

# Town of Laurel Park Update on Infrastructure Repairs

#### Summary

- Town hired Land of Sky Council of Governments to guide administrative process of coordination with FEMA and reimbursement
- Town hired WithersRavenel to lead the engineering and design of storm related repairs to infrastructure
- WGLA is working as a subconsultant to WithersRavenel along with BLE (geotechnical engineers)
- Town has hired WaterMark to lead the design of storm related repairs in the Town Parks.

# Temporary Work

- Town has already completed a number of emergency repairs
  - Davis Mountain Road culvert replacement
  - Laurel Park Highway shoulder and ditch repairs
  - Temporary stabilization of slides and other damages
  - This is all considered temporary work
  - Reimbursement for this work will be requested from FEMA

#### Permanent Work

- This includes permanent replacement of culverts and repair of slide area
- Priorities are as follows:

Culvert Replacement/Repairs

Davis Mountain Road, Ransier Drive, Lake Drive, Woodbyne Lane, Panorama, Skyway Drive, Beechwood Circle, Woodland Trail, Silver Springs Drive

Hebron/Sunny Ridge Area

Primary Roads

Hebron, Roberts & Laurel Park Highway

**Davis Mountain Road** 

Fairway Drive

Old Laurel/Orchard Circle/Tower Circle

Additional Stand Alone or Small Project

#### Permanent Work

#### Town of Laurel Park - Helene Repairs List of Projects - Updated 6/26/25

1509836 C

1509837 C

1414114 C

1509856 C

1546857

NCLP-PD#1PD

NCLP-PD#2PD

NCLP-DM#3S

NCLP-OCL#1C

NCLP-WL#1WO

Panorama Drive

Panorama Drive

Woodbyne Lane

Old Creek Lane

Davis Mountain Road

DI	Name	Road	Description
ulvert Repla			
414120 C	NCLP-DM#1C	Davis Mountain Road	Culvert at intersection of Davis Mountain Road and Old Orchard Drive has partially washed out. The culvert will have to be replaced and the road repaired.
414122 C	NCLP-WL#1C	Woodbyne Lane	Culvert washout with impact to the road at the intersection of Woodbyne Lane and Sliver Springs Drive. Culvert will have to be replaced and road repaired.
414124 C	NCLP-PD#1C	Panorama Drive	Culvert washout with impact to the road. Culvert will have to be replaced and road repaired.
414126 C	NCLP-RD#1C	Ransier Drive	Culvert and roadway completed washed out. Culvert will have to be replaced and road repaired.
414137 C	NCLP-LD#1C	Lake Drive	Culvert washout with sink hole and damage to roadway.
414123 C	NCLP-WL#2C	Woodbyne Lane	Culvert is blocked with mud and other storm debris. Area will need to be cleaned up and culvert assessed for replacement.
414138 C	NCLP-SS#1C	Silver Springs Drive	Culvert was partially washed out during the storm. Wash out area will have to be backfilled with stone and road repaired.
414125 C	NCLP-PD#2C	Panorama Drive	Culvert partially washed out with minor impact to the road.
414140 C	NCLP-SD#1C	Skyway Drive	Culvert damaged and sink hole beginning to form. Culvert will have to be replaced.
504369 C	NCLP-BC#1C	Beechwood Circle	Culvert partially washed out with damage to the shoulder. Culvert will likely have to be replaced
509859 C	NCLP-WT#1C	Woodland Trail	Pavement has settled at a sinkhole around an existing inlet. Storm drainage inlet and pavement will have to be repaired.
414136 C	NCLP-BD#1C	Briarcliff Drive	Culvert washout with damage to roadway.
504369 C	NCLP-BC#1S	Beechwood Circle	Multiple slide areas on the upper side of Laurel Park Highway that has impact drainage swales and culverts. Material must be removed from ditches, shoulder and roadway
roject - Heb	ron/Sunny Ridge Roa	d Area	
414101 C	NCLP-HR#25	Hebron Road	Major slide on lower side of the road with impacts to the roadway and stream below.
414102 C	NCLP-HR#35	Hebron Road	Major slide on lower side of the road with impacts to the roadway and stream below.
414105 C	NCLP-SR#1S	Sunny Ridge Road	Slide affecting the road and blocking a culvert creating an impoundment of water. Culvert will likely have to be replaced.
504093 C	NCLP-SR#1C	Sunny Ridge Road	Culvert blocked due to slide area. Culvert will likely have to be replaced.
414103 C	NCLP-HR#45	Hebron Road	Major slide on lower side of the road with impacts to the roadway and stream below.
504089 C	NCLP-HR#5S	Hebron Road	Minor slide on the lower side of the road with impacts to the roadway and utilities.
504087 C	NCLP-HR#3C	Hebron Road	Culvert damaged due to slide area. Culvert will have to be replaced.
roject - Prim	nary Road Areas		
414100 C	NCLP-HR#15	Hebron Road	Slide area on lower side of Hebron Road above the Poplar Lodge that has impacted the shoulder and will impact the roadway.
414104 C	NCLP-RD#15	Roberts Drive	Major slide at the intersection of Roberts Drive and Rowland Drive below the road with impacts to the road and utilities.
414109 C	NCLP-LPH#2S	Laurel Park Highway	Major slide both above and below the road affecting the ditch line and culvert with possible impact to the road.
414108 C	NCLP-LPH #1S	Laurel Park Highway	Multiple slide areas on the upper side of Laurel Park Highway that has impact drainage swales and culverts. Material must be removed from ditches, shoulder and roadway
Project - Davi	is Mountain Road Are		
1414099 C	NCLP-DM#1S	Davis Mountain Road	Slide area on the lower side of Davis Mountain Road that has impacted the road way and damaged homes below.
509828 C	NCLP-DM#2S	Davis Mountain Road	Just west of the DM#1S area, a portion of Davis Mountain Road has begun to settle. A large transverse crack has been observed.
malant Falm	way Drive Area		
414091 C	NCLP-FD#1S	Farming Bobie	NAMES OF A STATE OF A
414091 C		Fairway Drive	Major slide with impact to roadway and impact to golf course below.
414092 C	NCLP-FD#2S NCLP-FD#3S	Fairway Drive Fairway Drive	Major slide with possible impact to roadway shoulder and roadway.  Major slide with impact to roadway shoulder and roadway.
414093 C	NCLP-PD#35 NCLP-PD#15	Panaroma Drive	Major slide with impact to roadway and impact to property below.  Major slide with impact to gravel road and impact to property below.
		Orchard Circle/Tower Circle Ar	
414096 C	NCLP-OLD#15	Old Laurel Drive	Major slide with washout of retaining wall with impact to upper and lower roadway. Retaining wall will be required based on limited area between roads.
414097 C	NCLP-OLD#2S	Old Laurel Drive	Slide area on the upper side of Old Laurel Drive that has impacted drainage swale and culverts. Material must be removed from ditches, shoulder and roadway.
504061 C	NCLP-OLD#1C	Old Laurel Drive	Culvert and roadway partially washed out. Culvert will have to be replaced and road repaired.
414098 C	NCLP-WD#1S	Westwood Drive	Major side with impact to roadway and stream below.
414106 C	NCLP-OC#1S	Orchard Circle	Slide affecting the road and blocking a culvert creating an impoundment of water. Culvert will likely have to be replaced.
414107 C	NCLP-OC#2S	Orchard Circle	Slide above the road that has blocked a culvert and affected the road
414115 C	NCLP-TC#1S	Tower Circle	Slide and evidence of slope instability on Tower Circle between Orchard Circle and Toms Drive.
516457 C	NCLP-OC#1C	Orchard Circle	Culvert blocked due to slide area. Culvert will have to be cleaned out and assessed for replacement.
tand Alone I			
414112 C	NCLP-WH#15	Winter Holly Lane	Major slide affecting the roadway and utilities.
414121 C	NCLP-DM#2C	Davis Mountain Road	Culvert between Azalea Ridge Road and Country Ridge has washed out affecting the road and utilities. Culvert will have to be replaced and the road repaired.
ossible Sma	II Projects		
509835 C	NCLP-OC#1PD	Orchard Circle	Pavement damage from fallen trees.
509836 C	NCLP-PD#1PD	Panorama Drive	Payament damage from fallen traes

Pavement has settled around an existing inlet. Storm drainage inlet and pavement will have to be repaired.

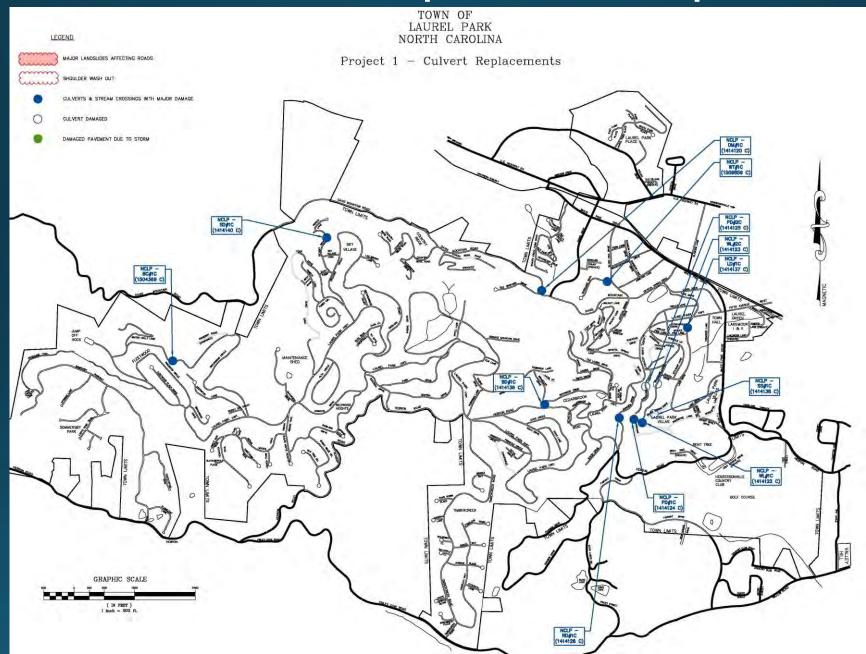
Pavement damage from fallen trees.

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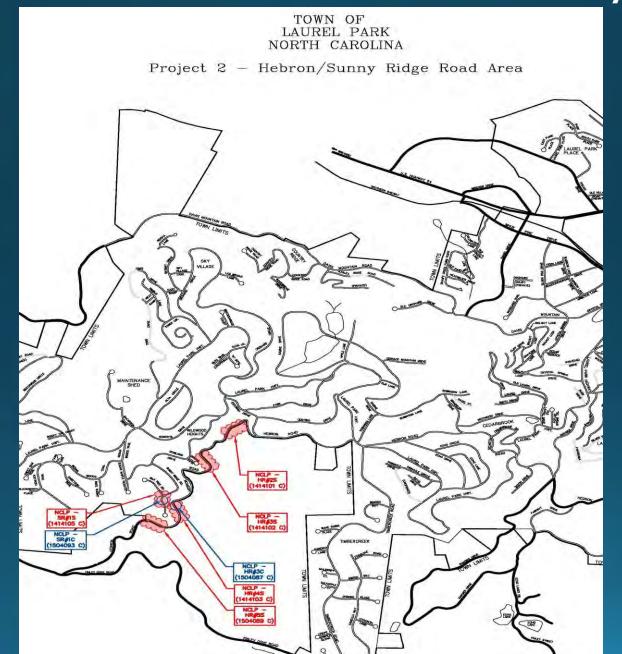
Pavement and curbing damaged

Major washout of the gravel road affecting shoulders, road surface, etc.

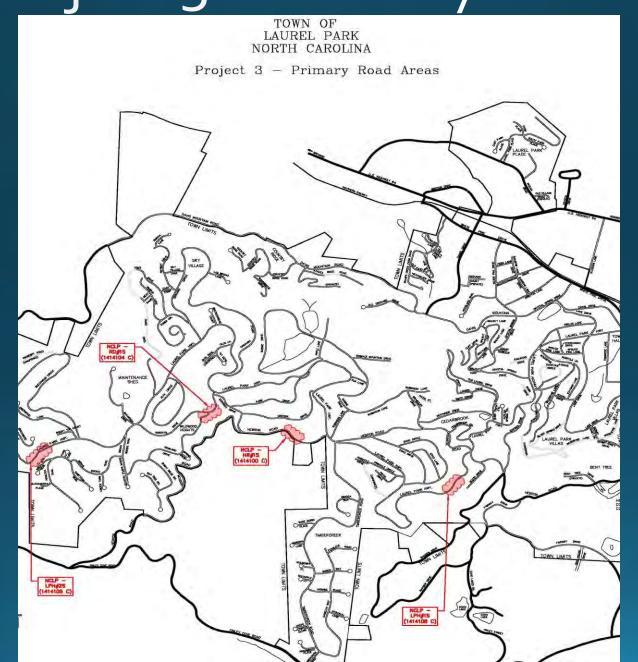
#### Project 1 – Culvert Repairs & Replacement



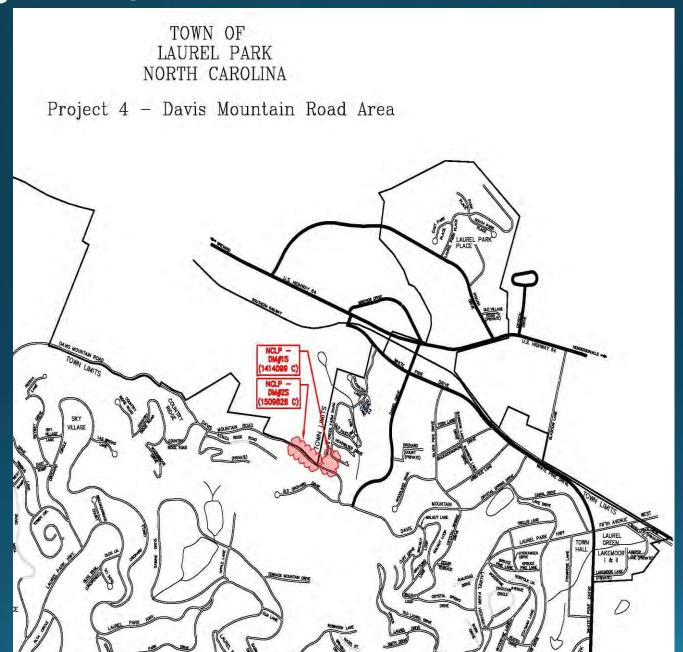
## Project 2 – Hebron Road/Sunny Ridge



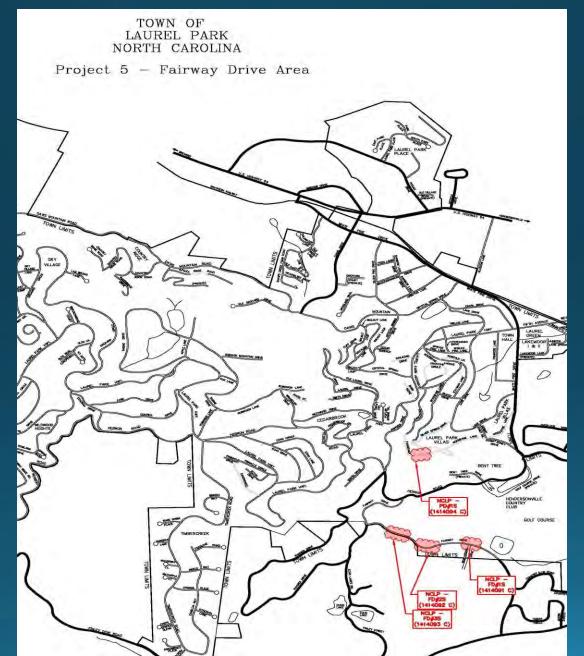
Project 3 – Primary Roads



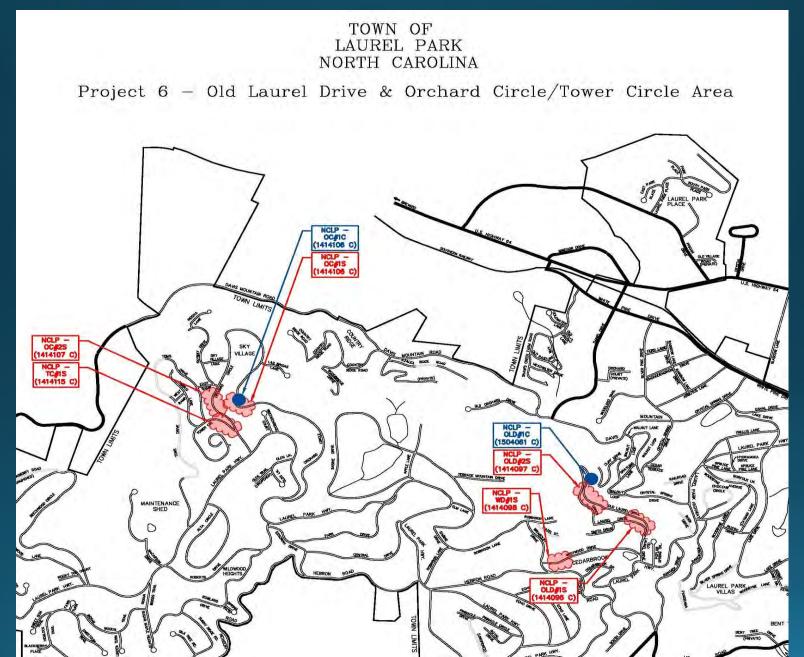
#### Project 4 – Davis Mountain Road



#### Project 5 – Fairway Drive/Panorama



## Project 6 – Old Laurel/Orchard/Tower Circle



#### How Do Projects Progress to Construction?

- FEMA damage reports are reviewed and changes are coordinated with FEMA.
- Scope of work for each project is established and must be approved by FEMA.
- This includes repairs, upgrades to meet codes and standards and mitigation.
- Scope of work must be reviewed and approved by FEMA.
- Surveys of each site are completed.
- Construction documents are prepared for all repairs, upgrades and mitigation and must be approved by FEMA.
- Following approval, projects can be released to secure bids.
- Once bids have been received and accepted, construction may begin.
- FEMA will reimburse the Town as partial pay requests are received and paid by the Town.

Key point – there are lots of FEMA approvals as we progress through this process.

#### How Do Projects Progress to Construction?

- Road improvements require additional studies and approvals.
- Geotechnical engineer (BLE) will make recommendations for stabilization and repairs of landslide areas that affect roads.
- Where stabilization and repairs extend beyond the Town right of way, rights of entry and easement will be required from property owners.
- At each step, FEMA approval is required to make sure reimbursement is possible.

# Summary

- Culvert project is moving forward with H&H studies that establish scope of work.
- This is the first project that will be bid and go to construction.
- The timeline for approval to get to construction will be determined as we progress through FEMA reviews.
- NCDOT may assist/take over design and coordination of some roadway repair projects. This is to be determined.