GENERAL NOTES

1. CODE OF PRACTICE

Detailing and workmanship shall be according to ACI 318-08 , and the technical specifications provided .
Approved equivalent international codes shall be accepted.
Design for concrete done according to ACI 318-08 & Jordanian National Building Code.
Uniform Building Code (UBC) For the definition of lateral Seismic Loading.

2. DIMENSIONS

a) GRAVITY LOADS ESTIMATION ARE IN ACCORDANCE OF JORDAN

b) UNLESS OTHERWISE INDICATED ON DRAWINGS ELEVATIONS ARE IN METERS, DISTANCES AND DIMENSIONS IN cm., REINFORCEMENT BAR SIZES IN mm.

3. DRAWINGS

1- Structural drawings shall be read in conjunction with Architectural, Mechanical and Electrical drawings.
2- Sleeves and openings smaller than 200x200mm are not shown on the Structural drawings . For required openings refer to Architectural . Mechanical and Electrical drawings .
3- Contractor shall prepare working drawings and bar bending schedules for reinforcement in a format agreed with the engineer .
4- Drawings are not necessarily to scale .
5- Contractor shall supply detailed drawings and calculations for all support and temporary works and propping systems as applicable and all other relevant information subject to the Engineer's approval prior to commencement of construction .

4. REINFORCEMENT

1- Reinforcement shall be deformed high strength steel bars of characteristic strength of 420 Mpa complying with ASTM standards or equivalent for diameters 10mm & above .
2- Reinforcement shall be deformed steel bars of characteristic strength of 420 MPa complying with ASTM standards Or equivalent for diameters 10mm & below .
3- Contractor to provide bar bending schedule.
4- Where bar length is not specified , longest practicable bar length shall be employed with staggered lap splices. Lap length shall be 45 times bar diameter .
5- Bar crank shall not exceed 1: 12.

5. REINFORCED CONCRETE

The following two types of reinforced concrete shall be employed:

B300 – Grade 300 for all reinforced concrete members except architectural fair faced concrete facades.
Characteristic Strength as defined by a 150 mm cube at age of 28 days shall be:

B300 – 30*0.8= 24 MPa(Because it is rectangular section)
Minimum cement content, per cubic meter, shall be:
B300 – 350 kilograms

6. PLAIN CONCRETE

The following type of plain concrete shall be employed:

B150 – Grade 150 concrete of characteristic cube strength equal to 15 MPa, minimum cement content of 150 kilograms per cubic metre, and a maximum water:cement ratio of 0.70 to be used for blinding concrete under foundations.

7. AGGREGATES

Maximum aggregate size shall be 25 mm.

8. FOUNDATIONS

– Contractor shall adhere strictly to the geotchnical report for this project. He shall be responsible to determine strata characteristics at the appropriate levels
– Allowable Bearing capacity =400MPa .
– Contractor shall be responsible for the coordination of all required E/M services within the sub – structure subject to approval of the engineer .
– Foundations are designed for three floors .

9. BACK Fill

All back fill material shall conform to specifications and shall be properly tested . No back filling is permitted around basement walls prior to pouring of framing slabs .

GENERAL RULES

1. NOTATION

T.B=TOP BARS
B.B=BOTTOM BARS
T.B.01=TIE BEAM 1
S= SPACING.
ø= DIAMETER FOR STEEL BARS .
@ OR / = INDICATES THAT THE FOLLOWING NUMBER IS THE SPACING BETWEEN BARS.

2. COVER

Clear concrete cover to reinforcement shall be :

75mm for concrete below grade for non salty soils
20mm for ribs 40mm for beams 40mm for columns
20mm for walls, slabs and joists.

Reinforcing bars of girder shall be anchored over the center line of column,
And reinforcing bars of sub-beam shall be anchored over the center line of girder.

3. Min. Bar Spacing

Unless otherwise shown below, sub-beam and cantilever beam shall be conformed

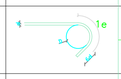
Bar spacing "a" shall be not less than the greatest in the following three cases:

1) 25 mm
2) 1.5 d
3) 1.25 times the max. size of coarse aggregate.

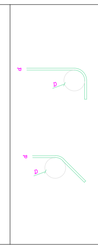


4. Standerd Hook Details and Bar Bends

End position

Hook details			Secondary Steel	Main Steel	Application
135°		D	4d	--	13mm dia. bar and smaller
		1e	12d	--	
90°		D	4d	--	T- and L-shape stirrups
		1e	12d	--	
135° 90°		D	4d	--	90° 135° Spacer bar
		1e	8d	--	
		1'e	10d	--	

Intermediate position

Hook details			Secondary Steel	Main Steel	Application
90° or 45°		D	3d and over		Hoop and stirrup
		D	4d and over		16mm dia. bar and smaller
		D	5d and over	6d	Main bars less than 30mm in column and girder
		D	8d	8d	30mm dia bar and over in column and girder

Concrete Type(Fc')	Steel Type(Fy)
24 MPA	420

PALESTINE POLYTECHNIC UNIVERSITY
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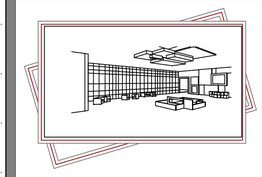

Designed by:
Ihab Talahmeh
Hammada Hosheya
Mahmoud Mahariq

Supervisor:
Dr. Riyad Abdel-Karim Awad

Project:
Dura Woman's Centre

Drawing :
General Notes & General Rules

No.:
S00

Scale:
1:200

Date:
29-4-2018