

CONSTRUCTION NOTES

DESIGN CRITERIA

REFERENCES

NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (5th i dition)

AMERICAN CONCRETE INSTITUTE (AC-318-99)

STRUCTURAL DESIGN DATA AND SPECIFICATION

MANUAL OF STEEL CONSTRUCTION (7TH ED - AISC)

UNIFORM BUILDING CODE - 1997 Edition

LOADING CONSIDERATION

DEAD LOADS (f=*16)

CONCRETE 150 PCF 2400 KG/CUM

EARTH FILL 100 PCF 1600 KG/CUM

WATER 64 PCF 1025 KG/ CUM

LIVE LOADS (f=*4.88)

DWELLING UNITS 60 PSF 2.90 KPA (kg/sqm.)

ASSEMBLY AREAS 60 PSF 2.90 KPA

PARKING AND GARAGE 100 PSF 4.87 KPA

WIND LOADS 40 PSF 1.95 KPA

GENERAL NOTES

ALL CONSTRUCTION NOTES AND TYPICAL DETAILS SHALL APPLY TO ALL DRAWINGS UNLESS NOTED TO MEET CONDITIONS

ACI-318-99

ASEP SEISMIC DESIGN CODE

NSCP-5th Edition

UBC 1997

WITH ARCHITECTURAL DRAWINGS AND OTHER SPECIALTY TRADES

STRUCTURAL PLANS INTERPRETATION SAHLL BE IN COORDINATION

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE SHORINGS AND BRACINGS TO ALL STRUCTURES AND ENSURE SAFETY TO PROPERTIES.

ALL DIMENSIONS SHALL BE SUBJECT TO CONTRACTOR'S VERIFICATION.

FORMWORKS DESIGN AS REQUIRED SHALL BE SUBMITTED, SHOWING DETAILS AND CALCULATIONS FOR REVIEW.

ALL SUPPLIED MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND OF ACCEPTED PREVAILING TRADE AND PRACTICE

FOUNDATION WORKS

FOUNDATIONS AND FOOTINGS ARE DESIGNED TO REST IN FIRM SOIL, UBGRADE/FILES WITH

MINIMUM SOIL BEARING CAPACITY OF 2500PSF (1/* (20.88) 420 kPa

ALL FOOTINGS SHALL REST ON NATURAL FOUNDATION AND THUS NO FOOTING RESTS ON FILL.

MINIMUM CONCRETE PROTECTION FOR FACE BARS SHALL BE 75.0 MM DEPOSITED DIRECT AGAINST GROUND.

STRUCTURAL EXCAVATIONS SHALL BE TRUE TO GRADE AND LINE AS SHOWN ON THE DRAWINGS.

BACKFILL SHALL BE PLACED IN LAYERS AND NO MORE THAN 200 MM THICK EACH LAYER, MOISTENED AND COMPACTED TO REQUIRED (FDT) BEFORE PLACING THE NEXT LAYER.

SOIL BORING TEST REPORT SHALL FORM PART OF THE DESIGN PLANS AND RECOMMENDATION OF THE SOIL ENGINEER SHALL BE CONSIDERED IN THE WORKS

SOIL BORING TEST REPORT SHALL FORM PART OF THE DESIGN PLANS AND RECOMMENDATION OF THE SOIL ENGINEER SHALL BE FOR COMPLIANCE

BACKFILL MATERIALS SHALL BE NON- EXPANSIVE GRANULAR MATERIALS

REINFORCED CONCRETE

UNLESS OTHERWISE SPECIFIED, THE MINIMUM 28TH DAY CYLINDER COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS: 3000 PSI (PSI / 145 = Mpa)

CAST AGAINST EARTH	3000 PSI	20.0 Mpa
FOUNDATIONS	3000 PSI	20.0 Mpa
SLAB ON FILL	3000 PSI	20.0 Mpa
SUSPENDED SLAB	4000 PSI	28.0 Mpa
	4000 PSI	28.0 Mpa
BEAMS AND GIRDERS	4000 PSI	28.0 Mpa

ALL CONCRETE SHALL BE KEPT MOIST FOR SEVEN (7) CONSECUTIVE DAYS AFTER CASTING

CONCRETE SHALL BE CONSOLIDATED BY VIBRATION BY USING STANDARD CONCRETE VIBRATOR OR OF APPROVED EQUIVALENT

ALL CONCRETE SHALL BE SUBJECT TO TESTING AS REQUIRED FOR IN ACCORDANCE WITH ASTM C 39 UNLEESS OTHERWISE SPECIFIED IN THE DRAWINGS

ALL CONCRETE BREAKS- CONSTRUCTION JOINTS NOT SHOWN ON PLANS OR DETAILS SHALL BE LOCATED AND FORMED TOTHE APPROVAL OF THE ENGINEER

CAMBER TO SUSPENDED STRUCTURES SUCH AS SLABS AND BEAMS SHALL BE 5 MM FOR EVERY 2 METERS OF SPAN UNLESS OTHERWISE SPECIFIED IN THE DESIGN PLANS

HEAVY DUTY 6 MICRON POLYETHYLENE SHEET SHALL BE INCORPORATED ABOVE COMPACTED GRAVEL BALLAST SUPPORTING SLABS ON FILL

LOCATION	MINIMUM TIME/DAYS
COLUMNS	12 HOURS
WALLS/SIDINGS	12 HOURS
ARCH JOIST AND BM SUPPORT	14 DAYS (LL>DL)
ARCH JOIST AND BM SUPPORT	7 DAYS (DL>LL)
ONE-WAY SLAB (3-6 METERS SPAN)	7 DAYS (LL>DL)
ONE-WAY SLAB (3-6 METERS SPAN)	4 DAYS (DL>LL)

REBARS

ALL REINFORCING STEEL BARS SHALL BE CONFORMED TO ASTM A-1562-2T AND DEFORMATIONS TO A 305-56 OR LATEST REVISIONS.

BARS OF 16MM IN DIAMETER AND BELOW SHALL BE OF STRUCTURAL GRADE F_s = 40000 PSI WHILE BARS BARS IN 20 MM IN DIAMETER AND ABOVE SHALL BE OF INTERMEDIATE HIGH GRADE F_s = 60,000 PSI OR AS SPECIFIED ON PLANS

REQUIRED DEVELOPMENT LENGTH FOR ALL BARS SHALL BE MINIMUM OF 40 BAR DIAMETER UNLESS OTHERWISE SPECIFIED.

TABLE OF BAR SPLICE AND ANCHORS

LAP SPLICE LENGTH (MM) ANCHOR LENGTH				
BAR SIZE	TYPE-A	TYPE-B		
10 MM	400 MM	300 MM	600 MM	
12 MM	450 MM	350 MM	600 MM	
16 MM	600 MM	400 MM	600 MM	
20 MM	750 MM	600 MM	600 MM	
25 MM	1100 MM	900 MM	600 MM	
28 MM	1400 MM	1200 MM	600 MM	
32 MM	1900 MM	1400 MM	1000 MM	

BEAMS AND GIRDERS

UNLESS OTHERWISE NOTED ON PLANS, CAMBER ALL REINFORCED CONCRETE BEAMS AND GIRDERS AT LEAST 6MM FOR EVERY 4.5 METER SPAN, EXCEPT FOR CANTILEVER BEAMS WHICH SHALL BE 18.0MM FOR EVERY 3 METER SPAN.

FOR TWO OR MORE LAYERS OF REINFORCING BARS, USE SEPARATORS WITH MINIMUM SPACING OF 1.00 METERS

NO SPLICE SHALL BE ALLOWED ON BEAMS AND GIRDERS WHERE CRITICAL BONDING STRESS IS TO OCCUR. WHERE TENSION SPLICE BE OBLIGED, ADAPT SPLICE LENGTH OF 60 BAR DIAMETER FOR BARS AND 40 BAR DIAMETER FOR DEFORMED BARS. COMPRESSION SPLICE SHALL BE 40 BAR DIAMETER FOR PLAIN BARS AND 30 BAR DIAMETER FOR DEFORMED BARS.

DEFORMED BARS WHERE BEAM REINFORCING BARS END IN WALL, CLEAR DISTANCE OF BARS TO EXTERIOR FACE OF WALL SHALL BE NO LESS THAN 50MM. EMBEDMENT LENGTH SHALL BE NO LESS THAN 40 BAR DIAMETER FOR TENSION AND 20 BAR DIAMETER FOR COMPRESSION.

SLABS

FOR TWO-WAY SLABS, BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONGER SPAN AT MID SPAN AND OVER THE LONGER SPAN AT SECTIONS NEAR SUPPORT (COLUMN LINE). UNLESS OTHERWISE INDICATED, BAR SPACING ALONG COLUMN STRIP CAN BE APPROXIMATELY 1-1/3 TIMES OF THE MIDDLE STRIP BUT IN NO CASE GREATER THAN 2-1/3 TIMES THE SLAB THICKNESS.

PROVIDE EXTRA DIAGONAL REINFORCEMENT AT CORNER SLAB, I.E. WHERE TO ADJACENT DISCONTINUOUS SLAB MEET

MASONRY WORKS

CONCRETE HOLLOW BLOCKS, UNLESS OTHERWISE SPECIFIED SHALL BE 150MM THICK. LOAD BEARING (750 PSI MIN)

DOWELS SHALL ADOPT DIAMETER 10MM AT 600MM O.C. BOTHWAYS. UNLESS SPECIFIED

STRUCTURAL STEEL

ALL MATERIALS SHALL CONFORM TO ASTNA-36 STEEL UNLESS SPECIFIED.

SHOP DRAWING SHALL BE MADE IN CONFORMITY WITH BEST MODERN PRACTICE WITH DUE REGARD TO SPEED AND ECONOMY IN FABRICATION AND ERECTION.

UNLESS OTHERWISE SPECIFIED, THE USE OF AUTOMATIC WELDING MECHANISM IS MANDATORY IN THE FABRICATION OF BUILT-UP SECTIONS.


WELDS SHALL BE MADE ONLY BY WELDER AND TACKERS WHO HAVE BEEN PREVIOUSLY QUALIFIED BY TESTER CODE FOR WELDING AND BUILDING CONSTRUCTION.

FABRICATOR-ERECTOR SHALL PROVIDE QUALITY CONTROL PROCEDURES TO THE EXTEND DEEMED NECESSARY TO ENSURE THAT ALL WORKS ARE PERFORMED PER SPECIFICATION.

MATERIALS TO BE USED SHALL BE WITH CERTIFIED MILL CERTIFICATE OF COMPLIANCE

LENGTH OF FILLET SHALL NOT BE LESS THAN FOUR TIMES NOMINAL SIZE.

MINIMUM SIZE OF FILLET WELDS	MINIMUM WELD FILLET	
MATERIAL THICKNESS OF THICKER PART OT.	MM	IN
6.25 mm	3.00	1/8
6.25-12.0 mm	4.68	3/16
12.0-18.0 mm	6.25	1/4
18.0-37.0 mm	7.8	5/16

<div> PHILIPPINE RICE RESEARCH INSTITUTE CENTRAL EXPERIMENT STATION MALIGAYTA, MUNOZ CITY, NUEVA ECUA</div>	R.A. 9266 - Art. 3, 5: c) 20 Drawings and Specifications shall signed, stamped or sealed as instruments of service are the intellectual properties and documents of the architect whether the object for which they are made is executed or not. It shall be unlawful for any person, without the consent of the architect or author of said documents, 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.	PROJECT TITLE: TYPE-A = BUNDLED BARS, TYPE-B = INDIVIDUAL BARS NOT MORE THAN 33 % OF THE BARS SHALL BE SPLICED WITHIN LAP LENGTH	PRODUCED BY:	DESIGN BY:	NOTED:	END USER:	RECOMMENDING APPROVAL:	APPROVED:	DESIGNED BY: RBB	SHEET NUMBER:		
		IMPROVEMENT OF EXISTING ADMINISTRATIVE BUILDING WITH CONFERENCE/MEETING ROOMS PHILRICE-ISABELA, SAN MATEO, ISABELA	PHYSICAL PLANT DIVISION INFRASTRUCTURE UNIT PHILRICE-CES SCIENCE CITY OF MUÑOZ, NUEVA ECUA							DATE: NOVEMBER 2018	S1	
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										DATE: NOVEMBER 2018		
										CHECKED BY: RBB	27	57
			ARCH. RENATO B. BAJIT PPD DIVISION HEAD PHILRICE - CES	LEO C. JAVIER BRANCH DIRECTOR PHILRICE - ISABELA	ABNER T. MONTECALVO DED FOR ASF PHILRICE - CES	DR. SAILILA E. ABDULA EXECUTIVE DIRECTOR PHILRICE-CES						