

Dodd Marsh Townhomes

<u>Summary</u>

- A total of 86 irrigation zones
- Four irrigation controllers
 - 1. 19053 Inman Trail.
 - 2. 19152 Inndale Dr. (backyard)
 - 3. Corner of Inca Ave and Inndale Dr.
 - 4. 19219 Ingleside Court (attached to side of home)
- Three water sources with enclosures
 - Corner of Inca Ave and Inndale Dr.
 - o 19152 Inndale Dr. (backyard)
 - o 19053 Inman Trail

The irrigation system as a whole was installed well and is maintained well. As far as efficiency, it is below average. Most of the issue is that each of the homes, or in some cases more than one home, are one zone of irrigation. Those zones run the front, sides, and backyards of those homes not considering the different microclimates. That means each zone has a run time that is dictated by the driest microclimate while overwatering the others, oversaturating the soil and possibly creating run off into the storm drains or low areas. Each controller listed below is not a smart or weather-based controller. They are each what is called a standalone controller that needs to be changed manually. It is recommended that smart or weather-based controllers are installed.

Please note that some of the recommendations listed in the tables below have options for consideration (i.e. Board members have the option to implement one or the other as opposed to both together – for example Recommendations 2a and 2b for Controller 1).

Recommendation	Management Type	Improvement	Estimated Cost
1	Weather sensing technology	Install and program a smart controller	\$1,600- \$2,200*
2a	Water Distribution	Change nozzles in all zones to account for varying microclimates	\$4,000
2b	Wiring Retrofit	Rebuild and add zones to run microclimates together	\$36,000
3	Water Distribution	Change nozzles and add additional zones to avoid sidewalk watering	\$9,000- \$15,000
4	Water Distribution	Lower three heads in zone 2	Variable

Controller 1 – 19053 Innmann Trail

* Cost does not include mobile hotspot one-time fee and the \$10-\$15 monthly internet fee (internet can be suspended during winter months)

Controller 2 – 19152 Inndale Dr

Recommendation	Management Type	Improvement	Estimated Cost
1	Weather sensing technology	Install and program a smart controller	\$1,600- \$2,200*
2a	Water Distribution	Change nozzles in all zones to account for varying microclimates	\$4,000
2b	Wiring Retrofit	Rebuild and add zones to run microclimates together	\$31,000
3	Water Distribution	Change nozzles and add additional zones to avoid sidewalk watering	\$7,500- \$12,500

* Cost does not include mobile hotspot one-time fee and the \$10-\$15 monthly internet fee (internet can be suspended during winter months)

Controller 3 – Inca and Inndale

Recommendation	Management Type	Improvement	Estimated Cost
1	Weather sensing	Install and program a smart	\$1,600-
	technology	controller	\$2,200*
2a	Water distribution	Change nozzles in all zones to account for varying microclimates	\$3,750
2b	Wiring Retrofit	Rebuild and add zones to run microclimates together	\$27,000
3	Water Distribution	Change nozzles and add additional zones to avoid sidewalk watering	\$12,000- \$20,000
4	Water Distribution	Move sprinkler in Zone 15	Variable

* Cost does not include mobile hotspot one-time fee and the \$10-\$15 monthly internet fee (internet can be suspended during winter months)

Controller 4 – 19219 Ingleside Ct

Recommendation	Management Type	Improvement	Estimated Cost
1	Weather sensing technology	Install and program a smart controller	\$1,000- \$1,400*
2a	Water distribution	Change nozzles in all zones to account for varying microclimates	\$1,200
2b	Wiring Retrofit	Rebuild and add zones to run microclimates together	\$7,000

* Cost does not include mobile hotspot one-time fee and the \$10-\$15 monthly internet fee (internet can be suspended during winter months)

Suggestions

Controller 1 – 19053 Innmann Trail

- This controller has an operational rain sensor, so no change is recommended.
- All zones need to be gone through to change nozzles. On each zone, install larger nozzles in sunny, drier areas and smaller nozzles in shady, more wet areas. Without rebuilding the

zones, this will help but will not totally correct the lack of efficiency. It will also help in reducing the wet areas on the property. This change would likely be done at a time and material rate, but the price would range from approximately \$100 to \$150 per zone. With 27 zones to change, the price would range from approximately \$2,700 to \$4,050. Another option is to rebuild current zones to run similar microclimates together. This could be done with the current controller and valves, and possibly needing to add a few new zones. An example would be to irrigate three homes at a time. Use those three valves to separate and run the front yards together, the side yards together and the backyards together. The price would range from approximately \$700 to \$1,000 per house. With 36 homes on this controller, the price would range from approximately \$25,200 to \$36,000.

- Zones 1, 3, 4, 5, 6, and 7 are rotor zones that are irrigating over sidewalks. This creates the runoff of water, uses water on areas that don't require irrigation, and is costing money that could otherwise be saved. The recommendation for these zones is to change them from rotor zones to spray zones so that they do not spray over the sidewalk and add additional zones on the opposite side of the sidewalk to throw water away from the sidewalk. An approximate cost is \$1,500.00 to \$2,500.00 per zone for each mentioned above, which includes adding an additional zone for the areas on the other side of the sidewalks.
- Zone 2 has three heads that should be lowered to turf level as they are currently placed too high and not working properly. This work should be done at a time and material rate by an irrigation contractor providing service work and could be performed during a normal service visit.
- The installation of a new weather-based controller is recommended. The cost for installing a new controller at this location would range from \$1,600 to \$2,200. This cost assumes that a Wi-Fi connection is available for the controller. If a Wi-Fi connection is not available, the cost of a mobile hotspot and data plan would need to be added. A mobile hotspot would be a one-time fee, and the monthly cost for a data plan ranges from \$10 to \$15 per month. A data plan through AT&T can be suspended over the winter months, which would provide additional cost savings.

Controller 2 – 19152 Inndale Dr

- This controller has an operational rain sensor, so no change is necessary.
- All zones need to be gone through to change nozzles. On each zone, install larger nozzles in sunny, drier areas and smaller nozzles in shady, more wet areas. Without rebuilding the zones, this will help but will not totally correct the lack of efficiency. It will also help in reducing the wet areas on the property. This change would likely be done at a time and material rate, but the price would range from approximately \$100 to \$150 per zone. With 26 zones to change, the price would range from approximately \$2,600 to \$3,900. Another option is to rebuild current zones to run similar microclimates together. This could be done with the current controller and valves, and possibly needing to add a few new zones. An example would be to irrigate three homes at a time. Use those three valves to separate and run the front yards together, the side yards together and the backyards together. The price range would range from approximately \$700 to \$1,000 per house. With 31 homes on this controller, the price would range from approximately \$21,700 to \$31,000.
- Zones 20, 22, 23, 24, and 25 are rotor zones that are irrigating over sidewalks. This creates the runoff of water, uses water on areas that don't require irrigation, and is costing money that could otherwise be saved. The recommendation for these zones is to change them from rotor zones to spray zones so that they do not spray over the sidewalk and add additional zones on the opposite side of the sidewalk to throw water away from the

sidewalk. An approximate cost is \$1,500.00 to \$2,500.00 per zone for each mentioned above, which includes adding an additional zone for the areas on the other side of the sidewalks.

- The installation of a new weather-based controller is recommended. The cost for installing a new controller at this location would range from \$1,600 to \$2,200. This cost assumes that a Wi-Fi connection is available for the controller. If a Wi-Fi connection is not available, the cost of a mobile hotspot and data plan would need to be added. A mobile hotspot would be a one-time fee, and the monthly cost for a data plan ranges from \$10 to \$15 per month. A data plan through AT&T can be suspended over the winter months, which would provide additional cost savings.

Controller 3 – Inca and Inndale

- This controller has an operational rain sensor, so no change is recommended.
- All zones need to be gone through to change nozzles. On each zone, install larger nozzles in sunny, drier areas and smaller nozzles in shady, more wet areas. Without rebuilding the zones, this will help but will not totally correct the lack of efficiency. It will also help in reducing the wet areas on the property. This change would likely be done at a time and material rate, but the price would range from approximately \$100 to \$150 per zone. With 25 zones to change, the price would range from approximately \$2,500 to \$3,750. Another option is to rebuild current zones to run similar microclimates together. This could be done with the current controller and valves, and possibly needing to add a few new zones. An example would be to irrigate three homes at a time. Use those three valves to separate and run the front yards together, the side yards together and the backyards together. The price range would range from approximately \$700 to \$1,000 per house. With 27 homes on this controller, the price would range from approximately \$18,900 to \$27,000.
- Zones 16, 17, 18, 19, 21, 22, 23 and 24 are rotor zones that are irrigating over sidewalks. This creates the runoff of water, uses water on areas that don't require irrigation, and is costing money that could otherwise be saved. The recommendation for these zones is to change them from rotor zones to spray zones so that they do not spray over the sidewalk and add additional zones on the opposite side of the sidewalk to throw water away from the sidewalk. An approximate cost is \$1,500.00 to \$2,500.00 per zone for each mentioned above, which includes adding an additional zone for the areas on the other side of the sidewalks.
- Zone 15 has a sprinkler in the front yard that should be moved out from the landscaping in order to alleviate watering non-critical areas. This work should be done at a time and material rate by an irrigation contractor providing service work and could be performed during a normal service visit.
- The installation of a new weather-based controller is recommended. The cost for installing a new controller at this location would range from \$1,600 to \$2,200. This cost assumes that a Wi-Fi connection is available for the controller. If a Wi-Fi connection is not available, the cost of a mobile hotspot and data plan would need to be added. A mobile hotspot would be a one-time fee, and the monthly cost for a data plan ranges from \$10 to \$15 per month. A data plan through AT&T can be suspended over the winter months, which would provide additional cost savings.

Controller 4 – 19219 Ingleside Ct

- This controller has an operational rain sensor, so no change is recommended.
- All zones need to be gone through to change nozzles. On each zone, install larger nozzles in sunny, drier areas and smaller nozzles in shady, more wet areas. Without rebuilding the zones, this will help but will not totally correct the lack of efficiency. It will also help in reducing the wet areas on the property. This change would likely be done at a time and material rate, but the price would range from approximately \$100 to \$150 per zone. With eight zones to change, the price would range from approximately \$800 to \$1,200. Another option is to rebuild current zones to run similar microclimates together. This could be done with the current controller and valves, and possibly needing to add a few new zones. An example would be to irrigate three homes at a time. Use those three valves to separate and run the front yards together, the side yards together and the backyards together. The price range would range from approximately \$700 to \$1,000 per house. With seven homes on this controller, the price would range from approximately \$4,900 to \$7,000.
- The installation of a new weather-based controller is recommended. The cost for installing a new controller at this location would range from \$1,000 to \$1,400. This cost assumes that a Wi-Fi connection is available for the controller. If a Wi-Fi connection is not available, the cost of a mobile hotspot and data plan would need to be added. A mobile hotspot would be a one-time fee, and the monthly cost for a data plan ranges from \$10 to \$15 per month. A data plan through AT&T can be suspended over the winter months, which would provide additional cost savings.



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Total number of zones for property: 2S ENR Intrigation Evaluation Total number of zones for property: 2S Controller Make, Model and Location HurtEL Location of water source: Anno. Ann. and. Imndel. Drive Scontroller Make, Model and Location HurtEL Location of water source: Start. Carver. d). Two, Ann. and. Imndel. Drive Vater source: Chryle: Program Start times and water days: Program. Start times and water days: Program. Start times and water days: Program. Start times and water days: Provide Start. M T W TH F SA S Program Start times and water days: Provide Start. Start. M T W TH F SA S Program Start times and water days: Provide Start. M T W TH F SA S Program Start times and water days: Provide Start. M T W TH F SA S Program Start times and water days: Provide Start. M T W TH F SA S Program Start times and water days: Provide Start. M T W TH F SA S Program Start times and water days: Provide Start. M T W TH F SA S M T W TH F SA S Provide Start. Side Case David. M T W TH F SA S Start times and water days
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Time needed to perform repairs on this zone	pairs on this zone		•			
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S Mad		R		7	Pink	A
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ed adjustment			X	Rotor/Spray	ed adjustment		R	Rotor/Spray	ed adjustment	K	Rotor/Spray		ed adjustment		R	Rotor/Spray Brand
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s on this zone	# of Heads that	To		Zone Location	# of Heads that s on this zone	one operation:		Zone Location	* Ful = 1	d water days:	d water days:	d water days:		s, pump make, mode	Size: 2, Other	ation Hunter	1 Marsh
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