



ENGINEERING DEPARTMENT

Michael G. Lewis
City Engineer


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City Hall
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West Allis, Wisconsin 53214

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MEMORANDUM

TO: Michael G. Lewis, City Engineer

FROM: Brian D. Block, Traffic & Utility Technician 

DATE: February 24, 2010

RE: Emergency Sanitary Spot Relay, Including Sanitary Manhole Relocation and Sanitary Lateral Reconnection in the 5900 Block of W. Burnham St.

SUMMARY

Gene Wagner Plumbing Co., Inc. was hired by the property owner of 1900 S. 60 St. because he was experiencing a sanitary sewer water back up in the basement of this commercial property. The building at this property was built in 1903 and presently consists of a tavern/grill and apartments.

Gene Wagner Plumbing Co., Inc. discovered a blockage in the sanitary lateral located approximately three feet south of the sanitary main in W. Burnham St. It was estimated that at this location the blockage would be in the riser for the lateral.

After viewing the 2002 Televising Inspection Report of the sanitary main in W. Burnham St., it was discovered that the 1909 sanitary main had a problem ("Joint pulled 6", can see ground") at approximately six feet east of the wye location for the 1900 S. 60 St. property.

The difference from finished grade of W. Burnham St. and elevation of the sanitary main is twenty feet. The sanitary flows east and dead ends west of the lateral for 1900 S. 60 St. in a manhole located in the east side of S. 60 St.

A decision was made to have the City contract with an underground contractor to relocate the dead end manhole east, out of S. 60th St., complete a sanitary relay of the problem east of the wye, and reconnect the sanitary lateral for 1900 S. 60 St., all as an emergency sanitary sewer repair.

Willkomm Excavating & Grading Inc. was contacted to complete this work.

FINDINGS & OBSERVATIONS

- **Existing Conditions and Utilities in W. Burnham St.**

The pavement at 1900 S. 60 St. was resurfaced in 1990 and is a 46 ft. wide composite pavement of hot mix asphalt on concrete base centered in a 66 ft. right of way. The PASER rating of this pavement is a 6 or considered Good. Both sides of the street have concrete sidewalks. This neighborhood is a commercial block with business and mix-use buildings on both sides of the road. The average daily traffic use of W. Burnham St. is 6600 vehicles. There are two traffic lanes and parking on both sides of the road.

The City of West Allis underground utilities in W. Burnham St. at the above-referenced address consist of the following:

<u>UTILITY</u>	<u>YEAR INSTALLED</u>	<u>LOCATION</u>
6 in. cast iron water main	1913	skews from 10 ft.-20 ft south of RoW line.
22 in. clay sanitary sewer	1909	skews from 30 ft.-36 ft. south of RoW
30 in. reinforced concrete storm sewer	1958	28 ft. north of RoW

City records indicate that the existing sanitary sewer lateral for 1900 S. 60 St. is a 6 in. clay pipe installed in 1909 and is actually shown discharging into the sanitary main in S. 60 St. The sanitary sewer lateral located by Gene Wagner Plumbing Co., Inc. and reconnected by Willkomm Excavating & Grading, Inc. was not shown on the City's records. It was not determined whether a second lateral, the lateral shown on our records, exists at 1909 S. 60 St.

Public utilities in W. Burnham St. RoW at the lateral for 1909 S. 60 St. include:

- WE Energies Electric duct located 21 ft. north of RoW
- WE Energies 2 in. gas line located 15 ft. north of RoW
- WE Energies 16 in. high pressure gas line located 17 ft. south of RoW
- WE Energies 2 in. gas line located 10 ft. south of RoW.

CHRONOLOGY

02/02/10

Gene Wagner Plumbing Co. Inc., contacted me and said they were hired by the property owner, Mr. Mario Morgese, to inspect and repair the cause of a sanitary sewer water backup in the basement of 1900 S. 60 St.

Gene Wagner Plumbing Co. Inc. said they televised the sanitary lateral and discovered an obstruction at about forty feet out from the clean-out access pipe in the basement. The description of the obstruction was that the camera exited the pipe and was hitting mud.

Inserting the camera with a transmitter into the lateral to the obstruction and receiving the electromagnetic signal on the road surface with a receiver, produced a location on the roadway of where the obstruction was located.

Gene Wagner Plumbing Co. Inc., explained that they were not prepared to possibly excavate down twenty feet to repair the lateral riser and that they were short staffed because of the off-season. I called Willkomm Excavating & Grading Inc. who were prepared to begin the work on 02/03/10.

02/03/10

Willkomm Excavating & Grading Inc. excavated and located the section of failed sanitary mainline and placed a precast 48 in. sanitary manhole at this location, connecting to the sanitary main using 3 ft. of 18 in. PVC pipe.

02/04/10

Willkomm Excavating & Grading Inc. completed the reconnection of the 1900 S. 60 St. sanitary lateral directly to the new manhole, using 7 to 8 ft. of 6 in. PVC pipe and 2 - 45° bends. Willkomm Excavating & Grading Inc. repaired an existing catch basin lead that was removed earlier to excavate for the sanitary manhole.

They abandoned the existing sanitary manhole in S. 60 St. and the existing sanitary mainline between the new manhole and abandoned manhole by filling the line with slurry. The entire excavation was backfilled with slurry. Willkomm Excavating & Grading Inc. placed a 9-bag mix concrete for pavement restorations at the abandoned manhole in S. 60 St. and at the excavation in W. Burnham St.

02/05/10

Willkomm Excavating & Grading Inc. installed a sanitary manhole seal on the chimney of the new manhole and opened the road for public use.

RECOMMENDATIONS

I reviewed the Willkomm Excavating & Grading, Inc. Invoice No. 7218 and find the total is fair and reasonable. I am recommending a payment to Willkomm Excavating & Grading, Inc. of \$ 19,153.20, which is the amount of that Invoice dated 02/15/10 and received on 02/17/10.

BDB:p

Attachment

cc: (via email) Joseph Burtch
Michael Scherer

h:\bbmemos\burnham 5900blk emergency sanitary spot relay



Willkomm Excavating & Grading, Inc.

17108 County Line Road • Union Grove, Wisconsin 53182

Phone 262.878.0877 • Fax 262.878.1337 • www.willkexc.wi.net

Invoice

7218

RECEIVED

FEB 17 2010 Job

Bill To

City of West Allis
7525 W Greenfield Avenue
Room 212, City Hall
West Allis, WI 53214

CITY OF WEST ALLIS
ENGINEERING DEPT

60th & Burnham Sanitary Repair

Customer	Purchase Order No.	Our Job Number	Salesman	Terms	Invoice Date	Page
WESTALLI	51000-03			Net 30	2/15/10	1

1 60th & Burnham

19153.20

19,153.20*

* means item is non-taxable

Sale Amount	19,153.20
Total	\$19,153.20

Foreman	21.00	54.14	1,136.94
Operator	16.00	54.09	865.44
Pipelayer	21.00	51.09	1,072.89
Topman	8.00	46.23	369.84
Foreman	2.00	81.21	162.42
Operator	2.00	81.13	162.26
Pipelayer	1.50	76.03	114.05
Topman	2.00	69.39	138.78
			4,022.62
M.U. 15%			4,626.01
Komatsu PC308	6.50	97.00	630.50
Breaker	4.50	70.00	315.00
Linkbelt 2700	4.50	87.00	391.50
Foreman Pick/Tool	23.00	40.00	920.00
Case 721B	3.50	65.00	227.50
Quad Axle Dump	20.00	88.00	1,760.00
Skid Steer Broom	2.50	45.00	112.50
Shield 4 x 8 x 20	1.00	120.00	120.00
Plates 8 x 20	4.00	60.00	240.00
Mobilization	9.00	150.00	1,350.00
			6,067.00
48" MH	1.00	1,265.88	1,265.88
18" SDR 35	8.00	25.50	204.00
8" SDR 35	9.00	3.00	27.00
8" Fernco	2.00	20.00	40.00
6" Fernco	1.00	10.00	10.00
Slurry	70.00	42.50	2,975.00
Redi Mix	12.00	96.50	1,158.00
Anti Hydro	1.00	67.22	67.22
Mason Mix	2.00	6.94	13.88
Dump Fees	14.00	45.00	630.00
6" SDR 35	7.50	1.75	13.13
6" 45 Bend	2.00	15.00	30.00
Brick	54.00	0.43	23.22
Mortar	12.00	8.64	103.68
Stone	32.06	12.65	405.56
			6,966.56
Tax 5.6%			7,356.69
MU 15%			8,460.20

19,153.20