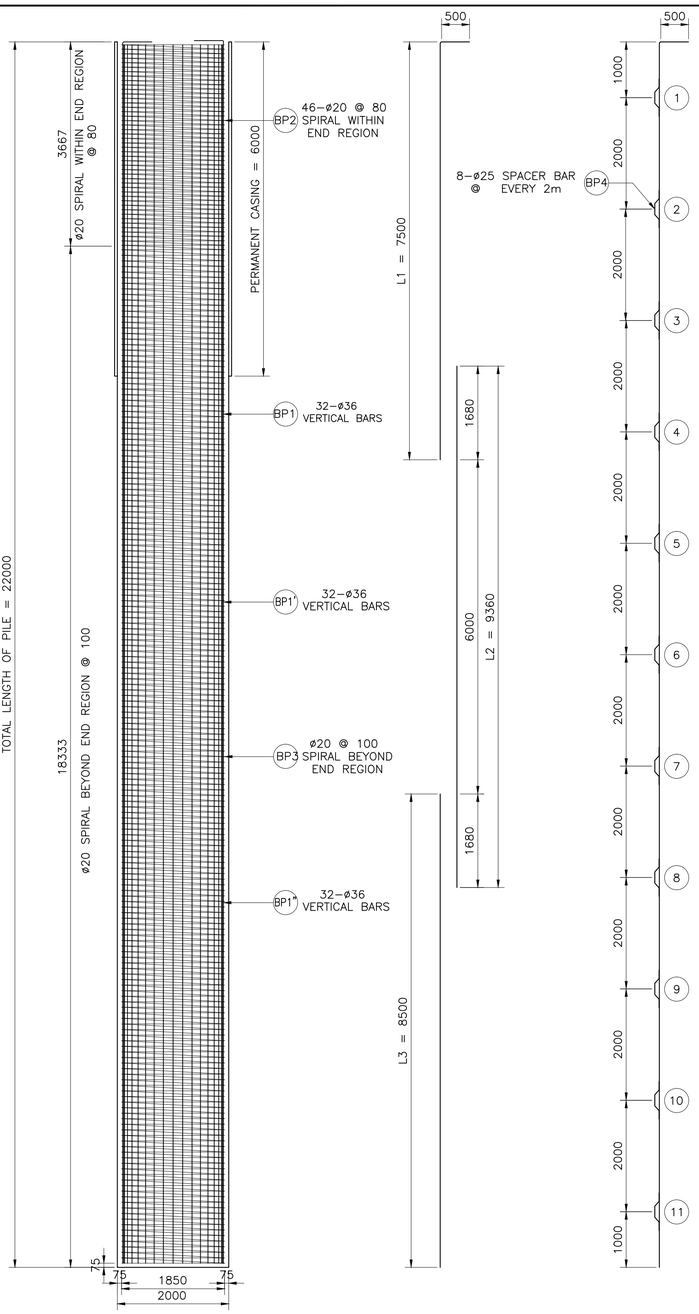
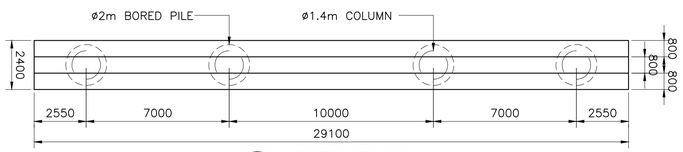


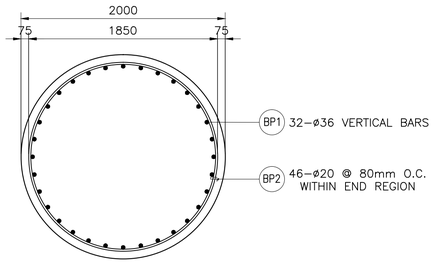
1 VERTICAL SECTION
SCALE 1:55

2 SCHEMATIC DETAIL
SCALE 1:55

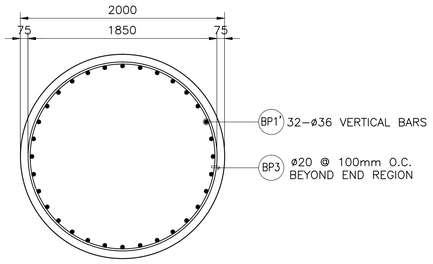
3 STIFFENER LAYOUT
SCALE 1:55



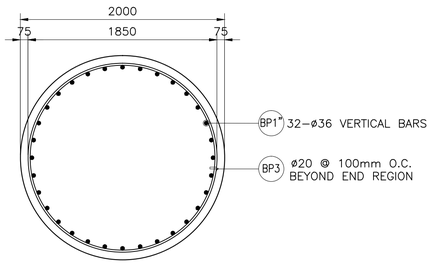
4 PIER PLAN
SCALE NTS



5 PILE SECTION THRU L1
SCALE 1:30

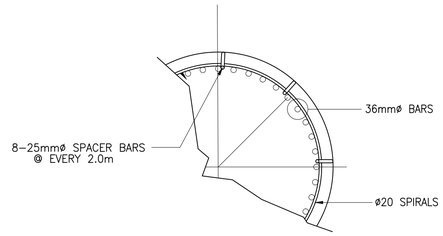


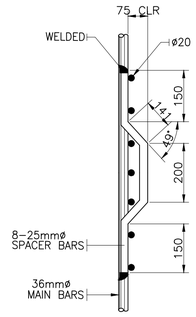
6 PILE SECTION THRU L2
SCALE 1:30



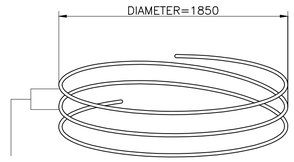
7 PILE SECTION THRU L3
SCALE 1:30

NOTES:
1. THE REINFORCEMENT ARE LAP–WELD CONNECTED (FLARED–V–GROOVE TYPE)
2. SPIRAL REINFORCEMENT ARE LAP WELD CONNECTED. WELDING SHALL BE IN ACCORDANCE WITH ANSI/AWS. D1.4–92, STRUCTURAL WELDING CODE REINFORCEMENT STEEL, USE ELECTRODE E90XX–X.
3. CARE SHOULD BE TAKEN NOT TO DAMAGE BORED PILE/COLUMN MAIN BARS DURING WELDING.
4. SPIRAL REINFORCEMENT SHOULD BE BUTT WELDED WHERE SPIRAL PITCH IS 50mm OR LESS. OTHERWISE USE LAP WELD SPLICE.
5. ADDITIONAL STIFFENERS/GUIDE BARS MAY BE PROVIDED TO STABILIZE THE PILE REINFORCEMENT DURING FABRICATION/ ERECTION SUBJECT TO THE APPROVAL OF THE ENGINEER.
6. DIRTY CONCRETE (MINIMUM 600mm HEIGHT) SHOULD BE REMOVED PRIOR TO CONSTRUCTION OF BACKWALL AND COPING BEAM.
7. CONCRETE – CONCRETE SHALL CONFORM TO THE REQUIREMENT OF CLASS AA CONCRETE WITH 28MPa. CYLINDER STRENGTH AND 19mm MAXIMUM AGGREGATE SIZE.
8. REINFORCEMENT – ALL REINFORCEMENT STEEL SHALL BE DEFORMED BAR CONFORMING TO AASHTO M31 (ASTM 315) GRADE 60. SPLICES OF ADJACENT LONGITUDINAL STEEL SHALL BE STAGGERED 1200 BAR DIAMETER APART, LENGTH OF SPLICES SHALL BE 2200mm.
9. THE STABILIZATION FOR BORED PILE EXCAVATION (SUCH AS USING BENTONITE SLURRY OR TEMPORARY STEEL CASING ETC.) SHALL BE CONSIDERED BY THE CONTRACTOR AND THE COST IS SUBSIDIARY IN PAY ITEM 400(17). THE CONTRACTOR SHALL SUBMIT THE CONSTRUCTION METHOD FOR ENGINEERS APPROVAL BEFORE CONSTRUCTION.

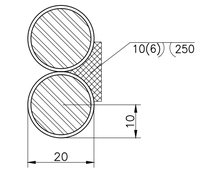




8 BORED PILE CONFINEMENT RING & SPACER DETAIL
SCALE NTS

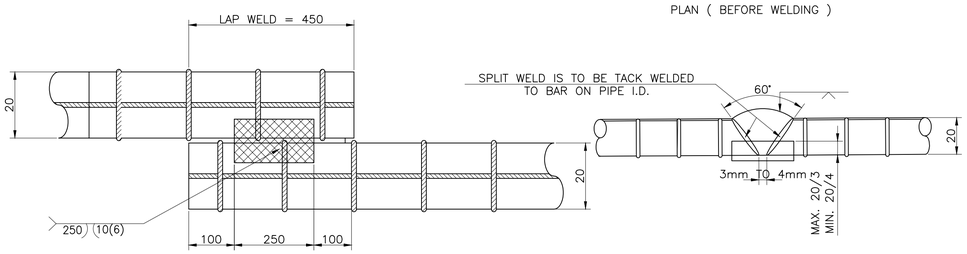


ø20 SPIRAL FINAL PITCH BEYOND END REGION @ 90 WITHIN END REGION @ 50



DOUBLE FLARED –V– GROOVE WELD
SECTION – A

PLAN (BEFORE WELDING)



DIRECT LAP JOINT WITH BARS IN CONTACT

DETAILS OF SINGLE–V–GROOVE BUTT WELD

9 DETAILS OF TIES REINFORCEMENT LAP–WELD CONNECTION
SCALE NTS

SCHEDULE OF REINFORCEMENT FOR PIER 4 BORED PILE

BAR BENDING DIAGRAM	BAR MARK	SIZE (mm)	SPACING (mm)	QTY	BAR SHAPE	BAR DIMENSION (ALL DIMENSIONS ARE OUT TO OUT OF BARS) a	b	c	d	e	LOCATION	BAR LENGTH (m)	TOTAL LENGTH (m)	UNIT WEIGHT (kg./m.)	TOTAL WEIGHT (kg.)	VOLUME CONCRETE (cu.m.)
	FOR ONE (1) BORED PILE (L=22m, Ø2000mm)															
A	BP1	36	AS SHOWN	32	A	0.50	7.5	–	–	–	BORED PILE	8.0	256.00	7.991	2048	70
B	BP1'	36	AS SHOWN	32	B	9.36	–	–	–	–		9.36	299.52	7.991	2396	
C	BP1"	36	AS SHOWN	32	B	8.50	–	–	–	–		8.50	272.00	7.991	2175	
D	BP2	20	80	46	D	0.20	6.3	–	–	–		6.5	299.00	2.468	738	
E	BP3	20	100	184	D	0.20	6.3	–	–	–		6.5	1196.00	2.468	2952	
	BP4	25	AS SHOWN	80	C	0.15	0.141	0.20	0.141	0.15		0.782	62.56	3.856	242	
													TOTAL		10549 Kgs	70 cu.m

NOTE:
PURSUANT TO SECTION 4 OF ANNEX "A" OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF RA 9184, APPROVED BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGNS UNDERTAKEN BY THE CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGNS NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.
THE DESIGN CONSULTANT SHALL BE HELD FULLY RESPONSIBLE FOR THE FAILURE OF THE FACILITIES/STRUCTURES DUE TO FAULTY DESIGN EXCEPT FOR THE CHANGES MADE WITHOUT THE CONFORMITY OF THE CONSULTANT.

ENGR. ALBERTO C. CAÑETE
TEAM LEADER

CONSULTANTS	SUBMITTED BY	DESIGNED BY		REVISIONS	DATE	PROJECT TITLE	SCALE	DRAWING STATUS
Urban Integrated Consultants, Inc. UIC1 CORPORATE BLDG., 8 LANZS STREET, VASRA, DILIMAN, QUEZON CITY, 1128	EFREN L. DAVID PRESIDENT - UIC1 DATE: -	ALBERTO C. CAÑETE, P.P., F.ASEP /PROJECT MANAGER - UIC1 DATE: -	BCDA Bases Conversion and Development Authority CHECKED BY: RYAN PAUL S. GALURA, PROJECT MANAGER, DATE: - APPROVED BY: JOVITO M. SUNGA, OIC - PMD, DATE: -	A B C D E F		DETAILED ENGINEERING DESIGN OF THE PROPOSED AIRPORT-NCC ACCESS ROAD, MACARTHUR-NCC ACCESS ROAD, MACARTHUR-SCTEX ACCESS ROAD & OLYMPIC VILLAGE ACCESS ROAD SHEET CONTENT AIRPORT TO NCC (STA.0+000 - STA.1+500) - SACOBIA PIER 4 BORED PILE DETAILS	AS SHOWN	DRAFT DRAWING
							PROJECT CODE	DRAWING NO. / SIZE
								P2SB-44 / A1
							DATE APPROVED	DATE REVISED / REV.
							-	- / -