

TELLER COUNTY PUBLIC WORKS

DEPARTMENT OF TRANSPORTATION



2017

A N N U A L

R O A D M A I N T E N A N C E

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I M P R O V E M E N T P L A N

Approved 5-11-17

Introduction

In 2006 Teller County introduced the Road Maintenance and Improvement Plan. The plan established the guiding principles and methodologies for maintaining and improving our road system consisting of today's tally of 560 miles of roadways with 484 miles being gravel road surfaces, primarily in subdivisions.

Our primary emphasis will be asset management. We have established program areas for hard surface and gravel road maintenance. These program areas are designed to insure asset preservation and the best level of services possible with available resources. We have also established measurement tools within each program area so that we can track performance and use the real data to help guide our programs and services. This year we plan to implement the same programs as 2016, weather permitting.

These transportation plans are very dependent on the weather and the crews must react to the changing conditions that weather can cause. Being reactionary is not efficient and getting back to normal routine maintenance as soon as possible will be the goal after any emergency or extreme weather event.

We will contract projects and some maintenance where they provide the best economic value for the County. Transportation constantly reviews past performance, work orders and condition levels so we can continually improve how we manage the road system.

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PUBLIC RELATIONS

We have had great success in meeting many of our residents at public meetings. This venue provides a proactive means in which we can interact with our community. We have built many good relationships in this manner. We have several volunteer programs available, so if you are interested in participating in the transportation volunteer program, please contact us. If you would like for us to make a presentation for your subdivision or Homeowners Association (HOA), please call 687-8812. We want our presentations to meet your concerns so when scheduling a meeting let us know what YOU want us to speak about. ***Our plan is generally approved in the Spring of each year and we encourage you to visit our website to review the approved plan. We will be glad to attend one of your meetings after our plan is approved to assist you in distributing the correct information. Remember, that unless information is obtained from approved plans or from the Public Works Department, it should be considered as subject to change and could be misleading, additionally, sometimes in rare instances, even approved plans can change due to the weather or unforeseen budgetary issues.***

We will continue to utilize our work order system as it has proved to be effective in helping to resolve concerns and to get to know our citizens. Many HOA's have a designated transportation officer who regularly communicates issues within their community to us. This has proved to be a successful program and allows us to work with our community.

Feedback is important, and we log every call that we receive and strive to ensure that every issue is responded to by either a return telephone call or a visit from one of our team. Feedback is analyzed to identify trends so that we can adjust our services to better serve the public.

We encourage you to visit the Teller County Website at www.co.teller.co.us as we post weather conditions and road information on the website to keep residents informed during blizzard, flooding, and general road closure or constructions information.

ROAD MAINTENANCE PLAN

This year the maintenance plan will be focused on scheduled asset preservation. All maintenance activities have been prioritized and scheduled to optimize safety, weather, equipment, personnel, materials, and budget. By using a systematic plan, we believe we can uphold cost effective service levels optimizing the life span of all assets.

I. GRAVEL ROAD MAINTENANCE

Gravel road maintenance consist of four programs: **Route Grading**, **Resurfacing**, **Dust Suppressant** and **Drainage**. Our goal is to have routine maintenance on each gravel road. This can be very difficult at times due to changing conditions. Weather is the largest factor and challenge for gravel road maintenance. We have to constantly adjust to the conditions and sometimes react to major weather events. This makes it very difficult to have a consistent maintenance cycle. If you feel any gravel road is in need of maintenance and you would like to know when it could be scheduled to be maintained, please feel free to contact us at (719) 687-8812 or send us an e-mail and we will assess the condition and prioritize it.

A.) Route Grading

Each non-dust suppressed gravel road (Route Grading Road) will be maintained as needed. These roads will be broken into six routes averaging about 70 miles each. Graders will be performing ditching operations during the spring and early summer to utilize the moisture for compaction on as many gravel roads as possible prior to the drier part of the grading season. When material is lost from the surface on the gravel roads throughout the year due to weather, traffic and snow plowing, most of this material ends up in the ditch. It is imperative that this material is retrieved from the ditches for proper drainage, shape and elevation of the road surface.

Residents should be advised that during ditching operations, material within the ditches will be placed on the roadway and that the material will be used to regain the proper profile of the road. When ditching is performed, the surface of the road will seem rough or loose until the material is compacted by traffic. This is a necessary step in improving the overall quality of the roadway.

Once the moisture is lost, we will focus more on surface maintenance on the higher traffic gravel roads (priority roads). These roads will also be broken into six routes. Each of these routes average about 37 miles. By staying on these higher traveled roads we can shorten the route size and reduce the grading cycle time.

Graders will not deviate from their route's cycle unless there is a safety concern or an emergency situation. Our goal is to strive for equality throughout the County. Graders will not be pulled from their routes for service requests, as this would not be fair for residents waiting for their roads to be graded on the route. By accomplishing this, we feel that we can uphold a level of service that encompasses equality in service throughout the County.

Dedicated route operators will maintain a dust suppressed gravel road only if it has been identified as a safety concern, during emergency situations or when conditions are optimal.

B.) RESURFACING

Throughout the year, weather permitting, road base will be added (resurfacing) to roads for maintenance purposes or for improvement purposes (i.e. – preparation for new hard surface). These roads placed in this category are roads that are being improved, roads that have a high maintenance cost in their current condition, or roads that have been identified as having high traffic counts.

This year as in the past, gravel road surface material will be added to a variety of road sections for maintenance needs. We plan to resurface about 2 miles of gravel road. Locations will depend on spring thaw road assessment.

We feel that it is important to evaluate our roads and place the gravel where it will be the most beneficial. If a roadway is acceptable for a mile and has one section in the middle that is unacceptable we are going to put our efforts into that one bad section of roadway so that the overall condition of the road is improved. This will save repeated responses to the same problematic area. By using this strategy, the overall condition of our gravel road system will steadily improve.

C.) DUST SUPPRESSANT

Dust suppressant application operations will generally begin in May depending on weather. A dust suppressant material will be applied to any gravel road with 300 or more cars average daily traffic (ADT), some roads with less than 300 ADT may require dust suppressant. Total miles receiving dust suppressant will be 30.

All dust suppressed gravel roads will be maintained as needed using water and compaction equipment to help retain the dust suppressing materials that have been applied to the roadway. These operations will be completed by a properly equipped grading crew.

This year we plan to apply dust suppressant to the following roads:

So Mtn. Estates	North Mtn. Estates to Paint Pony Ln.
Duesouth Rd.	Homestead Ln. to Turnabout Ln.
Homestead Ln.	North Mtn. Estates to Duesouth Rd.
Matterhorn Rd.	CR 1 to MBUs
Longbow Dr. East	Robin Hood Dr. to Golden Grain
Will Scarlet Dr	From Little John to Fountaindale
Silbani Ln.	Deer Ridge Tr. to Donzi Tr.
Deer Ridge Tr.	Denwood Dr. to Silbani Ln.
Denwood Dr.	CR 42 to Deer Ridge Tr.
Triple B	Hwy 67 to Triple B Ranch Resort
Apache Trail	From Hwy 67 to Uts Tr
Sourdough Rd.	Fairfield Ln. to Mills Ranch Dr.

CR 21	To Fountain Creek bridge
Laura Ln.	CR 21 to Park St.
West Valley	CR 231 to Pavement
Spruce Rd.	Hwy 67 to Spruce Ln.
CR 78	Hwy 67 to CR 782
Piney Pt.	Hwy 24 to Lakewood Dr.
Club Dr.	Lakewood Dr. to Vista Ln.
Lakewood Dr.	Piney Pt. to Lakeview Ln
Vista Ln.	Club Dr. to Illini Dr.
Illini Dr.	From Vista Ln to Holiday Dr.
Penn Ave.	Hwy 24 to Rutgers Pl.
Woodland W. Dr.	to Cornell Dr
CR 25	From HWY 24 to Pine Bluff
CR 281	From CR28 to Y
Spring Valley Dr.	From CR5 to Valley Rd.
Omer Dr.	CR 5 to Lake Dr. West
Lake Dr West	From Omer to Lake Cir
Twin Lakes Dr.	From CR 512 to Cottonwood Dr.
Blue Mesa Dr. E	From Cottonwood to Deep Lake
Blue Mesa Dr. W	From CR 512 Lost Lake Dr.
CR 512	From Blue Mesa Dr. to Cherry Lake
Rangeview	From CR 51 to West Bison
CR 51	From Rangeview to John Dr.
CR 61	From HWY 67 to Woodrock Wy.
Arapahoe Creek Tr.	From CR 3 to Kiowa Creek Tr.
CR 3	From Pavement to Conastoga Cr. Tr.
CR 47	From HWY 24 to CR 31
CR 31	From CR 47 to Pikes Peak Dr.
CR 31	From CR 3 to E of Ace lumber
Pikes Peak Dr.	From CR 31 to Bear MTN
Circle Dr	From Pikes Peak Dr. to Crestridge
Wilson Lakes Dr.	From Hwy 24 to Buckridge
High Chateau Rd.	From Cr 11 To Spring Valley
Trail Creek Rd.	County Line to Crystal Peak
CR 46	From HWY 24 to County line
Trout Haven Dr.	From CR 42 to Wahsatch
CR 421	From CR 42 to Beryllium Rd.
Mistletoe	From Hwy 24 to Obsidian
CR 86	From CR 81 to Skagway
CR 82	From HWY 67 to Cr 821
Weaverville Rd.	Hwy 24 to Hybrook Rd. South
Anges Dr	From CR 1 to Troy Dr
Gold King Dr.	From CR 1 to Vindicator Dr.
Circle Dr	From Hwy 24 to library
Cr 21	From bridge to Hwy 24

D.) DRAINAGE

We will focus on things such as re-grading all ditches that have been damaged from winter maintenance operations, cleaning-out clogged culverts as well as installing rock checks and drop boxes to prevent silt migration. Please remember that driveway culverts are the responsibility of the homeowner and by keeping your driveway culvert clean you can help maintain and preserve the overall condition of our road system. If you would like tips on how to prevent your culvert from getting clogged, please call our offices or send us an e-mail and we can schedule an onsite meeting to evaluate and assess your culvert for improvements

Drainage will be prioritized by the following criteria: Safety concerns, erosion/storm water concerns, structural integrity of roadway, classification and traffic counts. Crews will maintain and install culverts as needed also mitigating and repairing any erosion/storm water issues. This crew will also assist other crews with drainage needs.

II. HARD SURFACE MAINTENANCE

For Hard Surface Roads, **patching**, **pothole repair**, and **shouldering** will be year round. Road segments presenting safety hazards will take priority, and operations will then begin on the highest traffic count roads and work to the lowest traffic count roads. In the summer, the crews will focus their efforts to **overlays and repairs**. Teller County purchased a lay down machine and roller for the larger repairs on the hard surface roads. This equipment proved to be more economical and helps repair the areas in need in a timelier manner. In the winter, along with snow and Ice removal, **crack-sealing** operations will begin. This is a preventative maintenance program to seal all hard surface roads.

A.) MAINTENANCE OVERLAY

- C.R. 11 From mile marker .85 North towards CR 112 to approximately mile marker 2.5, “depending on bids received.” 3 inch HMA overlay. – Contracted.

B.) REPAIRS

- Areas in need of repairs, depending on spring thaw road assessment, using lay down machine and asphalt.

III. BRIDGE MAINTENANCE

Teller County has a total of ten bridges within the road system. The oldest bridge was built in 1930 and the newest in 1996. These bridges must stay in compliance with the National Bridge Inspection Standards and the National Bridge Inventory. Any non-compliant bridges may result in the ineligibility of Highway Users Tax Fund (HUTF) funding. Colorado Department of Transportation (CDOT) administers the inspection program for the bridges using a contracted bridge inspection consulting agency. The bridges are inspected bi-annually. The Transportation Dept. will use the report to determine the proper maintenance program.

IV. WINTER MAINTENANCE

Since 2006 steady improvements have been made to the snow removal operations. These improvements have been made to enhance the speed and efficiency of our snow removal efforts. We feel confident that we can uphold these levels of service in 2017:

- In and out snowplow service to ALL county maintained roads within 24 hours after the snow has stopped.
- Application of anti-skid material to the roadways as needed.
- Plan each individual storm event to provide the best service possible with current resources. Every storm is different so the response to each storm may be different.
- Route operators have flexibility to deal with on the spot conditions.
- Additional coverage on level I and level II roads.

Please feel free to review our procedures on our website.

Snowplowing is an essential and necessary service provided to our citizens and we are committed to giving the highest level of service possible with our available resources. Below are a few tips that you can follow to make your winter commute as safe as possible:

- ***Ensure that your vehicle is properly maintained for winter travel. Ensure that you have good wiper blades, washer fluid and adequate tires for the conditions that you will be traveling in.***
- ***Stay at least 200 feet back from a snowplow. Vehicles following too close to a plow hamper sanding operations and put you at risk for a broken windshield.***
- ***Refrain from passing a snowplow.***
- ***Prepare for the conditions that you may be driving in. Even though plows are operating there will be areas of ice and snow that present hazards..... Expect the unexpected.***
- ***For the safety of your children please do not allow them to make snow caves, play or sled in the roadway.***
- ***Refrain from plowing snow from private property into a roadway. If you must do this you should ensure that no ridges or snow are left on the traveled surface.***

ROAD IMPROVEMENT PLAN

I. HARD SURFACE ROAD IMPROVEMENT

Many of the roads that will meet the criteria for the **Hard Surface Road Improvement** are existing hard surfaced roads that are in need of improvement and gravel roads that have required dust suppressant applications, in the past, receiving over 800 cars a day.

A.) NEW HARDSURFACE

None scheduled this year.

B.) DESIGN LIFE APPLICATION

None scheduled this year.

II. ROAD RECONSTRUCTION HARD SURFACE AND GRAVEL

- CR 61 From Hwy 67 (Divide End) to Rocky Mountain View Rd. Change surface type from hard surface to dust suppressed gravel.

III. RIGHT-OF-WAY(ROW), SIGNAGE AND TRAFFIC CONTROL

The Right-of-Way (ROW) Division is responsible for identifying public ROW, assuring compliance with the Teller County Roadway Design and Construction Standards (TCRD&CS), acquiring additional ROW and easements when needed, and ensuring that traffic control devices and safety appurtenances such as guardrail meet Manual on Uniform Traffic Control Devices (MUTCD) requirements/specifications.

Prior to road improvement projects, it is often necessary to identify the public ROW so that the extent of the ROW can be utilized if necessary to construct a proper roadway with adequate drainage. This is a very time consuming process and often needs to happen years in advance of a proposed project. The ROW crew will place markers to designate the ROW once found, and we always ask residents to locate and mark their property pins so that everyone knows where the ROW and private property boundary is. The ROW crew is also responsible for signage and road safety throughout the County. They also collect information related to usage of the road so that we have accurate data to provide for enhanced engineering of the roads.

Program (core) areas that will be worked on this year are:

Replace one-tenth of the Traffic Control Devices (TCD's). (Mandated by Federal Highway Administration (FHWA) that all TCD's be upgraded to High-Intensity Sheeting and have a Replacement/Maintenance Plan in effect. We have chosen a "Blanket Replacement Plan", dividing the county in ten parts with nearly equal sign distribution – each section getting replaced on a ten-year cycle (which is also equal to sign longevity). This is in addition to standard maintenance/repairs of damaged/missing signs not scheduled for replacement this year.

Replace one-tenth of the street name signs. Just as with the Traffic Control Devices (TCD's), we have chosen a "Blanket Replacement Plan" for street name signs, dividing the county in ten parts with nearly equal sign distribution – each section getting replaced on a ten-year cycle (which is also equal to sign longevity). This is in addition to standard maintenance/repairs of damaged/missing signs not scheduled for replacement this year.

Intersection control signing. This year we will begin our first year of ten annual years of phasing in installations of intersection control signing (stop, yield signs) at all three and four way intersections.

Delineators. Repair/replace damaged/missing delineators as required.

Mile markers. Repair/replace damaged/missing mile markers as required.

Record Average Daily Traffic (ADT) counts (alternating between subdivision roads and main roads every other year).

OTHER PROJECTS

GASB 34 (Governmental Accounting Standards Board Law 34)

Conduct inspections of a third of all the following assets in order to comply with Federal Regulations: Roads, Street Signs, Regulatory Signs, Culverts, Guardrail, Cattle Guards, Bridges, Tunnels and Trails.

GRANT APPLICATIONS

We are always looking at grant sources that can be utilized to aid our road system. Future improvement projects are in the planning and engineering phases in preparation for the 2017 grant season for funding in 2018.

O.E.M logistics

During emergency situations we will provide support when asked by the Office of Emergency Management. This support includes equipment and manpower.