



LODI CITY COUNCIL

Carnegie Forum
305 West Pine Street, Lodi

"SHIRTSLEEVE" SESSION

Date: October 23, 2012

Time: 7:00 a.m.

For information regarding this Agenda please contact:

Randi Johl

City Clerk

Telephone: (209) 333-6702

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Informal Informational Meeting

A. Roll Call by City Clerk

B. Topic(s)

B-1 Receive Information Regarding the Multi-Family and Non-Residential Water Meter Program (PW)

C. Comments by Public on Non-Agenda Items

D. Adjournment

Pursuant to Section 54954.2(a) of the Government Code of the State of California, this agenda was posted at least 72 hours in advance of the scheduled meeting at a public place freely accessible to the public 24 hours a day.

Randi Johl
City Clerk



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CITY OF LODI COUNCIL COMMUNICATION

AGENDA TITLE: Receive Information Regarding the Multi-Family and Non-Residential Water Meter Program

MEETING DATE: October 23, 2012

PREPARED BY: Public Works Director

RECOMMENDED ACTION: Receive information regarding the multi-family and non-residential water meter program.

BACKGROUND INFORMATION: Staff is preparing to conduct a series of public workshops with owners and tenants of multi-family, mobile home and other non-residential property owners. The purpose of this Council Communication is to inform City Council regarding the various issues expected to be discussed at these meetings. Policy direction will be sought from the City Council following the completion of the public workshops.

State law requires that new water services be both metered and the customer be charged based on water usage. State law also requires that urban water suppliers install water meters on all municipal and industrial service connections on or before January 1, 2025. The applicable Water Code sections are provided below.

Water Code Section 525 – 527

525. (a) *Notwithstanding any other provision of the law, every water purveyor who sells, leases, rents, furnishes, or delivers water service to any person shall require, as a condition of new water service on and after January 1, 1992, that a suitable water meter to measure the water service shall be installed on the water service facilities in accordance with this chapter. The cost of installation of the meter shall be paid by the user of the water, and any water purveyor may impose and collect charges for those costs.*

(b) *Subdivision (a) applies only to potable water.*

527. (a) *An urban water supplier that is not subject to Section 526 shall do both the following:*

(1) *Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.*

(2) (A) *Charge each customer that has a service connection for which a water meter has been installed, based on the actual volume of deliveries, as measured by the water meter, beginning on or before January 1, 2010.*

(B) *Notwithstanding subparagraph (A), in order to provide customers with experience in volume-based water service charges, an urban water supplier that is subject to this subdivision may delay, for one annual season cycle of water use, the use of meter-based charges for service connections that are being converted from nonvolume-based billing to volume-based billing.*

(b) *A water purveyor, including an urban water supplier, may recover the cost of providing services related to the purchase, installation, and operation of a water meter from rates, fees, or charges.*

APPROVED: _____
Konradt Bartlam, City Manager

Residential Water Meter Program

The City is undertaking a seven-year program to install water meters on residential services to single family detached, duplex, triplex and fourplex residential units. The first and second construction phases are complete. Approximately 6,500 meters have been installed. Approximately 3,000 customers are receiving usage-based water bills. Another 3,500 customers will begin receiving usage-based water bills in January 2013. The City Council has adopted the following policies related to the residential water meter program.

1. One meter per parcel (one meter per owner)
2. Multiple water meters are installed where multiple services exist to a single parcel.
3. Customer charge for ¾-inch meter is \$300.
4. Customer/property owner may opt to install additional meters where a single service exists at the customer’s expense. (Not subject to \$300 maximum)
5. Comparative billing information is distributed in the month of October to those customers scheduled to receive a usage-based water bill the following January.
6. Usage-based wastewater billing begins in the month of July following the January initiation of usage-based water billing.

Residential Oversized Meters

During construction of the Water Meter Program Phase 2 Project, a few parcels have required installation of meters larger than ¾-inch. In a few cases, the irrigation demand of the parcel has required a 1-inch or 1½-inch meter be installed to establish a level of service equal to that prior to the meter installation. In a few other cases, the parcel’s water distribution piping caused excessive pressure losses with the ¾-inch meter, and a 1-inch meter has been installed. So far, this experience has been limited to the Phase 2 project area, but we expect some others to come up in later phases. In addition, the new requirement to install residential fire sprinklers has resulted in 1-inch meters being installed where a ¾ -inch meter would be sufficient to serve the property

Currently, the Lodi Municipal Code requires that the customers be charged based upon the size of the meter. There are two components of the usage-based water bill – the fixed monthly base charge and the usage charge. A summary of the fixed monthly by meter size is provided in the table below. The tiered rate structure for the usage charges is the same regardless of meter size.

Table 1 – Residential Meter Program

Meter Size	Monthly Base Charge	Installed Cost ¹	Meter Assembly Cost ²
¾	\$23.20	\$771	\$300
1	\$37.66	\$806	\$335
1½	\$73.58	\$1,757	\$636
2	\$116.87	\$1,884	\$763

¹ Assumes installation Class C (existing service) and includes meter assembly cost

² Includes meter, register, ERT and assembly box

In the future, staff will request City Council to approve capping the monthly base charge to that of the ¾-inch meter for those cases where the parcel’s water distribution piping or the addition of residential fire sprinklers is the primary driver for installing the larger meter.

Condominium Properties

There are 53 variously-sized condominium properties located around the City. They vary in size from two units on a parcel to 153 units on a parcel. Some individual units have already received a meter, others are ready to receive a meter, and others are not able to receive an individual meter. There are a total of 1,117 residential condominium units within the City. The following presents a summary of the different conditions for the 53 condominium properties and the 1,117 units.

Typically, a condominium property owner has purchased the air space assigned to his/her living unit. The structures and grounds are owned and maintained by a homeowners' association. Three of the condominium properties were converted from apartment/townhome properties.

There are 28 condominium units on Otta Drive and Awani Drive that are receiving meters as part of the current Water Meter Program Phase 2 Project. These units have not been but will be billed \$300 for the ¾-inch water meter that is being installed. At the time residential meter invoices were sent out, condominium units were not included in the group. A listing of these properties is provided below.

Table 2 – Phase 2

Property	Address	No. of Units
Single Family	102 – 134 Otta Drive	8
Single Family	1001 – 1117 Awani Drive	20
	TOTAL UNITS	28

Of the 25 remaining condominium properties, five have existing meters that were previously installed. The details of these properties are summarized below. The eight meters installed at the Westwood property were part of the Water Meter Program Phase 1 Project. These units have not been but will be billed \$300 for the ¾-inch meter that was installed. The units in the other four condominium properties had their meters installed presumably during construction. These meters are not equipped with automated meter reading devices and will need to be retrofitted. At a future time, it will be necessary to determine what meter charge, if any, will be assigned to the units in these four properties.

Table 3 – Existing Meters

Property	Address	No. of Units	Meter ¹
Westwood	2424 Cochran Road	8	I
Century 22	301 Century Boulevard	22	M
Century Place	1961 Century Place	34	M
Almondwood Place	1801 Almondwood Circle	26	M
Century Park	2004 Starling Way	15	M
	TOTAL UNITS	105	M

¹Master Meter (M) Individual (I)

Of the 20 remaining condominium properties, six have been constructed anticipating the installation of a water meter serving each unit. There are additional water services to the community facilities that will also have meters installed on them. A summary of these properties is provided below. A diagram of the existing water services for the Brookside Terrace property is provided in Exhibit A.

Table 4 – Meter Ready

Property	Address	No. of Units
Parkview Terrace	2393 Central Park Drive	89
Beckman Estates	751 Brandywine Drive	37
Beckman Park Villas	1311 West Century Boulevard	66
River Oaks	1744 Wyn Way	28
Brookside Terrace	2250 Scarborough Drive	72
The Brierwood	1901 S. Church Street	16
	TOTAL UNITS	308

Of the 14 remaining condominium properties, three were originally constructed as apartment or town home properties and were subsequently converted to condominium properties. One property, Meadows Town Homes, sold 10 four-unit properties to individual investors. Each four-unit property is served by a single water service from a public water main on which a meter could be installed. The other two condominium properties, Woodlake Place North and Woodlake Place South, consist of multiple-unit structures but, for the most part, each unit is individually owned. A summary of these properties is provided below.

Table 5 Apartments Converted to Condominiums

Property	Address	No. of Units
Woodlake Place South	2400 Eilers Lane	62
Woodlake Place North	2401 Eilers Lane	84
Meadows Town Homes	1901 S. Mills Avenue	40
	TOTAL UNITS	186

Photographs of these properties are provided as Exhibits B, C, and D to this Council Communication. Included in each exhibit are the public and private water mains serving the various building units, which are comprised of multiple condominium units, and common areas of these properties.

Further discussion of these three properties will demonstrate issues associated with installing water meters to serve these and other similar properties. The first example, Meadows Town Homes, as presented in Exhibit D, shows that each building unit is served by a water service from a public water main in Mills Avenue. This is a likely candidate for installing an individual ¾ or 1-inch meter, depending upon the demand, to each building unit. Additional research is needed to determine how the common area landscaping is served to decide how that water usage will be metered.

The second example is Woodlake Place South and North as presented in Exhibits B and C. In these cases, a public water main extends onto the property and serves two purposes. One, it feeds the onsite fire hydrants and second, it supplies water to a system of smaller private mains with services to the individual buildings. If we place larger master meters (larger because the fire flow needs to be preserved) on the public mains where they enter the property there will be several master meters required and these assemblies must include backflow devices. This meter arrangement is expensive - on the order of \$24,000 each. An alternative is to install multiple meters on the smaller private mains but there will likely be more of them than the larger master meters. Because these properties were constructed as apartments it is highly unlikely there are individual services to each unit that could receive a water meter.

The above-described conditions have brought to the forefront several issues that deserve further research and discussion. These include:

1. If a meter has already been installed at a condominium property that requires an upgrade to support the City's automated meter reading, is there a charge to the owner of that unit? It could be a homeowners association or an individual.
2. As meters are installed on services to community structures and facilities, is there a charge to the homeowners' association?
3. A condominium four-unit structure under single ownership with a water service connected to a public main could receive a single meter for the four-unit structure. The size of that meter would probably be 1½ -inch. What would be the City charge to the property owner for that meter? Would it be reasonable to charge the same \$300 for that meter as charged for the other Water Meter Program residential meters under the 7-phase program?
4. As the Water Meter Program begins installing meters larger than ¾ -inch, what payment schedule is appropriate? Should it resemble the residential meter charge that covers the purchase cost of the meter assembly and box? Should it be a percentage of the installed cost that mirrors residential meters (approximately 40 percent)?
5. A condominium multi-unit structure with multiple ownerships and a water service connected to a private main could receive a single meter for the structure, but who would pay for the meter? Would it be the homeowners' association? Are the homeowners' association dues structured to cover this cost? Would it be unreasonably cumbersome for the homeowners' association to attempt to bill each of the multiple owners their fair share of the water meter cost?
6. For a condominium property with multiple structures, which criteria would be used to decide whether to install one or more larger meters on services from a public main, or to install individual meters on the private main to the structure?
7. Meters installed on the services from the public main to a condominium property would be paid for by the homeowners' association. These types of connections often involve internal fire hydrants, and the meters can be much larger and more expensive. In any event, the installation of multiple smaller meters at individual structures, or one or more larger meters at connections to the public mains, will result in the charge for all water usage going to the homeowners' association.
8. Can the homeowners' association sub-meter the condominium units and expect the City to bill the individual condominium owners? If so, should the sub-meters be compatible with the City's automated meter reading system?
9. If the cost to meter a condominium property is lowest by installing a master meter with the water bill going to the homeowners' association, would the City still consider installing individual meters if that were possible, thereby billing the condominium owner for the meter and the monthly service?

Of the remaining 11 condominium properties, six have a single service to the property and the number of units served is 18 or less. A summary of these properties is provided in the following table. It is likely a single master meter will be installed to serve these condominium properties because individual services do not appear to have been provided to each unit and the cost to install the smaller master meter is less than the cost to install multiple meters.

Table 6 – Small Condominium Properties

Property	Address	No. of Units
Hideaway	719 N. School Street	6
Iris Place	1416 Iris Drive	10
Cedarwood	625 N. Church Street	16
Aldon Place	1311 S. Central Avenue	8
Winchester Oaks	2524 Winchester Drive	18
Elm West Condos	2415 W. Elm Street	16
TOTAL UNITS		74

The remaining five condominium properties are listed in the table below. They have some of the largest unit counts for condominium properties in the City. There are multiple services to each property and most have segments of public water main within the property from which private water mains serve the various building units with multiple units in each. Additional record and field research is required to determine the appropriate metering design.

Table 7 – Large Condominium Properties

Property	Address	No. of Units
Cambridge Place	445 E. Almond Drive	153
Stone Tree Condos	1819 S. Cherokee Lane	90
Rivergate Commons	1142 Rivergate Drive	22
Winchester Oaks No. 2	770 McCoy Court	74
Town & Country Park	2340 W. Turner Road	77
TOTAL UNITS		416

A survey of 11 condominium properties in the region was conducted to assess whether master-metering or individual metering of condominium properties was most prevalent. The results of the survey are presented below. Of the 11 properties surveyed, 10 were master-metered and only one had individual meters to each unit.

Table 8 – Condominium Survey

Properties	Location	Units	Master Meter	Sub-Meter or Individual Meter
1	Tracy	38	1	0
4	Stockton	507	4	0
1	Vacaville	31	1	0
5	Sacramento	1,212	4	1
TOTALS			10	1

As a matter of reference, we have developed a conceptual level assignment of meter size to the number of condominium units served by the meter. A number of factors affect the final size including the size of the condominium units, the area of landscape irrigation, the number of community facilities and the age of the condominium development. This information is provided in part to aid the City's customers to get an idea of the appropriate size of meter that would be installed on their properties and the associated monthly charges.

Table 9 – Condominium Meter Size (1 bathroom and no landscape water)

Meter Size	No. of Condominium Units
3/4"	1
1"	2 - 3
1 1/2"	4 - 20
2"	21 - 45
3"	46 - 60
4"	61 - 75
6"	76 - 100

Apartment Properties

There are 238 apartment properties in the City that require water meters with a combined total of approximately 4,360 apartment units. These units are predominantly one and two bedroom units with a single bathroom. The number of units on each apartment property varies as indicated in the table below. Almost 80 percent of the apartment properties have 20 or fewer units. Approximately five percent have greater than 80 units.

Table 10 – Apartments

Properties	Unit Range	Total Units
154	5-10	1,103
36	11-20	519
22	21-40	581
13	41-80	754
13	81-160	1,401
238	TOTAL	4,358

There are nine apartment properties with existing water meters that are listed in the table below. These nine properties do not currently receive a usage based water bill and some of the meters are not compatible with the City's automated meter read system. Only one apartment complex, Lakeshore Gardens apartments at 1903 Sage Way, has individual meters to each unit that will begin receiving usage based water bills next year.

The Sand Creek Apartments previously paid for City crews to install 21 meters (19 2-inch and two 3-inch) meters at the site. The total amount paid to the City for this work was \$18,255. If this work had been performed by the Water Meter Program Phase 2 contractor (Teichert Construction) the total cost of the installation would have been \$39,300. The meters were set on the private services to the individual buildings with multiple apartment units in each building and on the private services to the common areas (landscape and community facilities). This brings up additional policy issues for future consideration.

10. For property owners that paid to have City standard meters installed prior to the Water Meter Program, should there be a rebate consideration if the amount paid exceeds the amount charged for future apartment meter installations based upon the size of the meter?
11. What charge to apartment owners will be established for the installation of water meters? Will it be a cost similar in structure to the residential ¾-inch meter cost? Will it be based upon contractor’s bids for that size meter from Water Meter Program Phases 1 & 2?

Table 11 – Existing Meters

Property	Address	No. of Units	Meter ¹
	1300 S. Washington Street	6	M
	1115 S. Central Avenue	6	M
	1509 S. Cherokee Lane	9	M
	1438 Voelker Drive	10	M
Avenue West Garden	1301 S. Lodi Avenue	25	M
Golden Oaks Village	1210 W. Century Blvd.	37	M
Lakeshore Gardens	1903 Sage Way	66	I
Lakeview Apartment Homes	1511 S. Mills Avenue	84	M
Sand Creek Apartments	1701 S. Mills Avenue	130	M
	TOTAL UNITS	373	M

¹ Master meter (M) Individual meters (I)

As presented in the table below, apartment properties with a single water service comprise more than 85 percent of the total. As referred to above, these apartment properties probably have 20 or fewer units each. As a result, these properties will probably require a single master meter.

As discussed for the condominium properties, properties with multiple services will be candidates for a master meter on the primary services from the public water main or multiple smaller meters on private lines internal to the property. Again, consideration will have to be given to the largest properties with respect to fire flows to internal fire hydrants. Additional record and field research is required to develop the appropriate meter design for larger apartment properties with multiple services.

Table 12 – Apartments

Properties	Services
1	5
1	4
6	3
24	2
206	1

A survey of 25 apartment properties in the region was conducted to assess whether master-metering or individual metering of apartment properties was most prevalent. The results of the survey are presented below. Of the 25 properties surveyed sixteen were master-metered and nine had individual meters to each unit.

Table 13 – Apartment Survey

Properties	Location	Units	Master Meter ¹	Sub-Meter or Individual Meter
5	Tracy	719	5	2
5	Manteca	655	5	3
2	Ripon	251	0	2
2	Galt	88	2	0
5	Stockton	1,012	4	2 ²
TOTALS			16	9

¹ Includes either master meter for the entire property or master meter to individual buildings with multiple apartment units.
² One apartment property has meters to individual units but the individual unit is not charged for water as it is paid by the homeowners' association.

As presented in Table 11, the Lakeshore Gardens apartments is the only known apartment property in the City to have individual meters to each apartment unit. These apartment/townhome units were constructed after 1992 and paid for meters with their building permits. These meters were installed in 2011 and are compatible with the City's automated meter reading system. Individual water bills will be sent to the tenants. Meters (existing or to be installed) on water services to the landscaped areas and common facilities will be used to charge the property owner for the water used at these locations.

As matter of reference, we have developed a conceptual level assignment of meter size to the number of apartment units served by the meter. A number of factors affect the final size including the size of the apartment units, the area of landscape irrigation, the number of community facilities and the age of the apartment development. This information is provided in part to aid the City's customers to learn the size of the meter that would be installed on their property and the associated monthly charge.

Approximately 65 percent of apartment properties would require a meter size of 1-inch. As mentioned previously for the larger apartment properties, there may be multiple smaller meters or a few larger meters as determined by the fire flow requirements at the property. The larger meters are more expensive to purchase and the associated monthly base charge is higher.

Table 14 – Apartment Meter Size (1 Bathroom)

Meter Size	No. of Units
¾"	1 - 5
1"	6 - 10
1½"	11 - 30
2"	31 - 50
3"	51 - 100
4"	101 - 150
6"	150 - 250

Mobile Home Park Properties

There are six mobile home park properties located in the City. They range in size from 35 spaces to 157 spaces as noted in the table below. The characteristics of each park are relatively unique. No mobile home parks have public water mains within the park.

In the interest of accelerating the installation of water meters to mobile home parks, City crews have installed meters at each park with the sizing and cost information provided below. There is a cost range for same size meters due to differing site conditions at the point of installation. The work was completed this past summer.

Cost of installation and cost of the meter assembly is provided in the table below. This brings up another policy issue for future consideration.

12. What cost will be established for the installation of water meters to mobile home park properties? Will it be the actual installation cost? Will it be a cost similar in structure to the residential ¾-inch meter cost? Will it be based upon contractor's bids for that size meter from Water Meter Program Phases 1 & 2?

Table 15 – Mobile Home Parks

Park	Address	Units	Meter Size	Installed Cost	Meter Assembly Cost
	845 S. Cherokee Lane	40	2"	\$1,433	\$773
Shady Acres	621 E. Lockeford Street	43	2"	\$1,452	\$773
Lake Park	1390 W. Lockeford Street	35	2"	\$5,713	\$773
Casa de Lodi (North)	817 E. Turner Road	48	8"	\$30,627	\$13,430
Casa de Lodi (South)	812 E. Turner Road	157	8"	\$37,080	\$13,430
Almond Drive	471 Almond Street	85	3"	\$5,949	\$1,653
Cherokee	1651 S. Cherokee Lane	43	2" & 1½"	\$11,276	\$1,359

Based upon very limited data, the following table has been prepared to compare the existing monthly charge and the usage-based monthly charge for the five mobile home parks we have data for. This is very preliminary data and, over time, the information will be refined. The data demonstrates that four of the five parks listed might expect a significant reduction in the monthly charge. The difference will be that the park owner will pay the water (and wastewater) usage-based bill in the future, whereas, the tenants currently

pay a fixed rate for both. There would be no rebate due to the change in the rate structure from fixed to usage-based for mobile home parks.

This brings up another policy issue for future consideration.

- The Electric Utility currently offers a credit of \$11.54 per pad for the park owners owning, operating and maintaining their electric system similar to a PG&E discount. Will a similar program be established for the water and wastewater billing?

Table 16 – Comparative Bill Information (August 2012)

Park	Units	Meter Size	Monthly Base Charge	Monthly Usage Charge	Total Monthly Charge	Current Monthly Charge
Palms	40	2"	\$73.43	\$17.46	\$90.89	\$1,001.60
Shady Acres	43	2"	\$73.43	\$28.55	\$101.98	\$1,076.72
Lake Park	35	2"	\$73.43	\$86.60	\$205.10	\$876.40
Casa de Lodi (North)	48	8"	\$249.67	\$815.40	\$1,065.07	\$1,201.92
Almond Drive	85	3"	\$102.81	\$592.65	\$695.46	\$2,128.40
Cherokee	43	2" & 1½"	\$132.20	\$115.15	\$247.35	\$1,076.20

A survey of 10 mobile home park properties in the region was conducted to assess whether master-metering or individual metering of mobile home park properties was most prevalent. The results of the survey are presented below. Of the 10 properties surveyed, two have onsite water wells and the cost of operating the private water system is included in the space rental. Of the eight remaining mobile home park properties, all are master-metered and all pay the water provider for the cost of water service to the park. In some of the mobile home park properties, sub-meters have been installed at the owners' expense and are used to divide the water costs amongst the tenants.

Table 17 – Mobile Home Park Survey

Property	Location	Units	Master Meter	Sub-meters or Individual Meter	Owner Pays Water Bill
2	Tracy	312	2	1	2
2	Manteca	335	2	1	2
2	Stockton	456	2	2	2
2	Lathrop	242	1	1	1
2	Galt	175	1	1	1
10	Total	1,520	8 ¹	6	8

¹Two mobile home park properties are served by private water systems.

Non-residential Properties

The non-residential properties group includes commercial, industrial, public and pseudo-public land uses. The analysis of these properties has included all areas of the City except the downtown area. The downtown area requires additional field work in order to inventory the existing water meter conditions.

A total of 391 commercial properties were surveyed and 132 of those properties do not have water meters. Many of the existing meters are not compatible with the City's automated meter reading system and will need to be retrofitted.

A total of 187 industrial properties were surveyed and 101 of those properties do not have water meters. Many of the existing meters are not compatible with the City's automated meter reading system and will need to be retrofitted.

Public and pseudo-public properties include government properties (City, state, county, landscape areas, etc), schools, churches and the like. A total of 149 properties were surveyed and 119 of those properties do not have existing meters. Many of the existing meters are not compatible with the City's automated meter reading system and will need to be retrofitted.

Most of the issues previously presented apply, in part or in whole, to this group of properties.

FISCAL IMPACT: Not applicable.

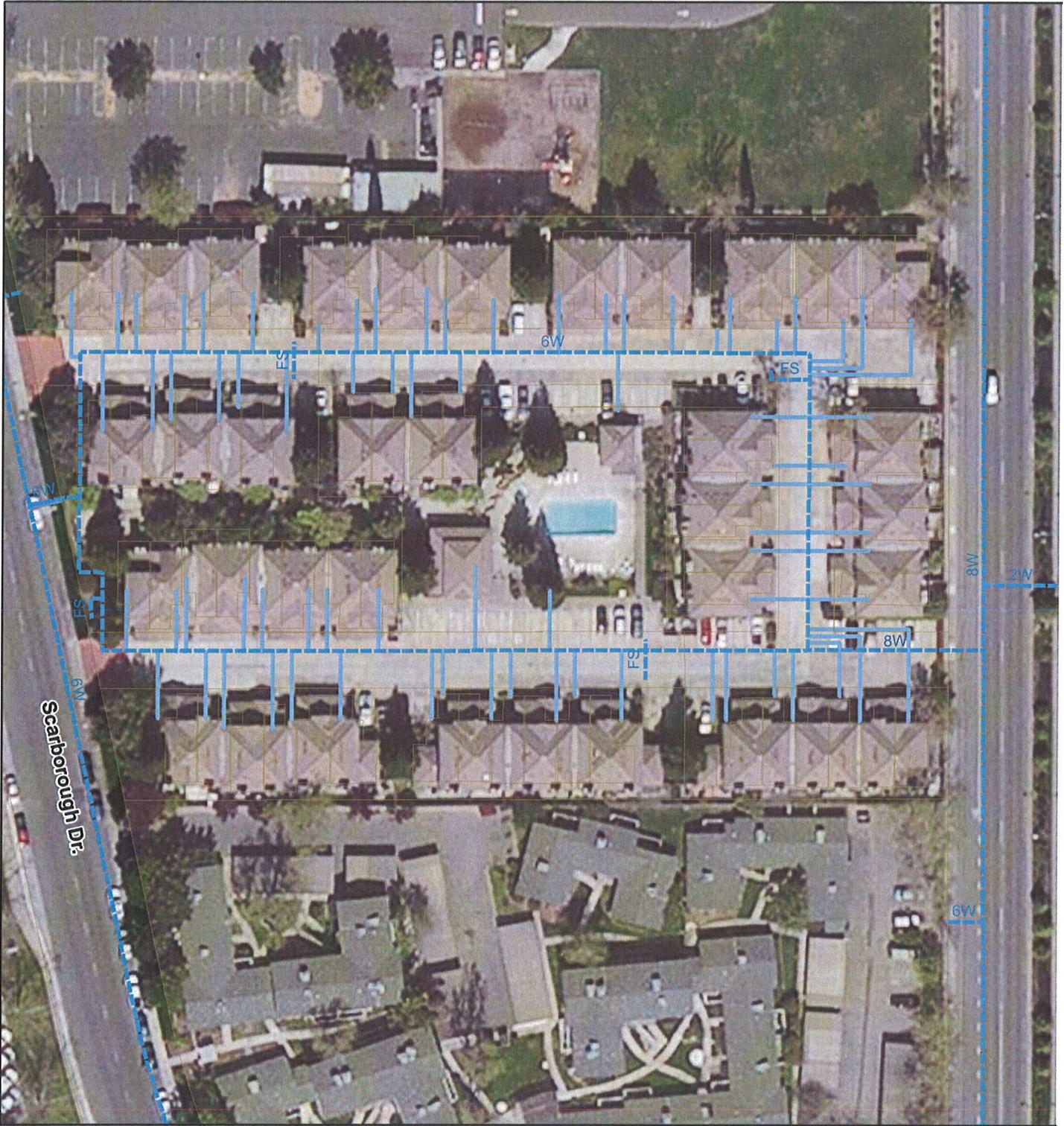
FUNDING AVAILABLE: Not applicable.

F. Wally Sandelin
Public Works Director

FWS/pmf



Brookside Terrace 2250 Scarborough Drive



1 inch = 83,333



Woodlake Place South 2400 Eilers Lane



1 inch = 71 feet



Woodlake Place North 2401 Eilers Lane



1 inch = 79 feet



The Meadows Townhomes Condominium Project 1900 Block South Mills Avenue



1 inch = 62 feet