The following is the linear program to find the shortest possible complete baseball roadtrip. 'Shortest' is defined as the the difference in time between the start time of the first game and the time of return to that city after seeing all 30 teams. Note that the schedules are taken into account for this linear program. A full explanation can be read at http://on.wsj.com/kT23Yy or http://harvardsportsanalysis.wordpress.com/2011/06/03/roadtrip/.

Sets:
B set of Ballparks
N set of game numbers (1 through 81)

Parameters:
$T_{b,b'}$ $\forall b, b' \in B$ The time it takes to travel between city b and b'
$S_{n,b}$ $\forall b \in B, n \in N$ The start time of the nth game in city b
D Duration of the baseball game

Variables:
$X_{n,b}$ $\forall b \in B, n \in N$ A binary variable representing whether or not the nth game in city b took place
F_b $\forall b \in B,$ A binary variable representing whether or not the first ballpark attended is b
L_b $\forall b \in B,$ A binary variable representing whether or not the last ballpark attended is b
E A variable representing the time the last game ends
C A variable representing the time the first game begins
P A variable representing the time it takes to travel from the first city to the last city

Objective: Minimize E-C+P+D Minimize the total trip time

Constraints:
(1) $B \leq S_{n,b} + (1 - X_{n,b}) * M \quad \forall b \in B, n \in N$
(2) $E \geq S_{n,b} + (1 - X_{n,b}) * M \quad \forall b \in B, n \in N$
(3) $\sum_{n \in N} X_{n,b} = 1 \quad \forall b \in B$
(4) $X_{n,b} + X_{n',b'} \leq 1 \quad \forall b, b' \in B, n, n' \in N \ such\, that\, |S_{n,b} - S_{n',b'}| \leq T_{b,b'} + D$
(5) $\sum_{n \in N} X_{n,b} * S_{n,b} \leq (1 - F_b) * M + \sum_{n' \in N} X_{n',b'} * S_{n',b'} \quad \forall b, b' \in B$
(6) $(1 - L_b) * M + \sum_{n \in N} X_{n,b} * S_{n,b} \leq \sum_{n' \in N} X_{n',b'} * S_{n',b'} \quad \forall b, b' \in B$
(7) $\sum_{b \in B} F_b = 1$
(8) $\sum_{b \in B} L_b = 1$
(9) $P \geq T_{b,b'} - (2 - F_b - L_{b'}) * M \quad \forall b, b' \in B$

(1)The beginning time of the trip is less than the starting time of all games that are part of the road trip. Note that the M is the 'Big M', an arbitrary large value such that the constraints will always hold.
(2) The end time of the trip is less than the starting time of all games that are part of the road trip

(3) All ballparks must be visited exactly once
(4) If the time it takes to watch a game and travel between two parks is greater than the difference in starting times, then only one of the games can be part of the trip
(5) The first ballpark visited must have an earlier start time than all other games that are part of the trip
(6) The last ballpark visited must have an earlier start time than all other games that are part of the trip
(7) Only one ballpark can be the first ball park
(8) Only one ball park can be the last ball park visited
(9) This constraint sets a lower limit on the time it takes to travel between the first and last ballpark