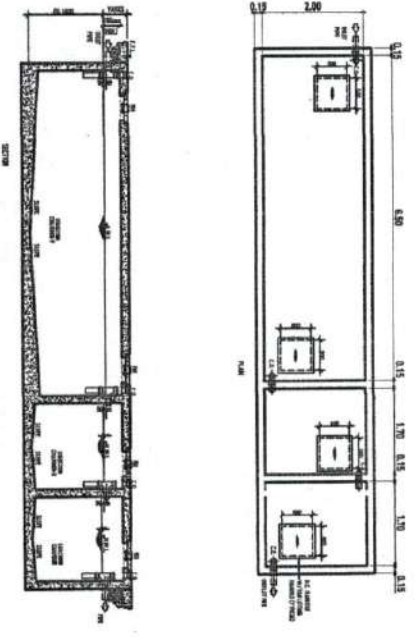
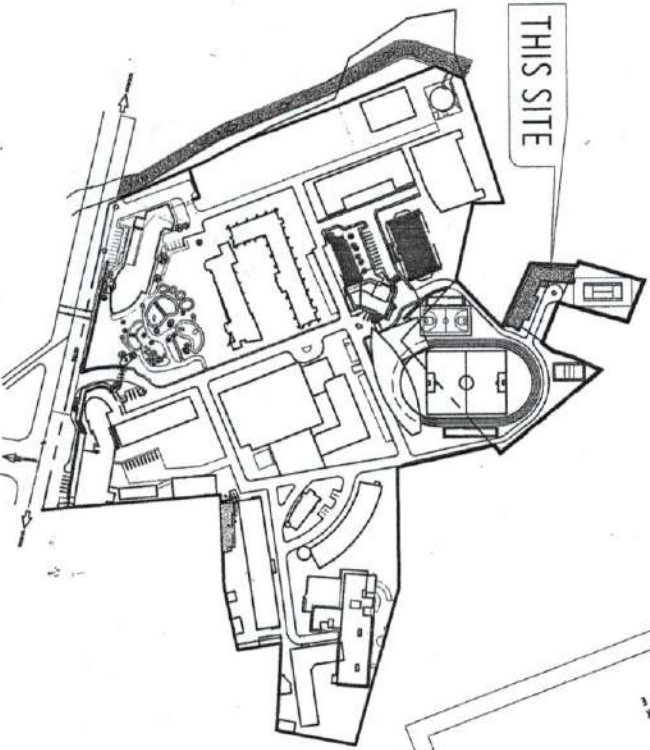


ROOF DECK WASTE WATER LINE LAYOUT
SCALE: 1 : 1 0 0 0



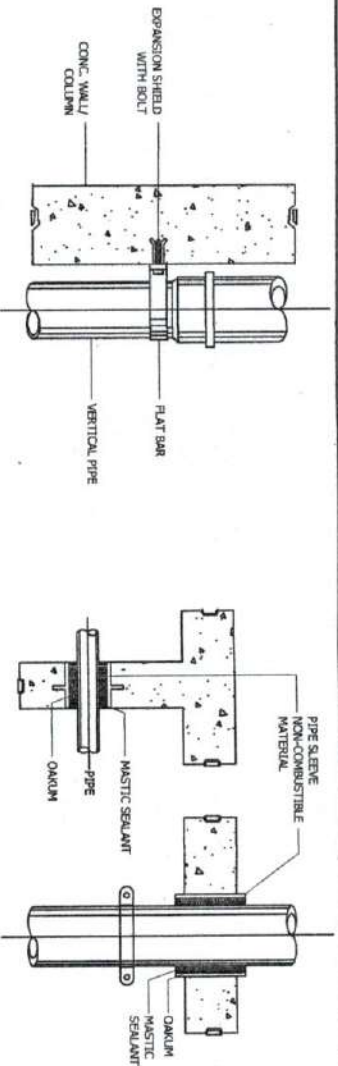
SEPTIC VAULT DETAIL
SCALE: 1 : 5 0



LOCATION PLAN
SCALE: AS SHOWN TO SCALE

PLUMBING

LEGEND:	
LAV	LAVATORY
UR	URINAL
WC	WATER CLOSET
R	RISER
KS	KITCHEN SINK
SDV	SHUT-OFF VALVE
CV	CHECK VALVE
BV	BLIND VALVE
CBV	CHECK BALL VALVE
HB	HOSE BIB
PWL	POTABLE WATER LINE
SS	SLOP SINK



SCHEDULE (mm)

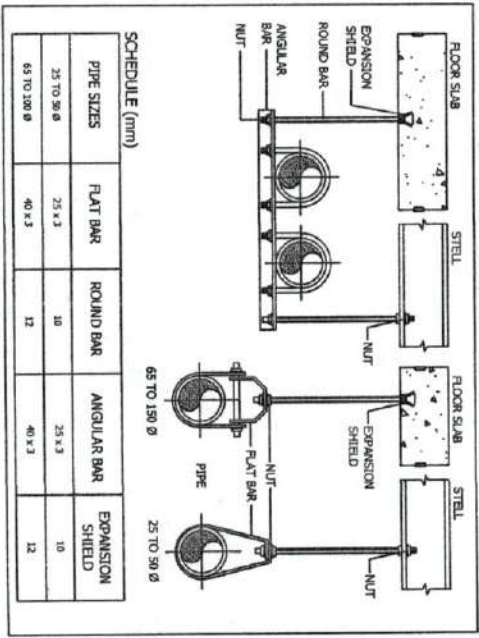
PIPE SIZES	FLAT BAR	EXPANSION SHIELD WITH BOLT
50 TO 100 Ø	40 x 3	12
125 TO 150 Ø	50 x 6	16

SCHEDULE OF PIPE SLEEVES (mm)

PIPE SIZE	25	25	40	50	65	80	100	125	200
SLEEVE SIZE	65	80	80	90	100	120	150	200	250

VERTICAL PIPE HANGER DETAIL
NOT DRAWN TO SCALE

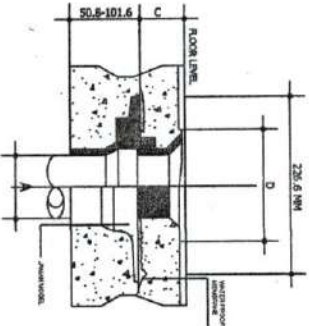
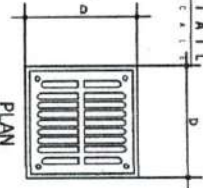
PIPE SLEEVE DETAIL
NOT DRAWN TO SCALE



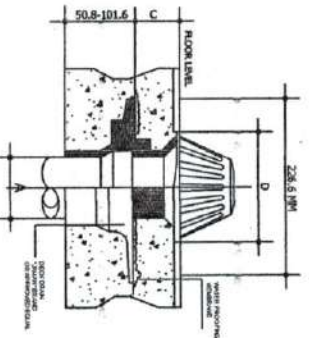
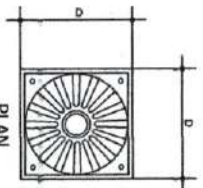
SCHEDULE (mm)

PIPE SIZES	FLAT BAR	ROUND BAR	ANGULAR BAR	EXPANSION SHIELD
25 TO 50 Ø	25 x 3	10	25 x 3	10
65 TO 100 Ø	40 x 3	12	40 x 3	12

PIPE HANGER DETAIL
NOT DRAWN TO SCALE



SECTION



SECTION

TABLE OF DIMENSION

PIPE SIZE IN "	DIMENSION IN MM		
	C	D	D
50	38.1	101.6	127.0
75	38.1	127.0	152.4
100	40.1	152.4	177.8
150	50.8	177.8	

TABLE OF DIMENSION

PIPE SIZE IN "	DIMENSION IN MM		
	C	D	D
50	38.1	101.6	127.0
75	38.1	127.0	152.4
100	40.1	152.4	177.8
150	50.8	177.8	

FLOOR DRAIN DETAIL
NOT DRAWN TO SCALE

DECK GUTTER DRAIN DETAIL
NOT DRAWN TO SCALE

- GENERAL NOTES
1. PROVIDE A MINIMUM 100mm CLEARANCE FROM THE WALL TO THE PIPE.
 2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE SPECIFICATIONS.
 3. ALL LABORER IDENTIFICATION TAGS SHALL BE INDICATED ON THE DRAWING.
 4. ALL MATERIALS SHALL BE APPROVED BY THE ENGINEER.
 5. ALL MATERIALS SHALL BE STORED IN A DRY AND VENTILATED AREA.
 6. ALL MATERIALS SHALL BE PROTECTED FROM DAMAGE.
 7. ALL MATERIALS SHALL BE STORED IN A DRY AND VENTILATED AREA.
 8. ALL MATERIALS SHALL BE PROTECTED FROM DAMAGE.
 9. ALL MATERIALS SHALL BE STORED IN A DRY AND VENTILATED AREA.
 10. ALL MATERIALS SHALL BE PROTECTED FROM DAMAGE.



UNITED STATES TECHNICAL INSTITUTE OF PHILIPPINES
OFFICE OF THE BUILDING OFFICIAL
REPUBLIC OF THE PHILIPPINES

PROJECT NO.	DATE
PROJECT NAME	DATE
PROJECT LOCATION	DATE
PROJECT OWNER	DATE

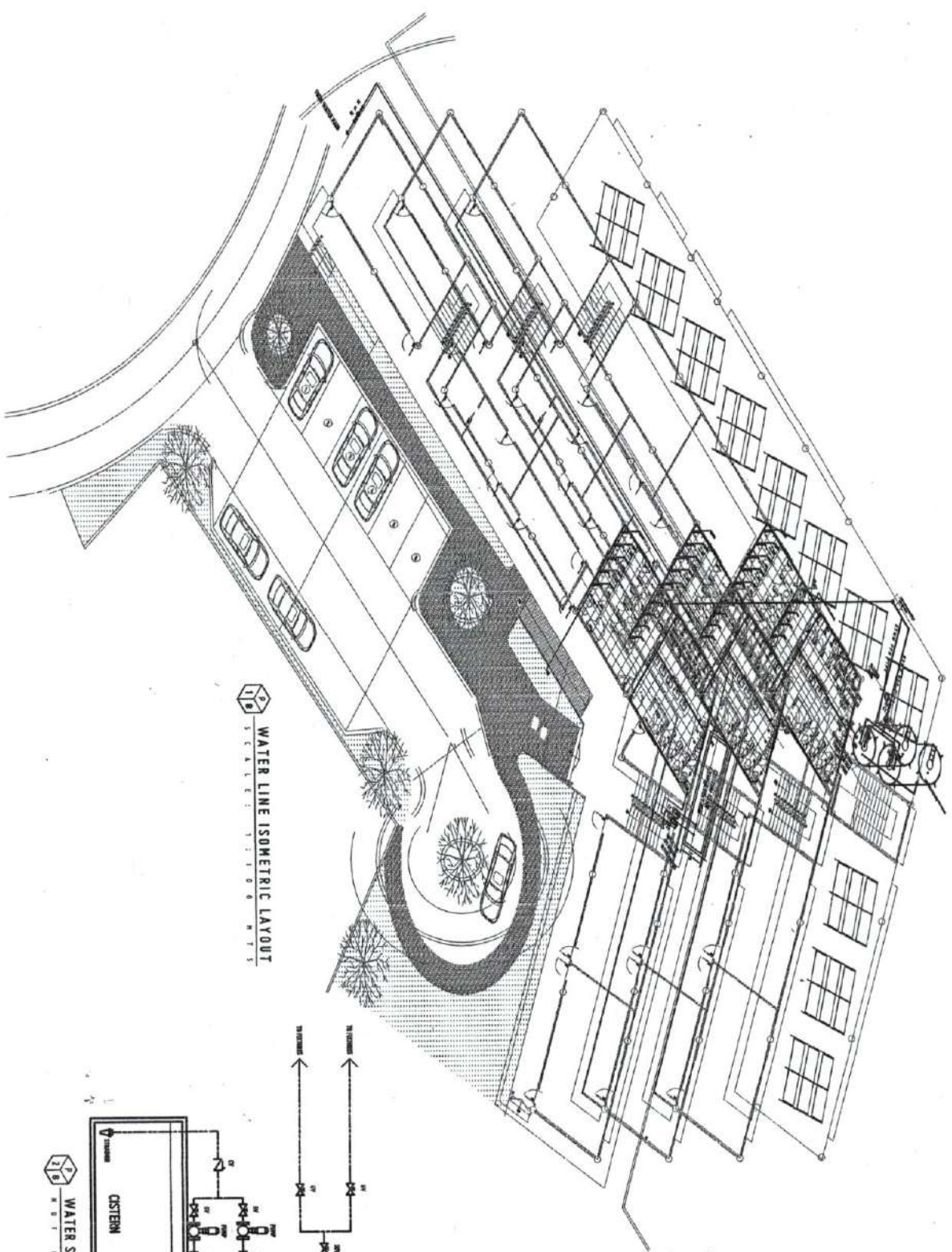
QUANTIFICATION OF WORKS COMPLETE AND RESOURCES (PAGE 10)
CHECK IN WITH ARCHITECT, CIVIL ENGINEER AND ELECTRICAL ENGINEER
APPROVED BY ARCHITECT AND ELECTRICAL ENGINEER

RECOMMENDING APPROVAL:
ARCHITECT: [Signature]
ELECTRICAL ENGINEER: [Signature]

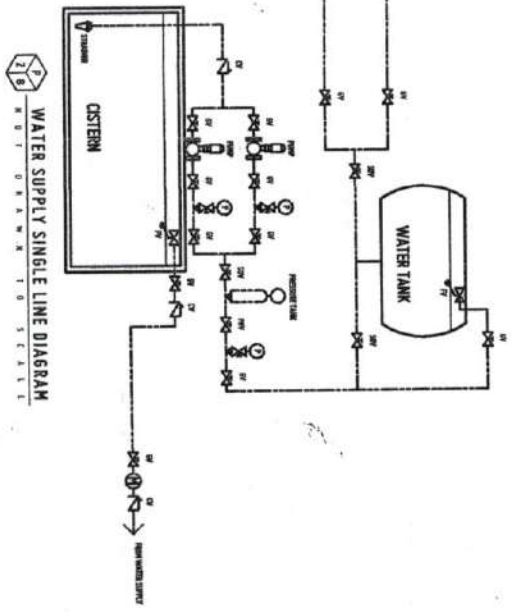
DESIGNING APPROVAL:
ATTY. EMILIO R. BORDO
REGISTERED ELECTRICAL ENGINEER

APPROVED BY:
DR. AMARILLO R. CULTURA II
REGISTERED ELECTRICAL ENGINEER

DATE: []/ []/ []
PAGE: []



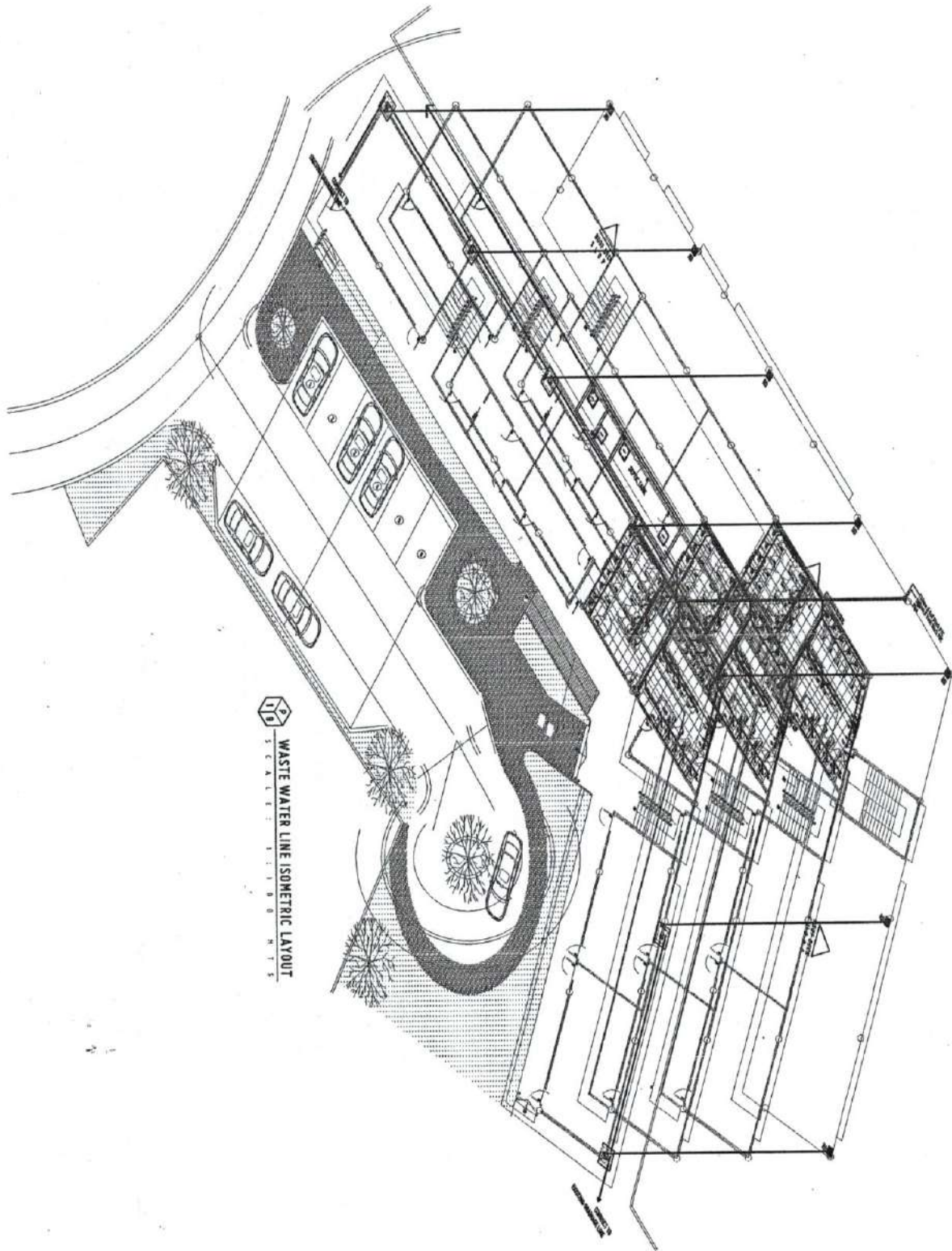
WATER LINE ISOMETRIC LAYOUT
 SCALE: 1:100



WATER SUPPLY SINGLE LINE DIAGRAM
 SCALE: 1:100

PLUMBING

SYMBOL	DESCRIPTION
1	WATER TANK
2	WATER SYSTEM
3	WATER CLOSET
4	WATER VALVE
5	WATER FITTING
6	WATER PIPING
7	WATER CONNECTION
8	WATER TAPPING
9	WATER BRANCH
10	WATER MAIN
11	WATER SERVICE
12	WATER METER
13	WATER STOP VALVE
14	WATER CHECK VALVE
15	WATER AIR VALVE
16	WATER PRESSURE
17	WATER TEMPERATURE
18	WATER FLOW
19	WATER LEAK
20	WATER DAMAGE



WASTE WATER LINE ISOMETRIC LAYOUT
S E A T I S T I T I O N I S



REPUBLIC OF THE PHILIPPINES
UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES
INDUSTRIAL PLANNING AND PROJECT MANAGEMENT UNIT
CLAREN R. NETA AVENUE, LAGUNA, CALABARZON
TELEPHONE: 43822273-44 / 43822274 / 43822275 / 43822276 / 43822277 / 43822278 / 43822279
WWW.USTIP.USP.EDU.PH

PROJECT NO.	PROJECT TITLE
DATE	SCALE
OWNER	DESIGNER

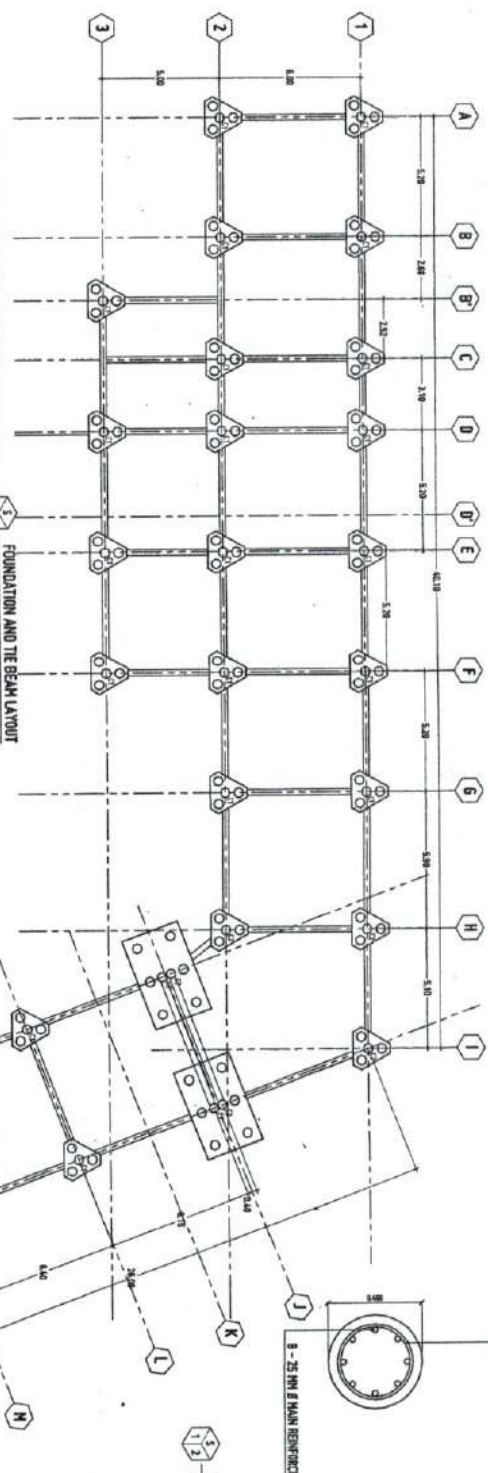
COMPLETION OF SPORTS COMPLEX AND RESIDENCES PHASE 10
CLAREN R. NETA AVENUE, LAGUNA, CALABARZON 4000 CITY 0000
UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:
AM. FERNANDO
ATTY. GENERAL
OFFICE OF THE BUILDING OFFICER

RECOMMENDING APPROVAL:
ATTY. EDUARDO BUENOS
OFFICE OF THE BUILDING OFFICER

APPROVED BY:
DR. AMERSONO B. CULTIPIA II
OFFICE OF THE BUILDING OFFICER

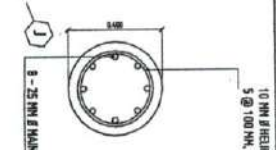
SHEET NO.	TOTAL SHEETS
DATE	SCALE



NOTE: 93 PCS OF 0.40 M X 0.40 M X 27 M PRESTRESSED PILES

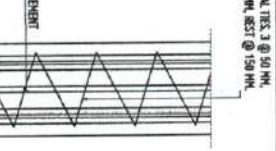
FOUNDATION AND THE BEAM LAYOUT

SCALE: 1:100



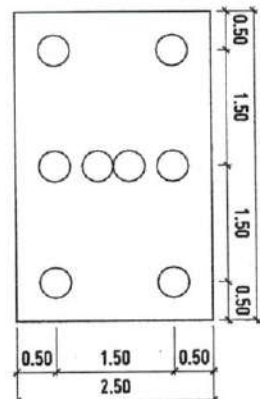
C1 DETAILS

SCALE: 1:100

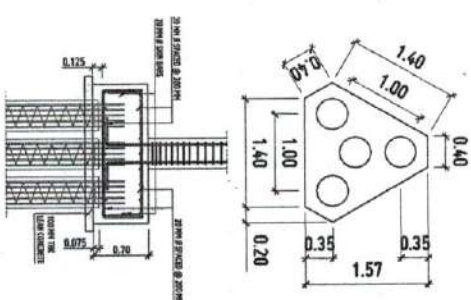


C2 DETAILS

SCALE: 1:100

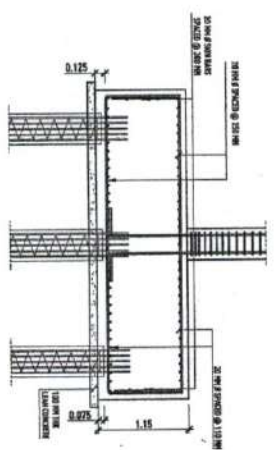


SCALE: 1:100



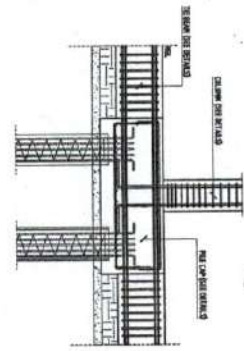
PC-1 DETAILS

SCALE: 1:100



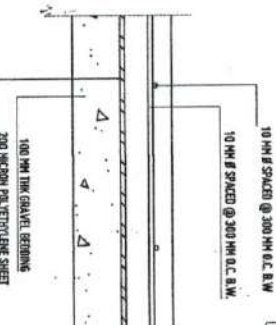
PC-2 DETAILS

SCALE: 1:100



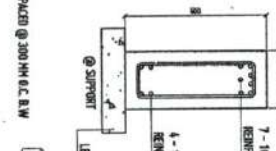
THE BEAM AND PILE CAP CONNECTION DETAIL

SCALE: 1:100



S1 SLAB ON GRADE DETAILS

SCALE: 1:100



TIE BEAM DETAILS

SCALE: 1:100

REPUBLIC OF THE PHILIPPINES
OFFICE OF THE BUILDING OFFICIAL



REPUBLIC OF THE PHILIPPINES
OFFICE OF THE BUILDING OFFICIAL
DEPARTMENT OF SCIENCE AND TECHNOLOGY
INSTITUTE OF BUILDING TECHNOLOGIES
158 BARCELONA AVENUE, PASAY CITY, METRO MANILA
TEL: (632) 817-1000 FAX: (632) 817-1001

PROJECT: ERNESTO CH. MULLINI
CLIENT: ERNESTO CH. MULLINI
DATE: 05-17-2012
DRAWN BY: [Signature]
CHECKED BY: [Signature]

COMPLETION OF SPORTS COMPLEX AND RECREATION PHASE 10
CAGNAN RECREATION LAYOUT, CAGNAN RECREATION
DEPARTMENT OF SCIENCE AND TECHNOLOGY
INSTITUTE OF BUILDING TECHNOLOGIES

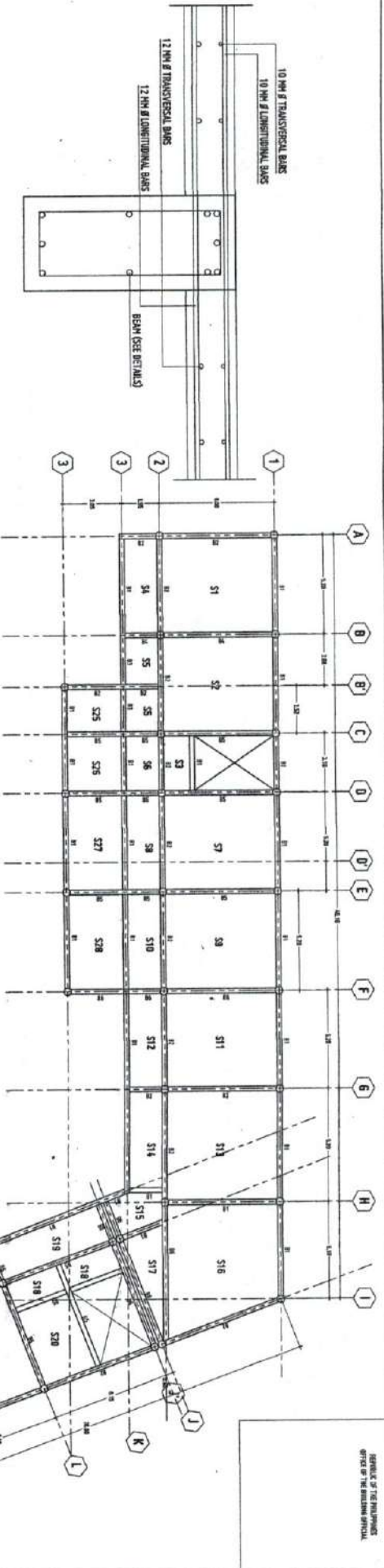
REGISTERED ARCHITECT
ALVIN P. BERNALDEZ
REGISTERED CIVIL ENGINEER
ALVIN P. BERNALDEZ

APPROVED BY:
DR. AMOROSO & CULTURA II

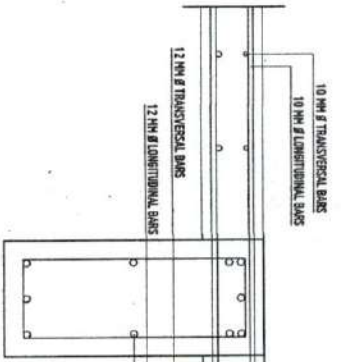
SHEET CONTENTS:
NO. DATE
1 05-17-2012
2 05-17-2012
3 05-17-2012
4 05-17-2012
5 05-17-2012

DATE: 05-17-2012
SCALE: 1:100

S1



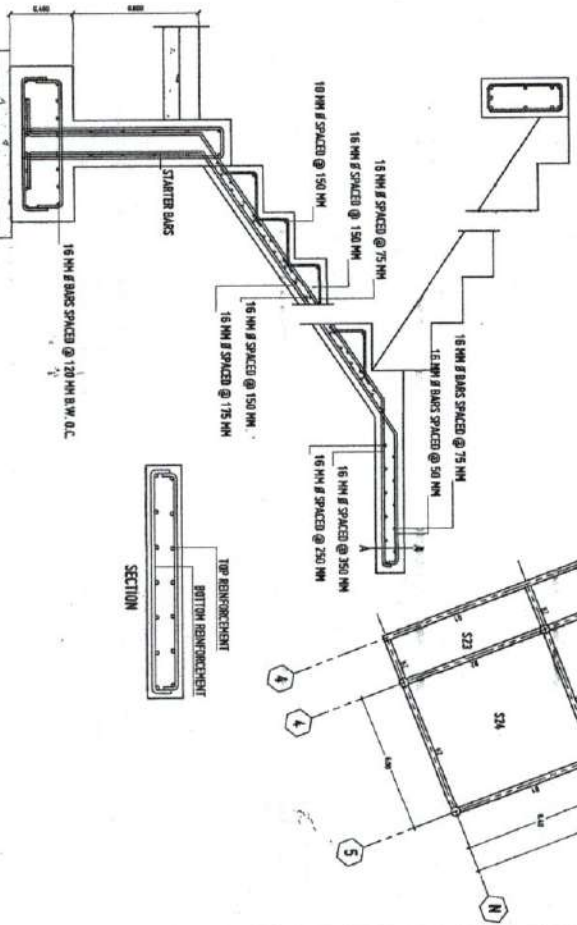
2ND, 3RD & ROOF DECK SLAB DETAILS
SCALE: 1:100 (H)



SCHEDULE OF BEAMS
BEAM DIMENSIONS AND DETAILS

LEVEL	BEAM	REINFORCEMENT
2ND & 3RD FLOOR LEVEL	B1	4 - 20 MM # REINFORCEMENT
		2 - 20 MM # TORSION REINFORCEMENT
		3 - 20 MM # REINFORCEMENT
		@ SUPPORT STRIPS 3 @ 50, 5 @ 75, 8 @ 100, REST @ 150 MM.
	B2	6 - 20 MM # REINFORCEMENT
		2 - 20 MM # TORSION REINFORCEMENT
		3 - 20 MM # REINFORCEMENT
		@ SUPPORT STRIPS 3 @ 50, 5 @ 75, 8 @ 100, REST @ 150 MM.
	B3	6 - 20 MM # REINFORCEMENT
		2 - 20 MM # TORSION REINFORCEMENT
		3 - 20 MM # REINFORCEMENT
		@ SUPPORT STRIPS 3 @ 50, 5 @ 75, 8 @ 100, REST @ 150 MM.
B4	6 - 20 MM # REINFORCEMENT	
	2 - 20 MM # TORSION REINFORCEMENT	
	3 - 20 MM # REINFORCEMENT	
	@ SUPPORT STRIPS 3 @ 50, 5 @ 75, 8 @ 100, REST @ 150 MM.	
B5	9 - 25 MM # REINFORCEMENT	
	2 - 20 MM # TORSION REINFORCEMENT	
	5 - 25 MM # REINFORCEMENT	
	@ SUPPORT STRIPS 3 @ 50, 5 @ 75, 8 @ 100, REST @ 150 MM.	
B6	9 - 25 MM # REINFORCEMENT	
	2 - 20 MM # TORSION REINFORCEMENT	
	5 - 25 MM # REINFORCEMENT	
	@ SUPPORT STRIPS 3 @ 50, 5 @ 75, 8 @ 100, REST @ 150 MM.	

2ND, 3RD & ROOF DECK FLOOR BEAM LAYOUT
SCALE: 1:100 (H)



STAIR REINFORCEMENT DETAILS
SCALE: 1:20 (H)



REPUBLIC OF THE PHILIPPINES
UNIVERSITY OF SCIENCE AND TECHNOLOGY - COLLEGE OF ENGINEERING
REINFORCEMENT DESIGN UNIT
REINFORCEMENT DESIGN UNIT
REINFORCEMENT DESIGN UNIT
REINFORCEMENT DESIGN UNIT

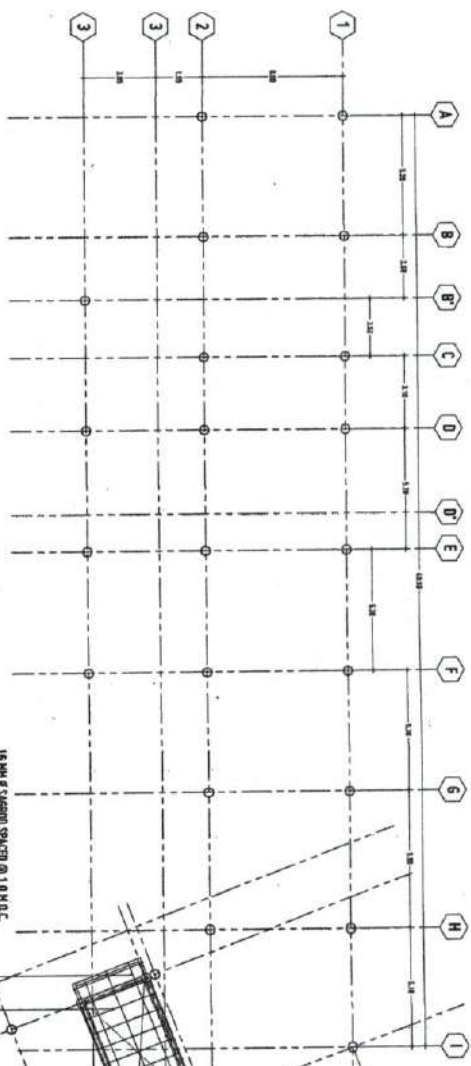
ERNESTO C. ALONSO
REGISTERED CIVIL ENGINEER
NO. 101-101-101-101
NO. 101-101-101-101

COMPLETION OF SPORTS COMPLEX AND RESIDENCE PHASE 1-0
UNIVERSITY OF SCIENCE AND TECHNOLOGY - COLLEGE OF ENGINEERING
UNIVERSITY OF SCIENCE AND TECHNOLOGY - COLLEGE OF ENGINEERING

RECOMMENDED APPROVAL:
ALYSSA-CHRISTINE S. SIBO
REGISTERED CIVIL ENGINEER
NO. 101-101-101-101

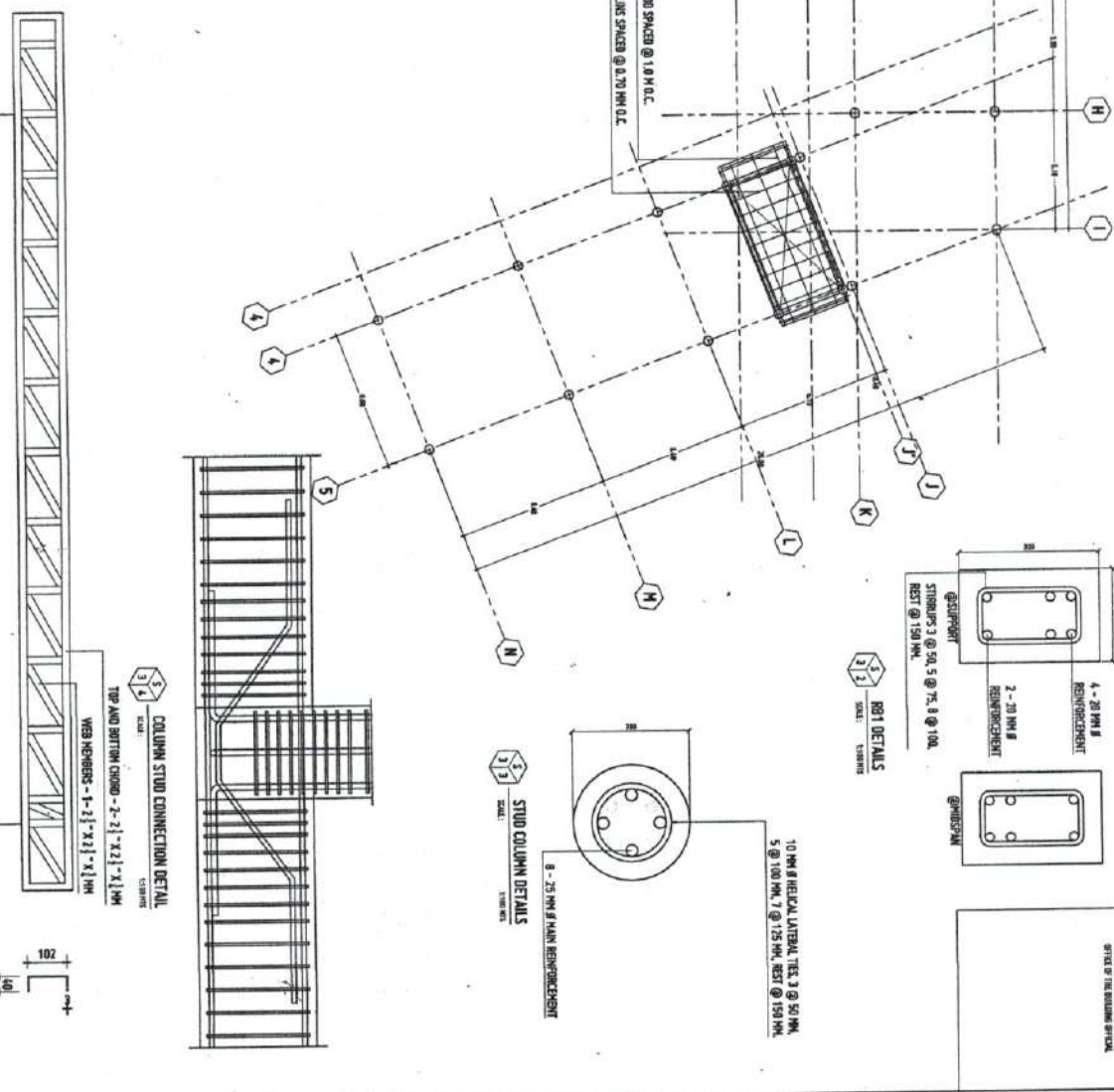
APPROVED BY:
DR. AMERSON S. CALTIORAN
REGISTERED CIVIL ENGINEER
NO. 101-101-101-101

SHEET CONTROL:
NO. 101-101-101-101
NO. 101-101-101-101
NO. 101-101-101-101
NO. 101-101-101-101



SCHEDULE OF SLABS

LEVEL MARK	THICKNESS	REBAR SPACING ALONG SHORT DIRECTION		REBAR SPACING ALONG LONG DIRECTION		REMARKS
		TOP REIN.	BOT REIN.	TOP REIN.	BOT REIN.	
S1	150	10 MM # @ 300	12 MM # @ 250	10 MM # @ 300	12 MM # @ 250	2-WAY
S2	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 150	2-WAY
S3	150	10 MM # @ 300	12 MM # @ 150	10 MM # @ 300	12 MM # @ 150	2-WAY
S4	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S5	150	10 MM # @ 150	12 MM # @ 150	10 MM # @ 250	12 MM # @ 250	2-WAY
S6	150	10 MM # @ 150	12 MM # @ 150	10 MM # @ 150	12 MM # @ 150	2-WAY
S7	150	10 MM # @ 175	12 MM # @ 175	10 MM # @ 175	12 MM # @ 175	2-WAY
S8	150	10 MM # @ 175	12 MM # @ 250	10 MM # @ 250	12 MM # @ 175	2-WAY
S9	150	10 MM # @ 175	12 MM # @ 175	10 MM # @ 175	12 MM # @ 175	2-WAY
S10	150	10 MM # @ 300	12 MM # @ 300	10 MM # @ 300	12 MM # @ 300	2-WAY
S11	150	10 MM # @ 175	12 MM # @ 175	10 MM # @ 175	12 MM # @ 175	2-WAY
S12	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S13	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S14	150	10 MM # @ 300	12 MM # @ 300	10 MM # @ 300	12 MM # @ 300	2-WAY
S15	150	10 MM # @ 300	12 MM # @ 300	10 MM # @ 300	12 MM # @ 300	2-WAY
S16	150	10 MM # @ 300	12 MM # @ 300	10 MM # @ 300	12 MM # @ 300	2-WAY
S17	150	10 MM # @ 175	12 MM # @ 175	10 MM # @ 175	12 MM # @ 175	2-WAY
S18	150	10 MM # @ 175	12 MM # @ 250	10 MM # @ 250	12 MM # @ 175	2-WAY
S19	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S20	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S21	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S22	150	10 MM # @ 300	12 MM # @ 300	10 MM # @ 300	12 MM # @ 300	2-WAY
S23	150	10 MM # @ 300	12 MM # @ 300	10 MM # @ 300	12 MM # @ 300	2-WAY
S24	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S25	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S26	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S27	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY
S28	150	10 MM # @ 250	12 MM # @ 250	10 MM # @ 250	12 MM # @ 250	2-WAY



UNIVERSITY OF SOUTHERN CALIFORNIA
 DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
 ERNEST G. SMITH SCHOOL OF ARCHITECTURE AND CIVIL ENGINEERING
 1080 UNIVERSITY BLVD., SUITE 1000, LOS ANGELES, CA 90089-1686
 TEL: (213) 745-1500 FAX: (213) 745-1501

DESIGNED BY: DR. AMERSON CULTIBAN II
 CHECKED BY: DR. AMERSON CULTIBAN II
 APPROVED BY: DR. AMERSON CULTIBAN II

DATE: 03/20/2023
 SCALE: AS SHOWN

