2021 Annual Recalculation and Reappraisal Setup Studies for All Residential Properties in Columbia County for Property Tax Assessment

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INTRODUCTION

As part of our effort to provide as much information to the public as possible who are interested in how a mass appraisal system works and the steps taken to study the current market and apply our conclusions to all residential properties annually, we are publishing our setup analysis on our website. This document includes our methods, analysis, and conclusions. The raw data used for this setup is not included in this publication, however, it is available in our office.

In order to ensure statewide uniformity in administering Oregon's Property Tax Laws, the Oregon Department of Revenue (DOR) exercises its supervisory authority over the property tax system under Oregon Revised Statute (ORS) 306.115. In addition to its statewide supervisory authority, under ORS 306.120, DOR must develop and provide manuals and instruction to all county assessors to ensure uniform methods of assessments. The publication developed by DOR and used as a guide for our setup is the "Appraisal Methods" manual. This manual, along with the "Cost Factors for Residential Buildings" and "Cost Factors for Farm Buildings", can be found on and downloaded from the DOR's website at http://www.oregon.gov/DOR/forms/.

Summary of the Mass Appraisal of Property

Mass Appraisal is an accepted method of appraisal and is not simply a cost approach to value.

A successful mass appraisal of residential properties in a selected area is dependent on an in-depth analysis of recent sales to determine land values, local cost modifiers to apply to our cost factors, and to develop local market-based depreciation schedules based on age and condition of structures. Set-up includes establishing benchmark properties to be used in determining class quality and condition of properties being reappraised so each appraiser can be consistent. Whenever a new residential cost factor book is published by the Department of Revenue, a local class quality benchmark study is completed to increase uniformity among appraisers when determining the class quality of a dwelling. Several homes of varying ages, design and quality are selected throughout the county and compared to the class quality descriptions given in the cost factor book. A class quality benchmark notebook is developed and used during the reappraisal process in addition to the cost factor book.

Sales Reviews and Coding

All real property deeds recorded in the county clerk's office and personal property sales brought to our attention through various sources are reviewed on an ongoing basis to determine whether or not the sale meets the definition of 'Real Market Value'. Real Market Value is defined under ORS 308.205(1):

> *Real market value of all property, real and personal, means the amount in cash that could reasonably be expected to be paid by an informed buyer to an informed seller, each acting without compulsion in an arm's-length transaction occurring as of the assessment date for the tax year.*

Each sale is coded based on the conditions of the sale, such as sale between relatives, foreclosures, confirmed market sale, etc. On sales considered to be market sales (meet the definition of real market value), the property is reviewed to determine if it is adequately described in our records. If the property is in better or worse condition, or inventory items are missing or overstated, our records are corrected to reflect the property as it sold. Only those sales that meet the definition of real market value are used in our setup studies.

Pre-appraisal and Recalculation Setup

Base Appraisal Date

Before a setup can be started, a base appraisal date must be selected. All sales data must be adjusted to this date. Generally, sales that occurred during the previous 12 months are used for the setup studies. However, when there are insufficient sales for a study, sales for the last 2 or more years may be included.

Time Study

A time study must be completed to determine if the market has been steady or if a time adjustment must be applied to all sales used in the study to adjust the sales prices to the base appraisal date.

Land Values

Vacant land sales in each Maintenance Area (MA) and Study Area (SA) are analyzed and graphed according to size and time adjusted sale price. This data is used to determine the typical value per acre (or square foot) of land for different size parcels and is converted to a land table used to calculate the land value of a property. Typical on-site development costs are gathered by obtaining cost data from general contractors and utility companies to determine the amount of on-site development (OSD) to add to the land value on improved properties. When there are not enough vacant land sales in a specific area to develop a land schedule, the improved sales for that area are set aside to use after the LCM and Depreciation Studies have been completed in order to 'extract' the land value from the sales price.

Local Cost Modifier (LCM)

In order to adjust the "Cost Factor Book for Residential Buildings" provided by the Department of Revenue to reflect local area costs, sales of new homes are analyzed. With the land study complete, the calculated land value and OSD are subtracted from the time adjusted sales price to determine the residual value attributed to the new home. Using the cost factor book, a replacement cost is calculated for the new home and accessory improvements. The residual value is then divided by the replacement cost new to determine the local cost modifier to be applied to the cost factor book for all improvements. If there are limited sales of properties with new homes, an analysis of homes that were built by a contractor hired by the land owner is included. The total contractor price is divided by the replacement cost new to determine a local cost modifier. In the absence of any sales data, local contractors are contacted to try to

determine an appropriate local cost modifier. This is generally the method used for general purpose and farm buildings. A separate LCM is calculated for conventional dwellings, manufactured dwellings, floating property and farm buildings.

Depreciation Study

Sales of improved properties are analyzed based on age and condition. Only verified market sales are used. The calculated land value and OSD are subtracted from the time adjusted sales price of each property to determine the residual value attributable to the dwelling and accessory improvements. A replacement cost new with the local modifier applied is calculated for the dwelling and any accessory improvements. The residual value is then divided by the adjusted replacement cost new to determine the depreciation for that age and condition. Once all the sales have been analyzed, the data is graphed based on age and condition to develop a depreciation schedule that is based on effective age. A separate schedule is created to restrict effective year to be selected based on physical age and noted condition (poor, fair, average, good, excellent). This ensures consistency among appraisers when selecting an effective age that is different than the physical age of a structure. A separate depreciation study is conducted for conventional single-family dwellings, multi-family dwellings, manufactured dwellings sited on real property (same ownership and considered real property), manufactured dwellings sited in a park or other leased site (these are considered personal property), and floating property. A straight-line depreciation schedule is used for general purpose and farm buildings, since it is not possible to extract enough data to base their depreciation on sales.

Adjustment Study

During the previous studies, sales of properties identified as having potential adjustments due to topography, views, or other unique features are set aside to determine the value of various factors that may influence value. After all studies have been completed, including the extraction method for determining land values in areas with insufficient vacant land sales, these sales are analyzed based on the type of adjustment and the area they are located in, however, if there is insufficient data, nearby areas may be combined in the study. By comparing the total sales price of the sold property with the total calculated cost of land, OSD and depreciated dwelling, the difference gives an indication of the value of the adjustment.

Reappraisal vs. Recalculation

Physical Reappraisal

With resources becoming more limited, very few interior inspections are completed during a reappraisal. The appraiser will determine class quality and condition of the structures from the exterior, attempt to contact owner to verify inventory at the door, and note any necessary adjustments for topography, views or any other factor that would likely have an effect on the value. The last appraisal diagram and inventory are reviewed to determine if there have been any changes to the property. The value of the property is calculated electronically using the

factors developed in the setup study.

Recalculation

Recalculation is an electronic revaluation of properties based on factors developed during the setup study and the existing inventory in our system. These properties are not visited to determine if any changes have taken place, however, the recalculation is a more reliable method of maintaining accurate real market values rather than relying solely on a ratio study to determine overall market trends.

New Construction

New construction throughout the county is physically inspected and appraised using the setup factors for the area.

Ratio Study

A ratio study is an analysis of sales in all study areas to determine the percentage of market increase or decrease in each study area since the base appraisal date selected in our setup. The study separates properties by type, such as commercial, industrial or residential, by location or study area, and by improved or vacant. All sales are time adjusted to the assessment date of January 1 before comparing to our current value. Once complete, the resulting trends are electronically applied to all properties prior to certifying the assessment roll.

2021 Time Study Analysis and Conclusions

Time Trend Study for all Maintenance Areas (MA)

Analysis

Before any setup studies can be conducted, a time trend for each Maintenance Area must be completed to adjust sales to the selected base appraisal date. The selected base appraisal date for the 2021 reappraisal and recalculation of residential properties countywide is January 1, 2020. A separate time study was completed for City Residential Property and Rural Residential Property in each Maintenance Area.

All sales of residential properties that occurred between January 1, 2019 and December 31, 2019 that reflected real market value were extracted from our sales files. The sales were separated based on Maintenance Area and property type (city or rural). The total sales price of all properties for each area was compared to our January 1, 2019 base RMV of the same properties, which gives an estimated market trend for the entire 2019 year. The trend is divided by 12 in order to give a per month percentage to apply to each sales price, based on the month in which the sale occurred, and used in our setup studies to reflect a sales price as of January 1, 2020.

Some studies required additional data before we were able to establish a reliable conclusion for the study. For this purpose, another time trend study was completed on properties that sold between January 1, 2020 and June 30, 2020, and separated based on Maintenance Area and property type (city or rural). The total sales price of all properties for each area was compared to our January 1, 2020 certified values (January 1, 2019 base RMV times the market trend from the 2020 Ratio Study) which gives an estimated market trend for the first half of 2020. The trend was divided by 6 in order to give a per month percentage to apply to each sales price, based on the month in which the sale occurred, and used in our setup studies to reflect a sales price as of January 1, 2020.

Conclusions

Based on the supporting data collected, there is sufficient sales data to estimate the market trends to be used to time trend sales to the base appraisal date of January 1, 2020 for city residential property and rural residential property in each maintenance area.

Time Trend Factors to be Applied to Sales Used for the 2021 Residential Setup Studies

Time Trend Rate for 2019 Sales to Reflect Base Appraisal Date of January 1, 2020				
CITY	AREA	NO. OF SALES	ANNUAL TREND	PER MONTH TREND
Saint Helens	MA 01	253	0.0720	0.0060
Scappoose	MA 02	161	-0.0066	-0.0006
Vernonia	MA 03	75	0.1771	0.0148
Rainier	MA 04	36	-0.0103	-0.0009
Clatskanie	MA 05	25	0.0754	0.0063
Columbia City	MA 06	30	-0.0287	-0.0024
RURAL	AREA	NO. OF SALES	ANNUAL TREND	PER MONTH TREND
Rural Scappoose	MA 02	29	-0.0177	-0.0015
Rural Vernonia	MA 03	51	0.1168	0.0097
Rural Rainier	MA 04	66	0.0006	0.0001
Rural Clatskanie	MA 05	83	0.0112	0.0009
Rural Saint Helens	MA 06	109	-0.0268	-0.0022

Time Trend Rate for 2020 Sales to Reflect Base Appraisal Date of January 1, 2020				
CITY	AREA	NO. OF SALES	ANNUAL TREND	PER MONTH TREND
Saint Helens	MA 01	117	0.1220	0.0203
Scappoose	MA 02	60	0.0195	0.0033
Vernonia	MA 03	26	0.2157	0.0360
Rainier	MA 04	21	0.0004	0.0001
Clatskanie	MA 05	6	0.0398	0.0066
Columbia City	MA 06	10	0.0870	0.0145
RURAL	AREA	NO. OF SALES	ANNUAL TREND	PER MONTH TREND
Rural Scappoose	MA 02	15	0.0091	0.0015
Rural Vernonia	MA 03	11	0.1743	0.0291
Rural Rainier	MA 04	24	0.1555	0.0259
Rural Clatskanie	MA 05	33	-0.0086	-0.0014
Rural Saint Helens	MA 06	23	0.0035	0.0006

Notes

2021 Land Analysis and Conclusions

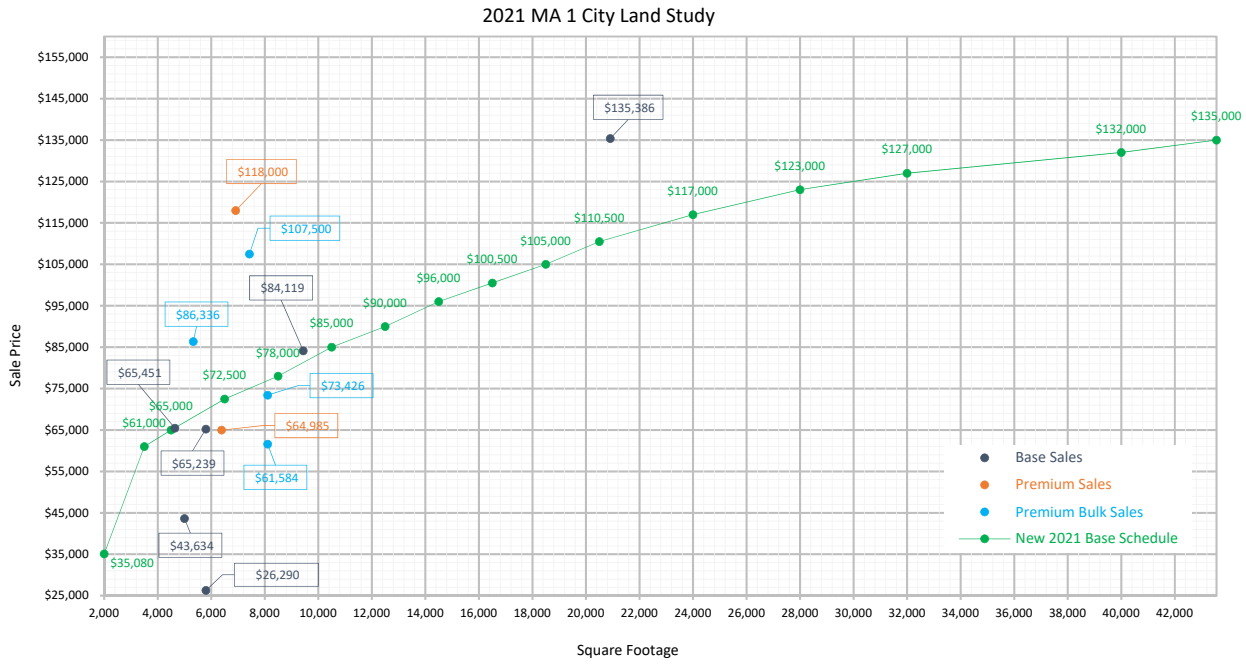
Maintenance Area (MA) 01, City of Saint Helens Land Setup

Analysis:

MA 01 SA 00 (Undefined), SA 30 (Duplex, Triplex, 4-plex), SA 43 (Townhouse/Rowhouse/Common Wall), and SA 80 (Yacht's Landing)

A total of 13 usable sales were available within the City of St Helens for analysis. Of those available sales, 4 were bulk sales of already developed lots sold by developers to home builders. The remaining 9 sales were a mix of base lots and lots sold in subdivisions. Due to limited sales data, search parameters were expanded to include sales ranging from 1/1/2018 thru 7/1/2020. All sales were time trended to the base appraisal date of 1/1/2020. The remaining sales were then analyzed and graphed and compared with the trended 2020 land schedule. The base data points on the graph appear to indicate that a new land schedule titled "Proposed 2021 Schedule" be implemented for the City of St Helens.

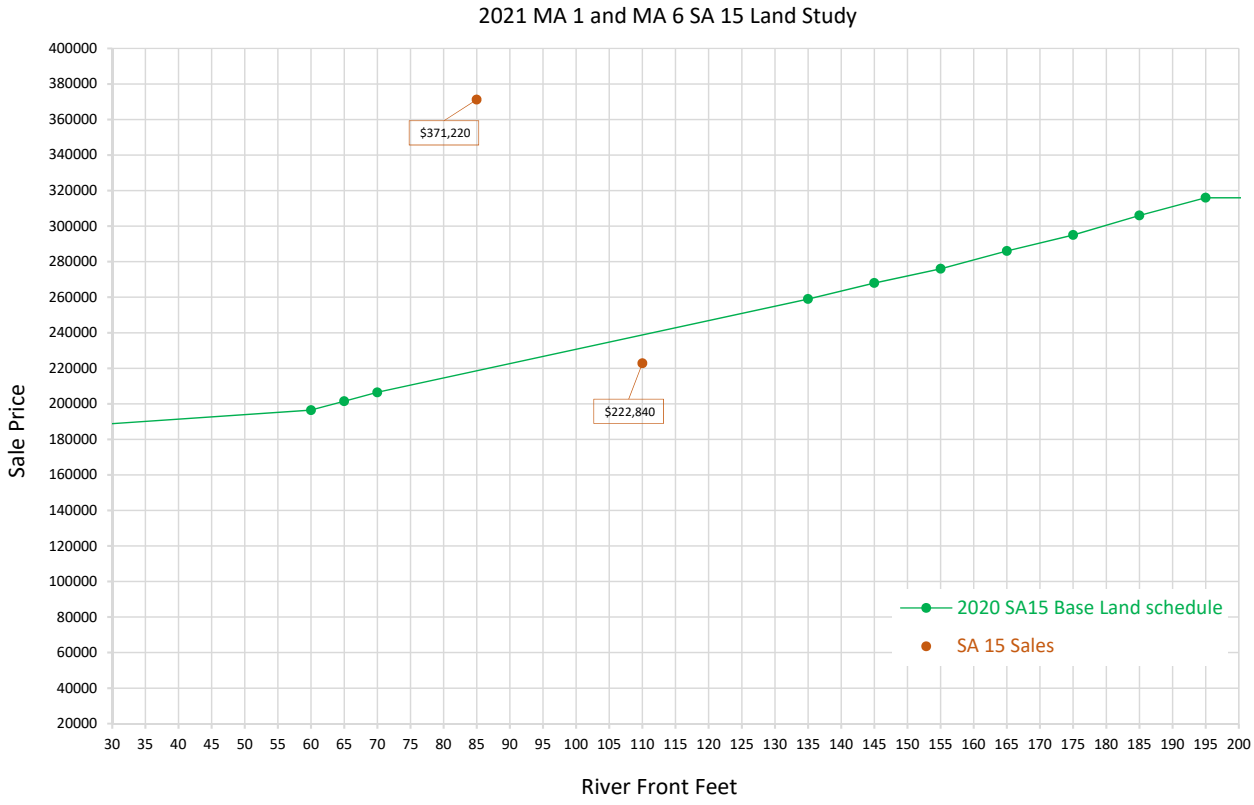
Graph - MA 01 SA 00, SA 30, SA 43, and SA 80 City Base Land Sales



MA 01 SA 15 (Riverfront)

SA 15 had only two sales available for analysis in Columbia City and none available in adjacent St. Helens. The 2 sales were plotted on the graph and compared to the prior 2020 land schedule. One sale appears to fall on the very high end of the range based on lineal feet of river frontage, but despite the limited sales data for the study area the 2020 land schedule appears to be supported by those few sales.

Graph - MA 01 SA 15 City Base Land Sales

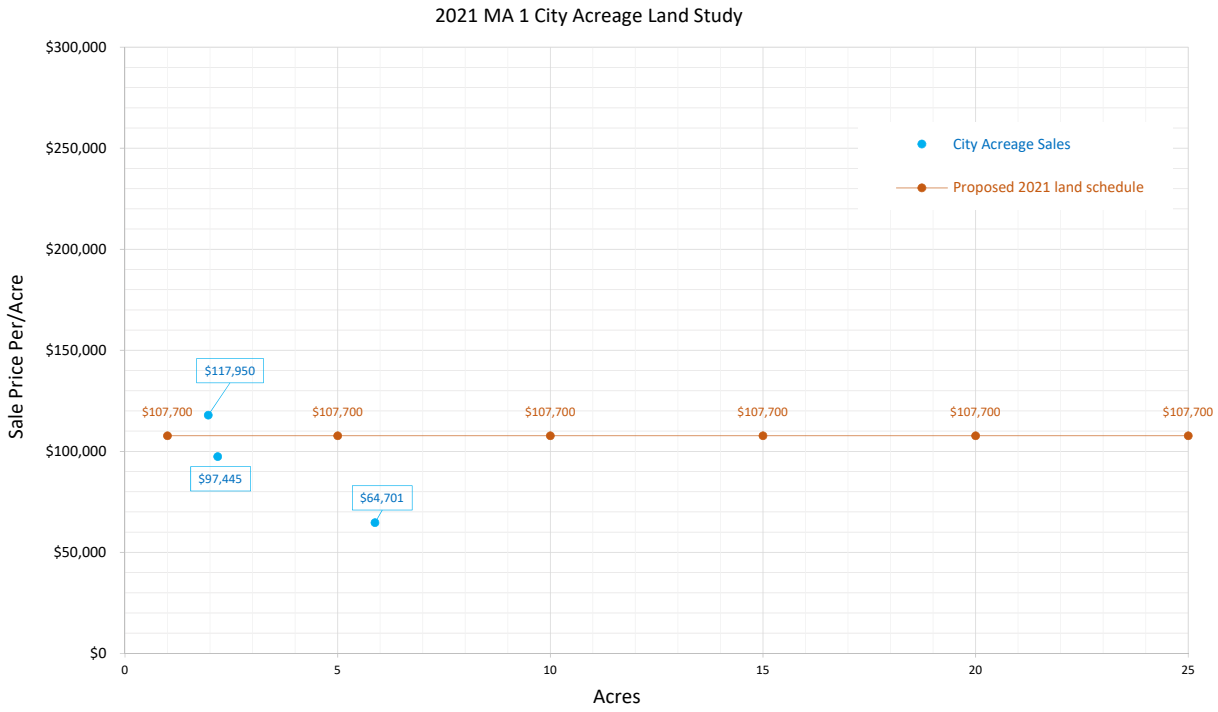


MA 01 City Acreage

The 3 sales are undeveloped land sales greater than one acre in size that sold within the city limits of St Helens. These large plots of land are typically purchased by developers and generally require substantial site development costs greater than that of an already developed 5,000-10,000 sq. foot undeveloped city lot. Due to the lack of available undeveloped city acreage sales in 2019, the need to extend search parameters back in time was warranted. The resulting sales were time trended to the base appraisal date of 1/1/2020 and each sale was analyzed separately. The sales price for each of the three sales above indicate a sales price per acre ranging from $64,701 to $117,95. Of the sales available for analysis, one sale reflects access and

topography issues (account 13315). Because of this, this sale was considered less reliable and was not used in the calculation for the weighted mean. The remaining two sales for this analysis indicate a Weighted Mean of $107,700 sale price per acre.

Graph - MA 01 City Acreage Base Land Sales



Conclusions:

It is therefore recommended to use the Proposed 2021 base land schedule for SA 00, 30, 43 & 80. SA 15 should retain the previous land schedule with no trend.

For SA 15 (Riverfront), the decision was made to keep the current 2020 base land schedule with no trend.

For St. Helens City acreage, it is recommended that the base rate of $107,700 per acre, be applied for year 2021.

MA 01 City of Saint Helens Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)

- 001 = Residential City Under an Acre – Square Feet
- 002 = Residential City Acreage – Acres
- 005 = Residential Riverfront – Front Footage

SA 00 LUC 001 General Saint Helens		
Size (sq. ft.)		Total
From	To	Value
1	4500	65,000
4501	6500	72,500
6501	8500	78,000
8501	10500	85,000
10501	12500	90,000
12501	14500	96,000
14501	16500	100,500
16501	18500	105,000
18501	20500	110,500
20501	24000	117,000
24001	28000	123,000
28001	32000	127,000
32001	40000	132,000
40001	43560	135,000

SA 30 LUC 001 Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total
From	To	Value
1	4500	65,000
4501	6500	72,500
6501	8500	78,000
8501	10500	85,000
10501	12500	90,000
12501	14500	96,000
14501	16500	100,500
16501	18500	105,000
18501	20500	110,500
20501	24000	117,000
24001	28000	123,000
28001	32000	127,000
32001	40000	132,000
40001	43560	135,000

SA 00 LUC 002 City Acreage		
Size (Acres)		Value
From	To	Per Acre
0.01	999999	107,700

SA 15 LUC 005 Riverfront		
Size (front footage)		Total
From	To	Value
0	40	181,450
41	50	186,450
51	55	191,450
56	60	196,450
61	65	201,450
66	70	206,450
71	75	211,450
76	85	216,450
86	95	222,000
96	105	231,000
106	115	240,000
116	125	250,000
126	135	259,000
136	145	268,000
146	155	276,000
156	165	286,000
166	175	295,000
176	185	306,000
186	195	316,000
196	999999	318,000

SA 80 LUC 001 Yachts Landing PUD		
Size (sq. ft.)		Total
From	To	Value
1	4500	65,000
4501	6500	72,500
6501	8500	78,000
8501	10500	85,000
10501	12500	90,000
12501	14500	96,000
14501	16500	100,500
16501	18500	105,000
18501	20500	110,500
20501	24000	117,000
24001	28000	123,000
28001	32000	127,000
32001	40000	132,000
40001	43560	135,000

SA 43 LUC 001 Townhouse, Rowhouse		
Size (sq. ft.)		Total
From	To	Value
1	3500	61,000
3501	4500	65,000
4501	6500	72,500
6501	8500	78,000
8501	10500	85,000
10501	12500	90,000
12501	14500	96,000
14501	16500	100,500
16501	18500	105,000
18501	20500	110,500
20501	24000	117,000
24001	28000	123,000
28001	32000	127,000
32001	40000	132,000
40001	43560	135,000

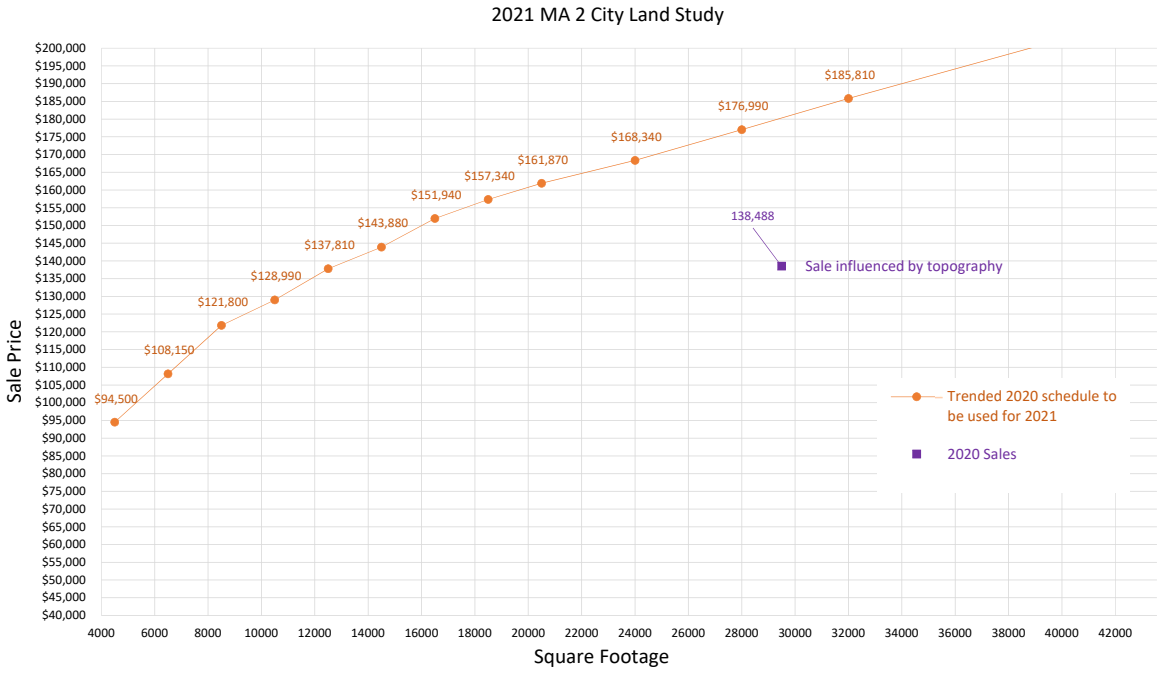
Maintenance Area (MA) 02, City of Scappoose Land Setup

Analysis

MA 02 SA 00 (Undefined), SA 28 (Duplex, Triplex, 4-plex), SA 33 (Townhouse/Rowhouse/Common Wall), SA 79 (Keys Landing/Keys Crest/Keys Orchard) and SA 80 (Columbia River View Estates)

For this bare land study, there was only one bare land city sale that sold within the sale date range of 1/1/2019 to 7/1/2020. This sale is a large lot and due to topography, the site only has approximately 10,000 square feet of developable area. Due to the lack of available vacant land sales, the improved sales extraction method was considered as an alternative. However, this was not implemented due to rather high overall improvement residual from the 2021 depreciation study. Therefore, the prior year land schedule was trended and plotted on the graph below with the single sale. Little weight was placed on the single sale due to the useable homesite size and the topography impact of the sale.

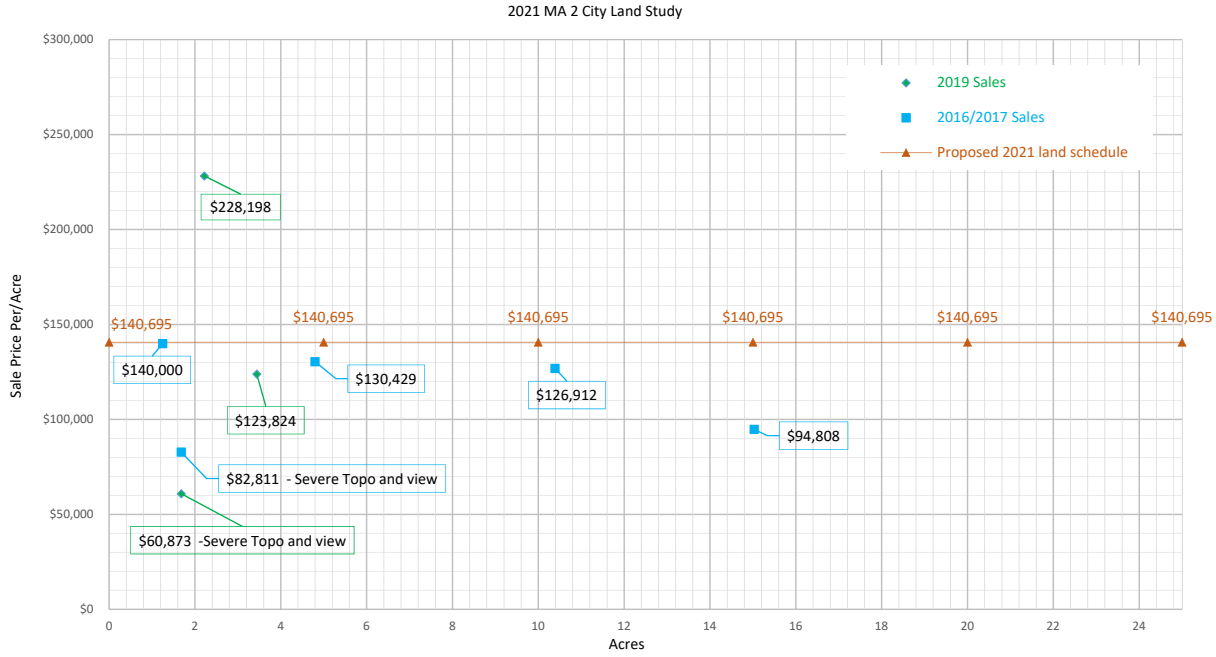
Graph - MA 02 SA 00, SA 28, SA 33, SA 79 and SA 80 City Base Land Sales



MA 02 City Acreage

The acreage sales available for this analysis are of undeveloped land that is greater than one acre in size and are within the city limits of Scappoose. Due to the limited number of undeveloped city acreage sales in 2019, the need to extend the search back in time was warranted. The dated sales were time trended to the base appraisal date of 1/1/2020 and resulted in a total of 8 sales available for analysis. Upon review, two of these sales were discarded due to severe topography issues, mountain views and/or were limited to single homesites vs developable acreage. The remaining 6 sales indicate a range of value with an overall average rate per acre of $140,700

Graph - MA 02 City Acreage Base Land Sales



Conclusions

Due to the lack of bare land sales for the City of Scappoose SA 00, SA 28, SA 33, SA 79, and SA 80; it is recommended that the prior year land schedule be carried forward with the trend of 1.05 applied for the 2021 land schedule.

For undeveloped acreage in the City of Scappoose, it is recommended that the base rate per acre of $140,700 be applied for 2021.

MA 02 City of Scappoose Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
001 = Residential City Under an Acre – Square Feet
002 = Residential City Acreage – Acres

SA 00 LUC 001 General Scappoose		
Size (sq. ft.)		Total
From	To	Value
1	2500	72,450
2501	4500	94,500
4501	6500	108,150
6501	8500	121,800
8501	10500	128,990
10501	12500	137,810
12501	14500	143,880
14501	16500	151,940
16501	18500	157,340
18501	20500	161,870
20501	24000	168,340
24001	28000	176,990
28001	32000	185,810
32001	40000	202,440
40001	43560	210,390

SA 28 LUC 001 Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total
From	To	Value
1	4500	94,500
4501	6500	108,150
6501	8500	121,800
8501	10500	128,990
10501	12500	137,810
12501	14500	143,880
14501	16500	151,940
16501	18500	157,340
18501	20500	161,870
20501	24000	168,340
24001	28000	176,990
28001	32000	185,810
32001	40000	202,440
40001	43560	210,390

SA 33 LUC 001 Townhse, Rowhse, Common Wall		
Size (sq. ft.)		Total
From	To	Value
1	2500	72,450
2501	4500	94,500
4501	6500	108,150
6501	8500	121,800
8501	10500	128,990
10501	12500	137,810
12501	14500	143,880
14501	16500	151,940
16501	18500	157,340
18501	20500	161,870
20501	24000	168,340
24001	28000	176,990
28001	32000	185,810
32001	40000	202,440
40001	43560	210,390

SA 79 LUC 001 Keys Landing, Keys Crest, Keys Orch		
Size (sq. ft.)		Total
From	To	Value
1	4500	94,500
4501	6500	108,150
6501	8500	121,800
8501	10500	128,990
10501	12500	137,810
12501	14500	143,880
14501	16500	151,940
16501	18500	157,340
18501	20500	161,870
20501	24000	168,340
24001	28000	176,990
28001	32000	185,810
32001	40000	202,440
40001	43560	210,390

SA 80 LUC 001 Columbia River View Estates		
Size (sq. ft.)		Total
From	To	Value
1	4500	94,500
4501	6500	108,150
6501	8500	121,800
8501	10500	128,990
10501	12500	137,810
12501	14500	143,880
14501	16500	151,940
16501	18500	157,340
18501	20500	161,870
20501	24000	168,340
24001	28000	176,990
28001	32000	185,810
32001	40000	202,440
40001	43560	210,390

SA 00 LUC 002 City Acreage		
Size (Acres)		Total
From	To	Value
0.01	999999	140,700

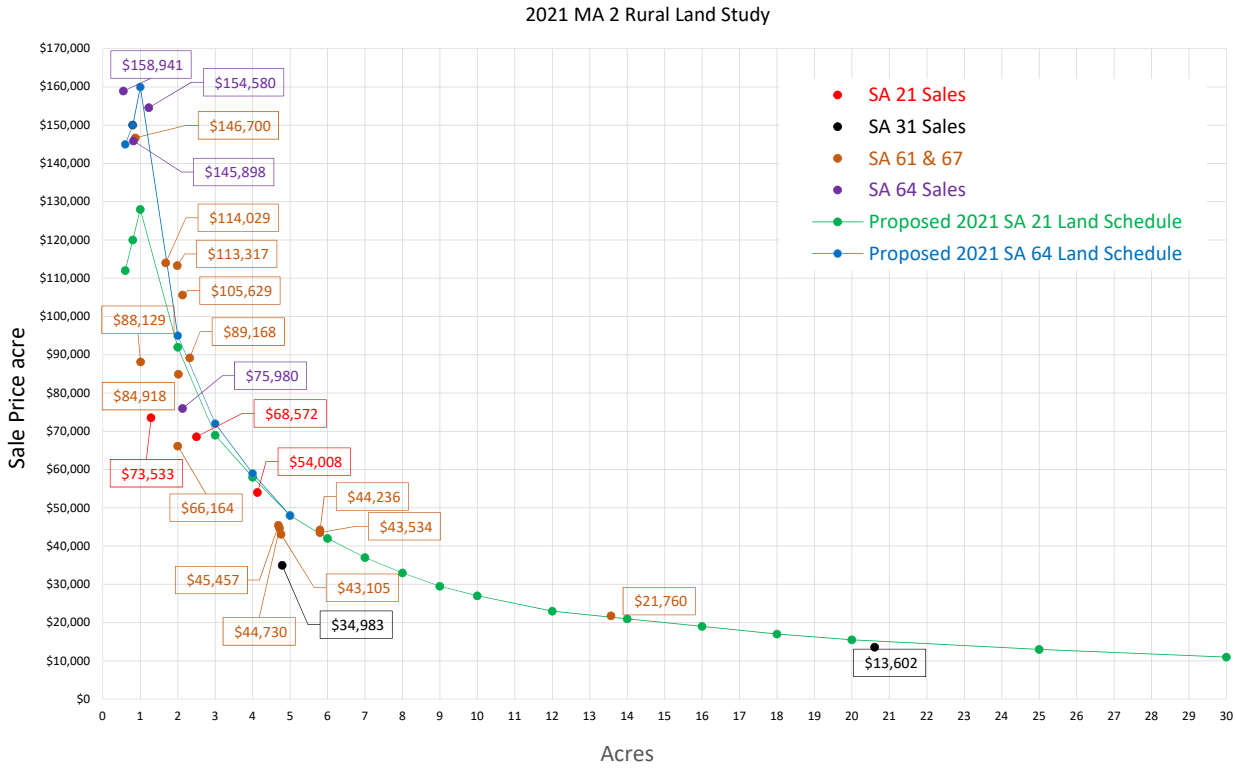
Maintenance Area (MA) 02, Rural Scappoose Land Setup

Analysis

MA 02 SA 21 (Rural Value Zone 1), SA 25 (Dike Land), SA 62 (Freeman Road), and SA 64 (Hillcrest, Columbia Acres)

There were 2 sales available in SA 21 of rural undeveloped land. However, one of those sales was deemed not reliable due to having an excellent view, shape of lot (split by road) and severe topography. Because of the limited sales, the search was extended back in time to include sales that ranged from 1/1/2018 thru 7/1/2020. Although this resulted in 2 additional sales for analysis, it was decided to widen the search parameters to include the rural acreage land sales from nearby and competing neighborhoods located in MA 3 and MA 6. After extending the search parameters, there were now a total of 25 usable sales available. Despite having a majority of the sales located in nearby and competing neighborhoods, the sales still appear to be reliable indicators of value and would likely openly compete within the market in rural MA 2 neighborhoods. There are 9 sales with topography influences and were plotted to provide a lower limit of value. The results indicate that a new land schedule be implemented for SA 21. In SA 25 & 62, there were no usable sales available for analysis. Due to the lack of sales, the most nearby and competing area of SA 21 sales would be used. For SA 64, there were 4 useable sales available for analysis. Search parameters were also extended back in time to 1/1/2018 thru 7/1/2020, due to the lack of recent sales. The 4 sales provided in SA 64 indicate reliable data to implement a new proposed land schedule, as outlined on the graph.

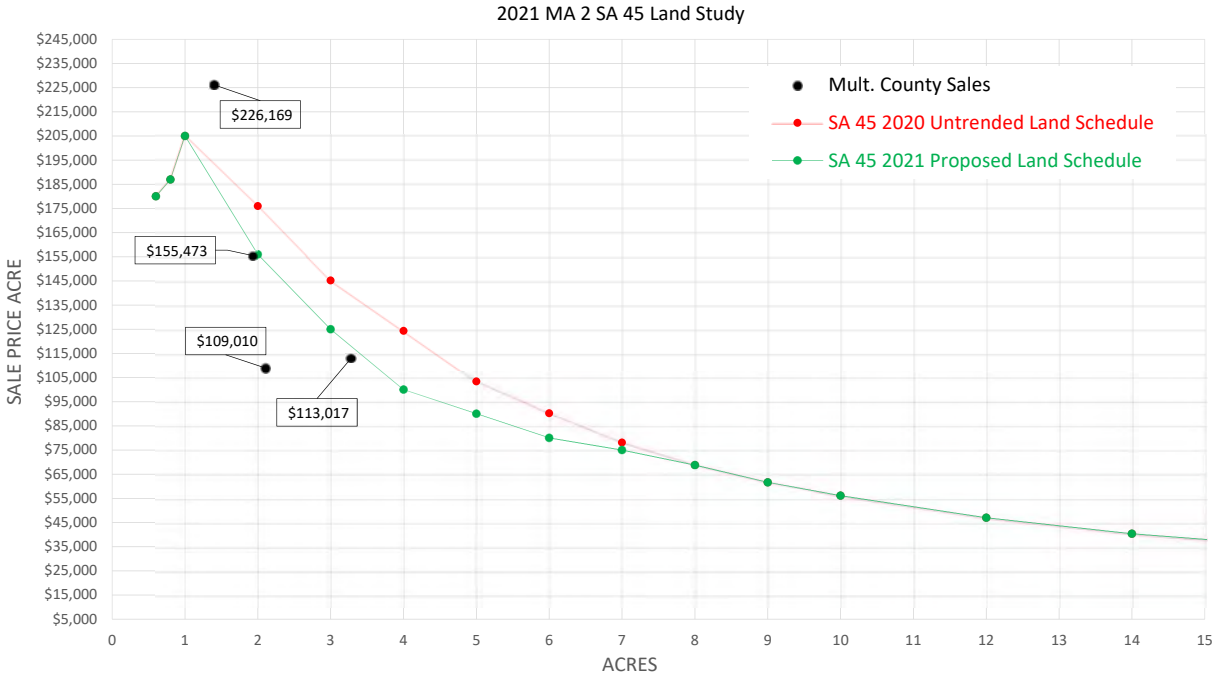
Graph - MA 02 SA 21, SA 25, SA 62, and SA 64 Rural Land Sales



MA 02 SA 45 (Sauvie Island Dike Land)

For this 2021 study of rural undeveloped Sauvie Island Dike Land, it was decided to combine SA 41 into SA 45 due to the small amount of actual taxable accounts located in SA 41. Because of the lack of bare land and improved sales in SA 45, an extraction method was used on nearby competing Sauvie Island properties in Multnomah County. There was a total of 5 sales found and only 4 were useable. These sales ranged from 1/1/2019 thru 7/1/2020 and time trended to the base appraisal date of 1/1/2020. The extracted data was plotted and compared to the 2020 SA 45 no trend land schedule. The Multnomah County sales in comparison to the current land schedule did show a need to slightly adjust the vacant land schedule down for those properties ranging from 1-8 acres. Therefore, a new land schedule was proposed to be implemented for 2021 SA 45.

Graph - MA 02 SA 45 Rural Dike Land Sales



Conclusions

Therefore, it's recommended that the new proposed land schedule on the following page be implemented for SA 21, 25 & 62 for the 2021 setup. Additionally, SA 64 should also have the new proposed land schedule implemented as outlined on the subsequent page.

For 2021 SA 45, it's recommended that the proposed schedule on the next page be adopted for vacant Sauvie Island Dike Land located in SA 45.

MA 02 Rural Scappoose Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
003 = Residential Rural Tract – Acres

SA 21 LUC 003 Scappoose Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	112,000
0.61	0.80	120,000
0.81	1.00	128,000
Over 1 Acre		Per Acre
1.01	2.00	92,000
2.01	3.00	69,000
3.01	4.00	58,000
4.01	5.00	48,000
5.01	6.00	42,000
6.01	7.00	37,000
7.01	8.00	33,000
8.01	9.00	29,500
9.01	10.00	27,000
10.01	12.00	23,000
12.01	14.00	21,000
14.01	16.00	19,000
16.01	18.00	17,000
18.01	20.00	15,500
20.01	25.00	13,000
25.01	30.00	11,000
30.01	35.00	9,500
35.01	40.00	8,500
40.01	50.00	7,000
50.01	60.00	6,000
60.01	80.00	5,000
80.01	999999.00	4,000

SA 25 LUC 003 Scappoose Dikeland		
Size (Acres)		Value Lump Sum
From	To	
0.00	0.60	112,000
0.61	0.80	120,000
0.81	1.00	128,000
Over 1 Acre		Per Acre
1.01	2.00	92,000
2.01	3.00	69,000
3.01	4.00	58,000
4.01	5.00	48,000
5.01	6.00	42,000
6.01	7.00	37,000
7.01	8.00	33,000
8.01	9.00	29,500
9.01	10.00	27,000
10.01	12.00	23,000
12.01	14.00	21,000
14.01	16.00	19,000
16.01	18.00	17,000
18.01	20.00	15,500
20.01	25.00	13,000
25.01	30.00	11,000
30.01	35.00	9,500
35.01	40.00	8,500
40.01	50.00	7,000
50.01	60.00	6,000
60.01	80.00	5,000
80.01	999999.00	4,000

SA 45 LUC 003 Sauvie Island Dikeland		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	180,000
0.61	0.80	187,000
0.81	1.00	205,000
Over 1 Acre		Per Acre
1.01	2.00	156,000
2.01	3.00	125,000
3.01	4.00	100,000
4.01	5.00	90,000
5.01	6.00	80,000
6.01	7.00	75,000
7.01	8.00	68,750
8.01	9.00	61,600
9.01	10.00	56,100
10.01	12.00	46,970
12.01	14.00	40,370
14.01	16.00	35,750
16.01	18.00	31,900
18.01	20.00	28,820
20.01	25.00	23,100
25.01	30.00	19,470
30.01	35.00	16,720
35.01	40.00	14,850
40.01	50.00	12,100
50.01	60.00	11,000
60.01	80.00	10,200
80.01	999999.00	9,700

MA 02 Rural Scappoose Recalculation Land Schedules for 2021 (continued)

SA 62 LUC 003 Freeman Road		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	112,000
0.61	0.80	120,000
0.81	1.00	128,000
Over 1 Acre		Per Acre
1.01	2.00	92,000
2.01	3.00	69,000
3.01	4.00	58,000
4.01	5.00	48,000
5.01	6.00	42,000
6.01	7.00	37,000
7.01	8.00	33,000
8.01	9.00	29,500
9.01	10.00	27,000
10.01	12.00	23,000
12.01	14.00	21,000
14.01	16.00	19,000
16.01	18.00	17,000
18.01	20.00	15,500
20.01	25.00	13,000
25.01	30.00	11,000
30.01	35.00	9,500
35.01	40.00	8,500
40.01	50.00	7,000
50.01	60.00	6,000
60.01	80.00	5,000
80.01	999999.00	4,000

SA 64 LUC 003 Columbia Acres/Hillcrest		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	145,000
0.61	0.80	150,000
0.81	1.00	160,000
Over 1 Acre		Per Acre
1.01	2.00	95,000
2.01	3.00	72,000
3.01	4.00	59,000
4.01	5.00	48,000

SA 64 LUC 003 Columbia Acres/Hillcrest (Unbuildable)		
Size (Lots)		Value
From	To	Lump Sum
Per Platted Lot		500

Maintenance Area (MA) 03, City of Vernonia Land Setup

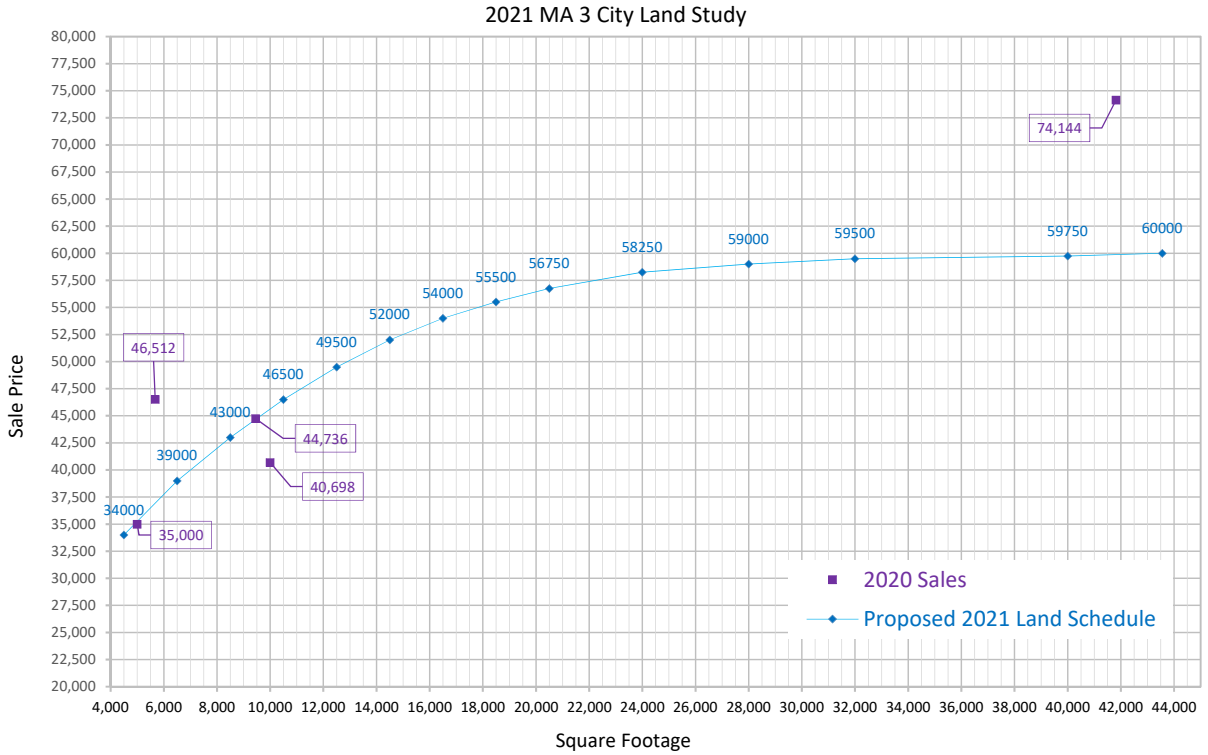
Analysis

MA 03 SA 00 (Undefined), SA 03 (Flood Zone Properties), and SA 40 (Duplex, Triplex, 4-plex)

During the 2020 Ratio Study, market indicators illustrated that Roseview Heights (SA 38) moves similarly to those properties located in the General Undefined SA 00. Therefore, SA 38 was combined with SA 00. For the 2021 City of Vernonia undeveloped land study, six sales were available to analyze. Five of the bare land sales were deemed useable and one was found to be unreliable due to view and severe topography issues. The useable sales were site visited and time adjusted to the base appraisal date of 1/1/2020. These sales were plotted on the graph with the current land schedule with 2020 ratio trends applied. The sales fell above the line which indicated that a change in the base value is warranted.

There were no bare land sales available for SA 03 and SA 40.

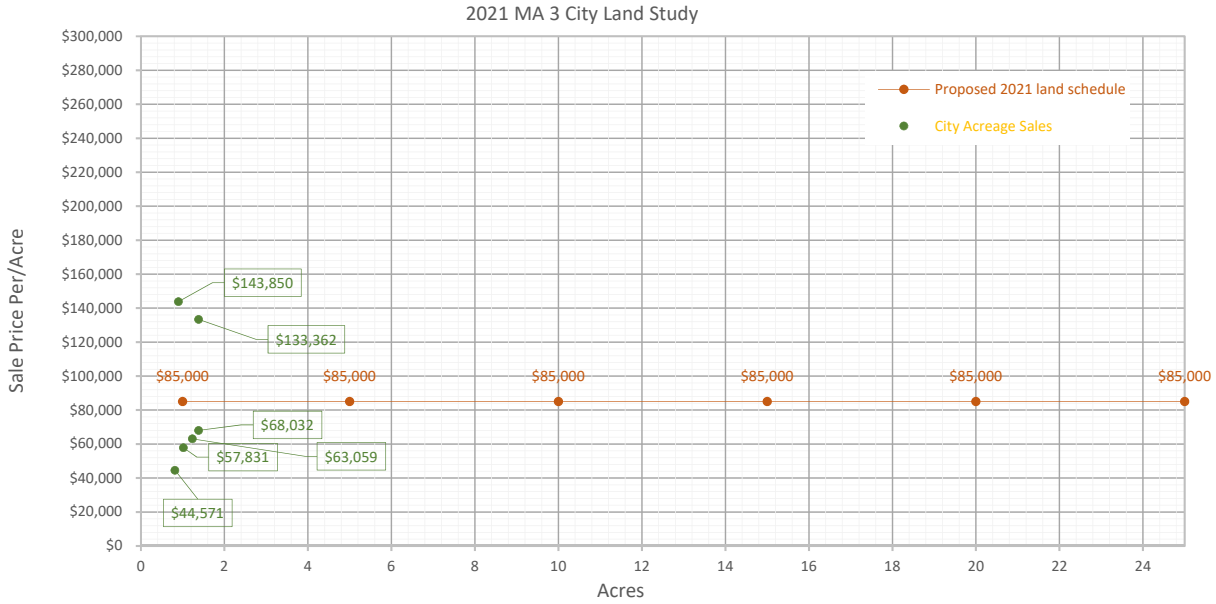
Graph - MA 03 SA 00, SA 03, and SA 40 City Base Land Sales



MA 03 City Acreage

The above sales were analyzed to determine the rate per acre for the city acreage schedule. Due to the lack of undeveloped city acreage sales in 2019, the need to extend the search back in time was warranted. Dated sales were time trended to the base appraisal date of 1/1/2020. There was a total of 6 sales available for analysis. Of those sales 2 were very recent sales of land purchased by builders for development. After analyzing the sales dataset, the results indicate a range of value with an overall average of $85,117 per acre.

Graph - MA 03 City Acreage Base Land Sales



Conclusions

Based on the supporting data, a new city land schedule has been developed for SA 00 for the 2021 year. Because of lack of sales data available and having little variation between areas, it was decided that SA 03 and SA 40 will follow the SA 00 land schedule.

For vacant developable acreage located in the City, it is recommended that the base rate per acre of $85,000 be applied for the 2021 land schedule.

MA 03 City of Vernonia Reappraisal Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
001 = Residential City Under an Acre – Square Feet
002 = Residential City Acreage – Acres

SA 00 LUC 001		
General Vernonia		
Size (sq. ft.)		Total
From	To	Value
1	4500	34,000
4501	6500	39,000
6501	8500	43,000
8501	10500	46,500
10501	12500	49,500
12501	14500	52,000
14501	16500	54,000
16501	18500	55,500
18501	20500	56,750
20501	24000	58,250
24001	28000	59,000
28001	32000	59,500
32001	40000	59,750
40001	43560	60,000

SA 03 LUC 001		
Flood Zone Properties		
Size (sq. ft.)		Total
From	To	Value
1	4500	34,000
4501	6500	39,000
6501	8500	43,000
8501	10500	46,500
10501	12500	49,500
12501	14500	52,000
14501	16500	54,000
16501	18500	55,500
18501	20500	56,750
20501	24000	58,250
24001	28000	59,000
28001	32000	59,500
32001	40000	59,750
40001	43560	60,000

SA 40 LUC 001		
Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total
From	To	Value
1	4500	34,000
4501	6500	39,000
6501	8500	43,000
8501	10500	46,500
10501	12500	49,500
12501	14500	52,000
14501	16500	54,000
16501	18500	55,500
18501	20500	56,750
20501	24000	58,250
24001	28000	59,000
28001	32000	59,500
32001	40000	59,750
40001	43560	60,000

SA 00 LUC 002		
City Acreage		
Size (Acres)		Value
From	To	Per Acre
1	9999	85,000

SA 03 LUC 002		
Flood Zone City Acreage		
Size (Acres)		Value
From	To	Per Acre
1	9999	85,000

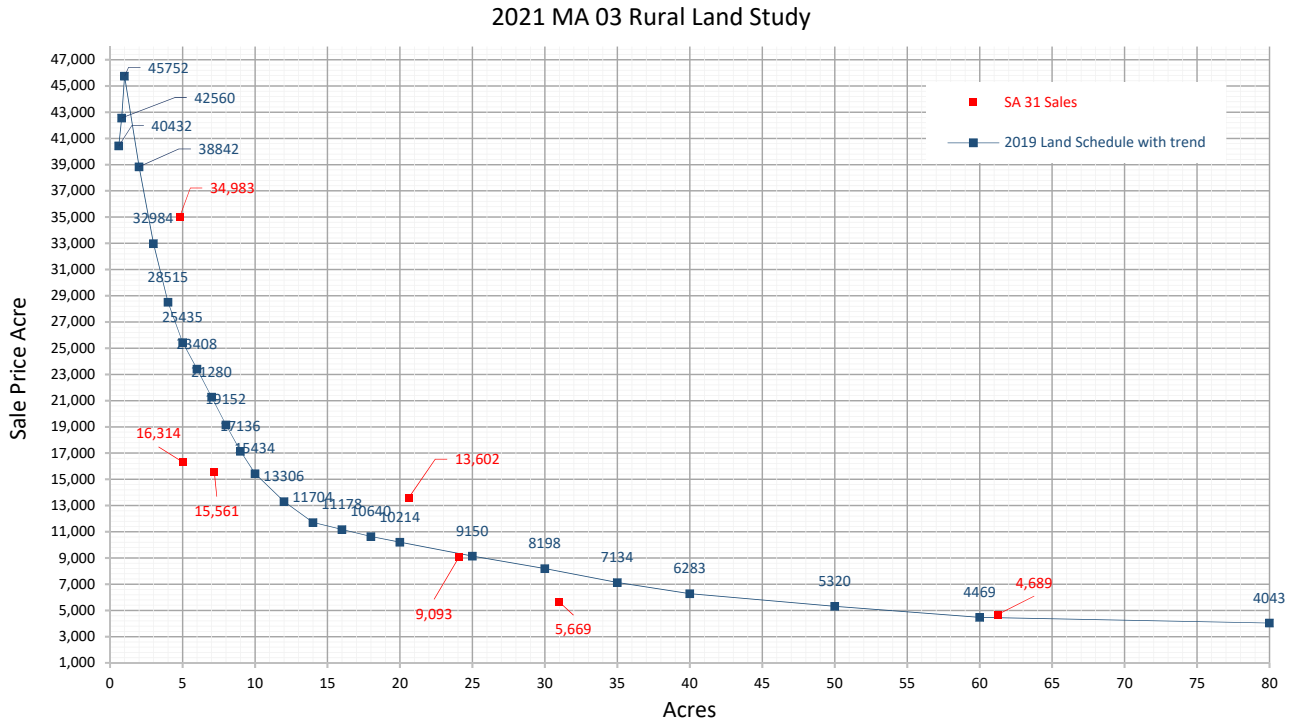
Maintenance Area (MA) 03, Rural Vernonia Land Setup

Analysis

MA 03 SA 31 (Rural Value Zone 1)

There were 8 bare land sales within the date range of 1/1/2019 through 6/30/2020. Seven of the eight sales were found to be appropriate and useable for this analysis of SA 31. All the sales in this dataset were site visited and time trended to the base appraisal date of 1/1/2020. Once a review of the properties was performed, the sales were then plotted and analyzed against the current land schedule applying the 2020 ratio trend of 1.12.

Graph - MA 03 SA 31 Rural Land Sales



Conclusions

Based on the supporting data, SA 31 will retain the base values of the 2019 land schedule with the 2020 1.12 trend applied.

MA 03 Rural Vernonia Reappraisal Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
003 = Residential Rural Tract – Acres

SA 31 LUC 003 Vernonia Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	40,430
0.61	0.80	42,560
0.81	1.00	45,750
Over 1 Acre		Per Acre
1.01	2.00	38,840
2.01	3.00	32,980
3.01	4.00	28,520
4.01	5.00	25,440
5.01	6.00	23,410
6.01	7.00	21,280
7.01	8.00	19,150
8.01	9.00	17,140
9.01	10.00	15,430
10.01	12.00	13,310
12.01	14.00	11,700
14.01	16.00	11,180
16.01	18.00	10,640
18.01	20.00	10,210
20.01	25.00	9,150
25.01	30.00	8,200
30.01	35.00	7,130
35.01	40.00	6,280
40.01	50.00	5,320
50.01	60.00	4,470
60.01	80.00	4,040
80.01	999999.00	3,190

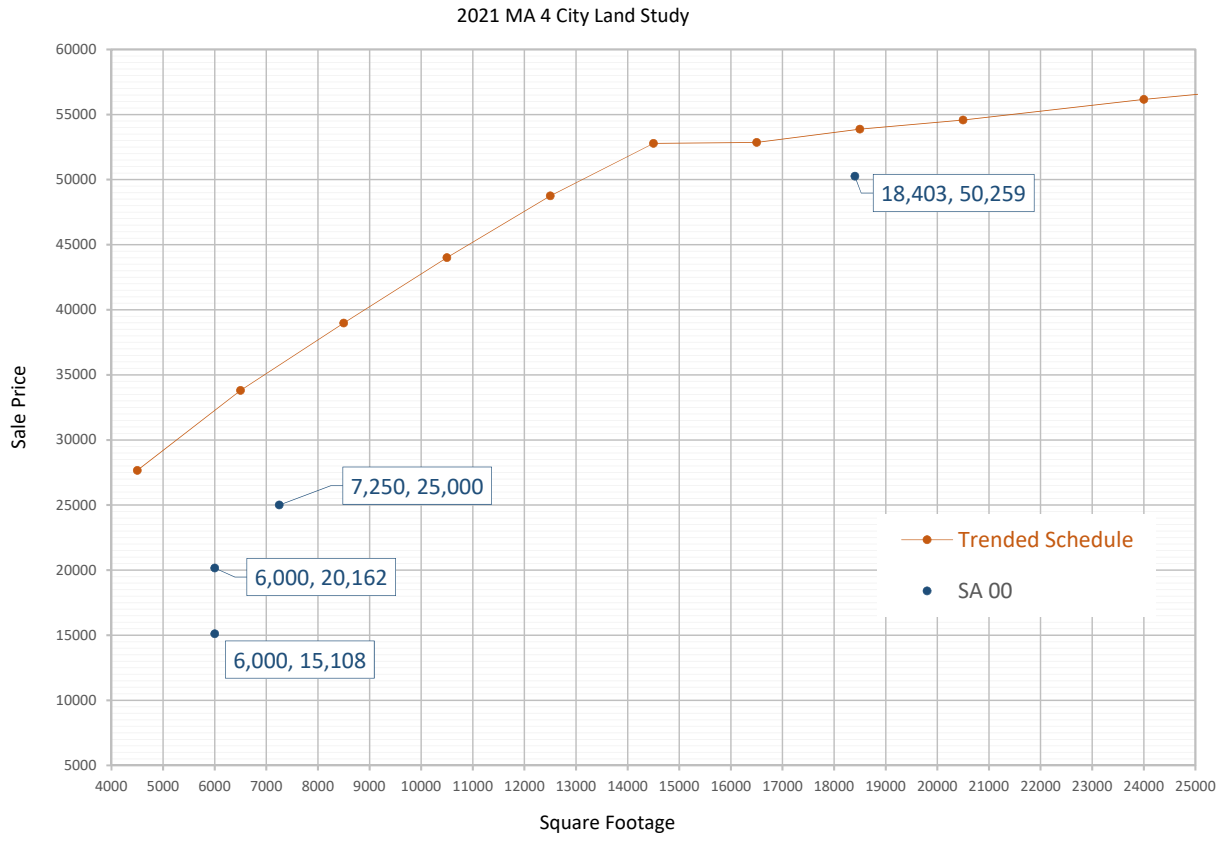
Maintenance Area (MA) 04, City of Rainier Land Setup

Analysis

MA 04 SA 00 (Undefined), SA 40 (Duplex, Triplex, 4-plex)

For this 2021 bare land study, there were 10 city sales available for analysis. Six of the sales were deemed to be un-reliable indicators. The remaining four sales, with a sale date range between 1/1/2019 and 5/1/2020, were considered useable. These sales were time trended to the base appraisal date of 1/1/2020. However, upon further review, these four sales were found to have various types of topography issues and/or were located in the Rainier slide area. Because of these factors, the 4 sales do not represent the characteristics or value of a base city lot. Having insufficient sales data available, it was decided to use the extracted bare land sales used during Reappraisal in 2019 that did support a typical base lot in the City of Rainier.

Graph - MA 4 SA 00 and SA 40 City Base Land Sales



MA 04 SA 47 (Riverfront Estates)

Study Area 47 (Riverfront Estates) is a unique area that was developed in 2006 and lies next to the Columbia River. When this area was created, the developer initially built and sold the homes. Since then, undeveloped land sales have been limited and vacant lots are few. Many of the accounts located here have dwellings with attached homes on approximately 2,500 square foot lots along the riverfront as well as interior lots. A few 4,501 square foot or larger lots with detached single-family dwellings are also located in this study area. Since vacant land sales were not found, it was decided to apply the extraction method to improved sales in order to determine a residual land value. Two improved sales were found. Once reviewed and analyzed, only one sale was found to be useable but insufficient to use as a single indicator of value. The second sale was determined to not be a good representation of an improved lot for extraction based on the terms of the sale and other contributing factors.

Graph - MA 04 SA 47 City Base Land Sales

Insufficient datasets available

MA 04 City Acreage

For this study of city acreage in Rainier, only one reliable bare land sale was found. This sale was time trended to the base appraisal date of 1/1/2020. After review, it was found that this single sale does support the current 2020 land schedule for acreage in the City of Rainier.

Graph - MA 04 City Acreage Base Land Sales

Inadequate datasets available

<u>Conclusions</u>

For SA 00 and SA 40, it is recommended to keep the 2019 base land schedule using the 2020 trend ratio of 1.04 for SA 00.

Because of the lack of data available within SA 47, it has been decided to use the prior year's land schedule with no trend applied.

Although only one sale was available for the undeveloped acreage study in the City of Rainier, it does support the current 2020 land schedule. Therefore for 2021, the recommendation is to roll forward the City of Rainier 2020 base land acreage schedule with no trend applied.

MA 04 City of Rainier Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
001 = Residential City Under an Acre – Square Feet
002 = Residential City Acreage – Acres

SA 00 LUC 001 General Rainier		
Size (sq. ft.)		Total
From	To	Value
1	4500	27,660
4501	6500	33,780
6501	8500	38,950
8501	10500	44,040
10501	12500	48,780
12501	14500	52,780
14501	16500	52,780
16501	18500	53,870
18501	20500	54,600
20501	24000	56,060
24001	28000	57,510
28001	32000	58,970
32001	40000	60,420
40001	43560	61,880

SA 40 LUC 001 Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total
From	To	Value
1	4500	27,660
4501	6500	33,780
6501	8500	38,950
8501	10500	44,040
10501	12500	48,780
12501	14500	52,780
14501	16500	52,780
16501	18500	53,870
18501	20500	54,600
20501	24000	56,060
24001	28000	57,510
28001	32000	58,970
32001	40000	60,420
40001	43560	61,880

SA 47 LUC 001 Rainier Riverfront Estates		
Size (sq. ft.)		Total
From	To	Value
1	4500	17,500
4501	6500	92,700

SA 00 LUC 002 City Acreage		
Size (Acres)		Value
From	To	Per Acre
0.01	999999	39,450

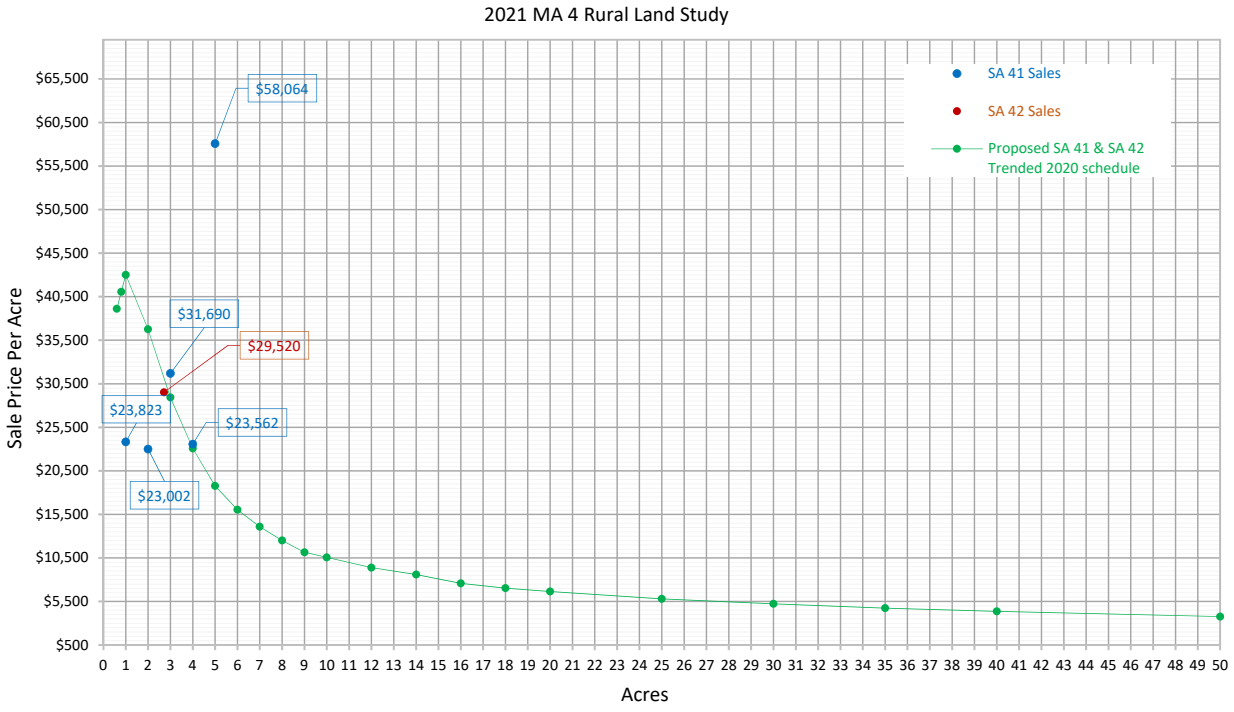
Maintenance Area (MA) 04, Rural Rainier Land Setup

Analysis

MA 04 SA 41 (Rural Value Zone 1) and SA 42 (Rural Value Zone 2)

For this vacant land study, there were seven useable sales out of a dataset of 16 sales. The useable sales were time trended to the base appraisal date of 1/1/2020. For SA 41, 6 sales were plotted on the graph with the current land schedule that was trended for 2020. It was found that these 6 sales in SA 41 appeared to be considerably lower than the previous year 2020 trended land schedule. The seventh sale (from SA 42) was added to the dataset to see if it supported the SA 41 land schedule, which it did not. Both the SA 41 and SA 42 sales fell below the 2020 SA 41 trended undeveloped land trend line on the graph. In further analysis it was then decided to plot the SA 42 trended land schedule to see if all these sales supported it, which it did.

Graph - MA 04 SA 41 and SA 42 Rural Land Sales



Analysis

MA 04 SA 44 (City of Prescott)

This study area is comprised of the City of Prescott, a very small mill town with a population of approximately 50 residents. Although this area is known to be a “city”, the market perception and movement of property and is typical of rural property. For this study, no sales were found of vacant land during the sales period of 1/1/2019 through 12/31/2019 for SA 44.

Graph - MA 04 SA 44 Rural Land Sales

No sales data available

MA 04 SA 45 (Dike Land)

During the sales period dating from 1/1/2018 to 12/31/19, no vacant land sales were available for analysis for SA 45 (Dike Land).

Graph - MA 04 SA 45 Rural Land Sales

No datasets available

MA 04 SA 56 (Deer Island Heights)

Deer Island Heights (SA 56) is a small location comprised of 19 tax lots. Of those tax lots, there is only one vacant land taxlot. After researching sales data between the dates of 1/1/2019 and 12/31/19, it was noted that no sales data was returned. Therefore, the sales data is inadequate for analysis in SA 56 for the 2021 setup.

Graph - MA 04 SA 56 Rural Land Sales

No sales data available

Conclusions

For 2021 in SA 41, it is recommended to use the prior year’s SA 42 undeveloped trended land schedule. For SA 42, the recommendation is to use the current vacant land schedule with the 2020 ratio trend of .92 applied.

The City of Prescott (SA 44) had no sales available. Therefore, it is advised that SA 44 follow the vacant land schedule for SA 41 (Rural Value Zone 1).

Dike Land located in SA 45 will follow the land schedule for SA 41 due to not having any useable vacant land sales to analyze.

In SA 56 (Deer Island Heights) it was decided to follow the new SA 41 land schedule due to the deficiency in available sales data.

MA 04 Rural Rainier Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
003 = Residential Rural Tract – Acres

SA 41 LUC 003 Rainier Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	39,100
0.61	0.80	41,060
0.81	1.00	43,010
Over 1 Acre		Per Acre
1.01	2.00	36,750
2.01	3.00	28,930
3.01	4.00	23,070
4.01	5.00	18,770
5.01	6.00	16,030
6.01	7.00	14,080
7.01	8.00	12,510
8.01	9.00	11,140
9.01	10.00	10,560
10.01	12.00	9,380
12.01	14.00	8,600
14.01	16.00	7,590
16.01	18.00	7,040
18.01	20.00	6,650
20.01	25.00	5,800
25.01	30.00	5,240
30.01	35.00	4,740
35.01	40.00	4,370
40.01	50.00	3,770
50.01	60.00	3,770
60.01	80.00	3,770
80.01	999999.00	3,770

SA 42 LUC 003 Rainier Value Zone 2		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	39,100
0.61	0.80	41,060
0.81	1.00	43,010
Over 1 Acre		Per Acre
1.01	2.00	36,750
2.01	3.00	28,930
3.01	4.00	23,070
4.01	5.00	18,770
5.01	6.00	16,030
6.01	7.00	14,080
7.01	8.00	12,510
8.01	9.00	11,140
9.01	10.00	10,560
10.01	12.00	9,380
12.01	14.00	8,600
14.01	16.00	7,590
16.01	18.00	7,040
18.01	20.00	6,650
20.01	25.00	5,800
25.01	30.00	5,240
30.01	35.00	4,740
35.01	40.00	4,370
40.01	50.00	3,770
50.01	60.00	3,770
60.01	80.00	3,770
80.01	999999.00	3,770

SA 45 LUC 003 Rainier Dikeland		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	39,100
0.61	0.80	41,060
0.81	1.00	43,010
Over 1 Acre		Per Acre
1.01	2.00	36,750
2.01	3.00	28,930
3.01	4.00	23,070
4.01	5.00	18,770
5.01	6.00	16,030
6.01	7.00	14,080
7.01	8.00	12,510
8.01	9.00	11,140
9.01	10.00	10,560
10.01	12.00	9,380
12.01	14.00	8,600
14.01	16.00	7,590
16.01	18.00	7,040
18.01	20.00	6,650
20.01	25.00	5,800
25.01	30.00	5,240
30.01	35.00	4,740
35.01	40.00	4,370
40.01	50.00	3,770
50.01	60.00	3,770
60.01	80.00	3,770
80.01	999999.00	3,770

MA 04 Rural Rainier Recalculation Land Schedules for 2021 (continued)

SA 44 LUC 003 Prescott		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	39,100
0.61	0.80	41,060
0.81	1.00	43,010
Over 1 Acre		Per Acre
1.01	2.00	36,750
2.01	3.00	28,930
3.01	4.00	23,070
4.01	5.00	18,770

SA 56 LUC 003 Deer Island Heights		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	39,100
0.61	0.80	41,060
0.81	1.00	43,010
Over 1 Acre		Per Acre
1.01	2.00	36,750
2.01	3.00	28,930
3.01	4.00	23,070
4.01	5.00	18,770

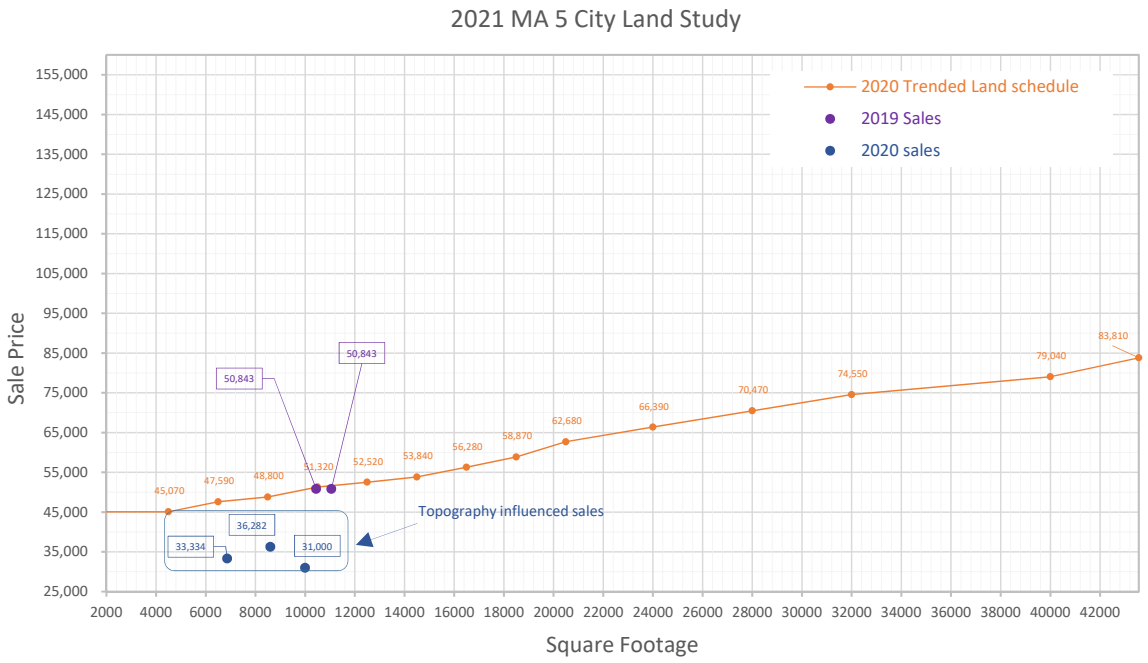
Maintenance Area (MA) 05, City of Clatskanie Land Setup

Analysis

MA 05 SA 00 (Undefined) and SA 40 (Duplex, Triplex, 4-plex)

There was a total of five sales available for this 2021 analysis of vacant land in the City of Clatskanie. An initial review of the sales indicates that only two sales would be considered most reflective of a typical base lot. The sale date range for these 5 sales is 1/1/2019 through 7/15/2020. All sales were time trended to the base appraisal date of 1/1/20. The sales were then analyzed, plotted and compared against the trended 2020 land schedule. Of the 5 sales, 2 sales fell within the trended 2020 land schedule, while the other 3 sales fell below the trended schedule. This is likely due to the minor topography that exists on those 3 properties. Once reviewed in entirety, it was found that all five sales appear to support the 2020 trended land schedule.

Graph - MA 05 SA 00 and SA 40 City Base Land Sales



MA 05 City Acreage

There were no sales available for the 2021 vacant land study for city acreage in the City of Clatskanie.

Graph - MA 01 City Acreage Base Land Sales

No datasets available

Conclusions

Based on the findings from the analysis of SA 00 and SA 40 in the City of Clatskanie, it is recommended to use the 2020 base land schedule with a ratio trend applied of 1.04.

Clatskanie City acreage returned no sales data. Therefore, it is recommended to use the 2020 land schedule with the 2020 trend of 1.04 applied.

MA 05 City of Clatskanie Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
001 = Residential City Under an Acre – Square Feet
002 = Residential City Acreage – Acres

SA 00 LUC 001 General Clatskanie		
Size (sq. ft.)		Total
From	To	Value
1	4500	45,070
4501	6500	47,590
6501	8500	48,800
8501	10500	51,320
10501	12500	52,520
12501	14500	53,840
14501	16500	56,280
16501	18500	58,870
18501	20500	62,680
20501	24000	66,390
24001	28000	70,470
28001	32000	74,550
32001	40000	79,040
40001	43560	83,810

SA 40 LUC 001 General Clatskanie		
Size (sq. ft.)		Total
From	To	Value
1	4500	45,070
4501	6500	47,590
6501	8500	48,800
8501	10500	51,320
10501	12500	52,520
12501	14500	53,840
14501	16500	56,280
16501	18500	58,870
18501	20500	62,680
20501	24000	66,390
24001	28000	70,470
28001	32000	74,550
32001	40000	79,040
40001	43560	83,810

SA 00 LUC 002 City Acreage		
Size (Acres)		Value
From	To	Per Acre
0	999999	44,610

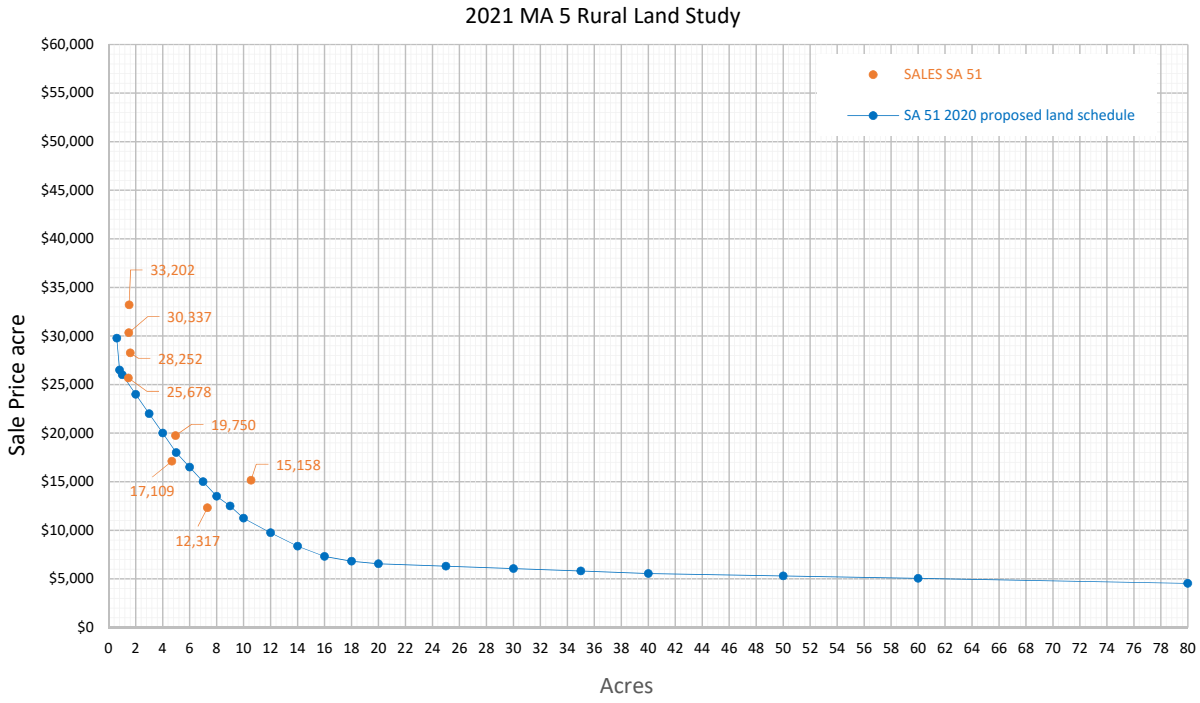
Maintenance Area (MA) 05, Rural Clatskanie Land Setup

Analysis

MA 05 SA 51 (Rural Value Zone 1)

The vacant land study in MA 5 SA 51 returned a total of 9 sales for consideration. It was found that one of the sales has sold to a rock products company. The remaining eight sales were considered usable and range in date from 1/1/2019 to 12/31/2019. These were time adjusted to the base appraisal date of 1/1/2020. The sales were examined, plotted, and then compared against the trended 2020 vacant rural land schedule for Clatskanie. The resulting study did support the 2020 schedule but indicated a potential modification to the acre range of "0 to 20". Two of the sales had some market related topography influences. Based on the data available, a slight increase to the MA 5 SA 51 rural land schedule is evident.

Graph - MA 05 SA 51 Rural Land Sales



MA 05 SA 55 (Dike Land)

The search of Dike land (SA 55) sales in Clatskanie returned results for analysis.

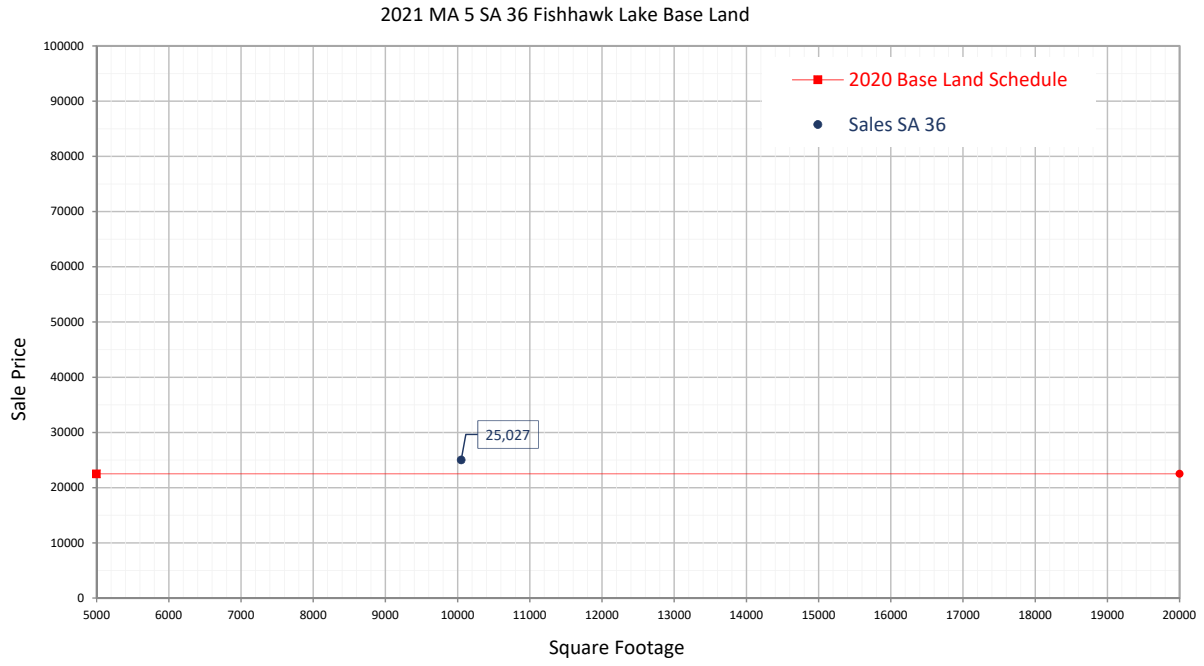
Graph - MA 05 SA 55 Rural Land Sales

No datasets were found to plot.

MA 5 SA 35 (Fishhawk Lake)

For this 2021 analysis of vacant land sales at Fishhawk Lake, the sales data was queried between the dates of 1/1/2018 through 7/20/2020. The results returned a total of six vacant land sales and upon review of each sale, it was found that three of the sales were eliminated because they had lake and creek frontage. Of the three remaining sales, one had a topography issue and another unconfirmed sale was found to not have been listed on the open market. With having exhausted the search for undeveloped land sales and having only one sale remaining as a credible indicator of value, it was deemed appropriate to perform the extraction method on improved sales. The improved extraction method returned two sales but resulted in an inconclusive outcome. The single remaining credible sale was plotted on the graph and compared with the un-trended 2020 base land value which appears to support the 2020 un-trended base schedule.

Graph - MA 05 SA 36 Rural Land Sales



Conclusions

For 2020 in SA 51, the useable sales plotted on the graph did support a slight increase to the rural vacant land schedule. Therefore, it is recommended to use the SA 51 LUC 003 base land schedule shown on the subsequent page.

It is recommended that the Clatskanie Dike Land (SA 55) base land value will be a carry forward of the 2020 rural vacant land schedule applying the 2020 ratio trend of 1.02 for the 2021 year.

Due to the lack of data available for Fishhawk Lake (SA 36), it's recommended to carry forward the un-trended 2020 base land value of $22,500 per lot for the 2021 setup.

MA 05 Rural Clatskanie Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
003 = Residential Rural Tract – Acres

SA 51 LUC 003 Clatskanie Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	29,780
0.61	0.80	26,500
0.81	1.00	26,000
Over 1 Acre		Per Acre
1.01	2.00	24,000
2.01	3.00	22,000
3.01	4.00	20,000
4.01	5.00	18,000
5.01	6.00	16,500
6.01	7.00	15,000
7.01	8.00	13,500
8.01	9.00	12,500
9.01	10.00	11,260
10.01	12.00	9,750
12.01	14.00	8,360
14.01	16.00	7,320
16.01	18.00	6,820
18.01	20.00	6,560
20.01	25.00	6,310
25.01	30.00	6,060
30.01	35.00	5,810
35.01	40.00	5,550
40.01	50.00	5,300
50.01	60.00	5,050
60.01	80.00	4,540
80.01	999999.00	4,040

SA 55 LUC 003 Clatskanie Dikeland		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	23,460
0.61	0.80	22,440
0.81	1.00	20,400
Over 1 Acre		Per Acre
1.01	2.00	18,360
2.01	3.00	16,320
3.01	4.00	14,790
4.01	5.00	13,260
5.01	6.00	12,240
6.01	7.00	10,710
7.01	8.00	9,690
8.01	9.00	8,670
9.01	10.00	8,160
10.01	12.00	6,940
12.01	14.00	6,020
14.01	16.00	5,300
16.01	18.00	4,900
18.01	20.00	4,690
20.01	25.00	4,280
25.01	30.00	4,080
30.01	35.00	3,670
35.01	40.00	3,260
40.01	50.00	2,650
50.01	60.00	2,240
60.01	80.00	1,840
80.01	999999.00	1,530

SA 36 LUC 003 Fishhawk Lake Estates		
Size (Acres)		Value
From	To	Lump Sum
0.01	5.00	22,500

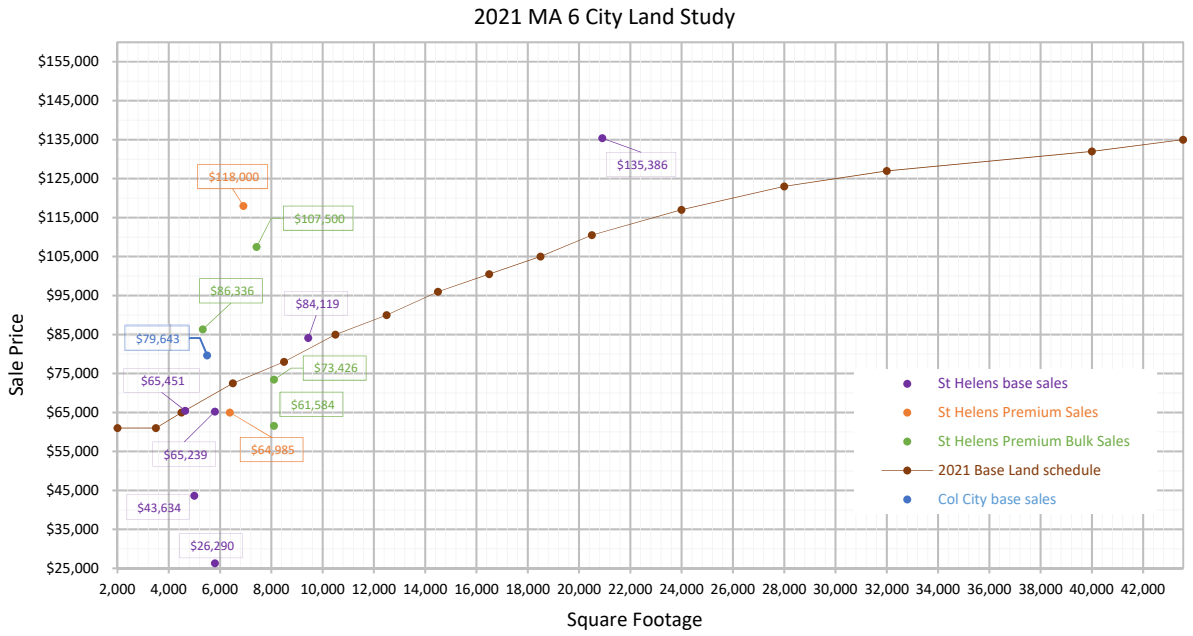
Maintenance Area (MA) 06, City of Columbia City Land Setup

Analysis

MA 06 SA 01 (Undefined) and SA 31 (Duplex, Triplex, 4-plex)

Columbia City had no bare land base sales between 1/1/2019 and 12/31/2019 for SA 01 and SA 31. Therefore, the search was expanded to include land that sold between 1/1/2018 and 6/30/2020. The expanded search parameters resulted in one base land sale available for analysis. Due to the lack of base land sales in Columbia City, sales from the nearby and competing market area of St Helens were reviewed and plotted. In St Helens, there was a total of 13 usable sales available for analysis. Of those sales, four were found to be bulk sales of already developed lots sold by developers to home builders. The remaining 9 sales were a mix of infill lots and subdivision lots. These additional 13 sales from St Helens, would openly compete in Columbia City and are deemed credible indicators in creating a new land schedule for Columbia City.

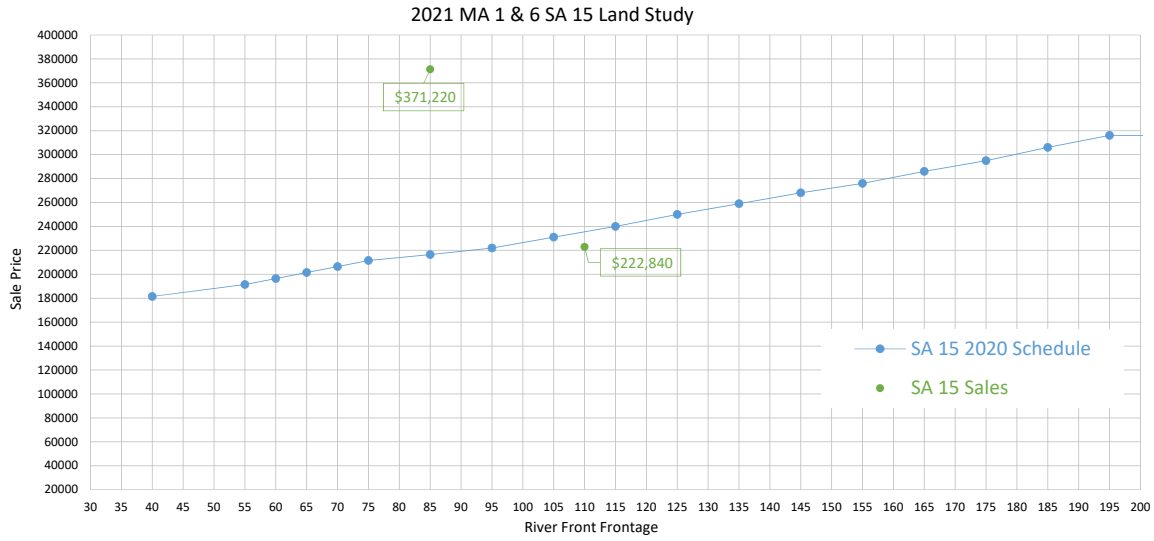
Graph – MA 06 SA 01 and 31 City Land Sales



MA 06 SA 15 (Riverfront)

For this analysis of riverfront undeveloped land in MA 06, only 2 sales available for analysis in Columbia City and none available in adjacent City of St. Helens. The two sales were plotted on the graph and compared to the prior 2020 land schedule. Despite the limited sales data for this study area, the 2020 land schedule is supported by these two sales.

Graph - MA 06 SA 15 City Base Land Sales



MA 06 SA 01 City Acreage

A search for city acreage within Columbia City was conducted. There were sales in Columbia City for the time period of 1/1/2018-06/30/2020 for this classification of property. Due to the nearby and competing nature that St. Helens provides market, the city acreage schedule for St. Helens was analyzed.

Graph - MA 06 City Acreage Land Sales

No sales were plotted

<u>Conclusions</u>

It is therefore recommended to use the new proposed base land schedule for MA 06 SA 01 and SA 31 for the 2021 Setup.

For SA 15 (Riverfront), the decision was made to keep the current 2020 base land schedule with no trend.

Due to the lack of city acreage sales in Columbia City, it has been decided that the city acreage schedule from St Helens be adopted for SA 01 City Acreage for 2021.

MA 06 City of Columbia City Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)

001 = Residential City Under an Acre – Square Feet
002 = Residential City Acreage – Acres
005 = Residential Riverfront – Front Footage

SA 01 LUC 001 General Columbia City		
Size (sq. ft.)		Total
From	To	Value
1	4500	65,000
4501	6500	72,500
6501	8500	78,000
8501	10500	85,000
10501	12500	90,000
12501	14500	96,000
14501	16500	100,500
16501	18500	105,000
18501	20500	110,500
20501	24000	117,000
24001	28000	123,000
28001	32000	127,000
32001	40000	132,000
40001	43560	135,000

SA 31 LUC 001 Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total
From	To	Value
1	4500	65,000
4501	6500	72,500
6501	8500	78,000
8501	10500	85,000
10501	12500	90,000
12501	14500	96,000
14501	16500	100,500
16501	18500	105,000
18501	20500	110,500
20501	24000	117,000
24001	28000	123,000
28001	32000	127,000
32001	40000	132,000
40001	43560	135,000

SA 15 LUC 005 Riverfront		
Size (front footage)		Total
From	To	Value
0	40	181,450
41	50	186,450
51	55	191,450
56	60	196,450
61	65	201,450
66	70	206,450
71	75	211,450
76	85	216,450
86	95	222,000
96	105	231,000
106	115	240,000
116	125	250,000
126	135	259,000
136	145	268,000
146	155	276,000
156	165	286,000
166	175	295,000
176	185	306,000
186	195	316,000
196	999999	318,000

SA 01 LUC 002 City Acreage		
Size (Acres)		Value
From	To	Per Acre
1.00	999999	107,700

Maintenance Area (MA) 06, Rural Saint Helens Land Setup

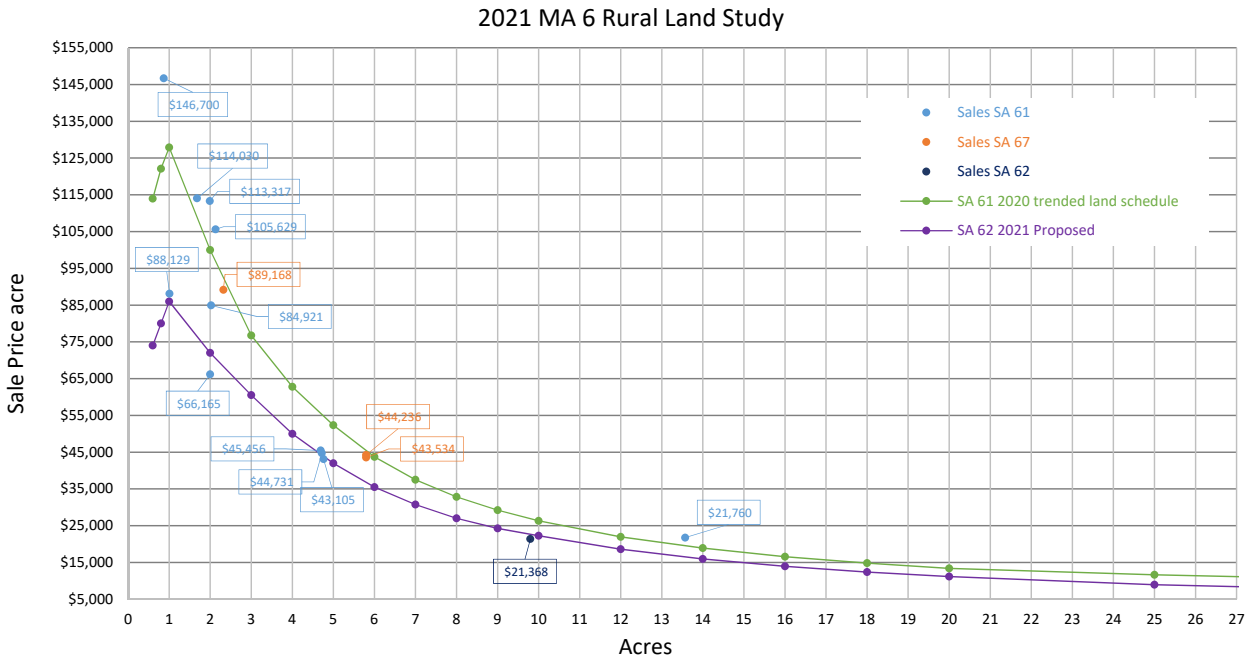
Analysis

MA 06 SA 61 (Rural Value Zone 1 North County), SA 62 (Rural Value Zone 2), and SA 67 (Rural Value Zone 1 South County)

For this vacant land study of SA 61 and SA 67, there were 15 sales analyzed. Of those sales, 11 were considered usable in SA 61 and three usable sales were analyzed for SA 67. All sales analyzed ranged from 1/1/2019 to 12/31/2019 and were time trended to the base appraisal date of 1/1/2020. The sales were then applied to a graph analyzed. There did not appear to be a value difference between SA 61 and SA 67. Therefore, the 2019 bare land schedule with the 2020 trend applied was then added to the graph. The sales for these two MA fell in line with the trended line.

For SA 62, there was one usable sale and because of this the 2019 land schedule with the 2020 trend was plotted and analyzed. The one useable sale did show a slight uptick in value. Therefore, a slight adjustment was made to a portion of the 2020 Land Schedule, creating a new land schedule for 2021.

Graph - MA 06 Rural Land Sales



Conclusion

The sales data for SA 61 and SA 67 support the existing 2019 bare land schedule with the 2020 trend applied and therefore will be used for the 2021 base land schedule for those areas. For SA 62, the proposed 2021 land schedule will be adopted.

MA 06 Rural Saint Helens Recalculation Land Schedules for 2021

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)
LUC = Land Use Code (Type of land value schedule used for assessment)
003 = Residential Rural Tract – Acres

SA 61 LUC 003 Rural St Helens Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	113,950
0.61	0.80	122,090
0.81	1.00	127,910
Over 1 Acre		Per Acre
1.01	2.00	100,000
2.01	3.00	76,740
3.01	4.00	62,790
4.01	5.00	52,330
5.01	6.00	43,720
6.01	7.00	37,510
7.01	8.00	32,850
8.01	9.00	29,240
9.01	10.00	26,330
10.01	12.00	21,980
12.01	14.00	18,900
14.01	16.00	16,580
16.01	18.00	14,830
18.01	20.00	13,370
20.01	25.00	11,630
25.01	30.00	10,470
30.01	35.00	9,880
35.01	40.00	9,300
40.01	50.00	8,720
50.01	60.00	8,140
60.01	80.00	7,560
80.01	999999.00	5,810

SA 62 LUC 003 Rural St Helens Value Zone 2		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	74,000
0.61	0.80	80,000
0.81	1.00	86,000
Over 1 Acre		Per Acre
1.01	2.00	72,000
2.01	3.00	60,500
3.01	4.00	50,000
4.01	5.00	42,000
5.01	6.00	35,500
6.01	7.00	30,750
7.01	8.00	27,000
8.01	9.00	24,250
9.01	10.00	22,250
10.01	12.00	18,600
12.01	14.00	15,950
14.01	16.00	13,960
16.01	18.00	12,410
18.01	20.00	11,170
20.01	25.00	8,940
25.01	30.00	7,640
30.01	35.00	6,550
35.01	40.00	6,060
40.01	50.00	5,540
50.01	60.00	5,060
60.01	80.00	5,000
80.01	999999.00	4,560

SA 67 LUC 003 Rural St Helens Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	113,950
0.61	0.80	122,090
0.81	1.00	127,910
Over 1 Acre		Per Acre
1.01	2.00	100,000
2.01	3.00	76,740
3.01	4.00	62,790
4.01	5.00	52,330
5.01	6.00	43,720
6.01	7.00	37,510
7.01	8.00	32,850
8.01	9.00	29,240
9.01	10.00	26,330
10.01	12.00	21,980
12.01	14.00	18,900
14.01	16.00	16,580
16.01	18.00	14,830
18.01	20.00	13,370
20.01	25.00	11,630
25.01	30.00	10,470
30.01	35.00	9,880
35.01	40.00	9,300
40.01	50.00	8,720
50.01	60.00	8,140
60.01	80.00	7,560
80.01	999999.00	5,810

2021 On-Site Development (OSD) Analysis and Conclusions

Maintenance Area 01, City of Saint Helens On-Site Development (OSD) Study

Analysis

The cost figures below are estimates associated with the development of a residential structure within the City of St Helens. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company Columbia River PUD. These cost estimates are based on CRPUD's flat rate fee schedule.
- All the necessary SDC fees associated with; water, sewer, parks, streets, and storms are only charged at initial development of a site.
- Multifamily properties, if available, have the choice to have each unit metered independently for water and sewer for billing purposes. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multifamily. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$11,000	$11,000	$11,000	$11,000
Power (Columbia River PUD)	$1,740	$1,880	$2,030	$2,190
Water SDC + connection	$4,086	$8,172	$12,258	$16,344
Sanitary services SDC + connection	$4,252	$8,504	$12,756	$17,008
Parks SDC	$2,944	$2,904	$4,357	$5,809
Streets SDC	$2,370	$4,233	$6,350	$8,466
Storm SDC	$821	$821	$1,231	$1,642
School Construction Excise Tax (CET)	$2,340	$2,600	$3,640	$4,680
TOTAL	**$29,553**	**$40,114**	**$53,622**	**$67,139**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 City of Saint Helens OSD	
Single Family Dwelling	$29,600
Multi-Family – Duplex	$40,100
Multi-Family – Triplex	$53,600
Multi-Family – Fourplex	$67,100

Maintenance Area 02, City of Scappoose On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Scappoose. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or, developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company Columbia River PUD. These cost estimates are based on CRPUD's flat rate fee schedule.
- All the necessary SDC fees associated with; water, sewer, parks, streets, and storms are SDC fees that are charged only at initial development of a site.
- Multi-family properties in this area generally opt to have each unit separately metered for water and sewer, because of the cost of water & sewer rates. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$11,000	$11,000	$11,000	$11,000
Power (Columbia River PUD)	$1,740	$1,880	$2,030	$2,190
Water SDC + connection	$5,715	$11,430	$17,145	$22,860
Sanitary services SDC + connection	$5,116	$10,232	$15,348	$20,464
Parks SDC	$2,087	$3,068	$4,603	$6,136
Streets SDC	$2,034	$4,068	$6,102	$8,136
Storm SDC	$629	$629	$944	$1,258
School Construction Excise Tax (CET)	$2,268	$2,520	$3,528	$4,536
TOTAL	**$30,589**	**$44,827**	**$60,699**	**$76,580**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 City of Scappoose OSD	
Single Family Dwelling	$30,600
Multi-Family – Duplex	$44,800
Multi-Family – Triplex	$60,700
Multi-Family – Fourplex	$76,600

Maintenance Area 02, Rural Scappoose On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Scappoose. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility companies; Columbia River PUD (CRPUD), West Oregon Electric, and PGE. Approximately 75% of the area is served by Columbia River PUD, therefore these cost estimates are based on CRPUD's flat rate fee schedule.
- Water is generally provided by drilled domestic water wells on each property at an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	**SFD**	**Duplex**	**Triplex**	**Fourplex**
Excavation	$17,100	$17,100	$17,100	$17,100
Power (Columbia River PUD)	$4,282	$5,267	$6,268	$7,270
Well Drilling & Pump System 280'@$65	$18,500	$18,500	$18,500	$18,500
Sanitation (Standard Septic) w/permits	$11,473	$11,473	$11,473	$11,473
LDS Transportation SDC	$2,273	$2,273	$2,273	$2,273
LDS Parks SDC	$750	$750	$750	$750
School Construction Excise Tax (CET)	$2,268	$2,520	$3,528	$4,536
TOTAL	**$56,646**	**$57,882**	**$59,891**	**$61,902**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 Rural Scappoose OSD	
Single Family Dwelling	$56,600
Multi-Family – Duplex	$57,900
Multi-Family – Triplex	$59,900
Multi-Family – Fourplex	$61,900

Maintenance Area 03, City of Vernonia On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Vernonia. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company West Oregon Electric Co-op (WOEC).
- All the necessary SDC fees associated with; water, sewer, parks, streets, and storms are fees that are charged only at initial development of a site.
- Multi-family properties in this area generally opt to have each unit separately metered for water and sewer, because of the cost of water & sewer rates. It should be noted that contractors indicated no real increase in excavation costs for up to a typical 4-unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$11,000	$11,000	$11,000	$11,000
Power (Western Oregon Electric)	$5,305	$6,555	$7,805	$9,055
Sewer SDC	$2,957	$5,914	$8,871	$11,828
Storm SDC	$1,340	$2,680	$4,020	$5,360
Water SDC	$2,269	$4,538	$6,807	$9,076
Streets SDC	$858	$1,716	$2,574	$3,432
Parks SDC	$1,000	$2,000	$3,000	$4,000
Water Connection Fee	$1,050	$2,100	$3,150	$4,200
Sewer Connection Fee	$1,250	$2,500	$3,750	$5,000
TOTAL	**$27,029**	**$39,003**	**$50,977**	**$62,951**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 City of Vernonia OSD	
Single Family Dwelling	$27,000
Multi-Family – Duplex	$39,000
Multi-Family – Triplex	$51,000
Multi-Family – Fourplex	$63,000

Maintenance Area 03, Rural Vernonia On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Vernonia. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or developer for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs estimates are provided by the local governing utility company West Oregon Electric Co-op (WOEC).
- Water is generally provided by drilled domestic water wells on each property with an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the most typical system as shown below. Columbia County Land Development Services impose transportation & park SDC fees, which are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for up to the 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$17,100	$17,100	$17,100	$17,100
Power (Western Oregon Electric)	$6,896	$8,222	$19,548	$10,875
Well Drilling & Pump System 280'@$65	$18,500	$18,500	$18,500	$18,500
Sanitation (Standard Septic) w/permits	$11,473	$11,473	$11,473	$11,473
LDS Transportation SDC	$2,273	$2,273	$2,273	$2,273
LDS Parks SDC	$750	$750	$750	$750
TOTAL	**$56,992**	**$58,318**	**$59,644**	**$60,971**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 Rural Vernonia OSD	
Single Family Dwelling	$57,000
Multi-Family – Duplex	$58,300
Multi-Family – Triplex	$59,600
Multi-Family – Fourplex	$61,000

Maintenance Area 04, City of Rainier On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Rainier. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.

Power costs are provided by the local governing utility company Clatskanie PUD. Clatskanie PUD offers a line credit for new installations that generally cover the costs.

All the necessary SDC fees associated with water & sewer are charged at initial development of a site.

Multi-family properties in Rainier generally opt not to separately meter for water and sewer, but do opt for a separate meter for electric. It should be noted that contractors indicated no real increase in excavation costs for up to a typical 4 unit multi-family home. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$11,000	$11,000	$11,000	$11,000
Power (Clatskanie PUD)	$100	$100	$100	$100
Sanitary services SDC + connection	$2,745	$5,490	$8,235	$10,980
Water SDC + connection	$1,420	$1,420	$1,420	$1,420
TOTAL	**$15,265**	**$18,010**	**$20,755**	**$23,500**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 City of Rainier OSD	
Single Family Dwelling	$15,300
Multi-Family – Duplex	$18,000
Multi-Family – Triplex	$20,800
Multi-Family – Fourplex	$23,500

Maintenance Area 04, Rural Rainier On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Rainier. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility company Columbia River PUD (CRPUD) and are based on CRPUD's flat rate fee schedule.
- Water is generally provided by drilled domestic water wells on each property at an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	**SFD**	**Duplex**	**Triplex**	**Fourplex**
Excavation	$17,100	$17,100	$17,100	$17,100
Power (Columbia River PUD)	$4,282	$5,267	$6,268	$7,270
Well Drilling & Pump System 280'@$65	$18,500	$18,500	$18,500	$18,500
Sanitation (Standard Septic) w/permits	$11,473	$11,473	$11,473	$11,473
LDS Transportation SDC	$2,273	$2,273	$2,273	$2,273
LDS Parks SDC	$750	$750	$750	$750
TOTAL	**$54,378**	**$55,363**	**$56,364**	**$57,366**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 Rural Rainier OSD	
Single Family Dwelling	$54,400
Multi-Family – Duplex	$55,400
Multi-Family – Triplex	$56,400
Multi-Family – Fourplex	$57,400

Maintenance Area 04, City of Prescott On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Rainier. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility company, Columbia River PUD (CRPUD), and are based on CRPUD's flat rate fee schedule.
- Water is provided by a community water source in Prescott.
- Sanitation is generally provided by a private onsite standard septic system. It is known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	**SFD**	**Duplex**	**Triplex**	**Fourplex**
Excavation	$17,100	$17,100	$17,100	$17,100
Power (Columbia River PUD)	$4,282	$5,267	$6,268	$7,270
Community Water Hook Up	$500	$1,000	$1,500	$2,000
Sanitation (Standard Septic) w/permits	$11,473	$11,473	$11,473	$11,473
LDS Transportation SDC	$2,273	$2,273	$2,273	$2,273
LDS Parks SDC	$750	$750	$750	$750
TOTAL	**$36,378**	**$37,863**	**$39,364**	**$40,866**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 City of Prescott OSD	
Single Family Dwelling	$36,400
Multi-Family – Duplex	$37,900
Multi-Family – Triplex	$39,400
Multi-Family – Fourplex	$40,900

Maintenance Area 05, City of Clatskanie On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Clatskanie. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company Clatskanie PUD. Clatskanie PUD offers a line credit for new installations that generally cover the costs.
- All the necessary SDC fees associated with water & sewer are charged at initial development of a site.
- Multi-family properties in this area generally opt not to separately meter for water and sewer, but do separately meter for electric. It should be noted that contractors indicated no real increase in excavation costs for up to a typical 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.
-

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$11,000	$11,000	$11,000	$11,000
Power (Clatskanie)	$100	$100	$100	$100
Sanitary services SDC + connection	$1,500	$2,250	$3,000	$3,750
Water SDC + connection	$1,250	$1,900	$2,550	$3,200
TOTAL	**$13,850**	**$15,250**	**$16,650**	**$18,050**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 City of Clatskanie OSD	
Single Family Dwelling	$13,900
Multi-Family – Duplex	$15,300
Multi-Family – Triplex	$16,700
Multi-Family – Fourplex	$18,100

Maintenance Area 05, Rural Clatskanie On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Clatskanie. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or developer for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility company Clatskanie PUD. Clatskanie PUD offers a line credit for new installations that generally cover the costs.
- Water is generally provided by drilled domestic water wells on each property at an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$17,100	$17,100	$17,100	$17,100
Power (Clatskanie PUD)	$100	$100	$100	$100
Well Drilling & Pump System 280'@$65	$18,500	$18,500	$18,500	$18,500
Sanitation (Standard Septic) w/permits	$11,473	$11,473	$11,473	$11,473
LDS Transportation SDC	$2,273	$2,273	$2,273	$2,273
LDS Parks SDC	$750	$750	$750	$750
TOTAL	**$50,196**	**$50,196**	**$50,196**	**$50,196**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 Rural Clatskanie OSD	
Single Family Dwelling	$50,200
Multi-Family – Duplex	$50,200
Multi-Family – Triplex	$50,200
Multi-Family – Fourplex	$50,200

Maintenance Area 05, Fishhawk Lake On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Clatskanie (Fishhawk Lake). The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or developer for site development of a new structure.

- Excavation costs include clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs estimates are provided by the local governing utility company West Oregon Electric Co-op (WOEC).
- Water & sewer are provided by a community system operated by Fishhawk homeowners association. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$17,100	$17,100	$17,100	$17,100
Power (Western Oregon Electric)	$6,896	$8,222	$9,548	$10,875
LDS Transportation SDC	$2,273	$2,273	$2,273	$2,273
LDS Parks SDC	$750	$750	$750	$750
Fishhawk Community Water/Sewer Hook Up	$2,000	$2,000	$2,000	$2,000
TOTAL	**$29,019**	**$30,345**	**$31,671**	**$32,998**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 Fishhawk Lake OSD	
Single Family Dwelling	$29,000
Multi-Family – Duplex	$30,300
Multi-Family – Triplex	$31,700
Multi-Family – Fourplex	$33,000

Maintenance Area 06, City of Columbia City On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Columbia City. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company, Columbia River PUD (CRPUD), these cost estimates are based on CRPUD's flat rate fee schedule.
- All the necessary SDC fees associated with; water, sewer, parks, streets, and storms are SDC fees that are charged only at initial development of a site.
- Multi-family properties in this area generally opt to have each unit separately metered for water and sewer, because of the cost of water & sewer rates. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$11,000	$11,000	$11,000	$11,000
Power (Columbia River PUD)	$1,740	$1,880	$2,030	$2,190
Water SDC + connection	$5,477	$10,954	$16,431	$21,908
Sanitary services SDC + connection	$5,840	$11,680	$17,520	$23,360
Parks SDC	$2,019	$4,038	$6,057	$8,076
Storm Drainage SDC	$389	$464	$696	$928
Transportation SDC	$4,575	$5,604	$8,406	$11,208
School Construction Excise Tax (CET)	$2,340	$2,600	$3,640	$4,680
TOTAL	**$33,380**	**$48,220**	**$65,780**	**$83,350**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 City of Columbia City OSD	
Single Family Dwelling	$33,400
Multi-Family – Duplex	$48,200
Multi-Family – Triplex	$65,800
Multi-Family – Fourplex	$83,400

Maintenance Area 06, Rural Saint Helens On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Warren, Scappoose, & St Helens. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or developer for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility company, Columbia River PUD (CRPUD), and are based on CRPUD's flat rate fee schedule.
- Water is generally provided by drilled domestic water wells on each property at an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	$17,100	$17,100	$17,100	$17,100
Power (Columbia River PUD)	$4,282	$5,267	$6,268	$7,270
Well Drilling & Pump System 280'@$65	$18,500	$18,500	$18,500	$18,500
Sanitation (Standard Septic) w/permits	$11,473	$11,473	$11,473	$11,473
LDS Transportation SDC	$2,273	$2,273	$2,273	$2,273
LDS Parks SDC	$750	$750	$750	$750
School Construction Excise Tax (CET)	$2,304	$2,560	$3,584	$4,608
TOTAL	**$56,682**	**$57,923**	**$59,948**	**$61,974**

Conclusions

Due to no increase in construction costs related to site development, it is concluded that the prior year 2019/2020 OSD development costs be rolled forward and utilized in 2021. The OSD costs for 2021 are listed below.

2021 Rural Saint Helens OSD	
Single Family Dwelling	$56,700
Multi-Family – Duplex	$57,900
Multi-Family – Triplex	$59,900
Multi-Family – Fourplex	$62,000

2021 Local Cost Modifiers (LCM) Analysis and Conclusions

Countywide Local Cost Modifier (LCM) Study for Conventional Dwellings

This study establishes a modifier to be applied to construction costs found in the 2005 Cost Factors for Residential Buildings, to adjust the factors for conventional dwellings to the base appraisal date of 1/1/2021.

Analysis

This analysis for the 2021 LCM set up year was based on sales of homes built in 2017, 2018, and 2019. The initial raw data included 42 properties to review for use in the study. After an initial review of these properties, many were removed from this study for the following reasons:

- Sales of properties that included carriage houses, farm buildings, or additional structures.
- Sales of properties that had notable value influences due to topography, views, etc.
- Sales of properties in areas that there were not enough vacant land sales to establish a land schedule.
- Sales of properties where it was difficult to accurately determine the quality of construction as compared to our cost factor book and class benchmarks.
- Cost of new homes where the owners were the general contractor.

The remaining 30 sales were analyzed through the extraction method of bonified sales and the data was analyzed to determine location or classing differences. However, there data reviewed appeared to have no reliable differences between location or class. The dataset Mean (average) and the mode (common array) were analyzed and overall weight was given to the mean of 1.524 (rounded up to 1.53). Additionally, as a second means of verification, 8 sales located in MA 02 were also analyzed using the 2020 trended land schedule in MA 02. This was to verify if LCM results fell within the range of the indicated outcomes of the original 30 sales above. Two of the 8 sales were deemed unreliable due to adjustments made to the improvement. The results of this second verification provides additional support to this LCM study and also provided support for MA 02 city land schedule study.

Conclusions

Based on the findings using sales extraction, the Local Cost Modifier indicated a mean of 1.53.

The 2021 Conventional Dwelling LCM to be applied to the 2005 Residential Cost Factor Book is 1.53.

Countywide Local Cost Modifier (LCM) Study Manufactured Dwellings

This study establishes a modifier to be applied to construction costs found in the 2004 Cost Factors for Manufactured Structures, to adjust the factors for manufactured dwellings to the base appraisal date of 1/1/2021.

Analysis

This analysis for the 2021 MS LCM set up year was based on sales of manufactured homes built in 2019 that were sited in Columbia County. These homes were placed throughout the county and site visited to verify classing and confirm building cost data for analyzation. There were a total of 11 usable properties for analysis based on constructions costs. No sales were available for extraction analysis at this time. The indicated LCM's for the 11 homes ranged from 1.26 to 2.27, with a mean of 1.70.

Conclusions

The 2021 Manufactured Dwelling LCM to be applied to the 2004 Cost Factors for Manufactured Structures is 1.70.

Countywide Local Cost Modifier (LCM) Study for Floating Property

The Oregon Department of Revenue does not provide a separate cost factor book to be used on floating property, however, the primary difference between conventional dwellings and floating homes is the foundation structure, so the same factor book is used. The costs to build a floating home are much higher than to build a home on land, so the calculated LCM is expected to reflect those higher costs. This study establishes a modifier to be applied to construction costs found in the 2005 Cost Factors for Residential Buildings to adjust the factors for floating property to the base appraisal date of 1/1/2021.

Analysis

This analysis for the floating property LCM uses sales of new floating homes from 2019 and 2020. Due to a lack of sales in Columbia County, the majority of sales used were from Multnomah County. The sales were all time adjusted to the base appraisal date of January 1, 2021. There were 5 sales that occurred in Multnomah County and 2 sales that occurred in Columbia County. An appropriate quality class was determined for each of the floating homes. All 7 of the sales have been included in the analysis and the time adjusted sales price was compared with the calculated cost from the 2005 Cost Factors for Residential Buildings. The Multnomah County sales indicated an average LCM of 2.55 and the Columbia County sales indicated an average LCM of 2.84. With all 7 sales combined the overall average LCM was 2.64. The weighted LCM mean between the 2 Columbia County sales and 5 Multnomah County Sales was also 2.64.

Conclusions

Based on the data available, it was determined that the mean is the most reliable indicator for the floating property LCM at 2.64.

The 2021 Floating Property LCM to be applied to the 2005 Cost Factors for Residential Buildings is 2.64.

Countywide Local Cost Modifier (LCM) for Farm Buildings

This study establishes a modifier to be applied to construction costs found in the 2009 Cost Factors for Farm Buildings, to adjust the factors for farm buildings to the base appraisal date of 1/1/2021. The majority of farm buildings in Columbia County are general purpose pole frame type buildings.

Analysis

A sales extraction method for determining a Farm Building LCM was not done, properties are not generally sold with a new pole building. The best method of determining a local cost modifier for these types of buildings is by collecting data on the actual market cost to build. This analysis for the 2019 Farm LCM set up year was based on reported cost of Farm buildings that were built by contractors in Columbia County. These farm buildings were scattered throughout the county and site visited to verify classing and confirm building cost data for analyzation. There were a total of 17 usable properties for analysis based on owner and contractor reported constructions costs. The majority of the cost data above is reflective of class 4, 5 and 6 general purpose buildings. Other type of farm buildings were considered, but specialty type buildings were considered difficult to accurately gather costs for comparison.

Conclusions

The data consists of construction costs associated with building farm buildings in Columbia County. The LCM ranged from 1.41 to 2.54 with a mean of 1.94. This data appears to show an increase of approximately 10% from the prior year. It's recommended that the mean LCM of 1.94 be used for the 2021 setup.

The 2021 Farm Building LCM to be applied to the 2009 Cost Factors for Farm Buildings is 1.94.

Notes

2021 Depreciation Schedules Analysis and Conclusions

Countywide Depreciation Study for Conventional Single-Family Dwellings

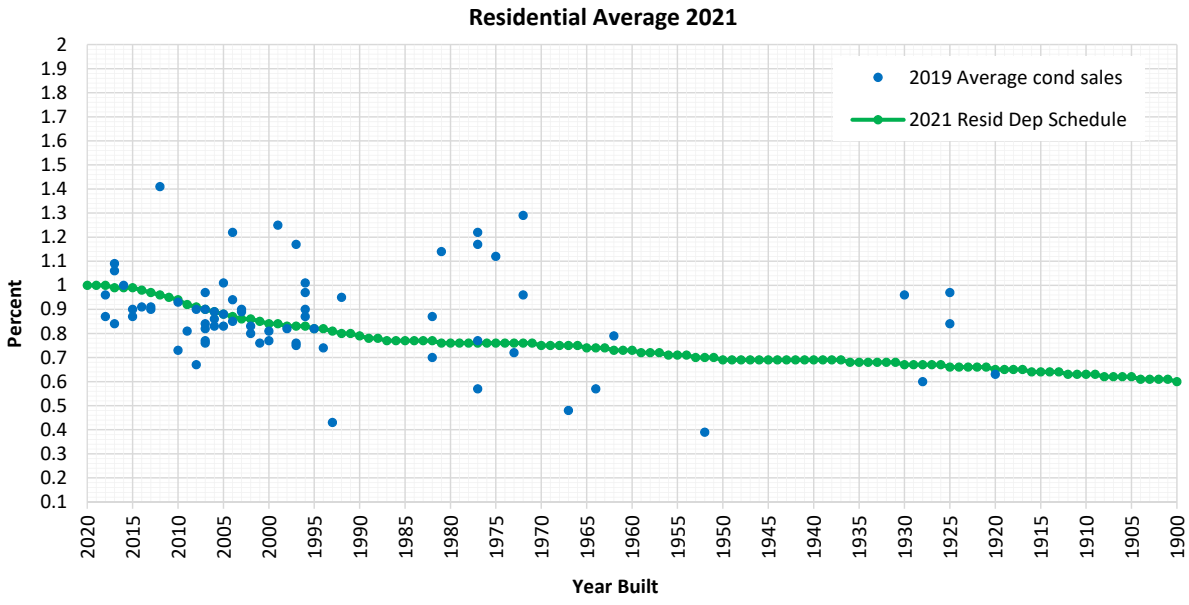
Analysis

The purpose of the depreciation study is to determine the accrued depreciation of an improvement. Accrued depreciation is the difference between the replacement cost new and the present value of an improvement. In order to determine the present value of the improvement, all arms-length sales from 1/1/2019 to 12/31/2019 were pulled and reviewed. Sales of properties that were eliminated included:

- Sales with dwellings in better or worse than average condition for their physical age.
- Sales of properties that had notable value influences due to topography, views, etc.
- Sales of properties in areas that there were not enough vacant land sales to establish a land schedule.
- Sales of properties with a high percentage of additional structures or accessory improvements where it would be difficult to adequately determine and extract the contributory value of these improvements.

After trimming sales down to a representative manageable list, the remaining accounts were site inspected to verify quality class and condition of improvements for use in the depreciation study. An indicated depreciation of the dwelling was calculated for each sale by subtracting the scheduled land value and OSD from the time adjusted sale price. The residual value was divided by the calculated RCN (including the LCM) to determine the 'percent good' of the dwelling for its age. The data was further analyzed by class and location to determine if there was any difference, but there was no obvious pattern indicating any difference in depreciation by class or by area. These percentages were then graphed to determine the average depreciation by year built.

Countywide Conventional Single-Family Dwelling Depreciation Sales Graph



Conclusions

The data collected and analyzed for the 2021 Depreciation Study showed some minor reduction in change from the prior year depreciation schedule. This change in based on market data collected in Columbia County. Based on the data collected the graph attached indicates the depreciation schedule that will be used for the 2021 base setup.

2021 Countywide Conventional Single-Family Dwelling Depreciation Schedule

Eff Yr Built	Percent
2020	100
2019	100
2018	100
2017	99
2016	99
2015	99
2014	98
2013	97
2012	96
2011	95
2010	94
2009	92
2008	91
2007	90
2006	89
2005	88
2004	87
2003	86
2002	86
2001	85
2000	84
1999	84
1998	83
1997	83
1996	83
1995	82
1994	82
1993	81
1992	80
1991	80
1990	79
1989	78
1988	78

Eff Yr Built	Percent
1987	77
1986	77
1985	77
1984	77
1983	77
1982	77
1981	76
1980	76
1979	76
1978	76
1977	76
1976	76
1975	76
1974	76
1973	76
1972	76
1971	76
1970	75
1969	75
1968	75
1967	75
1966	75
1965	74
1964	74
1963	74
1962	73
1961	73
1960	73
1959	72
1958	72
1957	72
1956	71
1955	71

Eff Yr Built	Percent
1954	71
1953	70
1952	70
1951	70
1950	69
1949	69
1948	69
1947	69
1946	69
1945	69
1944	69
1943	69
1942	69
1941	69
1940	69
1939	69
1938	69
1937	69
1936	68
1935	68
1934	68
1933	68
1932	68
1931	68
1930	67
1929	67
1928	67
1927	67
1926	67
1925	66
1924	66
1923	66
1922	66

Eff Yr Built	Percent
1921	66
1920	65
1919	65
1918	65
1917	65
1916	64
1915	64
1914	64
1913	64
1912	63
1911	63
1910	63
1909	63
1908	62
1907	62
1906	62
1905	62
1904	61
1903	61
1902	61
1901	61
1900	60
1899	60
1898	60
1897	60
1896	60
1895	60
1894	50
1893	40
1892	30
1891	20
1890	10

2021 Countywide Effective Year Built Based on Condition for Conventional Single-Family Dwellings

Poor	Fair	**Avg**	Good	Exc
2000	2010	**2020**	2020	2020
1995	2005	**2019**	2019	2020
1990	2005	**2018**	2018	2020
1985	2000	**2017**	2017	2020
1980	2000	**2016**	2016	2020
1980	2000	**2015**	2015	2019
1975	1995	**2014**	2015	2019
1975	1995	**2013**	2015	2020
1970	1995	**2012**	2015	2020
1970	1990	**2011**	2015	2015
1965	1990	**2010**	2015	2015
1965	1990	**2009**	2015	2015
1960	1985	**2008**	2015	2015
1960	1985	**2007**	2010	2015
1955	1985	**2006**	2010	2015
1955	1980	**2005**	2010	2015
1950	1980	**2004**	2010	2015
1950	1980	**2003**	2010	2015
1950	1975	**2002**	2005	2015
1945	1975	**2001**	2005	2015
1945	1975	**2000**	2005	2015
1945	1970	**1999**	2005	2015
1940	1970	**1998**	2005	2015
1940	1970	**1997**	2000	2010
1940	1965	**1996**	2000	2010
1935	1965	**1995**	2000	2010
1935	1965	**1994**	2000	2010
1935	1960	**1993**	2000	2010
1930	1960	**1992**	1995	2010
1930	1960	**1991**	1995	2010
1930	1960	**1990**	1995	2010
1930	1960	**1989**	1995	2010
1930	1955	**1988**	1995	2010
1930	1955	**1987**	1995	2010
1930	1955	**1986**	1995	2010
1930	1955	**1985**	1995	2010
1930	1955	**1984**	1995	2010
1930	1955	**1983**	1995	2010

Poor	Fair	**Avg**	Good	Exc
1925	1950	**1976**	1990	2005
1925	1950	**1975**	1990	2005
1925	1950	**1974**	1990	2005
1925	1950	**1973**	1990	2005
1925	1950	**1972**	1990	2005
1925	1950	**1971**	1990	2005
1925	1950	**1970**	1990	2005
1925	1950	**1969**	1990	2005
1925	1950	**1968**	1990	2005
1920	1945	**1967**	1985	2000
1920	1945	**1966**	1985	2000
1920	1945	**1965**	1985	2000
1920	1945	**1964**	1985	2000
1920	1945	**1963**	1985	2000
1920	1940	**1962**	1985	2000
1920	1940	**1961**	1985	2000
1920	1940	**1960**	1985	2000
1920	1940	**1959**	1985	2000
1920	1940	**1958**	1985	2000
1920	1935	**1957**	1980	2000
1920	1935	**1956**	1980	2000
1920	1935	**1955**	1980	2000
1920	1935	**1954**	1980	2000
1920	1935	**1953**	1980	1995
1915	1930	**1952**	1975	1995
1915	1930	**1951**	1975	1995
1920	1930	**1950**	1975	2000
1920	1930	**1949**	1975	2000
1920	1930	**1948**	1975	2000
1920	1930	**1947**	1970	2000
1920	1930	**1946**	1970	2000
1920	1930	**1945**	1970	2000
1920	1930	**1944**	1970	2000
1920	1930	**1943**	1970	2000
1915	1925	**1942**	1970	1995
1915	1925	**1941**	1970	1995
1915	1925	**1940**	1970	1995
1915	1925	**1939**	1970	1995

Poor	Fair	**Avg**	Good	Exc
1915	1920	**1933**	1965	1995
1910	1920	**1932**	1965	1990
1910	1915	**1931**	1965	1990
1910	1915	**1930**	1965	1990
1910	1915	**1929**	1965	1990
1910	1915	**1928**	1965	1990
1910	1915	**1927**	1960	1990
1910	1915	**1926**	1960	1990
1910	1915	**1925**	1960	1990
1910	1915	**1924**	1960	1990
1910	1915	**1923**	1960	1990
1910	1915	**1922**	1955	1990
1910	1910	**1921**	1955	1990
1910	1910	**1920**	1955	1990
1910	1910	**1919**	1955	1990
1910	1910	**1918**	1955	1990
1910	1910	**1917**	1950	1990
1910	1910	**1916**	1950	1990
1910	1910	**1915**	1950	1990
1910	1910	**1914**	1950	1990
1910	1910	**1913**	1950	1990
1910	1910	**1912**	1950	1990
1911	1911	**1911**	1950	1990
1910	1910	**1910**	1950	1990
1909	1909	**1909**	1950	1990
1908	1908	**1908**	1950	1990
1907	1907	**1907**	1945	1985
1906	1906	**1906**	1945	1985
1905	1905	**1905**	1945	1985
1904	1904	**1904**	1945	1985
1903	1903	**1903**	1945	1985
1902	1902	**1902**	1940	1980
1901	1901	**1901**	1940	1980
1900	1900	**1900**	1940	1980
1899	1899	**1899**	1940	1980
1898	1898	**1898**	1940	1980
1897	1897	**1897**	1935	1975
			Resid	*M-F*
Override		**1896**	*70%*	*50%*
Override		**1895**	*60%*	*50%*
Override		**1894**	*50%*	*50%*
Override		**1893**	*40%*	*40%*
barely livable		**1892**	*30%*	*30%*
storage value		**1891**	*20%*	*20%*
salvage value		**1890**	*10%*	*10%*

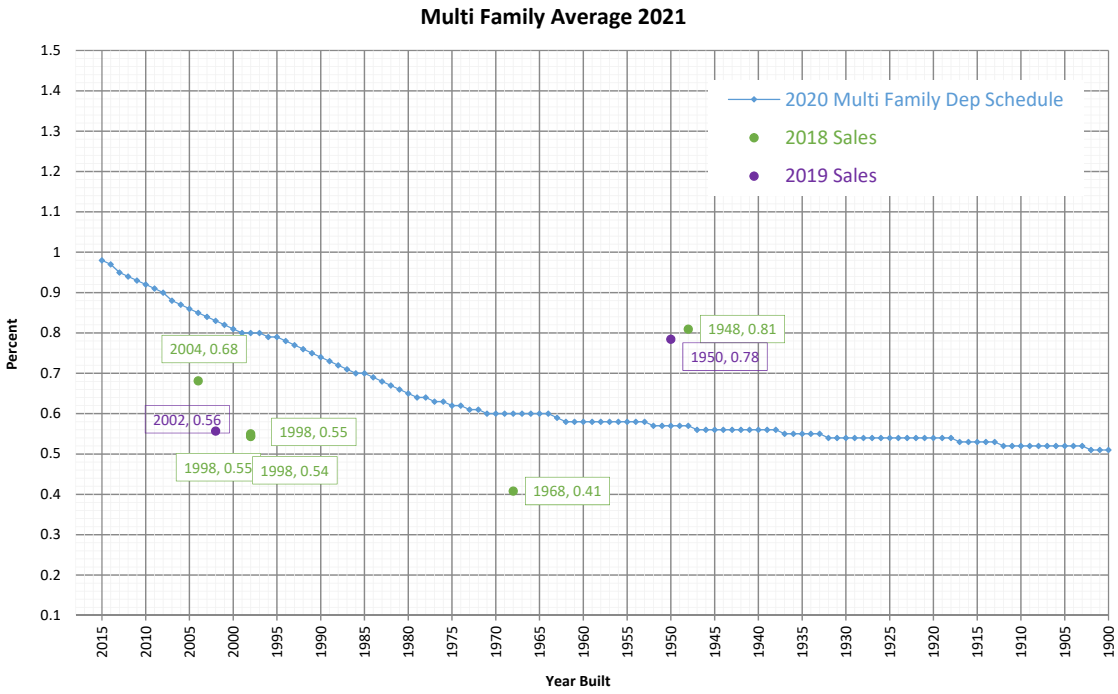
Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Multi-Family Dwellings

Analysis

In order to determine the present value of the multi-family improvement, sales from 1/1/2019 to 12/31/2019 were reviewed. Structures that were not currently being valued in average condition were eliminated from the list. Then, the residual cost of the structure was identified by calculating the sales price minus the 2021 land and 2021 OSD. After that, the Replacement Cost New (RCN) was determined for each structure by using the 2005 Oregon DOR Residential Cost Factor Book. The costs obtained were multiplied by the 2021 Local Cost Modifier (LCM). Finally, the residual value was divided by the RCN, resulting in an indicated percent good. These factors were plotted on a graph illustrating that the data points were fairly scattered. Because of this, the 2020 depreciation schedule was added to the graph. A gap in data was identified in regards to structures built between 1930 and 1960. In order to gather more sales for that time period, sales between 1/1/2018 – 12/31/2018 were pulled. The percent good was determined for these sales using the same process as sales from 2019. These data points were added to the graph and a new proposed line was created. However, after further review, it was discussed that the 2020 depreciation schedule was the better of the two options and that the sales from both 2019 and 2018 substantiate the 2020 schedule.

Countywide Multi-Family Dwellings Depreciation Sales Graph



Conclusions

Based on the data, the decision was made to carry forward the 2020 residential depreciation schedule for the 2021 set up. A minor change will be made to the table to reflect one additional year of depreciation for the 2021-2022 tax year.

2021 Countywide Multi-Family Dwelling Depreciation Schedule

Eff Yr Built	Percent
2020	100
2019	100
2018	100
2017	100
2016	100
2015	100
2014	99
2013	99
2012	99
2011	99
2010	99
2009	98
2008	98
2007	98
2006	98
2005	98
2004	97
2003	97
2002	97
2001	97
2000	97
1999	96
1998	96
1997	96
1996	96
1995	96
1994	95
1993	95
1992	95
1991	95
1990	95
1989	94
1988	94

Eff Yr Built	Percent
1987	94
1986	94
1985	94
1984	93
1983	93
1982	93
1981	93
1980	93
1979	92
1978	92
1977	92
1976	92
1975	92
1974	92
1973	92
1972	92
1971	92
1970	92
1969	91
1968	91
1967	91
1966	91
1965	91
1964	90
1963	90
1962	90
1961	90
1960	90
1959	89
1958	89
1957	89
1956	89
1955	89

Eff Yr Built	Percent
1954	88
1953	88
1952	88
1951	88
1950	88
1949	88
1948	88
1947	87
1946	87
1945	87
1944	86
1943	86
1942	86
1941	86
1940	86
1939	85
1938	85
1937	85
1936	85
1935	85
1934	84
1933	84
1932	84
1931	84
1930	84
1929	84
1928	84
1927	84
1926	84
1925	84
1924	83
1923	83
1922	83

Eff Yr Built	Percent
1921	83
1920	83
1919	83
1918	83
1917	83
1916	83
1915	83
1914	82
1913	82
1912	82
1911	82
1910	82
1909	82
1908	82
1907	82
1906	82
1905	82
1904	81
1903	81
1902	81
1901	81
1900	81
1899	81
1898	80
1897	80
1896	70
1895	60
1894	50
1893	40
1892	30
1891	20
1890	10

2021 Countywide Effective Year Built Based on Condition for Multi Family Dwellings

Poor	Fair	**Avg**	Good	Exc
2000	2010	**2020**	2020	2020
1995	2005	**2019**	2019	2020
1990	2005	**2018**	2018	2020
1985	2000	**2017**	2017	2020
1980	2000	**2016**	2016	2020
1980	2000	**2015**	2015	2019
1975	1995	**2014**	2015	2019
1975	1995	**2013**	2015	2020
1970	1995	**2012**	2015	2020
1970	1990	**2011**	2015	2015
1965	1990	**2010**	2015	2015
1965	1990	**2009**	2015	2015
1960	1985	**2008**	2015	2015
1960	1985	**2007**	2010	2015
1955	1985	**2006**	2010	2015
1955	1980	**2005**	2010	2015
1950	1980	**2004**	2010	2015
1950	1980	**2003**	2010	2015
1950	1975	**2002**	2005	2015
1945	1975	**2001**	2005	2015
1945	1975	**2000**	2005	2015
1945	1970	**1999**	2005	2015
1940	1970	**1998**	2005	2015
1940	1970	**1997**	2000	2010
1940	1965	**1996**	2000	2010
1935	1965	**1995**	2000	2010
1935	1965	**1994**	2000	2010
1935	1960	**1993**	2000	2010
1930	1960	**1992**	1995	2010
1930	1960	**1991**	1995	2010
1930	1960	**1990**	1995	2010
1930	1960	**1989**	1995	2010
1930	1955	**1988**	1995	2010
1930	1955	**1987**	1995	2010
1930	1955	**1986**	1995	2010
1930	1955	**1985**	1995	2010
1930	1955	**1984**	1995	2010
1930	1955	**1983**	1995	2010

Poor	Fair	**Avg**	Good	Exc
1925	1950	**1976**	1990	2005
1925	1950	**1975**	1990	2005
1925	1950	**1974**	1990	2005
1925	1950	**1973**	1990	2005
1925	1950	**1972**	1990	2005
1925	1950	**1971**	1990	2005
1925	1950	**1970**	1990	2005
1925	1950	**1969**	1990	2005
1925	1950	**1968**	1990	2005
1920	1945	**1967**	1985	2000
1920	1945	**1966**	1985	2000
1920	1945	**1965**	1985	2000
1920	1945	**1964**	1985	2000
1920	1945	**1963**	1985	2000
1920	1940	**1962**	1985	2000
1920	1940	**1961**	1985	2000
1920	1940	**1960**	1985	2000
1920	1940	**1959**	1985	2000
1920	1940	**1958**	1985	2000
1920	1935	**1957**	1980	2000
1920	1935	**1956**	1980	2000
1920	1935	**1955**	1980	2000
1920	1935	**1954**	1980	2000
1920	1935	**1953**	1980	1995
1915	1930	**1952**	1975	1995
1915	1930	**1951**	1975	1995
1920	1930	**1950**	1975	2000
1920	1930	**1949**	1975	2000
1920	1930	**1948**	1975	2000
1920	1930	**1947**	1970	2000
1920	1930	**1946**	1970	2000
1920	1930	**1945**	1970	2000
1920	1930	**1944**	1970	2000
1920	1930	**1943**	1970	2000
1915	1925	**1942**	1970	1995
1915	1925	**1941**	1970	1995
1915	1925	**1940**	1970	1995
1915	1925	**1939**	1970	1995

Poor	Fair	**Avg**	Good	Exc
1915	1920	**1933**	1965	1995
1910	1920	**1932**	1965	1990
1910	1915	**1931**	1965	1990
1910	1915	**1930**	1965	1990
1910	1915	**1929**	1965	1990
1910	1915	**1928**	1965	1990
1910	1915	**1927**	1960	1990
1910	1915	**1926**	1960	1990
1910	1915	**1925**	1960	1990
1910	1915	**1924**	1960	1990
1910	1915	**1923**	1960	1990
1910	1915	**1922**	1955	1990
1910	1910	**1921**	1955	1990
1910	1910	**1920**	1955	1990
1910	1910	**1919**	1955	1990
1910	1910	**1918**	1955	1990
1910	1910	**1917**	1950	1990
1910	1910	**1916**	1950	1990
1910	1910	**1915**	1950	1990
1910	1910	**1914**	1950	1990
1910	1910	**1913**	1950	1990
1910	1910	**1912**	1950	1990
1911	1911	**1911**	1950	1990
1910	1910	**1910**	1950	1990
1909	1909	**1909**	1950	1990
1908	1908	**1908**	1950	1990
1907	1907	**1907**	1945	1985
1906	1906	**1906**	1945	1985
1905	1905	**1905**	1945	1985
1904	1904	**1904**	1945	1985
1903	1903	**1903**	1945	1985
1902	1902	**1902**	1940	1980
1901	1901	**1901**	1940	1980
1900	1900	**1900**	1940	1980
1899	1899	**1899**	1940	1980
1898	1898	**1898**	1940	1980
1897	1897	**1897**	1935	1975
			Resid	*M-F*
Override		**1896**	*70%*	*50%*
Override		**1895**	*60%*	*50%*
Override		**1894**	*50%*	*50%*
Override		**1893**	*40%*	*40%*
barely livable		**1892**	*30%*	*30%*
storage value		**1891**	*20%*	*20%*
salvage value		**1890**	*10%*	*10%*

Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Real Property Manufactured Dwellings

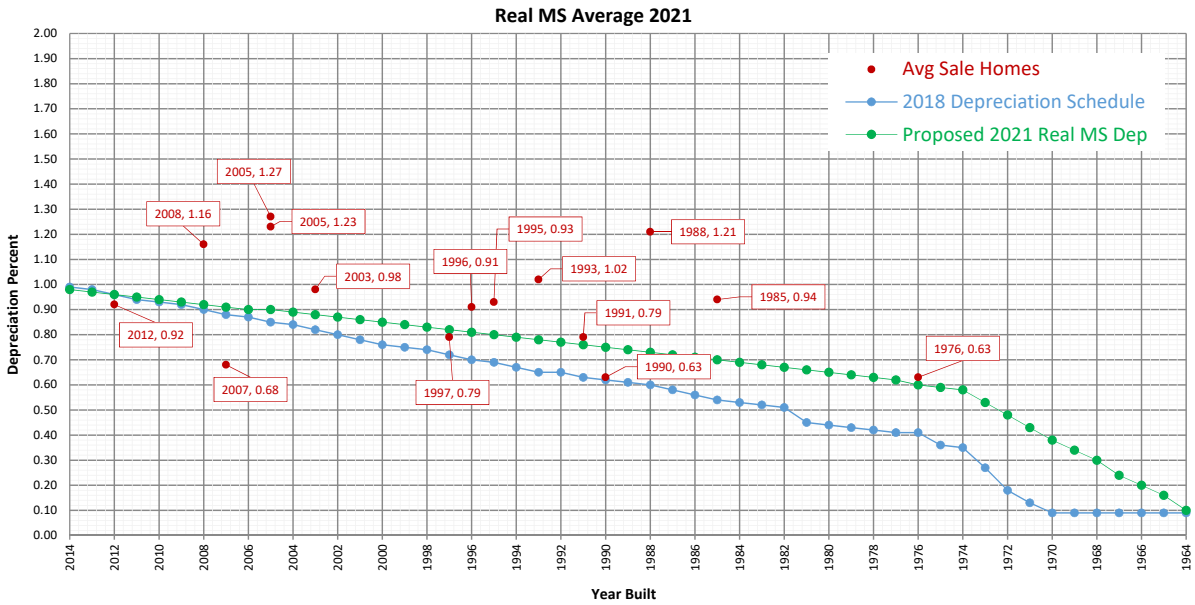
Analysis

For this study of real manufactured dwellings, 98 total sale were found during the past year. The properties were reviewed to verify class and condition of improvements for use in this depreciation study. This review resulted in 15 usable sales. Sales of properties that were eliminated from this total included:

- Sales with dwellings in better or worse than average condition for their physical age.
- Sales of properties that had notable value influences due to topography, views, etc.
- Sales of properties in areas that there were not enough vacant land sales to establish a land schedule.
- Sales of properties with a high percentage of additional structures or accessory improvements where it would be difficult to adequately determine and extract the contributory value of these improvements.

In order to obtain the replacement cost new (RCN), the Cost Factors for Residential Buildings Manufactured Structures 2004 published by the Oregon Department of Revenue was used. A sales extraction was performed to isolate a value of the manufactured structure. A percent good ratio was created using the residual improvement value divided by the RCN. The 15 sales were time trended to the base appraisal date of 1/1/2020. The sales were then plotted on the graph along with the current depreciation schedule in order to see if any adjustments were needed. When comparing the sales to the current depreciation line, the data indicated an adjustment was warranted. A new proposed line was implemented for the 2021 year. It is important to note that the depreciation for homes older than 1974, which tend to be subject to limited financing, show a sharp decrease in percent good.

Countywide Real Property Manufactured Dwellings Depreciation Sales Graph



Conclusions

For 2021, it is recommended to use the proposed depreciation schedule. Note: Springlake Park is part of the Real Property Deprecation study due to its uniqueness as the homeowners have a buy in to own a piece of their property.

2021 Countywide Real Property Manufactured Dwelling Depreciation Schedule

Eff Yr Built	Percent
2020	100
2019	100
2018	100
2017	100
2016	99
2015	99
2014	98
2013	97
2012	96
2011	95
2010	94
2009	93
2008	92
2007	91
2006	90
2005	90
2004	89
2003	88
2002	87
2001	86
2000	85
1999	84
1998	83
1997	82
1996	81
1995	80
1994	79
1993	78
1992	77

Eff Yr Built	Percent
1991	76
1990	75
1989	74
1988	73
1987	72
1986	71
1985	70
1984	53
1983	52
1982	51
1981	69
1980	68
1979	67
1978	66
1977	65
1976	64
1975	63
1974	62
1973	60
1972	59
1971	58
1970	53
1969	48
1968	43
1967	38
1966	34
1965	30
1964	24
1963	20

Countywide Effective Year Built Based on Condition for
Real Manufactured Dwellings for 2021

Poor	Fair	**Average**	Good	Excellent
2010	2014	**2020**	2020	2020
2008	2014	**2019**	2019	2019
2008	2012	**2018**	2018	2018
2006	2012	**2017**	2017	2017
2006	2012	**2016**	2016	2016
2006	2012	**2015**	2016	2016
2006	2012	**2014**	2014	2016
2002	2006	**2013**	2014	2016
1996	2006	**2012**	2014	2016
1992	2002	**2011**	2014	2016
1992	2002	**2010**	2014	2016
1992	2002	**2009**	2014	2016
1992	2002	**2008**	2014	2014
1986	1996	**2007**	2012	2014
1986	1996	**2006**	2012	2014
1986	1996	**2005**	2012	2014
1986	1996	**2004**	2012	2014
1986	1996	**2003**	2012	2014
1984	1992	**2002**	2006	2012
1984	1992	**2001**	2006	2012
1984	1992	**2000**	2006	2012
1984	1992	**1999**	2006	2012
1984	1992	**1998**	2006	2012
1984	1986	**1997**	2002	2012
1984	1986	**1996**	2002	2012
1984	1986	**1995**	2002	2012
1978	1986	**1994**	2002	2012
1978	1986	**1993**	2002	2012
1978	1984	**1992**	1996	2006

Poor	Fair	**Average**	Good	Excellent
1978	1984	**1991**	1996	2006
1978	1984	**1990**	1996	2006
1972	1984	**1989**	1996	2006
1972	1984	**1988**	1996	2006
1972	1978	**1987**	1992	2002
1972	1978	**1986**	1992	2002
1972	1978	**1985**	1992	2002
1972	1978	**1984**	1992	2002
1968	1978	**1983**	1992	2002
1968	1972	**1982**	1984	1992
1968	1972	**1981**	1984	1992
1968	1972	**1980**	1984	1992
1968	1972	**1979**	1984	1992
1968	1972	**1978**	1984	1992
1968	1968	**1977**	1982	1988
1968	1968	**1976**	1982	1988
1968	1968	**1975**	1982	1988
1968	1968	**1974**	1982	1988
1968	1968	**1973**	1982	1988
1968	1968	**1972**	1976	1984
1968	1968	**1971**	1976	1984
1968	1968	**1970**	1976	1984
1968	1968	**1969**	1976	1984
1966	1966	**1968**	1976	1982
1966	1966	**1967**	1974	1982
1964	1964	**1966**	1974	1980
1964	1964	**1965**	1972	1980
1962	1962	**1964**	1972	1978
1962	1962	**1963**	1970	1978

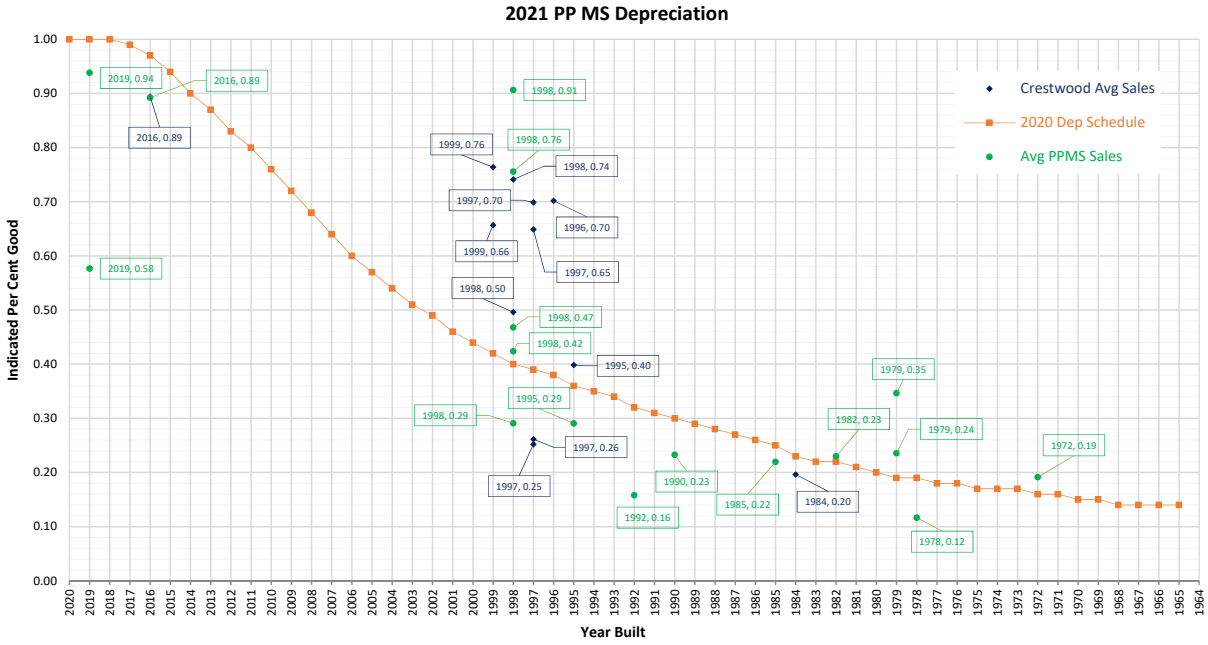
Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Personal Property Manufactured Dwellings

Analysis

The purpose of the 2021 Depreciation Study was to extract the remaining percent good, for the condition rating of average, as applied to the 2004 Oregon DOR Residential Buildings Manufactured Structures Cost Factor Book. All personal property manufactured structure sales were pulled with a date range of 1/1/2019 through 12/31/19. There were 33 valid and useable sales of dwellings in average condition available for this analysis. The sales were valued using the cost factor book and the LCM (Local Cost Modifier) was applied in order to obtain the RCN (Replacement Cost New). The sales were then time adjusted to the base appraisal date of 1/1/2020 and divided by the total RCN which gave a indicated percent good. The percent good and the year built were plotted on a graph along with the 2019 depreciation line. This year's useable sales were broken into two avg data series because Crestwood properties sold with an accessory such as a carport or garage where as the majority of the PP MS sales did not. For the purpose of this study, we did not use the Crestwood sales due to the contributory factor for these accessories. The remaining PP MS sales supported the current depreciation schedule.

Countywide Personal Property Manufactured Dwellings Depreciation Sales Graph



Conclusion

Based on the data, the decision was made to carry forward the 2020 personal property manufactured structure depreciation schedule for the 2021 set up. A minor change will be made to the table to reflect one additional year of depreciation for the 2021-2022 tax year.

Countywide Personal Property Manufactured Dwelling Depreciation Schedule for 2021

Eff Yr Built	Percent
2020	100
2019	100
2018	100
2017	100
2016	100
2015	100
2014	99
2013	97
2012	94
2011	90
2010	87
2009	83
2008	80
2007	76
2006	72

Eff Yr Built	Percent
2005	68
2004	64
2003	60
2002	57
2001	54
2000	51
1999	49
1998	46
1997	44
1996	42
1995	40
1994	39
1993	38
1992	36
1991	35

Eff Yr Built	Percent
1990	34
1989	32
1988	31
1987	30
1986	29
1985	28
1984	27
1983	26
1982	25
1981	23
1980	22
1979	22
1978	21
1977	20
1976	19

Eff Yr Built	Percent
1975	19
1974	18
1973	18
1972	17
1971	17
1970	17
1969	16
1968	16
1967	15
1966	15
1965	14
1964	14
1963	14
1962	14

Countywide Effective Year Built Based on Condition for Personal Property Manufactured Dwellings for 2021

Poor	Fair	**Avg**	Good	Exc
2010	2014	**2020**	2020	2020
2008	2014	**2019**	2019	2019
2008	2012	**2018**	2018	2018
2006	2012	**2017**	2017	2017
2006	2012	**2016**	2016	2016
2006	2012	**2015**	2016	2016
2006	2012	**2014**	2014	2016
2002	2006	**2013**	2014	2016
1996	2006	**2012**	2014	2016
1992	2002	**2011**	2014	2016
1992	2002	**2010**	2014	2016
1992	2002	**2009**	2014	2016
1992	2002	**2008**	2014	2014
1986	1996	**2007**	2012	2014
1986	1996	**2006**	2012	2014
1986	1996	**2005**	2012	2014
1986	1996	**2004**	2012	2014
1986	1996	**2003**	2012	2014
1984	1992	**2002**	2006	2012
1984	1992	**2001**	2006	2012

Poor	Fair	**Avg**	Good	Exc
1984	1992	**2000**	2006	2012
1984	1992	**1999**	2006	2012
1984	1992	**1998**	2006	2012
1984	1986	**1997**	2002	2012
1984	1986	**1996**	2002	2012
1984	1986	**1995**	2002	2012
1978	1986	**1994**	2002	2012
1978	1986	**1993**	2002	2012
1978	1984	**1992**	1996	2006
1978	1984	**1991**	1996	2006
1978	1984	**1990**	1996	2006
1972	1984	**1989**	1996	2006
1972	1984	**1988**	1996	2006
1972	1978	**1987**	1992	2002
1972	1978	**1986**	1992	2002
1972	1978	**1985**	1992	2002
1972	1978	**1984**	1992	2002
1968	1978	**1983**	1992	2002
1968	1972	**1982**	1984	1992

Poor	Fair	**Avg**	Good	Exc
1968	1972	**1981**	1984	1992
1968	1972	**1980**	1984	1992
1968	1972	**1979**	1984	1992
1968	1972	**1978**	1984	1992
1968	1968	**1977**	1982	1988
1968	1968	**1976**	1982	1988
1968	1968	**1975**	1982	1988
1968	1968	**1974**	1982	1988
1968	1968	**1973**	1982	1988
1968	1968	**1972**	1976	1984
1968	1968	**1971**	1976	1984
1968	1968	**1970**	1976	1984
1968	1968	**1969**	1976	1984
1966	1966	**1968**	1976	1982
1966	1966	**1967**	1974	1982
1964	1964	**1966**	1974	1980
1964	1964	**1965**	1972	1980
1962	1962	**1964**	1972	1978
1962	1962	**1963**	1970	1978

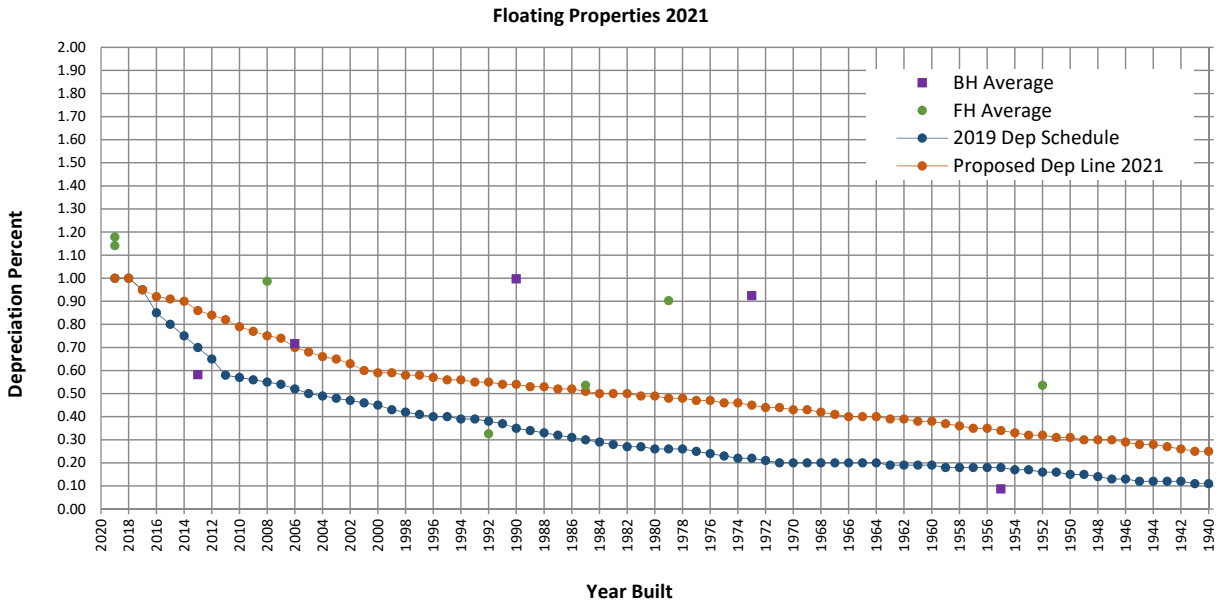
Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Floating Property

Analysis

Due to the low number of 2019 floating property sales where the structure was in average condition, the search parameter dates were extended to 1/1/2018 through 1/8/2020. Also, one sale from a similar market in Multnomah County was included in this analysis. Each sale was adjusted for time to the base appraisal date of 1/1/2020 and the adjusted sale price was compared to the RCN (from the 2005 Oregon DOR Residential Cost Factor Book) to determine an indicated percent good. The sales were plotted on a graph by year built and indicated percent good to identify a potential depreciation curve and it was found that the data supports a new depreciation schedule

Countywide Floating Property Depreciation Sales Graph



Conclusions

The data collected and analyzed for the 2021 Depreciation Study showed that a new depreciation schedule is warranted for floating properties.

Countywide Floating Property Depreciation Schedule for 2021

Eff Yr Built	Percent
2020	100
2019	100
2018	100
2017	95
2016	92
2015	91
2014	87
2013	86
2012	84
2011	82
2010	79
2009	77
2008	75
2007	74
2006	70
2005	68
2004	66
2003	65
2002	63
2001	60
2000	59
1999	59
1998	58
1997	58
1996	57
1995	56
1994	56
1993	55
1992	55
1991	54
1990	54

Eff Yr Built	Percent
1989	53
1988	53
1987	52
1986	52
1985	51
1984	50
1983	50
1982	50
1981	49
1980	49
1979	48
1978	48
1977	47
1976	47
1975	46
1974	46
1973	45
1972	44
1971	44
1970	43
1969	43
1968	42
1967	41
1966	40
1965	40
1964	40
1963	39
1962	39
1961	38
1960	38

Eff Yr Built	Percent
1959	37
1958	36
1957	35
1956	35
1955	34
1954	33
1953	32
1952	32
1951	31
1950	31
1949	30
1948	30
1947	30
1946	29
1945	28
1944	28
1943	27
1942	26
1941	25
1940	25
1939	25
1938	25
1937	25
1936	25
1935	25
1934	24
1933	24
1932	24
1931	24
1930	24

Eff Yr Built	Percent
1929	24
1928	23
1927	23
1926	23
1925	23
1924	23
1923	23
1922	23
1921	23
1920	23
1919	23
1918	23
1917	23
1916	23
1915	23
1914	23
1913	23
1912	22
1911	22
1910	22
1909	22
1908	22
1907	22
1906	22
1905	20
1904	20
1903	20
1902	20
1901	20
1900	18

Countywide Effective Year Built Based on Condition for Floating Property for 2021

Poor	Fair	**Avg**	Good	Exc
2019	2019	**2020**	2020	2020
2018	2018	**2019**	2019	2019
2017	2017	**2018**	2018	2018
2016	2016	**2017**	2017	2017
2014	2015	**2016**	2017	2017
2012	2014	**2015**	2017	2017
2010	2013	**2014**	2017	2017
2004	2011	**2013**	2017	2017
1998	2009	**2012**	2016	2017
1997	2007	**2011**	2016	2017
1997	2005	**2010**	2016	2017
1996	2004	**2009**	2016	2016
1996	2003	**2008**	2015	2016
1995	2002	**2007**	2015	2016
1994	2002	**2006**	2015	2016
1992	2001	**2005**	2015	2016
1990	2001	**2004**	2014	2016
1989	2000	**2003**	2014	2016
1988	2000	**2002**	2014	2016
1987	1999	**2001**	2014	2016
1987	1998	**2000**	2013	2016
1986	1996	**1999**	2013	2015
1985	1994	**1998**	2013	2015
1985	1992	**1997**	2013	2015
1984	1991	**1996**	2013	2015
1983	1990	**1995**	2012	2015
1983	1989	**1994**	2012	2015
1982	1988	**1993**	2012	2015
1980	1987	**1992**	2012	2015
1978	1986	**1991**	2012	2015
1977	1986	**1990**	2011	2015
1976	1985	**1989**	2011	2014
1974	1985	**1988**	2010	2014
1972	1984	**1987**	2010	2014
1970	1984	**1986**	2009	2014
1968	1983	**1985**	2009	2014
1966	1982	**1984**	2008	2014
1964	1980	**1983**	2006	2014
1962	1978	**1982**	2004	2013
1960	1976	**1981**	2003	2013

Poor	Fair	**Avg**	Good	Exc
1958	1975	**1980**	2002	2013
1956	1974	**1979**	2001	2013
1954	1973	**1978**	2000	2013
1952	1972	**1977**	1999	2013
1950	1971	**1976**	1998	2013
1948	1970	**1975**	1997	2013
1946	1968	**1974**	1996	2013
1944	1965	**1973**	1995	2012
1942	1961	**1972**	1994	2012
1942	1957	**1971**	1993	2012
1942	1952	**1970**	1992	2012
1942	1950	**1969**	1991	2012
1941	1948	**1968**	1990	2012
1941	1947	**1967**	1989	2012
1941	1946	**1966**	1988	2012
1940	1945	**1965**	1987	2012
1940	1944	**1964**	1986	2012
1940	1944	**1963**	1985	2011
1940	1943	**1962**	1984	2011
1940	1943	**1961**	1983	2011
1940	1942	**1960**	1982	2011
1940	1942	**1959**	1981	2011
1940	1942	**1958**	1980	2011
1940	1941	**1957**	1980	2011
1940	1941	**1956**	1978	2011
1940	1940	**1955**	1978	2011
1940	1940	**1954**	1976	2011
1940	1940	**1953**	1976	2011
1940	1940	**1952**	1976	2011
1940	1940	**1951**	1976	2011
1940	1940	**1950**	1975	2011
1940	1940	**1949**	1975	2010
1940	1940	**1948**	1975	2010
1940	1940	**1947**	1974	2010
1940	1940	**1946**	1974	2010
1940	1940	**1945**	1973	2010
1940	1940	**1944**	1973	2010
1940	1940	**1943**	1973	2010
1940	1940	**1942**	1972	2010
1940	1940	**1941**	1972	2010

Poor	Fair	**Avg**	Good	Exc
1940	1940	**1940**	1971	2010
1939	1939	**1939**	1971	2010
1938	1938	**1938**	1971	2010
1937	1937	**1937**	1971	2010
1936	1936	**1936**	1971	2010
1935	1935	**1935**	1970	2010
1934	1934	**1934**	1970	2010
1933	1933	**1933**	1970	2010
1932	1932	**1932**	1970	2010
1931	1931	**1931**	1970	2010
1930	1930	**1930**	1970	2010
1929	1929	**1929**	1970	2010
1928	1928	**1928**	1970	2010
1927	1927	**1927**	1970	2010
1926	1926	**1926**	1970	2010
1925	1925	**1925**	1970	2010
1924	1924	**1924**	1970	2010
1923	1923	**1923**	1970	2010
1922	1922	**1922**	1970	2010
1921	1921	**1921**	1970	2010
1920	1920	**1920**	1970	2010
1919	1919	**1919**	1970	2010
1918	1918	**1918**	1970	2010
1917	1917	**1917**	1970	2010
1916	1916	**1916**	1970	2010
1915	1915	**1915**	1970	2010
1914	1914	**1914**	1970	2010
1913	1913	**1913**	1970	2010
1912	1912	**1912**	1970	2010
1911	1911	**1911**	1970	2010
1910	1910	**1910**	1970	2010
1909	1909	**1909**	1970	2010
1908	1908	**1908**	1970	2010
1907	1907	**1907**	1970	2010
1906	1906	**1906**	1970	2010
1905	1905	**1905**	1970	2010
1904	1904	**1904**	1970	2010
1903	1903	**1903**	1970	2010
1902	1902	**1902**	1970	2010
1901	1901	**1901**	1970	2010
1900	1900	**1900**	1970	2010

Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Farm Buildings

Analysis

It is not feasible to use an extraction method to determine a market-based depreciation schedule for farm buildings. In most cases, these structures represent a minimal portion of the overall real market value of a property.

Conclusion

Farm buildings are depreciated using a straight-line depreciation method. The appraiser uses judgment in determining the effective age of the structure.

Countywide Farm Building Depreciation Schedule for 2021

Eff Yr Built	Percent
2020	100
2019	100
2018	99
2017	98
2016	97
2015	96
2014	95
2013	94
2012	93
2011	92
2010	91
2009	90
2008	89
2007	88
2006	87
2005	86
2004	85
2003	84
2002	83
2001	82
2000	81
1999	80
1998	79
1997	78
1996	77
1995	76
1994	75
1993	74
1992	73
1991	72
1990	71

Eff Yr Built	Percent
1989	70
1988	67
1985	66
1984	65
1983	64
1982	63
1981	62
1980	61
1979	60
1978	59
1977	58
1976	57
1975	56
1974	55
1973	54
1972	53
1971	52
1970	51
1969	50
1968	49
1967	48
1966	47
1965	46
1964	45
1963	44
1962	43
1961	42
1960	41
1959	40
1958	39
1957	38

Eff Yr Built	Percent
1956	37
1955	36
1954	35
1953	34
1952	33
1951	32
1950	31
1949	30
1948	29
1947	28
1946	27
1945	26
1944	25
1943	24
1942	23
1941	22
1940	21
1939	20
1938	19
1937	18
1936	17
1935	16
1934	15
1933	14
1932	13
1931	12
1930	11
1929	10
1928	10
1927	10
1926	10
1925	10

Eff Yr Built	Percent
1924	10
1923	10
1922	10
1921	10
1920	10
1919	10
1918	10
1917	10
1916	10
1915	10
1914	10
1913	10
1912	10
1911	10
1910	10
1909	10
1908	10
1907	10
1906	10
1905	10
1904	10
1903	10
1902	10
1901	10
1900	10
1898	10
1897	10
1896	10
1895	10
1894	10
1893	10
1892	10

Notes

2021 Land Adjustments Analysis and Conclusions

MA 01 and MA 06 (City) Adjustment Study for Premium Location

Analysis

The subdivision in St. Helens and Columbia City that are considered by market perception to be superior than your typical city lot and block have been identified. The assumption is made that homes located in a recently platted subdivision with curbs, sidewalks, street lights, and have been developed with uniform standards are considered superior than most City of St. Helens typical Lot and Blocks. Some exceptions are considered such as Grey Cliffs which lacks curbs & sidewalks. However, Grey Cliffs was developed in a manner that appears by market perception to by superior to our base lots.

The sales provided above are land sales that were collected during the land study and analysis for 2021 set up. The sales above comprise of previously identified base and premium locations. The sales also included some small bulk developer land sales located in premium locations. When these sales were plotted on the graph below they indicate that base and premium lots appear to have sold in overall general range of each other. Overall the base and premium land sales appear to warrant an adjustment of $0, based on current data collected.

Conclusions

Based on current data it's recommended that the "premium adjustment" remain on all accounts, but they should have an adjustment of $0 for the 2021 setup, which includes all of MA1 City of St Helens and MA6 City of Columbia City.

MA 02 City Adjustment for Premium Location

Analysis

During the 2021 setup, the premium adjustment for MA 02 SA 79 and SA 80 was considered. The results of the land study concluded that the land schedule for these two study areas should mirror MA 02 SA 00 land schedule. However, these land schedules are being trended differently. Due to the different trending, the decision was made to value the premium adjustment at $0 and allow the trend to carry the difference.

Conclusion

The premium adjustment for MA 02 SA 79 and 80 will carry a value of $0 for 2021.

MA 03 SA 03 Adjustment Study for Non-Elevated Homes in the Floodplain

Analysis

There were six sales of homes within the floodplain in the City of Vernonia that had not been elevated and were deemed reliable for this analysis. The difference between the residual dwelling value from the time adjusted sale and the calculated depreciated replacement cost (DRC) using the cost factor book was calculated. Also, the LCM and depreciation schedule were used to determine an estimated cost to cure. The resulting difference was then converted to a percentage of the DRC. The average percentage value loss to the non-elevated dwelling resulted in -13.67%.

Sales in MA 3 SA 03 with Non-Elevated Dwellings (2021 Setup Study)

Sale #	Time Adj. Sales Price	2020 Land Value	2020 OSD Value	Residual Imp Value	2020 DRC of Imp	Cost vs Sale Difference	Indicated % Adj.
1	281,890	97,750	27,000	157,140	154,171	410	0
2	195,303	40,820	27,000	127,483	165,854	(4,091)	-0.03
3	269,755	45,231	27,000	197,525	88,725	(2,146)	-0.01
4	137,592	35,265	27,000	75,327	92,129	(55,890)	-0.65
5	291,592	44,219	27,000	220,373	76,262	(6,419)	-0.04
6	237,800	43,386	27,000	167,414	103,428	(16,771)	-0.09
					Average Indicated % Adj:		**-0.1367**

Conclusions

For 2021, the adjustment of -14% will be used on the depreciated replacement cost of the dwelling for all non-elevated dwellings in MA 3 SA 03. This adjustment is only applied to non-elevated dwellings in the floodplain area.

Countywide Adjustment Study for Topography

Analysis

Consistent sales data was not found that would reflect credible market indicators to analyze for topography adjustments. This may be primarily based on buyers' personal preferences as well as their own intended use.

Conclusions

Because of the lack of data available for this analysis, topography adjustments will be made on a case by case basis using the topography ranges as indicated on the chart below.

Countywide Topography Adjustment		
Code	**Description**	**Rate %**
411	Topo- Minimal impact	-10%
412	Topo- Low Impact	-20%
413	Topo- Moderate Impact	-30%
415	Topo- Severe Impact	-40%

Maintenance Area 04 and 05 (North County) Adjustment Study for Views

Analysis

The purpose of the view adjustment is to recognize the value of properties with a view.

Undeveloped and improved properties sold between 01/01/2018 and 12/31/2019 that currently have a view adjustment were pulled for this analysis. All sales were adjusted for time to the base appraisal date of 01/01/2020. After the site visit of these properties were made, the extraction method was used to obtain the residual lump sum that is attributed to the value of the view. For North County, 15 sales with a good view and 8 sales that have an excellent view were analyzed. Of the 23 sales available, 4 resulted in a positive residual value and 19 were found to have a negative residual value. Therefore, it is recommended to apply a view adjustment of $0.

Conclusions

Due to the majority of the sales data having a negative residual value and the overall average being negative, the North County View Adjustment will be changed to $0 for both good and excellent views.

MA 4 and MA 5 View Adjustments for 2021	
Good View	$0
Excellent View	$0

Maintenance Area 01, 02 and 06 (South County) Adjustment Study for Views

Analysis

The purpose of the view adjustment is to recognize the contributory value a view has on properties. Undeveloped and improved properties sold between 01/01/2019 and 06/30/2020 that currently have a view adjustment were compiled for this analysis. A site visit was performed for each property and the extraction method was applied to obtain the residual lump sum value attributed to the view. This resulted seven sales with a good view and two sales with an excellent view for this study. Of these sales, four were found to have a positive residual value and five returned a negative value. The average of the residual values resulted in a negative amount which was found to be inconclusive for this analysis. Therefore, it is recommended that the view adjustment for South County (MA 01, 02 and 06) be $0.00.

Conclusion

Due to the majority of the sales having a negative residual and the overall average being negative, the South County View Adjustment will be changed to $0.00 for both Good and Excellent views.

MA 1, MA 2, and MA 6 View Adjustments for 2021	
Good View	$0
Excellent View	$0

Maintenance Area 04 Adjustment Study for City of Rainier Slide Area

Analysis

The slide area in Rainier is an area east of Fox Creek and South of Columbia River Highway. In addition, any piece of land within the city limits that has a slope of 20% or more west of Fox Creek in included in this area. The City of Rainier is currently working on an overlay map of the slide area.

For undeveloped lots in the slide area there is approximately $500 worth of City Planners time and application fees to review the required 'Geological Technical Report' prior to building.

Several Geological Engineers were contacted to determine the cost of having a Geological Technical Study and Report done for a property within the slide area of Rainier. The average cost is $8,525.

Conclusions

Following are the slide area adjustments that should be applied to all vacant properties in the slide area and to all older improved properties that appear to have problems due to being located within the slide area of Rainier.

MA 4 City of Rainier Slide Area Adjustments for 2021	
Rainier Slide – City Fees	$500
Rainier Slide – Engineering Fees	$8,525

MA 04 SA 47 Adjustment Study for Riverfront Properties

Analysis

The purpose of the MA 7 SA 47 Riverfront adjustment is to recognize the value of properties located on the riverfront versus those that are not. For this study, sales from 1/1/2019 through 12/31/2019 were gathered. There was a total of three sales for this time period. The sales price of each property was time trended. Then the lot value, OSD, buildings other than the home and closing cost were removed. The residual value is attributed to the home. The depreciated replacement cost (DRC) was calculated using the cost factor books provided by the Oregon DOR 2005, the 2021 setup LCM and 2021 setup depreciation schedule for all structures on the property. Using the residual home value and subtracting the DRC value yields the excess value of the sale.

In all three sales, the excess was negative with a range from -34,762 to -44,99. Due to the limited sales sampling and the purchase price not appearing to reflect current market indicators, a change to the current adjustment is not recommended.

Conclusions

The 2021 MA 4 SA 47 Riverfront property adjustment will carry forward from 2020 with no trend. That value is $54,000.

2021 Adjustment Study for Over-Improved Properties

Analysis

During the prior year's analysis of new construction and sale reviews it was found that homes of a higher quality of construction (class 6 or better) were selling differently than they are being valued. Since the difference is not something that can be resolved through the ratio study, it was deemed appropriate to perform a separate analysis. This adjustment analysis will help to determine if an adjustment should be applied to the 2005 Cost Factor Book for Residential Properties improvement factors to bring the costs in line with the market sales.

Due to the lack of class 6 or better sales, sales ranging from 1/1/2017 through 7/1/2020 were used and time trended to the base appraisal date of 1/1/20. These sales were also broken into to 2 categories to recognize size of over/under 3,500 sf of living area. Originally, there were 17 sales available to study but 4 sales were deemed unreliable due to having river frontage and were not used. The remaining 13 sales were analyzed based on their gross living area size. The data indicated two different market adjustments pertaining to class 6 or better homes. After testing the indicated mean ratios for over/under 3,500 square foot homes, it was found the indicated Mean for class 6 home calculated at a lessor value than a class 5 home of similar size. Due to unknown factors that may have influenced some of these sales, a rather conservative approach was used in this analysis and final selection of the selected ratios.

Conclusion

Based on the sales data analyzed, it is recommended to use the OVER/UNDER 3,500 square foot improvement adjustments below on all class 6 or better homes for the 2021 setup.

OVER 3500 sf Adjustment	**-35%**
UNDER 3500 sf Adjustment	**-25%**

Other Adjustments Where a Study was Not Completed for 2021

Creek Adjustment

There is no measurable data at to support a percentage or fixed amount adjustment for this area identifiers at this time in the following areas.

MA 01 SA 00	MA 04 SA 40	MA 04 SA 45	MA 06 SA 21
MA 01 SA 30	MA 04 SA 41	MA 04 SA 47	MA 06 SA 31
MA 01 SA 43	MA 04 SA 42	MA 04 SA 56	MA 06 SA 44
MA 04 SA 00	MA 04 SA 44	MA 06 SA 01	

Busy Street Adjustment

There is no measurable data at to support a percentage or fixed amount adjustment for this area identifiers at this time in the following areas.

MA 01 SA 00	MA 04 SA 40	MA 04 SA 45	MA 06 SA 21
MA 01 SA 30	MA 04 SA 41	MA 04 SA 47	MA 06 SA 31
MA 01 SA 43	MA 04 SA 42	MA 04 SA 56	MA 06 SA 44
MA 04 SA 00	MA 04 SA 44	MA 06 SA 01	

Transmission Lines – Countywide

A 50% adjustment is made to the value of the portion of land that lays directly under a major transmission line easement. This adjustment is not based on market sales, but rather is made to recognize the limited use and negative market perception of land that lies beneath major transmission lines.

2 Parcels/Taxlot, 3 Parcels/Taxlot – Countywide

These adjustments are used on non-platted properties where the highest and best use of the property based on location, zoning and access is to divide the property through the partition plat process and sell each parcel individually.

2 Parcels/Tax lot adds 50% of the land value 3 Parcels/Tax lot adds 90% of the land value

Partition Costs - Countywide

This adjustment is added to all properties that have either a 2 or 3 Parcels per Taxlot adjustment. It reduces the total land value by the typical partitioning costs.

Partition Costs adjustment is -$10,870.

Appeal Adjustments

This adjustment is used on properties where the value has been reduced by the Board of Property Tax Appeals or by the Oregon Tax Court (either Magistrate or Regular Division), to maintain the same percentage of reduction over the 5-year adjudication period while continuing to recalculate the values using current setup factors.

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