Division 10
Beginning of FDR - Division 10

- Union County- Waxhaw Creek Road – Approx. 2.0 miles in 1997
- Road tore up by bridge replacement project hauling in fill material
- Reclaimed with addition of some lime and retreated
- Cabarrus County- Crisco Road- Was part of alignment of Kannapolis Parkway (TIP Project)
Year 2011 - Turn Key Lets and Hourly Contracts

• One of our first jobs was a secondary construction road that provided access to a cotton gin.
• We knew this route would require some extra strengthening and FDR provided that for us.
• Our goal at the time was to leave riding surface at Asphalt Surface Treatment
• State Forces was performing the chip seal
• We have since paved over some of these roads with 1” of SF9.5A
• 17.50 miles in four counties
Year 2012 Turn Key Lets

- Completed 3.2 miles in Union County
- These contracts let with what essentially was a rideability spec hoping to get a more consistent typical
- Included asphalt overlay
Year 2014 – State Forces Working with Contractor to Mix and Spread Cement

- Contractor is laying the cement and mixing while our Bituminous Crew is performing the grading, compaction and chip seal
- Maintenance Yards widen maps ahead of reclamation
- These roads covered four counties with majority in Union County
- Pave with 1” SF9.5A next paving season
- One road is access to county landfill
- One road was detour for NC 200 traffic due to bridge replacement project
- 14.50 miles in total
Year 2015 – Pavement Preservation Funding Includes Reclamation as Scope of Work

• Dedicated Funding mandates 80% contract work by 2018
• Div. 10 Bituminous Unit was dissolved and started including reclamation work in our annual contract resurfacing lets.
• Contractor does chip seal and overlay
• When possible we still prefer to reclaim the roads and apply double seal and wait to the next paving season to place plant mix.
• Some roads may remain with AST
• Currently State Forces widen prior to reclamation
Division FDR Maps – Approx. 75 miles
2017 FDR Map
Case Study: SR 1341, 12 Mile Creek Road
Union County

- Description: From SR 1346, Beulah Church Road to NC 84
- Length: 1.5 miles
- Width: 22 feet
- ADT: 3500
- PCS Rating: 38
SR 1341, 12 Mile Creek Road
Twelve Mile Creek Road
Twelve Mile Creek Road
Widening Prior to Reclamation

- Widening not included in contract
- 1 and 2 feet widening accomplished by maintenance crews
- Crews can accomplish approximately 1 to 1.5 sh mile/day depending upon how many trucks you can dedicate to the operation.
Channel for Widening
Channel for Widening
Close up of Channeling Attachment
Widening Machine Placing ABC Aggregate
Widening Machine Placing ABC Aggregate
Picking up Waste Material with Athey Loader
Asphalt Driveways
Concrete Driveway
Twelve Mile Creek Road- Brick Paver Drive
Traffic Concerns: 3500 ADT

• Intermediate Completion Time
• Due to High School, Middle School and Elementary School traffic specified construction during summer when schools were not operating
• Notify town/community prior to beginning work. Suggest 2 week minimum. Listed on TIMS as impact.
Map of schools
Construction Sequence

• Contractor reclaimed one side of roadway at a time starting just south of Deal Road.
• Required to seal reclaimed base with chip seal the following day
• Typically would place Type III Barricades and sign for local traffic only. Contractor set up pilot car.
Construction Sequence
Staking Centerline of Road

• Once reclaimed it is not obvious where the centerline used to be so need a reference point is needed to re-establish
• Important to have reclaimed base extend beyond edge of pavement
Twelve Mile Creek Road
Twelve Mile Creek Road
Twelve Mile Creek Road
Twelve Mile Creek Road
Aggregate for Asphalt Surface Treatment

• Important to use aggregate that works well with chip seal; we prefer to chip seal one paving season and place plant mix the next.
• Some contractors may not be proficient with chip seals.
• Recently using a light colored granite out of South Carolina.
• We have had some issues with this particular aggregate raveling off the road.
AST Raveling
# 78M Aggregate Raveling
#78M Aggregate Raveling Into Winter Months
#78M Aggregate Raveling Into Winter Months
Final Paving and Markings
Unit Prices

- 12” Reclamation/sq. yd: $3.00/$2.65
- Cement/ton @ 67lbs/sq. yd: $135/$130
- Widening/sh. mile: approx. $35k
- S9.5B @ 1.5”: $43/ton / $35/ton
- AST Double Seal: $1.80 sq. yd/ $1.75 sq.yd
- Emulsion: $2.00/gal
Case Study #2

• Stanback Ferry Road in Anson County
Map of Stanback Ferry Road
Case Study: SR 1703, Stanback Ferry Road in Anson County

- Description: From SR 1711, Doc Wyatt Road to SR 1704 Ingram Mountain Road
- Length: 8.0 miles
- Width: 18 feet
- ADT: 200
- PCS Rating: 49-60
Stanback Ferry Road Anson County
Stanback Ferry Road Anson County
Reclaiming
Reclaiming
Poor Subgrade?
Reclaiming
Stanback Ferry Road
Finish Grading and Compacting
Finish Grading and Compacting
Finished AST Surface
Utility Conflicts
Utility Conflicts
Utility Conflicts
Utility Conflicts
Bury

The minimum depth of bury for cased and uncased construction shall be as follows:

a. Crossings under all roadways (including shoulders) of electric power and communication lines ................................ 3'

b. Crossings under ditches (paved and unpaved) and sidewalks of electric power and communication lines ........... 2'

c. Longitudinal electric power primary. .................. 3'

d. Longitudinal electric power secondary, and trenched communication lines. ................................. 2'

e. Plowed-in communication lines. ...................... 18"
Cement Dust from Unloading Operation
Cement Dust from Unloading Operation
Reference Stakes
FORE: Fully Operated Rental Agreement

- 12” Reclamation/sq. yd: $ 5.30
- Cement/ton @ 72lbs/sq. yd: $ 155.00
- AST Double/Triple Seal: $ .92 sq. yd
- Emulsion CRS-2L: $1.20/gal