

MINUTES OF BOARD OF DIRECTORS MEETING  
DECEMBER 21, 2021

THE STATE OF TEXAS  
COUNTY OF HARRIS  
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 109

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The Board of Directors (the "Board") of Harris County Municipal Utility District No. 109 (the "District") met in regular session, open to the public, at the office of Norton Rose Fulbright US LLP, 1301 McKinney, Suite 5100, Houston, Texas 77010, and via teleconference, on December 21, 2021 at 6:00 p.m.; whereupon the roll was called of the Board, to-wit:

Owen H. Parker, President  
Chris Green, Vice President  
Cheryl Moore, Secretary  
Robin Sulpizio, Assistant Secretary  
Nancy Frank, Assistant Secretary

All members of the Board were present. Also attending all or parts of the meeting were Mr. Cory Burton of Municipal Accounts & Consulting, LP ("MAC"), bookkeeper for the District; Lieutenant Steve Romero of Harris County Precinct 4 Constable's Office; Mr. Tim Spencer of Ad Valorem Appraisals, tax assessor and collector for the District; Mr. Bill Kotlan of BGE, Inc. ("BGE"), engineer for the District; Mr. Clint Gehrke of Water Waste Water Management Services, Inc. ("WWWMS"), operator for the District; and Mr. Dimitri Millas and Ms. Jane Maher of Norton Rose Fulbright US LLP ("NRF"), attorneys for the District.

**Call to Order.** President Parker called the meeting to order in accordance with notice posted pursuant to law, copies of certificates of posting of which are attached hereto as *Exhibit A*, and the following business was transacted:

1. **Board finding of existence of emergency or public necessity making the convening at one location of a quorum of the governmental body difficult or impossible and permitting a meeting by telephone pursuant to Section 551.125 of the Texas Open Meetings Act.** Upon motion by Director Green, seconded by Director Sulpizio, after full discussion and the question being put to the Board, the Board voted unanimously to find the existence of an emergency or public necessity making the convening at one location of a quorum of the governmental body difficult or impossible and permitting a meeting by telephone pursuant to Section 551.125 of the Texas Open Meetings Act due to COVID-19.

2. **Public Comments.** There were no public comments.

3. **Minutes.** The Board considered the proposed minutes of meeting held on November 16, 2021, previously distributed to the Board. Upon motion by Director Moore, seconded by Director Sulpizio, after full discussion and the question being put to the Board, the Board voted unanimously to approve the minutes of the meeting held on November 16, 2021, as presented.

4. **Security Report.** Lieutenant Romero reviewed the Security Report for the month of October 2021, a copy of which is attached hereto as *Exhibit B*. Upon motion by Director Green, seconded by Director Frank, after full discussion and the question being put to the Board, the Board voted unanimously to approve the Security Report.

5. **Tax Collector's Report and authorize payment of certain bills.** President Parker recognized Mr. Spencer, who reviewed the Tax Assessor and Collector's Report for the month of October 2021, a copy of which is attached hereto as *Exhibit C*.

Upon motion by Director Green, seconded by Director Sulpizio, after full discussion and the question being put to the Board, the Board voted unanimously to approve the Tax Assessor and Collector's Report and to authorize payment of check numbers 2170 through 2175, from the Tax Account to the persons, in the amounts, and for the purposes listed therein.

6. **Review Bookkeeper's Report.** President Parker recognized Mr. Burton, who presented to and reviewed with the Board the Bookkeeper's Report, a copy of which is attached hereto as *Exhibit D*.

Upon motion by Director Frank, seconded by Director Moore, after full discussion and the question being put to the Board, the Board voted unanimously to approve the Bookkeeper's Report and to authorize payment of the checks in the amounts, to the persons, and for the purposes listed therein, to adopt the Bookkeeper's Report as presented.

7. **Engineer's Report.** President Parker recognized Mr. Kotlan, who presented to and reviewed with the Board the Engineer's Report, a copy of which is attached hereto as *Exhibit E*.

Mr. Kotlan reviewed the Emergency Response Plan ("ERP") for the American Water Infrastructure Act. He stated that after the Districts adopts the ERP, BGE will upload a certificate to the Environmental Protection Agency ("EPA"). Upon motion by Director Green, seconded by Director Sulpizio, after full discussion and the question being put to the Board, the Board voted unanimously to approve the ERP.

Mr. Kotlan reported on the utility relocations related to the FM 1960 widening and stated that BGE continues to monitor the contractor's progress in utility relocation. He stated that the contractor is still working in the city of Humble area and has not reached the District's facilities. He reported that the Texas Department of Transportation ("TxDOT") contacted BGE regarding the construction of a sound wall over the top of an existing sewer line easement and that he provided comments regarding the encroachment and that TxDOT is preparing a submittal for the District. He also stated that BGE received a copy of a change order from TxDOT for utility unit cost increases due to changing material costs that the contractor has experienced. He noted that BGE has reviewed the change order and recommends approval of the change order, except that BGE does not recommend paying TxDOT for engineering and contingency increases based on a change order that does not include additional work. He stated that approval of the change order is a separate agenda item.

Mr. Kotlan reported that for the Water Plant No. 2 Expansion, and presented Pay Estimate No. 6 in the amount of \$234,009.00 for approval. He noted that the work includes completion of the ground storage tank and underground as well as preparation of booster pump and operations building slabs.

Mr. Kotlan reported on the Barents Drive Lift Station and stated that BGE is working on the plat for the lift station.

Mr. Kotlan reported on the Water Line Extension, and stated that the project will bid after the holidays and that BGE expects to have bids available for the January meeting.

Upon motion by Director Moore, seconded by Director Frank, after full discussion and the question being put to the Board, the Board voted unanimously to accept the Engineer's Report and to approve Pay Estimate No. 6 to Schier Construction Company, Inc. in the amount of \$234,009.00.

8. **Discuss change order related to TxDOT 1960 widening and take appropriate action.** It was the consensus of the board to discuss this item at the January meeting.

9. **Review Operations Report and authorize repairs.** President Parker recognized Mr. Gehrke, who presented the Operations Report dated December 21, 2021 and a list of delinquent accounts, copies of which are attached hereto as *Exhibit F*. Mr. Gehrke reported that 90.18% of the water pumped was billed for the period November 1, 2021 through November 30, 2021.

Mr. Gehrke reported on various maintenance items.

Mr. Gehrke reported that at Water Plant No. 1 WWWMS noticed a transformer hanging off the power pole by one bolt and that Center Point was contacted immediately. He noted that Center Point shut power off and that the generator ran until Center Point restored the fuses. He stated that Center Point replaced all bolts and replaced several feet of ground wire that was in bad shape.

Mr. Gehrke reviewed a quote from Today's Integration, Inc. for additional cameras in the park at Water Plant No. 1 in the amount of \$16,477.18.

Mr. Gehrke reported on the customer request from Forest Fern Ct. and stated that the customer is requesting to waive the back charges for damages of the service line. He noted that the resident indicated the district line was less than 12 inches deep and refuses to pay the back charges. He stated that the labor plus material cost is \$575.47. It was the consensus of the Board to include an agenda item on the January agenda.

Mr. Gehrke stated that the contractor performed the vacuum test on the new ground storage tank at Water Plant No. 2. He discussed engaging Generator Services for flow back testing and preventative maintenance. He stated that the price for the six Lift Stations is \$14,500 and two generators at the wells is \$9,200.

The Board discussed the delinquent process. It was the consensus of the Board to delay the termination of delinquent accounts in accordance with the terms of the District's Rate Order until January 4, 2022.

Mr. Gehrke reviewed two appeals letters, one from ML3 Properties and one from Atascocita Meadow, both requesting adjustments. It was the consensus of the Board to credit the accounts for sewer charges and then authorize WWWMS to coordinate with the customers regarding payment plan options.

Upon motion by Director Frank, seconded by Director Sulpizio, after full discussion and the question being put to the Board, the Board voted unanimously to approve the Operations Report and to delay termination of the delinquent accounts in accordance with the terms of the District's Rate Order until January 4, 2022, approve the quote from Today's Integration, Inc. in the amount of \$16,477.18, and approve the back flow testing and preventative maintenance costs in the amounts of \$14,500 and \$9,200.

10. **Discuss meeting format and meeting locations, and such other matters as may properly come before it.** It was the consensus of the Board to hold the next meeting on January 18, 2022, via teleconference.

THERE BEING NO FURTHER BUSINESS TO COME BEFORE THE BOARD, the meeting was adjourned.

\* \* \*



The above and foregoing minutes were passed and approved by the Board of Directors on January 18, 2022.

  
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President, Board of Directors

ATTEST:

  
\_\_\_\_\_  
Secretary, Board of Directors



## HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 109

### NOTICE

In accordance with Chapter 551, Texas Government Code, take notice that the Board of Directors of Harris County Municipal Utility District No. 109 will meet in regular session, open to the public, at Norton Rose Fulbright US LLP, 1301 McKinney, Suite 5100, Houston, Texas 77010, and by teleconference at 6:00 p.m. on Tuesday, December 21, 2021. Directors, consultants, and the general public may participate in the meeting by attending the meeting at the location listed or dialing the following number: 1-346-248-7799, Meeting Id: 998 1533 4308.

**videoconference meeting.** You can join by computer or any smart device with the Zoom app. Join Zoom Meeting:

<https://nortonrosefulbright.zoom.us/j/99815334308>

At such meeting, the Board will consider and act on the following matters:

1. Board finding of existence of emergency or public necessity making the convening at one location of a quorum of the governmental body difficult or impossible and permitting a meeting by telephone pursuant to Section 551.125 of the Texas Open Meetings Act;
2. Public comments;
3. Approve minutes of the meeting held on November 16, 2021;
4. Report by Harris County Precinct Four Constable and take any necessary action;
5. Review Tax Collector's Report and authorize payment of certain bills;
6. Review Bookkeeper's Report, and authorize payment of certain bills, and approve quarterly investment report;
7. Review Engineer's Report, including approval of pay estimates, authorization of change orders to pending construction contracts, proposal for construction materials testing and authorize capacity commitments;
8. Discuss change order related to TxDOT 1960 widening and take appropriate action;
9. Approve Operations Report, authorize repairs and approve termination of delinquent accounts in accordance with the District's Rate Order;
10. Discuss meeting format and meeting locations, and such other matters as may properly come before it.

A handwritten signature in blue ink, appearing to be "D. J. [unclear]", is written over a horizontal line.

Norton Rose Fulbright US LLP  
Attorney for District

### Exhibit A

If, during the course of the meeting covered by this Notice, the Board should determine that a closed or executive session of the Board should be held or is required in relation to any agenda item included in this Notice, then such closed or executive meeting or session, as authorized by the Texas Open Meetings Act, will be held by the Board at the date, hour, and place given in this Notice concerning any and all subjects for any and all purposes permitted by Sections 551.071-551.084 of the Texas Government Code and the Texas Open Meetings Act, including, but not limited to, Section 551.071 - for the purpose of a private consultation with the Board's attorney on any or all subjects or matters authorized by law.

Persons with disabilities who plan to attend this meeting and would like to request auxiliary aids or services are requested to contact the District's paralegal at (713) 651-5589 at least three business days prior to the meeting so that appropriate arrangements can be made.

CERTIFICATE OF POSTING NOTICE  
OF MEETING OF BOARD OF DIRECTORS

THE STATE OF TEXAS §  
COUNTY OF HARRIS §  
HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 109 §

I hereby certify that on Dec. 17, 2021, I posted the Notice of Meeting of the Board of Directors of Harris County Municipal Utility District No. 109, a true copy of which is attached hereto, at a place convenient to the public in Plexiglas enclosed bulletin boards located on the grounds of the District's Water Plant No. 1 at 5722 Forest Timbers Drive, Water Plant No. 2 at 20322 Burle Oak, Lift Station No. 1 at 19419 Timber Forest Drive, and Lift Station No. 2 at 4630 Springlea, within said political subdivision, as required by law.

EXECUTED this 17 day of December, 2021.



## **Maher, Jane**

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**From:** The Texas Network <support@texasnetwork.com>  
**Sent:** Thursday, December 16, 2021 8:29 PM  
**To:** Maher, Jane; Russell Lambert  
**Subject:** RE: 109 & AJOB Postings

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Posted  
<https://www.waterdistrict109.com/meetings/index.html>

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Thank you!

The Texas Network  
support@texasnetwork.com  
<https://texasnetwork.com>

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**From:** Maher, Jane <jane.maher@nortonrosefulbright.com>  
**Sent:** Wednesday, December 15, 2021 11:21 AM  
**To:** Russell Lambert <russ@texasnetwork.com>  
**Cc:** The Texas Network <support@texasnetwork.com>  
**Subject:** 109 & AJOB Postings

Hi Russ,

Please post the attached agendas to 109's website and return the COPs at your earliest convenience.

Thanks,

**Jane Maher** | Senior Paralegal  
Norton Rose Fulbright US LLP  
1301 McKinney, Suite 5100, Houston, Texas 77010-3095, United States  
Tel +1 713 651 5589 | Fax +1 713 651 5246  
jane.maher@nortonrosefulbright.com

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# HARRIS COUNTY CONSTABLE, PRECINCT 4

## CONSTABLE MARK HERMAN

*"Proudly Serving the Citizens of Precinct 4"*

6831 Cypresswood Drive ★ Spring, Texas 77379 ★ (281) 376-3472 ★ www.ConstablePct4.com

Monthly Contract Stats

## HARRIS CO MUNICIPAL UTILITY DIST #109

For November 2021

### Categories

Burglary Habitation: 1	Burglary Vehicle: 2	Theft Habitation: 1
Theft Vehicle: 1	Theft Other: 4	Robbery: 0
Assault: 1	Sexual Assault: 0	Criminal Mischief: 4
Disturbance Family: 3	Disturbance Juvenile: 0	Disturbance Other: 6
Alarms: 26	Suspicious Vehicles: 13	Suspicious Persons: 3
Runaways: 2	Phone Harrassment: 0	Other Calls: 743

### Detailed Statistics By Deputy

Unit Number	Contract Calls	District Calls	Reports Taken	Felony Arrests	Misd Arrests	Tickets Issued	Recovered Property	Charges Filed	Mileage Driven	Days Worked
207	0	11	2	0	0	0	0	0	527	4
34	35	15	1	0	0	17	0	0	970	10
E129	30	13	8	0	0	12	0	0	435	9
E130	41	8	3	0	0	10	0	0	678	16
<b>TOTAL</b>	<b>106</b>	<b>47</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>2610</b>	<b>39</b>

### Summary of Events

#### Alarms:

Deputies responded to 26 alarm calls that were cleared as false.

#### Checks:

Deputies conducted 349 combined MUD, park, neighborhood, and other miscellaneous checks.

#### Traffic Enforcement:

Deputies conducted numerous traffic stops and traffic initiatives throughout the contract during the month in the interest of public safety, and in an attempt to reduce the risk of motor vehicle accidents.

5100 Enchanted Timbers Dr – Deputy conducted a traffic stop on a vehicle. The driver was arrested for multiple traffic warrants.

Exhibit B

5700 Forest Timbers Dr.- Deputies conducted a traffic stop on vehicle for traffic offense. Investigation revealed that driver was in possession of marijuana. Driver was cited and a report was completed.

#### Burglary Habitation:

5300 Enchanted Timbers Dr – Deputy responded to a Burglary Habitation call. Investigation revealed unknown suspect forced entry into the residence, possibly stole unknown items, and fled undetected.

#### Burglary Motor Vehicle:

18600 Artesian Way – Deputy responded to a BMV. Investigation revealed unknown suspect, entered the complainant's unlocked vehicle and fled without taking any items.

5600 Green Timbers Dr- Deputies responded to a burglary of motor vehicle. Investigation revealed that unknown suspect entered an unlocked vehicle and took items without consent. Report was completed.

#### Theft Habitation:

5900 Silent Oaks Dr- Deputies responded to theft of residence type call. Investigation revealed that complainant's gun went missing sometime when his soon to be ex-wife had movers inside the residence. Report was completed.

#### Stolen Vehicle:

5600 FM 1960 RD E- Deputy responded to a stolen vehicle cal. Investigation revealed unknown suspect stole the complainant's vehicle and fled undetected.

#### Theft Other:

20000 Burle Oak Dr- Deputy responded to a theft. Complainant advised unknown suspect stole tools, tools were later found around the corner.

4500 FM 1960 RD E- Deputy responded to a theft. Investigations revealed that unknown suspect stole an electronic device.

5700 Forest Timbers Dr.- Deputies responded to theft other type call. Investigation revealed that victim lost her phone while at a playground and taken by two unknown suspects per witnesses. Report was completed.

19600 Spoonwood Dr.- Deputies responded to theft other type call. Investigation revealed that unknown suspects stole the catalytic converter from victim's vehicle. Report was completed.

#### Aggravated Assault:

19600 Timber Forest Dr- Deputy responded to an aggravated assault call stemming from a road rage incident. Investigation revealed an unknown suspect fired a gun at the victim. There were no injuries reported. Case is pending identification of the suspect.

#### Criminal Mischief:



5800 FM 1960 RD E - Deputy responded to a criminal mischief call. Investigation revealed that unknown suspect(s) damaged wiring to the business.

5800 FM 1960 RD E- Deputy responded to a criminal mischief call. Investigation revealed that unknown suspect(s) damaged property at location.

5800 FM 1960 RD E- Deputy responded to a criminal mischief call. Investigation revealed that unknown suspect(s) damaged property at location.

19700 Swiftbrook Dr – Deputy responded to a criminal mischief call. Investigation revealed a known suspect damaged complainant's doorframe. A warrant was filed for the suspect's arrest.

#### Family Disturbance:

5400 Fawn Trail Ln – Deputy responded to a family disturbance call. Investigation revealed family members engaged in an altercation that ended without injury. No charges filed.

5700 Fawn Trail Ln- Deputy responded to a family disturbance call. Investigation revealed family members engaged in a verbal altercation that ended without injury. No charges filed.

19400 Forest Timbers Ct. – Deputies were dispatched in reference to a family disturbance. Investigation revealed that married couple were involved in a verbal and physical altercation. Report was completed.

#### Runaway:

20000 Dawn Mist Dr- Deputy was flagged down in regards to a runaway. Complainant advised her daughter left their residence. Complainant daughter returned home safely.

5700 Upper Lake Dr.- Deputies responded to a runaway type call. Investigation revealed that minor aged male left location without permission. Report was completed.

#### Other:

5300 FM 1960 RD E- Deputy responded to a weapons disturbance. Investigation revealed two males had a physical altercation over the rights to a vehicle during which time the suspect fired a handgun at the complainant. There were no injuries and the suspect was later identified and a warrant was filed for his arrest.

5300 FM 1960 RD E- Deputy responded to a disturbance. Two subjects had an argument and a report was completed.

19100 Lakeshire St- Deputy responded to a loud noise disturbance. Investigation revealed that deputies have responded to the location multiple times for loud noise disturbance. Deputies gave homeowner a citation for disorderly conduct.

5800 FM 1960 RD E- Deputy responded to a meet the citizen. The owner of a business wanted to report unknown subjects having intercourse on the property.

King Lake Estates Blvd- Deputy responded to a meet the citizen. The complainant wanted to report an unknown subject made a fake social media account with their information.

5800 Rivergrove Park Dr - Deputy responded to a meet the citizen. The complainant wanted to report an ex spouse going to a family member's house.

20100 Misty Pines Dr- Deputy Responded to a call for service and investigation revealed that known individual threatening complainant. No charges filed

19700 Swiftbrook Dr – Deputy responded to a Vehicle Abandoned call. Investigation revealed a vehicle was abandoned on a public roadway. A report was done documenting the tow.

5300 Enchanted Mist Dr. – Deputy responded to a Disturbance call. Investigation revealed both parties wanted to trespass each other from their properties due to a verbal disagreement. Report was done for documentation purposes.

19400 Cluster Oaks Dr.- Deputies responded to a fraudulent use of information type call. Investigation revealed that unknown suspect contacted victim by phone pretending to be a bank employee who then requested personal information to gain financial benefits. Report was completed.

19700 Oak Branch Ct – Deputy responded to an animal call. Investigation revealed a neighbor's dog's attacked the complainant's dogs. The owner of the dog's caused damage to the complainant's fence to gain access into the yard to break up the dog fight. A report was completed and possible charges are pending.

# Harris County Municipal Utility District Number 109

## Tax Collector's Report

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### Disbursements for December 21, 2021:

#2170: Ad Valorem Appraisals Inc; Tax A/C Fee-12/2021	\$2,859.02
#2171: Perdue Brandon Fielder Collins & Mott; Tax Atty Fee: 11/2021	1,913.51
#2172: Harris County Appraisal District; Quarterly Assessment	5,810.00
#2173: Kannan Partnership Ltd; Refund 043-206-000-0723	2,088.00
#2174: Roy & Sandra Isbell; Refund 102-068-000-0015	240.00
#2175: Brian C & Letisha C McGee; Refund 122-816-003-0011	<u>379.20</u>
<b>Total Disbursements for December 21, 2021</b>	<b><u>\$13,289.73</u></b>

### Exhibit C

# Harris County Municipal Utility District Number 109

## Tax Collector's Report

Current Period Covered: November 1, 2021 to November 30, 2021

Fiscal Year Beginning: June 1, 2021

<u>Cash Receipts and Disbursements</u>	<u>Current Period</u>	<u>Year to Date</u>
Cash Balance at Beginning of Period	\$409,244.45	\$316,456.89
Collections:		
2021 Tax Collections	101,409.55	101,409.55
2020 Tax Collections	1,554.43	102,821.86
2019 Tax Collections	1,017.86	5,846.54
2018 Tax Collections	128.34	1,380.20
2017 Tax Collections	225.92	849.06
2016 Tax Collections	499.20	450.11
2015 Tax Collections	473.20	473.20
2014 Tax Collections	386.53	386.53
2006 Tax Collections	0.00	14.79
1996 Tax Collections	0.00	5.61
Penalty and Interest	2,581.91	19,049.00
Tax Attorney Fees	1,913.51	10,077.87
Overpayments	2,707.20	8,876.75
Interest Earned	<u>62.48</u>	<u>352.41</u>
Total Collections	112,960.13	251,993.48
Disbursements:		
Tax Assessor-Collector Fee	2,859.02	17,111.76
Tax Attorney Fee	1,354.22	11,236.52
Data Processing Charges	0.00	4,034.20
Publication Cost	11,477.37	12,076.37
Appraisal District Quarterly Fee	0.00	11,708.00
Refund Overpayments	<u>169.00</u>	<u>5,938.55</u>
Total Disbursements	<u>15,859.61</u>	<u>62,105.40</u>
Cash Balance at End of Period	<u>\$506,344.97</u>	<u>\$506,344.97</u>



# Harris County Municipal Utility District Number 109

## Tax Collector's Report Taxes Receivable Summary as of November 30, 2021

### Taxes Receivable by Year

<u>Year</u>	<u>Adjusted Tax Levy</u>	<u>Collections To Date</u>	<u>Taxes Receivable</u>	<u>Percent Collected</u>
2021	\$3,297,418.62	\$101,409.55	\$3,196,009.07	3.08%
2020	3,173,307.88	3,131,060.63	42,247.25	98.67%
2019	3,084,511.17	3,062,816.88	21,694.29	99.30%
2018	2,906,830.16	2,894,367.00	12,463.16	99.57%
2017	2,895,613.63	2,885,019.44	10,594.19	99.63%
2016	2,808,690.61	2,800,944.08	7,746.53	99.72%
2015	2,573,712.76	2,567,885.64	5,827.12	99.77%
2014	2,301,769.82	2,296,136.39	5,633.43	99.76%
2013	2,097,527.32	2,092,901.91	4,625.41	99.78%
2012	2,071,519.13	2,067,782.96	3,736.17	99.82%
2011	2,121,714.06	2,118,584.76	3,129.30	99.85%
2010	2,138,895.52	2,135,737.86	3,157.66	99.85%
2009	2,160,628.25	2,157,562.99	3,065.26	99.86%
2008	2,142,045.24	2,139,697.48	2,347.76	99.89%
2007	2,084,977.70	2,082,208.47	2,769.23	99.87%
2006	2,108,720.67	2,106,761.21	1,959.46	99.91%
2005	2,197,283.24	2,195,543.57	1,739.67	99.92%
2004	2,010,295.69	2,007,622.69	2,673.00	99.87%
2003	1,863,011.08	1,860,553.26	2,457.82	99.87%
2002	1,743,166.99	1,742,780.89	386.10	99.98%
2001	1,705,006.18	1,704,772.45	233.73	99.99%
2000	1,630,288.09	1,630,151.22	136.87	99.99%
1999	1,482,019.84	1,481,978.10	41.74	100.00%
1998	1,346,040.98	1,345,882.41	158.57	99.99%
1997	1,218,889.39	1,218,854.71	34.68	100.00%
1996	1,156,053.10	1,156,021.00	32.10	100.00%
1995	1,130,565.24	1,130,545.88	19.36	100.00%
1994	1,124,058.85	1,124,058.85	0.00	100.00%
1993	1,075,288.28	1,075,288.28	0.00	100.00%
1992	1,056,792.83	1,056,792.83	0.00	100.00%
1991	1,062,453.27	1,062,453.27	0.00	100.00%
1990	918,308.87	918,308.87	0.00	100.00%
1989	894,403.45	894,403.45	0.00	100.00%
1988	856,779.83	856,779.83	0.00	100.00%
1987	853,204.06	853,204.06	0.00	100.00%
1986	857,037.29	857,037.29	0.00	100.00%
1985	793,674.23	793,674.23	0.00	100.00%
1984	760,460.05	760,460.05	0.00	100.00%
1982	<u>561,303.52</u>	<u>561,303.52</u>	<u>0.00</u>	<u>100.00%</u>
Totals	<u>\$68,264,266.89</u>	<u>\$64,929,347.96</u>	<u>\$3,334,918.93</u>	<u>95.11%</u>

# Harris County Municipal Utility District Number 109

## Tax Collector's Report Taxes Receivable Summary as of November 30, 2021

### Tax Roll Information

<u>Year</u>	<u>Taxable Value</u>	<u>Annual Change</u>	<u>Debt Tax Rate</u>	<u>Maintenance Tax Rate</u>	<u>Total Tax Rate</u>	<u>Exemptions</u>
2021	686,542,701	3.85%	0.29000	0.19000	0.48000	25,000 O/D
2020	661,105,209	2.88%	0.31500	0.16500	0.48000	25,000 O/D
2019	642,606,304	8.32%	0.32000	0.16000	0.48000	25,000 O/D
2018	593,230,582	2.44%	0.36000	0.13000	0.49000	10,000 O/D
2017	579,121,338	7.22%	0.36000	0.14000	0.50000	10,000 O/D
2016	540,136,676	9.13%	0.41000	0.11000	0.52000	10,000 O/D
2015	494,944,745	11.81%	0.39000	0.13000	0.52000	10,000 O/D
2014	442,648,062	9.74%	0.39000	0.13000	0.52000	10,000 O/D
2013	403,370,606	1.26%	0.42000	0.10000	0.52000	10,000 O/D
2012	398,369,066	-2.37%	0.42000	0.10000	0.52000	10,000 O/D
2011	408,021,927	-0.80%	0.42000	0.10000	0.52000	10,000 O/D
2010	411,326,061	-1.01%	0.42000	0.10000	0.52000	10,000 O/D
2009	415,504,618	0.87%	0.42000	0.10000	0.52000	10,000 O/D
2008	411,931,758	2.74%	0.42000	0.10000	0.52000	10,000 O/D
2007	400,957,245	6.48%	0.42000	0.10000	0.52000	10,000 O/D
2006	376,557,265	2.83%	0.46000	0.10000	0.56000	10,000 O/D
2005	366,208,721	9.30%	0.50000	0.10000	0.60000	10,000 O/D
2004	335,049,282	7.91%	0.50000	0.10000	0.60000	10,000 O/D
2003	310,501,847	6.88%	0.50000	0.10000	0.60000	10,000 O/D
2002	290,527,832	5.63%	0.50000	0.10000	0.60000	10,000 O/D
2001	275,035,288	9.50%	0.52000	0.10000	0.62000	10,000 O/D
2000	251,170,142	15.23%	0.57367	0.07547	0.64914	10,000 O/D
1999	217,977,950	10.11%	0.60460	0.07540	0.68000	10,000 O/D
1998	197,957,174	10.43%	0.63000	0.05000	0.68000	10,000 O/D
1997	179,258,410	3.88%	0.63000	0.05000	0.68000	10,000 O/D
1996	172,555,210	2.26%	0.62000	0.05000	0.67000	10,000 O/D
1995	168,741,080	2.08%	0.62000	0.05000	0.67000	10,000 O/D
1994	165,302,770	4.54%	0.63000	0.05000	0.68000	10,000 O/D
1993	158,130,630	3.99%	0.63000	0.05000	0.68000	10,000 O/D
1992	152,056,520	-0.53%	0.64500	0.05000	0.69500	10,000 O/D
1991	152,870,970	6.44%	0.64500	0.05000	0.69500	10,000 O/D
1990	143,620,410	4.37%	0.58940	0.05000	0.63940	10,000 O/D
1989	137,600,530	4.39%	0.60000	0.05000	0.65000	10,000 O/D
1988	131,812,280	0.42%	0.60000	0.05000	0.65000	10,000 O/D
1987	131,262,160	-8.11%	0.60000	0.05000	0.65000	10,000 O/D
1986	142,839,550	-1.02%	0.55000	0.05000	0.60000	10,000 O/D
1985	144,304,410	4.37%	0.50000	0.05000	0.55000	10,000 O/D
1984	138,265,460	-1.22%	0.50000	0.05000	0.55000	10,000 O/D
1982	139,975,940	0.00%	0.35100	0.05000	0.40100	10,000 O/D



# Harris County Municipal Utility District Number 109

## Tax Collector's Report 2021 Tax Levy and Adjustments as of November 30, 2021

<u>2021 Tax Rate: \$0.48 (0.29 I&amp;S + 0.19 M&amp;O)</u>		<u>Taxable Value</u>	<u>Tax Levy</u>
Original Tax Roll:	8/20/2021	\$599,422,348	\$2,879,240.93
Adjustments:			
Supplemental Roll 1	9/24/2021	39,340,365	188,833.75
Supplemental Roll 2	10/15/2021	20,509,474	98,445.48
Supplemental Roll 3	11/15/2021	<u>27,270,514</u>	130,898.47
Total Adjustments		<u>87,120,353</u>	<u>418,177.69</u>
Total Tax Levy		<u>\$686,542,701</u>	<u>\$3,297,418.62</u>

### Summary of 2021 Certified Property Values:

<u>Land Value</u>	<u>Improvements</u>	<u>Personalty</u>	<u>Assessed</u>	<u>Exemptions</u>	<u>Taxable Value</u>
<u>135,760,268</u>	<u>583,104,402</u>	<u>13,707,761</u>	<u>732,572,431</u>	<u>46,029,730</u>	686,542,701
194 Accounts Remain Uncertified					<u>20,890,153</u>
Total Estimated Taxable Value					<u>707,432,854</u>



# Harris County Municipal Utility District Number 109

## Tax Collector's Report 2020 Tax Levy and Adjustments as of November 30, 2021

<u>2020 Tax Rate: \$0.48 (0.315 I&amp;S + 0.165 M&amp;O)</u>		<u>Taxable Value</u>	<u>Tax Levy</u>
Original Tax Roll:	9/4/2020	\$583,060,683	\$2,798,691.28
Adjustments:			
Supplemental Roll #1	10/2/2020	28,816,536	138,319.37
Supplemental Roll #2	10/30/2020	12,021,745	57,704.38
Supplemental Roll #3	11/27/2020	19,120,696	91,779.34
Supplemental Roll #4	12/20/2020	12,220,643	58,659.09
Supplemental Roll #5	1/30/2021	4,557,017	21,873.68
Supplemental Rolls #6-7	3/23/2021	818,856	3,930.51
Supplemental Rolls #8-10	6/22/2021	1,023,229	4,911.50
Correctional Roll #11	7/16/2021	-158,630	-761.43
Supplemental Rolls #12-13	9/23/2021	132,178	634.45
Correctional Rolls #14-15	11/15/2021	<u>-507,744</u>	<u>-2,434.29</u>
Total Adjustments		<u>78,044,526</u>	<u>374,616.60</u>
Total Tax Levy		<u>\$661,105,209</u>	<u>\$3,173,307.88</u>

### Summary of 2020 Certified Property Values:

<u>Land Value</u>	<u>Improvements</u>	<u>Personalty</u>	<u>Assessed</u>	<u>Exemptions</u>	<u>Taxable Value</u>
<u>133,700,883</u>	<u>553,952,147</u>	<u>17,297,189</u>	<u>704,950,219</u>	<u>43,845,010</u>	<u>661,105,209</u>

# Harris County Municipal Utility District Number 109

## Tax Collector's Report 2019 Tax Levy and Adjustments as of November 30, 2021

<u>2019 Tax Rate: \$0.48 (0.32 I&amp;S + 0.16 M&amp;O)</u>		<u>Taxable Value</u>	<u>Tax Levy</u>
Original Tax Roll:	8/24/2019	\$582,302,792	\$2,795,053.45
Adjustments:			
Supplemental Roll #1	9/21/2019	4,874,279	23,396.54
Supplemental Roll #2	10/19/2019	34,876,233	167,405.92
Supplemental Roll #3	10/31/2019	14,999,304	71,996.66
Supplemental Roll #4	12/20/2019	3,415,583	16,394.80
Supplemental Roll #5	1/24/2020	159,694	766.53
Supplemental Roll #6	3/26/2020	1,148,802	5,514.25
Correctional Rolls #7&8	4/24/2020	-53,305	-255.88
Correctional Roll #9	5/24/2020	-103,355	-496.10
Correctional Roll #10	6/19/2020	-10,014	-48.07
Correctional Roll #11	7/24/2020	-23,341	-112.04
Correctional Roll #12	8/21/2020	-56,761	-272.46
Correctional Roll #13	10/4/2020	-440,144	-2,112.70
Supplemental Roll #14	1/4/2021	20,518	98.49
Supplemental Rolls #15-19	3/23/2021	629,818	3,023.13
Supplemental Rolls #20-21	6/22/2021	891,483	4,280.00
Correctional Roll #23	9/23/2021	-282	-1.35
Correctional Roll #27	11/15/2021	<u>-25,000</u>	<u>-120.00</u>
Total Adjustments		<u>60,303,512</u>	<u>289,457.72</u>
Total Tax Levy		<u>\$642,606,304</u>	<u>\$3,084,511.17</u>

### Summary of 2019 Certified Property Values:

<u>Land Value</u>	<u>Improvements</u>	<u>Personalty</u>	<u>Assessed</u>	<u>Exemptions</u>	<u>Taxable Value</u>
<u>108,690,643</u>	<u>564,535,068</u>	<u>14,415,580</u>	<u>687,641,291</u>	<u>45,034,987</u>	<u>642,606,304</u>

# Harris County Municipal Utility District Number 109

## Tax Collector's Report Tax Collections for November, 2021

<u>Property Owner</u>	<u>Account No</u>	<u>Tax Amount</u>	<u>Pen &amp; Int</u>	<u>Atty/Cost</u>	<u>Overpaid</u>	<u>Total Pmt</u>
2021 Tax Collections:						
Various Accounts	118 Accounts	<u>\$101,409.55</u>	<u>\$6.91</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$101,416.46</u>
Total 2021 Tax Collections		<u>\$101,409.55</u>	<u>\$6.91</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$101,416.46</u>
2020 Tax Collections:						
Kannan Partnership Ltd	043-206-000-0723	-\$2,088.00	\$0.00	\$0.00	\$2,088.00	\$0.00
Isbell Roy & Sandra	102-068-000-0015	-120.00	0.00	0.00	120.00	0.00
Deauquier II Lloyd & Lisa	108-492-000-0031	86.09	18.08	20.83	0.00	125.00
Melaf TX LLC	113-135-000-0022	783.53	172.37	191.18	0.00	1,147.08
Melaf TX LLC	113-137-000-0026	693.21	152.51	169.14	0.00	1,014.86
Battistelli John P & Erin A	114-139-010-0037	716.64	157.66	174.86	0.00	1,049.16
Stevenson Yolanda	114-350-015-0049	82.65	17.36	19.99	0.00	120.00
Diaz Fernando G & Italia	114-350-015-0051	775.32	170.57	189.18	0.00	1,135.07
Melaf TX LLC	119-848-003-0036	1,004.19	220.92	245.02	0.00	1,470.13
McGee Brian C & Letisha C	122-816-003-0011	<u>-379.20</u>	<u>0.00</u>	<u>0.00</u>	<u>379.20</u>	<u>0.00</u>
Total 2020 Tax Collections		<u>\$1,554.43</u>	<u>\$909.47</u>	<u>\$1,010.20</u>	<u>\$2,587.20</u>	<u>\$6,061.30</u>
2019 Tax Collections:						
Isbell Roy & Sandra	102-068-000-0015	-\$120.00	\$0.00	\$0.00	\$120.00	\$0.00
Rodriguez Able	114-139-017-0043	46.64	15.86	12.50	0.00	75.00
Mangini Debra D	115-511-021-0031	952.94	314.47	253.48	0.00	1,520.89
Mitchem Anna M	115-511-021-0036	<u>138.28</u>	<u>45.63</u>	<u>36.78</u>	<u>0.00</u>	<u>220.69</u>
Total 2019 Tax Collections		<u>\$1,017.86</u>	<u>\$375.96</u>	<u>\$302.76</u>	<u>\$120.00</u>	<u>\$1,816.58</u>
2018 Tax Collections:						
Mitchem Anna M	115-511-021-0036	<u>\$128.34</u>	<u>\$57.75</u>	<u>\$37.22</u>	<u>\$0.00</u>	<u>\$223.31</u>
Total 2018 Tax Collections		<u>\$128.34</u>	<u>\$57.75</u>	<u>\$37.22</u>	<u>\$0.00</u>	<u>\$223.31</u>
2017 Tax Collections:						
Cruz Sara	109-142-000-0006	<u>\$225.92</u>	<u>\$131.03</u>	<u>\$71.39</u>	<u>\$0.00</u>	<u>\$428.34</u>
Total 2017 Tax Collections		<u>\$225.92</u>	<u>\$131.03</u>	<u>\$71.39</u>	<u>\$0.00</u>	<u>\$428.34</u>
2016 Tax Collections:						
Cruz Sara	109-142-000-0006	<u>\$499.20</u>	<u>\$349.44</u>	<u>\$169.73</u>	<u>\$0.00</u>	<u>\$1,018.37</u>
Total 2016 Tax Collections		<u>\$499.20</u>	<u>\$349.44</u>	<u>\$169.73</u>	<u>\$0.00</u>	<u>\$1,018.37</u>

# Harris County Municipal Utility District Number 109

## Tax Collector's Report Tax Collections for November, 2021

<u>Property Owner</u>	<u>Account No</u>	<u>Tax Amount</u>	<u>Pen &amp; Int</u>	<u>Atty/Cost</u>	<u>Overpaid</u>	<u>Total Pmt</u>
2015 Tax Collections:						
Cruz Sara	109-142-000-0006	<u>\$473.20</u>	<u>\$388.02</u>	<u>\$172.24</u>	<u>\$0.00</u>	<u>\$1,033.46</u>
Total 2015 Tax Collections		<u>\$473.20</u>	<u>\$388.02</u>	<u>\$172.24</u>	<u>\$0.00</u>	<u>\$1,033.46</u>
2014 Tax Collections:						
Cruz Sara	109-142-000-0006	<u>\$386.53</u>	<u>\$363.33</u>	<u>\$149.97</u>	<u>\$0.00</u>	<u>\$899.83</u>
Total 2014 Tax Collections		<u>\$386.53</u>	<u>\$363.33</u>	<u>\$149.97</u>	<u>\$0.00</u>	<u>\$899.83</u>
Summary of Other Collections			<u>\$2,581.91</u>	<u>\$1,913.51</u>	<u>\$2,707.20</u>	112,897.65
Interest Earnings						<u>62.48</u>
Total Collected during Month						<u>\$112,960.13</u>



# Harris County Municipal Utility District Number 109

## Tax Collector's Report Taxes Receivable Detail as of November 30, 2021

<u>Property Owner</u>	<u>Account No.</u>	<u>2020 Tax</u>	<u>2019 Tax</u>	<u>2018 Tax</u>	<u>2017 Tax</u>	<u>Prior Yrs</u>
Exchange Church Houston	043-206-000-0195	\$5,321.79	\$0.00	\$0.00	\$0.00	\$0.00
Guniganti Prabhakar	045-005-000-0125	0.00	0.00	0.81	0.00	0.00
Wu & Chen Investment LLC	102-063-000-0008	0.00	248.01	0.00	0.00	0.00
D:Vineyard Travis & Danelle	102-065-000-0007	559.49	552.96	581.84	593.71	2,716.95
Extreme Remodeling LLC	102-066-000-0020	4.20	4.20	4.29	4.38	4.55
State of Texas	102-066-000-0021	0.00	0.00	1.76	0.00	0.00
Gaddis John M	102-068-000-0021	648.97	758.83	0.00	0.00	0.00
Rodriguez Daniel & Yolanda	102-068-000-0023	115.44	0.00	0.00	0.00	0.00
D:Catlin Steven L	102-069-000-0004	97.98	89.07	77.52	0.00	0.00
Garcia Alberto	108-488-000-0057	125.75	0.00	0.00	0.00	0.00
D:Tolliver Cletis F & Glenda	108-489-000-0011	728.43	0.00	0.00	0.00	0.00
Gathwright Tiffany Marie	108-491-000-0033	120.00	0.00	0.00	0.00	0.00
P:Sweeney Bryan A	108-492-000-0020	0.00	0.00	0.00	394.05	0.00
D:Brown-Sullinger Kelly	108-492-000-0027	729.32	718.43	758.71	774.20	2,923.02
Brady Scott C	108-492-000-0029	895.64	0.00	0.00	0.00	0.00
P:Deauquier II Lloyd & Lisa	108-492-000-0031	145.81	0.00	0.00	0.00	0.00
D:Strengel Kris C	108-494-000-0020	758.52	747.60	859.70	868.56	6,797.16
Felchak Kenneth W & Ruby	108-496-000-0031	654.37	0.00	0.00	0.00	0.00
Shanksnatch Melanie A	108-497-000-0005	805.14	0.00	0.00	0.00	0.00
Wilson Dewey M	108-497-000-0032	620.57	603.40	708.16	722.61	1,322.50
State of Texas	108-497-000-0047	0.00	0.00	23.50	0.00	0.00
D:Key Sherry R	109-142-000-0001	539.39	484.90	360.88	123.40	0.00
S:Cruz Sara	109-142-000-0006	694.79	0.00	0.00	353.19	0.00
D:Cartwright Ed & Diane	109-142-000-0034	591.09	526.44	550.92	533.51	3,576.29
D:Brokaw Sharon	109-144-000-0002	0.00	444.96	475.30	0.00	1,010.49
Lipsey Pahjmon	109-144-000-0007	694.07	660.75	0.00	0.00	0.00
Riley Michael E & Tamara M	110-750-000-0050	700.92	0.00	0.00	0.00	0.00
Costello Thomas J	111-527-000-0007	737.81	0.00	0.00	0.00	0.00
S:Deyle Kurt	111-527-000-0010	672.85	611.68	550.61	0.00	0.00
Deyle Kurt	111-527-000-0013	0.00	0.00	0.00	0.00	2,096.83
Barbosa Jose A Jr & Claudia	111-766-000-0024	201.06	892.05	0.00	0.00	0.00
Brown Joseph J Jr & Carolyn	113-132-000-0010	0.00	237.96	0.00	0.00	0.00
Rodriguez D	113-137-000-0037	743.24	0.00	0.00	0.00	0.00
Warmuth John J	113-142-000-0028	0.00	0.00	50.00	0.00	0.00
D:Sanchez Olga	113-142-000-0043	4.07	0.00	0.00	0.00	0.00
Bjornaas Kevin Estate of	114-139-009-0007	722.59	661.00	578.20	0.00	0.00
S:Jackson Keshell	114-139-009-0015	717.52	652.30	612.80	625.31	620.03
Chicosky Gregory P	114-139-010-0017	0.00	563.41	0.00	0.00	0.00
Crowson Duane D & Serese	114-139-010-0028	6.11	0.00	0.00	0.00	0.00
D:Paxton Roy C & Debbie M	114-139-010-0036	429.28	379.35	0.00	188.48	0.00
Lacour Carey L & Vanita	114-139-013-0053	688.33	0.00	0.00	0.00	0.00
D:Gonzalez Virginia	114-139-015-0003	547.43	487.49	527.53	488.00	0.00
Geibe Virginia	114-139-015-0004	0.00	477.24	0.00	0.00	0.00
Leal Juan E & Stephanie	114-139-015-0023	552.43	0.00	0.00	0.00	0.00
D:Cook Julia S	114-139-015-0036	609.82	432.25	468.45	478.01	2,780.18
P:Akoma Ibeawuchi J & Beverly	114-139-015-0067	38.67	0.00	0.00	0.00	0.00
Seward B Randolph	114-139-017-0014	471.96	418.15	463.62	0.00	0.00
P:Rodriguez Able	114-139-017-0043	666.80	195.39	0.00	0.00	0.00
Foster John H	114-139-018-0004	713.72	0.00	0.00	0.00	0.00
Routh Ronald & Sarah	114-350-013-0028	928.32	916.52	0.00	0.00	0.00
Sanchez Pablo	114-350-014-0091	802.54	0.00	0.00	0.00	0.00
Cruz Rosa L	114-350-015-0008	0.00	0.00	305.50	0.00	0.00
Jones Edward A & Agnes	114-350-015-0047	0.00	0.00	0.00	0.00	0.78
P:Stevenson Yolanda	114-350-015-0049	631.13	0.00	0.00	0.00	0.00
Blow Frederick E & Cheryl	114-350-015-0118	0.00	0.00	1,036.24	1,057.39	0.00



# Harris County Municipal Utility District Number 109

## Tax Collector's Report Taxes Receivable Detail as of November 30, 2021

Property Owner	Account No.	2020 Tax	2019 Tax	2018 Tax	2017 Tax	Prior Yrs
Q:Redstone Randolph & Ca	114-350-016-0039	456.00	0.00	0.00	0.00	0.00
D:Harris Virginia B	114-350-016-0083	869.22	855.21	868.88	844.16	4,097.68
State of Texas	115-346-000-0002	0.00	0.00	8.33	0.00	0.00
Knight Chris & Terry	115-511-019-0012	1,032.72	0.00	0.00	0.00	0.00
Mangini Debra D	115-511-021-0031	1,629.20	85.92	0.00	0.00	0.00
S:Mitchem Anna M	115-511-021-0036	0.00	948.14	258.74	0.00	0.00
State of Texas	115-813-000-0005	0.00	0.00	2.00	0.00	0.00
State of Texas	116-275-000-0416	0.00	0.00	91.06	0.00	0.00
Continental Land Owners	116-276-000-0312	0.48	0.48	0.49	0.00	0.00
Rosques Sandra P	116-276-000-0580	0.00	2,976.58	0.00	0.00	0.00
Weeks Jennifer Michelle &	118-705-001-0027	932.19	0.00	0.00	0.00	0.00
Ebanks Lilith A	118-705-001-0049	120.00	0.00	0.00	0.00	0.00
Harris Jack L & Diana L	119-848-003-0002	911.18	895.66	916.39	0.00	0.00
Ortiz Brian	120-416-002-0001	2,355.97	0.00	0.00	0.00	0.00
Best George W & Gina M	122-816-002-0017	479.28	0.00	0.00	0.00	0.00
Gomez Cecila	123-226-003-0046	728.20	0.00	0.00	0.00	0.00
Richard Brenda M	123-226-004-0019	870.95	0.00	0.00	0.00	0.00
State of Texas	137-755-001-0003	0.00	99.70	0.00	0.00	0.00
Robinson James & Sereisor	139-765-001-0001	1,325.15	0.00	0.00	0.00	0.00
Allstate Insurance Company	0435798	70.06	81.25	0.00	0.00	0.00
Wabasha Leasing LLC	1044962	7.44	0.00	0.00	0.00	0.00
Sears Holdings	2048505	1,678.97	1,714.12	0.00	0.00	0.00
Digital Professionals Compu	2064780	21.63	21.63	21.89	22.15	113.17
Compro Tax	2128836	8.27	8.27	0.00	0.00	0.00
B & L Capital Inc	2154083	20.08	15.90	24.08	27.55	178.87
Kevin R Culp	2157330	43.58	43.58	46.42	52.56	358.60
S:Dupree Express Trucking	2172915	86.07	86.07	99.37	223.95	618.19
Pinnacle Propane Express L	2174838	6.76	0.00	0.00	0.00	0.00
Motolease Financial LLC	2200564	16.50	21.52	0.00	0.00	0.00
ARC Insurance Agency	2209050	43.75	43.75	44.66	45.57	94.78
S:James Lewis	2213148	24.50	31.25	39.75	89.38	209.12
RB Mobile Repair	2274611	86.44	86.44	86.77	0.00	0.00
S:Taquera Las Maragitas LI	2281228	140.33	140.33	142.75	0.00	0.00
Sophia Massage	2287547	30.36	0.00	0.00	0.00	0.00
Metro PCS	2287557	45.43	45.43	45.71	0.00	0.00
Humble Kitchen & Bath Inc	2287561	110.55	0.00	0.00	0.00	0.00
Phones-R-Us Inc	2289501	54.29	54.29	54.59	0.00	0.00
Musa Auto Finance	2301975	307.20	0.00	0.00	0.00	0.00
AB Erosion Control LLC	2327163	709.22	0.00	0.00	0.00	0.00
Tesla Inc	2329054	2.40	2.40	0.00	0.00	0.00
Serenty Health Services LLC	2337347	40.32	0.00	0.00	0.00	0.00
Amfah Investments LLC	2343023	175.29	0.00	0.00	0.00	0.00
Cobos BBQ LLC	2352871	146.40	0.00	0.00	0.00	0.00
Prior Years Personal Property		<u>223.51</u>	<u>672.03</u>	<u>714.94</u>	<u>2,084.07</u>	<u>22,391.38</u>
<b>Total Receivable</b>		<b><u>\$42,247.25</u></b>	<b><u>\$21,694.29</u></b>	<b><u>\$12,463.16</u></b>	<b><u>\$10,594.19</u></b>	<b><u>\$51,910.57</u></b>



MUNICIPAL ACCOUNTS  
& CONSULTING, L.P.

# Harris County Municipal Utility District No. 109

Bookkeeper's Report

December 21, 2021



# Cash Flow Report - Checking BBVA Account

As of December 21, 2021

Num	Name	Memo	Amount	Balance
	BALANCE AS OF 11/17/2021			\$866.04
	Receipts			
	No Receipts Activity		0.00	
	Total Receipts			0.00
	Disbursements			
	No Disbursements Activity		0.00	
	Total Disbursements			0.00
	BALANCE AS OF 12/21/2021			\$866.04

## Cash Flow Report - Checking Account

As of December 21, 2021

Num	Name	Memo	Amount	Balance
BALANCE AS OF 11/17/2021				\$152,183.45
Receipts				
	HC 151 Water Supply		5,056.80	
	Interest Earned on Checking		0.48	
	City of Houston Rebate		8,807.12	
	Wire Transfer from Lockbox		265,264.58	
Total Receipts				279,128.98
Disbursements				
15143	NHCRWA	Water Authority Fees	(94,661.15)	
15144	Cheryl C. Moore	Fees of Office - 12/21/2021	(138.52)	
15145	Chris Green	Fees of Office - 12/21/2021	(138.52)	
15146	Nancy Frank	Fees of Office - 12/21/2021	(138.53)	
15147	Owen H. Parker	Fees of Office - 12/21/2021	(138.53)	
15148	Robin Sulpizio	Fees of Office - 12/21/2021	(138.53)	
15149	Cheryl C. Moore	Expenses	(29.95)	
15150	Chris Green	Fees of Office - 11/15, 12/6/2021 & Expenses	(341.35)	
15151	Nancy Frank	Expenses	(29.95)	
15152	Owen H. Parker	Fees of Office - 11/15, 11/16, 11/21/2021 & Expe	(477.08)	
15153	Robin Sulpizio	Expenses	(83.89)	
15154	Atascocita Investments, LLC	Deposit Refund	(110.12)	
15155	Benjamin Sapp	Deposit Refund	(28.73)	
15156	Bogdan Fransua	Deposit Refund	(69.61)	
15157	Brenda Lopez	Deposit Refund	(24.86)	
15158	Claudia Castillo	Deposit Refund	(78.74)	
15159	Cost Realty Management, LLC	Deposit Refund	(203.38)	
15160	Danny R Hector Jr	Deposit Refund	(32.86)	
15161	Dovalita Fletcher	Deposit Refund	(69.45)	
15162	E Advantage Capital, Inc	Deposit Refund	(149.05)	
15163	Erma & Billy Kendrick	Deposit Refund	(89.58)	
15164	Ernest Duncan	Deposit Refund	(43.06)	
15165	FYR SFR Borrower, LLC	Deposit Refund	(128.25)	
15166	HP Texas 1, LLC	Deposit Refund	(67.73)	
15167	James Hicks	Deposit Refund	(32.66)	
15168	Jason Williams	Deposit Refund	(86.11)	
15169	Jeffrey A Ainsworth	Deposit Refund	(30.10)	
15170	Karen Pulis	Deposit Refund	(43.06)	
15171	Kylie Frazier & Quinton Vangorder	Deposit Refund	(157.47)	
15172	Linda Bingley	Deposit Refund	(146.10)	
15173	Lindsey Stout	Deposit Refund	(56.29)	
15174	Maria Medina	Deposit Refund	(30.72)	
15175	Miguel A Baltazar	Deposit Refund	(91.62)	
15176	MNSF Acquisitions, LLC	Deposit Refund	(173.34)	
15177	Pathway Homes, LLC	Deposit Refund	(41.59)	
15178	Patrick W Gibbs	Deposit Refund	(147.54)	
15179	Peggy & Richard Volk	Deposit Refund	(266.76)	
15180	Raquel Ruiz	Deposit Refund	(52.25)	
15181	Real Property Management	Deposit Refund	(143.04)	
15182	Renu Property Mgt Texas, LLC	Deposit Refund	(320.79)	
15183	Renu Property Mgt, LLC	Deposit Refund	(188.34)	
15184	Resconn Capital Management, LLC	Deposit Refund	(117.72)	
15185	Robert Williamson	Deposit Refund	(50.50)	

## Cash Flow Report - Checking Account

As of December 21, 2021

Num	Name	Memo	Amount	Balance
Disbursements				
15186	Roxana Ortiz	Deposit Refund	(170.54)	
15187	RS1 Trust	Deposit Refund	(162.74)	
15188	Ruth & Wanda Dupree	Deposit Refund	(71.75)	
15189	Samina Redmann	Deposit Refund	(199.14)	
15190	Sandra & Hiram Prado	Deposit Refund	(123.84)	
15191	SFR JV-1 2020-1 Borrower, LLC	Deposit Refund	(145.83)	
15192	Tiffani Christian	Deposit Refund	(140.01)	
15193	Tiffany Hooker	Deposit Refund	(112.07)	
15194	Tomeka McDowell	Deposit Refund	(84.38)	
15195	Ubaldo Montalvo	Overpayment Refund	(50.00)	
15196	Veonica Marie Rodriguez	Deposit Refund	(100.94)	
15197	Veronica Alba	Deposit Refund	(78.27)	
15198	Viet Tex Inc	Overpayment Refund	(212.71)	
15199	Vikki A Cheney	Deposit Refund	(33.53)	
15200	Walter M Field	Deposit Refund	(62.11)	
15201	Wayne M Cooper	Overpayment Refund	(14.86)	
15202	Wesley Murar	Deposit Refund	(94.80)	
15203	Yolanda Beck	Deposit Refund	(89.23)	
15204	Zillow Homes Property Trust	Deposit Refund	(131.18)	
15205	Arbitrage Compliance Specialists Inc.	Arbitrage Expense	(5,900.00)	
15206	Association of Water Board Directors	Registration Fees	(405.00)	
15207	Atascocita Joint Operations Board	Schedule B & C Costs	(44,830.39)	
15208	BGE, Inc.	Engineering Fees	(7,991.71)	
15209	CDC Unlimited, LLC	Mowing Expense	(1,464.50)	
15210	Centerpoint Energy	Utilities Expense	(250.45)	
15211	Century Link	Telephone Expense - 2 Months	(1,877.15)	
15212	DXI Industries	Chemical Expenses	(1,010.88)	
15213	GFL Environmental	Garbage Expense	(992.47)	
15214	Harris County Treasurer	Patrol Services	(12,389.00)	
15215	Hudson Energy	Utilities Expense	(8,714.13)	
15216	Impulse Systems, LLC	Maintenance & Repairs	(500.00)	
15217	Lower Colorado River Authority	Laboratory Expense	(211.57)	
15218	Municipal Accounts & Consulting, L.P.	Bookkeeping Fees	(3,572.49)	
15219	Napco Chemicals	Chemicals Expense	(3,740.00)	
15220	Norton Rose Fulbright US LLP	Legal Fees	(5,526.60)	
15221	S.T.P. Services	Sewer Maintenance	(1,027.00)	
15222	Source Point Solutions	Repairs & Maintenance	(2,785.00)	
15223	Texas Commission on Environmental Quality	Water System Fee	(7,016.80)	
15224	Water Utility Services, Inc.	Laboratory Fees	(315.00)	
15225	WWWMS	Maintenance and Operations	(47,421.87)	
15226	NHCRWA	Water Authority Fees	0.00	
Fee	Central Bank	Service Charge	(65.00)	
Total Disbursements				(259,672.36)
BALANCE AS OF 12/21/2021				\$171,640.07

Harris County MUD No 109 - GOF  
**Cash Flow Report - Operator Account**

As of December 21, 2021

Num	Name	Memo	Amount	Balance
BALANCE AS OF 11/17/2021				\$107,336.03
Receipts				
	Accounts Receivable		78,713.31	
	Accounts Receivable		124,857.40	
	Interest Earned on Lockbox		1.49	
	Tap Connections (1)		1,555.00	
Total Receipts			205,127.20	205,127.20
Disbursements				
Fee	Central Bank	Service Charge	(85.00)	
Ret Ck	Central Bank	Customer Returned Check (4)	(349.64)	
Wire	Harris County MUD 109	Wire Transfer to Checking	(265,264.58)	
Total Disbursements			(265,699.22)	(265,699.22)
BALANCE AS OF 12/21/2021				\$46,764.01

Harris County MUD No 109 - CPF  
**Cash Flow Report - Checking Account**  
 As of December 21, 2021

Num	Name	Memo	Amount	Balance
BALANCE AS OF 11/17/2021				\$500.00
Receipts				
	Transfer from Money Market - Series 2017		241,579.50	
Total Receipts				241,579.50
Disbursements				
2005	BGE, Inc.	Engineering - WP2 Construction	(7,505.50)	
2006	Schier Construction Company, Inc.	Pay Estimate No. 6 - Water Plant No. 2 Expansion	(234,009.00)	
Fee	Central Bank	Service Charge	(65.00)	
Total Disbursements				(241,579.50)
BALANCE AS OF 12/21/2021				\$500.00

## Account Balances

As of December 21, 2021

Financial Institution (Acct Number)	Issue Date	Maturity Date	Interest Rate	Account Balance	Notes
<b>Fund: Operating</b>					
Certificates of Deposit					
BANCORPSOUTH (XXXX8606)	12/22/2020	12/22/2021	0.62 %	240,000.00	
TEXAS CAPITAL BANK (XXXX0459)	01/12/2021	01/12/2022	0.25 %	240,000.00	
FRONTIER BANK (XXXX2232)	01/16/2021	01/16/2022	0.50 %	240,000.00	
PLAINS STATE BANK (XXXX1359)	01/25/2021	01/25/2022	0.35 %	240,000.00	
SOUTH STAR BANK (XXXX0129)	02/19/2021	02/19/2022	0.25 %	240,000.00	
LONE STAR BANK (XXXX2426)	02/27/2021	02/27/2022	0.45 %	240,000.00	
UNITY NATIONAL BANK (XXXX4677)	08/30/2021	03/28/2022	0.25 %	245,000.00	
ALLEGIANCE BANK (XXXX0213)	04/22/2021	04/22/2022	0.20 %	240,000.00	
THIRD COAST BANK, SSB (XXXX8790)	09/14/2021	05/14/2022	0.30 %	240,000.00	
TEXAS REGIONAL BANK (XXXX3907)	09/28/2021	06/29/2022	0.13 %	245,000.00	
WALLIS BANK (XXXX1242)	10/15/2021	07/15/2022	0.10 %	240,000.00	
VERITEX COMMUNITY BANK (XXXX0447)	11/24/2021	11/24/2022	0.30 %	240,000.00	
Money Market Funds					
TEXAS CLASS (XXXX0001)	03/22/2017		0.05 %	234,775.39	
Checking Account(s)					
CENTRAL BANK - CHECKING (XXXX1891)			0.00 %	171,640.07	Checking Account
CENTRAL BANK - CHECKING (XXXX4632)			0.00 %	46,764.01	Operator
PNC (XXXX3031)			0.00 %	866.04	Checking BBVA
Totals for Operating Fund:				\$3,344,045.51	
<b>Fund: Capital Projects</b>					
Money Market Funds					
TEXAS CLASS (XXXX0002)	03/22/2017		0.05 %	2,010,634.11	Series 2017
Checking Account(s)					
CENTRAL BANK - CHECKING (XXXX1875)			0.00 %	500.00	Checking Account
PNC (XXXX6281)			0.00 %	0.00	Checking BBVA
Totals for Capital Projects Fund:				\$2,011,134.11	
<b>Fund: Debt Service</b>					
Certificates of Deposit					
PIONEER BANK-DEBT (XXXX2151)	03/19/2021	03/19/2022	0.29 %	240,000.00	
FRONTIER BANK - DEBT (XXXX2636)	08/30/2021	08/30/2022	0.50 %	240,000.00	
THIRD COAST BANK-DEBT (XXXX6273)	09/22/2021	09/21/2022	0.40 %	240,000.00	
SOUTH STAR BANK-DEBT (XXXX0072)	09/22/2021	09/22/2022	0.15 %	240,000.00	
Money Market Funds					
TEXAS CLASS (XXXX0003)	03/22/2017		0.05 %	44,366.49	
Totals for Debt Service Fund:				\$1,004,366.49	
Grand total for Harris County MUD No. 109:				\$6,359,546.11	

# Capital Projects Fund Breakdown

Harris County MUD 109

As of Date 12/21/2021

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## Net Proceeds for All Bond Issues

### Receipts

Bond Proceeds - Series 2017	\$12,100,000.00
Interest Earnings - Series 2017	238,984.20

### Disbursements

Disbursements - Series 2017	(10,327,850.09)
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<b>Total Cash Balance</b>	<b><u><u>\$2,011,134.11</u></u></b>
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## Balances by Account

Central Bank - Checking	\$500.00
TX Class - Series 2017	2,010,634.11

<b>Total Cash Balance</b>	<b><u><u>\$2,011,134.11</u></u></b>
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## Balances by Bond Series

Bond Proceeds - Series 2017	\$2,011,134.11
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<b>Total Cash Balance</b>	<b><u><u>\$2,011,134.11</u></u></b>
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## Remaining Costs/Surplus By Bond Series

Remaining Costs - Series 2017	\$1,267,832.58
Proposed Surplus Project - WP 2 Expansion	743,301.53

<b>Total Amount in Remaining Costs</b>	<b><u><u>\$2,011,134.11</u></u></b>
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Surplus & Interest - Series 2017	\$0.00
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<b>Total Surplus &amp; Interest Balance</b>	<b><u><u>\$0.00</u></u></b>
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<b>Total Remaining Costs/Surplus</b>	<b><u><u>\$2,011,134.11</u></u></b>
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# Cost Comparison - \$12,100,000 - Series 2017

Harris County MUD 109

	USE OF PROCEEDS	ACTUAL COSTS	REMAINING COSTS	VARIANCE (OVER)/UNDER
<b>CONSTRUCTION COSTS</b>				
<b>Developer Items</b>				
1. Rivergrove, Section 1 - Water, Wastewater & Drainage	\$191,360.00	\$191,359.51	\$0.00	\$0.49
2. Rivergrove, Section 2 - Water, Wastewater & Drainage	125,139.00	125,139.00	0.00	0.00
3. Rivergrove, Section 3 - Water, Wastewater & Drainage	353,345.00	353,344.99	0.00	0.01
4. Rivergrove, Section 4 - Water, Wastewater & Drainage	881,359.00	881,359.20	0.00	(0.20)
5. Rivergrove Drainage Swales	52,480.00	52,479.50	0.00	0.50
6. Rivergrove, Section 5 - Water, Wastewater & Drainage	668,281.00	603,157.27	0.00	65,123.73
7. Rivergrove, Section 6 - Water, Wastewater & Drainage	427,157.00	403,019.99	0.00	24,137.01
8. Rivergrove Clearing and Grubbing, Sections 1 & 2	33,135.00	33,135.00	0.00	0.00
9. Rivergrove Clearing and Grubbing, Section 3	15,524.00	15,524.00	0.00	0.00
10. Rivergrove Clearing and Grubbing, Section 4	20,155.00	20,154.50	0.00	0.50
11. Rivergrove Clearing and Interim Drainage, Sections 5-6	84,391.00	84,391.25	0.00	(0.25)
12. Kings Lake Estates Section 8 - Water, Wastewater & Drainage	1,851,399.00	1,851,398.80	0.00	0.20
13. Stormwater Pollution Prevention Plans	206,123.00	134,172.92	0.00	71,950.08
14. Geotechnical Reports and Materials Testing	124,233.00	80,105.42	0.00	44,127.58
15. Contingency	109,543.00	58,257.52	0.00	51,285.48
16. Engineering Fees	706,603.00	706,603.00	0.00	0.00
17. Rivergrove Due Diligence	34,023.00	34,023.41	0.00	(0.41)
<b>Subtotal Developer Items</b>	<b>\$5,884,250.00</b>	<b>\$5,627,625.28</b>	<b>\$0.00</b>	<b>\$256,624.72</b>
<b>District Items</b>				
1. Kings Lake Estates Lift Station No. 2 Improvements	\$371,240.00	\$362,689.62	\$0.00	\$8,550.38
2. Kings Lake Estates Lift Station No. 3	460,869.00	417,828.05	0.00	43,040.95
3. Water Plant No. 1 Elevated Storage Tank Recoating	500,000.00	500,000.00	0.00	0.00
4. Water Plant No. 2 Elevated Storage Tank Recoating	500,000.00	500,000.00	0.00	0.00
5. Water Plant No. 2 Buildout	1,600,000.00	374,193.00	1,225,807.00	0.00
6. Contingencies (10% of Items 1, 3-5)	297,124.00	253,400.00	43,724.00	0.00
7. Engineering (20.89% of Items 1-2)	173,812.00	160,240.92	0.00	13,571.08
8. Engineering (15% of Items 3-5)	390,000.00	391,698.42	(1,698.42)	0.00
<b>Subtotal District Items</b>	<b>\$4,293,045.00</b>	<b>\$2,960,050.01</b>	<b>\$1,267,832.58</b>	<b>\$65,162.41</b>
<b>TOTAL CONSTRUCTION COSTS</b>	<b>\$10,177,295.00</b>	<b>\$8,587,675.29</b>	<b>\$1,267,832.58</b>	<b>\$321,787.13</b>
<b>NON-CONSTRUCTION COSTS</b>				
A. Legal Fees	\$231,000.00	\$231,000.00	\$0.00	\$0.00
B. Fiscal Agent Fees	242,000.00	242,000.00	0.00	0.00
C. Interest				
1. Capitalized Interest (1 year @ 4.50%)	396,191.00	396,191.41	0.00	(0.41)
2. Developer Interest	383,273.00	383,272.81	0.00	0.19
D. Bond Discount (3.00%)	262,563.00	262,563.40	0.00	(0.40)
E. Bond Issuance Expenses	28,854.00	28,854.00	0.00	0.00
F. Attorney General Fee	9,500.00	9,500.00	0.00	0.00
G. TCEQ Bond Issuance Fee	30,250.00	30,250.00	0.00	0.00
H. Bond Application Report Cost	45,000.00	45,000.00	0.00	(0.00)
I. Rivergrove Studies	45,328.00	45,328.00	0.00	0.00
J. Contingency	248,746.00	66,215.18	0.00	182,530.82
<b>TOTAL NON-CONSTRUCTION COSTS</b>	<b>\$1,922,705.00</b>	<b>\$1,740,174.80</b>	<b>\$0.00</b>	<b>\$182,530.20</b>
<b>TOTAL BOND ISSUE REQUIREMENT</b>	<b>\$12,100,000.00</b>	<b>\$10,327,850.09</b>	<b>\$1,267,832.58</b>	<b>\$504,317.33</b>
			Interest Earned	\$238,984.20
			Total Surplus & Interest	\$743,301.53
			Total Remaining Funds	<b>\$2,011,134.11</b>

Harris County MUD No 109 - GOF  
 Actual vs. Budget Comparison

November 2021

		November 2021			June 2021 - November 2021			Annual
		Actual	Budget	Over/(Under)	Actual	Budget	Over/(Under)	Budget
<b>Revenues</b>								
14110	Water - Customer Service Revenu	39,779	44,783	(5,004)	249,571	268,700	(19,129)	537,400
14112	Surface Water - Reserve	83,550	85,000	(1,450)	630,246	692,000	(61,754)	1,215,000
14140	Connection Fees	2,400	808	1,592	9,400	4,850	4,550	9,700
14150	Tap Connections	845	1,250	(405)	845	7,500	(6,655)	15,000
14210	Sewer - Customer Service Fee	52,454	53,517	(1,063)	296,066	321,100	(25,034)	642,200
14220	Inspection Fees	1,011	842	169	5,016	5,050	(34)	10,100
14310	Penalties & Interest	8,094	3,333	4,761	26,852	20,000	6,852	40,000
14330	Miscellaneous Income	0	100	(100)	588	600	(12)	1,200
14340	COH Rebate	6,140	6,933	(793)	47,609	41,600	6,009	83,200
14350	Maintenance Tax Collections	0	0	0	0	0	0	1,068,216
14370	Interest Earned on Temp. Invest	962	1,181	(219)	2,384	7,085	(4,701)	14,169
14380	Interest Earned on Checking	2	33	(31)	3	200	(198)	400
14650	Water Sales to HC 151	2,654	860	1,794	7,027	5,160	1,867	10,320
<b>Total Revenues</b>		<b>197,892</b>	<b>198,641</b>	<b>(749)</b>	<b>1,275,606</b>	<b>1,373,845</b>	<b>(98,239)</b>	<b>3,646,905</b>
<b>Expenditures</b>								
16010	Operations - Water	9,219	6,942	2,277	50,922	41,650	9,272	83,300
16030	Operations - Sewer	2,289	2,308	(19)	13,793	13,850	(57)	27,700
16110	Tap Connection Expense	375	583	(208)	375	3,500	(3,125)	7,000
16120	Surface Water Fee	94,661	95,000	(339)	722,886	779,000	(56,114)	1,367,100
16130	Maintenance & Repairs - Water	25,296	34,125	(8,829)	118,114	204,750	(86,636)	409,500
16140	Chemicals - Water	4,591	3,492	1,099	23,475	20,950	2,525	41,900
16150	Laboratory Expense - Water	527	325	202	2,152	1,950	202	3,900
16160	Utilities	8,965	9,150	(185)	57,293	54,900	2,393	109,800
16180	Reconnections	935	633	302	4,880	3,800	1,080	7,600
16190	Disconnect Expense	330	283	47	945	1,700	(755)	3,400
16200	Mowing - Water	771	1,258	(487)	6,941	7,550	(609)	15,100
16210	Inspection Expense	1,155	75	1,080	3,195	450	2,745	900
16220	Purchase Sewer Service	44,475	43,025	1,450	266,739	258,151	8,588	516,302
16230	Maintenance & Repairs - Sewer	19,213	17,983	1,229	81,499	107,900	(26,401)	215,800
16240	Chemicals - Sewer	0	125	(125)	608	750	(142)	1,500
16250	Lab Fees - Sewer	0	158	(158)	268	950	(682)	1,900
16280	Mowing - Sewer	693	1,142	(448)	6,239	6,850	(611)	13,700
16320	Arbitrage Expense	5,900	3,250	2,650	5,900	3,250	2,650	3,250
16327	TCEQ Fees	0	0	0	0	0	0	5,900
16330	Legal Fees	5,000	4,417	583	29,385	26,500	2,885	53,000
16340	Auditing Fees	0	0	0	16,750	16,400	350	16,400
16350	Engineering Fees	5,611	6,667	(1,055)	27,937	40,000	(12,063)	80,000
16354	GIS Expense	0	167	(167)	0	1,000	(1,000)	2,000
16360	Garbage Expense	887	375	512	2,671	2,250	421	4,500
16370	Election Expense	0	0	0	0	0	0	10,000
16380	Permit Expense	7,017	7,200	(183)	7,017	7,200	(183)	7,200
16390	Telephone Expense	891	867	24	5,435	5,200	235	10,400
16420	Service Account Collection	2,445	2,083	362	13,613	12,500	1,113	25,000
16430	Bookkeeping Fees	2,000	2,575	(575)	17,831	17,950	(119)	33,500
16460	Printing & Office Supplies	2,319	2,442	(123)	14,677	14,650	27	29,300
16480	Delivery Expense	6	17	(11)	512	100	412	200
16520	Postage	2,829	2,792	38	16,754	16,750	4	33,500
16530	Insurance & Surety Bond	0	0	0	0	0	0	28,800
16540	Travel Expense	32	8	24	72	50	22	100
16550	Website Expense	0	67	(67)	375	400	(25)	800
16560	Miscellaneous Expense	250	308	(58)	1,877	1,850	27	3,700

Harris County MUD No 109 - GOF  
**Actual vs. Budget Comparison**

November 2021

		November 2021			June 2021 - November 2021			Annual
		Actual	Budget	Over/(Under)	Actual	Budget	Over/(Under)	Budget
<b>Expenditures</b>								
16570	AWBD Expense	405	400	5	2,395	2,400	(5)	7,800
16580	Bank Fees	150	18	132	305	110	195	220
16590	Security Monitoring	0	1,242	(1,242)	555	7,450	(6,895)	14,900
16592	Security Patrol Expense	12,395	12,395	0	74,370	74,370	0	148,740
16600	Payroll Expenses	3,068	2,025	1,043	13,564	12,150	1,414	24,300
<b>Total Expenditures</b>		<b>264,699</b>	<b>265,922</b>	<b>(1,223)</b>	<b>1,612,319</b>	<b>1,771,181</b>	<b>(158,862)</b>	<b>3,369,912</b>
<b>Other Revenues</b>								
14720	Transfer from Operating Reserve	0	0	0	0	0	0	508,007
<b>Total Other Revenues</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>508,007</b>
<b>Other Expenditures</b>								
17000	Capital Outlay	1,702	1,500	202	22,771	20,800	1,971	785,000
17010	Capital Outlay - Barents Dr L/S	140	0	140	5,438	0	5,438	0
<b>Total Other Expenditures</b>		<b>1,841</b>	<b>1,500</b>	<b>341</b>	<b>28,209</b>	<b>20,800</b>	<b>7,409</b>	<b>785,000</b>
<b>Excess Revenues (Expenditures)</b>		<b>(\$68,648)</b>	<b>(\$68,781)</b>	<b>\$133</b>	<b>(\$364,921)</b>	<b>(\$418,136)</b>	<b>\$53,215</b>	<b>\$0</b>

## Balance Sheet

As of November 30, 2021

Nov 30, 21

## ASSETS

## Current Assets

## Checking/Savings

7\W\j b[ 66J 5

866

7Uj j b 6Ub\_

157,176

C dYfUcf

312,029

## Total Checking/Savings

470,070

## Other Current Assets

Hja Y8 Ydcgjh

3,124,775

5Wti bthg F Wj UY

220,978

A Ujb hYbWbW HU F Wj UY

75,164

5Wti YX -bhYfgh

3,219

8 i Y: fca 7C <

23,304

8 i Y: fca HU 5Wti bh

516,102

F Ygfj Y j b 5 7 D

133,556

## Total Other Current Assets

4,097,098

## Total Current Assets

4,567,168

## TOTAL ASSETS

4,567,168

## LIABILITIES &amp; EQUITY

## Liabilities

## Current Liabilities

## Accounts Payable

5Wti bthg DUhUY

169,394

## Total Accounts Payable

169,394

## Other Current Liabilities

8 YZffYX HU Yg

75,164

DUhfc `` @jW] j h Yg

666

7i ghca Yf A Yf 8 Ydcgjh

275,781

8 Ydcgjh! C h Yf

500

8 i Yhc 6cbX 5Wti bh

10,449

8 i Yhc H79E

2,301

@Y 5bbY Ujcb

(2,167)

6UfYbthg 5bbY Ujcb

(27,832)

7ci bthm G Ua VY

(15,111)

## Total Other Current Liabilities

319,750

## Total Current Liabilities

489,143

## Total Liabilities

489,143

## Equity

1 bUc WYX: i bX 6UUbW

4,442,946

## Net Income

(364,921)

## Total Equity

4,078,025

## TOTAL LIABILITIES &amp; EQUITY

4,567,168

## District Debt Service Payments

12/01/2021 - 12/01/2022

Paying Agent	Series	Date Due	Date Paid	Principal	Interest	Total Due
Debt Service Payment Due 04/01/2022						
Bank of New York	2011 - Refunding	04/01/2022		0.00	12,500.00	12,500.00
Bank of New York	2013 - Refunding	04/01/2022		0.00	1,581.25	1,581.25
Regions Bank	2015 - Refunding	04/01/2022		0.00	71,215.50	71,215.50
Bank of New York	2017 - WS&D	04/01/2022		0.00	186,371.88	186,371.88
Bank of New York	2021 - Refunding	04/01/2022		0.00	41,187.50	41,187.50
Total Due 04/01/2022				0.00	312,856.13	312,856.13
Debt Service Payment Due 10/01/2022						
Bank of New York	2011 - Refunding	10/01/2022		625,000.00	12,500.00	637,500.00
Bank of New York	2013 - Refunding	10/01/2022		115,000.00	1,581.25	116,581.25
Regions Bank	2015 - Refunding	10/01/2022		70,000.00	71,215.50	141,215.50
Bank of New York	2017 - WS&D	10/01/2022		430,000.00	186,371.88	616,371.88
Bank of New York	2021 - Refunding	10/01/2022		20,000.00	49,425.00	69,425.00
Total Due 10/01/2022				1,260,000.00	321,093.63	1,581,093.63
District Total				\$1,260,000.00	\$633,949.76	\$1,893,949.76

Harris County MUD No 109 - GOF

Annexations

All Transactions

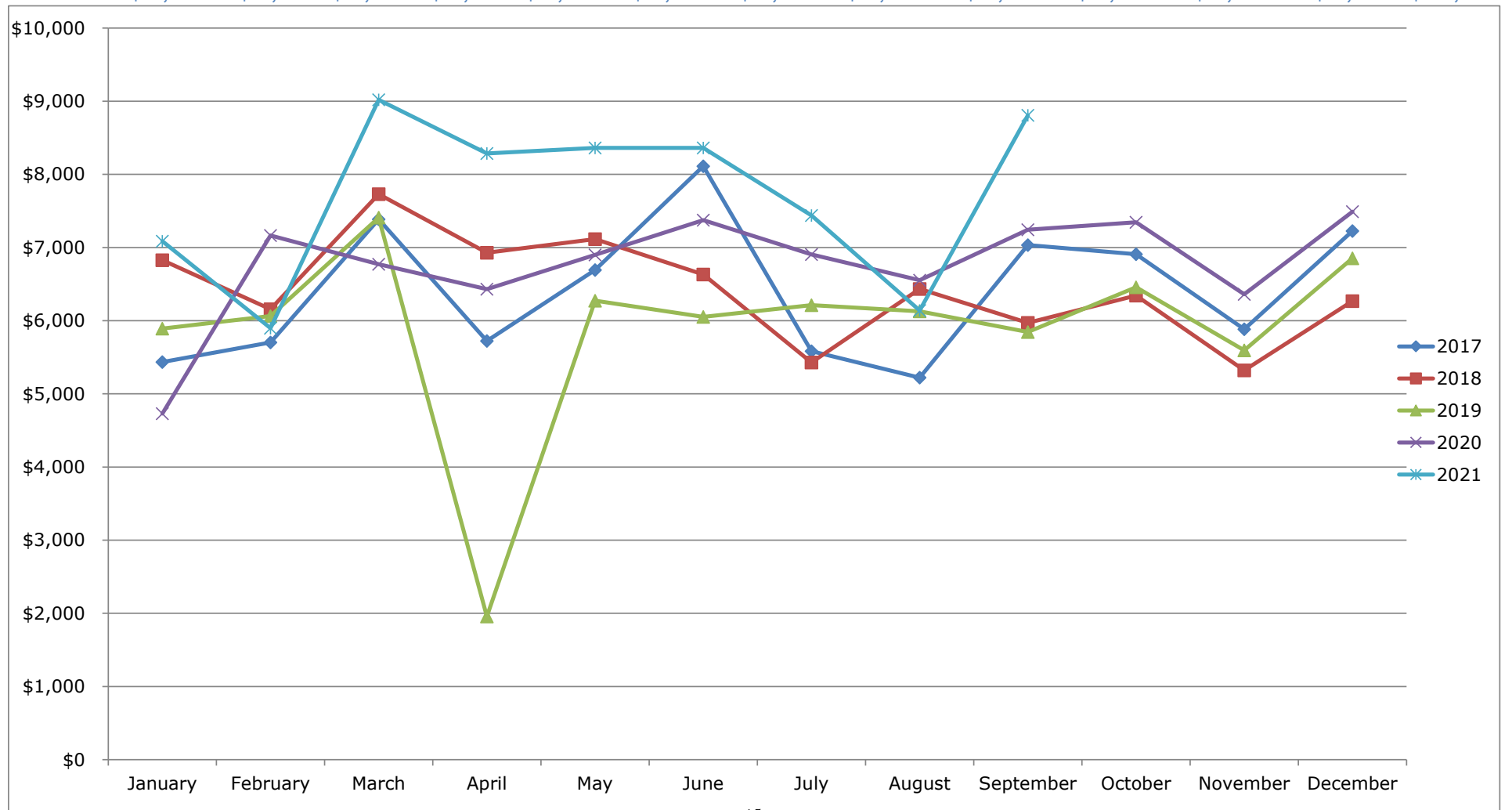
Date	Num	Name	Memo	Debit	Credit	Balance
<b>12787 - Lee Annexation</b>						
04/26/2019	JE		Deposit for Annexation		15,000.00	15,000.00
05/31/2019	5-190176	BGE, Inc.	Engineering Fees - Annexation No. 11	984.83		14,015.17
06/30/2019	6-190136	BGE, Inc.	Engineering Fees - Annexation No. 11	3,418.23		10,596.94
07/31/2019	7-190471	BGE, Inc.	Engineering Fees - Annexation No. 11	1,887.45		8,709.49
07/31/2019	9495136631	Norton Rose Fulbright US LLP	Legal Fees	172.50		8,536.99
08/31/2019	191647	The Research Staff, Inc.	Title Report - Annexation	80.00		8,456.99
08/31/2019	PS19001733	Harris County Appraisal District	Certificate of Ownership - Annexation	5.00		8,451.99
08/31/2019	8-190493	BGE, Inc.	Engineering Fees - Annexation No. 11	398.44		8,053.55
08/31/2019	9495142345	Norton Rose Fulbright US LLP	Legal Fees	702.50		7,351.05
09/30/2019	9495149477	Norton Rose Fulbright US LLP	Legal Fees	143.75		7,207.30
10/31/2019	10-190502	BGE, Inc.	Engineering Fees - Annexation No. 11	273.44		6,933.86
10/31/2019	9495155990	Norton Rose Fulbright US LLP	Legal Fees - Annexation	1,548.75		5,385.11
11/30/2019	11-190054	BGE, Inc.	Engineering Fees - Annexation No. 11	2,167.95		3,217.16
11/30/2019	9495163224	Norton Rose Fulbright US LLP	Legal Fees	742.50		2,474.66
12/31/2019	12-190187	BGE, Inc.	Engineering Fees - Annexation No. 11	1,289.06		1,185.60
12/31/2019	9495170944	Norton Rose Fulbright US LLP	Legal Fees - Annexation	496.18		689.42
01/31/2020	9495175858	Norton Rose Fulbright US LLP	Legal Fees - Annexation	270.00		419.42
02/29/2020	2-200558	BGE, Inc.	Engineering Fees - Annexation No. 11	195.31		224.11
02/29/2020	9495182734	Norton Rose Fulbright US LLP	Legal Fees - Annexation	270.00		-45.89
04/30/2020	9495196527	Norton Rose Fulbright US LLP	Legal Fees - Annexation	360.00		-405.89
06/30/2020	9495209384	Norton Rose Fulbright US LLP	Legal Fees - Annexation	90.00		-495.89
07/31/2020	9495216040	Norton Rose Fulbright US LLP	Legal Fees - Annexation	0.00		-495.89
08/31/2020	9495222409	Norton Rose Fulbright US LLP	11th Annexation	691.35		-1,187.24
09/30/2020	9495231141	Norton Rose Fulbright US LLP	11th Annexation	71.39		-1,258.63
10/31/2020	9495236610	Norton Rose Fulbright US LLP	11th Annexation	0.00		-1,258.63
11/30/2020	9495244364	Norton Rose Fulbright US LLP	11th Annexation	1,050.00		-2,308.63
12/02/2020	JE		Deposit for Lee Annexation		15,000.00	12,691.37
12/31/2020	9495251043	Norton Rose Fulbright US LLP	11th Annexation	300.00		12,391.37
01/31/2021	HC MUD109LE...	ROW Management LLC	Lee Annexation Expense	1,560.00		10,831.37
01/31/2021	9495256008	Norton Rose Fulbright US LLP	11th Annexation	0.00		10,831.37
02/28/2021	HC MUD109LE...	ROW Management LLC	Lee Annexation Expense	3,640.00		7,191.37
06/30/2021	6-210975	BGE, Inc.	Engineering Fees - Lee Tract Waterline Extension	1,552.95		5,638.42
07/31/2021	7-210916	BGE, Inc.	Engineering Fees - Lee Tract Waterline Extension	1,942.88		3,695.54
08/31/2021	8-211098	BGE, Inc.	Engineering Fees - Lee Tract Waterline Extension	3,791.52		-95.98
09/30/2021	9-210996	BGE, Inc.	Engineering Fees - Lee Tract Waterline Extension	839.23		-935.21
10/31/2021	10-211116	BGE, Inc.	Engineering Fees - Lee Tract Waterline Extension	693.11		-1,628.32
11/30/2021	11-210356	BGE, Inc.	Engineering Fees - Lee Tract Waterline Extension	538.91		-2,167.23
Total 12787 - Lee Annexation				32,167.23	30,000.00	-2,167.23
<b>12788 - Barents Annexation</b>						
08/31/2019	Rept	BBVA	Barents Annexation Deposit - Ida Gilbert		5,000.00	5,000.00
08/31/2019	Rept	BBVA	Barents Annexation Deposit - GAP Plumbing Inc.		5,000.00	10,000.00
08/31/2019	9495142345	Norton Rose Fulbright US LLP	Legal Fees	322.50		9,677.50
09/03/2019	Rept	BBVA	Barents Annexation Deposit - Champ Auto Gro...		5,000.00	14,677.50
09/30/2019	9-190038	BGE, Inc.	Engineering Fees - Annexation No. 12	1,205.47		13,472.03
09/30/2019	9495149477	Norton Rose Fulbright US LLP	Legal Fees	143.75		13,328.28
10/31/2019	9495155990	Norton Rose Fulbright US LLP	Legal Fees - Annexation	517.50		12,810.78
10/31/2019	10-190504	BGE, Inc.	Engineering Fees - Annexation No. 12	6,362.73		6,448.05
11/30/2019	11-190056	BGE, Inc.	Engineering Fees - Annexation No. 12	3,448.57		2,999.48
11/30/2019	9495163224	Norton Rose Fulbright US LLP	Legal Fees	146.25		2,853.23
12/31/2019	12-190189	BGE, Inc.	Engineering Fees - Annexation No. 12	2,516.81		336.42
12/31/2019	9495170944	Norton Rose Fulbright US LLP	Legal Fees - Annexation	1,350.00		-1,013.58
01/31/2020	1-200553	BGE, Inc.	Engineering Fees - Annexation No. 12	292.97		-1,306.55
01/31/2020	9495175858	Norton Rose Fulbright US LLP	Legal Fees - Annexation	0.00		-1,306.55
02/29/2020	2-200560	BGE, Inc.	Engineering Fees - Annexation No. 12	2,171.88		-3,478.43
02/29/2020	2-200525	BGE, Inc.	Engineering Fees - Barents Drive LS Feasibility	2,762.20		-6,240.63
02/29/2020	9495182734	Norton Rose Fulbright US LLP	Legal Fees - Annexation	0.00		-6,240.63
03/31/2020	3-200228	BGE, Inc.	Engineering Fees - Barents Drive LS Feasibility	454.00		-6,694.63
04/30/2020	4-200364	BGE, Inc.	Engineering Fees - Annexation No. 12	2,332.65		-9,027.28
04/30/2020	4-200354	BGE, Inc.	Engineering Fees - Barents Drive LS Feasibility	3,165.61		-12,192.89
04/30/2020	9495196527	Norton Rose Fulbright US LLP	Legal Fees - Annexation	0.00		-12,192.89
05/31/2020	5-200205	BGE, Inc.	Engineering Fees - Barents Drive LS Feasibility	883.59		-13,076.48
06/30/2020	6-200423	BGE, Inc.	Engineering Fees - Barents Drive LS Feasibility	1,953.10		-15,029.58
06/30/2020	9495209384	Norton Rose Fulbright US LLP	Legal Fees - Annexation	978.75		-16,008.33
07/31/2020	7-200217	BGE, Inc.	Engineering Fees - Barents Drive LS Feasibility	390.62		-16,398.95
07/31/2020	9495216040	Norton Rose Fulbright US LLP	Legal Fees - Annexation	243.75		-16,642.70
08/31/2020	9495222409	Norton Rose Fulbright US LLP	12th Annexation	3,286.35		-19,929.05
09/30/2020	9495231141	Norton Rose Fulbright US LLP	12th Annexation	71.39		-20,000.44
10/31/2020	9495236610	Norton Rose Fulbright US LLP	12th Annexation	341.25		-20,341.69
11/30/2020	9495244364	Norton Rose Fulbright US LLP	12th Annexation	250.00		-20,591.69
12/31/2020	9495251043	Norton Rose Fulbright US LLP	12th Annexation	150.00		-20,741.69
01/31/2021	9495256008	Norton Rose Fulbright US LLP	12th Annexation	740.00		-21,481.69
02/28/2021	9495262527	Norton Rose Fulbright US LLP	12th Annexation	1,080.33		-22,562.02
03/31/2021	9495270101	Norton Rose Fulbright US LLP	12th Annexation	570.00		-23,132.02
04/30/2021	9495276855	Norton Rose Fulbright US LLP	12th Annexation	770.00		-23,902.02
05/31/2021	9495283640	Norton Rose Fulbright US LLP	12th Annexation	530.00		-24,432.02
06/30/2021	9495291784	Norton Rose Fulbright US LLP	12th Annexation	300.00		-24,732.02
07/31/2021	9495297183	Norton Rose Fulbright US LLP	12th Annexation	350.00		-25,082.02
08/31/2021	W/O 98752653	Centerpoint Energy	Defined Easement	1,700.00		-26,782.02
08/31/2021	9495303961	Norton Rose Fulbright US LLP	12th Annexation	100.00		-26,882.02
09/30/2021	9495311756	Norton Rose Fulbright US LLP	12th Annexation	230.00		-27,112.02
10/31/2021	9495317946	Norton Rose Fulbright US LLP	12th Annexation	200.00		-27,312.02
11/30/2021	9495324857	Norton Rose Fulbright US LLP	12th Annexation	520.00		-27,832.02
Total 12788 - Barents Annexation				42,832.02	15,000.00	-27,832.02
<b>12790 - Country Scramble</b>						
02/29/2020	2-200526	BGE, Inc.	Engineering Fees - Country Scramble	13,193.61		-13,193.61
03/31/2020	3-200229	BGE, Inc.	Engineering Fees - Country Scramble	585.93		-13,779.54
04/30/2020	4-200355	BGE, Inc.	Engineering Fees - Country Scramble	355.31		-14,134.85
05/31/2020	5-200206	BGE, Inc.	Engineering Fees - Country Scramble	390.62		-14,525.47
06/30/2020	6-200424	BGE, Inc.	Engineering Fees - Country Scramble	195.31		-14,720.78
07/31/2020	7-200218	BGE, Inc.	Engineering Fees - Country Scramble	390.62		-15,111.40
Total 12790 - Country Scramble				15,111.40	0.00	-15,111.40
<b>TOTAL</b>				<b>90,110.65</b>	<b>45,000.00</b>	<b>-45,110.65</b>



# Sales Tax Revenue History

Harris County MUD No. 109

Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
2017	\$5,434	\$5,703	\$7,385	\$5,723	\$6,692	\$8,112	\$5,584	\$5,221	\$7,033	\$6,909	\$5,885	\$7,225	\$76,905
2018	\$6,828	\$6,158	\$7,730	\$6,930	\$7,116	\$6,632	\$5,430	\$6,434	\$5,972	\$6,345	\$5,322	\$6,267	\$77,163
2019	\$5,893	\$6,065	\$7,408	\$1,957	\$6,274	\$6,053	\$6,211	\$6,128	\$5,846	\$6,457	\$5,596	\$6,855	\$70,743
2020	\$4,731	\$7,165	\$6,772	\$6,430	\$6,900	\$7,374	\$6,906	\$6,552	\$7,243	\$7,347	\$6,362	\$7,490	\$81,272
2021	\$7,086	\$5,898	\$9,019	\$8,285	\$8,362	\$8,363	\$7,440	\$6,140	\$8,807				\$69,401
<b>Total</b>	<b>\$29,972</b>	<b>\$30,990</b>	<b>\$38,314</b>	<b>\$29,324</b>	<b>\$35,344</b>	<b>\$36,534</b>	<b>\$31,570</b>	<b>\$30,476</b>	<b>\$34,901</b>	<b>\$27,057</b>	<b>\$23,164</b>	<b>\$27,836</b>	<b>\$375,484</b>



# Cash Flow Forecast

## Harris County MUD 109

	5/22	5/23	5/24	5/25	5/26
Assessed Value	\$708,611,922	\$708,611,922	\$708,611,922	\$708,611,922	\$708,611,922
Maintenance Tax Rate	\$0.190	\$0.190	\$0.190	\$0.190	\$0.190
Maintenance Tax	\$1,319,435	\$1,319,435	\$1,319,435	\$1,319,435	\$1,319,435
% Change in Water Rate		1.00%	1.00%	1.00%	1.00%
% Change in Wastewater Rate		3.00%	3.00%	3.00%	3.00%
% Change in NHCRWA		10.00%	10.00%	10.00%	10.00%
% Change in Expenses		5.00%	5.00%	5.00%	5.00%
<b>Beginning Cash Balance 6-1-2021</b>	<b>\$3,768,001</b>	<b>\$3,259,994</b>	<b>\$3,156,700</b>	<b>\$2,966,464</b>	<b>\$2,773,488</b>
<b>Revenues</b>					
Maintenance Tax	\$1,068,216	\$1,319,435	\$1,319,435	\$1,319,435	\$1,319,435
Water Revenue	537,400	542,774	548,202	553,684	559,221
Wastewater Revenue	642,200	661,466	681,310	701,749	722,802
NHCRWA Revenue	1,215,000	1,336,500	1,470,150	1,617,165	1,778,882
Other	184,089	193,293	202,958	213,106	223,761
<b>Total Revenues</b>	<b>\$3,646,905</b>	<b>\$4,053,469</b>	<b>\$4,222,055</b>	<b>\$4,405,139</b>	<b>\$4,604,101</b>
<b>Expenses</b>					
NHCRWA	\$1,367,100	\$1,503,810	\$1,654,191	\$1,819,610	\$2,001,571
Other Expenses	2,002,812	2,102,953	2,208,100	2,318,505	2,434,431
<b>Total Expenses</b>	<b>\$3,369,912</b>	<b>\$3,606,763</b>	<b>\$3,862,291</b>	<b>\$4,138,115</b>	<b>\$4,436,002</b>
<b>Net Surplus</b>	<b>\$276,993</b>	<b>\$446,706</b>	<b>\$359,764</b>	<b>\$267,024</b>	<b>\$168,099</b>
<b>Capital Outlay</b>					
Capital Outlay - AJOB	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
WP 1 Booster Pump Improvements	100,000	0	0	0	0
WP 1 Well Rehab & Motor Replacement	0	0	200,000	0	0
WP 1 Electrical Control Improvements	0	0	250,000	210,000	0
WP 1 GST 1 Replacement	0	250,000	0	0	0
WP 2 Well Rehab & Motor Replacement	0	0	0	200,000	0
Lift Station No. 1	205,000	0	0	0	0
Lift Station No. 3	125,000	0	0	0	0
Lift Station No. 5	115,000	0	0	0	0

HC 46 Water Interconnect	0	0	50,000	0	0
Manholes Valve Rehab	0	250,000	0	0	0
Manholes Survey	120,000	0	0	0	0
Water Valve Survey	70,000	0	0	0	0

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<b>Total Capital Outlay</b>	<b>\$785,000</b>	<b>\$550,000</b>	<b>\$550,000</b>	<b>\$460,000</b>	<b>\$50,000</b>
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<b>Construction Surplus</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
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<b>Ending Cash Balance</b>	<b>\$3,259,994</b>	<b>\$3,156,700</b>	<b>\$2,966,464</b>	<b>\$2,773,488</b>	<b>\$2,891,587</b>
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### Operating Reserve % of Exp

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Percentage	97%	88%	77%	67%	65%
Number of Months	12	11	9	8	8

### Bond Authority

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Remaining Bonding Capacity - \$12,950,000

# 2022 AWBD Mid-Winter Conference

Harris County MUD No. 109

Friday, January 28 - Saturday, January 29, 2022

Moody Gardens, Galveston, TX

Director	Registration			Prior Conference Expenses
Name	Attending	Online	Paid	Paid
Cheryl Moore	Yes	Yes	Yes	Yes
Chris Green	Yes	Yes	Yes	Yes
Nancy Frank	Yes	Yes	Yes	Yes
Owen Parker	Yes	Yes	Yes	Yes
Robin Sulpizio	Yes	Yes	Yes	Yes

## Note

**Register on-line [www.awbd-tx.org](http://www.awbd-tx.org)** (For log in assistance, contact Taylor Cavnar: [tcavnar@awbd-tx.org](mailto:tcavnar@awbd-tx.org))

This page only confirms registration for the conference, not hotel registrations.

All hotel reservations are the sole responsibility of each attendee.

Your conference registration confirmation will contain a housing reservation request web link.

The link will require the registration number from your conference registration before you can reserve a room.

All requests for an advance of funds must be sent via email to the bookkeeper within 30 days of conference.

## Registration Dates

Early Registration:	Begins	07/21/21	\$360
Regular Registration:	Begins	09/02/21	\$410
Late Registration	Begins	12/16/21	\$510

## Cancellation Policy

All cancellations must be made in writing.

A \$50.00 administrative fee is assessed for each conference registration cancelled on or before 12/15/21.

There will be no refunds after 12/15/21.

## Housing Information

Hotel reservations are only available to attendees who are registered with AWBD-TX for the Conference.

If you have questions, please call Taylor Cavnar at (281) 350-7090



## ENGINEERING REPORT

December 17, 2021

**To:** Harris County MUD No. 109 Board of Directors

**From:** Bill Kotlan, P.E.

District Engineer

---

**7. Review Engineer's Report**, including approval of pay estimates, authorization of change orders to pending construction contracts, and authorization of capacity commitments:

- a. **American Water Infrastructure Act (2018):** Please find enclosed a copy of the 2021 Emergency Response Plan (ERP) prepared in accordance with the American Water Infrastructure Act. We recommend adoption of the ERP for use in preparation and response of emergency situations in the District. This plan can be amended from time to time as resources and concerns change. Next week, after the District adopts the plan, we will upload a certificate to the Environmental Protection Agency to demonstrate compliance with the law.

**Action Item: Recommend adoption of the Emergency Response Plan as presented.**

- b. **Utility Relocations related to FM 1960 Widening: Update**

We continue to monitor the contractor's progress in utility relocation. They are still working in the city of Humble area and have not reached MUD 109 facilities. We communicate with them weekly so that we will be able to coordinate work on the District facilities when the time comes.

TxDOT has contacted me regarding the construction of a sound wall over the top of an existing sewer line easement. I have given them comments regarding the encroachment and they are preparing a submittal for the District.

We received a copy of a change order from TxDOT for utility unit cost increases due to changing material costs that the contractor has experienced. We have reviewed the change order and recommend approval of the change except that we do not

recommend paying TxDOT for engineering and contingency increases based on a change order that does not include additional work (it is only price increases).

The change order is a separate agenda item.

**c. Water Plant No. 2 Expansion**

Pay Estimate No. 6 in the amount of \$234,009.00 is recommended for approval. The work includes completion of the ground storage tank and underground as well as preparation of booster pump and operations building slabs.







**Action Items (Water Plant No 2 Expansion):**

1. **Approve Pay Estimate No. 6 to Schier Construction Company, Inc. for \$234,009.00**

**d. Barents Drive Lift Station**

We are working on the plat for the lift station.

**e. Water Line Extension (Annexation 11)**

This project will be bid after the holidays in order to get the best price possible. We expect to have the bids available for the January meeting.

**f. Wastewater Treatment Plant**

Nothing to report.

**g. Developer's Report:** Nothing to report.

**h. Capacity Commitments (Annexation 12): at City of Houston**

- i. **Ashley (Dirt Cheap):** No change this month.
- ii. **Teo Lopez (Country Scramble):** No change this month.
- iii. **Shawn Gilbert service request:** No change this month.



December 6, 2021

Municipal Accounts & Consulting, LP  
1281 Brittmoore Road  
Houston, Texas 77043

Attention: Cory Burton

Re: **Pay Estimate No. 6**  
Harris County MUD No. 109  
Water Plant No. 2 Expansion  
BGE Job No. 7440-00

Dear Mr. Burton:

Enclosed herewith is Pay Estimate No. 6 from Schier Construction Company, Inc. for work performed on the referenced project for the period indicated. I have reviewed the quantities completed and submitted for payment, and recommend that this estimate be processed for payment. The enclosed estimate is for your further handling and processing.

Should you have any questions regarding this pay estimate, please contact me at 281-558-8700.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gary L. Goessler', written in a cursive style.

Gary L. Goessler, PE  
Project Manager, Construction Management

TBPE Registration No. F-1046

cc: Jan McArthur – Schier Construction Company, Inc.  
Dimitri Millas – Norton Rose Fulbright US LLP  
Brenda Presser – Norton Rose Fulbright US LLP  
Bill Kotlan, PE – BGE  
Kate Hallaway, PE – BGE

**Water Plant No. 2 Expansion**

Owner: Harris County MUD No. 109  
C/o Municipal Accounts & Consulting, LP  
1281 Brittmoore Rd.  
Houston, Texas 77043

Attention: Cory Burton

Contractor: Schier Construction Company, Inc.  
14250 Schroeder Road  
Houston, Texas 77070

Attention: Jan McArthur

Pay Estimate No. 6  
Original Contract Amount: \$ 1,757,150.00  
Change Orders: \$ 194,324.19  
Current Contract Amount: \$ 1,951,474.19  
Completed to Date: \$ 415,770.00  
Retainage 10% \$ 41,577.00  
Balance: \$ 374,193.00  
Less Previous Payments: \$ 140,184.00  
Current Payment Due: \$ 234,009.00

BGE Job No. 7440-00  
Estimate Period: 11/01/21 - 11/30/21  
Contract Date: April 26, 2021  
Notice to Proceed: June 14, 2021  
Contract Time: 270 Calendar Days  
Time Charged: 170 Calendar Days  
Approved Extensions: 30 Calendar Days  
Requested Time Extensions: 18 Calendar Days  
Time Remaining: 130 Calendar Days

Recommended for Approval:



12/6/21

Gary L. Goessler, PE  
Project Manager, Construction Management  
BGE  
TBPE Registration No. F-1046

Harris County MUD No. 109  
 Water Plant No. 2 Expansion  
 BGE Job No. 7440-00  
 Pay Estimate No. 6

Item	Description	Contract Quantity	Unit	Unit Price	Amount	Completed This Period	Amount This Period	Previous Period	Previous Amount	Total Completed	Total
<b><u>UNIT A: BASE BID ITEMS</u></b>											
1.	Mobilization; Demobilization (complete project)										
	MOB	1.00	LS	\$ 6,000.00	\$ 6,000.00	0.00	\$ -	1.00	\$ 6,000.00	1.00	\$ 6,000.00
	Demob	1.00	LS	\$ 3,000.00	\$ 3,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
2.	Bonds; Insurance; Permits (complete project)										
	Bonds & Insurance	1.00	LS	\$ 24,800.00	\$ 24,800.00	0.00	\$ -	1.00	\$ 24,800.00	1.00	\$ 24,800.00
	Permits	1.00	LS	\$ 2,000.00	\$ 2,000.00	0.00	\$ -	1.00	\$ 2,000.00	1.00	\$ 2,000.00
3.	Furnish and Install new 420,000 gallon Bolted Steel Ground Storage Tank factory coated with Thermoset Powder Epoxy including foundation with all required appurtenances; including Cathodic Protection. Complete in Place.										
	Foundation	1.00	LS	\$ 62,400.00	\$ 62,400.00	0.00	\$ -	1.00	\$ 62,400.00	1.00	\$ 62,400.00
	Tank Pad	1.00	LS	\$ 3,200.00	\$ 3,200.00	0.00	\$ -	1.00	\$ 3,200.00	1.00	\$ 3,200.00
	TANK										
	a. Material	1.00	LS	\$ 167,800.00	\$ 167,800.00	1.00	\$ 167,800.00	0.00	\$ -	1.00	\$ 167,800.00
	b. Erection	1.00	LS	\$ 60,200.00	\$ 60,200.00	0.85	\$ 51,170.00	0.00	\$ -	0.85	\$ 51,170.00
	Cathodic Protection	1.00	LS	\$ 21,800.00	\$ 21,800.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Paint	1.00	LS	\$ 6,300.00	\$ 6,300.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Splash Pad	1.00	LS	\$ 4,000.00	\$ 4,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Sterilization	1.00	LS	\$ 1,500.00	\$ 1,500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	O&M's	1.00	LS	\$ 500.00	\$ 500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
4.	Booster Pump Station including foundation, pumps and motors, controls, piping, valves, supports, and appurtenances; Complete in Place.										
	Foundation	1.00	LS	\$ 30,800.00	\$ 30,800.00	0.00	\$ -	0.20	\$ 6,160.00	0.20	\$ 6,160.00
	PUMPS										
	a. Material	1.00	LS	\$ 68,600.00	\$ 68,600.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	b. Installation	1.00	LS	\$ 6,000.00	\$ 6,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -

Harris County MUD No. 109  
 Water Plant No. 2 Expansion  
 BGE Job No. 7440-00  
 Pay Estimate No. 6

Item	Description	Contract Quantity	Unit	Unit Price	Amount	Completed This Period	Amount This Period	Previous Period	Previous Amount	Total Completed	Total
	PIPING										
	a. Material	1.00	LS	\$ 83,400.00	\$ 83,400.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	b. Installation	1.00	LS	\$ 12,000.00	\$ 12,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Pipe Supports	1.00	LS	\$ 5,000.00	\$ 5,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Paint	1.00	LS	\$ 12,000.00	\$ 12,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	O&M's	1.00	LS	\$ 500.00	\$ 500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
5.	Operations Building including foundation, painting, and all appurtenances; Complete in Place.										
	Foundation	1.00	LS	\$ 27,500.00	\$ 27,500.00	0.00	\$ -	0.20	\$ 5,500.00	0.20	\$ 5,500.00
	Walls -CMU	1.00	LS	\$ 14,200.00	\$ 14,200.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Roof	1.00	LS	\$ 33,400.00	\$ 33,400.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Doors	1.00	LS	\$ 7,500.00	\$ 7,500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	HVAC	1.00	LS	\$ 3,000.00	\$ 3,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Paint	1.00	LS	\$ 9,600.00	\$ 9,600.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Misc - Lab Table, Burglar Bars	1.00	LS	\$ 3,200.00	\$ 3,200.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	O&M's	1.00	LS	\$ 500.00	\$ 500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
6.	On-site Yard Piping and Appurtenances. Complete in Place.										
	PIPING										
	a. Material	1.00	LS	\$ 61,800.00	\$ 61,800.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	b. Installation	1.00	LS	\$ 27,900.00	\$ 27,900.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Paint	1.00	LS	\$ 5,600.00	\$ 5,600.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Sterilization	1.00	LS	\$ 1,000.00	\$ 1,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	O&M's	1.00	LS	\$ 500.00	\$ 500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
7.	Demolition of existing electrical equipment, including MCC, generator, etc.										
	Paving	1.00	LS	\$ 6,000.00	\$ 6,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Electrical	1.00	LS	\$ 4,700.00	\$ 4,700.00	0.00	\$ -	0.00	\$ -	0.00	\$ -

Harris County MUD No. 109  
 Water Plant No. 2 Expansion  
 BGE Job No. 7440-00  
 Pay Estimate No. 6

Item	Description	Contract Quantity	Unit	Unit Price	Amount	Completed This Period	Amount This Period	Previous Period	Previous Amount	Total Completed	Total
8.	Furnish and Install Electrical system, including but not limited to install all work shown as plans, MCC, automatic transfer switch, lighting and receptacles, service disconnect, instrumentation, modification to EST equipment, duct banks, grounding, and all required appurtenances; Complete in Place.										
	MCC Pad	1.00	LS	\$ 2,500.00	\$ 2,500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Electrical	1.00	LS	\$ 454,000.00	\$ 454,000.00	0.06	\$ 27,240.00	0.00	\$ -	0.06	\$ 27,240.00
	O&M's	1.00	LS	\$ 500.00	\$ 500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
9.	Installation of Weatherhead service equipment, reconnection of electrical service; Complete in Place.	1.00		\$ 6,000.00	\$ 6,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
10.	Site work, including site preparation, grading, drainage, swales, concrete paving, chain link fence, and site restoration; Complete in Place.										
	Site Preparation	1.00	LS	\$ 7,000.00	\$ 7,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Concrete Paving	1.00	LS	\$ 30,400.00	\$ 30,400.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Sidewalks	1.00	LS	\$ 8,800.00	\$ 8,800.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Bollards	1.00	LS	\$ 3,200.00	\$ 3,200.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Fence	1.00	LS	\$ 3,000.00	\$ 3,000.00	0.00	\$ -	1.00	\$ 3,000.00	1.00	\$ 3,000.00
	Final Grading	1.00	LS	\$ 8,000.00	\$ 8,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Hydromulch	1.00	LS	\$ 2,600.00	\$ 2,600.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
11.	Trench Safety System, including Trench Safety Plan, Complete In Place	1.00	LS	\$ 300.00	\$ 300.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	<b>Unit A: Base Bid Items - Subtotal</b>				\$ 1,314,500.00		\$ 246,210.00		\$ 113,060.00		\$ 359,270.00



Harris County MUD No. 109  
 Water Plant No. 2 Expansion  
 BGE Job No. 7440-00  
 Pay Estimate No. 6

Item	Description	Contract Quantity	Unit	Unit Price	Amount	Completed This Period	Amount This Period	Previous Period	Previous Amount	Total Completed	Total
<b><u>UNIT B: SUPPLEMENTAL BID ITEMS</u></b>											
1.	"Extra" as directed, 550 KW Natural Gas Emergency Generator including sound attenuating enclosure, load bank, and foundations; Complete in Place.										
	Demo Existing Generator	1.00	LS	\$ 3,000.00	\$ 3,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Foundation & Load Bank	1.00	LS	\$ 21,100.00	\$ 21,100.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Sidewalk	1.00	LS	\$ 7,200.00	\$ 7,200.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Bollards	1.00	LS	\$ 5,800.00	\$ 5,800.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	New Gas Generator	1.00	LS	\$ 373,800.00	\$ 373,800.00	0.04	\$ 13,800.00	0.00	\$ -	0.04	\$ 13,800.00
	Natural Gas Line	1.00	LS	\$ 5,000.00	\$ 5,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Electrical	1.00	LS	\$ 8,200.00	\$ 8,200.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	O&M's	1.00	LS	\$ 500.00	\$ 500.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
2.	"Extra" as directed, extend concrete drive for Generator access per plans, Complete in Place.	1.00	LS	\$ 7,000.00	\$ 7,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
3.	"Extra" as directed, Excavation and Backfill for Structure. Complete in Place. (\$5.00 CY Per minimum)	50.00	CY	\$ 5.00	\$ 250.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
4.	"Extra" as directed, Excavation, Trenching, and Backfill for Utilities. Complete in Place.	50.00	CY	\$ 5.00	\$ 250.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
5.	"Extra" as directed, Reinforcing Steel. Complete in Place. (\$1,000 per TON minimum)	1.00	TON	\$ 1,000.00	\$ 1,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
6.	"Extra" as directed, Cast in Place Concrete. Complete in Place. (\$200 per CY minimum)	10.00	CY	\$ 200.00	\$ 2,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -

Harris County MUD No. 109  
 Water Plant No. 2 Expansion  
 BGE Job No. 7440-00  
 Pay Estimate No. 6

Item	Description	Contract Quantity	Unit	Unit Price	Amount	Completed This Period	Amount This Period	Previous Period	Previous Amount	Total Completed	Total
7.	"Extra" as directed, Ductile Iron Fittings, Complete in Place. (\$1,500 per TON minimum)	2.00	TON	\$ 1,500.00	\$ 3,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
8.	"Extra" as directed, 8-inch C905-DR18 PVC Pipe (all depths). Complete in Place. (\$25.00 per LF minimum)	40.00	LF	\$ 25.00	\$ 1,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
9.	"Extra" as directed, 16-inch C905-DR18 PVC Pipe (all depths). Complete in Place. (\$30.00 per LF minimum)	40.00	LF	\$ 30.00	\$ 1,200.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
10.	"Extra" as directed, 18-inch C905-DR18 PVC Pipe (all depths). Complete in Place. (\$35.00 per LF minimum)	10.00	LF	\$ 35.00	\$ 350.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
11.	"Extra" as directed, Site Improvements. Complete in Place. (\$2,000 minimum)	1.00	LS	\$ 2,000.00	\$ 2,000.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
<b>Unit B: Supplemental Bid Items - Subtotal</b>					\$ 442,650.00		\$ 13,800.00		\$ -		\$ 13,800.00
Total Contract Amount:					\$ 1,757,150.00						
<hr/>											
Change Order No. 1											
<b><u>ADD:</u></b>											
	Addition of a restroom in the operations building, 3" water supply line, grinder station and 2" sanitary force main	1.00	LS	\$ 175,000.00	\$ 175,000.00	0.00	\$ -	0.23	\$ 39,700.00	0.23	\$ 39,700.00
	Removal of Cathodic System from Scope	1.00	LS	\$ 3,000.00	\$ 3,000.00	0.00	\$ -	1.00	\$ 3,000.00	1.00	\$ 3,000.00

Harris County MUD No. 109  
 Water Plant No. 2 Expansion  
 BGE Job No. 7440-00  
 Pay Estimate No. 6

Item	Description	Contract Quantity	Unit	Unit Price	Amount	Completed This Period	Amount This Period	Previous Period	Previous Amount	Total Completed	Total
<b><u>DELETE:</u></b>											
3.	Furnish and Install new 420,000 gallon Bolted Steel Ground Storage Tank factory coated with Thermoset Powder Epoxy including foundation with all required appurtenances; including Cathodic Protection. Complete in Place.										
	Cathodic Protection	-1.00	LS	\$ 21,800.00	\$ (21,800.00)	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Change Order No. 1 - Subtotal				\$ 156,200.00		\$ -		\$ 42,700.00		\$ 42,700.00
Change Order No. 2											
<b><u>ADD:</u></b>											
	Generator Price Increase	1.00	LS	\$ 15,738.00	\$ 15,738.00	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Piping Price Increase	1.00	LS	\$ 22,386.19	\$ 22,386.19	0.00	\$ -	0.00	\$ -	0.00	\$ -
	Change Order No. 2 -Subtotal				\$ 38,124.19		\$ -		\$ -		\$ -
Change Order No. 3											
					\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -
<b>Totals:</b>					\$ 1,951,474.19		\$ 260,010.00		\$ 155,760.00		\$ 415,770.00



CONTRACTOR HEREBY AGREES TO DEFEND, PROTECT, INDEMNIFY AND HOLD OWNER SAFE AND HARMLESS FROM AND AGAINST ALL LOSSES, DAMAGES, COSTS, AND EXPENSES OF ANY CHARACTER WHATSOEVER SPECIFICALLY INCLUDING COURT COSTS, BONDING FEES, AND ATTORNEY FEES ARISING OUT OF OR IN ANY WAY RELATING TO CLAIMS FOR UNPAID LABOR OR MATERIALS FURNISHED AS OF THE APPLICATION DATE.

Executed this 1st day of December, 2021.

SCHIER CONSTRUCTION COMPANY, INC.

By:

James E. Schier

Name  
Printed:

James E. Schier

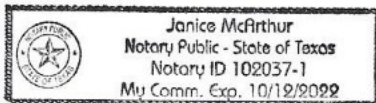
Title:

President

STATE OF TEXAS §

COUNTY OF Harris §

Subscribed and sworn to before me, the undersigned authority, on this the 1st day of December, 2021, to certify which, witness my hand and seal of office.



Notary Public, State of Texas

Notary's Name Printed: Janice McArthur

Janice McArthur

My commission expires: 10/12/2022





# MEMO

December 9, 2021

**To:** Adam C. Galland, P.E.  
Director of Construction

**From:** Phillip B. Garlin, P.E.  
North Harris Area Engineer

**Subject:** Project: C 1685-3-58  
Control: 1685-03-058  
Highway: FM 1960  
County: Harris  
Change Order: 3

DocuSigned by:

*Phillip B. Garlin, P.E.*

023DD75DDDCF425...

Submitted with this memorandum for your review and further handling is the Form CO covering Change Order Request No. 3 to the above referenced project. The subject change order will adjust the price of four (4) existing bid items under the Construction Project CSJ: 1685-03-058 and 34 existing bid items under the Right-of-Way (ROW) Project CSJ: 1685-03-097.

The project plans call for the construction of widening of a non-freeway facility from 4 lanes to 6 lanes divided with curb and gutter, channelized left turn lanes, and 5-foot sidewalk on both sides of roadway, consisting of grading, subgrade stabilization, cement treated base, asphalt stabilized base, Continuous Reinforced Concrete Pavement (CRCP), inlets, storm sewer, structures, signing, signals, pavement markings, Computerized Transportation Management System (CTMS), Storm Water Pollution Prevention Plan (SWP3), traffic control, etc. The net roadway length is 20,895.00 feet (3.957 miles) and 100.00 feet (0.019 mile) of bridge length on FM 1960 from BF 1960A to East of Twigsworth Lane.

The Authorization to Begin Work was issued to Angel Brothers Holdings Corporation (Contractor) on August 20, 2020. However, due to ongoing utility adjustments in the field, the Contractor has not been able to progress with the work as proposed in the Contract. A total of 10 Time Suspension requests have been submitted by the Contractor and approved by the North Harris Area Office (NHAO) during this time. Since the project has been delayed, there has been a rise in material costs; therefore, the Contractor submitted a request for change order to adjust the price of existing bid items to meet the escalated costs.

On April 12, 2021, the Contractor sent a letter to the NHAO regarding the material escalation for utility items on the referenced project. Following the letter and conversation with the NHAO Area Engineer, the Contractor explained that between the time the project was let and the work began, there was a drastic increase in material pricing. This is mostly due to the resin shortage for PVC material as you will see in the attached documents, along with other material increases due to the time frame in question. The Contractor was informed by their vendor that the resin shortage will not be going away soon, and the materials will continue to escalate due to demand and supply shortage. Since the project was let and current date, the price has escalated by plus or minus (+/-) 50% of the



original value. The NHAO and the Contractor reached an agreement to submit one (1) change order request for the PVC escalation cost and in turn purchase the materials as Material on Hand (MOH) to avoid additional escalation charges in the future. This would require the Contractor to purchase and store the materials at their yard until such time that the materials are needed on the project.

This change order is to reimburse the Contractor for purchasing the PVC materials at the escalated costs caused by project delays they have encountered which is beyond their control. The NHAO conducted an enquiry on the prices charged by other Contractor's for similar items and it was found that the proposed prices were reasonable in comparison. Therefore, the NHAO deems the added costs to be fair and reasonable due to year long delay in starting the project.

The unit price for the following four (4) existing bid items will be adjusted to the Contract on a new line:

Line No.	Item No.	Description	Unit	Quantity	Price	Total
0660	0481-6013	PIPE (PVC) (SCH 40) (6 IN)	LF	-82.00	\$19.50	-\$1,599.00
0661	0481-6013	New Line with Escalated Unit Price	LF	82.00	\$25.93	\$2,126.26
0665	0481-6014	PIPE (PVC) (SCH 40) (8 IN)	LF	-234.00	\$23.00	-\$5,382.00
0666	0481-6014	New Line with Escalated Unit Price	LF	234.00	\$32.59	\$7,626.06
0670	0481-6015	PIPE (PVC) (SCH 40) (10 IN)	LF	-29.00	\$27.00	-\$783.00
0671	0481-6015	New Line with Escalated Unit Price	LF	29.00	\$37.61	\$1,090.69
0675	0481-6016	PIPE (PVC) (SCH 40) (12 IN)	LF	-67.00	\$29.00	-\$1,943.00
0676	0481-6016	New Line with Escalated Unit Price	LF	67.00	\$43.10	\$2,887.70
<b>Total Cost for Adjusted Items on CSJ: 1685-03-058</b>						<b>\$4,023.71</b>

The unit price for the following 34 existing bid items will be adjusted to the Contract on a new line:

Line No.	Item No.	Description	Unit	Quantity	Price	Total
1820	7017-6088	AIR RELEASE VALVE (2 IN)	EA	-3.00	\$12,800.00	-\$38,400.00
1821	7017-6088	New Line with Escalated Unit Price	EA	3.00	\$15,295.14	\$45,885.42
1840	7017-6141	SAN SEWER (8IN)(DI)(RESTRAINED JT)	LF	-3,360.00	\$85.00	\$285,600.00
1841	7017-6141	New Line with Escalated Unit Price	LF	3,360.00	\$102.22	\$343,459.20
1845	7049-6002	WATER MAIN PIPE (PVC)(2IN)	LF	-6,980.00	\$15.25	\$106,445.00
1846	7049-6002	New Line with Escalated Unit Price	LF	6,980.00	\$16.36	\$114,192.80
1850	7049-6012	WATER MAIN PIPE (PVC)(8IN)(C-900)	LF	-7,131.00	\$32.00	\$228,192.00
1851	7049-6012	New Line with Escalated Unit Price	LF	7,131.00	\$41.02	\$292,513.62
1855	7049-6014	WATER MAIN PIPE (PVC)(12IN)(C-900)	LF	-7,143.00	\$48.00	\$342,864.00
1856	7049-6014	New Line with Escalated Unit Price	LF	7,143.00	\$65.83	\$470,223.69

Line No.	Item No.	Description	Unit	Quantity	Price	Total
1860	7049-6017	WATER MAIN PIPE (PVC)(12IN)(DR18) (C900)	LF	-922.00	\$58.30	-\$53,752.60
1861	7049-6017	New Line with Escalated Unit Price	LF	922.00	\$80.54	\$74,257.88
1865	7049-6020	WTR MAIN PIPE (PVC)(RESTRAINED JT) 8IN	LF	-385.00	\$69.00	-\$26,565.00
1866	7049-6020	New Line with Escalated Unit Price	LF	385.00	\$89.05	\$34,284.25
1870	7049-6021	WTR MAIN PIPE (PVC)(RESTRAINED JT) 12IN	LF	-160.00	\$87.00	-\$13,920.00
1871	7049-6021	New Line with Escalated Unit Price	LF	160.00	\$110.73	\$17,716.80
1875	7049-6029	WATER MAIN PIPE (STL) (12IN)	LF	-140.00	\$245.00	-\$34,300.00
1876	7049-6029	New Line with Escalated Unit Price	LF	140.00	\$270.67	\$37,893.80
1880	7049-6042	CASING STEEL (12IN)	LF	-215.00	\$108.00	-\$23,220.00
1881	7049-6042	New Line with Escalated Unit Price	LF	215.00	\$147.28	\$31,665.20
1885	7049-6045	CASING STEEL (18IN)	LF	-245.00	\$131.00	-\$32,095.00
1886	7049-6045	New Line with Escalated Unit Price	LF	245.00	\$178.91	\$43,832.95
1890	7049-6046	CASING STEEL (20IN)	LF	-62.00	\$216.00	-\$13,392.00
1891	7049-6046	New Line with Escalated Unit Price	LF	62.00	\$239.19	\$14,829.78
1895	7049-6052	FIRE HYDRANT BRANCH (LEAD) (6IN)	LF	-330.00	\$23.00	-\$7,590.00
1896	7049-6052	New Line with Escalated Unit Price	LF	330.00	\$27.57	\$9,098.10
1905	7049-6074	SERVICE LINE (SHORT SIDE)(5/8 TO 1)	EA	-70.00	\$760.00	-\$53,200.00
1906	7049-6074	New Line with Escalated Unit Price	EA	70.00	\$890.43	\$62,330.10
1910	7049-6076	SERVICE LINE (SHORT SIDE)(1-1/2 TO 2)	EA	-68.00	\$1,260.00	-\$85,680.00
1911	7049-6076	New Line with Escalated Unit Price	EA	68.00	\$1,590.83	\$108,176.44
1915	7049-6077	SERVICE LINE (LONG SIDE)(1-1/2 TO 2)	EA	-3.00	\$2,280.00	-\$6,840.00
1916	7049-6077	New Line with Escalated Unit Price	EA	3.00	\$3,178.51	\$9,535.53
1920	7049-6083	TAPPING SLEEVE AND VALVE (8IN X 8IN)	EA	-6.00	\$5,860.00	-\$35,160.00
1921	7049-6083	New Line with Escalated Unit Price	EA	6.00	\$6,266.07	\$37,596.42
1925	7049-6090	TAPPING SLEEVE AND VALVE (12IN X 12IN)	EA	-2.00	\$10,152.00	-\$20,304.00
1926	7049-6090	New Line with Escalated Unit Price	EA	2.00	\$10,787.85	\$21,575.70
1930	7049-6104	FIRE HYDRANT ASSEMBLY	EA	-53.00	\$3,385.00	\$179,405.00
1931	7049-6104	New Line with Escalated Unit Price	EA	53.00	\$3,974.57	\$210,652.21
1935	7049-6106	AIR RELEASE/VACUUM RELEASE VALVE (2IN)	EA	-1.00	\$2,660.00	-\$2,660.00
1936	7049-6106	New Line with Escalated Unit Price	EA	1.00	\$3,082.15	\$3,082.15
1965	7049-6126	CUT AND PLUG WATER MAIN (6IN)	EA	-4.00	\$240.00	-\$960.00
1966	7049-6126	New Line with Escalated Unit Price	EA	4.00	\$295.11	\$1,180.44

Line No.	Item No.	Description	Unit	Quantity	Price	Total
1970	7049-6127	CUT AND PLUG WATER MAIN (8IN)	EA	-9.00	\$290.00	-\$2,610.00
1971	7049-6127	New Line with Escalated Unit Price	EA	9.00	\$366.94	\$3,302.46
1975	7049-6129	CUT AND PLUG WATER MAIN (12IN)	EA	-14.00	\$410.00	-\$5,740.00
1976	7049-6129	New Line with Escalated Unit Price	EA	14.00	\$535.95	\$7,503.30
1980	7049-6140	WET CONNECTION (8IN)	EA	-8.00	\$550.00	-\$4,400.00
1981	7049-6140	New Line with Escalated Unit Price	EA	8.00	\$670.54	\$5,364.32
1985	7049-6142	WET CONNECTION (12IN)	EA	-15.00	\$900.00	-\$13,500.00
1986	7049-6142	New Line with Escalated Unit Price	EA	15.00	\$1,135.51	\$17,032.65
1995	7049-6166	WTR (RESTRAINED JOINT) (DI) 8	LF	-545.00	\$79.00	-\$43,055.00
1996	7049-6166	New Line with Escalated Unit Price	LF	545.00	\$97.54	\$53,159.30
2005	7049-6185	CASING STEEL (16 IN)	LF	-135.00	\$107.00	-\$14,445.00
2006	7049-6185	New Line with Escalated Unit Price	LF	135.00	\$143.21	\$19,333.35
2010	7049-6189	WATER MAIN PIPE (DI)(12IN)(RESTR JT)	LF	-905.00	\$133.00	-\$120,365.00
2011	7049-6189	New Line with Escalated Unit Price	LF	905.00	\$171.35	\$155,071.75
2015	7049-6200	WTR MAIN PIPE(PVC)(6 IN)(DR 18)(C900)	LF	-130.00	\$22.75	-\$2,957.50
2016	7049-6200	New Line with Escalated Unit Price	LF	130.00	\$27.32	\$3,551.60
2020	7049-6201	WTR MAIN PIPE(PVC)(8 IN)(DR 18)(C900)	LF	-2,452.00	\$36.00	-\$88,272.00
2021	7049-6201	New Line with Escalated Unit Price	LF	2,452.00	\$46.03	\$112,865.56
2025	7049-6213	BLOW OFF VALVE (2IN)	EA	-2.00	\$1,250.00	-\$2,500.00
2026	7049-6213	New Line with Escalated Unit Price	EA	2.00	\$1,650.98	\$3,301.96
2035	7049-6221	AIR RELEASE/VACUUM RELEASE (1IN)	EA	-3.00	\$8,325.00	-\$24,975.00
2036	7049-6221	New Line with Escalated Unit Price	EA	3.00	\$9,662.71	\$28,988.13
2040	7049-6222	SERVICE LINE(EXTRA LONG SIDE)(5/8-1)	EA	-24.00	\$1,525.00	-\$36,600.00
2041	7049-6222	New Line with Escalated Unit Price	EA	24.00	\$2,100.84	\$50,420.16
2045	7049-6223	SERVICE LINE(EXT LONG SIDE)(1-1/2-2)	EA	-24.00	\$2,500.00	-\$60,000.00
2046	7049-6223	New Line with Escalated Unit Price	EA	24.00	\$3,909.71	\$93,833.04
<b>Total Cost for Adjusted Items on CSJ: 1686-03-097</b>						<b>\$527,745.96</b>

The revisions covered by this change order do not require revisions to the original environmental clearances or approval by the Texas Department of Licensing and Regulation (TDLR). The revisions covered by this change order are estimated to result in an overrun of the funds authorized for the project in the amount of \$531,769.67. In addition, this change order is associated with four (4) third-party (local government) amounts per the agreed upon, executed Advance Funding Agreements (AFA's) as follows:

City of Houston (COH) executed AFA dated November 15, 2021

- 100% non-reimbursable = \$255,876.09
  - + 4.96% Engineering (\$12,694.45) + 1.99% Contingency (\$5,091.94)
    - Total = \$273,659.48

City of Humble executed AFA dated July 30, 2020

- 100% non-reimbursable = \$41,855.72
  - + 4.96% Engineering (\$2,076.04) + 1.99% Contingency (\$832.93)
    - Total = \$44,764.69

Harris County Municipal Utility District (MUD) 46 executed AFA dated April 15, 2020

- 8.32% non-reimbursable = \$7,966.47
  - + 4.96% Engineering (\$395.14) + 1.99% Contingency (\$158.53)
    - Total = \$8,520.14

Harris County Municipal Utility District (MUD) 109 executed AFA dated April 30, 2020

- 79.29% non-reimbursable = \$101,487.88
  - + 4.96% Engineering (\$5,033.80) + 1.99% Contingency (\$2,019.61)
    - Total = \$108,541.29

The total change order amount for this project has not exceeded 10% of the original Contract amount; however, this change order exceeds \$50,000.00 and will require District Engineer approval. This change order has been approved by the NHAO.

If you have any questions, please contact me at (281) 319-6408.

CP:pbg  
Attachments

The items & quantity that would be reimbursed by MUD # 109 as per Summary of Utility Quantities Sheet 31 for CSJ 1685-04-058

Line No.	Item Number	Item Description	Unit	QTY	Old Unit Price	New Price	Escalated Price = New - Old	TOTAL	MUD # 109's Share (79.29 %)
1821	70176088	AIR RELEASE VALVE (2 IN)	EA	3	\$ 12,800.00	\$15,295.14	\$ 2,495.14	\$ 7,485.42	\$ 5,935.19
1841	70176141	SAN SEWER (8IN) (DI) (RESTRAINED JT)	LF	3,360	\$ 85.00	\$ 102.22	\$ 17.22	\$ 57,859.20	\$ 45,876.56
1861	70496017	WATER MAIN PIPE (PVC)(12IN)(DR18)(C900)	LF	922	\$ 58.30	\$ 80.54	\$ 22.24	\$ 20,505.28	\$ 16,258.64
1911	70496076	SERVICE LINE (SHORT SIDE) (1-1/2TO 2)	EA	4	\$ 1,260.00	\$ 1,590.83	\$ 330.83	\$ 1,323.32	\$ 1,049.26
1916	70496077	SERVICE LINE (LONG SIDE) (1-1/2TO 2)	EA	3	\$ 2,280.00	\$ 3,178.51	\$ 898.51	\$ 2,695.53	\$ 2,137.29
1931	70496104	FIRE HYDRANT ASSEMBLY	EA	10	\$ 3,385.00	\$ 3,974.57	\$ 589.57	\$ 5,895.70	\$ 4,674.70
1971	70496127	CUT AND PLUG WATER MAIN (8IN)	EA	2	\$ 290.00	\$ 366.94	\$ 76.94	\$ 153.88	\$ 122.01
1976	70496129	CUT AND PLUG WATER MAIN (12IN)	EA	2	\$ 410.00	\$ 535.95	\$ 125.95	\$ 251.90	\$ 199.73
1981	70496140	WET CONNECTION (8IN)	EA	2	\$ 550.00	\$ 670.54	\$ 120.54	\$ 241.08	\$ 191.15
1986	70496142	WET CONNECTION (12IN)	EA	3	\$ 900.00	\$ 1,135.51	\$ 235.51	\$ 706.53	\$ 560.21
2006	70496185	CASING STEEL (16 IN)	LF	135	\$ 107.00	\$ 143.21	\$ 36.21	\$ 4,888.35	\$ 3,875.97
2016	70496200	WTR MAIN PIPE(PVC)(6 IN)(DR 18) (C900)	LF	130	\$ 22.75	\$ 27.32	\$ 4.57	\$ 594.10	\$ 471.06
2021	70496201	WTR MAIN PIPE(PVC)(8 IN)(DR 18) (C900)	LF	2,452	\$ 36.00	\$ 46.03	\$ 10.03	\$ 24,593.56	\$ 19,500.23
2026	70496213	BLOW OFF VALVE (2IN)	EA	2	\$ 1,250.00	\$ 1,650.98	\$ 400.98	\$ 801.96	\$ 635.87

MUD # 109's share in total price of contract line items that got escalated in prices in CO # 3

\$ 127,995.81 \$ 101,487.88

Contingency Percentage :	1.99	\$ 2,019.61
Engineering Percentage :	4.96	\$ 5,033.80
Total Funding from Muncipal Urban Development # 109 to TXDOT towards change order # 3 - PVC Price Escalation		<b>\$ 108,541.29</b>

**CHANGE ORDER REQUEST**  
 (one form per change order)

To process a change order, contractor must complete a narrative to justify reimbursement, complete the following

Contractor: Angel Brothers Holdings  
 Control: 1685-03-058  
 Highway: FM 1960 (West Section)  
 County: Harris  
 Subject: RFCO #1 PVC Escalation R1

CO DIRECTED BY	
TXDOT	Yes
Contractor	Yes
Other	
Backup Docs	Yes No

**NARRATIVE**

The attached RFCO is in reference to the Force Majeure letter sent to the department on 04-12-2021 regarding the material escalation for utility items on the referenced project. Following both the letter and conversations with the assistant AE overseeing the project it was requested that Angel Brothers submit the attached RFCO and backup documentation for the escalation. As stated in both the letter and in the referenced conversation, Angel Brothers explained to the department that between the time that the project was let and current there has been a drastic increase in material pricing. This is mostly due to the resin shortage for PVC materials as you will see in the attached documents, along with other material increases due to the time frame in question. Angel Brothers explained to the department that its vendor has informed them that the resin shortage will not be going away soon, and the materials will continue to escalate for some time. As the overall price of the materials between bid time and current has escalated by +/- 50% of the original value, TxDot and Angel Brothers reached a possible conclusion to mitigate the overall impact and avoid additional escalation CO's throughout the project. It was determined that Angel Brothers could submit one RFCO for the escalation to be executed and in turn purchase the materials as MOH. This would constitute that Angel Brothers store the materials at their yard until such time that they are needed on the project at which time the materials would be shipped from Angel Brothers yard to the project. At the departments request, this will be addressed under seperate cover via an additoanl RFCO.





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**Taylor Welch**  
**Sales Manager**  
**Ferguson Waterworks**  
15711 Eastex Freeway  
Humble, TX 77396  
T: (832) 995-4123

April 1, 2021

TO: Utility Contractor/Engineer/Owner

Subject: PVC pipe availability

PVC pipe manufacturers are experiencing much longer lead times on pipe than what our market is accustomed to. In some instances, orders are 8-10 weeks out for standard pipe sizes.

We wanted to consolidate some of the letters sent out over the past month, and formally make everyone aware of the potential delays in PVC pipe delivery. Pricing in some circumstances is unknown until the pipe becomes available.

Should you have any questions, please reach out to your Ferguson Waterworks representative.

15711 Eastex Freeway Humble, TX 77396 Phone: 713-675-2211 Fax: 281-441-2823

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*All Information enclosed is strictly confidential*



March 18, 2021

**PVC/ABS Market Impacts from Resin Shortage**

Dear Ferguson customer,

PVC/ABS resin companies continue to recover from the extensive damage inflicted upon the Gulf Coast last month by Winter Storm Uri. Freezing temperatures and extended power outages damaged various industrial facilities, causing numerous manufacturing delays. This damage has exacerbated issues that resin manufacturers were still experiencing from 2 hurricanes that passed through the region in 2020. The combined impact of these natural events extends a period of reduced production capacity well into the summer.

PVC/ABS resin availability has become extremely limited due to reduced production capacities. Current market demand for pipe and fitting resin continues to exceed the production capabilities of the resin manufacturers. **Due to these conditions, manufacturers are allocating resin to their customer base at approximately 60% of the normal volumes.**

As a result of these resin allocations, pipe and fitting producers have begun to allocate PVC/ABS pipe and fittings to their wholesale and retail customer base. These announced allocations have led to an industry wide spike in buying activity that has further stressed available inventories in all markets across the U.S.

**Actions taken by Ferguson**

To ensure consistent supply of PVC/ABS pipe and fitting products, Ferguson will continue to closely monitor the PVC/ABS market and work proactively with our vendor partners to minimize any negative impacts resulting from these allocations, including mitigating extended lead times for all Ferguson customers. We will continue to take steps to ensure we secure all available inventory of PVC/ABS fittings within the U.S. markets and maximize product availability for our customers.

Please reach out to your local Ferguson sales professional with additional questions or any other supply needs you may have.

Thanks,

Chip Devine  
Senior Vice President – Sales

Jim Golini  
Vice President - Residential Trade

**DIAMOND**  **PLASTICS®**  
C O R P O R A T I O N

Corporate Headquarters: 1212 Johnstown Rd. • P.O. Box 1608 • Grand Island, NE 68802-1608  
800-PVC-PIPE • 800/782-7473 • www.dpcpipe.com

March 12, 2021

TO: All Municipal PVC Pipe Customers

FROM: D. Bauer, S. Yentes

SUBJECT: PVC Pipe Price Increase

The situation with resin and other raw materials continues to be very unstable. Our ability to accurately forecast incoming raw material deliveries is cloudy at best. This instability, as well as the continuing cost increases, requires we increase pipe prices.

Effective immediately our PVC Pipe pricing is as follows:

**Immediate Shipments**  
(Immediate release subject to availability)

**Block 150**

**Standard Quotations**

**Block 160**

Current orders will be honored within terms, subject to availability. Orders with expired terms will be repriced.

We realize this is a very difficult situation. If you have any questions, please contact your local Diamond Plastics' representative.

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*Celebrating Over 30 Years of Excellence*

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**Manufacturing Locations:**

Grand Island, Nebraska - Lubbock, Texas - Macon, Georgia - Muncie, Indiana  
Golconda, Nevada - Plaquemine, Louisiana - Casa Grande, Arizona

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C O R P O R A T I O N

Corporate Headquarters: 1212 Johnstown Rd. • P.O. Box 1608 • Grand Island, NE 68802-1608  
800-PVC-PIPE • 800/782-7473 • www.dpcpipe.com

March 23, 2021

TO: All Municipal PVC Pipe Customers

FROM: D. Bauer, S. Yentes

SUBJECT: PVC Pipe Price Increase

Due to market conditions and the continuing increased cost of resin, we are implementing a price increase.

Effective immediately our PVC Pipe pricing is as follows:

**Immediate Shipments**  
(Immediate release subject to availability)

**Block 160**

**Standard Quotations**

**Block 170**

Current orders will be honored within terms, subject to availability. Orders with expired terms will be repriced.

We realize this is a very difficult situation. If you have any questions, please contact your local Diamond Plastics' representative.

*Celebrating Over 30 Years of Excellence*

**Manufacturing Locations:**

Grand Island, Nebraska - Lubbock, Texas - Macon, Georgia - Muncie, Indiana  
Golconda, Nevada - Plaquemine, Louisiana - Casa Grande, Arizona

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Corporate Headquarters: 1212 Johnstown Rd. • P.O. Box 1608 • Grand Island, NE 68802-1608  
800-PVC-PIPE • 800/782-7473 • www.dpcpipe.com

March 29, 2021

TO: All Municipal PVC Pipe Customers

FROM: D. Bauer, S. Yentes

SUBJECT: PVC Pipe Price Increase

Raw material costs continue to rise so we must increase our current block numbers to the following:

Effective immediately our PVC Pipe pricing is as follows:

**Immediate Shipments**  
(Immediate release subject to availability)

**Block 175**

**Standard Quotations**

**Block 185**

Current orders will be honored within terms, subject to availability. Orders with expired terms will be repriced.

This continues to be a very difficult situation. If you have any questions, please contact your local Diamond Plastics' representative. We appreciate your business and look forward to continuing to serve your PVC pipe needs.

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*Celebrating Over 30 Years of Excellence*

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**Manufacturing Locations:**

Grand Island, Nebraska - Lubbock, Texas - Macon, Georgia - Muncie, Indiana  
Golconda, Nevada - Plaquemine, Louisiana - Casa Grande, Arizona



**NAPCO, a Westlake company**  
2801 Post Oak Blvd., Suite 600, Houston, Texas 77056  
Tel: 713.840.7473, Fax: 713.552.0087

Date: March 11, 2021  
To: All Municipal Customers  
From: Brent Wetmore, Vice President - Sales  
Subject: PVC Pipe Prices – Municipal Products

The volume of municipal orders we are receiving is a reflection of the positive construction market across the country.

NAPCO is committed to being able to both quote future project requirements and accept your orders during this busy time.

Unfortunately, as the backlog increases and the delivery lead times increase, we must protect ourselves against the continuing volatility of raw materials.

Effective immediately we must increase our current Block numbers to the following:

<b>Immediate Shipments</b> (immediate release subject to availability)	<b>Block 150</b>
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<b>Standard Quotations 30/60</b>	<b>Block 160</b>
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All current orders and quotes will be honored within terms and are subject to our ability to ship. Orders and quotes with expired terms will be re-priced.

If you have any questions regarding product availability or this price increase, please contact your local North American Pipe sales representative.

We appreciate your business and look forward to continuing to serve your PVC pipe needs.





**NAPCO, a Westlake company**  
2801 Post Oak Blvd., Suite 600, Houston, Texas 77056  
Tel: 713.840.7473, Fax: 713.552.0087

Date: March 16, 2021

To: All Municipal Customers

From: Brent Wetmore, Vice President - Sales

Subject: PVC Pipe Prices – Municipal Products

NAPCO thanks you for your continued support. We value your business and are committed to being able to both quote your future projects and accept new orders during this very busy time.

Unfortunately, our increasing backlog is pushing out both our production schedule and our delivery dates. In order to protect ourselves against rising raw material costs, we must increase our current block numbers to the following:

**Immediate Shipments**  
(immediate release subject to availability)

**Block 160**

**Standard Quotations 30/60**

**Block 170**

All current orders and quotes will be honored within terms and are subject to our ability to ship. Orders and quotes with expired terms will be re-priced.

If you have any questions regarding product availability or this price increase, please contact your local North American Pipe sales representative.

We appreciate your business and look forward to continuing to serve your PVC pipe needs.



**NAPCO, a Westlake company**  
2801 Post Oak Blvd., Suite 600, Houston, Texas 77056  
Tel: 713.840.7473, Fax: 713.552.0087

Date: March 29,2021

To: All Municipal Customers  
From: Brent Wetmore, Vice President - Sales  
Subject: PVC Pipe Prices – Municipal Products

NAPCO thanks you for your continued support. We value your business and are committed to being able to both quote your future projects and accept new orders during this very busy time.

Unfortunately, our increasing backlog is pushing out both our production schedule and our delivery dates. In order to protect ourselves against rising raw material costs, we must increase our current block numbers to the following:

**Immediate Shipments**  
(immediate release subject to availability)

**Block 175**

**Standard Quotations 30/60**

**Block 185**

All current orders and quotes will be honored within terms and are subject to our ability to ship. Orders and quotes with expired terms will be re-priced.

If you have any questions regarding product availability or this price increase, please contact your local North American Pipe sales representative.

We appreciate your business and look forward to continuing to serve your PVC pipe needs.



NAPCO, a Westlake company  
2801 Post Oak Blvd., Suite 600 ■ Houston, Texas 77056  
Tel 713.840.7473 ■ Fax 713.552.0087

Date: March 24, 2021

To: All Municipal Customers

From: Brent Wetmore – Vice President, Sales

Subject: Municipal Specialty Price Increase

Effective April 1st, 2021 NAPCO Pipe & Fittings will implement an 10% price increase on all C900 RJ, RJIB, Yelomine, Certa-Com and Certa-Flo products. This includes all pipe, couplings, fittings and accessories.

All current orders and quotes will be honored within terms and are subject to our ability to ship. Orders and quotes with expired terms will be re-priced.

Should you have any questions about availability or this increase, please contact your local NAPCO Pipe & Fittings sales representative.

We appreciate your business and look forward to continuing to service you PVC Pipe Needs.

# Resin market recovery could linger through first half of 2021

By Frank Esposito  
Plastics News Staff

Resin suppliers are facing some harsh realities in the wake of Winter Storm Uri, which hit Texas in mid-February.

The storm affected the production of almost every resin and feedstock made on the Texas Gulf Coast. Electricity and natural gas were knocked out at some sites for 48 hours or more. And even though many are up and running now, getting back to pre-storm production may take longer than expected, according to market sources interviewed by *Plastics News*.

These conditions are expected to make it difficult for resin buyers to source many resins, possibly through the first half of 2021. A resin distributor in the southern U.S. told *PN* that his firm was offered 10 truckloads of polypropylene resin last week, but before they could buy them, a compounding firm bought the material for a higher price.

"We're hearing you can only get spot material if you're willing to pay 50 percent more," he said. "This isn't going to get better overnight."

ExxonMobil Chemical has begun restarting activities in Beaumont, Texas, and is preparing to restart at Baytown, a company spokesman told *PN*. The firm "is working to reestablish normal operations and replenish fuel supplies as safely and quickly as possible following the extreme weather in Texas," he said.

ExxonMobil had closed those locations in advance of the cold weather. The firm makes polyethylene resin and ethylene feedstock at both sites, as well as PP resin in Baytown and propylene feedstock in Beaumont.

A spokesman for resin maker Dow Inc. of Midland, Mich., said in a March 4 email that although it's too early for Dow to estimate potential impact on its businesses, officials in the near-term "expect the product and supply chain impacts across the industry to

See **Resin**, Page 19

## Resin

Continued from Page 1

create very tight supply balances across our key value chains."

"We are prioritizing startups for impacted operations based on raw material availability and utility balances," the spokesman added.

Chevalier Gray, media relations manager with LyondellBasell Industries in Houston, said in an email that power has been restored to the firm's U.S. Gulf Coast asset locations and personnel are performing storm-related repairs.

"When repairs are complete and raw materials and utilities become available, we will safely resume operations," she said.

On a Feb. 23 conference call with analysts, Albert Chao, president and CEO of Houston-based resin maker Westlake Chemical Corp., commented on post-ice challenges that his firm could be facing.

"With a hard crash hurricane, you know it's coming, you prepare and you shut [plants] down orderly," he said. "But with a freeze, sometimes you're caught off guard, your boilers get tripped and you're out of steam and the plants come crashing down."

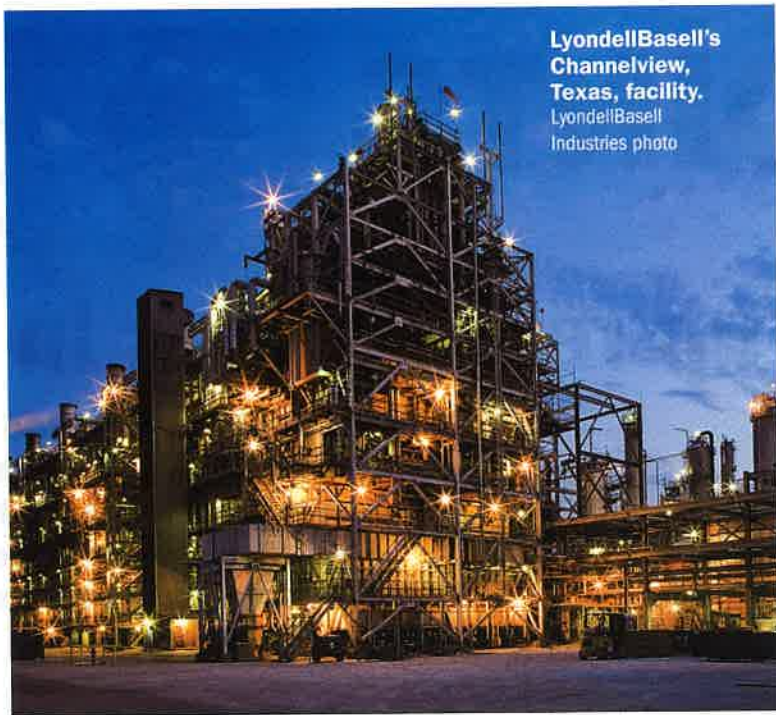
## MAPP seeks to help molders access resin

Resin distribution veterans Bruce Flannery and Jeff Schultz of resin distributor Amco Polymers covered many areas of the resin shortage on a March 2 webinar hosted by the Manufacturers Association for Plastics Processors. Flannery is commodities product director and Schultz is engineering thermoplastics product director for Orlando, Fla.-based Amco.

Flannery and Schultz estimated that as of Feb. 28, North American PE and PP resin production was running at a combined operating rate of only 12 percent, compared with its normal 90 percent level. They also estimated that 80 percent of the region's resin makers had customers on some type of allocation.

On March 3, Indianapolis-based





LyondellBasell's  
Channelview,  
Texas, facility.  
LyondellBasell  
Industries photo

MAPP announced the launch of a new digital plastics materials exchange platform to its membership to locate and purchase raw material. Officials said the current raw materials crisis and force majeure in the plastics marketplace create an immediate opportunity to identify alternate materials.

"Historically, molders hold excess inventory created by canceled programs, projects with high-volume projections with disappointing results and custom resins that can't be used elsewhere," they said in a news release. "This creates a window of opportunity for MAPP members to bring these two worlds together."

Members can log in to the MAPP website and post excess or obsolete raw materials to sell or indicate what materials they need. During the webinar, MAPP Executive Director Troy Nix said that the organization has been posting two or three emergency alerts every day from members needing material.

Amco's Flannery explained on the webinar that current resin shortages are the result of a series of events that began last March, when uncertainty tied to the pandemic caused resin

makers to destock. That then left supplies already tight when demand returned more quickly than expected, both in the U.S. and globally.

The situation was worsened by a turbulent hurricane season starting in August, Flannery said, which led to logistics being overwhelmed. But resin demand remained strong, he added, further tightening the market until the ice storm "decimated refinery and chemical operations."

"The state of the market is a dumpster fire," Flannery said. "I've never seen this in 40 years in the industry."

Cracked pipes, joints and valves at resin plants may be difficult to repair, with many firms looking for parts. Flannery said that some ethylene and propylene plants began to operate at reduced rates starting Feb. 28, but he added that "doesn't mean full production."

Schultz said that lead times for deliveries of many resins now are stretching beyond 20 weeks, with lead times for imported resins at 28-30 weeks.

"It's hard to estimate your needs for delivery in August or September," he added. "COVID disrupted historic forecast models. There isn't any unsold resin

and domestic demand from many markets remains strong, including packaging, health care, automotive, and building and construction."

Schultz added that sales at major retailer Home Depot were up 25 percent in the fourth quarter and that U.S. vehicle production in the third and fourth quarters matched year-ago levels, even after seeing a huge pandemic drop in the second quarter of 2020.

Final vehicle build numbers for 2020 now are expected to reach 16 million — just slightly under 2019 — after dropping to a production rate equal to 13 million earlier in 2020. Flannery said that in some cases, production schedules at material plants have changed because of employees contracting COVID. He added that maintenance schedules also have been extended. Truck and shipping traffic also is backed up because of high numbers of orders.

The resin outage amounted to 1.9 billion pounds of lost PE/PP production in the 12-day period starting Feb. 14, according to Flannery. "That production is gone forever," he said. "It's not like you can work Saturday and Sunday and make up for it."

## 'Not good for our industry'

Although most resin plants should be up and running at some level by mid-March, it could be late in the second quarter before producers can fully meet allocations.

"With a hurricane, you can get a quick read within 24 or 48 hours and know what's affected," Flannery said. "This [ice storm] is like a hurricane hit all of Texas and sat for a week."

"The next two weeks will be critical to recovery," he added.

Potential shortages of PE and PP needed to make packaging and consumer goods, which account for more than half of demand for those resins, could lead to hyper demand, high prices and ongoing allocations.

"That's not good for our industry," Flannery said. "That's the last thing any of us want."

According to Schultz, supplies of many engineering resins — including polycarbonate, ABS, nylons 6 and 6/6, acetal and PBT — should remain tight through the first half of 2021. "We don't know what we'll get or when we'll get it, and prices are moving up," he said.

Flannery and Schultz recommended several action steps for resin buyers, including working with core suppliers and talking with them to ensure credit availability. Processors also should qualify alternate resins and require multiple resin approvals, they said. Providing suppliers with a two- to three-day delivery window also is a good idea.

"Be ready to give long-term commitments and make sure you're getting your allocated amounts," Schultz said. "We're all in this together, but processors need to start being proactive now."

Market analyst Robert Bauman, president of Polymer Consulting International in Ardsley, N.Y., compared the ice storm to Hurricane Harvey, which hit the Gulf Coast in August 2017 and disrupted resin market well into 2018.

"Most of the [resin] plants were operational after a few weeks following the hurricane, exclusive of infrastructure problems," he said in an email to *PN*. "I believe that most people along the supply chain may not realize the severity of a sudden, unexpected power failure."

Bauman added that, in addition to outages in utilities and olefin feedstocks, a sudden power failure could result in the contents of some polymer reactors solidifying.

"This would require a difficult, manual, labor-intensive process to remove the solidified contents of the reactor and repair or replace any instrumentation and controls affected by the freeze," he said.

An East Coast resin distributor told *PN* that the current market is "the worst I've seen in 25 years."

"I've never seen as few offers for polyethylene [resin] as we're seeing now," he said. "Some plants are coming back on, but things might not get back to normal until May."



# Q1



**AGC**  
THE CONSTRUCTION  
ASSOCIATION

# 2021

## CONSTRUCTION INFLATION ALERT

The construction industry is currently experiencing an unprecedented mix of steeply rising materials prices, snarled supply chains, and staffing difficulties, combined with slumping demand that is keeping many contractors from passing on their added costs. This combination threatens to push some firms out of business and add to the industry's nearly double-digit unemployment rate.

The situation calls for immediate action by federal trade officials to end tariffs and quotas that are adding to price increases and supply shortages. Officials at all levels of government need to identify and remove or lessen any unnecessary or excessive impediments to the importation, domestic production, transport, and delivery of construction materials and products. Project owners need to recognize how much conditions have changed for projects begun or awarded in the early days of the pandemic or before and to consider providing greater flexibility and cost-sharing. Contractors should become even more vigilant about changes in materials costs and expected delivery dates and should communicate the information promptly to current and prospective clients.

This report is intended to provide all parties with better understanding of the current situation, the impact on construction firms and projects, its likely course in the next several months, and possible steps to mitigate the damage. The document will be revised to keep it timely as conditions change. Please send comments and feedback to AGC of America's chief economist, Ken Simonson, [ken.simonson@agc.org](mailto:ken.simonson@agc.org).

[www.agc.org](http://www.agc.org)



# Rising costs, flat project pricing

Figure 1 illustrates the threat to contractors from fast and steeply rising prices for materials, both for projects that have already been bid or started and for preparing -price or guaranteed-maximum-price bids. The red line shows the change since April 2020 in the price of all materials and services used in nonresidential construction, while the blue line measures the change—or lack of change—in what contractors say they would charge to erect a set of nonresidential buildings. This blue line, essentially a measure of bid prices, has remained virtually stable, rising only 0.5% from April 2020 to February 2021. In contrast, the red line, measuring the cost of contractors' purchases, has soared nearly 13% over the same 10 months.

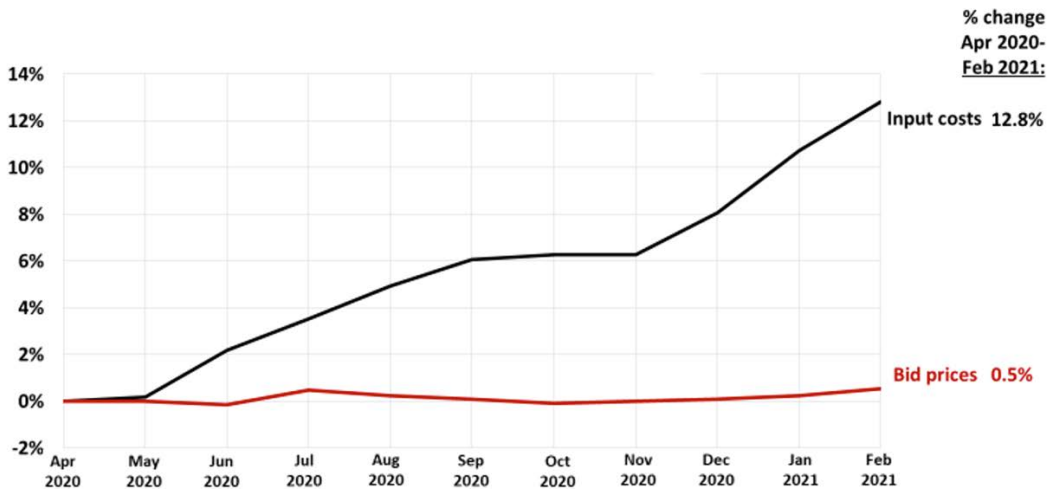
In other words, if a contractor or subcontractor submitted a fixed-price bid in April 2020 based on materials costs at that time but did not buy the materials until February 2021, its cost for the materials would have risen an average of nearly 13%. Given that materials often represent half or more of the cost of a contract, such an increase could easily wipe out the profit from a project and create severe financial hardship for the contractor.

## 12.8%

Input costs for general contractors have soared nearly 13% from April 2020 to February 2021

**FIGURE 1**

**Change in construction input costs and bid prices**  
April 2020-February 2021



Source: Bureau of Labor Statistics, producer price indexes (PPIs) for new nonresidential building construction (bid prices) and inputs to nonresidential construction (input costs), not seasonally adjusted

In fact, Figure 1 understates the severity of the current situation for many contractors, in three respects. First, the two lines are calculated from producer price indexes (PPIs) posted monthly by the Bureau of Labor Statistics (BLS). The most recent PPIs are based on prices BLS collected around February 11.

Since then, numerous materials have risen even more steeply in price. For instance, the national average retail price of on-highway diesel fuel climbed from \$2.80 per gallon on February 8 to \$3.19 on March 22, a rise of 14% in just six weeks, according to a weekly truckstop survey posted by the Energy Information Administration. Private price-tracking services have reported similarly steep increases for a variety of steel, lumber, and engineered wood products.

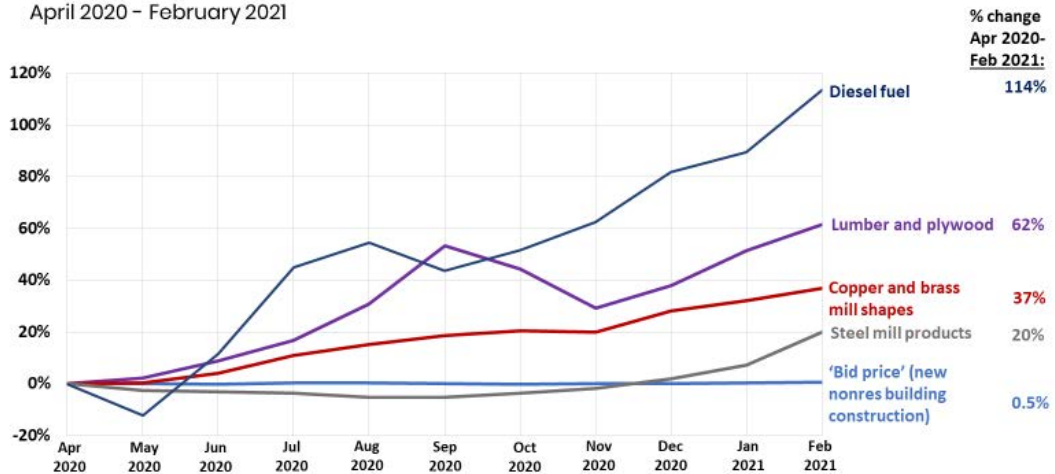
Second, contractors are incurring costs not captured by this measure. Delayed deliveries, higher expenditures for personal protective equipment and other sanitation measures, and shortages of employees or subcontractors' workers on jobsites due to coronavirus impacts are all driving up contractors' costs. In some cases, project completions are being delayed, meaning contractors receive needed payments later and may incur penalties for missed deadlines.

Third, many projects or subcontractors' packages are heavily weighted toward materials that have risen much more in price than the overall PPI for inputs. As Figure 2 shows, the PPI for diesel fuel (at the fuel terminal, not retail) increased 114% between April 2020 and February 2021. The PPI for lumber and plywood jumped 62%. The index for copper and brass mill shapes climbed 37% and the PPI for steel mill products rose 20%.

**114%**  
 Diesel fuel PPI (Producer Price Index) has increased more than 114% between April 2020 to February 2021

**FIGURE 2**

**Price changes for construction and selected materials**  
 April 2020 - February 2021



Source: Bureau of Labor Statistics, producer price indexes (PPIs) for new nonresidential building construction (bid prices), diesel fuel, wood, and metal products, not seasonally adjusted

**270%**  
 Due to extreme weather conditions and general demand, PVC prices have increased over 270% from March 2020 to March 2021

Some broad categories of products have not gone up dramatically, but narrower classes of products within those categories have. For instance, the PPI for plastic construction products rose “only” 6% from March 2020 to January. But an AGC member reported on March 5 that for polyvinyl chloride (PVC) “used in electric utility work the price from [March 2020] to January 2021 had a general increase of 85%.” Following extreme winter weather in Texas that knocked out production facilities and created a surge in demand for pipe to replace broken lines, “Now that increase is 270% from March 2020” to March 4, 2021.

In recent weeks, producers and distributors of many additional materials have announced large price increases. Some have already been imposed, while others are scheduled to take effect in the next few weeks.

For example, a leading producer of spray polyurethane products, used for building sealants and insulation, announced on March 12 that it would increase prices 12-15%, “effective for all new and existing orders shipping after April 12.” On March 4 another supplier

notified customers of two price increases of 10% each, effective on April 5 and May 1. On March 10, a major building-products distributor announced 19 broad categories of price increases, ranging as high as a 20% increase effective on April 5 for “all wallboard and glass mat products.”

In addition to sudden price increases, contractors are experiencing delivery times that have stretched or become completely unreliable. A producer of building mesh told customers on March 15, “Volatility in the costs associated with producing and shipping standard welded wire reinforcement has made it necessary for us to withdraw all previously issued price lists. The availability of SWWR has been negatively impacted by the shortage of raw materials; therefore, lead times previously quoted will require review.”

## Not a short-term problem

Some might assume contractors will simply raise their prices to cover the added costs. But current conditions in the industry, as well as the record from previous episodes of escalating materials costs, suggest that the mismatch between materials costs and contractors’ prices is likely to persist for an extended period.

The pandemic has caused current production and delivery of many materials to fall short of demand. Initially, a wide range of factories, mills, and fabrication facilities were shut down on their owners’ initiative or because government orders deemed them to not be “essential.” In some cases, contractors—particularly homebuilders—canceled orders because they no longer saw demand for construction. Once production facilities were allowed to re-open, many of them had trouble getting up to full capacity because their own workers or those of their suppliers and freight haulers may have been ill, quarantined, or required to care for family members at home.

Imported products and components also were subject to production and shipping shutdowns in the early months of the pandemic. This particularly affected many products from China and northern Italy, ranging from kitchen cabinets and appliances to tile flooring to elevators. In recent months, production has increased but containers, ships, port space, and trucking capacity have all experienced bottlenecks that have slowed deliveries.

Dramatic shifts in demand triggered, at least in part, by the pandemic have added to price pressures and shortages of goods. Housing starts have increased between 15% and 20% from year-earlier levels, creating huge additional demand for wood products and other items that are also used in nonresidential construction. Restaurants that added decks and railings for outdoor dining, along with offices and other buildings undergoing remodeling, added to demand for these products.

A more recent source of price increases and extended lead times was the extreme winter weather that struck Texas in February. Widespread, unanticipated power failures and unusual freezing temperatures shut down petrochemical plants that normally operate around the clock. Frozen pipes burst, adding to the damage. Repairing the damage and getting complex facilities back to full operating rates is likely to take several months in some cases.

Loss of this production affects plastic resins and other “building blocks” for a wide range of construction products, including: PVC pipe and other hard plastic products like plumbing fittings

**15-20%**

Housing starting costs have increased between 15% to 20% from year-earlier levels

and fixtures; vinyl siding and vapor barriers; binders or "glue" for the particles and layers of plywood and oriented strand board (OSB), and adhesives for backing/facing for wallboard. Various types of cardboard, paper, and plastic packaging, tapes, and fasteners, including ones for shipping and protecting construction materials, also depend on resins. The freeze also added to demand for plastic pipe and fittings to replace broken water lines, adding to the demand-supply imbalance.

Yet another cause of higher prices and tighter supply is trade policy actions imposed in 2018-2020. Tariffs or quotas on steel and aluminum from many countries, along with tariffs on hundreds of parts and materials from China, drove up the cost of many construction products and limited the number of suppliers, which has led to longer delivery times. Failure to renew a longstanding softwood lumber agreement with Canada has added to lumber costs.

Although the ostensible purpose of some of the trade actions was to protect and create jobs in the U.S. manufacturing sector, steel in particular, very little capacity has been added so far. Many manufacturers merely raised their prices in tandem with the imposition of tariffs.

## PAST EPISODES

# 12.9%

In the past price inflation, materials costs experienced an annual growth rate increase of 12.9% in September 2008

The construction industry has endured previous spells of rapid cost escalation. For instance, the PPI for goods used in new nonresidential construction accelerated from a 3.6% year-over-year rate of increase in January 2004 to 10.0% by October of that year and remained above a 5% annual rate for a total of 31 months, before subsiding to a 3.2% rate in October 2006.

Less than a year later, materials costs soared again, rising from a 1.6% annual growth rate in August 2007 to 12.9% in September 2008. The financial crisis that fall brought rates down rapidly but, again, only for about a year. The growth rate spiked from 0.4% year-over-year in December 2009 to 5.8% the following April and remained above or close to 5% until early 2012.

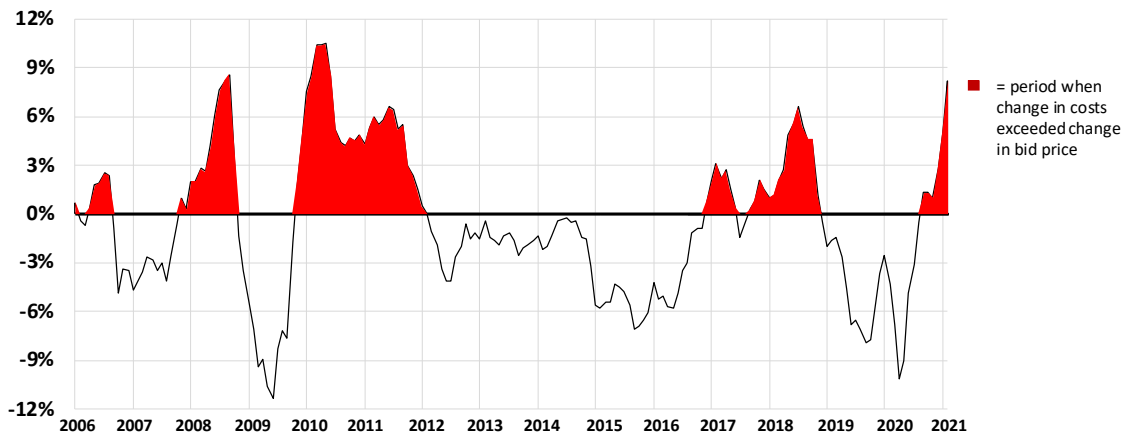
The most recent episode of high materials cost increases was from November 2018 through November 2019, when the year-over-year price change ranged from 4.9% to 9.2%.

While each of these price spikes eventually subsided, they caused enormous harm to contractors, who generally were not able to pass along the increases for an extended period. Not only were firms that had already signed contracts to deliver a project at a fixed price caught by the increases, but competition kept contractors from raising bids to match for a year or longer. A comparison of the year-over-year change in the PPI for materials with the PPIs for five types of new nonresidential buildings shows there were periods as long as 28 consecutive months with such price disparities. That is, contractors' bid prices rose less—or decreased—relative to the cost of the goods they purchased. For the most part, these months coincided with periods in which the value of nonresidential construction was stagnating or shrinking.

Figure 3 shows this comparison for one building type, new warehouse building construction. Periods in which the PPI for goods used in nonresidential construction exceeded the PPI for warehouse contractors' bid prices appear in red. The longer these intervals last and the higher the peak—i.e. the larger the gap between costs and bid prices—the more likely it is that some contractors will have financial difficulties. The current period already has one of the highest peaks.

**FIGURE 3**

**Change in material costs vs. change in warehouse bid prices** Jan. 2006 -Feb. 2021  
Difference between year-over-year change in costs vs. bid prices



Source: Bureau of Labor Statistics, producer price indexes for goods inputs to nonresidential construction (material costs) and new warehouse construction (bid prices)

## CURRENT DEMAND FOR CONSTRUCTION

The construction market currently is marked by a huge disparity. Residential construction spending—comprising new single- and multifamily structures along with additions and renovations to owner-occupied housing—jumped 21% from January 2020 to January 2021. Over the same 12 months, private nonresidential construction spending tumbled 10%.

Employment data show a similar story. Both residential and nonresidential construction employment plunged by 14-15% from February to April 2020. But over the next nine months, through January 2021, employment among residential building and specialty trade contractors rebounded to the same level as in February 2020, immediately before the pandemic struck. In contrast, in those nine months nonresidential building, specialty trade and heavy and civil engineering contractors added back little more than half of the employees they lost between February and April 2020.

AGC has surveyed its members repeatedly since March 2020 to gauge the impact of the pandemic on their businesses. Consistently, and as recently as March 2021, only about one-third of firms reported the volume of their business had matched or exceeded the levels of one year before, while an equal share predicted they would not return to that level for more than six months. The remainder either thought it would take 1-6 months to reach year-ago levels or didn't know. These results, like the spending and employment data, point to a large amount of downward pressure on contractors' ability to pass along material cost increases. (Full survey results are available here: <https://www.agc.org/news/2021/03/11/march-2021-agc-coronavirus-survey-results>.)

**21%**

Residential construction spending jumped 21% from January 2020 to January 2021



# What can contractors and owners do?

While contractors cannot unplug ports or rescind tariffs, they can provide project owners with timely and credible third-party information about changes in relevant material costs and supply-chain snarls that may impact the cost and completion time for a project that is underway or for which a bid has already been submitted.

Owners can authorize appropriate adjustments to design, completion date, and payments to accommodate or work around these impediments. Nobody welcomes a higher bill, but the alternative of having a contractor stuck with impossible costs or timing is likely to be worse for many owners.

For projects that have not been awarded or started, owners should start with realistic expectations about current costs and the likelihood of increases. They should provide potential bidders with accurate and complete design information to enable bidders to prepare bids that minimize the likelihood of unpleasant surprises for either party.

Owners and bidders may want to consider price-adjustment clauses that would protect both parties from unanticipated swings in materials prices. Such contract terms can enable the contractor to build in a smaller contingency to its bid, while providing the owner an opportunity to share in any savings from downward price movements (which are likely at some point, particularly for long-duration projects). The ConsensusDocs suite of contract documents ([www.ConsensusDocs.org](http://www.ConsensusDocs.org)) is one source of industry-standard model language for such terms. The ConsensusDocs 200.1 Materials Price Escalation Addendum offers the only standard contract document that addresses price escalation.

The parties may also want to discuss the best timing for ordering materials and components. Buying items earlier than usual can provide protection against cost increases but it comes with the need to pay sooner for the items and potentially paying for storage, security against theft and damage, and the possibility of design changes that make early purchase unwise.



# Conclusion

The construction industry is in the midst of a period of exceptionally steep and fast-rising costs for a variety of materials, compounded by major supply-chain disruptions and stagnant or falling demand for projects—a combination that threatens the financial health of many contractors. No single or simple solution will resolve the situation, but there are steps that government officials, owners, and contractors can take to lessen the pain.

Federal trade policy officials can act immediately to end tariffs and quotas on imported products and materials. With many U.S. mills and factories already at capacity, bringing in more imports at competitive prices will cool the overheated price spiral and enable many users of products that are in short supply to avoid layoffs and shutdowns.

Officials at all levels of government should review all regulations, policies, and enforcement actions that may be unnecessarily driving up costs and slowing importation, domestic production, transport, and delivery of raw materials, components, and finished goods.

Owners need to recognize that significant adjustments are probably appropriate regarding the price or delivery date of projects that were awarded or commenced early in the pandemic or before, when conditions at suppliers were far different. For new and planned projects, owners should expect quite different pricing and may want to consider building in more flexibility regarding design, timing, or cost-sharing.

Contractors need, more than ever, to closely monitor costs and delivery schedules for materials and to communicate information with owners, both before submitting bids and throughout the construction process.

Materials prices do eventually reverse course. Owners and contractors alike will benefit when that happens. Until then, cooperation and communication can help reduce the damage.

**No single or simple solution will resolve the situation, but there are steps that government officials, owners, and contractors can take to lessen the pain**

LOCATION	# 162 6002	# 166 6001	# 168 6001	# 402 6001	7049 6017	7049 6068	7049 6076	7049 6077	7049 6104	7049 6115	7049 6116	7049 6119	7049 6127	7049 6129	7049 6140	7049 6142	7049 6185	7049 6200
	BLOCK SODDING	FERTILIZER	VEGETATIVE WATERING	TRENCH EXCAVATION PROTECTION	WATER MAIN PIPE (PVC) (12IN) (DR18) (C900)	JCK TUN BOR OR AUG CSG (STL) (16IN)	SERVICE LINE (SHORT SIDE) (1-1/2" TO 2")	SERVICE LINE (LONG SIDE) (1-1/2" TO 2")	FIRE HYDRANT ASSEMBLY	REMOVING WATER VALVE AND BOX	REMOVING AND RELOCATING METER AND BOX	REMOVING AND SALVAGING FIRE HYDRANT	CUT AND PLUG WATER MAIN (8IN)	CUT AND PLUG WATER MAIN (12IN)	WET CONNECTION (8IN)	WET CONNECTION (12IN)	CASING STEEL (16 IN)	WTR MAIN PIPE (PVC) (6 IN) (DR 18) (C900)
	SY	AC	MG	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
CSJ 1685-03-058																		
A	270	0.1	12	3175	867	40	4	3	9	12	1	9	1	1	1	1	40	120
B	0	0	0	173	55	95	0	0	1	0	0	1	1	1	1	2	95	10
<b>PROJECT TOTALS</b>	<b>270</b>	<b>0.1</b>	<b>12</b>	<b>3348</b>	<b>922</b>	<b>135</b>	<b>4</b>	<b>3</b>	<b>10</b>	<b>12</b>	<b>1</b>	<b>10</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>135</b>	<b>130</b>

LOCATION	7049 6201	7049 6213	7049	* 7049	* 7049	* 7049	* 7049
	WTR MAIN PIPE (PVC) (8 IN) (DR 18) (C900)	2" BLOW-OFF VALVE	1" AIR RELEASE VALVE	GROUT ABANDONED LINES	12" GATE VALVE AND BOX	8" GATE VALVE AND BOX	DUCTILE IRON FITTINGS
	LF	EA	EA	CY	EA	EA	TON
CSJ 1685-03-058							
A	2325	2	3	64	1	7	2
B	127	0	0	18	1	0	1
<b>PROJECT TOTALS</b>	<b>2452</b>	<b>2</b>	<b>3</b>	<b>82.0</b>	<b>2.0</b>	<b>7.0</b>	<b>3</b>

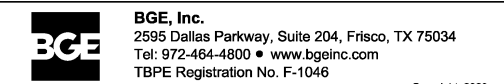
NOTE:

WATER MAIN PIPE (PVC) INCLUDES ALL SUBSIDIARY ITEMS. SUBSIDIARY ITEMS TO INCLUDE BUT NOT LIMITED TO ALL OTHER NECESSARY APPURTENANCES FOR CARRIER PIPE; GROUT ABANDONED LINE, ALL GATE VALVES AND DUCTILE IRON FITTINGS.

LOCATION	# 402 6001	7017 6088	7017 6110	7017 6129	7017 6140	7017 6141	* 7017	* 7017
	TRENCH EXCAVATION PROTECTION	AIR RELEASE VALVE (2 IN)	POST CONSTRUCTION TELEVISION INSPECTION	REMOVE EXIST SAN SWR PIPE (8IN)	PRE-CONSTRUCTION TELEVISION INSPECTION	SAN SEWER (8IN) (DI) (RESTRAINED JT)	BYPASS SYSTEM	DUCTILE IRON FITTINGS
	LF	EA	LF	LF	LF	LF	LS	TON
CSJ 1685-03-058								
A	3360	3	3360	3351	3360	3360	1	1.03
<b>PROJECT TOTALS</b>	<b>3360</b>	<b>3</b>	<b>3360</b>	<b>3351</b>	<b>3360</b>	<b>3360</b>	<b>1</b>	<b>1.03</b>

\* FOR CONTRACTOR'S INFORMATION ONLY

# QUANTITIES ARE WITHIN THE AREA OF PROPOSED EASEMENT ONLY.



**FM 1960**  
FROM BF 1960A TO EAST OF TWIGSWORTH LN  
**SUMMARY OF  
UTILITY QUANTITIES**  
(HC MUD 109)

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
6			FM 1960
STATE	DISTRICT	COUNTY	SHEET NO.
TEXAS	HOU	HARRIS	
CONTROL	SECTION	JOB	
1685	03	058	<b>31</b>

FILENAME: FM1960W\_Utility Quantities\_1.dgn

DRAWING DATE: 4/29/2020

**WWWMS, INC.**  
**HARRIS COUNTY MUD # 109**  
**OPERATIONS REPORT**  
**Tuesday, December 21, 2021**

**BILLING AND COLLECTION RECAP:**

**DEPOSITED IN YOUR ACCOUNT LAST MONTH:**

Period Ending:	Nov-21
Deposit:	\$ 6,000.00
Penalty:	\$ 4,241.12
Water:	\$ 50,021.20
Sewer:	\$ 50,176.07
Inspection:	\$ 793.76
Voluntary Fire & EMS:	\$ -
Misc:	\$ 4,367.23
NHCRWA:	\$ 87,901.33
Reconnect:	\$ -
NSF Fee:	\$ 70.00
<b>Total Collections:</b>	<b>\$ 203,570.71</b>

**CURRENT BILLING:**

Period Ending:	Dec-21
Deposit:	\$ -
Penalty:	\$ 4,713.83
Water:	\$ 39,061.23
Sewer:	\$ 52,258.85
Inspection:	\$ 801.00
Voluntary Fire & EMS:	\$ -
Misc:	\$ 2,734.53
NHCRWA:	\$ 74,368.51
<b>Total Billing:</b>	<b>\$ 173,937.95</b>

**CUSTOMER AGED RECEIVABLES:**

30 Day	30%	\$ 52,640.59
60 Day	7%	\$ 12,194.46
90 Day	1%	\$ 1,642.91
120 Day	4%	\$ 6,235.64
Overpayments		\$ (8,406.58)
<b>Total Receivables:</b>		<b>\$ 64,307.02</b>

**HGCSO PERIOD: 11/1/21 THRU 11/30/21**

**Period 6/1/21 thru 5/31/22**

**MONTHLY TOTAL**

Gallons Authorized:	450.000	MG
Current Month Produced:	23.244	MG
Cum. Gallons Produced:	173.142	MG
Auth. Gallons Remaining:	276.858	MG
Avg. Gallons Per Month:	28.857	MG
Permit Months Remaining:	6	

**WATER PLANT OPERATIONS:**

**Period: 10/1/2021 thru 10/31/2021**

**MONTHLY TOTAL**

Production:	22.398	MG
Amount Purchased:	0.000	MG
Total Amount:	22.398	MG
Consumption: (Billed)	17.099	MG
Accounted for Maint. (Flushing)	2.300	MG
Est. Amt. Sold to HC MUD 151	0.800	MG
Total:	20.199	MG
Daily Average Production:	0.858	MG
Percent Accounted For:	90.18%	

***Water Mainline Break / Flushing***

**CONNECTION COUNT:**

Residential:	2976
Commercial:	130
Clubs/Schools:	1
Irrigation:	19
Vacant:	35
Builders:	22
Vacation:	0
No Bill:	7
	3190
New Finals and Transfers	-40
	<b>3150</b>

**NEW METER INSTALLATIONS:**

Residential:	0
Commercial:	0
<b>Total:</b>	<b>0</b>

**ACCOUNTS SENT TO COLLECTIONS:**

Total of (0)

## HARRIS COUNTY MUD #109

### ACTIVITY REPORT

December 21, 2021

Item 1: Attached Reports are listed as follows:

- A.) Accounts turned over to collections (0).
- B.) Historical data on water production report.
- C.) NHCRWA Pumpage and Billing report for NOVEMBER 2021
- D.) Billing / Recap Summary Report

Item 2: Water Plant 1

- A.) Noticed transformer hanging off the power pole by one bolt. Center Point was contacted immediately. Center Point shut power supply off to water plant 1.
- B.) Ran generator until Center Point restored fuses. Center Point replaced all bolts and replaced several feet of ground wire that was in bad shape. See attached pictures.
- C.) Requested a quote from Today's Integration for additional cameras in park. See quote. and camera layout.
- D.) Drain elevated storage tank for BGE to perform warranty inspection, completed 12/17/2021.
- E.) Water well #1 & #2 abbreviated well test has been completed. See attachment.

Item 3: Forest Fern Ct.

- A.) Customer request to waive the back charges for damages of the service line. Resident indicated the district line was less than 12 inches deep, and refuses to pay the back charges. Upon arrival to make repairs, the service line was deeper than 12 inches. Labor plus material = Total amount **\$575.47**

Item 4: Water Plant 2

- A.) Contractor performed vacuum test on new ground storage tank.

Item 5: Appeal Letters

Disclosures have been signed by account holder.

- A.) ML3 Properties requesting adjustment (Irrigation may have been ran over by mower)  
Water bill: \$5,820.97 = 542,600 gallons
- B.) Atascocita Meadow requesting adjustment (high usage with no admission to leaks)  
October 2021                      water bill @ 61,300 Gallons  
September 2021                      water bill @ 71,900 Gallons  
November 2021                      water bill @ 5,300 Gallons

Item 6: Cut off Report / Status Arrears Count

A.) <u>Arrears</u>	<u>Accounts</u>	<u>Amount</u>
30 Day	507	\$ 52,640.59
60 Day	196	\$ 12,194.46
90 Day	19	\$ 1,642.91
120 Day	35	\$ 6,235.64

Cut off Date: 12/23/2021 (Recommend 29th)

Door Tag: 12/20/2021

Approve to proceed with cut offs

\*\*REMINDER: Christmas and New Year's holidays approaching.

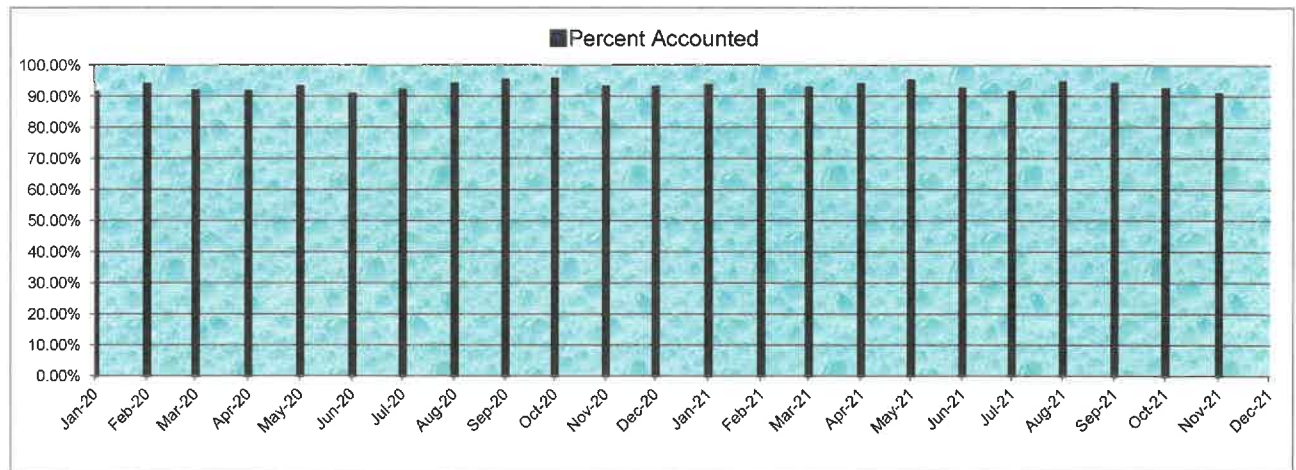
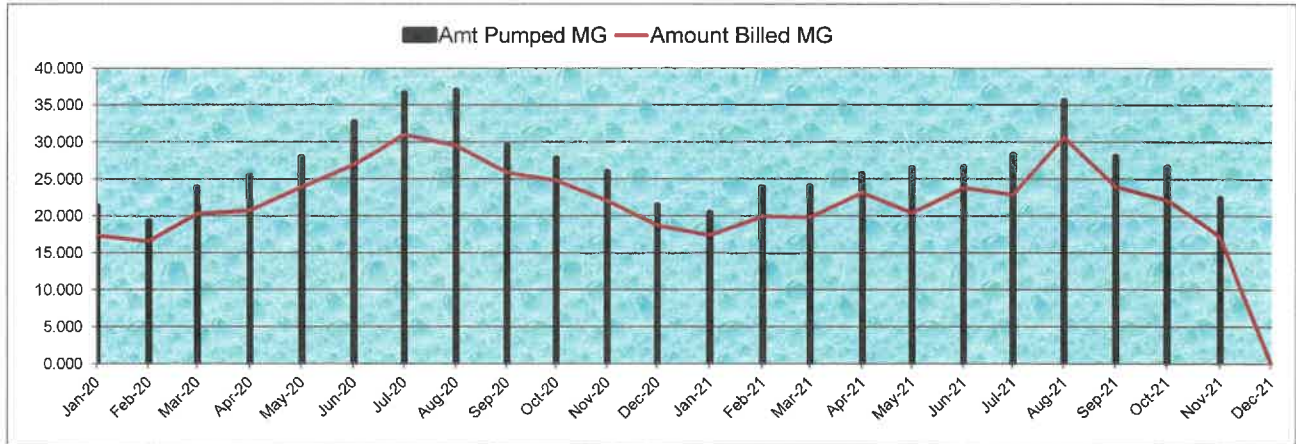


# HARRIS COUNTY MUD #109

## WATER PRODUCTION REPORT

December 21, 2021

Month /Year	Amt Pumped MG	Amt Billed MG	Maint. MG	Purchased MG	Amount HC 151	Total Amount	Percent Accounted
Jan-20	21,299	17,314	2,000	0.000	0.000	19,314	90.68%
Feb-20	19,261	16,555	1,400	0.000	0.000	17,955	93.22%
Mar-20	23,874	20,258	1,500	0.000	0.000	21,758	91.14%
Apr-20	25,520	20,707	2,500	0.000	0.000	23,207	90.94%
May-20	27,986	23,889	2,000	0.000	0.000	25,889	92.51%
Jun-20	32,674	26,918	2,000	0.000	0.500	29,418	90.03%
Jul-20	36,621	30,975	1,850	0.000	0.650	33,475	91.41%
Aug-20	37,007	29,477	4,500	0.000	0.600	34,557	93.38%
Sep-20	29,538	25,826	1,200	0.000	0.945	27,971	94.69%
Oct-20	27,800	24,755	1,000	0.000	0.650	26,405	94.98%
Nov-20	25,948	22,039	1,000	0.000	0.945	23,984	92.43%
Dec-20	21,410	18,681	0.500	0.000	0.590	19,771	92.34%
Jan-21	20,464	17,381	0.650	0.000	1.000	19,031	93.00%
Feb-21	23,857	19,921	1,200	0.000	0.700	21,821	91.47%
Mar-21	23,992	19,792	1,500	0.000	0.800	22,092	92.08%
Apr-21	25,638	23,101	0.000	0.000	0.800	23,901	93.22%
May-21	26,438	20,382	3,800	0.000	0.800	24,982	94.49%
Jun-21	26,529	23,765	0.000	0.000	0.600	24,365	91.84%
Jul-21	28,227	22,834	2,000	0.000	0.800	25,631	90.80%
Aug-21	35,609	30,605	2,000	0.000	0.800	33,405	93.81%
Sep-21	28,028	23,898	1,500	0.000	0.800	26,198	93.47%
Oct-21	26,613	22,092	1,500	0.000	0.800	24,392	91.65%
Nov-21	22,398	17,099	2,300	0.000	0.800	20,199	90.18%
Dec-21							
<b>Total</b>	<b>616.731</b>	<b>518.264</b>	<b>37.900</b>	<b>0.000</b>	<b>13.580</b>	<b>569.721</b>	<b>2123.78%</b>
<b>Average</b>	<b>26.814</b>	<b>22.533</b>	<b>1.648</b>	<b>0.000</b>	<b>0.590</b>	<b>24.770</b>	<b>92.34%</b>



**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**  
**Groundwater and/or Surface Water Reporting and Billing Form - 2021**  
**\*\*\*Report filed online\*\*\* <http://oprs.nhcrwa.com>**

Name of Well Owner or Recipient of Surface Water: Harris County MUD 109

*Billing period for which the report is being filed*

<i>Billing Period</i>	<i>Rate per 1,000 gallons</i>	<i>Due Date</i>
November 01-30, 2021	\$4.60 groundwater \$5.05 surface water	January 18, 2022

*Gallons of Groundwater Pumped for Billing Period*

	<i>Start Meter Reading</i>	<i>End Meter Reading</i>	<i>Total</i>
Well #2083	265,731 x1000	266,451 x1000	720,000
Well #4448	28,910 x1000	51,434 x1000	22,524,000
Adjustment			0

*Water imported from outside NHCRWA*

Imported water Meter reading:	Source:		
	x	x	0

*Miscellaneous water (not billed)*

<i>Other entity</i>	<i>Water Type</i>	<i>Direction</i>	<i>Amount</i>
	Groundwater	Out	

1	Enter total gallons of groundwater pumped and/or imported	23,244,000
2	Divide by 1000	23,244
3	Total groundwater fee due (multiply line 2 x \$4.60)	\$106,922.40
4	Enter total gallons of surface water received	0
5	Divide by 1000	0
6	Total surface water fee due (multiply line 5 x \$5.05)	\$0.00
7	Deduct 2003 Capital Contribution Credit amount, if applicable	(\$12,261.25)
8	Deduct 2005 Capital Contribution Credit amount, if applicable	(\$0.00)
9	Deduct 2008 Capital Contribution Credit amount, if applicable	(\$0.00)
10	Deduct Chloramination System Credit or other asset credit, if applicable	(\$0.00)
11	Other Credits:	(\$0.00)
12	Total due	\$94,661.15

If your payment is received late, the Authority will send you an invoice for the late fees set forth in the Rate Order.

I declare that the above information is true and correct to the best of my knowledge and belief.

Date: December 03, 2021

Signed: 

Name: Paul Villarreal

Title: Operator

Make check payable to:

North Harris County Regional Water Authority; Dept. 35, P.O. Box 4346 Houston, Texas 77210-4346

**Please mail this form with the payment or fax to 281-440-4104, phone: 281-440-3924**

[Click here](#) to return to the Home Page.



HARRIS COUNTY MUD 109

JANUARY 2021 THROUGH DECEMBER 2021 ANNUAL RECAP COLLECTIONS REPORT

COLLECTIONS:	January	February	March	April	May	June	July	August	September	October	November	December
	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021
WATER PAYMENTS	\$ 56,582.69	\$ 43,883.57	\$ 50,602.11	\$ 48,253.12	\$ 50,706.04	\$ 49,394.39	\$ 46,664.10	\$ 54,550.70	\$ 60,299.64	\$ 56,396.43	\$ 50,021.20	\$ 567,133.98
SEWER PAYMENTS	\$ 53,289.47	\$ 48,043.35	\$ 52,080.35	\$ 47,602.00	\$ 50,028.79	\$ 49,906.02	\$ 46,394.56	\$ 51,934.45	\$ 53,744.52	\$ 52,069.62	\$ 50,176.07	\$ 554,659.20
PENALTY PAYMENTS	\$ 196.46	\$ 55.74	\$ 27.85	\$ -	\$ -	\$ -	\$ -	\$ 1,889.39	\$ 3,571.30	\$ 4,822.92	\$ 4,241.12	\$ 14,804.76
CHCRWA	\$ 79,585.68	\$ 65,201.48	\$ 74,785.08	\$ 77,155.72	\$ 91,372.18	\$ 84,461.60	\$ 87,204.46	\$ 99,790.65	\$ 119,370.60	\$ 106,263.46	\$ 87,901.33	\$ 973,092.24
RECONNECT FEES	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MISCELLANEOUS	\$ 825.00	\$ 538.06	\$ 783.20	\$ 811.93	\$ 748.07	\$ 925.00	\$ 1,150.00	\$ 1,150.00	\$ 684.26	\$ 3,804.66	\$ 4,367.23	\$ 15,787.43
DEPOSIT	\$ 3,800.00	\$ 3,000.00	\$ 4,500.00	\$ 5,300.00	\$ 3,500.00	\$ 6,300.00	\$ 5,900.00	\$ 6,450.00	\$ 4,100.00	\$ 7,200.00	\$ 6,000.00	\$ 55,850.00
NSF FEES	\$ 35.00	\$ 62.00	\$ 99.30	\$ 5.70	\$ 105.00	\$ -	\$ 70.00	\$ 140.00	\$ 140.00	\$ 70.00	\$ 70.00	\$ 797.00
INSPECTION FEES	\$ 913.40	\$ 561.00	\$ 961.00	\$ 641.00	\$ 520.00	\$ 1,042.00	\$ 835.23	\$ 681.00	\$ 640.98	\$ 848.59	\$ 793.76	\$ 8,438.96
TOTAL DEPOSIT	\$ 195,007.69	\$ 161,145.20	\$ 183,838.89	\$ 179,769.47	\$ 196,960.08	\$ 191,429.01	\$ 188,219.35	\$ 216,586.19	\$ 242,551.30	\$ 231,465.70	\$ 203,570.71	\$ 2,190,563.59
ARREARS BREAKDOWN												
30 DAYS	\$ 34,776.38	\$ 35,061.01	\$ 32,765.67	\$ 36,910.53	\$ 43,388.55	\$ 37,756.69	\$ 60,426.54	\$ 46,049.50	\$ 53,852.44	\$ 47,155.10	\$ 52,640.59	\$ 482,783.20
60 DAYS	\$ 10,350.36	\$ 9,337.00	\$ 8,253.39	\$ 9,484.57	\$ 9,141.71	\$ 12,026.26	\$ 9,159.62	\$ 13,673.54	\$ 12,483.44	\$ 11,038.56	\$ 12,194.46	\$ 117,333.91
90 DAYS	\$ 3,205.04	\$ 2,026.61	\$ 1,638.30	\$ 1,686.33	\$ 2,219.11	\$ 1,621.34	\$ 2,832.51	\$ 2,376.68	\$ 3,577.77	\$ 2,301.26	\$ 1,642.91	\$ 25,109.86
120 DAYS	\$ 7,771.49	\$ 9,342.26	\$ 8,657.95	\$ 8,073.65	\$ 8,648.85	\$ 9,346.60	\$ 10,484.80	\$ 11,407.67	\$ 6,689.75	\$ 5,929.56	\$ 6,235.64	\$ 92,788.22
OVER PAYMENTS	\$ (10,909.06)	\$ (9,051.91)	\$ (9,570.25)	\$ (9,165.03)	\$ (9,591.48)	\$ (9,505.59)	\$ (9,782.28)	\$ (11,436.48)	\$ (8,868.73)	\$ (9,832.88)	\$ (8,406.58)	\$ (106,120.27)
TOTAL ARREARS	\$ 45,194.21	\$ 46,714.97	\$ 41,945.26	\$ 48,982.05	\$ 53,806.74	\$ 51,247.30	\$ 73,120.19	\$ 62,270.91	\$ 67,744.67	\$ 56,591.60	\$ 64,307.02	\$ 611,894.92

# HC MUD 109

## Power Pole Transformer





Today's Integration, Inc.  
 18045 West Little York RD  
 Suite 19  
 Katy, TX 77449

# Proposal

Date	Estimate #
11/22/2021	21207

Name / Address
Harris County MUD 109 c/o Water Wastewater Management Houston, TX 77066

Ship To
Harris County MUD 109 Water Plant 1 5722 Forest Timbers Drive Humble, TX 77346

Terms	Due Date	Rep	Account #	Project	Comments
	11/22/2021	KG	1272	Water Plant I	
Item	Description			Qty	Total
HIKIP 4MP 2-12mm ...	Addition of cameras for park and replacement of license plate camera for water plant. Outdoor Bullet Camera, DarkFighter, 4MP, H265, 2.8-12mm, Motorized Zoom/Focus, Day/Night, 140dB WDR, EXIR2.0, Alarm I/O, Heater, PoE/12VDC			6	3,714.00
HIKLP 8-32 LP7 2MP	Deep Learning License Plate Recognition Camera, Outdoor Bullet, DarkFighter, 2MP/1080p, H264, 8-32mm, Motorized Zoom/Focus, Day/Night, 140dB WDR, EXIR up to 30m, IP67, IK10, Heater, PoE+/24VAC			1	999.00
8TB Video Hard Drive	8 terabytes video hard drive. Western Digital, Purple series.			1	389.00
HIK 8 Port POE 1 Upl...	10/100 Mbps unmanaged switch that is designed for IP surveillance applications.			1	142.50
CAT5e DB Cable	CAT5e Direct Burial Cable Per Foot			1,653	1,239.75
Ground Trenching	Ground trenching, conduit burial and cover			148	1,184.00
Pole Anchor Kit	Pole anchor bolts and hardware kit.			2	338.00
Pole, Steel, 4"x4"x15'	15' x 4" x4" Steel Service Pole, Brown			2	1,348.00
Camera System Install...	Camera system installation time per hour, per technician.			75	5,625.00
Mounting Materials	General mounting materials may include; pipe, conduit, hangers, nuts, bolts, screws, plates, terminations, cable terminators, straps, ties, concrete, etc.			1	1,497.93
				<b>Sales Tax (0.0%)</b>	\$0.00
				<b>Total</b>	\$16,477.18

State Licensed Security, Surveillance, Investigation and Access Control Company by the Texas Department of Public Safety, Private Security Bureau ~ License #C13195

Signature \_\_\_\_\_

Your signature above acknowledges the acceptance of the current security systems sales agreement. A copy can be found at: [www.todaysintegration.com/sales-agreement.php](http://www.todaysintegration.com/sales-agreement.php)

Phone #	E-mail	Web Site
281-931-3131	hmanson@ti-tx.com	www.ti-tx.com







November 18, 2021

Harris County M.U.D. #109  
P. O. Box 680529  
Houston, Texas 77268-0529

Attn: Mr. Paul Villarreal

Reference: Water Well #1- Performance Testing

Dear Mr. Villarreal,

Collection and evaluation of field data pertaining to the operation of the well and well pumping equipment was recently completed at the above referenced facility. Included in this report please find the test results and pump curve generated by the testing. Historical performance data is presented in graphical format.

PERFORMANCE TEST REVIEW								
Hydraulic Performance of pump is 2112 GPM @ 291' field head	Excellent	<input checked="" type="checkbox"/>	Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Overall efficiency is 65 percent	Excellent	<input type="checkbox"/>	Good	<input checked="" type="checkbox"/>	Satisfactory	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Pump Submergence 192 feet	Excellent	<input checked="" type="checkbox"/>	Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Physical Condition of unit	Excellent	<input type="checkbox"/>	Good	<input checked="" type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Suspended Solids Testing	Excellent	<input checked="" type="checkbox"/>	Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Brass Observed in SST	None	<input checked="" type="checkbox"/>	Trace	<input type="checkbox"/>	Substantial	<input type="checkbox"/>	Excessive	<input type="checkbox"/>
Flowmeter Accuracy is 99.3 percent								

The test revealed that the pump appears to be operating in satisfactory condition.

We appreciate this opportunity to be of service. If you have any questions or comments, please call.

Sincerely,

Gary McMurrey  
G-M Services



# Performance Test Report

SPECIALIZED INSPECTION SERVICES FOR THE WATER INDUSTRY

website: www.g-mservices.com

phone: 281-894-8971

<b>Facility</b> Harris County MUD #109 - Well #1 <b>U.S.G.S. #</b> LJ-60-63-801	<b>Test Date</b> 11/11/2021 <b>Subsidence Well ID#:</b> 4448
--	---

### PUMP DATA

### MOTOR DATA

Manufacturer :	National
Bowl Type :	M-14-HC
Stages :	4
Setting :	460
Column Size :	10 x 1 11/16 x 2 1/2
Design Point :	1750 GPM @ 338' TDH

Manufacturer :	U.S. Motors
Size (HP) :	250
Amps/Volts :	287/460
Serial # :	C521540-84-10134-4
Frame :	1505P
Speed (RPM) :	1775

### PERFORMANCE TEST DATA

Static Lvl (ft) -201		
Discharge Pressure	10	41
Capacity (GPM)	2112	1832
Pumping Lvl (ft)	-268	-261
Drawdown (ft)	67	60
Specific Capacity	31.52	30.53
Field Head (ft)	291.1	355.71
Water Horsepower	155.2	164.73
Overall Efficiency	65%	70%
Horsepower Input	238.12	233.96
Kilowatt Input	177.7	174.6
Amp Draw	245-249-241	242-246-238
Voltage	489-490-488	488-489-487
Sand (PPM)	2	1
Time (min)	45	15

### Meter Data

### Additional Data

Manufacturer:	Water Special	Size:	12
Serial #:	20171692		
Meter Read:	036484.000		
Meter accuracy is	99.3 % at 2097 GPM		

Start-up Sand (PPM)	5
Brass Detect:	No
Pump Submergence (ft)	192
ETM Read:	36700

Remarks

TECHNICIAN R McKissick



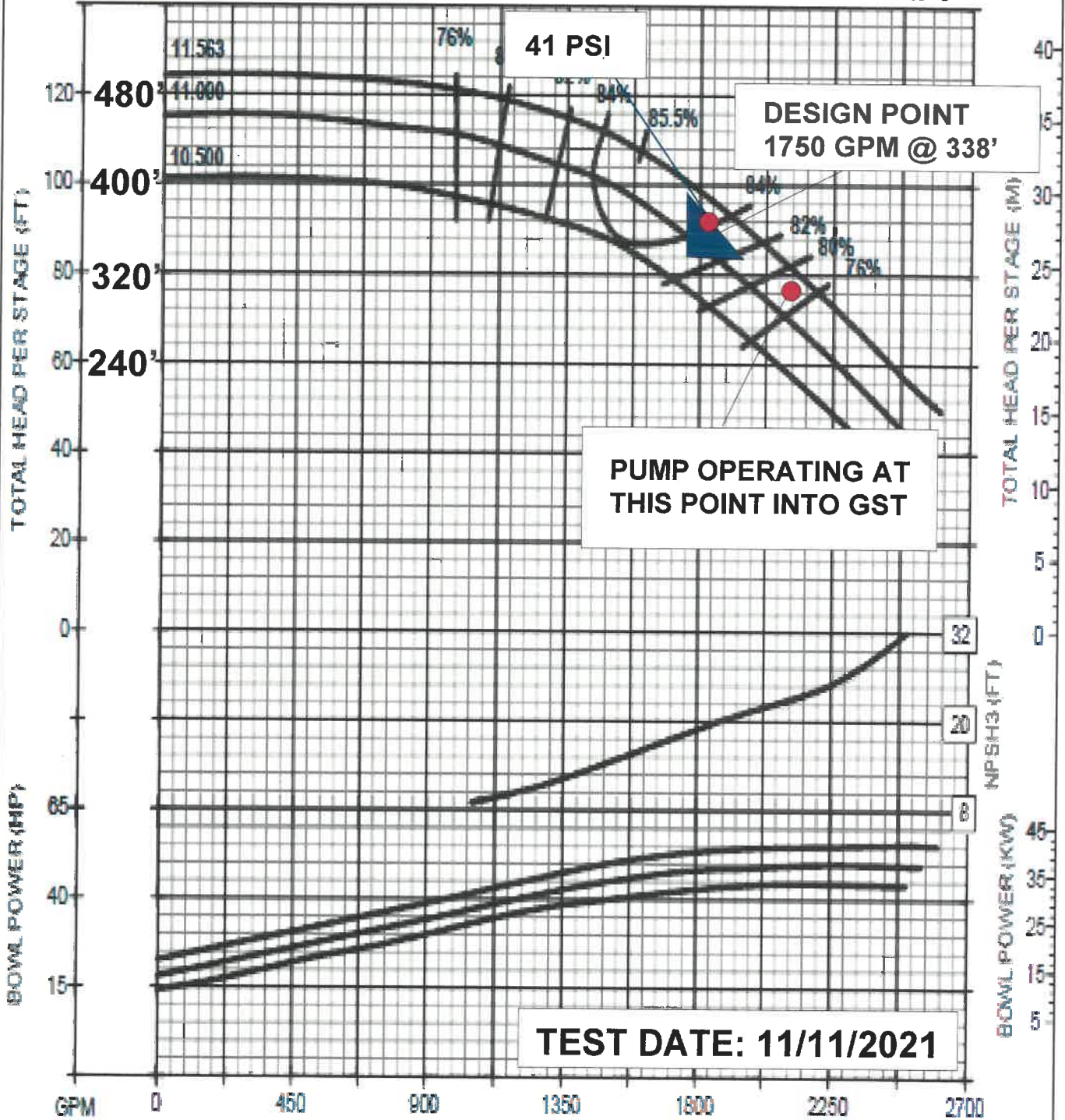
PERFORMANCE BASED ON  
PUMPING CLEAR, FRESH  
NON-AERATED WATER AT  
85° F MAXIMUM UNLESS  
OTHERWISE SPECIFIED



**M14HC**  
1770 RPM

CHANGE EFFICIENCY AS FOLLOWS:	NUMBER OF STAGES	1	2	3	DESIGN	GPM	TDH	HP	EFF
	NUMBER OF POINTS	-2	-1	0					

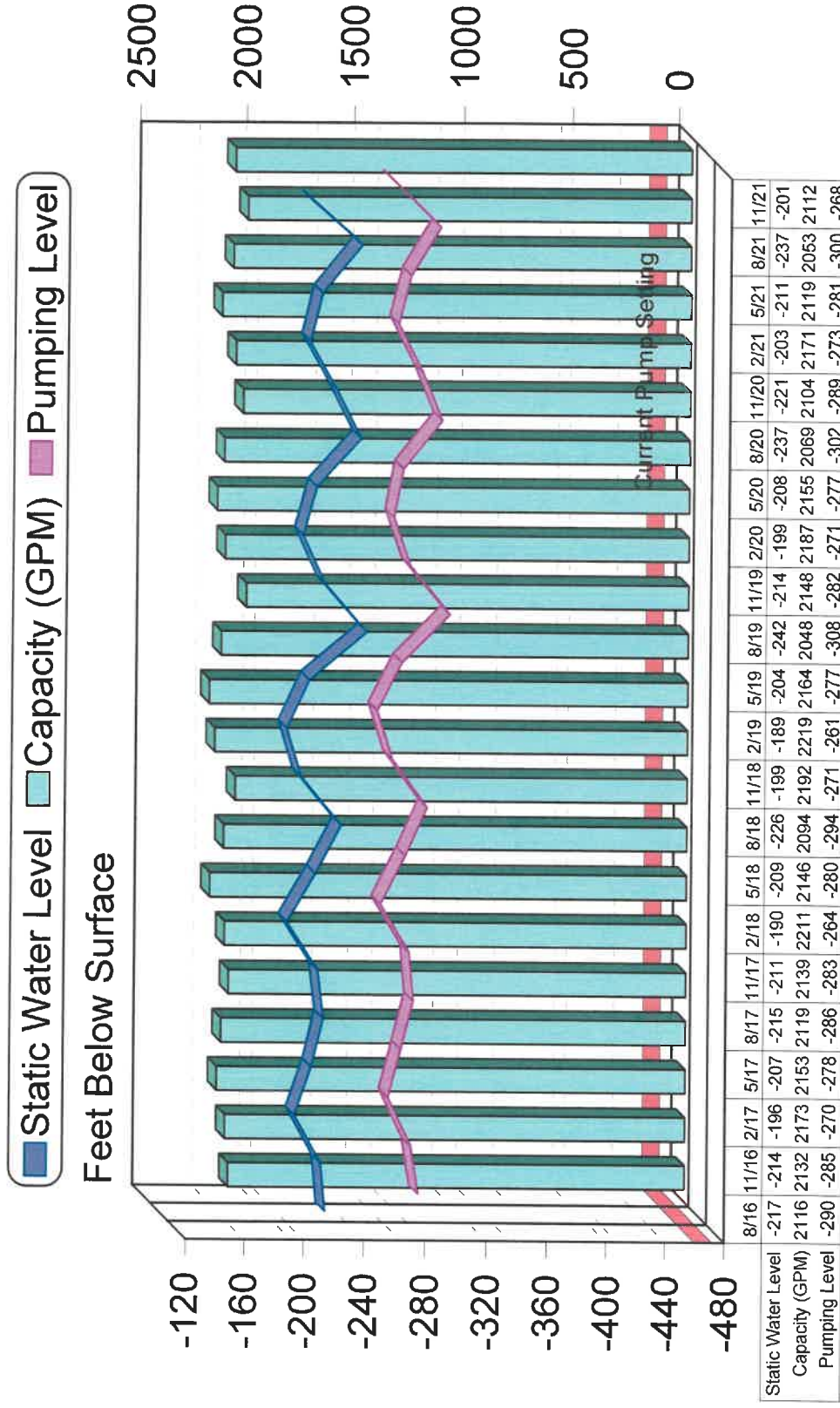
1 STG (4) STG **HARRIS COUNTY MUD #109 - WELL #1**





# Harris County M.U.D. #109

## Well #1 - Screened 780' thru 1150'





December 14, 2021

Harris County M.U.D. #109  
P. O. Box 680529  
Houston, Texas 77268-0529

Attn: Mr. Paul Villarreal

Reference: Water Well #2- Performance Testing

Dear Mr. Villarreal,

Collection and evaluation of field data pertaining to the operation of the well and well pumping equipment was recently completed at the above referenced facility. Included in this report please find the test results and pump curve generated by the testing. Historical performance data is presented in graphical format.

PERFORMANCE TEST REVIEW								
Hydraulic Performance of pump is 1866 GPM @ 404' field head	Excellent	<input checked="" type="checkbox"/>	Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Overall efficiency is 65 percent	Excellent	<input type="checkbox"/>	Good	<input checked="" type="checkbox"/>	Satisfactory	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Pump Submergence 132 feet	Excellent	<input checked="" type="checkbox"/>	Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Physical Condition of unit	Excellent	<input type="checkbox"/>	Good	<input checked="" type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Suspended Solids Testing	Excellent	<input checked="" type="checkbox"/>	Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Brass Observed in SST	None	<input checked="" type="checkbox"/>	Trace	<input type="checkbox"/>	Substantial	<input type="checkbox"/>	Excessive	<input type="checkbox"/>
Flowmeter Accuracy is 99.8 percent								

The test indicated the pump appears to be operating in good condition.

We appreciate this opportunity to be of service. If you have any questions or comments, please call.

Sincerely,

Gary McMurrey  
G-M Services



# Performance Test Report

SPECIALIZED INSPECTION SERVICES FOR THE WATER INDUSTRY

website: www.g-mservices.com

phone: 281-894-8971

Facility Harris County MUD #109 - Well #2

Test Date 12/13/2021

U.S.G.S. # LJ-60-63-80G

Subsidence Well ID#: 2083

### PUMP DATA

Manufacturer : Goulds  
 Bowl Type : 14RJMC  
 Stages : 6  
 Setting : 400  
 Column Size : 10" x 3" x 1 15/16"  
 Design Point : 1800 GPM @ 480' TDH

### MOTOR DATA

Manufacturer : U.S. Motors  
 Size (HP) : 350  
 Amps/Volts : 387/460  
 Serial # : R037406279-0003R  
 Frame : 447TPA  
 Speed (RPM) : 1780

### PERFORMANCE TEST DATA

Static Lvl (ft) -175

Discharge Pressure	59	59
Capacity (GPM)	1866	1866
Pumping Lvl (ft)	-268	-268
Drawdown (ft)	93	93
Specific Capacity	20.06	20.06
Field Head (ft)	404.29	404.29
Water Horsepower	190.5	190.70
Overall Efficiency	65%	65%
Horsepower Input	293.06	293.06
Kilowatt Input	218.7	218.7
Amp Draw	291-313-325	291-313-325
Voltage	477-482-484	477-482-484
Sand (PPM)	1	1
Time (min)	45	45

### Meter Data

Manufacturer: Water Spec      Size: 16  
 Serial #: 20171693  
 Meter Read: 270895.000  
 Meter accuracy is 99.8 % at 1863 GPM

### Additional Data

Start-up Sand (PPM) 2  
 Brass Detect: No  
 Pump Submergence (ft) 132  
 ETM Read: 17361

Remarks

TECHNICIAN R McKissick



Curve No. 3126

Size: 14RJMC

RPM: 1770

EFFICIENCY CHANGE

STGS.	1	0

Ns = 2990

PERF. BASED ON  
STD. MTL'S.

Impeller = 801240B

K = 3.2 LBS./FT.  
19.6 KG./M.

K(Bal.) =



VERTICAL PRODUCTS  
DIVISION

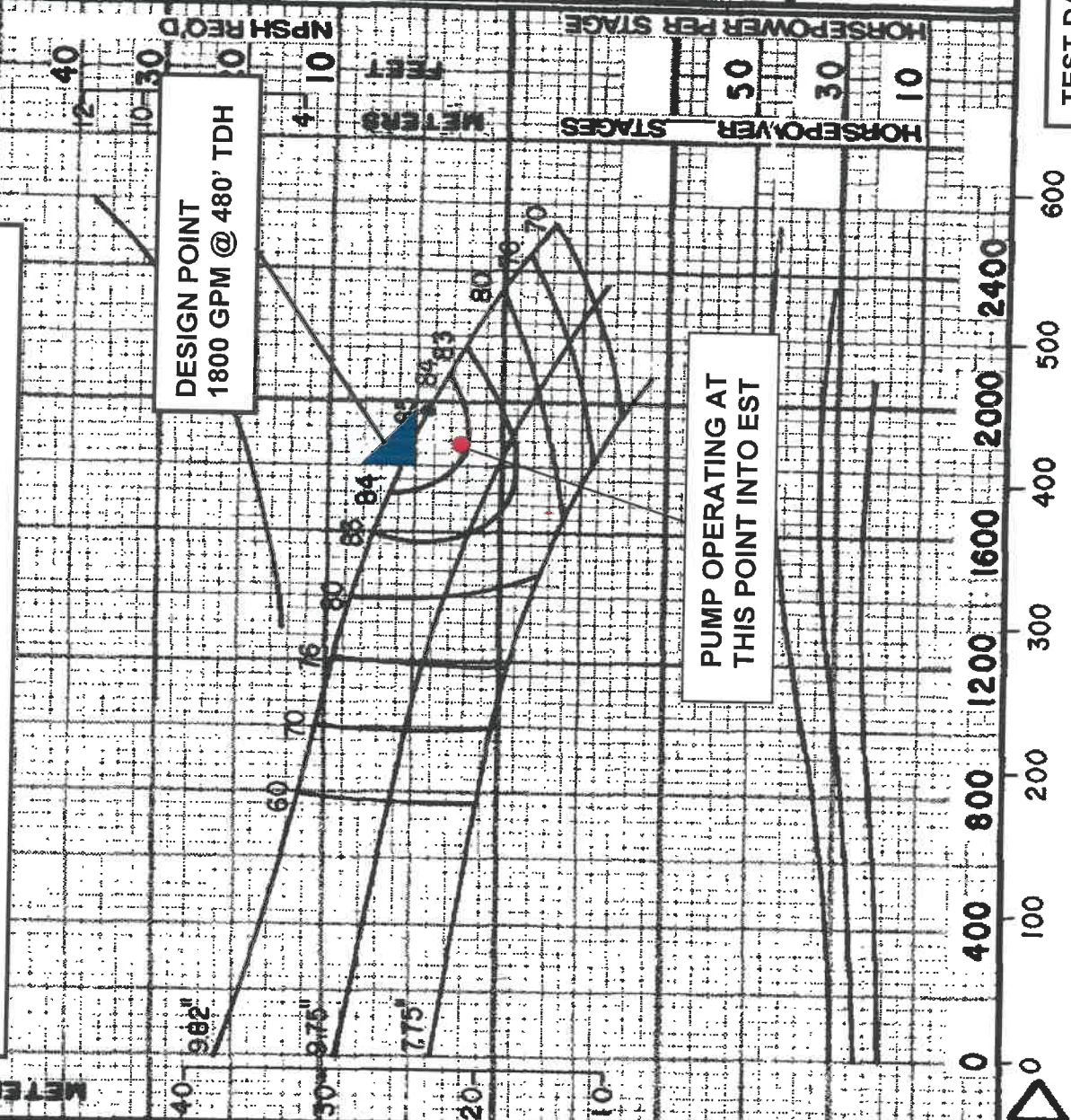
Characteristic based upon pumping clear, non-aerated water. Rating point only is guaranteed. Column losses not included.

TEST DATE: 12/13/2021

# HARRIS COUNTY MUD #109 - WELL #2

DESIGN POINT  
1800 GPM @ 480' TDH

PUMP OPERATING AT  
THIS POINT INTO EST



FEET

140

100

60

20

0

0

0

0

0

0

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- PER STAGE

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STAGES

10

20

30

40

0

0

0

0

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0

0

0

0

0

0

0

0

TOTAL HEAD

20

60

100

140

0

0

0

0

0

0

0

0

0

0

0

0

0

U.S. GPM

0

400

800

1200

1600

2000

2400

0

0

0

0

0

0

0

0

0

0

CU. METERS PER HR.

0

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0

# Harris County M.U.D. #109

## Well #2 - Screened 780' thru 1150'

