*4 Attachment 1*

Township of Manheim

**Exhibit 1**
**Manheim Township Building Numbering Plan**

The following system of assigning building numbers is adopted with Ordinance 1999-03.

Attachments: Street name changes and annotated map
Grid overlay map
Street axis and number range listing
Address list, including old and new addresses
Example of number calculation spreadsheet
3.5 inches Floppy Disk with the above files[1]

## The Grid Overlay Map

The system of street address assignments begins with the grid overlay map. The grid consists of a north-south axis and an east-west axis. The origin for both axes is at the upper left corner of the grid overlay. The axes origin's both start at the building number 1000 and contain numbered grid lines every 1000 feet. The numbers assigned to the grid lines are based on one building number assigned every five feet, so the number assigned to consecutive grid lines increase by 200 building numbers. (1000ft/5ft = 200 numbers) The north-south axis increases from the north origin point to the south at the Maryland border. The east-west axis increases from the west origin point, or West Manheim Township border, to the east, or Codorus Township border.

## Street Axis and Start Point Numbering Assignment

The existing, or proposed new street, is assigned an axis based on the general alignment with one of the grid axes. If the street traverses more distance from north to south, that is the axis assigned. If a new street is diagonally aligned, an axis determination should be based on the axis of the cross street, or intersecting street, it connects to. If the cross street is a north-south axis, the diagonal new street should be assigned an east-west axis. Some of the streets entering Manheim Township from other jurisdictions had the start points altered to meet street address system established in surrounding jurisdictions. These streets are noted on the street axis and range listing.

Once the new street is assigned an axis, the start point number should be determined from the grid overlay map. If the new street were assigned a north-south axis, the northern end of the street would be the start point for number assignment. If the new street were assigned an east-west axis, the western end of the street would be the start point for number assignment. The start point number is then calculated by locating the start point of the new street on the grid overlay

[1] **Editor's Note: The 3.5 inches floppy disk is on file in the Township office.**

map and determining the grid line of the appropriate axis with closest proximity to the start point of the street. If the start point falls between the grid lines, the start point number can fall between the grid lines, but should end with 00.

The end point number for the new street should also be calculated. This is done by first measuring the entire length of the new street in feet. Divide the measurement by 5. Round this number up to the nearest 50. (201 would round to 250, 251 would round to 300) Add this rounded number to the start point number for the new street. This is the range for the new street.

**Example:**

The new street traverses a greater distance east to west, so an east-west axis is assigned to the new street. The start point is the west end of the street. The west end of the street falls about half way between the 5600 and 5800 east-west axis grid overlay map lines. The start point number assigned would be 5700. The entire length of the new street is 2,370 feet. Dividing 2,370 by five equals 474.6 Rounding this result to the nearest 50 would equal 500. Adding 500 to the start point number of 5700 gives the end point number of 6200. The new street now has an east-west axis and a range of 5700 through 6200. When new streets are proposed, it is important to research the data for the existing street(s) that will be intersecting the proposed street. This information should be updated on the axis and range database included on the floppy disk for the House Numbering Program.

**Building Number Assignments**

Once the start point number for a street is determined, assignment of building numbers is completed as needed. Odd numbers shall always be on the west side of north-side axis streets, and on the south side of east-west axis streets.

Beginning at the street’s start point, measure along the centerline, in feet, the distance to the center of the point of access for the building requiring a street number. The measurement can be done manually or by using VASCAR. Round this measurement to the nearest 10-foot increment. (100-104, round down to 100; 105-109 round up to 110: Note this is due to one odd and one even number used every 10 feet) Divide this number by five to determine the set number (one odd and one even) to use. Add this number to the start point number of the street. If an even number is needed, use the sum calculated (set number + start point number) as the building number. If an odd number is needed, add one to the sum calculated (set number + start point number – 1) and assign as the building number.

In cases where two principal buildings use one access drive, calculate the first number as described and assign to the first occurring principal building, then assign the next highest consecutive odd or even number to the second occurring principal building.

In cases where more than two dwellings would be served by a single access, the access shall be considered a private road. A private road name approved by

Manheim Township shall be assigned, thus providing a new axis and number range. New private roads should only occur when lots of record gain right of way access, or a new street is not dedicated for public use.

New principal building numbers along streets having existing house numbers assigned through this plan can be calculated from the last occurring assigned building number. Measure the distance from the center of the point of access at the last occurring building number to the center of the point of access for the new principal building. Round this measurement to the nearest 10 foot increment. (100-104, round down to 100; 105-109, round up to 110) Divide this number by five to determine set number (one odd and one even) to use. If the last occurring building number is even, add that start number to the set number to determine the new set number. If the last occurring building number is odd, subtract one from that number to get the start number, then add the set number to determine the new set number. If an even new building number is needed, assign the sum (new set number) as the building number. If an odd building number is needed, add one to the sum (new set number) for the building number.

**Computer Files on Disk**

A disk containing files titled “NwHs#Asign.wks”, “RoadRange.wdb”, “Residents.wdb”, and “new#list.apr” is part of this documentation. “NwHs#Asign.wks” is a spreadsheet designed to perform new number calculations. Explanations are contained in this spreadsheet. “RoadRange.wdb” is a listing of street axes and ranges. This file should be updated as new streets are adopted. “Residents.wdb” is a listing of all current addresses assigned. This file should be updated with ownership transfers, new principal buildings and new streets. If tenant registration would be required in the future, this information could be updated in this file as well. Some owners of rental properties do update their tenants with this office voluntarily, so update the tenants in the residents list when possible. “new#list.apr” is an Arcview GIS map project file showing assigned building numbers for the current land parcels containing principal buildings. “Residents.wdb” and “new#list.apr” should be updated on this disk as new building numbers are added.