



Oct 2016- Sept 2021
5 Year Road Plan
Summary

March 5, 2016



BCWCID Road Committee & Unit Assignments

- Tyler Walsh – BCWCID Operation Manager
- Sam Kier – Committee Chairman – Unit 1
- Jon Eden – Unit 2
- Tammy Eden – Unit 3
- Mary Jo Creamer – Unit 4
- Open – Unit 5 (Pierre Wilson resigned January 1, 2016)
- Alma Rodriguez – District's Administrator
- John Creamer – BCWCID Board President

More Volunteers Needed to Assist

Brief Review of Main Process Changes Beginning 2014

- Road Selection changed to Prioritization by Highest Home Density
 - Home Density is defined by the highest # of homes per feet of street where the smallest Home Density factor = the highest density of homes
 - 8 homes/1000 feet of street (or 125 Home Density) is prioritized above 4 homes/1000 feet of street (or 250 Home Density)
- Other Factors Used for Selection
 - Roads within Fire Area where Fire Money awarded by State can be used
 - Feeder Streets where multiple highly populated roads feed thru a lesser populated road
 - Emergency Needs /Bus Routes
 - High Risk Roads
- 70% of Road Fees collected to be used for Road Construction; 30% for Road Maintenance
 - Roads not on the 5 year Plan for Construction will be repaired using available Road Maintenance Funds

2015/16 Challenges toward Planned Construction

Significant Challenges to our Progress in 2015

- Road Material Cost Escalated to Approx \$200k/mile vs Planned \$150K
 - Increase seen in both materials and trucking
 - » Last Year ;Trucking was as much as materials
 - Impacted 2 miles Road Construction Completed in 2015 resulting in \$120K+ costs vs estimate
 - Impacted Costs of Material for Road Maintenance +\$75k/year above budget
- Costs for Contracted Roads - Ulapau II (safety & difficulty)
 - 300K estimate for plan (Dec 2014) ----→ increased to \$504K
 - » Estimate increased in June/July 2015 – Retaining walls and cement work
 - » Resulting in \$204k+ over budget
- Memorial Day Flood - Repairs taking priority = \$150K (net \$40K) and \$200K (net \$50K) \$200K over 2016 budget
 - Major issues developed
 - » Road closings, water/sewer line exposure issues, Road deterioration, Safety
 - » FEMA will fund 75% of costs (we fund small projects 100% upfront)
 - » Work to be done within 12-24 months of damage

Positive Impact toward Goal

- \$35K Donation by TVPOA
- Collected over 30% of delinquent AR - Billed \$657K Collected \$747K
 - \$462 C/Y)70% \$285K P/Y

**FEMA Repairs, Ulapau II and Material Costs
Delays Majority of 2015/2016 Road Construction**

Estimated Funds for Road Construction/Road Maintenance

2016 Revenue

- \$720k collected from Road Revenue (Increase from \$108 to \$132)
 - Assumes 70% Collection C/Y 20% Collection P/Y

Updated Costs

- \$225k - Base Costs -Road Crew, G&A (Collection/Legal etc), Engineering, etc
- \$160k - Annual Road Maintenance Material & Subcontract Cost (Minimum for basic repairs)

Remaining Funds

- \$335k remains for Road Construction Materials (at \$200k-250k/mile = 1.3-1.6 mile of road per yr.)
 - Assumes City/County Interlocals Only

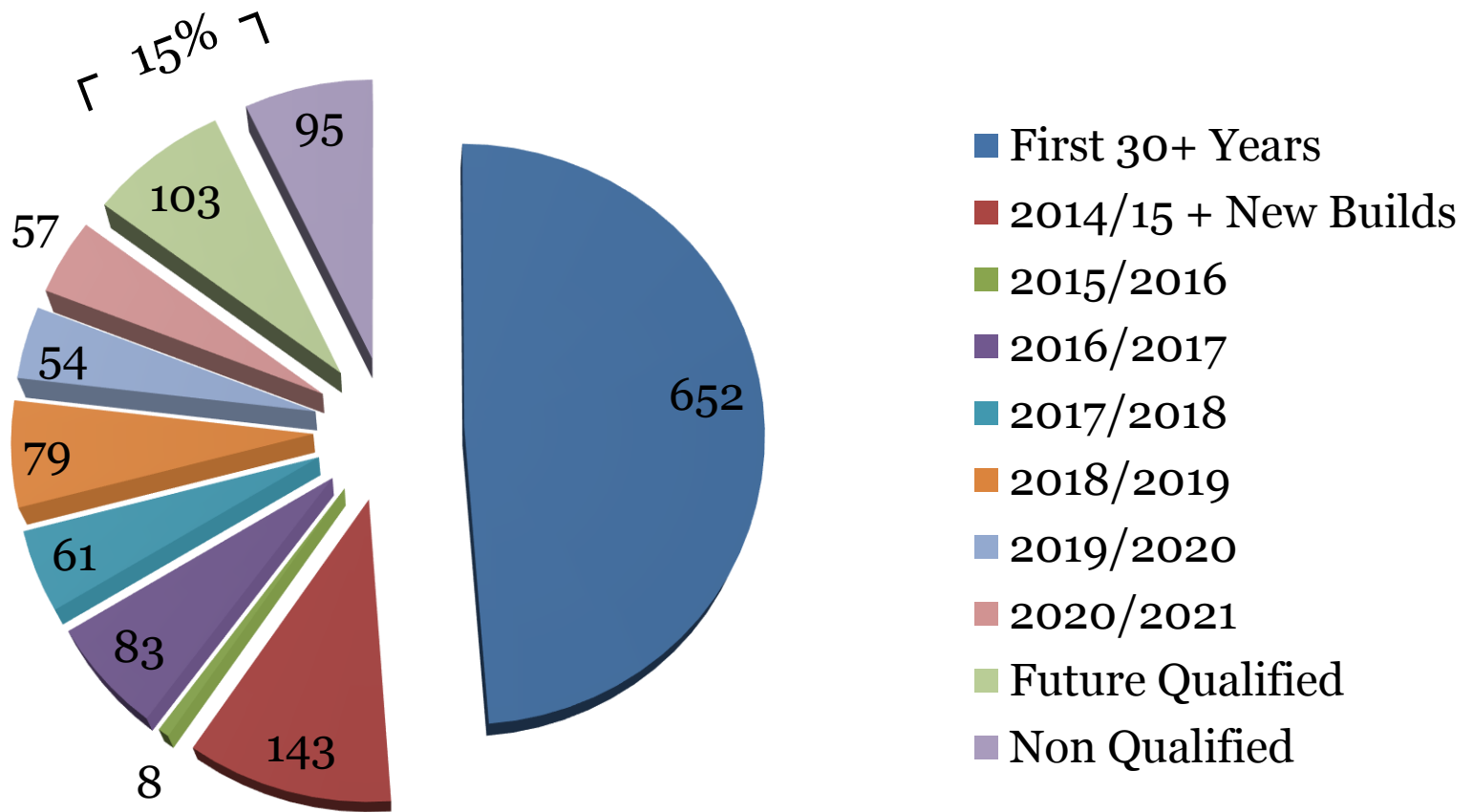
Items Needed but Not Budgeted in 2015/16 Budget

oMaintenance:

- Ninole road access \$40k; Keawakapu Detour \$12K
- \$150k minor Memorial Day repairs (Assume FEMA Reimbursement in 2017)
- \$200k major Memorial Day repairs (Assume FEMA will assist in funding as we proceed)
 - Estimates still being gathered
- Construction:
 - \$320k remaining balance for Ulupau Subcontracted work
 - City Interlocal for Olaa, Pahala, Homonu (\$20K; .45Mile)

Road Construction Progression Since New 2014 Plan Process

Homes Under Approved Roads Now 60% to 85%



Data Includes Homes Built on Existing Roads

2016 /17 Pull Ahead City Rds – 20 homes

Original Approved Road Projects – Oct 2015/Sept 2016

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Average using all roads serviced by feeder	Previous Year Plan	Existing Condition	Bus Route Y/N	Comments
1	CT	1100	Papaloa Lane	1100	10	110		2015/16	3 No		Off Kona
1	CT	220	Pele Ct	220	4	55	94	2015/16	3 No		Ct off of Papaloa
1	CI	Collector	Olaa	950	5	190	108	2015/16	2 No		
1	CI	750	Pahala Ct	750	12	63		2015/16	3 No		Off Feeder road Olaa.
1	CI	650	Homonu Ct	650	5	130		2015/16	3 No		Off Feeder road Olaa.
2	CT	1440	Kanaio	1440	21	69		2015/16	3 No		Off Koloiki
2	CT	2120	Kaupo	2120	18	118		2015/16	No		Off Koloiki
5	CT	1800	Lamaloa	1800	9	200		2014/15	4 No		Easement issues caused 1 year delay. Paving between Nuuanu and Nuuanu
4	CT	2120	Konahuanui Lane	2120	13	163		2015/16	3 No		Between Akaloa & MokuManu
4	WD	2000	Ulupau & Kalama Phase II	2000	8	250		2014/15	4 No		Complete remaining 2000 ft of 2800 circle path of Ulupau & Kalama from & to Three Lot only.
3	CT	450	Haou	450	3	150		New	No		County Paving Riverside. County asked to include Rd nxt to Riverside
3	CT	980	Upola	980	6	163		New	No		County Paving Riverside & asked this to be added to 2015 plan. Rd nxt to Riverside
Total		14580		Homes Paved	114						
County	1.93 miles										
City	0.45 miles										
WD	0.38 miles										
Total	2.76										

Planned 2.76 Miles Road Construction

Key Factors in Building Oct 2016/Sept 2021 - 5 Year Plan

- Reduce miles/year to correspond to new Material Costs
 - Average 1.6 miles/year vs desired 2.0 miles/year
- Minimize changes to previous 5 year plan
 - Maintain intent of original commitment to pave roads from 2015/17
 - Stretch those 2 years into 3 years (4+ miles needs 3 years now to complete)
- Prioritize roads in 2016/2018 where prep work has already begun
 - Surveys already completed (costs already incurred)
 - Water/sewer work completed (Lamaloa)
- When Planning FY2018/21 - take into consideration all new builds and reprioritize again ALL roads for construction based on home density.

Data Assessed to Build New 5 Year Plan

- Bastrop WCID Master Plan by BEFCO (Updated with FY2014-15 Paved Rd Data)
 - Streets Paved within each Unit (by Feet)
 - Streets Not Paved within each Unit (by Feet)
- List of Active Water Meters (Updated with New Home Builds in 2015)
 - Houses on Paved streets
 - # of Houses on Unpaved streets
 - Feet of Unpaved Street divided by # of Houses on that Street
- Bastrop Bus Routes (Remains the same)
- BCWCID Maps (Updated with New Road Paved Data)
 - Connection to County Roads
 - Collector Streets
 - Feeder Streets & the streets that feed into each (where other streets access a feeder street to get out of their area)

Revised Road Projects – Oct 2015/Sept 2016

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Average using all roads serviced by feeder	Previous Year Plan	Existing Condition	Bus Route Y/N	Comments
4	WD	2000	Ulupau & Kalama Phase II	2000	8	250		2014/15	4	No	Safety Issues Required Prioritization completion of remaining 2000 ft of 2800 circle path of Ulupau & Kalama from & to Three Lot only.
Total		2000			Homes Paved 8						
County	0 miles										
City	0 miles										
WD	0.38 miles										
Total	0.38										

**Completed High Risk Road Where Contract w/ SubContractor Awarded
 Prior to October 2015
 All Other Roads Delayed Due to Low Funds
 Possibly Pull Ahead FY2016 City Roads into FY2015**

Proposed Road Projects – Oct 2016/Sept 2017

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Average using all roads serviced by feeder	Previous Year Plan	Existing Condition	Bus Route Y/N	Comments
1	CI	Collector	Olaa	950	5	190	108	2015/16	2	No	Survey completed. Dependent on City costs ~ to County costs
1	CI	750	Pahala Ct	750	12	63		2015/16	3	No	Survey completed. Dependent on City costs ~ to County costs
1	CI	650	Homonu Ct	650	5	130		2015/16	3	No	Survey completed. Dependent on City costs ~ to County costs
5	CT	1800	Lamaloo	1800	9	200		2014/15	4	No	Culverts-wastewater work completed. Survey completed. Delaying again could create more costs. Paving between Nuuanu and Nuuanu
2	CT	1440	Kanaio	1440	21	69		2015/16	3	No	Survey completed. Off Koloiki
2	CT	2120	Kaupo	2120	18	118		2015/16		No	Survey completed. Off Koloiki
4	CT	2120	Konahuanui Lane	2120	13	163		2015/16	3	No	Survey completed, Engineers agree on solution to Tree in Road. Paving Road between Akaloa & MokuManu
Total		9830		Homes Paved	83						
County	1.42 miles										
City	0.45 miles										
WD	0.00 miles										
Total	1.86										

**County – Pave Roads where Prep Work Started & High Density
City – Pave Where Fire \$\$ Can Be Realized**

Proposed Road Projects – 2017/2018

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Average using all roads serviced by feeder	Previous Year Plan	Existing Condition	Bus Route Y/N	Comments
1	CT	1100	Papaloa Lane	1100	10	110	94	2015/16	3 No	No	Off Kona
1	CT	220	Pele Ct	220	4	55		2015/16	3 No	No	Ct off of Papaloa
1	CT	1640	Pahoiki Lane	1640	15	109	100	2016/17	3 No	No	Off Kaanapali
1	CT	160	Kou	160	3	53		2016/17	No	No	Ct off Pahoiki
2	CT	1450	Pahihi North	1450	8	181	68	2016/17	3 No	No	South Pahihi Previously Paved by County
2	CT	800	Kaena Lane	800	7	114		2016/17	2 No	No	Off N. Pahihi
2			Awehi Lane	1320	4	330			3		
2			Koolua Dr	2090	7	299			3		
2			Haleakala Dr	2200	1	2200			4		
2			Kaenapapa	800	2	400			3		
2			Laau Ct	650	4	163			4		Does Not Qualify due to not connected to county Road. Off Haleakala
2	CT	2430	S. Papawai Dr	2430	7	347	203	2016/17	No	No	Between Wahane & Umipaa
2	CT	73	Koae Ct	220	3	73		2016/17	No	No	Off Papawai
2	CT	350	Huelo Ct	350	4	88		2016/17	No	No	Off Papawai
Total		8223			Homes Paved	61					
CT	1.56	miles			Homes with Improved Access	18					
CI	0.00	miles									
WD	0.00	miles									
Total	1.56										

**Three Areas of Focus for County
All Roads from First 2 Years of Previous Year's Plan**

Proposed Road Projects – 2018/2019

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Average using all roads serviced by feeder	Previous Year Plan	Existing Condition	Bus Route Y/N	Comments
4	CT	900	Anahulu Lane	900	5	180		2016/17	4 No		Off Akaloa
3	CT	1700	Haliimaile	1700	24	71		2016/17	4 No		Between Keanahalululu and Airport
3	CT	1360	Kokomo	1360	24	57		2017/18	4 No		** Current Easement issues need addressed. Between Keanahalululu and Airport
3	CT	700	Kaewakapu	600	2	300	138	New			Short cut used to get to Airport (pave point from Lamoloa to Kaeleku)
3	CT	500		Kaeleku	500	6		83	2017/18	4 No	
3	CT	450	Haou	450	3	150		2015/16	No		Added originally due to County Paving Riverside. Rd nxt to Riverside
3	CT	980	Upola	980	6	163		2015/16	No		Added originally due to County Paving Riverside & asked this to be added to 2015 plan. Rd nxt to Riverside
5	CT	900	Mokulua Lane	3230	5	180	177	2016/17	4 1 stop		Bus goes down between Pohakuloa and Waikakaaua. Pave only between those 2 streets
5	CT	700	Waimalu	700	4	175		2016/17	No		Off Mokulua
Total		8190		Homes Paved	79						
				Homes with Improved Access	0						
CT	1.55										
CI											
WD	0.00										
Total	1.55										

**Completes All Roads from First 2 Years of Previous Plan
Three Areas of Focus for County**

Proposed Road Projects – 2019/2020

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Average using all roads serviced by feeder	Previous Year Plan	Existing Condition	Bus Route Y/N	Comments
1	CT	850	Kulua Ct	850	6	142	136	2017/18	3 No		Off Kaanapali
1	CT	400	Kimo Ct	400	6	67		2017/18	No		Off Kaanapali
1	CT	900	Ahumoa	900	5	180		New	No		Off Kaanapali
2	CT	Collector	Pahalawe Lane	1100	4	275		2017/18	3 Yes		Off Tahitian
			Alele	3150	13	242			Yes		Already Paved
		1950	Pukoo	1950	7	279		2019/20			Between Alele & Pahalawe
	CT	1740	Kaapahu	1740	11	158	2017/18	No		Between Alele & Pahalawe	
1	CT	Feeder	Kawela	700	2	350	152	2017/18	No		Off Kamakoa
1	CT	750	Lai	750	7	107		2017/18	No		Off Kawela
1	CT	830	E & W Kamoi	830	6	138		2017/18	No		Off Kawela
Total		9220			Homes Paved	54					
CT	1.75				Homes with Improved Access	13					
CI											
WD	0.00										
Total	1.75										

**Continued on Progress of Previous Plan with Minimal Change
Added Pukoo while Paving Surrounding Roads
Two Areas of Focus for County**

Proposed Road Projects – 2020/2021

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Average using all roads serviced by feeder	Previous Year Plan	Existing Condition	Bus Route Y/N	Comments
4	CT	200	Oah Ct	200	3	67		New		No	Off Akaloa
3	CT	450	Kauai Ct	450	3	150		New		No	Off Akaloa
4	CT	3150	Kaelepulu Dr	3150	16	197		2017/18		2 No	Only pave the 3150 ft starting at Akaloa, not the 2200 from MokuManu. Between Akaloa & MokuManu
5	CT	1700	Maunalua	1700	11	155		2018/19		5 No	Off Lamoloa
5	CT	1250	Keanahalululu Ln	1250	13	96		2018/19		3 No	Eastern end up hill. Previous work paid to resurface in 2013.
5	CT	2400	Puu Waa Waa	2400	11	218		2019/20		No	Between Lamaloa & Diamond Head
Total		9150		9150							
CT	1.73			Homes Paved	57						
CI											
WD	0.00										
Total	1.73			Total Homes Paved 2016-2021	334						
				Total Qualified Homes Left Unpaved	103						
				Total Non-Qualified Homes Left Unpaved	95						

Focus on High Density Roads Add's 2 New Roads to Adjacent Planned Roads

Qualified Roads Pending Future Inclusion in Plan

Unit	Collector Road	Total Paved	Street	Length Ft	Homes	Feet Between Homes	Average using all roads serviced by feeder	Previous Year Plan	Existing Condition	Bus Route Y/N	Comments
4	CT	800	Keaau Ct	800	4	200		2018/19		4 No	Off Wahane
2	CT	1000	Onini	1000	4	250		2018/19		4 No	Off Kaanapali
4	CT	1250	Nanakuli Dr	1250	5	250		2018/19		3 No	Off Wahane
4	CT	2550	Mokuleia Cr	2550	9	283		2018/19		4 No	Off Akaloa. Pave full Circle
2	CT	2300	Kipahulu	2300	8	288		2019/20		3 No	Off Kainalu (did not add the 500 feet at the end past the bad road (similar to Maiwaninee)
2	CT	1200	Koali	1200	4	300		2019/20		3 No	Between Kaanapali & Alele
2	CT	2430	Kahalulu dr	2430	8	304		2018/19		3 No	Off Kainalu (did not add the 500 feet at the end past the bad road (similar to Maiwaninee)
4	CT	950	Mokolea Lane	950	3	317					Connects Akaloa & Nanakuli
4	CT	989	Kaaawa Lane East	989	3	330				3 No	Off N. Wahane
2	CT	1320	Awehi Lane	1320	4	330		2019/20		3 No	Off N. Wahane
2	CT	2090	Koolua	2090	6	348		2019/20		3 No	Off Awehi Lane
2	CT	2700	Wainee	2700	7	386				3 No	Off Awehi Lane
2	CT	3450	Hekili	3450	8	431				3 No	Off N. Wahane
2	CT	2500	Molokini	2500	5	500				3 No	Off Awehi Lane
5	CT	2650	Kawainui	2650	5	530				3 No	Off N. Wahane
5	CT	2175	Kahana	2175	4	544				3 No	Off Awehi Lane
5	CT	2350	Kamaiki	2350	4	588				3 No	Off N. Wahane
4	CT	2550	Wailupe	2550	4	638				3 No	Off N. Wahane
4	CT	2200	Kaelepulu Dr (South)	2200	3	733				3 No	Off Awehi Lane
5	CT	3680	Kolekole	3680	5	736				3 No	Off N. Wahane
Total		41134		Qualified Homes on UnPaved Roads	103						
County	7.79 miles										
City	0.00 miles										
WD	0.00 miles										
Total	7.79										

Reduction of Avg Miles/Year Resulted in 3 miles of Previous Planned Roads Pushed outside of 5 Year Plan



THANK YOU

Commissioner Pina from Bastrop County Precinct 1

Trey Job from City of Bastrop

Tyler Walsh with BCWCID#2

BEFCO & County Engineering

& ALL Your Crews

For Your Tremendous Cooperation & Teamwork

TVPOA For Donations Towards Materials