

WWS Fence Report - Final

Executive Summary

The WWS entrance is bordered by rock and white fence in good condition. No changes are needed for the entrance or existing white fence. We recommend that the white fence be extended south to the first utility pole to balance the visual appeal.

The black wooden fence along FM 1174 is unsightly and needs replacing. A stone or rock “fence” can be installed for the same cost as a vinyl fence and would not require future maintenance or mowing.

As the lowest cost choice, we recommend replacing the rails with unpainted cedar boards.

As long term, low maintenance choice, we recommend a rock fence constructed of large natural boulders, common in other areas of the WWS property. The boulders fit within the current WWS landscaping motif.

The stones can be placed 25 ft apart to delineate the public – private boundary line. Or they can be placed 3-5 ft apart to prevent vehicular access.

Estimated Project Costs

Replace existing rails with pressure treated corral boards or cedar rails. Reuse existing posts.	\$18,000 – PT corral board \$23,000 - cedar
New vinyl fence.	\$38,000
Boulder fence. 3ft space between boulders.	\$36,000
Cut stone fence. 3ft space between stones.	\$46,000

Costs include \$6,000 to remove old fence, clean up fence line and perform maintenance on existing white entrance fence.

Action: WWS POA board to select their top two choices.

3/4/16

Fence Committee: Gil Silva, David Giles.

Draft Report Reviewed by: Bill Hiers, Mike Austin, Cheryl White, Van Henry, Terri Whaley, Leonard Urbanovsky, Shawn Vickers, Danny Melcher, David Carmichael

Current Fence Condition

The current black painted fence will be removed and hauled away. The new fence would follow the same path as the old fence.

The wood fences separating the various lots are not part of the fence upgrade project.

Access gates and driveways would remain unaltered.



General Fence Discussion

Fences serve two purposes. Fences keep large animals inside an area and they restrict access from outside. Fences are also a visual representation of the boundary between public and private property. As a wildlife refuge, WWS has no need to prevent animal movement. However, except for FM1174, wire fences cover the entire WWS perimeter. Whitewater Drive is fenced along one side for most of the road. The southern WWS perimeter has an 8ft high game fence. All neighboring ranches have barb wire fences on the adjoining property. The federal wildlife refuge is fenced entirely with wire.

One could argue that a wildlife refuge style wire fence would be compatible with the surrounding Texas vista and view.

Typical WWS Wire Boundary Fence



Wildlife Refuge Wire Fence



Installing a wire fence along FM 1174 would be the lowest cost option and would be the most secure. The appearance matches the surrounding federal nature refuge fence. It does not meet WWS POA guidelines. We did not investigate wire fence costs.

Alternate Wooden Fences

There are two wooden fence styles prevalent in the surrounding areas. Both use cedar posts. The fences are decorative and separate public from private land. Long term, weeds and vines will overgrow a split rail fence.



Three Rail Wood Fence (current fence)

This fence design is common in horse country and around well-groomed farms and rural homes. It denotes urban gentry and wealth. In the beginning, WWS was to have horse riding trails. We suspect the painted rail fence was meant to attract horse owners.

Because we see the fence every day, we have become used to the design. But it does not project the image of a remote “nature reserve” home site.

Painted wood fences are a maintenance headache. There are several other white wood fences in the 20 mile radius. Every one of them looks bad. The best fence paint will only last 4-6 years. Home Depot paint will last 2-3 years. Treated lumber takes two seasons to dry before it can be painted.

Wood fences require posts. Digging in WWS soil is difficult due to the rocks. So the fence installation costs are higher.

New Wood Rails / Existing Fence

The existing fence could have new rails installed. 95% of the existing posts are solidly set in concrete. The rails are called “corral boards”.

We highly recommend against painted wooden rails. 16ft rails are available in either pressure treated lumber or cedar planks. PT lumber is installed wet and will warp, twist and cup as it dries. Several contractors would not bid a PT rail fence. Cedar is kiln dried and stable. Cedar will weather to a natural grey after several years. PT lumber weathers to a pale color.

New Vinyl Fence

If a white or black fence is selected, the best choice is a new vinyl fence. Plastic fences have greatly improved over the years. Older PVC fence material was prone to cracking. Vinyl fence material has a 25yr warranty. The best manufacturers are Freedom and Bufftech. A vinyl fence requires new posts.

Boulder Fence

Internally, WWS does not use fences between neighboring lots. But many property owners identify boundary lines with stone walls, large boulders or rock piles. The WWS pool area uses boulders to outline vehicular access areas.

WWS Front Entrance Boulders



WWS Public - Private Boundary Boulders



WWS Pool House Boulders



WWS Public - Private Boundary Boulders



The front fence could use this layout. The front entrance boulders delineate the property lines and are 50ft apart. The pool house boulders are meant to prevent vehicle access and are 5-6 ft apart.

Cut Stone Fence

Cut Stones are a more formal alternative to natural boulders. Cut stone is a waste product from nearby granite quarries. The blocks are 2'x2'x5' long with a flat top and bottom. Cut stones can be easily stacked into a wall. They have a more uniform visual appearance and look good on long flat surfaces that are mowed regularly. Our opinion is that natural boulders would look better in the WWS wavy grasslands and rolling hills.

Cut Stone Fence



Bertram Park



Liberty Hill Church



Advantages of a Boulder Fence

Boulder fence advantages include:

- A rock does not need painting.
- Post holes are not required for a rock.
- Boulders and mowers are natural enemies. Mowing costs can be reduced.
- There is nothing more natural in WWS than a rock.
- The WWS ACC committee motto is: "We decorate with rocks."
- Rocks do not have feelings. They do not care where they are placed.
- No one will steal a rock fence.
- If the homeowner wants a different front fence, Bill Hiers can always use another rock somewhere.

Security

WWS cannot be totally secured from FM1174 access. The area next to Cow Creek has easy access to any 4WD vehicle or ATV. Access points include the unlocked gate, the unfenced floodplain area, under the main bridge and the concrete road across Cow Creek to the neighboring property. Legally, we are prohibited from fencing these areas. And the next flood would wash the fence away.

Adding ten more driveways to the front lots will only make physical access easier. A new fence, of any type, will not prevent unauthorized WWS access. Law abiding citizens avoid private property that is clearly marked. But the neighborhood consensus leans toward a solid fence barrier with openings no larger than three feet to prevent ATV access.

A boulder fence could be installed in two phases. Space the boulders 8ft apart initially. If unauthorized access becomes a problem, drop additional boulders in place.

Current FM1174 Access Gate 1



Current FM1174 Access Gate 2



Current FM1174 Access Gate 3



Additional Boulder Fence Considerations

- Any boulders or stones would be POA property.
- The new fence would follow the same path as the current wood fence. The outside edge of the rock would be the current fence line.
- Two boulders would straddle each adjoining property line. A boulder would be placed on either side of a driveway or gate. The remaining boulders would be spaced approximately 5ft apart to prevent vehicular access.

These recommendations are outside our scope, but seem like good ideas:

- There are 12 separate lots along FM1174. Three farm gates and driveways provide access through the fence. According to the current plat, there could be 12 separate driveways and lot entrances. It will not be possible to maintain a consistent frontage road visage. We propose that the lot owners be allowed to install any other fence or entrance that meets the POA standards. With POA approval, property owners can move the boulders as needed.
- There is a 40ft wide easement from Bobcat Circle, going north toward the mailboxes. We recommend that a 20ft wide gravel driveway be installed to access Lots 301 – 306. This reduces the entrances onto FM1174 and prevents unauthorized WWS neighborhood access through these lots. Thanks to Bill Hiers for the suggestion.
- Lots 311 and 312 are the southernmost lots on FM1174 and Cow Creek. Over 50% of Lot 312 is located in the floodplain. Located downhill and around a corner from the Cow Creek bridge, the entrance would be at a dangerous spot. We recommend that Montvale combine these two lots into a single large property. A large expensive home at this location would be a great anchor for the WWS subdivision.
- WWS has a very nice looking entrance. Homes built on either side would reduce the subdivision curb appeal. We recommend the POA purchase Lots 370 and 301 for common property.

Appendix A - Review of WWS Plat Drawings

Lot	Acre	Frontage Distance (ft)	Comments
370	5.01	300	School bus turnaround lot. White fence.
WW Drive		85	WWS entrance.
301	3.53	253.9	next to mailbox. White fence.
302	3.7	258.9	Lot 302 & 303 are surrounded by wood fence?
303	3.7	258.9	
304	3.7	258.9	
305	5.21	365	
306	3.57	250	just north of Bobcat Circle.
307	3.16	334.86	combine with Lot 325 for access from Bobcat Circle.
308	7.97	368	Rogers. Old abandoned house.
309	3.93	310	Vickers new house.
310	3.45	250	new house in 2016.
311	3.76	250	
312	6.56	644	Combine with Lot 311?
Flood Plain		230	Cow Creek Commons
Total		4417 ft	Minus Lot 370, 301, WW drive and floodplain: 3550 ft

- We used 3550 ft of frontage road as a basis for consistent estimates. Bids with higher or lower footage were adjusted proportionally.
- There is a 40ft wide easement behind Lots 301 – 306 that could be used as a 20ft wide gravel driveway.

Appendix B – Estimated Project Cost

Fence Removal and Disposal

Independent contractor estimate: Three man-weeks plus equipment rental and disposal fee. Includes removing trees and brush from the fence line. Giles estimate - \$5,000

Gil Silva knows a private individual that will remove the fence, haul away any damaged posts and all rails. WWS are needed to assist with the teardown. No charge to WWS. Miscellaneous charges - \$1000.

Extend White Fence 100ft and Minor Repairs on Existing Fence

Giles Estimate - \$5,000 This includes paint touchup of entrance fence, minor repairs and overall project contingency funds.

New Rails / Existing Posts Estimate

Giles / Silva Inspection: 501 posts with concrete footings. 98% are acceptable to reuse. Replace 12 posts. Posts are set 3-4" under 8ft centers. 60-70% of rails could be reused, but scraping the paint would cost more than a new rail board. Bevel top of posts to retard water damage. Face front of post with piece of fence rail to hid peeling paint on post.

of 16ft rails: 501 posts/2 X3rails = 751 plus 501 posts/3 front facing = 125 rails

Total: 876 rails + 3% overage = 900 rails. 1x6x16ft corral board.

Double check: 3550 ft / 7.5ft post spacing = 473 posts. pretty close.

Material Price

	Rail Type	\$/board	(900) 1x6x16	Est. M&L Cost	Est. Proj. Cost
McCoys	cedar	\$12.96	\$11,664	\$17,000	\$23,000
Hoover	cedar	\$12.59	\$11,331	\$17,000	\$23,000
McCoys	corral board	\$8.09	\$7,281	\$13,000	\$19,000
Hoover	corral board	\$6.99	\$6,291	\$12,000	\$18,000

Twenty new posts / cement are under \$200 total. Minor costs for delivery, forklift unload, fasteners, sawblades, etc.

Labor estimated at 4 manweeks @\$30/hr inclusive of equipment. \$5,000 total labor.

Add \$6,000 for fence removal and existing fence repairs for total project cost.

Cedar rails are kiln dried. S1S1E corral board is normally Douglas fir, smooth one side, pressure treated. It will weather light brown. Some boards will warp and twist as they dry and need replacing in a couple of years.

New Vinyl Fence

Bid A – Fence N, Mike Faurie, 512 627 6795

Will not bid PT lumber rails. States they will warp, twist and shrink as they dry. Vinyl rails from Freedom or Bufftech.

\$31,950 for 3550 ft of 3 rail vinyl fence. \$9/lin ft. Includes old fence removal, but not disposal.
Add \$6,000 for fence removal and existing fence repairs.
Total estimated project cost: \$38,000

Bid B - previous bid sent to Board

No one seems to have a copy of the previous fence bid. From Leonard Urbanovsky's notes:
Treated lumber rails. New posts. Painted black? \$38,000 for 4370 ft including replacing front entrance rails. \$8.70 / linear ft.

Boulder Estimate

Boulder Supplier: Kenny Lewis. \$20-25 / boulder. Approx 6 boulder per dump truck. ~\$85 per dump truck load. Giles estimates \$5-10 per boulder for equipment rental and labor to set boulders on easement. Total \$40-\$50 per boulder delivered and set in place.

Estimated Cost	Boulders	Total Project
8ft boulder spacing. 3ft boulder / 5 ft gap. 450 boulders.	\$22,500	\$28,500
6ft boulder spacing. 3 ft boulder / 3 ft gap. 600 boulders.	\$30,000	\$36,000

Cut Stone Estimate

Cut Stone Supplier: Superior Stone – Jarrell, Texas. \$50/stone. Freight: \$350 per truck, 15-16 stones per truck. ~\$25/stone freight. Estimate \$5-10/stone to set. Total: \$80-90/stone delivered and set.

Estimated Cost	Cut Stone	Total Project
8ft cut stone spacing. 5ft stone / 3 ft gap. 450 stones.	\$40,000	\$46,000

Appendix B - Public Comments to Draft Report

Shawn and Kaylene Vickers (currently building on FM1174)

First and foremost, I want to say thank you for putting this information together!!!

My wife and I are currently building our house on lot 309 or 11620 South FM 1174. We would like to voice our opinion since we are the ones directly affected by any decisions concerning the removal/replacement of the fence running adjacent to FM 1174.

After reading over your compilation, it appears that the placement of rocks would save a little money, cut down on future maintenance issues, and be consistent with some of the rock placements within the subdivision. Placing them 5 feet apart would stop normal vehicles from driving into the property/subdivision but would not discourage other smaller ATV's, motorcycles, bicycles, or foot traffic. There is a lot of unknown traffic on FM 1174, unlike what travels within the subdivision. We were asked to put up a gate "ASAP" when we were constructing our entrance because of the concern of unknown people driving through the subdivision that did not have to pass through the main entrance. Property owners within the subdivision bought their lots with the knowledge that White Water Springs is a gated community.

We purchased our property with the thought of living within a secure gated community as well and now that will not be the case if rocks are put up instead of a true fence. We are part of the subdivision as well and pay the same percentage of fees as all property owners. We deserve and expect that same security!

Aesthetically: The possible 12 entrances off of 1174 would probably need a gate of some sort to keep people off of the property as well as out of the subdivision.

If you install the rocks then how do we tie in a nice entrance gate to our properties? Picture this.....At minimum, you have a 4 foot gate and 5 foot posts to hold it up and next to it you have a 18"-24" tall rock?? All of the pictures that were presented showed how the rocks delineate the property line but none of them had a gate at the entrance? I am not placing a chain or single pipe gate across my entrance/driveway just because that goes best with the suggested rocks.

You mention not putting anything up and letting the owners of each lot do it. Yes I can put up my own fence on my property but I can't afford to put a fence up on my neighboring properties. How long will it be before there are 12 different fences along the whitewater springs property line? How consistent will that look? If you spend the money on the rocks and each property owner removes them, you have wasted the money. We suggest that you stay consistent with the look of the front property fence and replace it with same fence. After the wood fence is in place, then require each property owner to keep it maintained.

Thanks again for allowing us to present our point of view!

Danny Melcher

David - Thanks for the teams hard work. Obviously a lot of work and thought has gone into the proposal. My personal thoughts:

- I am concerned about physical security. Yes, people can easily crawl over fence today, but they cannot easily drive thru it. 5 ft restricts cars....but not "gator" type vehicles. If either stones are used, I do NOT believe 5 ft spacing is adequate. If that is not a concern, recommend opening up the front gates and stop maintaining them.
- I also personally believe mowing is not as trivial as suggested. If grass and weeds are going to grow up around a fence, they are also going to grow up around any boulder. There will be a requirement to weed-eat around any rocks/boulders which is much more difficult than mowing a fence line. I also believe trash and other debris will also be more prevalent with the use of this type of fence.
- I recommend we maintain the same fence type we have now. If rock is used, I recommend cut stone be placed end-to-end to keep the fence line secure and easier to mow/weed-eat.

Terri Whaley

I agree with the comments about placing the boulders closer to prevent access by 4 wheelers. We are a gated community, which should mean limited access only by owners. And not only the "women-folk" are concerned about bored teenagers on 4 wheelers riding around the neighborhood. Or worse.

And I disagree that the current white fencing near the entrance is in good shape. Any wood fence needs maintenance and will eventually need to be replaced. But the boulders aren't a good idea there because of the previous concern, unless they are placed very close together.

Ron Frioux

I like the idea of large rocks but I would suggest that they be placed, no further than three feet apart, hopefully preventing any four wheelers from getting into the property.

David Carmichael

Really like the Fence Committee's recommendation of using boulders every five feet instead of fence.

Leroy Watts

Seems to be a reasonable approach. Fits a country environment and eliminates or drastically reduces maintenance.

Conversation with City and County Building Department

According to Laura and Regina within the City of Bertram Building Department while speaking in reference to the HWY 1174 Utilities Power Line "Right of Way" directly South West of the Whitewater Springs Entrance, going toward Cow Creek, their "Right of Way" is not affected by our removing the existing fence. However, they would not provide us with any document stating such.

(While keeping in mind that Cow Creek is South West of the Whitewater Springs entrance). As it relates to Burnet County officials in conjunction with the "Division of Roads & Highways" and according to Darrin of the "Div of Roads & Highways" We need to stay up to 200 feet in the "South East" direction away from Cow Creek with the placement of any large rock due to the potential for Cow Creek to exceed its banks during excessive flooding. (Cow Creek is South West of our entrance.)

I today received a return call from Mark who is with the "Burnet County Division of Roads & Highways". The side/face of any rocks (or otherwise) must not cross over the WS property line, and generally speaking the distance to such property line is 50 feet from the centerline of 1174. Further, he emphasized, in a similar manner, the same thinking concerning Cow Creek as did Darrin yesterday.