CITY OF MARINE CITY

DEPARTMENT OF PUBLIC WORKS

303 S. Water Street
MARINE CITY, MICHIGAN 48039
(810) 765-9711 • Fax (810) 765-1796

December 10, 2015

Dear Board Members,

This is information to let you know what we have for water mains and the specifications of the system. As you all know, we have a very old system. Please see the attached sheets for a breakdown of water mains, which provides street names, pipe material utilized, size, and length. The information provided is an approximation and please note that we did our best to research all of our maps, but some of the maps are missing or were never updated.

WATER PLANT

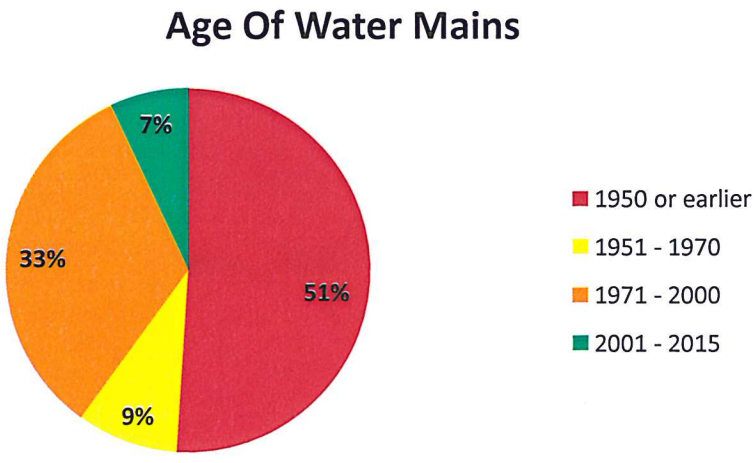
To begin with, the Water Plant has had many updates over the years, but the original pumps and piping from 1937 are still being used to pump water into the system. At this point, we can still have the pumps rebuilt, but we do not know how long they would last. Both 10 inch lines that leave the plant were put in during 1937 and then again in 1948.

WATER MAINS

As for the water mains, the amounts shown below include piping only; the valves were not included in the figures. We have approximately 130,671 feet of water mains in town. Below is a breakdown of the age of mains as well as the approximate size and length.

AGE:

1950 or lower = 67,422 feet
1951 thru 1970 = 11,282 feet
1971 thru 2000 = 43,408 feet
2001 thru 2015 = 8,559 feet



SIZE:

2 inch water mains = 3,617 feet
4 inch water mains = 36,067 feet
6 inch water mains = 36,039 feet
8 inch water mains = 4,754 feet
10 inch water mains = 10,432 feet
12 inch water mains = 37,499 feet
16 inch water mains = 2,263 feet

We also have three river crossings under Belle River:

1. Union at S. William to S Belle River Rd just south of Ward St. = 10 inch installed in 1937
2. Pearl St to N Belle River Rd just north of Fairbanks = 12 inch installed in 1973
3. Westminster to N Belle River just north of Gladys = 8 inch installed prior to 1949

FIRE HYDRANTS

We have 212 fire hydrants in town

VALVES

We have approximately 1,000 valves in our system; we should have at least 3 times the valves that we have now.

As mentioned, this is all information only, but as you can see we need to address this in the years to come as there is no quick fix. At today's prices we have approximately *$3.7 million* worth of mains, fire hydrants, valves, and service lines; this is materials only.

On the last page of the attachment, you will see a monthly and yearly report on water production from our water plant. I hope this information is helpful to you. These are all things to consider as we look towards the future to keep Marine City a safe and vibrant place to live.

Respectfully,

Michael Itrich
Superintendent
Department of Public Works

CITY OF MARINE CITY

WATER

STREET NAME	*MAJOR/LOCAL RD.*	*PIPE MATERIAL*	*SIZE*	*LENGTH*	*APPROX. INSTALL YEAR*
Alger	Local Road	Ductile Iron	4"	939 ft	Prior to 1949
Bell (West of S. Parker)	Local Road	Copper	2"	350 ft	1987
Bell (East of S. Parker)	Local Road	Ductile Iron	6"	910 ft	1998
Bell (S. Third to S. Belle River	Local Road	Ductile Iron	4"	475 ft	1949
N. Belle River (Degurse to NCL)	Local Road	Ductile Iron	10"	1,463 ft	1998
N. Belle River (Degurse to West Blvd)	Major Road	Ductile Iron	6"	1,393 ft	1949
S. Belle River (Fairbanks to Chartier)	Local Road	Ductile Iron	6"	6,455 ft	1949
S. Belle River (Chartier to Alger)	Local Road	Ductile Iron	4"	1,299 ft	1949
Bowery	Local Road	Ductile Iron	6"	482 ft	1960s
Bridge St. (S. Main to S. Water)	Major Road	Ductile Iron	4"	554 ft	1949
Bridge St. (S. Market to S. Water)	Major Road	Ductile Iron	10"	294 ft	1999
Broadway (S. water to Belle River)	Major Road	Ductile Iron	6"	1,738 ft	1955
Brown (Parker to WCL)	Local Road	Ductile Iron	6"	1,094 ft	1978
Brown (Parker to Belle River)	Major Road	Ductile Iron	6"	946 ft	1978
Bruce	Local Road	Ductile Iron	4"	1,967 ft	1949
Butler	Local Road	Ductile Iron	4"	626 ft	1949
Butler (Metropolis to West Blvd)	Local Road	Ductile Iron	12"	626 ft	1973
Carroll	Local Road	Ductile Iron	4"	1,987 ft	1949
Catherine	Local Road	No Main	N/A	494 ft of Road	N/A
Charles	Local Road	Ductile Iron	12"	371 ft	1949
Chartier (M-29 to King)	Major Road	Ductile Iron	12"	1,910 ft	1995
Chartier @ King Rd going South to K-Mart Plaza	Major Road	Ductile Iron	12"	3,500 ft	1980

Created: 8-7-2015

CITY OF MARINE CITY

WATER

STREET NAME	*MAJOR/LOCAL RD.*	*PIPE MATERIAL*	*SIZE*	*LENGTH*	*APPROX. INSTALL YEAR*
Chartier (M-29 to Third)	Major Road	Ductile Iron	6"	431 ft	1994
Cottrell	Local Road	Ductile Iron	10"	838 ft	1938
Degurse	Major Road	Ductile Iron	12"	3,700 ft	1997
Delina	Local Road	Ductile Iron	6"	847 ft	1978
N. Elizabeth (Broadway Street to Westminister)	Local Road	Ductile Iron	6"	909 ft	Prior to 1949
N. Elizabeth (Westminister to Holland)	Local Road	Ductile Iron	4"	614 ft	Prior to 1949
S. Elizabeth	Local Road	Ductile Iron	6"	2,208 ft	Prior to 1949
Fifth	Local Road	Galvanized Steel	2"	616 ft	Prior to 1949
Fourth	Local Road	Ductile Iron	6"	616 ft	1987
Frederick	Local Road	No Main	N/A	469 ft of Road	N/A
Gladys	Local Road	Ductile Iron	6"	851 ft	1987
Hanover	Local Road	Galvanized Steel	2"	275 ft	N/A
Harold	Local Road	Ductile Iron	4"	582 ft	N/A
High	Local Road	Ductile Iron	8"	499 ft	Prior to 1949
Hill	Local Road	Ductile Iron	6"	887 ft	1978
Holland (M-29 to N. Elizabeth)	Local Road	Ductile Iron	8"	307 ft	1947
Holland (M-29 to N. Elizabeth)	Local Road	Ductile Iron	12"	307 ft	1947
Holland (N. Elizabeth to N. Mary Street)	Local Road	Ductile Iron	6"	633 ft	Prior to 1949
Industrial Way	Local Road	Ductile Iron	12"	800 ft	2003
Jefferson (Main to S. Water)	Major Road	Ductile Iron	12"	810 ft	1948
Jefferson (Main to Belle River)	Local Road	Ductile Iron	6"	1,002 ft	1947
Katherine	Local Road	No Main	N/A	619 ft of Road	N/A
King (Chartier to MC Highway	Major Road	Ductile Iron	12"	7,000 ft	1973
King	Major Road	Ductile Iron	12"	700 ft	1982
Louis Miller	Local Road	No Main	N/A	360 ft of Road	N/A
Lowell	Local Road	Galvanized Steel	2"	242 ft	N/A
Mabel	Local Road	Ductile Iron	6"	1,104 ft	1949

Created: 8-7-2015

CITY OF MARINE CITY

WATER

STREET NAME	*MAJOR/LOCAL RD.*	*PIPE MATERIAL*	*SIZE*	*LENGTH*	*APPROX. INSTALL YEAR*
N. Main	Local Road	Ductile Iron	12"	3,109 ft	2003
S. Main (Broadway to Jefferson)	Major Road	Ductile Iron	12"	617 ft	1948
S. Main (Jefferson to Union Street)	Major Road	Ductile Iron	6"	1,155 ft	Prior to 1949
S. Main (Jefferson to Union Street)	Major Road	Ductile Iron	4"	1,155 ft	1949
S. Main (Union Street to Bridge Street)	Major Road	Ductile Iron	4"	658 ft	1949
Maple	Major Road	Ductile Iron	6"	874 ft	1949
Marine	Local Road	Ductile Iron	4"	551 ft	1949
Mariner's Landing (King Rd to MC Fire Hall - S. Parker)	N/A	Ductile Iron	12"	2000 ft	1996
N. Market (Broadway to Westminister)	Local Road	Ductile Iron	8"	907 ft	Prior to 1949
N. Market (Westminister to N. Main Street)	Local Road	Galvanized Steel	2"	488 ft	1949
S. Market (Broadway to Washington Street)	Major Road	Ductile Iron	6"	1,006 ft	1978
S. Market (Washington Street to Union)	Major Road	Ductile Iron	10"	764 ft	1937
S. Market (Union to Bridge St.)	Major Road	Ductile Iron	10"	438 ft	2000
N. Mary (Charles to NCL)	Local Road	Ductile Iron	10"	1,355 ft	1948
N. Mary (Broadway to Holland Street)	Major Road	Ductile Iron	4"	1,370 tf	1948
S. Mary	Local Road	Ductile Iron	4"	1,522 ft	Prior to 1949
Metropolis (Belle River to King Rd.)	Local Road	Cement	12"	3,400 ft	1973
Murray Court	Local Road	Cement	6"	902 ft	1976
N. Parker	Local Road	Ductile Iron	4"	920 ft	Prior to 1949
S. Parker (West Blvd. to Ward Street)	Major Road	Ductile Iron	6"	1,838 ft	1949

Created: 8-7-2015

CITY OF MARINE CITY

WATER

STREET NAME	*MAJOR/LOCAL RD.*	*PIPE MATERIAL*	*SIZE*	*LENGTH*	*APPROX. INSTALL YEAR*
S. Parker (Ward Street to Chartier Street)	Major Road	Ductile Iron	16"	2,263 ft	1978
S. Parker (Chartier Street to SCL)	Major Road	Ductile Iron	12"	4,650 ft	2003
Pearl St. (N. Water to N. Main Street)	Local Road	Ductile Iron	4"	535 ft	1955
Pearl St. (N. Main Street to Belle River) **N side of Pearl St.	Local Road	Ductile Iron	4"	1,449 ft	1955
Pearl St. (N. Main Street to Belle River)**S side of Pearl St.	Local Road	Ductile Iron	12"	1,449 ft	1973
Pittsburgh	Local Road	Ductile Iron	4"	998 ft	1949
Plank (West Blvd to City Limits)	Local Road	Ductile Iron	10"	600 ft	1992
Pleasant	Local Road	Ductile Iron	4"	898 ft	1949
Pleasant (Mabel to NCL)	Local Road	Plastic	2"	268 ft	N/A
River	Local Road	Galvanized Steel	2"	214 ft	N/A
River Valley	Local Road	Ductile Iron	8"	804 ft	1995
Riverview	Local Road	No Main	N/A	192 ft of Road	N/A
Robertson	Local Road	Ductile Iron	4"	2,027 ft	1949
Scott	Local Road	Ductile Iron	10"	1,927 ft	Prior to 1949
Scott (M-29 to WCL)	Local Road	Cast Iron	4"	1,092 ft	1970
Second	Local Road	Ductile Iron	4"	1,185 ft	Prior to 1949
Short Cut	Local Road	Ductile Iron	12"	1,039 ft	1981
Sixth	Local Road	Ductile Iron	4"	612 ft	Prior to 1949
East St. Clair (Main to Belle River)	Local Road	Ductile Iron	4"	879 ft	Prior to 1949
East St. Clair (Main to S. Water)	Major Road	No Main	N/A	531 ft of Road	N/A
West St. Clair	Local Road	Galvanized Steel	2"	697 ft	Prior to 1949
N. Third	Local Road	Ductile Iron	4"	1,196 ft	Prior to 1949
S. Third	Local Road	Ductile Iron	4"	2,957 ft	Prior to 1949
Thompson Drive	Local Road	Cement	6"	268 ft	1962
Union (S. Market to S. William St.)	Local Road	Ductile Iron	10"	811 ft	1937

Created: 8-7-2015

CITY OF MARINE CITY

WATER

STREET NAME	*MAJOR/LOCAL RD.*	*PIPE MATERIAL*	*SIZE*	*LENGTH*	*APPROX. INSTALL YEAR*
Ward (Parker to Belle River)	Local Road	Ductile Iron	4"	716 ft	Prior to 1949
Ward (Tracks to King Rd)	Major Road	Ductile Iron	6"	2,055 ft	1950
Ward (M-29 to former tracks)	Major Road	Ductile Iron	8"	379 ft	1998
Washingon (S. William to Mary)	Local Road	Plastic	2"	274 ft	2012
Washingon (S. Market to S. Water)	Local Road	Ductile Iron	10"	262 ft	1937
N. Water	Local Road	Ductile Iron	4"	281 ft	Prior to 1949
S. Water (Bridge St. to S. Main)	Local Road	Ductile Iron	10"	1,080 ft	1999
S. Water (S. Main to SCL)	Local Road	Ductile Iron	4"	1,191 ft	Prior to 1955
S. Water (Broadway to Bridge St.)	Major Road	Ductile Iron	6"	2,143 ft	Prior to 1955
West Boulevard (M-29 to Belle River)	Major Road	Ductile Iron	6"	948 ft	Prior to 1949
West Boulevard (M-29 to Sixth St.)	Major Road	Ductile Iron	4"	1,016 ft	Prior to 1949
West Boulevard (Sixth Street to King Road)	Major Road	Cement	6"	1,400 ft	N/A
West Boulevard (West Blvd to DPW *Under Bike Path)	Local Road	Ductile Iron	12"	2,250 ft	1973
Westminister	Local Road	Ductile Iron	8"	2,062 ft	Prior to 1949
N. William (Maple to NCL)	Local Road	Plastic	2"	467 ft	N/A
N. William (Broadway to Maple)	Major Road	Ductile Iron	4"	2,011 ft	Prior to 1949
S. William	Major Road	Ductile Iron	4"	1,922 ft	Prior to 1949
Woodworth (M-29 to Mary)	Local Road	Ductile Iron	4"	750 ft	Prior to 1948
Woodworth (Mary to Belle River)	Local Road	Ductile Iron	6"	948 ft	1987

Created: 8-7-2015

CITY OF MARINE CITY
WATER FILTRATION PLANT
MONTHLY PRODUCTION REPORT

Plant Pumpage for the Month	Plant Pumpage in M.G.
2014	
JULY	14.982
AUGUST	15.262
SEPTEMBER	14.167
OCTOBER	12.956
NOVEMBER	12.385
DECEMBER	12.96

Plant Pumpage for the Month	Plant Pumpage in M.G.
2015	
JANUARY	13.62
FEBRUARY	13.495
MARCH	16.794
APRIL	15.263
MAY	16.472
JUNE	15.074

Fiscal Year plant OUTPUT of water to all customers: 173.430 MG

– 7.480519 gal. Cu. Ft = Cu. Ft.

– 100 cu. ft/unit (water) = 23,186 units of water pumped to system.