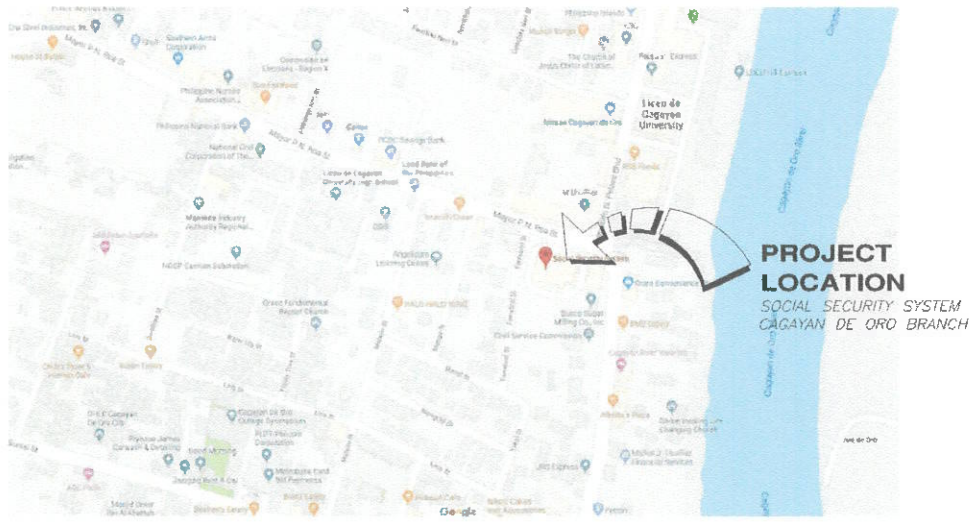
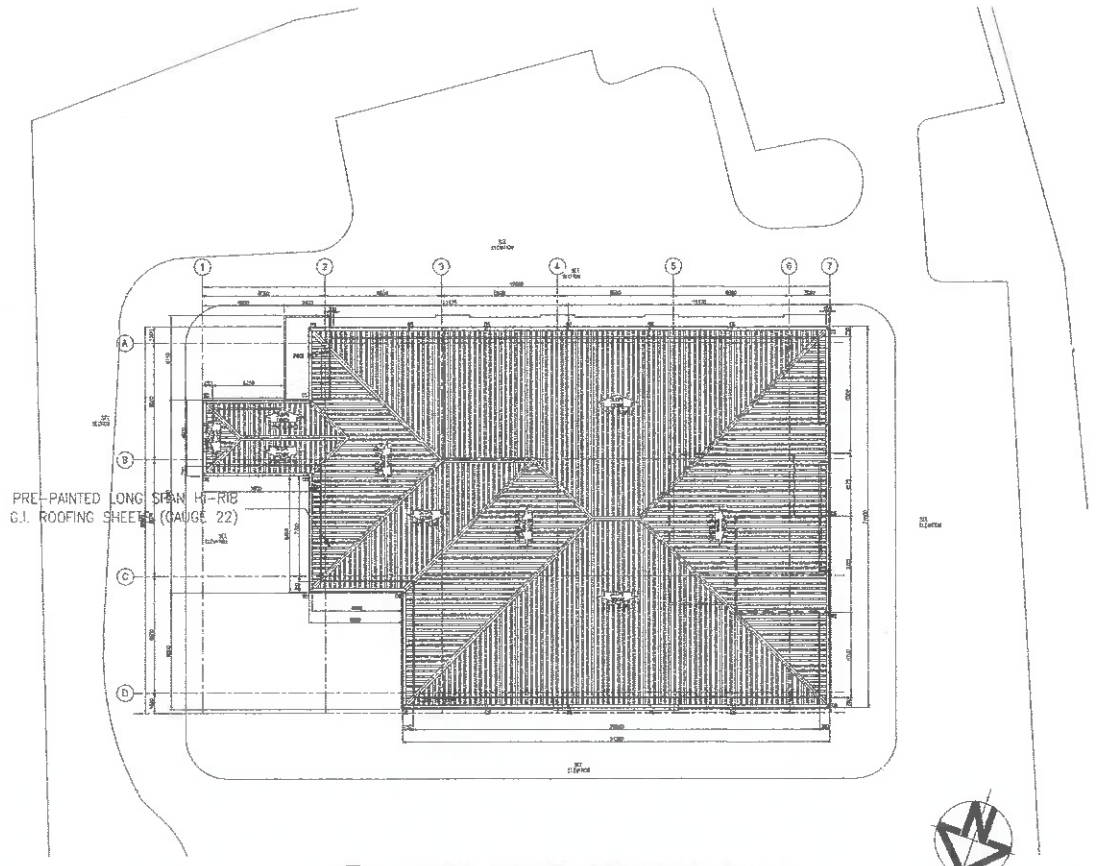
NORTH

1 CS-001 EXTERIOR PERSPECTIVE
SCALE NTS



NORTH

2 CS-001 LOCATION PLAN
SCALE NTS



3 CS-001 SITE DEVELOPMENT PLAN
SCALE NTS

INDEX OF DRAWINGS

SHEET NO.	DRAWING TITLE
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	PERSPECTIVE, SITE DEVELOPMENT PLAN
	STRUCTURAL
S-001	GENERAL NOTES, TYPICAL CONCRETE REPAIR DETAILS,
	TYP. BEAM RETROFITTING DETAIL FOR FLEXURE & SHEAR
	TYP. COLUMN RETROFITTING DETAIL
S-002	SUMMARY OF COLUMN, BEAMS AND GIRDERS RETROFITTING
S-003	SUMMARY OF BEAMS AND GIRDERS RETROFITTING,
	COLUMN ENLARGEMENT SCHED., TYP. COLUMNS ENLARGEMENT DETAIL
S-004	GROUND FLOOR FRAMING PLAN SHOWING COLUMNS FOR RETROFITTING
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S-008	THIRD FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT
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S-010	FOURTH FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT
S-011	FOURTH FLOOR FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT
S-012	ROOF DECK FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT
S-013	ROOF DECK FLOOR FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT

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DATE : JANUARY 06, 2020
PLACE : MAKATI CITY

OWNER: SOCIAL SECURITY SYSTEM (SSS)
EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT
APPROVED BY:

PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING
CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS: EXTERIOR PERSPECTIVE, LOCATION PLAN, SITE DEVELOPMENT PLAN

R.A. 9266 SEC. 33
DRAWINGS AND SPECIFICATIONS AND CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS FOR SERVICE ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF ARCHITECT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT OR AUTHOR OF SAID DOCUMENTS.

CADD	DATE	NO.	REVISIONS	CHK	DATE
HVE	JUNE 2020				
DESIGNED	DATE				
JMBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

PAPER SIZE	SHEET NO.
20X30	CS-001
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018

GENERAL NOTES:

A. GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED.
2. ALL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS.
3. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER THE SCALE SHOWN ON PLANS, SECTIONS, AND DETAILS.
4. THE CONTRACTOR SHALL VERIFY ALL ACTUAL DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL SUBMIT WORKING / SHOP DRAWINGS FOR ANY PROPOSED CHANGES TO SUIT ACTUAL FIELD CONDITIONS WHICH ARE SUBJECT FOR THE APPROVAL OF THE CONSULTANT.
6. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES AT THE SITE TO PROTECT LIVES, PROPERTIES, EXISTING STRUCTURES AND ENVIRONMENT.
7. NO STRUCTURE SHALL BE CONSTRUCTED UNTIL ALL PREPARATIONS HAS BEEN APPROVED BY THE CONSULTANT.

B. CONCRETE

1. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS PERIOD: $f'c$ = 28 MPa
2. CONCRETE COVER TO STIRRUPS & TIES = 40MM
3. ALL DEPOSITED CONCRETE SHALL BE COMPACTED USING VIBRATORS.
4. BEFORE CONCRETE IS POURED, CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, ETC. RELATIVE TO THE WORK.
5. WHEN CONCRETE WILL BE EXPOSED TO EXTERNAL SOURCES OF CHLORIDES IN SERVICES, SUCH AS DEICING SALTS, BRACKISH WATER, SEAWATER OR SPRAY FROM THESE SOURCES, CONCRETE MUST BE PROPORTIONED TO SATISFY THE SPECIAL EXPOSURE REQUIREMENTS OF ACI 318-14.
6. ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF 7 CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP.

C. REINFORCING STEEL:

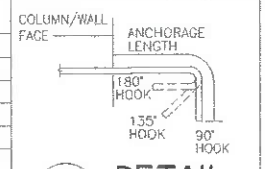
1. UNLESS OTHERWISE SPECIFIED ON PLANS, ALL REINFORCING BARS SHALL BEDEFORMED WITH A MINIMUM YIELD STRENGTH, fy = 414 MPa (60000 PSI) FOR ø12 AND ABOVE AND fy = 275 MPa (40000 PSI) FOR ø10 AND BELOW.
2. ALL REINFORCING BARS SHALL BE CLEANED OF RUST, GREASE OR OTHER MATERIALS WHICH TEND TO IMPAIR BOND.
3. ALL REINFORCING BARS SHALL BE ACCURATELY AND SECURELY PLACED BEFORE POURING CONCRETE OR APPLYING MORTAR OR GROUT.
4. LAPPED SPLICES SHALL BE STAGGERED WHERE POSSIBLE.
5. UNLESS INDICATED OTHERWISE, SPLICING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI- 318-95.

LAP SPLICES IN TENSION FOR BEAMS, COLUMNS AND WALLS (MM)

BAR DIA. (MM)	fy (Mpa)	fy (ksi)	f'c = 21 MPa (3000 psi)		f'c = 28-35 MPa (4000-5000 psi)	
			TOP	OTHERS	TOP	OTHERS
10	275	40	300	300	300	300
12	275	40	300	300	300	300
12	414	60	525	400	450	350
16	414	60	775	600	675	525
20	414	60	1075	825	925	725
25	414	60	1800	1375	1550	1200
28	414	60	2075	1600	1800	1400
32	414	60	2475	1900	2150	1650
36	414	60	2900	2225	2500	1925

ANCHORAGE LENGTH TABLE

BAR DIAMETER (mm)	ANCHORAGE LENGTH (m)	STANDARD HOOK (m)		
		90°	180°	135°
10	0.50	0.15	0.13	0.10
12	0.50	0.20	0.15	0.12
16	0.60	0.25	0.18	0.14
20	0.60	0.30	0.20	0.20
25	0.68	0.40	0.28	0.26
28	0.86	0.48	0.38	–
32	1.12	0.56	0.43	–
36	1.43	0.61	0.48	–



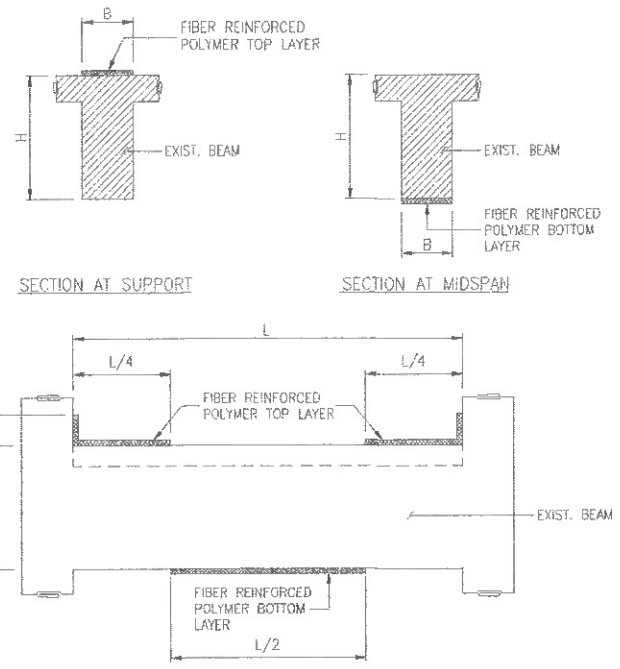
1 S-001 DETAIL
SCALE NTS

NOTES:

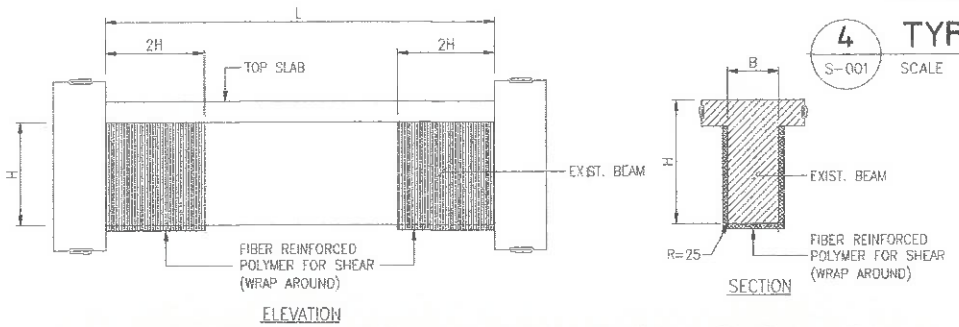
1. ACI SECTION 12.4 STATES THAT DEVELOPMENT LENGTH OF INDIVIDUAL BARS W/ IN A BUNDLE, IN TENSION OR COMPRESSION, SHALL BE THAT FOR THE INDIVIDUAL BAR, INCREASED 20% FOR THREE BAR BUNDLE, AND 33% FOR FOUR BAR BUNDLE.
2. FOR COLUMNS, AT ANY LEVEL NO MORE THAN ALTERNATE BARS SHOULD BE SPLICED. NOT MORE THAN 33% OF THE BARS SHALL BE SPLICED W/ IN THE REQUIRED LAP LENGTH. MIN. DISTANCE BETWEEN TWO ADJACENT BAR SPLICES SHALL BE 600MM. TOP BARS ARE HORIZONTAL BARS W/ MORE THAN 300MM DEPTH OF CONCRETE CAST BELOW THE REINFORCEMENT.
3. TOP BARS ARE HORIZONTAL BARS W/ MORE THAN 300MM DEPTH OF CONCRETE CAST BELOW THE REINFORCEMENT.
4. AS MUCH AS POSSIBLE, SPLICES SUBJECTED TO TENSILE STRESSES ARE DISCOURAGE, THESE SHOULD BE AVOIDED OR PROVIDED W/ STANDARD HOOKS.

D. FRP RETROFITTING

1. USE FIBER REINFORCED POLYMER (FRP) USING CARBON WITH A MINIMUM LAMINATE THICKNESS OF 1.0MM PER LAYER AND MINIMUM TENSILE STRENGTH IN PRIMARY FIBER DIRECTION OF 1000 MPa. CONCRETE REPAIR SHALL BE PERFORMED FOR ALL MEMBERS WITH DEFECTIVE CONCRETE PRIOR TO APPLICATION OF FRP.
2. CONTRACTOR TO SUBMIT CONSTRUCTION METHODOLOGY AND TECHNICAL SPECIFICATIONS FOR APPROVAL PRIOR TO IMPLEMENTATION.
3. CONTRACTOR TO PERFORM MATERIAL TESTING PRIOR TO FINAL ACCEPTANCE OF WORK.
4. THE CONTRACTOR SHALL CAREFULLY EXAMINE, COMPARE AND VERIFY THE DATA FURNISHED BY THE DRAWINGS AND SPECIFICATIONS. ANY QUERIES AS TO THE MEANING OF THE DRAWINGS OR OF THE SPECIFICATIONS OR OF ANY ERRORS/OMISSIONS AFTER ITS DISCOVERY. ANY WORK INVOLVING SUCH DISCREPANCIES SHALL BE DONE AT THE CONTRACTOR'S RISK.
5. CONTRACTOR TO VERIFY ALL DIMENSIONS AND LENGTHS OF MEMBERS.
6. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHWERWISE.
7. THIS DRAWING IS TO BE READ SIMULTANEOUSLY WITH ALL RELEVANT ENGINEER'S AND ARCHITECT'S DRAWINGS AND WITH ALL RELEVANT SPECIFICATIONS.
8. FOR FRP RETROFITTING:
   A. CONCRETE SURFACE PREPARATION AND CLEANLINESS PRIOR TO APPLICATION OF FRP WRAP SHALL BE INACCORDANCE TO MANUFACTURER'S REQUIREMENTS.
   B. BEAMS SHALL BE RETROFITTED USING SIKAWRAP 600C FOR FLEXURE (TOP & BOTTOM) & SIKAWRAP 300C FOR SHEAR. SEE PLANS FOR THE NUMBER OF LAYERS.



2 S-001 TYP. BEAM RETROFITTING DETAIL FOR FLEXURE
SCALE NTS



3 S-001 TYP. BEAM RETROFITTING DETAIL FOR SHEAR
SCALE NTS

E. CONCRETE REPAIR

METHOD 1: CONCRETE REPAIR BY EPOXY PATCHING

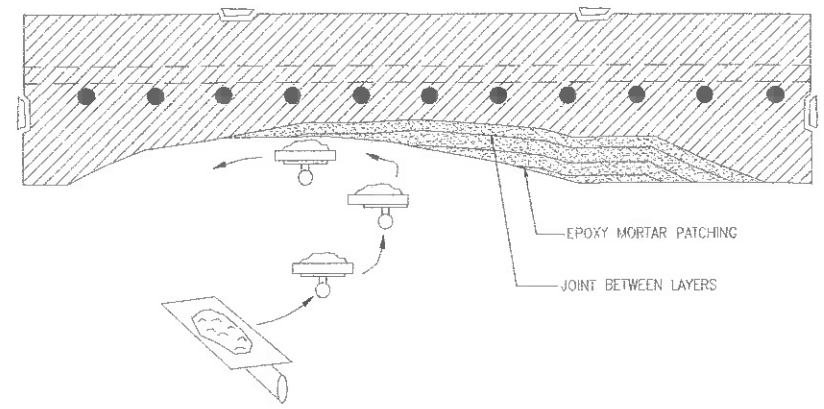
1. IDENTIFY SPALLED AREAS.
2. CHIPPING-REMOVE LOOSE CONCRETE AND CHIP TILL GOOD CONCRETE IS REACHED.
3. PREPARE STRUCTURAL EPOXY 316 PUTTY AND APPLY TO SPALLED AREA. LET EPOXY PUTTY CURE.
4. GRIND PROTRUDING EPOXY PUTTY FLUSH TO CONCRETE SURFACE.

METHOD 2: CONCRETE AND MASONRY REPAIR BY EPOXY INJECTION

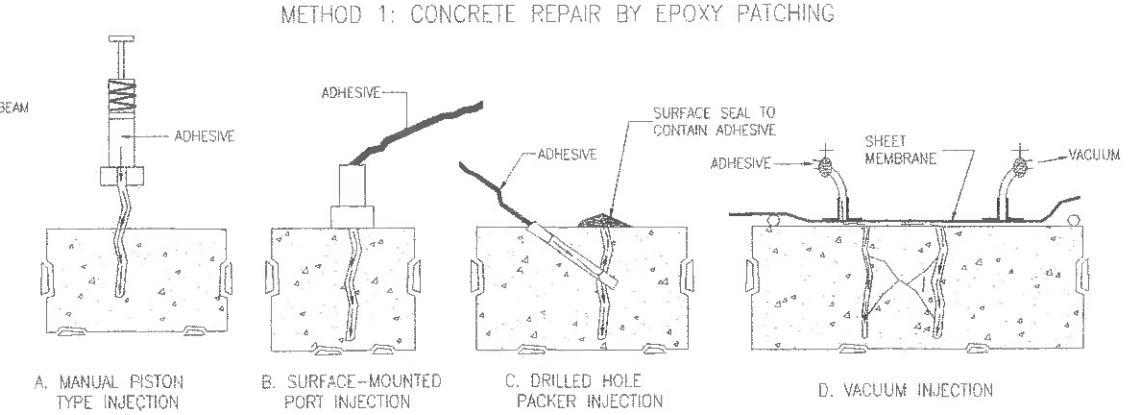
1. IDENTIFY CRACKS
2. V-CUT ALONG CRACKS AND DRILL 1/2"ø HOLES TO A DEPTH OF APPROXIMATELY HALF THE STRUCTURES DIMENSION
3. CLEANING - REMOVE LOOSE CONCRETE AND CONCRETE POWDERS.
4. INSTALL 1/4"ø COPPER TUBINGS INTO THE DRILLED HOLES.
5. APPLICATION OF STRUCTURAL EPOXY 316 PUTTY ON V-CUTS AND AROUND PERIPHERIES OF COPPER TUBINGS, AND ALLOW PUTTY TO CURE.
6. PRESSURE INJECT STRUCTURAL EPOXY 316 PUTTY THRU THE COPPER TUBES TO FILL CRACKS AND HONEYCOMBS (REPEAT #6 UNTIL ALL CRACKS AND HONEYCOMBS ARE FILLED WITH STRUCTURAL EPOXY 316 AND ALLOW EPOXY TO CURE).
7. GRIND PROTRUDING COPPER TUBES AND PUTTY FLUSH TO CONCRETE SURFACE.
8. APPLY REQUIRED FINISHES (IF NECESSARY).

NOTES:

1. UNLESS NOTED OTHERWISE, REPAIR METHOD(S) TO BE ADOPTED SHALL BE AS FOLLOWS:
   SPALLING OF CONCRETE/POOR WORKMANSHIP/ HAIRLINE CRACKS – METHOD 1
   CRACKING OF CONCRETE/ HONEYCOMB – METHOD 2
2. METHODS TO ADOPTED MAY VARY AS PER ENGINEER'S INSTRUCTION UPON CONFIRMATION OF ACTUAL CONDITION DURING REPAIR.
3. THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS SHOWING MAPPING PLAN FOR EACH METHOD USED IN THE REPAIR WORKS

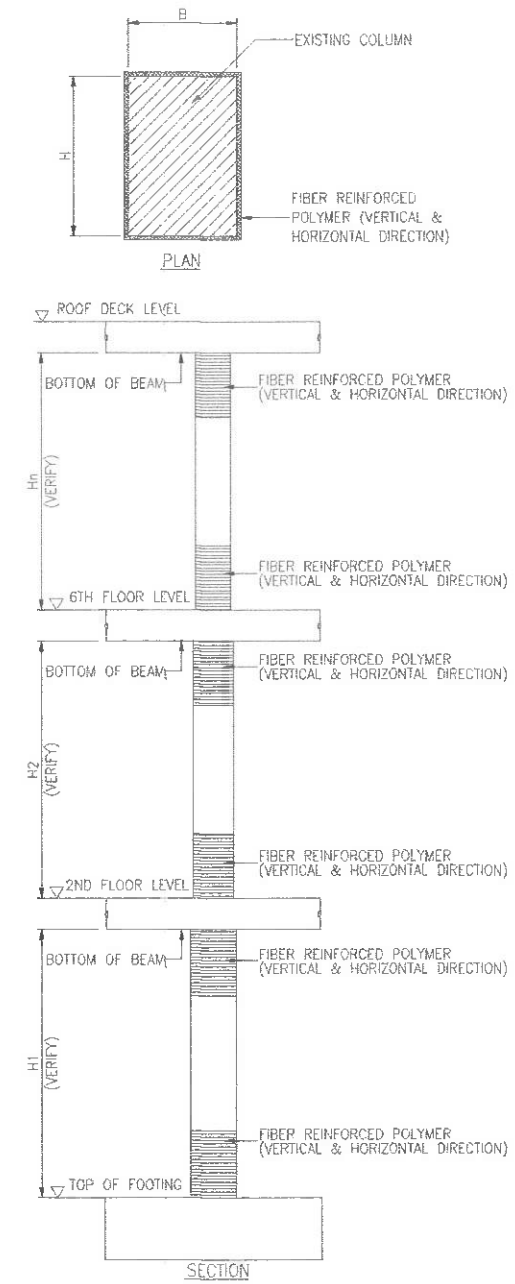


METHOD 1: CONCRETE REPAIR BY EPOXY PATCHING



METHOD 2: CONCRETE REPAIR BY EPOXY INJECTION

4 S-001 TYPICAL CONCRETE REPAIR DETAILS
SCALE NTS



5 S-001 TYP. COLUMN RETROFITTING DETAIL
SCALE NTS

RETROFITTING

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PTR NO. : 8122818
DATE : JANUARY 06, 2020
PLACE : MAKATI CITY

OWNER: SOCIAL SECURITY SYSTEM (SSS), EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT: APPROVED BY:

PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING, CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS:
GENERAL NOTES
TYP. BEAM RETROFITTING
DETAIL FOR FLEXURE & SHEAR
TYPICAL CONCRETE REPAIR DETAILS
TYP. COLUMN RETROFITTING DETAIL

R.A. 9266 SEC. 33
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CADD	DATE	NO.	REVISIONS	CHK	DATE	PAPER SIZE	SHEET NO.
HVE	JUNE 2020					20X30	S-001
DESIGNED	DATE					SCALE	PROJECT NO.
JMBP	JUNE 2020					AS SHOWN	SO-G-18-018
APPROVED	DATE						
ACO	JUNE 2020	0					

SUMMARY OF COLUMN RETROFITTING

Mark	Location	Grid	Existing Size	Proposed New Dimension	Column Enlargement Detail	FRP Retroffiting Details
C5	Foundation to Ground	Grid B-2	600x600	750x750	EC2	-
C2		Grid A-3	600x600	-	-	1-Layer of Sikawrap 300C
C6		Grid B-3	600x600	750x750	EC2	-
		Grid C-3	600x600	750x750	EC2	-
		Grid B-4	600x600	750x750	EC2	-
C2		Grid C-4	600x600	-	-	1-Layer of Sikawrap 300C
		Grid D-4	600x600	-	-	1-Layer of Sikawrap 300C
		Grid A-5	600x600	-	-	1-Layer of Sikawrap 300C
		Grid D-5	600x600	-	-	1-Layer of Sikawrap 300C
C8		Grid C-6	400x1000	550x1150	EC4	-
C3		Grid D-6	400x800	550x950	EC1	-
C4		Grid C-7	400x800	475x950	EC3	-
		Grid D-7	400x800	475x950	EC3	-
C5	Ground to Second	Grid B-2	600x600	750x750	EC2	-
C2		Grid A-3	600x600	-	-	1-Layer of Sikawrap 300C
C6		Grid B-3	600x600	750x750	EC2	-
		Grid C-3	600x600	750x750	EC2	-
		Grid B-4	600x600	750x750	EC2	-
C2		Grid C-4	600x600	-	-	1-Layer of Sikawrap 300C
		Grid D-4	600x600	-	-	1-Layer of Sikawrap 300C
		Grid A-5	600x600	-	-	1-Layer of Sikawrap 300C
		Grid D-5	600x600	-	-	1-Layer of Sikawrap 300C
C8		Grid C-6	400x1000	550x1150	EC4	-
C3		Grid D-6	400x800	550x950	EC1	-
C4		Grid C-7	400x800	475x950	EC3	-
		Grid D-7	400x800	475x950	EC3	-
C6	Second to Third	Grid C-4	600x600	-	-	1-Layer of Sikawrap 300C
C2		Grid D-4	600x600	-	-	1-Layer of Sikawrap 300C
		Grid D-5	600x600	-	-	1-Layer of Sikawrap 300C
C8		Grid C-6	400x1000	550x1150	EC4	-
C3		Grid D-6	400x800	550x950	EC1	-

SUMMARY OF BEAMS AND GIRDERS RETROFITTING

Floor Level	Mark	Section		Flexure		Shear	Grid
		Width	Depth	ENDS	MIDSPAN		
Second Floor	2B15	300	500	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W A1-A2 & B1-B2
	2B16	300	500	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W A1-A2 & B1-B2
	2B5	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B1-B2 & C1-C2
	2G8	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W A2 & B2
	2G8	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W B2 & C2
	2G9	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W A3 & B3
	2G10	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W A4 & B4
	2CG4	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	BELOW D4
	2G11	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W A5 & B5
	2G11	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W B5 & C5
	2CG5	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	BELOW D5
	2CB4	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	BELOW D5-D6
	2G12	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W B6 & C6
	2CG4	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top		1 Layer U-Wrap of Sika Wrap 300C	BELOW D6
	2B10	450	650	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W B6-B7 & C6-C7
	2B10	450	650	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W B6-B7 & C6-C7
	2B15	300	500	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W A1-A2 & B1-B2
	2B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A2-A3 & B2-B3
	2B4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A2-A3 & B2-B3
	2B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A3-A4 & B3-B4
	2B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A3-A4 & B3-B4
	2B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A4-A5 & B4-B5
	2B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A4-A5 & B4-B5
	2B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A5-A6 & B5-B6
	2CB2	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A6-A7 & B6-B7
	2CG1	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B6 & B7
	2B1	450	650	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W B1-B2 & C1-C2
	2B1	450	650	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B1-B2 & C1-C2
	2B2	450	650	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B2-B3 & C2-C3
	2B2	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B2-B3 & C2-C3
	2B2	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B3-B4 & C3-C4
	2B2	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B3-B4 & C3-C4
	2B2	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B4-B5 & C4-C5
	2B2	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B4-B5 & C4-C5
	2B2	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B5-B6 & C5-C6
	2B2	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B5-B6 & C5-C6
	2CB1	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B6-B7 & C6-C7
	2G2	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W C2 & C3
	2G2	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W C5 & C6
	2B1	450	650	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W C2-C3 & D2-D3
	2B1	450	650	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W C2-C3 & D2-D3
	2B1	300	500	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W C3-C4 & D3-D4
	2B1	300	500	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W C5-C6 & D5-D6
	2B1	300	500	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W C5-C6 & D5-D6
	2G1	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W D4 & D5
	2G1	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W D5 & D6
	2B12	300	500	-	1 Layer, 300mm Width, Sika Wrap 600C @ Bottom	-	BELOW D5-D6

SUMMARY OF BEAMS AND GIRDERS RETROFITTING

Floor Level	Mark	Section		Flexure		Shear	Grid
		Width	Depth	ENDS	MIDSPAN		
Second Floor	2G6	450	800	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C1-C2 & D1-D2
	2CG3	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A2
	2CG3	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A3
	2CG3	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A4
	2CG3	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A5
	2CG3	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A6
	2CG7	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	BELOW D7
	2G5	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A5 & A6
	2G2	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C6 & C7
Third Floor	3G7	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-		B/W A2 & B2
	3G9	450	650	-	1 Layer, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W B4 & C4
	3G10	450	650	-	1 Layer, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W B5 & C5
	3G10	450	650	-	1 Layer, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W C5 & D5
	3G11	350	650	-	1 Layer, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W A6 & B6
	3G11	350	650	-	1 Layer, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W B6 & C6
	3G4	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	1 Layer, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W A1-A2 & B1-B2
	3B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A2-A3 & B2-B3
	3B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A5-A6 & B5-B6
	3G3	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W B2 & B3
	3G3	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W B4 & B5
	3CG2	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B6 & B7
	3B3	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B2-B3 & C2-C3
	3B3	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B4-B5 & C4-C5
	3B3	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B5-B6 & C5-C6
	3B3	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B5-B6 & C5-C6
	3CB2	300	500	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W B6-B7 & C6-C7
	3G2	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C5 & C6
	3B1	450	650	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W C5-C6 & D5-D6
	3G1	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W D3 & D4
	3G1	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W D4 & D5
	3G1	450	650	1 Layer, 450mm Width, Sika Wrap 600C @ Top	-	-	B/W D5 & D6
	3B5	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A1-A2 & B1-B2
	3CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A2
	3CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A3
	3CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A4
	3G9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C4 & D4
	3CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A5
	3CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A6
	3G11	350	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C6 & D6
	3CG5	350	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	BELOW D6
	3CG6	300	500	-	-	1 Layer U-Wrap of Sika Wrap 300C	BELOW D7
	3CG3	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W D6 & D7
	3G2	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C3 & C4
	3G2	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C4 & C5
	3CG1	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W D2 & D3
Fourth Floor	4B5	450	650	-	2 Layers, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W A1-A2 & B1-B2
	4G10	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Top	1 Layer U-Wrap of Sika Wrap 300C	B/W C5-D5
	4B4	300	500	1 Layer, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A2-A3 & B2-B3
	4B4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A2-A3 & B2-B3
	4B4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A3-A4& B3-B4
	4B4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A3-A4& B3-B4
	4B4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A4-A5& B4-B5
	4B4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A4-A5& B4-B5
	4B4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A5-A6& B5-B6
	4B4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A5-A6& B5-B6
	4CB3	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A6-A7 & B6-B7
	4G3	530	650	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B2-B3
	4B3	300	500	-	2 Layers, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W B2-B3 & C2-C3
	4B3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B2-B3 & C2-C3
	4B3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B3-B4& C3-C4
	4B3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B3-B4& C3-C4
	4B3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B4-B5& C4-C5
	4B3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B4-B5& C4-C5
	4B3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B5-B6& C5-C6
	4B3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B5-B6& C5-C6
	4CB2	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B6-B7 & C6-C7
	4G2	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Top	1 Layer U-Wrap of Sika Wrap 300C	B/W C5-C6
	4B1	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W C4-C5& D4-D5
	4B1	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W C4-C5& D4-D5
	4B1	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	2 Layers, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W C5-C6& D5-D6
	4B1	400	500	-	2 Layers, 300mm Width, Sika Wrap 600C @ Bottom	-	B/W C5-C6& D5-D6
	4G1	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Top	-	B/W D3-D4
	4G1	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Top	-	B/W D4-D5
	4G1	450	650	2 Layers, 450mm Width, Sika Wrap 600C @ Top (Left)	2 Layers, 450mm Width, Sika Wrap 600C @ Top	-	B/W D5-D6
	4G1	450	650	2 Layers, 300mm Width, Sika Wrap 600C @ Top (Right)	2 Layers, 450mm Width, Sika Wrap 600C @ Top	-	B/W D5-D6
	4G6	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A1 & B1
	4CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A2
	4G7	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A2 & B2
	4CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A3

RETROFITTING

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DATE: JANUARY 06, 2020
PLACE: MAKATI CITY

OWNER
SOCIAL SECURITY SYSTEM (SSS)
EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT
APPROVED BY:

PROJECT TITLE/LOCATION
PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING
CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS
SUMMARY OF COLUMNS, BEAMS AND GIRDERS RETROFITTING

R.A. 9266 SEC. 33
DRAWINGS AND SPECIFICATIONS AND CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS FOR SERVICE ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF ARCHITECT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT OR AUTHOR OF SAID DOCUMENTS.

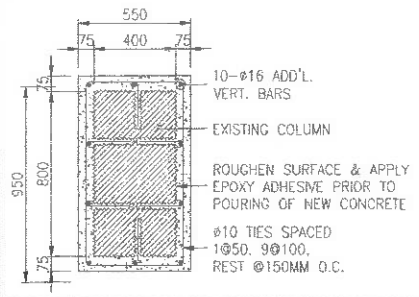
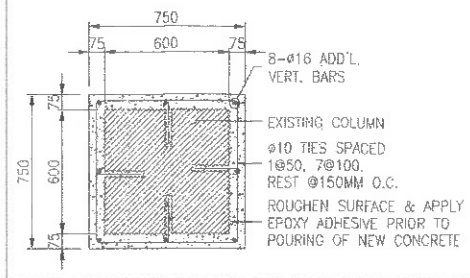
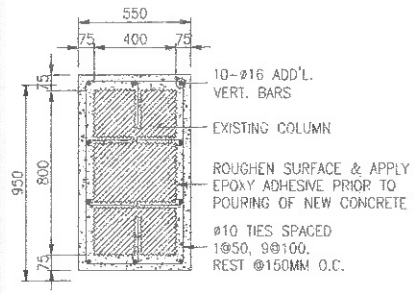
CADD	DATE	NO.	REVISIONS	CHK	DATE
HVE	JUNE 2020				
DESIGNED	DATE				
JMBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

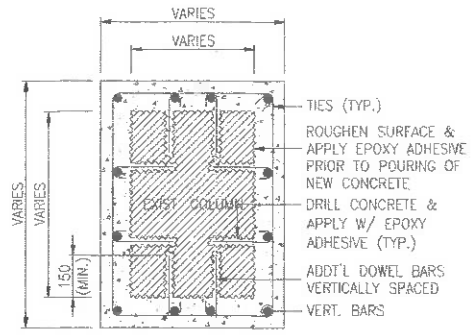
PAPER SIZE	SHEET NO.
20X30	S-002
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018

SUMMARY OF BEAMS AND GIRDERS RETROFITTING

Floor Level	Mark	Section		Flexure		Shear	Grid
		Width	Depth	ENDS	MIDSPAN		
Fourth Floor	4G8	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A3 & B3
	4G8	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B3 & C3
	4G8	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C3 & D3
	4CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A4
	4G9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A4 & B4
	4G9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B4 & C4
	4G9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C4 & D4
	4CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A5
	4G10	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B5& C5
	4CG4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	ABOVE A6
	4G11	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A6 & B6
	4G11	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B6 & C6
	4G11	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C6 & D6
	4CG6	300	500	-	-	1 Layer U-Wrap of Sika Wrap 300C	BELOW D6
	4CG6	300	500	-	-	1 Layer U-Wrap of Sika Wrap 300C	BELOW D7
Floor Level	Mark	Section		Flexure		Shear	Grid
		Width	Depth	ENDS	MIDSPAN		
Roof Deck	RB5	450	650	-	1 Layer, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W A1-A2 & B1-B2
	RB4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A2-A3 & B2-B3
	RB4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A3-A4 & B3-B4
	RB4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A4-A5 & B4-B5
	RB4	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W A5-A6 & B5-B6
	RCB3	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	Right of Grid 6, B/W A6-B6
	RG3	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W B2-B3
	RG3	450	650	-	1 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W B3-B4
	RG3	450	650	-	1 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W B4-B5
	RG3	450	650	2 Layers, 450mm Width, Sika Wrap 600C @ Top	3 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W B5-B6
	RCG3	450	650	3 Layers, 450mm Width, Sika Wrap 600C @ Top	-	1 Layer U-Wrap of Sika Wrap 300C	Right of Grid 6, B/W A6-B6
	RB3	300	500	-	2 Layers, 300mm Width, Sika Wrap 600C @ Bottom	-	Right of Grid 2, B/W B2-C2
	RB3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	Left of Grid 3, B/W B2-C2
	RB3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B3-B4 & C3-C4
	RB3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B4-B5 & C4-C5
	RB3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W B5-B6 & C5-C6
	RB3	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	Right of Grid 6, B/W B6-C6
	RG2	450	650	1 Layers, 450mm Width, Sika Wrap 600C @ Top	3 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W C3-C4
	RG2	450	650	1 Layers, 450mm Width, Sika Wrap 600C @ Top	3 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W C4-C5
	RG2	450	650	1 Layers, 450mm Width, Sika Wrap 600C @ Top	3 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W C5-C6
	RB1	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	2 Layers, 300mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	Right of Grid 3, B/W C3-D3
	RB1	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	Left of Grid 4, B/W C4-D4
	RB1	400	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	B/W C4-C5 & D4-D5
	RG1	450	650	-	3 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W D3-D4
	RG1	450	650	1 Layers, 450mm Width, Sika Wrap 600C @ Top	3 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W D4-D5
	RG1	450	650	1 Layers, 450mm Width, Sika Wrap 600C @ Top	3 Layers, 450mm Width, Sika Wrap 600C @ Bottom	-	B/W D5-D6
	RB1	400	500	-	2 Layers, 300mm Width, Sika Wrap 600C @ Bottom	-	Left of Grid 6, B/W C6-D6
	RG7	450	650	-	1 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W A2-B2
	RB8	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Top	-	B/W A3-A4 & B3-B4
	RB8	450	650	-	2 Layers, 450mm Width, Sika Wrap 600C @ Top	-	B/W B3-B4 & C3-C4
	RG9	450	650	2 Layers, 450mm Width, Sika Wrap 600C @ Top	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B5-C5
	RG10	450	650	-	3 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W B6-C6
	RG10	450	650	-	1 Layers, 450mm Width, Sika Wrap 600C @ Bottom	1 Layer U-Wrap of Sika Wrap 300C	B/W C6-D6
	RB11	300	500	2 Layers, 300mm Width, Sika Wrap 600C @ Top	-	-	Right of Grid 6, Top of Grid C
	RG7	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W B2-C2
	RG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A4-B4
	RG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C4-D4
	RG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W A5-B5
	RG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	B/W C5-D5
	RCB4	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Left of Grid 2, Top of Grid A
	RCG7	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Top of A2
	RCG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Top of A3
	RCG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Top of A4
	RCG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Top of A5
	RCG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Top of A6
	RCG8	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Below D3
	RCG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Below D4
	RCG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Below D5
	RCG9	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Below D6
	RCG11	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Righ of Grid 6, Below of Grid D
	RCG3	450	650	-	-	1 Layer U-Wrap of Sika Wrap 300C	Righ of Grid 6, Below of Grid A

COLUMNS ENLARGEMENT SCHEDULE

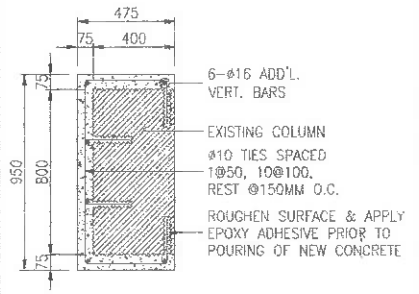
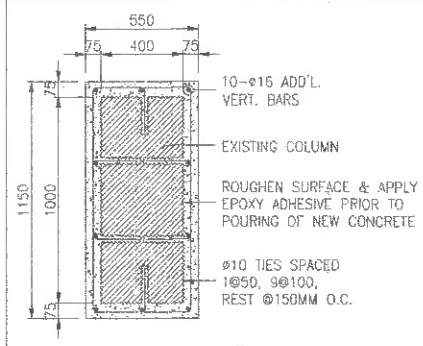
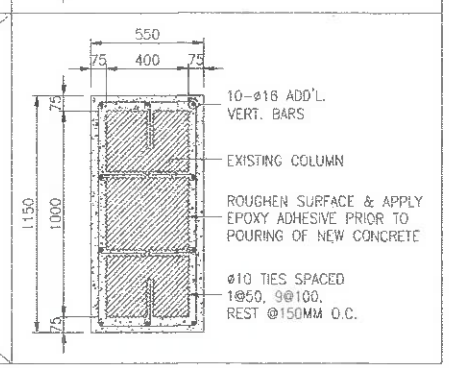
MARK / LEVEL	EC1	EC2
FOUNDATION TO 2ND FLOOR		
2ND FLOOR TO 3RD FLOOR		

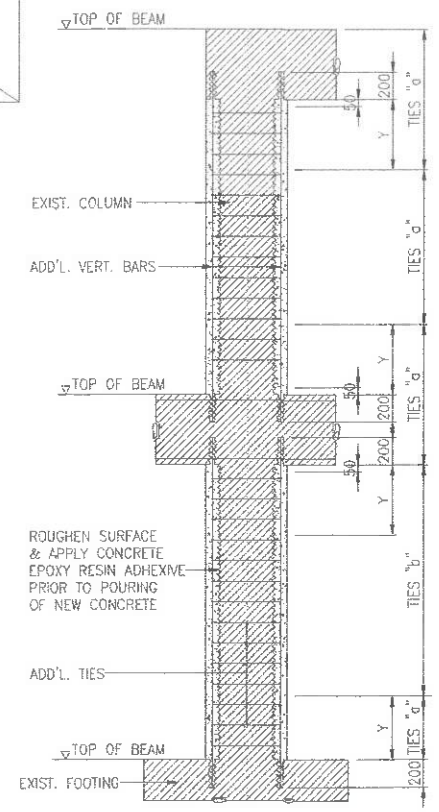


NOTE:
FOR DIMENSIONS, SEE COLUMN DIMENSIONS OF EACH COLUMNS.

SECTION

COLUMNS ENLARGEMENT SCHEDULE

MARK / LEVEL	EC3	EC4
FOUNDATION TO 2ND FLOOR		
2ND FLOOR TO 3RD FLOOR		



ELEVATION

TYPICAL COLUMN ENLARGEMENT DETAIL

1 / S-003 SCALE NTS

RETROFITTING

a.C.ONG CONSULTING INC.
Engineering + Management
ISO 9001:2015 Certified
2F LTA Building 118 Perea Street, Legaspi Village, 1229 Makati City, Philippines
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CERTIFIED BY: MAE KAREEN B. MANAGO, ASEP — ENGINEER

REG. NO.: 0108971
TIN NO. : 949-936-520-000
PTR NO. : 8122618
DATE : JANUARY 05, 2020
PLACE : MAKATI CITY

OWNER: SOCIAL SECURITY SYSTEM (SSS)
EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT
APPROVED BY:

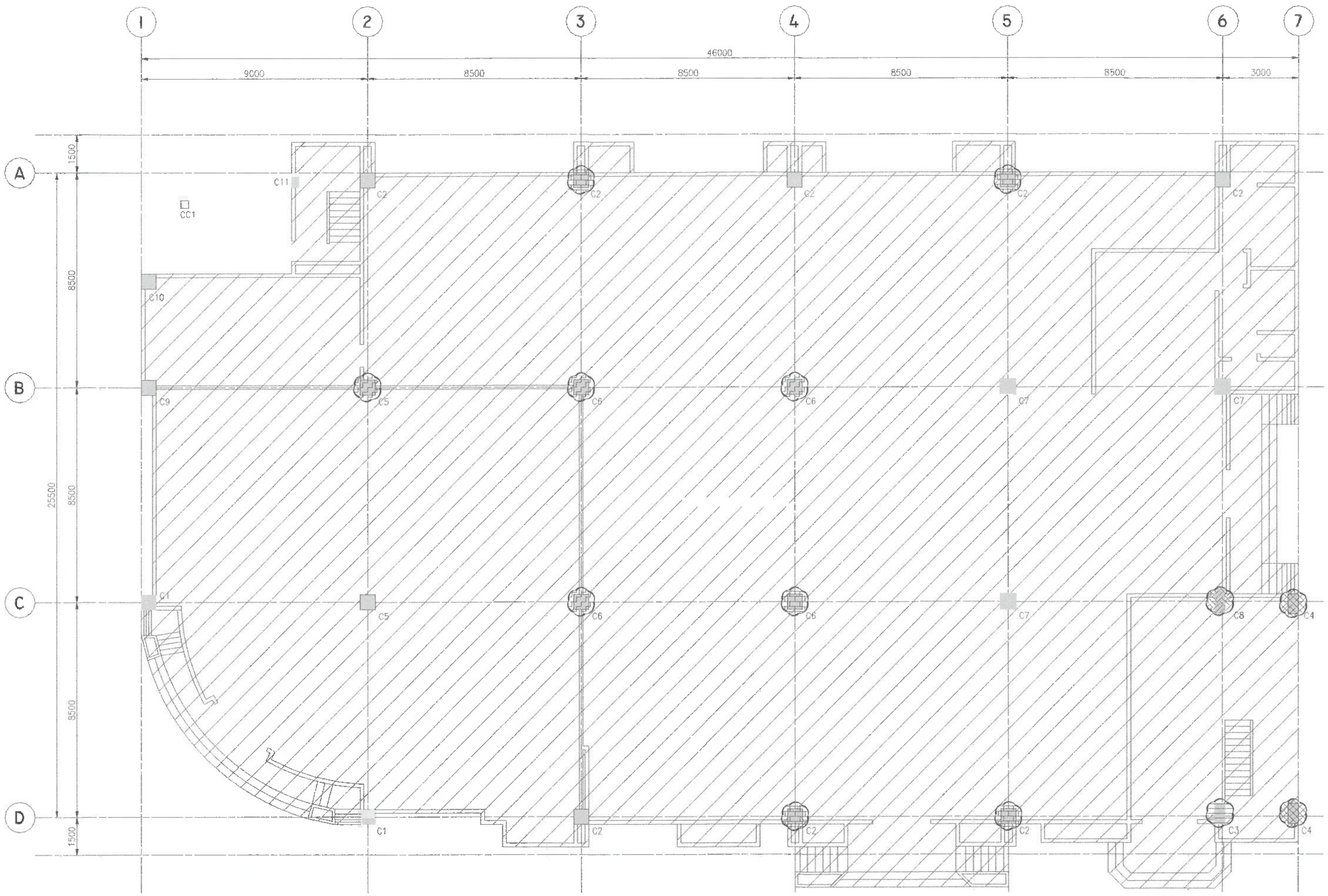
PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING
CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

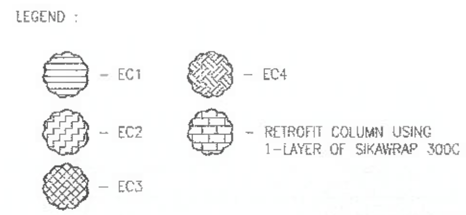
SHEET CONTENTS: SUMMARY OF BEAMS AND GIRDERS RETROFITTING; COLUMNS ENLARGEMENT SCHEDULE; TYP. COLUMN ENLARGEMENT DETAIL

R.A. 8266 SEC. 33
DRAWINGS AND SPECIFICATIONS AND CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS FOR SERVICE ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF ARCHITECT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT OR AUTHOR OF SAID DOCUMENTS.

CADD	DATE	NO.	REVISIONS	CHK	DATE
HVE	JUNE 2020				
DESIGNED	DATE				
JMBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

PAPER SIZE	SHEET NO.
20X30	S-003
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018





1 GROUND FLOOR FRAMING PLAN SHOWING COLUMNS FOR RETROFITTING

S-004 SCALE 1:100M

RETROFITTING

a.c.ong CONSULTING INC.
Engineering + Management
ISO 9001:2015 Certified
2F LTA Building 118 Perea Street, Legaspi Village, 1229 Makati City, Philippines
Tel. Nos.: +63 2 8935827 Fax No.: +63 2 3935829
Email: acoconsulting@aco.com.ph Website: www.aco.com.ph

CERTIFIED BY		OWNER	CLIENT	PROJECT TITLE/LOCATION	SHEET CONTENTS
MAE KAREEN B. MANAGO, ASEP ENGINEER	REG. NO.: 0108371 TIN NO. : 949-936-520-000 PTR NO. : 8122618 DATE : JANUARY 06, 2020 PLACE : MAKATI CITY	SOCIAL SECURITY SYSTEM (SSS) EAST AVENUE, DILIMAN, QUEZON CITY	APPROVED BY:	PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY	GROUND FLOOR FRAMING PLAN SHOWING COLUMNS FOR RETROFITTING

R.A. 9266 SEC. 33
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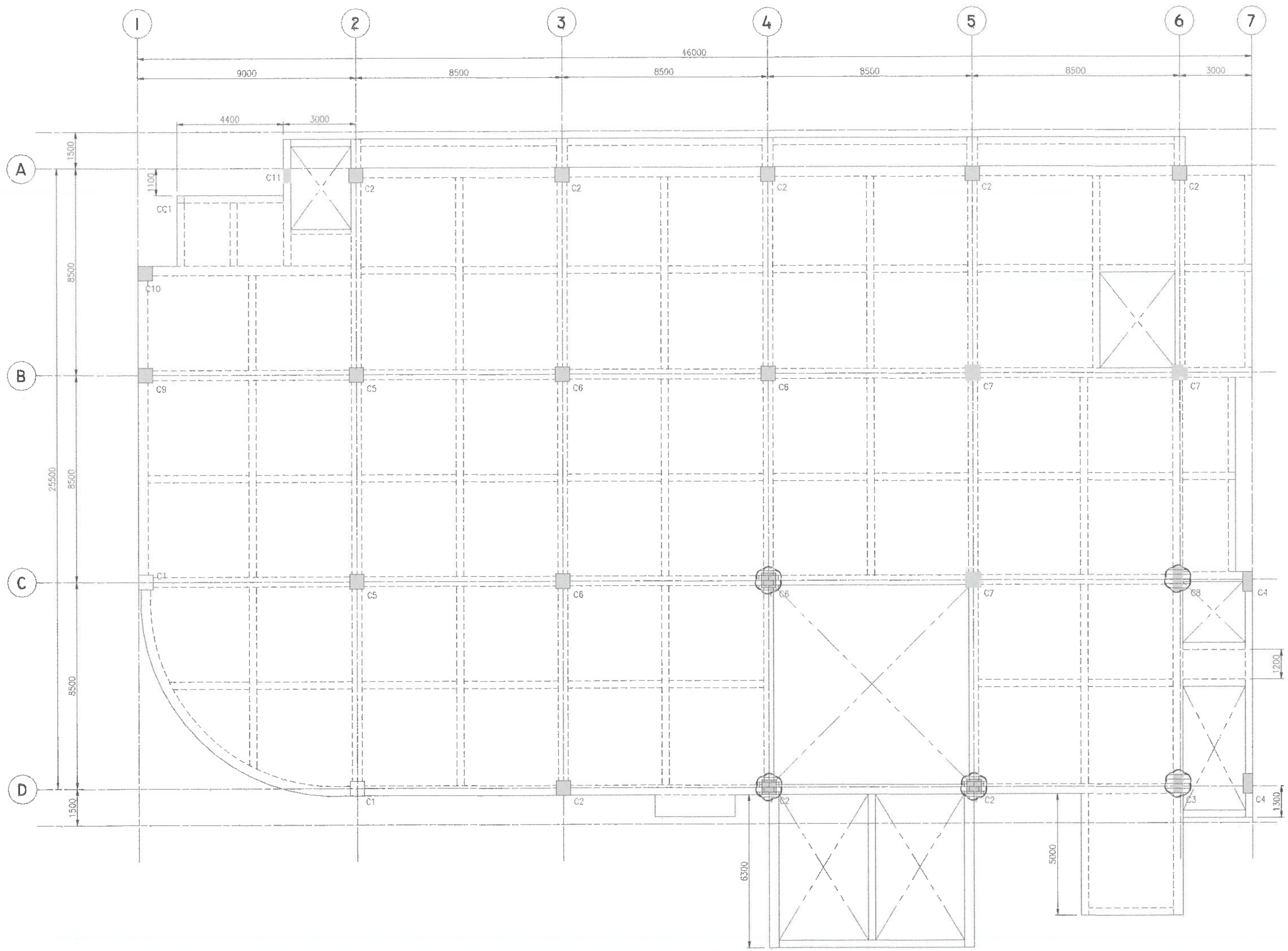
CADD	DATE	NO.	REVISIONS	CHK	DATE
HVE	JUNE 2020				
DESIGNED	DATE				
JMBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

PAPER SIZE	SHEET NO.
20X30	S-004
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018



LEGEND :

– EC1

– RETROFIT COLUMN USING 1-LAYER OF SIKAWRAP 300C

SECOND FLOOR FRAMING PLAN SHOWING COLUMNS FOR RETROFITTING

1 / S-005 SCALE 1:100M

RETROFITTING

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CERTIFIED BY

MAE KAREENE B. MAÑAGO, ASEP
ENGINEER

REG. NO.: 0108971
TIN NO. : 949-936-520-000
PTR NO. : 8122618
DATE : JANUARY 06, 2020
PLACE : MAKATI CITY

OWNER
SOCIAL SECURITY SYSTEM (SSS)
EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT
APPROVED BY:

PROJECT TITLE/LOCATION
PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING
CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

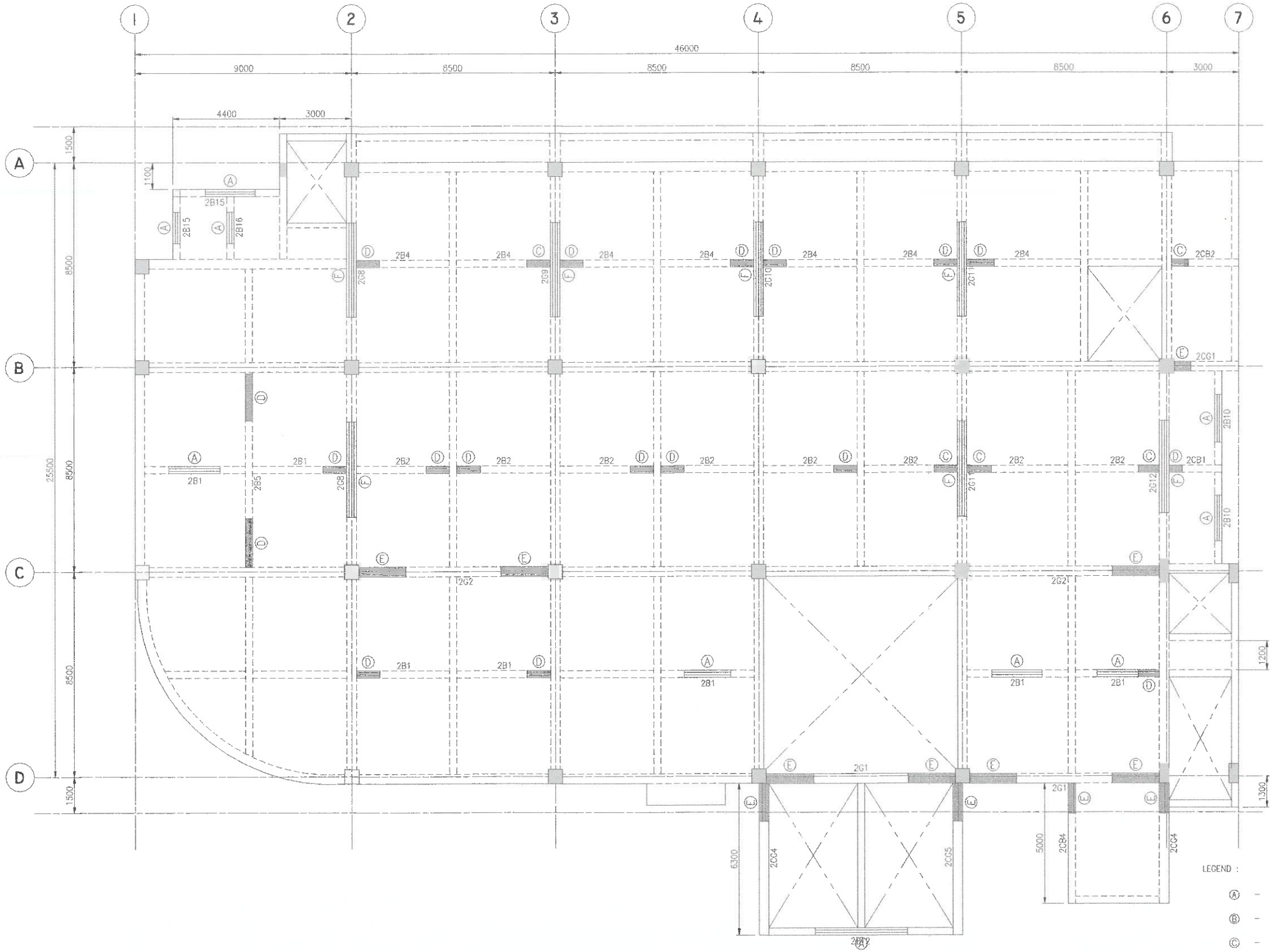
SHEET CONTENTS
SECOND FLOOR FRAMING PLAN SHOWING COLUMNS FOR RETROFITTING

R.A. 9266 SEC. 33
DRAWINGS AND SPECIFICATIONS AND CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS FOR SERVICE ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF ARCHITECT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT OF AUTHOR OF SAID DOCUMENTS.

CADD	DATE
MVE	JUNE 2020
DESIGNED	DATE
JMBP	JUNE 2020
APPROVED	DATE
ACO	JUNE 2020

NO.	REVISIONS	CHK	DATE
0			

PAPER SIZE	SHEET NO.
20X30	S-005
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018



BEAM SCHEDULE	
2G1	450X650
2G2	450X650
2G8	450X650
2G9	450X650
2G10	450X650
2G11	450X650
2G12	450X650
2CG1	450X650
2CG4	450X650
2CG5	450X650
2B1	300X500
2B2	300X500
2B4	300X500
2B5	300X500
2B10	300X500
2B12	300X500
2B15	300X500
2B16	300X500
2CB1	300X500
2CB4	450X650

LEGEND :

- Ⓐ – 1 LAYER, 300MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓑ – 2 LAYERS, 300MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓒ – 2 LAYERS, 300MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓓ – 1 LAYER, 300MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓔ – 1 LAYER, 450MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓕ – 2 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ BOTTOM

RETROFITTING

SECOND FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT

1 / S-006

SCALE 1:100M

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Tel. Nos.: +63 2 8935827 Fax No.: +63 2 8935839
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CERTIFIED BY: MAE KAREEN B. MANAGO, ASEP ENGINEER
REG. NO.: 0108971
TIN NO. : 949-936-520-000
PTR NO. : 8122618
DATE : JANUARY 06, 2020
PLACE : MAKATI CITY

OWNER: SOCIAL SECURITY SYSTEM (SSS), EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT: APPROVED BY:

PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING, CARMEN PATAC ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS: SECOND FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT

R.A. 9266 SEC. 33
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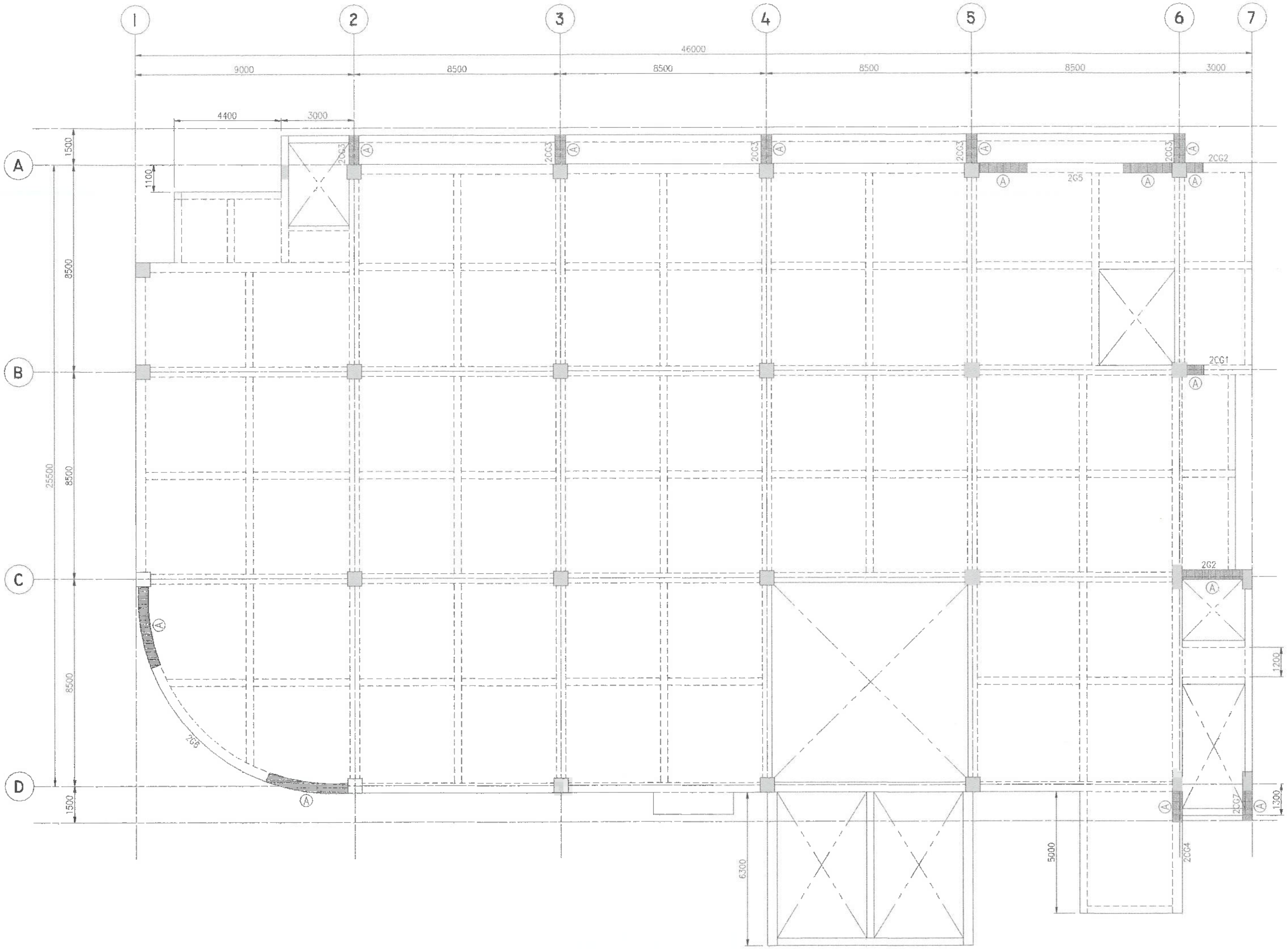
CADD	DATE	NO.	REVISIONS	CHK	DATE
HVE	JUNE 2020				
DESIGNED	DATE				
JMBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

PAPER SIZE	SHEET NO.
20X30	S-006
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018



SECOND FLOOR FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT

1 / S-007 SCALE 1:100M

BEAM SCHEDULE	
2G2	450X650
2G5	450X650
2G6	450X800
2CG1	450X650
2CG2	450X650
2CG3	450X650
2CG4	450X650
2CG7	450X650

LEGEND :

Ⓐ – 1 LAYER, U WRAP OF SIKA WRAP 300C

RETROFITTING

a.c.ong CONSULTING INC.
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CERTIFIED BY
MAE KAREEN B. MAÑAGO, ASEP
ENGINEER
REG. NO.: 0108871
TIN NO. : 949-936-520-000
PTR NO. : 8122618
DATE : JANUARY 06, 2020
PLACE : MAKATI CITY

OWNER: SOCIAL SECURITY SYSTEM (SSS), EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT: APPROVED BY:

PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING, CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS: SECOND FLOOR FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT

R.A. 9266 SEC. 33
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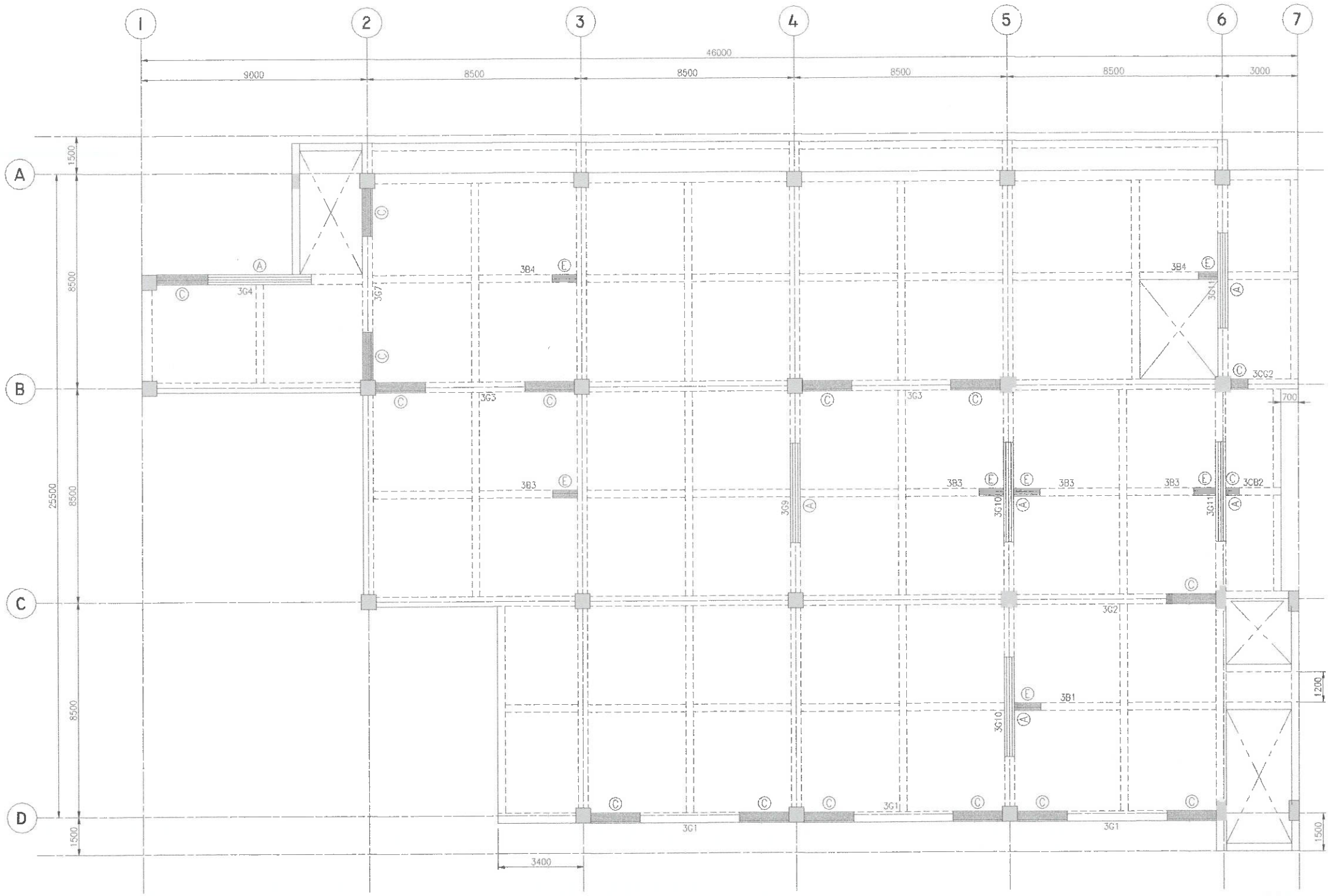
CADD	DATE	NO.	REVISIONS	CHK	DATE
HVE	JUNE 2020				
DESIGNED	DATE				
JWBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

PAPER SIZE: 20X30
SHEET NO.: S-007
SCALE: AS SHOWN
PROJECT NO.: SO-G-18-018



BEAM SCHEDULE	
3G1	450X650
3G2	450X650
3G3	450X650
3G4	450X650
3G7	450X650
3G9	450X650
3G10	450X650
3G11	350X650
3B1	400X500
3B3	300X500
3B4	300X500
3CB2	300X500

LEGEND :

- Ⓐ – 1 LAYER, 450MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓑ – 2 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓒ – 1 LAYER, 450MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓓ – 2 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓔ – 1 LAYER, 300MM WIDTH, SIKA WRAP 600C @ TOP

THIRD FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT

I / S-008

SCALE 1:100M

RETROFITTING

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CERTIFIED BY: MAE KAREENE B. MANAGO, ASEP ENGINEER

REG. NO.: 0108971
TIN NO. : 949-936-520-000
PTR NO. : 8122618
DATE : JANUARY 06, 2020
PLACE : MAKATI CITY

OWNER: SOCIAL SECURITY SYSTEM (SSS), EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT: APPROVED BY:

PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING, CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS: THIRD FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT

R.A. 9266 SEC. 33
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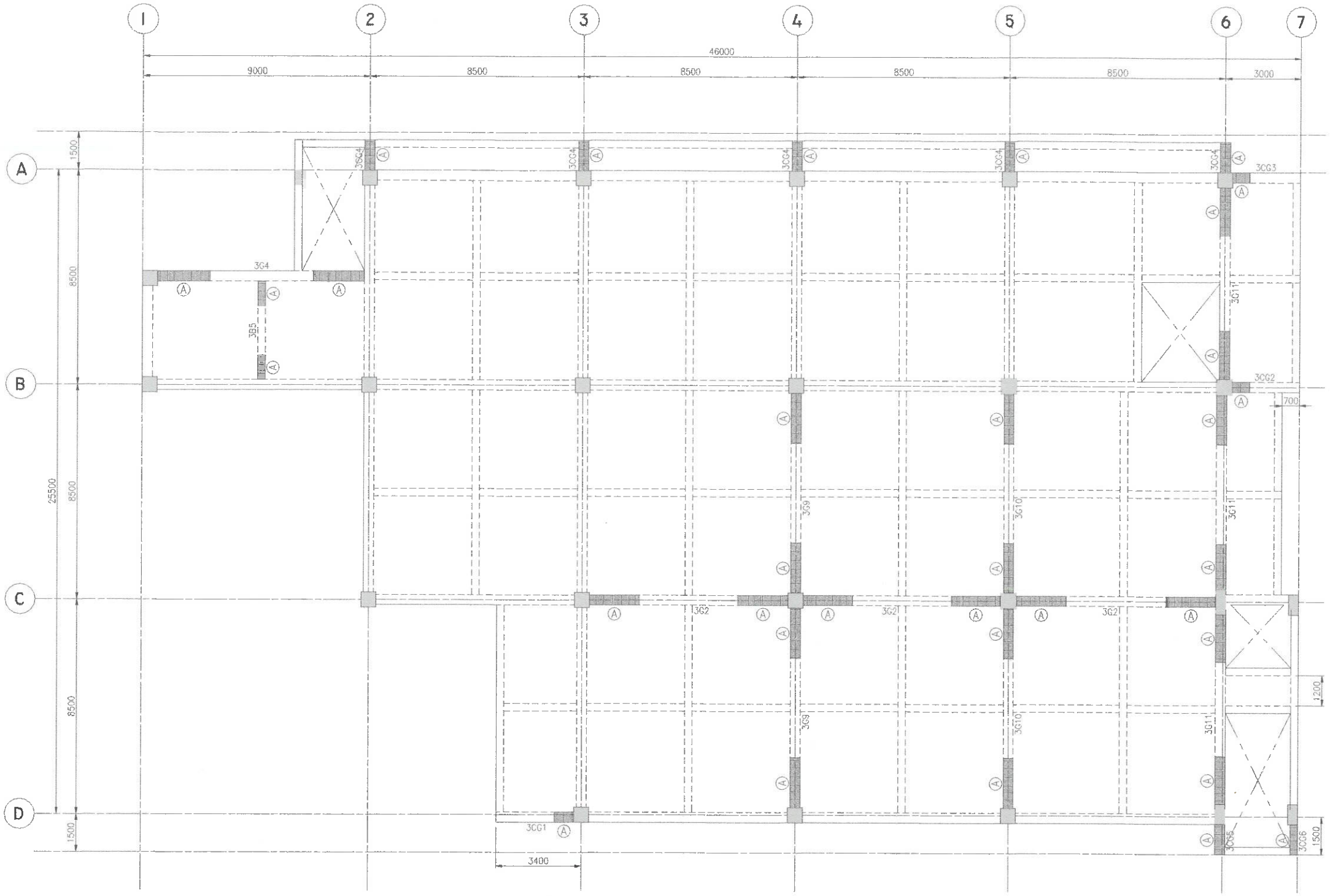
CADD	DATE	NO.	REVISIONS	CHK	DATE
HVE	JUNE 2020				
DESIGNED	DATE				
JMBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

PAPER SIZE	SHEET NO.
20X30	S-008
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018



BEAM SCHEDULE	
3G2	450X650
3G4	450X650
3G5	530X650
3G9	450X650
3B5	450X650
3G10	450X650
3G11	350X650
3CG1	450X650
3CG3	450X650
3CG4	450X650
3CG5	350X650
3CG6	300X500

THIRD FLOOR FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT

1 / S-008 SCALE 1:100M

LEGEND :

Ⓐ – 1 LAYER, U WRAP OF SIKA WRAP 300C

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2F LTA Building 118 Perea Street, Legaspi Village, 1229 Makati City, Philippines
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Email: acoconsulting@aco.com.ph Website: www.aco.com.ph

CERTIFIED BY:
MAE KAREEN B. MAÑAGO, ASEP
ENGINEER

REG. NO.:	0108971
TIN NO. :	949-936-520-000
PTR NO. :	8122618
DATE :	JANUARY 06, 2020
PLACE :	MAKATI CITY

OWNER: SOCIAL SECURITY SYSTEM (SSS)
EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT:
APPROVED BY:

PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING
CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS: THIRD FLOOR FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT

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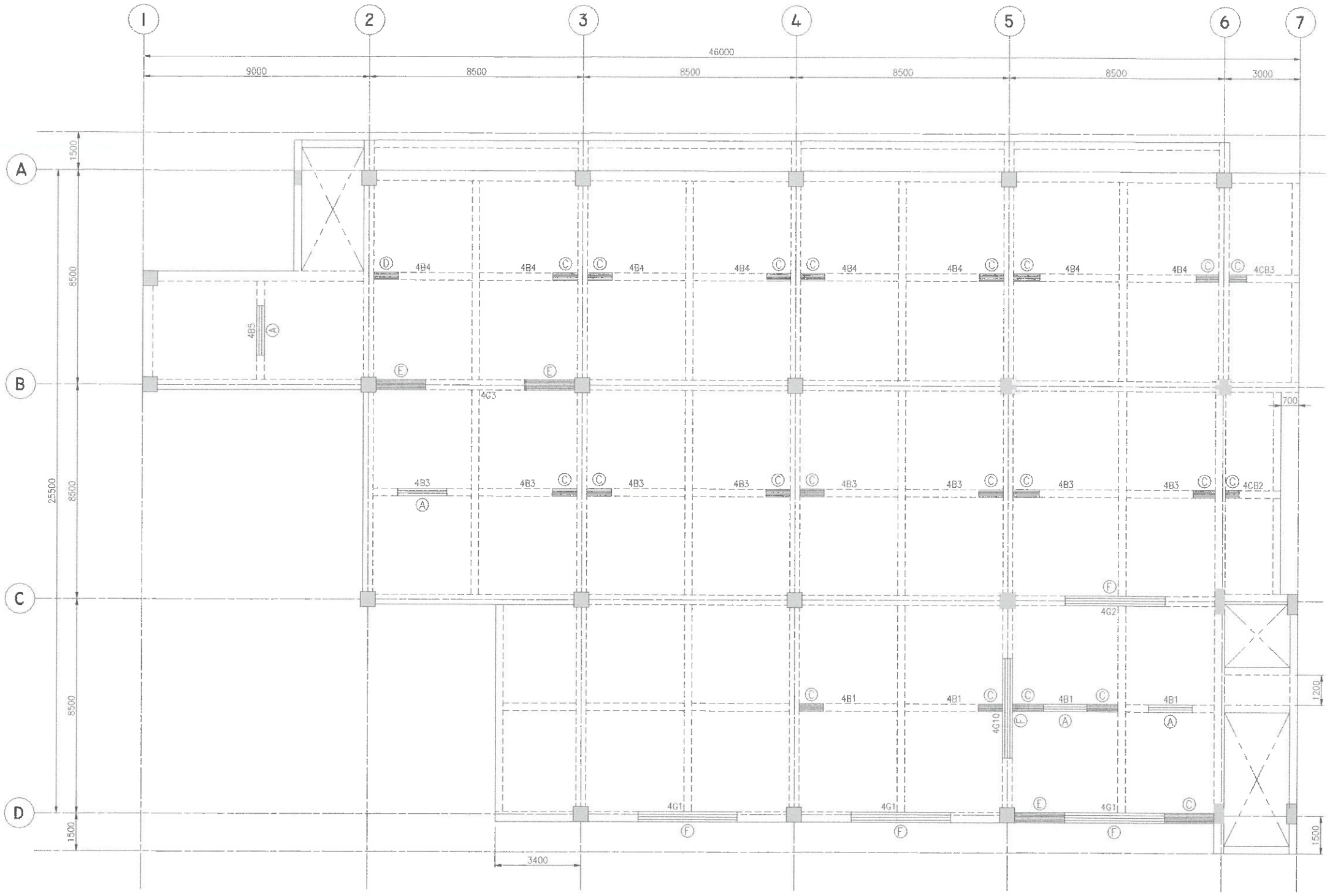
DESIGNED	DATE				
JMBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

PAPER SIZE	SHEET NO.
20X30	S-009
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018



BEAM SCHEDULE	
4G1	450X650
4G2	450X650
4G3	530X650
4G10	450X650
4B1	400X500
4B3	300X500
4B4	300X500
4B5	450X650
4CB2	300X500
4CB3	400X500

LEGEND :

- Ⓐ – 2 LAYERS, 300MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓑ – 1 LAYER, 300MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓒ – 2 LAYERS, 300MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓓ – 1 LAYER, 300MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓔ – 2 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓕ – 2 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ TOP

FOURTH FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT

1 / S-010 SCALE 1:100M

RETROFITTING

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2F LTA Building 138 Perea Street, Legaspi Village, 1229 Makati City, Philippines
Tel. Nos.: +63 2 8935877 Fax No.: +63 2 8935839
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CERTIFIED BY: MAE KAREEN B. MANAGO, ASEP ENGINEER

REG. NO.: 0108971
TIN NO. : 949-936-520-000
PTR NO. : 8122618
DATE : JANUARY 06, 2020
PLACE : MAKATI CITY

OWNER: SOCIAL SECURITY SYSTEM (SSS), EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT: APPROVED BY:

PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING, CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS: FOURTH FLOOR FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT

R.A. 9266 SEC. 33
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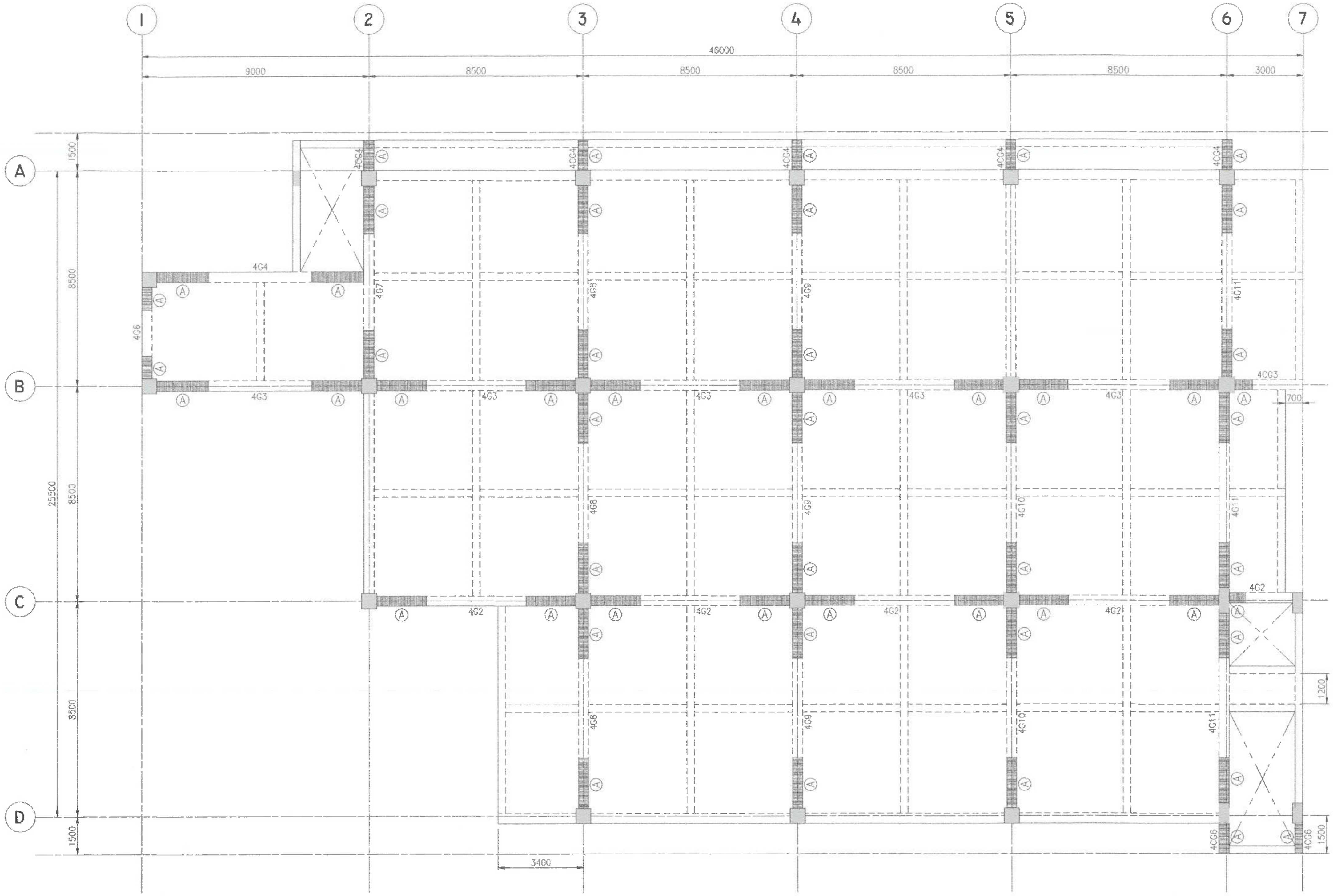
CADD	DATE	NO.	REVISIONS	CHK	DATE	PAPER SIZE: 20X30
RVE	JUNE 2020					SHEET NO.: S-010
DESIGNED	DATE					SCALE: AS SHOWN
JMBP	JUNE 2020					PROJECT NO.: SO-G-18-018
APPROVED	DATE					
ACO	JUNE 2020	0				



FOURTH FLOOR FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT

1 / S-011 SCALE 1:100M

BEAM SCHEDULE	
4G2	450X650
4G3	530X650
4G4	450X650
4G6	530X650
4G7	450X650
4G8	450X650
4G9	450X650
4G10	450X650
4G11	450X650
4CG3	450X650
4CG4	450X650
4CG6	300X500

LEGEND :

(A) - 1 LAYER, U WRAP OF SIKA WRAP 300C

RETROFITTING

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Email: acoconsulting@aco.com.ph Website: www.aco.com.ph

CERTIFIED BY

MAEKAREEN B. MANAGO, ASEP
ENGINEER

REG. NO.: 0108971
TIN NO. : 949-936-520-000
PTR NO. : 8122618
DATE : JANUARY 06, 2020
PLACE : MAKATI CITY

OWNER

SOCIAL SECURITY SYSTEM (SSS)
EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT

APPROVED BY:

PROJECT TITLE/LOCATION

PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING
CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

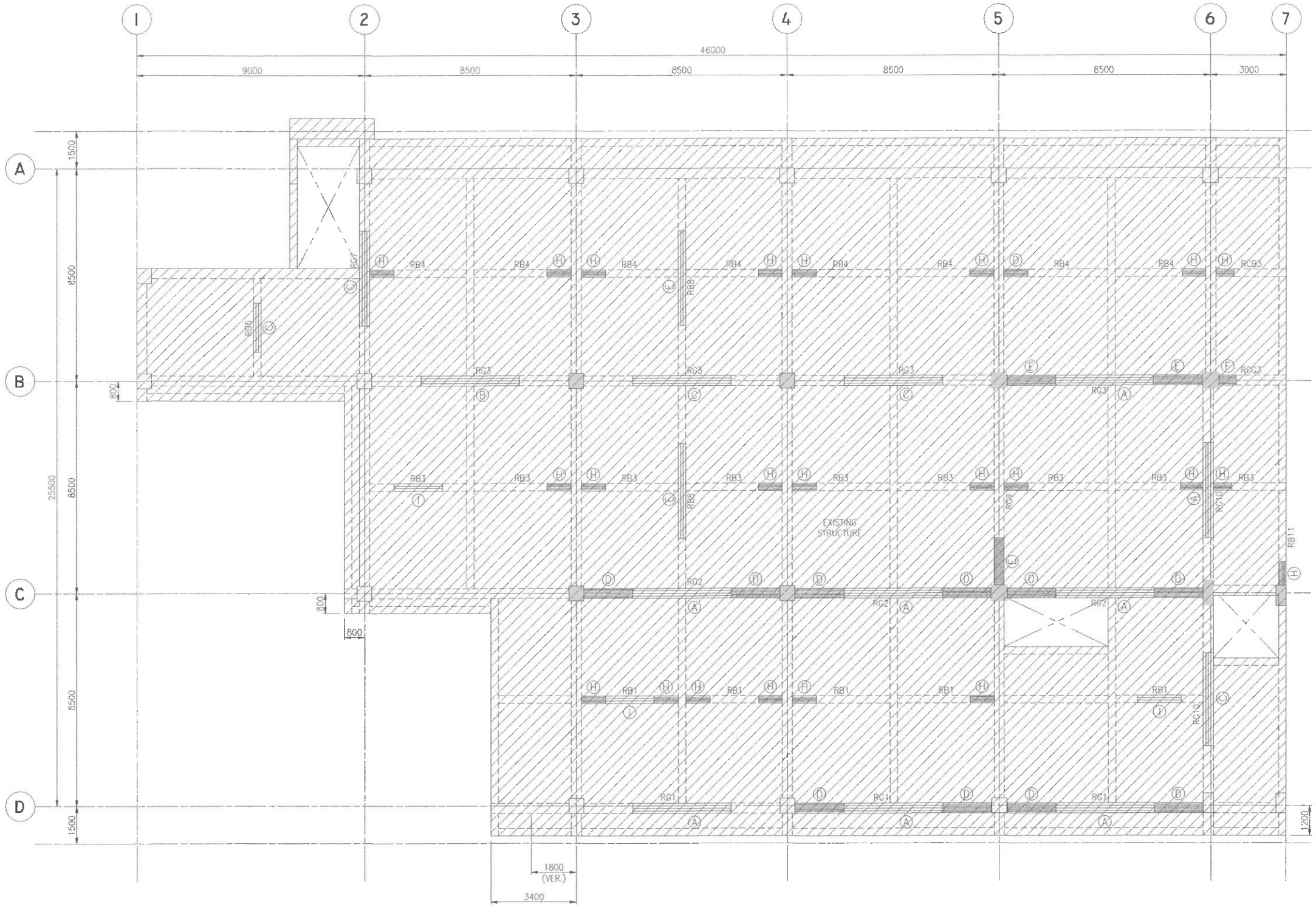
SHEET CONTENTS

FOURTH FLOOR FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT

R.A. 9266 SEC. 33
DRAWINGS AND SPECIFICATIONS AND CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS FOR SERVICE ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF ARCHITECT, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT OR AUTHOR OF SAID DOCUMENTS.

CADD	DATE	NO.	REVISIONS	CHK	DATE
HVE	JUNE 2020				
DESIGNED	DATE				
JMBP	JUNE 2020				
APPROVED	DATE				
ACO	JUNE 2020	0			

PAPER SIZE	SHEET NO.
20X30	S-011
SCALE	PROJECT NO.
AS SHOWN	SO-G-18-018



BEAM SCHEDULE	
RG1	450X650
RG2	450X650
RG3	450X650
RG7	450X650
RG8	450X650
RG9	450X650
RG10	450X650
RCG3	450X650
RB1	400X500
RB3	300X500
RB4	300X500
RB5	450X650
RCB3	400X500

LEGEND :

- Ⓐ – 3 LAYER, 450MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓑ – 2 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓒ – 1 LAYER, 450MM WIDTH, SIKA WRAP 600C @ BOTTOM
- Ⓓ – 1 LAYER, 450MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓔ – 2 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓕ – 3 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓖ – 2 LAYERS, 450MM WIDTH, SIKA WRAP 600C @ TOP W/ 300MM LATERAL STRIP SIKA WRAP
- Ⓗ – 2 LAYERS, 300MM WIDTH, SIKA WRAP 600C @ TOP
- Ⓘ – 2 LAYERS, 300MM WIDTH, SIKA WRAP 600C @ BOTTOM

ROOF DECK FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT

1 / S-012

SCALE 1:100M

RETROFITTING

a.C.ONG CONSULTING INC.
Engineering + Management
ISO 9001:2015 Certified
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EAST AVENUE, DILIMAN, QUEZON CITY

CLIENT: APPROVED BY:

PROJECT TITLE/LOCATION: PROPOSED STRUCTURAL RETROFITTING OF SSS CAGAYAN DE ORO BUILDING
CARMEN PATAG ROAD, CARMEN, CAGAYAN DE ORO CITY

SHEET CONTENTS: ROOF DECK FRAMING PLAN SHOWING BEAMS FOR FLEXURE ENHANCEMENT

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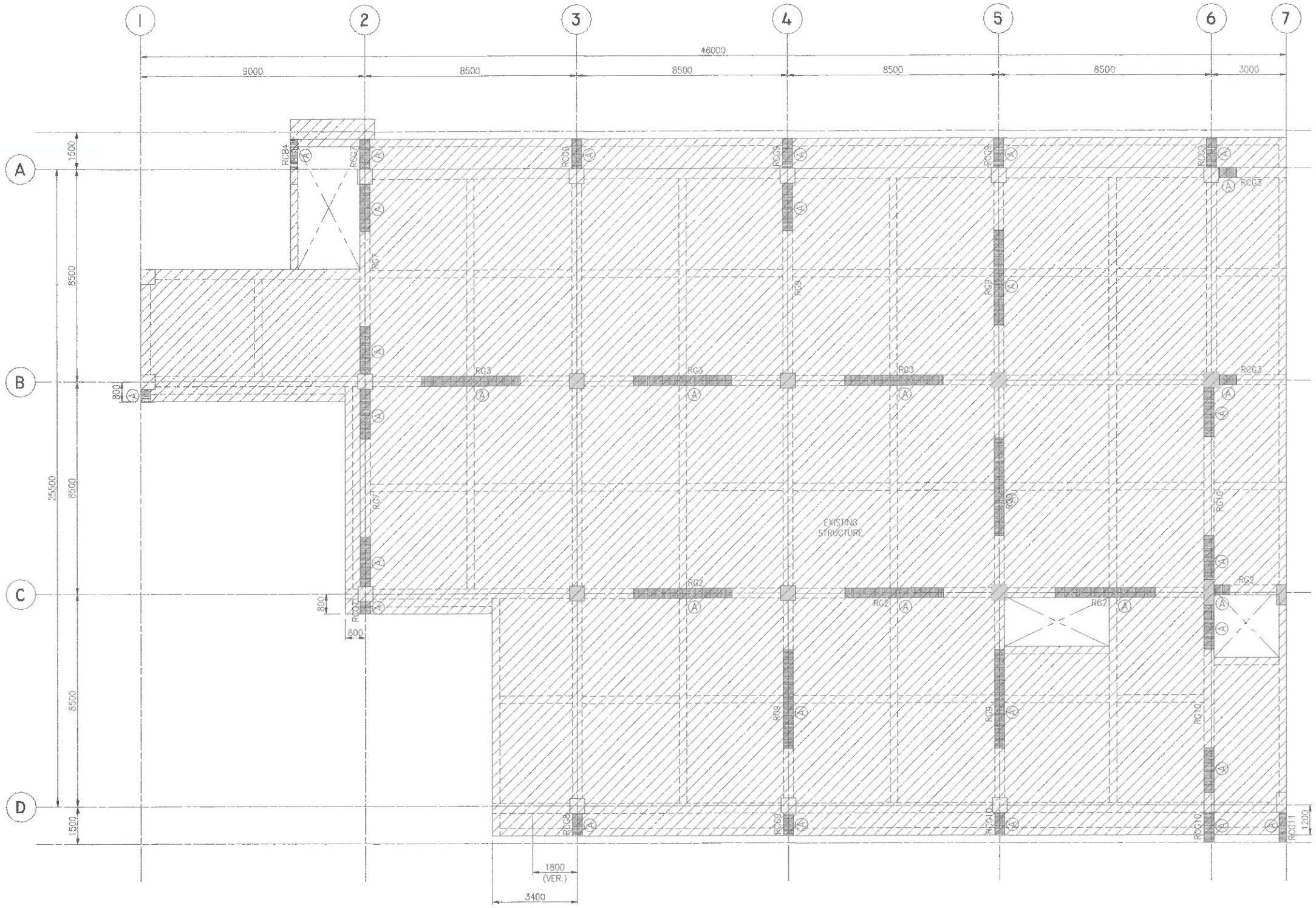

BEAM SCHEDULE	
RG2	450X650
RG3	450X650
RG7	450X650
RG9	450X650
RG10	450X650
RCG3	450X650
RCG7	450X650
RCG8	450X650
RCG9	450X650
RCG10	450X650
RCG11	450X650
RCB4	450X650

ROOF DECK FRAMING PLAN SHOWING BEAMS FOR SHEAR ENHANCEMENT

1 / S-013

SCALE 1:100M

LEGEND :

Ⓐ – 1 LAYER, U WRAP OF SIKA WRAP 300C

RETROFITTING

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