Assignment No. (4) Geometric Design of Intersection



For the following intersection, the OD matrix was given as follows: 1.

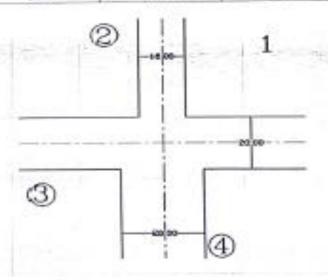
From / To	1	2	3	4
1	47	400 .	1100	300
2	320		400	700
3	750	350 -	++	160
4	140	1000	200	**

It is required to:

- a- Draw the traffic flow diagram with a reasonable scale
- b. Draw the given intersection using geometric design basics with scale 1:500 given the following.
- Minimum curb radius is 12 m
- Minimum sidewalk width is 2 m
- Minimum median width is 2 m
- Take into consideration pedestrian movement at the intersection Showing all the markings and pedestrian crossings on the roads

The traffic flow rates in PCU/hr of the intersection below is given in the following matrix:

From / To	1	2	3	4
1		370	550	130
2		7*	40	111
3	450	250	(44)	350
4	110	1050	200	



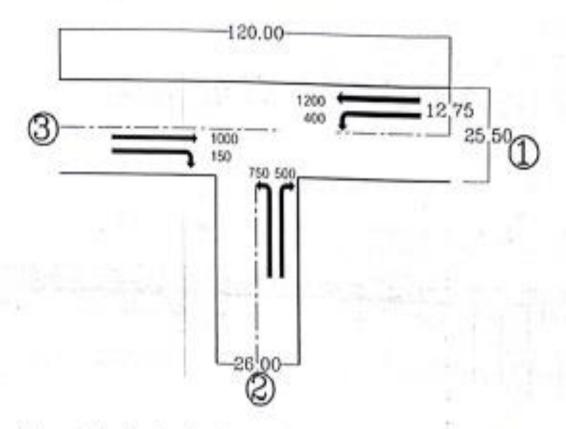
It is required to:

- a- Draw traffic flow dingram with reasonable scale
- Besign the geometry of intersection with scale 1:500 considering that there's no pedestrians' movement, showing all the markings and dimensions.
- Choose medians, pavements, and road width taking in consideration the number of suggested lines.

Approach	Number of Lanes		
1	2		
2			
3	2		
4	3		



3. The figure shows the flows at an intersection:



It is required to draw the given intersection using geometric design basics with scale 1:500 given the followings:

- Start drawing from the given centerlines.
- Minimum curb radius is 8 m.
- Minimum sidewalk width is 4 m.
- Minimum median width is 2 m.
- Take into consideration pedestrian movement at the intersection.
- Show all the markings and pedestrian crossings on the roads.