PRAGOPROJEKT

ROADPAC'14

PROGRAM RP77

Boundary of Land Acquisition

User Guide

Revision 25.02.2014

1. Introduction

Program RP77 Boundary of Land Acquisition is part of package RoadPAC. It can be used for complex road processing as one of final programs.

1.1 Program Function

Program calculates coordinates of land acquisitions boundary and areas of permanent land acquisition. Offset and chainage of boundary points related to centreline are calculated in every corridor cross section. Distance is defined by embankment heel or edge of cut. Depending on specification it relates either to IP of roadway and terrain or to the point at the end of fillet. Fillet is performed by curve with 2 m long tangents. When the length of adjoining slope is shorter than 2 m fillet will use this shorter length.

Distance of boundary stone is taken as spatial (3D), no horizontal. Basic information for calculation is taken from file corridor cross sections (road .SPR) and from main points of horizontal alignment file (road .SHB). File of input data (road .V77) is created by dialogue. Listing (road .L77) contains coordinates of bench marks, coordinates of roadway and areas of permanent land acquisition (partial areas between adjoining sections and also totals). Two working files (road.030 and road.604) are created for connection to AutoCad - RoadCAD7 and obsolete program RP61 respectively.

1.2 Data Files

Input files

.V77 - input data file of program RP77

.SPR - corridor cross sections

.SHB - main points of horizontal alignment

Output files

.L77 - listing

.030 - output temporary working file

.604 - output temporary working file

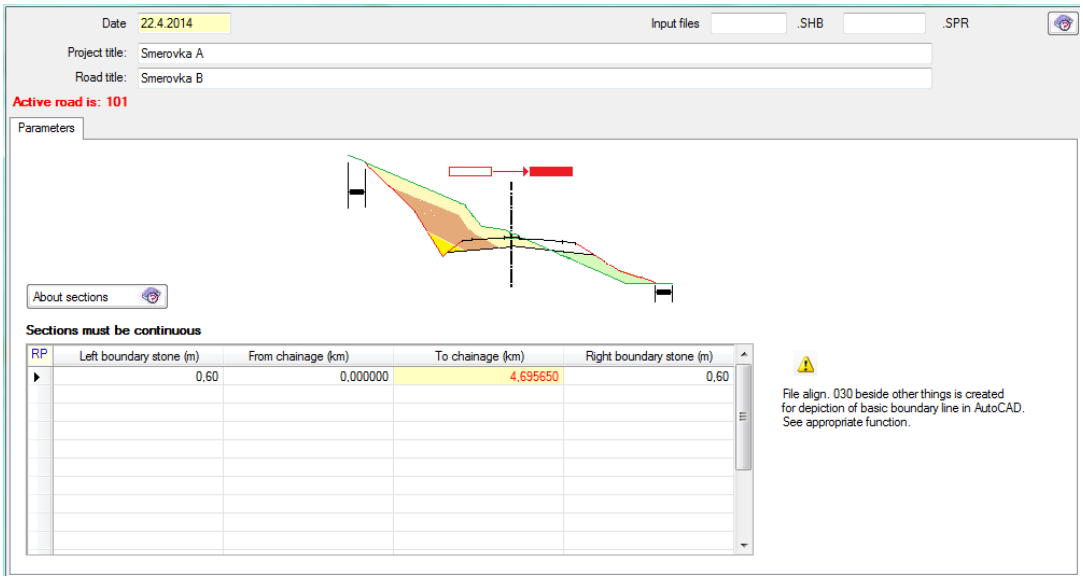
2. Input Data

Input data can be entered directly in tables of forms or by clicking on individual controls placed on form tabs. Basic information on editing data is described in chapter „Introduction “.

Input data of program Boundary of Land Acquisition include two blocks. They are continuously displayed when using the program.

2.1 Control Data

Table control data includes basic information for processing of input data.



Description of items:

Date date of input data specification

Project Title text written in header of listing

Road Title ditto

File Name Main Points of horizontal alignment in case that this information is not specified, the program uses road name up to 8 character from main menu active road.

File Name Cross Section ditto

2.2 Calculation Parameters

Meaning of individual items in table SEGMENTS ……..

From chainage: chainage of segment start

To chainage: chainage of segment end

Boundary bench mark distance on the left and right:

Distance in meters from IP with terrain or from end of fillet.

3. Listing

Listing is created during calculation in file 'road'.L77. Its printing can be controlled from the main menu of the RoadPAC.

Listing includes list of used files and also information about specified parameters for every specified section as follows:

```
Working file: AA.030 is created
Working file: AA.602 is created

*     Input file Cross sections with filename AA.SPR used
*     Project: Arbitrary text
*     Road:    Arbitrary text
*     Date of creation        13. 5.2004  by program  RP51
*     Date of last editing    13. 5.2004  by program  RP51

*     Input file Main points of HA with filename AA.SHB used
*     Project:
*     Road:    Toto je trasa AA
*     Date of creation         5. 5.2004  by program  RP12
*     Date of last editing     5. 5.2004  by program  RP12

    Segment from km    .000000 up to km    .713060 Bench mark on the left =   4.00m  Bench mark on the right =   5.00m
    In calculation is no fillet of slope under consideration
```

Table of boundary marks coordinates and calculated land acquisition areas with following data:

```
Coord.l.requir LEFT                 Y, X
Coord.of edge  LEFT                 Y, X
Chainage                            km
Coord.of edge  RIGHT                Y, X
Coord.l.requir RIGHT                Y, X
Area (between cross sections)       ha
Area (suma)                         ha
```

4. Warning Messages

When there is no report about fatal error in input data, listing of input data information will be finished and follows tables with results.

```
Number of segments = 2   ...  Input data O.K
```

The program differentiates between fatal errors, which usually cause program termination with unusable results and formal errors that are handled by alternate solution. Fatal errors are marked by *** in reports and formal errors are marked by **. The following table contains list of warning messages and comments to alternate solution:

Text Error Report	**Other solution**
*** Control line * 77 is missing	
*** Incorrect type of control line: nnn off	
** First line ignored	
*** No marked line* read between command data *	
*** Early data end	
** Early data end, line 999 is missing	
*** Incorrect reading the line: (copy of line)	
** Incorrect type line, ignored: (copy of line)	

*** Incorrect line 771	
*** More than 50 sections, other are ignored	
*** Incorrect section specification, end smaller than start	
*** Specified sections overlap	