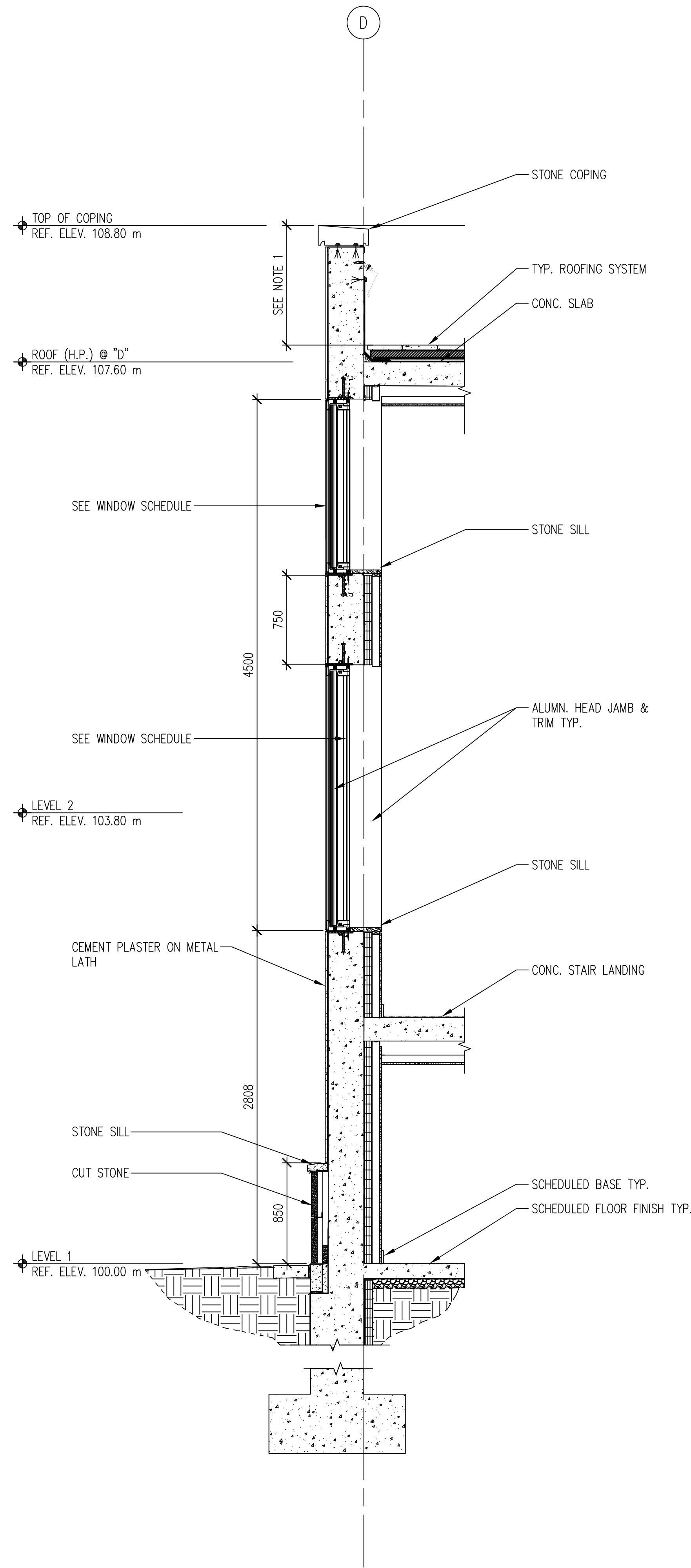
3 WALL SECTION
A301 A302 1:25



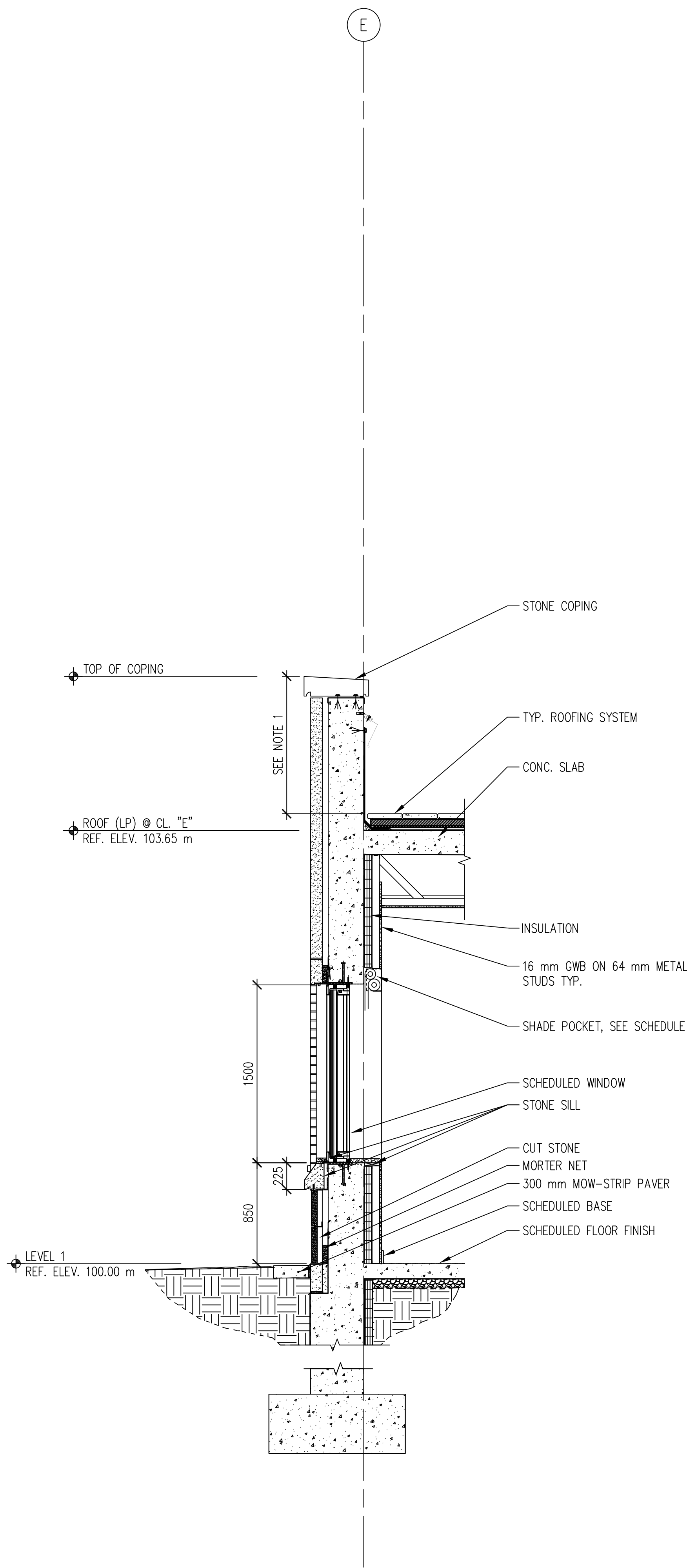
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DECIMAL ARE IN METERS UNO.

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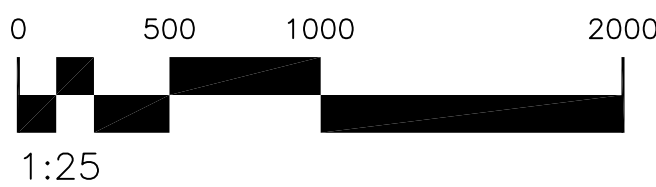
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1 WALL SECTION @ STAIR
A301 A303 1:25



2 WALL SECTION
A301 A303 1:25



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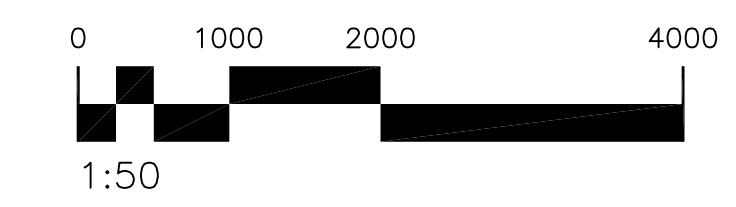
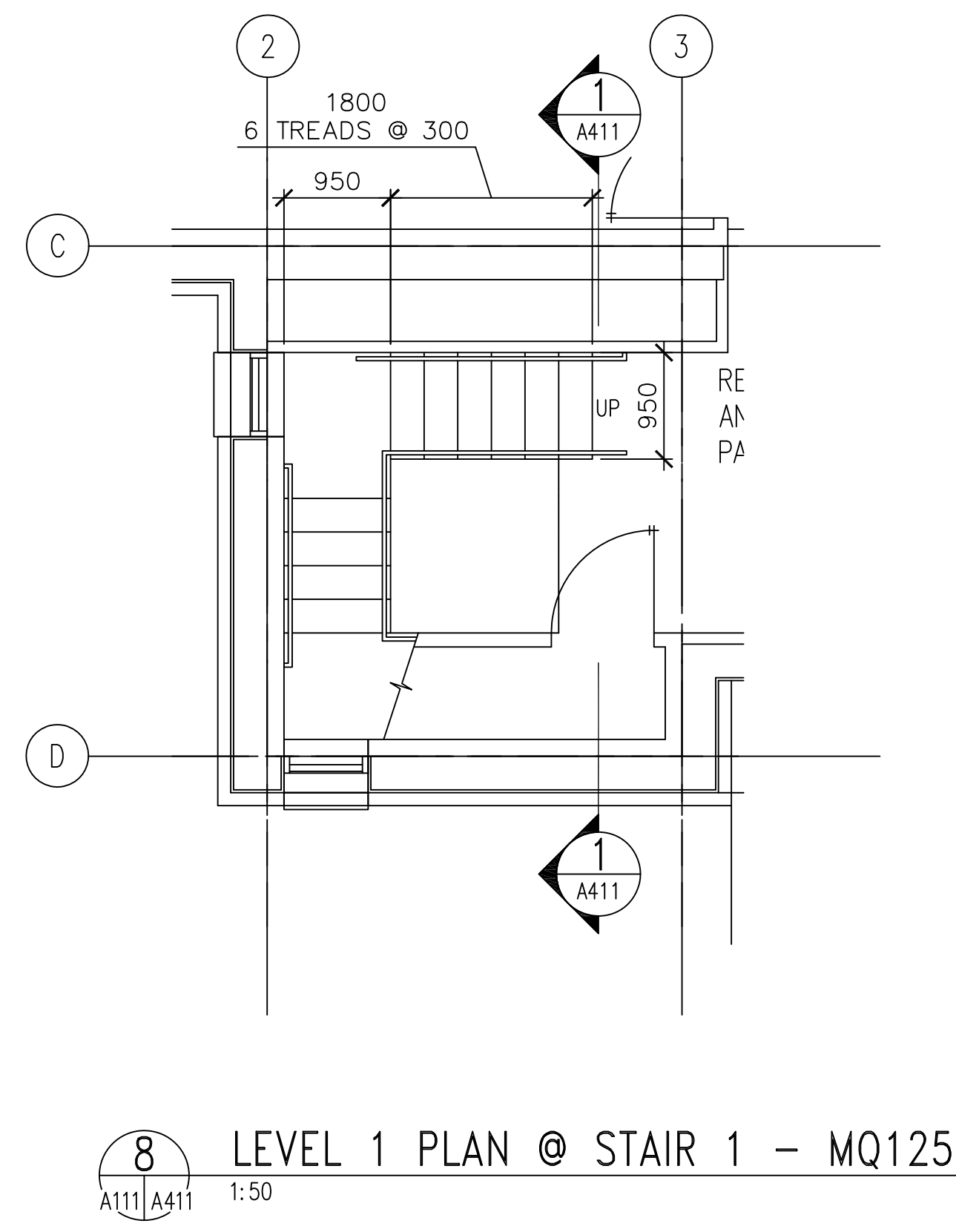
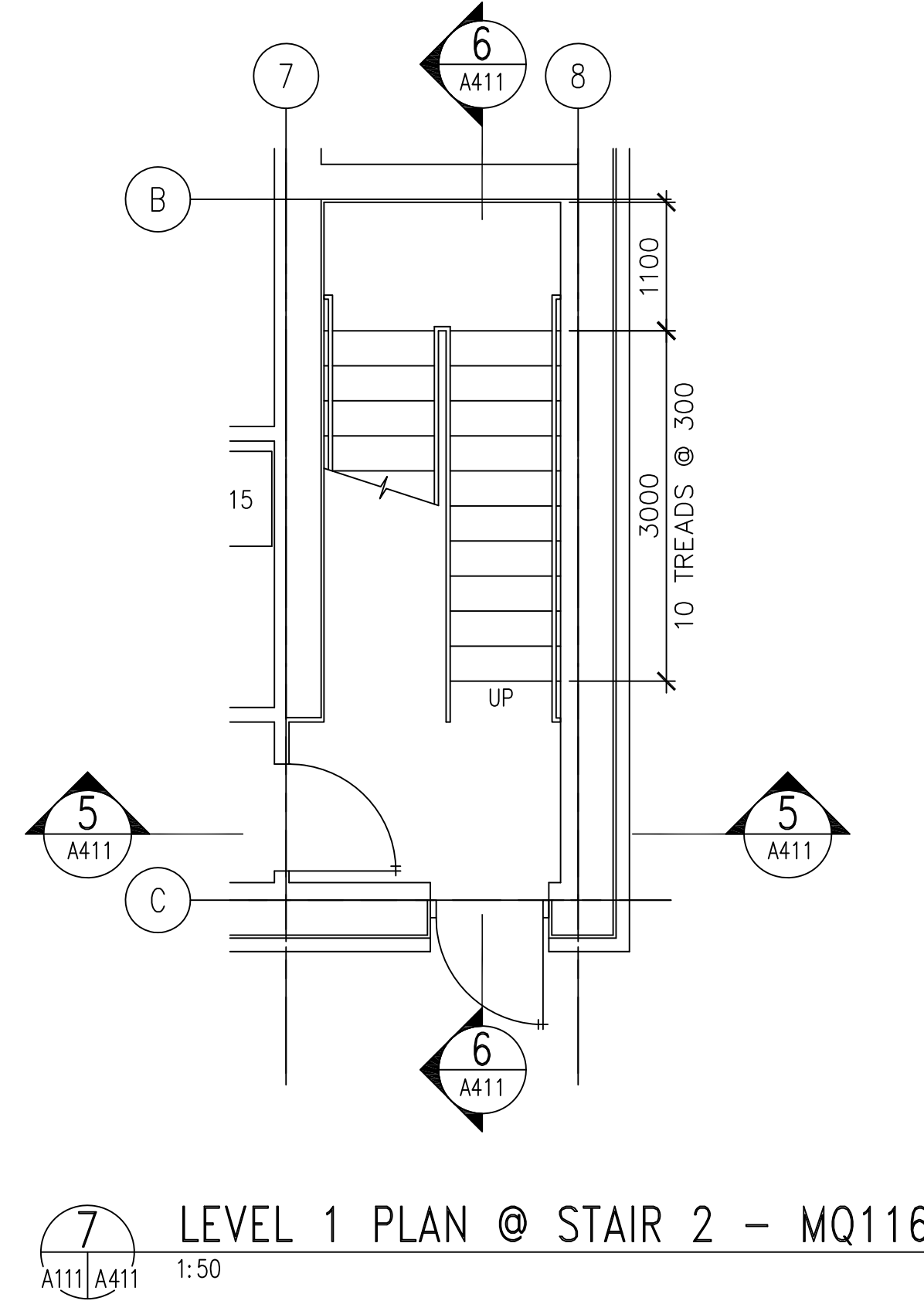
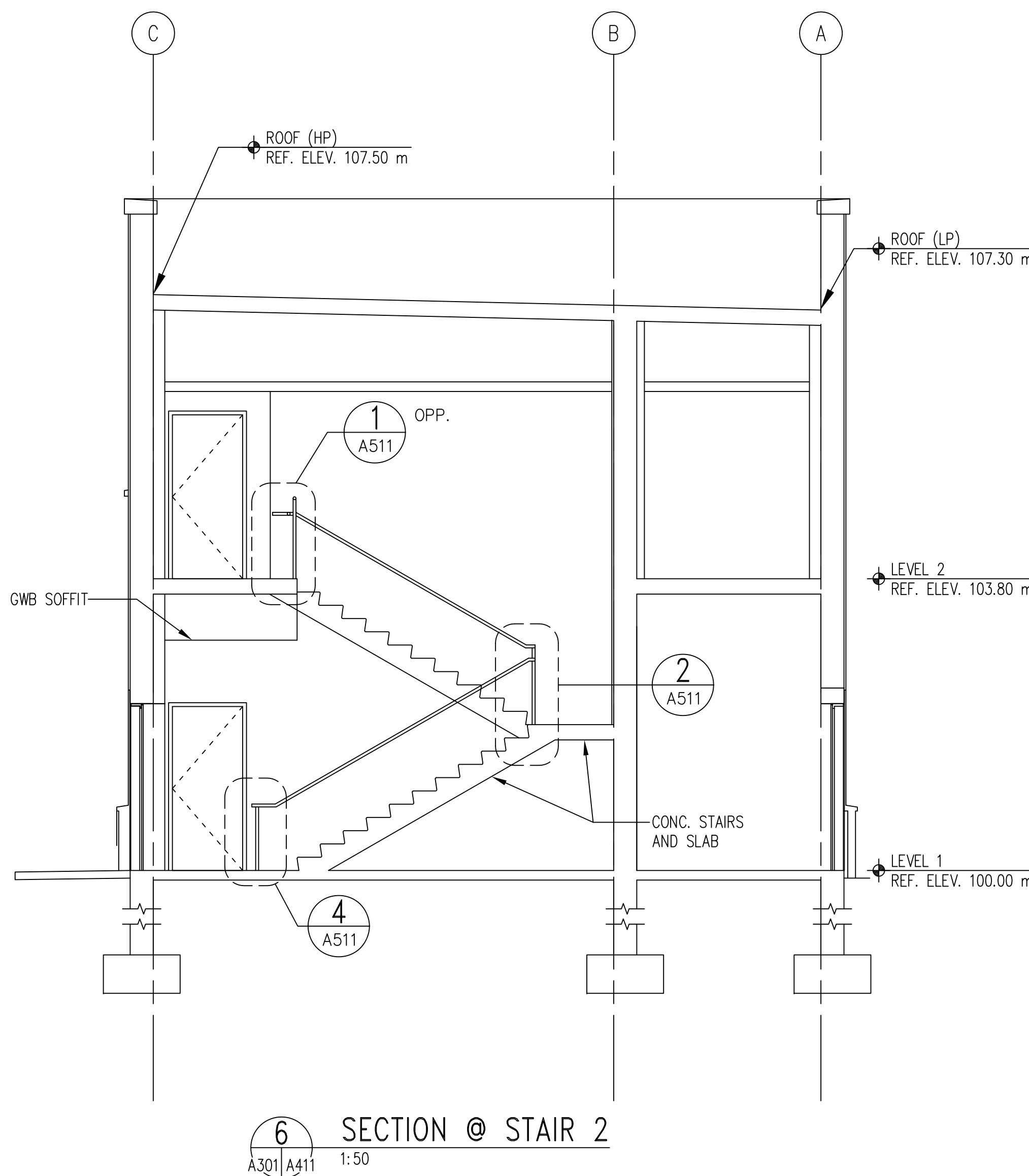
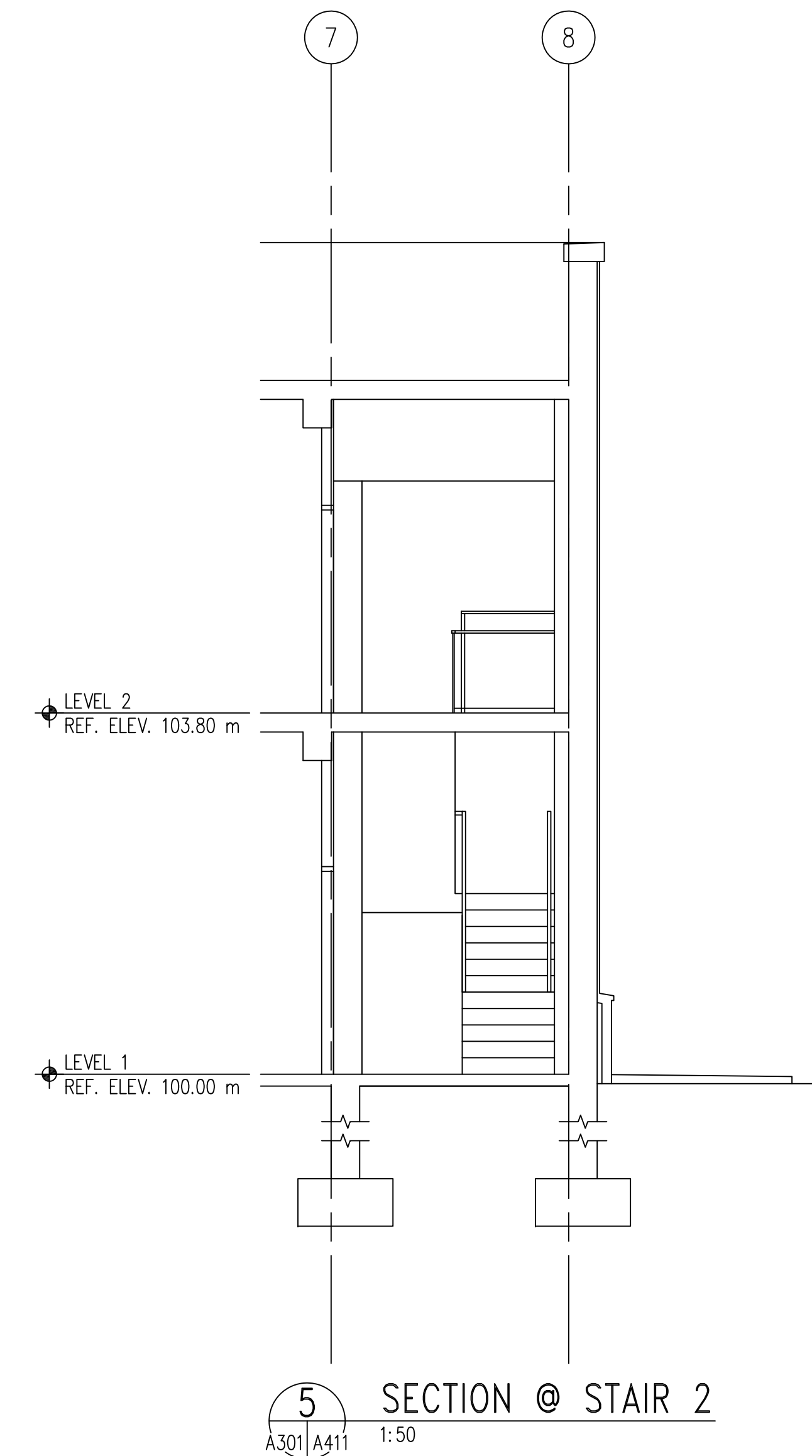
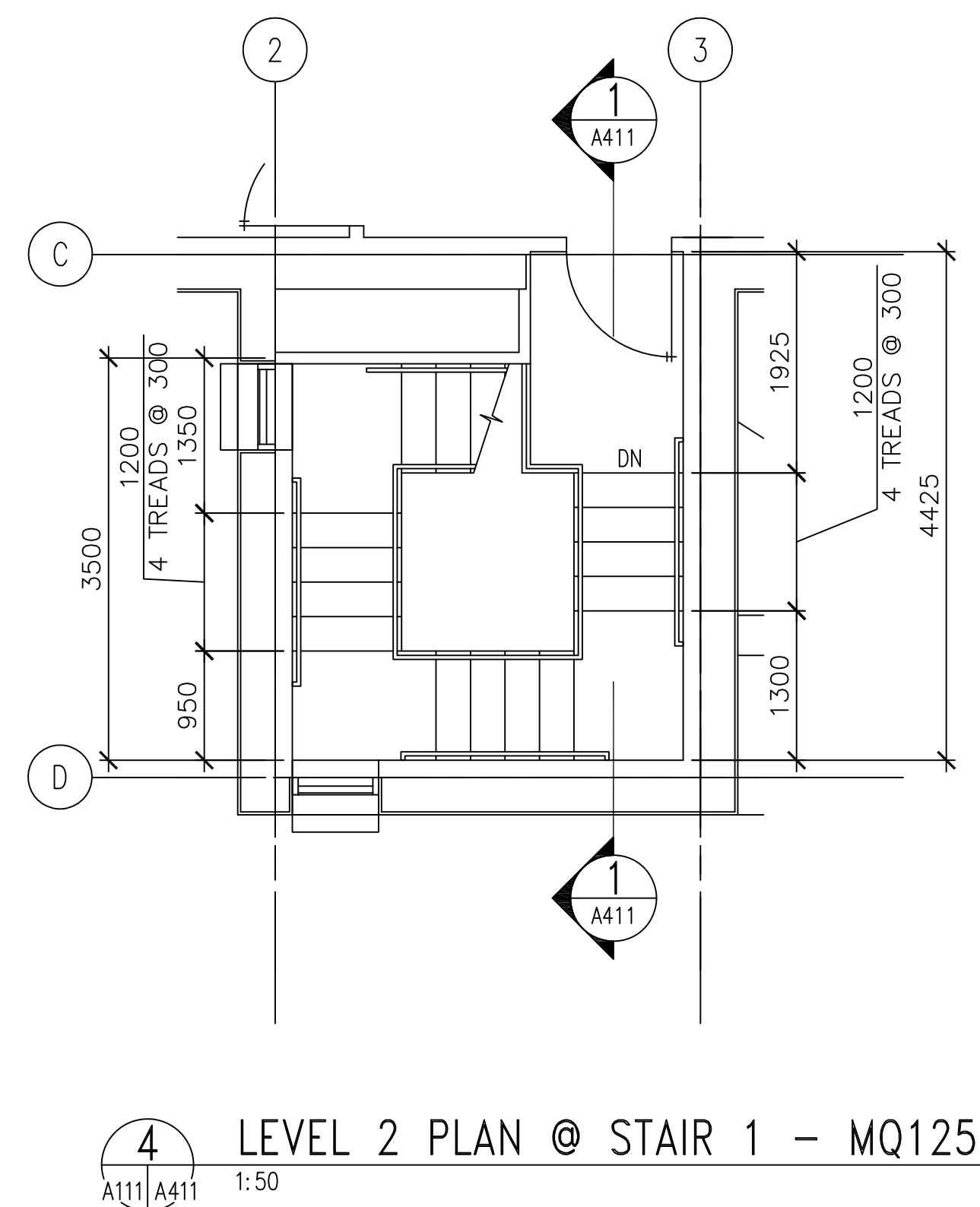
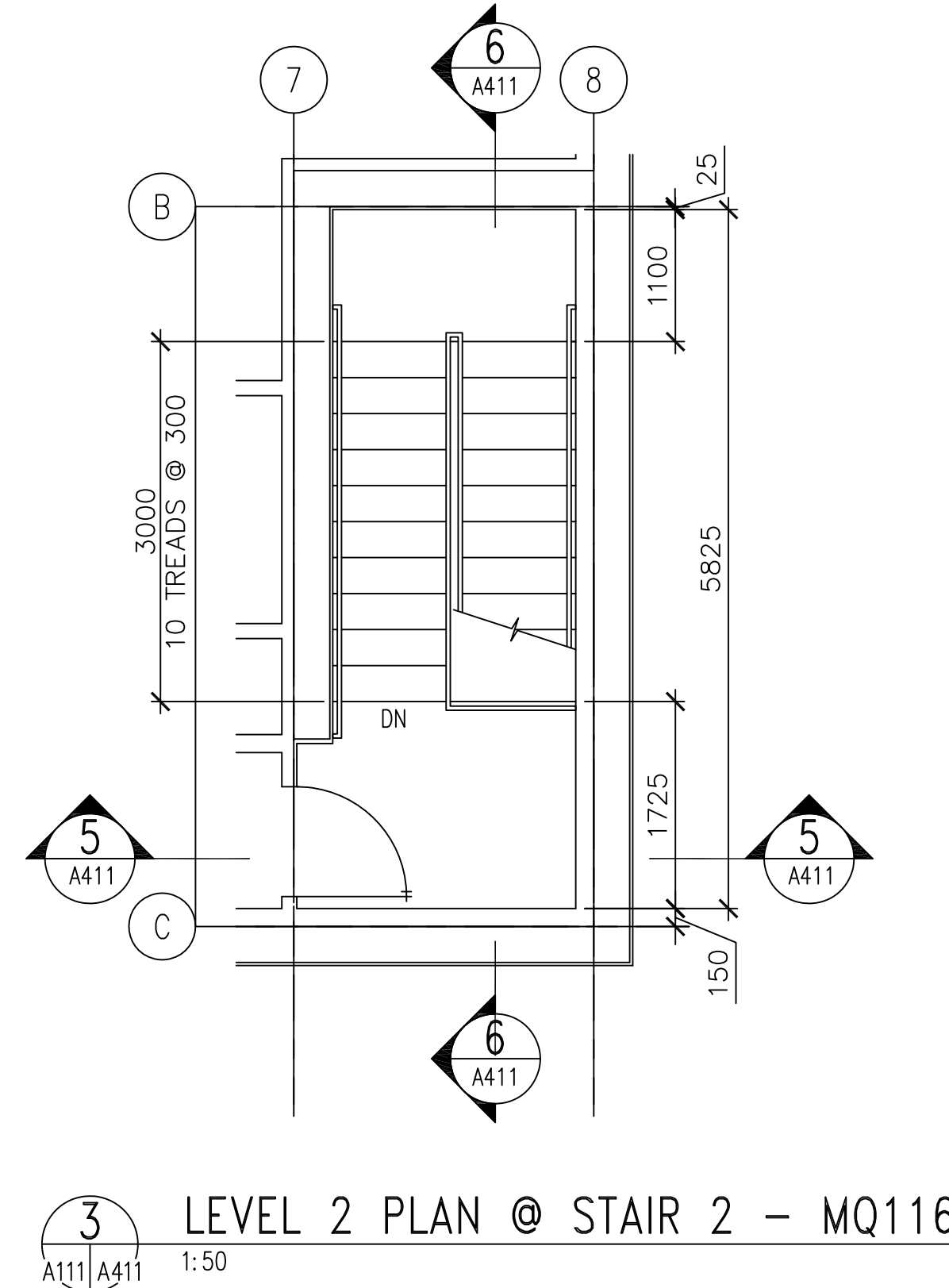
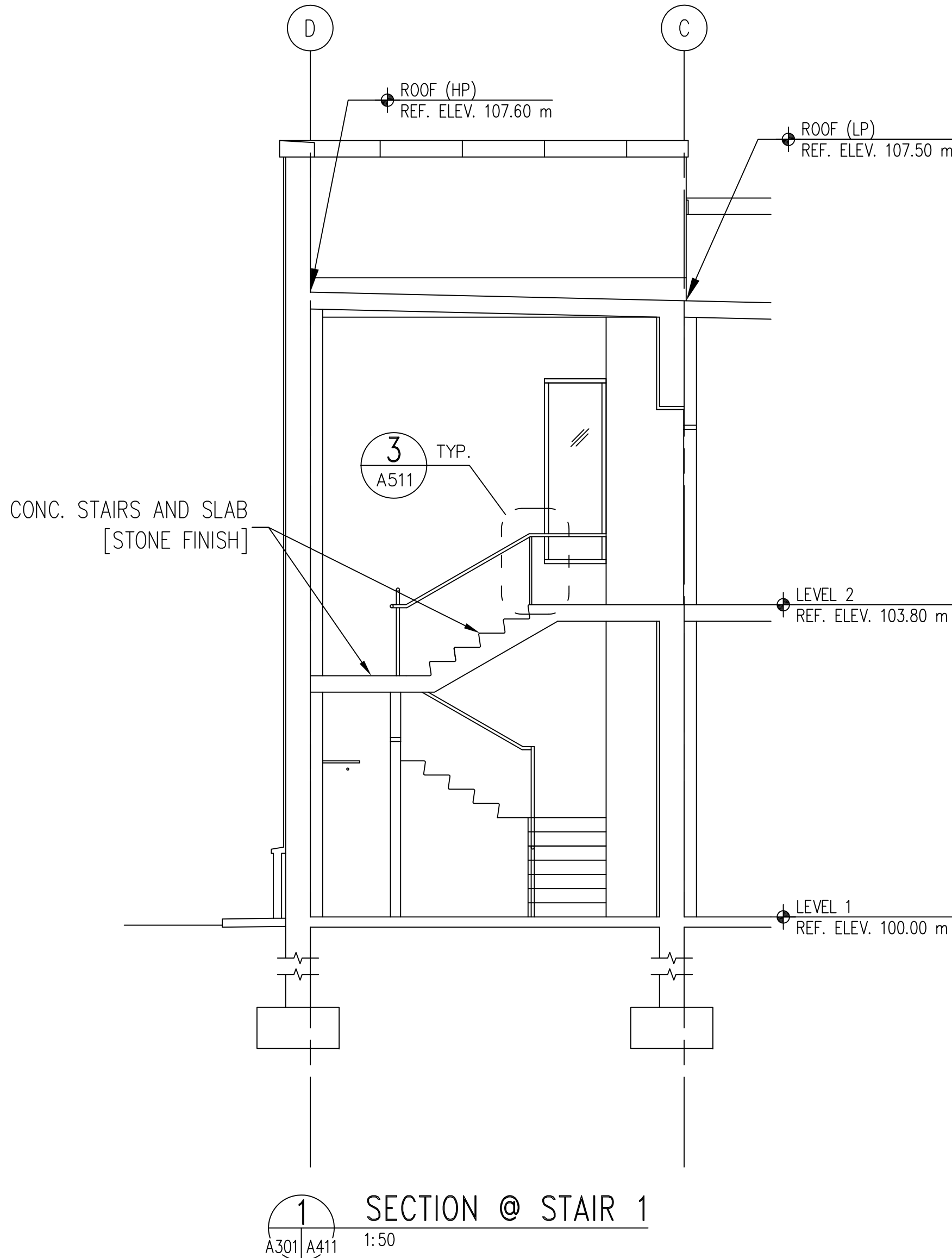
1. PARAPET HEIGHT SHALL BE MINIMUM 1080 mm AS MEASURED FROM ABOVE THE ADJACENT WALKING SURFACE TO THE TOP OF COPING, UNLESS NOTED OTHERWISE.

Rev. Number	Description	Date
Revisions		

Release For Construction:	
NIBS/Asa	NIBS/Asa
Drawing Title	
WALL SECTIONS	
GEO Project Number	Drawing Scale Phase
AS NOTED 0044	AS NOTED 0044
CADD File Name	CADD Plot Scale
CBMA303.DWG	1:1
Date	Sheet Number
NOV-2012	Barracks
Drawn By	A303
Checked By	
Project Number	
Classification	UNCLASSIFIED

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

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Rev Number	Description	Date
Revisions		

Release For Construction:

NBS/Ida NBS/Ida

Drawing Title

ENLARGED STAIR PLANS
AND SECTIONS

GBD Project Number Drawing Scale Phase
AS NOTED 50% 50%

CAED File Name CAED Plot Scale ☐ CONCEPT ☐ 10% ☐ 30% ☐ 50% ☐ 70% ☐ 90% ☐ FINAL
CBMA411.DWG 1:1

Date NOV-2012 Sheet Number

Drawn By NIBS

Checked By NIBS

Project Number

Classification UNCLASSIFIED

Barracks
A411

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FUNCTIONAL REQUIREMENTS FOR EMERGENCY RESPONSE ROOM

CONTRACTOR FURNISHED / CONTRACTOR INSTALLED

- DIVISION 05 - METALS
- 7 #05500 METAL FABRICATIONS - REFER TO NOB A404.
- 7 REACT EQUIPMENT RACKS
- DIVISION 10 - SPECIALTIES
- #10505 LOCKERS
- 1 HAZ-MAT LOCKER
- NOMINAL DIMENSION 595mm X 500mm *23.5"x20"
- HEIGHT MAY VARY, NTE 1524mm (60")
- #10801 TOILET & BATH ACCESSORIES
- 1 MIRROR, FULL LENGTH, WALL-MOUNTED @ 1829mm (72") A.F.F.

- DIVISION 12 - FURNISHINGS
- #12460 FURNISHING ACCESSORIES
- 1 CLOCK, BATTERY OPERATED

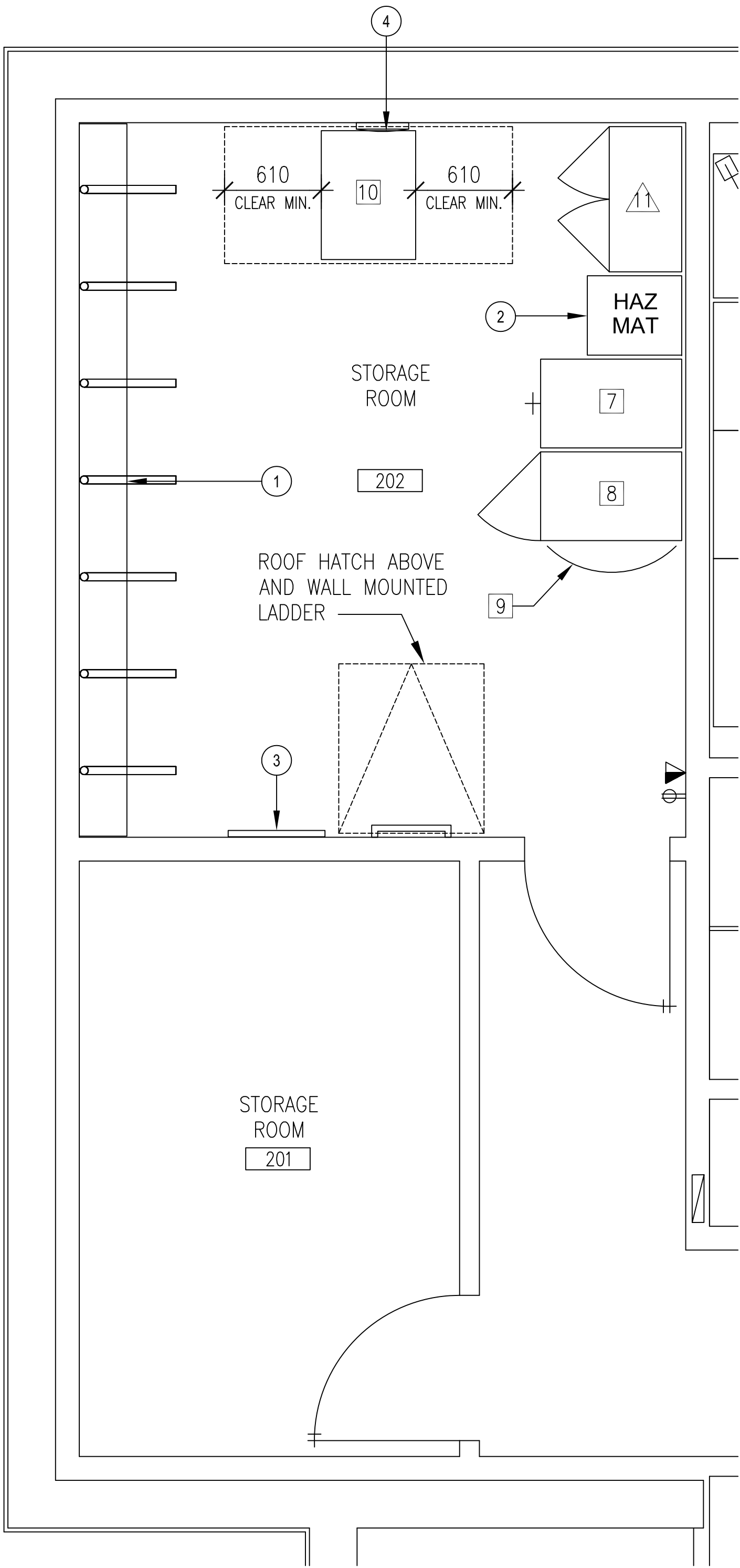
- DIVISION 26 - ELECTRICAL AND 27 - COMMUNICATIONS
- SEE DIVISION 16 ELECTRICAL
- 1 DUPLEX OUTLETS, 1067mm (42") A.F.F.
- Ø ENTRY
- 1 TELECOM OUTLET, 1067mm (42") A.F.F.
- Ø ENTRY

OWNER FURNISHED / OWNER INSTALLED - POST PROVIDED.

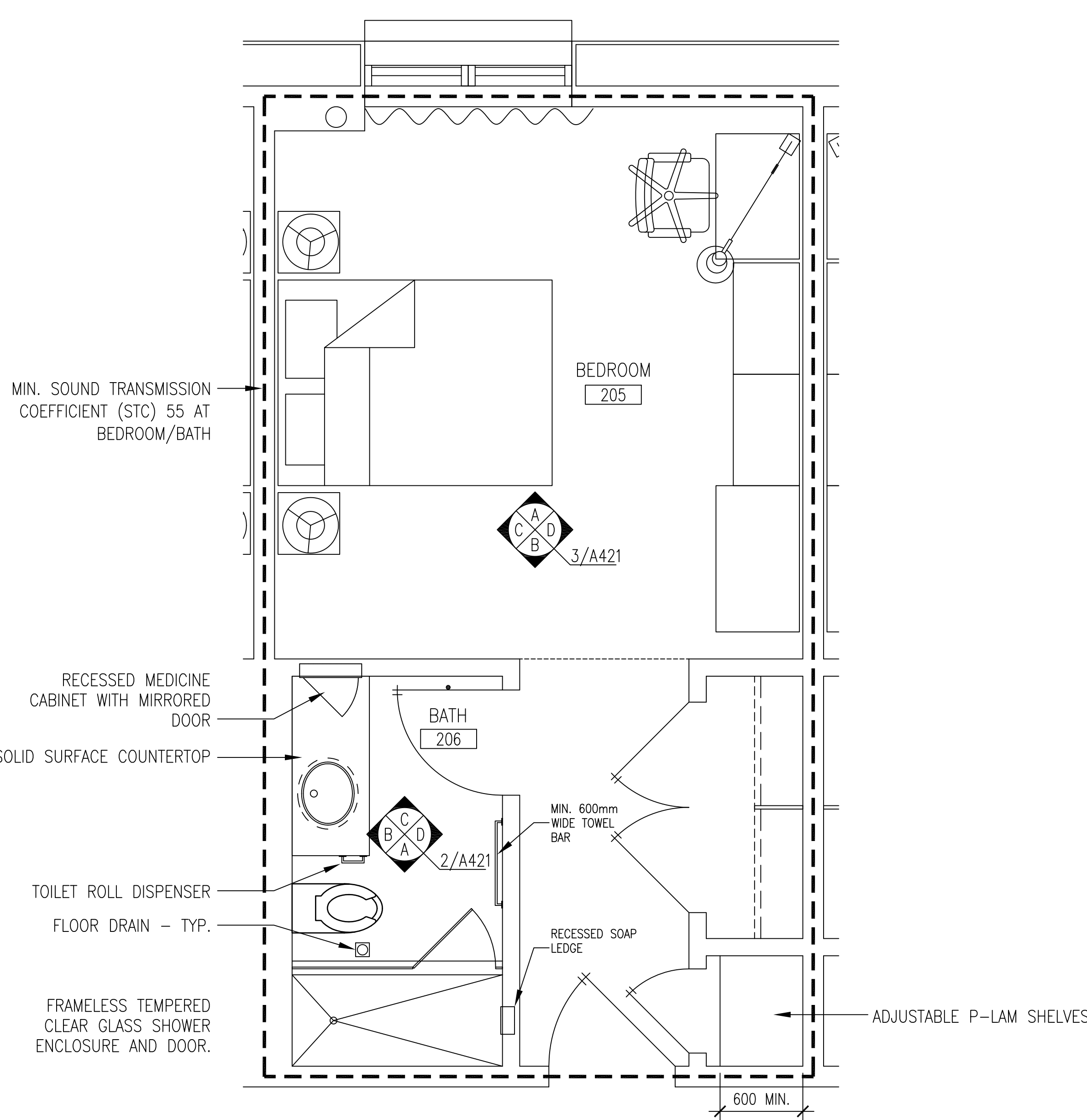
- 7 RSD MAP / PLAN SAFE, 5 DRAWER
- 8 STORAGE SAFE
- 9 SAFETY EQUIPMENT STORAGE
- 10 SAFE CABINET

OWNER FURNISHED / CONTRACTOR INSTALLED

- 11 STORAGE CABINET, SUBDIVIDED
- 914mm X 457mm (36"x18")
- HEIGHT MAY VARY, NTE 1626mm (64")

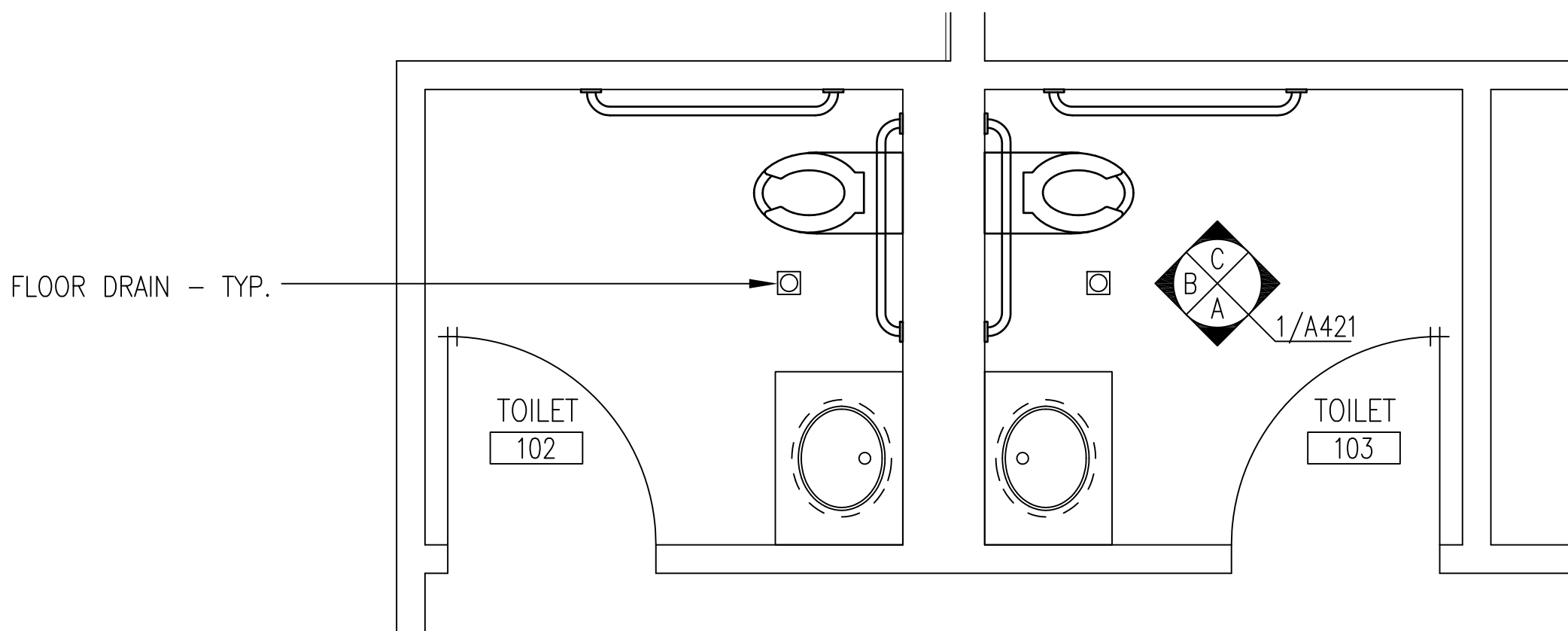


3 ENLARGED PLAN AT EMERGENCY RESIDENTIAL RESPONSE ROOM
1:25
A412

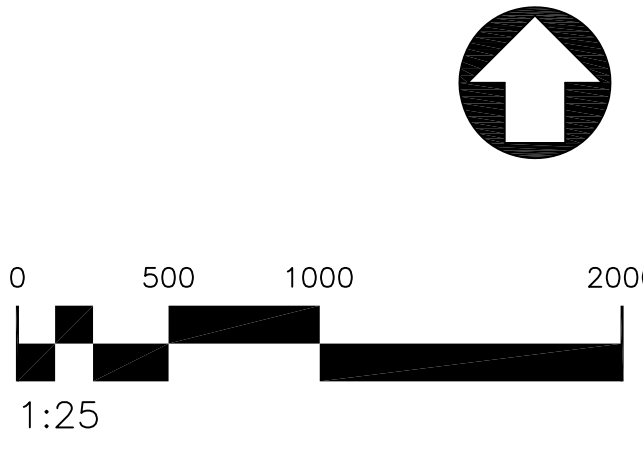


NOTE: TYPICAL FURNITURE LAYOUT. SEE FURNITURE PLANS FF1.11. FURNITURE N.I.C.

2 ENLARGED PLAN AT TYPICAL BEDROOM
1:25
A412



1 ENLARGED PLAN AT TOILETS
1:25
A412



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Common File

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Rev Number	Description	Date
Revisions		

Release For Construction:
NIBS/Asa NIBS/Asa

Drawing Title

ENLARGED FLOOR PLANS

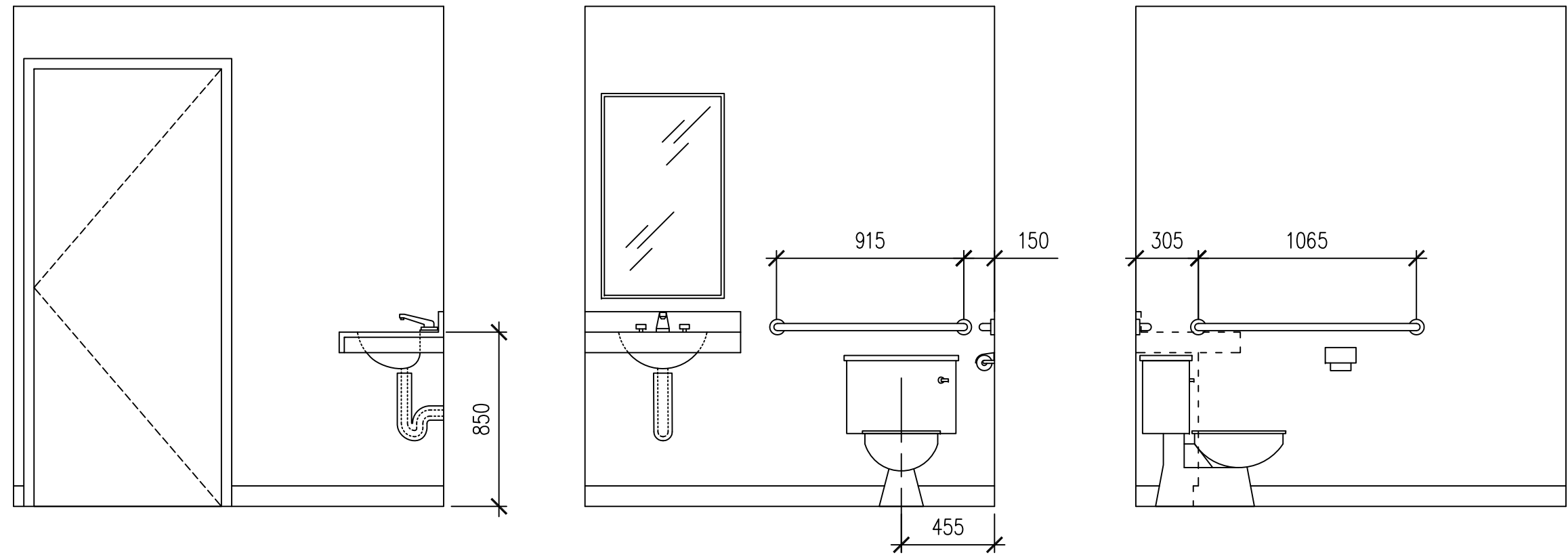
DBD Project Number Drawing Scale Phase
AS NOTED 300%
CADD File Name CADD Plot Scale
CBMAA412.DWG 1:1

Date NOV-2012 Sheet Number
Drawn By NIBS
Checked By NIBS
Project Number
Classification UNCLASSIFIED

Barracks
A412

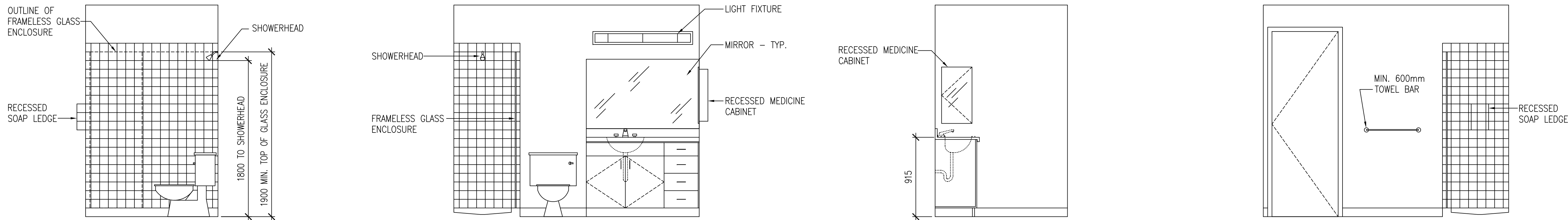
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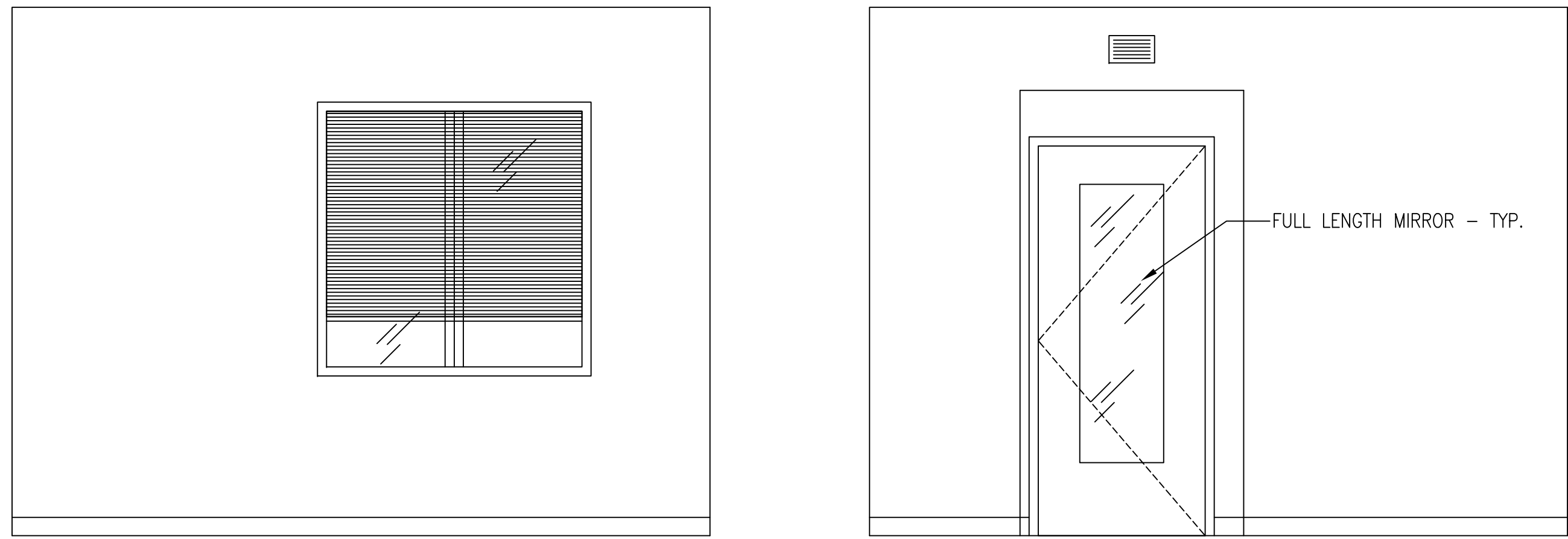
A. SOUTH ELEV. B. WEST ELEV. C. NORTH ELEV.

1 MQ-103 - ELEVATIONS
A412 | A421 1:25



A. SOUTH ELEVATION B. WEST ELEVATION C. NORTH ELEVATION D. EAST ELEVATION

2 MQ-206 - ELEVATIONS
A412 | A421 1:25



A. NORTH ELEVATION B. SOUTH ELEVATION



C. WEST ELEVATION D. EAST ELEVATION

3 MQ-205 - ELEVATIONS
A412 | A421 1:25

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Rev Number	Description	Date
1	Revisions	

Release For Construction:	
NIBS/Ida	NIBS/Ida
Drawing Title	
ENLARGED INTERIOR ELEVATIONS	
DBD Project Number	Drawing Scale Phase
AS NOTED	CONCEPT 10% 30% 50% 70% 90% 100%
CMO File Name	CMO File Name
CBMA422.DWG	1:1
Date	Sheet Number
NOV-2012	Barracks
Drawn By	NIBS
Checked By	NIBS
Project Number	A421
Classification	UNCLASSIFIED

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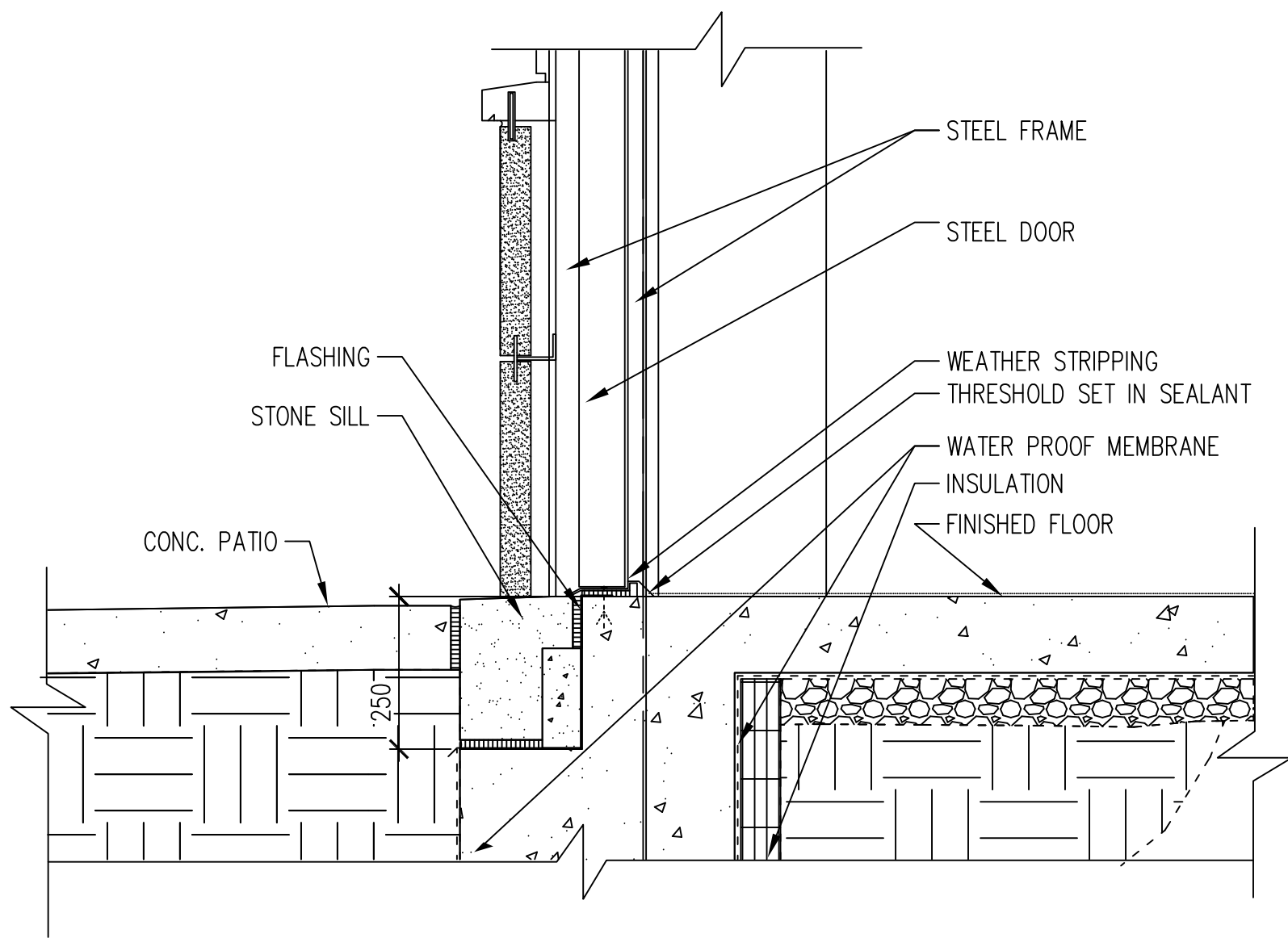
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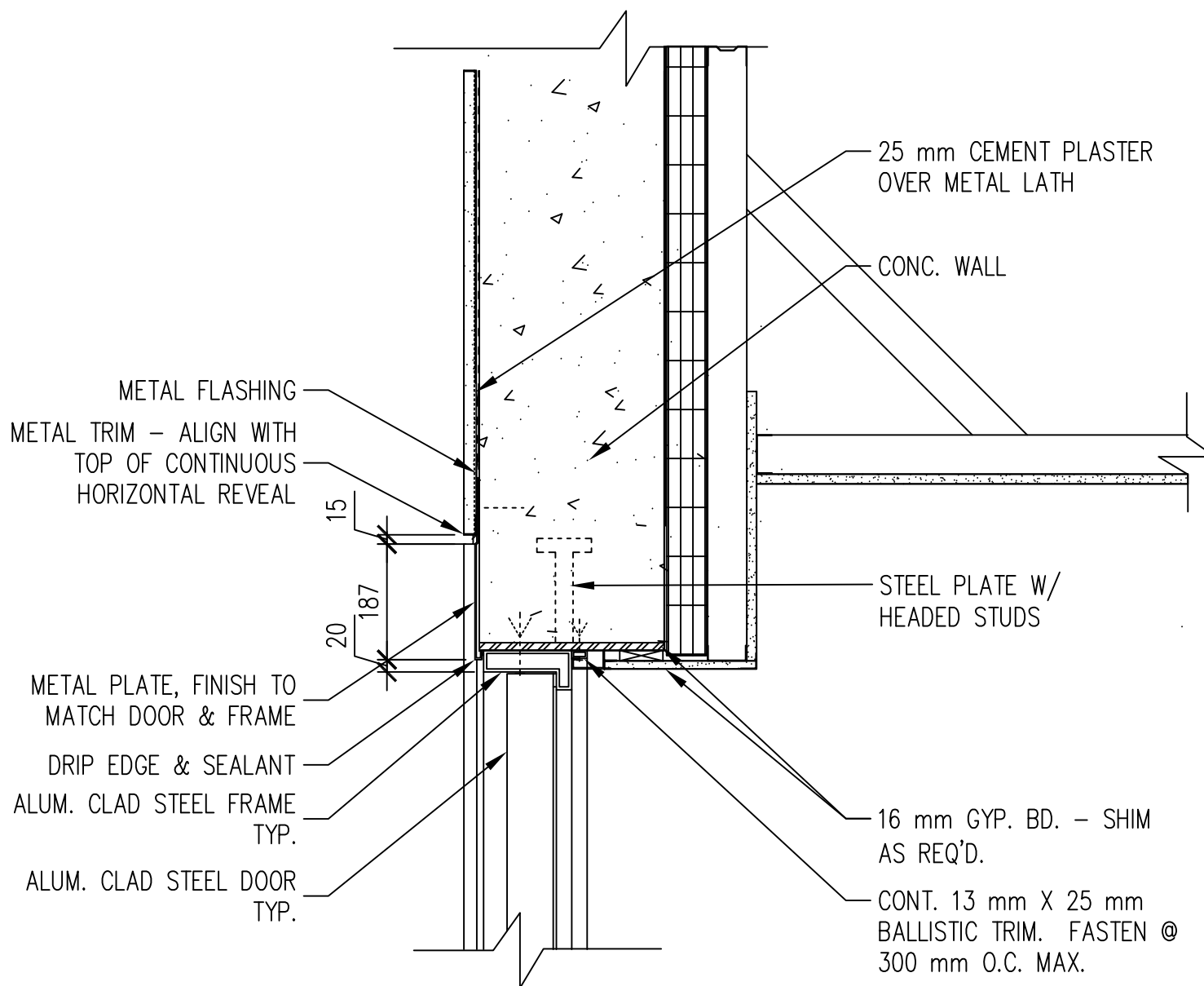
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Barracks 101
Building Information Model
Common File

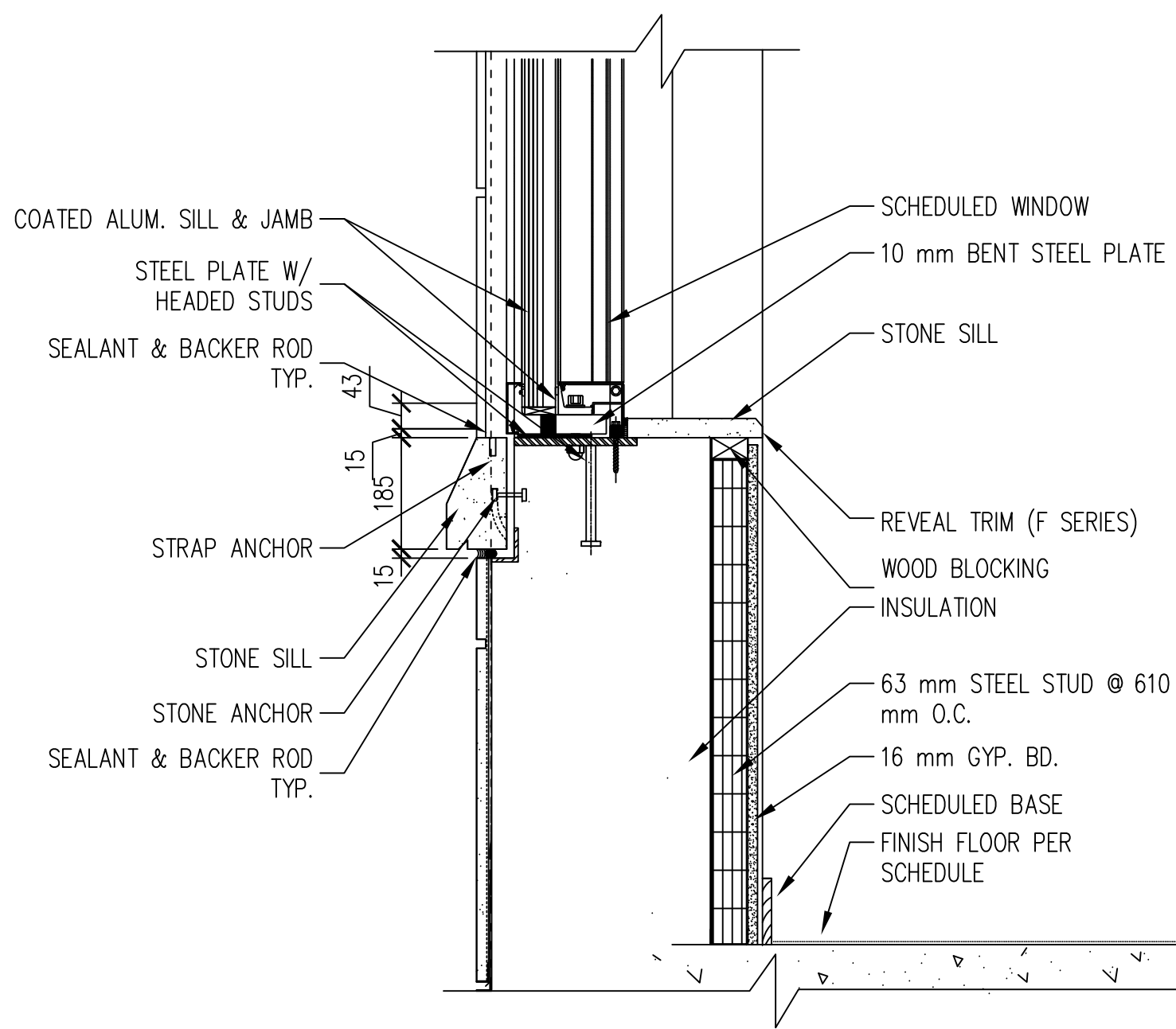
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Washington, DC 20005



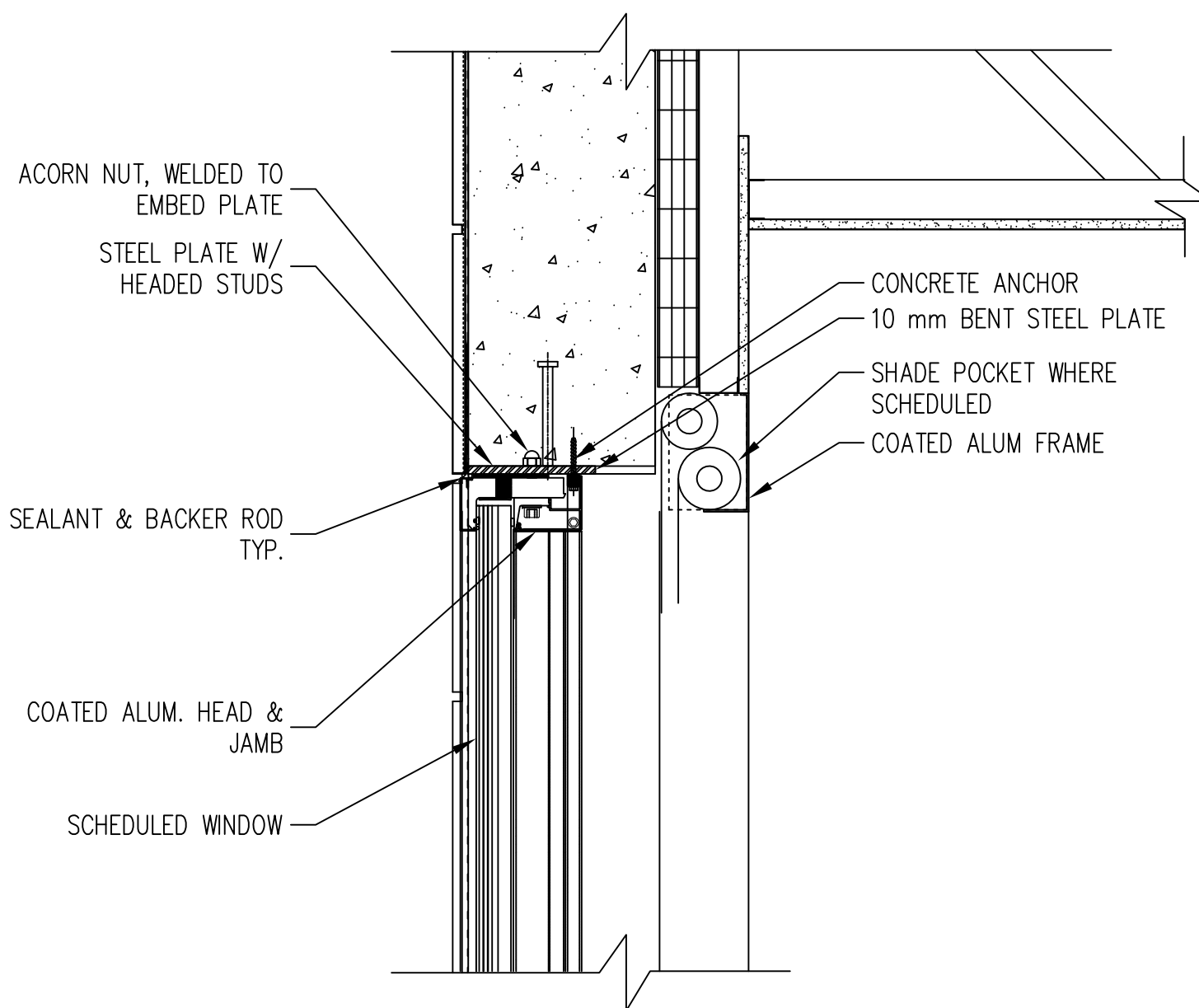
1 DOOR DETAIL- SILL
A302 | A501 1:10



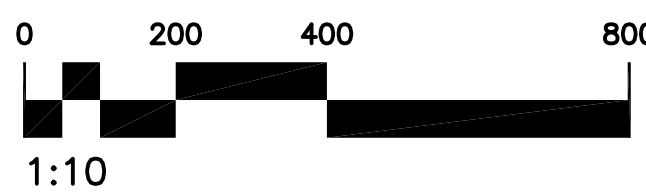
2 DOOR DETAIL
A302 | A501 1:10



3 WINDOW SILL DETAIL (B-1)
A302 | A501 1:10



4 WINDOW HEAD DETAIL (B-1)
A302 | A501 1:10



ALL DIMENSIONS WITHOUT A DECIMAL ARE IN
MILLIMETERS UNO. ALL DIMENSIONS WITH A
DECIMAL ARE IN METERS UNO.

Rev. Number	Description	Date
Revisions		

Release For Construction:	
NIBS/Asa	NIBS/Asa
Drawing Title	
EXTERIOR WALL DETAILS	
GEO Project Number	Drawing Scale Phase
AS NOTED	CONCEPT 10% 30% 50% 70% 90% 100%
CADD File Name	CADD Plot Scale
CBMA501.DWG	1:1
Date	Sheet Number
NOV-2012	Barracks
Drawn By	NIBS
Checked By	NIBS
Project Number	A501
Classification	UNCLASSIFIED

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

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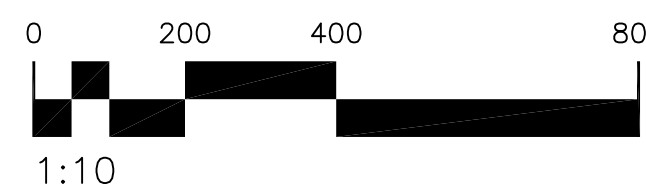
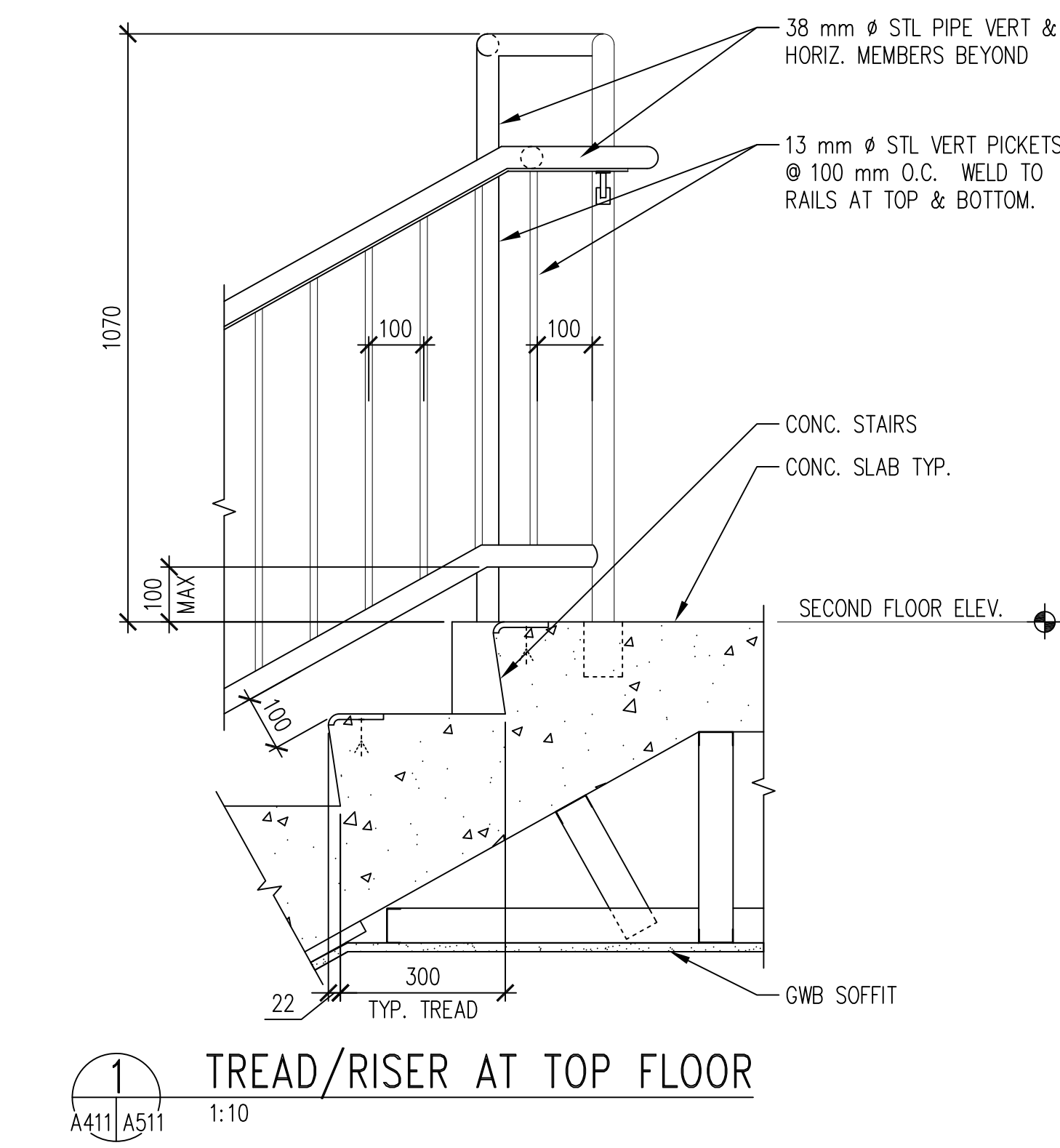
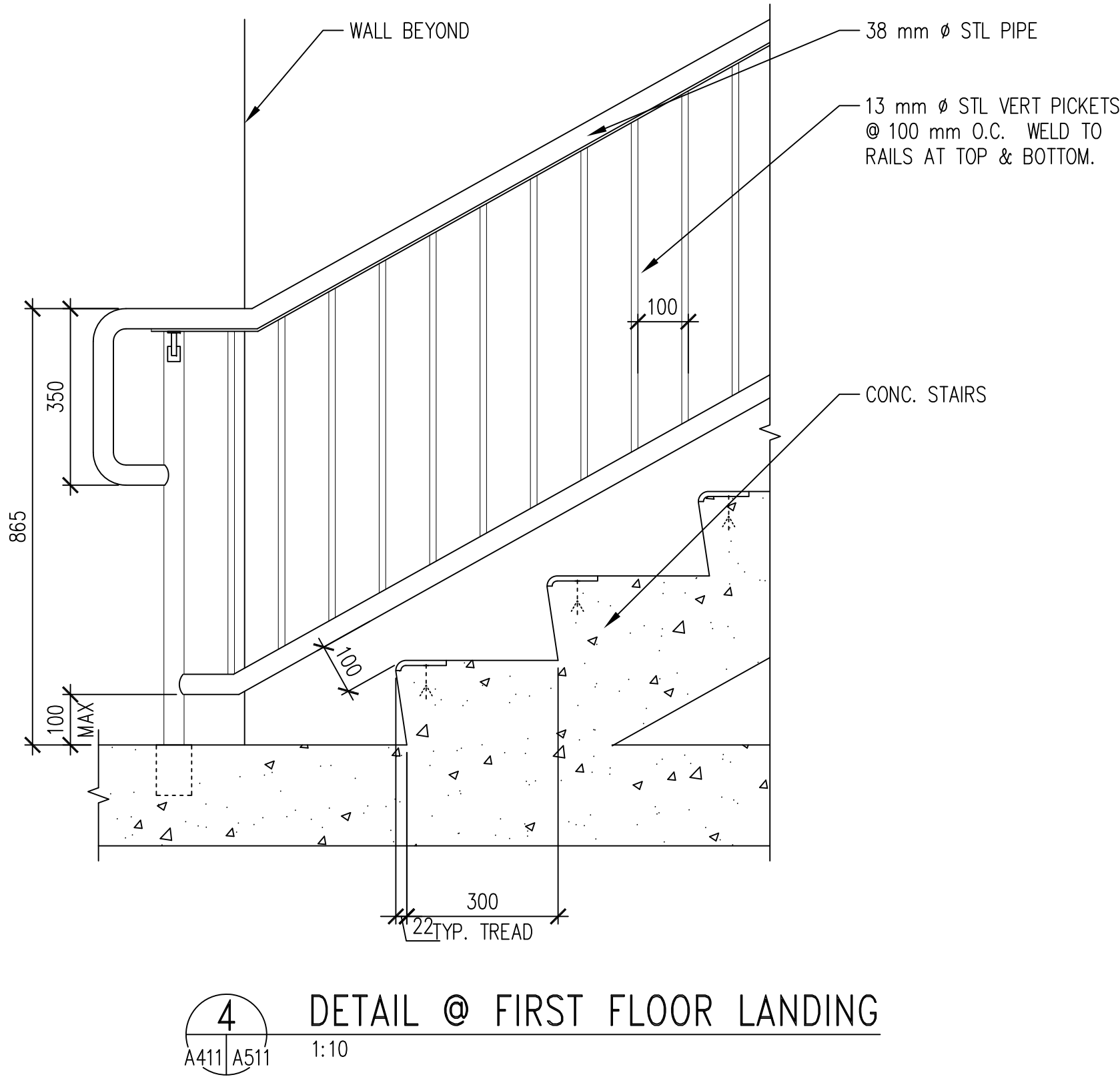
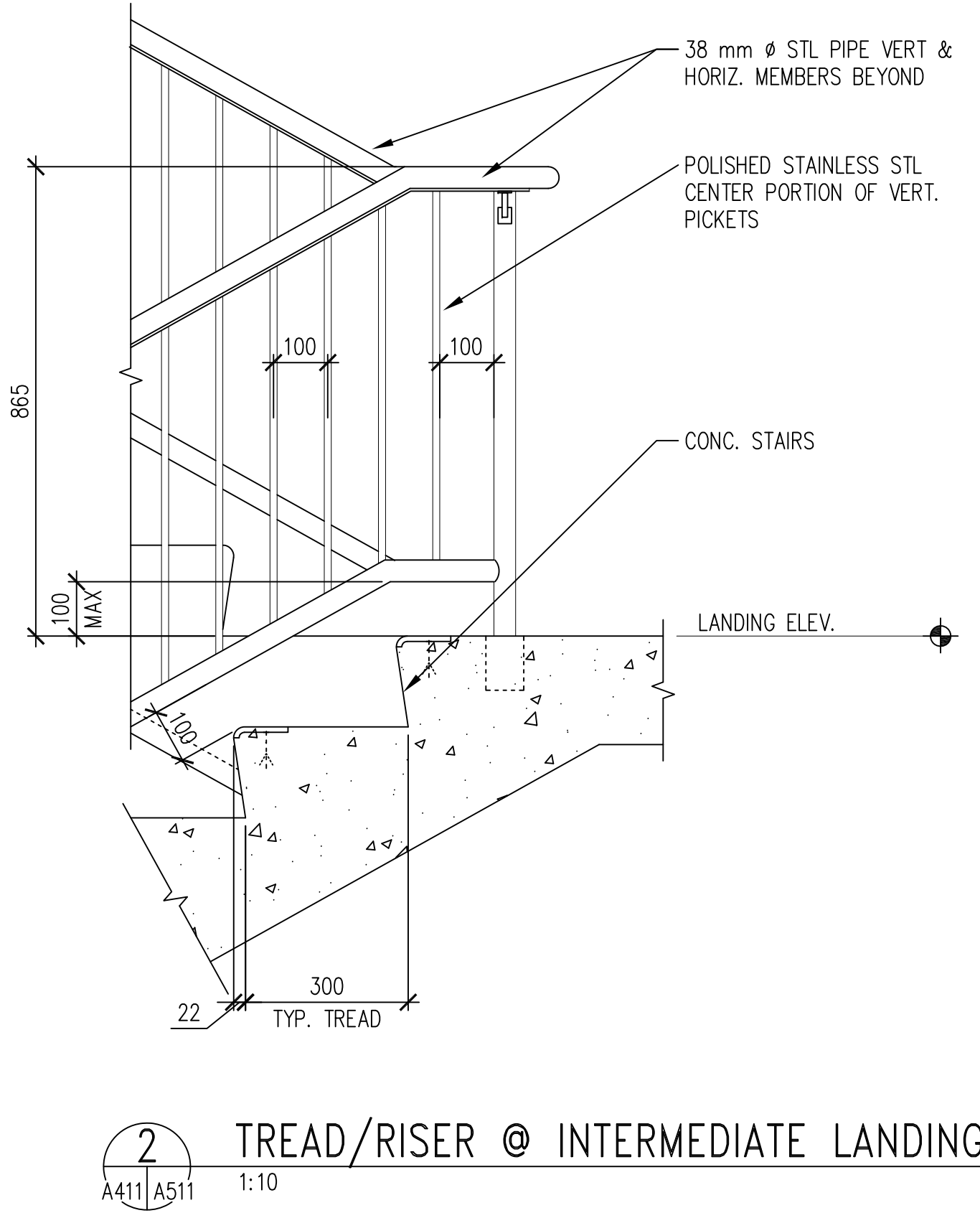
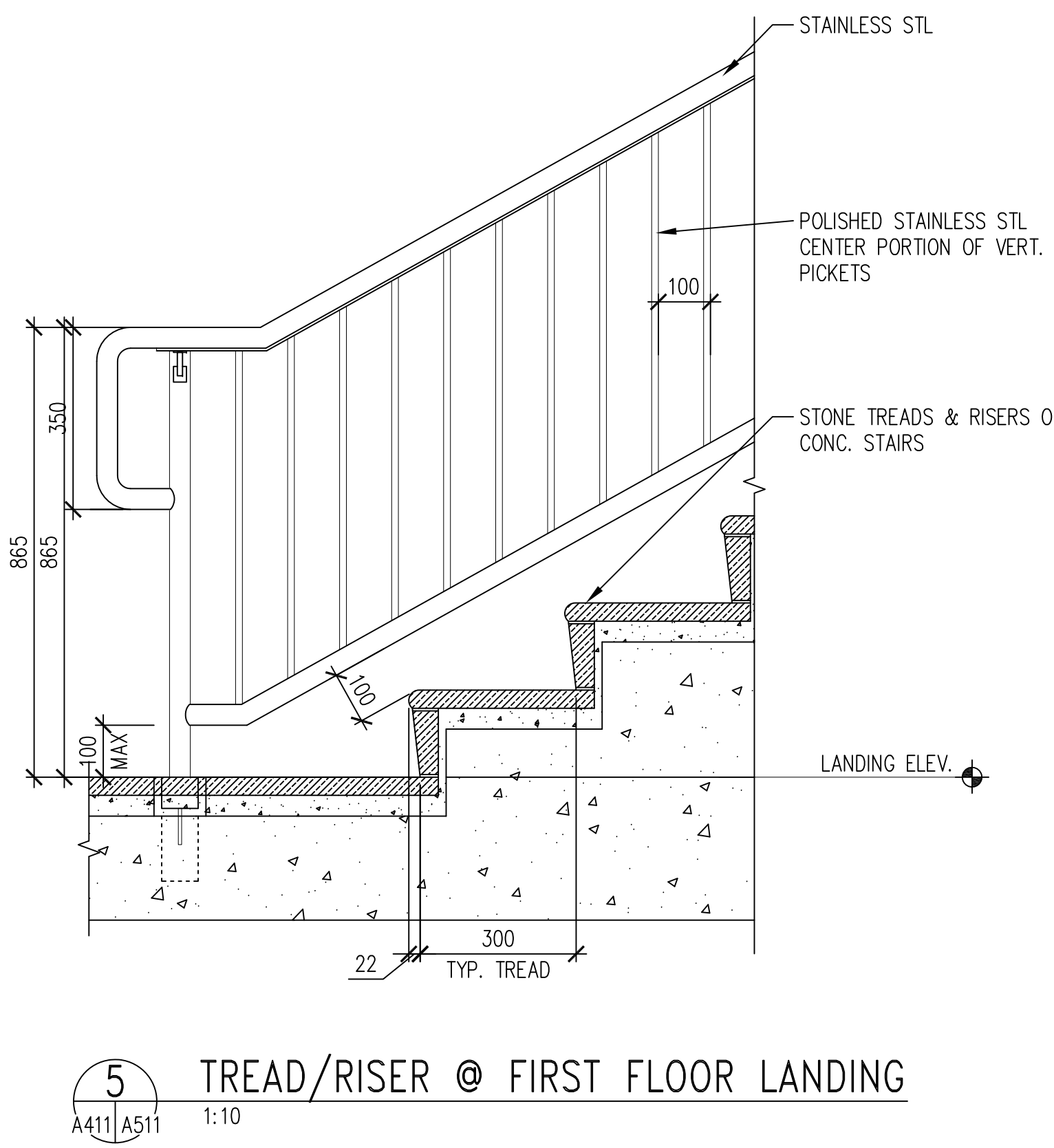
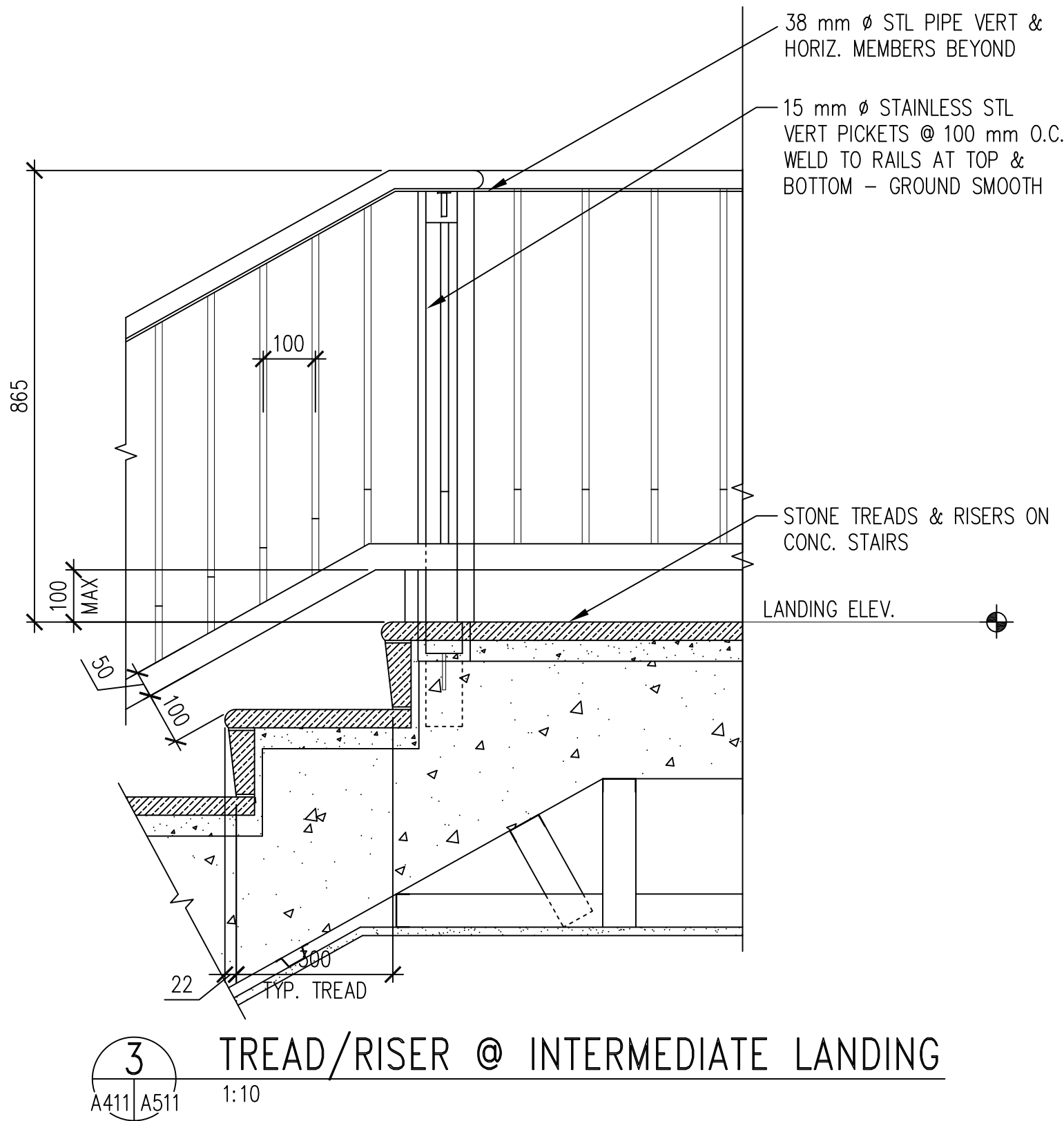
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Rev. Number	Description	Date
Revisions		

Release For Construction: NIBS/AS

Drawing Title: STAIR DETAILS

GEO Project Number: AS NOTED
GEO File Name: CBMA511.DWG
GEO Plot Scale: 1:10
Date: NOV-2012
Sheet Number: 1

Drawn By: NIBS
Checked By: NIBS
Project Number: Barracks A511
Classification: UNCLASSIFIED

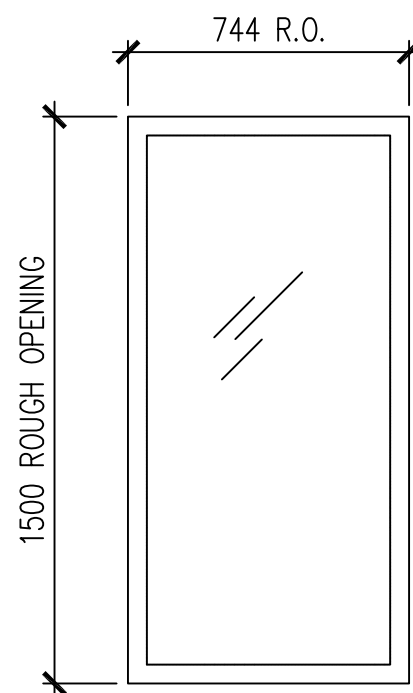
BARRACKS WINDOW SCHEDULE EXTERIOR						
WINDOW NUMBER	OPE WINDOW TYPE	WINDOW LOCATION	BUILDING LEVEL	FEBR CODE / WINDOW RATING	GLAZING TYPE	WINDOW SIZE
1	B-1	EXTERIOR ELEVATION	VARIES	1123 + BLAST	SEE NOTE #1	SEE NOTE #2
2	G-1	EXTERIOR ELEVATION	VARIES	1123 + BLAST	SEE NOTE #1	SEE NOTE #2
3	E-1	EXTERIOR ELEVATION	VARIES	1123 + BLAST	SEE NOTE #1	SEE NOTE #2
4	A-1	EXTERIOR ELEVATION	VARIES	1123 + BLAST	SEE NOTE #1	SEE NOTE #2
5	C-1	EXTERIOR ELEVATION	VARIES	1123 + BLAST	SEE NOTE #1	SEE NOTE #2
6	132-R	EXTERIOR ELEVATION	VARIES	1123 + BLAST	SEE NOTE #1	SEE NOTE #2

* REFER TO DOOR SHOP DRAWINGS FOR DOOR HARDWARE

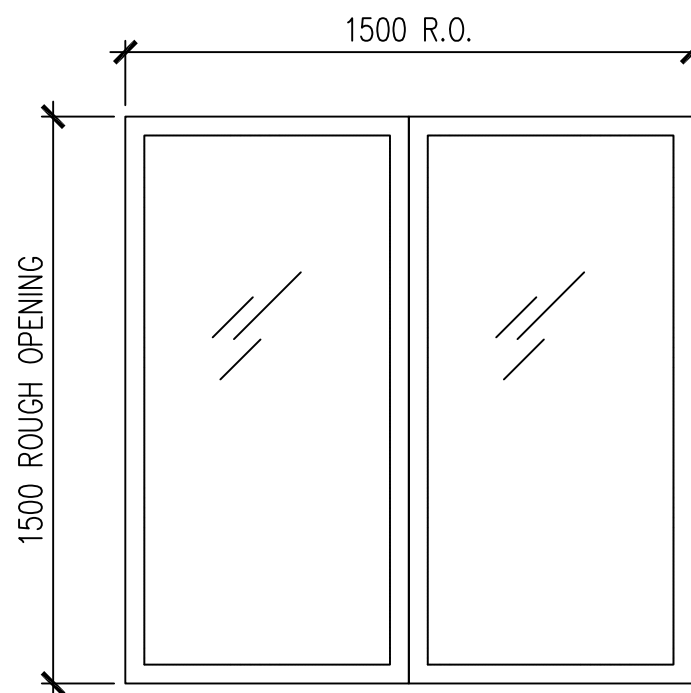
OPE NOTES	
PROJECTS WITH A SCOPE OF WORK THAT INCLUDE OPE (OWNER PROCURED EQUIPMENT) WILL RECEIVE PRODUCT SHOP DRAWINGS FOR EACH WINDOW TYPE. OPE SHOP DRAWINGS SUPERCEDE SBD DRAWINGS FOR WINDOW SIZE AND DETAILS. SBD DRAWINGS SHOULD BE USED TO REFERENCE WINDOW TYPE LOCATION.	

NOTES:

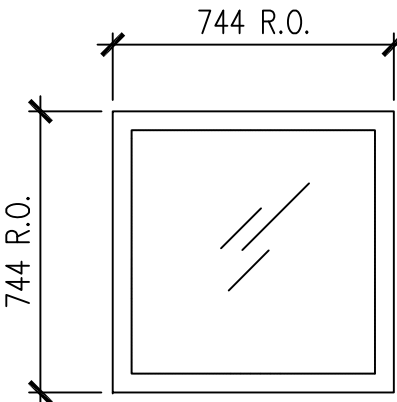
- 1- FOR OPE - REFER TO PRODUCT SHOP DRAWINGS AND REPORT
FOR NON-OPE - GLAZING TYPE & THICKNESS TO BE DETERMINED BY WINDOW RATING DESIGN CRITERIA.
- 2- FOR OPE - REFER TO PRODUCT SHOP DRAWINGS
FOR NON-OPE - WINDOW SIZE = ROUGH OPENING - SHIM SPACE
- 3- ROUGH OPENING DOES NOT INCLUDE SUBFRAME OR EMBED
ROUGH OPENING = WINDOW UNIT + SHIM SPACE



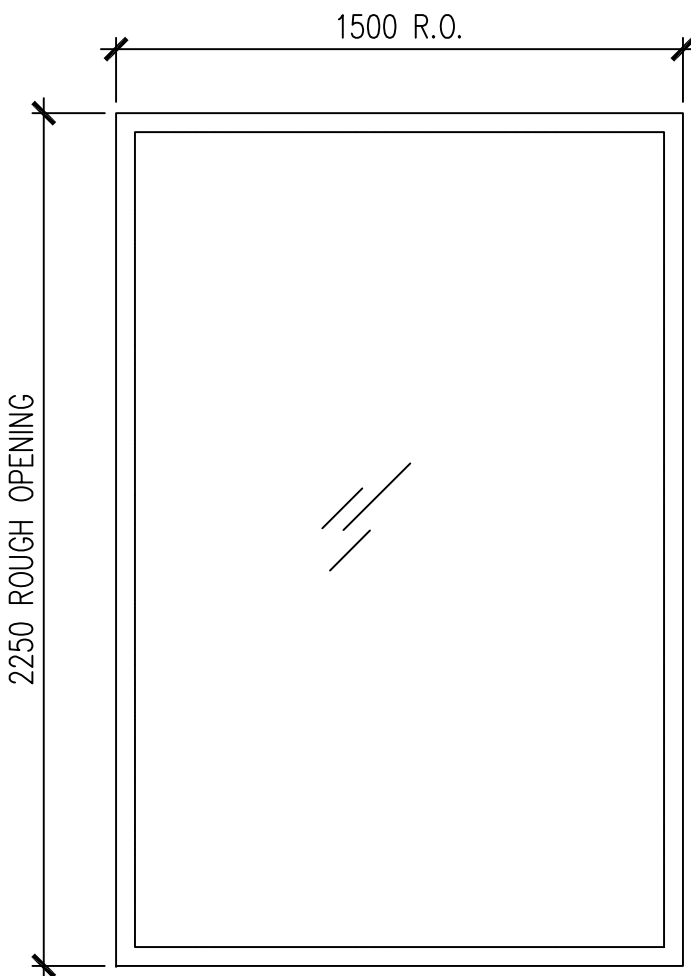
1 WINDOW TYPE 1 (B-1)
A201 | A601 1:20



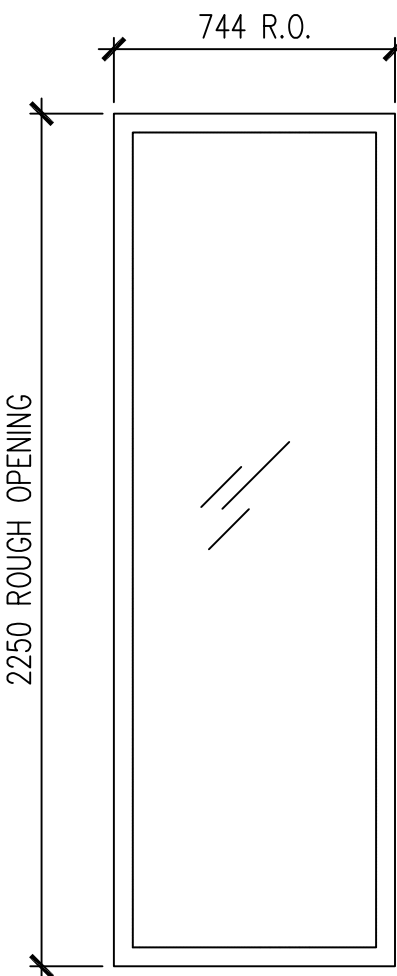
2 WINDOW TYPE 2 (G-1)
A201 | A601 1:20



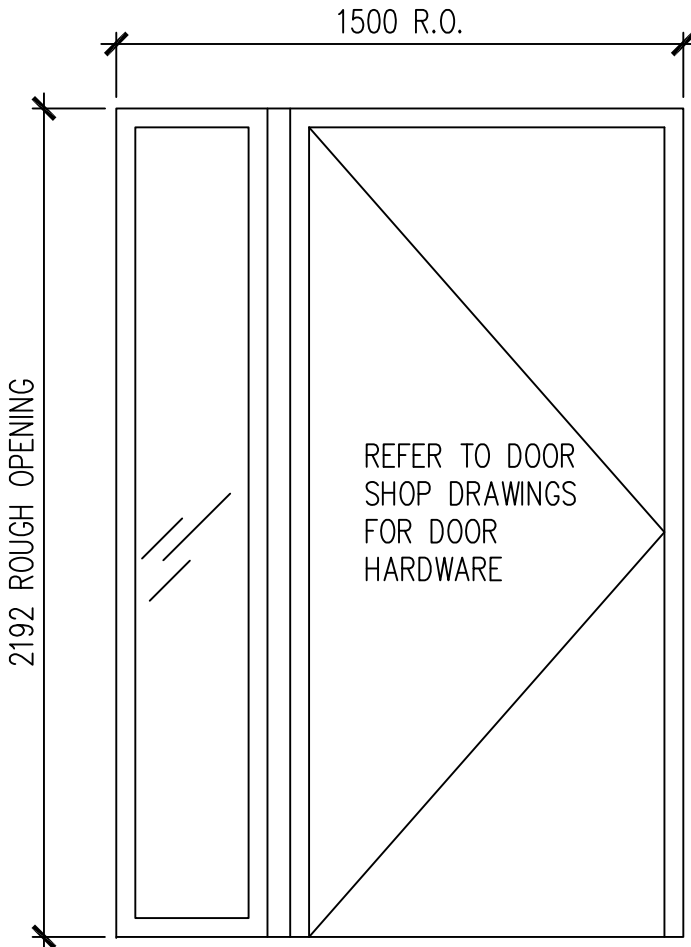
3 WINDOW TYPE 3 (E-1)
A201 | A601 1:20



4 WINDOW TYPE 4 (A-1)
A201 | A601 1:20



5 WINDOW TYPE 5 (C-1)
A201 | A601 1:20



6 WINDOW TYPE 1 (132-R)
A201 | A601 1:20

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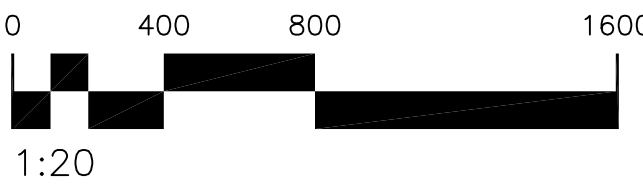
Barracks 101

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Washington, DC 20005

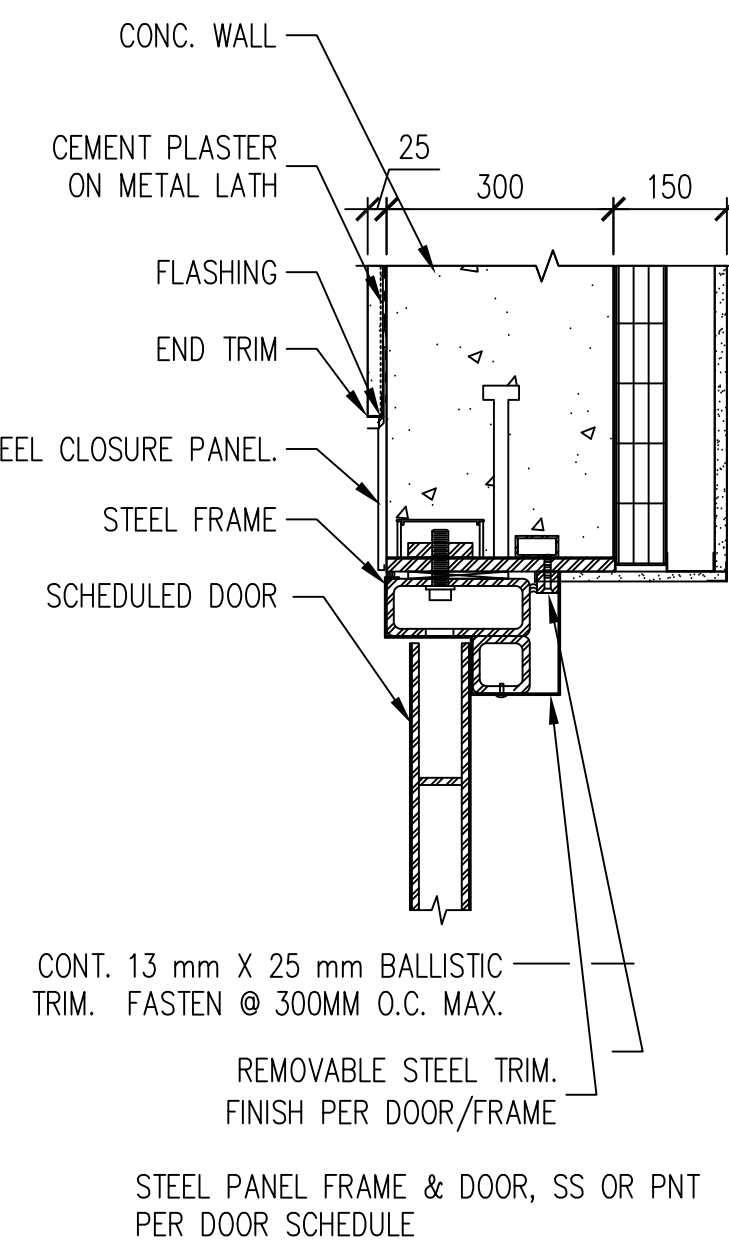
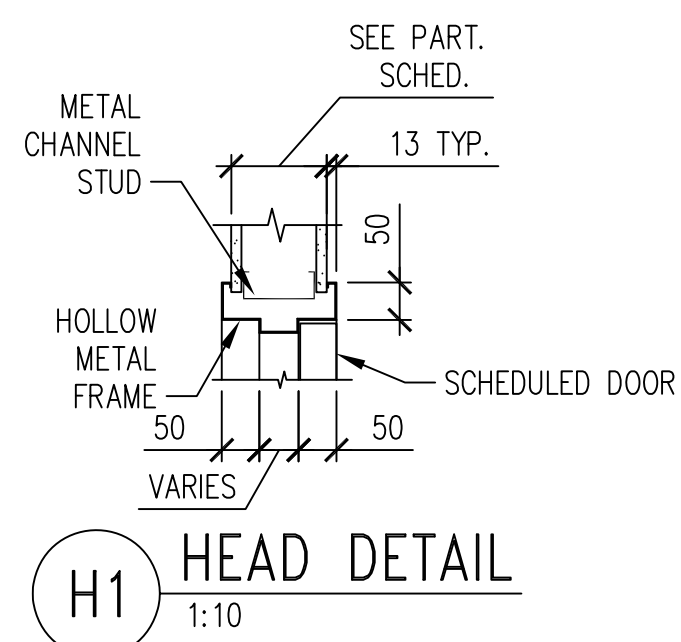
Rev Number	Description	Date
Revisions		

Release For Construction:		
NIBS/Asa	NIBS/Asa	
Drawing Title		
WINDOW SCHEDULE		
SBD Project Number	Drawing Scale	Phase
AS NOTED	1:20	CONCEPT
CADD File Name	CADD Plot Scale	1:1
CBMA601.DWG		
Date	NOV-2012	Sheet Number
Drawn By	NIBS	Barracks
Checked By	NIBS	A601
Project Number		
Classification	UNCLASSIFIED	

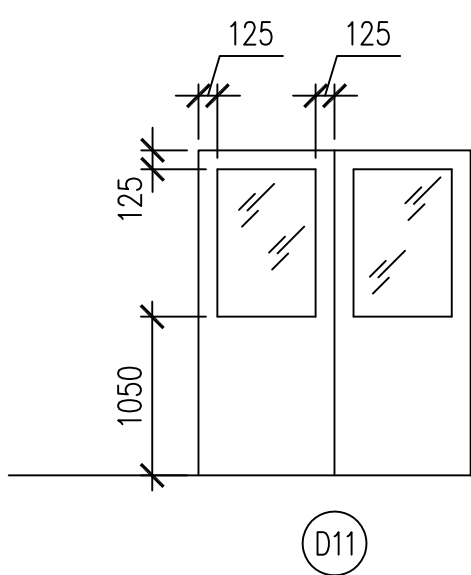
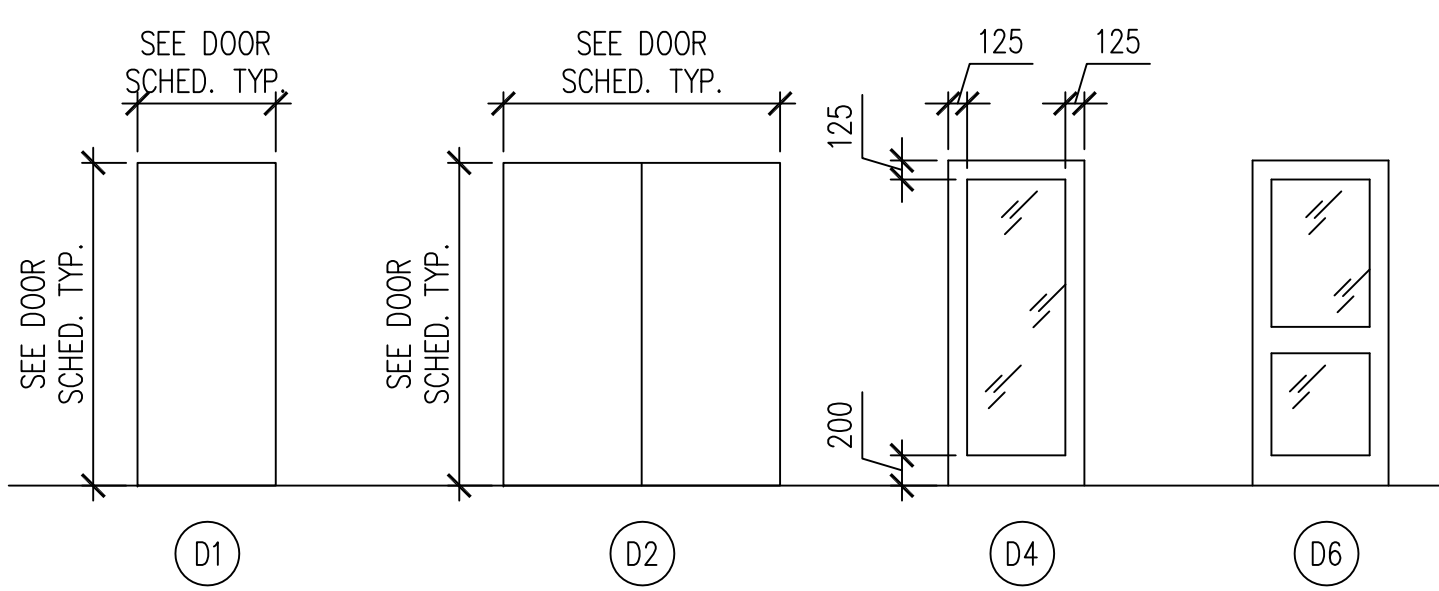


BARRACKS 101 DOOR SCHEDULE

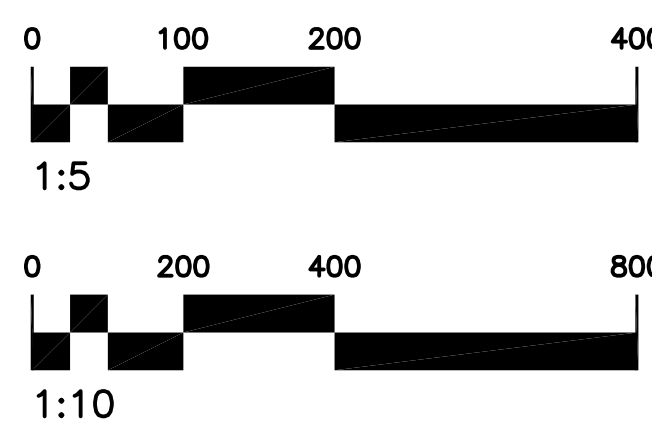
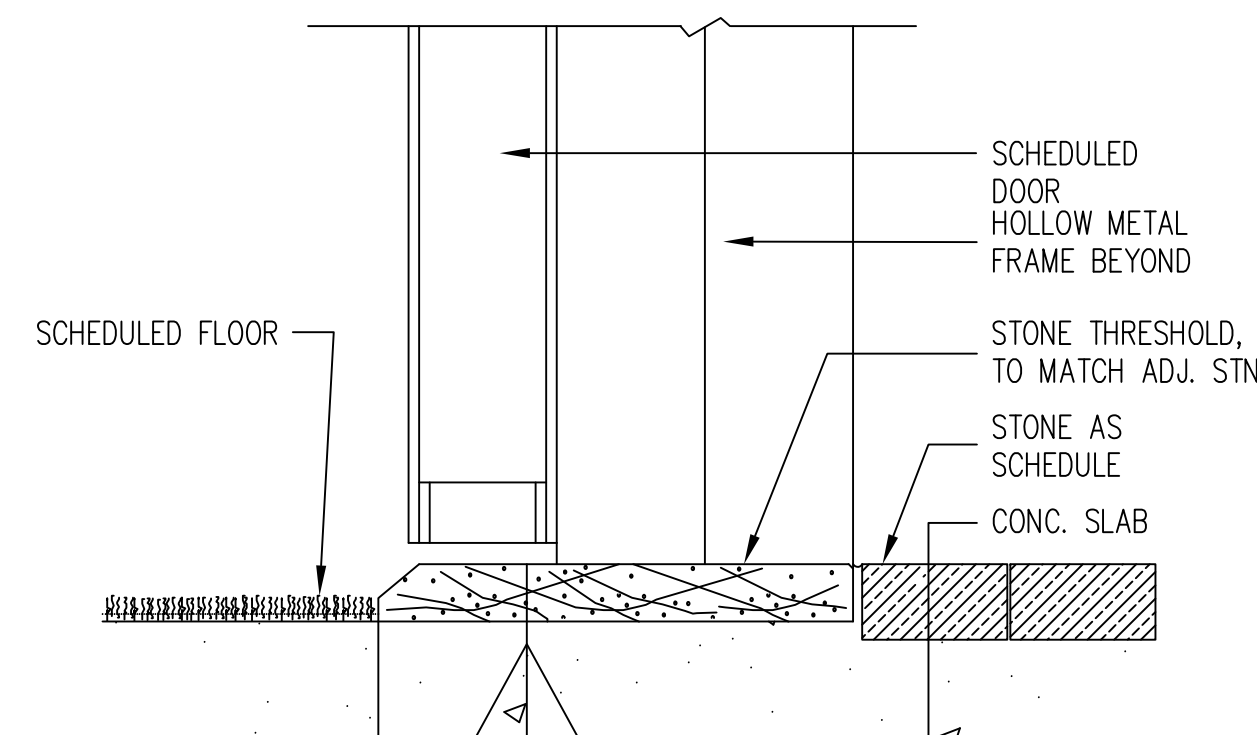
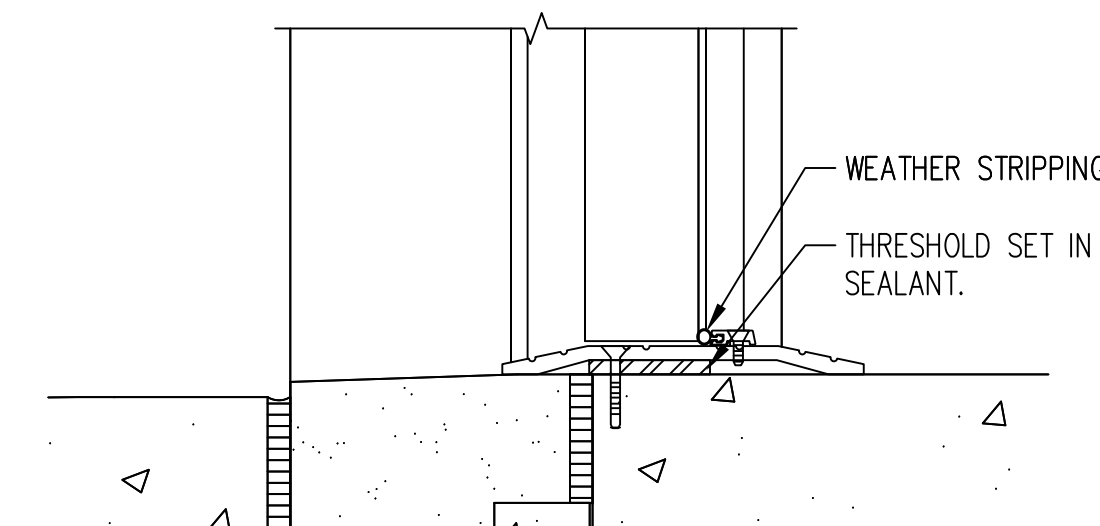
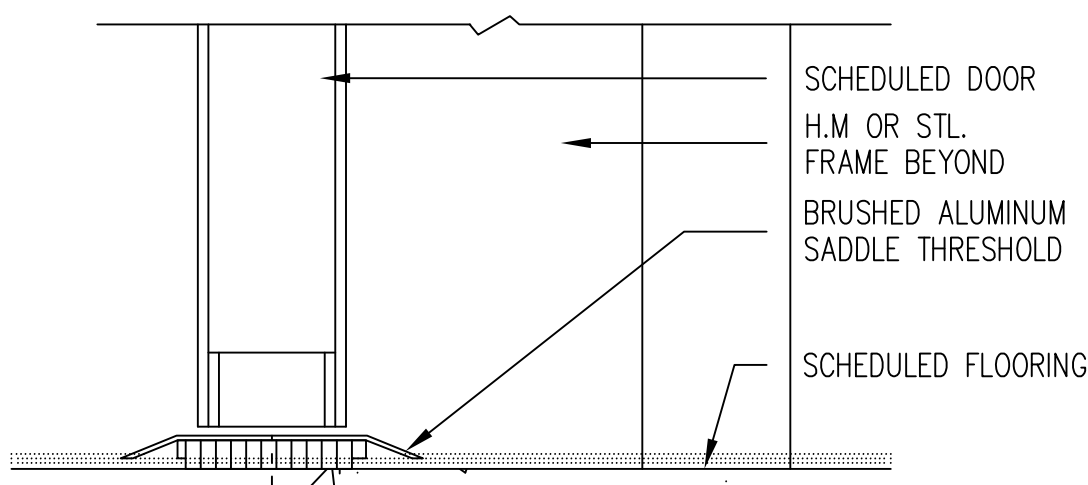
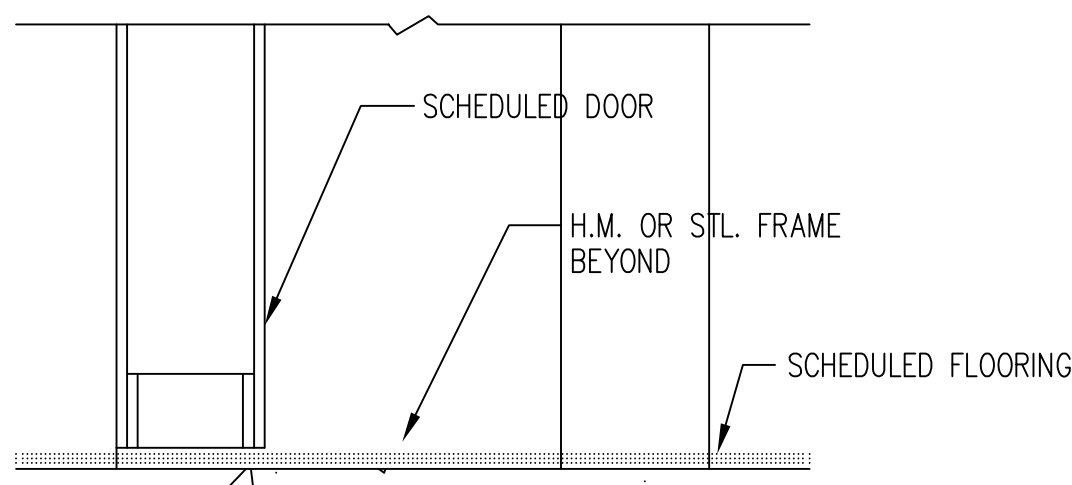
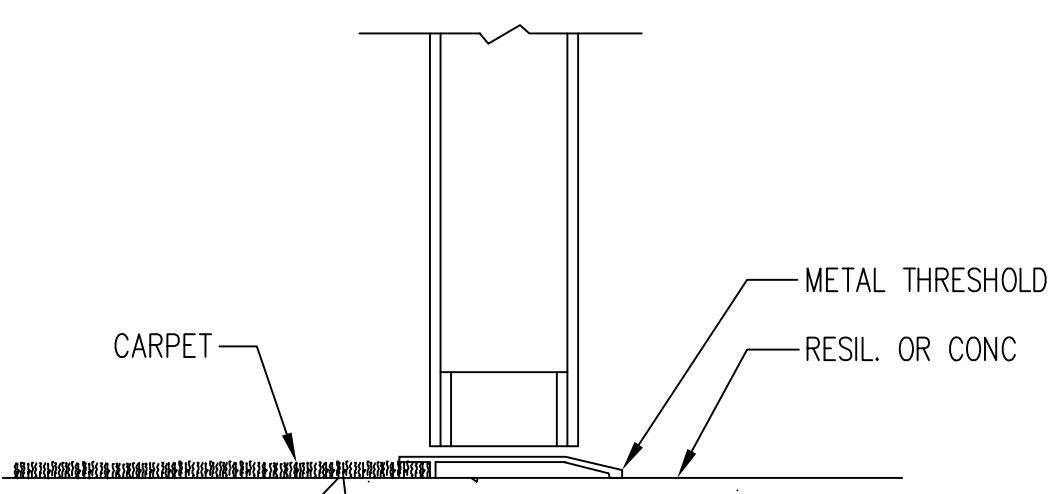
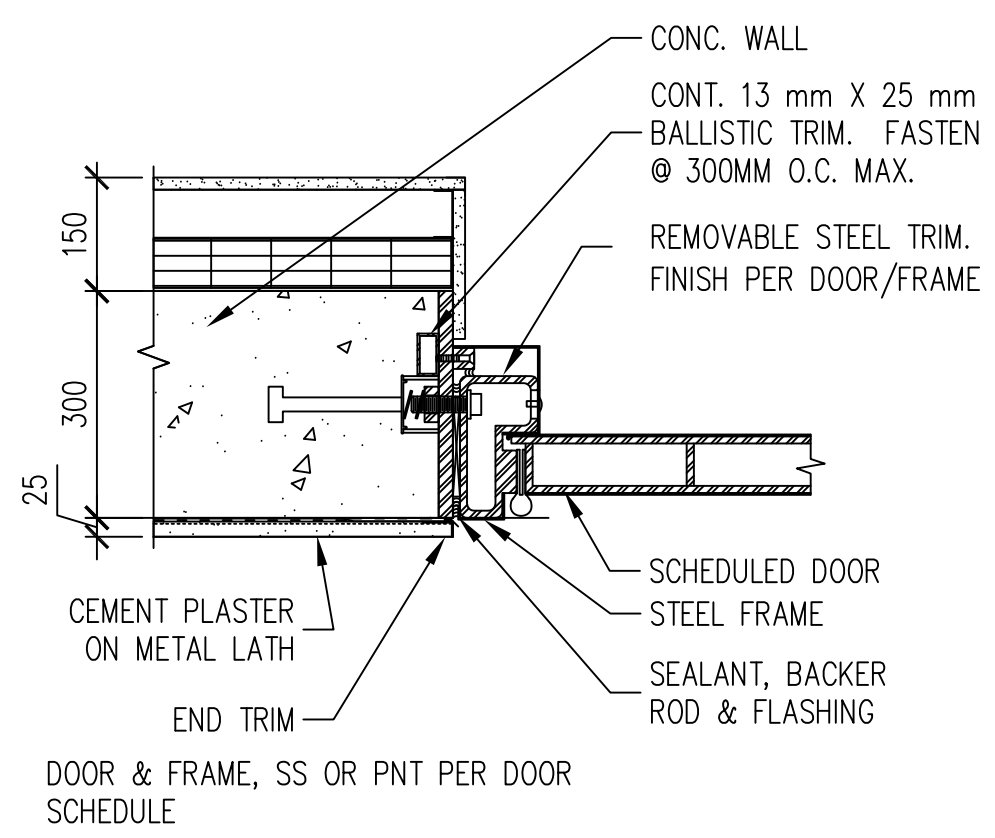
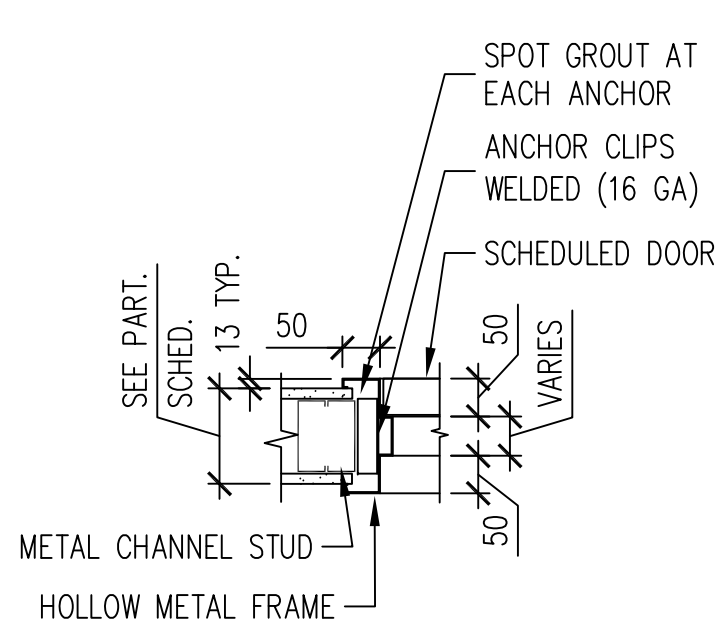
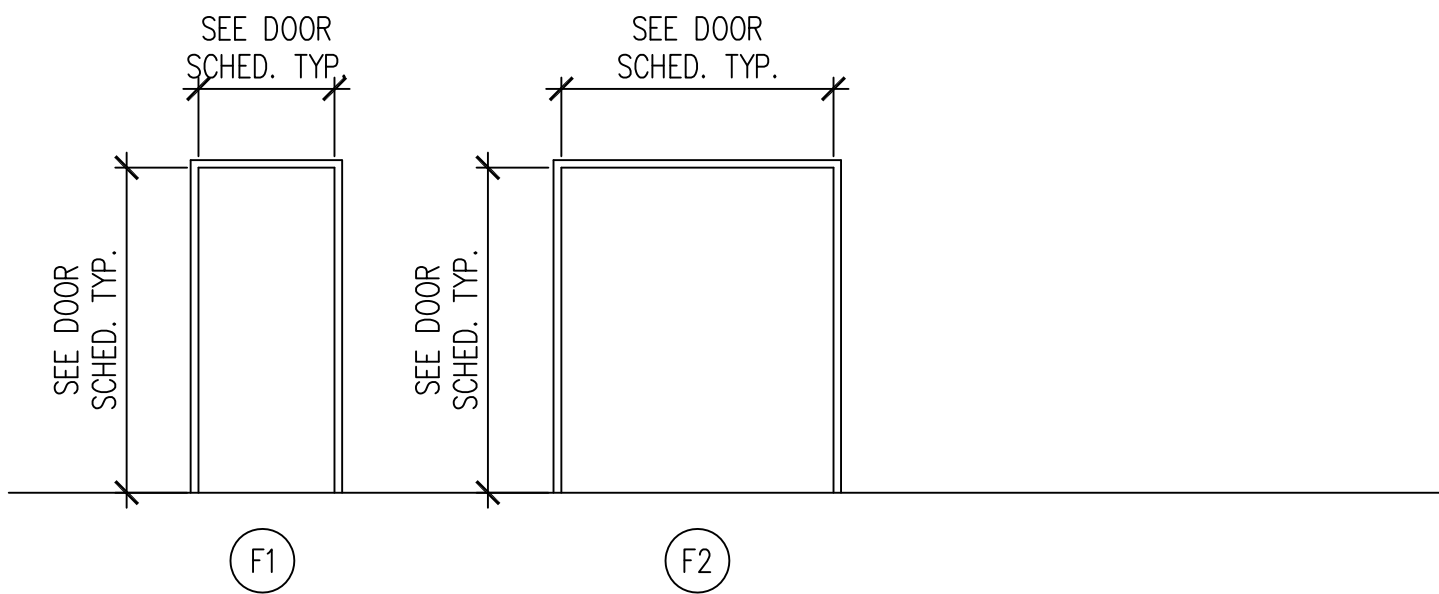
OPE NUMBER	RM/DOOR NUMBER	DOOR SIZE			DOOR TYPE	DOOR MATERIAL	DOOR FINISH	GLAZING TYPE	FEBR CODE	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FRAME DETAILS			FIRE CLASS	LABEL RATING	HARDWARE SET	REMARKS
		WIDTH	HEIGHT	THICKNESS									HEAD	JAMB	SILL				
131-R	101A	940	2135	52	D1	STEEL	SS	-	2123	F1	STEEL	SS	H-3	J-2	S-14	-	-	SHW-25A	
	101B	915	2135	45	D4	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	110	
	102	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	111	
	103	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	111	
	104	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	116	
121-R	105	PR 915	2135	52	D2	STEEL	SS	-	2333	F2	STEEL	SS	H-3	J-2	S-14	-	-	SHW-19A	
	106	762	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-4	-	-	111	
	107	762	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	110	
	108	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-4	-	-	140	
	109	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	116	
	110	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	110	
	111	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	116	
	112	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	140	
	113	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	116	
121-R	115	PR 915	2135	52	D2	STEEL	SS	-	2333	F2	STEEL	SS	H-3	J-2	S-14	-	-	SHW-19A	
131-R	116A	940	2135	52	D1	STEEL	SS	-	2123	F1	STEEL	SS	H-3	J-2	S-14	-	-	SHW-25A	
	116B	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	106	
131-L	118A	940	2135	52	D1	STEEL	SS	-	2123	F1	STEEL	SS	H-3	J-2	S-14	-	-	SHW-25A	
	118B	940	2135	52	D1	STEEL	SS	-	2123	F1	STEEL	SS	H-3	J-2	S-14	-	-	SHW-25A	
	119	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	110	
	120	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	116	
	121	915	2135	45	D4	WD	PF	K	-	F1	HM	PNT	H-1	J-1	S-21	-	-	110	
	122	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	110	
132-R	123	940	2135	52	D6	STEEL	SS	-	1123	F1	STEEL	SS	H-3	J-2	S-14	-	-	SHW-25	
	124	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-21	-	-	110	
LEVEL TWO																			
	201	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-5	-	-	116A	
	202	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-5	-	-	SHW-14	
	203	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	116A	
	203A	610	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	110	
	203B	PR 762	2135	45	D1	WD	PF	-	-	F2	HM	PNT	H-1	J-1	S-9	-	-	123	
	204	762	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-4	-	-	111	
	205	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	116A	
	205A	610	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	110	
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	206	762	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-4	-	-	111	
	207	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	116A	
	207A	610	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	110	
	207B	PR 762	2135	45	D1	WD	PF	-	-	F2	HM	PNT	H-1	J-1	S-9	-	-	123	
	208	762	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-4	-	-	111	
	209	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	116A	
	209A	610	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	110	
	209B	PR 762	2135	45	D1	WD	PF	-	-	F2	HM	PNT	H-1	J-1	S-9	-	-	123	
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	211	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-9	-	-	116A	
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	217A	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-5	-	90	106A	
	217B	915	2135	45	D1	WD	PF	-	-	F1	HM	PNT	H-1	J-1	S-5	-	90	106A	



DOOR TYPES SCALE 1:50



FRAME TYPES SCALE 1:50



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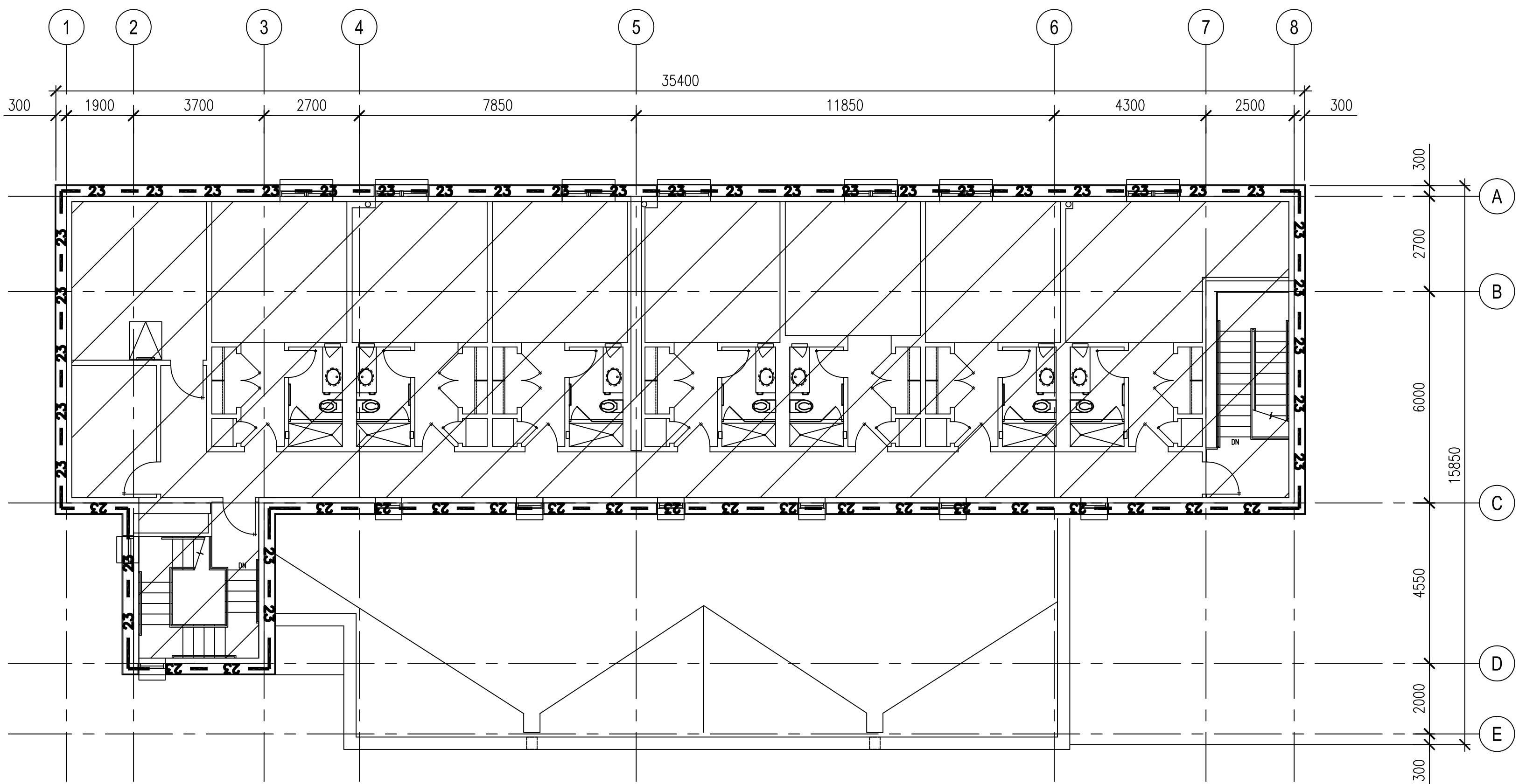
Release For Construction:	NIBS/Asa	NIBS/Asa
Drawing Title	DOOR SCHEDULE AND DETAILS	
DBO Project Number	Drawing Scale	Phase
CBMA602.DWG	1:1	AS NOTED
CAED File Name	CAED File Scale	CONCEPT
Date	NOV-2012	Sheet Number
Drawn By	NIBS	Barracks
Checked By	NIBS	A602
Project Number		
Classification	UNCLASSIFIED	

BARRACKS 101 FINISH SCHEDULE								LEVEL ONE
ROOM NUMBER		FLOOR	BASE	WALLS	CEILING			REMARKS
					TYPE	FINISH	HEIGHT	
101	EXERCISE ROOM	RAF	VWB	PNT	GWB	PNT	2750	FLOOR MATS, EXERCISE EQUIP., ROLLING SHADE
102	TOILET	CT	CT	PNT	GWB	PNT	2440	
103	TOILET	CT	CT	PNT	GWB	PNT	2440	
104	STORAGE	CONC. SEALER	VWB	PNT	GWB	PNT	2750	
105	MECHANICAL ROOM	CONC. SEALER	VWB	PNT	-	-	-	
106	BATH	CT	CT	CT / PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
107	CLOSET	VCT	VWB	PNT	GWB	PNT	2440	
108	BREAK ROOM	VCT	VWB	PNT	GWB	PNT	2440	MILLWORK
109	ELEC./TELE.	CONC. SEALER	VWB	PNT	-	-	-	
110	LAUNDRY	VCT	VWB	PNT	GWB	PNT	2440	MILLWORK
112	KITCHEN	QT	QT	PNT	GWB	PNT	2750	MILLWORK, ROLLING SHADE W/BLACKOUT
113	FOOD STORAGE	QT	QT	PNT	GWB	PNT	2750	MILLWORK
114	PANTRY	QT	QT	PNT	GWB	PNT	2750	MILLWORK
115	OUTDOOR STORAGE	CONC. SEALER	VWB	PNT	-	-	-	
116	STAIR #2	STONE	STONE	PNT	GWB	PNT	-	
117	HALL	STONE	STONE 3	PNT	GWB	PNT	2440	
118	RECREATION / DINING ROOM	STONE	STONE	PNT	GWB	PNT	3000	MILLWORK, ROLLING SHADE W/BLACKOUT
119	BAR	STONE	STONE	PNT	GWB	PNT	2750	MILLWORK, BAR EQUIP. SLIP RESIST. STONE FINISH
120	STORAGE	VCT OR LINO	VWB	PNT	GWB	PNT	2750	
121	LIVING ROOM	BRDLM CPT	WD	PNT	GWB	PNT	2750	MILLWORK, ROLLING SHADE W/BLACKOUT
122	CLOSET	BRDLM CPT	WD	PNT	GWB	PNT	2750	
123	ENTRY	STONE	STONE 3	PNT	GWB	PNT	2750	
124	CLOSET	STONE	STONE 3	PNT	GWB	PNT	-	
125	STAIR #1	STONE	STONE	PNT	GWB	PNT	-	
LEVEL TWO								
201	STORAGE	VCT	VWB	PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
202	STORAGE ROOM	VCT	VWB	PNT	GWB	PNT	2895	
203	BEDROOM	BRDLM CPT	WD	PNT	GWB	PNT	2440/2895	SEE ENLARGED PLAN, ROLLING SHADE W/BLACKOUT
204	BATHROOM	CT	CT	CT / PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
205	BEDROOM	BRDLM CPT	WD	PNT	GWB	PNT	2440/2895	SEE ENLARGED PLAN, ROLLING SHADE W/BLACKOUT
206	BATHROOM	CT	CT	CT / PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
207	BEDROOM	BRDLM CPT	WD	PNT	GWB	PNT	2440/2895	SEE ENLARGED PLAN, ROLLING SHADE W/BLACKOUT
208	BATHROOM	CT	WD	CT / PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
209	BEDROOM	BRDLM CPT	WD	PNT	GWB	PNT	2440/2895	SEE ENLARGED PLAN, ROLLING SHADE W/BLACKOUT
210	BATHROOM	CT	CT	CT / PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
211	BEDROOM	BRDLM CPT	WD	PNT	GWB	PNT	2440/2895	SEE ENLARGED PLAN, ROLLING SHADE W/BLACKOUT
212	BATHROOM	CT	CT	CT / PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
213	BEDROOM	BRDLM CPT	WD	PNT	GWB	PNT	2440/2895	SEE ENLARGED PLAN, ROLLING SHADE W/BLACKOUT
214	BATHROOM	CT	CT	CT / PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
215	BEDROOM	BRDLM CPT	WD	PNT	GWB	PNT	2440/2895	SEE ENLARGED PLAN, ROLLING SHADE W/BLACKOUT
216	BATHROOM	CT	CT	CT / PNT	GWB	PNT	2440	MILLWORK, SEE ELEV
217	HALL	BRDLM CPT	WD	PNT	GWB	PNT	2440	ROLLING SHADE W/BLACKOUT

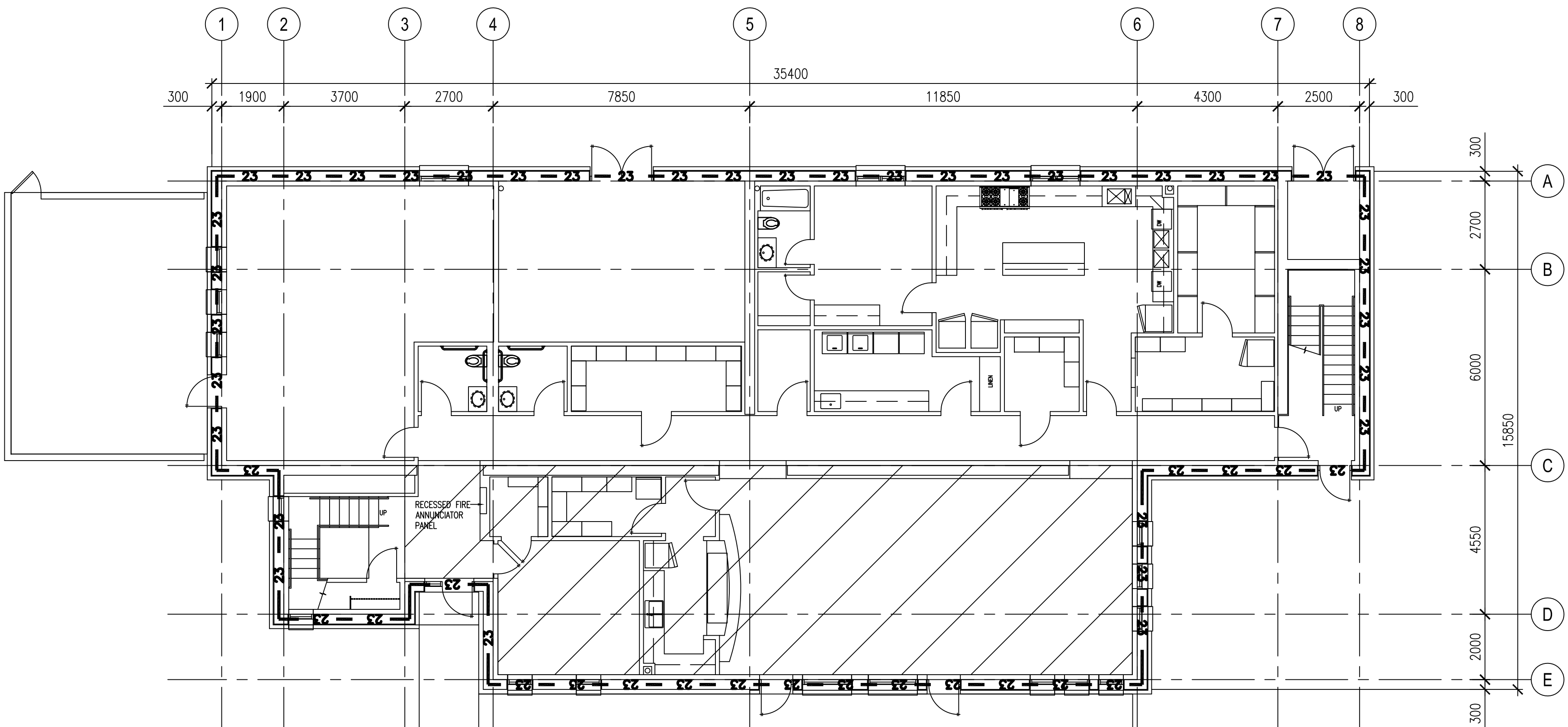
NOTES:

1. WHERE ROLLING SHADE IS CALLED FOR, PROVIDE DOUBLE SHADE FOR EACH WINDOW. DOUBLE SHADE WILL BE ONE SUN SCREEN SHADE AND ONE BLACKOUT SHADE. SEE SPECIFICATIONS

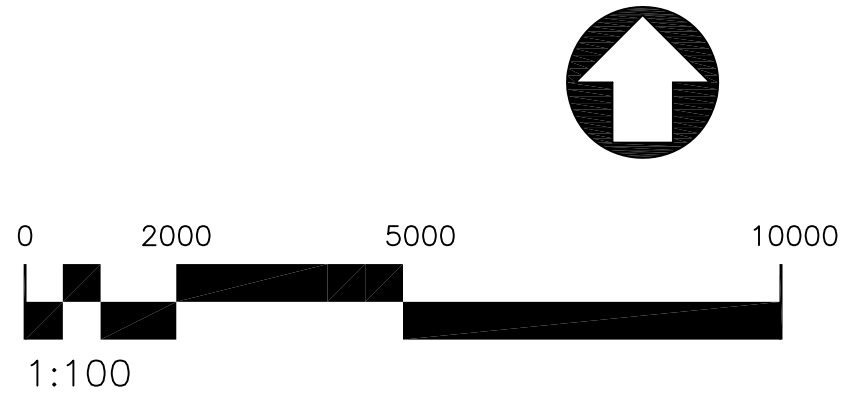
[illegible]



1
AW111
LEVEL TWO SPECIAL WALL PLAN
1:100



2
AW111
LEVEL ONE SPECIAL WALL PLAN
1:100



ALL DIMENSIONS WITHOUT A DECIMAL ARE IN MILLIMETERS UNO. ALL DIMENSIONS WITH A DECIMAL ARE IN METERS UNO.

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Barracks 101

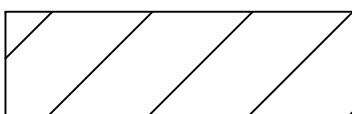
Building Information Model Common File

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LEGEND

**23 WALL TYPE
(15 MINUTE FE/BR)

**23 CEILING SLAB
(15 MINUTE FE/BR)



GENERAL NOTES

PROVIDE PROTECTION TO ALL PENETRATIONS
THROUGH WALL EQUAL TO WALL REQUIREMENT

Rev Number	Description	Date
Revisions		

Release For Construction:		
NIBS/Asa	NIBS/Asa	
Drawing Title		
SPECIAL WALL FLOOR PLANS		
GBD Project Number	Drawing Scale	Phase
AS NOTED	1:100	SCM
CADD File Name	CADD Plot Scale	CONCEPT <input type="checkbox"/> 10% <input type="checkbox"/> 30% <input type="checkbox"/> 50% <input type="checkbox"/> 70% <input type="checkbox"/> 90% <input type="checkbox"/> FINAL
CBMAW111.DWG	1:1	
Date	NOV-2012	Sheet Number
Drawn By		
Checked By	NIBS	
Project Number		
Classification	UNCLASSIFIED	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

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Barracks 101
Building Information Model
Common File

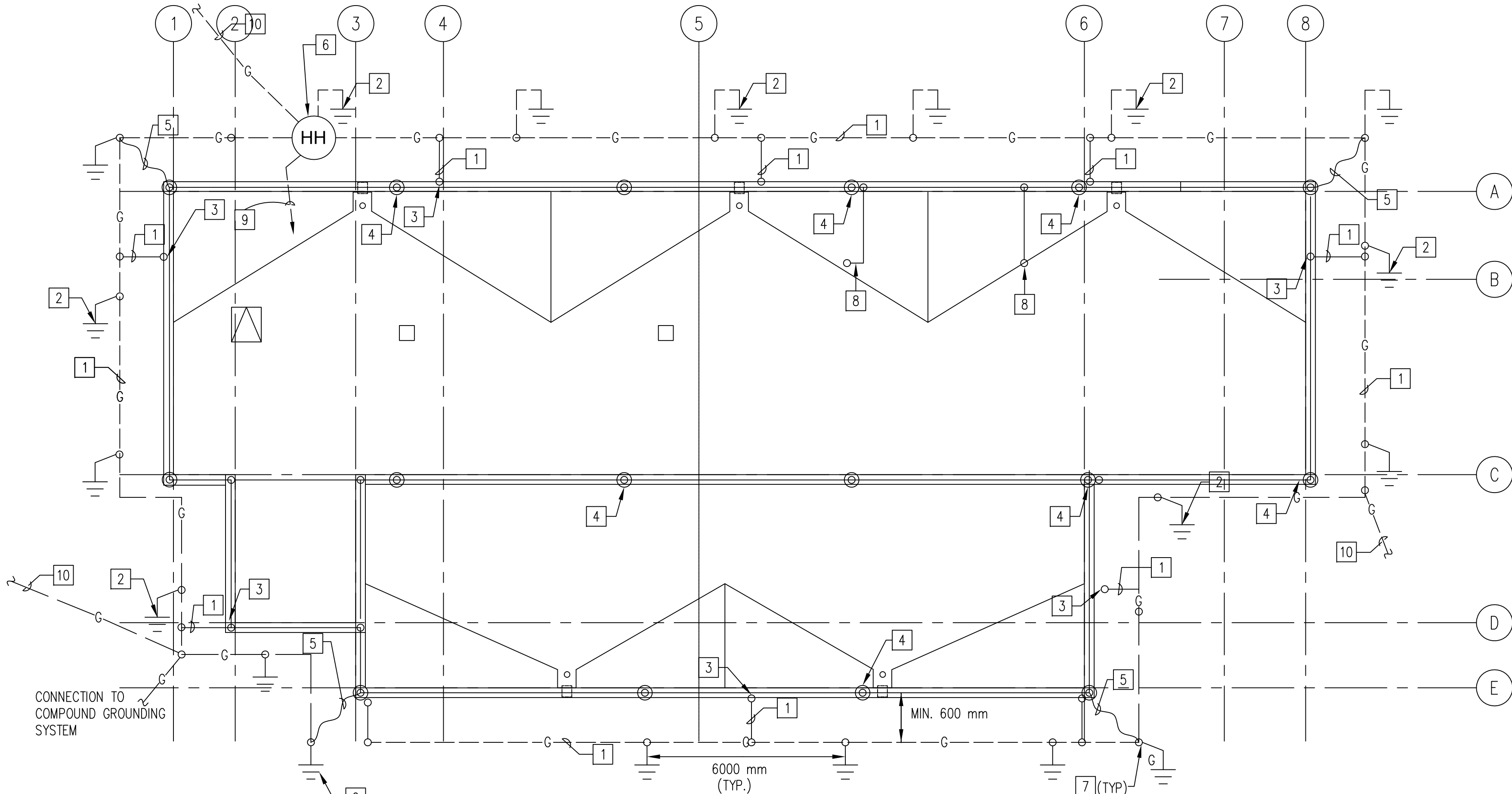
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GENERAL NOTES:

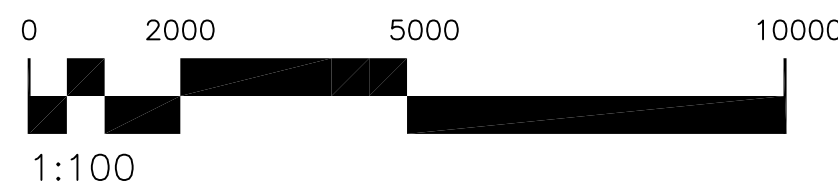
- SEE SHEETS GEN E001, E501, E502, E503, & E504 FOR ADDITIONAL INFORMATION.
- EQUIPMENT LAYOUTS AND COMPONENTS SHOWN ARE SCHEMATIC IN NATURE AND REPRESENT A DESIGN INTENT ONLY. EQUIPMENT SHOWN DOES NOT REFLECT THE ENTIRETY OF ALL SYSTEMS REQUIRED. ACTUAL EQUIPMENT INSTALLED AND FINAL SIZES AND LOCATIONS ARE TO BE PROVIDED BASED ON SITE SPECIFIC CONDITIONS AND GBO DESIGN REQUIREMENTS, STANDARDS, AND SPECIFICATIONS.
- ALL GROUND CONNECTIONS FOR BUILDING GROUNDING SYSTEM SHALL BE EXOTHERMIC WELD (CADCWELD OR EQUAL) AND ROOFTOP LIGHTNING PROTECTION SYSTEM CONNECTIONS SHALL BE MECHANICAL OR EXOTHERMIC WELD TYPE. REFER TO DETAILS ON SHEET GEN E501.
- THIS PLAN INDICATES MINIMUM REQUIREMENTS FOR LOCATION AND ROUTING OF LIGHTNING PROTECTION SYSTEM COMPONENTS AND CONDUCTORS AND IS NOT INTENDED TO ILLUSTRATE A COMPLETE DESIGN. A LPI CERTIFIED MASTER LIGHTNING PROTECTION SYSTEM DESIGNER/INSTALLER SHALL BE RESPONSIBLE FOR THE COMPLETE DESIGN OF A U.L. MASTER LABEL CERTIFIED SYSTEM. ALL MATERIALS SHALL BE AS REQUIRED PER NFPA 780.
- ADD BENTONITE (A CLAY) SLURRY MATERIAL TO SOIL SURROUNDING GROUND RODS AND COUNTERPOISE CONDUCTOR WHEN SOIL IS ROCKY OR SANDY, OR IN PARTICULAR DRY CLIMATES, IN ACCORDANCE WITH MIL-HDBK-419A. MIL-HDBK-419A REQUIRES THE BACKFILL SHALL CONSIST OF A MIXTURE OF 75 PERCENT GYPSUM (CALCIUM SULFATE), 20 PERCENT BENTONITE CLAY, AND 5 PERCENT SODIUM SULFATE. ENCASE THE COUNTERPOISE IN A 50 mm ENVELOPE OF SLURRY OF THE BACKFILL MATERIAL. INSTALL GROUND RODS IN 150 mm DIAMETER AUGURED HOLES. BACKFILL HOLE WITH SLURRY OF THE BACKFILL MATERIAL. THE BACKFILL MATERIAL MUST BE SATURATED WITH WATER AFTER INITIAL INSTALLATION AND BE TOPPED WITH A 300 mm LAYER OF EXCAVATED SOIL.
- AN ALTERNATE TO BENTONITE SLURRY MATERIAL IS TO ADD ERICO'S GROUND ENHANCEMENT MATERIAL (GEM) OR EQUAL TO GROUND RODS AND THE COUNTERPOISE CONDUCTOR. INSTALL THE GEM IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION GUIDES.
- IN CERTAIN HIGH RESISTIVITY SOILS, THE USE OF CHEMICALLY TREATED GROUND RODS SHALL BE CONSIDERED.
- GROUND SYSTEM IMPEDANCE NOT TO EXCEED 10 OHMS.
- ALL MATERIALS SHALL BE AS REQUIRED IN NFPA 780.
- ALL AIR TERMINALS SHALL BE A MINIMUM OF 600 mm IN LENGTH.
- ALL HANDHOLE AND MANHOLE COVERS MUST BE LOCKING TYPE/LOCKABLE.

CODED NOTES:

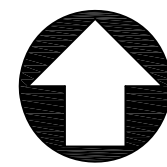
- BARE, STRANDED, COPPER CONDUCTOR 460 mm BELOW FINISHED GRADE.
- COPPER CLAD STEEL GROUND ROD.
- GROUND CONNECTION TO THE CONCRETE REINFORCING STEEL, BOND TO REINFORCING STEEL IN EACH COLUMN.
- AIR TERMINAL.
- LIGHTNING PROTECTION CONDUCTOR, PROVIDE PVC CONDUIT CAST INTO THE EXTERIOR WALL FOR EACH DOWN CONDUCTOR.
- LIGHTNING PROTECTION CONDUCTOR.
- HAND HOLE.
- BOND ALL ROOFTOP MECHANICAL EQUIPMENT AND OTHER METALLIC ENCLOSURES TO LIGHTNING PROTECTION SYSTEM. REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATIONS.
- CABLE TO MAIN GROUND BUS BAR, SEE SHEET GEN E502 DETAIL 3 & 4.
- CONNECT TO ADJACENT GROUNDING COUNTERPOISE SYSTEM. REFER TO DRAWING GMPD XXXX.



1
E111
GROUNDING AND LIGHTNING PROTECTION PLAN
1:100



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Release For Construction:	
NIBS/Ida	NIBS/Ida
Drawing Title GROUNDING & LIGHTNING PROTECTION PLAN	
GBO Project Number AS NOTED 604P	Drawing Scale 1:1
GBO File Name CBME111.DWG	Phase CONCEPT
Date NOV-2012	Sheet Number Barracks E111
Drawn By NIBS	Checked By NIBS
Project Number	Classification UNCLASSIFIED

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

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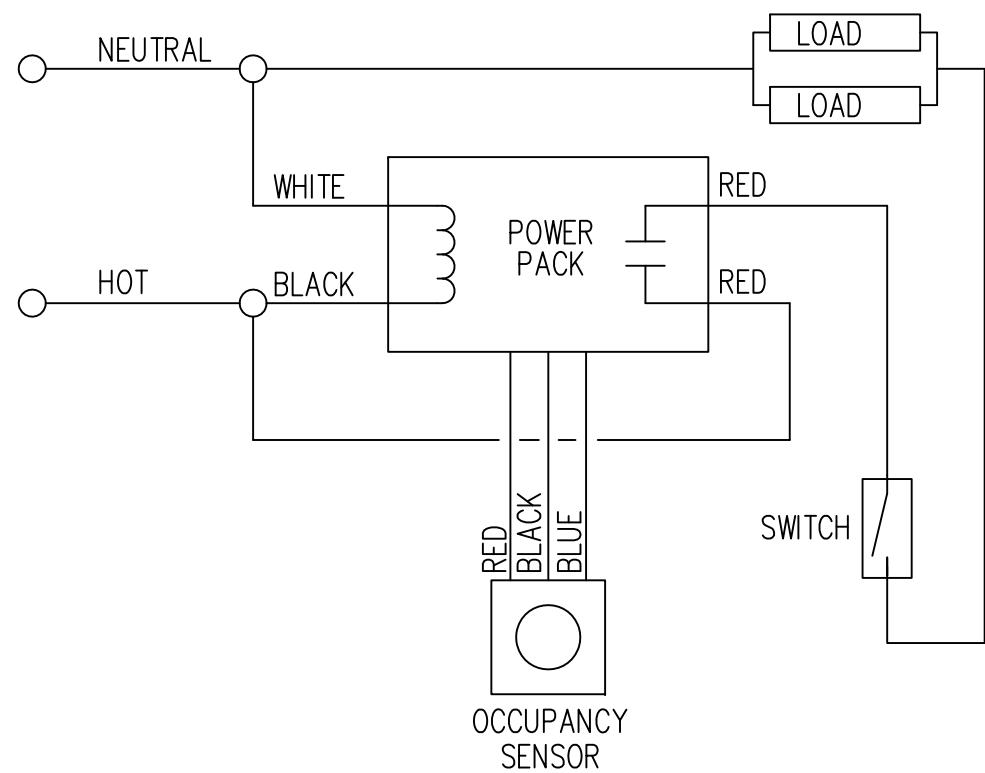
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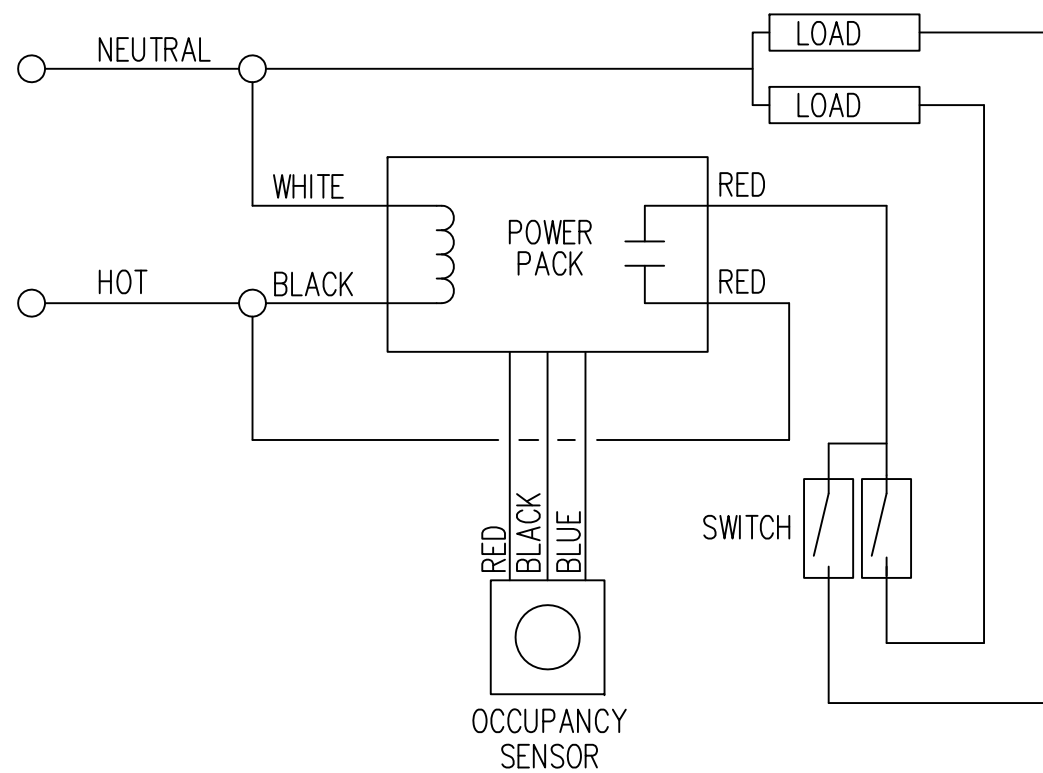
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Barracks 101
Building Information Model
Common File

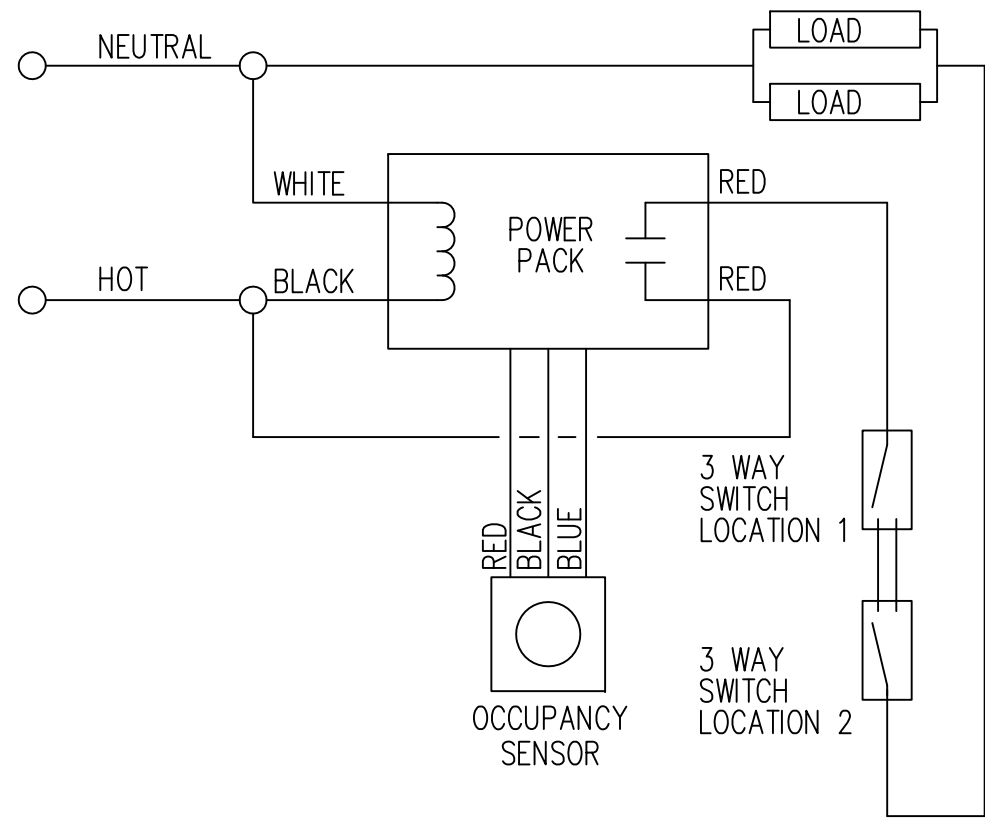
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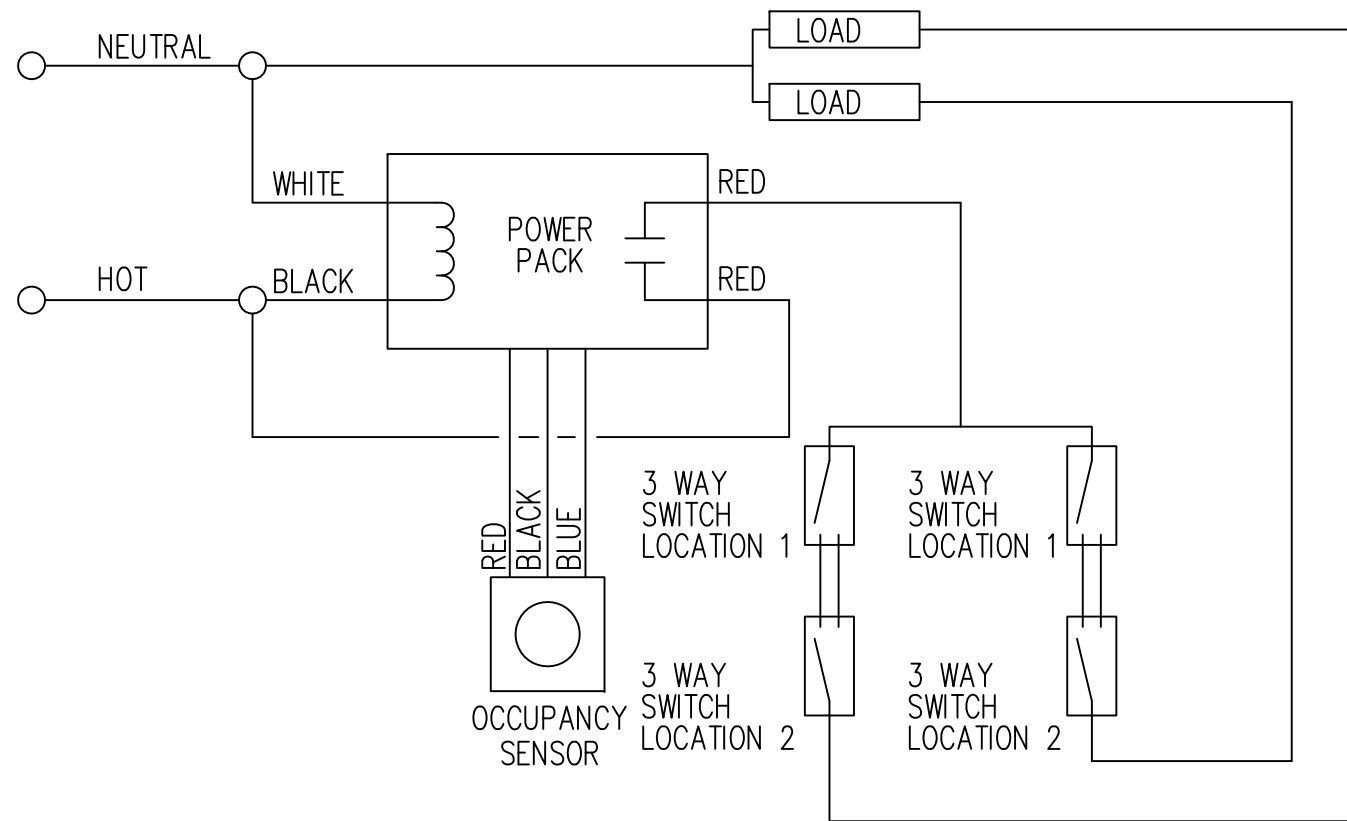
CONTROL FOR SINGLE LEVEL SWITCHING



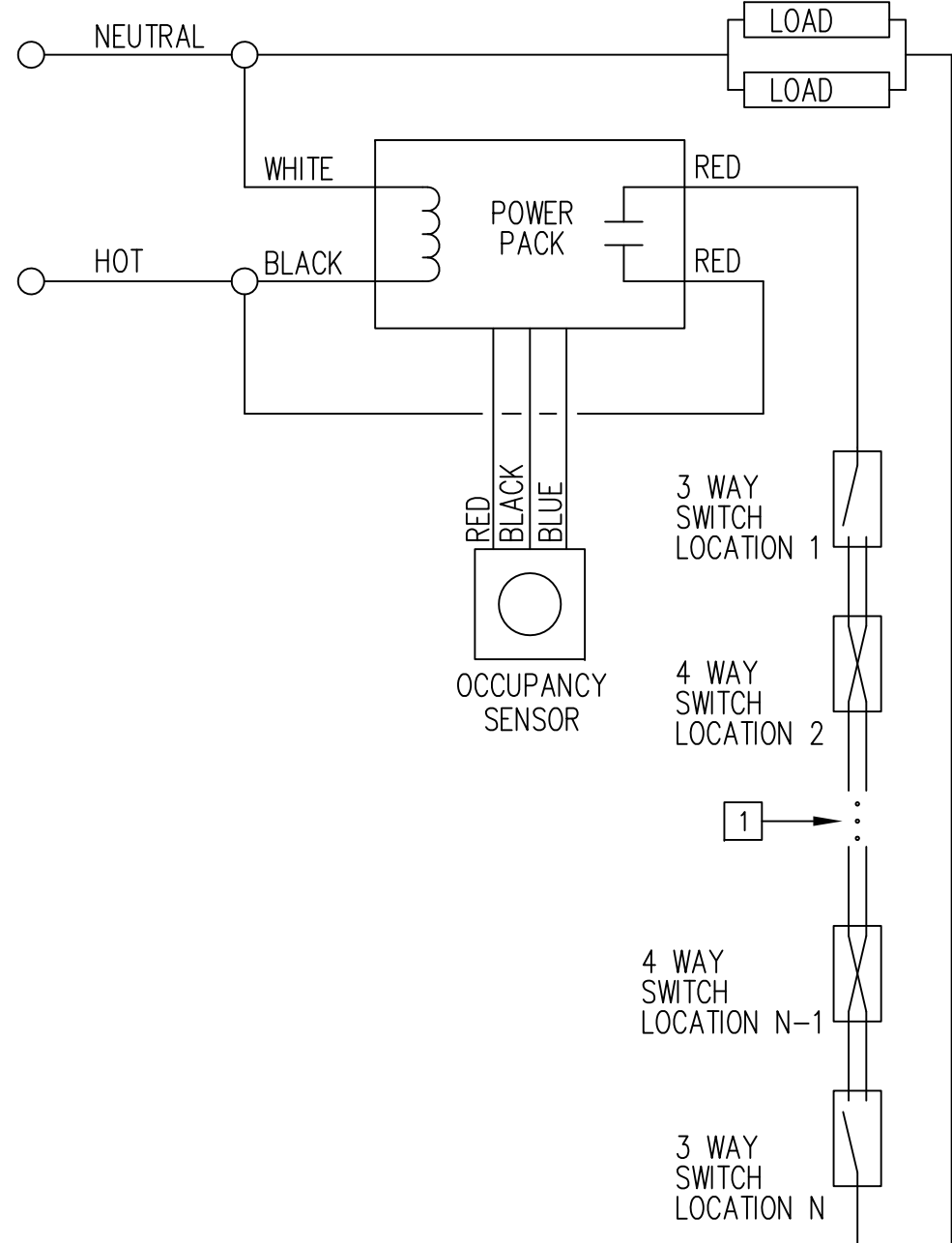
CONTROL FOR DOUBLE LEVEL SWITCHING



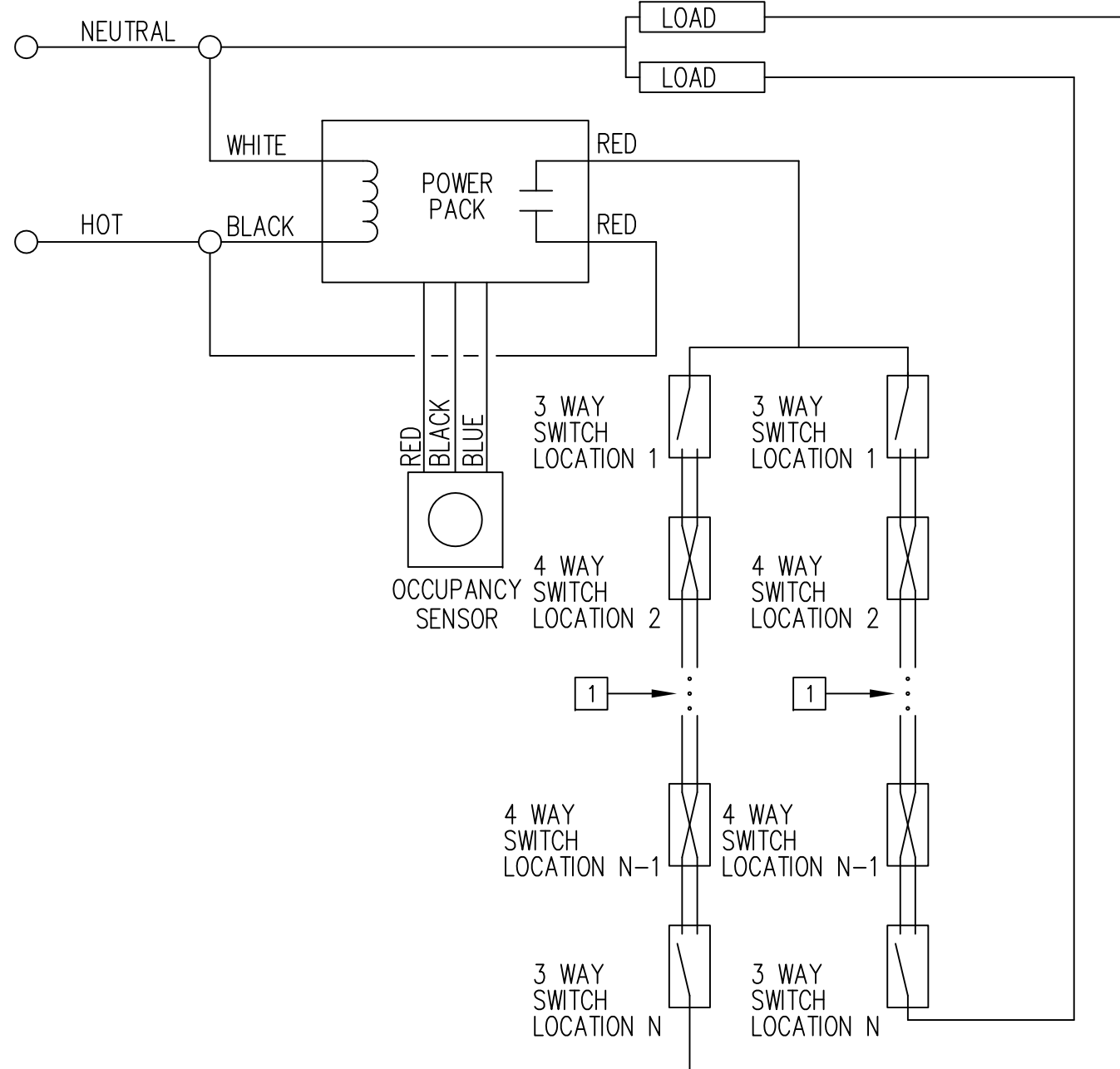
CONTROL FOR SINGLE LEVEL SWITCHING FROM 2 LOCATIONS



CONTROL FOR DOUBLE LEVEL SWITCHING FROM 2 LOCATIONS



CONTROL FOR SINGLE LEVEL SWITCHING FROM N LOCATIONS



CONTROL FOR DOUBLE LEVEL SWITCHING FROM N LOCATIONS

CODED NOTES:

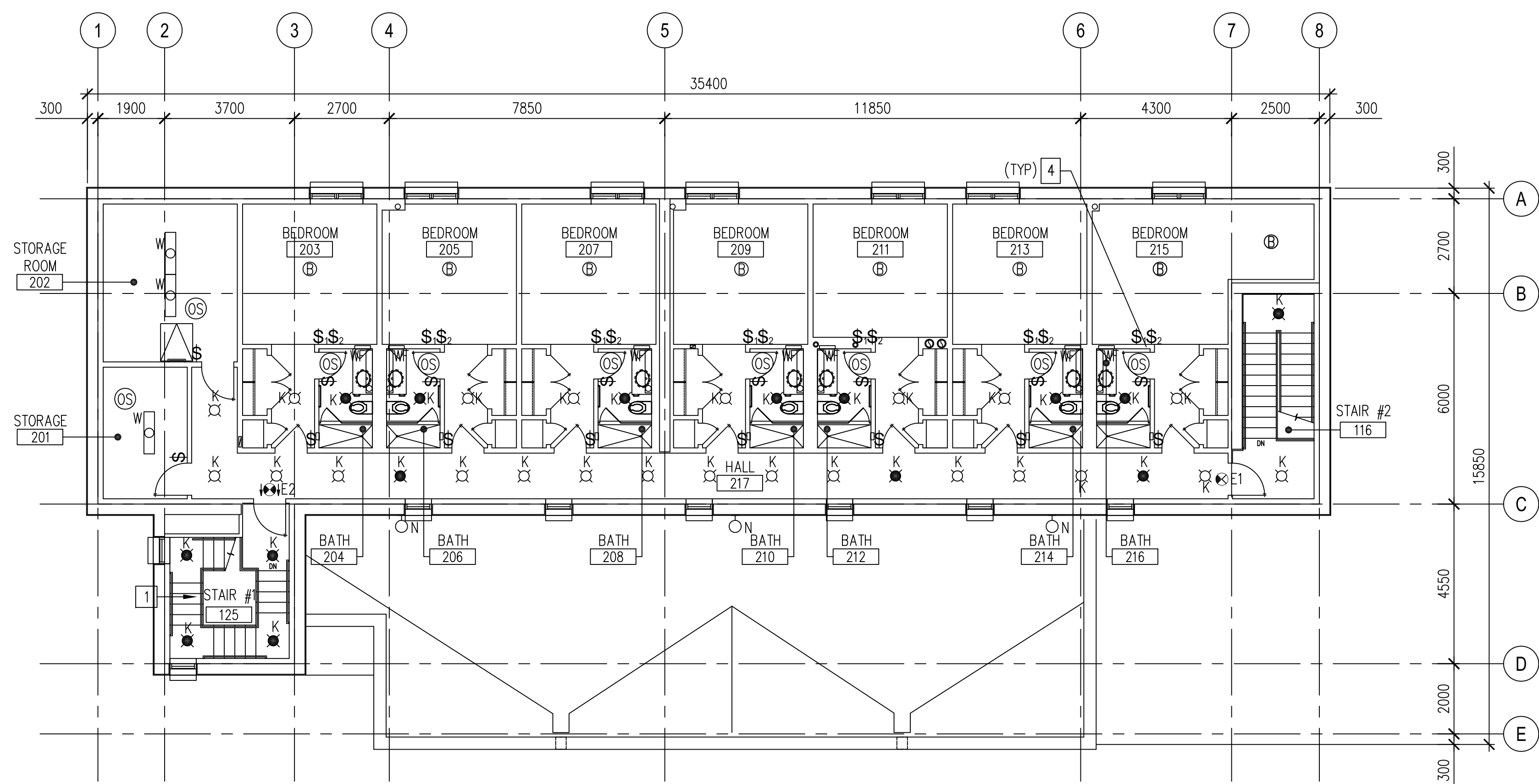
- [1] AS MANY 4-WAY SWITCHES AS ARE NECESSARY, MAY BE INSERTED HERE SO THAT THE TOTAL NUMBER OF SWITCH LOCATIONS "N" MAY BE ANY NUMBER GREATER THAN 2.

1
E511

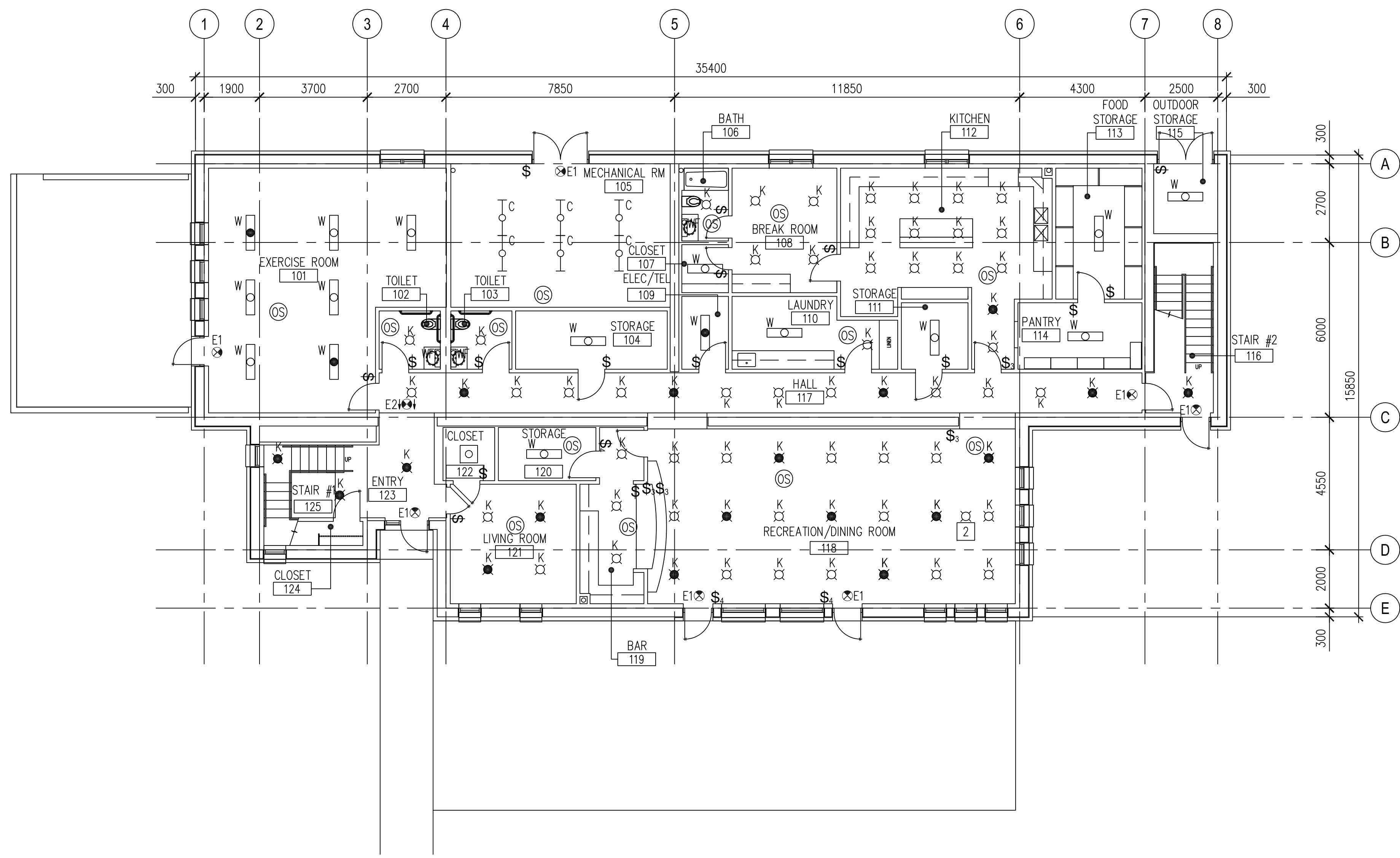
OCCUPANCY SENSOR CONTROLS FOR INTERIOR LIGHTING
NTS

Release For Construction:	
NIBS/Asa	NIBS/Asa
Drawing Title	
POINT TO POINT WIRING DIAGRAMS	
OBD Project Number	Drawing Scale Phase
AS NOTED	AS NOTED
CADD File Name	CADD Plot Scale
CEME511.DWG	1:1
Date	Sheet Number
NOV-2012	Barracks
Drawn By	NIBS
Checked By	NIBS
Project Number	E511
Classification	UNCLASSIFIED

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



1 LEVEL TWO LIGHTING PLAN
EL101 1:100



2 LEVEL ONE LIGHTING PLAN
EL101 1:100

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GENERAL NOTES:

- SEE SHEET EL601 FOR LIGHTING FIXTURE SCHEDULE.
- SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING GRID, AND EXACT FIXTURE LOCATIONS.

CODED NOTES:

- ADD K TYPE FIXTURES AT THE TOP OF THE STAIR TOWER IN A SIMILAR ARRANGEMENT AS SHOWN AT THE CEILING OF THE SECOND FLOOR.
- CONTRACTOR SHALL PROVIDE DECORATIVE PENDANT MOUNTED LIGHT OVER TABLE.
- SWITCH PROVIDED TO CONTROL THE CEILING FAN LIGHT FIXTURE.
- SWITCHING IN BEDROOMS SHALL CONTROL OVERHEAD LIGHT FIXTURE AND THE LOWER HALF OF TWO RECEPTACLE ALONG THE BEDROOM WALL (OPPOSITE THE TV WALL) SHOWN ON SHEET EPT01.

Rev Number	Description	Date
Revisions		

Release For Construction:
NIBS/Asa NIBS/Asa

Drawing Title
LIGHTING PLANS

GEO Project Number Drawing Scale Phase
AS NOTED 3047
GEO File Name GEO Plot Scale 1:1
CBMEL101.DWG

Date NOV-2012 Sheet Number
Drawn By NIBS
Checked By NIBS
Project Number
Classification UNCLASSIFIED

Barracks
EL101

LIGHTING FIXTURE SCHEDULE											
TYPE	DESCRIPTION	LENSE/ LOUVER	AIR FUNCTION	MOUNTING	VOLTS	LAMP DATA			MANUFACTURER AND CATALOG NO.	NOTES	
						NO.	WATTS	CODE			
B	SURFACE MOUNTED FIXTURE (BEDROOMS)	WHITE ACRYLIC	N/A	CS	220 50HZ	2	26	26W DOUBLE	LUMAX SP OR APPROVED EQUAL	SURFACE ROUND, 35.5 cm DIA	
C	1219 mm LONG INDUSTRIAL, ELECTRONIC BALLAST, RF FILTER AS NOTED	SHATTER RESISTANT PLASTIC OR WIREGUARD	N/A	CC	220 50HZ	3	32	F3218	DAY-BRITE #F33218PP/220 OR APPROVED EQUAL	MOUNT FIXTURE 2438 mm AFF.	
E1	L.E.D. EXIT SIGN, EMERG BATTERY BACK-UP	N/A	N/A	AS SHOWN	220 50HZ	--	--	LED	McPHILLBEN # 30LC1R/220 OR APPROVED EQUAL	CHEVRONS TO BE KNOCKED OUT ON SITE ACCORDING TO DRAWINGS	
E2	L.E.D. EXIT SIGN, EMERG BATTERY BACK-UP	N/A	N/A	AS SHOWN	220 50HZ	--	--	LED	McPHILLBEN # 30LC2R/220 OR APPROVED EQUAL	CHEVRONS TO BE KNOCKED OUT ON SITE ACCORDING TO DRAWINGS	
F	EMER. BATTERY PACK FIXTURE, 12V, STEEL HOUSING NI-CAD BATTERY	N/A	N/A	WS 2438 mm AFF	220 50HZ	2	9	--	LITHONIA #ELMANSSB OR APPROVED EQUAL		
K	COMPACT FLUORESCENT DOWNLIGHT	N/A	N/A	CR	220 50HZ	1	32	32W TRIPLE	LIGHTOLIER 8031CLW 6132BU ~ 220V		
N	L.E.D. WALL MOUNTED M.H. DIECAST ALUMINUM W/LENS	IMPACT RESISTANT TEMPERED GLASS	N/A	SEE ARCH PLANS	220 50HZ	1	37W	HPS	NORTH AMERICAN ENERGY GROUP NFA-37	MEAN LUMENS EQUIVALENT TO 150W METAL HALIDE	
W	SURFACE MOUNTED FLUORESCENT DECORATIVE FIXTURE, ELECTRONIC BALLAST	WHITE ACRYLIC	N/A	CS	220 50HZ	2	32	F3218	LITHONIA #1064032/220/CEB OR APPROVED EQUAL	SINGLE BALLAST	
WF	WALL BRACKET FLUORESCENT	ACRYLIC	N/A	WS	220 50HZ	2	32	F3218	LITHONIA #MP-2-32-ACF 125-220- GEB1015 OR APPROVED EQUAL		
MOUNTING:						AIR FUNCTION					
CS		CEILING, SURFACE	CC#		CEILING, SUSPENDED	AIR		AIR SUPPLY/RETURN			
CR		CEILING, RECESSED,			# FEET AFF	HEAT		HEAT REMOVAL			
		ACOUSTIC CEILING TILE	WS#		WALL MOUNTED, SURFACE	DUAL		AIR AND HEAT			
CG		CEILING, RECESSED, GYPSUM BOARD	WR#		WALL RECESSED, # FEET AFF	STATIC		NO AIR FRICTION			

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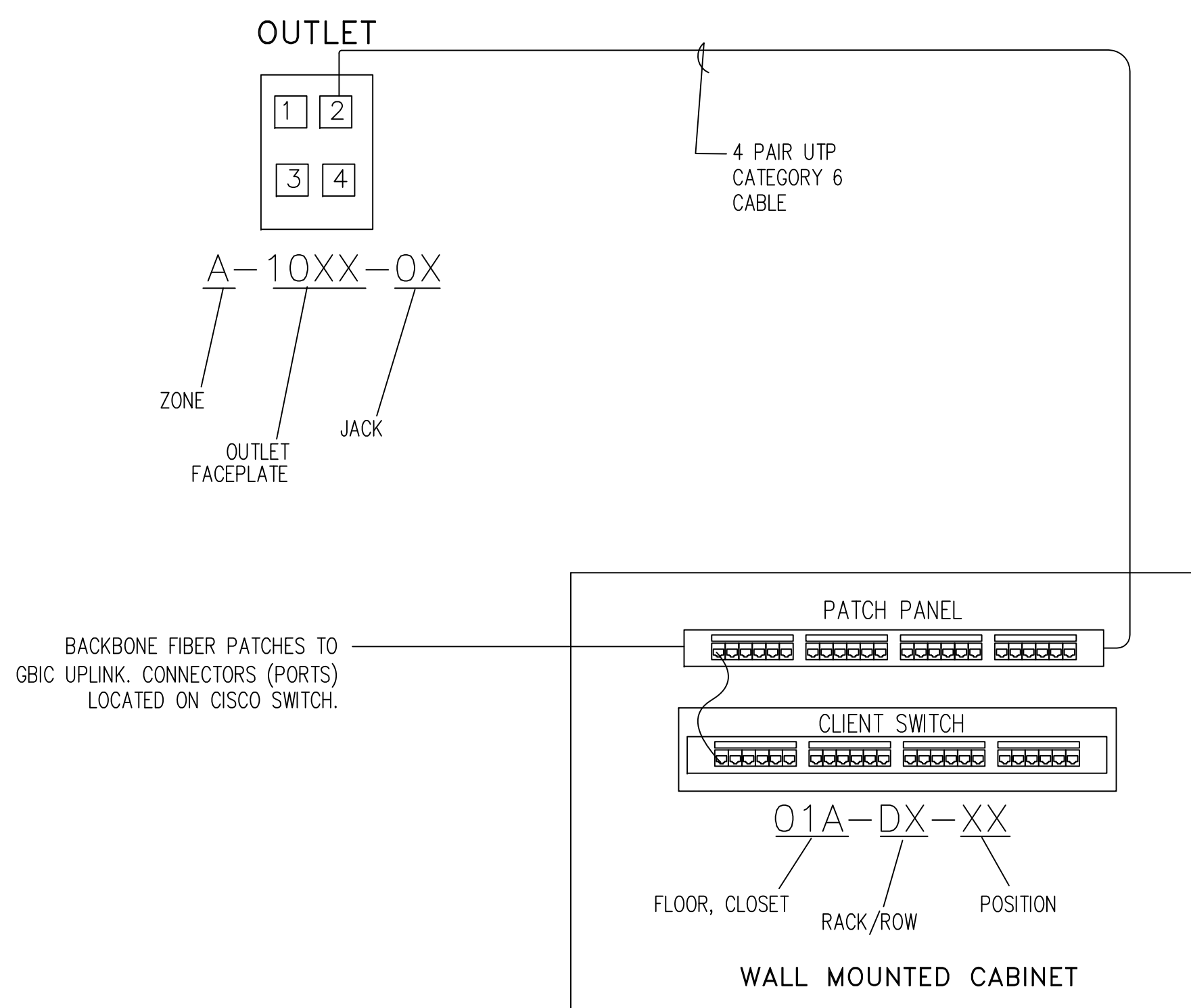
GENERAL NOTES:

- ANY OR ALL FIXTURES SHOWN ON THIS SHEET MAY
BE SUBSTITUTED WITH AN APPROXIMATE
EQUIVARIANT FIXTURE FROM ANOTHER
MANUFACTURER. THESE PART NUMBERS ARE
SHOWN FOR THE SOLE PURPOSE OF DISPLAYING A
CERTAIN DESIGN INTENT.
- PROVIDE HANDHELD REMOTE CONTROL TEST FOR
EXIT AND EMERGENCY LIGHTING UNITS PER
SPECIFICATION SECTION 16511. PROVIDE
MANUFACTURE OPTION INSTALLED INSIDE FIXTURE
FOR BOONE RCT SERIES OR EQUAL.

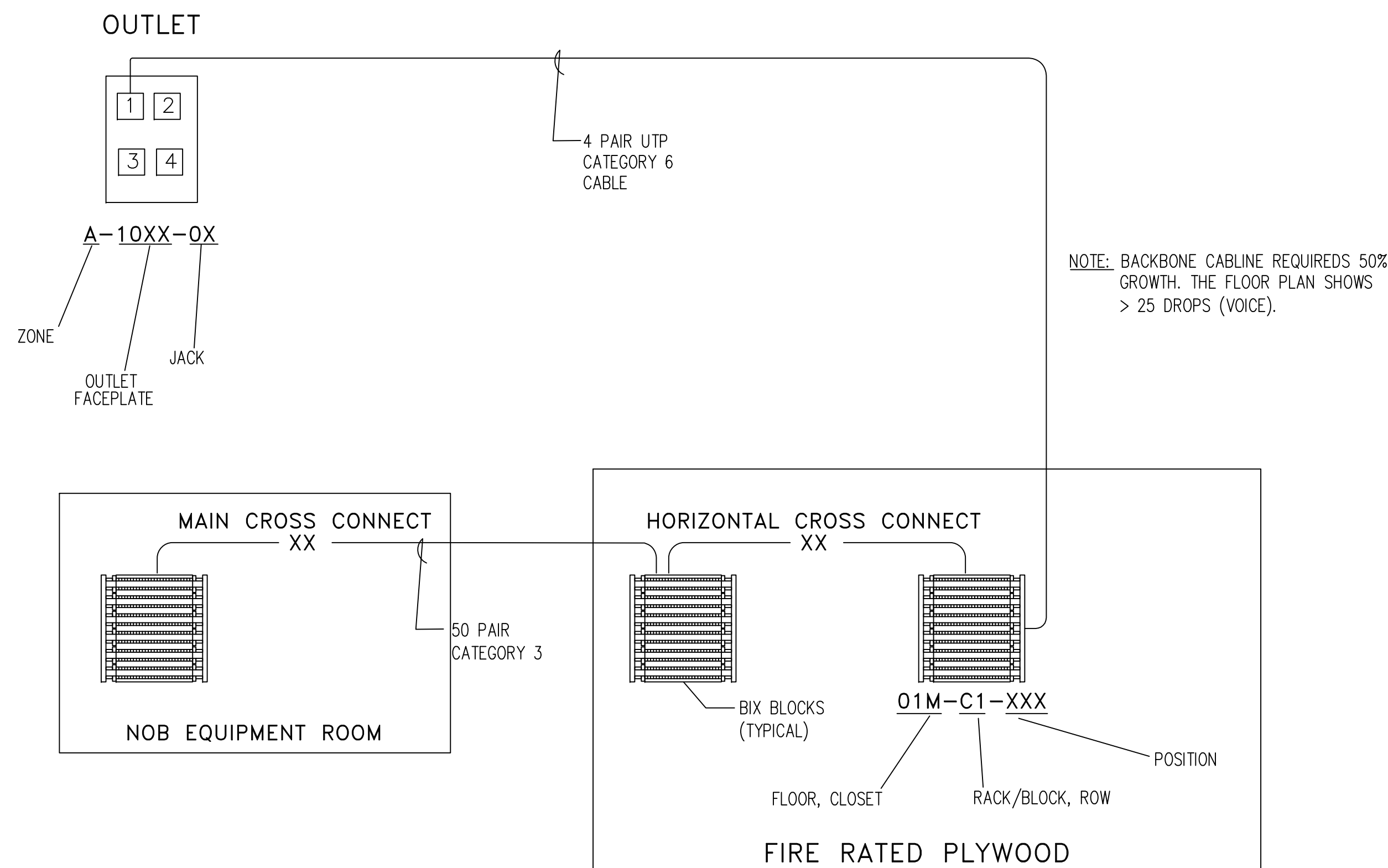
Rev Number	Description	Date
Revisions		
Release For Construction:		
NBS/Asa	NBS/Asa	
Drawing Title		
LIGHTING FIXTURE SCHEDULE		
DBO Project Number	Drawing Scale	Phase
AS NOTED	30W	30W
CAED File Name	CAED Plot Scale	CONCEPT <input type="checkbox"/> 10% <input type="checkbox"/> 20% <input type="checkbox"/> 30% <input type="checkbox"/> 40% <input type="checkbox"/> 50% <input type="checkbox"/> 60% <input type="checkbox"/> 70% <input type="checkbox"/> 80% <input type="checkbox"/> 90% <input type="checkbox"/> 100%
CBMEL601.DWG	1:1	
Date	NOV-2012	Sheet Number
Drawn By	NBS	Barracks
Checked By	NBS	EL601
Project Number		
Classification	UNCLASSIFIED	

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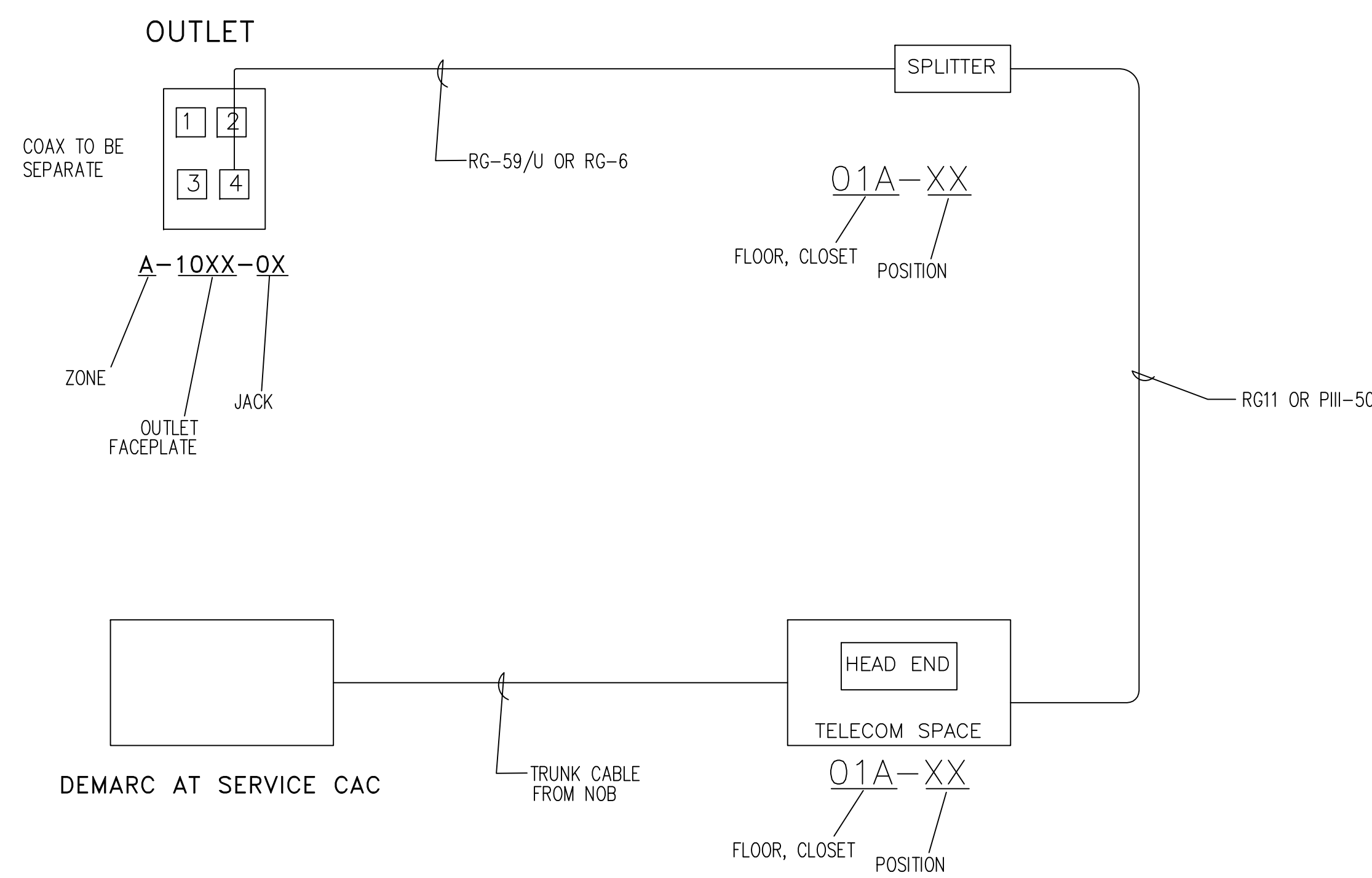
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1 TYPICAL LAN CABLE LAYOUT AND LABELING
NTS



2 TYPICAL TELEPHONE CABLE LAYOUT AND LABELING
NTS



3 TYPICAL CABLE TELEVISION LAYOUT AND LABELING
NTS

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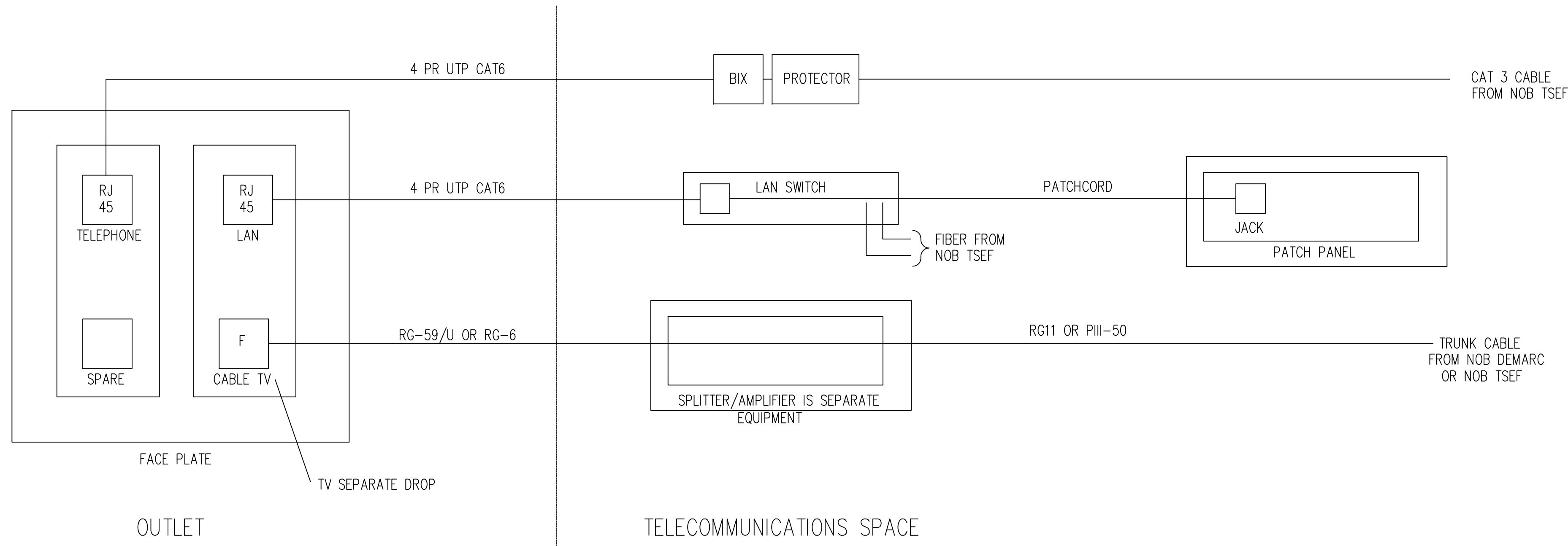
Rev Number	Description	Date

Release For Construction:	
NBS/Ida	NBS/Ida
Drawing Title	TYPICAL CABLE LAYOUT & LABELING DIAGRAMS
GBD Project Number	AS NOTED 0044
CAED File Name	CBMET501.DWG
CAED Plot Scale	1:1
Date	NOV-2012
Drawn By	NIBS/bSo
Checked By	NIBS/bSo
Project Number	
Classification	UNCLASSIFIED

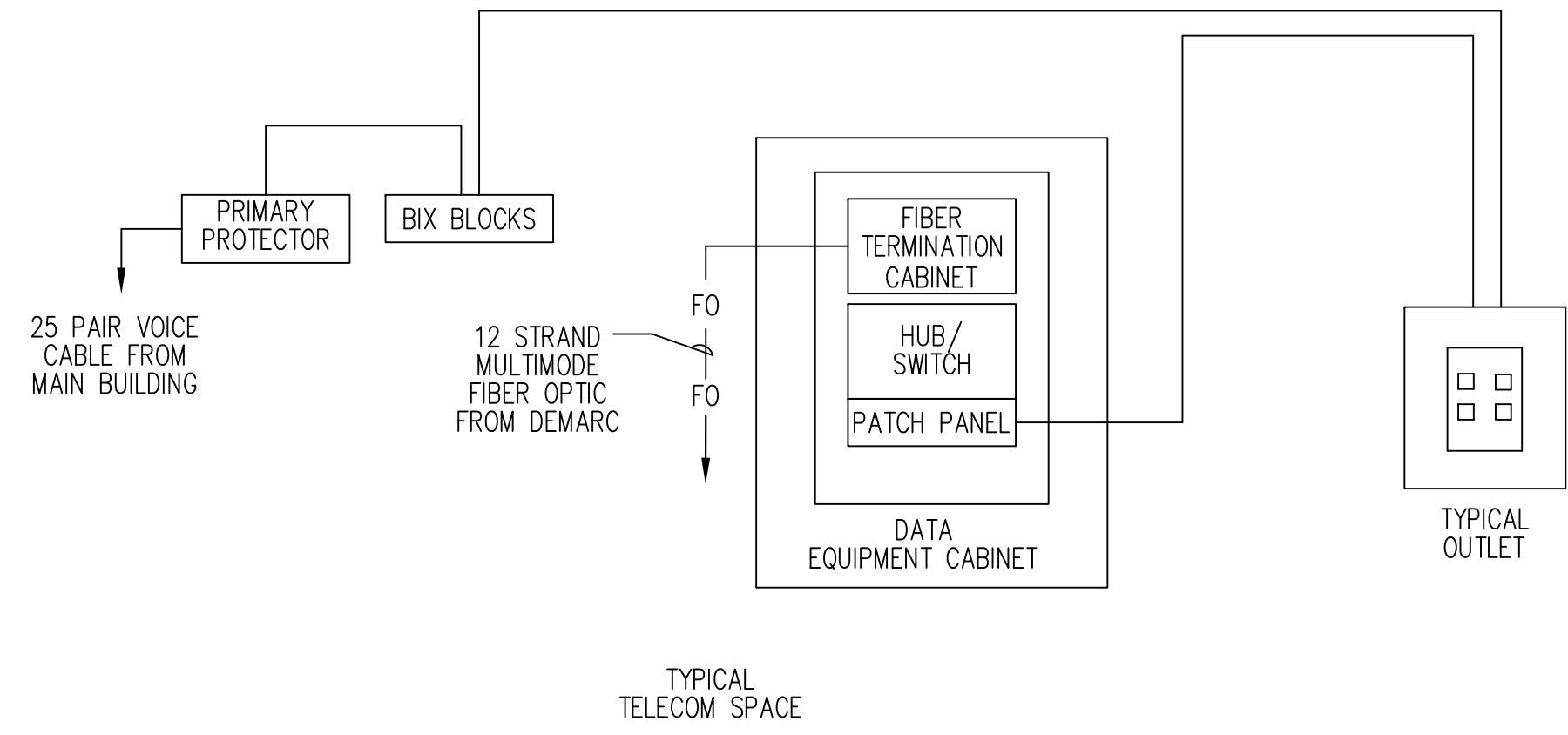
Barracks
ET501

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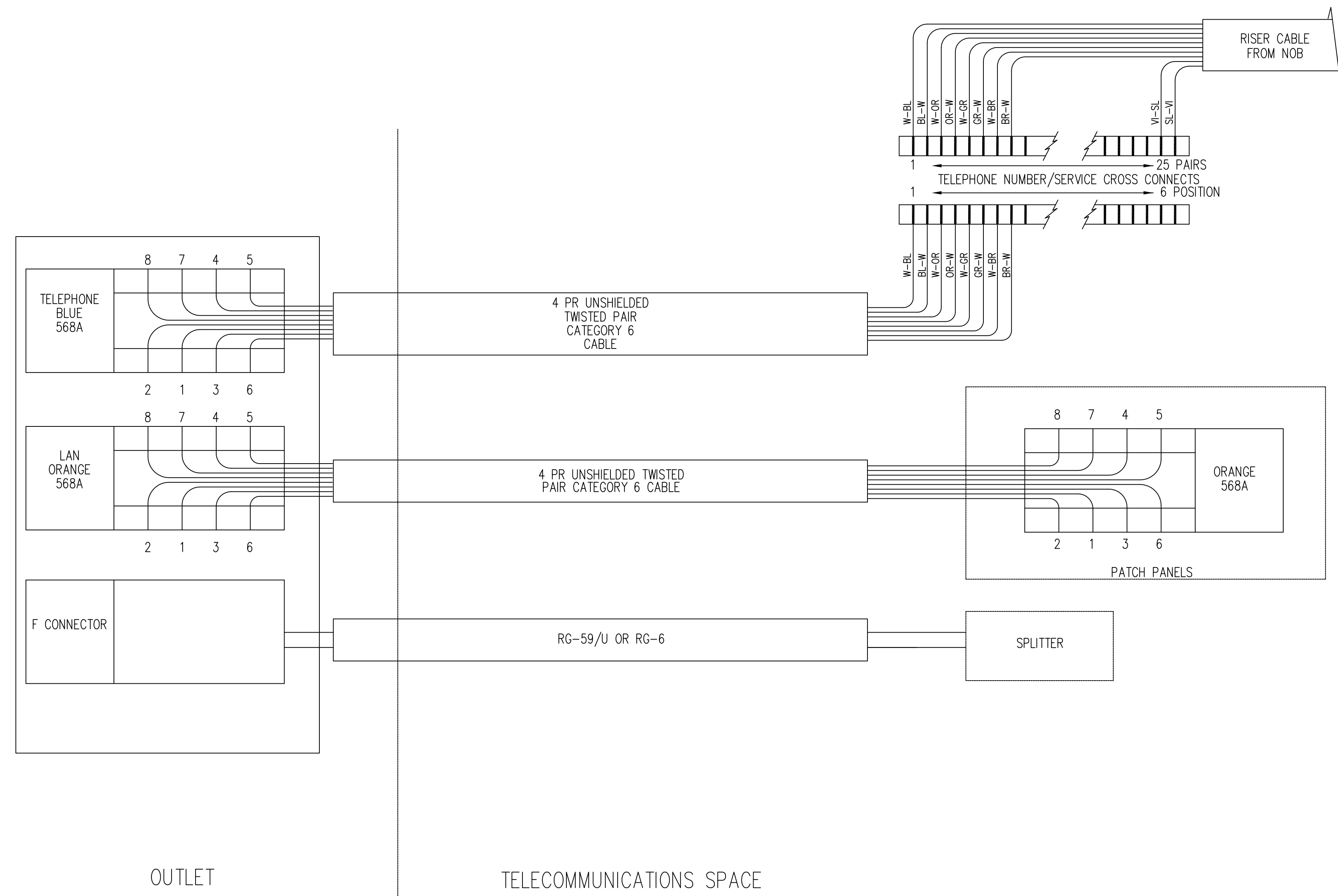
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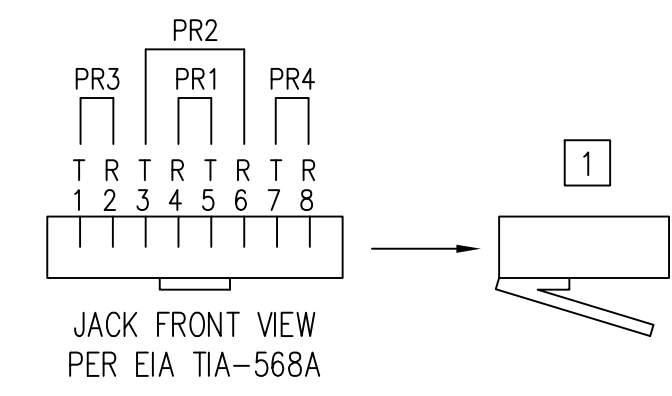
1 TYPICAL SINGLE LINE DIAGRAM
NTS



2 CONNECTIVITY DIAGRAM - ANCILLARY BUILDINGS
NTS



3 TELECOM OUTLET WIRING DIAGRAM
NTS



- JACK WIRING (EACH JACK)
- | | | | |
|--------|----------|--------|----------------|
| PAIR 1 | 5 - TIP | GREEN | (WHITE/BLUE) |
| | 4 - RING | RED | (BLUE/WHITE) |
| PAIR 2 | 3 - TIP | BLACK | (WHITE/ORANGE) |
| | 6 - RING | YELLOW | (ORANGE/WHITE) |
| PAIR 3 | 1 - TIP | BLUE | (WHITE/GREEN) |
| | 2 - RING | ORANGE | (GREEN/WHITE) |
| PAIR 4 | 7 - TIP | BROWN | (WHITE/BROWN) |
| | 8 - RING | WHITE | (BROWN/WHITE) |

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Building Information Model Common File

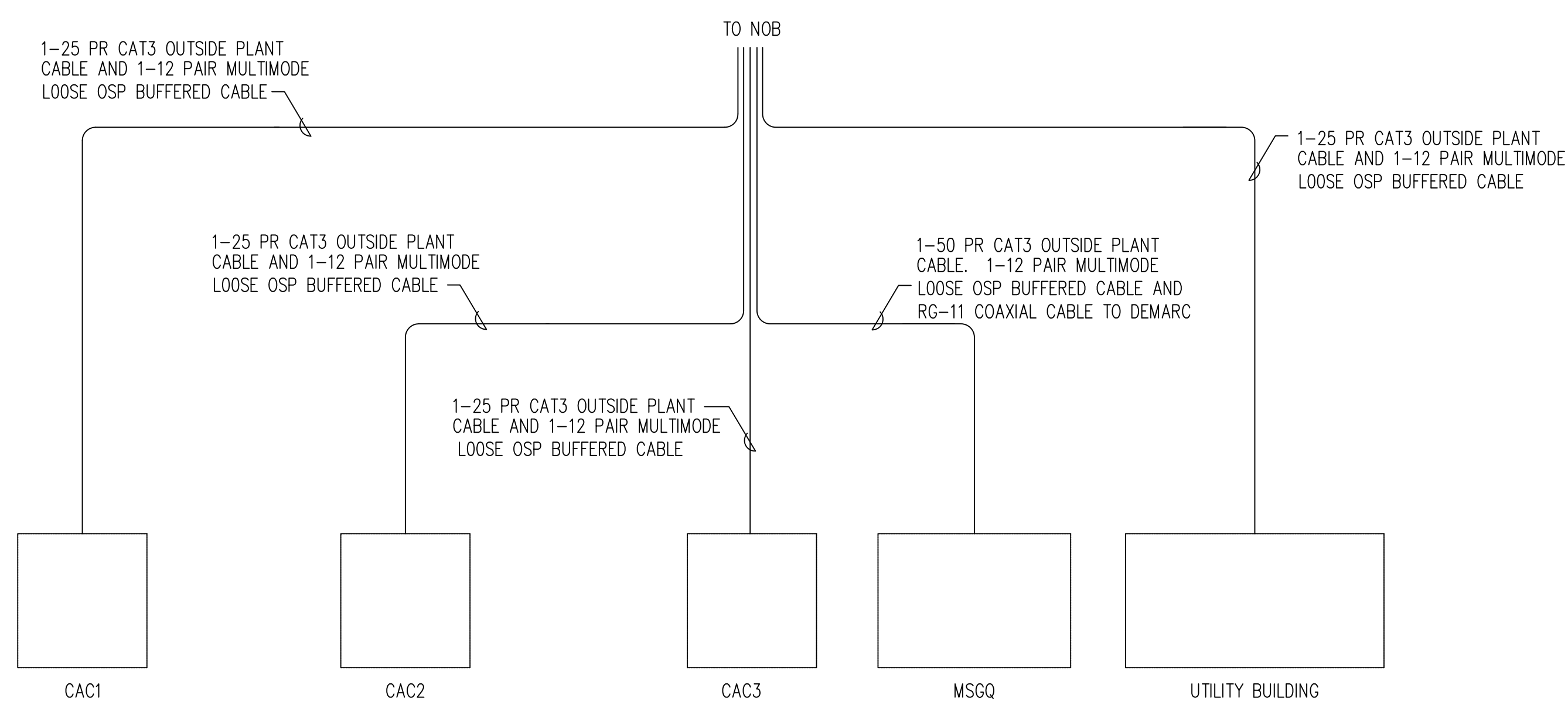
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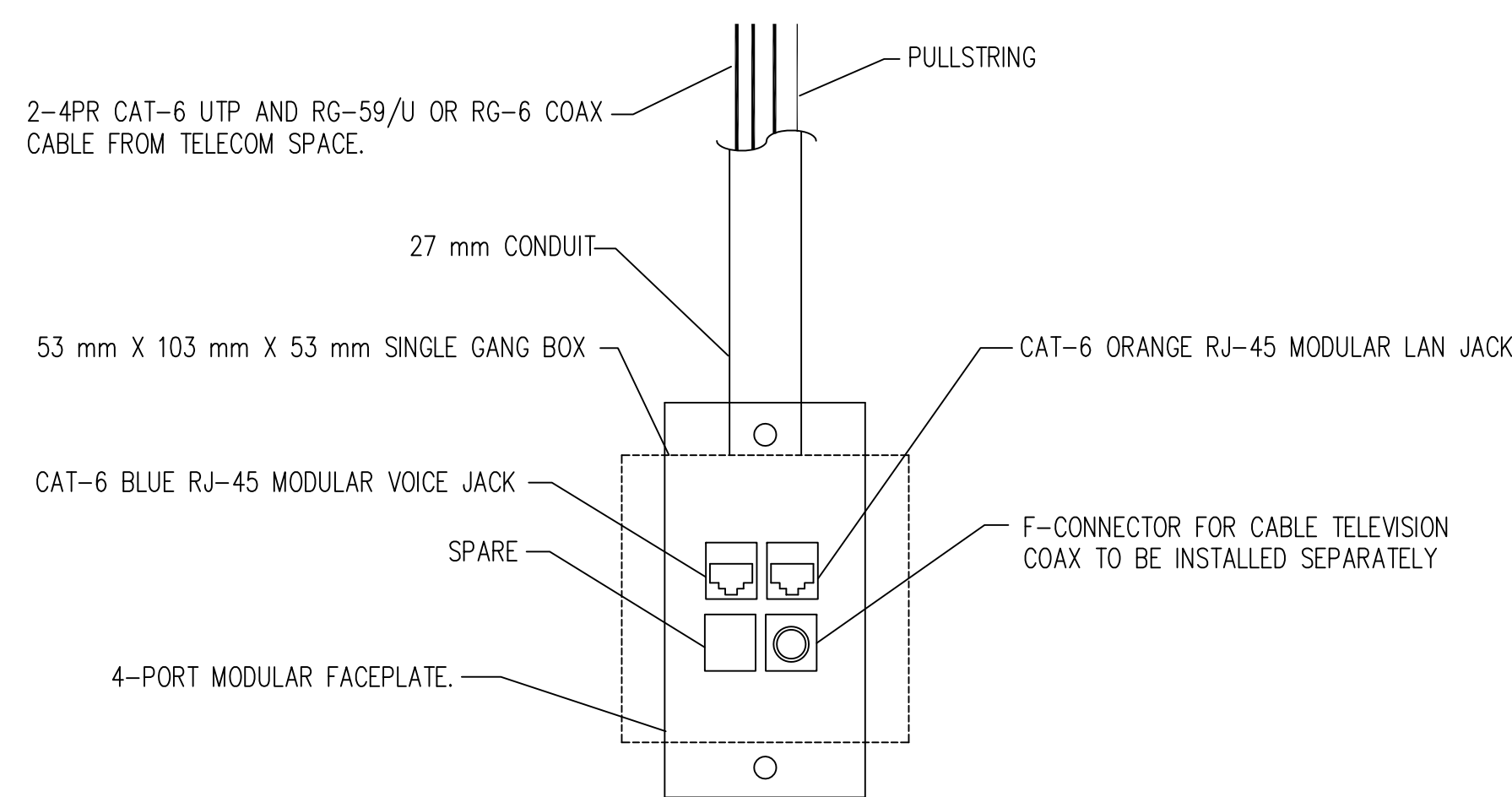
- 1 8 PIN PLUG PER EIA TIA-568A.

Release For Construction:	
NIBS/bsa	NIBS/bsa
Drawing Title	
TELECOM WIRING DIAGRAMS	
GEO Project Number	Drawing Scale Phase
CMET502.DWG	SCPP
CADD Plot Scale	CONCEPT 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Date	Sheet Number
NOV-2012	
Drawn By	Checked By
NIBS/bsa	NIBS/bsa
Project Number	
Classification	UNCLASSIFIED

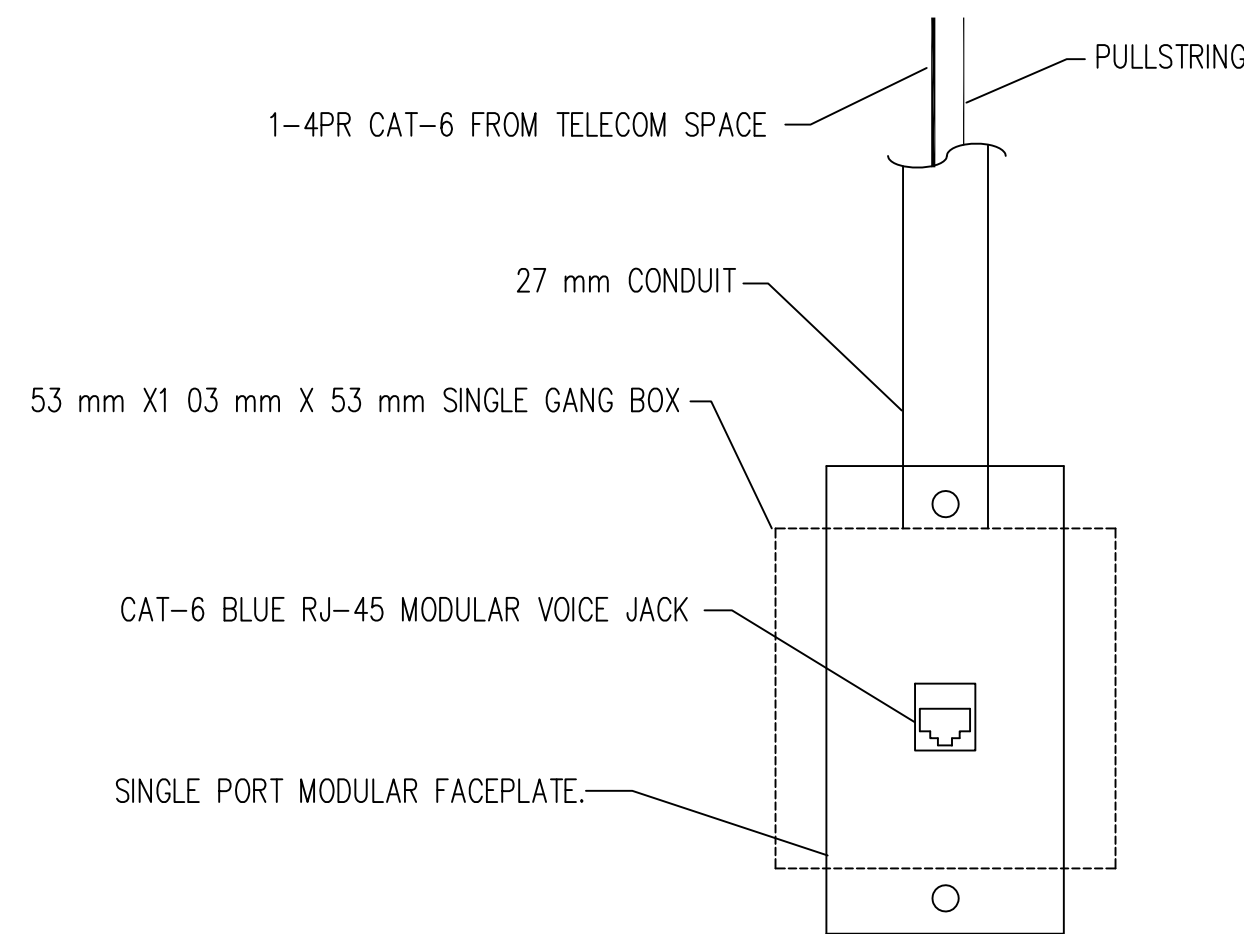
Barracks
ET502



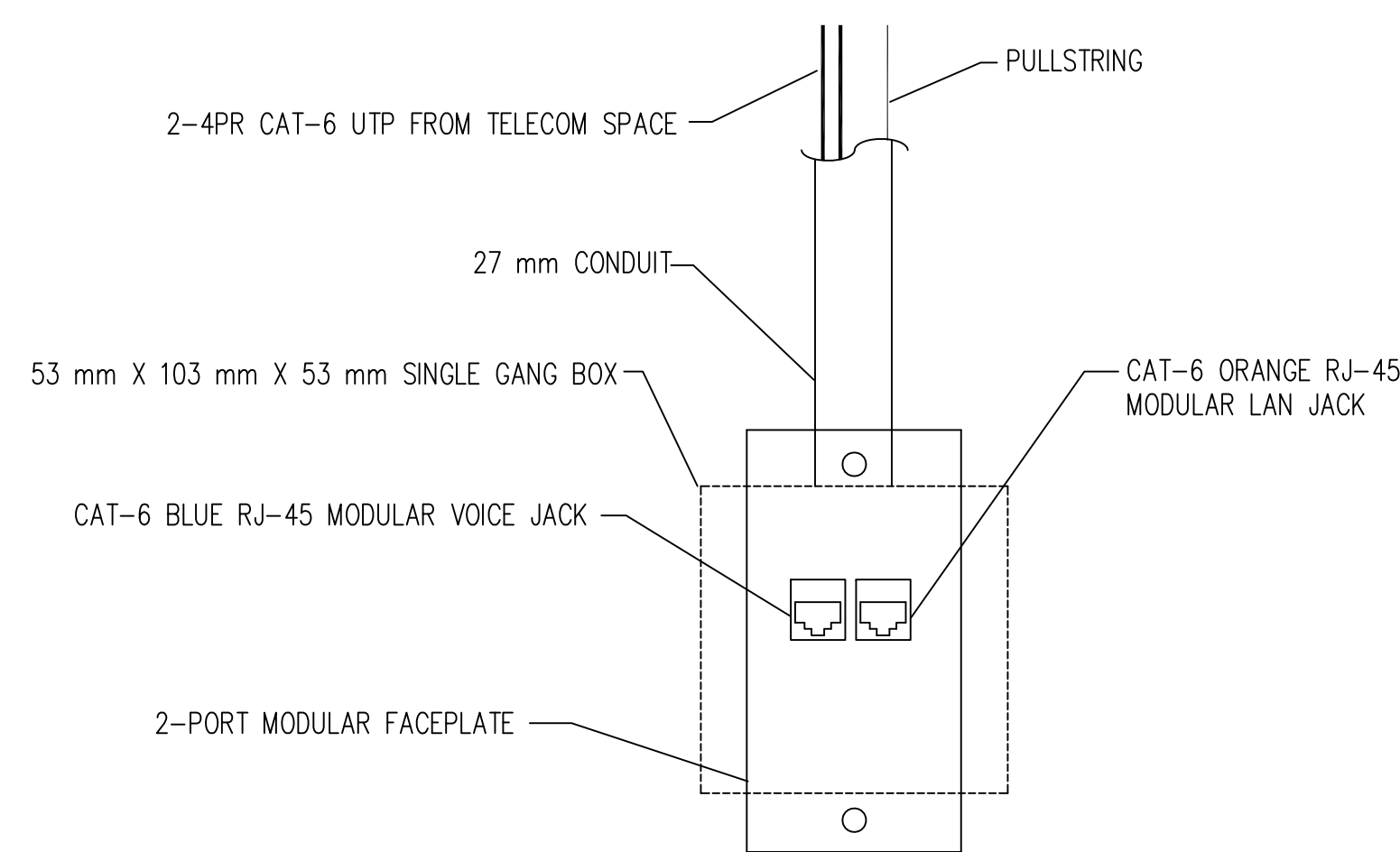
1 TELECOMMUNICATIONS SITE RISER
NTS



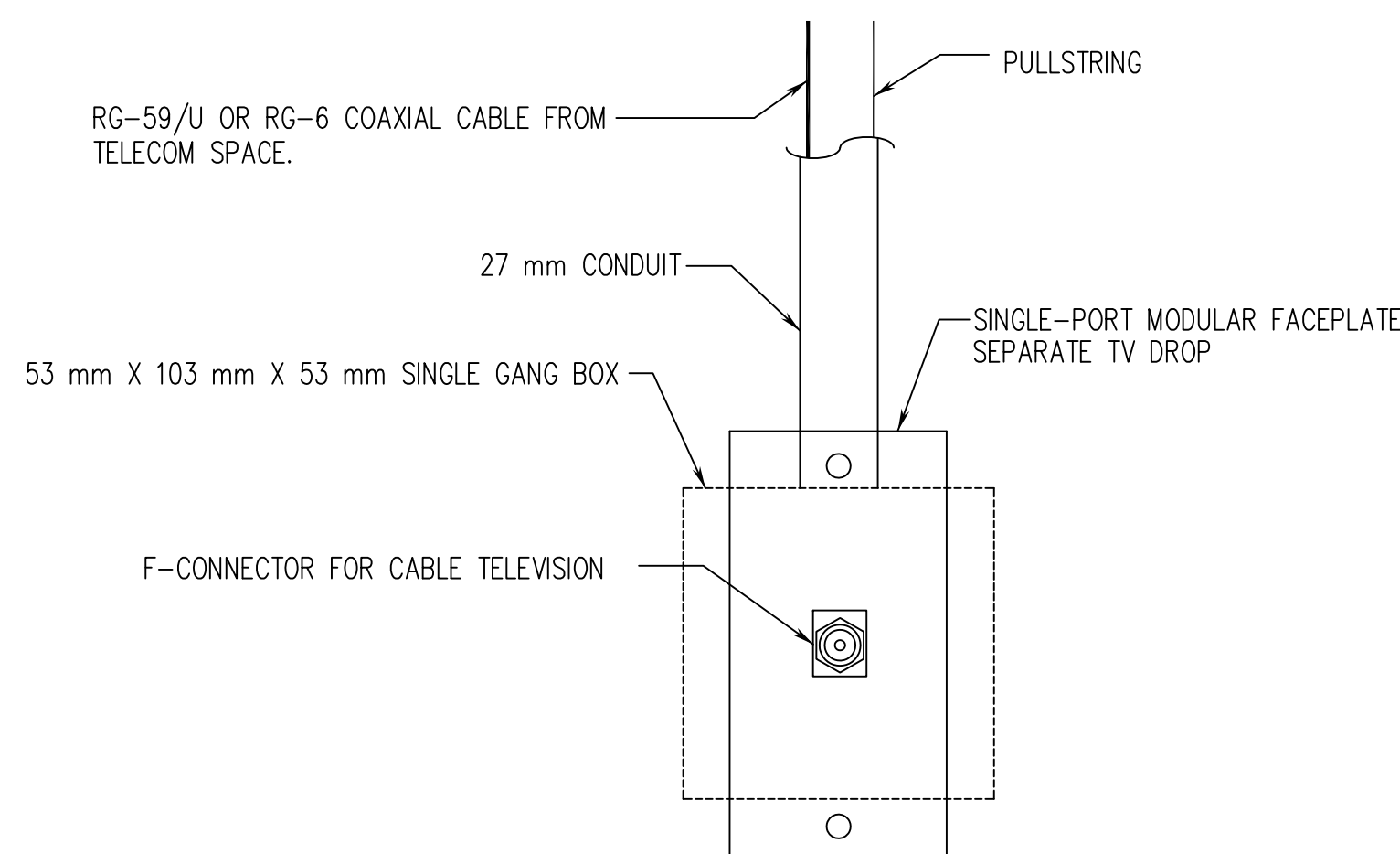
3 TYPICAL COMBINATION OUTLET
NTS



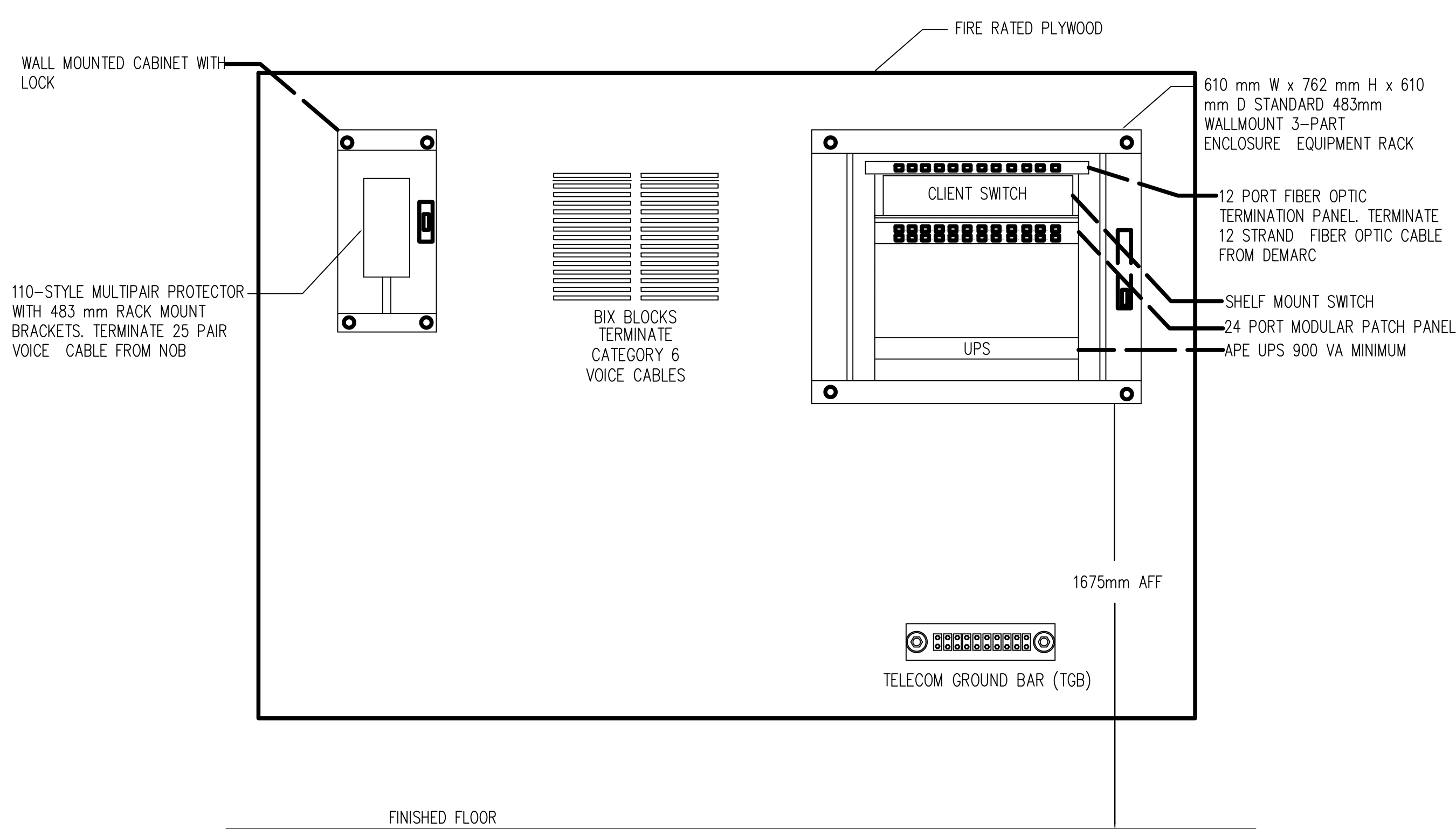
4 TYPICAL VOICE ONLY OUTLET
NTS



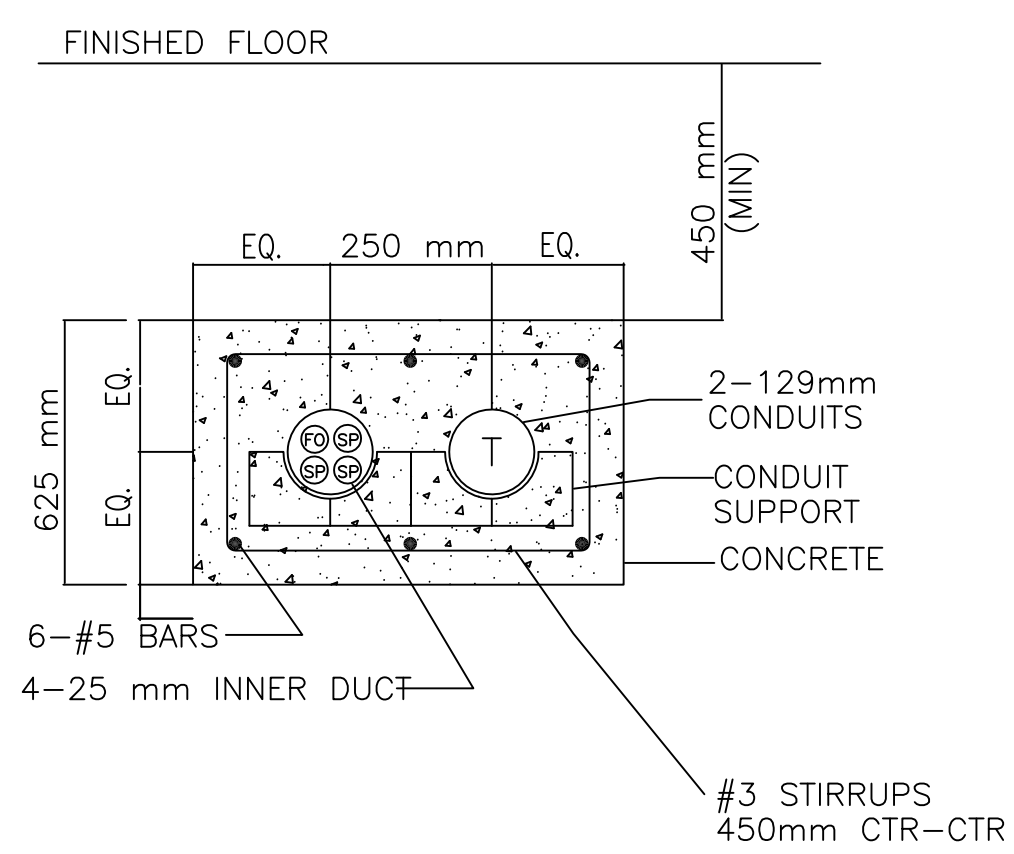
6 TYPICAL VOICE AND DATA OUTLET
NTS



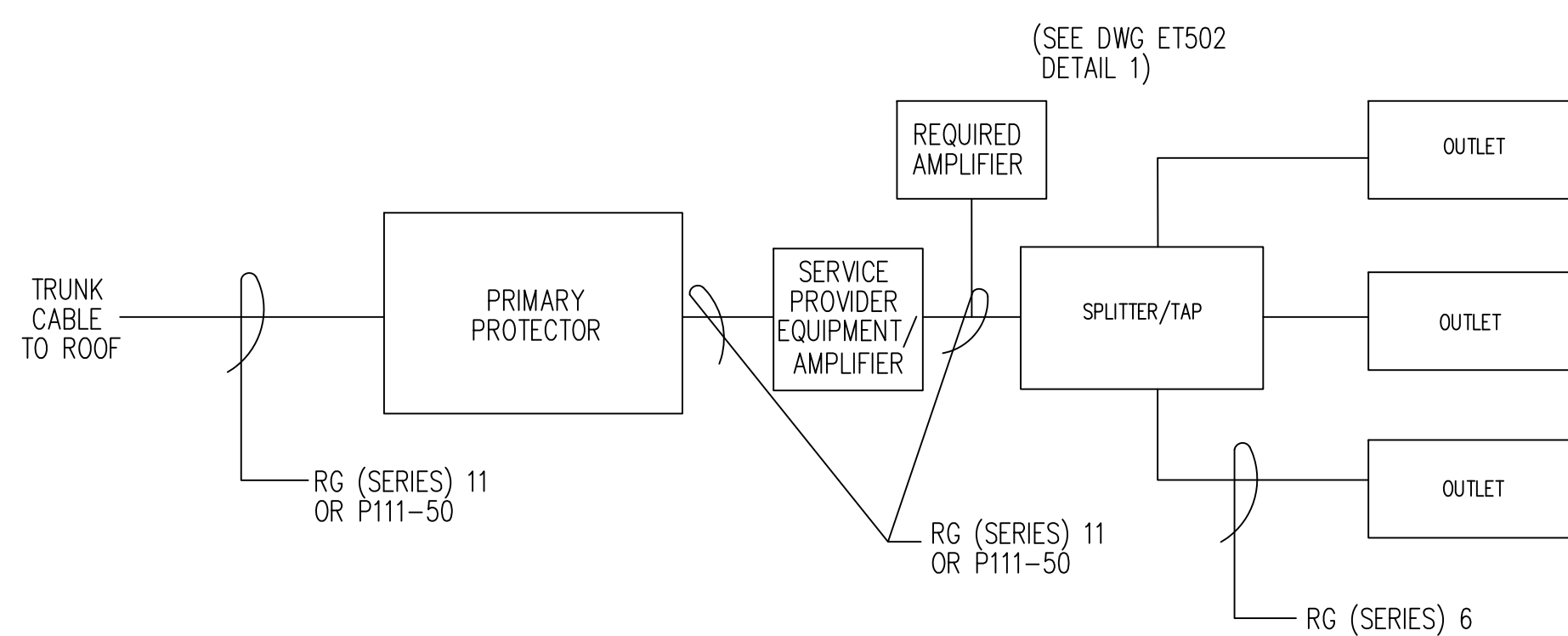
7 TYPICAL AUDIO/VISUAL OUTLET
NTS



2 WALL ELEVATION - ANCILLARY BUILDINGS
NTS



5 DUCTBANK DETAIL - ANCILLARY BUILDINGS
NTS



8 CONNECTIVITY DIAGRAM - SATELLITE TELEVISION
NTS

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CODED NOTES

- 1 8 PIN PLUG PER EIA TIA-568A.

NOTE:

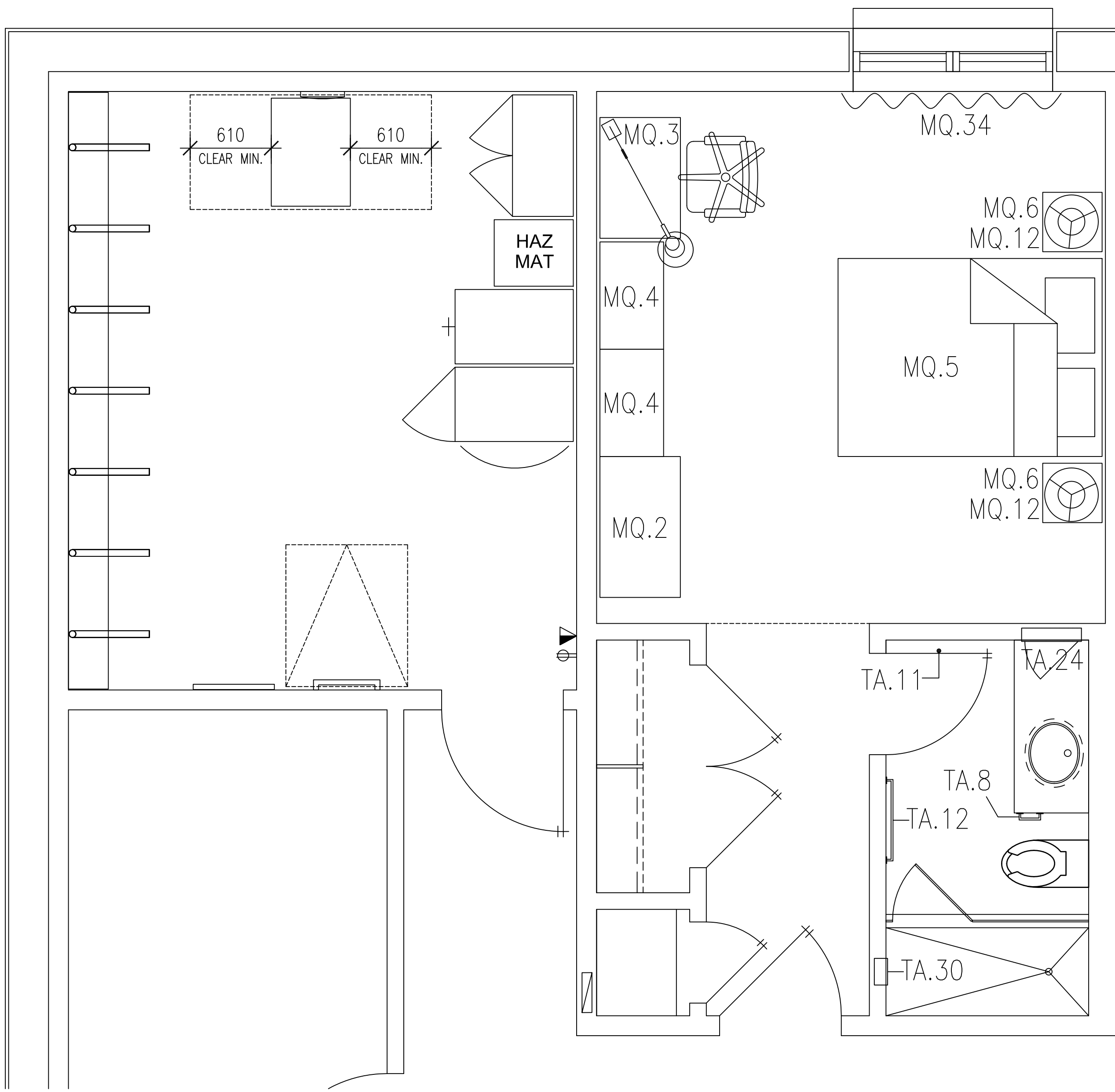
1. PROVIDE BALLISTIC PROTECTION AT ALL PIPES AND CONDUITS PENETRATING THE FEER ENVELOPE OF THE BUILDING. SEE NOB DRAWINGS FOR TYPICAL DETAILS.

TELECOM DETAILS

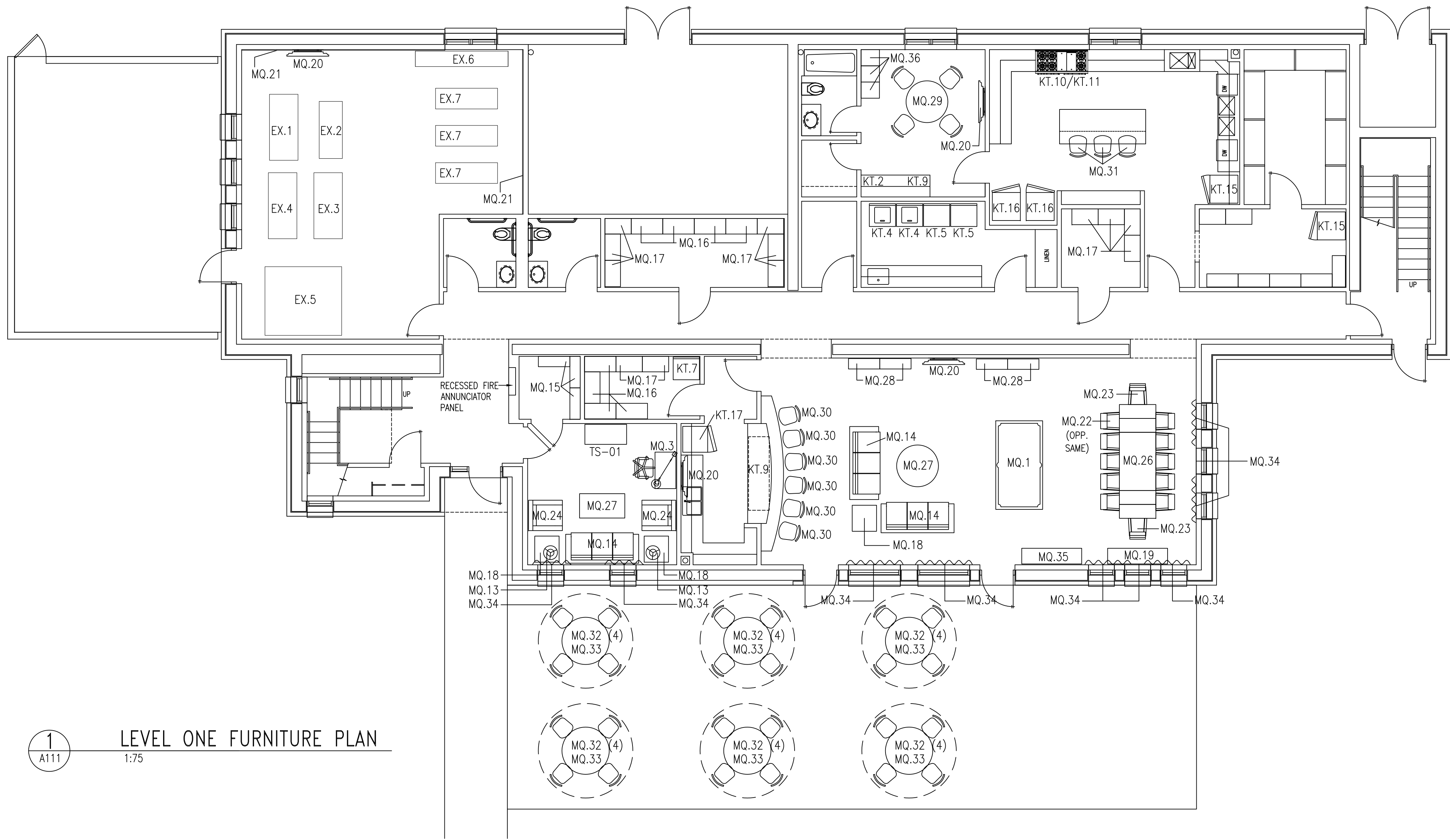
Release For Construction:	AS NOTED	Phase	100%
Drawn By	NIBS/bsd	Checked By	NIBS/bsd
Project Number		Classification	UNCLASSIFIED

FURNITURE AND EQUIPMENT SCHEDULE						
MODEL	DESCRIPTION	OFCI	OFOI	CFCI	SPECIFICATIONS NUMBER	NOTES
EX.1	EXERCISE EQUIPMENT, TREADMILL	No	Yes	No	-	-
EX.2	EXERCISE EQUIPMENT, ELLIPTICAL	No	Yes	No	-	-
EX.3	EXERCISE EQUIPMENT, STAIRCLIMBER	No	Yes	No	-	-
EX.4	EXERCISE EQUIPMENT, EXERCISE BIKE	No	Yes	No	-	-
EX.5	EXERCISE EQUIPMENT, 3 STACK MULTI-GYM UNIVERSAL MACHINE	No	Yes	No	-	-
EX.6	EXERCISE EQUIPMENT, DUMBBELL RACK	No	Yes	No	-	-
EX.7	EXERCISE EQUIPMENT, BENCH	No	Yes	No	-	-
KT.2	MICROWAVE, COUNTERTOP	No	No	Yes	113105	-
KT.4	WASHER	No	No	Yes	113105	-
KT.5	DRYER	No	No	Yes	113105	-
KT.7	FULL SIZE ICE MAKER	No	No	Yes	113105	-
KT.9	UNDERCOUNTER REFRIGERATOR	No	No	Yes	113105	-
KT.10	OVEN RANGE	No	No	Yes	113105	-
KT.11	RANGE HOOD	No	No	Yes	113105	-
KT.12	UNDERCOUNTER DISHWASHER	No	No	Yes	113105	-
KT.15	REFRIGERATOR, RESIDENTIAL	No	No	Yes	113105	-
KT.16	FREEZER	No	No	Yes	113105	-
KT.17	REFRIGERATOR, COMMERCIAL	No	No	Yes	113105	-
MQ.1	POOL TABLE	No	Yes	No	-	-
MQ.2	BARRACKS WARDROBE	Yes	No	No	-	-
MQ.3	BARRACKS DESK (INCLUDES CHAIR & DESK LAMP)	Yes	No	No	-	-
MQ.4	BARRACKS DRESSER & CHEST OF DRAWERS	Yes	No	No	-	-
MQ.5	BARRACKS BED (INCLUDES: MATTRESS, BOX SPRING, BED FRAME, PILLOWS, & BEDSPREAD)	Yes	No	No	-	-
MQ.6	BARRACKS NIGHT STAND (INCLUDES: TABLE LAMP)	Yes	No	No	-	-
MQ.7	STOOL	Yes	No	No	-	-
MQ.11	CREDENZA	Yes	No	No	-	-
MQ.12	NIGHT STAND LAMP	Yes	No	No	-	-
MQ.13	TABLE LAMP	Yes	No	No	-	-
MQ.14	SOFA	Yes	No	No	-	-
MQ.15	MODULAR SHELVING, HEAVY DUTY STEEL 36"W X 12"D X 84"H	No	No	Yes	105613	-
MQ.16	MODULAR SHELVING, HEAVY DUTY STEEL 36"W X 18"D X 84"H	No	No	Yes	105613	-
MQ.17	MODULAR SHELVING, HEAVY DUTY STEEL 30"W X 18"D X 84"H	No	No	Yes	105613	-
MQ.18	END TABLE	Yes	No	No	-	-
MQ.19	CHINA CABINET	Yes	No	No	-	-
MQ.20	TELEVISION, FLAT SCREEN, WALL MOUNTED	No	Yes	No	-	COORDINATE WITH MIRROR PLACEMENT
MQ.21	WALL-TO-WALL MIRRORS	No	No	Yes	102800	HEIGHT: FROM ABOVE WALL BASE TO SAME HEIGHT AS DOORS
MQ.22	DINING CHAIR	Yes	No	No	-	-
MQ.23	ARM CHAIR	Yes	No	No	-	-
MQ.24	LOUNGE CHAIR	Yes	No	No	-	-
MQ.26	DINING TABLE	Yes	No	No	-	-
MQ.27	COFFEE TABLE	Yes	No	No	-	-
MQ.28	BOOKCASE	Yes	No	No	-	-
MQ.29	DINING TABLE W/4 ARM CHAIRS	Yes	No	No	-	-
MQ.30	BARSTOOL	Yes	No	No	-	-
MQ.31	COUNTER HEIGHT STOOL	Yes	No	No	-	-
MQ.32	EXTERIOR CHAIRS (4 PER TABLE)	Yes	No	No	-	-
MQ.33	EXTERIOR TABLE W/ UMBRELLA	Yes	No	No	-	-
MQ.34	BLACKOUT SHADE	No	No	Yes	122415	COMMERCIAL GRADE FABRIC, INCLUDE DRAW ROD.
MQ.35	SIDEBOARD	Yes	No	No	-	-
MQ.36	FULL HEIGHT LOCKERS	Yes	No	No	-	-

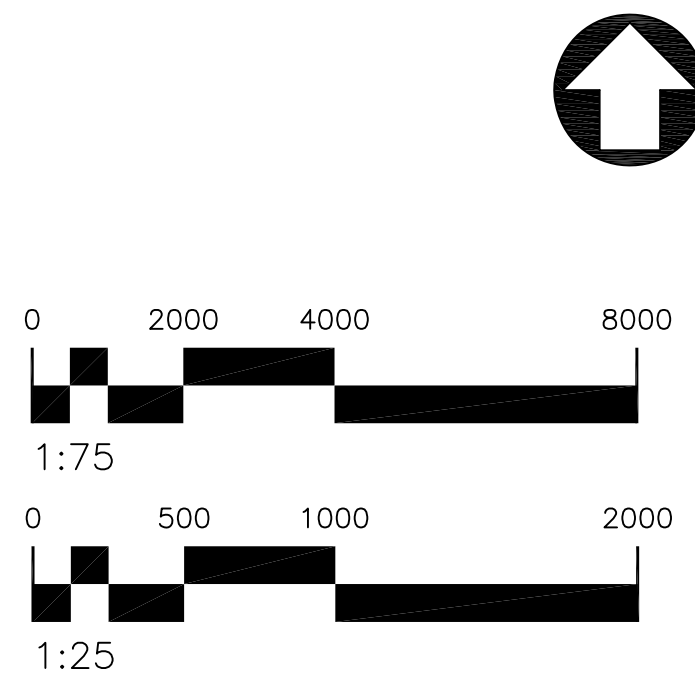
EQUIPMENT SCHEDULE						
MODEL	DESCRIPTION	GFCI	GFGI	CFCI	NOTES	SPECIFICATION NUMBER
TA-2	SEAT COVER DISPENSER	No	No	Yes	-	102800
TA-3	TOWEL DISPENSER / WASTE RECEPTACLE	No	No	Yes	-	102800
TA-6	-	-	-	-	-	102800
TA-8	TOILET TISSUE DISPENSER SURFACE MOUNTED	No	No	Yes	-	102800
TA-11	COAT HOOK (LOCATE 1 EACH PER RESTROOM DOOR & @ BAR, BELOW COUNTER @ STOOL)	No	No	Yes	-	102800
TA-12	TOWEL BAR	No	No	Yes	-	102800
TA-20	FRAMED MIRROR	No	No	Yes	-	102800
TA-21	FULL LENGTH MIRROR	No	No	Yes	-	102800
TA-24	RECESSED MEDICINE CABINET	No	No	Yes	-	102800
TA-30	SOAP DISH, RECESSED	No	No	Yes	-	102800
TA-31	TOOTH BRUSH HOLDER	No	No	Yes	-	102800
TA-33	WALL MOUNT SOAP DISPENSER	No	No	Yes	-	102800
TA-40	TOILET GRAB BARS	No	No	Yes	-	102800



2 LEVEL TWO FURNITURE PLAN
A111 1:25



1 LEVEL ONE FURNITURE PLAN
A111 1:75



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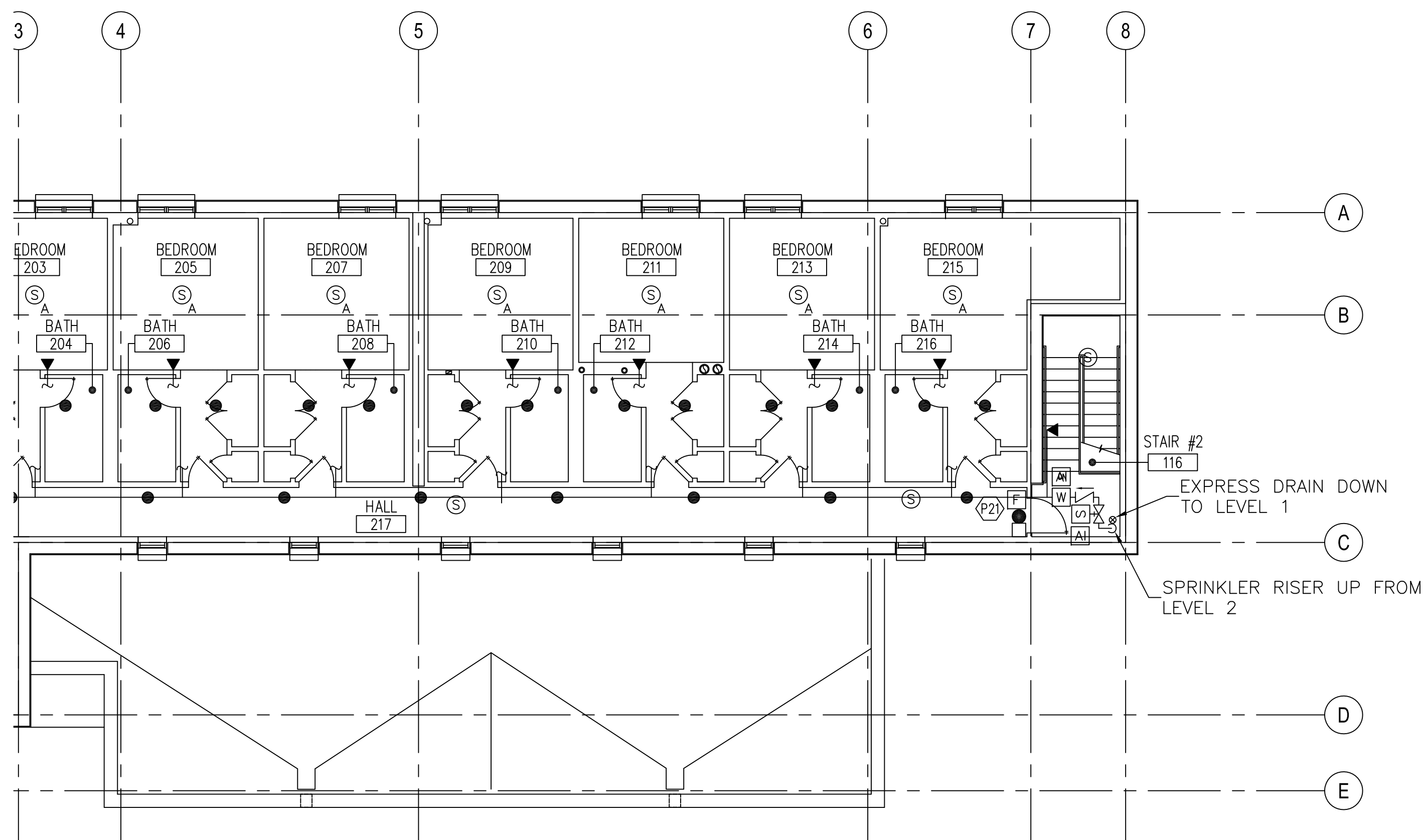
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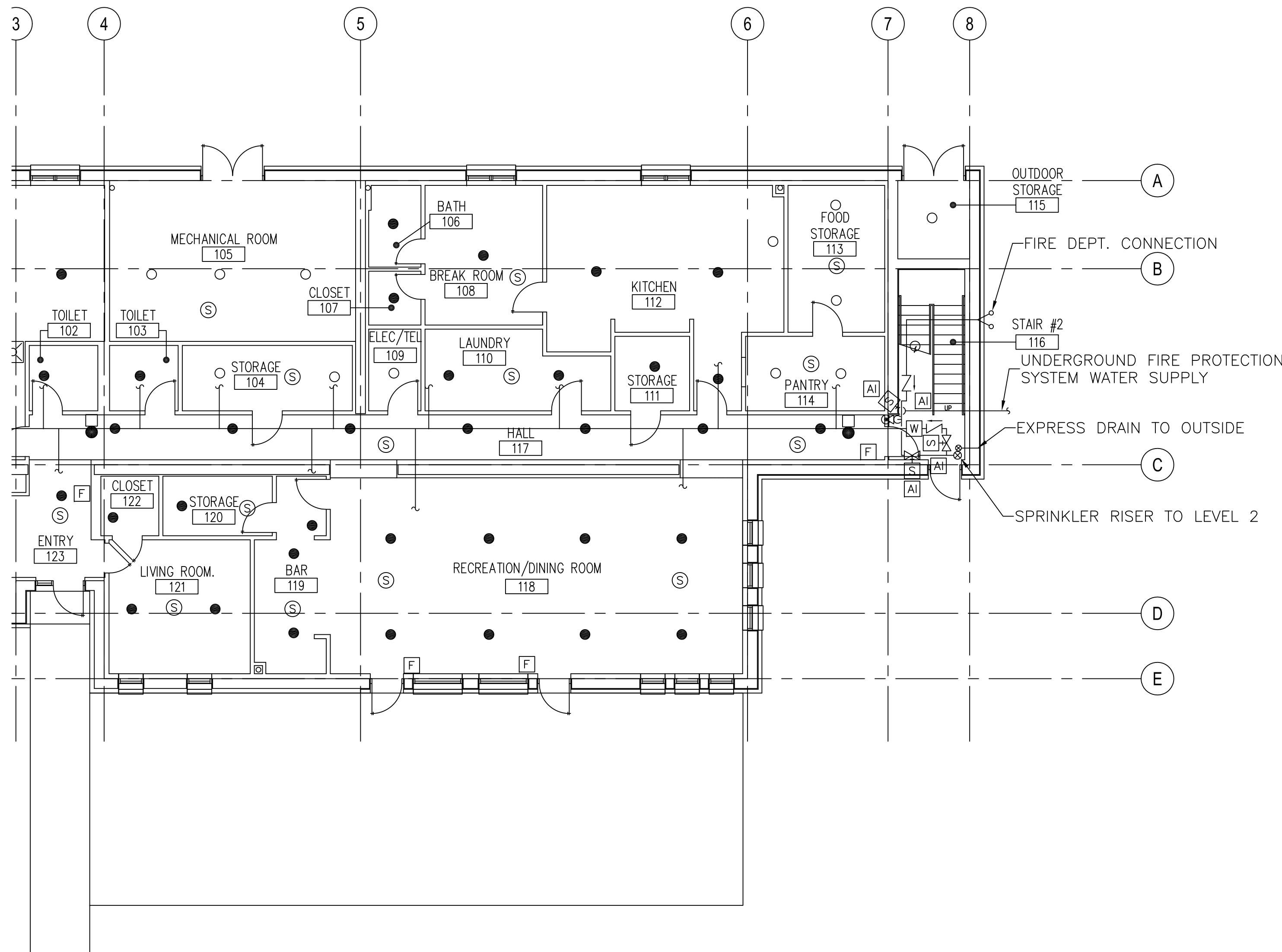
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Rev. Number	Description	Date
Revisions		
Release For Construction:		
NIBS/Asa	NIBS/Asa	
Drawing Title		
FURNITURE PLANS		
GBD Project Number	Drawing Scale	Phase
1:75	AS NOTED	DDP
CADD File Name	CADD Plot Scale	<input type="checkbox"/> CONCEPT <input type="checkbox"/> 10% <input type="checkbox"/> 30% <input type="checkbox"/> 50% <input type="checkbox"/> 70% <input type="checkbox"/> 90% <input type="checkbox"/> FINAL
CBMFF111.DWG	1:1	
Date	NOV-2012	Sheet Number
Drawn By	NIBS	Barracks
Checked By	NIBS	FF111
Project Number		
Classification	UNCLASSIFIED	



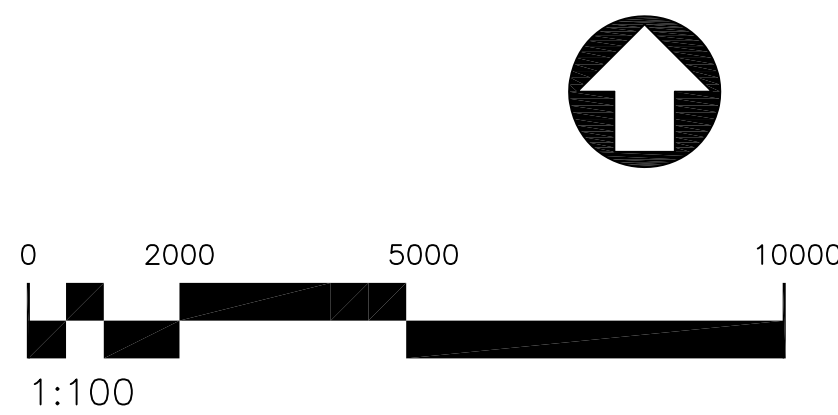
2
LEVEL TWO FIRE PROTECTION PLAN
1:100

NOTES: FIRE ALARM DEVICE SHOWN ARE CONCEPTUAL.
FINAL DESIGN SHALL MEET SPECIFICATION & CODE
REQUIREMENTS.



1
LEVEL ONE FIRE PROTECTION PLAN
1:100

NOTES: SPRINKLERS SHOWN ARE CONCEPTUAL. FINAL
DRAWINGS SHALL MEET SPECIFICATION & CODE
REQUIREMENTS.



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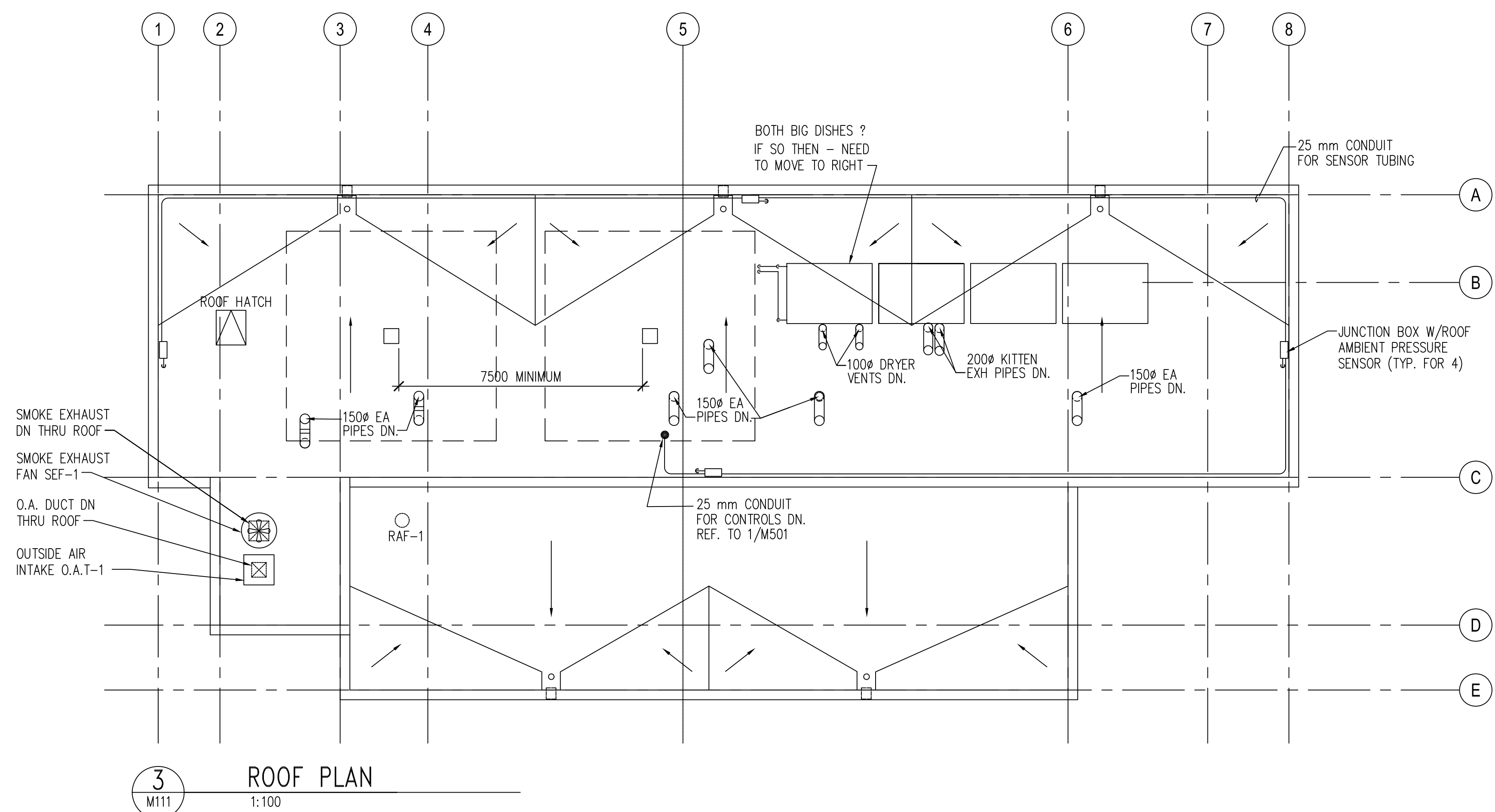
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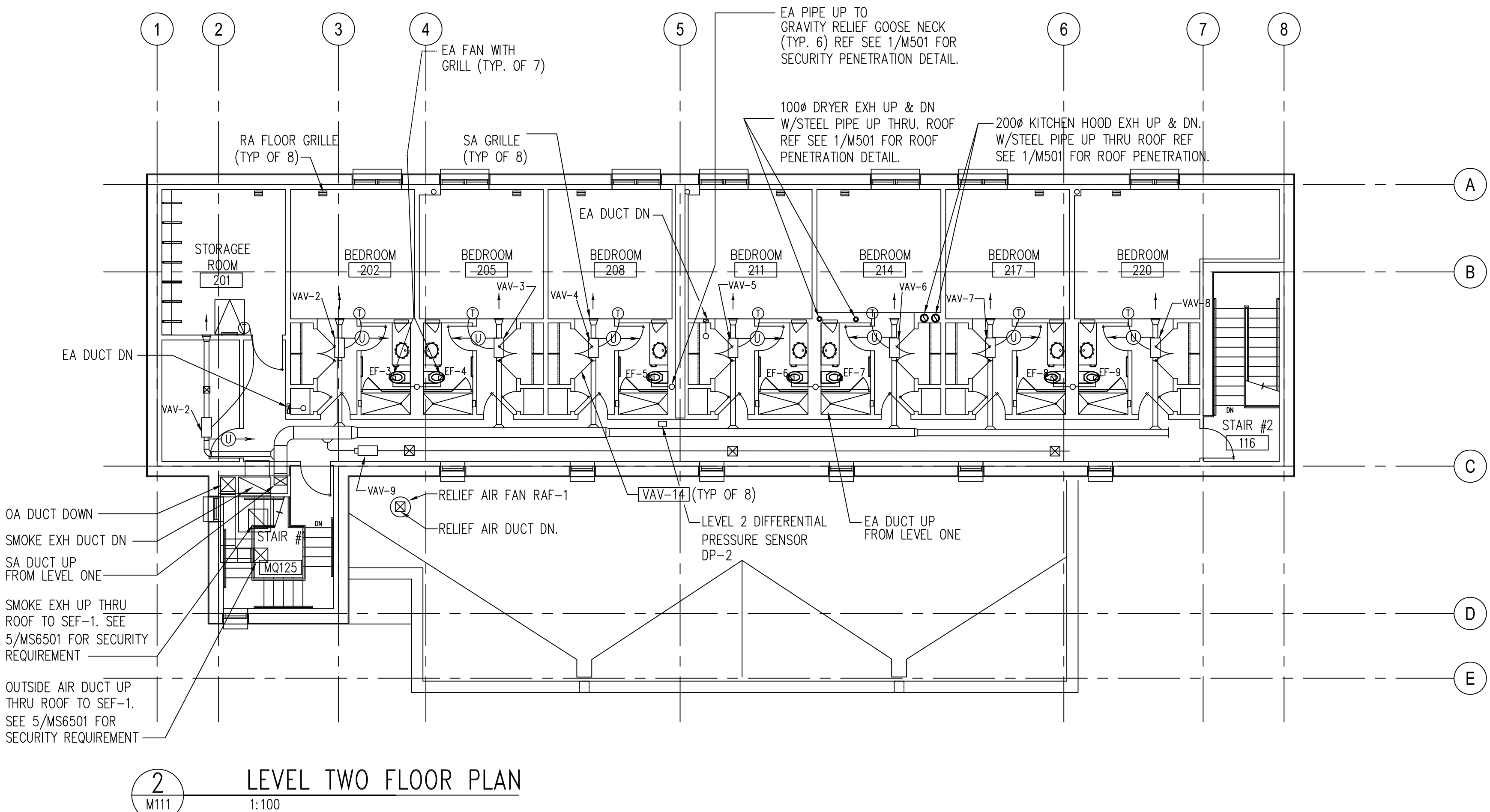
Rev. Number	Description	Date
Revisions		

Release For Construction:	
NIBS/Asa	NIBS/Asa
Drawing Title	
LEVELS ONE & TWO FIRE PROTECTIONS PLANS	
DBD Project Number	Drawing Scale Phase
AS NOTED	SDP
CADD File Name	CADD Plot Scale
CBMFP111.DWG	1:1
Date	Sheet Number
NOV-2012	
Drawn By	NIBS
Checked By	NIBS
Project Number	
Classification	UNCLASSIFIED

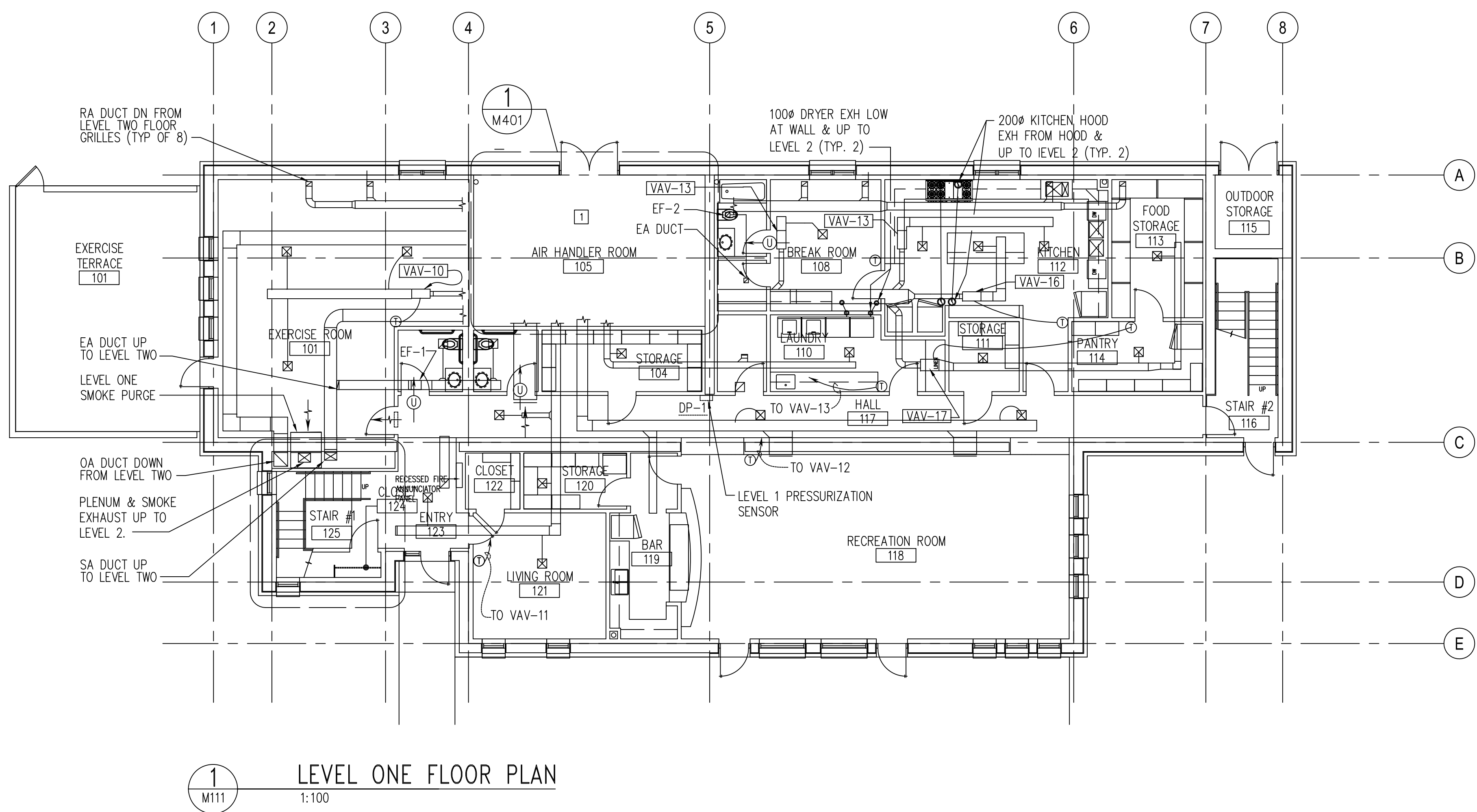
Barracks
FP111



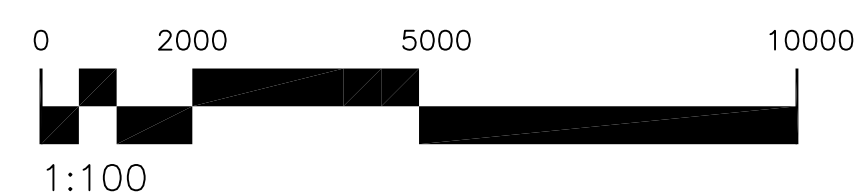
3 ROOF PLAN
M111 1:100



2 LEVEL TWO FLOOR PLAN
M111 1:100



1 LEVEL ONE FLOOR PLAN
M111 1:100



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GENERAL NOTES FOR DESIGNER:

- DESIGN MECHANICAL SYSTEMS PER THE LATEST VERSION OF THE INTERNATIONAL MECHANICAL CODE (IMC) AND OBO DESIGN REQUIREMENTS AND SPECIFICATIONS.
- EQUIPMENT, DUCTWORK, AND PIPING SIZES AND LOCATIONS ARE SCHEMATIC IN NATURE. ACTUAL SIZES AND LOCATIONS ARE TO BE BASED ON SITE-SPECIFIC CONDITIONS AND OBO DESIGN STANDARDS AND SPECIFICATIONS.
- EQUIPMENT, DUCTWORK, & PIPING SYSTEMS SHOWN ON DRAWINGS DOES NOT REFLECT THE ENTIRETY OF SYSTEMS REQUIRED FOR BUILDING. ADDITIONAL SYSTEMS REQUIRED TO BE BASED ON SITE-SPECIFIC REQUIREMENTS, OBO DESIGN REQUIREMENTS, AND OBO SPECIFICATIONS.
- DESIGN AIR SYSTEMS TO SOUND LEVELS FOR SPECIFIC SPACE TYPES AS DEFINED BY 2003 ASHRAE APPLICATIONS HANDBOOK, CHAPTER 47.
- SIZE RELIEF AIR EXHAUST FAN PER SITE-SPECIFIC REQUIREMENTS AND TO MAINTAIN PROPER PRESSURE DIFFERENTIALS AND SPACE CONDITIONS.
- A/E MAY ALTER BAR & RECREATION ROOM AIR DISTRIBUTION TO ENRICH ROOM APPEARANCE.

KEYED NOTES:

- 1 PROVIDE MECHANICAL COOLING OR VENTILATION TO MAINTAIN SPACE TEMPERATURE/HUMIDITY WITHIN EQUIPMENT REQUIREMENTS.

Rev Number	Description	Date
Revisions		

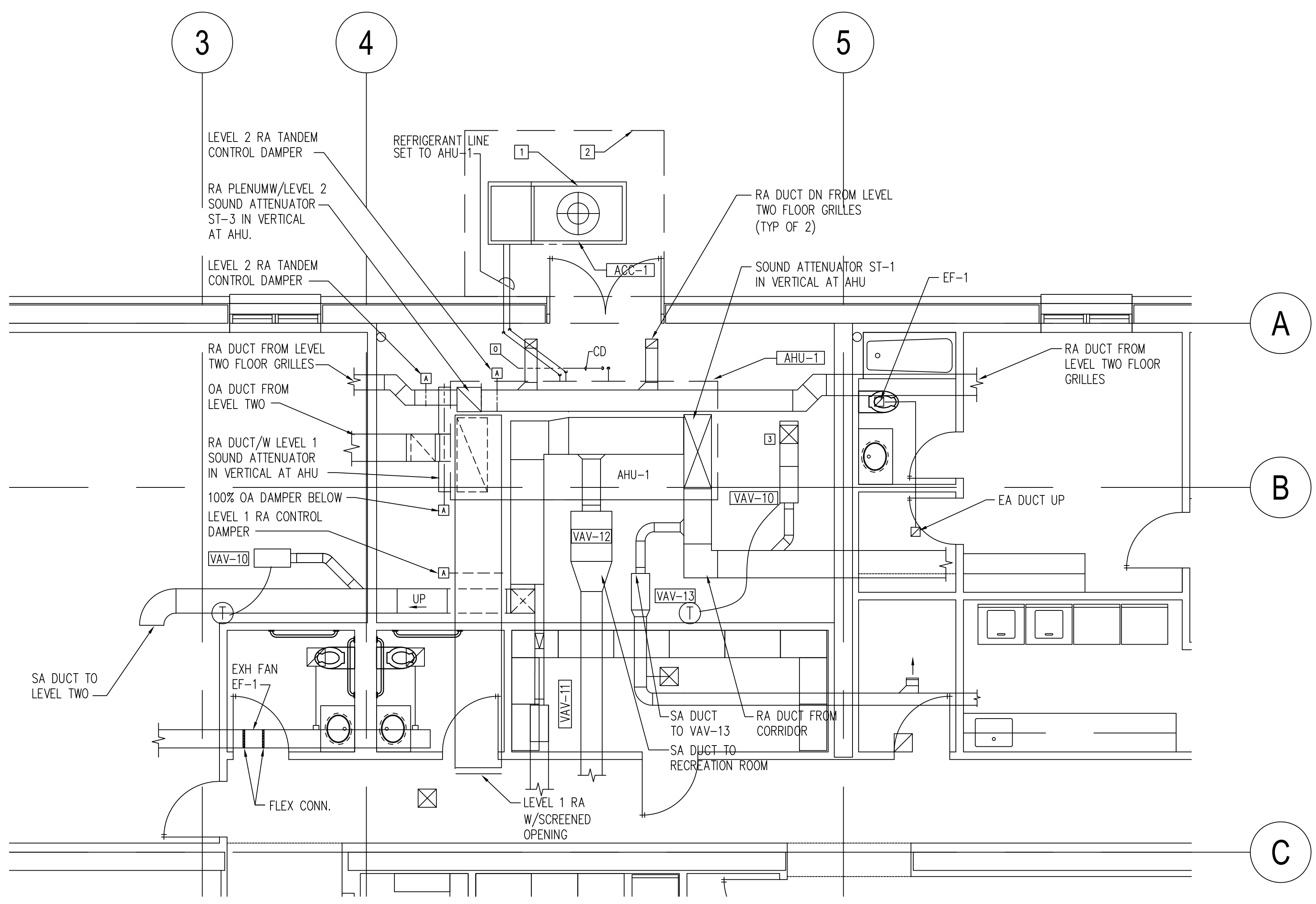
Release For Construction:
NIBS/Asa NIBS/Asa

Drawing Title
FLOOR PLAN

OBO Project Number Drawing Scale Phase
AS NOTED 50%
CADD File Name C:\M111.DWG CADD Plot Scale 1:1

Date NOV-2012 Sheet Number
Drawn By NIBS
Checked By NIBS
Project Number
Classification UNCLASSIFIED

**Barracks
M111**



1 ENLARGED AIR HANDLER ROOM PLAN
M401 1:50

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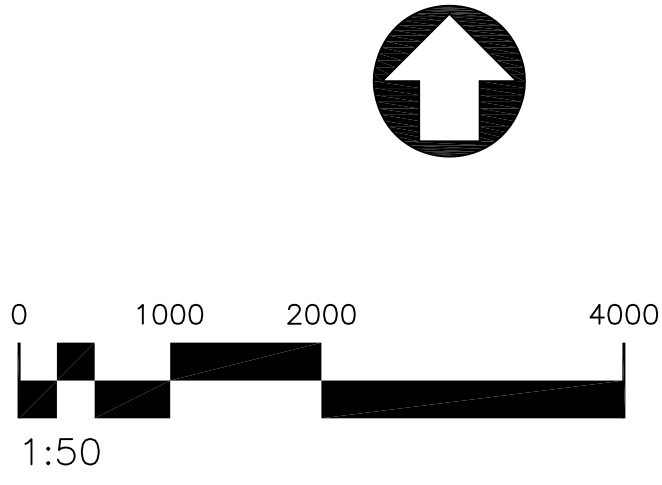
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- DESIGN AIR SYSTEMS TO SOUND LEVELS FOR SPECIFIC SPACE TYPES AS DEFINED BY 2003 ASHRAE APPLICATIONS HANDBOOK, CHAPTER 47.
- SIZE AND LOCATE EXHAUST FANS PER SITE-SPECIFIC REQUIREMENTS AND TO MAINTAIN PROPER PRESSURE DIFFERENTIALS AND SPACE CONDITIONS.

KEYED NOTES:

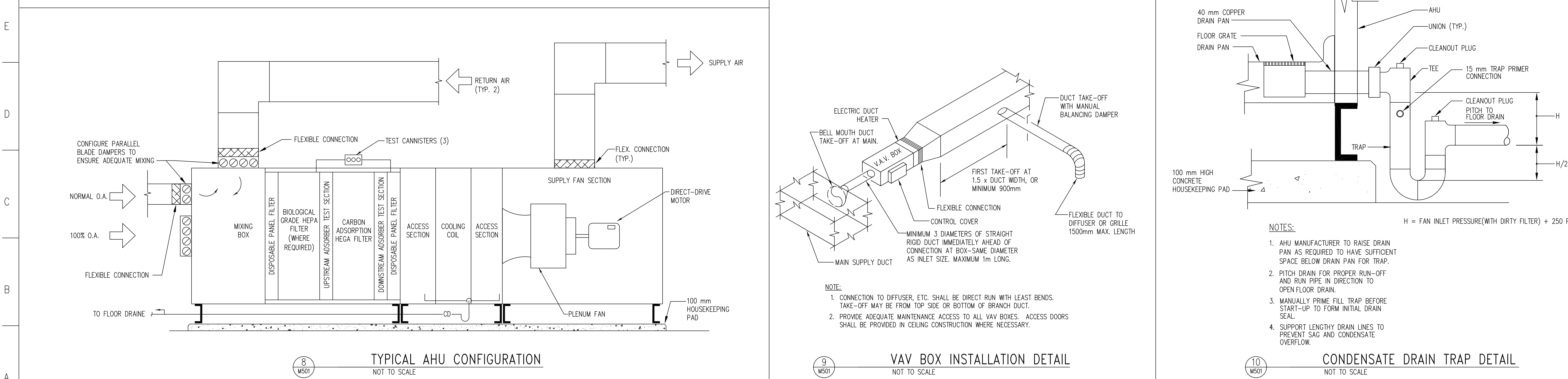
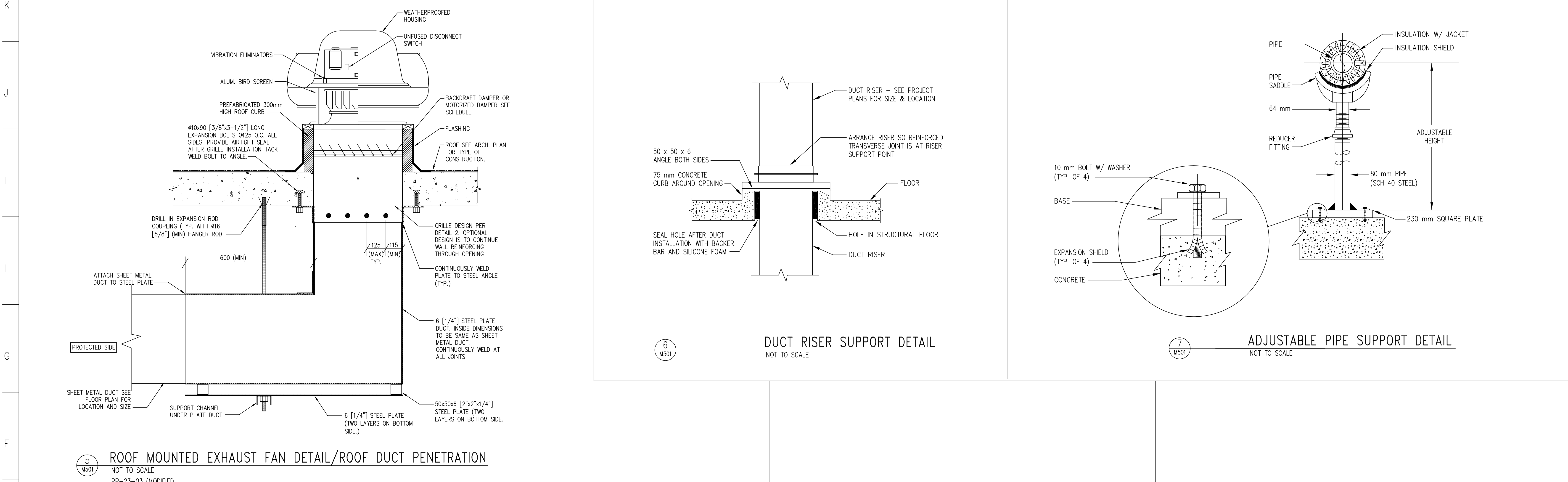
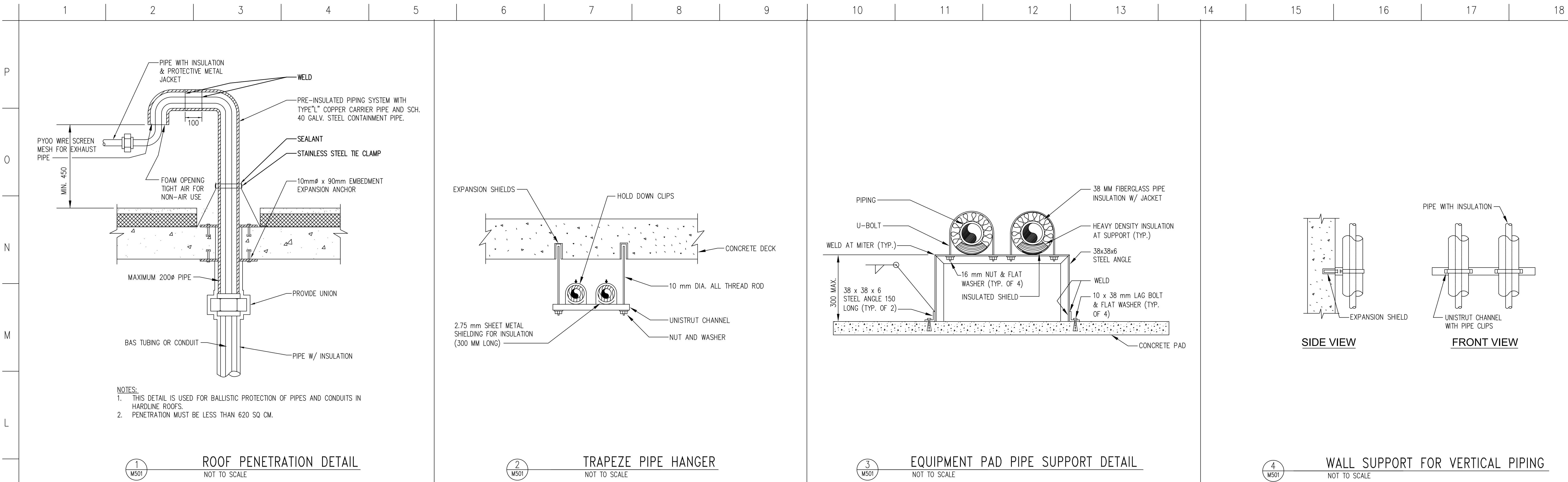
- CONDENSING UNIT ON CONCRETE HOUSEKEEPING PAD SHALL BE LOCATED ON A SITE-SPECIFIC BASIS WITHIN THE COMPOUND BOUNDARY.
- MAINTENANCE CLEARANCE.
- PROVIDE MECHANICAL COOLING OR VENTILATION TO MAINTAIN SPACE TEMPERATURE/HUMIDITY WITHIN EQUIPMENT REQUIREMENTS.

Rev Number	Description	Date
Revisions		

Release For Construction:	
NIBS/Ida	NIBS/Ida
Drawing Title ENLARGED AIR HANDLER ROOM PLAN	
OBO Project Number	Drawing Scale Phase AS NOTED 50% 1:1
CADD File Name CBMM401.DWG	CADD Plot Scale <input type="checkbox"/> CONCEPT <input type="checkbox"/> 10% <input type="checkbox"/> 30% <input type="checkbox"/> 50% <input type="checkbox"/> 70% <input type="checkbox"/> 90% <input type="checkbox"/> FINAL
Date NOV-2012	Sheet Number Barracks M401
Drawn By NIBS	Checked By NIBS
Project Number	Classification UNCLASSIFIED



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Rev Number	Description	Date
Revisions		

Release For Construction:		
NIBS/Ida	NIBS/Ida	
Drawing Title		
DETAILS		
DBD Project Number	Drawing Scale	Phase
CBNM501.DWG	AS NOTED	DDMP
CAED File Name	CAED Plot Scale	CAED Plot Scale
CBNM501.DWG	1:1	1:1
Date	NOV-2012	Sheet Number
Drawn By	NIBS	Barracks
Checked By	NIBS	M501
Project Number		
Classification	UNCLASSIFIED	

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DUCT SOUND ATTENUATOR SCHEDULE																									
TAG	SERVING	SILENCER DIMENSIONS Watt (mm)	LENGTH (mm)	FACE VELOCITY (m/s)	APD (Pa)	MAX AIRFLOW (L/s)	DYNAMIC INSERTION LOSS RATING (dB)								SELF NOISE POWER LEVELS, Db RE:10 ⁻¹² W								BASIS OF DESIGN		NOTES
							OCTAVE BAND								OCTAVE BAND								MANUF	MODEL	
							1 63 HZ	2 125 HZ	3 250 HZ	4 500 HZ	5 1K HZ	6 2K HZ	7 4K HZ	8 8K HZ	1 63 HZ	2 125 HZ	3 250 HZ	4 500 HZ	5 1K HZ	6 2K HZ	7 4K HZ	8 8K HZ			
3-C-1	AHU-1 SUPPLY		915			—																			
3-C-2	AHU-1 RETURN		915																						
3-C-3	AHU-1 RETURN		915																						

AIR HANDLING UNIT SCHEDULE																											
TAG	LOCATION	FILTERS (NOTE 2)	SUPPLY FAN CHARACTERISTICS								COOLING DATA								HEATING DATA							REMARKS	
			(L/s)	MIN./MAX. DA (L/s)	NEG. ETP	ESP (kPa)	MOTOR DATA (NOTE 1)				ROWS	LAT (°C)				MAX. FACE VEL (m/s)	MAX. AIR PD (Pa)	TOTAL CAP (kW)	SENSIBLE CAP (kW)	EAT DB (°C)		LAT DB (°C)	TOTAL CAP (kW)	ELECTRIC HEATING COIL			
							HP	VOLT	PH	HZ		DB	WB	DB	WB					EAT DB (°C)	LAT DB (°C)			KW	VOLT		PH
AHU-1	LEVEL ONE	F1 F2 F3 F4	—	—	—	—	—	—	—	50	—	24.8	17.1	9.4	8.9	2.54	—	—	—	24.8	35	—	—	—	—	50	

- NOTES:
- ELECTRICAL CHARACTERISTICS SHALL BE MODIFIED, AS NEEDED TO ENSURE FULLY AND PROPERLY FUNCTIONING SYSTEMS AND COMPONENTS, TO MATCH HOST COUNTRY'S STANDARD ELECTRICAL CURRENT TYPE, FREQUENCY, NUMBER OF PHASES, AND NOMINAL VOLTAGE.
 - F-4 FILTERS ARE REQUIRED TO MEET USEPA NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS).
 - COIL ENTERING AND LEAVING AIR TEMPERATURES ARE SITE SPECIFIC AND ARE PROVIDED FOR GUIDANCE PURPOSES ONLY. THE DATA SHOULD NOT BE USED FOR DETERMINING EQUIPMENT CAPACITY.

FILTER SCHEDULE								
TAG	TYPE	SIZE LxWxD(mm)	MAX. AIR FLOW (L/s)	CLEAN MAX. STATIC PRESSURE DROP (Pa)	DIRTY MAX. STATIC PRESSURE DROP (Pa)	EFFICIENCY (%) OR MERV RATING	RESIDENCE TIME (sec)	REMARKS
F-1	EXTENDED SURFACE, DISPOSABLE PANEL FILTER	609x609x300	806	54	311	MERV 13	—	
F-2	HEPA FILTER	609x609x292	806	180	360	99.97	—	
F-3	AS2M—TEDA CARBON ADSORBER HEGA	609x609x483	806	489	489	99.9	0.1	
F-4	EXTENDED SURFACE, DISPOSABLE PANEL FILTER	609x609x100	806	55	0	MERV 8	—	
F-5	ACTIVATED CARBON ADSORBER HEGA	610x610x305	944	94	94	99.9	.033	WHERE REQUIRED BY LOCAL ENVIRON.

- NOTES FOR DESIGNER:
- THE NUMBER OF FILTERS SHALL BE SELECTED BASED UPON A LIFE CYCLE COST ANALYSIS ASSUMING 5YR HEPA AND 10YR ADSORPTION FILTER REPLACEMENT INTERVALS AND THE FAN ENERGY COSTS ASSOCIATED WITH ADDITIONAL PRESSURE DROP OF A LOWER NUMBER OF FILTERS (WITH A HIGHER FACE VELOCITY). THE BASIS OF THE LIFE CYCLE COST SHALL BE AS SHOWN: 12 ADSORPTION FILTERS PER 10,000 L/S OF AHU CAPACITY. PRESSURE DROPS TO REFLECT ACTUAL AIRFLOW PER FILTER.
 - ADDITIONAL PROPERTIES OF FILTERS DEFINED IN 080 FILTER SPECIFICATION.

AIR COOLED CONDENSING UNIT SCHEDULE									
TAG	LOCATION	SERVICE	OUTDOOR DESIGN TEMPERATURE DB (°C)	SENSIBLE CAP (KW)	MOTOR DATA (NOTE 1)				REMARKS
					KW	VOLT	PH	HZ	
ACC-1	SITE	AHU-1	-	-	-	-	3	50	(SEE NOTE 2)

- NOTES:
- ELECTRICAL CHARACTERISTICS SHALL BE MODIFIED, AS NEEDED TO ENSURE FULLY AND PROPERLY FUNCTIONING SYSTEMS AND COMPONENTS, TO MATCH HOST COUNTRY'S STANDARD ELECTRICAL CURRENT TYPE, FREQUENCY, NUMBER OF PHASES, AND NOMINAL VOLTAGE.
 - CONDENSING UNIT CAPACITY TO MATCH AIR HANDLING UNIT CAPACITY.

FAN SCHEDULE													
TAG	SERVICE	AREA SERVED	FAN TYPE	DRIVE TYPE	MAX AIRFLOW (L/s)	EXTERNAL STATIC PRESSURE (PA)	MOTOR DATA			MAXIMUM SONES	BASIS OF DESIGN		NOTES
							W	RPM	VOLTS/ PHASE/ HERTZ		MANUF.	MODEL	
DF-1	EXHAUST	LEVEL 1/ RESTROOM	INLINE CEILING CABINET FAN	DIRECT	50	62	100	-	240/1/50		GREEHECK		2
DF-2	EXHAUST	LEVEL 1/ BREAKROOM	CEILING CABINET FAN	DIRECT	25	62	30	-	240/1/50	1.2	GREEHECK		2
DF-3	EXHAUST	LEVEL 2/ RESTROOM	CEILING CABINET FAN	DIRECT	25	62	30		240/1/50	1.2	GREEHECK		1
DF-4	EXHAUST	LEVEL 2/ BATHROOM	CEILING CABINET FAN	DIRECT	25	62	30		240/1/50	1.2	GREEHECK		1
DF-5	EXHAUST	LEVEL 2/ BATHROOM	CEILING CABINET FAN	DIRECT	25	62	30		240/1/50	1.2	GREEHECK		1
DF-6	EXHAUST	LEVEL 2/ BATHROOM	CEILING CABINET FAN	DIRECT	25	62	30		240/1/50	1.2	GREEHECK		1
DF-7	EXHAUST	LEVEL 2/ BATHROOM	CEILING CABINET FAN	DIRECT	25	62	30		240/1/50	1.2	GREEHECK		1
DF-8	EXHAUST	LEVEL 2/ BATHROOM	CEILING CABINET FAN	DIRECT	25	62	30		240/1/50	1.2	GREEHECK		1
DF-9	EXHAUST	LEVEL 2/ BATHROOM	CEILING CABINET FAN	DIRECT	25	62	30		240/1/50	1.2	GREEHECK		1
RF-2	EXHAUST	MQ112 KITCHEN	INLINE CENTRIFUGAL	DIRECT	236	75	660		240/1/50		VIKING	VINV600	4
SP-01	POST-FIRE SMOKE PURGE	FIRST & SECOND FLOORS	UPBLAST CENTRIFUGAL ROOF EXHAUSTER	DIRECT	3190	125	223		415/3/50		GREEHECK		3
RF-01	RELIEF	FIRST FLOORS	DOWNBLAST CENTRIFUGAL ROOF EXHAUSTER	DIRECT	472	62	186		240/1/50		GREEHECK		2

- NOTES:
- INTERLOCK FAN OPERATION WITH SPACE LIGHTING CONTROLS.
 - DDC SYSTEM SHALL OPERATE FAN CONTINUOUSLY; INTERLOCK WITH OPERATION OF AHU-1.
 - FAN TO OPERATE A PART OF THE POST FIRE SMOKE PURGE SYSTEM.
 - FANS ARE PART OF KITCHEN HOOD EQUIPMENT, OPERATED FROM HOOD PER MANUFACTURER ON-OFF, VARIABLE FLOW.

GRAVITY INTAKE HOOD SCHEDULE						
TAG	THROAT SIZE L x W (mm)	MAX AIR FLOW (L/S)	DUCTED STATIC PRESSURE (Pa)	MFR	MODEL No.	REMARKS
OAI-1	450 x 450		25			

TAG	L/S MAXIMUM	SERVICE	TYPE	SIZE (mm)		MOUNT	MAX NC	BASIS OF DESIGN		NOTES
				FACE	NECK			MANUF	MODEL	
A	50	SUPPLY	DIFFUSER	610x610	155	LAY-IN				1
B	150	SUPPLY	DIFFUSER	610x610	205	SURFACE/LAY-IN	23			1
C	35	SUPPLY	GRILLE	205x205	155x155	SURFACE				1.3
D	70	SUPPLY	—	—	—	—	34			1.2
E	70	SUPPLY	—	—	—	—	23			1.2
F	65	RETURN	FLOOR GRILLE	380x170	350x150	FLOOR MTD				1
G	—	RETURN	GRILLE	610x610	560x560	SURFACE/LAY-IN				1.3
H		RETURN	SIDEWALL GRILLE							

- NOTES:
- REFER TO DRAWINGS FOR ACTUAL AIR BALANCE QUANTITIES IN SPECIFIC LOCATIONS.
 - PROVIDE LINEAR SLOT DIFFUSER WITH BORDER TYPE 4.
 - MOUNTING STYLE VARIES FOR THIS GRILLE TAG; PROVIDE SURFACE MOUNTING FRAME WHERE USED IN HARD CEILING AND WALL MOUNTING APPLICATIONS; WHERE MOUNTED ON A LAY-IN CEILING, PROVIDE THE APPROPRIATE MOUNTING FRAME.

VARIABLE AIR VOLUME BOX SCHEDULE												
TAG	SERVES ROOM	INLET SIZE (mm)	MAXIMUM AIR FLOW (L/s)	MINIMUM AIR FLOW (L/s)	MAXIMUM STATIC PRESSURE DROP (Pa)	MAXIMUM NC LEVEL FOR RATED L/s		ELECTRIC HEATING COIL				REMARKS
						DISCHARGE	RADIATED	KW	VOLT	PH	HZ	
VAV-1	200, 201	100	—	—	—	25	25	—	—	—	—	
VAV-2	202	100	—	—	—	—	—	—	—	—	—	
VAV-3	205	100	—	—	—	—	—	—	—	—	—	
VAV-4	208	100	—	—	—	—	—	—	—	—	—	
VAV-5	211	100	—	—	—	—	—	—	—	—	—	
VAV-6	214	100	—	—	—	—	—	—	—	—	—	
VAV-7	217	100	—	—	—	—	—	—	—	—	—	
VAV-8	220	100	—	—	—	—	—	—	—	—	—	
VAV-9	221	100	—	—	—	—	—	—	—	—	—	
VAV-10	101	200	—	—	—	—	—	—	—	—	—	
VAV-11	121, 123	150	—	—	—	—	—	—	—	—	—	
VAV-12	119, 118	300	—	—	—	—	—	—	—	—	—	
VAV-13	104, 110	200	—	—	—	—	—	—	—	—	—	
VAV-14	108	150	—	—	—	—	—	—	—	—	—	
VAV-15	112	200	—	—	—	—	—	—	—	—	—	
VAV-16	112	200	—	—	—	—	—	—	—	—	—	INTERLOCK W/KITCHEN HOOD
VAV-17	111, 114, 113	150	—	—	—	—	—	—	—	—	—	
VAV-18		100	—	—	—	—	—	—	—	—	—	

- NOTES:
- PROVIDE THERMOSTAT AND CONTROL WIRING FOR VAV BOX. EXACT THERMOSTAT LOCATION TO BE COORDINATED WITH WALL-MOUNTED EQUIPMENT.

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GENERAL NOTES:

1. DESIGN MECHANICAL SYSTEMS PER THE LATEST VERSION OF THE INTERNATIONAL MECHANICAL CODE (IMC) AND OWNER'S DESIGN REQUIREMENTS AND SPECIFICATIONS.

2. EQUIPMENT, DUCTWORK, AND PIPING SIZES AND LOCATIONS ARE SCHEMATIC IN NATURE. ACTUAL SIZES AND LOCATIONS ARE TO BE BASED ON SITE-SPECIFIC CONDITIONS AND OWNER'S DESIGN STANDARDS AND SPECIFICATIONS.

Release For Construction:
NIBS/Asa

Revisions

Rev. NumberDescriptionDate

SCHEDULES

080 Project NumberDrawing ScalePhase
AS NOTEDDDPP

CADD File NameCADD Plot Scale
CBMM601.DWG1:1

Date
NOV--2012

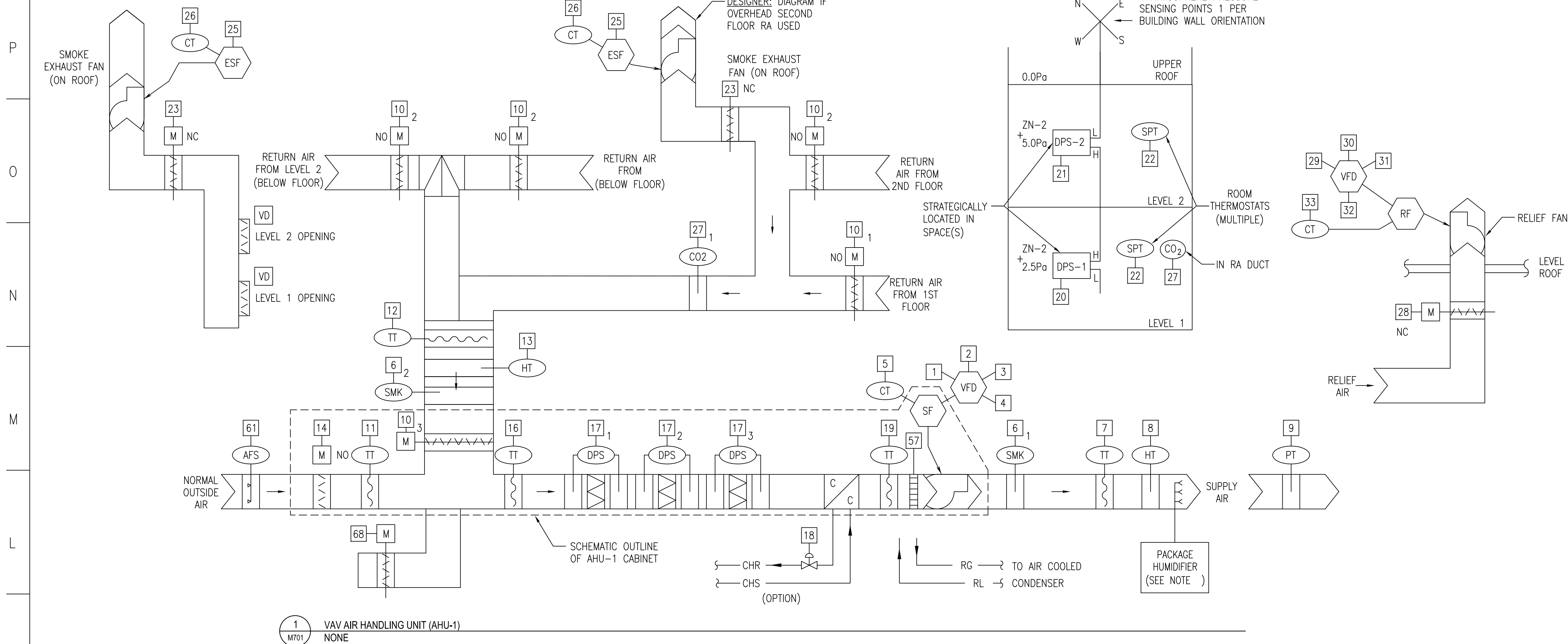
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Project Number

Classification
UNCLASSIFIED

Barracks
M601



SEQUENCE OF OPERATION

THE AIR HANDLING UNIT IS CONFIGURED TO OPERATE YEAR-ROUND TO PROVIDE A VARIABLE VOLUME OF CONDITIONED AIR TO THE INDIVIDUAL SPACES. THE EMCS SHALL ENABLE OR DISABLE THE OPERATION OF THE UNIT IN ACCORDANCE WITH A PROGRAMMABLE SCHEDULE. THE OPERATOR SHALL ALSO BE ABLE TO OVER-RIDE THE OPERATION OF THE AHU USING A TOGGLE SWITCH OR COMMAND.

THE AHU SHALL OPERATE 24/7 UNLESS COMMANDED TO BE OFF DUE TO A FIRE ALARM TRIP OR DUCT SMOKE DETECTOR TRIP AS WELL AS FOR MAINTENANCE PURPOSES. THE OPERATION OF THIS UNIT IS CRITICAL TO THE PRESSURIZATION OF THE BUILDING.

START-UP:

WHEN THE EMCS WORKSTATION HAS DETERMINED THAT THE UNIT SHOULD START, THE SUPPLY FAN [1] SHALL BE STARTED THROUGH THE VFD, SLOWLY RAMPED UP TO SPEED [3] AND THE SYSTEM SHALL OPERATE WITH RETURN AIR DAMPER [10] AT 100% OPEN WITH THE NORMAL OUTSIDE AIR DAMPER [14] CLOSED AND WITH 100% SMOKE MAKE-UP ON DAMPER [62] CLOSED. THE RETURN AIR AND NORMAL OUTSIDE AIR DAMPERS [10-1, 2, & 3, 14] SHALL BE "NORMALLY OPEN." THE AHU FAN VFD AND FAN SHALL START AND LOAD GRADUALLY OVER A PERIOD OF 30 SECONDS AT WHICH TIME IT SHALL BE UNDER THE CONTROL OF THE EMCS WORKSTATION.

WHEN THE AHU IS IN "OCCUPIED" MODE, THE FOLLOWING SHALL OCCUR:

THE EMCS SHALL MAINTAIN THE FOLLOWING ADJUSTABLE SETPOINTS FOR THE AHU, WITH THE FOLLOWING INITIAL SETTINGS: SUPPLY AIR TEMPERATURE [7] ("SATs", 12.8°C, ADJUSTABLE), SPACE TEMPERATURE - SUMMER [23] ("SPT", 24.0°C), SPACE RELATIVE HUMIDITY [58] ("RH", 50%, ADJUSTABLE), SPACE TEMPERATURE - WINTER - 21.5°C, 40% RELATIVE HUMIDITY (ADJUSTABLE).

IF THE SUPPLY AIR TEMPERATURE [7] IS GREATER THAN THE "SAT" SETPOINT, THE COOLING COIL CONTROL VALVE [18] SHALL MODULATE TO MAINTAIN THE "SAT" SETPOINT. IF THE SUPPLY AIR TEMPERATURE [7] IS LESS THAN THE "SAT" SETPOINT, THE COOLING COIL CONTROL VALVE [18] SHALL MODULATE CLOSED. SEE 4/M701 FOR CONTROL INTERLOCK WITH AIR-COOLED CONDENSER.

FOR BUILDINGS WITHOUT HEATING:

AT A FURTHER DROP IN ROOM TEMPERATURE, THE SUPPLY AIR DISCHARGE TEMPERATURE SHALL RESET TO A HIGHER SETTING TO PRECLUDE THE BUILDING FROM SUB-COOLING AT MINIMUM AIR FLOW.

GENERAL (ALL MODES OF OPERATION):

IF ANY FILTER DIFFERENTIAL PRESSURE SENSOR [17(1),17(2),17(3)] SENSES A PRESSURE DIFFERENCE GREATER THAN ITS SETPOINT, AN ALARM SHALL BE REGISTERED AT THE EMCS WORKSTATION INDICATING DIRTY FILTERS. SEE ADDITIONAL RELATED FILTER DPS SEQUENCE BELOW POINT LIST TABLE THIS SHEET.

IF THE FAN STATUS CURRENT TRANSMITTER [5] DOES NOT INDICATE A PROOF-OF-RUN FOR THE SUPPLY FAN [1] WHEN THE FAN IS COMMANDED TO RUN OR IF THE SUPPLY FAN VFD [2] REPORTS A FAILURE, AN ALARM SHALL BE REGISTERED AT THE EMCS WORKSTATION. ON A FAN SHUTDOWN OR A FAILURE TO OPERATE, ALL DAMPERS [10,14] AND VALVES [18] SHALL CLOSE AND AN ALARM SIGNAL SHALL BE SENT TO THE EMCS WORKSTATION. IF THE EMERGENCY SMOKE EXHAUST FAN STATUS CURRENT TRANSMITTER [26] DOES NOT INDICATE A PROOF-OF-RUN FOR THE PURGE FAN WHEN THE FAN IS COMMANDED TO RUN, AN ALARM SHALL BE REGISTERED AT THE EMCS WORKSTATION. SEE ADDITIONAL RELATED SEQUENCE BELOW POINT LIST TABLE.

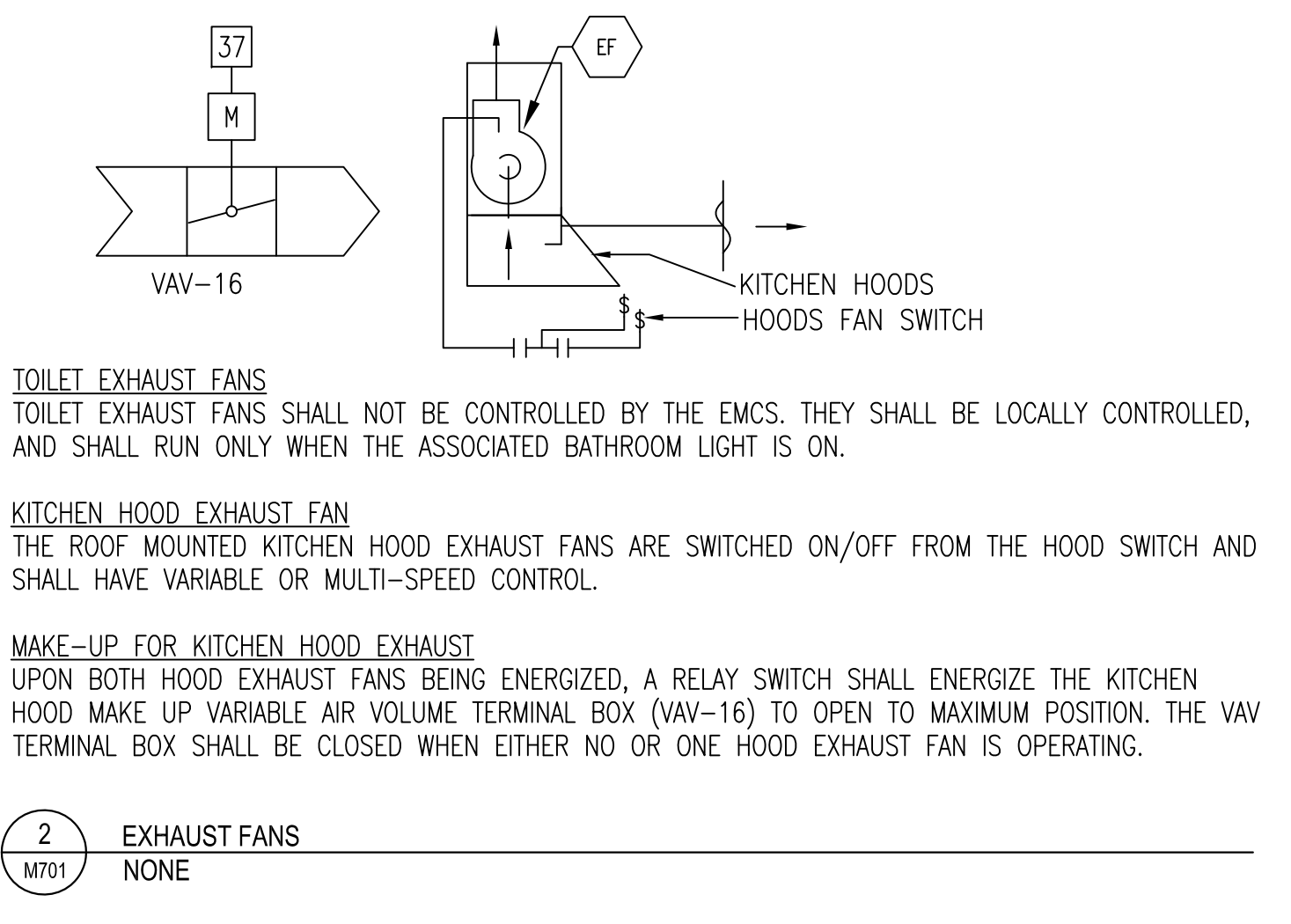
THE SUPPLY AND RETURN AIR RELATIVE HUMIDITY SENSORS [8,13] SHALL REPORT THE RELATIVE HUMIDITIES TO THE EMCS FOR INDICATION ONLY. IF THE RELATIVE HUMIDITY FALLS BELOW THE DESIGN SETPOINT, 40%, ADJUSTABLE, THAN THE PACKAGE HUMIDIFIER SHALL STAGE ON TO MAINTAIN THE DESIGN [13] SETPOINT.

ACTION FROM DUCT SMOKE DETECTOR TRIP:

IF THE DUCT DETECTOR [6] SENSES AN "ALARM" CONDITION, THE SUPPLY FAN SHALL "DE-ENERGIZE" (FIELD WIRED) AND AN ALARM SHALL BE REGISTERED AT THE EMCS WORKSTATION IN THE CHANCERY. ADDITIONALLY, OA DAMPER [14], RA DAMPERS [ALL 10'S] AND RELIEF AIR DAMPER [28] SHALL CLOSE.

ACTION FROM FIRE ALARM SYSTEM TRIP

UPON FIRE ALARM SYSTEM TRIP [60], SHUT DOWN SYSTEM AS IN DUCT SMOKE DETECTOR TRIP SEQUENCE ABOVE AND ALARM TO EMCS.



OUTSIDE AIR AND PRESSURIZATION CONTROL SEQUENCE:

WHEN THE AHU IS STARTED, THE FIRST FLOOR RETURN AIR DAMPER [10-1] SHALL MODULATE TO MAINTAIN THE SPACE DIFFERENTIAL PRESSURE TO THE 2ND FLOOR AT 2.5 Pa; THE SECOND FLOOR RETURN AIR DAMPER [10-2] SHALL MODULATE TO MAINTAIN THE SPACE DIFFERENTIAL PRESSURE TO ATMOSPHERE AT 5.0 Pa; AND THE NORMAL OUTDOOR AIR DAMPER [14] SHALL MODULATE BETWEEN THE MINIMUM POSITION AND THE MAXIMUM POSITION TO MAINTAIN THE REQUIRED MINIMUM VENTILATION REQUIRED FOR BUILDING AND MAINTAIN BUILDING PRESSURIZATION LEVELS. THE PRESSURE RELIEF DAMPER [28] SHALL MODULATE OPEN THE BUILDING RELIEF AND STARTING THE VFD [31] FOR THE FAN MOTOR, MODULATING THE SPEED TO MAINTAIN THE FIRST FLOOR DIFFERENTIAL PRESSURE AT +2.5 Pa.

THE SPACE DIFFERENTIAL PRESSURE SENSOR [20,21] SHALL MODULATE THE RETURN AIR DAMPER IN A DIRECTLY PROPORTIONAL MODULATION SO AS TO ACHIEVE A SETPOINT OF 3.5 Pa FOR THE COMMON AREAS, AND 7.0 Pa FOR THE RECREATION AREAS AND LIVING QUARTERS.

ACTION IN RESPONSE TO CO₂ SENSORS:

CONTROL: IF THE RETURN AIR CO₂ SENSOR [27] SHOULD SENSE A READING HIGHER THAN 900 PPM, THE NORMAL OUTSIDE AIR DAMPER [14] SHALL SLOWLY OPEN TOWARDS ITS MAXIMUM POSITION TO INCREASE THE OA SUPPLY. THE RETURN AIR DAMPER FOR FIRST FLOOR [10-1] SHALL MODULATE CORRESPONDINGLY TOWARDS CLOSED POSITION TO OFFSET THE INCREASED OA, AND THE RELIEF AIR FAN SPEED CONTROLLER [31] SHALL INCREASE TO MAINTAIN THE FLOOR DIFFERENTIAL PRESSURE AT +2.5 Pa. WHEN THE CO₂ SENSOR [27] AGAIN SENSES A READING BELOW 900 PPM FOR 10 MINUTES, THEN THE NORMAL OUTSIDE AIR DAMPER [14] SHALL START TO MODULATE TOWARDS THE MINIMUM POSITION AND THE RELIEF FAN CONTROLLER [14] SHALL MODULATE TO LOWER SPEED TO AGAIN MAINTAIN THE BUILDING PRESSURIZATION REQUIREMENT.

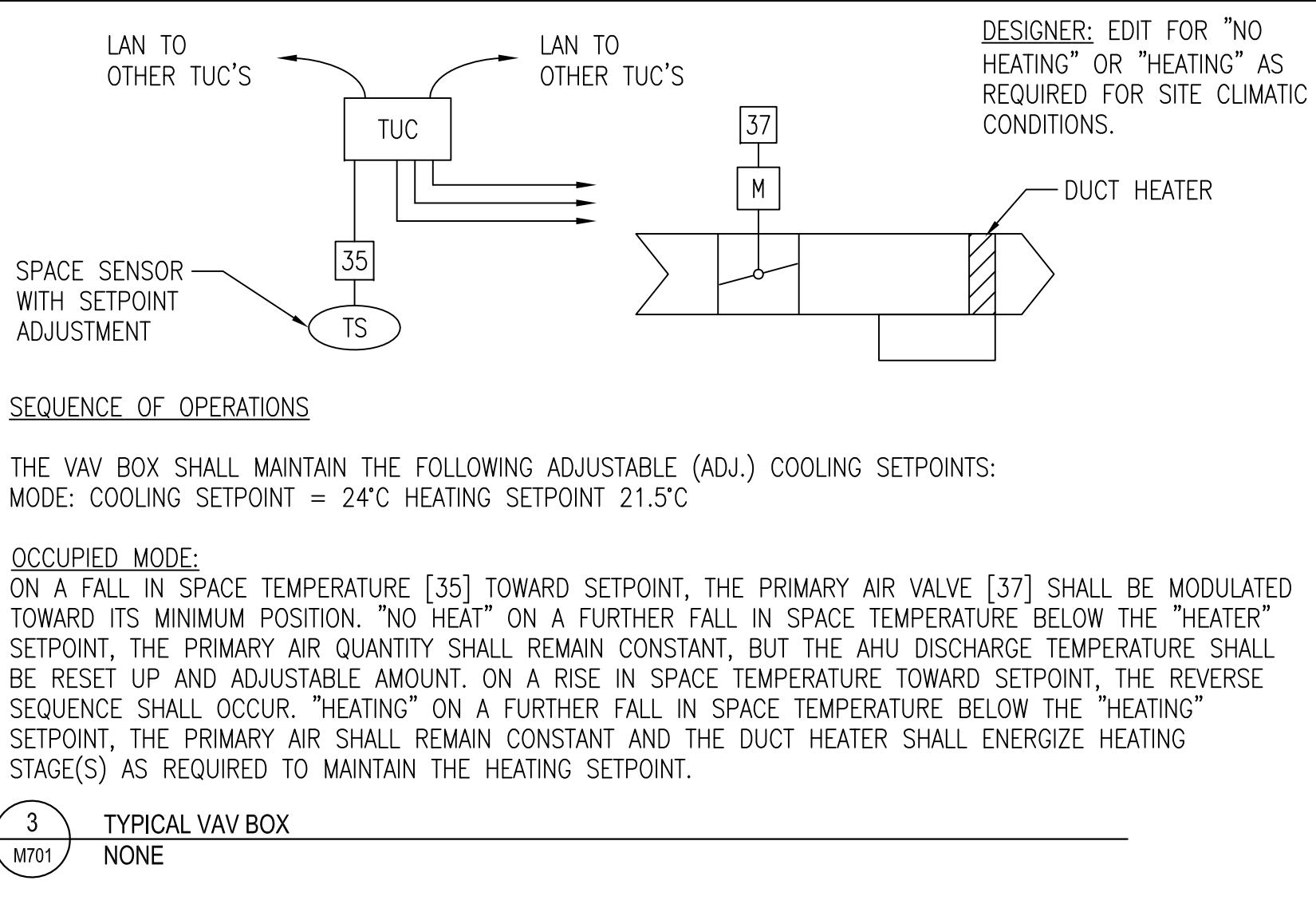
WHEN THE AIR HANDLING UNIT SUPPLY FAN [1] IS OPERATING, THE OUTSIDE AIR DAMPER [14] SHALL INITIALLY OPEN TO ITS MINIMUM POSITION, RETURN AIR DAMPERS [10-1] AND [10-2] SHALL INITIALLY OPEN FULLY AND THE DAMPERS SHALL MODULATE AS FOLLOWS:

IF RETURN AIR CO₂ SENSOR [27-1] SHOULD INDICATE A READING HIGHER THAN 900 PPM, OUTSIDE AIR DAMPER [14] SHALL SLOWLY OPEN TOWARD ITS MAXIMUM POSITION. IF ANY ZONE DIFFERENTIAL PRESSURE SENSOR [20 OR 21] SENSES A LOWER DIFFERENTIAL PRESSURE THAN ITS SET POINT, THE CORRESPONDING RETURN AIR DAMPER [10-1] OR [10-2] SHALL SLOWLY MODULATE CLOSED UNTIL THE ZONE DIFFERENTIAL PRESSURE SET POINT HAS BEEN SATISFIED, UNLESS THE RETURN AIR CO₂ SENSOR [27-1] INDICATES A READING ABOVE ITS SETPOINT. IF ANY ZONE DIFFERENTIAL PRESSURE SENSOR [20 OR 21] SENSES A HIGHER DIFFERENTIAL PRESSURE THAN ITS SET POINT, THE CORRESPONDING RETURN AIR DAMPER [10-1] OR [10-2] SHALL SLOWLY MODULATE OPEN UNTIL THE ZONE DIFFERENTIAL PRESSURE SET POINT HAS BEEN SATISFIED. IF RETURN AIR CO₂ SENSOR [27-1] INDICATES A READING BELOW 900 PPM, RETURN AIR DAMPERS [10-1] AND [10-2] SHALL BE UNDER THE CONTROL OF THE CORRESPONDING ZONE PRESSURIZATION SENSORS [20 OR 21]. IF ZONE DIFFERENTIAL PRESSURE SENSORS [20] SENSES AN INCREASING PRESSURE ABOVE SET POINT WHEN CO₂ CONTROL INCREASES THE OUTSIDE AIR THE RELIEF DAMPER [28] AND RELIEF FAN VFD SPEED [3] SHALL BE CONTROLLED AS DESCRIBE ABOVE.

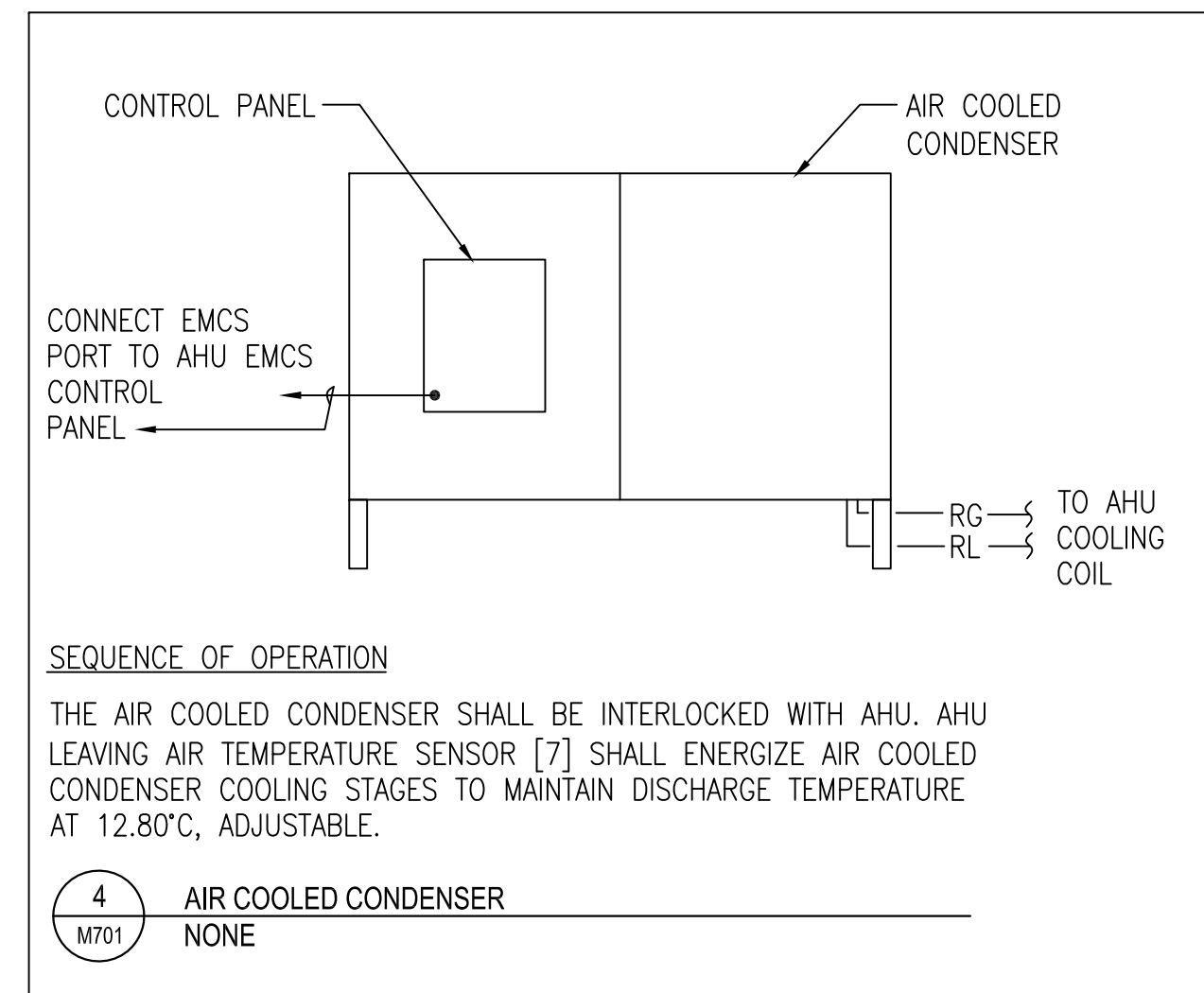
MANUAL SMOKE PURGE MODE

A BUILDING POST-FIRE SMOKE "PURGE" MAY BE MANUALLY INITIATED VIA A PANEL-MOUNTED SWITCH LOCATED AT THE AHU OMS PANEL. UPON A "PURGE" COMMAND, THE AHU SUPPLY FAN [1] SHALL STOP, RETURN AIR DAMPER [10-3] SHALL CLOSE, RETURN AIR DAMPERS [10-1 & 10-2] SHALL FULLY OPEN, NORMAL OA DAMPER [14] SHALL CLOSE AND SMOKE PURGE 100% OUTSIDE AIR DAMPER [62] SHALL FULLY OPEN. SMOKE PURGE DAMPER [23] SHALL OPEN. SMOKE EXHAUST FAN [25] SHALL BE ENERGIZED. AHU SUPPLY FAN [1] SHALL BE RE-ENERGIZED UPON DAMPERS BEING PROVEN BY END SWITCHES. SEQUENCE WILL BE MANUALLY DEACTIVATED BY THE SAME PANEL-MOUNTED SWITCH LOCATED IN ROOM 105, AFTER WHICH NORMAL OPERATION SHALL RESUME.

NOTE: THE AHU MECHANICAL ROOM DOUBLE DOORS MUST BE KEPT "OPEN" DURING SMOKE PURGE MODE.



LEGEND	
CT	CURRENT TRANSMITTER
ESF	EQUIPMENT DESIGNATION
M	DAMPER ACTUATOR (MOTOR)
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
SMK	SMOKE DETECTOR
HT	HUMIDITY TRANSMITTER
TT	TEMPERATURE TRANSMITTER
CO ₂	CARBON DIOXIDE SENSOR
3	POINT LABEL
DPS	DIFFERENTIAL PRESSURE SENSOR
CHS/R	CHILLED WATER SUPPLY/RETURN
PT	PRESSURE TRANSMITTER
TUC	TERMINAL UNIT CONTROLLER
TS	TEMPERATURE SENSOR
AFS	AIRFLOW STATION



BAS INPUT/OUTPUT SIGNALS AND ALARMS (SEE POINT LIST):

- AIRFLOW MONITOR [57] (SUPPLIED W/AHU): SHALL SIGNAL BAS OF THE OPERATING AIRFLOW OF AHU IN L/S.
- OPERATING READING FOR VARIOUS SENSORS DESCRIBED ABOVE SHALL BE REGISTERED AT THE BAS WORKSTATION.
- FILTER PRESSURE SENSORS [17] (SUPPLIED W/AHU): DIFFERENTIAL PRESSURE SENSORS AT EACH FILTER SHALL SIGNAL THE PRESSURE DIFFERENTIAL ACROSS EACH FILTER BANK. THE BAS FLOW DIAGRAM SHALL INDICATE EACH FILTER WITH GREEN, YELLOW, AND RED INDICATOR LIGHTS. THE BAS SHALL BE PROGRAMMED WITH THE FAN 100% DESIGN AIRFLOW RATE AND THE "DIRTY" FILTER PRESSURE DROP SET-POINT AT 100% SCHEDULED AIRFLOW. THE BAS SHALL MULTIPLY THE DIFFERENTIAL PRESSURE MEASURED ACROSS EACH FILTER (BY DP SENSOR [17]) BY THE RATIO OF 100% DESIGN AIRFLOW TO ACTUAL AIRFLOW AND COMPARE THIS NUMBER WITH THE "DIRTY" FILTER PRESSURE DROP SET-POINT TO DETERMINE IF THE FILTERS ARE DIRTY. CONDITIONS SHALL BE SIGNALLED AS FOLLOWS: GREEN = "NORMAL" (LESS THAN 70% OF RANGE, YELLOW = "ORDER FILTERS" (BETWEEN 70-100% OF RANGE), AND RED = "DIRTY". REPLACE FILTERS" (GREATER THAN 100% SET-POINT). IF RATED AIRFLOW RATE INDICATES THAT THE FILTER EXCEEDS THE MAXIMUM PRESSURE DROP SET-POINT, I.E. FILTER IS "DIRTY," THEN AN ALARM SIGNAL SHALL BE REGISTERED AT THE BAS WORKSTATION. THE HECA FILTER SHALL ONLY HAVE A GREEN "NORMAL" AND RED "ALARM" INDICATOR LIGHT. THE ALARM SHALL BE SIGNALLED IF THE RATED DIFFERENTIAL PRESSURE DROP FALLS BELOW A MINIMUM LEVEL (E.G. 50 Pa) INDICATING FILTER IS MISSING) OR 20% ABOVE THE 100% SET-POINT.
- IF THE FAN CURRENT TRANSMITTER [5] DOES NOT INDICATE PROOF-OF-RUN FOR THE SUPPLY FAN MOTOR WHEN THE FAN IS COMMANDED TO RUN OR IF THE VFD REPORTS A FAILURE [2], AN ALARM SHALL BE REGISTERED AT THE BAS WORKSTATION.

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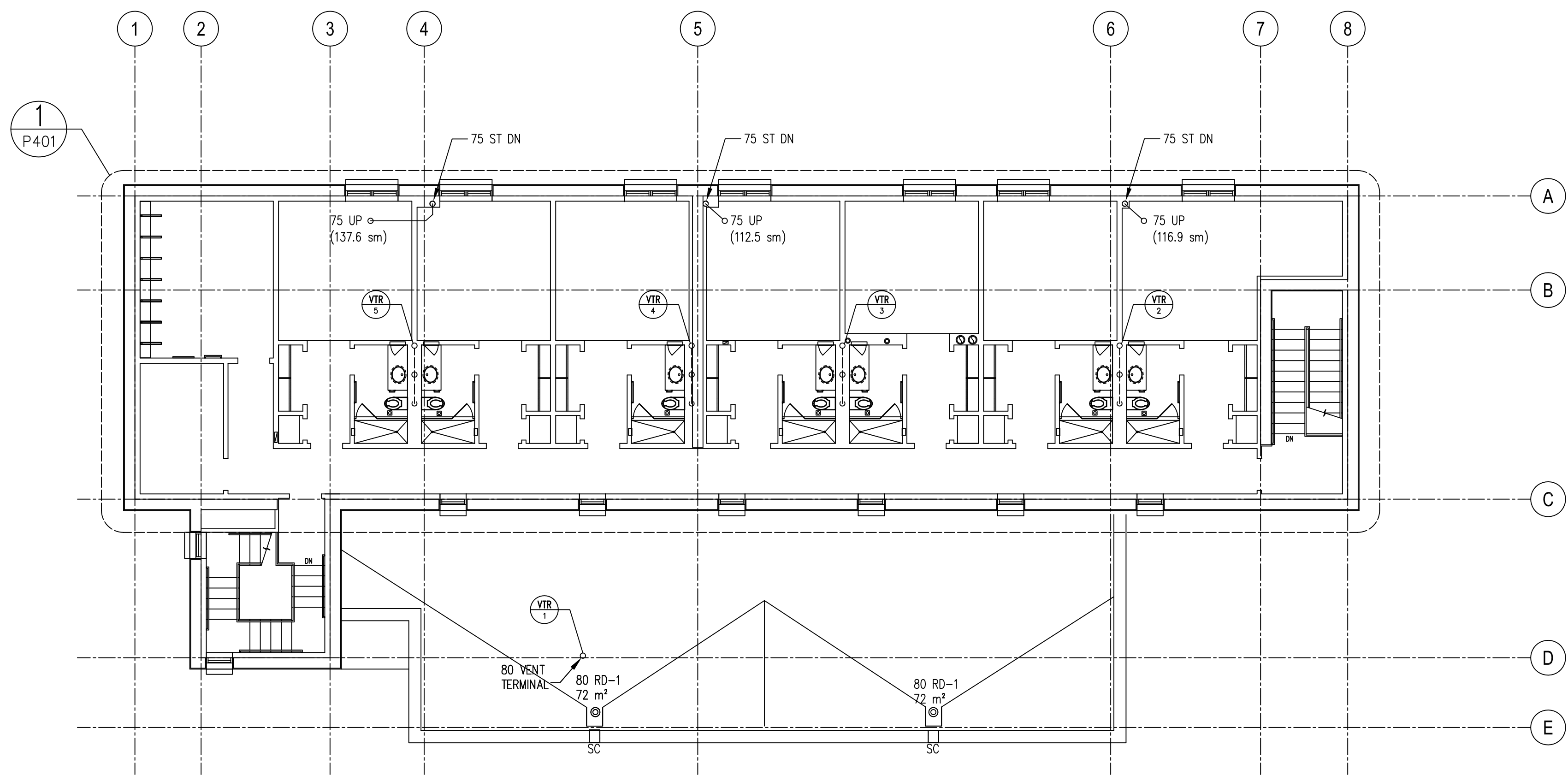
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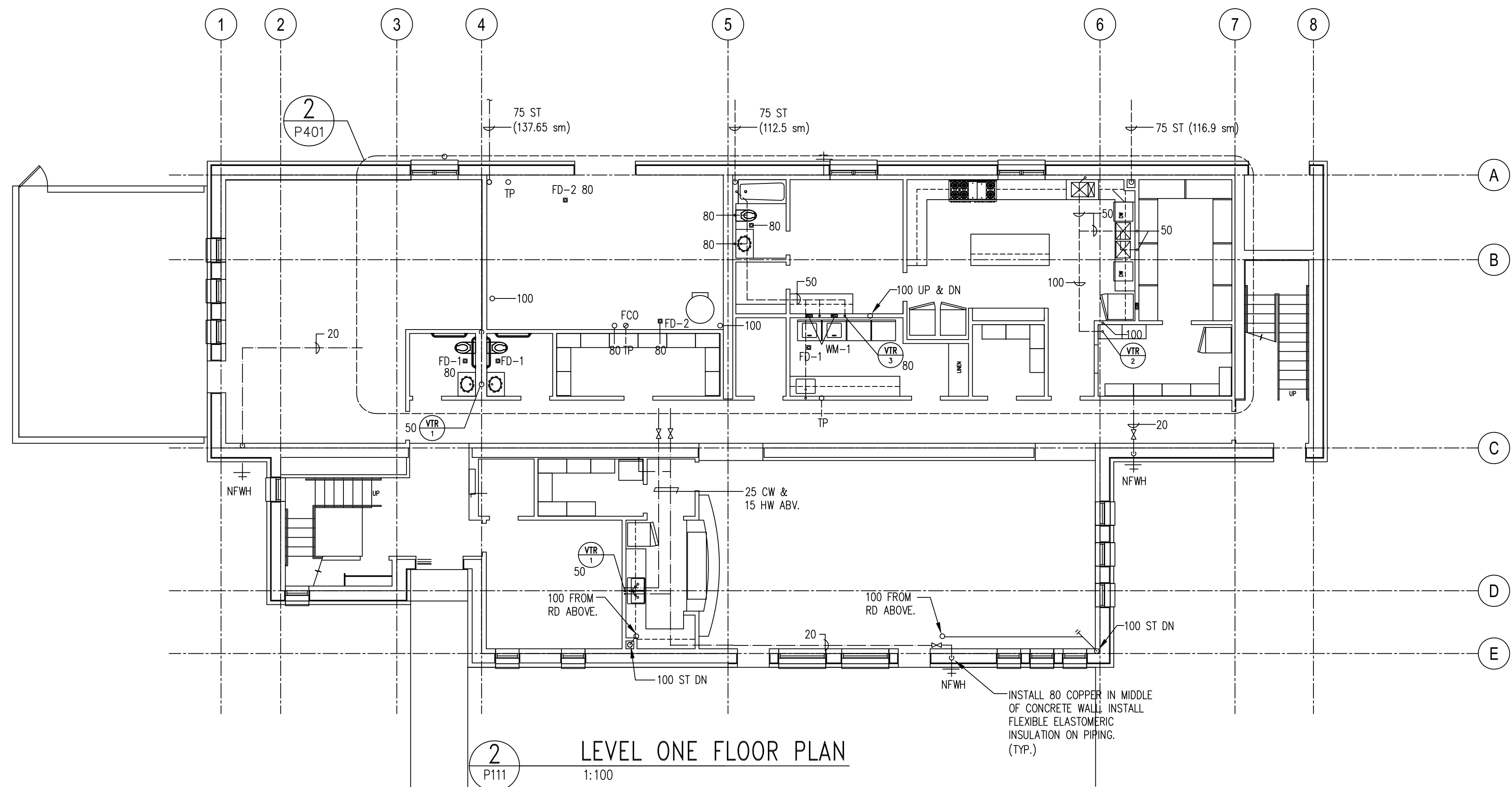
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EMCS POINTS LIST										ALARM AT BAS PC	ALARM AT POST 1 AND POST 2
TAG	NAME/FUNCTION	AI	AO	DI	DO	REMARKS					
[1]	AHU SUPPLY FAN ON/OFF			*	*					*	
[2]	AHU SUPPLY FAN VFD FAIL			*	*					*	
[3]	AHU SUPPLY FAN VFD SPEED INPUT			*	*						
[4]	AHU SUPPLY FAN VFD % (FEEDBACK)	*	*								
[5]	AHU SUPPLY FAN STATUS										
[6]	DUCT SMOKE DETECTOR			*	*	[6], AND [6]				*	*
[7]	SUPPLY AIR TEMPERATURE	*	*							*	*
[8]	SUPPLY AIR HUMIDITY	*	*							*	*
[9]	SUPPLY AIR DUCT STATIC PRESSURE	*	*								
[10]	RETURN AIR DAMPER (OPPOSED BLADE REQUIRED)	*	*			[10], [10], [10], [10]					
[11]	OUTSIDE AIR TEMPERATURE	*	*								
[12]	RETURN AIR TEMPERATURE	*	*								
[13]	RETURN AIR HUMIDITY	*	*								
[14]	OUTSIDE AIR DAMPER	*	*								
[15]	OUTSIDE AIR DAMPER END SWITCH	*	*								
[16]	MIXED AIR TEMPERATURE	*	*								
[17]	FILTER DIFFERENTIAL PRESSURE	*	*			[17], [17], AND [17]				*	
[18]	COOLING COIL CHW VALVE (OPTION)	*	*								
[19]	COOLING COIL DISCHARGE TEMPERATURE	*	*								
[20]	SPACE PRESSURIZATION SENSOR (FIRST FLOOR)	*	*			ALARM AT POST 1, POST 2 IF IN ALARM FOR MORE THAN 5 MINUTES				*	*
[21]	SPACE PRESSURIZATION SENSOR (SECOND FLOOR)	*	*			ALARM AT POST 1, POST 2 IF IN ALARM FOR MORE THAN 5 MINUTES				*	*
[22]	SPACE TEMPERATURE SENSORS	*	*			[22], [22], AND [22]					
[23]	SMOKE AIR DAMPER			*	*						
[24]	SMOKE AIR DAMPER END SWITCH			*	*						
[25]	SMOKE FAN ON/OFF			*	*						
[26]	SMOKE FAN STATUS			*	*					*	
[27]	CARBON DIOXIDE SENSORS	*	*			[27]				*	
[28]	RELIEF AIR DAMPER	*	*	*	*						
[29]	RELIEF FAN ON/OFF			*	*						
[30]	RELIEF FAN VFD FAIL			*	*					*	
[31]	RELIEF FAN VFD SPEED INPUT			*	*						
[32]	RELIEF FAN VFD % FEEDBACK	*	*								
[33]	RELIEF FAN STATUS	*	*							*	*
[34]	FIRE ALARM SYSTEM TRIP			*	*					*	
[35]	ZONE TEMPERATURES (EACH)	*	*			HIGH AND LOW ALARMS, ALARM AT POST 1, POST 2 IF IN ALARM FOR MORE THAN 5 MINUTES				*	*
[36]	COOLING SETPOINTS (OCCUPIED) (EACH)	*	*								
[37]	VAV BOX AIR VALVES (EACH)	*	*							*	
[38]	VAV BOX CFM (EACH)	*	*								
[39]	VAV BOX MINIMUM CFM (EACH)	*	*							*	
[40]	VAV BOX MAXIMUM CFM (EACH)	*	*								
[41]	UNOCCUPIED COOLING SETPOINTS (EACH)	*	*								
[42]	MAX. ZONE TEMPERATURE GROUP	*	*							*	
[43]	MIN. ZONE TEMPERATURE GROUP	*	*							*	
[44]	AVERAGE ZONE TEMPERATURE GROUP	*	*								
[45]	TOTAL GROUP FLOW	*	*								
[46]	EMERGENCY POWER			*	*					*	*
[47]	WATER SUPPLY SYSTEM GENERAL ALARM			*	*					*	*
[48]	WATER SUPPLY SYSTEM PH LEVEL	*	*							*	
[49]	WATER SUPPLY SYSTEM CL LEVEL	*	*							*	
[50]	WATER SUPPLY SYSTEM TANK LEVEL	*	*			HIGH AND LOW LEVEL				*	*
[51]	WATER SUPPLY SYSTEM PUMP STATUS	*	*							*	*
[52]	EXHAUST FAN START/STOP (EACH)	*	*	*	*						
[53]	EXHAUST FAN STATUS (EACH)	*	*	*	*						
[54]	EXHAUST FAN DAMPER (EACH)	*	*	*	*						
[55]	DOMESTIC WATER METER	*	*								
[56]	ELECTRIC METER	*	*								
[57]	AHU AIRFLOW (PIEZOMETER)	*	*								
[58]	SPACE HUMIDITY	*	*								
[59]	OUTDOOR PRESSURE (EACH)	*	*								
[60]	FIRE ALARM SYSTEM TRIP	*	*	*	*					*	
[61]	OUTSIDE AIR FLOW	*	*								
[62]	SMOKE MAKE-UP/100% OUTSIDE AIR DAMPER	*	*								
[63]	OA PRESSURE SENSORS	*	*								
[64]	HUMIDIFIER DATA	*	*								
[65]	SUPPLY AIR VOLUME (PIEZOMETER BY AHU MFR)	*	*								

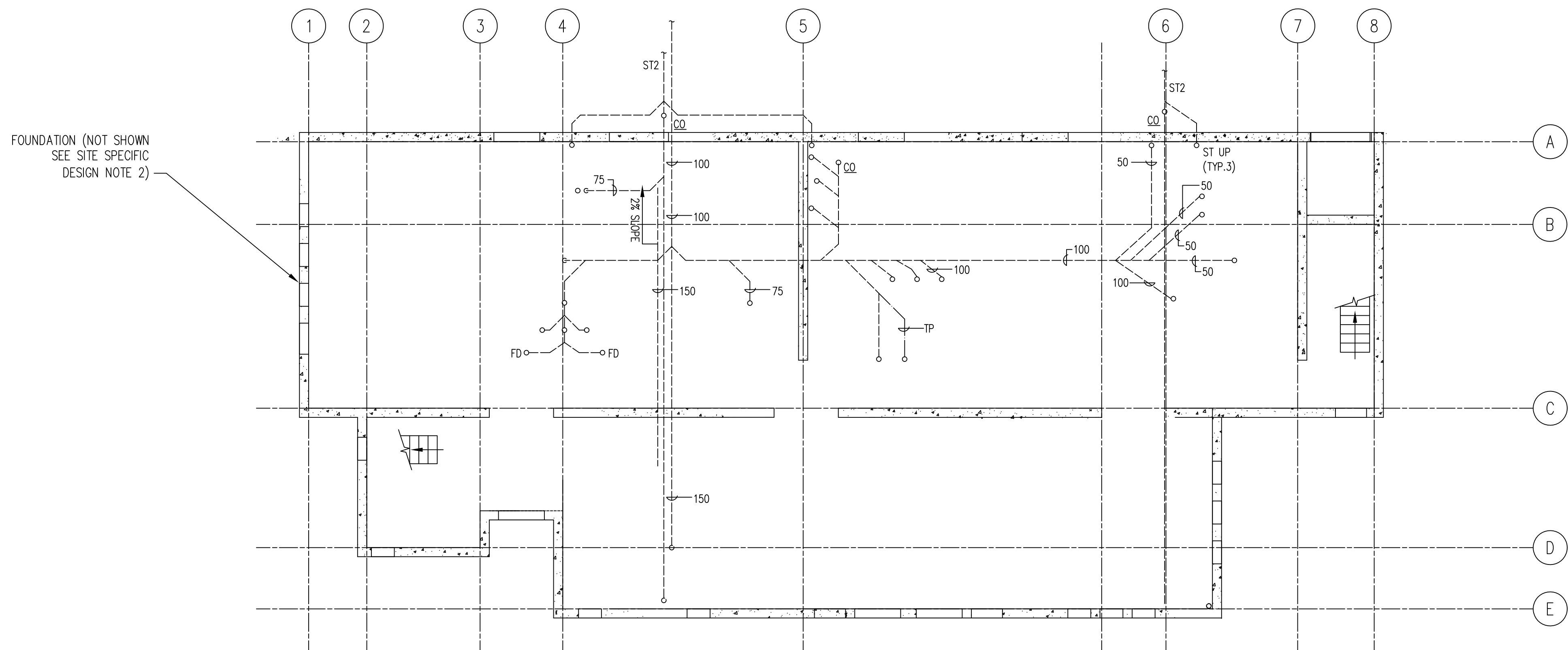
Release For Construction:		Release For Construction:	
ME/AS	ME/AS	ME/AS	ME/AS
Drawing Title		MECHANICAL EMCS POINTS LIST	
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GEO File Name	GEO Plot Scale	1:1	
CBMM701.DWG	Checked By	Project Number	
Date		Sheet Number	
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Drawn By		NIBS	Barracks
Checked By		NIBS	
Project Number			M701
Classification			UNCLASSIFIED



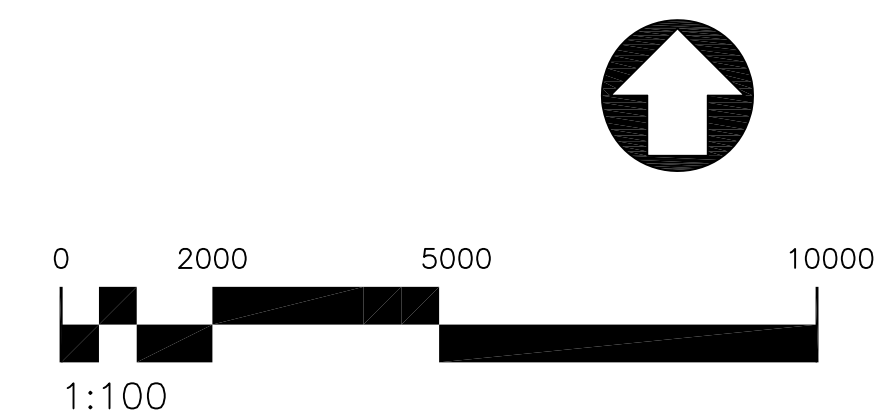
1 LEVEL TWO FLOOR PLAN
1:100



2 LEVEL ONE FLOOR PLAN
1:100



3 LEVEL ONE FOUNDATION PLAN
1:100



ALL DIMENSIONS WITHOUT A DECIMAL ARE IN MILLIMETERS UNO. ALL DIMENSIONS WITH A DECIMAL ARE IN METERS UNO.

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Barracks 101

Building Information Model Common File

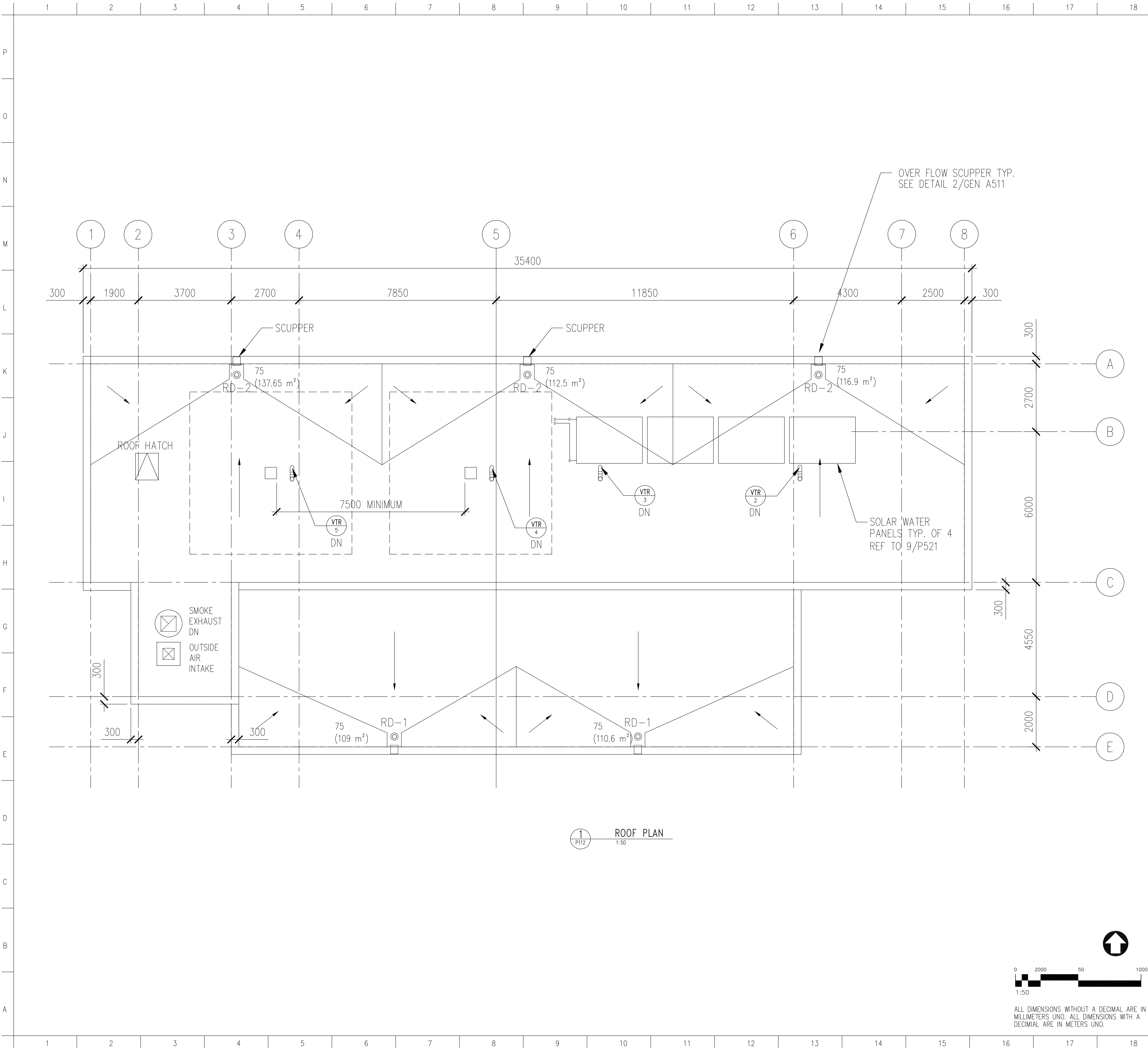
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- GENERAL NOTES:**
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 - PROVIDE NATURAL GAS/FUEL METER WIRED TO BAS IF GAS/FUEL IS PROVIDED TO BARRACKS.

Rev. Number	Description	Date
Revisions		

Release For Construction:	
NIBS/Ida	NIBS/Ida
Drawing Title	
FLOOR PLANS	
DBD Project Number	Phase
DBD-P111.DWG	DCWP
CADD File Name	Scale
DBD-P111.DWG	1:1
Date	Sheet Number
NOV-2012	
Drawn By	NIBS
Checked By	NIBS
Project Number	
Classification	UNCLASSIFIED

Barracks
P111



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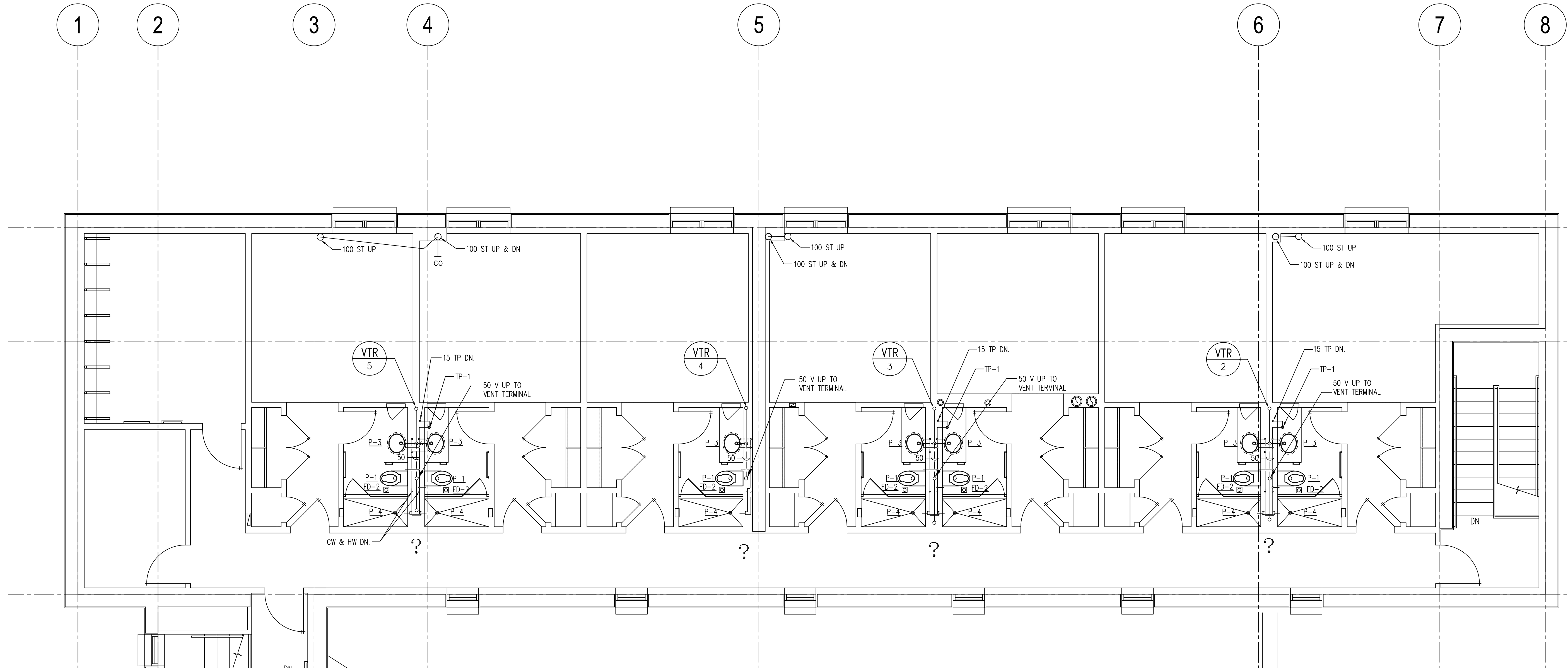
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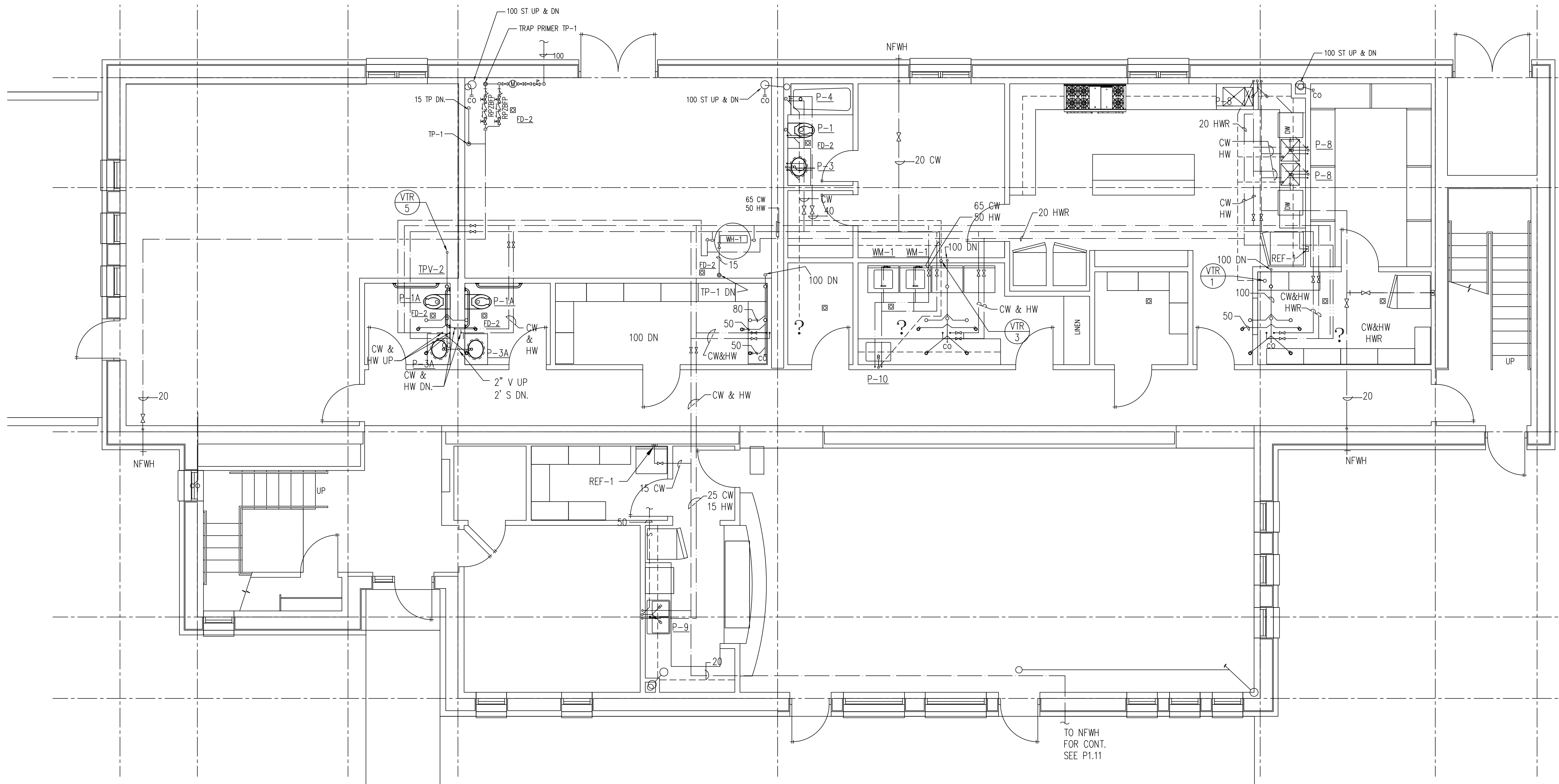
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Rev. Number	Description	Date
Revisions		

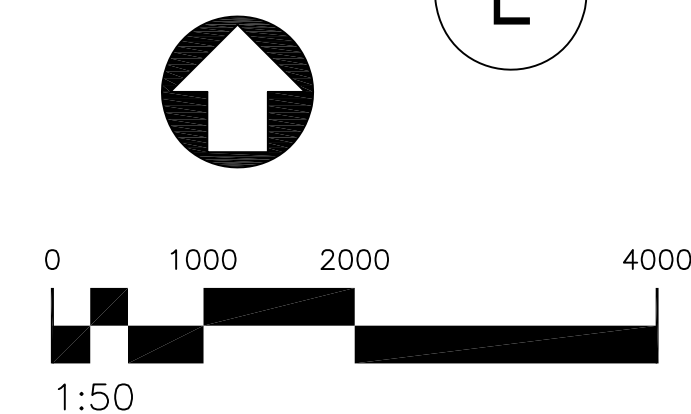
Release For Construction:	
NIBS/Ida	NIBS/Ida
Drawing Title	
ROOF PLAN	
DBO Project Number	Drawing Scale Phase
AS NOTED 004P	AS NOTED 004P
CADD File Name	CADD Plot Scale
CBMP112.DWG	1:1
Date	Sheet Number
NOV-2012	Barracks P112
Drawn By	NIBS
Checked By	NIBS
Project Number	
Classification	UNCLASSIFIED



1 ENLARGED LEVEL TWO FLOOR PLAN
P401 1:50



2 ENLARGED LEVEL ONE FLOOR PLAN
P401 1:50



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Rev Number	Description	Date
Revisions		

Release For Construction: NIBS/ASB

Drawing Title

ENLARGED PLANS

DBD Project Number	Drawing Scale	Phase
AS NOTED	1:50	100%

CAO File Name	CAO Plot Scale	CONCEPT	100%	100%	100%	100%	100%
CBMP401.DWG	1:1						

Date	NOV-2012	Sheet Number
Drawn By	NIBS	
Checked By	NIBS	
Project Number		
Classification	UNCLASSIFIED	

Barracks P401

UNCLASSIFIED

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

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Building Information Model Common File

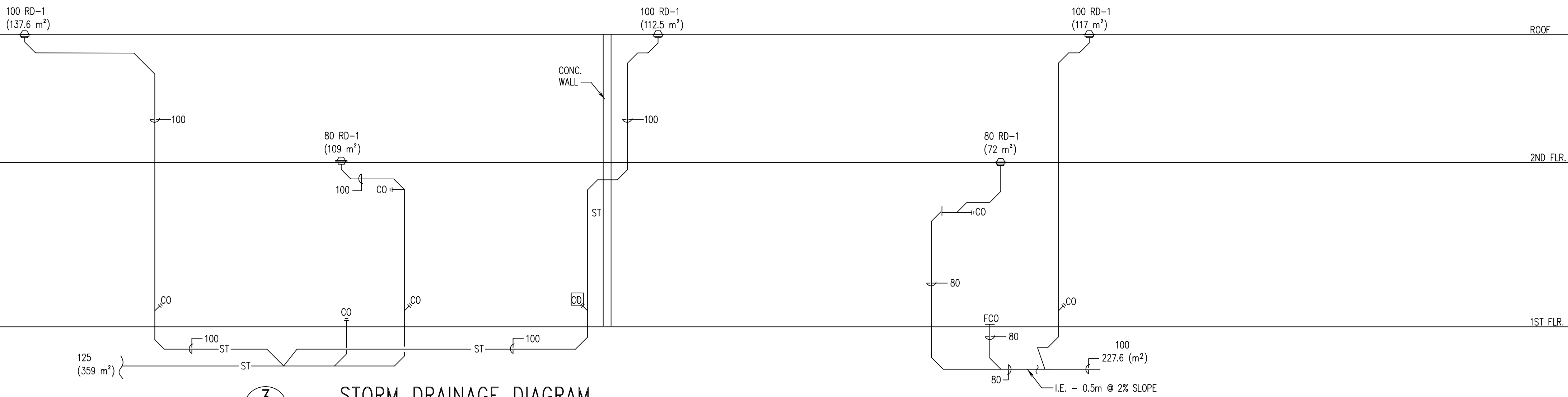
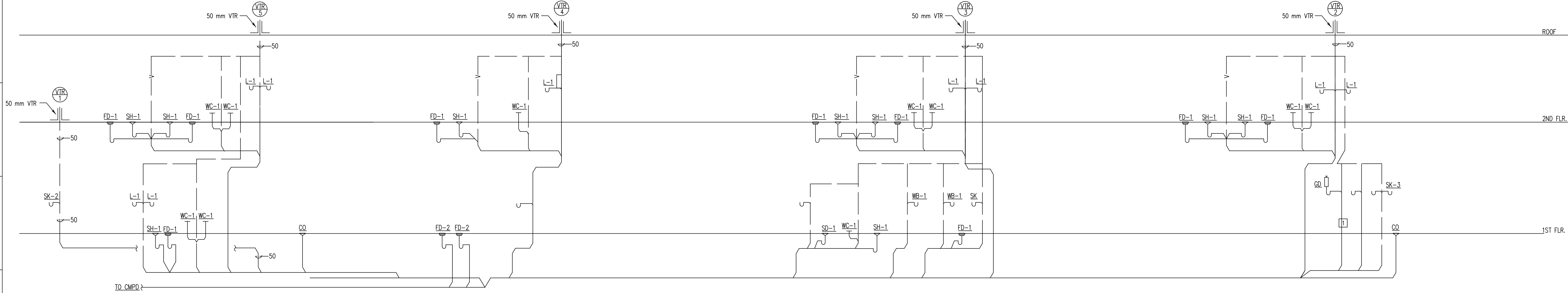
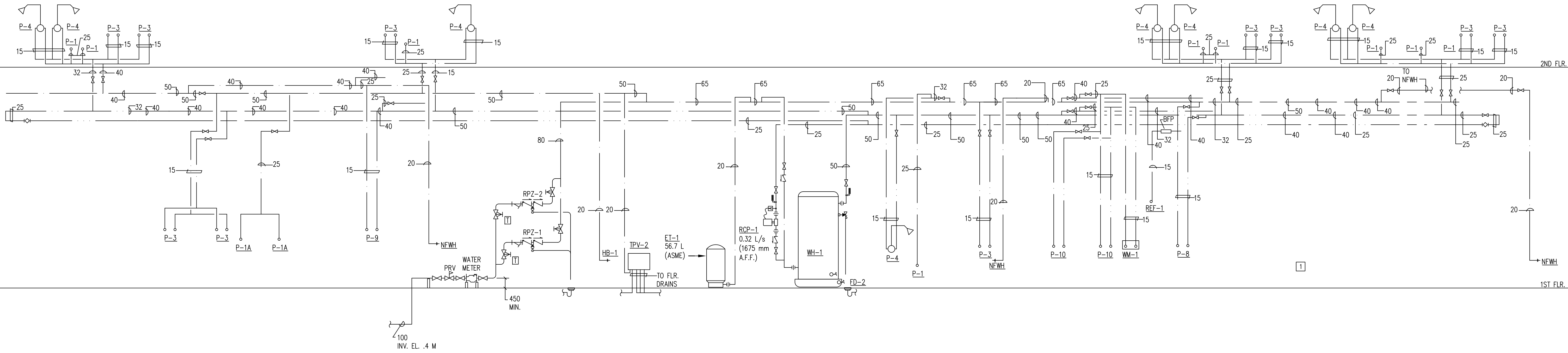
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KEYED NOTES:

PLUMBING RISER DIAGRAMS ARE SITE-SPECIFIC. GENERATE DIAGRAMS FOR EVERY APPLICATION OF THE STANDARD DESIGN. DIAGRAMS CANNOT BE USED "AS-IS" AND MUST BE ADJUSTED TO REPRESENT THE SITE-SPECIFIC PLUMBING DESIGN. THE DIAGRAMS HAVE BEEN INCLUDED TO ILLUSTRATE THE MINIMUM ACCEPTABLE LEVEL OF DETAIL REQUIRED.
PROVIDE WATER METER WIRED TO THE BAS.



Rev. Number	Description	Date
Revisions		

Release For Construction:
NIBS/Asa

Drawing Title
RISER DIAGRAMS

GBD Project Number
CBMP511.DWG

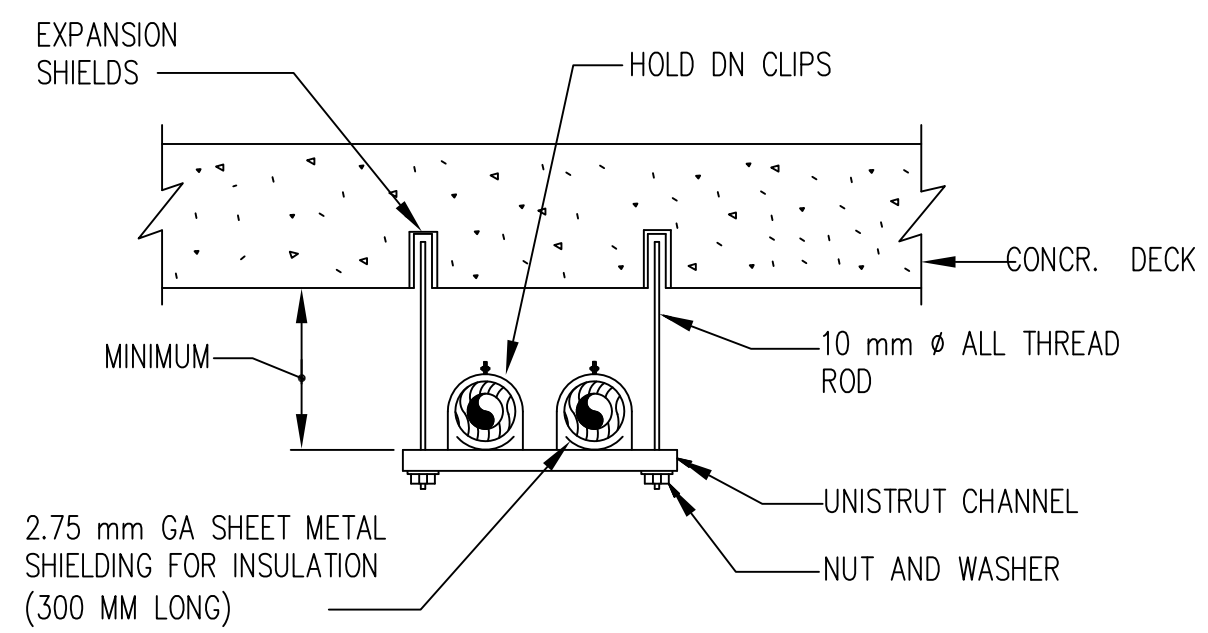
Date
NOV-2012

Drawn By
NIBS

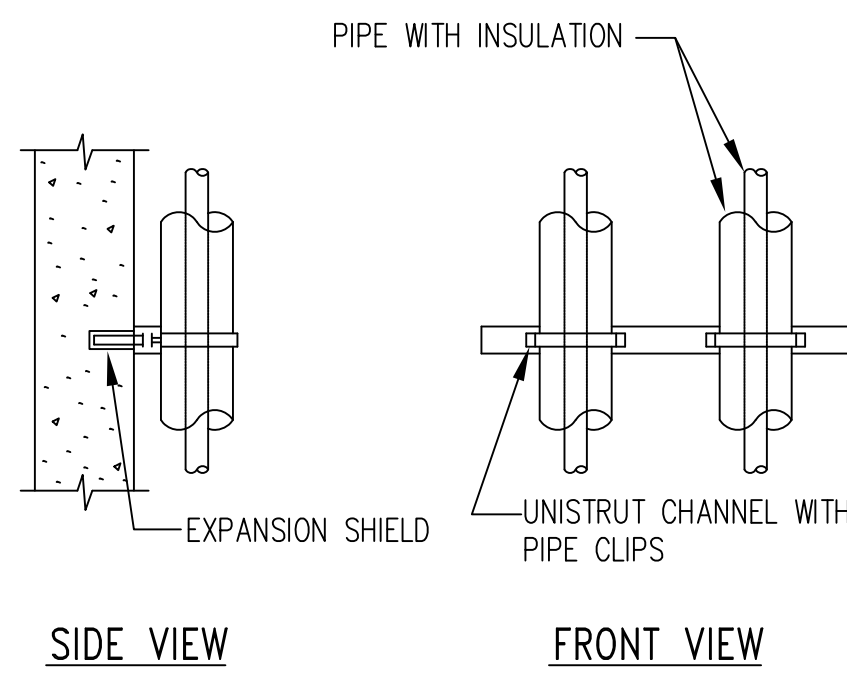
Checked By
NIBS

Project Number
Barracks 101

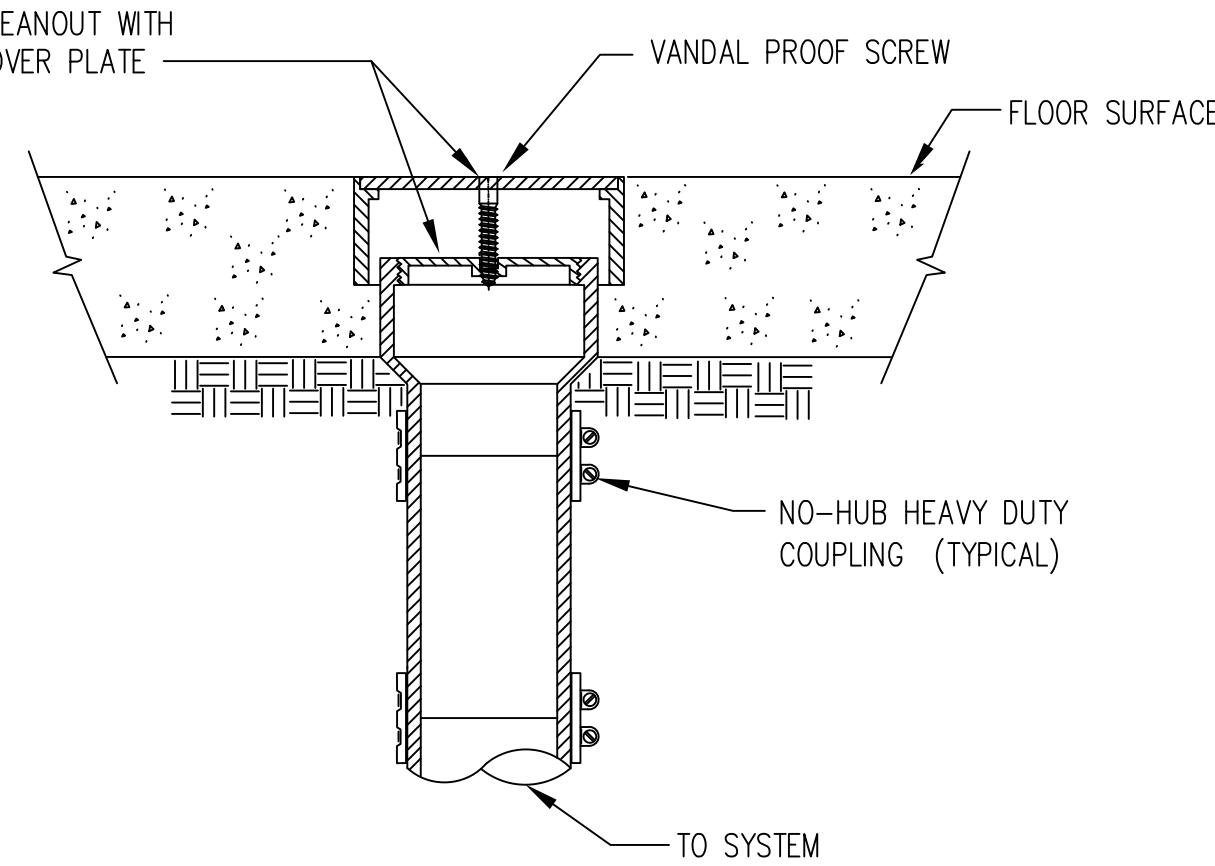
Classification
UNCLASSIFIED



1
P521
TRAPEZE PIPE HANGER
NTS

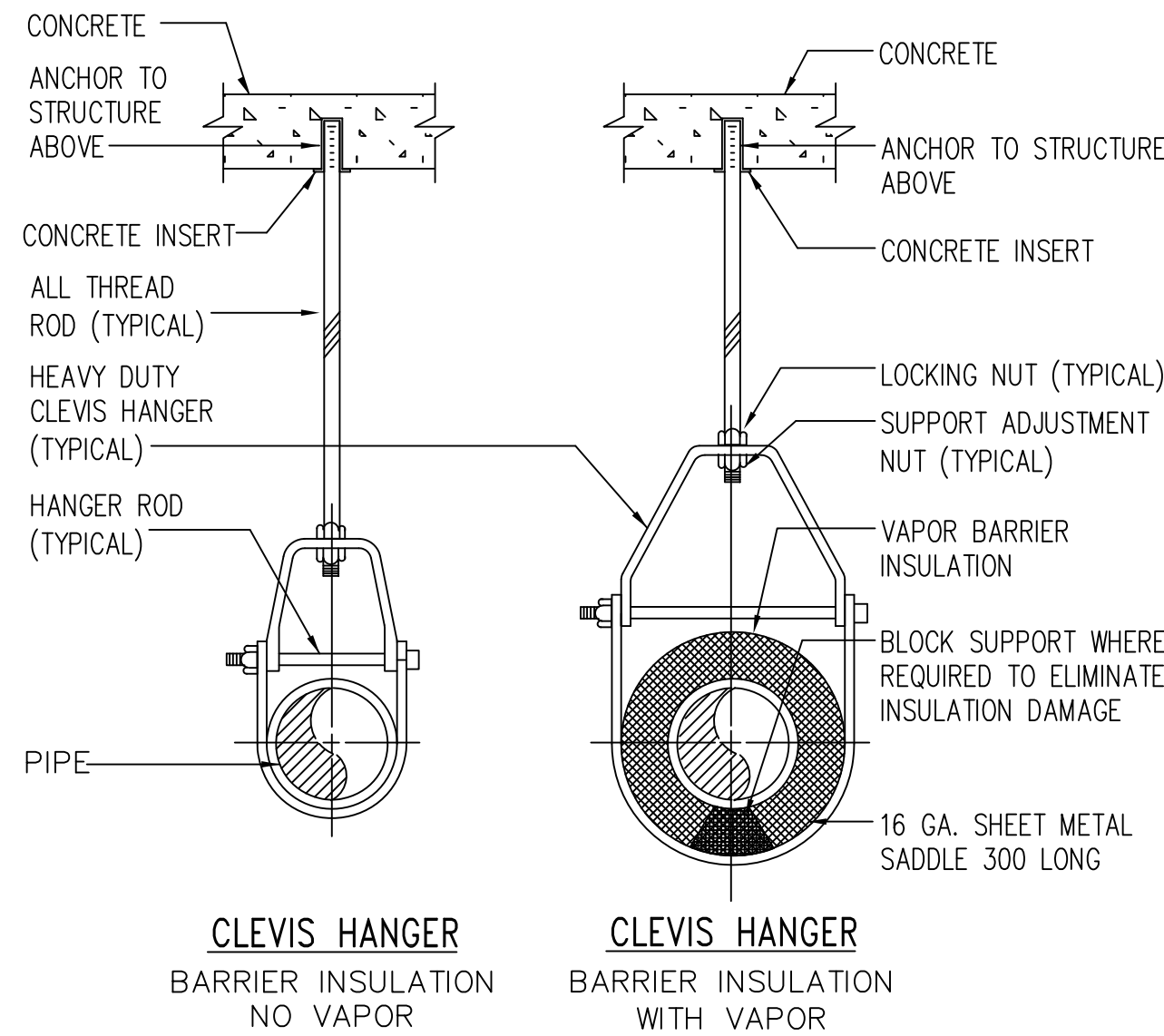


2
P521
WALL SUPPORT FOR VERTICAL PIPING
NTS



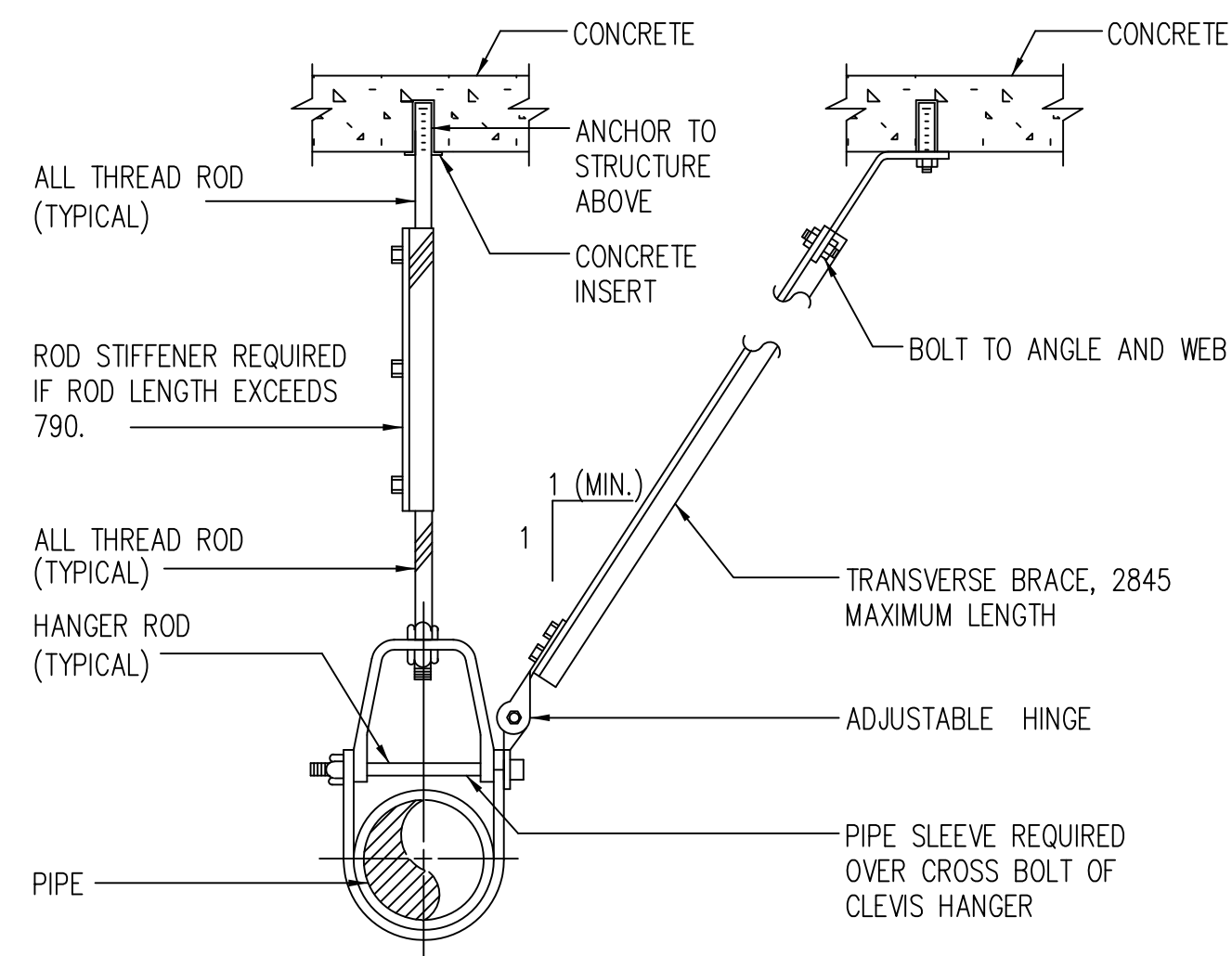
3
P521
CLEAN OUT DETAIL
NTS

- NOTES:
1. REFER TO ARCHITECTURE DRAWINGS FOR EXACT CONSTRUCTION CONDITIONS AND REQUIREMENTS.



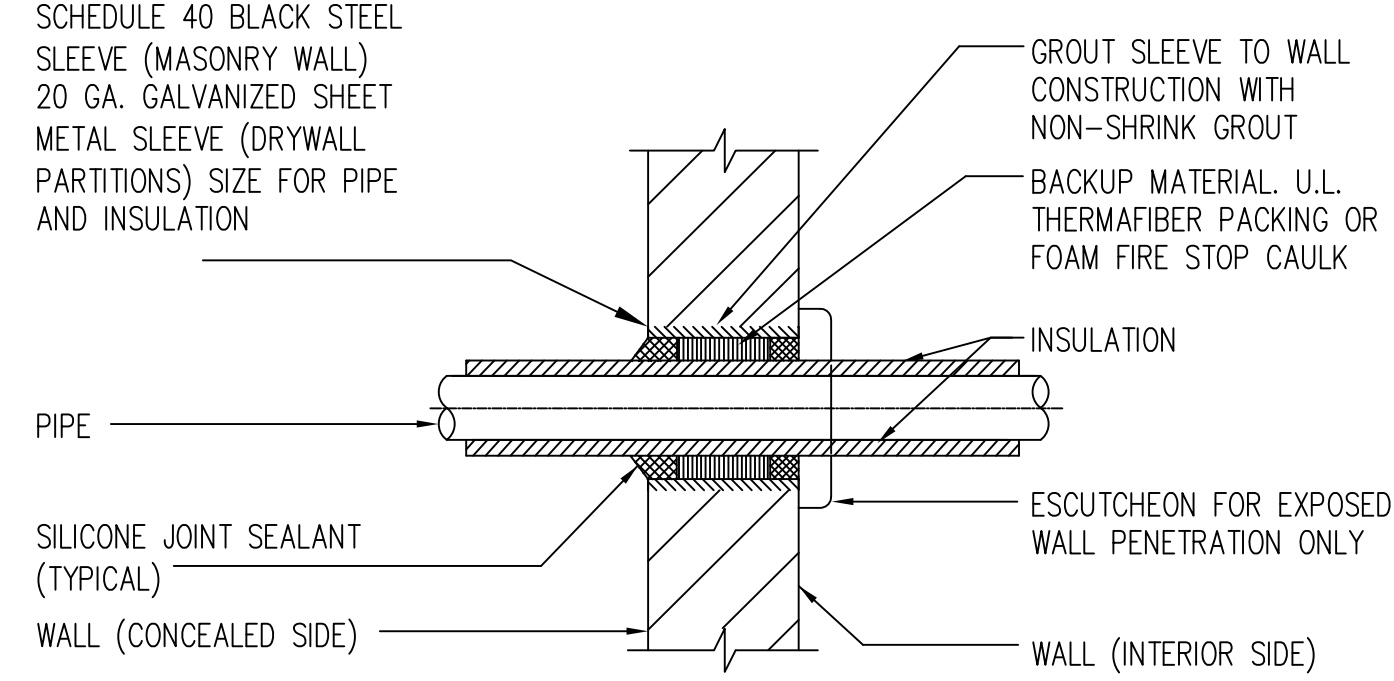
4
P521
PIPE SUPPORT DETAIL
NTS

- NOTES:
1. ALL HANGERS FOR COPPER PIPING SHALL BE COPPER COATED.
 2. THIS DETAIL SHALL BE APPLICABLE TO PLUMBING PIPING SMALLER THAN 50.



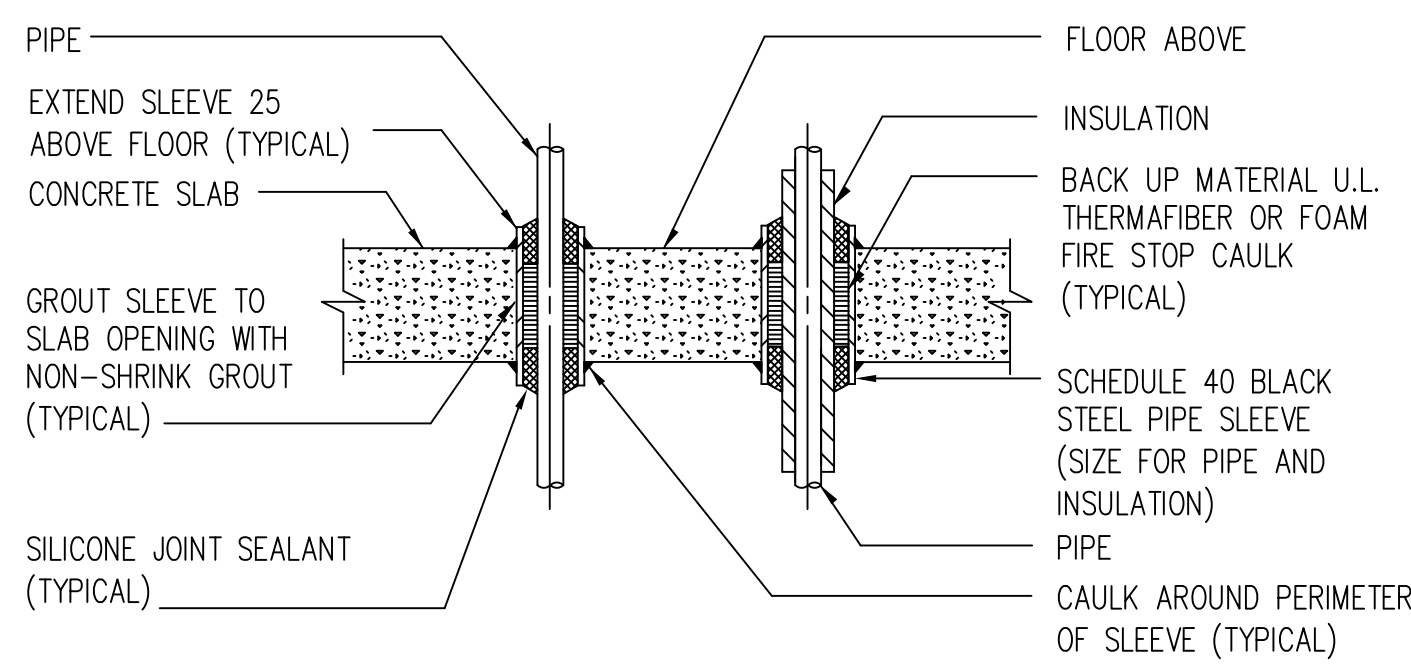
5
P521
SEISMIC PIPE SUPPORT DETAIL
NTS

- NOTE:
1. FOR SEISMIC ZONES 2 AND GREATER, SEISMIC PIPE SUPPORTS SHALL BE REQUIRED FOR PLUMBING PIPING 50 AND LARGER.



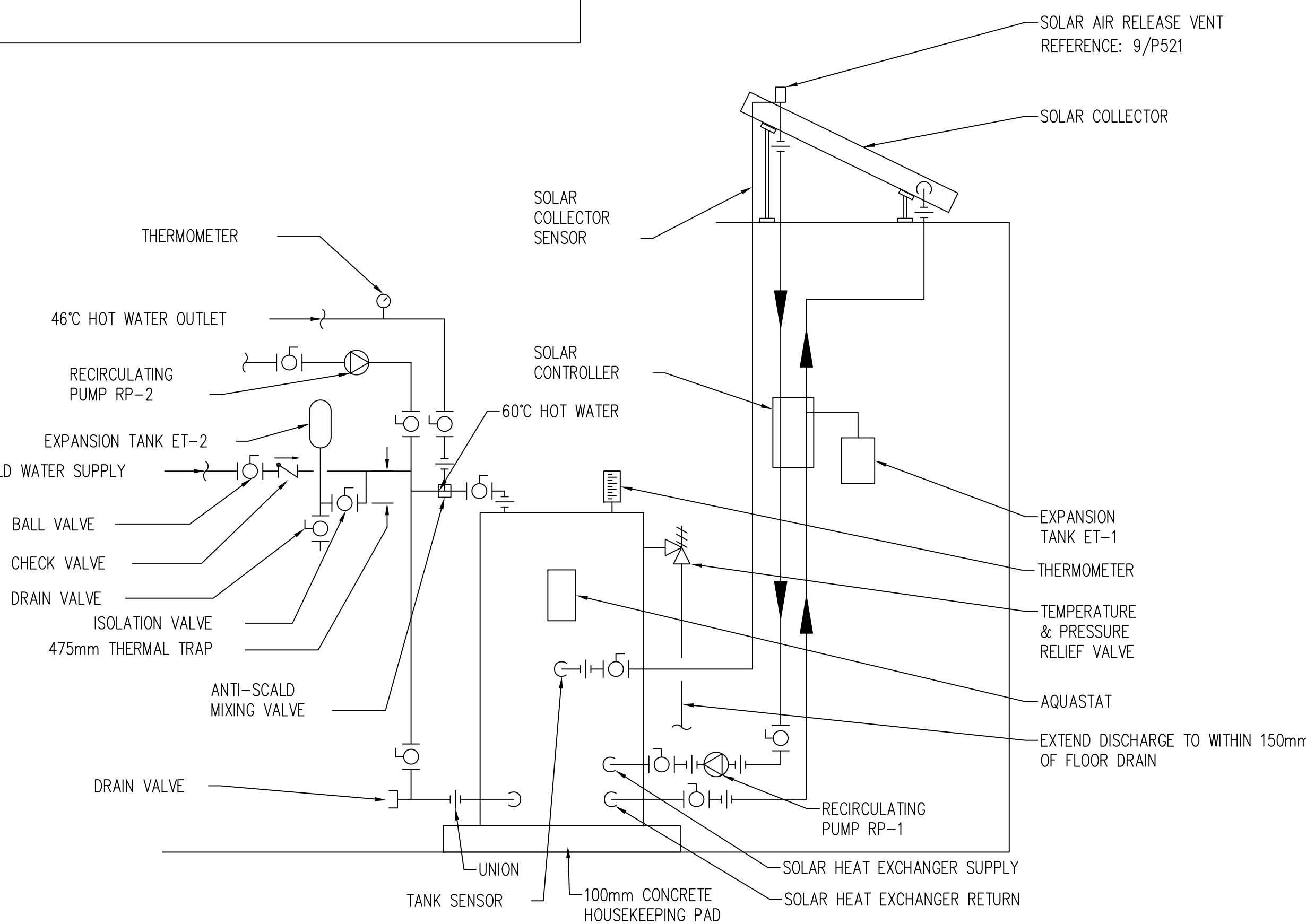
6
P521
PIPE SLEEVE FOR INSULATED PIPE THRU WALL DETAIL
NTS

- NOTES:
- 1) AT THE CONTRACTORS' OPTION A U.L. LISTED/APPROVED FIRE STOP PIPE SLEEVE ASSEMBLY MAY BE SUBMITTED FOR APPROVAL.
 - 2) PIPE SLEEVE SHALL BE CAST INTO NEW CONCRETE WALL POURS.

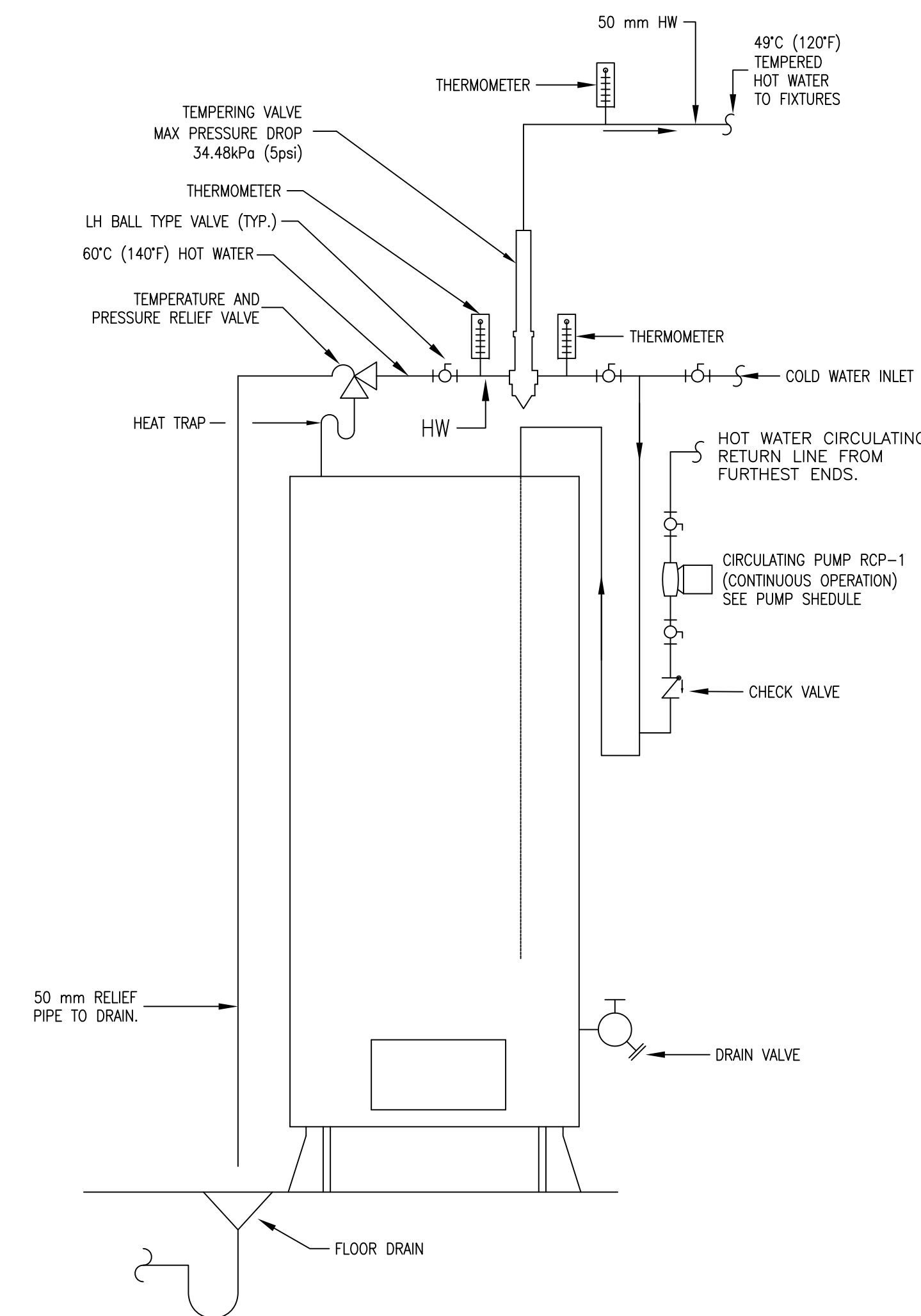


7
P521
PIPE SLEEVE THRU CONCRETE SLAB DETAIL
NTS

- NOTES:
- 1) AT THE CONTRACTORS' OPTION A U.L. LISTED/APPROVED FIRE STOP PIPE SLEEVE ASSEMBLY MAY BE SUBMITTED FOR APPROVAL.
 - 2) FOR EXISTING FLOOR SLABS, CORE DRILL OR STAR DRILL OPENING THRU EXISTING FLOOR SLAB FOR PIPE SLEEVES AS DIRECTED.
 - 3) PIPE SLEEVE SHALL BE CAST INTO NEW CONCRETE SLAB POURS.



8
P521
SOLAR WATER HEATER SYSTEM DETAIL
NTS



9
P521
DOMESTIC WATER HEATER
NTS

- DESIGNER NOTES:
- CHOOSE DETAIL 8 OR 9 AS REQUIRED BY SITE SPECIFIC REQUIREMENTS REGARDING SOLAR COLLECTORS.

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NOTE:

1. PROVIDE BALLISTIC PROTECTION AT ALL PIPES AND CONDUITS PENETRATING THE FBFR ENVELOPE OF THE BUILDING. SEE NOB DRAWINGS FOR TYPICAL DETAILS.

Rev Number	Description	Date
Revisions		

Release For Construction:
NIBS/Asa NIBS/Asa

Drawing Title
DETAILS

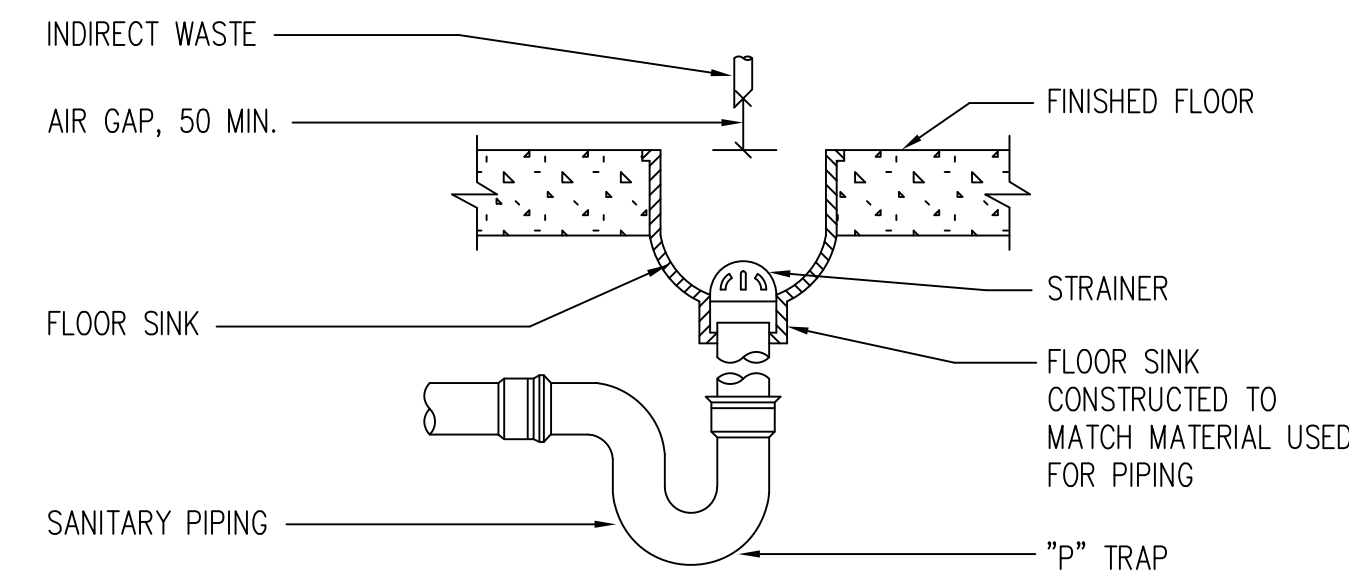
DBO Project Number
Drawing Scale
AS NOTED
Phase
DCMP

CAEO File Name
CBMP521.DWG
CAEO Plot Scale
1:1

Date
NOV-2012
Sheet Number
Barracks
P521

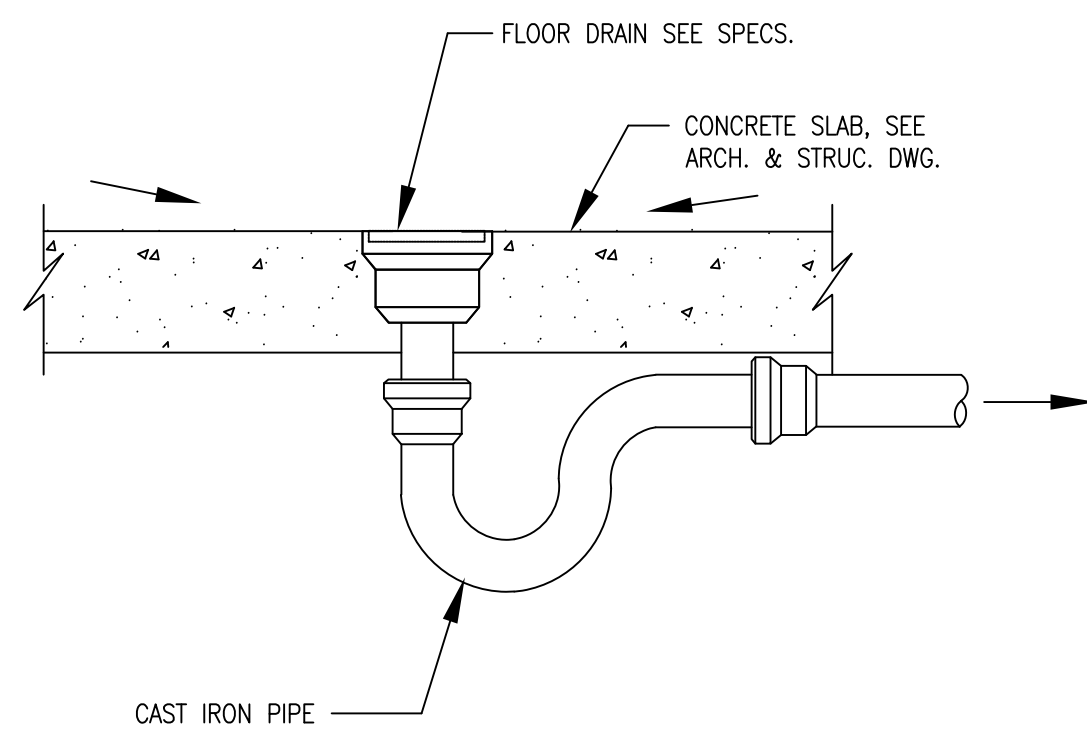
Classification
UNCLASSIFIED

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



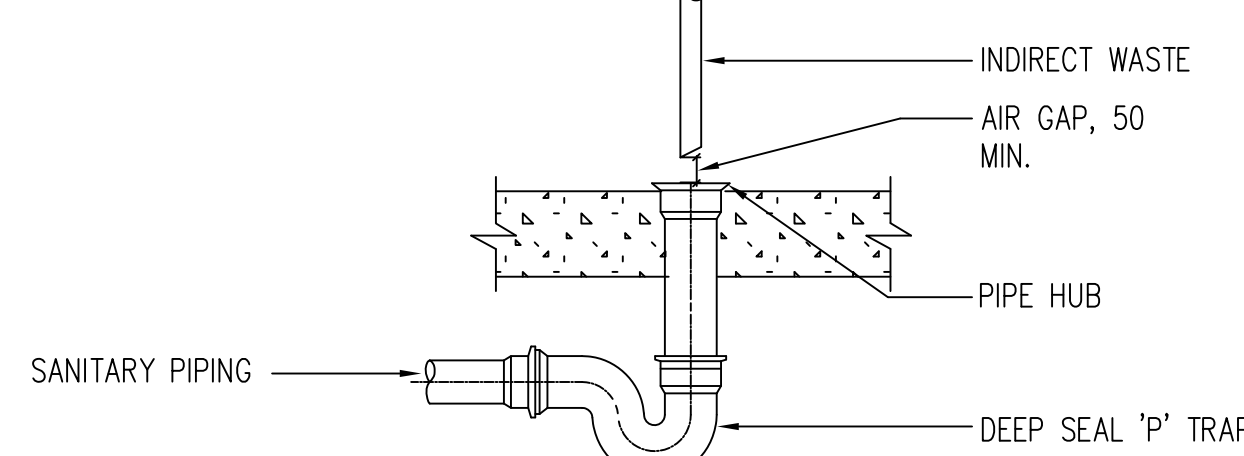
NOTES:
1. REFER TO ARCHITECTURE DRAWINGS FOR EXACT CONSTRUCTION CONDITIONS AND REQUIREMENTS.

1 FLOOR SINK DETAIL
P521 NTS



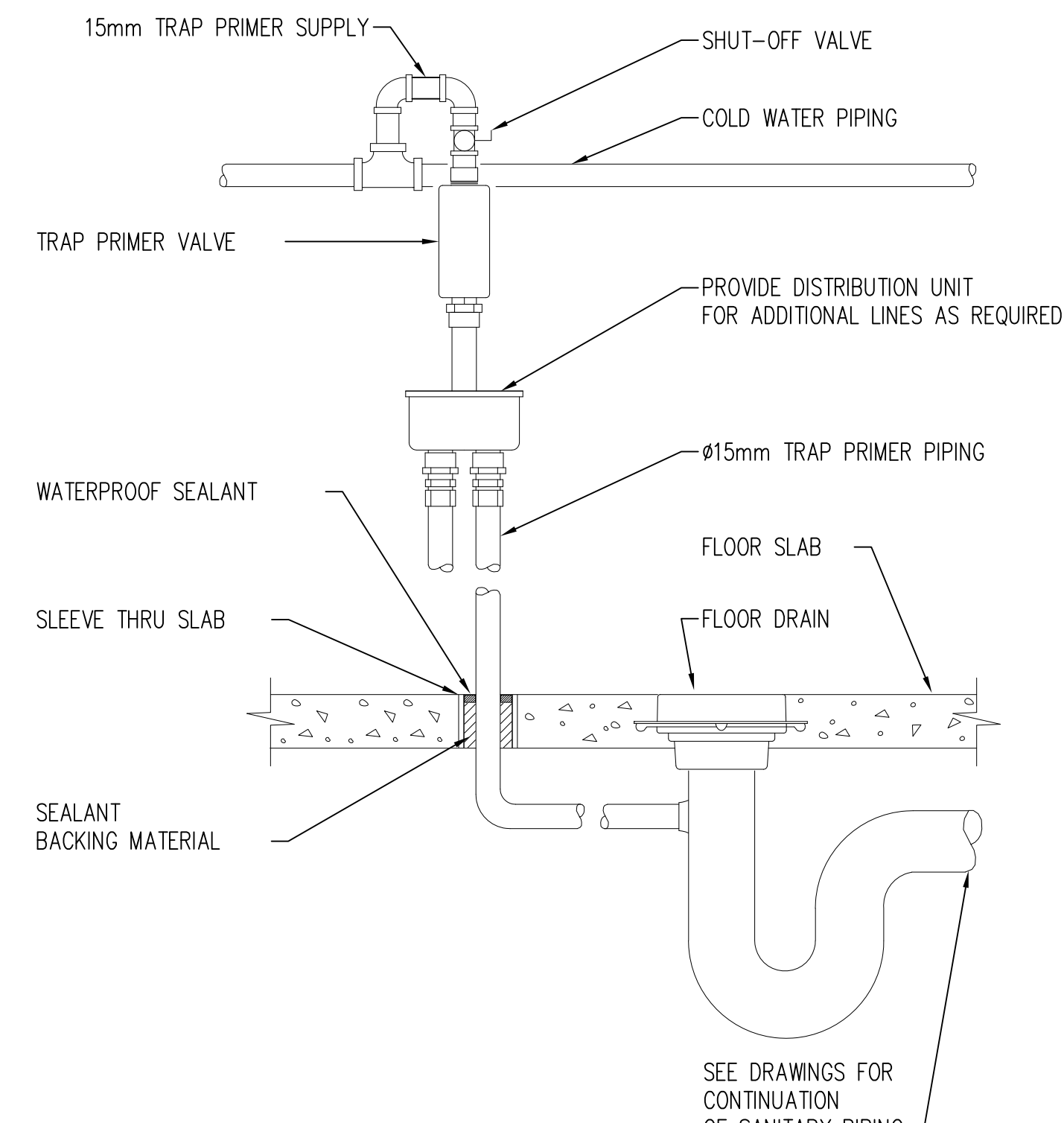
NOTES:
1. REFER TO ARCHITECTURE DRAWINGS FOR EXACT CONSTRUCTION CONDITIONS AND REQUIREMENTS.

2 FLOOR DRAIN DETAIL
P521 NTS

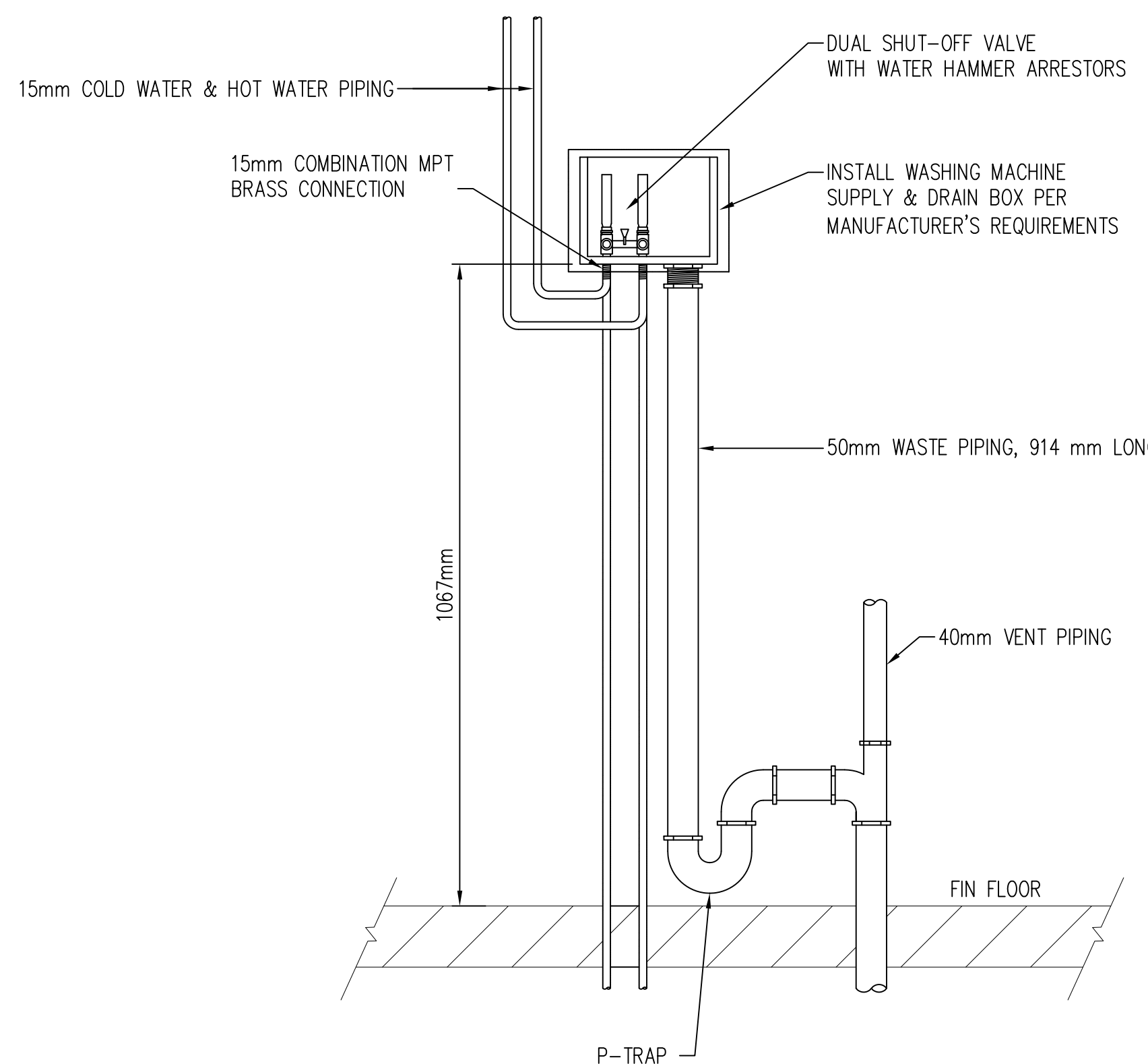


NOTES:
1. REFER TO ARCHITECTURE DRAWINGS FOR EXACT CONSTRUCTION CONDITIONS AND REQUIREMENTS.

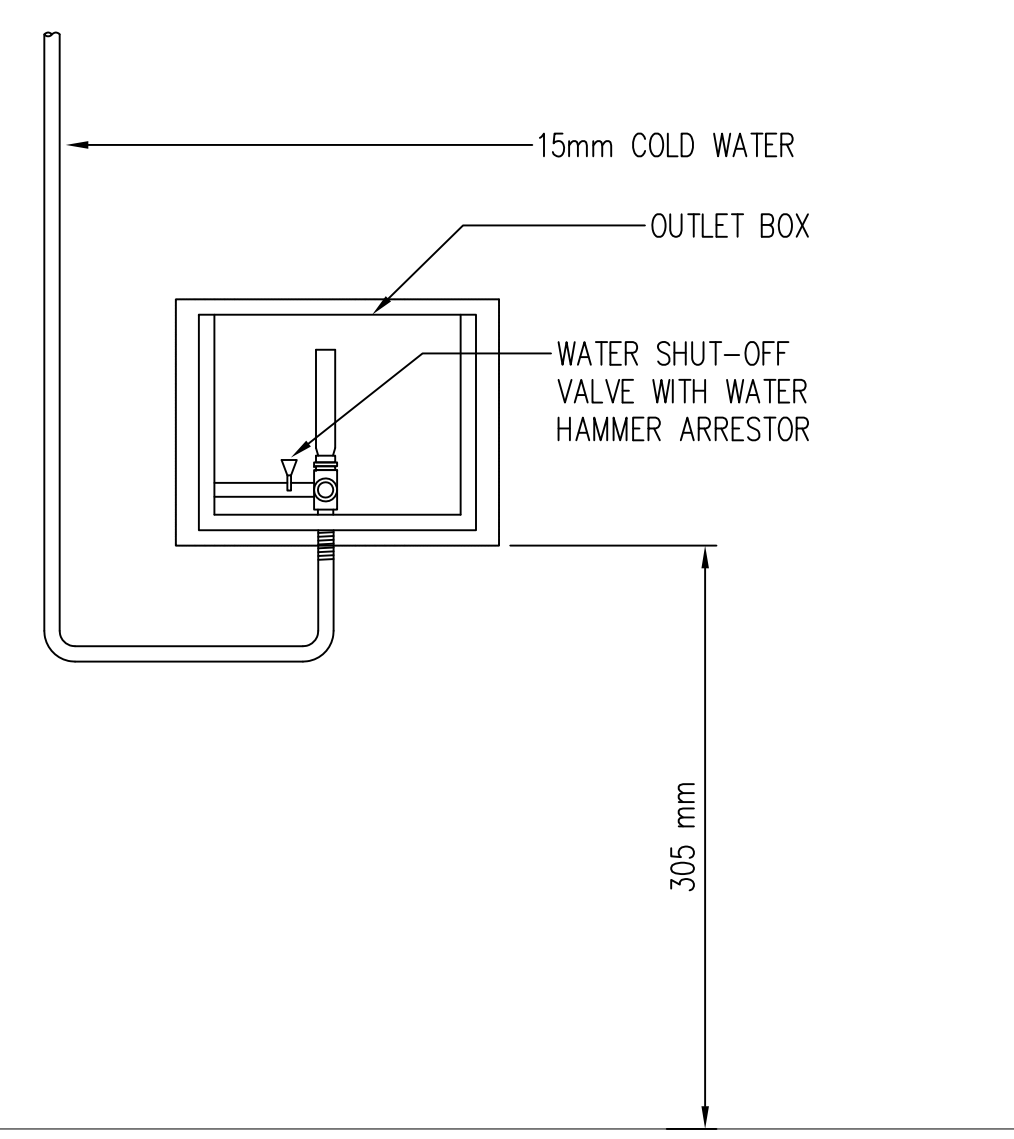
3 OPEN SITE DRAIN DETAIL
P521 NTS



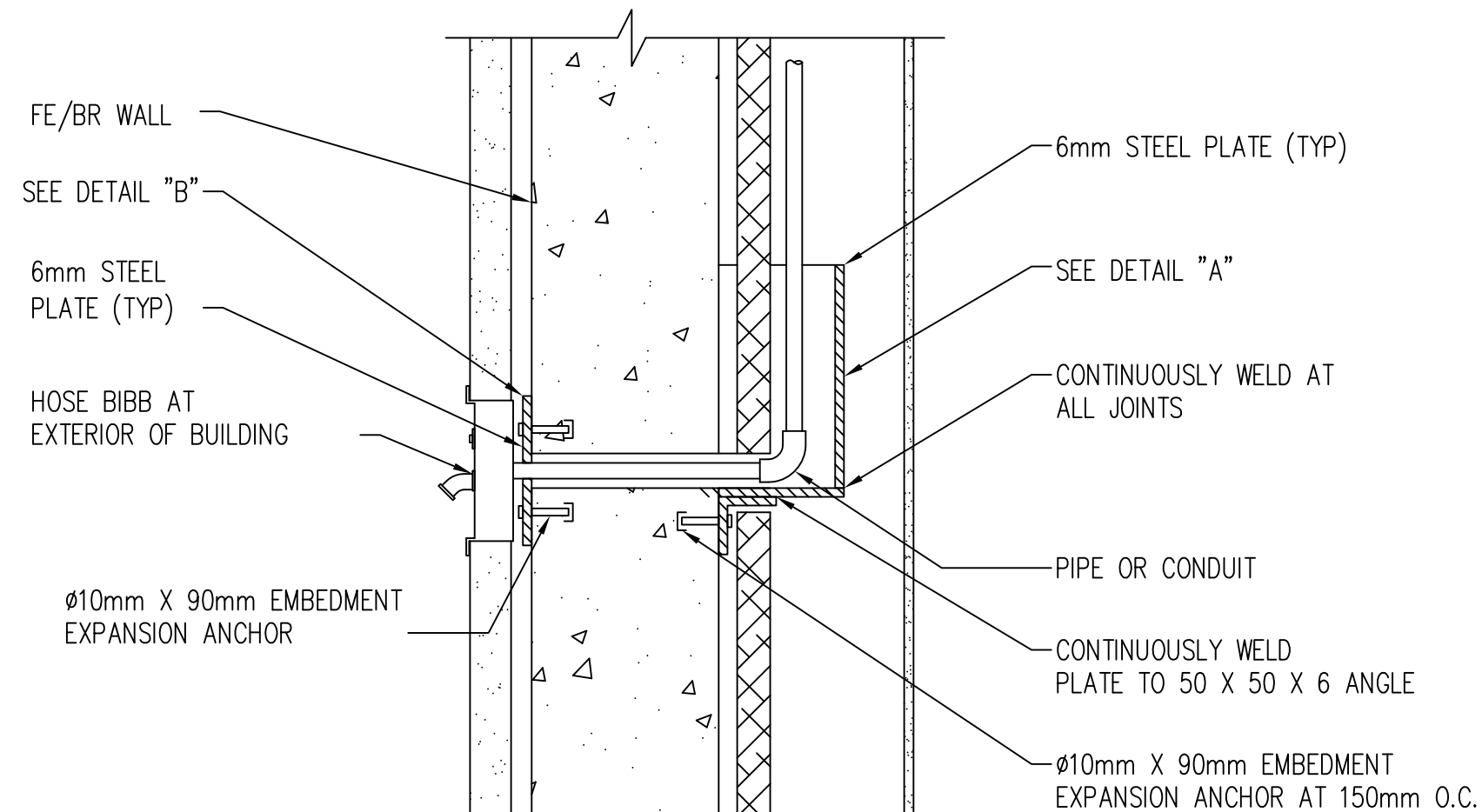
4 TRAP PRIMER TP-1 DETAIL
P521 NTS



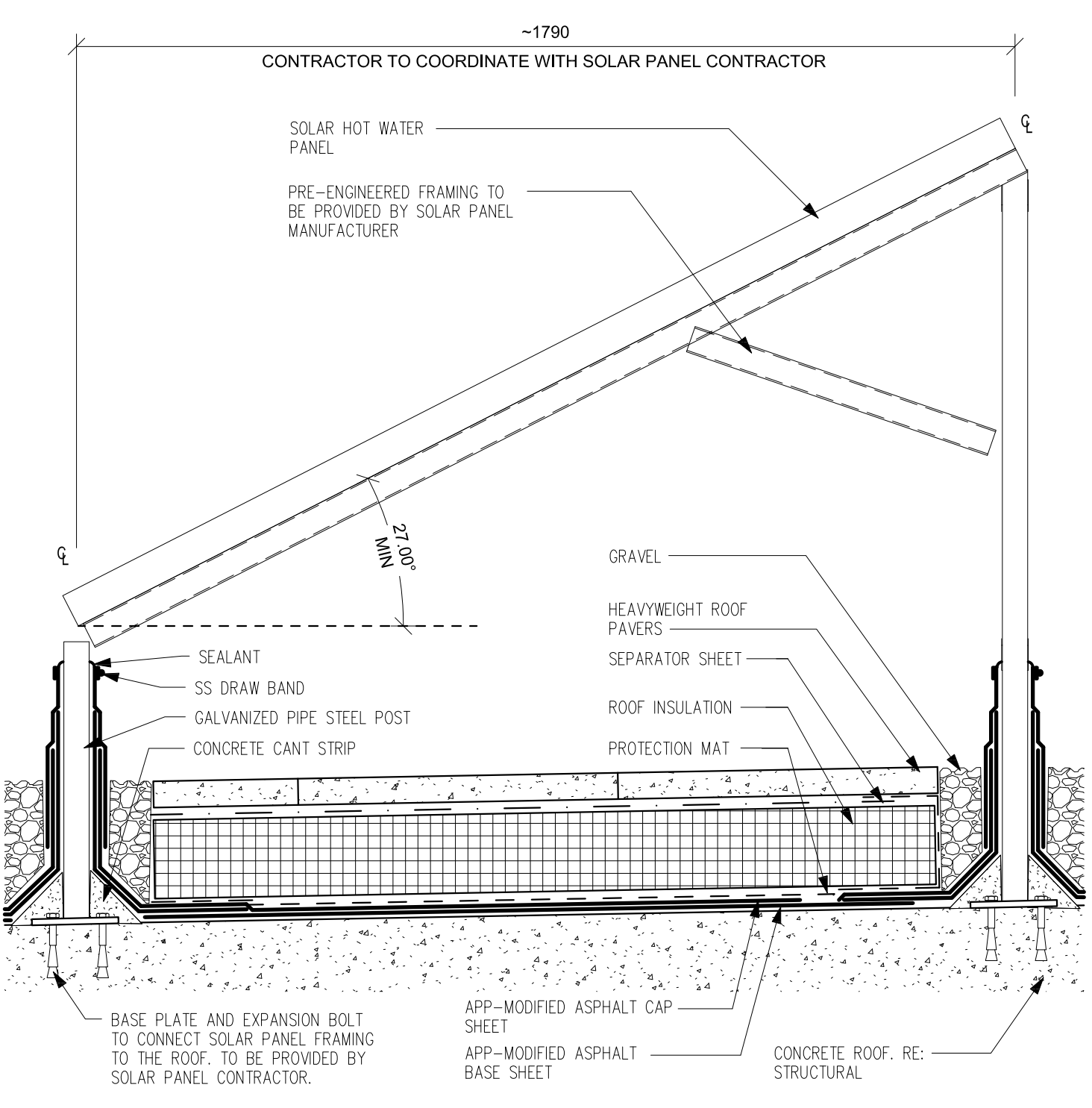
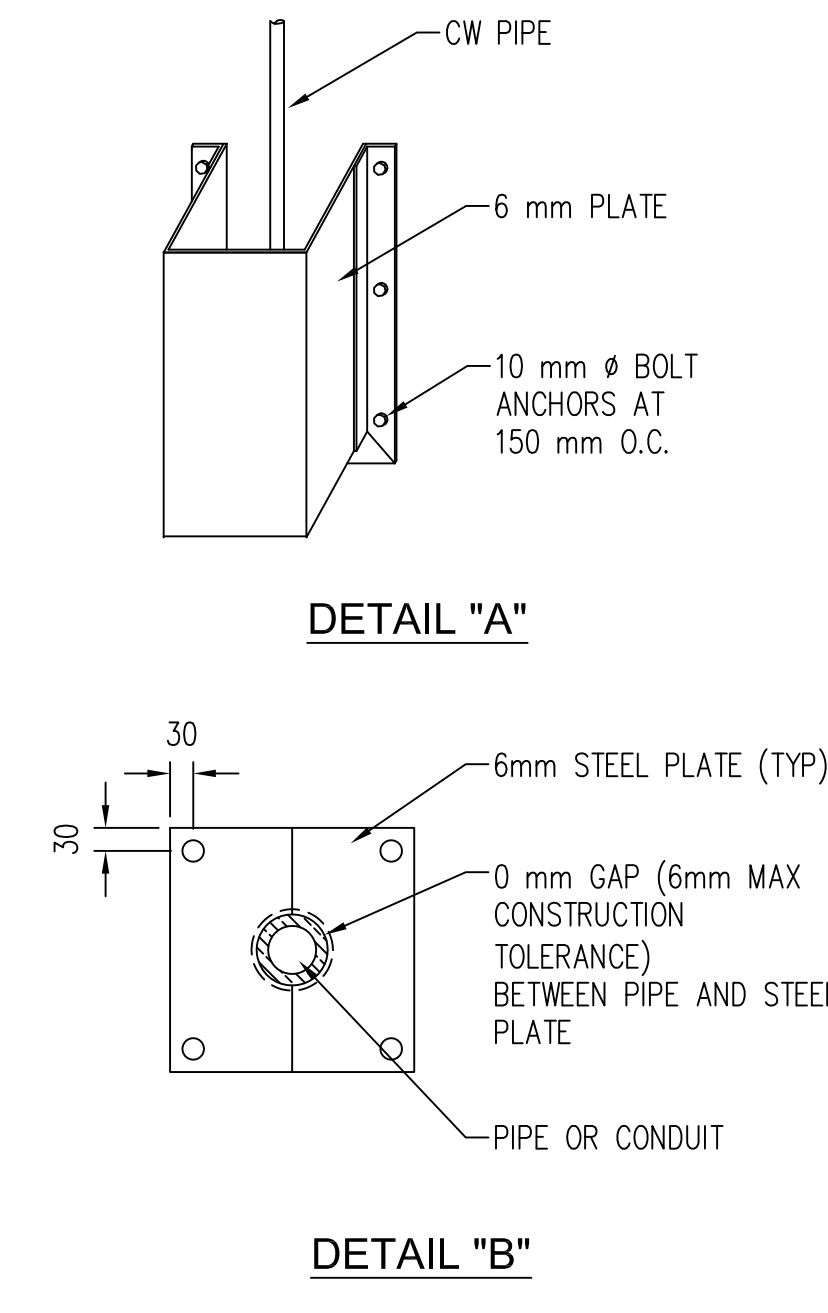
5 WASHING MACHINE SUPPLY & DRAIN WB-1
P521 NTS



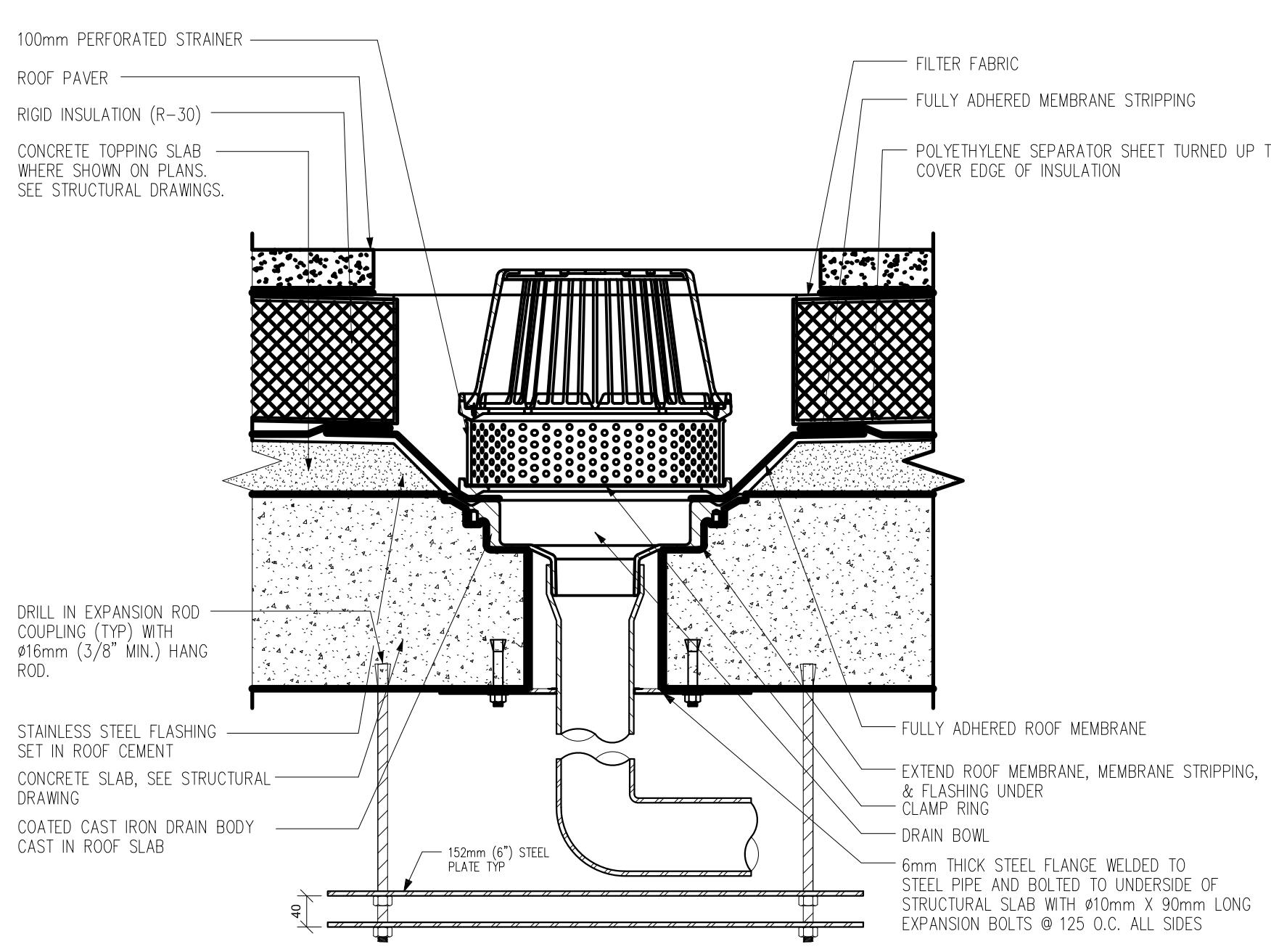
6 REFRIGERATOR OUTLET BOX REF-1
P521 NTS



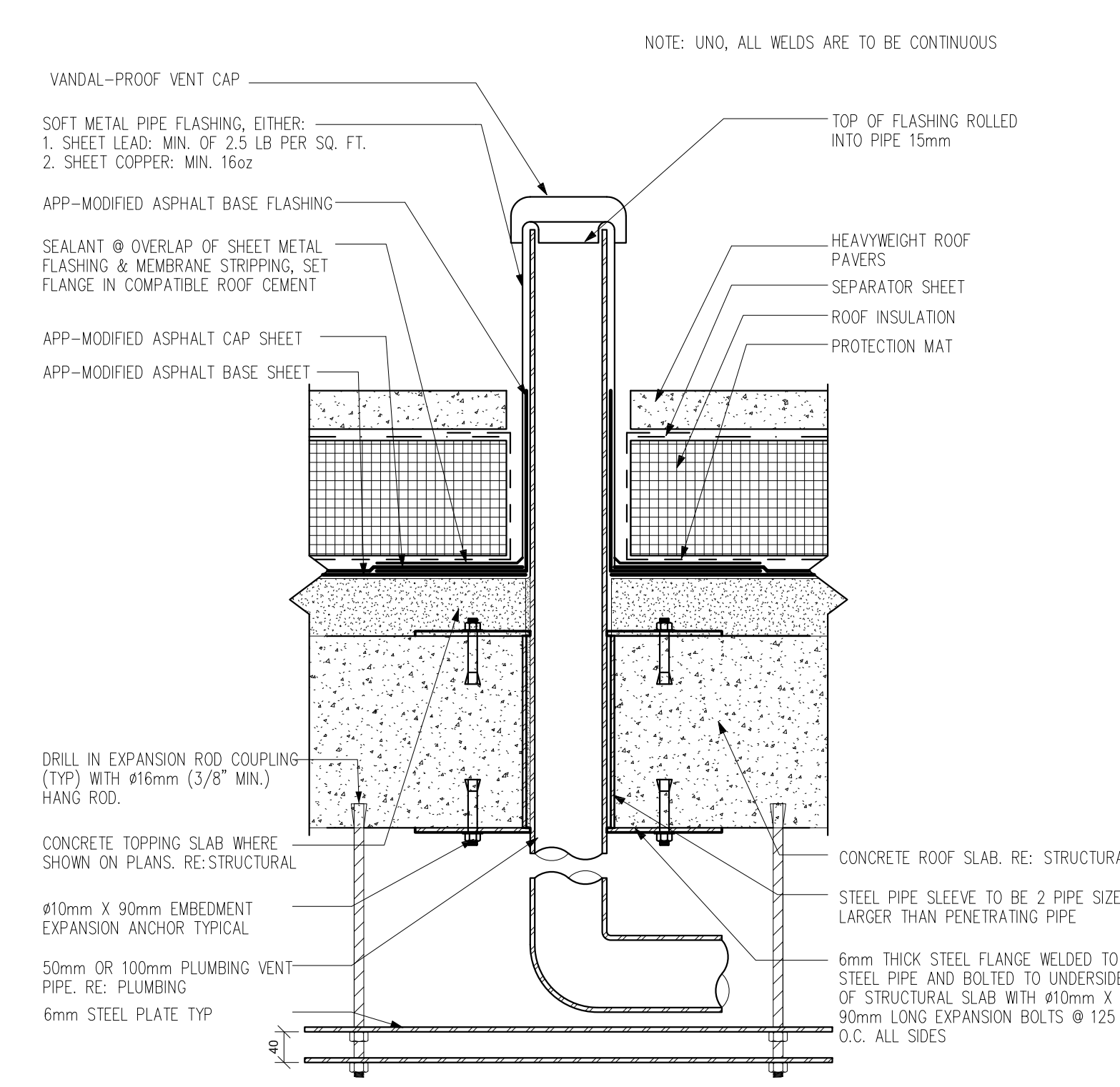
7 HOSE BIBB PENETRATION DETAIL
P521 NTS



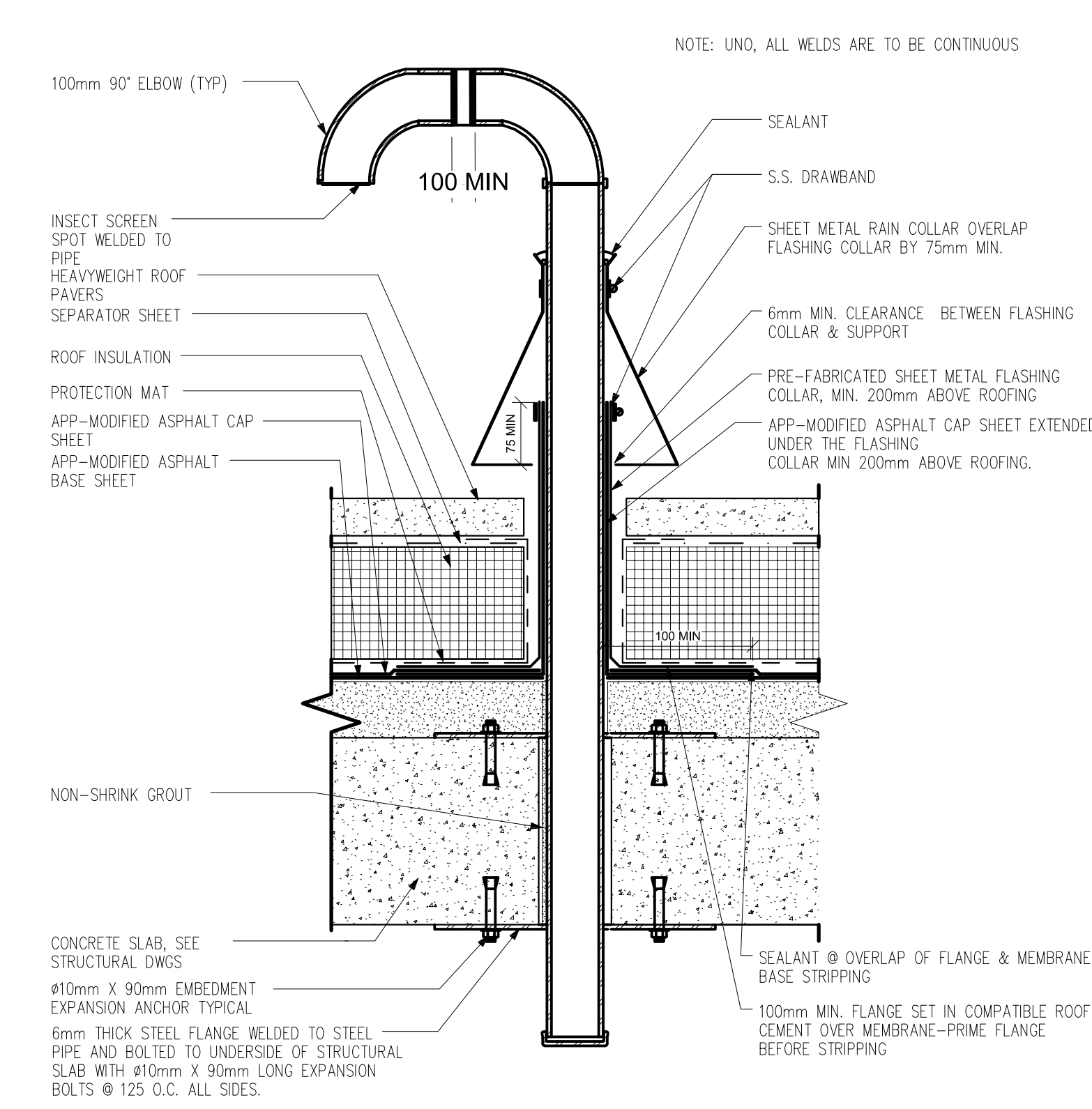
8 DETAIL OF SOLAR HOT WATER PANELS
P521 NTS



9 TYP ROOF DRAIN DETAIL
P521 NTS



10 TYP PIPE PENETRATION DETAIL
P521 NTS



11 TYP GOOSENECT PIPE PENETRATION DETAIL
P521 NTS

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Rev. Number	Description	Date
Revisions		

Release For Construction: NIBS/AS

Drawing Title

DETAILS

DBO Project Number: AS NOTED
CAED File Name: CBMP521.DWG
CAED Plot Scale: 1:1
Date: JAN-2012
Sheet Number: 10 of 10

Drawn By: NIBS
Checked By: NIBS
Project Number: **Barracks P522**
Classification: UNCLASSIFIED

PLUMBING FIXTURE SCHEDULE						
TAG	NAME	WASTE	VENT	COLD WATER	HOT WATER	REMARKS
P-1	WATER CLOSET	100	50	25	–	TANK TYPE (MOUNTED 457 mm TOP OF SEAT)
P-1A	WATER CLOSET (HC)	100	50	25	–	TANK TYPE (MOUNTED 457 mm TOP OF SEAT)
P-2	URINAL	50	40	20	–	
P-3	LAVATORY	40	40	15	15	
P-4	–	40	40	15	15	
N/A						
P-6	SHOWER	50	40	15	15	
N/A P-7	SERVICE SINK	80	40	15	15	
P-8	SINK (KITCHEN)	40	40	15	15	
P-9	BAR SINK	40	40	15	15	
P-10	LAUNDRY SINK	80	40	15	15	
P-11	SINK	40	40	15	15	
REF-1	REFRIGERATOR OUTLET BOX	–	–	15	–	
HB-1	HOSE BIB	–	–	15	–	
HB-2	HOSE BIB W/ ENCLOSURE	–	–	15	–	
NFMH	NON-FREEZE WALL HYDRANT	–	–	15	–	BALLISTIC PROOF
WM-1	WASHING MACHINE (SUPPLY/DRAIN BOX)	80	40	15	15	
TPV-1	TRAP PRIMER VALVE	–	–	15	–	
FD-1	FLOOR DRAIN	80	40	–	–	
FD-2	FLOOR DRAIN	80	40	–	–	
EFD-1	EMERGENCY FLOOR DRAIN	80	40	–	–	
OB						

NOTES

1. ELECTRICAL CHARACTERISTICS SHALL BE MODIFIED, AS NEEDED TO ENSURE FULLY AND PROPERLY FUNCTIONING SYSTEMS AND COMPONENTS, TO MATCH HOST COUNTRY'S STANDARD ELECTRICAL CURRENT TYPE, FREQUENCY, NUMBER OF PHASES, AND NOMINAL VOLTAGE.

DOMESTIC WATER HEATER SYSTEM SCHEDULE (OPTIDN)									
TAG	TYPE	LOCATION	CAPACITY (LITERS)	ELECTRIC			RECOVERY RATE		REMARKS
				VOLT	PH	HZ	L/H	TEMP. RISE (°C)	
WH-1	TANK-TYPE STORAGE		–	–	–	50	–	–	ELECTRIC, NATURAL GAS-FIRED, AND OIL-FIRED HEATERS TO BE EVALUATED BASED ON SITE CONDITIONS AND LIFE CYCLE COST COMPARISON.
ET-1	EXPANSION TANK	FIRST FLOOR MECHANICAL RM.	–	–	–	–	–	–	

NOTES

1. ELECTRICAL CHARACTERISTICS SHALL BE MODIFIED, AS NEEDED TO ENSURE FULLY AND PROPERLY FUNCTIONING SYSTEMS AND COMPONENTS, TO MATCH HOST COUNTRY'S STANDARD ELECTRICAL CURRENT TYPE, FREQUENCY, NUMBER OF PHASES, AND NOMINAL VOLTAGE.

2. SIZE AND SELECT EQUIPMENT BASED ON SITE-SPECIFIC CONDITIONS AND OBO REQUIREMENTS.

DOMESTIC WATER CIRCULATING PUMP SCHEDULE								
TAG	L/s	TDH (ft±)	MOTOR HP	ELECTRICAL			MANUFACTURER AND MODEL	REMARKS
				VOLTS	PH	Hz		
RCP-1	-	-	-	-	-	50		

NOTES

1. ELECTRICAL CHARACTERISTICS SHALL BE MODIFIED, AS NEEDED TO ENSURE FULLY AND PROPERLY FUNCTIONING SYSTEMS AND COMPONENTS, TO MATCH HOST COUNTRY'S STANDARD ELECTRICAL CURRENT TYPE, FREQUENCY, NUMBER OF PHASES, AND NOMINAL VOLTAGE.

2. SIZE AND SELECT EQUIPMENT BASED ON SITE-SPECIFIC CONDITIONS AND OBO REQUIREMENTS.

WATER HAMMER ARRESTER SCHEDULE						
P.D.L. UNIT RATING	A	B	C	D	E	F
FIXTURE UNIT CAPACITY	1–11	12–32	33–60	61–113	114–154	155–330

SOLAR WATER HEATER SCHEDULE (OPTIDN)								
TAG	TYPE	CAPACITY (LITERS)	ELECTRIC			RECOVERY RATE		REMARKS
			VOLT	PH	HZ	L/H	TEMP. RISE (°C)	
SWH	SOLAR WATER HEATER	-	-	-	-	-	32°	LOCATED IN 1ST FLOOR MECHANICAL ROOM WITH ELECTRIC BACK-UP
ET-1	EXPANSION TANK	-	-	-	-	-	-	LOCATED IN 1ST FLOOR MECHANICAL ROOM 11.7 L ACCEPTANCE VOLUME

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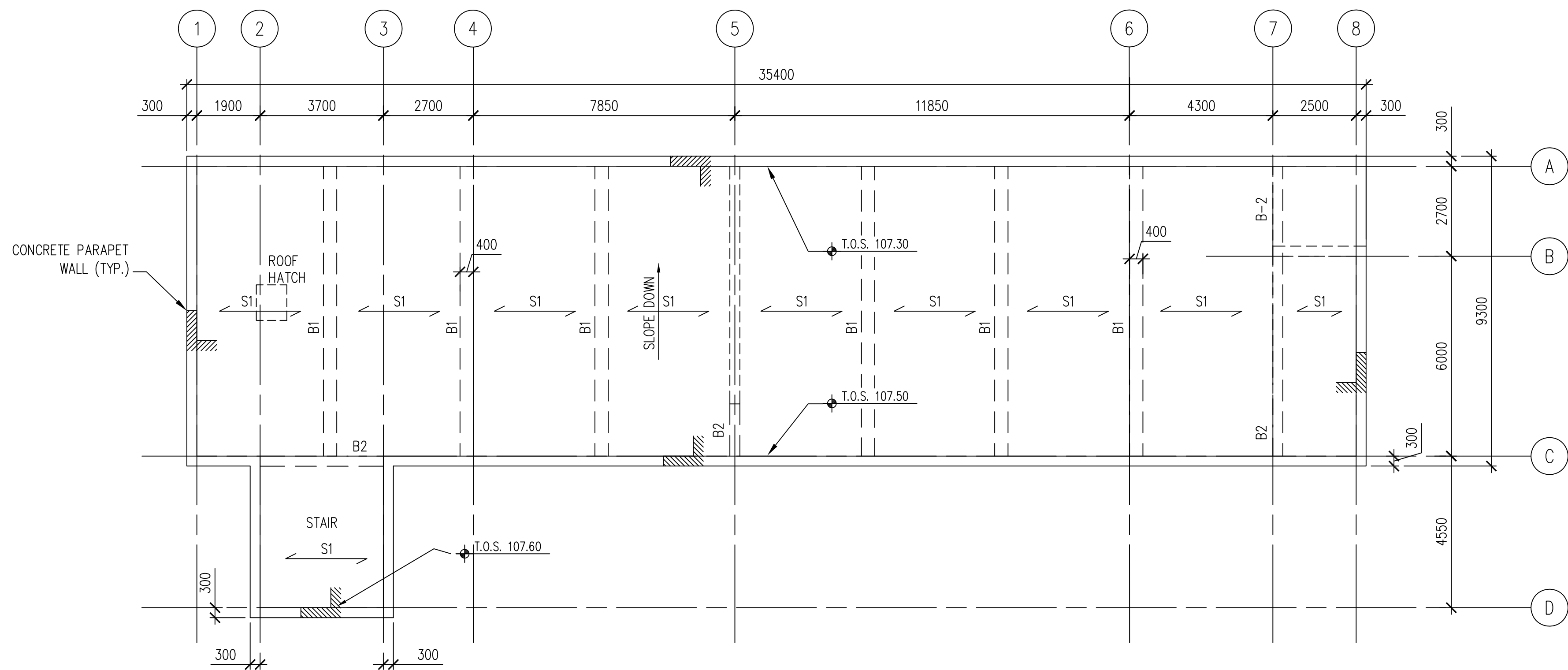
Barracks 101
Building Information Model
Common File

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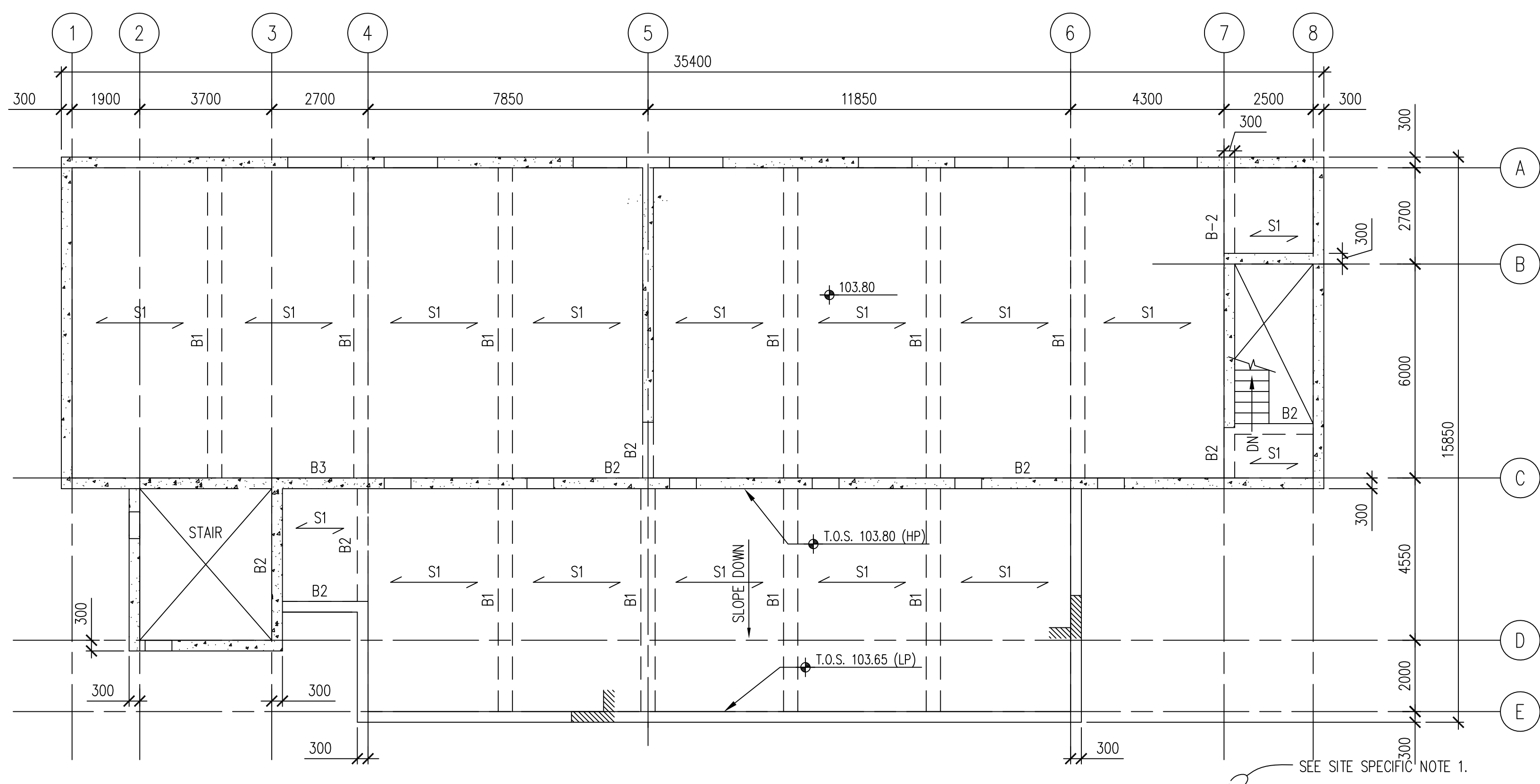
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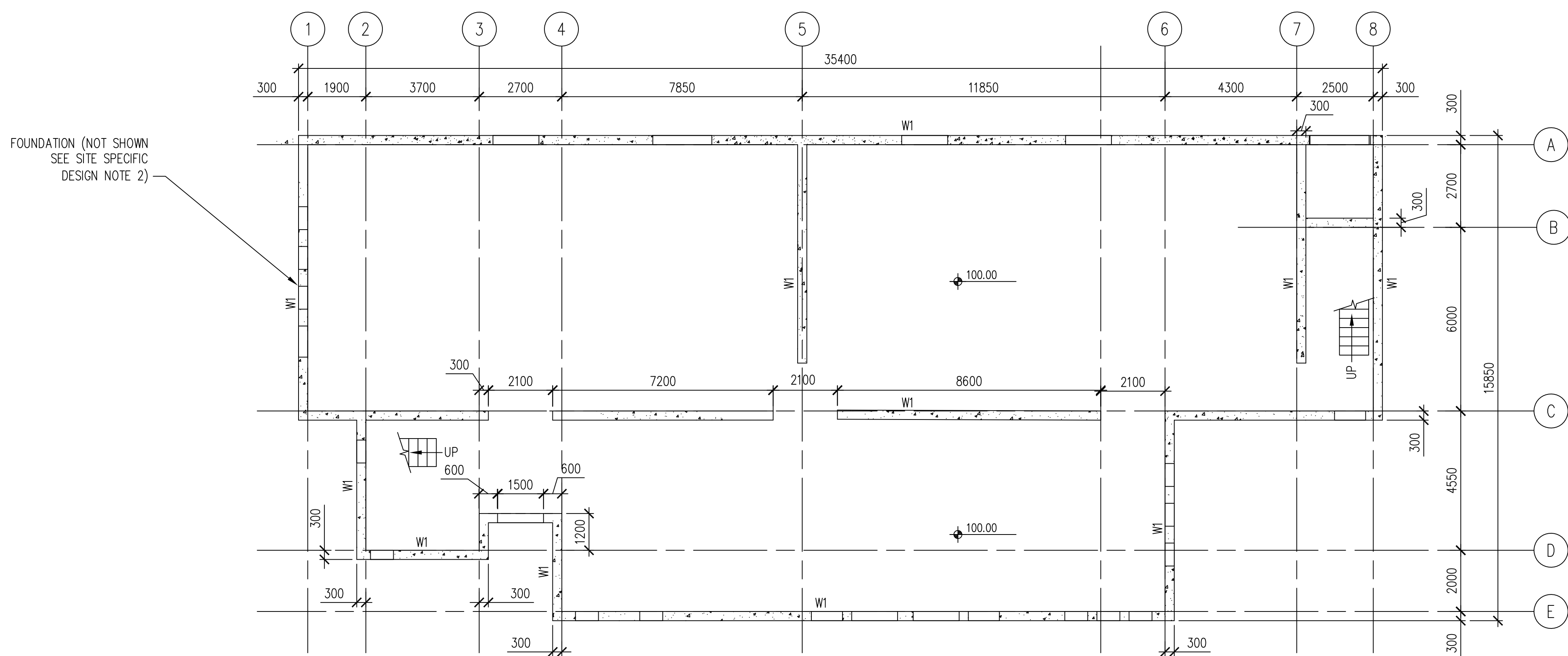
Rev Number	Description	Date
Revisions		
Release For Construction:		
NIBS/Ida	NIBS/Ida	
Drawing Title		
SCHEDULES		
OBO Project Number	Drawing Scale	Phase
AS NOTED	1:1	CONCEPT
CADD File Name	CADD Plot Scale	1:1
CBMP601.DWG		
Date	NOV-2012	Sheet Number
Drawn By	NIBS	Barracks P601
Checked By	NIBS	
Project Number		
Classification	UNCLASSIFIED	



3 ROOF FRAMING PLAN
S111
1:100



2 LEVEL TWO FRAMING PLAN
S111
1:100



1 LEVEL ONE FOUNDATION PLAN
S111
1:100

PLAN NOTES:

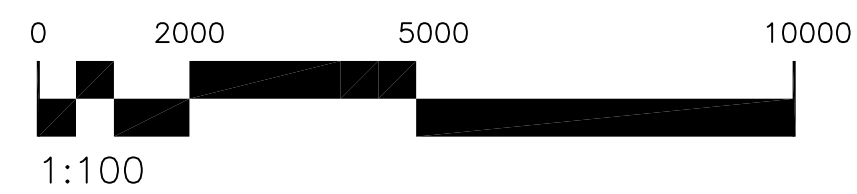
1. SEE PLAN FOR TOP OF SLAB.
2. FLOOR CONSTRUCTION TO BE 200 mm ONE-WAY CONCRETE SLAB AND BEAMS UNLESS NOTED OTHERWISE.
3. $\angle SX$ INDICATES ONE-WAY SLAB TYPE. SEE DWG GEN S631 FOR THICKNESS AND REINFORCING.
4. SEE DWG GEN S641 FOR BEAM SCHEDULE.
5. PENETRATIONS OR SLEEVES THROUGH STRUCTURAL BEAMS ARE NOT PERMITTED UNLESS SHOWN ON STRUCTURAL DRAWINGS.
6. CENTER ALL BEAMS ON GRIDLINES, UNO.
7. COORDINATE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, FLOOR DEPRESSIONS, DRAINS, SLOPES, CURBS, LEDGES, EMBEDS, INSERTS, PADS, ETC WITH ARCH AND MEP DRAWINGS.
8. ROOF SLOPE ACHIEVED BY SLOPING TOP & BOT ONE WAY. SEE PLAN FOR TOP OF SLAB (T.O.S.). SEE ARCHT DWGS FOR ADD'L INFO. FOR ACHIEVING SLOPE TO DRAINS.

PLAN NOTES:

1. TOP OF SLAB TO BE AT ELEVATION 103.80 UNLESS NOTED OTHERWISE.
2. FLOOR CONSTRUCTION TO BE 200 mm ONE-WAY CONCRETE SLAB AND BEAMS UNLESS NOTED OTHERWISE.
3. $\angle SX$ INDICATES ONE-WAY SLAB TYPE. SEE DWG GEN S631 FOR THICKNESS AND REINFORCING.
4. SEE DWG GEN S641 FOR BEAM SCHEDULE.
5. W_{-} INDICATES WALL TYPE. SEE DWG GEN S611 FOR WALL SCHEDULE.
6. PENETRATIONS OR SLEEVES THROUGH STRUCTURAL BEAMS ARE NOT PERMITTED UNLESS SHOWN ON STRUCTURAL DRAWINGS.
7. CENTER ALL BEAMS ON GRIDLINES, UNO.
8. COORDINATE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, FLOOR DEPRESSIONS, DRAINS, SLOPES, CURBS, LEDGES, EMBEDS, INSERTS, PADS, ETC WITH ARCH AND MEP DRAWINGS.
9. ROOF SLOPE ACHIEVED BY SLOPING TOP & BOT ONE WAY. SEE PLAN FOR TOP OF SLAB (T.O.S.). SEE ARCHT DWGS FOR ADD'L INFO. FOR ACHIEVING SLOPE TO DRAINS.

PLAN NOTES:

1. TOP OF CONCRETE SLAB-ON-GRADE TO BE AT ELEVATION 100.00 UNLESS NOTED OTHERWISE.
2. SLAB-ON-GRADE TO BE 125 mm THICK REINFORCED WITH #3 @ 400 EACH WAY OVER VAPOR RETARDER OVER MINIMUM 150 mm LAYER OF COMPACTED DRAINAGE FILL MATERIAL, UNO. SEE DWG GEN S501 FOR SOG DETAILS.
3. BOTTOM OF WALL FOOTINGS ELEVATIONS TO BE XXXX UNLESS NOTED THUS [XXXX] ON PLAN.
4. CENTERLINE OF FOOTINGS SHALL COINCIDE WITH CENTERLINE OF WALLS AND COLUMNS UNLESS NOTED OTHERWISE.
5. SEE DWG GEN S601 FOR WALL FOOTING SCHEDULE.
6. W_{-} INDICATES WALL TYPE. SEE DWG GEN S611 FOR WALL SCHEDULE.
7. COORDINATE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, FLOOR DEPRESSIONS, DRAINS, SLOPES, CURBS, LEDGES, EMBEDS, INSERTS, PADS, ETC WITH ARCH AND MEP DRAWINGS.
8. COORDINATE ALL UNDERGROUND UTILITIES WITH CIVIL & ARCH DRAWINGS.



ALL DIMENSIONS WITHOUT A DECIMAL ARE IN MILLIMETERS UNO. ALL DIMENSIONS WITH A DECIMAL ARE IN METERS UNO.

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Barracks 101
Building Information Model
Common File

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SITE SPECIFIC DESIGN CRITERIA

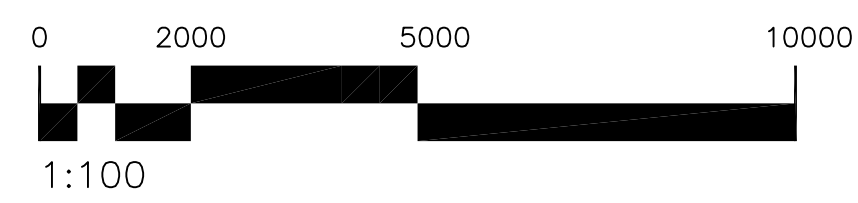
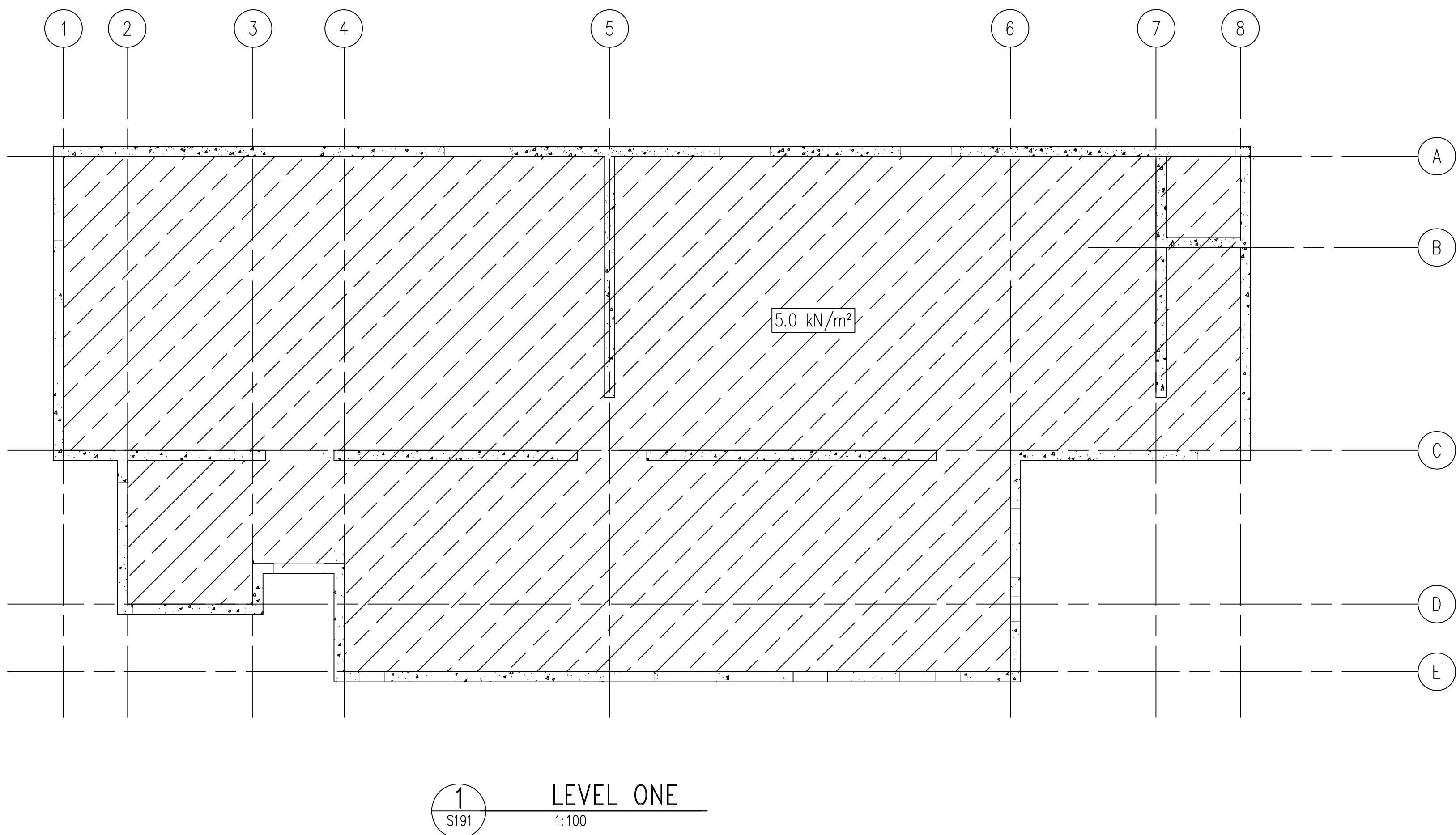
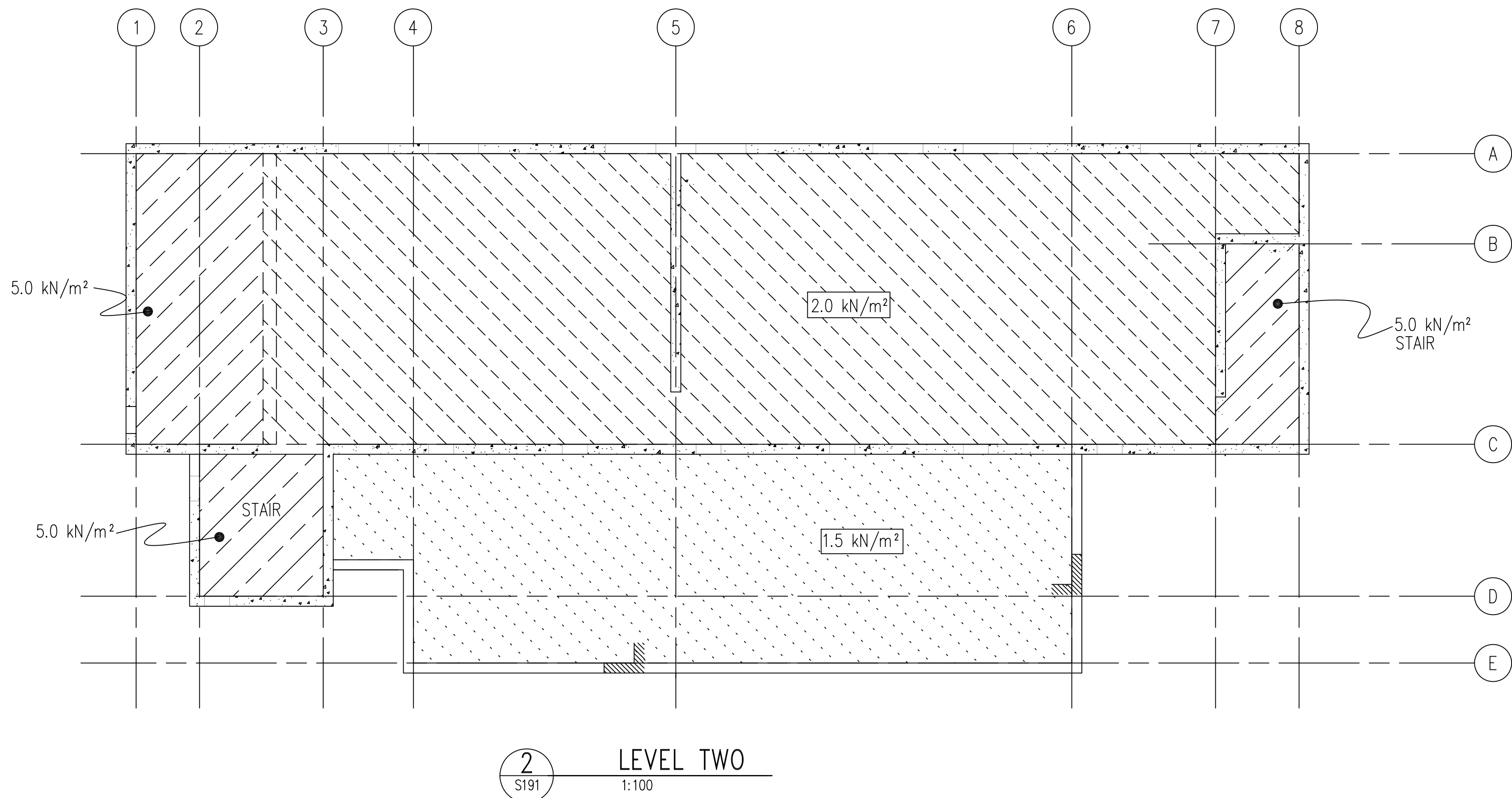
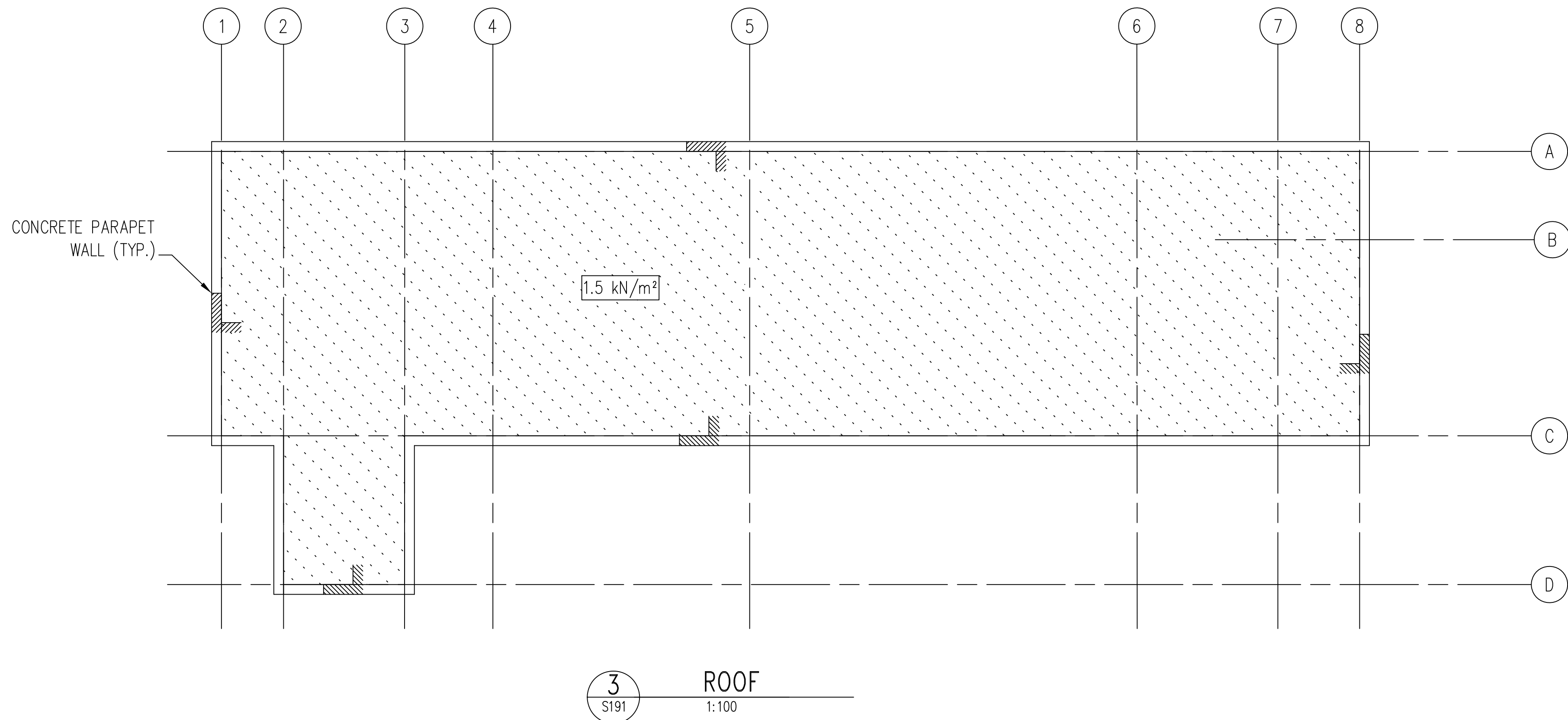
1. ON PROJECT SPECIFIC DESIGN DRAWINGS PROVIDE OVERALL STRUCTURAL BUILDING DIMENSIONS ON ALL LEVELS.
2. FOUNDATION SYSTEM SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH SITE SPECIFIC GEOTECHNICAL CONDITIONS. SEE SECTION C OF THE STATEMENT OF WORK.
3. THE SOG INDICATED IS A SITE SPECIFIC MINIMUM. LOCAL CONDITIONS MAY REQUIRE INCREASED THICKNESS AND REINFORCEMENT, OR REQUIRE A FRAMED SLAB.
4. 6X6-W2.9XW2.9 WELDED WIRE FABRIC OR EQUIVALENT MAY BE UTILIZED AS THE MINIMUM INSTEAD OF THE #3 @ 400 EW INDICATED IN THE SOG.
5. THE SLAB AND BEAM SIZES INDICATED SHALL BE CONSIDERED SITE SPECIFIC MINIMUMS.
6. ONE WAY STRUCTURAL SLAB SLOPE INDICATED FOR ROOF DRAINAGE. OTHER METHODS OR COMBINATION OF METHODS ARE ACCEPTABLE IF APPROVED BY DE/AD, DE/CSE, AND FAC DURING THE DESIGN PHASE.
7. ADJUST SITE SPECIFIC PLAN NOTES AS REQUIRED.
8. W1 WALL SHOWN ON GRID LINE 5 IS REQUIRED ON SITE SPECIFIC DRAWINGS IN SEISMIC DESIGN CATEGORIES D, E, AND F.

Rev Number	Description	Date
Revisions		

Release For Construction:		
NBS/Asa	NBS/Asa	
Drawing Title		
FRAMING PLANS		
DBD Project Number	Drawing Scale	Phase
CAED File Name	CAED Plot Scale	DCMP
CBMS111.DWG	<input type="checkbox"/> CONCEPT <input type="checkbox"/> 10% <input type="checkbox"/> 30% <input type="checkbox"/> 50% <input type="checkbox"/> 100% <input type="checkbox"/> FINAL	
Date	NOV-2012	Sheet Number
Drawn By	NBS	Barracks
Checked By	NBS	S111
Project Number		
Classification	UNCLASSIFIED	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

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ALL DIMENSIONS WITHOUT A DECIMAL ARE IN MILLIMETERS UNO. ALL DIMENSIONS WITH A DECIMAL ARE IN METERS UNO.

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Barracks 101

Building Information Model Common File

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LIVE LOAD KEY	
(INCLUDES 1.0 kN/m² PARTITION LOAD WHERE APPLICABLE)	
1.5 kN/m²	
2.0 kN/m²	
5.0 kN/m²	

- SITE SPECIFIC DESIGN NOTES.**
- THE LIVE LOAD PATTERNS INDICATED IN THE KEY SHALL BE USED ON PROJECT SPECIFIC DESIGN DRAWINGS.
 - LIVE LOADS SHOWN ARE SKEMATIC. PROJECT SPECIFIC DESIGN DRAWINGS SHALL REFLECT DETAILED COORDINATION WITH OTHER DISCIPLINES (E.G. ROOM TYPES, EQUIPMENT LOADS, ETC.)

Rev. Number	Description	Date
Revisions		

Release For Construction:	
NIBS/Ida	NIBS/Ida
Drawing Title	
LIVE LOAD DIAGRAMS	
DBO Project Number AS NOTED	Drawing Scale 1:100
CADD File Name CBMS191.DWG	Phase 1:1
Date NOV-2012	Sheet Number Barracks S191
Drawn By NIBS	Classification UNCLASSIFIED
Checked By NIBS	
Project Number	