



**BEFCO ENGINEERING, INC.**  
*Consulting Engineering/Land Surveying*  
P.O. BOX 615 485 NORTH JEFFERSON  
LA GRANGE, TEXAS 78945-0615  
979 / 968-6474 FAX 979 / 968-3056  
www.befcoengineering.com E-mail: [office@befcoengineering.com](mailto:office@befcoengineering.com)  
Texas Registered Engineering Firm F-2011 Texas Licensed Surveying Firm #10001700

March 29, 2022

**Mr. Mel Hamner**  
**Bastrop County – Commissioner Precinct 1**  
**803 Pine Street, Room 105**  
**Bastrop, Texas 78602**

**RE: Bastrop County WCID No. 2**  
**Road Master Plan – October 2021 – September 2022 (Year 1)**  
**October 2022 – September 2023 (Year 2)**

Dear Commissioner Hamner:

In accordance with the requirements of the House Bill No. 2902, the master roadway plan was reviewed and updated in 2022. The following roadways are under construction and being worked on during the October 2021 – September 2022 year:

- Honopu Dr.
- Kula Ct.
- Keo Kea
- Keamuku Ct.
- Ewa Ct.
- Onini
- Kolo Ct.
- Kipahulu
- Iao Ct.
- Otani Ct.
- Kahalulu
- Okoe Ct (East)
- Koali
- Pulehu Ct.
- Nakalele Lane

The following roadways will be worked on during the October 2022 – September 2023 year:

- Koolua
- Haleakala Dr.
- Taro Ct.
- Waihi Ct.
- Laau Ct.
- Kikipua
- Waipahoehoe Dr.
- Mokuleia Cr.

*"Proficient, practical engineering and land surveying services with a sense of small town values and care"*


- Nene
- Mokolea Ln.

The completion on all jobs will be contingent on funds available. The annual meeting was held on Saturday, March 26, 2022 at 9 am at the Bastrop Convention Center.

If you have any questions, please advise. I am thanking you and the County for your cooperation and assistance.

Sincerely,

**BEFCO ENGINEERING, INC.**



**Joseph Willrich, P.E.**

Attachments: Annual Road Meeting Plan\Presentation  
Road Map

JW:bms

cc: Paul Hightower, General Manager – BCWCID #2 (via email)







**October 2024 - September 2025 (Year 4 New Plan)**

Unit	Collector Road	Total Paved	Street	Length of Unpaved Road Measured by Feet	Homes	Feet Between Homes Being Paved	Previous 5 Year Planned Date to Pave	Bus Route Y/N	Comments
5		3900	Heleakala Dr	3900	2	1950			Heleakala connects to Lamaloa County Road and this group is batched for Egress
2		1900	Keneka (Was Wahane west of washout)	1770	6	295			
4		400	Aiea Ct	400	2	200			
4		500	Kaiwi Ct	500	0	N/A			
4		4000	Hanauma Dr	4000	11	364			
4		3300	Helemano Dr	3300	1	3300			
5		3900	Iva Lane	3900	4		OLD KAAAWA LN.		
	Total	17,900	17,770						
			3.37						
	Miles	3.39							

**October 2025 - September 2026 (Year 5 New Plan)**

Unit	Collector Road	Total Paved	Street	Length of Unpaved Road Measured by Feet	Homes	Feet Between Homes Being Paved	Previous 5 Year Planned Date to Pave	Bus Route Y/N	Comments
5			Puu Kaua Ct	350	2	175			<b>THESE 8 STAY GROUPED TOGETHER FOR FUTURE ROAD PLAN</b>
5			Mokuauia Ct	360	2	180			
5			Makua Ct	240	0	N/A			
5			Waialee Ct	320	1	320			
5			Waipio ct	220	0	N/A			
5			Kahuku Ct	400	1	400			
5			MoKoolii Ct	550	1	550			
5			Waialua Ct	550	3	183			
5		2650	Kawainui LANE	2650	10	265		No	Off N. Wahane
2		2700	Wainee	2700	8	338		No	Off Awehi Lane
2			Paia Court	300					
2			Auau	200	0	N/A			
2			Lopa ct	160	0	N/A			





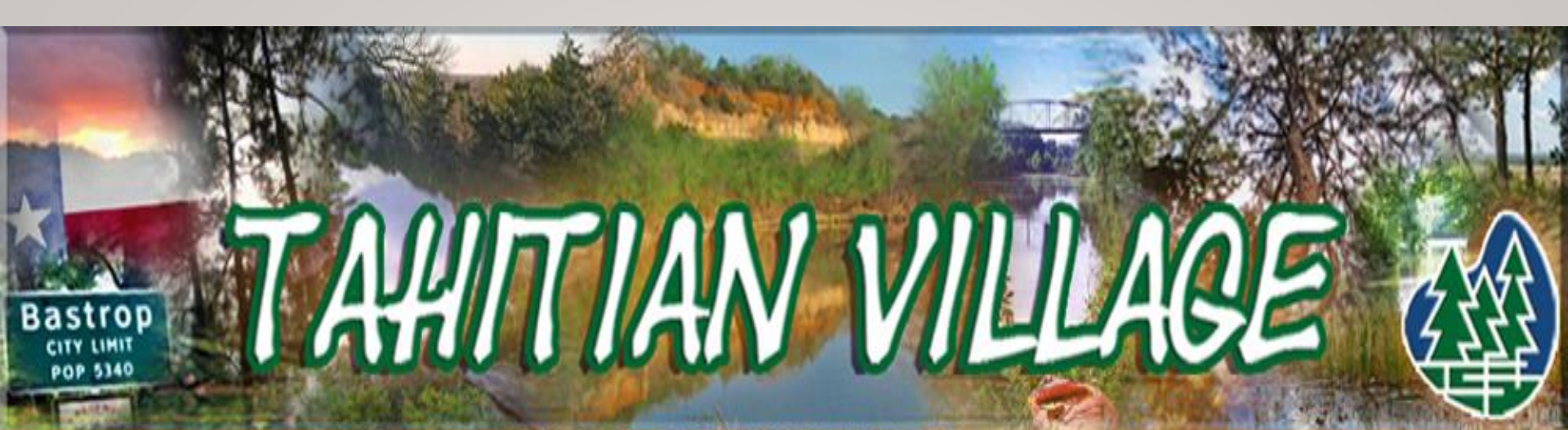
**Remaining Roads to Be Completed with other years or fit in where plausible**

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Initial Year Planned	Bus Route Y/N	Comments
5			Halawa Ct	200	1	200			
1			Reva/Lae Ct	220	1	220			
5			Kalihi Ct	250	0	N/A			
4			Pali Ct	250	1	250			
1			Koui Ct	350	1	350			
2			Moku Ct	450	2	225			
1			Kohala Lane	700	2	350			
2			Wahane - E of Akaloa	1406	2	703			Lift Station
5			Loke	1800	1	1800			
1			Aloha	2250	1	2250			
1			Hulu Ln	1150	0	N/A			
5			Ahupu Lane	1150	0	N/A			
2			Alau Ct	160	0	N/A			
5			Kahana E	1450	0	N/A		No	
5			Diamond Head Dr.	3360	0	N/A			
2			Hana Ct	250	2	125			
5			Hawaii Ct	200	0	N/A			
5			Honolulu Ln	230	0	N/A			

5					Howi Ln	350	0	N/A			
5					Huula Ct	450	0	N/A			
5					Kaala Drive	336	0	N/A			
4					Kaukonahua Lane	4300	0	N/A			
5					Kawanui Dr	950	0	N/A			
5					Keehi Ct	150	0	N/A			
5					Koolau ct	250	0	N/A			
1					Lanai Ct	760	1	760			
5					Lanikai	450	0	N/A			
3					Lipoa	450	1	450			
2					Mala Ct	240	1	240			
1					Maui Ct	690	0	N/A			Cliffside City road
2					Nuu Ct	190	0	N/A			
1					Okoe Ct (West)	950	1	950			
4					Waikiki	1600	0	N/A			
5					Hoku	400	0	N/A			
5					Waimanalo Ln	2850	0	N/A			
1					Makaha East Mauna Kea to Aloha Ln	1100	1	1100			DOES NOT CONNECT TO 71 - VERIFIED 3/9/21 PER CAD MAP
Total					Feet of Street	32292	19	1700			
					Miles to Be Paved	6.1					

**TOTAL MILES LEFT PER THIS PLAN**

**19.53**



# BCWCID #2 Annual Road Meeting

March 26, 2022

Copies of this presentation will be also available on the BCWCID2 website

# RECOGNIZING OF DIGNITARIES AND INVITEES

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- Judge Paul Pape, Bastrop County
- Mel Hamner ~ Commissioner, Bastrop County
- Joseph Willrich ~ PE, BEFCO Engineering
- Connie Schroeder ~ Mayor, City of Bastrop
- Paul Hoffman ~ City Manager, City of Bastrop
- Trey Job ~ Assistant City Manager, City of Bastrop

# BCWCID #2 ROAD COMMITTEE VOLUNTEERS & UNIT ASSIGNMENTS

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- VACANT– Unit 1
- VACANT - Unit 2
- Gregory Stigall- Unit 3
- Michele Plummer– Unit 4
- Kathleen Newton – Unit 5

**THANK YOU FOR YOUR SERVICE!!**

# PRESENTATION OVERVIEW

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- Accomplishments/Updates Since Last Meeting
  - 3.1 miles & 134 Homes completed
  - 2.8 Mi & 78 Homes under construction currently
- Building FY 2022-27 Plan
  - FY = Oct 1 – Sep 30



# FIRST 40+ YEARS

## TAHITIAN ESTABLISHED IN THE 70'S ALL PLATTED AND ROAD DESIGNS APPROVED

- All Arterial Roads Completed
- 59% of All Roads Completed: 36 of the 61 miles, which leaves only 27 miles of WCID Road with almost 3 pending for County acceptance in 2022.
- 75% of Resident's Homes on Completed Roads as at January 1, 2022
  - This is a major hump for the Road District. This leaves us only 25% of our residents and other open roads, to get completed.
  - Cost of materials have increased 25-30% for 2022 and we are getting hit with large fuel surcharges. We are doing everything we can, in-house, to keep the costs down and make your money go as far as it can.
- Use of In-House Road Crew & Contractors to build roads faster; and then County completes chip seal
  - ILA Agreement with the County saves the District Approx. \$60-80kK per Mile on Completion
- Funded Via Road District Statute (Road Fees)
  - \$17 per lot per Month .. \$204 per year. District did not raise the fees for 2022. Due to increases in material, this will have to be reviewed late 2022, for 2023. We don't have a choice if we want to keep moving forward.
  - \$21 Max by Current Statute Updated 2017 by the BCWCID2 Board
  - All lots (**Vacant & Occupied**) are responsible for paying fees by state statute
  - 2022 - 75% of Road Fees collected to be used for Road Construction and 25% for Road Maintenance, No change from 2021 to 2019.

# ROAD CONSTRUCTION PROCESS

- Road selection is prioritized by many items. In the past, it has strictly been home density, but with that changing on a weekly basis, it's hard to keep up. We are to a point of having the road plan in place for the next several years, that once we reach that, we will just have to start processing the roads as we come to them. Once we are to that point, the Road District will be dissolved.

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- Factors Used for Selection
  - Home Density figures (will be updated for 2023)
  - Feeder Streets where multiple highly populated roads feed thru a lesser populated road
  - Egress routes / Emergency Access / Bus Routes
  - High Risk Roads - IE: elevation/slope, single lanes and drainage,
  - Logical groupings in Units for efficiency & completeness, which saves the District funds
- 2022 Process:
  - Engineering surveys completed for Year 1 locked roads
  - Pre-Construction activities (clearing, ditches, etc) typically starts first of the year.
- Roads, once completed, will be accepted by County after walk-thru, approval and following the warranty period.

# 2022 FINANCIALS FOR ROAD CONSTRUCTION/ROAD MAINTENANCE

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- The District has collected (or will collect) \$1.253M in annual road fees.
- The District received a \$50k donation from the TVPOA & ACC offices.
- Costs of Roads in High Density Areas are more expensive per mile due to extra cost per driveway & culverts.
- In 2021, roads were constructed with the use of contracted labor, WCID2 labor and support of the Bastrop County via Interlocal Agreements.
- Projected road fees and FEMA reimbursements will be used to fund 2022 road construction & chip sealing.
- A financial analysis will be available on the website once our final 2021 audit is completed, expected in April.
- Current Estimate at \$350-360K per mile with Engineering. Cost of oil is still a major factor along with material & fuel price increases it has really taken a toll on our plan at the moment.

# MAJOR ROAD MAINTENANCE – 2021 LIST

MOTOR GRADER WORK, MAJORITY ALSO ROLLED

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- We had a total of 46 roads that were in the maintenance work, completed for the year. \*\*
- We used 7,330 total tons of material (reclaimed concrete or flex base) and covered/maintained/graded over 48,562' (9.19-miles) of roadway in 2021.
- Material is inline with the 2020 #s because we focused on using the grader to disrupt and pack down the natural material in the areas that we could, but adding flex base to have them pre-prepped for future paving. In the end, this results in a savings for us when it comes to the actual construction time.

**\*\*This does not include new construction or the chip sealing/prepping that was completed\*\***

# KEY FACTORS & DATA USED IN BUILDING THE 2022 / 2027 - 5 YEAR PLAN

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- First 3 years locked for planning & engineering purposes & last 2 years are subject to be changed.
- Bastrop WCID2 5-year Road Plan by Road Committee and BEFCO
  - Streets Paved (by Feet)
  - Streets Not Paved (by Feet)
- List of Active Water Meters, # of Houses on Paved & Unpaved streets & Bastrop ISD Bus Routes
- Connection to current County/City Roads, Collector & Feeder Streets; which are streets used to get from a smaller to a larger road.
- Roads added when it was logical to add to complete an area

## **SIDE NOTE:**

- In 2020, the BCWCID2 Board of Directors voted, that once a road is added to the plan in the 5-year line up, that it not be removed.

# 2022 Road Construction and Maintenance Priorities

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- Road Fees cover Road Construction & Road Maintenance
  - Engineering surveys completed for Year 1 locked roads
  - Finding ways to use/save money to make it go as far as we can is always a priority. With material and fuel increases, it's a most important time than ever to spend wisely. We will do our best, to make your money go as far as we can.
- We now have a full 5 employee District Crew working full time on road construction & maintenance
  - Teams to Use County Equipment (Grader, Roller & Water Tanker) with ILA
  - State certified operator training offered at no cost from County and TXLAP sources
  - Improve Maintenance Process & Assist in Construction
  - Unfinished roads will be prioritized to be graded and rolled

Thank you Bastrop County Pct #1 For this Great Opportunity!

# 2021 ROAD SUMMARY

- In 2021, the following roads were conveyed to the Bastrop County: E. Keanahalululu Ln., Ninole Ct., NuupiaCt., Kaeleku Ln., Olomana Ct., Pio Ct., Kaimuki Ct., Puu Ct., Keawakapu Dr., Ulupau Circle, Kipapa Ct., Waimalu Ct., Mokulua Ln., and Wainanae Ct.
- 
- In 2021, \$280K was spent on road maintenance.
  - By Approving the Plan at the annual road meeting, the 1992 Master plan is updated and also communicated to the District residents, the Bastrop County and Bastrop City for the change in road inventory, roads to be reconstructed in 2021, future plans and cost estimates to complete.
  - Most recent estimate of costs to complete the project for 100% conveyance of all roads to Bastrop County or Bastrop City is in the \$6.5 to \$7.1m range. This # is close to last years figure and is primarily due to the rising costs of oil and other materials. This could be a highly variable # for the next few years.

# PROPOSED ROAD PROJECTS – OCT 2021/ SEP 2022 (THIS YEAR)

## October 2021 - September 2022 (Year 1) Locked

Unit	Collector Road	Total Paved	Street	Length of Unpaved Road Measured by Feet	Homes	Feet Between Homes Being Paved	Previous 5 Year Planned Date to Pave	Bus Route Y/N	Comments
1		1030	Honopu Dr	1030	7	147			Connects Mauna Kea to Kula Ct
1		350	Kula Ct	350	6	58			Added
1		530	Keo Kea	530	1	530			Added
1		760	Keamuku Ct	760	6	127			Added
1		360	Ewa Ct	360	1	360			Added to get Keanmuku Ct
2	Feeder	1000	Onini	1000	5	200	2021/2025	No	Off Kaanapali
2		350	Kolo Ct	350	1	350			Just first 200' or what is accessible
2		3900	Kipahulu	3900	21	186	2020/2021		Pave entire road
2		400	lao Court	400	2	200			
		600	Otani Court	600	0				
2		2430	Kahalulu	3150	16	152	2021/2022		Pave between Kainalu & Nakalele
2		450	Okoe Ct (East)	450	4	113			
2		1200	Koali	1200	5	240	2021/2023	No	Between Kaanapali & Alele For Egress
2		350	Pulehu Ct	350	1	350			Drainage from Pahalawe
2		750	Nakalele Lane	750	5	150			
Total		14460		Homes Paved	50				
WD/CT	2.74		9,280						

# PROPOSED ROAD PROJECTS -

**October 2022 - September 2023 (Year 2 LOCKED)**

Unit	Collector Road	Total Paved	Street	Length of Unpaved Road Measured by Feet	Homes	Feet Between Homes Being Paved	Previous 5 Year Planned Date to Pave	Bus Route Y/N	Comments
2		2090	Koolua	2090	8	261	2019/2020	No	Off Awehi Lane
2		1,500	Haleakala Dr	1500	3	1100			
		275	Taro Court	275	0				Old Kulkul court
2		180	Waihi Ct	180	0	N/A			OFF AKALOA
2		650	Laau Ct	650	3	217			Finish off area
5		1300	Kikipua	1300	16	81			Newly Qualified
4 & 5		3100	Waipahoehoe Dr	3100	21	148			
4		2550	Mokuleia Cr	2550	10	255	2018/19	No	Off Akaloa. Pave full Circle
5		2700	Nene	2700	22	123			Was W. Kokekole
4		950	Mokolea Lane	950	3	317			Connects Akaloa & Nanakuli
Total		15295							
WD/CT	2.90		15,295						



# PROPOSED ROAD PROJECTS –

**October 2024 - September 2025 (Year 4 New Plan)**

Unit	Collector Road	Total Paved	Street	Length of Unpaved Road Measured by Feet	Homes	Feet Between Homes Being Paved	Previous 5 Year Planned Date to Pave	Bus Route Y/N	Comments
5		3900	Heleakala Dr	3900	2	1950			Heleakala connects to Lamaloa County Road and this group is batched for Egress
2		1900	Keneka (Was Wahane west of washout)	1770	6	295			
4		400	Aiea Ct	400	2	200			
4		500	Kaiwi Ct	500	0	N/A			
4		4000	Hanauma Dr	4000	11	364			
4		3300	Helemano Dr	3300	1	3300			
5		3900	Iva Lane	3900	4		OLD KAAAWA LN.		
	Total	17,900	17,770						
			3.37						
	Miles	3.39							

# PROPOSED ROAD PROJECTS -

## October 2025 - September 2026 (Year 5 New Plan)

Unit	Collector Road	Total Paved	Street	Length of Unpaved Road Measured by Feet	Homes	Feet Between Homes Being Paved	Avg Home Density of Roads to be Paved; serviced by feeder	Previous 5 Year Planned Date to Pave	Bus Route Y/N	Comments
5			Puu Kaua Ct	350	2	175				<b>THESE 8 STAY GROUPED TOGETHER FOR FUTURE ROAD PLAN</b>
5			Mokuauia Ct	360	2	180				
5			Makua Ct	240	0	N/A				
5			Waialea Ct	320	1	320				
5			Waipio ct	220	0	N/A				
5			Kahuku Ct	400	1	400				
5			MoKoli Ct	550	1	550				
5			Waiialua Ct	550	3	183				
5		2650	Kawainui LANE	2650	10	265			No	Off N. Wahane
2		2700	Wainee	2700	8	338			No	Off Awehi Lane
2			Paia Court	300						

# PROPOSED ROAD PROJECTS –

2				Auau	200	0	N/A				
2				Lopa ct	160	0	N/A				
5			2350	Kamaiki	2350	5	470			No	
2			2500	Molokini	2500	7	357			No	Off Awehi Lane
2				Llio Court	100	1	100				Off Molokini
2			3450	Hekili	3450	9	383			No	Off N. Wahane
2				Eke	200	0	N/A				
4			2550	Wailupe	2550	9	283			No	Off N. Wahane
		Total	0	20150							
		Miles	0.00	3.82		59					



# FUTURE ROADS TO BE COMPLETED WITH THE ROAD PLAN

## Remaining Roads to Be Completed with other years or fit in where plausible

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between	Average roads	Initial Year	Bus Route	Comments
5			Halawa Ct	200	1	200				
1			Reva/Lae Ct	220	1	220				
5			Kalihi Ct	250	0	N/A				
4			Pali Ct	250	1	250				
1			Koui Ct	350	1	350				
2			Moku Ct	450	2	225				
1			Kohala Lane	700	2	350				
2			Wahane - E of Akaloa	1406	2	703				Lift Station
5			Loke	1800	1	1800				
1			Aloha	2250	1	2250				
1			Hulu Ln	1150	0	N/A				
5			Ahupu Lane	1150	0	N/A				
2			Alau Ct	160	0	N/A				
5			Kahana E	1450	0	N/A			No	
5			Diamond Head Dr.	3360	0	N/A				
2			Hana Ct	250	2	125				
5			Hawaii Ct	200	0	N/A				
5			Honolulu Ln	230	0	N/A				
5			Howi Ln	350	0	N/A				
5			Huula Ct	450	0	N/A				

# FUTURE ROADS ~ PAGE 2

5				Kaala Drive	336	0	N/A			
4				Kaukonahua Lane	4300	0	N/A			
5				Kawanui Dr	950	0	N/A			
5				Keehi Ct	150	0	N/A			
5				Koolau ct	250	0	N/A			
1				Lanai Ct	760	1	760			
5				Lanikai	450	0	N/A			
3				Lipoa	450	1	450			
2				Mala Ct	240	1	240			
1				Maui Ct	690	0	N/A			Cliffside City road
2				Nuu Ct	190	0	N/A			
1				Okoe Ct (West)	950	1	950			
4				Waikiki	1600	0	N/A			
5				Hoku	400	0	N/A			
5				Waimanalo Ln	2850	0	N/A			
1				Makaha East Mauna Kea to Aloha Ln	1100	1	1100			DOES NOT CONNECT TO 71 - VERIFIED 3/9/21 PER CAD MAP
Total				Feet of Street	32292	19	1700			
				Miles to Be Paved	6.1					

**TOTAL MILES LEFT PER THIS PLAN**

**19.53**

# **THANK YOU**

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**Volunteers From Road Committee**

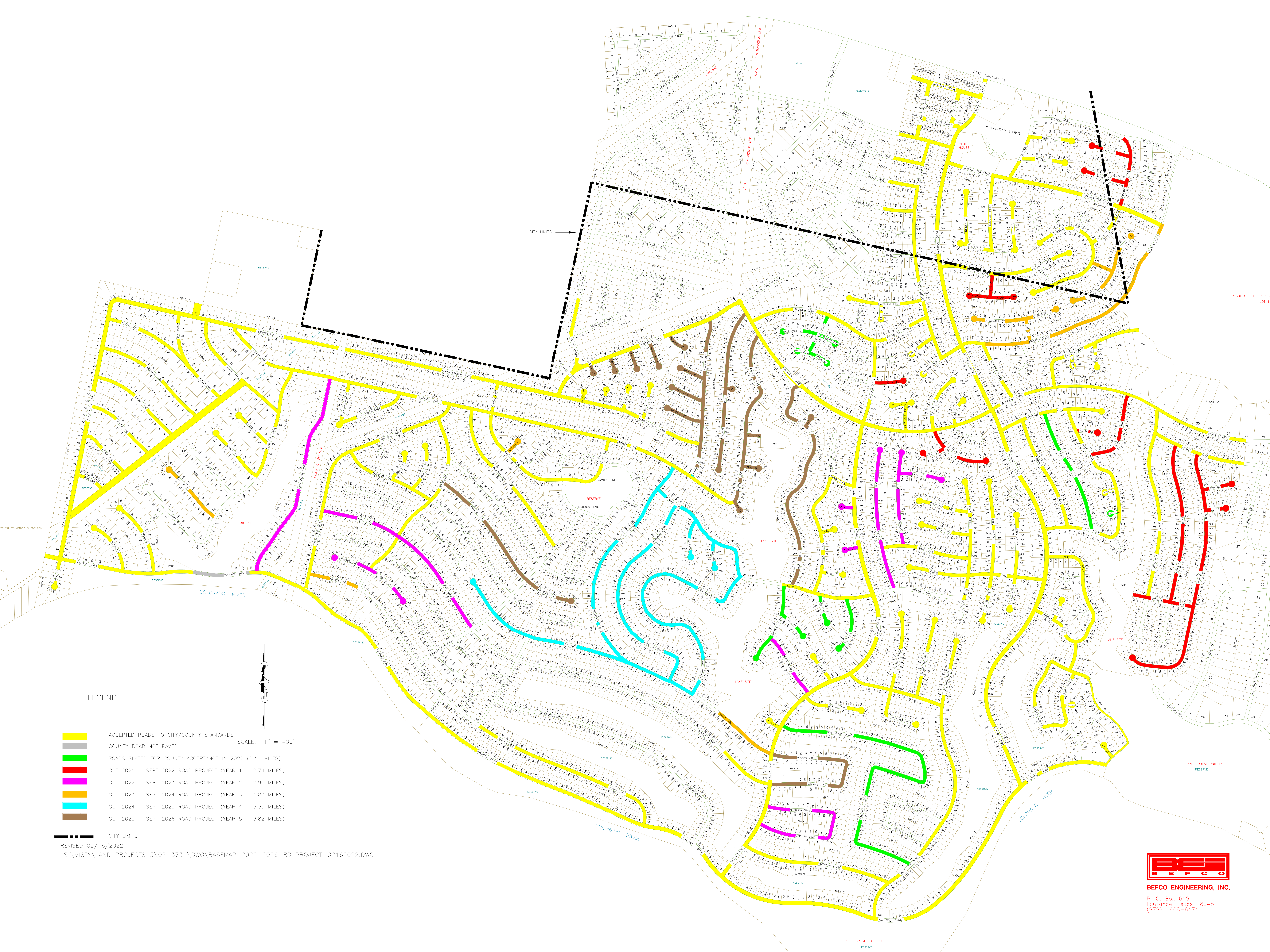
**County Commissioner Mel Hamner**

**BEFCO Engineering**

**TVPOA & ACC Boards**

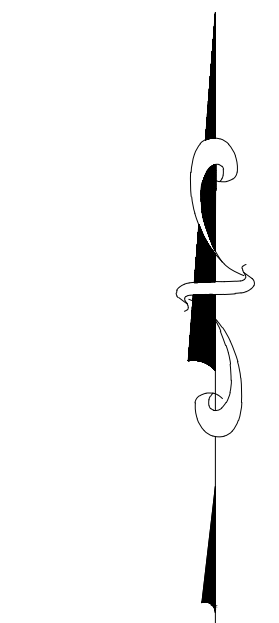
**BCWCID2 Staff and Board Members**

**And THANKS to everyone for all of your hard work  
and dedication to the BCWCID2 community.**



**LEGEND**

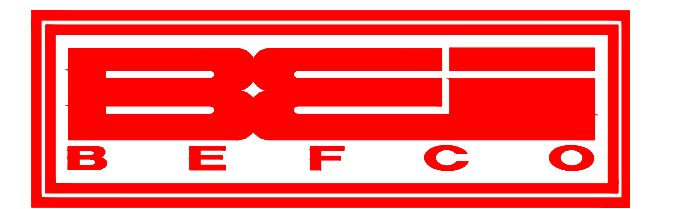
- ACCEPTED ROADS TO CITY/COUNTY STANDARDS
- COUNTY ROAD NOT PAVED
- ROADS SLATED FOR COUNTY ACCEPTANCE IN 2022 (2.41 MILES)
- OCT 2021 - SEPT 2022 ROAD PROJECT (YEAR 1 - 2.74 MILES)
- OCT 2022 - SEPT 2023 ROAD PROJECT (YEAR 2 - 2.90 MILES)
- OCT 2023 - SEPT 2024 ROAD PROJECT (YEAR 3 - 1.83 MILES)
- OCT 2024 - SEPT 2025 ROAD PROJECT (YEAR 4 - 3.39 MILES)
- OCT 2025 - SEPT 2026 ROAD PROJECT (YEAR 5 - 3.82 MILES)



SCALE: 1" = 400'

CITY LIMITS  
REVISED 02/16/2022

S:\MISTY\LAND PROJECTS 3\02-3731\DWG\BASEMAP-2022-2026-RD PROJECT-02162022.DWG



**BEFCO ENGINEERING, INC.**  
P. O. Box 615  
LaGrange, Texas 78945  
(979) 968-6474