

A Rental Value Assessment of Arden's Leasehold Lands

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The Village of Arden, Delaware, founded in 1900, collects land rent from each of 198 leasehold lots. With the rent, it pays all county and school district real estate taxes levied on land and buildings within the community, and funds all public expenditures made by the Village of Arden itself. Although Arden has been collecting land rent for revenue for more than a hundred years, I believe this is the first comprehensive assessment of Arden's leasehold lands based on *the market in rental housing*.

Arden and the adjacent communities Ardentown and Ardencroft are likely the only entities in the country where assessing the rental value of land is required; however, the benefits of collecting public revenue from the rental value of land are enormous.

Taxes on income and sales are passed on to the consumer in higher prices, but revenue from the rental value of land is paid by the owners of land only. It increases the incentive to use the land for housing or job-creating economic activity — because idle land generates no income, yet the rent must be paid whether the land is used or not. It discourages leap-frogging sprawl and encourages in-fill, connecting more homes and business with less miles of road, pipe, and wire. With an orderly development, the police and fire departments do not travel past empty homes and vacant lots, another saving of revenue. Raising revenue from the rental value of land is simply charging each landholder for the *value of the benefits received by the landholder from the community in direct proportion to the value of the benefits received*.

What follows is an appraisal of the market rental value of Arden's leasehold lands showing the method used, formulas, and actual assessment of each parcel. By assessing the rental value of each lot, the relative value of one lot to another is also recorded. While Arden is primarily a residential community, these same principles can be applied to determine the rental value of commercial, industrial, and other types of land as well.

Wages, Interest, and land-rent

The United States has 700,000 square miles of arable land. If the rental value of land were collected from the entire country, it would encourage people to put their land to its highest and best use. People and industry would tend to concentrate on the most potentially productive places. In turn, that concentration of people would eliminate the demand for and the value of much of the less potentially productive places. It would create a free land opportunity that would raise wages and the return to productive investments; for no one would work for others unless he were offered more than he could produce working for himself. It was America's free-land opportunity that gave to the United States of the 19th century the highest wages in the world.

By contrast, Arden has one quarter of one mile of arable land, and the entire population of the United States may move to Arden if they choose. No matter how great the incentive, no matter how fully the land in Arden is used, it cannot create

a free land opportunity. Therefore, it can not raise wages or the return to productive investments. By the same principle, it cannot lower the rental value of land.

However, up to a point, the more of the rental value of Arden's land is collected the greater the incentive for each leaseholder to put his land to efficient use within the existing regulations. It tends to increase the population and the value of land — until the point is reached where more people would diminish the quality of life and, therefore, the value of land. Without empty houses or vacant lots, it costs less per resident to build and maintain the roads and sewers and collect the garbage.

Markets & land-rent

While determining the market value of rental housing is not an exact science, what people pay for each of two similarly situated lots and dwellings is generally comparable. Although the majority of Arden houses are owner occupied, there are a sufficient number of rental units to constitute a rental market. The rental value of the land can be separated from the value of buildings by an objective method. Yield, minus wages and interest (the return to products), equals land rent. By subtracting the annual cost of providing the house and other improvements from what is paid for a house and the land on which it sits, the rental value of land remains.

Highest and best use

Land-rent is that portion of the yield or income that results from land. The rental value of land (Potential Land-Rent) is the largest land-rent that could potentially be obtained. By consulting with a real estate agent familiar with the market for rental housing in Arden, the rental value of houses can be established. By subtracting the cost of providing several different-sized houses from what they could be rented for on a given lot indicates an equal number of different specific land-rents. The highest land-rent indicates the highest and best use and is the rental value of the land. Houses that are smaller than optimal yield less land-rent, and houses that are larger than optimal yield less land-rent.

The Application

While Arden's Deed of Trust and its leases require the full rental value of the land to be assessed and collected, the charter provides that a lesser amount may be collected when two thirds of the Town Assembly and a majority of the residents desire it. In the year 2013, it is obvious that to collect the full rental value of Arden's leaseholds would serve no practical purpose, nor is it being advocated, as it would yield an additional amount of revenue equal to several times the amount of money being spent by the various committees within the Village of Arden itself.

However, regardless of how much rent is to be collected in total, there are 198 lots of 180 different sizes, the largest being more than seven times the size of the smallest. Some lots are oddly shaped, and dozens are adjacent to parkland or thoroughfares. Certain lots were grandfathered with special privileges when zoning was enacted, and other lot owners were denied the option to build similar structures or engage in commercial activities. As a result, there are a myriad of different values. Although the full rental value of Arden's leaseholds will not be

collected, it is important from the standpoint of fairness to know the value of each lot and the relative value of one lot to another so that we can measure the advantage one leaseholder has over another. And, the only way to determine the relative value of any two things is to know the full value of each.

The formula is relatively simple. As stated before, the rental value of land is equal to the total income from the house and the lot, minus the return on the building (interest), maintenance, insurance, and management. The money deducted for maintenance must be enough that the building will not deteriorate and the building as a whole will never need to be replaced. Because buildings increase in value at approximately the rate of inflation, subtracting the rate of inflation from the rate of return on buildings makes it equal to the rate of return for the loan of money.

The following chart represents the formula in a subtraction equation. The percentages of the building value and income required for maintenance and management are my judgements in the year 2013 and can be changed if and whenever warranted.

The monthly income multiplied times 11.666 instead of 12 incorporates the fact that rental housing is vacant on average one month every three years between tenants and for repairs.

\$800 Monthly Income X 11.666 months = Yearly income:	\$9,333
Minus Bldg.Value: \$100,000 X current rate of interest: 3%	\$3,000
Plus Bldg. Value: \$100,000 X current rate of inflation: 1.7%	\$1,700
Minus Maintenance cost = Bldg.Value X 1.6%	\$1,600
Minus Insurance cost = Bldg.Value X .3%	\$300
Minus Management cost = Income X 12.85%	\$1,200
The remainder is paid for the land — land rent	\$1,533

A local realtor is shown five pictures of the same lot. Each picture has a different size house on it. These are house sizes and types that can be found in the Ardens — Bungalow, Ranch, Cape Cod, Two Story, and Colonial. After viewing each house, the realtor is asked how much could it be rented for per month on each of the different lots.

The answer is placed in the spread sheet. *The house that yields the largest land-rent will indicate the highest and best use. The largest land-rent is the rental value of the land.* This process could be done for all 198 of Arden's lots and would be the most accurate method but is not necessary. The vast majority of lots are allowed by zoning one single-family detached house (one attached apartment for owner-occupied houses) and the option of a 1,000 square foot detached building for a Home Business. All lots are approximately the same distance from the freeway, the grocery store, and the gas station. All lots have the same level of

police and fire protection, garbage collection, and utilities. The difference in the value of Arden lots stem from the size and shape of the yard, the proximity to the wooded and open parkland, and the level and extent of traffic passing the lot — Marsh and Harvey roads in particular. Because of the commonalities, it was possible to assess several benchmark examples of different-sized lots from the map of Arden and extrapolate the value of each different-sized lots in between.

Starting with size, the first example is the smallest lot (number 1), which is 7,116 square feet, and the next is 10,000 square feet — the minimum required by county zoning. After that, the following sized lots were chosen: 15,000 square feet; 20,000 square feet; 25,000 square feet; 30,000 square feet; 31,686 square feet; and the second largest lot of 53,328 square feet. Then, additional representations were made showing the same lots as though they fronted Marsh or Harvey roads, did or did not have access to a side street, had an open Green across the street in the front, and backed up to the woods. There is also one pie-shaped lot, which is measurably less valuable because of its shape **Ref. 3 ArdenAssess-by-Lot-7-14-13.pdf**

The monthly amount that could be charged for each of the five houses on each of the 44 sample lots, as judged by a rental agent, is recorded. A spread sheet is used to list and subtract each of the expenses involved in providing the house and other improvements, and the remaining land-rent is listed in each case. **Ref. 5 ArdenAssess-8-24-13.xls; Sheet: By-Lot**

The house which yields the highest land-rent for each lot indicates the highest and best use and the rental value of the land. The rental value of each sample lot begins at: **Ref. 5 ArdenAssess-8-24-13.xls; Sheet: By-Lot – beginning at Row 230**

By extrapolation, a continuum was constructed between the 8 different-sized lots that were appraised and all of Arden's 180 different-sized lots. The greater and lesser rental values that resulted from proximity to parks and heavy traffic are also indicated in this sheet and were judged to add or subtract approximately the same value to each lot regardless of size. **Ref. 5 ArdenAssess-8-24-13.xls; Sheet: Per-Ft**

The Rental value for each of all 198 leaseholds are listed on the spread sheet
Ref. 5 ArdenAssess-8-24-13.xls; Sheet: Rent-List

Exceptional Values

In addition to size and location, there are 27 lots that have valuable privileges not afforded to all other lots: two or three houses on one lot, houses with two extra apartments, apartment buildings with as many as six apartments, one lot partially permitted commercial activity, and a social club. These non-conforming uses are permitted because they already existed when zoning was enacted and prohibited them. However, they may not be increased in size.

The land rent on lots which have houses that may not be increase in size was calculated using the existing size of the house in good condition rather than the house-size that would otherwise yield the largest land rent. The size of these buildings was taken from the county's web site:

<http://ww3.nccde.org/parcel/search/>

21 exceptional lots pictured at: Ref. 4 Multiple Houses-7-14-13.pdf

In the case of lots with two houses, one of which is owner-occupied, the lot is divided proportionally by the relative size of the houses, and the second house and lot are listed to the right with the restriction that the second house cannot be increased in size. **Ref. 5 ArdenAssess-8-24-13.xls; Sheet: Rent-List**

In the case of lots with houses that are not owner-occupied, there are two relevant considerations. Those houses that are not owner-occupied may not have a second residence (Apt.), but there is reasonable doubt as to whether any additional owner-occupied houses will receive a permit to add an apartment. It is also true that apartments were illegally added and subsequently legalized by the Village government. Therefore, neither lots with owner-occupied or non-owner-occupied houses have been assessed as though they had additional value from the potential of the second residence.

There are two lots in which the owner-occupied house is permitted to have a third living unit (Apt.). No other houses may have a third unit. Therefore, the total size of the house may not be increased. The lots were divided in the same way as owner-occupied leaseholds with an additional house. However, 1,000 square feet is the most profitable sized apartment (generates the most land rent). Therefore, 1,000 square feet of the house was assigned to the third unit and a proportional area of the lot was assigned to the apartment. This gives the portion of the lot associated with the apartment the same ratio to the entire lot as the apartment is to the entire house.

In the case of lots with multiple houses and apartment buildings that are not owner-occupied, the calculations are made at the bottom of the spread sheet with the fact that the buildings cannot be increased in size.

Ref. 5 ArdenAssess-8-24-13.xls; Sheet: Rent-List – beginning at row 203.

Lot 118 (Arden Club) is permitted to operate as a social club because it was one when zoning was instituted in 1954. It is not likely the building could be enlarged and still have sufficient parking. The pool does not likely have a potential to generate land rent. Therefore, a confident assessment of what could be charged for the facility to be used for a social club on a monthly basis would require additional efforts, but, if it could be leased for \$9,000 per month, the rental value of the land would be \$61,808 per year (**Row 240**).

In trying to find the highest and best use, the agent was initially shown pictures of each lot with a different house on it. It was soon realized that, because of the common benefits to all lots, it was easier for the agent to judge the values by looking at the same house on all the different-sized lots and proximities to parks and traffic. After the judgements were recorded, the examples were rearranged in the spread sheet by lot to compare the different houses on each lot as shown here. The sketches were also rearranged by lot as they appear here.

Most of the monthly incomes from rental houses were recorded in \$25 increments. However, some charges were adjusted in smaller increments to acknowledge one house and lot being more or less valuable than another.

Although the option to build and maintain a 1,000 square-foot workshop does add value to each of Arden's lots, some more than others depending on size and location, that potential was not included in this assessment because there were not enough examples of homes being rented with a workshop to make a market. That potential could be determined with additional effort, but it was not thought to be essential for the intent and purpose of this assessment.

The value of each of the different houses used in this assessment was based on a free building cost calculator provided by R.S. Means via the internet.
<http://building-cost.net>

In conclusion, it is hoped that this assessment will demonstrate the practicality of assessing the rental value of land, increase the accuracy of assessments in Arden, and encourage other entities to adopt the system of land rent for revenue.

Many thanks to Connee and Russ McKinney without whose encouragement and help this project might have never been completed.

Contents:

6. ArdenAssessMaps.pdf Map of Arden

3. ArdenAssess-by-Lot-7-14-13.pdf

Pictures showing five sample houses and sketches showing those houses plotted on 8 different sized lots with each lot replicated as though it was adjacent to open greens, wooded parkland, and Marsh or Harvey Roads with and without access to a side street — monthly income from land & building and the yearly land-rent that would result.

5 ArdenAssess-8-24-13.xls; Sheet: By-Lot

Spread sheet listing each sample-lot with a different house, the annual income, interest, inflation, maintenance, insurance, and management allocations and the resulting land rent.

5 ArdenAssess-8-24-13.xls; Sheet: By-Lot: Row 230

Lists the rental value of each sample lot (highest land rent recorded on each sample lot).

5 ArdenAssess-8-24-13.xls; Sheet: Per-Ft

An extrapolation from sample lots indicating a different value for each 1,000 square feet of land in each of Ardens lots.

5 ArdenAssess-8-24-13.xls; Sheet: Rent-List

Actual assessments listing the rental value of Arden,s 198 lots, showing the value of that portion of lots with a second house to the right. The value of lots with multiple rental houses and apartment buildings, and Lot 118, leased by the Arden club are listed separately **beginning at row 203.**

4 Multiple Houses-7-14-13.pdf

Sketches of lots with a second house that cannot be enlarged, lots with two and three rental houses, none of which can be enlarged, and one lot which is permitted two commercial areas within the building that cannot be enlarged.