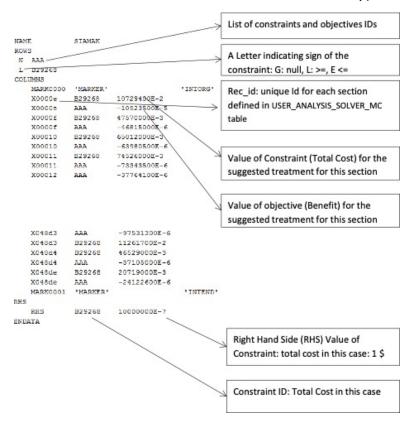# MPS File in Pavement

Once data preparation is completed in the AgileAssets software and all benefit and costs for all treatments are calculated, the problem is formulated and ready to be passed to solver. Problem formulation is passed to the solver in a text file in a standard format called Mathematical Programing System (MPS). The MPS file simply contains the values of constrains and objectives as depicted in the following picture.

MPS is a standard format and further information about it can be found in many places such as Wikipedia: http://en.wikipedia.org/wiki/MPS_(format)

```
NAME         STAMAK
ROWS
 N  AAA
 L  B29268
COLUMNS
    MARK0000  'MARKER'                'INTORG'
    X0000e    B29268   1072940DE-2
    X0000e    AAA      -10523500E-5
    X0000f    B29268   4757000DE-3
    X0000f    AAA      -46815000E-6
    X00010    B29268   65012000E-3
    X00010    AAA      -63980500E-6
    X00011    B29268   74526000E-3
    X00011    AAA      -73343500E-6
    X00012    AAA      -37764100E-6

    X048d3    AAA      -97531300E-6
    X048d3    B29268   11261700E-2
    X048d4    B29268   46529000E-3
    X048d4    AAA      -37105000E-6
    X048de    B29268   20719000E-3
    X048de    AAA      -24122600E-6
    MARK0001  'MARKER'                'INTEND'
RHS
    RHS       B29268   1000000DE-7
ENDATA
```

List of constraints and objectives IDs

A Letter indicating sign of the constraint: G: null, L: >=, E <=

Rec_id: unique Id for each section defined in USER_ANALYSIS_SOLVER_MC table

Value of Constraint (Total Cost) for the suggested treatment for this section

Value of objective (Benefit) for the suggested treatment for this section

Right Hand Side (RHS) Value of Constraint: total cost in this case: 1 $

Constraint ID: Total Cost in this case

USER_ANALYSIS_SOLVER_MC table stores information related to MPS file.

MPS file can be download by right clicking on the scenario and clicking **Download MPS File**.