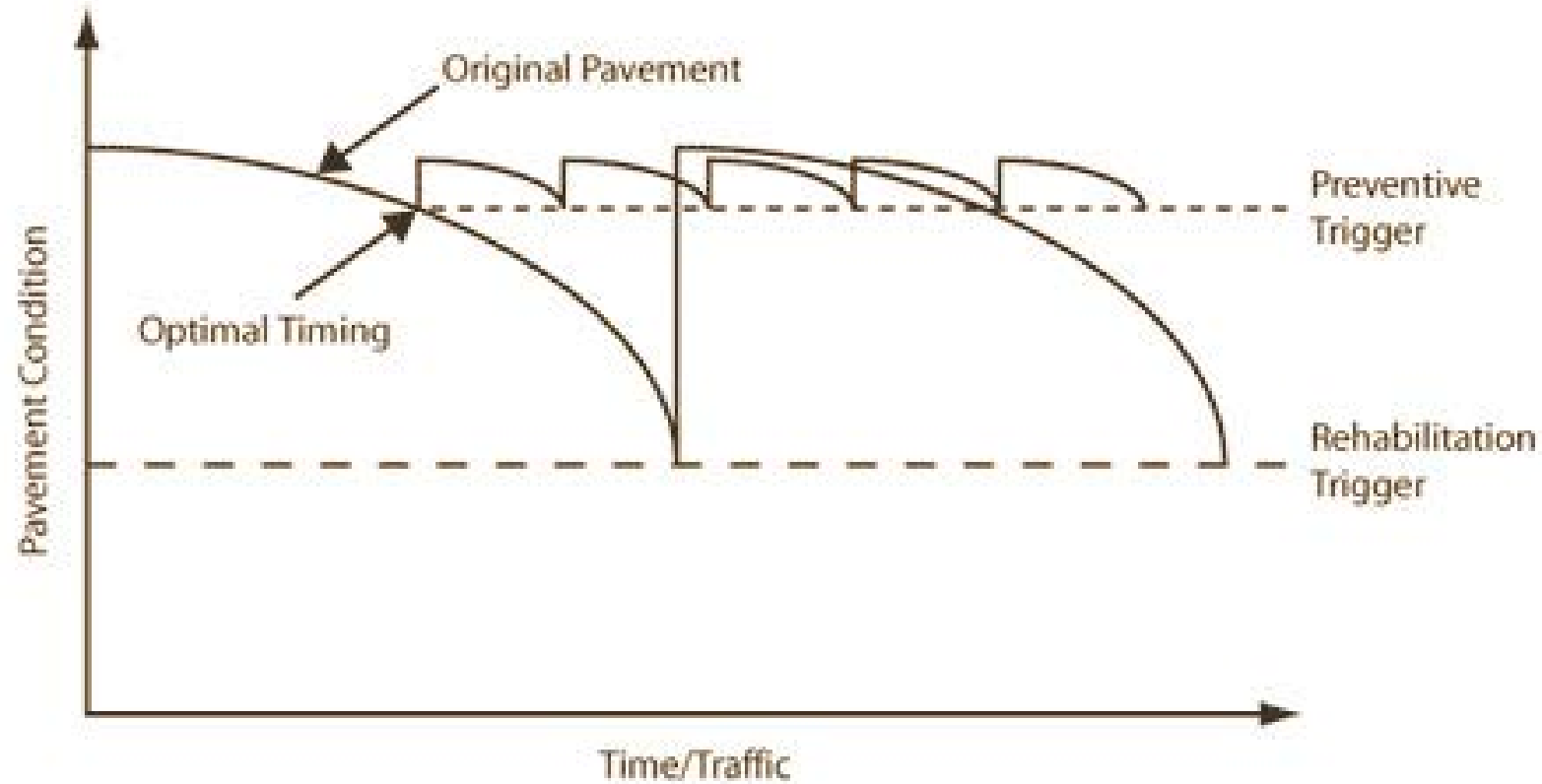


SPAM Resurfacing Workshop

Kathy Woodlee, P.E. and John Nowak, P.E.
Schertz Engineering

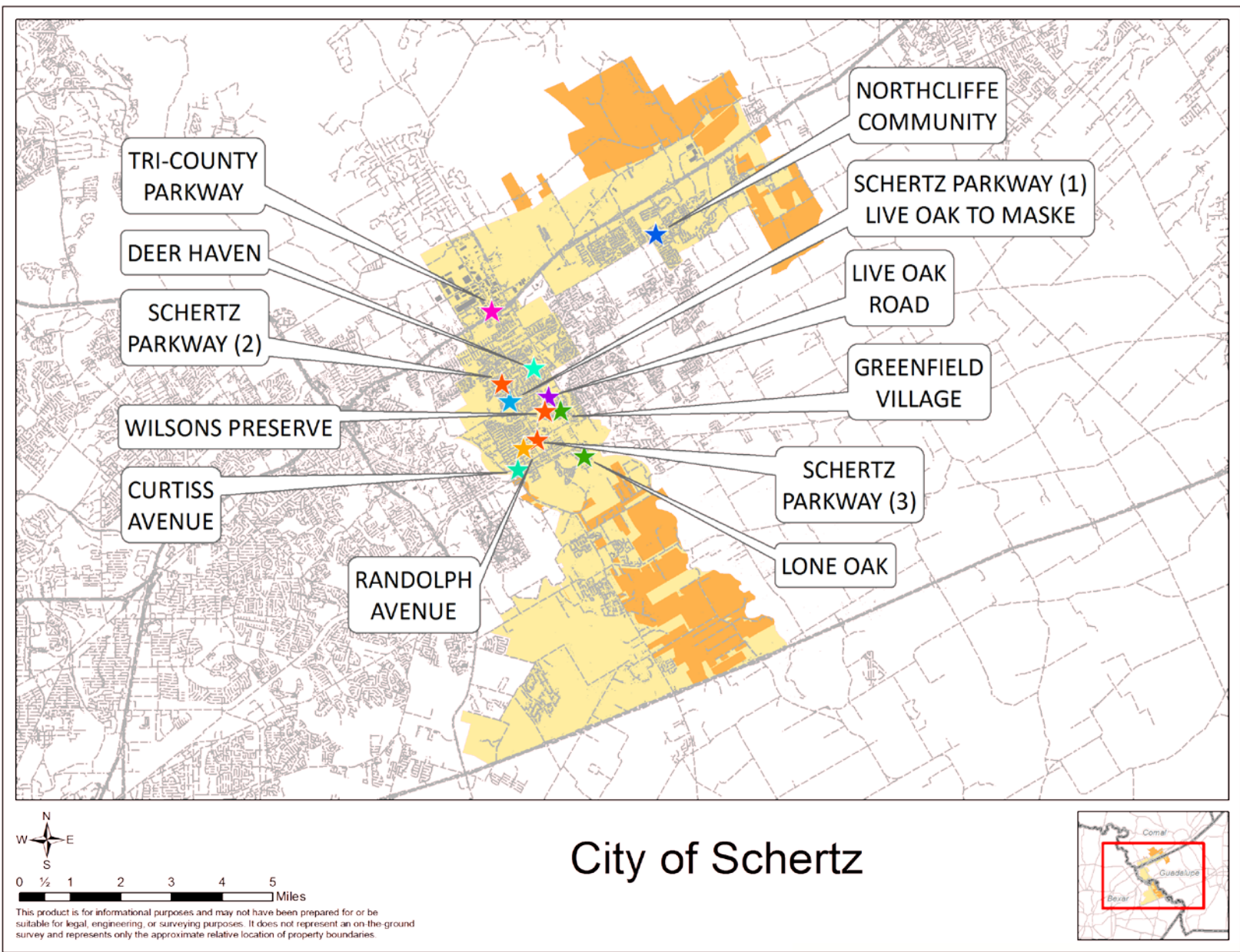
January 26, 2020

Pavement Preservation

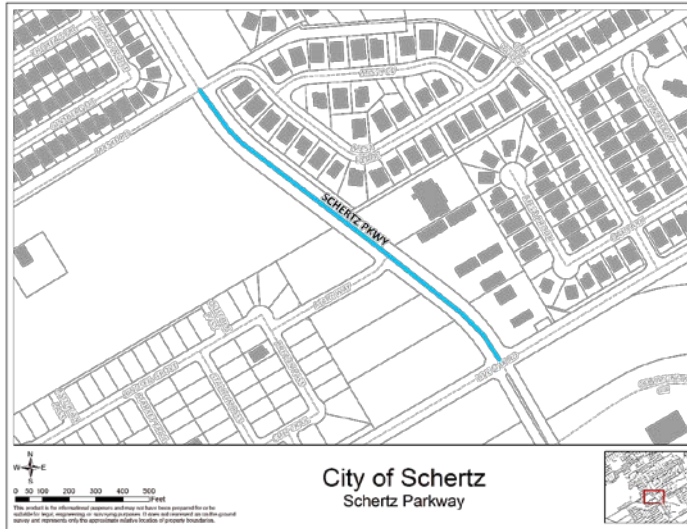


Goal is to do preservation maintenance earlier and at regular intervals rather than let streets fully deteriorate and require reconstruction

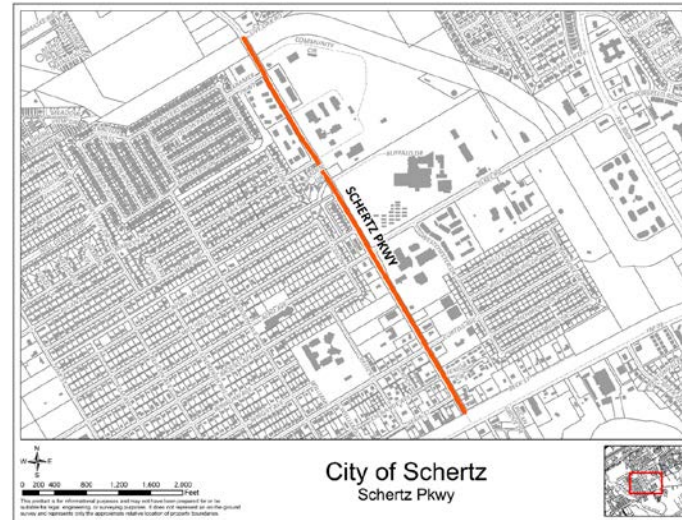
Completed Projects Overview



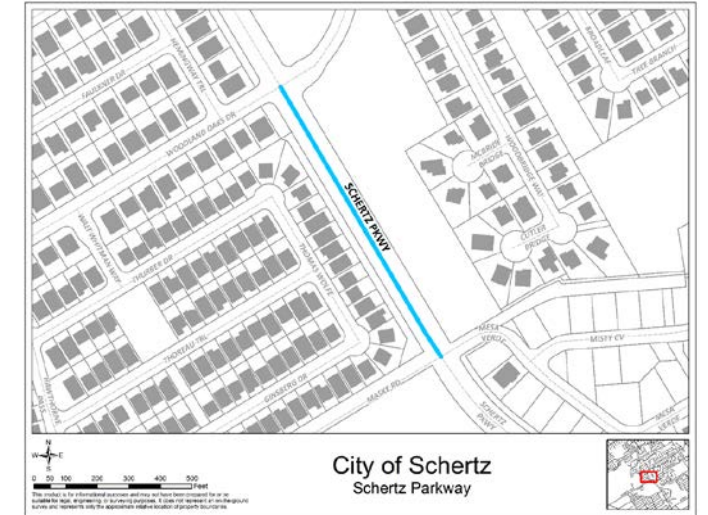
Schertz Parkway Projects



Reconstruction



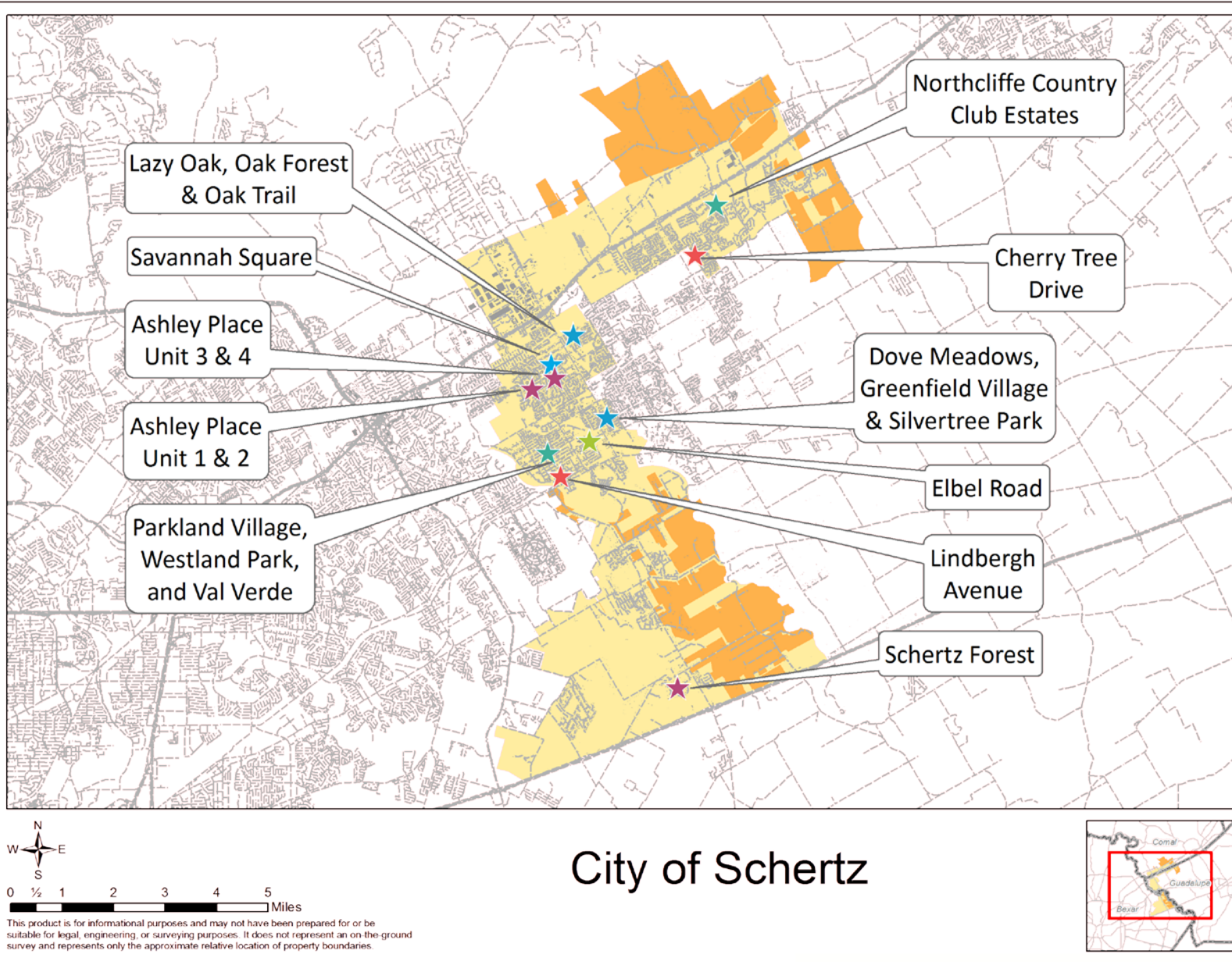
Mill and Overlay



Reconstruction

2020 Project Overview

- Cherry Tree is complete
- Elbel is in design
- Most of these were planned to be chip seal, but based on this proposal anticipating to be slurry seal instead



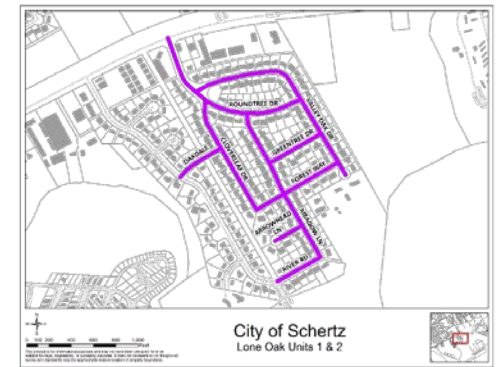
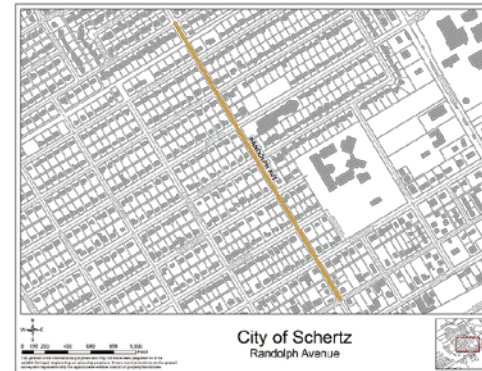
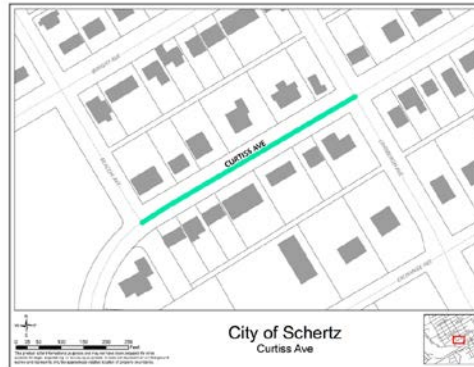
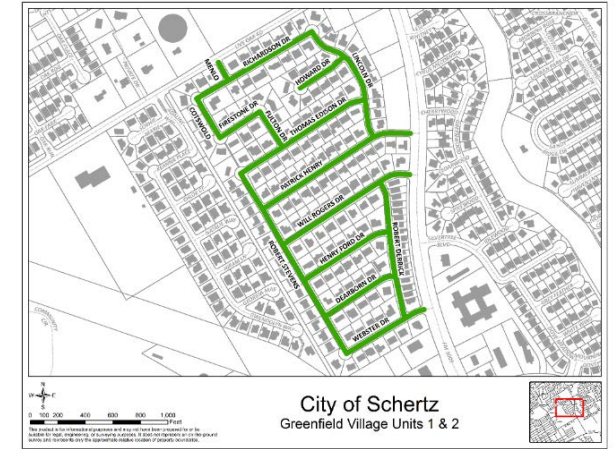
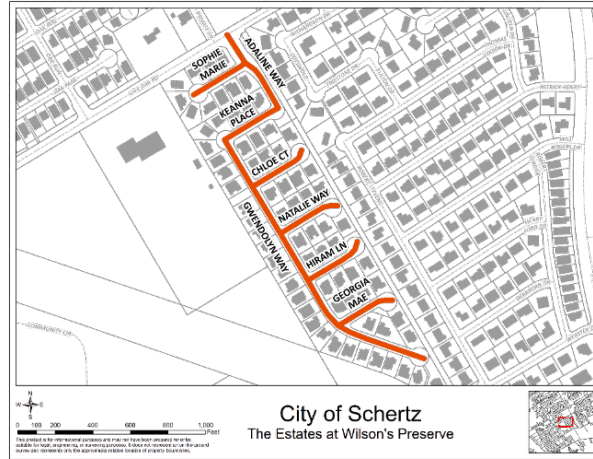
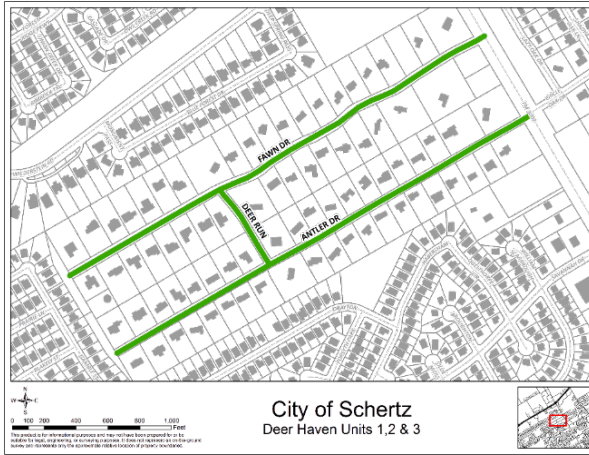
How Do We Select Projects?

- PCI score
 - Objective measure
 - Look for a “cluster” of streets for economies of scale and to complete a neighborhood in one project
- Coordination with other project efforts (utility replacements, drainage improvements, etc.)
- Staff and Citizen knowledge and observations

How Do We Select Treatment Applied?

- Mill and Overlay
 - Used where a slurry seal or chip seal will not last the expected service life
 - Higher traffic volume roadways (arterials and some collectors)
 - Roadways with many turning movements
- Surface Seal such as slurry seal or chip seal
 - Lower volume roadways (local streets)
 - Roadways with few turning movements (some collectors)
- Different strategies (reclamation, reconstruction, other) may be dictated by the amount of base repairs needed and/or geotechnical investigation results

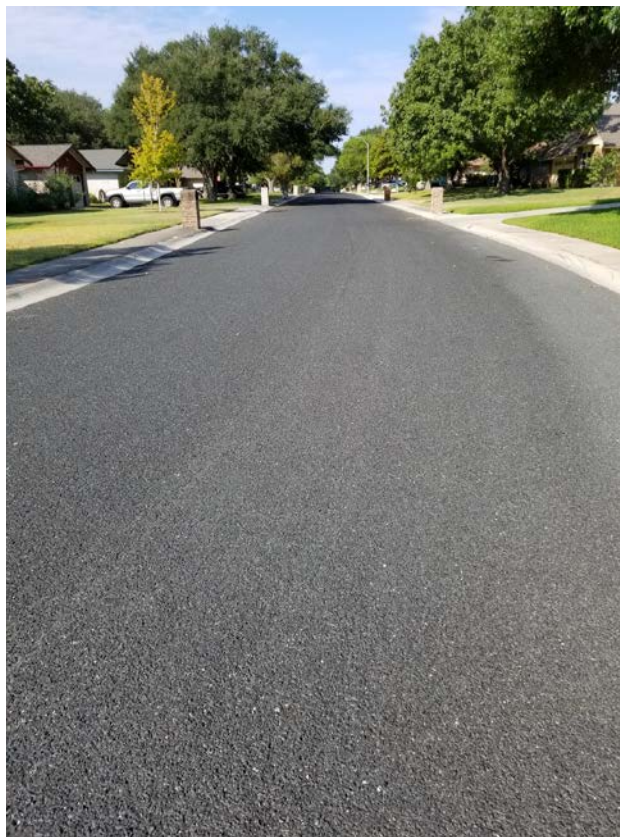
Areas Chip Sealed



Current Chip Seal Complaints

- High level of complaints in some areas – Estates at Wilson's Preserve
 - Lots of loose rock
 - Patches where chip seal has not adhered at all
 - Rough surface
- A few complaints in Deer Haven, Greenfield Village and Lone Oak
 - Mostly loose rock in areas – cul-de-sacs and turns, a few areas bare at turns
- Very few or no complaints and minimal issues – Randolph Boulevard
- Same contractor and materials on all projects

Chip Seal Pictures



Chip Seal Pictures



“Fixing” the Chip Seal

- Contract has a warranty period
 - Contractor is required to repair areas that did not adhere properly
- Sweeping
 - Enhanced sweeping efforts are needed to remove excess chips from the surface

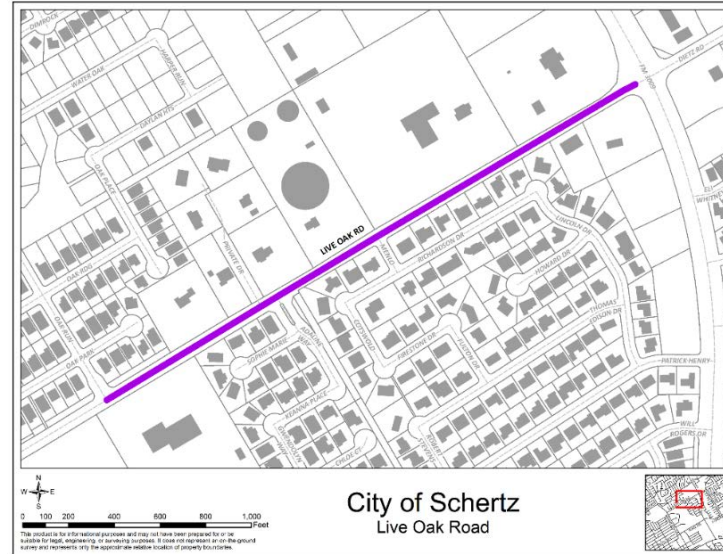
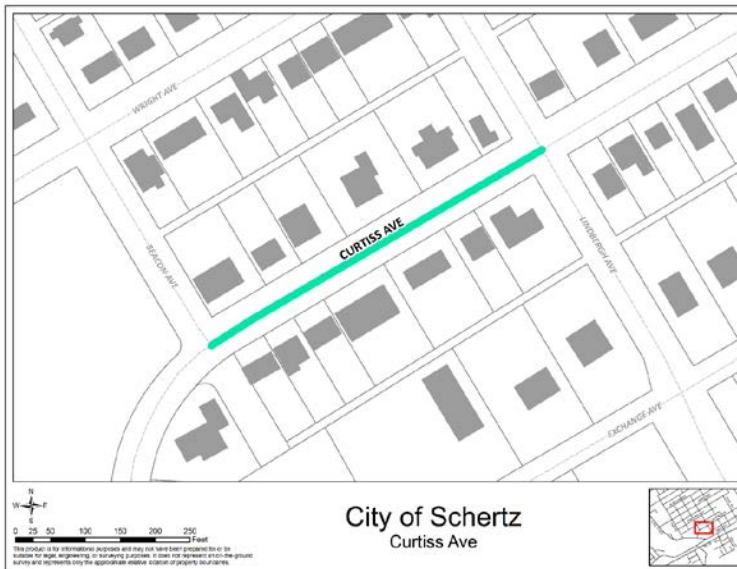
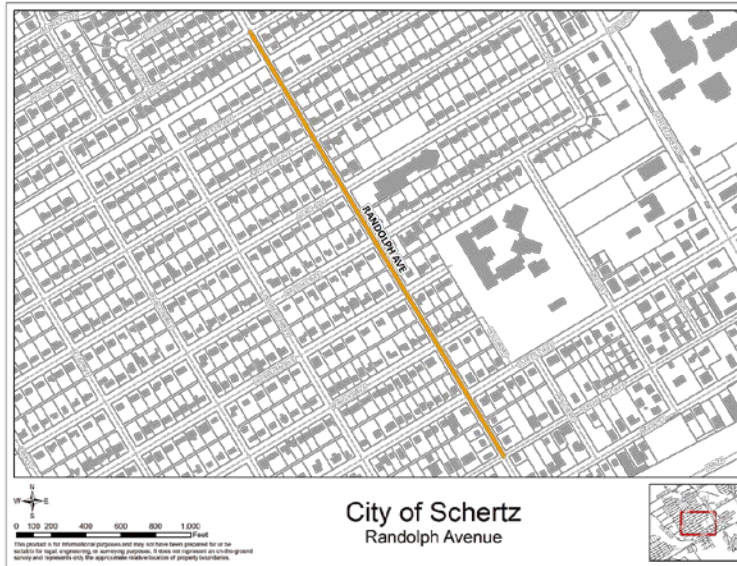
The warranty work and improved sweeping efforts will address some issues, but will not address complaints about and concerns with the rough surface.

- Warranty work and sweeping efforts have been paused while possible remedies and a course of action are examined and developed
- Finalizing the design of the 2020 SPAM Resurfacing project was also paused until a plan is developed to address all complaints

Remedial Recommendations

- Enhanced Sweeping
 - Mechanical broom sweeping of all areas to remove excess chips in near future
 - Second mechanical broom sweeping a month later
 - Normal Public Works sweeping once per month
 - Mechanical broom sweeping effort will help identify any other poorly bonded areas
- Chip seal contractor to repair the poorly bonded areas
- Apply a fog seal or slurry seal to the chip seal surface
 - Fog seal would be applied in areas with fewer poorly adhered areas, fewer turns, and fewer cul-de-sacs/knuckle-sacs.
 - Slurry seal would be applied in areas with lower traffic volumes, more turns, and more cul-de-sacs/knuckle-sacs

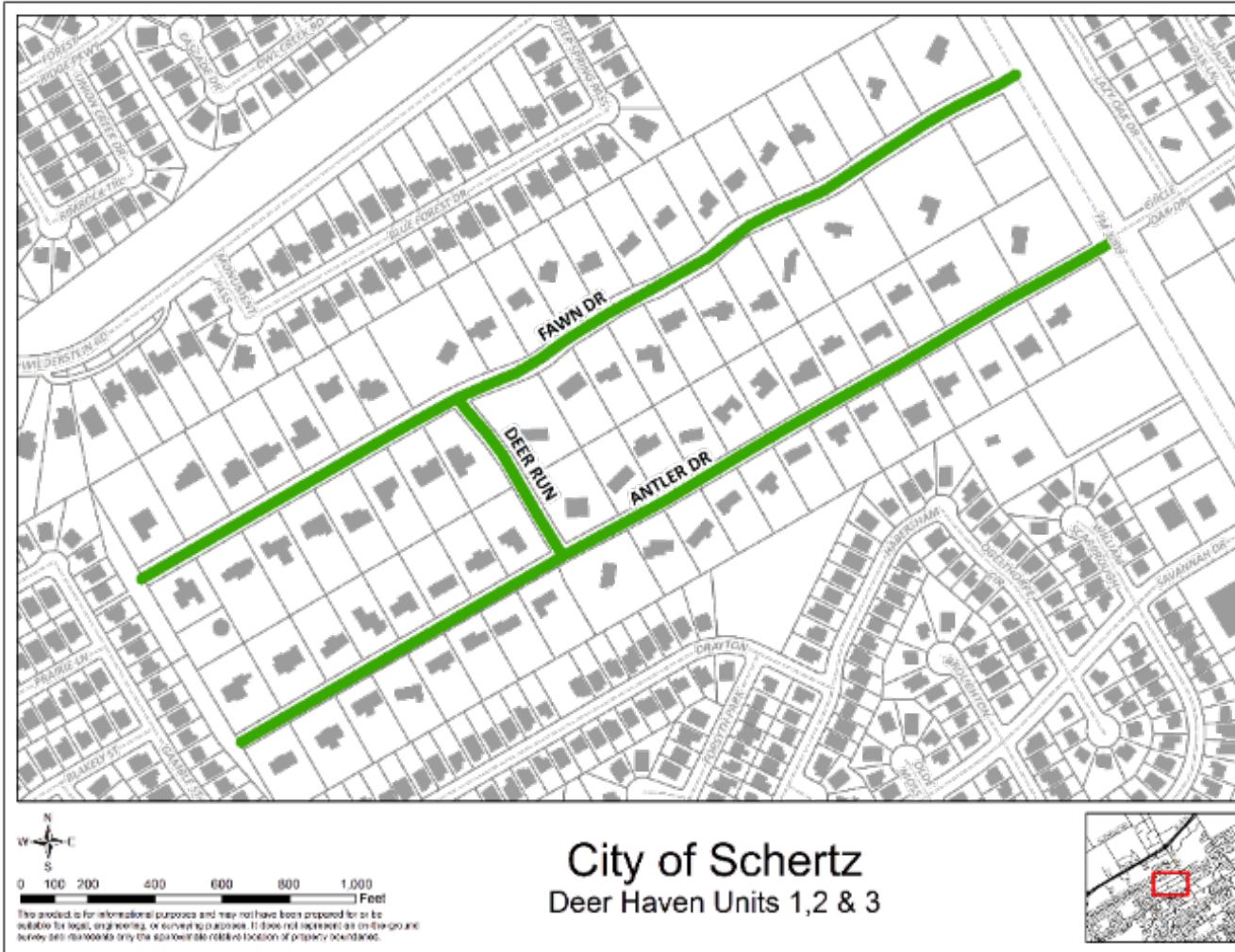
Randolph Avenue, Curtiss Avenue, and Live Oak



- Enhanced sweeping effort
- Contractor touch-up
- Apply fog seal to surface

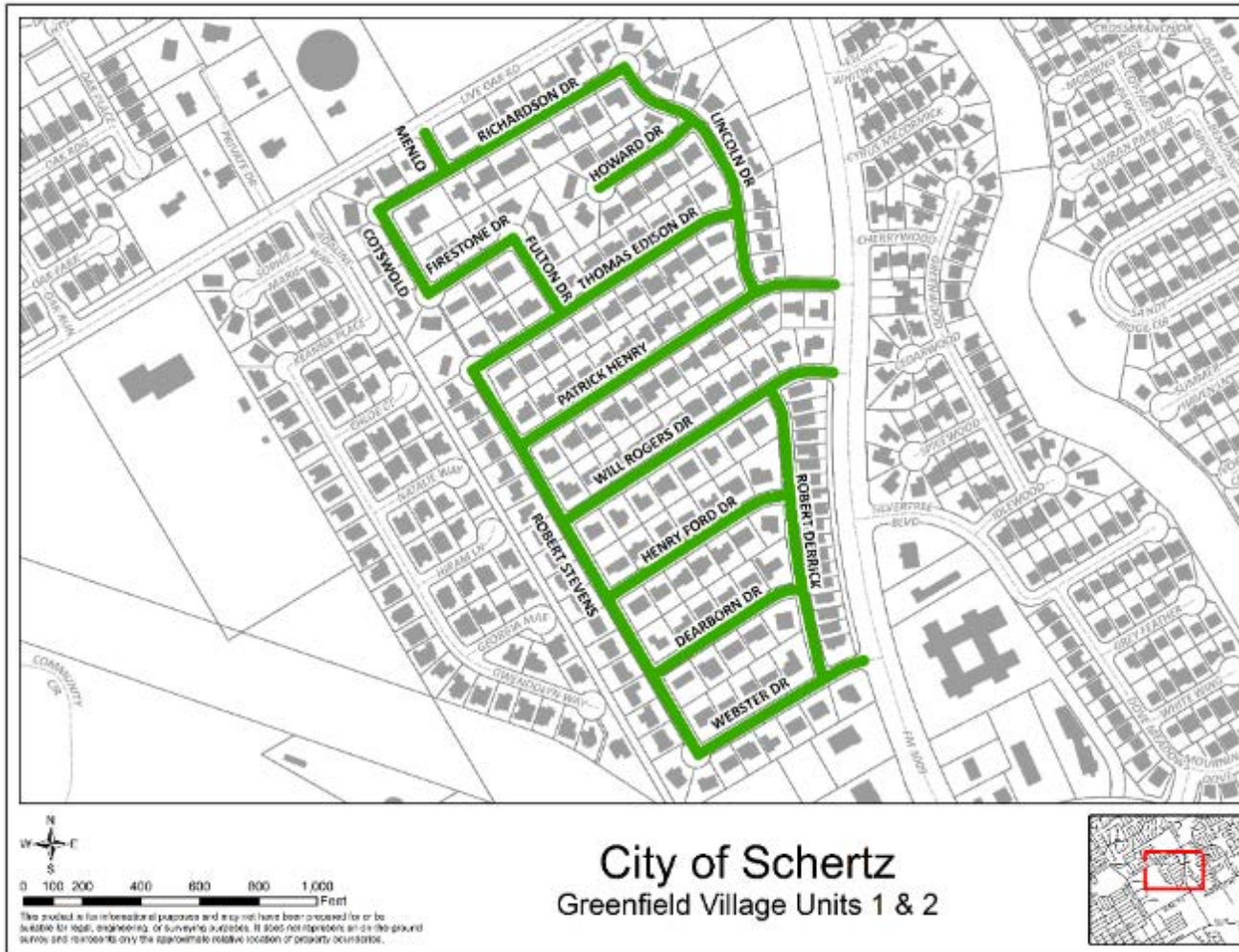
Deer Haven

- Enhanced sweeping effort
- Contractor repair poorly bonded areas
- Apply fog seal to surface



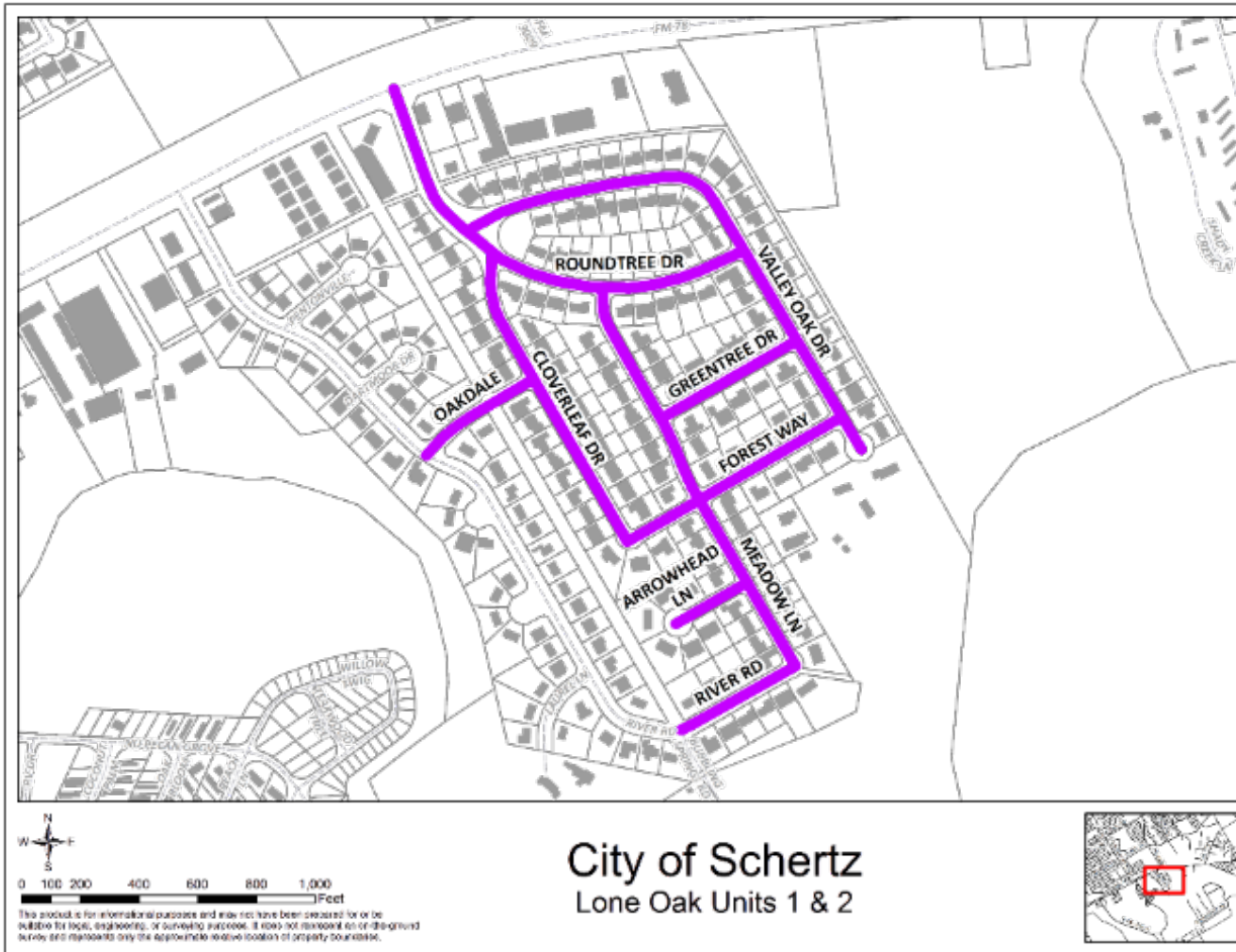
Greenfield Village

- Improved sweeping effort
- Contractor repair poorly bonded areas
- Apply fog seal to surface



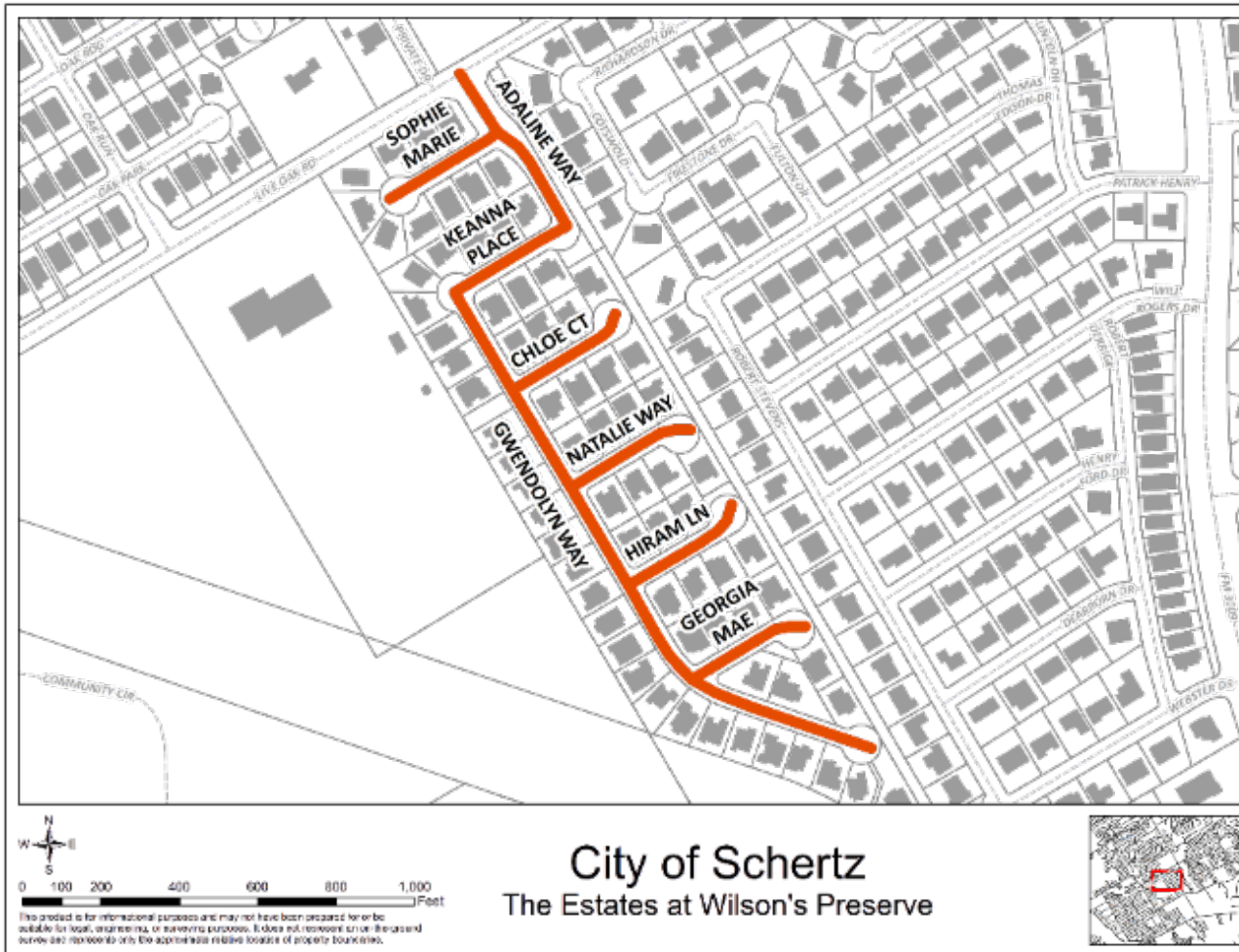
Lone Oak

- Improved sweeping effort
- Contractor repair poorly bonded areas
- Apply fog seal to surface



The Estates at Wilson's Preserve

- Improved sweeping effort
- Contractor repair poorly bonded areas
- Apply slurry seal to surface



Recommendations for Future Resurfacing Efforts

- Use a “modified” chip seal in very select locations (lower volume “collector” streets having straight runs and no homes fronting the street, ie: Randolph, E. Live Oak, Boenig)
 - User finer grade aggregate (was used about 10 years ago on Savannah and Woodland Oaks) – no cost change
 - Increase sweeping effort (have additional sweeping be part of the contract) – minimal cost increase
- Switch to a different resurfacing material in residential areas
 - Slurry seal – 11% estimated total project cost increase
- Mill and overlay on arterial and high volume collector streets

Moving Forward

2020 SPAM Resurfacing Project:

- Do slurry seal instead of chip seal
- Plan of attack:
 - 1a. Complete one small area (one or two residential streets) of slurry seal
 - 1b. Perform remediation effort of 2018 preservation areas
 2. Evaluate surfaces to verify that the slurry seal provides an acceptable surface
 3. Complete all other targeted streets in 2020 SPAM plan

Schertz Parkway Update

- Replacement of damaged concrete panels:
 - Advertising for bids for the panels between Live Oak and Maske Rd
 - Bid Opening on February 11th; anticipated Council Award February 23rd
 - Contractor has been directed to replace damaged panels between Maske and Woodland Oaks (three locations)
- Replacement activity – one lane at a time to minimize traffic disruption and 30-day maximum time
- Pavement surface grinding:
 - Coordinate schedule once panel replacement schedule has been determined.
 - Grinding will occur on one half of the roadway at a time, between Live Oak and Woodland Oaks. Traffic control set up will be similar to what was done during project construction.
- Striping and Clean-up

Comments and Questions