

# IOWA DEPARTMENT OF TRANSPORTATION

**TO OFFICE:** District 5  
**DATE:** July 29<sup>th</sup>, 2019  
**ATTENTION:** James V. Armstrong  
**PROJECT:** Wapello County  
MP-034-5(709)177--76-90  
**FROM:** Anthony J. Klein  
PIN: 19-90-034-030  
**OFFICE:** District 5 Design  
**SUBJECT:** FY 2020 MP – Ditch Improvement Project Concept

**PROJECT LOCATION MAP:** Page 2 or [Click Here](#)

**BACKGROUND: Wapello County, US 34, MM 177.4**

A ditch project is needed along U.S. Highway 34 in Wapello county, approximately 0.6 mi E of the Wapello/Monroe County line to help facilitate drainage in this area. This ditch is located on the north side of US 34 and drains easterly toward South Avery Creek. Water enters the ditch from the northwest from an adjacent landowner that appears to be a wetland area of some type. Water also enters the ditch from the north coming from the east of the area from fence line which is the ¼ section line. Over time the ditch has filled in with a silt material and has lost some capacity. There is an entrance culvert on the north side at Sta. 1364+00 between county road T61 and the creek that the flowline of the culverts will need adjusted down after the silt is removed. If left alone the roadway ditch will not have the capacity to carry water as originally intended.

**RECOMMENDATIONS:**

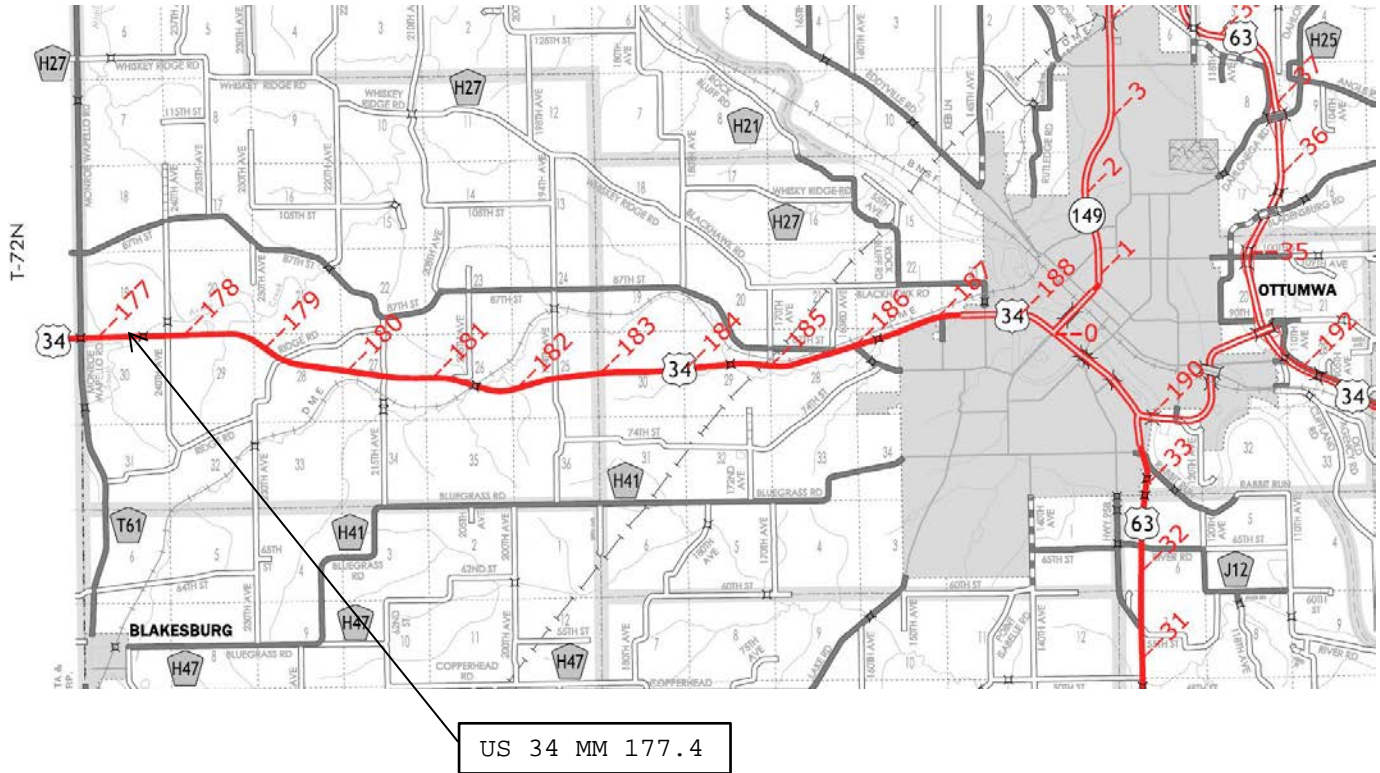
Return the ditch to the original plan intent by excavating within the ROW a 15 foot bottom ditch with 3:1 slopes at an average depth of just over 2 feet for approximately 1,000 feet (depending on survey) resulting in approximately 1,700 cubic yards of material that will need to be hauled off-site. The ditch should be restored to the original grade as shown in the [FN-1027\(6\).pdf](#). The existing dual HDPE 36” entrance culverts at Sta. 1364+00 will need lowered to the new ditch grade to help the water flow. This will provide positive drainage in the ditch to the nearest waterway. No Right-of-Way is needed with this modification.

**ESTIMATED COST:**

| Description                                                          | Unit | Quantity | Unit Price           | Price       |
|----------------------------------------------------------------------|------|----------|----------------------|-------------|
| CLEARING AND GRUBBING                                                | ACRE | 1        | \$7,500.00           | \$7,500.00  |
| EXCAVATION, CLASS 10, WASTE                                          | CY   | 1664.72  | \$12.00              | \$19,976.68 |
| TOPSOIL, STRIP, SALVAGE AND SPREAD                                   | CY   | 554.85   | \$10.00              | \$5,548.52  |
| REMOVE AND REINSTALL RIGID PIPE CULVERT LESS THAN OR EQUAL TO 36 IN. | LF   | 80       | \$75.00              | \$6,000.00  |
| REVTMENT, CLASS E                                                    | TON  | 10       | \$50.00              | \$500.00    |
| NATIVE GRASS SEEDING                                                 | ACRE | 1        | \$2,500.00           | \$2,500.00  |
|                                                                      |      |          | Traffic Control (5%) | \$2,101.26  |
|                                                                      |      |          | CONT&MOB(10%)        | \$4,202.52  |
|                                                                      |      |          | TOTAL =              | \$48,328.99 |

It has been identified by the District 5 office for construction in FY 2020 as a MP project.

**LOCATION MAP:**



cc:

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