

To: Bel Aire City Council  
CC: Ty Lasher  
CC: Anne Stephenson  
CC: Marty McGee

September 18, 2023

The Aurora Park Gravel Roads Task Force was established in November 2022, to study, discuss, and make recommendations to the City Council for issues related to the gravel streets in Aurora Park.

The Task Force proceeded to study different types of common rock used for roads, different methods of possible dust suppression and soil stabilization products. It was determined by the Task Force that the most sustainable and economical option for both the residents of Aurora Park and the City of Bel Aire would be to use a 1" hard rock for the surface of the roads.

A test of the proposed rock was presented to and approved by the City Council on May 2<sup>nd</sup>, 2023. Testing of the 1" hard rock began on May 18<sup>th</sup>, 2023, and is still ongoing. The section of road used for the test is on Harding Street from the concrete transition just North of 37th street on Harding, to the North end of Harding Street. The rock was put down on the roadbed at a depth of approximately 2".

During this time, the rock has shown little degradation, and has produced less dust than other products used previously. It has also appeared to produce less of a "wash boarding" effect after heavy rainfalls and has required little maintenance by the Department of Public Works.

The Department of Public Works was requested to provide maintenance on the test section one time on July 31<sup>st</sup>. That was to move excess rock that had migrated to the edge of the road, back to the center of the road. There has been no other maintenance required on the test section to date.

The cost of the rock to the City of Bel Aire at the time of the test was \$17.00 per ton, as opposed to \$19.60 per ton for the KGE rock that is currently being used on the rest of the roads in Aurora Park, providing a cost savings to the City of \$2.60 per ton.

Task Force members have discussed the performance of the test rock with residents of Aurora Park and have received generally positive reviews. Some comments were "rock has not broken down yet", "it has not washed into the ditches", "there is much less dust- and what there is, is not as fine", "too thick at 2" depth, can't ride a bike or push a stroller". We believe the negative comments can be addressed with slight changes in the process of implementing the new rock. Please see attached to this recommendation some suggested options for installation and maintenance of the 1" hard rock.

Based on the performance of the rock, resident feedback, and the expected annual cost savings to the City of Bel Aire, it is the recommendation of the Aurora Park Gravel Roads task Force that the from this date forward, that the City of Bel Aire use the 1" Hard Rock from Northridge Sand LLC on all unpaved roads in the Aurora Park Subdivision. We request that this be completed as soon as feasible, preferably by the end of 2023, or first quarter of 2024.

Sean T. Matheny  
Chairperson

Aurora Parks Gravel Road Task Force: Marty Couey, Chad Crittendon, Lisa Bellecci, Carolyn Gunzelman, Gary Breault, Logan Schrag, Judy Schroeder, Mark Schroeder, Connie White, Butch Amey.

While the Task Force recognizes and relies on the expertise of the Department of Public Works, please find below some suggestions based on information found during our studies and testing for implementing and maintaining the 1" hard rock.

Initial Installation:

1. Remove existing KGE, Limestone and road gravel, to a depth that provides a solid base for new rock.
2. Wet road base thoroughly with water to provide optimal base for application of 1" hard rock.
3. Apply approximately a 1" depth of hard rock to road.
4. Let traffic drive over and pack the rock into the roadbed. (Unless the City decides to use a roller)
5. After 2 weeks, return and topcoat the roads with another 1" layer of hard rock.

Maintenance:

1. As needed, have grader angle blade to center of road, and move excess rock back to center of the road.
2. Smooth "wash boarding" as needed.
3. Fill in bare spots and holes with excess 1" hard rock as needed.

It is also recommended that the Public Works Department keep a surplus of the 1" hard rock on hand for the necessary maintenance as outlined above.