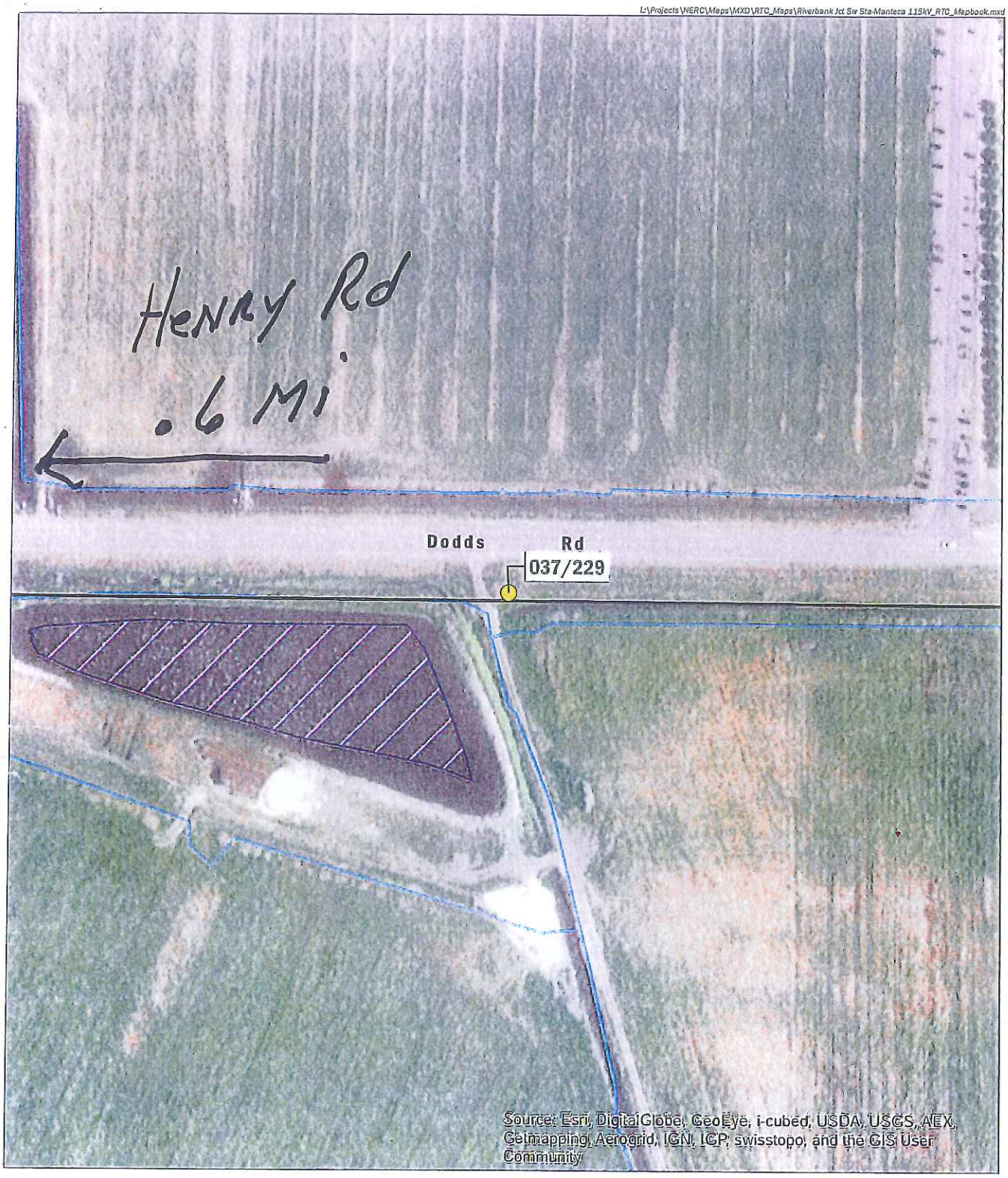
L:\Projects\NERC\Maps\MXD\RTC_Maps\Riverbank Jct Sw Sta-Manteca 115kV_RTC_Mapbook.mxd



Wetland

Drainage

Riverbank Jct Sw Sta-Manteca 115kV

Structure 037/229

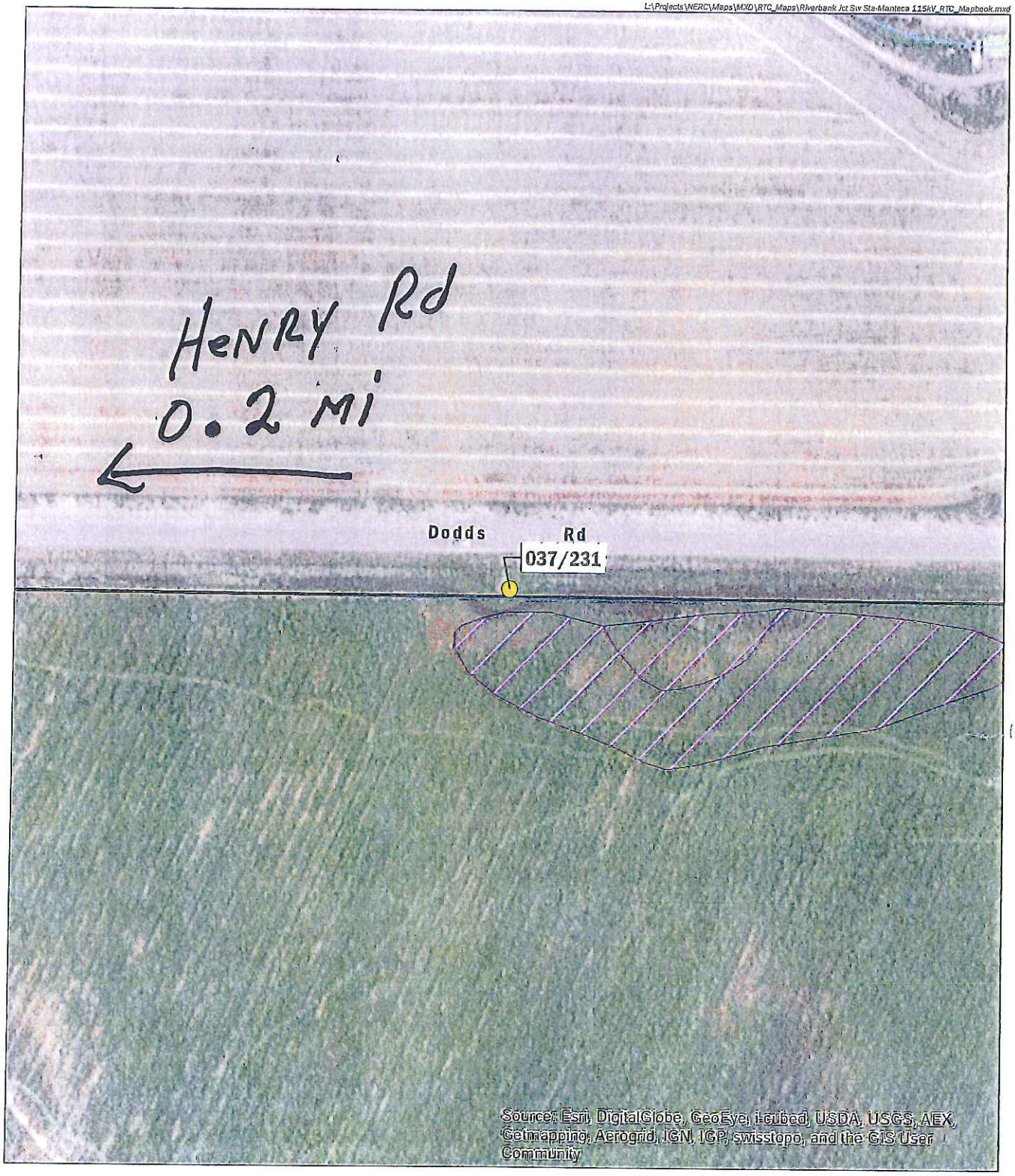
0 150 Feet

1 inch = 150 feet

N

URS

Attachment A: Location Maps



Wetland
Drainage

Riverbank Jct Sw Sta-Manteca 115kV

Structure 037/231

0 150 Feet N

1 inch = 150 feet

URS

L:\Projects\NERC\Maps\MXD\RTC_Maps\Riverbank Jct Sw Sta-Manteca 115kV_RTC_Mapbook.mxd

Wetland

Drainage

Riverbank Jct Sw Sta-Manteca 115kV

Structure 037/232

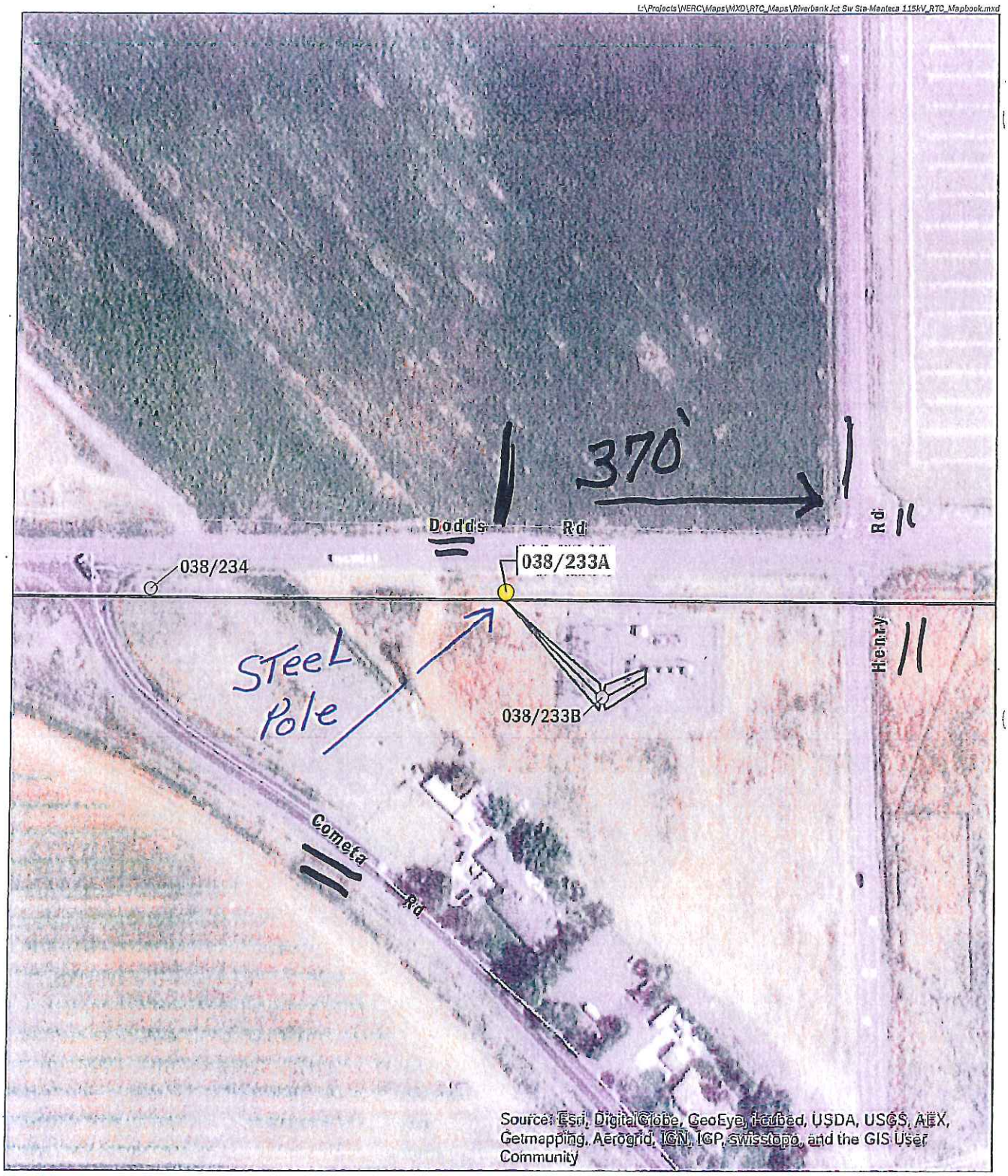
0 150 Feet N

1 inch = 150 feet

URS

Attachment A: Location Maps

L:\Projects\NERC\Maps\MXD\RTC_Maps\Riverbank Jct Sw Sta-Manteca 115kV_RTC_Mapbook.mxd



Wetland
Drainage

Riverbank Jct Sw Sta-Manteca 115kV

Structure 038/233A

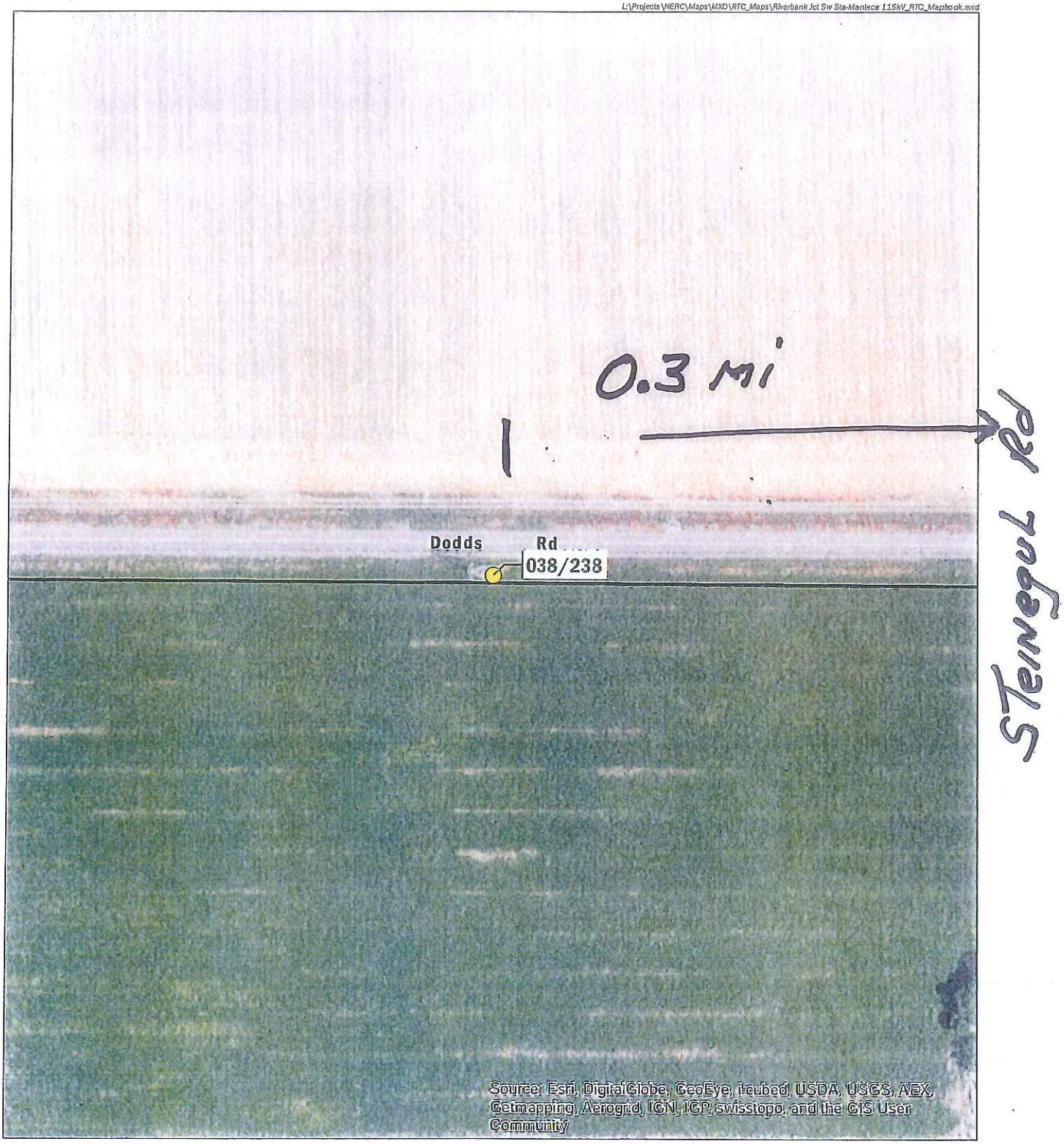
0 150 Feet

1 inch = 150 feet

URS

Attachment A: Location Maps

L:\Projects\NERC\Maps\MXD\RTC_Maps\Riverbank Jct Sw Sta-Manteca 115kV_RTC_Mapbook.mxd



Wetland
Drainage

Riverbank Jct Sw Sta-Manteca 115kV

Structure 038/238

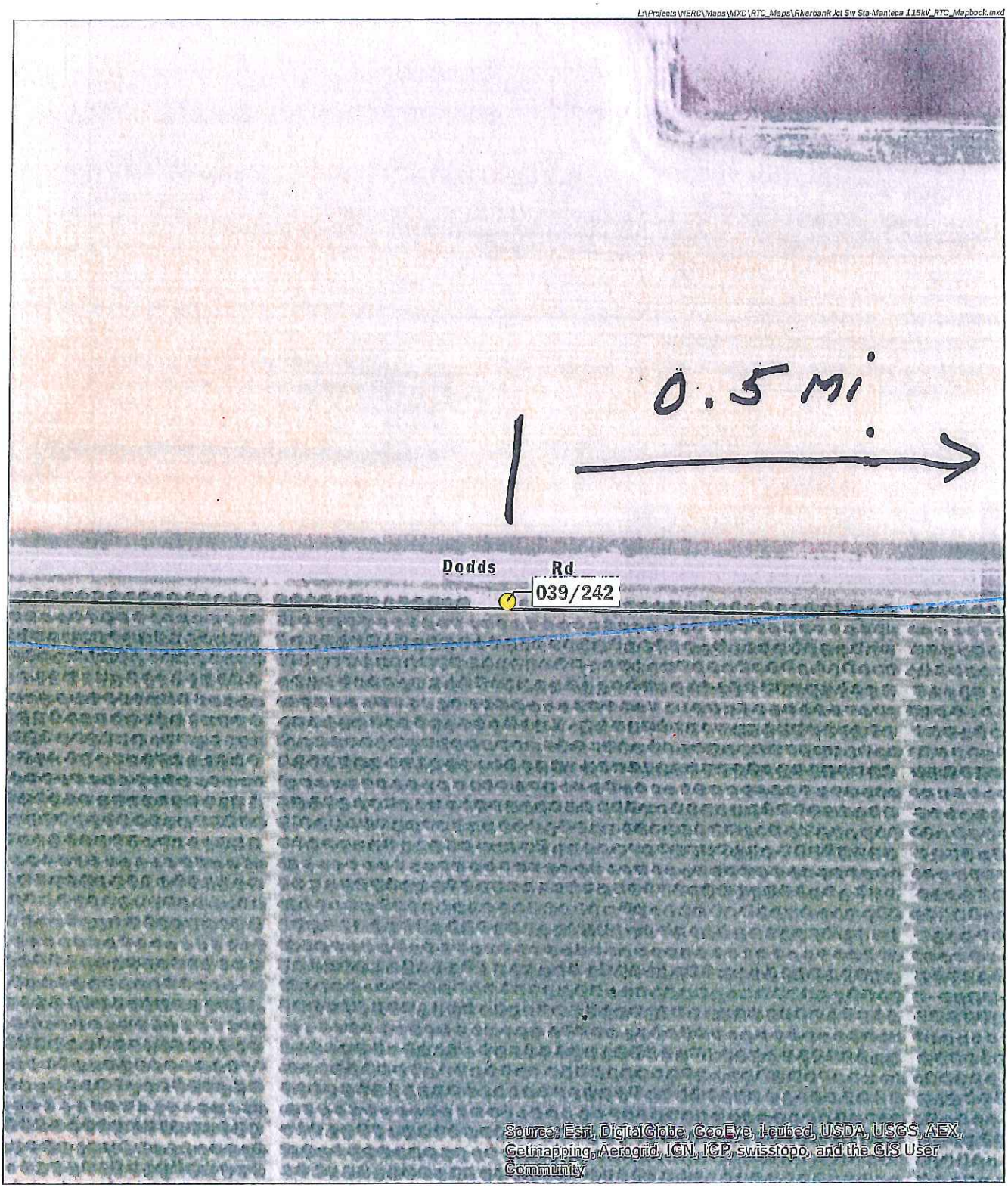
0 150 Feet N

1 inch = 150 feet

URS

Attachment A: Location Maps

L:\Projects\WERC\Maps\MXD\RTC_Maps\Riverbank Jct Sw Sta-Manteca 115kV_RTC_Mapbook.mxd



Wetland
Drainage

Riverbank Jct Sw Sta-Manteca 115kV

Structure 039/242

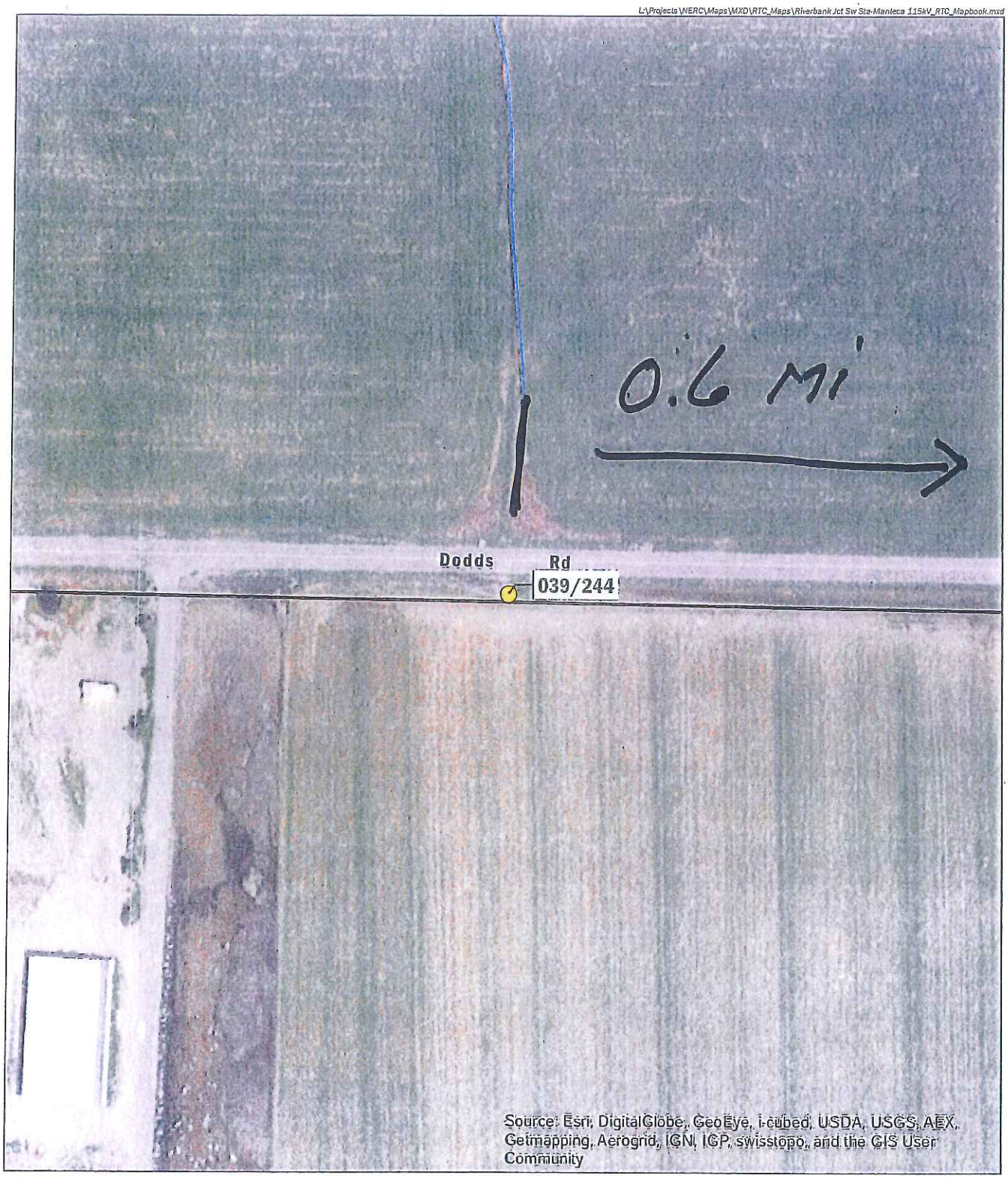
0 150 Feet N

1 inch = 150 feet

URS

Attachment A: Location Maps

L:\Projects\WERC\Maps\MXD\RTC_Maps\Riverbank Jct Sw Sta-Manteca 115kV_RTC_Mapbook.mxd



Wetland
Drainage

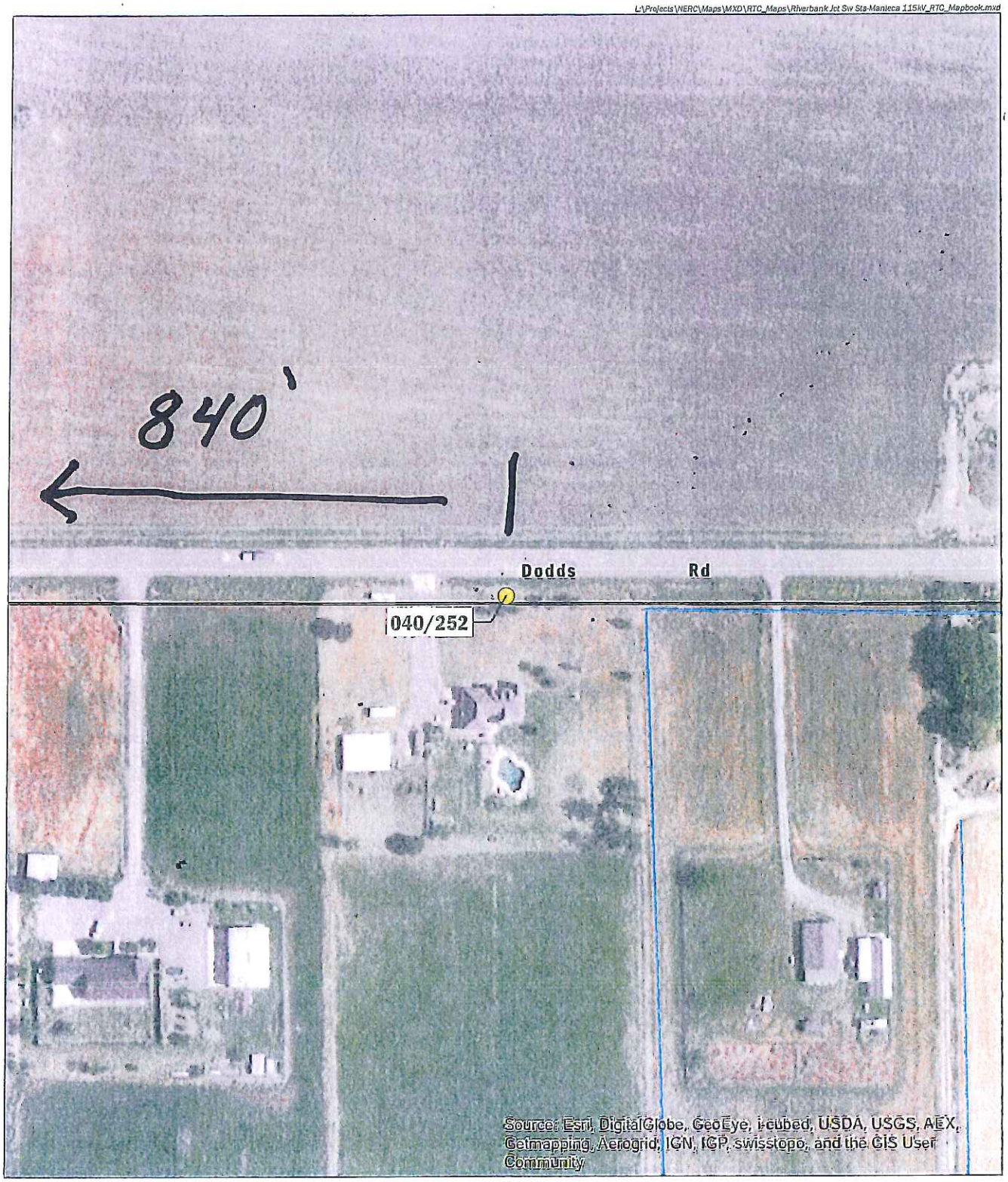
Riverbank Jct Sw Sta-Manteca 115kV
Structure 039/244

0 150 Feet
1 inch = 150 feet

URS

Attachment A: Location Maps

L:\Projects\WERC\Maps\MXD\RTC_Maps\Riverbank Jct Sw Sta-Manteca 115kV_RTC_Mapbook.mxd

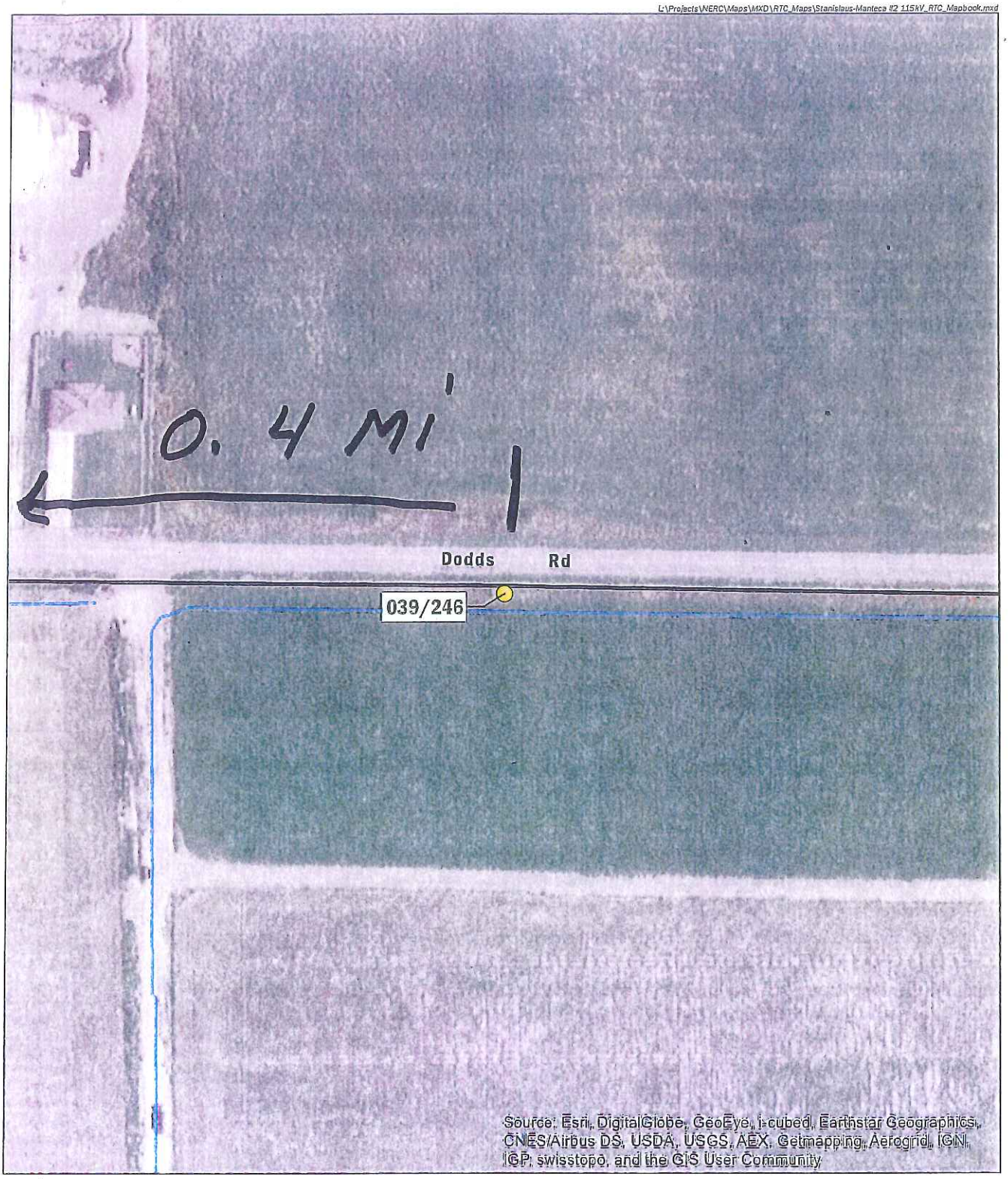


Wetland
Drainage

Riverbank Jct Sw Sta-Manteca 115kV
Structure 040/252

0 150 Feet
1 inch = 150 feet

L:\Projects\NERC\Maps\MXD\RTC_Maps\Stanislaus-Manteca #2 115kV_RTC_Mapbook.mxd



CSCAKAU - DELLOIN RD

Wetland

Drainage

Stanislaus-Manteca #2 115kV

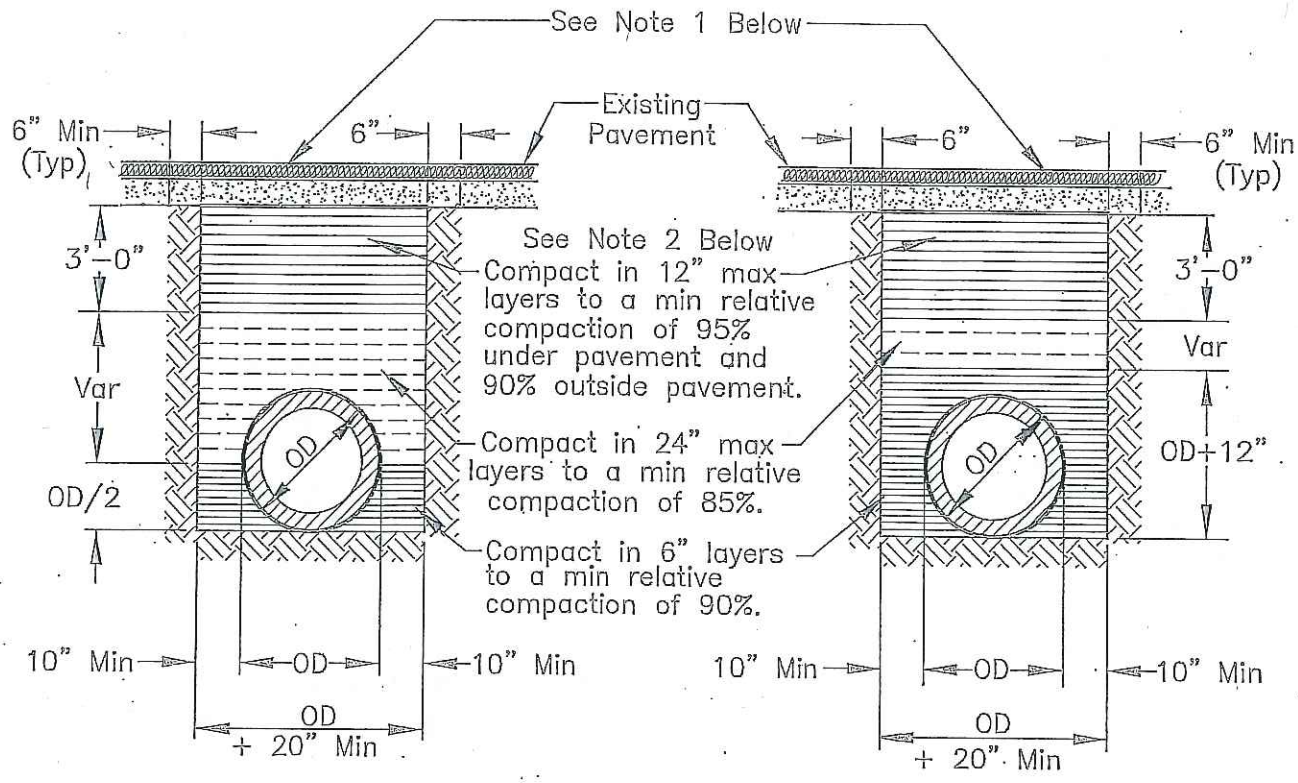
Structure 039/246

0 150 Feet

1 inch = 150 feet

URS

Attachment A: Location Maps



RIGID CONDUIT

FLEXIBLE CONDUIT

NOTES:

1. New pavement shall be 1" thicker than existing pavement, minimum of 0.25 Ft. New base shall be 1" thicker than existing base, min of 0.50 Ft.
2. Select native material or imported granular material as approved by the Director of Public Works. Backfill with materials equal to or better than the existing pavement and base in quality.
3. Relative compaction of materials shall be tested in accordance with the State of California, Dept. of Transportation Testing Manuals, test method No. California 216 or 231.
4. All existing pavement shall be neatly cut to line prior to trench excavation.
5. Jetting or ponding will be permitted within the street right-of-way with a 3 year bond, when approved by the Director of Public Works.
6. When shown by soil composition and compactability, ninety percent (90%) compaction may be used, when approved by the Director of Public Works.
7. Special bedding and backfill requirements may be shown on the plans or specified in the special provisions.

Public Works San Joaquin County

Working for YOU

TYIPCAL TRENCH BACKFILL

COUNTY OF SAN JOAQUIN
DEPARTMENT OF PUBLIC WORKS

Date: DEC 2014

Approved by: Thomas M. Flow

No.	Revision Description	Date

Std. Dwg. No. R-29

GENERAL PROVISIONS

)VERNING INSTALLATION OF SUBSURFACE STRUCTURES AND PIPELINES WITHIN COUNTY ROAD RIGHTS-OF-WAY

?UBLIC CONVENIENCE AND SAFETY:

A. Before obstructing any private driveway entrance or County road traveled way with a trench, spoil bank, equipment or other barrier permitted for any prolonged period of time, the Permittee shall notify the known users of the respective thoroughfare(s) involved, and shall provide access for vehicular and pedestrian traffic to and from the road.

1. Unless otherwise permitted, all work shall be conducted in such a manner that no less than one lane of the existing County road traveled way will be maintained open to public traffic during working hours in a smooth and safe riding condition(s). Two lanes shall be open after working hours.
2. In cases where road closure is permitted, the permission to close the road will be granted under the condition that the Permittee notify the following persons and/or agencies of the time, the period of closure, and the detour route at least twenty-four (24) hours prior to said road closure.
   a. The County of San Joaquin Public Works Department
   b. The County of San Joaquin Sheriff's Office
   c. The local postal service
   d. The local fire district
   e. The local school district
   f. The local residents involved

B. Should hazardous conditions relative to the installation operations warrant flagmen, as many capable flagmen as may be necessary shall be provided by the Permittee and stationed in advance of work to warn and direct traffic.

C. Lights, signs and barricades shall be furnished, erected and maintained by the Permittee for the adequate warning and convenience of the public, with particular attention to be taken in this regard after dark.

D. Any excess dirt and/or debris which might be a hazard to either automobile or pedestrian traffic, uncontrollable by lights, signs and barricades, shall be removed from the job site daily.

STRUCTURES:

A. Walls of structures shall be such quality and strength that they will resist all pressures and will not crack or be deformed in such a way as to create a hazard or maintenance problem at any time. Therefore, the minimum structural requirements for concrete pipe placed under County road rights-of-way shall conform to the following American Association of State Highway and Transportation Officials (AASHTO) designations.

1. For concrete pipe up to and including thirty-three inches (33") inside diameter, extra strength concrete pipe conforming to AASHTO Designation M 170M.
2. For concrete pipe thirty-six inches (36") inside diameter and larger, reinforced concrete pipe conforming to AASHTO designation M 170M Class III.
3. Plastic pipe conforming to AASHTO Designation M 294.

All concrete pipe joints within County road rights-of-way shall be sealed against leakage and/or infiltration with rubber gasket in conformance with ection 65-1.06 of the California Standard Specifications, or with other methods as may permitted under the Special Provisions.

Cast-in-place concrete pipe, vitrified clay pipe, spiral welded steel pipe, or corrugated aluminum alloy pipe shall not be installed within the County road ights-of-way unless specifically so stated in the Special Provisions, and only under the conditions as provided.

). All structures to be buried within the County road rights-of-way shall be set at such elevations as to allow minimum coverage of thirty inches (30") to e centerline of the roadways and twelve inches (12") at the bottoms of borrow ditches each side of the roadways. The depths of structures shall be established elow a flat plane extending across the rights-of-way, no part of which shall extend above the elevations stated above; manholes, lampholes, valves. etc. not ncluded. Future surface elevations shall be anticipated as nearly as possible and structure elevations shall be established for future adjustment accordingly.

The County hereby reserves the right to specify in the Special Provisions the gage and surface treatment of any galvanized corrugated metal pipe that is to e installed.

All longitudinal utility facilities are to be established (and dimensioned on sketches) from surveyed centerline of road right-of-way, not from right-of-way order) lines.

REPAIRS OF THE COUNTY RIGHT-OF-WAY:

All excavations shall be backfilled and compacted immediately after work therein has been completed.

Trenches shall not be left open farther than 300 feet in advance of pipe laying operations, or 200 feet to the rear thereof, unless otherwise permitted the Engineer.

Unless otherwise permitted under the Special Provisions, backfill shall be placed and mechanically compacted in such a manner that the relative mpaction throughout the entire fill within the County road right-of-way shall conform to the percentages of compaction as shown on the Trench Detail.

Backfill material shall be placed in horizontal uniform layers not to exceed in thickness, before compaction, 0.67 foot in the bedding region, one foot here 90% compaction is required, and two feet where 80% compaction is required.

No portion of the excavation(s) shall be compacted by ponding or jetting unless a maintenance bond is provided.

Gravel backfill material shall be utilized only where specifically so stated on the face of the permit. It shall be compacted by means of a high-frequency ternal vibrator, the compactor to be a size and type approved by the Engineer. Points of compaction shall be not greater than 18" centers and to the full pth of the lift.

All pavements, curbs, gutters, sidewalks, borrow ditches, pipes, head walls, road signs, trees, shrubbery, and/or other permanent road facilities paired by or as a result of construction operations at the construction site(s), or at other ground(s) occupied by materials and/or equipment, shall be tored immediately upon backfilling of the excavation to the original grades and cross sections, and to a condition as good as, or better than existing prior construction.

All surfacing materials of roadways and driveway approaches cut or damaged by or as a result of construction operations, shall be replaced within NE WEEK following the backfilling of excavation, weather permitting, with compacted layers of surfacing materials at least as thick as the existing, and no s than two inches(2") of asphalt concrete over six inches(6") of aggregate base, both as specified below.

1. Asphalt Concrete: Combined mineral aggregate shall conform to the quality and gradation requirements for Type "B" one-half (1/2") maximum aggregate, coarse or medium gradation, as specified in Section 39 of the California Standard Specifications. The bituminous binder to be mixed with mineral aggregate shall be paving asphalt having (Grade PG 64-10), unless otherwise directed by the Engineer. Placement of asphalt concrete surfacing shall conform to the applicable provisions of Section 39 of the California Standard Specifications.
2. Aggregate Base: Combined mineral aggregates shall conform to the quality and the grading for three-quarter inch (3/4") maximum size aggregate Class 2 Aggregate Base specified in Section 26 of the California Standard Specifications

Before acceptance of repairs to the County road rights-of-way, all unsightly and detrimental dirt, dust and/or debris shall be removed and the istruction areas left in a neat and presentable condition(s).

1. If necessary, County road traveled way and driveway pavements shall be washed with water to remove dirt and dust.
2. Driveway approaches and field entrance pavements damaged by equipment or spoil banks shall be repaired as directed by the Engineer.

Upon request by the County, any settlement, sagging of surface, or cracking of pavement shall be repaired immediately by and at the sole expense of Permittee for a period of one year following acceptance of the work.

SPECIAL PROVISIONS

Winter Weather Utility Work

1. **SUPERVISION:** The utility company (**permittee**) shall furnish full-time supervision of all work to insure full compliance with the permit provisions.

2. **START OF WORK:** No work within the County right-of-way shall be started until the utility company representative has made an evaluation of weather conditions and has determined the work can be accomplished under the provisions of the permit.

3. **CLEAN PAVEMENT:** Dirt and mud shall not be deposited on the pavement outside the area of work, and if inadvertently tracked onto the road travel way shall be removed immediately.

4. **DAILY RESTORATION:** Private driveways and road intersections shall be restored daily

5. **WEATHER-TIGHT CONDITION:** All trenches shall be filled and compacted, ditches an other drainage facilities regraded and opened, and the entire work area restored to weather-tight condition prior to any rain.