IV

Joe's and Sally's speed at the merge of highways 40 and 270

Joe / / Sally	courteous	aggressive weaving	duels and cutting off	Sally's best speed
courteous	40 / / 40	20 / / 50	2 / / 45	50
aggressive weaving	50 / / 20	30 / / 30	5 / / 25	30
duels and cutting off	45 / / 2	25 / / 5	3 / / 10	10
Joe's best speed	50	30	5	

the prisoner's dilemma effect leads inconsiderate people to agressively weave and trap everyone into a less than optimal result. the courteous people who aren't asked about here get slowed down even more (20 mph in the example). A better solution would be for people to do an orderly merge where everyone takes their turn and everyone gets through the constriction at 40 mph.. How can this be enforced? Research on this shows that preventing inconsiderate "me firsters" from implementing their destructive behavior results in immediate increase in traffic flow. There is also a lower probability of accidents from people slamming on their brakes when the "me firsters" cut in at the front.

V

Solution:
Hoop-->Trac   60
Wiz-->trac   60
Doog-->benn   120
Doog-->trac   130
cost =4030

Even though there is enough capacity, it would lower cost to build extra capacity at either Doogie Corners (-3 per unit) or Wizcity (-2 per unit) sinc edoogie has the best shadow price, that's the best to expand. expand by allowable increase of 60 at that rate.

Hooperman-->Bennington objective coefficient (cost) of 27 has an allowable decrease of 7 before the solution would shift to a different corner.