

1.0 STANDARDS AND REFERENCE

- THE FOLLOWING SHALL GOVERN THE DESIGN, FABRICATION AND CONSTRUCTION OF THE PROJECT
- 1.1 NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (NSCP) 2015, VOL. 1, 7TH EDITION
- DESIGN CRITERIA

2.1 LOADINGS

- | | |
|--|-------|
| A. DEAD LOAD | 23.56 |
| CONCRETE | 76.93 |
| STEEL | 16.00 |
| SOL. | |
| LEAD | |
| 16mm THK CHB WALL (both faces balanced) | 3.11 |
| 100mm THK CHB WALL (both faces balanced) | 2.49 |
| B. LIVE LOAD | |

- C. WIND LOAD (NCSF 2018)
 BASIC WIND VELOCITY $V = 26.0$ (31 psf)
 BASIC WIND PRESSURE $P_s = 16.0$ (11 psf)
 WHERE: C_f = VELOCITY COEFFICIENT
 C_{pe} = EXTERNAL PRESSURE COEFFICIENT
 C_{pi} = INTERNAL PRESSURE COEFFICIENT
- D. SEISMIC LOAD (NCSF 2015)

- $V = \frac{W}{V_{max}}$ (DESIGN BASE SHEAR)
- $V_{max} = \frac{W}{\mu_{max}}$ (DESIGN ZONE A)
- WHERE: W = TOTAL WEIGHT OF STRUCTURE
- WHERE: T = NATURAL PERIOD
- WHERE: C = DYNAMIC COEFFICIENT
- I = IMPORTANCE FACTOR = 1.25
- R = NUMERICAL FACTOR = 6.50
- SEISMIC COEFFICIENT = 0.40
- C_v = 0.040
- NEAR SOURCE FACTOR = 3.0 km West Valley Fault

- | 2.2 | | | | |
|--|--|---|---|----------------------|
| MATERIAL DESIGN STRENGTH | | | | |
| | | Z | = | SEISMIC ZONE |
| | | S | = | SOIL TYPE |
| | | | | 6a |
| | | | | N _v = 1.6 |
| | | | | 0.40 (ZONE 4) |
| A. CONCRETE FOR FOOTING, COLUMN, BEAM, RC WALLS, AND SUSPENDED SLABS | | | | |
| B. COMPRESSIVE STRENGTH @ 28 DAYS | | | | |
| C. TENSILE STRENGTH @ 28 DAYS | | | | |
| D. TENSILE SPLITTING STRENGTH @ 28 DAYS | | | | |
| E. TENSILE STRENGTH @ 28 DAYS | | | | |
| F. TENSILE STRENGTH @ 28 DAYS | | | | |
| G. TENSILE STRENGTH @ 28 DAYS | | | | |
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| V. TENSILE STRENGTH @ 28 DAYS | | | | |
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| X. TENSILE STRENGTH @ 28 DAYS | | | | |
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| Z. TENSILE STRENGTH @ 28 DAYS | | | | |
| AA. TENSILE STRENGTH @ 28 DAYS | | | | |
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| AP. TENSILE STRENGTH @ 28 DAYS | | | | |
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| AR. TENSILE STRENGTH @ 28 DAYS | | | | |
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| DZ. TENSILE STRENGTH @ 28 DAYS | | | | |
| EA. TENSILE STRENGTH @ 28 | | | | |

- 3.0 IN THE INTERPRETATION OF THE DRAWING, UNNOTED DIMENSIONS SHALL GOVERN AND DISTANCES AND SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
- 4.0 IN REFERENCE TO OTHER DRAWINGS, SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS IN THE FLOOR SLABS, OPENING IN THE WALLS AND SLABS, INTERIOR PARTITIONS, LOCATION OF DOORS ETC.
- 5.0 IN CASE OF DISCREPANCIES AS TO THE EXIST'G DIMENSIONS, AND RELATIONS BETWEEN THE STRUCTURAL PLANS, ARCHITECTURAL DRAWINGS, THE CONTRACTOR SHALL NOTIFY BOTH THE STRUCTURAL ENGINEER AND THE ARCHITECT.
- 6.0 ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ACI 318M BUILDING CODE REQUIREMENTS FOR CONCRETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE LATEST EDITION OF THE BUILDING CODE SPECIFICATION (9th EDITION IN 80 PARS) SO THEY NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENT.
- 7.0 AMERICAN SOCIETY FOR TESTING MATERIALS.
- 8.0 CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. MODIFIED TYPICAL DETAILS ARE DIRECTED TO MEET SPECIAL CONDITIONS.
- 9.0 SHOP DRAWINGS WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEEL, MISCELLANEOUS IRON, PRECAST CONCRETE, ETC. SHALL BE SUBMITTED FOR ENGINEERS' APPROVAL BEFORE FABRICATION.
- 10.0 CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEOUS CURBS, SLEES, SITUOUS, S. EQUIPMENTS AND MECHANICAL DRAWINGS, BASES THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS.
- 11.0 ALL RESULTS OF MATERIAL TESTING FOR CONCRETE, REINFORCING BARS, A STRUCTURAL STEEL, MUST BE NOTED & APPROVED BY THE STRUCTURAL DESIGNER.

1. ALL CONCRETE SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH AT THE END OF 1 WEEK EIGHT (8) DAYS W/ CORRESPONDING MAXIMUM SIZE AGGREGATE & SLUMP AS FOLLOWS:

- | LOCATION | 28 DAYS STRENGTH | MAX. SIZE OF AGGREGATE | MAX. SLUMP |
|------------------------|----------------------|------------------------|------------|
| COLUINS | 27.4 MPa (6,000 psi) | 20mm | 100mm |
| BEAMS, SUSPENDED SLABS | 27.9 MPa (6,200 psi) | 20mm | 100mm |
| SLAB ON FILL | 20.7 MPa (6,000 psi) | 20mm | 100mm |
| CONCRETE WALLS | 20.7 MPa (6,000 psi) | 20mm | 100mm |

3. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION, RE-ALIGNING OR PLACING SHALL BE DONE FREELY, WITH NO BLAGGES, BUCKLE OR OTHER BARBAROUS, WHEN PLACING CONCRETE FROM EXCESSIVE HEIGHTS, PLACING SHALL BE DONE IN SUCH A MANNER THAT THE MINIMUM OF SEPARATION IN WHICH CASE THE SHALL NOT EXCEED SIX (6) METERS OR AGGREGATE LENGTH.
4. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS DURING PLACING OF CONCRETE. CONCRETE SHALL BE PLACED IN SUCH A MANNER THAT THE VIBRATORS ARE EXTREMELY DIFFICULT TO ACCESS/REACH.
5. ALL ANCHOR BOLTS, JOINTS, AND OTHER FIXINGS SHALL BE PROPERLY POSITIONED & SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
6. ALL CONCRETE SHALL BE KEPT MOIST FOR MINIMUM OF SEVEN CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF "WET BURLAP", FOG SPRAYING DURING COMPOUNDING OR OTHER APPROVED METHODS.

7. STRIPPING OF FORMS AND SHOES: _____ 24 HRS.
FOUNDATION _____
SUSPENDED SLAB EXCEPT WHEN ADDITIONAL LOADS ARE IMPOSED _____ 7 DAYS
WALLS _____ 21 DAYS
BEAMS _____ 14 DAYS
COLUMNS _____ 21 DAYS
8. THE CONTRACTOR SHALL SUBMIT THE SCHEDULE OF POURING AND LOCATION OF THE CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER AT LEAST (A) DAYS PRIOR TO THE POURING FOR APPROVAL.

9. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE FORMS AND SHORINGS UNTIL CONCRETE MEMBERS HAVE ATTAINED THEIR WORKING CONDITION AND STRENGTH.

NOTES ON FOOTINGS

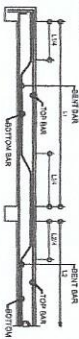
- FOOTING SHALL BE DESIGNED TO WITHSTAND ALL ALLOWABLE EARTH-BEARING PRESSURES OF 10-14 PSI (300 KPa) AND BE PROTECTED AGAINST ALL TYPES OF CORROSION. THE DESIGNER SHALL PROVIDE FOR UNIFORMED AND CONFIRM ACTUAL BEARING CAPACITY OF SOIL BEFORE REPORTING CONCURRE.
- FOOTING SHALL REST AT LEAST 18 IN BELOW NATURAL GRADE LINE UNLESS OTHERWISE INDICATED BY NOTES. NO FOOTING SHALL REST ON FILL.
- MINIMUM CONCRETE PROTECTION FOR REINFORCEMENTS SHALL BE 75MM CLEAR FOR FORMWORK.
- CONCRETE DEPOSITED THE GROUND AND 50mm FOR CONCRETE DEPOSITED AGAIN A FORMWORK.
- IN CASES WHERE THE ACTUAL ROL CONDITION IS SUCH THAT THE MINIMUM ALLOWABLE SOIL PRESSURE OF 160-Psi (3,000 kPa) CAN NOT BE ATTAINED THE STRUCTURAL ENGINEER MUST INFORMED FOR PROPER REDRESS OF FOOTING DIMENSION.

NOTES ON REINFORCEMENT

- [illegible]

NOTES ON CONCRETE SLABS

- ALL SLAB REINFORCEMENTS SHALL BE 20mm CLEAR MINIMUM FROM BOTTOM AND FROM THE TOP OF SLAB.
- UNLESS OTHERWISE SHOWN, REINFORCEMENT IN CONTINUOUS ELEVATED SLAB SHALL BE C AS FOLLOWS:

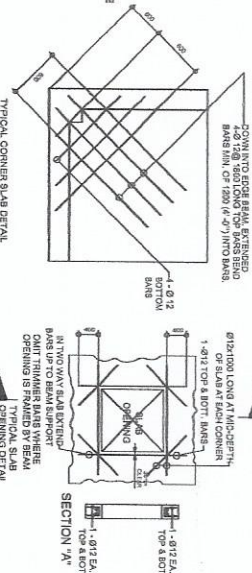


FOR SLABS

3. IF SLABS ARE REINFORCED BOTHWAYS, BARS ALONG THE SHORTER SHALL BE PLACED BELOW THOSE ALONG THE LONG SPAN AT THE CL AND OVER THE LONGER SPAN FOR REINFORCING BARS NEAR THE SUPPORTS. THE SPACING OF THE BARS AT THE COLUMN STRIPS SH BE MORE THAN ONE AND A HALF (1 1/2) SLAB THICKNESSES.
4. TEMPERATURE BARS FOR SLAB SHALL BE GENERALLY PLACED NEAR FACE IN TENSION AND SHALL NOT BE LESS THAN 0.0025 X GROSS CROSS-SECTIONAL AREA (A) OF THE SLAB (SEE SCHEDULE E BELOW).

SCHEDULE OF MINIMUM SLAB REINFORCEMENT THICKNESSES	
THICKNESSES	MINIMUM TEMPERATURE BARS
100 mm	15mm @ 300mm EACH WAY
125 mm	10mm @ 300mm EACH WAY
150 mm	10mm @ 300mm EACH WAY
175 mm	10mm @ 300mm EACH WAY
200 mm	10mm @ 300mm EACH WAY

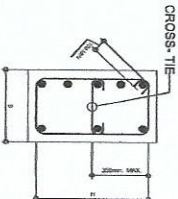
5. UNLESS OTHERWISE NOTED IN THE PLAN, ALL REINFORCED SLABS SHALL BE 150MM THICK. PROVIDE 10MM ØC. EACH-WAY, TO CENTER OF SLAB AND CONSTRUCTION JOINTS FOR THE SAME SHALL NOT BE LESS THAN 3.65 METER (APART).
6. PROVIDE EXTRA REINFORCEMENTS FOR CONCRETE SLAB AT TWO JOINTS. PROVIDE CONCENTRICALLY BARS AS SHOWN BELOW.
7. CONCRETE SLAB REINFORCEMENTS SHALL BE PROPERLY SUPPORTED WITH 10mm ØC STEEL CHAIR OR APPROVED EQUIVALENT SPACED AT 1 METER ON CENTER BOTHWAYS



NOTES ON COLUMNS

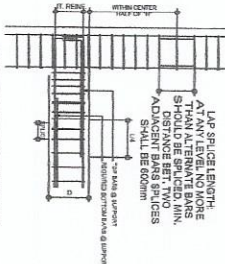
1. PROVIDE EIGHT SETS OF TIES AT 100mm O.C. FOR TIED COLUMN REINFORCEMENT ABOVE AND BELOW BEAM/COLUMN CONNECTIONS FOR A DISTANCE FROM FACE OF CONNECTION EQUAL TO THE GREATER OF THE OVERALL THICKNESS OF COLUMN, 1/6 THE CLEAR HEIGHT OF COLUMN OR 450mm.
2. COLUMN TIES SHALL BE PROTECTED EVERYWHERE BY A COVERING OF CONCRETE CAST MONOLITHICALLY WITH THE CORE WITH THE MINIMUM THICKNESS OF 40mm AND NOT LESS THAN 40 TIMES THE MAXIMUM SIZE OF COARSE AGGREGATE IN MILLIMETERS.

4. WHERE A CORNER CHANGE IN SIZE, GEOMETRICAL REINFORCEMENTS SHALL BE OFFERED AT A SLOPE OF NOT MORE THAN 45° AND EXTRA BARS (IES AT 100mm SHALL BE PROVIDED THRU OUT THE OFFSET REGION.
5. COLUMN REINFORCEMENT SHALL BE MADE WITH THE CENTER BAR OF COLUMN BEING PROVIDED WITH 90° BENDS AT THE JOINTS. THE JOINTS SHALL BE PROVIDED WITH MORE THAN 4 REINFORCE BARS BE WELDED OR MECHANICALLY SPICED AT ANY LEVEL AND THE VERTICAL DISTANCES BETWEEN THESE WELDS OR SPICES OF ADJACENT BARS IS NOT LESS THAN 600mm.



NOTES ON BEAMS AND GIRDERS

1. UNLESS OTHERWISE NOTED, IN PLANS, CAMBER ALL BEAMS AND GIRDES AT LEAST 6 mm/2 FOR EVERY 4.50M OF SPAN, EXCEPT CANTILEVERS FOR WHICH THE CAMBER SHALL BE AS NOTED IN PLAN OR AS ORDERED BY THE ENGINEER BUT IN NO CASE LESS THAN 20mm FOR EVERY 3.0M OF FREE SPAN.
2. TYPICAL BARS BENDING AND CUTTING DETAILS FOR BEAMS SHALL BE AS SHOWN IN FIG. B-1.



TYPICAL COLUMN SECTION SHOWING
 DOWELS AND TIES

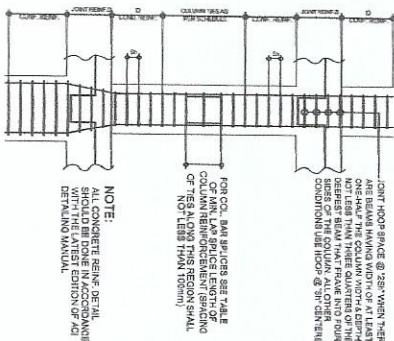


FIG. B-1

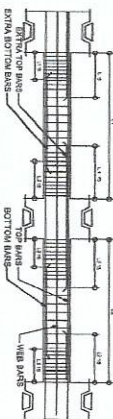
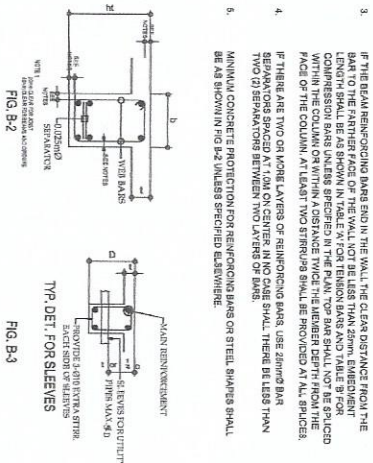


TABLE A		TABLE B	
EMBEDMENT LENGTHS AND LAPPED SPICES IN MILLIMETERS		EMBEDMENT LENGTHS AND LAPPED SPICES IN MILLIMETERS	
BAR SIZE (DEVELOPMENT LENGTH)	EMBEDMENT LENGTH	BAR SIZE (DEVELOPMENT LENGTH)	EMBEDMENT LENGTH
10mm Ø	300	10mm Ø	225
12mm Ø	360	12mm Ø	270
16mm Ø	480	16mm Ø	360
20mm Ø	600	20mm Ø	450
25mm Ø	750	25mm Ø	560
32mm Ø	960	32mm Ø	700

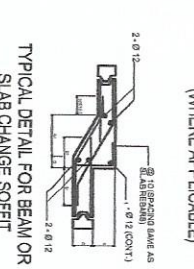
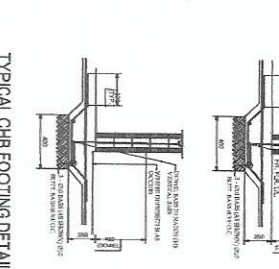
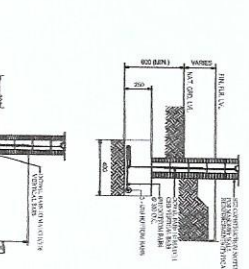
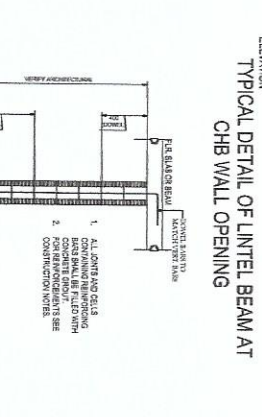
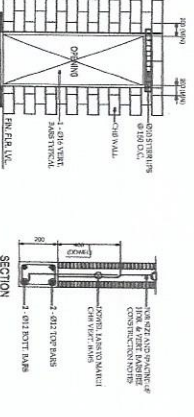
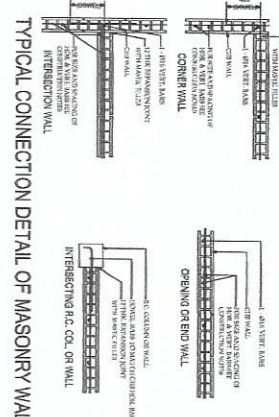


NOTES ON CONCRETE HOLLOW BLOCK WALLS

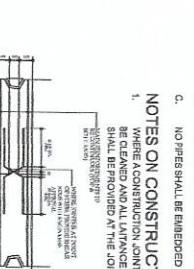
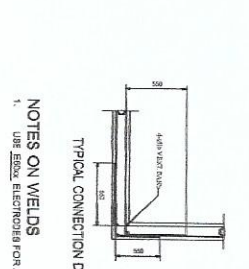
- UNLESS OTHERWISE SHOWN IN PLANS, ALL CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCKS SHALL BE REINFORCED AS SHOWN IN THE SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT.
- PROVIDE 10mm x 30mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 6mmØ TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCKS TERMINATE AND AT STRUCTURAL PLANS.

SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT	
BLOCK THICKNESS	REINFORCEMENT
75 mm	Vertical
125 mm	Vertical
150 mm	Vertical
200 mm	Vertical

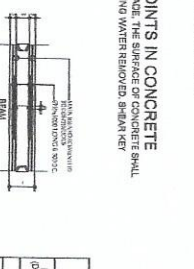
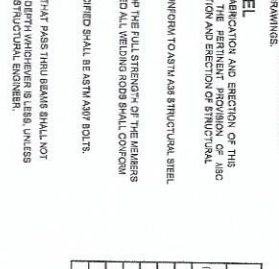
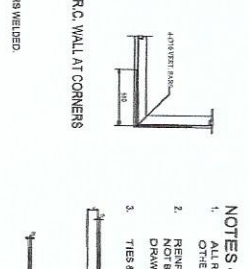
TABLE C	
REINFORCING CONCRETE LINTEL BEAM IN CONCRETE BLOCK WALLS	
CLAS. LENGTH (mm)	REINFORCEMENT
1.50m	1-Ø 10
1.80m	1-Ø 10
2.10m	1-Ø 10
2.40m	1-Ø 10
2.70m	1-Ø 10
3.00m	1-Ø 10
3.30m	1-Ø 10
3.60m	1-Ø 10
3.90m	1-Ø 10
4.20m	1-Ø 10



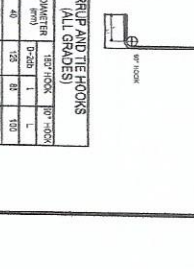
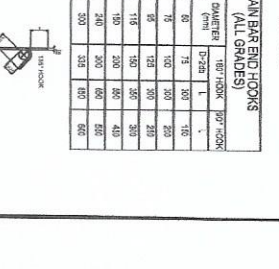
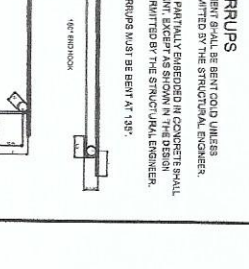
NOTES ON CONCRETE WALLS	
1.	ALL WALLS SHALL BE REINFORCED ACCORDING TO THE FOLLOWING SCHEDULE OF WALL REINFORCEMENT UNLESS OTHERWISE INDICATED IN THE PLANS.
2.	REINFORCING BARS SHALL HAVE 30mm CLEAR CONCRETE COVER FROM FACE OF WALL UNLESS OTHERWISE SPECIFIED. MINIMUM COVER SHALL BE 20mm FOR EXPOSED BARS AT CORNERS WHERE THE MINIMUM SHALL BE 30mm CLEAR.
3.	CARRY VERTICAL BARS AT LEAST 600mm ABOVE AND BELOW LANT. TO PROVIDE FOR LAPSPICE WHEN NECESSARY STOP AT 50mm BELOW FOR SLAB OR BOLD BAND WHERE THE WALL ENDS VERTICAL AND HORIZONTAL BARS SHALL BE SPICED BY LAPSPICE AT LEAST 500mm. PROVIDE 10mm x 30mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 6mmØ TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCKS TERMINATE AND AT STRUCTURAL PLANS.
4.	UNLESS OTHERWISE NOTED IN THE PLANS, ALL OPENINGS IN WALLS 250mm OR MORE IN WIDTH SHALL BE REINFORCED WITH 4-12mm WITH 6mmØ TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCKS TERMINATE AND AT STRUCTURAL PLANS.



NOTES ON CONSTRUCTION JOINTS IN CONCRETE	
1.	ALL CONSTRUCTION JOINTS SHALL BE REINFORCED WITH 4-12mm WITH 6mmØ TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCKS TERMINATE AND AT STRUCTURAL PLANS.
2.	REINFORCING BARS SHALL HAVE 30mm CLEAR CONCRETE COVER FROM FACE OF WALL UNLESS OTHERWISE SPECIFIED. MINIMUM COVER SHALL BE 20mm FOR EXPOSED BARS AT CORNERS WHERE THE MINIMUM SHALL BE 30mm CLEAR.
3.	CARRY VERTICAL BARS AT LEAST 600mm ABOVE AND BELOW LANT. TO PROVIDE FOR LAPSPICE WHEN NECESSARY STOP AT 50mm BELOW FOR SLAB OR BOLD BAND WHERE THE WALL ENDS VERTICAL AND HORIZONTAL BARS SHALL BE SPICED BY LAPSPICE AT LEAST 500mm. PROVIDE 10mm x 30mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 6mmØ TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCKS TERMINATE AND AT STRUCTURAL PLANS.
4.	UNLESS OTHERWISE NOTED IN THE PLANS, ALL OPENINGS IN WALLS 250mm OR MORE IN WIDTH SHALL BE REINFORCED WITH 4-12mm WITH 6mmØ TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCKS TERMINATE AND AT STRUCTURAL PLANS.



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2.	REINFORCING BARS SHALL HAVE 30mm CLEAR CONCRETE COVER FROM FACE OF WALL UNLESS OTHERWISE SPECIFIED. MINIMUM COVER SHALL BE 20mm FOR EXPOSED BARS AT CORNERS WHERE THE MINIMUM SHALL BE 30mm CLEAR.
3.	CARRY VERTICAL BARS AT LEAST 600mm ABOVE AND BELOW LANT. TO PROVIDE FOR LAPSPICE WHEN NECESSARY STOP AT 50mm BELOW FOR SLAB OR BOLD BAND WHERE THE WALL ENDS VERTICAL AND HORIZONTAL BARS SHALL BE SPICED BY LAPSPICE AT LEAST 500mm. PROVIDE 10mm x 30mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 6mmØ TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCKS TERMINATE AND AT STRUCTURAL PLANS.
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GENERAL NOTES

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Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceutical for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cell CY 2022 (Phase 3)

FOUNDATION PLAN

PREPARED BY

Engr. ROSALINDO B. REJAS
Division Engineer, Division of Engineering & Technology

RECOMENDADO APROVAL.

Me MARIA TERESA L. BORRAS
Encargada IFS

Enc ENRIQUE ARTURO F. MULLER
OC 989 B66

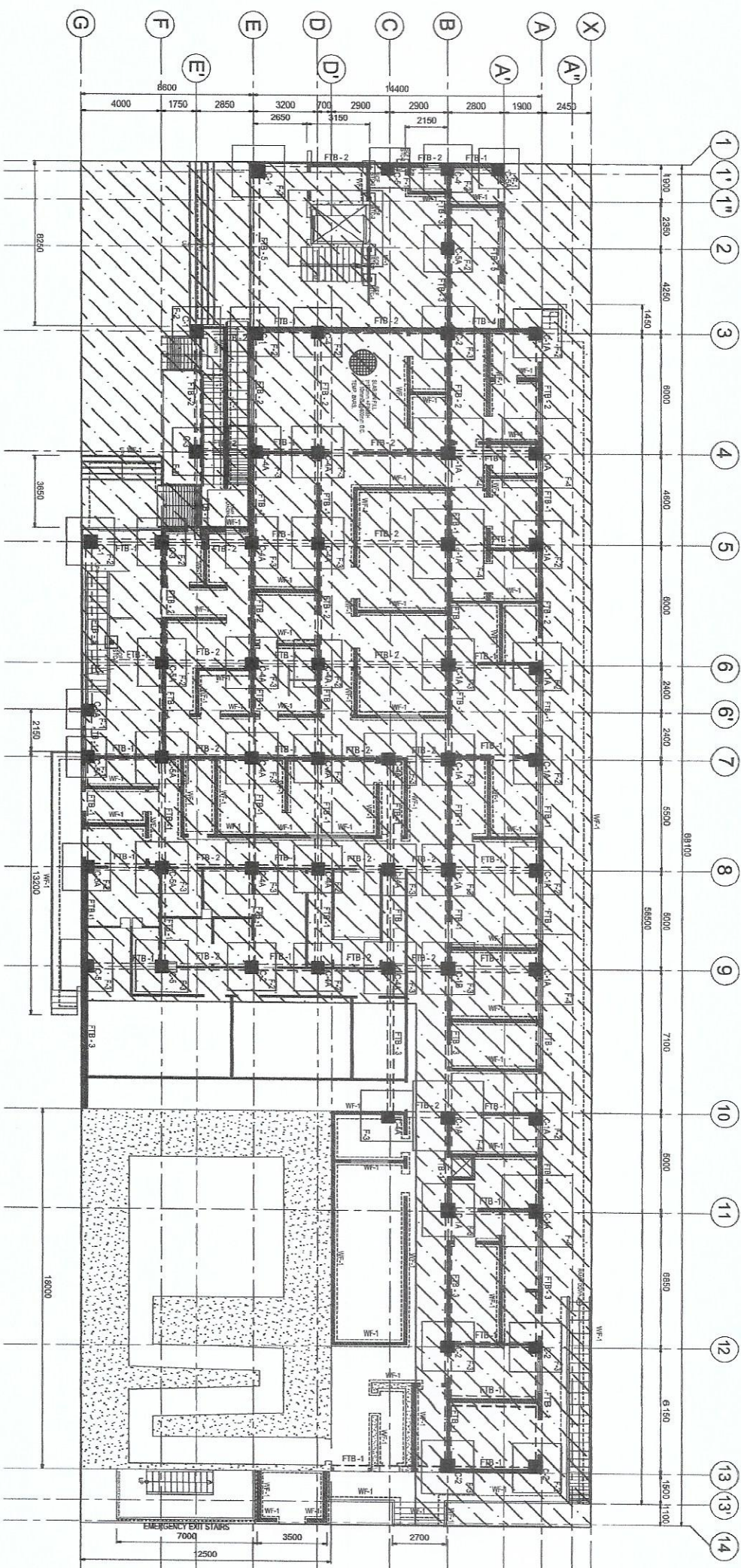
PRECEDOSA CORAZON B. PABROA, Ph. D. VALLE RIE ANDY SIMMONS, Ph. D.

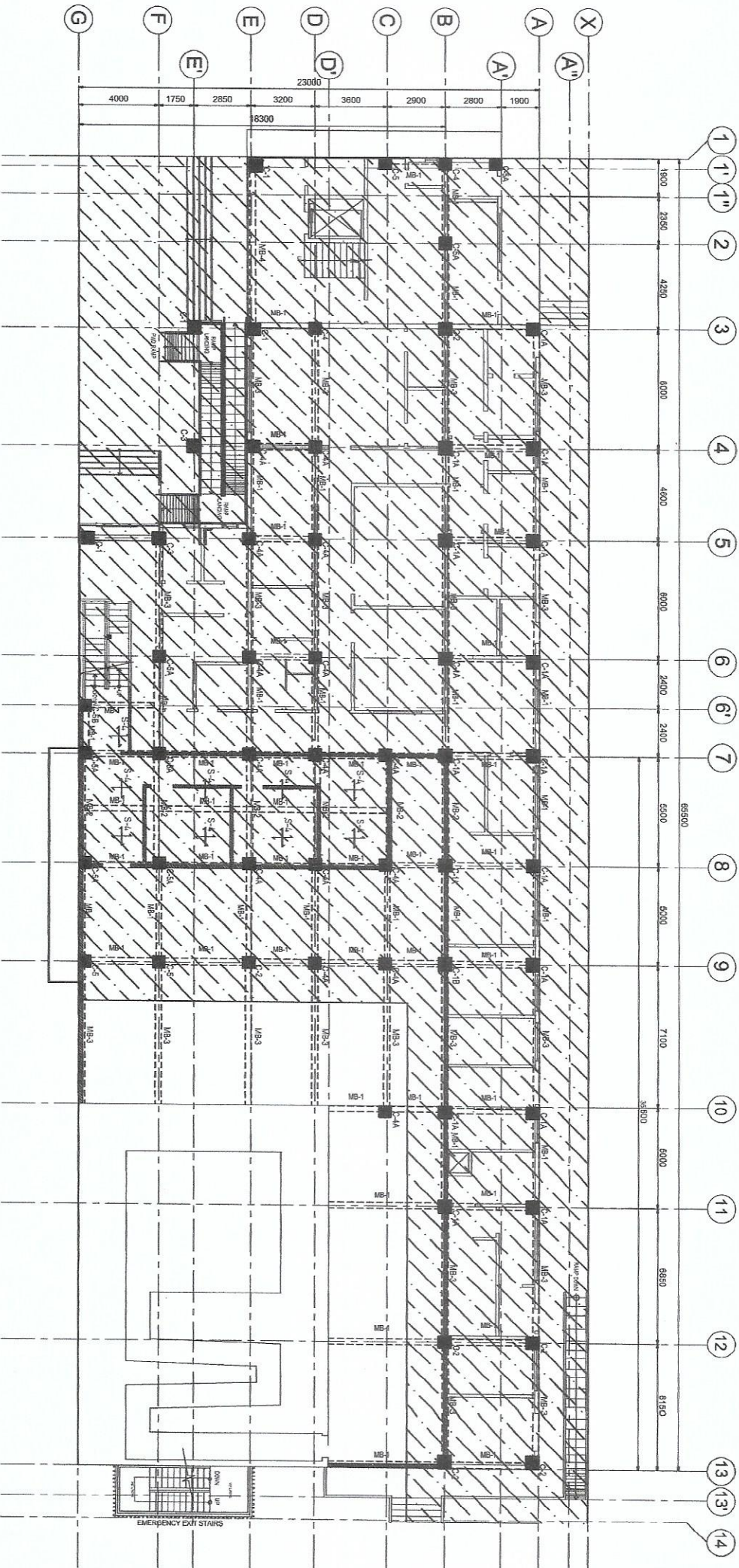
APPROVED BY

CARLO A. ARCILLA, Ph. D.
Director

DRAWN BY

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1 MEZZANINE FRAMING PLAN
S-4 SCALE: 1/8" = 1'-0"



Republic of the Philippines
DEPARTMENT OF SCIENCE AND TECHNOLOGY
PHILIPPINE NUCLEAR RESEARCH INSTITUTE
CORNOWALL TOWNHOUSE, DAMAN QUEZON CITY

PROJECT: Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceutical for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cell CV 2022 (Phase 3)

SHEET CONTENT: MEZZANINE FRAMING PLAN

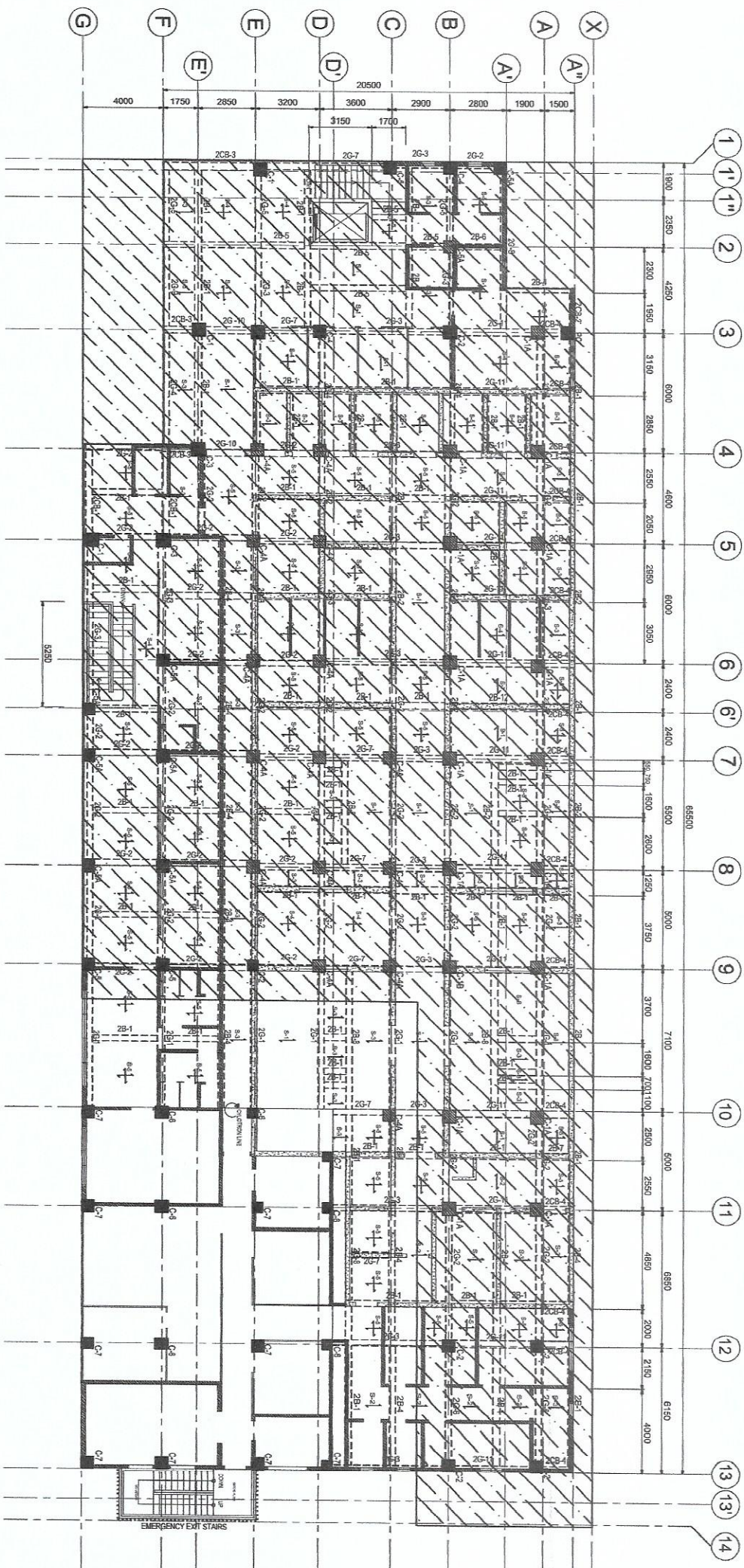
PREPARED BY: ENGR. ROSALYN B. REYES
ENGR. ANDREW C. BARRERA
ENGR. M. A. TES

REVISIONS: MARIA TERESA L. BOCERAS
PRECIOUS CORAYON B. PABROX, Ph.D.
VALLERIE MONTGOMERY, Ph.D.

APPROVED BY: CARLO A. ARCILLA, Ph.D.
Director

DRAWN BY: S-4
CHECKED BY: DATE: PROJECT NO.:

WALL LEGENDS	
	100mm R.M. 0.05% FLD. CHB W/ 10mm ØB.F. REBAR @ 0.40m O.C. B.V.
	200mm R.M. 0.05% FLD. CHB W/ 10mm ØB.F. REBAR @ 0.40m O.C. B.V.
	REINFORCED CONCRETE WALL
	12mm IS TAPERED SLAB CLIMB WALL
	12mm IS STEEL JOINT WALL



1 SECOND FLOOR FRAMING PLAN
S-5



Republic of the Philippines
DEPARTMENT OF SCIENCE AND TECHNOLOGY
PHILIPPINE NUCLEAR RESEARCH INSTITUTE
COMANDANTE ALVARO DE LA MORA, DILIGEN CITY

PROJECT: Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceutical for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cell CV 2022 (Phase 3)

SHEET CONTENT: SECOND FLOOR FRAMING PLAN

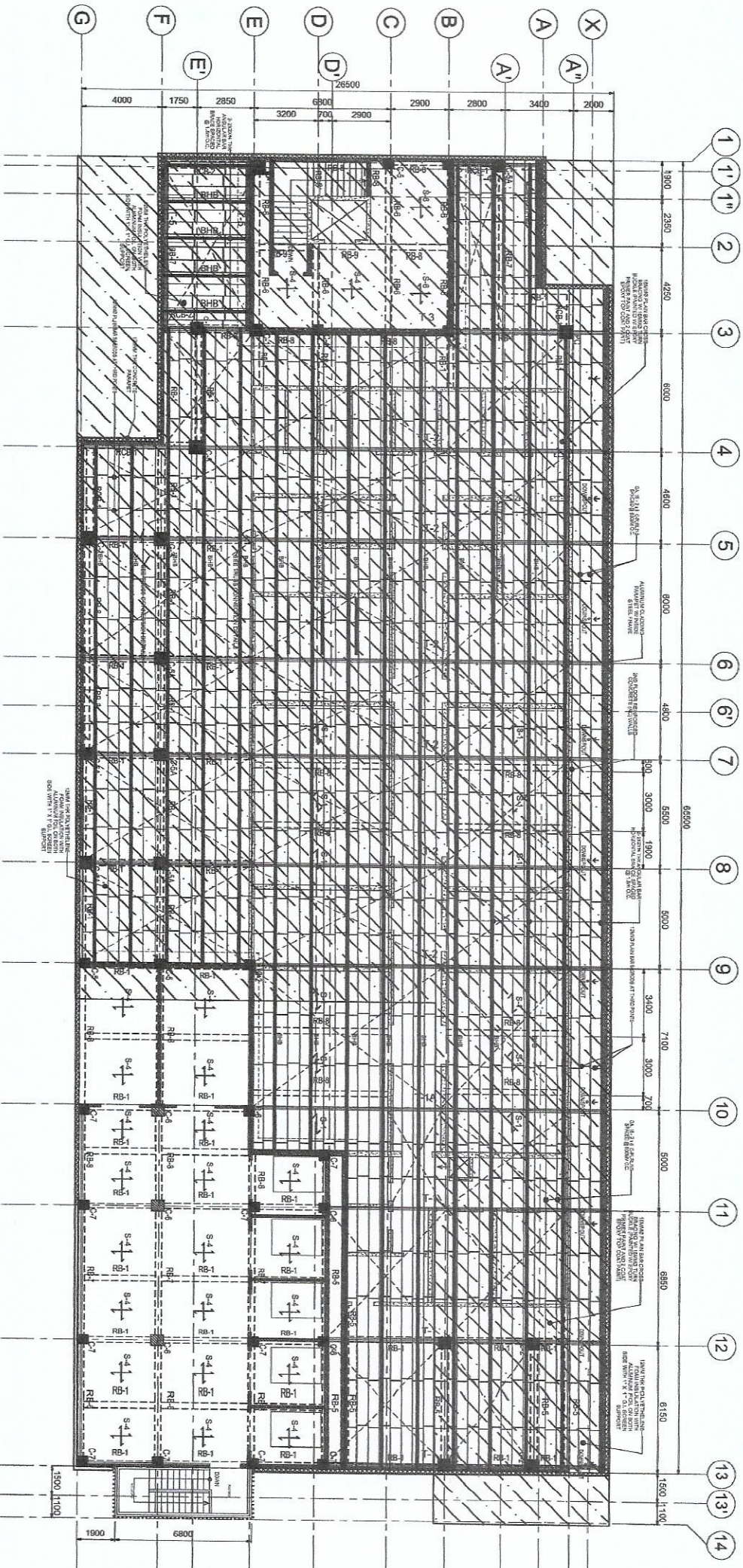
DESIGNED BY: ENGR. ROSALINDA REYES
ENGR. MODRIN C. BARRERA
ENR 1153

REVIEWING APPROVAL: MARIA TERESA BARRERA
PRECIOUSA ROSA DON B. PABRORA, Ph. D.
VALERIE ANN MASON, Ph. D.

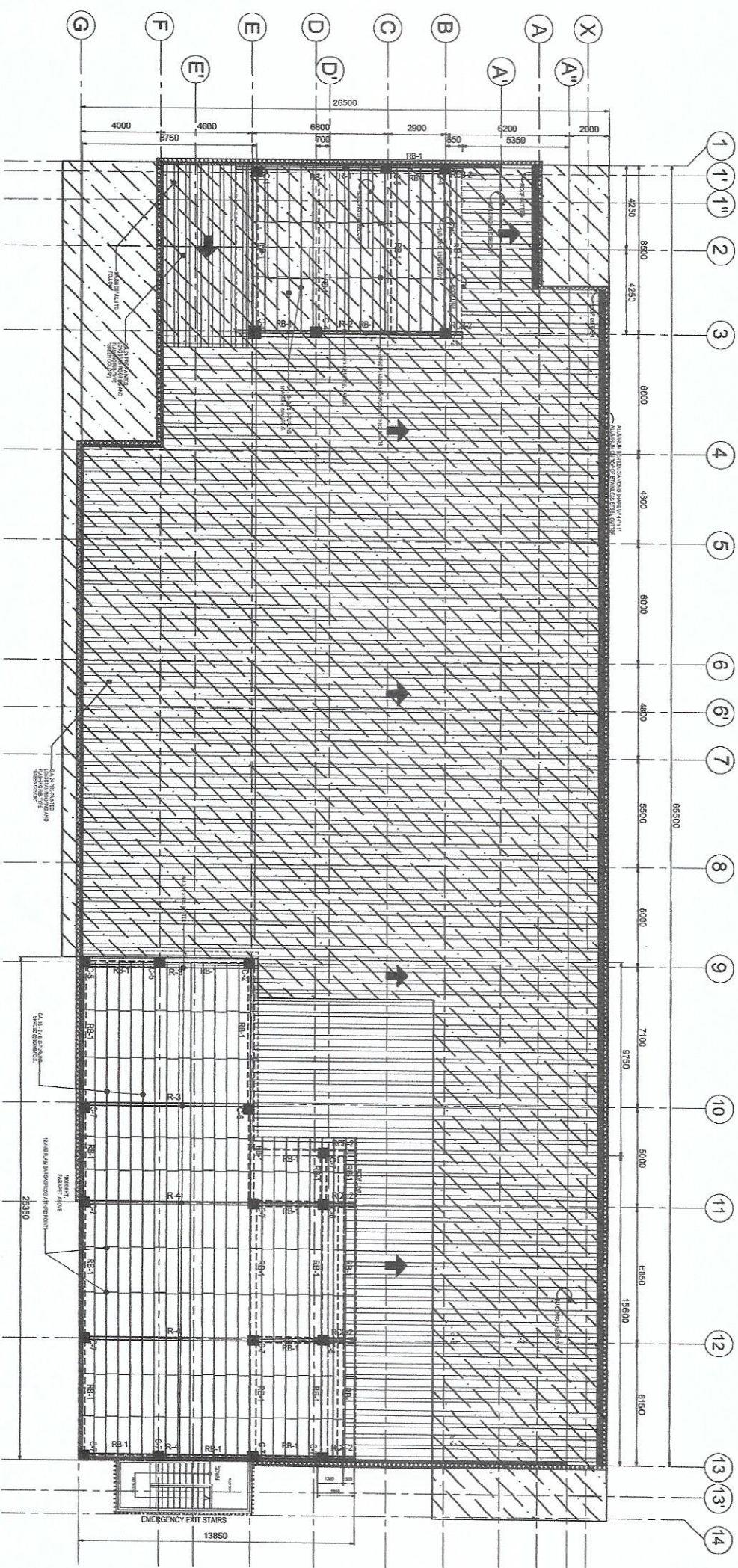
APPROVED: CARLA A. ABULLA, MD.
DR. CARLA A. ABULLA, MD.

DRAWN BY: S-5

CHECKED BY: DATE: PAGE NO.:



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S-6
SCALE
MAIN ROOF FRAMING PLAN
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1 ROOF DECK FRAMING PLAN
SCALE 1/8" = 1'-0"

 Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, CALAMANG, QUEZON CITY		PROJECT: Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceutical for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cell (CY 2022 (Phase 3))		SHEET CONTENT: ROOF DECK FRAMING PLAN		PREPARED BY: Engr. ROSALIND B. RELAS Senior Structural Engineer Engr. ANDREW C. CARRERA Engineer's ESS		REVIEWING APPROVAL: Mr. MARK L. BORDAS Engr. ABRAHAM S. SANTI Engr. VALERIE M. RAMOSON, Ph.D. Chief Engineer		APPROVED BY: CARLO A. CELIA, Ph.D. Director		DRAWN BY: CHECKED BY: DATE: PANEL NO.: S-7		SHEET NO.: S-7	
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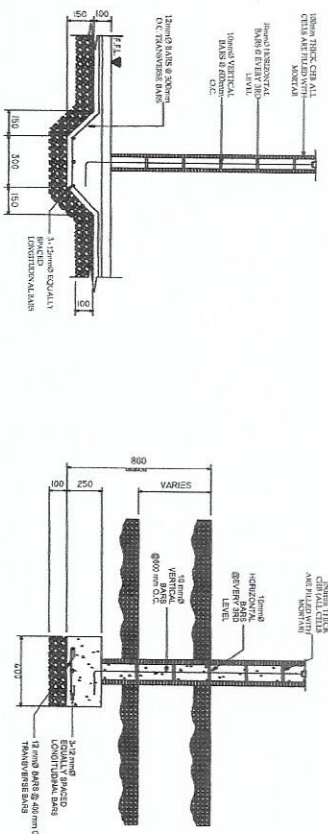
SCHEDULE OF COLUMNS

LEVEL	C-1	C-1A	C-2	C-3	C-4	C-4A	C-5	C-5A	C-6	C-7	PC-1
ROOF BEAM 1 TO ROOF BEAM 2		N/A		N/A		N/A		N/A			N/A
SECOND FLOOR TO ROOF BEAM 1		N/A				N/A		N/A			
FROM FOOTING TO SECOND FLOOR											

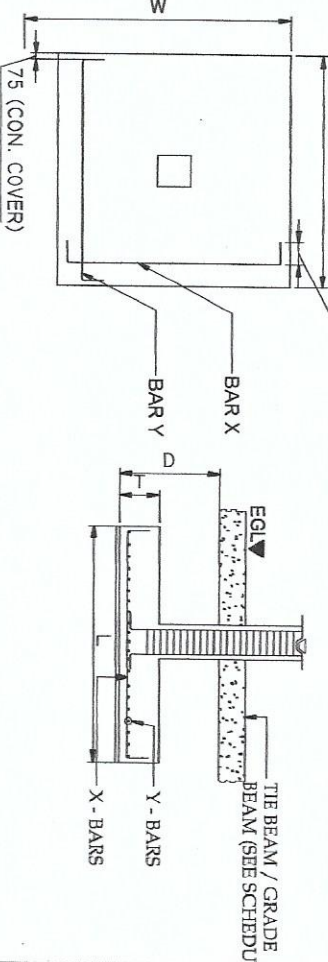
SCHEDULE OF FOOTINGS

MARK	FOOTING SECTIONS (MM)				REINFORCEMENT	
	L	W	T	D	ALONG X-Axis	ALONG Y-Axis
F-1	2000	2000	400	1500	10 - 25mmØ	10 - 25mmØ
F-2	2400	2400	450	1500	12 - 25mmØ	12 - 25mmØ
F-3	2600	2600	500	1500	13 - 25mmØ	13 - 25mmØ
F-4	3500	3500	650	1500	21 - 25mmØ	21 - 25mmØ

DETAIL OF WALL FOOTING

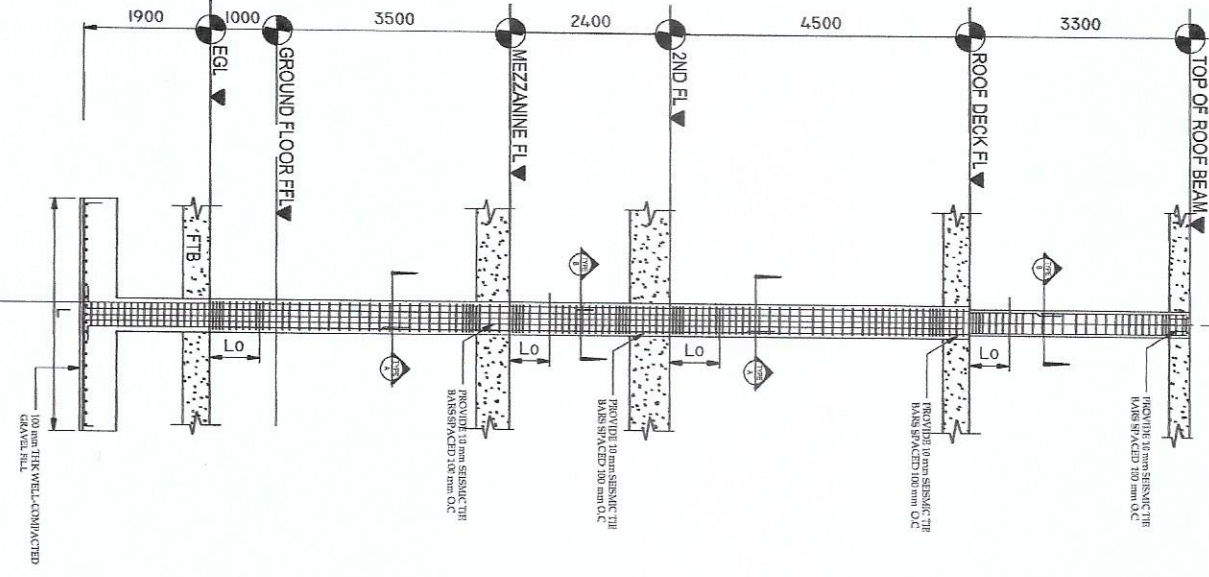


NOTE: 300MM (90° BEND)



TYPICAL FOOTING DETAIL

REFERENCE DETAIL ELEV. OF COLUMN



SCHEDULE OF FOOTING TIE BEAMS

MARK	SIZES (MM)		REINFORCEMENT BAR			BAR ARRANGEMENT			STIRRUPS SIZE AND SPACING	REMARKS
	B	D	BAR LAYER	LEFT	MID	RIGHT	SUPP.	MID SPAN	RIGHT SUPP.	
FTB-1	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
FTB-2	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
FTB-3	300	500	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
FTB-4	300	500	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
FTB-5	300	700	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS

SCHEDULE OF MEZZANINE BEAMS

MARK	SIZES (MM)		REINFORCEMENT BAR			BAR ARRANGEMENT			STIRRUPS SIZE AND SPACING	REMARKS
	B	D	BAR LAYER	LEFT	MID	RIGHT	SUPP.	MID SPAN	RIGHT SUPP.	
MB-1	300	400	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
MB-2	300	500	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
MB-3	300	500	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
MB-4	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS

SCHEDULE OF SECOND FLOOR (2F) BEAMS

MARK	SIZES (MM)		REINFORCEMENT BAR			BAR ARRANGEMENT			STIRRUPS SIZE AND SPACING	REMARKS
	B	D	BAR LAYER	LEFT	MID	RIGHT	SUPP.	MID SPAN	RIGHT SUPP.	
2B-1	300	700	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-2	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-3	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-4	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-5	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-6	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-7	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-8	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-9	300	600	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-10	300	700	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-11	300	700	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS

SCHEDULE OF SECOND FLOOR (2F) BEAMS

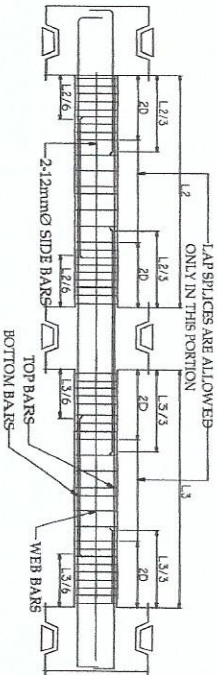
MARK	SIZES (MM)		REINFORCEMENT BAR			BAR ARRANGEMENT			STIRRUPS SIZE AND SPACING	REMARKS
	B	D	BAR LAYER	LEFT	MID	RIGHT	SUPP.	MID SPAN	RIGHT SUPP.	
2B-1	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-2	300	500	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-3	300	500	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-4	300	500	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-5	300	500	BOTTOM	240mmØ	320mmØ	240mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-6	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-7	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-8	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-9	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-10	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
2B-11	300	600	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS

SCHEDULE OF ROOF BEAMS

MARK	SIZES (MM)		REINFORCEMENT BAR			BAR ARRANGEMENT			STIRRUPS SIZE AND SPACING	REMARKS
	B	D	BAR LAYER	LEFT	MID	RIGHT	SUPP.	MID SPAN	RIGHT SUPP.	
RB-1	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-2	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-3	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-4	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-5	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-6	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-7	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-8	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-9	300	400	BOTTOM	320mmØ	320mmØ	320mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS

SCHEDULE OF ROOF BEAMS

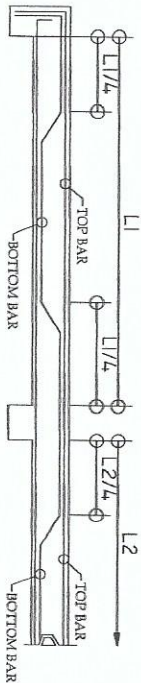
MARK	SIZES (MM)		REINFORCEMENT BAR			BAR ARRANGEMENT			STIRRUPS SIZE AND SPACING	REMARKS
	B	D	BAR LAYER	LEFT	MID	RIGHT	SUPP.	MID SPAN	RIGHT SUPP.	
RB-1	300	700	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS
RB-2	300	700	BOTTOM	420mmØ	240mmØ	420mmØ	Ø	Ø	Ø	PROVIDE 10mm Ø 240mm, 2-12mm Ø, WEB BARS



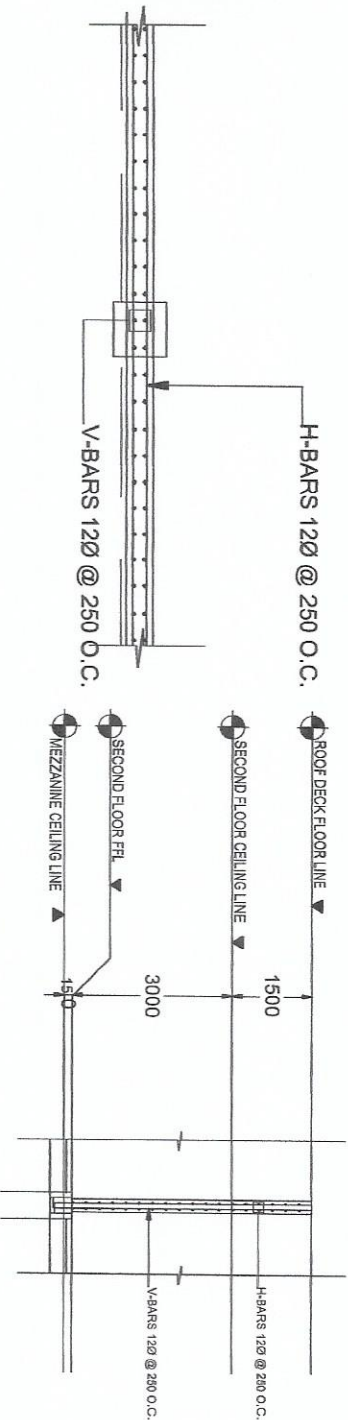
TYPICAL BEAM SECTION

SCHEDULE OF SLABS

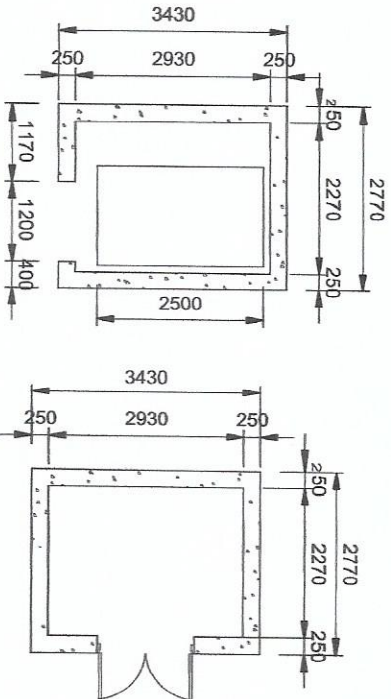
DESIGNATION	TYPE	THICKNESS (mm)	REINF. SIZE	SLAB REINFORCEMENT SPACING @ SHORT DIRECTION (mm)				SLAB REINFORCEMENT SPACING @ LONG DIRECTION (mm)			
				CONTINUOUS		MIDSPAN		CONTINUOUS		MIDSPAN	
				TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT
S-1	ONE-WAY	125	10mmØ	100	200	-	150	300	200	350	350
S-2	ONE-WAY	150	10mmØ	100	200	-	150	200	200	350	350
S-3	ONE-WAY	100	10mmØ	100	200	-	150	300	200	350	350
S-4	TWO-WAY	125	10mmØ	100	200	-	200	200	200	300	300
S-5	TWO-WAY	100	10mmØ	100	200	-	200	200	200	300	300
S-6	TWO-WAY	150	12mmØ	100	150	-	150	200	150	150	150



1 TYPICAL SECTION OF SLAB
SCALE: 1/10



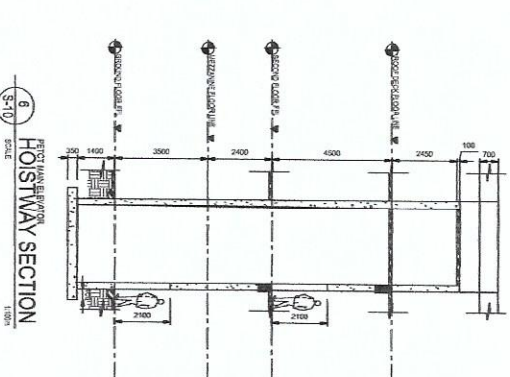
3 ELEVATION
TYPICAL DETAIL PETIOLE RC WALL
SCALE: 1/20



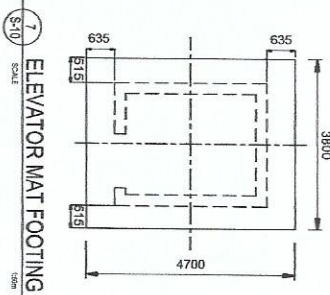
4 PETIOLE ELEVATOR
HOISTWAY PLAN
SCALE: 1/20

5 PETIOLE ELEVATOR
MACHINE ROOM PLAN
SCALE: 1/20

2 PLAN
TYPICAL DETAIL PETIOLE RC WALL
SCALE: 1/20



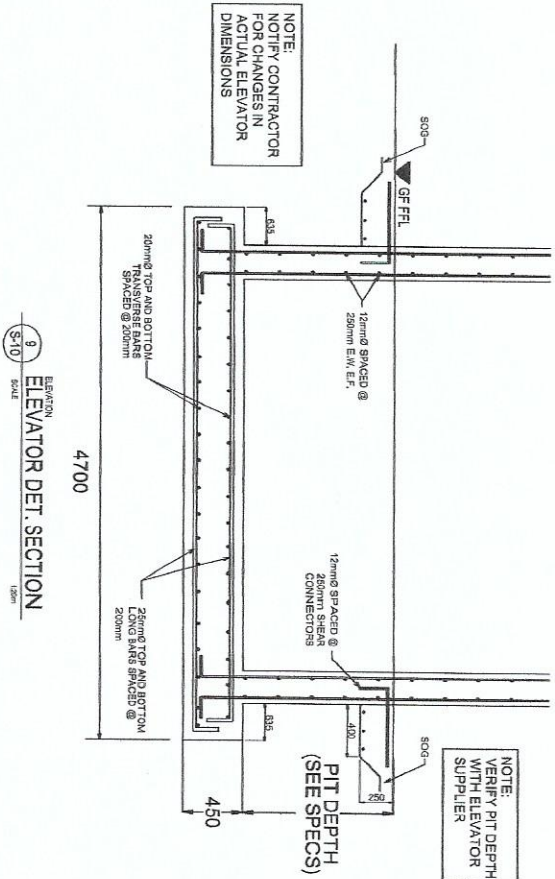
6 PETIOLE ELEVATOR
HOISTWAY SECTION
SCALE: 1/20



7 ELEVATOR MAT FOOTING
SCALE: 1/20

8 ELEVATOR DET. SECTION
SCALE: 1/10

SCHEDULE OF MAT FOOTING				REINFORCEMENT			
MARK	FOOTING SECTIONS (DIMENSIONS IN MM)			TOP AND BOTTOM		ALONG X-AXIS	
	L	W	T	D	ALONG X-AXIS	ALONG Y-AXIS	ALONG Y-AXIS
MF-1	3800	4700	450	PIT DEPTH + 450	20mmØ @ 200mm	25mmØ @ 200mm	25mmØ @ 200mm



9 ELEVATION
ELEVATOR DET. SECTION
SCALE: 1/20



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PHILIPPINE INSTITUTE
OF TECHNOLOGY
3601 DR. AMOROSO AVE., ALABANG, MARIKINA CITY

PROJECT: Innovating Nuclear Medicine Research and Services Development of Emergency PET/CT Scanners for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cell CV 2022 (Phase 3)

SHEET CONTENT: TYPICAL SECTION SLAB, TYPICAL PETIOLE RC WALL, HOISTWAY PLAN, MACHINE ROOM PLAN, ELEVATOR MAT FOOTING, ELEVATOR DETAIL SECTION

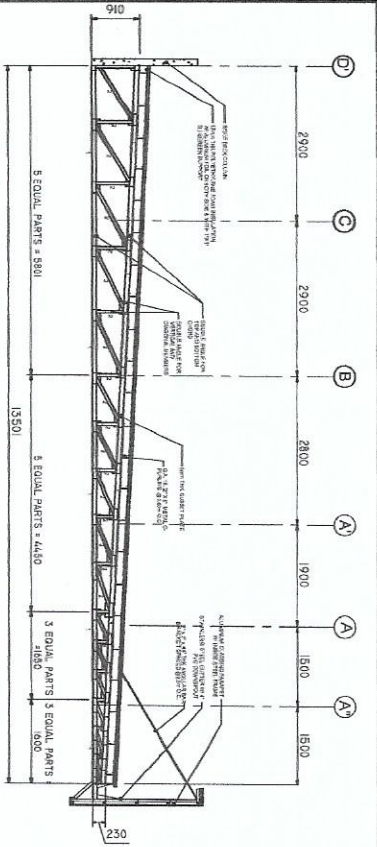
DESIGNED BY: Engr. ROSALIND B. REAS
Checked by: Engr. ANDREW C. BARROSA
Engr. LUIS

REVISIONS APPROVAL: MARIA TERESA L. BORRAS
Checked by: Engr. ANDREW C. BARROSA
Checked by: Engr. ANDREW C. BARROSA

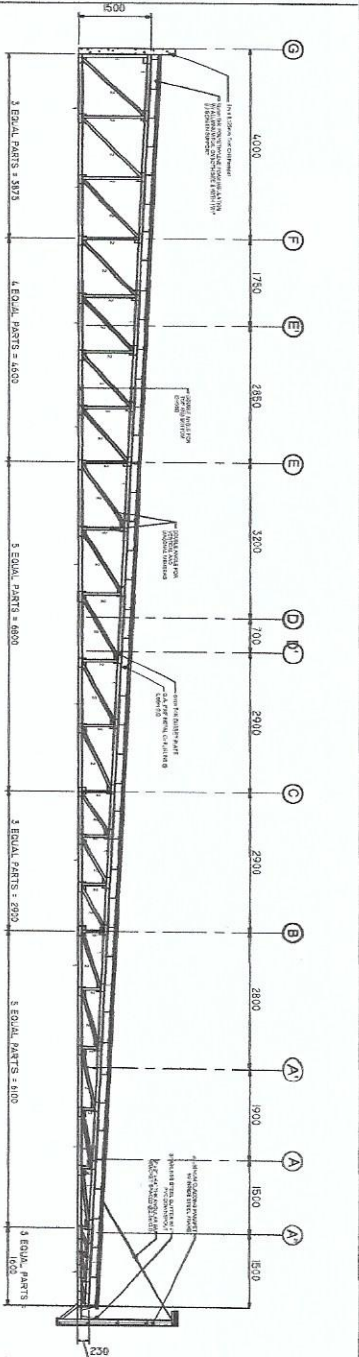
PREPARED BY: PRECIOUS CRISTINA B. PABOJA, Ph.D.
Checked by: VALERIE ANN MANSION, Ph.D.

APPROVED BY: CARLOS ARCELA, Ph.D.
Checked by: CARLOS ARCELA, Ph.D.

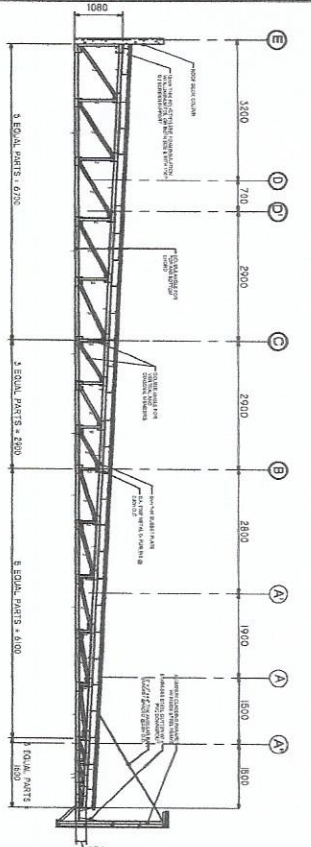
DRAWN BY: S-10
CHECKED BY: DATE: MADE NO.



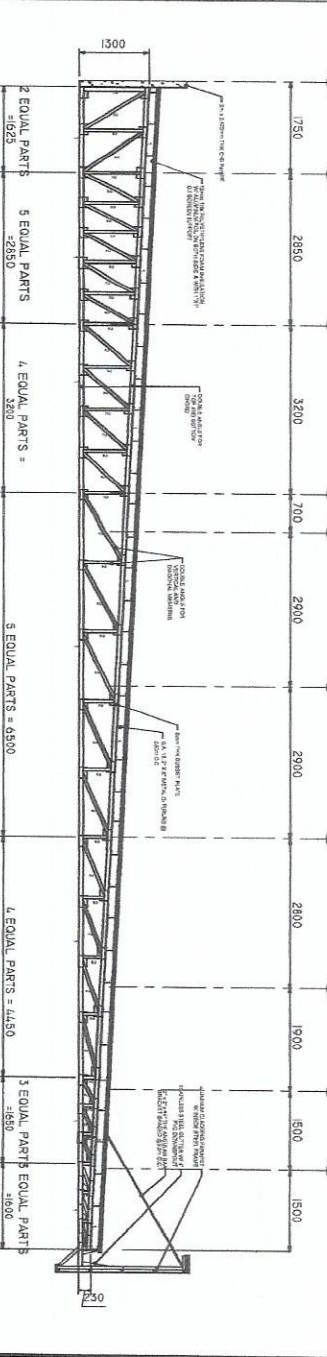
1 TRUSS DETAIL (T-1)
SCALE 1:500



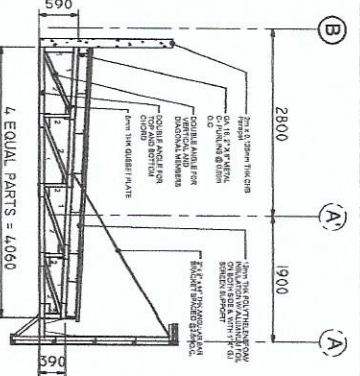
3 TRUSS DETAIL (T-2)
SCALE 1:500



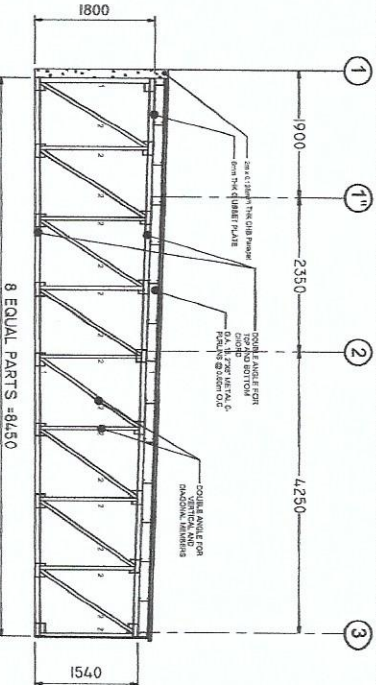
2 TRUSS DETAIL (T-1A)
SCALE 1:500



4 TRUSS DETAIL (T-3)
SCALE 1:500



5 TRUSS DETAIL (T-4)
SCALE 1:500



3 TRUSS DETAIL (T-5)
SCALE 1:500

TRUSS SCHEDULE		
MEMBER	SECTION SIZE	
①	2L - 3" X 3" X 1/4"	
②	2L - 2" X 2" X 1/4"	
USE 6mm THICK GUSSET PLATE		



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PHILIPPINE NUCLEAR RESEARCH INSTITUTE
CAMPUS 1, MARINA, MANILA, PHILIPPINES

PROJECT: Integrating Nuclear Medicine Research and Services Development of Emerging PET Radiopharmaceuticals for Early Cancer Staging and Cancer Cell CY 2022 (Phase 3)

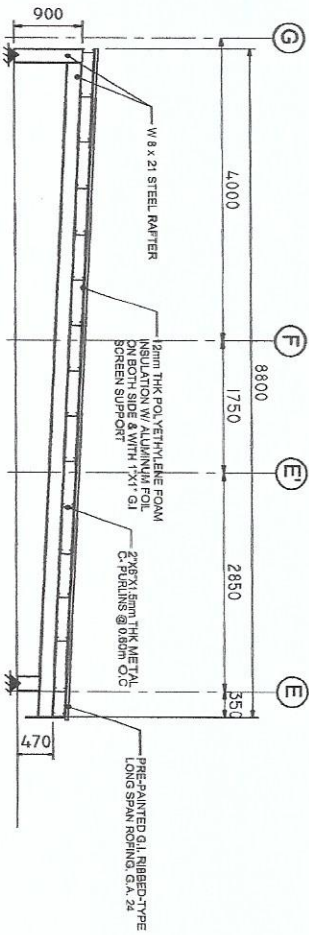
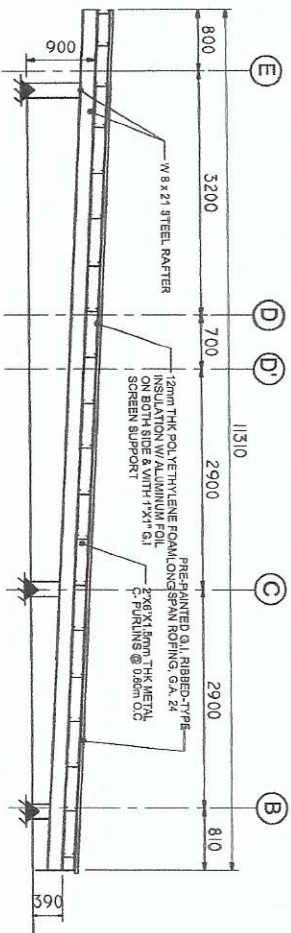
TRUSS DETAILS

DESIGNED BY: ENGR. ROSALIND B. REYES
Checked by: ENGR. ARNOLD C. ARRIBADA
Engr. 4138

APPROVED BY: NAKA TERESA L. BARRERA
Checked by: PRECIDA CRAYON B. BARRERA, PH.D.
Checked by: VALERIE ANN SAMSON, PH.D.
Checked by: CARLO A. ARRIOLA, PH.D.

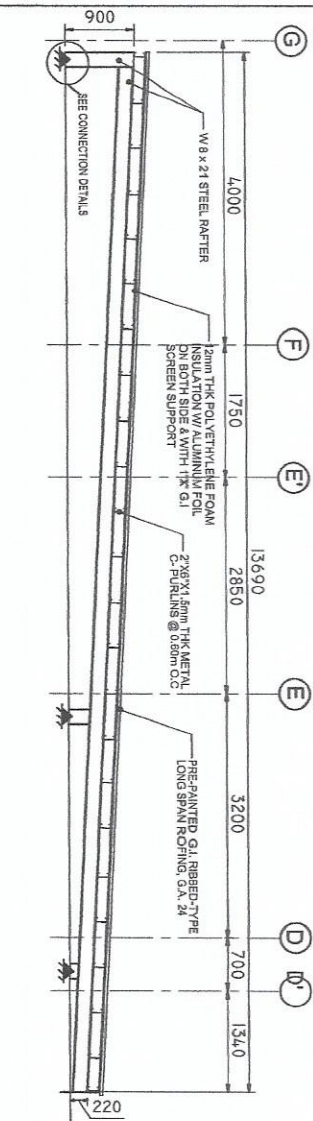
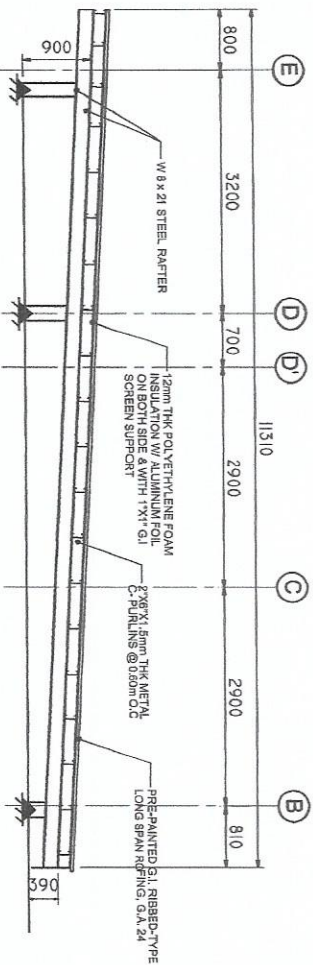
DRAWN BY: CARLO A. ARRIOLA, PH.D.
Checked by: S-11

DATE:
PAGE NO.:
SHEET NO.: S-11



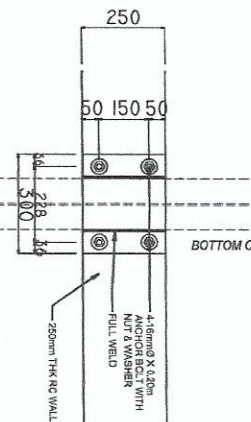
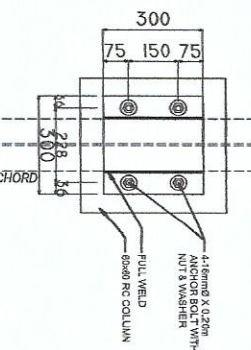
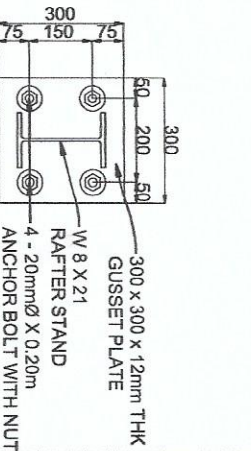
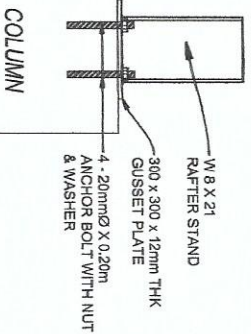
1 RAFTER DETAIL (R-1)
SCALE: 1/8"=1'-0"

2 RAFTER DETAIL (R-3)
SCALE: 1/8"=1'-0"



3 RAFTER DETAIL (R-2)
SCALE: 1/8"=1'-0"

4 RAFTER DETAIL (R-4)
SCALE: 1/8"=1'-0"



5 RAFTER CONNECTION
ELEVATION VIEW
SCALE: 1/8"=1'-0"

6 RAFTER CONNECTION
TOP VIEW
SCALE: 1/8"=1'-0"

7 RAFTER CONNECTION
TOP VIEW
SCALE: 1/8"=1'-0"

8 RAFTER CONNECTION
TOP VIEW (250MM WALL)
SCALE: 1/8"=1'-0"

9 RAFTER CONNECTION
TOP VIEW (200MM WALL)
SCALE: 1/8"=1'-0"



Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceutical for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cell CY 2022 (Phase 3)

CYCLOTRON VAULT
DETAIL PLAN,
PILOTRON DETAIL SECTION,
TOP SLAB PLAN

ENGR. ROSALIND B. REJAS
Greater Houston Analytics Specialty
ENGR. ANDREW C. BARRIDA
EngrTech LLC

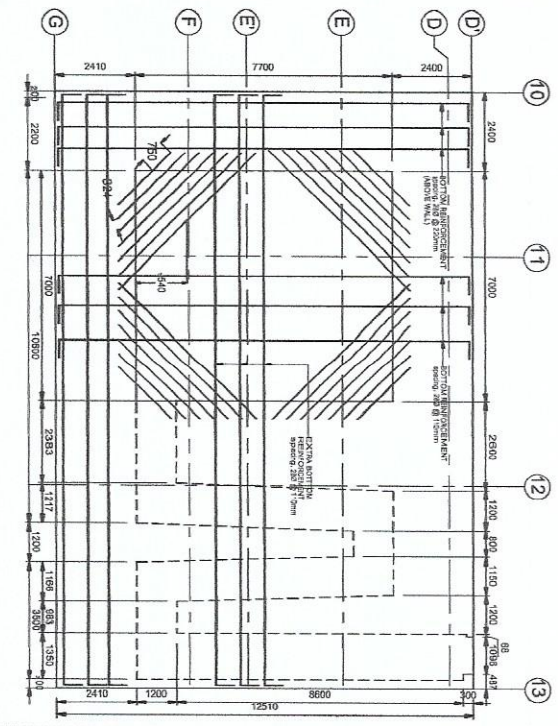
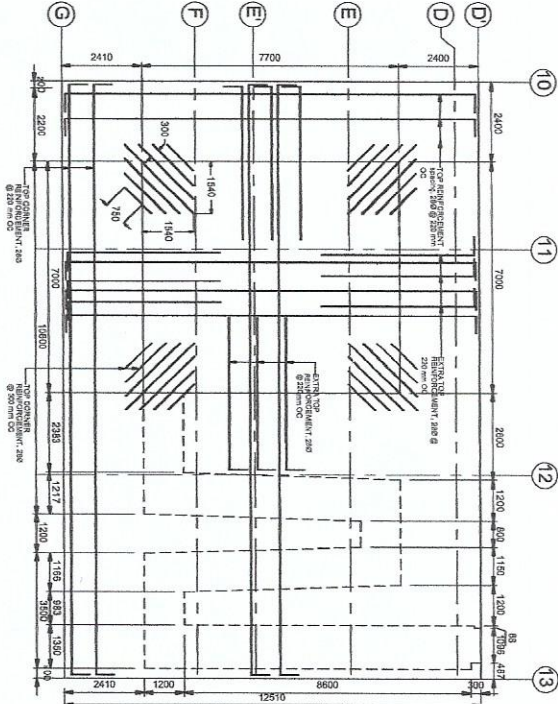
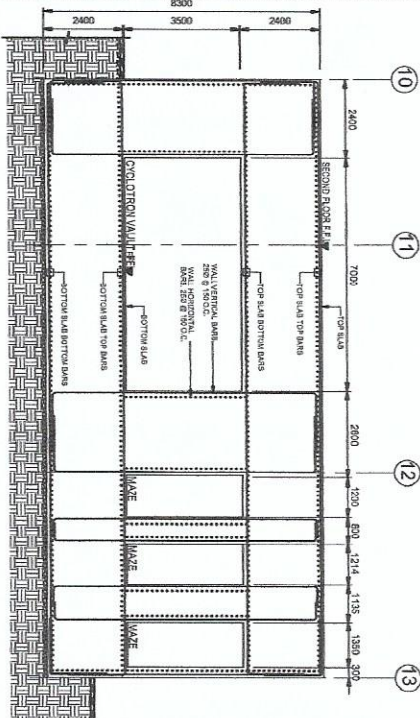
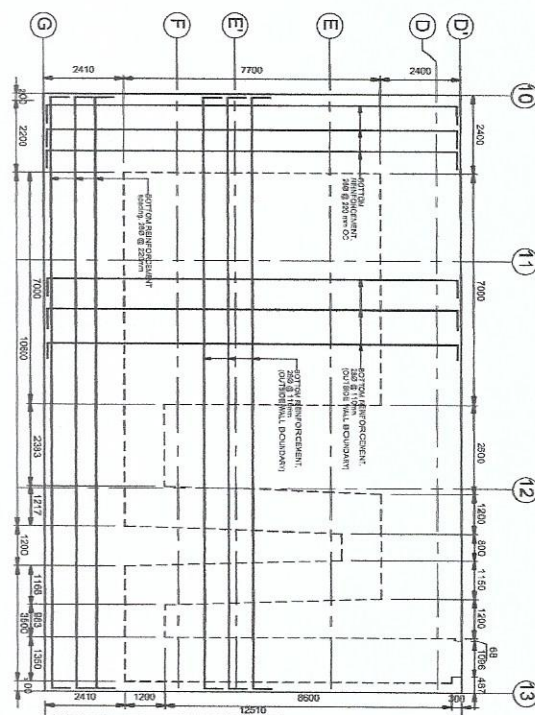
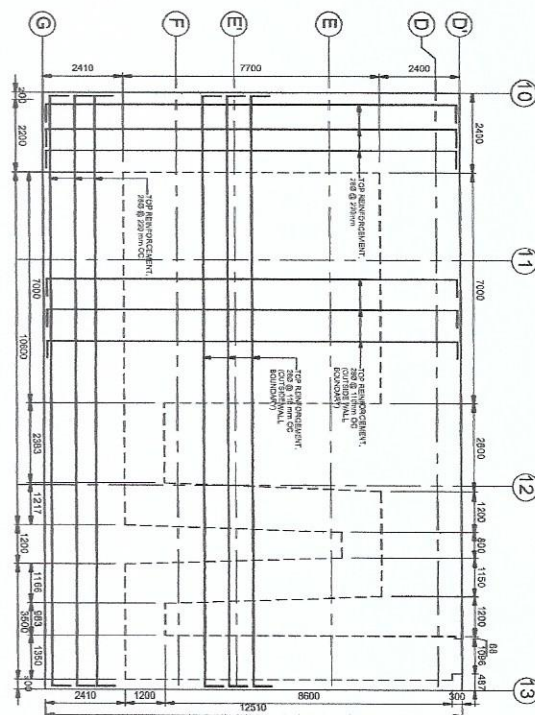
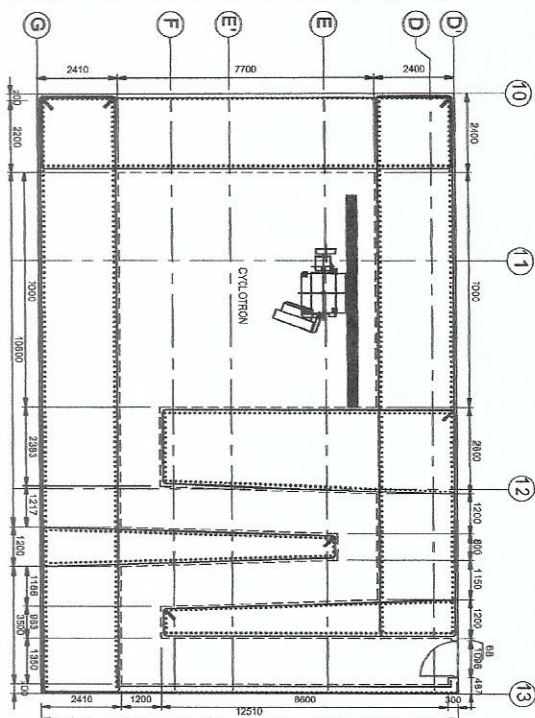
MARIA TERESA L. BORRAS
EnC-460/83NO, ITS
PRECIOSA CORAZON B. PABRO
Chel. NRD

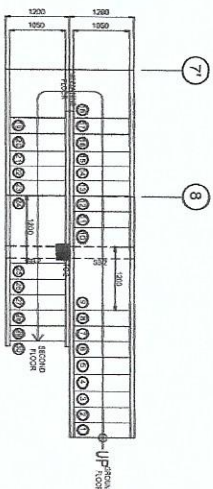
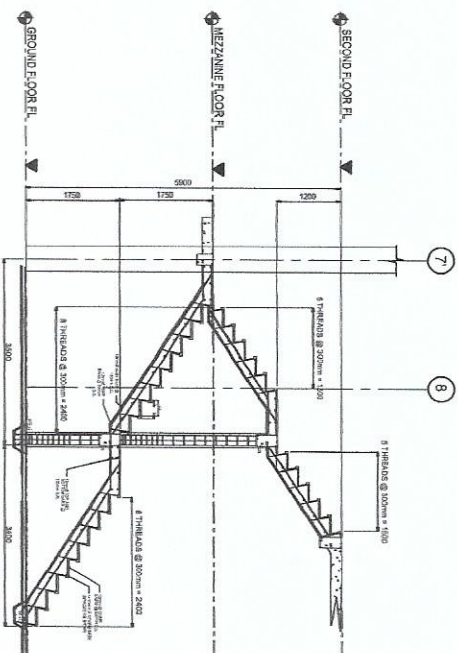
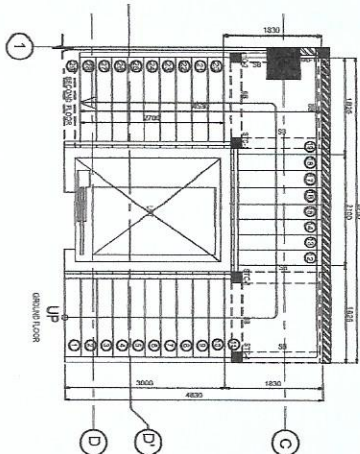
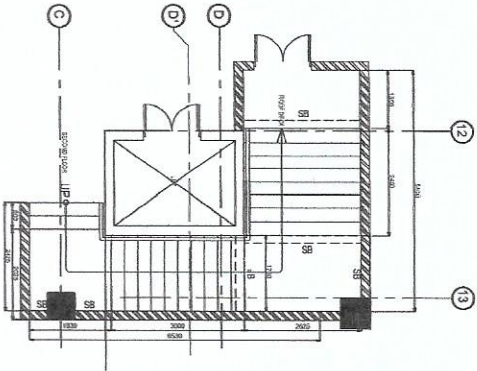
ENGT. ARTHUR F. SMITH
 OIC, SSRS 839
 ALLERIE ANN JAMSON, Ph.D.
 Deputy Director

CARLO A. ARCILLA, Ph. D.
Director

CHICKEN	
CAT	

5-13

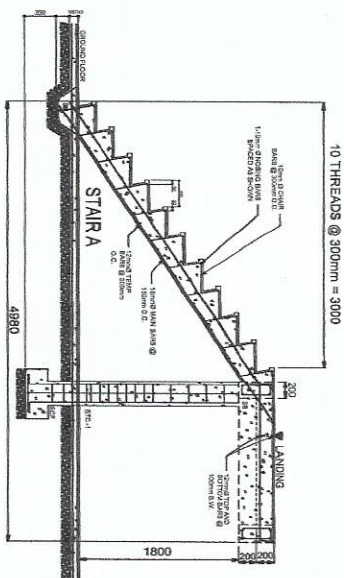
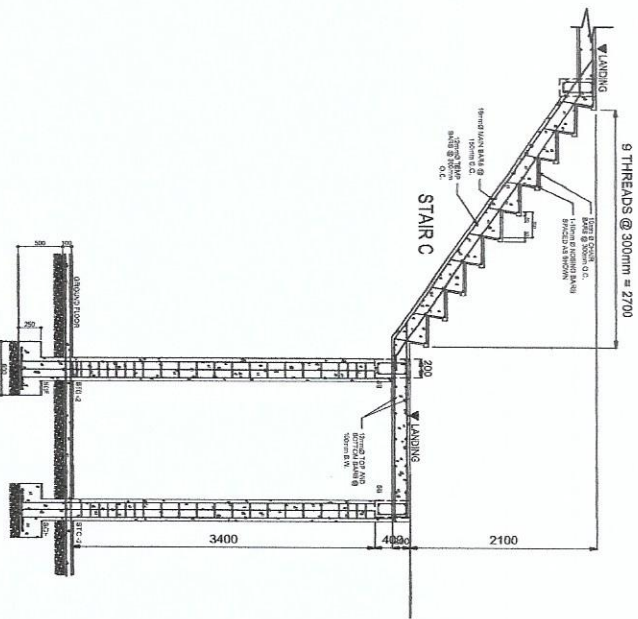
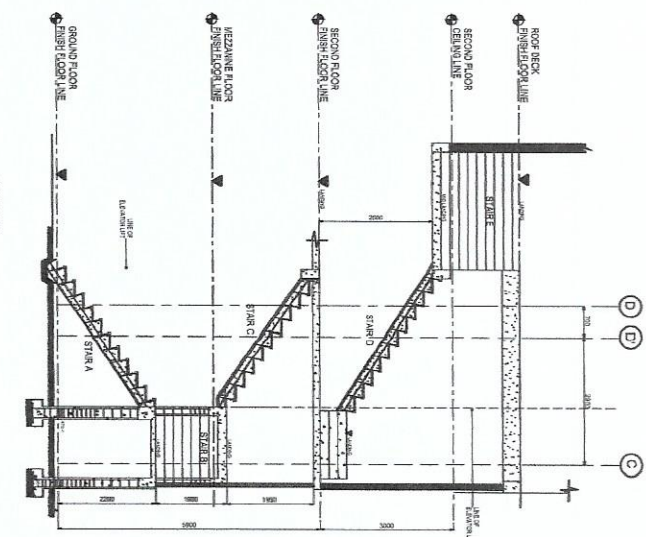




SCHEDULE OF STAIR COLUMNS			
MARK	SECTION	REINFORCEMENT	DETAILS
STC-1	SECTION 1	ALONG X-AXIS: 5 - 16mmØ ALONG Y-AXIS: 8 - 16mmØ	5 BOTTOM VERTICAL BARS WITH 10 @ 100mm, REST @ 100mm
STC-2	SECTION 2	ALONG X-AXIS: 5 - 16mmØ ALONG Y-AXIS: 8 - 16mmØ	5 BOTTOM VERTICAL BARS WITH 10 @ 100mm, REST @ 100mm

SCHEDULE OF STAIR FOOTINGS			
MARK	FOOTING SECTION (DIMENSIONS IN MM)	REINFORCEMENT	DETAILS
SF	L 1700 W 600 T 250 D 0	ALONG X-AXIS: 5 - 16mmØ ALONG Y-AXIS: 8 - 16mmØ	
SCF	600 600 250 600	5 - 16mmØ 5 - 16mmØ	

SCHEDULE OF STAIR BEAMS			
MARK	SIZES (MM)	REINFORCEMENT BAR	BAR ARRANGEMENT
B	200 400	BAR LEFT MID RIGHT LAYER SUPPORT (DOWN) (UP) (DOWN) (UP)	STIRRUPS SIZE AND SPACING: 10mm @ 200mm REST @ 100mm O.C.
SB	200 400	TOP 4 (10mm) 4 (10mm) 2 (10mm) 2 (10mm)	



Republic of the Philippines
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CANDAMUN, VICTORIA, DARWIN CITY

PROJECT: Innovating Nuclear Medicine Research and Services, Development of Emerging PET Radiopharmaceuticals, Early Phase Staging and Cancer Cell CY 2022 (Phase 3)

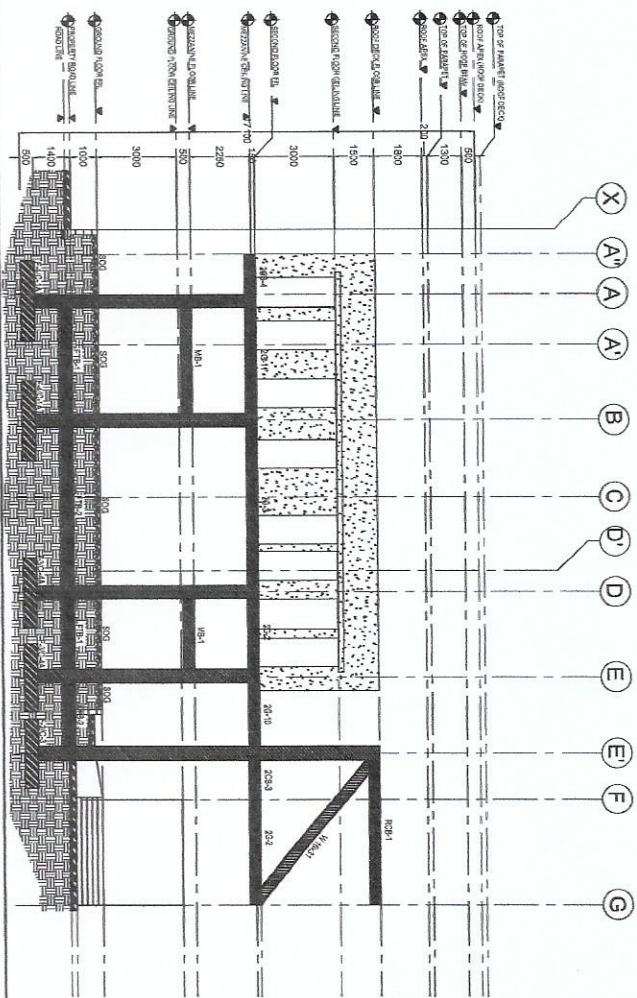
STAIR PLAN

Engineer: ROSALIND B. REYES
Engineer: ANDREW C. BARROD
Engineer: E. SSS

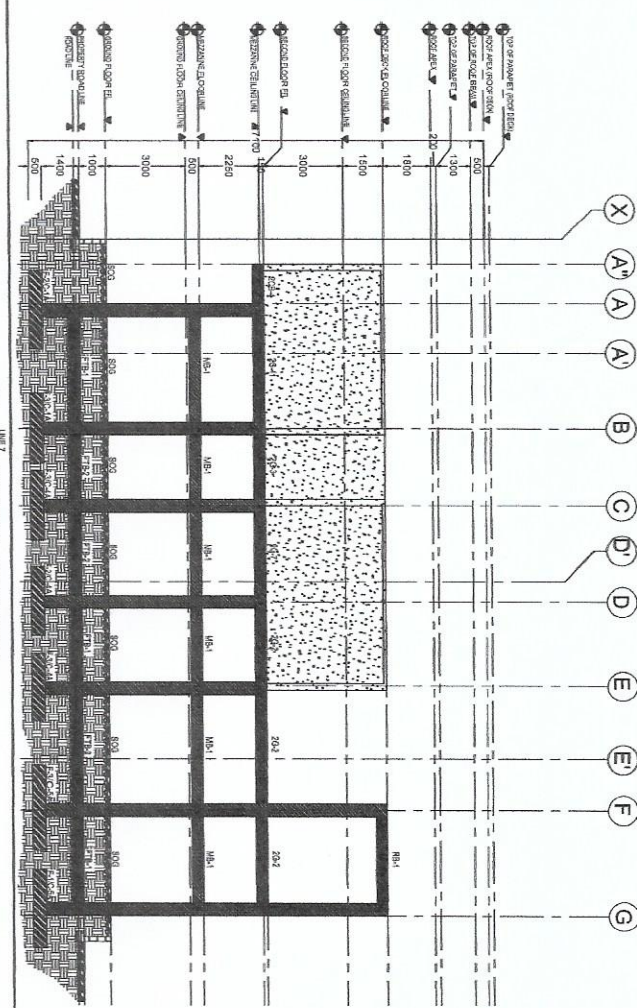
REVIEWED BY: MARIA L. BORRIS
PREGIERA CORAZON B. PABROX, Ph.D. VALERIA A. SAMSON, Ph.D.

APPROVED BY: CAROL ARCILLA, Ph.D.

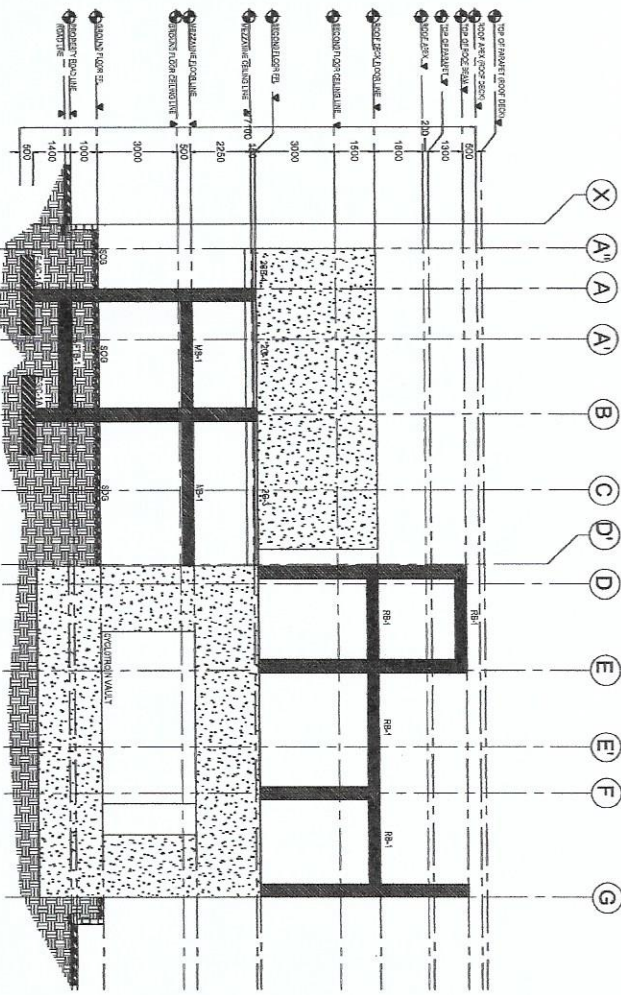
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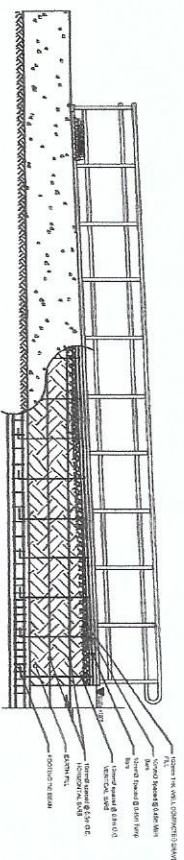
1
S-16
SCALE
1:100



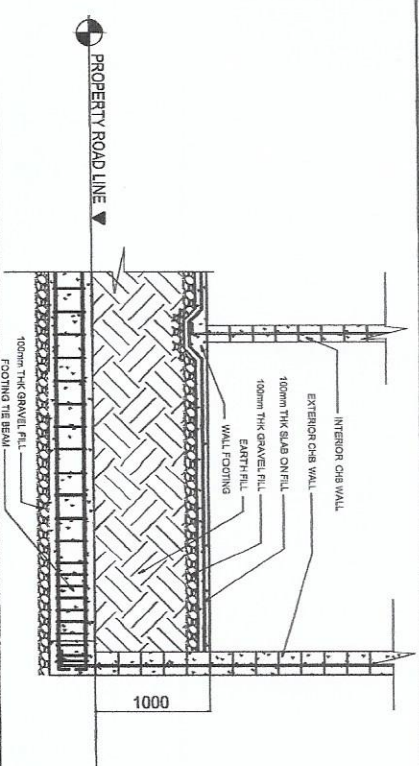
2
S-16
SCALE
1:100



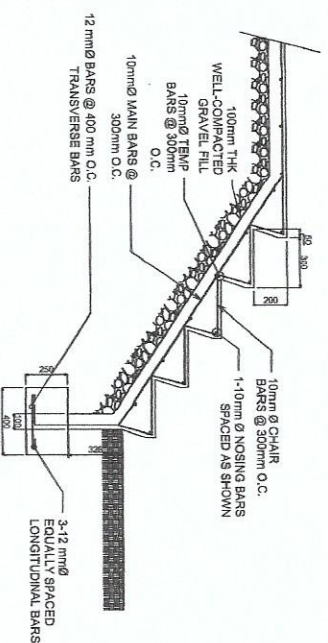
3
S-16
SCALE
1:100



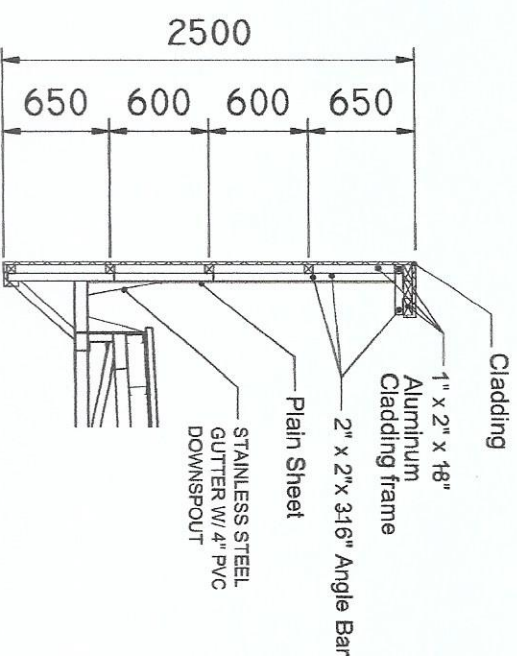
1
S-17
TYPICAL RAMP SECTION DETAIL
SCALE
MTS



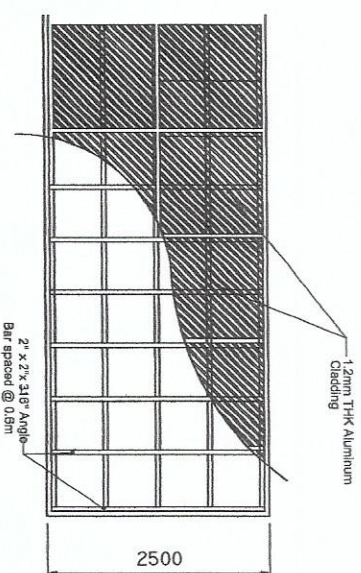
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S-17 SCALE NTS



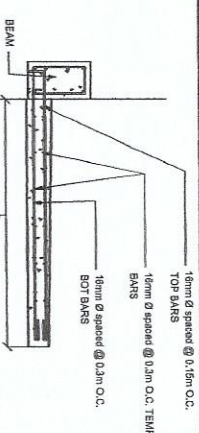
3
S-17 STAIR ON FILL SCALE MTS



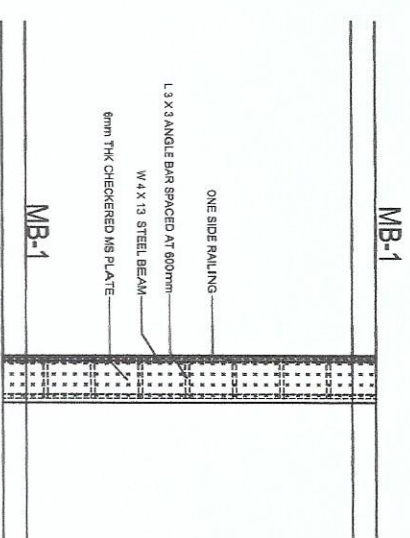
4
S-17
SCALE
SOUTH PARAPET DETAIL
NTS



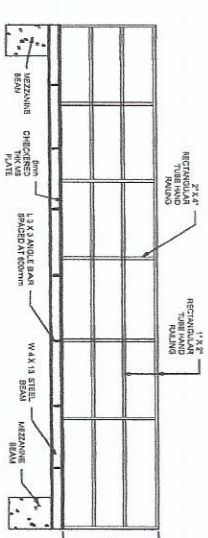
FRONT VIEW
5
S-17
SCALE
SOUTH PARAPET DETAIL
NTS



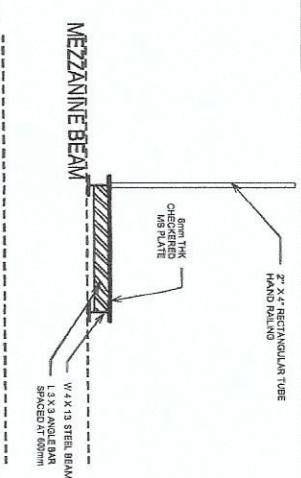
6
S-17
RC CANOPY DETAIL
BCAL
NTS



PLAN
CATWALK DETAILS
SCALE
N73
1
S-17



8
S-17
ELEVATION
CATWALK DETAILS
SCALE
NTS



SECTION
CATWALK DETAILS



Innovating Nuclear Medicine Research and Services: Development of Emerging PET Radiopharmaceutical for Early Cancer Staging and Assessment of Biologic Functions in Cancer Cell CY 2022 (Phase 3)

DETAILED ELEVATION 182,
STEP DETAILED CONNECTION,
COLUMN SUPPORT
CONNECTION

Eng. ROSALINO B. REIAS
 (Diretor Nacional de Defesa Social)
 Eng. ANDREY C. BARRIDA
 (Enfermeiro)

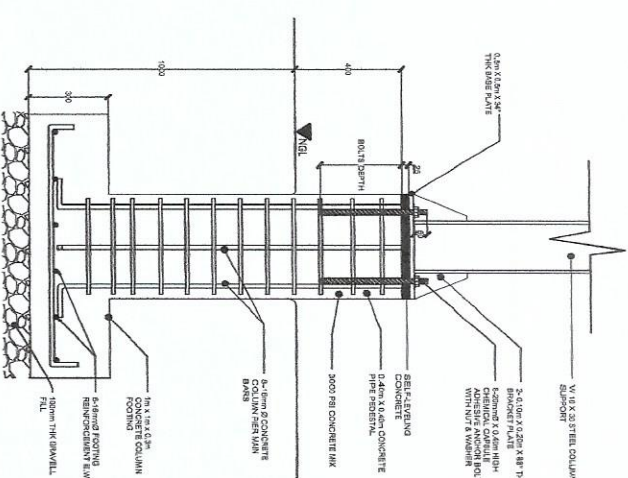
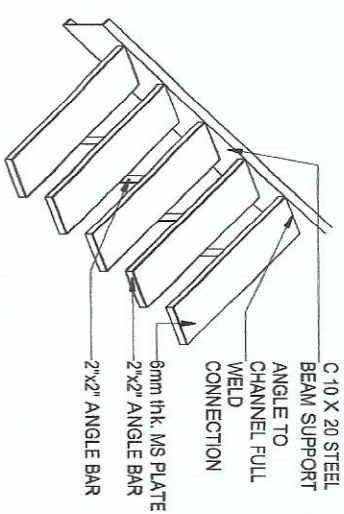
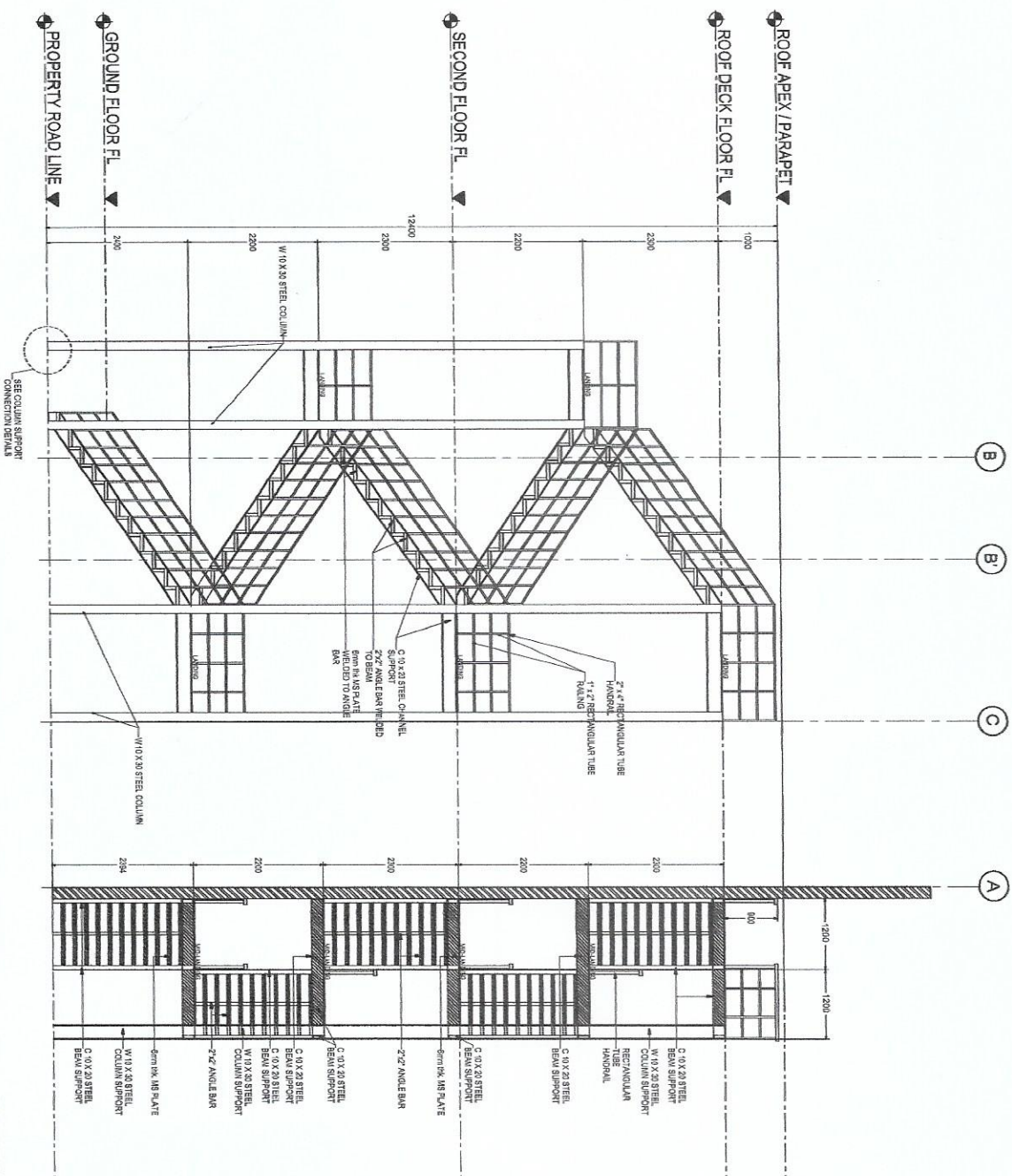
MARIA TERESA L. BORRAS
 Board Member
 EGO-URUTU, S.A.H.
 C/O. SERRA, S.A.
 Preciosa Corazón, PABRO, Ph. D.
 VALLÉE SAMSON, Ph. D.
 Chair
 Board Director

CARLO A. ARCULLA, Ph. D.
Director

CHCO	DATE
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PAGE 1

α	1
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3
S-18
SCALE
N75

EMERGENCY EXIT
DETAILED ELEVATION 1

2
E18
SCALE
1:40m

4
S-18
EMERGENCY EXIT
COLUMN SUPPORT CONNECTION
SCALE
675