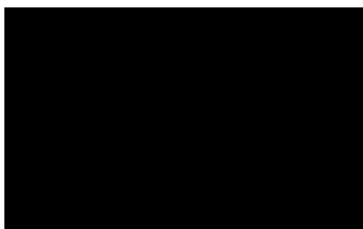




# PRE-SCOPING REPORT



COLORADO DEPARTMENT OF TRANSPORTATION

**Kiowa-Bennett Road over I-70 (Str. No. F-19-AF)**

**Bridge Enterprise Pre-Scoping Report**

Project No. MP R100-208

Code: 19928

June 5, 2014

**FINAL**

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## 1.0 Project Description

Colorado Bridge Enterprise (BE) was founded when Governor Bill Ritter signed into law Senate Bill 09-108; Funding Advancement for Surface Transportation and Economic Recovery (FASTER). Since then, the FASTER transportation bill has dedicated much needed funding to repair or replace Colorado's most deficient bridges across the state highway system. In addition to managing the bridge replacement program, BE was established to finance, repair, and replace bridges designated as structurally deficient or functionally obsolete, and rated as "poor" with a sufficiency rating less than 50.

The purpose of this project is to undertake pre-scoping activities to identify potential issues associated with the repair or replacement of three BE bridges in Region 1. Potential scoping issues typically include right-of-way (ROW), hydraulics, water quality, utilities, railroad, ditch companies, environmental, and local agency coordination. This report summarizes data gathering activities undertaken to determine impacts associated with future rehabilitation or replacement of Kiowa-Bennett Road over I-70 (Str. No. F-19-AF). A conceptual cost estimate, schedule, project delivery assessment, and ABC (Accelerated Bridge Construction) rating are also included for the replacement option. Similar information for York Street over I-270 and US36 over Draw is summarized in separate reports.

## 2.0 Site Description

The Kiowa-Bennett Road over I-70 bridge is located approximately 2 miles southeast of the Town of Bennett in eastern Adams County. The project site is bounded by Colfax Avenue (US 36) to the north, the interchange of Colfax Avenue and I-70 to the east, the Town of Kiowa to the south, and Kiowa Creek and I-70's interchange with Converse Road (State Highway 79) to the west. The interchange between I-70 and Kiowa-Bennett Road includes a single off-ramp from eastbound I-70. I-70 lies on the county line with Adams County to the north and Arapahoe County to the south. The area immediately surrounding the bridge is undeveloped farmland and private property.

The existing roadway is a two-lane rural arterial. The Kiowa-Bennett roadway approaches contain unprotected steep slopes on either side, and down to I-70 from the bridge abutments. The existing bridge is a four-span, 227-foot-long by 32-foot-wide bridge built in 1959. See Appendix A for a photo log of the site visit (conducted on January 10, 2014).

## 3.0 Survey Data/ROW

The bridge is located in the southwest  $\frac{1}{4}$  of Section 35, Township 3 South, Range 63 West, 6<sup>th</sup> Principal Meridian, Adams County, Colorado, and in the northwest  $\frac{1}{4}$  of Section 2, Township 4 South, Range 63 West, 6<sup>th</sup> Principal Meridian, Arapahoe County, Colorado. Approximate position of bridge: Latitude 39-44-17.19, Longitude 104-24-52.39.

Review of Colorado Department of Transportation (CDOT) Right-of-Way (ROW) plans and deposited land surveys from the Arapahoe County Clerk and Recorders and Adams County Clerk and Recorders Office indicates the Kiowa-Bennett road ROW width is 60 feet south of the interchange and 140 feet north of the interchange. The I-70 ROW width varies through the intersection. A summary of parcel ownership



is provided in Table 1 below. See Appendix B for CDOT ROW plans, Arapahoe County Assessor Maps, Adams County Assessor Maps, and parcel data. Note that there are numerous deeds related to the right of way indicated on the Arapahoe County assessor’s maps that can be retrieved at the Arapahoe County Clerk & Records office.

For a plan view of the approximate ROW delineation, see the Conceptual Layout in Appendix K.

**Table 1: Summary of Property Owners**

Location (Relative to Bridge)	Owner	Address	Parcel ID
Northeast	Cardon Family LLC	1819 East Southern Avenue, Suite B 10 Mesa, AZ 85204	0181535300002
Northwest	Joe & Mary Ann Calisto		0181534400002
Southwest	Peggy L Jacob	1099 South County Road 137 Bennett, CO 80102-8606	1981-00-0-00-258
Southeast	Ainsworth Lynda, Dennis J Malone & Barbara A Malone Living Trust 1/ 032494824 (032) Et Al	1200 County Road 137 (Physical Address) 8865 Star Valley Ct Las Vegas, NV 89123-3635	1981-00-0-00-209

Based on the conceptual layout of the bridge replacement option, one parcel will be affected. Parcel #1981-00-0-00-209 (Ainsworth) located in the Southeast quadrant of the intersection will require a partial acquisition.

To complete ROW clearances, additional work will include refinement of extent of permanent ROW purchases, extent of any temporary easements (if any), and a refined bridge layout. Based on the conceptual layout, the potential risk of ROW resulting in project delays and budget impacts is low.

#### 4.0 Utilities

Utilities within the project limits include an Eastern Slope Rural Telephone underground cable and an Intermountain Rural Electric Association (IREA) overhead electric line.

The Eastern Slope Rural Telephone cable runs along a fence at the toe of slope on the east side of Kiowa-Bennett Road and continues to the north and south of I-70. With a bridge replacement option, the proposed structure would get constructed just east of the existing bridge for construction phasing purposes. This will necessitate realigning the roadway approaches which will require additional embankment to be placed. This embankment would likely place additional cover over the Eastern Slope Rural Telephone cable and require relocation. For a bridge rehabilitation option, the Eastern Slope Rural Telephone line would likely not be impacted and would just need to be protected in place during



construction. Ample time should be accounted for in the design schedule to coordinate with Eastern Slope Rural Telephone prior to advertisement.

The IREA overhead electric line is located on the south side of I-70 and just south of the eastbound off-ramp intersection. This overhead electric line is not anticipated to be impacted as a result of the project; however, special care should be used during construction when using equipment with overhead reach (i.e. excavator, crane, etc.) near these lines. The overhead electric line should be evaluated as part of the overall constructability during final design.

There are two 3-inch conduits (one attached to each side of the bridge). Utility research suggests these conduits are not currently in use. However, these conduits should be replaced in-kind for future use with both the bridge rehabilitation and replacement options.

Based on the conceptual layout, utility clearances will require additional work during preliminary and final design. A refined grading plan in the area of the underground cable line will need to be completed to determine final impacts to the cable. Please refer to Appendix C for utility maps and contact information.

When a utility relocation is deemed necessary, all private utilities, except those in an easement, must relocate at their cost. Any public utilities, water, sanitary and storm sewer, are relocated at the cost to the project. A determination of utility relocations will be done during final design when a detailed project plan is developed and more accurate utility investigation and coordination is performed.

It is anticipated that the underground cable (fiber-optic line) will be impacted (requiring relocation) by embankment. It is not anticipated that the electric line will be impacted. It is not anticipated that utilities will result in project delays or budget impacts.

## 5.0 Hydraulics/Water Quality

### 5.1 Hydraulics

The Kiowa-Bennett overpass bridge does not convey a drainage way beneath the structure. The structure crosses I-70, which defines the county line, with the portion to the north falling within unincorporated Adams County and the south side within unincorporated Arapahoe County.

#### The Adams County contact is:

Eric Weis, P.E., CFM  
Senior Drainage Engineer  
Adams County Public Works/Engineering  
Adams County Government Center  
4430 S. Adams County Parkway, 1st Floor, Suite W2123, Brighton, CO 80601  
Office Phone: 720.523.6828, Fax: 720.523.6996  
Email: eweis@adcogov.org



**The Arapahoe County contacts are:**

Bryan Weimer:  
Transportation Division Manager  
Arapahoe County  
Lima Plaza  
6924 S. Lima St., Centennial, CO 80112  
Office Phone: 720-874-6500, Fax: 720-874-6611  
Email: [bweimer@arapahoegov.com](mailto:bweimer@arapahoegov.com)

or

Brian Love:  
Office Phone: 720-874-6500  
Email: [bllove@arapahoegov.com](mailto:bllove@arapahoegov.com)

There are drainageways directly east and west of the interchange. On the east is a tributary to Kiowa Creek which is conveyed under I-70 in a concrete box culvert. Directly to the west is Kiowa Creek, a Federal Emergency Management Agency (FEMA) regulated floodplain, which is conveyed under I-70 in a bridge structure.

The location of the Kiowa-Bennett overpass structure is east of the Kiowa Creek effective floodplain. See Appendix D for Flood Insurance Rate Map (FIRM) maps illustrating the floodplain proximity to the project location. No Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR) is anticipated to be required.

It is not anticipated that hydraulics or FEMA floodplains will result in project delays or budget impacts.

## 5.2 Water Quality

If the disturbed area is less than 1 acre, permanent water quality facilities would not be required. At this conceptual level it appears that the overall disturbance will be greater than one acre. CDOT, Arapahoe County, and Adams County requirements were verified for this pre-scoping report. Currently, this project lies outside of CDOT's MS-4 boundary (see Appendix D for location). Adams County also confirmed that their MS-4 requirements do not include the project area and that at this time they would not require permanent water quality facilities. Arapahoe County confirmed the same, but they would prefer permanent water quality facilities. Please refer to documented correspondence in Appendix D.

Should requirements change, the interchange has area within the project limits for permanent water quality facilities. However, it is not anticipated that water quality will result in project delays or significant budget impacts.

## 6.0 Ditches

Based on a review of aerial maps, there are no irrigation ditches within one mile of the bridge (see Appendix E for an aerial map showing the one-mile delineation). There are no irrigation ditch access



roads or irrigation ditch structures within the 1 mile limit. There are no existing agreements or easements in the project area. Therefore, no irrigation ditch impacts, agreements, or clearances are anticipated for this project.

## 7.0 Railroad

Federal Railroad Administration (FRA) maps confirm there are no railroads within one mile of the bridge (refer to Appendix F for a map showing the one-mile delineation). There are no railroad access roads or railroad drainage structures within the one-mile limit. There are no existing agreements or easements in the project area. Therefore, no railroad impacts, agreements, or clearances are anticipated for this project.

## 8.0 Traffic

The posted speed limit on I-70 within the project limits is 75 miles per hour (mph) and the posted speed limit on Kiowa-Bennett Road is 45 mph. I-70 consists of two 12-foot travel lanes with a 10-foot outside shoulder and four-foot inside shoulder in each direction and a 60-foot-wide grass median. Kiowa-Bennett Road consists of two 12-foot lanes with no paved shoulders approaching the bridge.

According to CDOT data, the 2012 Average Annual Daily Traffic (AADT) traffic volume on I-70 at the bridge is about 15,000 vehicles per day. Truck percentages on the freeway are about 20 percent west and east of Kiowa-Bennett Road. A traffic count collected in 2011 showed a daily traffic volume of 1,920 vehicles per day on Kiowa-Bennett Road south of I-70 with truck percentages at approximately four percent.

Kiowa-Bennett Road serves as a regional north-south connection through Arapahoe County south of I-70. The I-70/Kiowa-Bennett Road interchange is a partial interchange and only the Eastbound I-70 exit ramp movement is provided at Kiowa-Bennett Road with the Westbound I-70 entrance and exit ramp movements provided at Colfax Avenue (US 36), about one mile east of Kiowa-Bennett Road.

According to the *CDOT Region 1 Lane Closure Strategy – Third Edition (2012)*, a single-lane closure is acceptable along I-70 under the Kiowa-Bennett Road at any time. Due to the limited paved roadway network south of I-70, a detour for a bridge closure during construction would take some travelers 20 to 25 miles out-of-direction. Therefore, the bridge construction phasing should consider only short closures of Kiowa-Bennett Road, limited to night work for safety-critical activities. Long-term closure of Kiowa-Bennett Road for bridge construction is not anticipated. Refer to the Bridge Data section of this report for more information on phasing and construction requirements.

It is not anticipated that lane closure policies at this site will result in project delays or budget impacts.



## 8.1 Standard Cross-Section

According to the *Arapahoe County 2035 Transportation Plan*, the standard cross-section for Kiowa-Bennett Road as a Two-Lane Rural Arterial includes two 14-foot travel lanes with six-foot shoulders. This typical cross-section is illustrated in Figure 1.

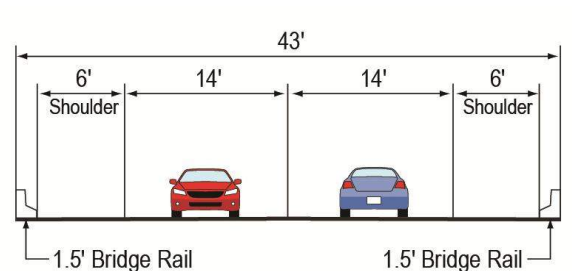


Figure 1: Kiowa-Bennett Road Typical Cross Section

## 9.0 Third Party Requirements

The Kiowa-Bennett Road over I-70 bridge project area is located within three local agency jurisdictions. The area north of I-70 is in Adams County. The area south of I-70 is in Arapahoe County. The Kiowa-Bennett Road roadway envelope is within Town of Bennett. The current local agency contacts are provided below.

### Town of Bennett

Dave Ruble Jr., Transportation Planning (DB Enterprise – Town transportation consultant)

Office Phone: 720-231-1947

Email: [Druble.jr@comcast.net](mailto:Druble.jr@comcast.net)

or

Trish Stiles, Town Administrator (Interim)

355 4th Street

Bennett, CO 80102

Office Phone: 303-644-3249 ext. 1009

Email: [tstiles@bennett.co.us](mailto:tstiles@bennett.co.us)

### Adams County

Jeanne Shreve, Transportation Coordinator

Adams County Government Center

4430 S. Adams County Parkway

Brighton, CO 80601

Office Phone: 720-523-6847

Email: [jshreve@adcogov.org](mailto:jshreve@adcogov.org)

### Arapahoe County:

Bryan Weimer, Transportation Division Manager

Lima Plaza

6924 S. Lima Street

Centennial, CO 80112

Office Phone: 720-874-6500  
Email: [bweimer@arapahoegov.com](mailto:bweimer@arapahoegov.com)  
or  
Brian Love:  
Office Phone: 720-874-6500  
Email: [bllove@arapahoegov.com](mailto:bllove@arapahoegov.com)

These local agency representatives were contacted to describe the potential CDOT bridge project and to identify the associated local permit requirements, adjacent local projects or planning efforts that may impact the bridge design, and opportunities for local agency participation in bridge enhancements. The following meetings were held:

- Arapahoe County – February 10, 2014
- Adams County – March 11, 2014
- Town of Bennett – April 8, 2014

Notes from each of the meetings are included in Appendix G.

## 9.1 Existing Studies

The following planning documents were reviewed to identify existing conditions and future planning efforts for the bridge area:

- *SH 79 and Kiowa-Bennett Corridor PEL Study* (2013)
- *Town of Bennett Comprehensive Plan* (2012)
- *Town of Bennett Downtown Planning Study* (2010)
- *Bennett Regional Trail Plan* (2011)
- *Adams County Transportation Plan* (2012)
- *Arapahoe County 2035 Transportation Plan* (2010)
- *I-70 Corridor Economic Assessment* (2011)
- *2035 Statewide Transportation Plan Amendment* (2011)
- *2035 Metro Vision Regional Transportation Plan* (2011)

Relevant information from each study is described below. There is currently no funded plan for widening I-70 or Kiowa-Bennett Road within the project area. However, several studies identify improvements at the Kiowa-Bennett Road and I-70 interchange, which would affect the cross-section for the Kiowa-Bennett Road bridge over I-70.

### **SH 79 and Kiowa-Bennett Corridor PEL Study (2013)**

The most recent and directly relevant planning effort for the bridge area is the *SH 79 and Kiowa-Bennett Corridor PEL Study*, which was completed in November 2013. The study was sponsored by the Town of Bennett, Adams County, Arapahoe County, and CDOT. The study Technical Advisory Committee included representatives from Town of Bennett, Adams County, Arapahoe County, CDOT, Denver Regional Council of Governments (DRCOG), and Federal Highway Administration (FHWA). The study recommendations include interchange reconstruction at the

Kiowa-Bennett Road and I-70 interchange to provide ramps for all movements on and off the freeway to access Kiowa-Bennett Road, as well as transportation improvements at other locations in the Bennett area. The study documentation is posted on the CDOT website at: <http://www.coloradodot.info/library/studies/sh79pel>.

#### **Town of Bennett Comprehensive Plan (2012)**

The *Town of Bennett Comprehensive Plan* was adopted in January 2012. The plan identifies a 91.4 square mile “Area of Planning Interest” which includes the Kiowa-Bennett Road and I-70 interchange. Improvements to the existing interchange are identified as a key recommendation within the plan.

#### **Town of Bennett Downtown Planning Study (2010)**

The *Town of Bennett Downtown Planning Study* was completed in December 2010. The Town of Bennett initiated the study in order to “analyze and explore future possibilities for the historic center of Bennett.” Analysis and recommendations within the study do not include the Kiowa-Bennett Road and I-70 interchange.

#### **Bennett Regional Trail Plan (2011)**

The *Bennett Regional Trail Plan* was completed in January 2011. The plan was developed with the goal of identifying a trail network system that would provide transportation alternatives connecting important origins and destinations via greenway trails, bike routes and on-street bike lanes. The regional trail planning area includes the Kiowa-Bennett Road and I-70 interchange. The proposed regional trail network includes the on-street Kiowa-Bennett Bike Route which would follow Kiowa-Bennett Road through the I-70 interchange. The plan defines a bike route as having signage and a six-foot paved road shoulder.

#### **Adams County Transportation Plan (2012)**

The *Adams County Transportation Plan* was adopted in December 2012. The plan serves as an update to the multi-modal transportation plan of 1996 and attempts to guide transportation expansion and upgrades through the year 2035. SH 79/Kiowa-Bennett Road through Adams County is identified as a strategic corridor in the plan. The plan states that roadway alignments and classifications for SH 79 and Kiowa-Bennett Road at the southern end of the county are to be determined by the *SH 79 and Kiowa-Bennett Corridor PEL Study*. The Kiowa-Bennett Road and I-70 interchange is not specifically mentioned in the plan.

#### **Arapahoe County 2035 Transportation Plan (2010)**

The *Arapahoe County 2035 Transportation Plan* was adopted in December 2010. The plan builds upon the previous 2020 Transportation Plan to create an updated vision for a multimodal transportation system that addresses the County’s growth through 2035. The plan states that Kiowa-Bennett Road serves as a regional north-south connection with needed improvements in connectivity to I-70 and SH 79. The plan suggests a full interchange at the Kiowa-Bennett Road and I-70 interchange would improve regional connectivity and reduce out-of-direction travel.

### **I-70 Corridor Economic Assessment (2011)**

The *I-70 Corridor Economic Assessment* was completed in April 2011. The purpose of the report is to encourage communities along the eastern I-70 corridor to work collaboratively toward reaching shared economic goals and to assist the communities in sustaining good economic growth while attracting desirable development. The report mentions the development of the *Arapahoe County 2035 Transportation Plan* and the consideration of improvements to the Kiowa-Bennett and I-70 interchange within the plan.

### **2035 Statewide Transportation Plan Amendment (2011)**

The CDOT *2035 Statewide Transportation Plan Amendment*, completed in May 2011, is a supplement to the *2035 Statewide Transportation Plan "Moving Colorado: Vision for the Future"* (2035 Plan). The supplement was developed in order to maintain consistency with regional planning processes and to serve as a bridge between the 2035 Plan and the next update expected in 2015. The plan identifies visions for transportation corridors throughout the state, balancing local, regional, and statewide needs. SH 79 is identified in the plan as a Rural Plains Road. Future improvements to Rural Plains Roads will primarily maintain system quality while improving safety and mobility. The vision for I-70 east of E-470, referred to as the I-70 Plains Corridor, is to serve regional and statewide trips with future improvements primarily to increasing mobility while maintaining system quality and increasing safety. The plan does not specifically mention improvements to the Kiowa-Bennett Road and I-70 interchange.

### **2035 Metro Vision Regional Transportation Plan (2011)**

The Denver Regional Council of Governments (DRCOG) adopted the *2035 Metro Vision Regional Transportation Plan (2035 MVRTP)* in 2011. 2035 MVRTP is an element of the overall *Metro Vision 2035 Plan (Metro Vision)* and guides the development of the region's multimodal transportation system over the next 25 years. The 2035 MVRTP identifies I-70 from E-470 to the Elbert County line as a key multimodal corridor. The corridor's vision includes reconstruction of the Kiowa-Bennett and I-70 interchange, although it does not include widening of I-70.

The *Fiscally Constrained Regional Transportation Plan (RTP)* does not include any improvements to the Kiowa-Bennett Road and I-70 interchange.

## **9.2 Local Projects and Planning Efforts**

Based on the recommendation in the *SH 79 and Kiowa-Bennett Corridor PEL Study* for a full interchange at the Kiowa-Bennett and I-70 interchange, the Town of Bennett is interested in having any bridge reconstruction include the widening to accommodate the future interchange. The Town has a desired cross-section through the interchange that includes two 12-foot travel lanes, a 12-foot turn lane for the ramps, 5-foot bike lanes, and 6-foot sidewalks. The Town of Bennett representative stated that the Town would like to be informed of the additional costs for the desired cross-section so that they may consider participating in a CDOT bridge project with additional funding. The Town would also like the opportunity to participate in architectural enhancements for the bridge to provide a Town gateway along I-70.



The Town of Bennett is also planning a new trail along Kiowa-Bennett Road south of I-70. The trail will stay within existing Town and CDOT right-of-way with the alignment crossing Kiowa-Bennett Road south of I-70 and following inside the fence line along the south side of I-70 to cross under the freeway at Kiowa Creek. The trail alignment is planned, but the trail is unfunded at this time. The Kiowa-Bennett Trail will not impact the cross-section of the bridge over I-70, but the most current alignment and status of construction should be considered with the bridge design since it is planned within the existing right-of-way.

Arapahoe County representatives stated that the County would participate in construction of the ramps and bridge needs related to a new interchange. They also noted that CDOT would realize a regional benefit through better utilization of SH 79 and a delay to the need for improvements at the Converse Road and I-70 interchange.

Arapahoe County has a placeholder for the new interchange funding in the County Capital Improvement Plan (CIP). However, cost-sharing for the interchange project between Adams County, Arapahoe County, CDOT, and the Town of Bennett has not been discussed. Arapahoe County wants to stay informed about CDOT's programmed schedule for the bridge replacement/reconstruction so they can proactively move forward with the full interchange clearances, such as the CDOT Policy Directive 1601 – Requests for Interchange Access and Modifications to Existing Interchanges on the State Highway System, Interchange Interstate Access Request (IAR), and NEPA process.

Transportation improvements in the Bennett area are the top priority for Adams County in the east/rural portion of the County. As far as which transportation improvement recommendations in the area move forward first (the new Kiowa-Bennett interchange or others that would not involve this bridge), the County supports the priorities of the Town of Bennett. Adams County will prioritize requests for funding based on the Town's project priorities.

Adams County would like to work with CDOT to build the ultimate desired bridge and not assume in-kind replacement. More study is needed to identify what should be included on the bridge, so the County wants to stay informed about CDOT's schedule for the bridge project.

### **9.3 Local Permits**

Representatives from the Town of Bennett, Arapahoe County, and Adams County indicated that there would be local construction permits for a bridge project, including traffic control and/or identification of potential detours. At this time, no other permit requirements are anticipated for bridge construction.

### **9.4 Intergovernmental Agreements (IGAs)**

At this time, there are no IGAs related to the facilities or the area surrounding the Kiowa-Bennett Road and I-70 interchange.



## 10.0 Environmental

During this pre-scoping phase of the project, environmental resources were identified and evaluated at a high level for bridge F-19-AF and the immediate surrounding area. A site visit, desktop review of available information, and COMPASS database search were conducted. Based on the findings, resources of concern and next step action items were identified and summarized below.

The findings are also documented in an Environmental Review Form that includes a photographic log which can be found in Appendix H.

- The bridge was constructed in 1959; therefore, it is potentially eligible for listing on the National Register of Historic Places (NRHP) based on year of construction. However, I-70 and features on the interstate, including bridges, are excluded from review under Section 106. Review of assessors information is recommended to determine if adjacent potentially impacted parcels are 50 years or older. Identification of parcels 50 years or older that could be impacted by the project would require a Cultural Resources Survey for the project area.
- Archeological and paleontological research and potential surveys are recommended since ground surface would be impacted.
- Based on nearby habitat, multiple swallow nests were observed under the bridge deck, and a raptors nest was observed within 100 feet of the bridge. Coordination with US Fish and Wildlife Service (USFWS) and Colorado Department of Parks and Wildlife (CPW) is recommended. A pre-construction nesting survey and nest removal (from the bridge) is recommended if construction occurs during migratory bird/raptor nesting season.
- If the vertical alignment is proposed to be altered by five feet or greater, a visual site assessment is recommended.
- Other recommendations include development of a Noxious Weed Plan, Materials Management Plan, Health and Safety Plan, and Stormwater Management Plan as well as obtainment of a Colorado Discharge System Permit (CDSP) prior to construction.

If the adjacent raptor nest is occupied (by a raptor) during construction or any nesting raptors occur within the buffer area, then CPW "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors" guidelines should be followed which may result in project delays and budget impacts.

## 11.0 Bridge Data

### 11.1 Existing Structure Conditions

The existing bridge is a four-span, cast-in-place reinforced concrete girder structure. The piers are concrete columns on steel piles with a pile cap. The abutments are integral abutments on steel piles. The total length of the bridge is 228 feet from backface abutment to backface abutment and the bridge width is 32 feet out-to-out. The structure is Structurally Deficient with a sufficiency rating of 46.8 from the 2013 inspection report (See Appendix I for inspection reports and as-built plans).

Based on the site visit and inspection report, the major items lowering the capacity and sufficiency rating of the bridge include the following: deck condition, girder capacity, and roadway width. The deck is in poor condition with concrete spalls, efflorescence, exposed and corroded reinforcing, and rust stains throughout the structure. The girders have a few spalls with exposed reinforcing, but are overall in good condition. The girders have an Inventory Load Rating of 25 tons based on a Load Factor Rating. The site visit did not note any spalls due to impact from trucks over the travel lanes of I-70, which supports the vertical clearance in the inspection report. The columns appear to be in good condition except for a few areas that have been recently repaired. The abutments appear to be in good condition. The north abutment appears to have water running under the abutment cap and causing erosion of the slope.

The roadway width is 28 feet on the structure and 24 feet on the approaches, according to the inspection report. Based on the *SH79 & Kiowa-Bennett Corridor PEL Report*, the proposed roadway width is 48 feet to accommodate a turn lane for new interchange ramps. See Figure 1 for a diagram of the typical roadway section for Kiowa-Bennett Road without the interchange turn lanes.

### 11.2 Rehabilitation Alternative

The rehabilitation alternative includes the replacement of the deck, girders, and compression joint at the abutments. Additionally, the structure will need to be widened to accommodate the wider shoulders required by current roadway design standards. Slope and ditch paving will need to be added to protect the embankment slopes under the bridge. Repairs to the structure include removing the approach fill and replacing with mechanically reinforced backfill with under-drains and approach slabs to prevent water from draining under the abutment cap. See Appendix J for calculations of the existing sufficiency rating and the sufficiency rating after rehabilitation.

### 11.3 Replacement Alternative

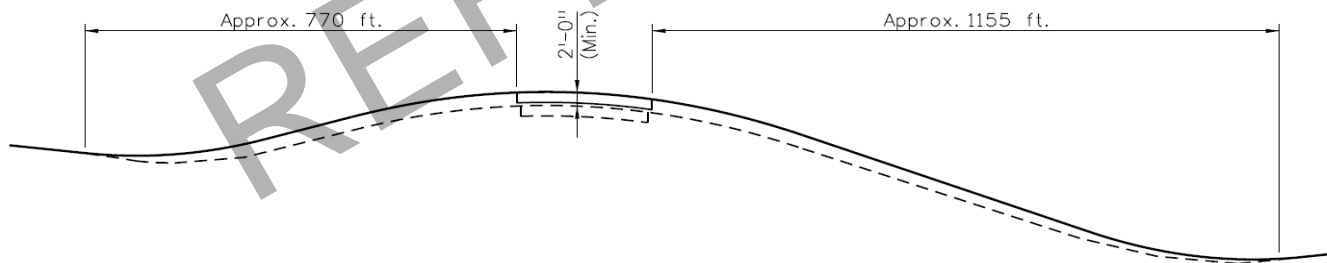
CDOT bridges replaced with BE funding are generally replaced "in-kind." While this includes upgrades to bring the roadway design up to current design standards, it does not include improvements for new sidewalks, architectural treatments, or increased bridge width for ultimate conditions. If such enhancements are desired by local agencies, they may be incorporated into the project through an IGA. Therefore, the conceptual layout of the proposed replacement structure for Kiowa-Bennett Road over I-70 (included in this report) is based on the assumption that no additional funding will be provided to lengthen or widen the structure to accommodate possible future needs.

The proposed replacement structure is a two-span bridge with the abutments located approximately 5 feet behind the existing abutments with a total bridge length of 240 feet (centerline of abutment to centerline of abutment). The proposed bridge width accommodates two 14-ft lanes, two 6-ft shoulders, and two 1-ft, 6-in bridge rails for a total width of 43 feet (see

Figure 1). The proposed conceptual layout is a two-span structure with spans of 120 feet. See Appendix K for a conceptual layout of the structure.

Phasing options were investigated as part of this project to determine impacts to ROW resulting from shifts in the centerline to accommodate phasing. ROW impacts will likely be minimal if a centerline shift occurs. In order to minimize traffic control costs and the construction schedule, the proposed conceptual bridge layout is set completely east of the existing bridge. The roadway is shifted east using curves with a 4 percent superelevation to the south and just north of the bridge allowing for easy exit ramp tie in and no superelevation across the bridge. If not realigned, the existing exit ramp will tie into Kiowa-Bennett inside of the bridge approach curve, but the skew angle of the intersection will be improved slightly. A 6 percent superelevation was utilized on the most northern curve to tie into existing within the ROW.

The structure depth for the conceptual design was determined by using AASHTO Table 2.5.2.6.3-1 (American Association of State Highway Transportation Officials Load and Resistance Factor Design Bridge Design Specifications 6<sup>th</sup> Edition with 2013 Interim Revisions). Assuming the structure will utilize standard Colorado pre-stressed bulb-tee girder depths and the girders are designed as simple span, the minimum structure depth is  $0.045L$  or a depth of 64.8 inches. Assuming an 8-inch deck, a 63-inch-deep bulb-tee girder is required. Therefore, the structure depth accommodates 63 inches for the girder, 4 inches of haunch, 8 inches of deck, and 3 inches of asphalt for a total structure depth of 6 feet 6 inches. The existing structure depth varies from 2 ft 8 in to 5 ft 2 in, based on the as-built plans. Based on the data available at the time of this project, the profile will need to be raised approximately 2 feet to accommodate the structure depth. See Figure 2 below for a conceptual vertical profile diagram.



**Figure 2: Conceptual Vertical Profile Diagram**

For an aerial map with the conceptual layout, please refer to Appendix K.

### 11.4 Rehabilitation versus Replacement

A Life Cycle Cost Analysis (LCCA) was performed for both the Rehabilitation and Replacement Alternatives (See Appendix L for the calculations). The parameters below were used to complete the analysis.

#### LCCA Parameters

Inflation Rate (I):	3%
Analysis Period:	100 years, the design service life of the bridge





Base Year: 2015  
Maintenance Item Costs: CDOT Cost Data Books

### LCCA Assumptions

Below is a list of assumptions that went into the LCCA. Our assumptions deviate slightly from the scope of work and were based upon discussions with CDOT Staff Bridge.

- Assumed that the design service life of a bridge with effective and timely preventative maintenance is 100 years.
- Assumed rehabilitation of the existing bridge will allow for the structure (with effective and timely preventative maintenance) to remain in service an additional 35 years.
- The rehabilitation alternative includes the cost to replace the bridge in 35 years and to provide preventative maintenance for an additional 65 years to match the total length of 100 years for the replacement option.
- Compared only cost to replace or rehabilitate bridge and user costs. Additional project costs were not considered as they do not affect the life span of the structure nor are additional costs the same or similar between the replacement and rehabilitation alternatives. User costs were assumed to be the user costs calculated as part of the ABC rating (see below). The user costs for traditional construction was used for the replacement alternative and ABC alternative #2 user costs were used for the rehabilitation alternative.

### LCCA Results Summary

Results from the LCCA indicate that it will cost approximately \$94,000 to maintain this bridge each year if it were rehabilitated. Over a 100-year design life, this will amount to approximately \$9.4 million. Conversely, if the bridge were replaced, conceptual cost estimates indicate approximately \$1.3 million for initial construction and a total approximate maintenance cost (over 100 years) of \$6.1 million. Given the higher cost for rehabilitation, our recommendation is for a full bridge replacement.

## **11.5 Accelerated Bridge Construction (ABC) Rating**

An ABC Rating was performed for the replacement alternative resulting in a score of 55. See Appendix M for the ABC Rating calculations. Based on the ABC Rating flow chart, a score of 55 warrants further investigation of the use of ABC based on site and project constraints. Given the conceptual cost estimate, traditional construction provides the lowest total project cost. Furthermore, the site has room to shift the alignment to either side of existing to construct the new bridge next to the old bridge without phasing the structure. A profile shift of approximately 2 feet also reduces the feasibility of implementing ABC techniques. Therefore, at this time, it is not recommended that major ABC techniques, such as slide-in or roll-in, be used for the construction of the replacement bridge. Minor ABC techniques such as GRS abutments, precast elements, and adjacent girders are a possibility to be explored further during preliminary and final design.



## 11.6 Conceptual Design Recommendations

Based on the Life Cycle Cost Analysis, and existing site constraints, it is recommended that the structure be replaced. The rehabilitation alternative was removed from consideration due to higher cost. The replacement is a two-span structure with spans of 120 feet each.

## 11.7 Structure Selection Report

There are no additional or unusual efforts anticipated for the creation of the structure selection report.

## 12.0 Design Criteria

The Design Criteria in Appendix P is the criteria used for this project and will be developed during preliminary design in conjunction with CDOT Form 463. The criteria shall be coordinated with the CDOT/PM prior to starting preliminary design.

## 13.0 Maintenance

CDOT maintenance personnel were contacted. See Appendix I for their responses to the questionnaire sent to maintenance personnel.

The project team was unable to contact the Resident Engineer (RE) for this bridge.

## 14.0 Cost Estimate

A conceptual cost estimate for the bridge replacement alternative is included in Appendix N. The estimate includes estimated costs for ROW, utilities, design, and construction.

Estimates were based upon the following assumptions:

- Assumed roadway pavement section per CDOT standard templates with 5 inches of Hot Mix Asphalt (HMA) and 6 inches of Aggregate Base Course (ABC). Preliminary design shall investigate soil properties and traffic counts to determine necessary asphalt and ABC thicknesses.
- Assumed 5% for additional remaining pavement items not included as major construction items.
- Assumed \$130 per square foot for bridge construction cost.
- Assumed approximate average cost for each Category of items B-1 through C-2 based on Historic CDOT Project costs for Region 1 Bridge Replacement projects. Reduced percentages for some items based on conceptual layout. Assumed 15% for Minor Contract Revisions.
- Assumed Design Engineering as 12% and Construction Engineering as 22.1% of Bid Construction Items.
- Assumed Utilities as 4% of Total Project Design and Construction Cost.
- Assumed ROW cost of \$0.25 per square foot based on coordination with CDOT ROW.
- Assumed a Contingency of 15% for items D1, D2, E1, and E2.

Estimated Project Cost is \$6.7 million (in current dollars).

## 15.0 Schedule

A design schedule was created for the replacement of Kiowa-Bennett Road over I-70 and is included in Appendix O. An overall schedule of the three bridges was not included as funding and possible project initiation is unclear. Therefore, the bridge enterprise prioritization scoring was included to provide guidance on an overall schedule of the three structures included as part of this project (see Appendix Q for the Prioritization Plan and score for the Kiowa-Bennett over I-70 bridge). For purposes of the conceptual design schedule for the Kiowa-Bennett Road over I-70 structure, it was assumed the project initiation occurs on June 1, 2014. A construction schedule was not created as part of this report due to the unknowns at this time and the conceptual nature of this report.

## 16.0 Project Delivery

A review of the Project Delivery Selection Matrix and the input required to complete the matrix was completed as part of this project. Refer to the list below for items to be considered during the investigation of project delivery.

### Delivery Schedule:

- No funding is in place, therefore there is no restriction on schedule due to funding.
- Project may contain improvements to the interchange. If interchange improvements are to be part of project, further analysis and permits are required which will delay the start of the project.
- Multiple third parties involved which may delay schedule as additional time may be required for approvals and clearances.

### Project Complexity & Innovation:

- Bridge replacement project is of low complexity and provides low advantages for innovation.
- Interchange improvements may provide complexity and advantages for innovation if part of project.

### Level of Design:

- Project is currently at a conceptual level of design. Design-Build procurement requires further design before procurement. Design procurement for Design-Bid-Build and CM/GC delivery methods do not require further design.

### Cost:

- Funding will need to be acquired before impacts of cost to delivery method can be determined.
- Bridge replacement project favors design-bid-build due to construction cost.
- If part of an interchange project, cost would rise significantly, favoring alternative delivery methods.

**Risk Assessment:**

- Bridge replacement project contains minimal risk as there are few utilities in the area, no railroads or ditches present, and the project has minimal ROW impacts.
- If interchange improvements are added to the project, risk grows as an interchange improvement will require additional funding, ROW, and third party involvement.
- Multiple third parties may delay schedule and impact budget providing additional risk.

At a conceptual level, project favors Design-Bid-Build delivery method. If project becomes part of larger interchange project, alternative delivery methods would be favored.

**17.0 Summary**

Based on the findings during this pre-scoping investigation of the Kiowa-Bennett Road over I-70 bridge project, there are some potential issues that may impact schedule and cost of the project. Refer to Table 2 below for a summary of potential schedule or budget impacts and risk assessment.

**Table 2: Summary of Potential Schedule or Budget Impacts**

<b>Discipline</b>	<b>Potential Schedule or Budget Impacts</b>	<b>Risk Assessment</b>
Right-of-Way	It is anticipated that permanent ROW will be required at this site on the south side of the bridge. Based on the conceptual layout, the impacts to ROW are minimal.	Low
Utilities	It is anticipated that the underground cable (fiber-optic line) will be impacted by embankment and the empty conduits may need to be replaced on the proposed structure. It is not anticipated that the electric line will be impacted.	Low
Hydraulics/ Water Quality	The Kiowa-Bennett Road bridge does not convey a drainage way underneath the structure. Based on the information available at this time, permanent water quality facilities will be required as the project is greater than 1 acre. However, the interchange has area within the project limits for permanent water quality facilities.	Low
Ditches	No ditches within 1 mile of bridge. No clearances by an irrigation ditch anticipated.	Low
Railroad	No railroads within 1 mile of bridge. No clearances by a railroad anticipated.	Low
Traffic	Lane closure polices, such as full closures of Kiowa-Bennett Road or I-70 only at night, are not anticipated to result in project delays or budget impacts.	Low
Third Party Involvement	There are multiple local agencies involved at this site (Arapahoe County, Adams County, and City of Bennett). These entities have completed a PEL study in the area and agree on the recommendations. However, due to the number of agencies involved and the necessary coordination for timing of the implementation of the PEL recommendations, there is potential for moderate project delays.	Moderate



Environmental	Potential raptor nest in project area may result in project delays. Other environmental resources are not anticipated to result in substantial project delays.	Low
Structural	The structure conceptual layout is a low complexity structure with a simple phasing scheme; therefore, project delays are not anticipated. Potential for ABC techniques such as precast elements or GRS abutments may be further explored during preliminary and final design which may aid project schedule.	Low

REFERENCE



**Appendix A**  
**Site Visit Photo Log**

REFERENCE



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, IGP, Swisstopo, and the GIS User Community

NORTH  
NTS  
→

DENVER  
↑

LIMON  
↓

KIOWA  
←

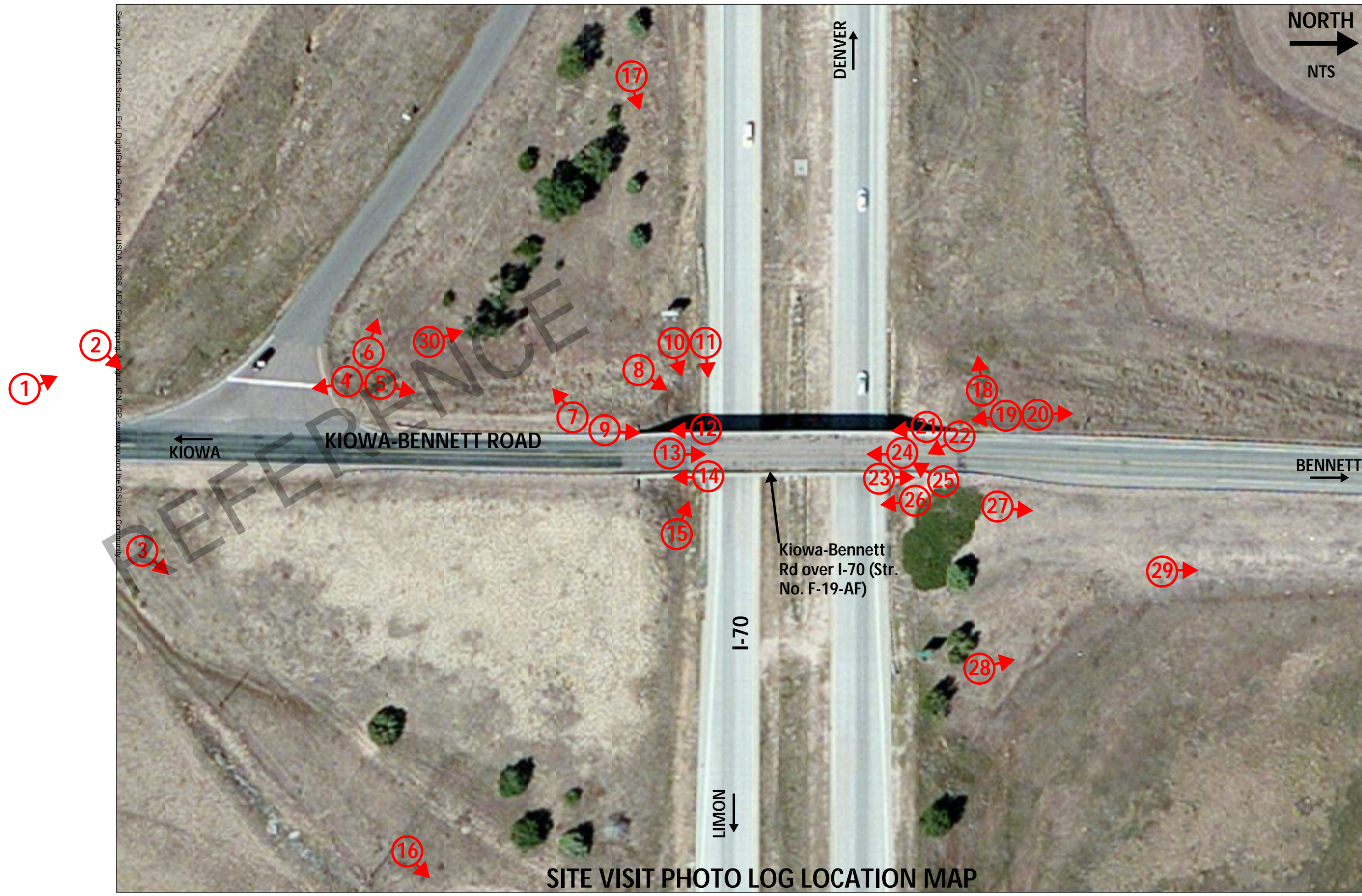
BENNETT  
→

KIOWA-BENNETT ROAD

Kiowa-Bennett Rd over I-70 (Str. No. F-19-AF)

I-70

SITE VISIT PHOTO LOG LOCATION MAP



**Site Visit Photo Log**



**Photo 1**

Looking North at electric line and fiber optic line posts southwest of bridge



**Photo 2**

Looking Northeast at electric line to light post southwest of bridge





**Photo 3**

Looking Northeast at electric line and fiber optic post southwest of bridge



**Photo 4**

Looking South along Kiowa-Bennett Road at electric lines along roadway, south of bridge



**Photo 5**

Looking North along Kiowa-Bennett Road at south roadway approach



**Photo 6**

Looking West along I-70 Eastbound off-ramp



**Photo 7**

Looking Southwest at Raptor nest in gore area southwest of bridge



**Photo 8**

Looking Northeast at existing bridge



**Photo 9**

Looking North at driving surface on bridge



**Photo 10**

Looking East at Pier 2 (South Pier)



**Photo 11**

Looking East at Pier 2 (South Pier) West Column and at guardrail around Pier 2 and 5



**Photo 12**

Looking South at Abutment 1, conduit on west deck overhang, and fill slopes under bridge



**Photo 13**

Looking North at girders and deck soffit



**Photo 14**

Looking South at Abutment 1, conduit on east deck overhang, and fill slopes under bridge



**Photo 15**

Looking West at Pier 2 (South Pier) and concrete spall on east exterior girder



**Photo 16**

Looking Northeast at drainage ditch southeast of bridge and culvert under I-70 east of bridge



**Photo 17**  
Looking East at bridge



**Photo 18**  
Looking West along I-70 with Kiowa Creek in the distance





**Photo 19**

Looking Southeast at bridge



**Photo 20**

Looking North along Kiowa-Bennett Road at north approach roadway slope



**Photo 21**

Looking South at driving surface on bridge



**Photo 22**

Looking Southeast at swallow nest attached to girder and deck



**Photo 23**

Looking North at Abutment 3, conduit on east deck overhang, fill slope under bridge and slope erosion



**Photo 24**

Looking South at girders and deck soffit



**Photo 25**

Looking Southwest at column spall repair on Pier 4 (North Pier)



**Photo 26**

Looking South at bridge and guardrail transitions around piers



**Photo 27**

Looking North at north approach roadway slopes



**Photo 28**

Looking Northwest at north approach roadway fill



**Photo 29**

Looking North along Kiowa-Bennett Road at existing fence and fiber optic line marker



**Photo 30**

View of raptor nest located approximately 100 feet southwest of existing bridge

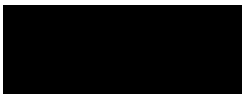
**Appendix B**  
**Parcel Ownership and Right-of-Way Maps**

REFERENCE



REFERENCE

**CDOT Right-of-Way Plans**





Watkins & Bennett

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	I 095-1(2)	1	1

RIGHT OF WAY Rbv. 5-15-58 R.E.C. 7-9-73 Add 4GA to Index of sheets K.C.

# COLORADO DEPARTMENT OF HIGHWAYS

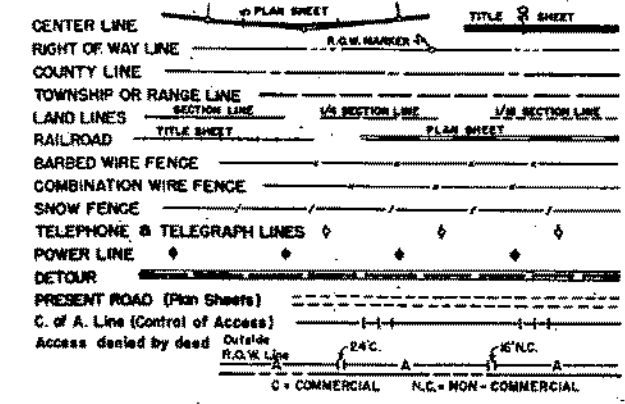
## PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. I 095-1(2) STATE HIGHWAY NO. 8 ADAMS & ARAPAHOE COUNTIES RIGHT OF WAY

(Survey No. CS 10-0008-14)

### INDEX OF SHEETS

- SHEET NO. 1 Title Sheet
- 2 thru. 2-C Tabulation Sheets
- 3 thru. 33 Plan & Profile Sheets
- 34 thru. 46A Ownership Map

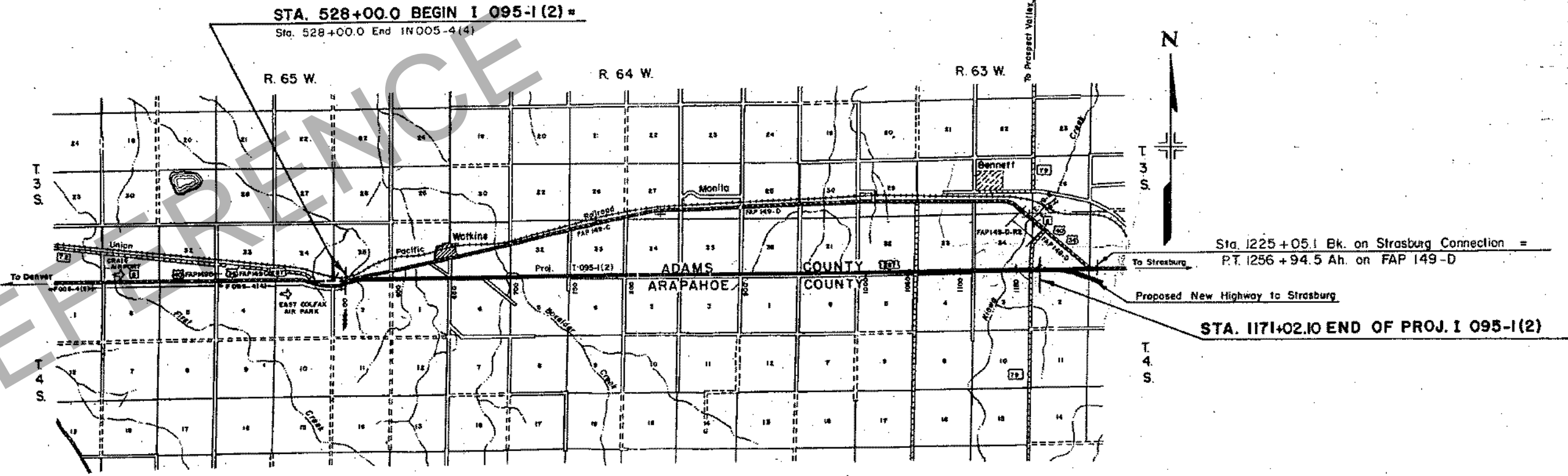
### CONVENTIONAL SIGNS



### SCALES OF ORIGINAL DRAWINGS

ON PLAN, 1 IN. = 100 FT.  
 ON PROFILE, 1 IN. = 100 FT. HORIZONTAL  
 1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD  
 GROSS LENGTH OF PROJECT  
 NET LENGTH OF PROJECT



Sta. 1225+05.1 Bk. on Strasburg Connection =  
 P.T. 1256+94.5 Ah. on FAP 149-D

STA. 1171+02.10 END OF PROJ. I 095-1(2)



R. O. W. TABULATION OF PROPERTIES IN ADAMS & ARAPAHOE COUNTIES S. H. No. 8 PROJ. I 095-1(2)

Rev. 3-25-58 F.C.M.		Rev. 11-20-58 Deleted 7A F.C.M.	
FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.
9	COLORADO	I 095-1(2)	2
RIGHT OF WAY			Rev. 5-29-58 R.E.C. Rev. 10-14-58 20 Rev. R.E.C.

PARCEL NO.	OWNER	ADDRESS	LOCATION	AREA IN ACRES		REMARKS	NO.
				PARCEL	TO BE ACQUIRED		
			ARAPAHOE COUNTY				
			T. 4S., R. 65 W.				
1 Rev.	Ed. Fischahs & Dorothy A. Fischahs (In Joint Tenancy)		N.W. 1/4 Sec. 2	6.045	6.045		1
2	Edwin & Dorothy Fischahs		NI/2 of NE 1/4 Sec. 2	6.524	6.403		2
3	Teresa E. Pekrul & Leota F. Pekrul		N. 1/2 of NI/2 Sec. 1	8.086	7.539		3
4	Deleted		T. 4S., R. 64 W.				4
5	Charles L. & Margaret I. Taft		N.W. 1/4 Sec. 6	6.985	4.555		5
6	Herman C. Anderson & Florence N. Anderson		NW 1/4 of NE 1/4 Sec. 6	0.730	0.730		6
7	Jessie M. Gardner		W 1/2 of NE 1/4 Sec. 6	0.069	0.069		7
7-A	Deleted						7-A
8	John O. & Helen E. Becker		E. 1/2 of NE 1/4 Sec. 6	0.935	0.935		8
9	John O. & Helen E. Becker		NI/2 of NW 1/4 Sec. 5	1.245	1.245		9
10	J.M. & Marje Meek Hein	Watkins, Colo.	NI/2 of NE 1/4 Sec. 5	4.361	3.602		10
11	Dale & Nellie Ferguson		N. 1/2 of NI/2 Sec. 4	5.538	3.086		11
12	Melvin Sand		N. 1/2 of NI/2 Sec. 3	8.313	4.094		12
13	Royal F. Van Leer		NI/2 of NW 1/4 Sec. 2	6.683	4.310		13
14	Thaddius E. Cline & Erma E. Camp		NI/2 of NE 1/4 Sec. 2	5.890	4.015		14
15 Rev.	Lenonard O.M. Larson		N. 1/2 of NI/2 Sec. 1	7.316	3.623		15
			T. 4 S., R. 63 W.				
16	Philip Wagner	141 So. 3rd Ave. Brighton, Colo.	NI/2 of NW 1/4 Sec. 6	1.052	1.052		16
17	Geo. C. Kratter		NI/2 of NE 1/4 Sec. 6	3.885	1.631		17
18	Perry Investment Co.		NI/2 of NW 1/4 Sec. 5	4.378	1.871		18
19	Byron W. & Thelma J. Trupp		NI/2 of NE 1/4 Sec. 5	2.428	0.597		19
20 Rev.	Charles R. Mc Kee		NI/2 of NW 1/4 Sec. 4	3.912	3.912		20
21	Geo. J. Renner, Jr.	Bennett, Colo.	NI/2 of NE 1/4 Sec. 4	8.642	6.181		21

R. O. W. TABULATION OF PROPERTIES IN ADAMS & ARAPAHOE COUNTIES S.H. No. 8 PROJ. I 095-1(2)

Rev. 8-28-59 R.E.C. Rev. 4-28-58 C.E.B. Rev. 5-9-58 R.C.M. 26 Rev. 8-24-58 Rev. 2  
 Rev. 6-20-60 25 Rev Deleted - R.E.G. 19 095-1(2) 2-A  
 RIGHT OF WAY Rev. 6-24-58 Deleted 25 Rev. 25A R.C.M. Rev. 4-23-59 Added 25 Rev. R.C.M. Rev. 8-18-60 added 25 Rev. R.E.C.

PARCEL NO.	OWNER	ADDRESS	LOCATION	AREA IN ACRES		REMARKS	NO.
				PARCEL	TO BE ACQUIRED		
			ARAPAHOE COUNTY T.4S., R.63W.				
22	Geo. J. Renner Jr.	Bennett, Colo.	N1/2 of NW1/4 Sec. 3	7.338	4.872		22
23	Amelia Renner		N1/2 of NE1/4 Sec. 3	9.960	9.447		23
24 Rev. 2	Leda (M.) (H) (Peterson) Dooley & Vance M. Harden		N. 1/2 of N 1/2 Sec. 2	64.808	64.295		24
25 Rev.	Marvin Newby & Harriet H. Newby		NW1/4 Sec. 1	0.521	0.521		25
			ADAMS COUNTY T.3S., R.65W.				
25A	Deleted						
26 Rev.	Raymond J. & Helen M. Green	2280 Grape St. Denver, Colo.	S1/2 of SE1/4 Sec. 35	14.024	13.676		26
27	Teresa E. & Leota F. Pehrul	3756 Raleigh St. Denver, Colo.	S1/2 of SW1/4 Sec. 36	16.848	16.653		27
			Town of Watkins SE 1/4 Sec. 36				
28	Lula M. Gillies	Watkins, Colo.	Lots 9-18 Block 40	0.723	0.723		28
29	Lula M. Gillies	Watkins, Colo.	Lots 9-28 Block 39	1.446	1.446		29
30	Lula M. Gillies	Watkins, Colo.	Lots 9-28 Block 38	1.446	1.446		30
31	Lula M. Gillies	Watkins, Colo.	Lots 9-24 & 26-28 Block 37	1.374	1.374		31
32	Frank Tapparo		Lot 25 Block 37	0.072	0.072		32
33	John Tapparo	Bennett, Colo.	Lots 19-28 Block 36	0.723	0.723		33
34	Richard P. & Margaret L. Lindfors J.T.	Watkins, Colo.	Lots 9-18 Block 36	0.723	0.723		34
35	Lula M. Gillies	Watkins, Colo.	Lots 8-28 Block 35	1.482	1.482		35
36	Lula M. Gillies	Watkins, Colo.	Lots 4-31 Block 34	2.080	1.952		36
37	Lula M. Gillies	Watkins, Colo.	Lots 1-36 Block 33	2.603	2.603		37
38	Lula M. Gillies	Watkins, Colo.	Lots 1-18 Block 32	0.270	0.270		38
39	Lula M. Gillies	Watkins, Colo.	East 10' Block 17	0.103	0.103		39

R. O. W. TABULATION OF PROPERTIES IN ADAMS & ARAPAHOE COUNTIES S.H. No. 8 PROJ. I 095-1(2)

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLORADO	I 095-1(2)	2-B	

RIGHT OF WAY Rev. 3-18-58 E.C.M.

PARCEL NO.	OWNER	ADDRESS	LOCATION	AREA IN ACRES		REMARKS	NO.
				PARCEL	TO BE ACQUIRED		
			ADAMS COUNTY				
			T. 3 S., R. 64 W				
40	Etta Behrens	Watkins, Colo.	S. 1/2 Sec. 31	38.428	35.619		40
41	Etta Behrens	Watkins, Colo.	S. 1/2 of SW 1/4 Sec. 32	17.036	17.036		41
42	J.M. & Marie Meek Hein	Watkins, Colo.	S. 1/2 of SE 1/4 Sec. 32	18.312	17.763		42
43	O.B. & Hillis Schmidt	Watkins, Colo.	S. 1/2 of S. 1/2 Sec. 33	31.074	27.614		43
44	Public Service Co. of Colorado		SE 1/4 SE 1/4 Sec. 33	3.474	3.474		44
45	Maud B. Worts	1361 So. York st. Denver, Colo.	S. 1/2 of SW 1/4 Sec. 34	15.678	13.692		45
46	John W. Baughman Farms Co.	Liberal, Kansas	S. 1/2 of SE 1/4 Sec. 34	16.808	14.404		46
47	John W. Baughman Farms Co.	Liberal, Kansas	S. 1/2 of SW 1/4 Sec. 35	15.538	13.135		47
48	Joseph & Frank Nowacki	Eastlake, Colo.	S. 1/2 of SE 1/4 Sec. 35	12.344	10.408		48
49 Rev	Albert F. Lorenzen & Amy E. Lorenzen		S. 1/2 of S. 1/2 Sec. 36	29.211	25.268		49
			T. 3 S., R. 63 W				
50	Philip Wagner	141 So. 3rd Ave. Brighton, Colo.	S. 1/2 of S. 1/2 Sec. 31	34.502	30.178		50
51	Jacob W. & Julia E. Lehr J. T.	Bennett, Colo.	S. 1/2 of SW 1/4 Sec. 32	17.642	15.238		51
52	Marquerite Muegge Hand, Dent N. Hand, 1/2 Pauline B. Muegge 1/2	Newcastle, Wyoming Box 811	S. 1/2 of SE 1/4 Sec. 32	15.792	13.813		52
53	Marquerite Muegge Hand, Dent N. Hand, 1/2 Pauline B. Muegge 1/2	" " "	S. 1/2 Sec. 33	35.044	29.582		53
54	Charles W. Muegge	Bennett, Colo.	N.E. 1/4 Sec. 33	3.077	1.231		54
55	John W. Baughman Farms Co.	Liberal, Kansas	S.E. 1/4 of SE 1/4 Sec. 28	0.457	0.178		55
55-A	Audrey B. Mitchem	3860 So. Bannock st. Englewood, Colo.	S.W. 1/4 Sec. 27	1.680	1.161		55-A
			Town of Bennett Mitchem's 2nd Add				
55-B	Annie E. Mitchem	3780 So. Broadway Englewood, Colo.	Lots 5-12 Block 5	0.395	0.395		55-B
55-C	" "	" " "	Lots 13 & 14 Block 5	0.016	0.016		55-C

R. O. W. TABULATION OF PROPERTIES IN ADAMS & ARAPAHOE COUNTIES S. H. No. 8 PROJ. I 095-1(2)

7-9-73 Add (Mtn. A & B) X.C.  
12-12-75 Delete Para. A, B, E, F

Rev. 6-17-56 57 Rev. F.C.M.		SHEET NO.		TOTAL SHEETS	
FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.		TOTAL SHEETS
9	COLORADO	I 095-1(2)	2-C		

RIGHT OF WAY

PARCEL NO.	OWNER	ADDRESS	LOCATION	AREA IN ACRES		REMARKS	NO.
				PARCEL	TO BE ACQUIRED		
55-D	Annie E. & George D. Mitchem	3780 So. Broadway Englewood, Colo.	Lots 1-3 Block 4	0.039	0.039		55-D
55-E	" " " "	" " "	Lots 21-40 Block 4	1.019	1.019		55-E
56	Geo. J. Renner	Bennett, Colo.	NW1/4 & S1/2 Sec 34	41.047	36.651		56
57Rev.	R. Miller	Box 183 Boulder, Colo.	S1/2 Sec 35	20.459	20.368		57
A	Deleted						
B	Deleted	3137 Englewood, Denver Colorado	S.E. 1/4		0.000		

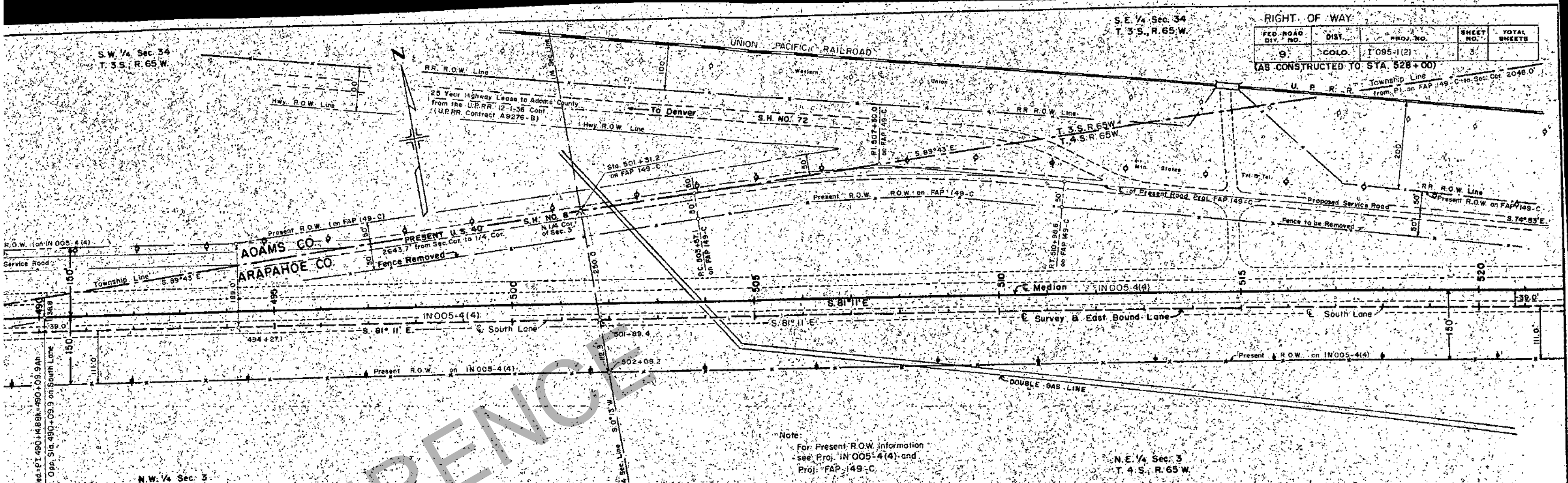
REFERENCE

S.W. 1/4 Sec. 34  
T. 3 S., R. 65 W.

S.E. 1/4 Sec. 34  
T. 3 S., R. 65 W.

RIGHT OF WAY				
FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	I 095-1(2)	3	

(AS CONSTRUCTED TO STA. 526+00)

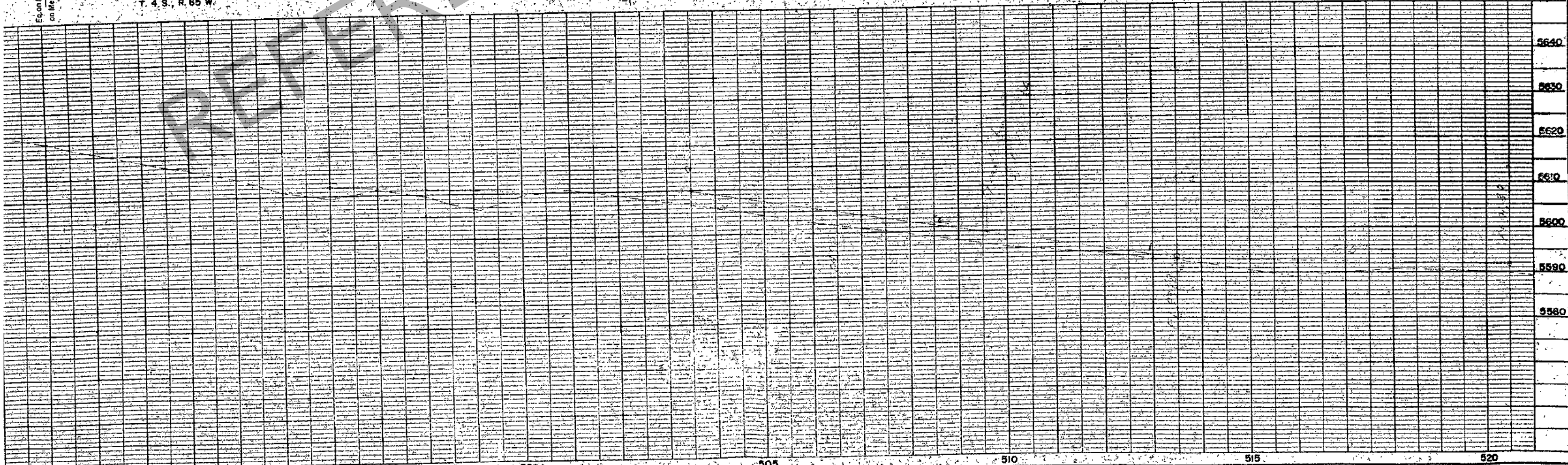


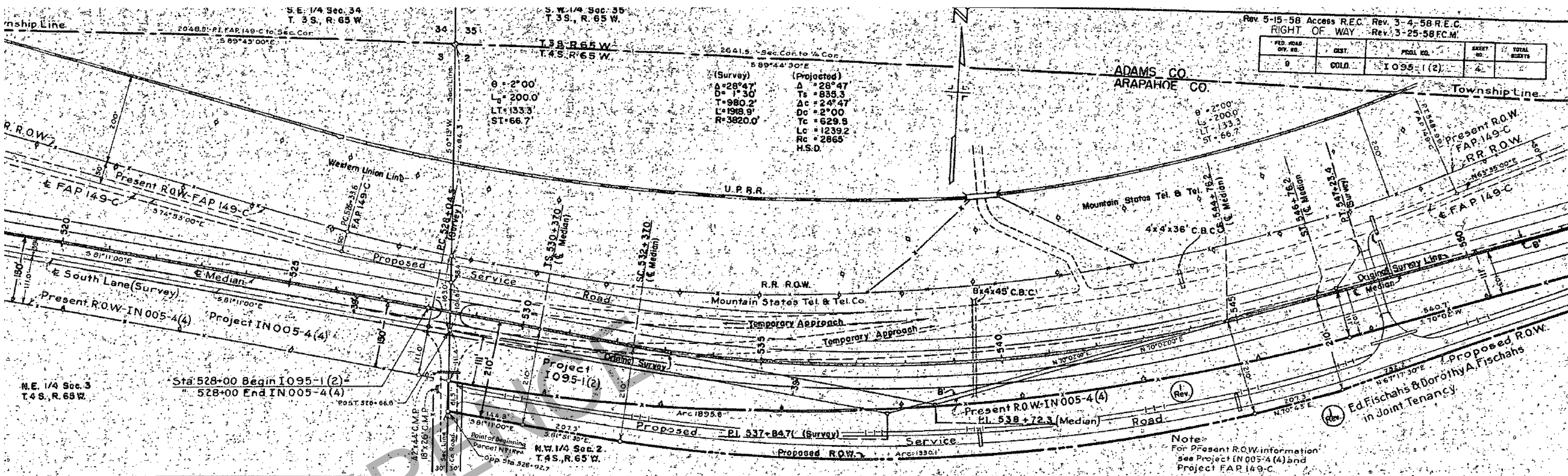
ADAMS CO.  
ARAPAHOE CO.

Note  
For Present R.O.W. information  
see Proj. IN 005-4(4) and  
Proj. FAP 149-C

N.E. 1/4 Sec. 3  
T. 4 S., R. 65 W.

N.W. 1/4 Sec. 3  
T. 4 S., R. 65 W.

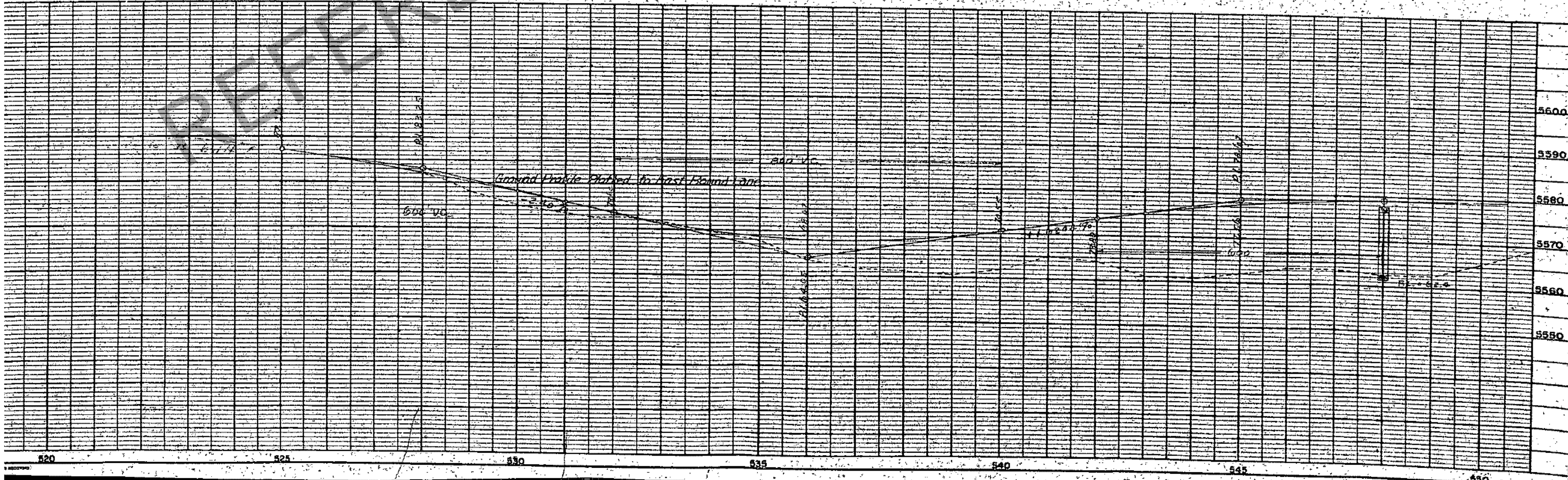




FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	I 095-1(2)	4	

(Survey)	(Projected)
$\Delta = 28^{\circ}47'$	$\Delta = 28^{\circ}47'$
$D = 1^{\circ}30'$	$T_s = 855.3$
$T = 980.2'$	$\Delta c = 24^{\circ}47'$
$L = 1918.9'$	$D_c = 2^{\circ}00'$
$R = 3820.0'$	$T_c = 629.8$
	$L_c = 1239.2$
	$R_c = 2865'$
	H.S.D.

Note:  
For Present R.O.W. information see Project IN005-4(4) and Project FAP 149-C.

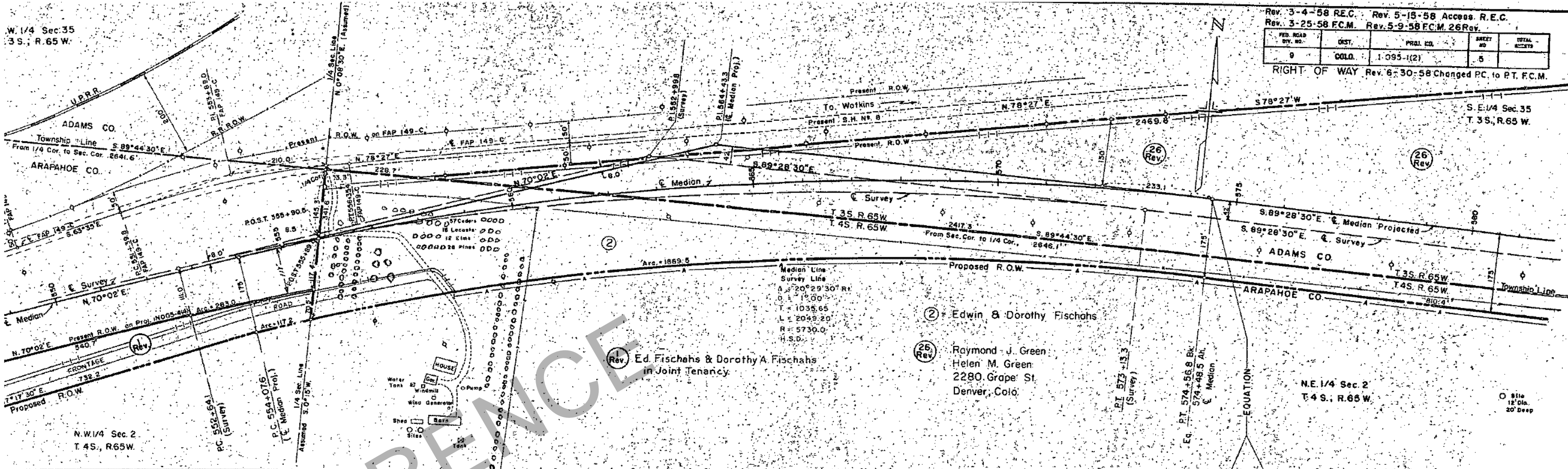


W. 1/4 Sec. 35  
3 S., R. 65 W.

Rev. 3-4-58 REC. Rev. 5-15-58 Access R.E.C.  
Rev. 3-25-58 F.C.M. Rev. 5-9-58 F.C.M. 26 Rev.

FED. ROAD DIV. NO.	DIST.	PROJ. CD.	SHEET NO.	TOTAL SHEETS
9	COLO.	1 095-1(2)	5	

RIGHT OF WAY Rev. 6-30-58 Changed PC to PT. F.C.M.

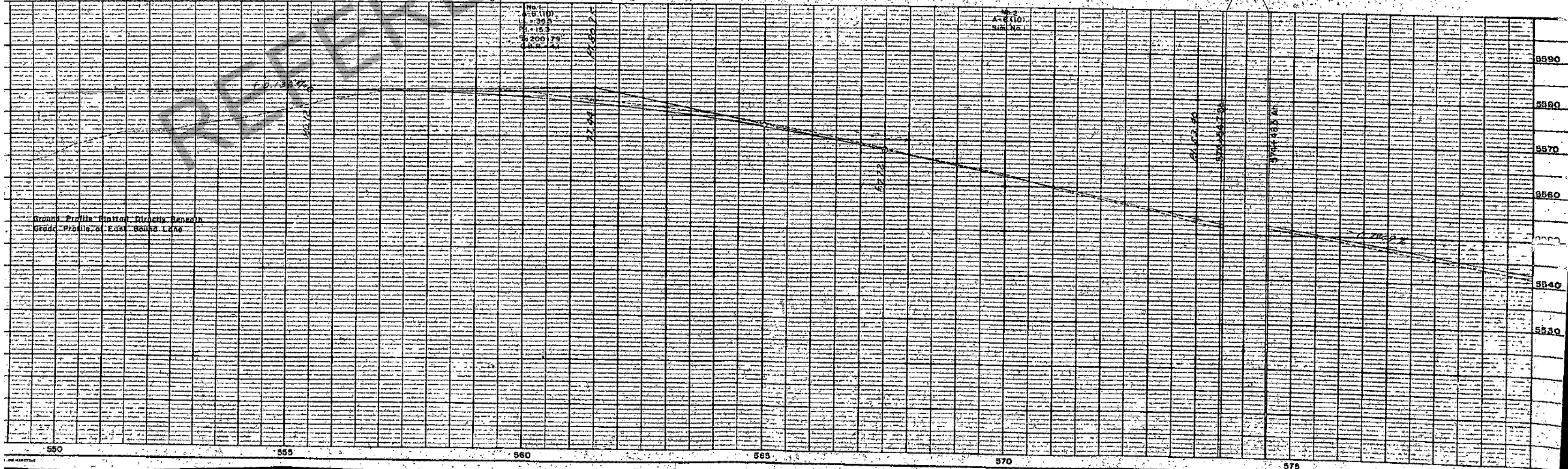


Medion Line  
Survey Line  
A = 20°29'30" R  
D = 1500  
L = 1035.65  
T = 2049.20  
R = 5730.0  
H.S.D.

Ed. Fischahs & Dorothy A. Fischahs  
in Joint Tenancy

Edwin & Dorothy Fischahs

Raymond J. Green  
Helen M. Green  
2280 Grape St.  
Denver, Colo.



Ground Profile  
Grade Profile of East Bound Lane

550 555 560 565 570 575 580



DE 74 Dec 35 1/4 Sec 35 T 3 S, R 65 W  
 S.W. 1/4 Sec 36 T 3 S, R. 65 W.  
 Rev. 3-4-58 R.E.C. Rev. 5-15-58 Access R.E.C.  
 Rev. 5-9-58 F.C.M. 26 R.Ry. Rev. 10-7-58 added 149.5' R.E.C.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1095-1(2)	6	

Note:  
 582+58+Close county road,  
 right and left. No Access.

Raymond J. Green,  
 Helen M. Green,  
 2280 Grape St.  
 Denver, Colo.

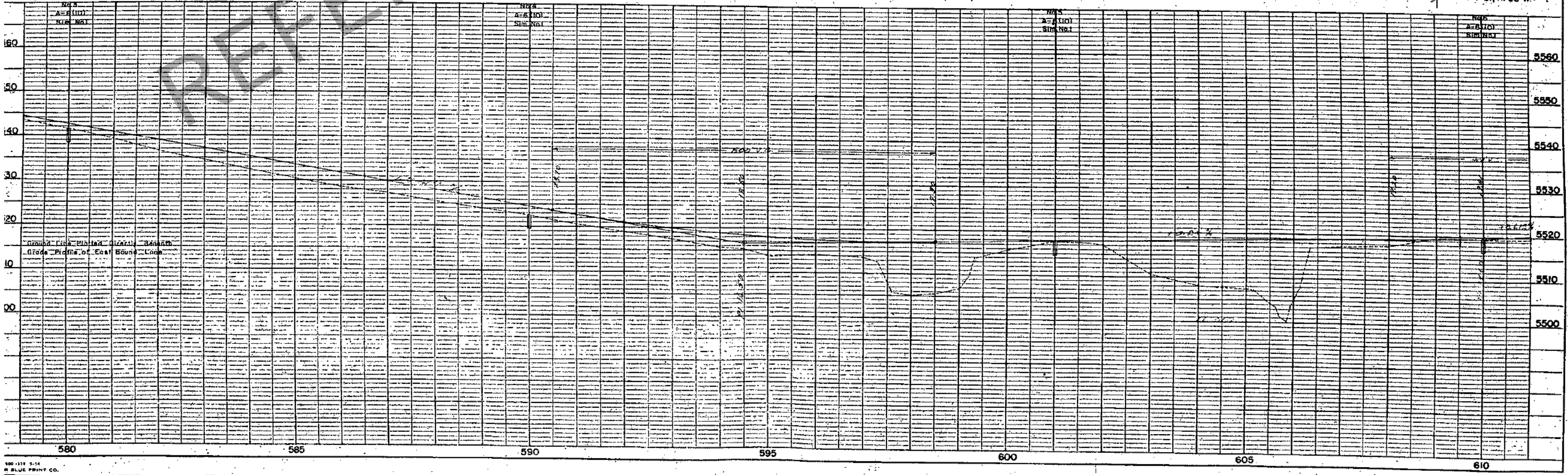
Edwin & Dorothy Fischahs.

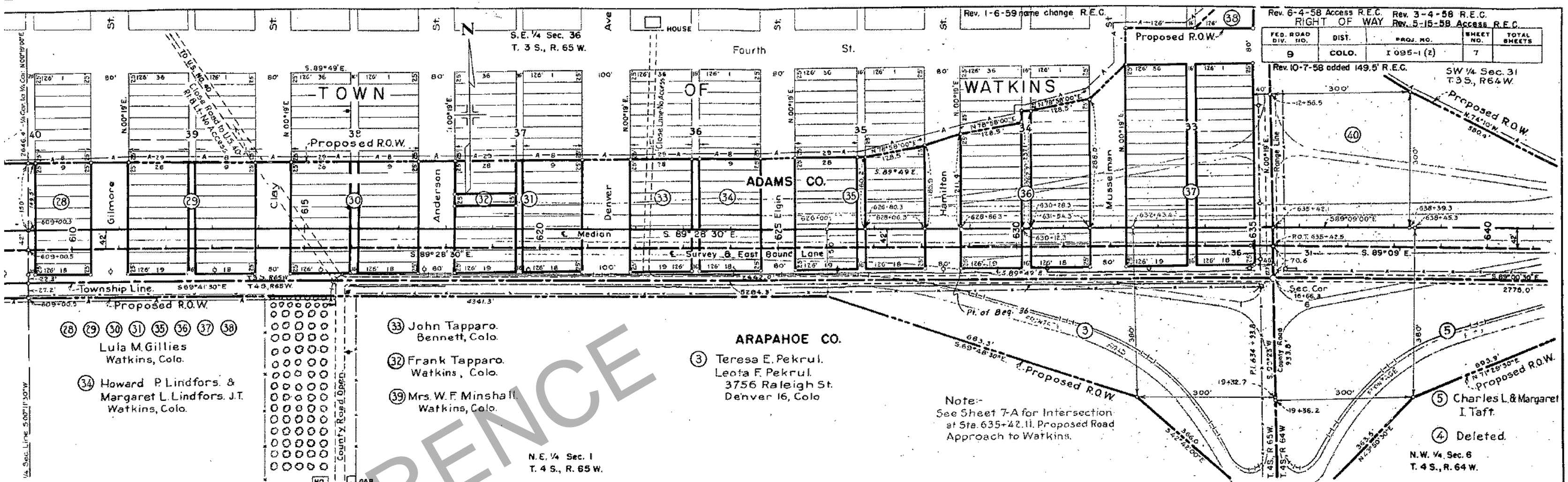
Teresa E. & Leota F. Petrul,  
 3756 Raleigh St.  
 Denver 16, Colo.

N.E. 1/4 Sec. 2  
 T. 4 S., R. 65 W.

N.W. 1/4 Sec. 1  
 T. 4 S., R. 65 W.

N.E. 1/4 Sec. 1  
 T. 4 S., R. 65 W.





FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	I 095-1 (2)	7	

- ②⑧ ②⑨ ③① ③⑤ ③⑥ ③⑦ ③⑧  
Lula M. Gillies  
Watkins, Colo.
- ③④ Howard P. Lindfors &  
Margaret L. Lindfors, J.T.  
Watkins, Colo.

- ③③ John Tapparo.  
Bennett, Colo.
- ③② Frank Tapparo.  
Watkins, Colo.
- ③⑨ Mrs. W. F. Minshall.  
Watkins, Colo.

- ③ Teresa E. Pekar.  
Leota F. Pekar.  
3756 Raleigh St.  
Denver 16, Colo.

- ⑤ Charles L. & Margaret  
I. Taft.
- ④ Deleted.

Note:-  
See Sheet 7-A for Intersection  
at Sta. 635+42.11 Proposed Road  
Approach to Watkins.

NO. R. A-E (10) SIM. NO. 1	NO. Y. A-E (10) SIM. NO. 1	NO. S. A-E (10) SIM. NO. 1	NO. 9 A-E (10) SIM. NO. 1			
50			5560			
50			5550			
50			5540			
50			5530			
50			5520			
50			5510			
50			5500			
610	615	620	625	630	635	640

S.W. 1/4 Sec. 31  
T.3S., R.64 W.

N.W. 1/4 Sec. 6  
T.4S., R.64W.

Rev. 3-4-58 R.E.C. Rev. 6-4-58 Access R.E.C.  
Rev. 5-15-58 Access R.E.C.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1099-1(2)	7-A	

RIGHT OF WAY

39 Mrs. W.F. Minshall  
Watkins, Colo.

36 37 38  
Lula M. Gillies  
Watkins, Colo.

40  
Etta Behrens  
Watkins, Colo.

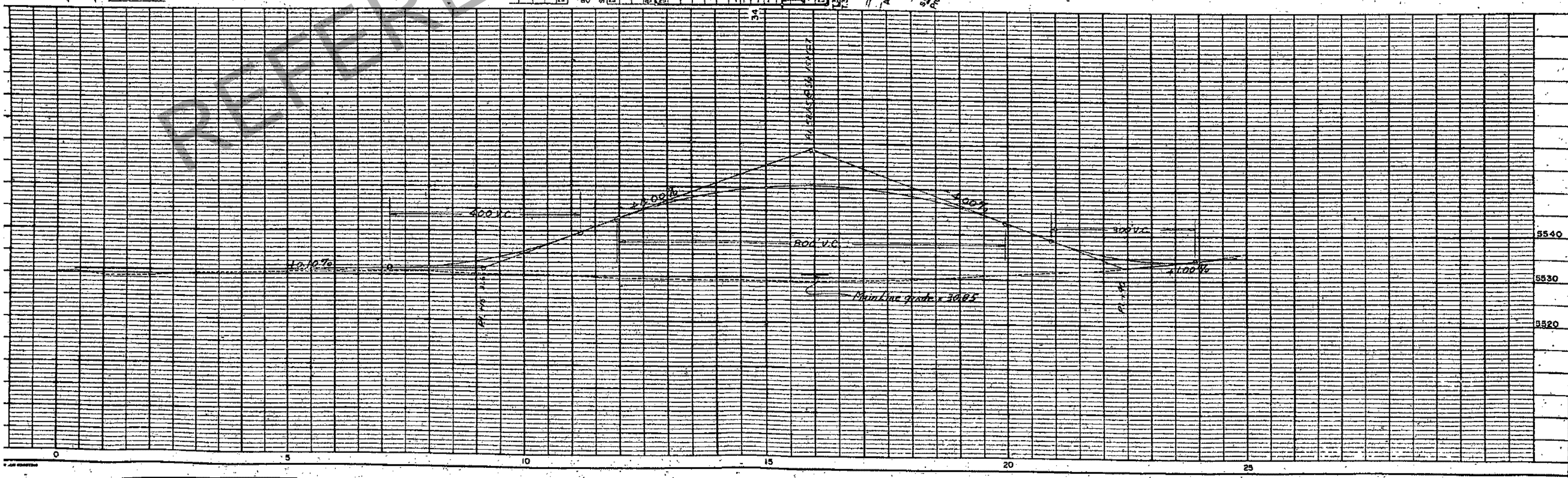
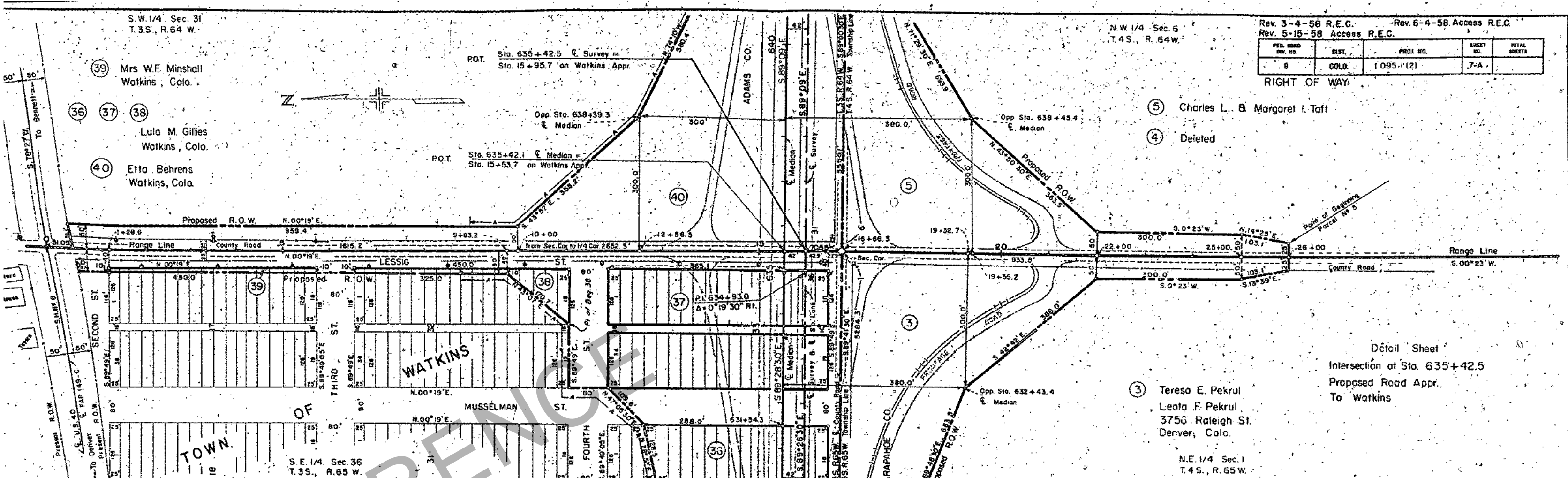
5 Charles L. & Margaret I. Taft

4 Deleted

3 Teresa E. Pekrul  
Leota F. Pekrul  
3756 Raleigh St.  
Denver, Colo.

N.E. 1/4 Sec. 1  
T.4S., R.65 W.

Detail Sheet  
Intersection at Sta. 635+42.5  
Proposed Road Appr.  
To Watkins





S.E. 1/4 Sec. 31  
T. 3 S., R. 64 W.

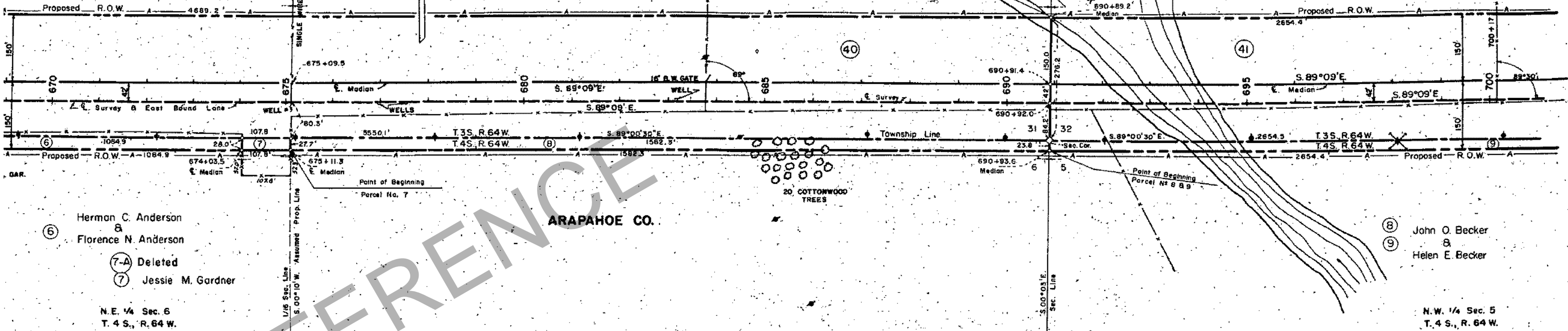
ADAMS CO.

40 Etta Behrens  
Watkins, Colo.

41 Etta Behrens  
Watkins, Colo.

Rev. 3-4-58 R.E.C.		Rev. 3-10-59 fence line R.E.C.	
Rev. 5-15-58 Access R.E.C.		Rev. 11-20-58 Deleted 7A F.C.M.	
FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.
9	COLO.	I 095-1(2)	9
RIGHT OF WAY			

S.W. 1/4 Sec. 32  
T. 3 S., R. 64 W.



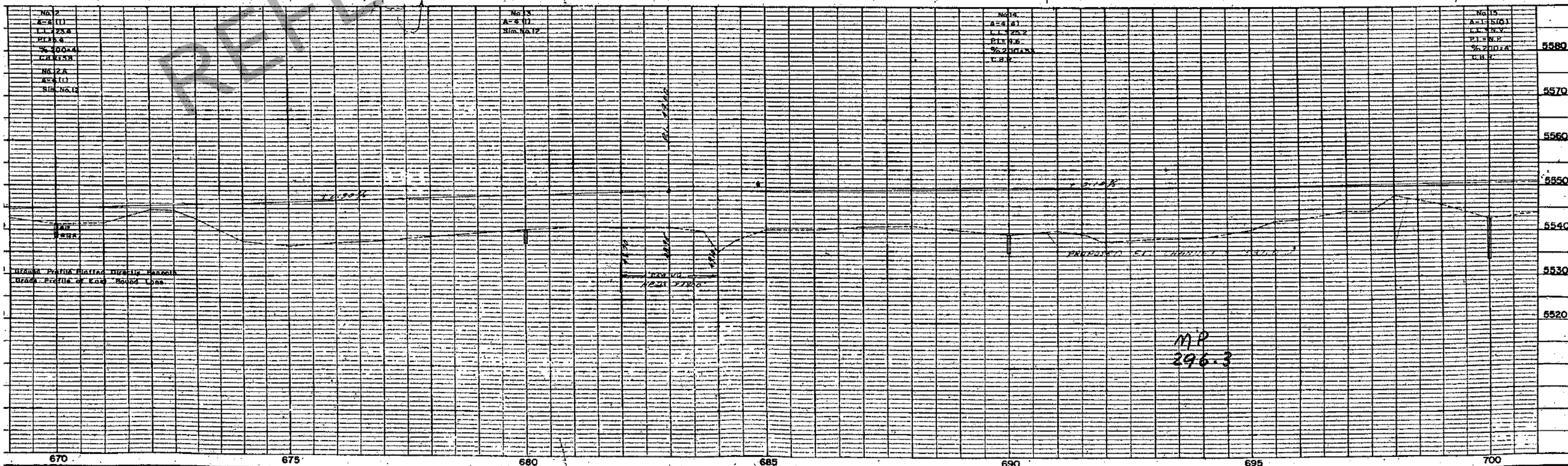
6 Herman C. Anderson  
&  
Florence N. Anderson  
7-A Deleted  
7 Jessie M. Gardner

N.E. 1/4 Sec. 6  
T. 4 S., R. 64 W.

ARAPAHOE CO.

8 John O. Becker  
&  
9 Helen E. Becker

N.W. 1/4 Sec. 5  
T. 4 S., R. 64 W.





9.E. 1/4 Sec. 32  
T. 3 S., R. 64 W.

S. W. 1/4 Sec. 33  
T. 3 S., R. 64 W.

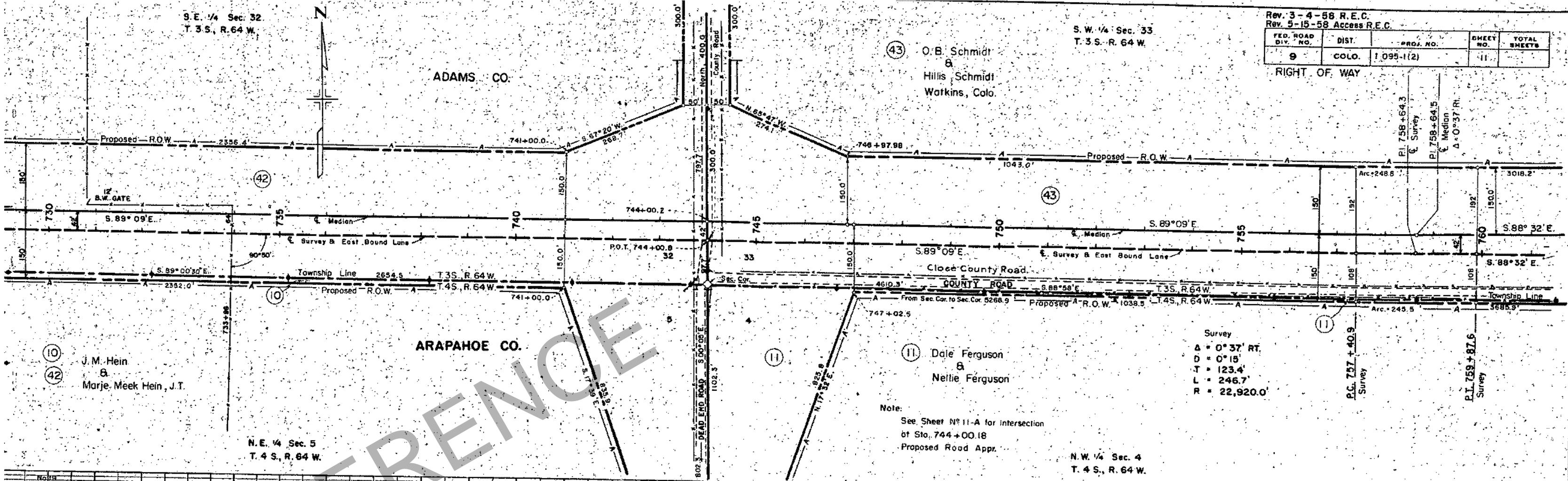
Rev. 3-4-58 R.E.C.  
Rev. 5-15-58 Access R.E.C.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1,095-1(2)	11	

ADAMS CO.

ARAPAHOE CO.

RIGHT OF WAY



10 J. M. Hein & Marje Meek Hein, J.T.

11 Dale Ferguson & Nettie Ferguson

Note:  
See Sheet No. 11-A for intersection  
of Sta. 744+00.18  
Proposed Road Appr.

Survey  
A = 0° 37' RT.  
D = 0° 15'  
T = 123.4'  
L = 246.7'  
R = 22,920.0'

N.E. 1/4 Sec. 5  
T. 4 S., R. 64 W.

N.W. 1/4 Sec. 4  
T. 4 S., R. 64 W.

NO. 10 A=110 L=220 P=176 T=200 C.R.F. 50 N. 194 A=161 S.P. NG 17A	NO. 20 A=2-8(0) L=110 P=110 T=110 C.R.F. 18 C.R.F. 14.9 N. 21.10	NO. 31 A=2-4(10) L=110 S.P. NG 21	NO. 22 A=2-8(10) L=110 S.P. NG 22	5630
				5620
				5610
				5600
				5590
				5580
				5570

MP 297.3

S.W. 1/4 Sec. 33  
T.3S., R. 64 W.

N.W. 1/4 Sec. 4  
T.4S., R. 64 W.

Rev. 3-4-58 R.E.C.  
Rev. 5-15-58 Access R.E.C.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLD	I 095-1(2)	11-A	

RIGHT OF WAY

(43) O.B. Schmidt  
Hillis Schmidt  
Watkins, Colo.

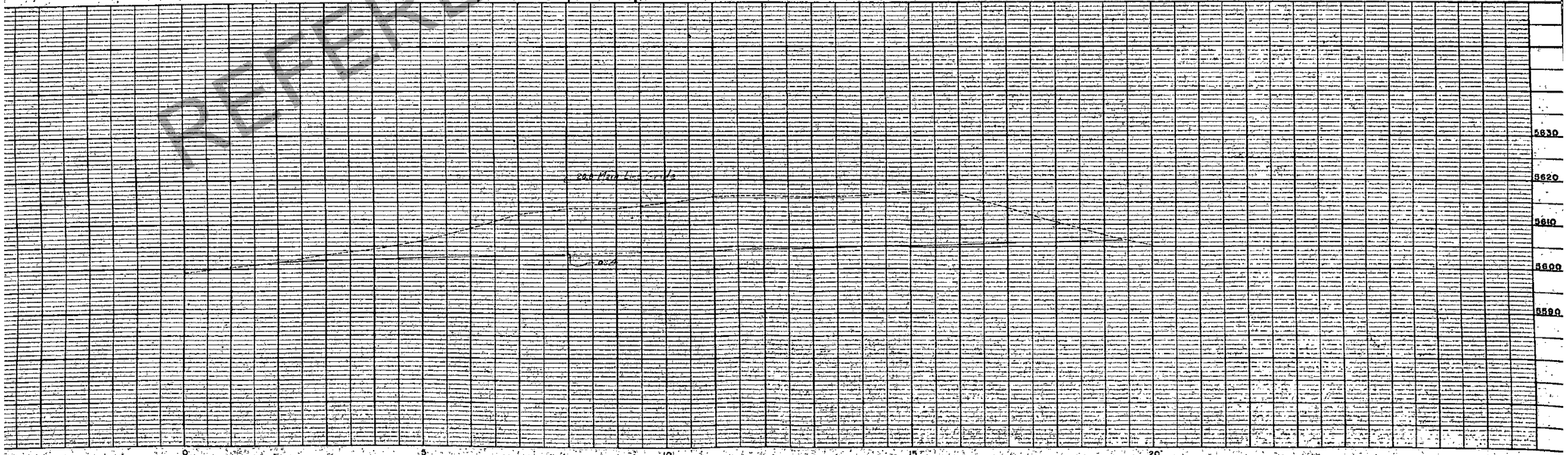
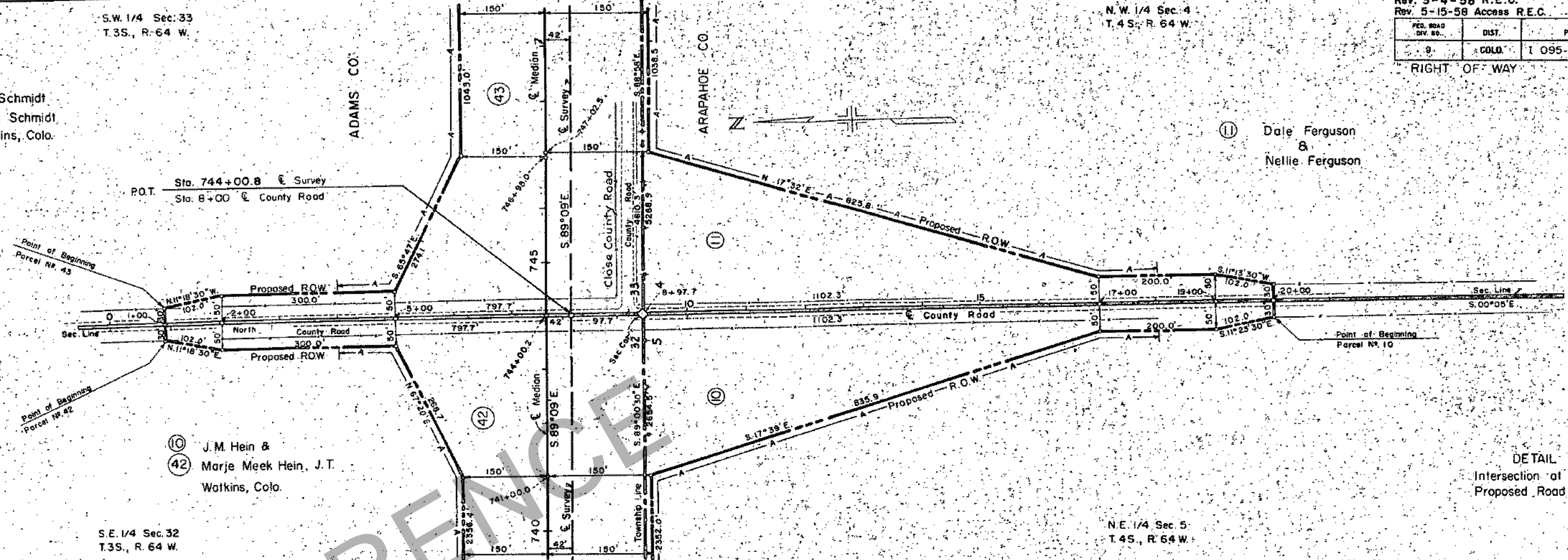
(11) Dale Ferguson  
&  
Nellie Ferguson

(10) J.M. Hein &  
(42) Marje Meek Hein, J.T.  
Watkins, Colo.

S.E. 1/4 Sec. 32  
T.3S., R. 64 W.

N.E. 1/4 Sec. 5  
T.4S., R. 64 W.

DETAIL SHEET  
Intersection at Sta. 744+00  
Proposed Road Appr.







S.E. 1/4 Sec. 33  
T. 3 S., R. 64 W.

(44) Public Service Co.  
of Colorado

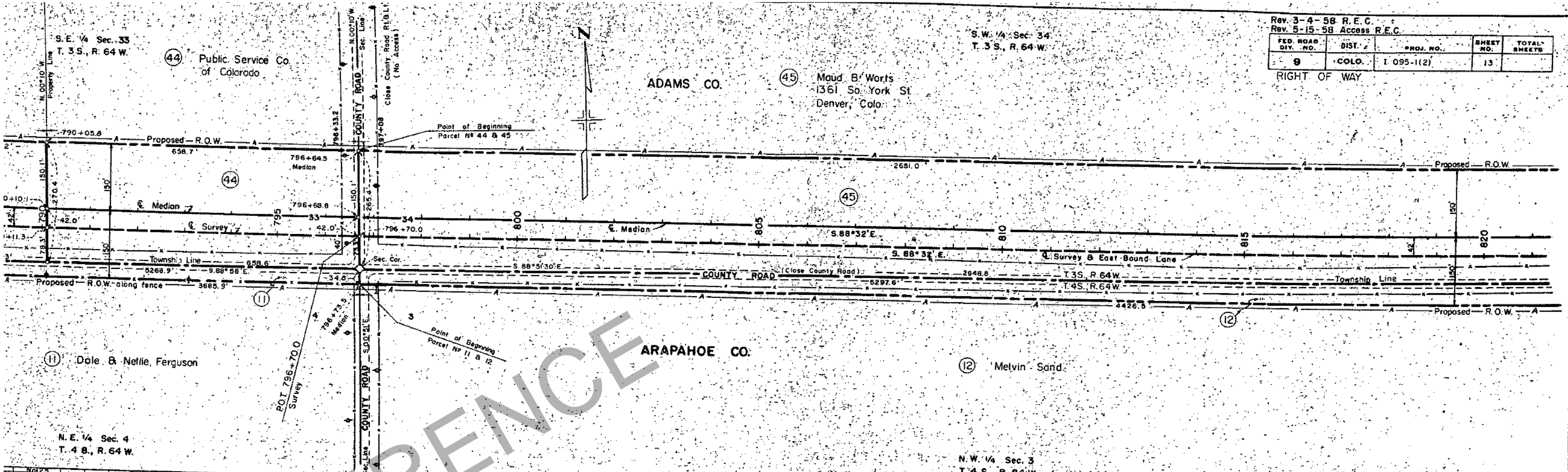
S.W. 1/4 Sec. 34  
T. 3 S., R. 64 W.

ADAMS CO.

(45) Maud B. Worts  
1361 So. York St.  
Denver, Colo.

Rev. 3-4-58 R.E.C.				
Rev. 5-15-58 Access R.E.C.				
FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1 095-1(2)	13	

RIGHT OF WAY



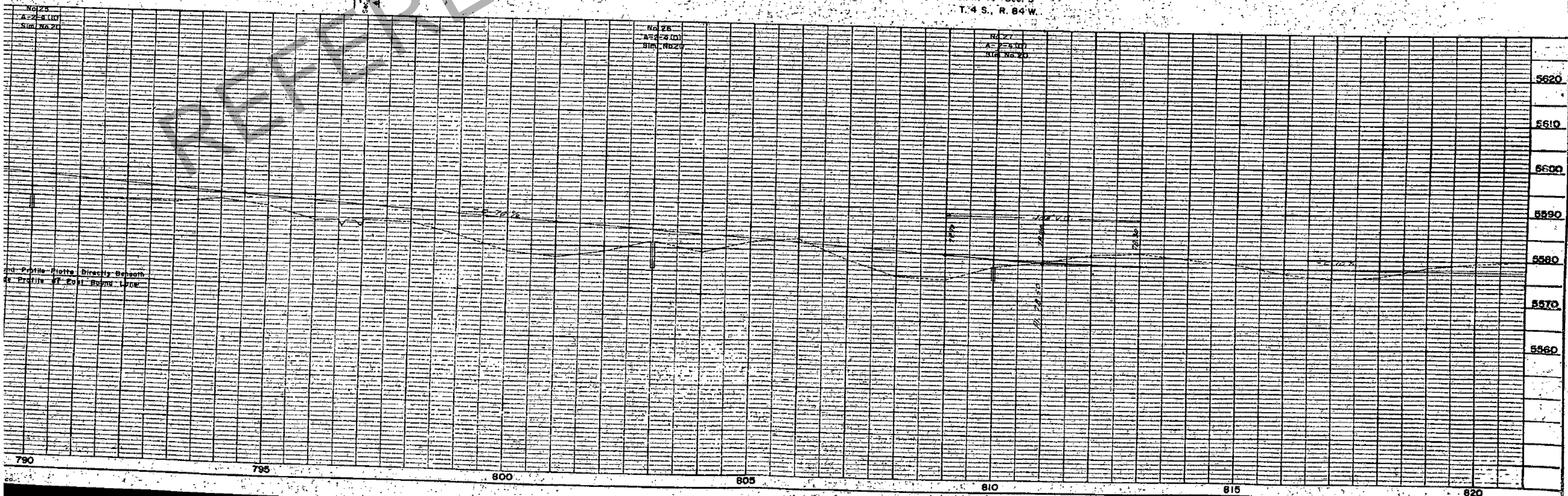
(11) Dale & Nellie Ferguson

N.E. 1/4 Sec. 4  
T. 4 S., R. 64 W.

ARAPAHOE CO.

(12) Melvin Sand

N.W. 1/4 Sec. 3  
T. 4 S., R. 64 W.



1/4 Sec. 34  
T. 3 S., R. 64 W.

S.E. 1/4 Sec. 34  
T. 3 S., R. 64 W.

Rev. 3-4-58 R.E.C.  
Rev. 5-15-58 Access R.E.C.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLD	1-095-1(2)	14	

RIGHT OF WAY

(45) Maud B. Worris  
1361 So. York St  
Denver, Colo.

(46) The John W. Baughman Farms Co.  
Liberal, Kansas.

ADAMS CO.

ARAPAHOE CO.

(12) Melvin Sand

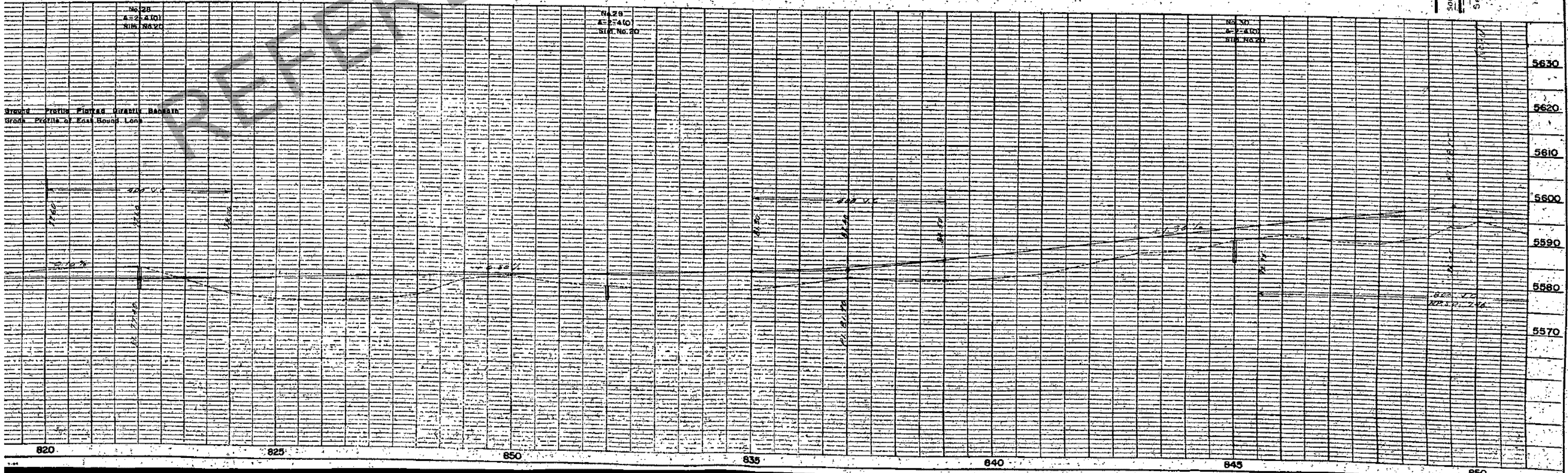
Proposed R.O.W.

Proposed R.O.W.

See Sheet No. 14-A  
for Intersection at Sta. 849+68.43  
Proposed Road Appr.

W. 1/4 Sec. 3  
4 S., R. 64 W.

N.E. 1/4 Sec. 3  
T. 4 S., R. 64 W.



STATION PROFILE OF EAST BOUND LANE

5630  
5620  
5610  
5600  
5590  
5580  
5570

820 825 830 835 840 845 850

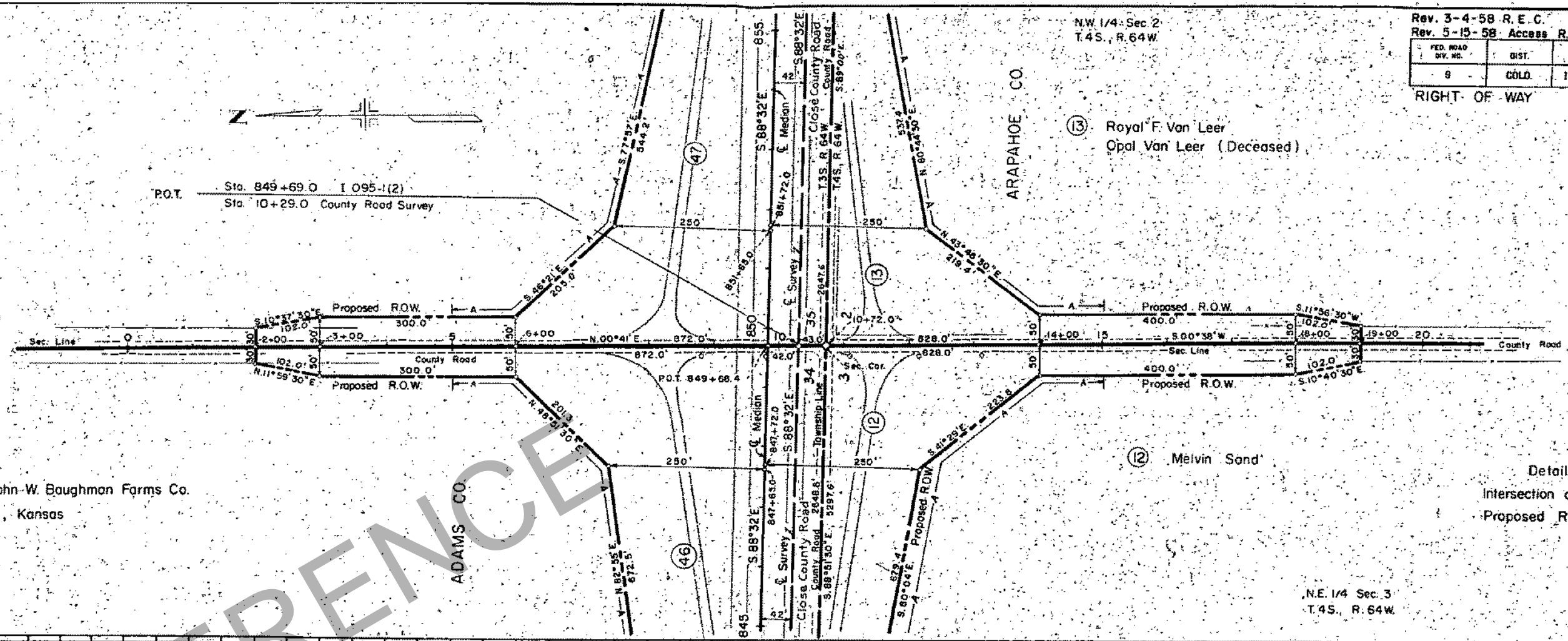
S.W. 1/4 Sec. 35  
T. 35, R. 64 W.

N.W. 1/4 Sec. 2  
T. 45, R. 64 W.

Rev. 3-4-58 R.E.C.  
Rev. 5-15-58 Access R.E.C.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLD	1 095-1(2)	14-A	

RIGHT OF WAY



⑬ Royal F. Van Leer  
Opal Van Leer (Deceased)

⑫ Melvin Sand

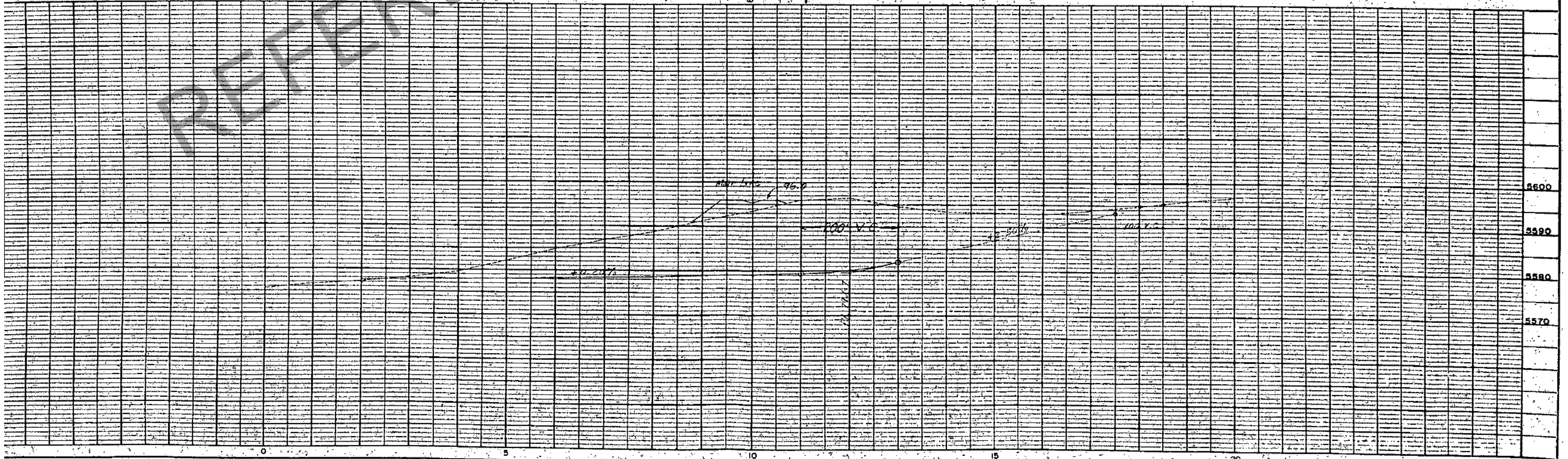
④⑦ The John-W. Baughman Farms Co.

④⑥ Liberal, Kansas

S.E. 1/4 Sec. 34  
T. 35, R. 64 W.

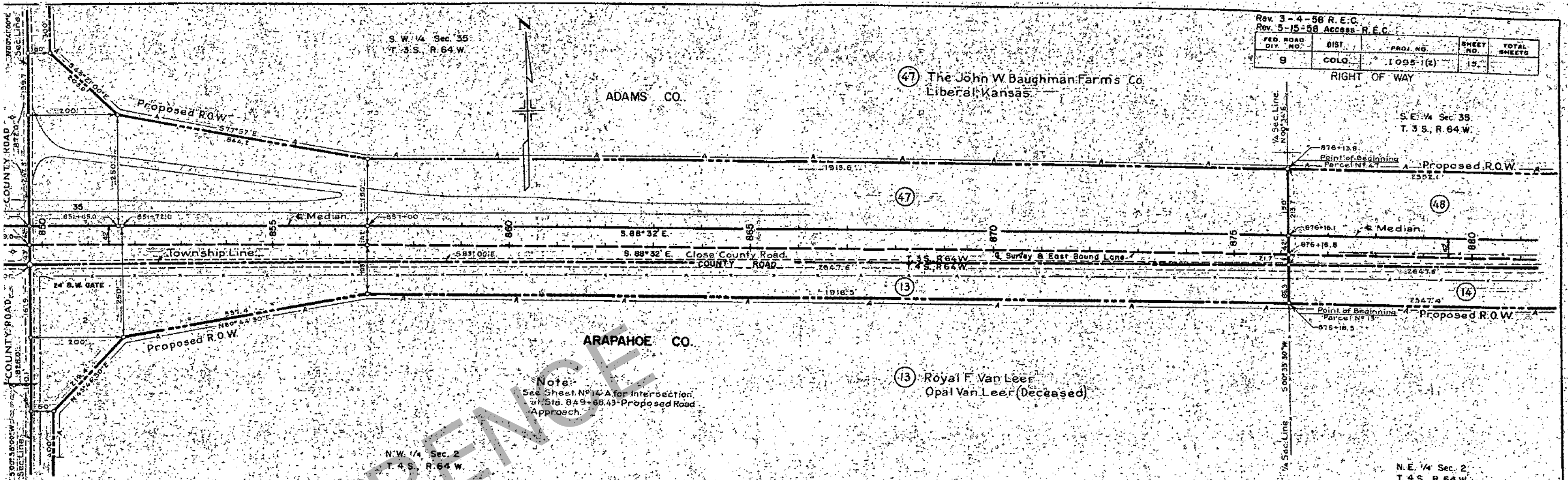
N.E. 1/4 Sec. 3  
T. 45, R. 64 W.

Detail Sheet Showing  
Intersection at Sta. 849+68.43  
Proposed Road Appr.

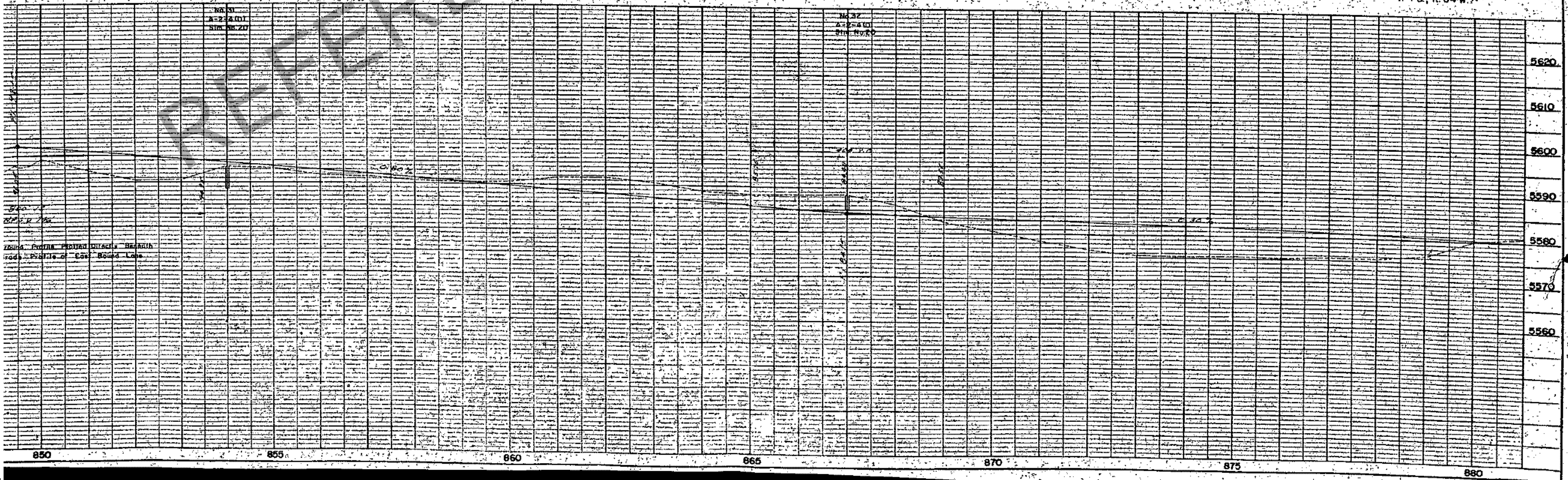


Rev. 3-4-58 R.E.C.  
Rev. 5-15-58 Access R.E.C.

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1095-1(2)	15	



Note:  
See Sheet No. 14-A for Intersection  
at Sta. 849+68.43 Proposed Road  
Approach.



Profile View  
Profile of East Bound Lane



S.W. 1/4 Sec. 36  
T. 3 S., R. 64 W.

S.E. 1/4 Sec. 36  
T. 3 S., R. 64 W.

Rev. 3-4-58 R.E.C.		Rev. 5-15-58 Access R.E.C.		
Rev. 3-18-58 F.C.M.		Rev. 3-25-58 F.C.M.		
FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1095-1(2)	17	

49 Rev Albert F. Lorenzen & Amy E. Lorenzen

ADAMS CO.

49 Rev

15 Rev

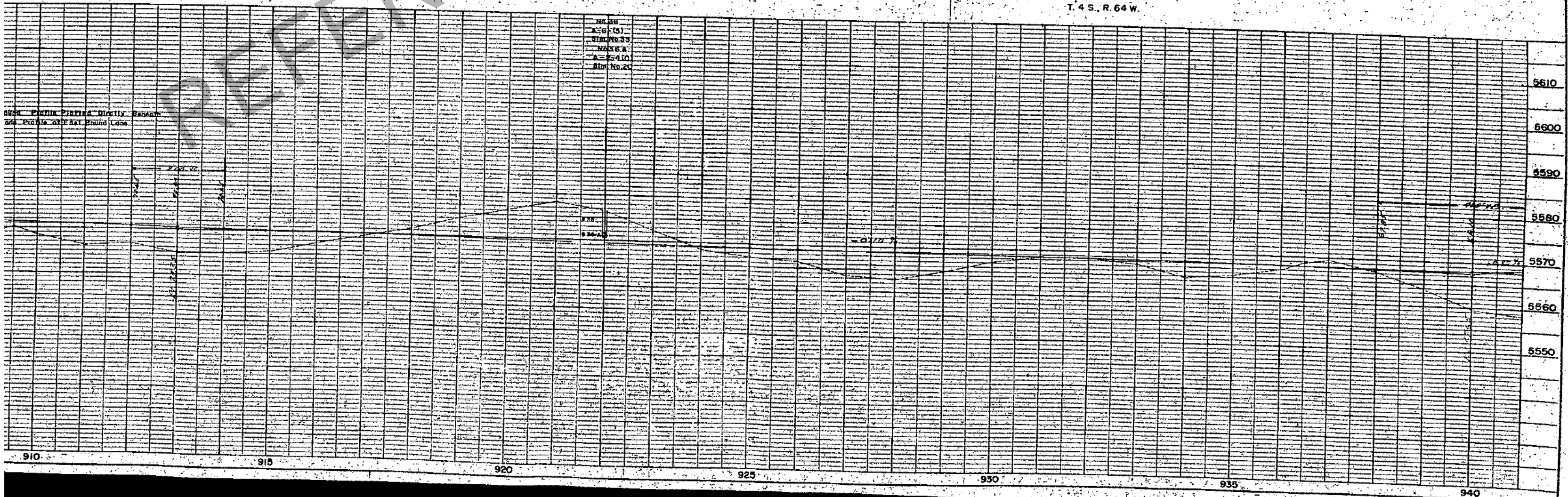
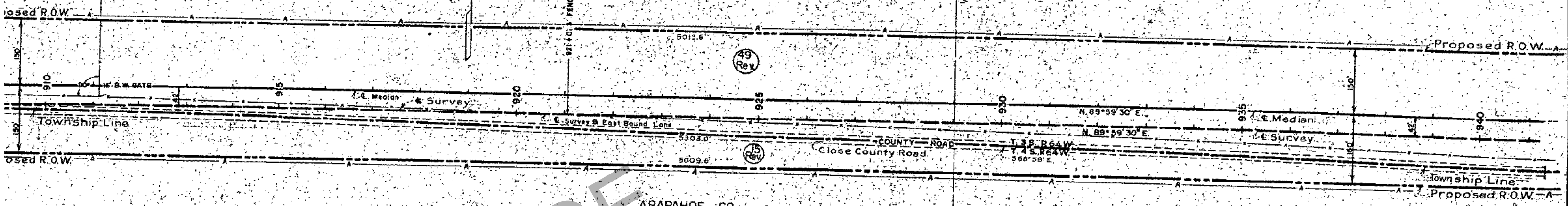
15 Rev

ARAPAHOE CO.

Leonard O. M. Larson

N.W. 1/4 Sec. 1  
T. 4 S., R. 64 W.

N.E. 1/4 Sec. 1  
T. 4 S., R. 64 W.



NS 36  
AS 151  
SIN. NO. 33  
NS 36 A  
A = 4.10  
SIN. NO. 20

FROM PROFILE POINTS DIRECTLY OBSERVED  
20' EXHAUSTIVE EAST SOUND LOGS

910 915 920 925 930 935 940

5610  
5600  
5590  
5580  
5570  
5560  
5550

S.E. 1/4 Sec. 36  
T. 3 S., R. 64 W.

S.W. 1/4 Sec. 31  
T. 3 S., R. 63 W.

Rev. 3-4-88 R.E.C. Rev. 5-15-58 Access R.E.C.  
Rev. 3-18-58 F.C.M. Rev. 3-25-58 F.C.M.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1095-1(2)	18	

RIGHT OF WAY

ADAMS CO.

ARAPAHOE CO.

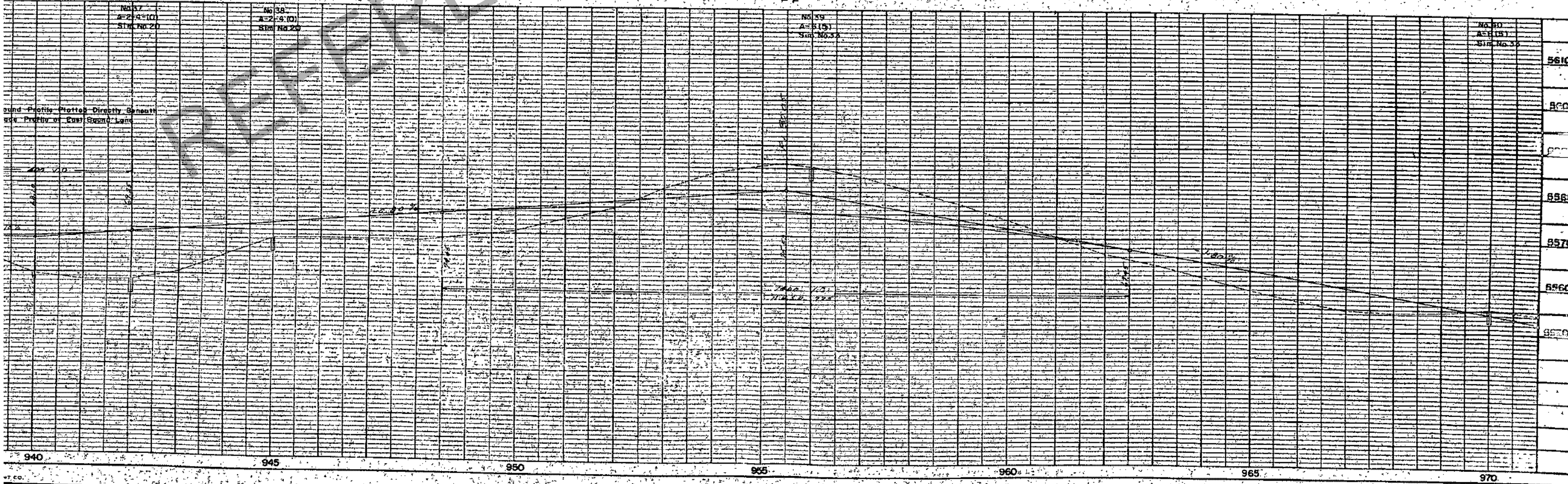
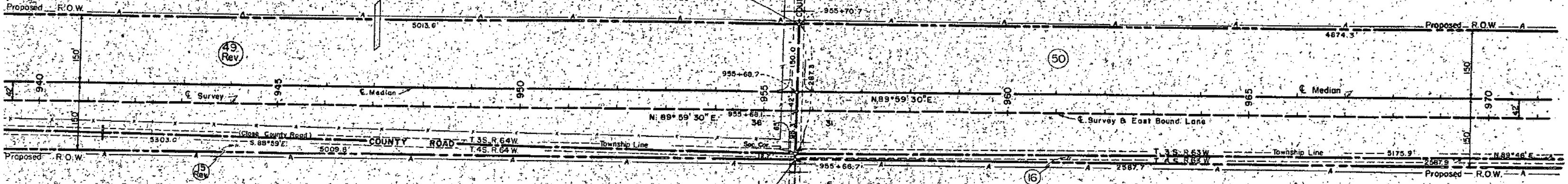
49 Rev  
Albert F. Lorenzen &  
Amy E. Lorenzen

50  
16  
Philip Wagner  
141 So. 3rd Ave  
Brighton, Colo.

15 Rev  
Leonard O.M. Larson

N.E. 1/4 Sec. 1  
T. 4 S., R. 64 W.

N.W. 1/4 Sec. 6  
T. 4 S., R. 63 W.



and Profile Plotted Directly Beneath  
and Profile of East Bound Lane



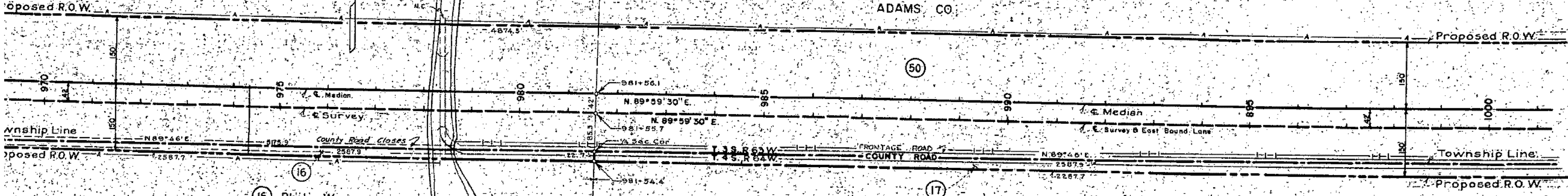
S.W. 1/4 Sec. 31  
T. 3 S., R. 63 W.

S.E. 1/4 Sec. 31  
T. 3 S., R. 63 W.

Rev. 3-4-58 R.E.C.  
Rev. 5-15-58 Access R.E.C.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1095-1(2)	19	

RIGHT OF WAY

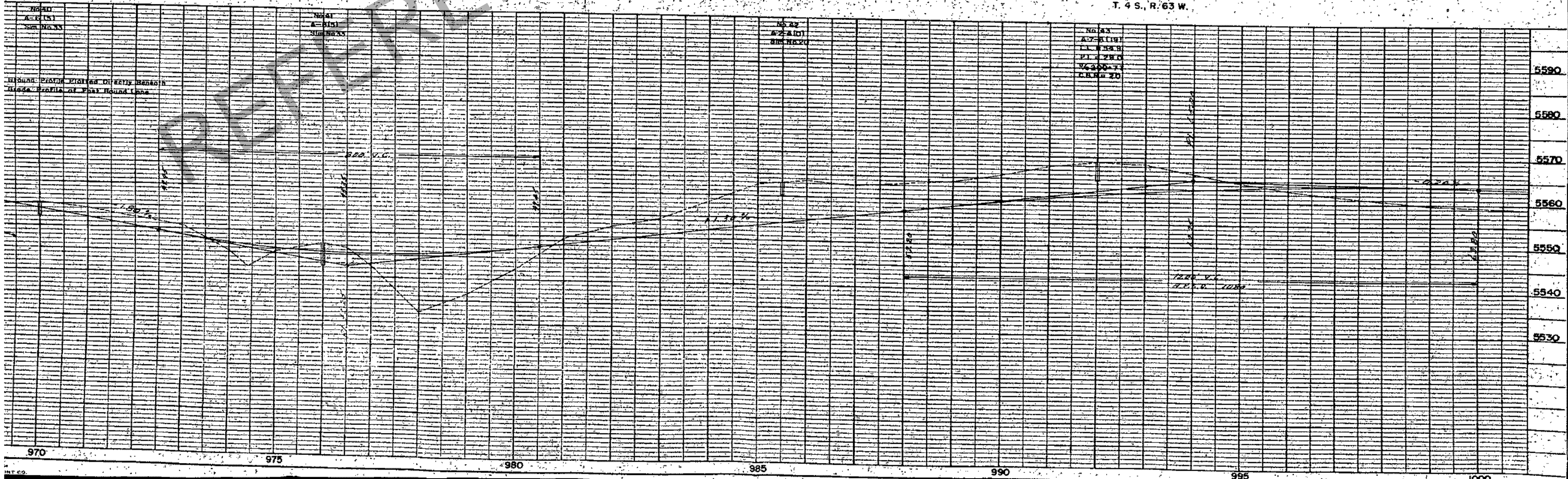


16 Philip Wagner  
141 So. 3rd Ave.  
Brighton, Colo.

17 George C. Krotter  
ARAPAHOE CO.

N.W. 1/4 Sec. 6  
T. 4 S., R. 63 W.

N.E. 1/4 Sec. 6  
T. 4 S., R. 63 W.



BEHIND EXISTING PROFILE DIRECTLY BEHIND  
GRADE PROFILE AT EAST BOUND LANE

970

975

980

985

990

995

1000

5590  
5580  
5570  
5560  
5550  
5540  
5530

SW 1/4 Sec. 32,  
T.3S, R.63W.

NW 1/4 Sec. 5,  
T.4S, R.63W.

Rev. 3-4-58 R.E.G.  
Rev. 5-15-58 Access R.E.G.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLO.	1095-1(2)	20-A	



51 Jacob W. &  
Julia E. Lehr, J.T.  
Bennett, Colo.

18 Perry Investment Company

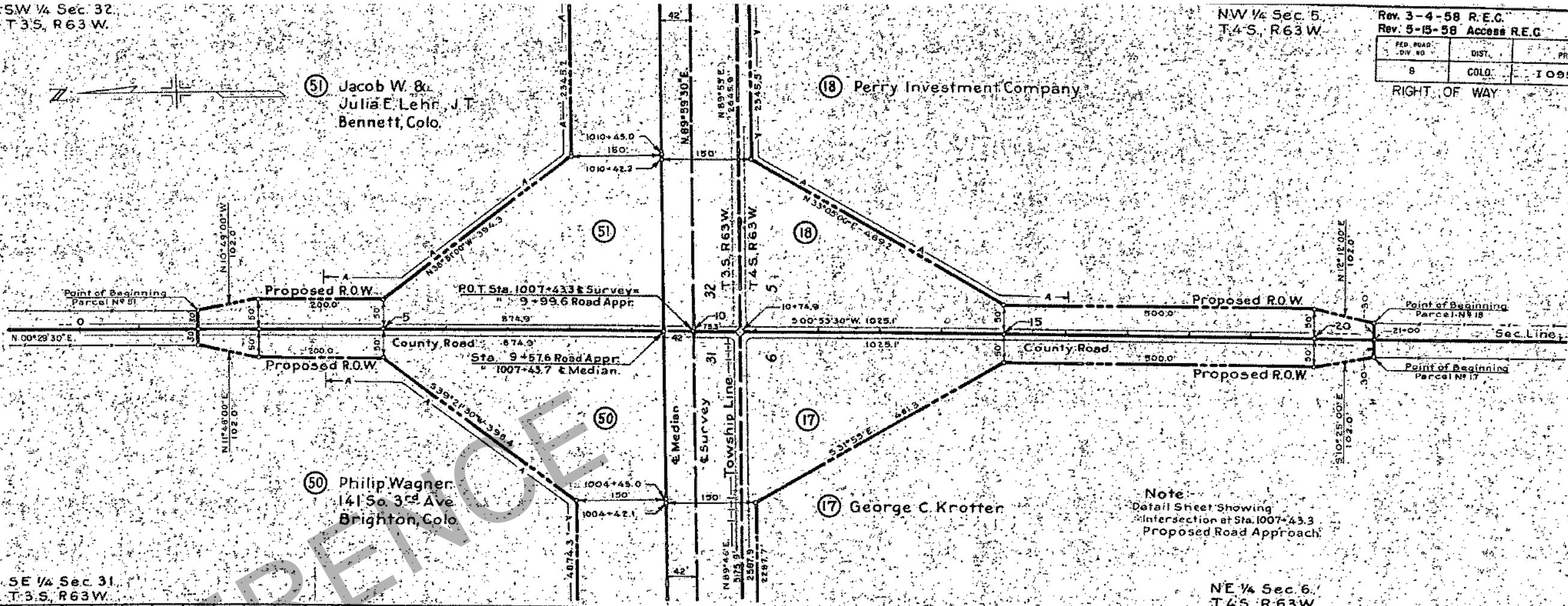
50 Philip Wagner,  
141 So. 3rd Ave.  
Brighton, Colo.

17 George C. Kroffter

SE 1/4 Sec. 31,  
T.3S, R.63W.

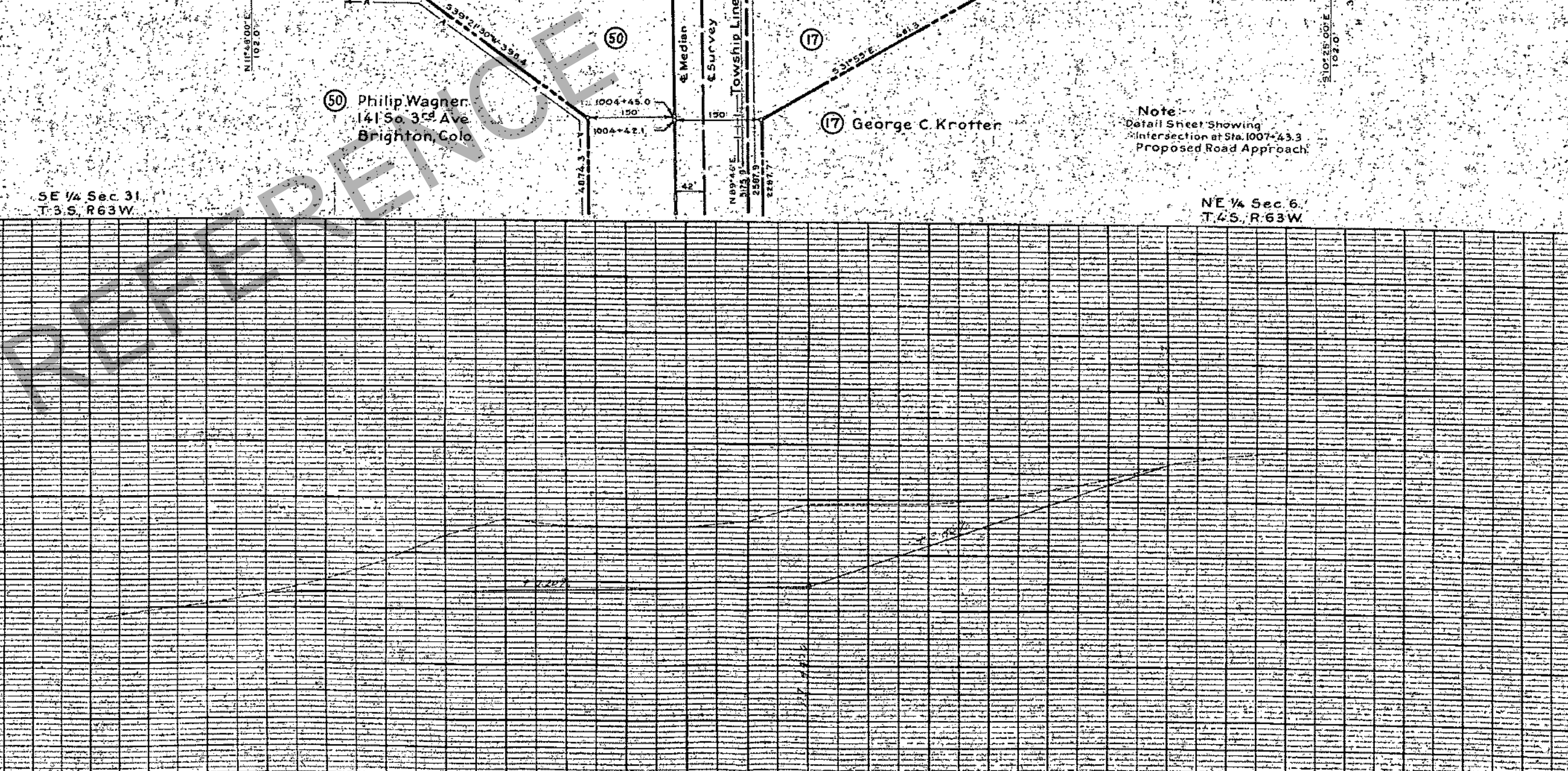
NE 1/4 Sec. 6,  
T.4S, R.63W.

Note:  
Detail Sheet Showing  
Intersection at Sta. 1007+43.3  
Proposed Road Approach



ADAMS CO.

ARAPAHOE CO.



Rev. 3-4-58 R.E.C.		Rev. 5-15-58 Access R.E.C.	
FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.
8	COLO.	1 095-1(2)	20
RIGHT OF WAY			

S.E. 1/4 Sec. 31  
T. 3 S., R. 63 W.

S.W. 1/4 Sec. 32  
T. 3 S., R. 63 W.

51 Jacob W. & Julia E. Lehr, J.T.  
Bennett, Colo.

50 Philip Wagner  
141 So. 3rd Ave.  
Brighton, Colo.

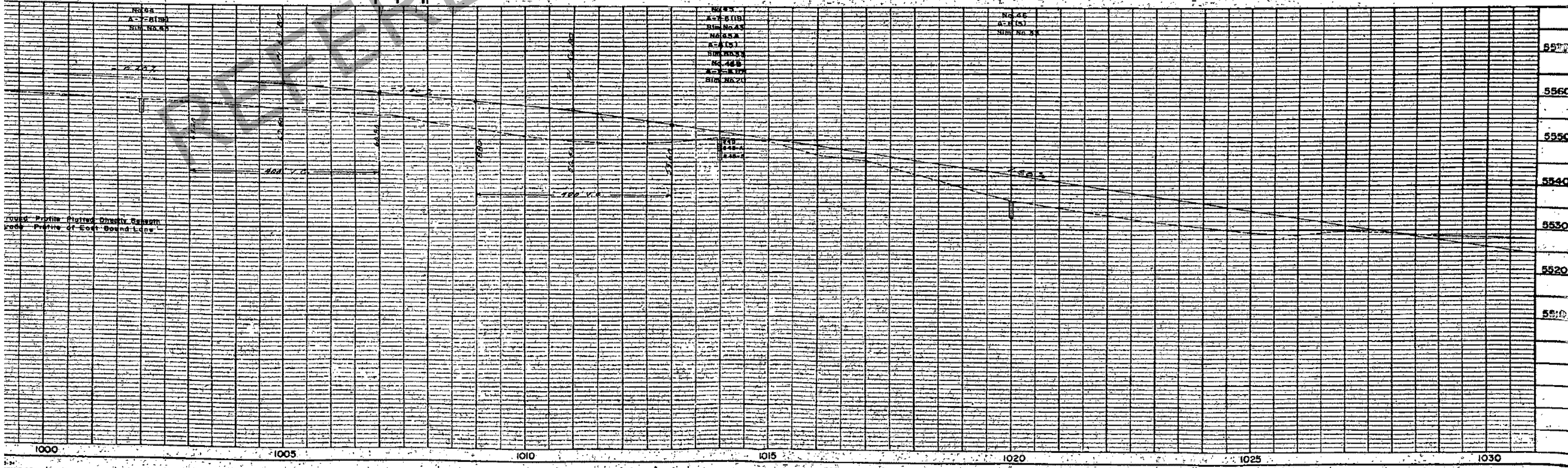
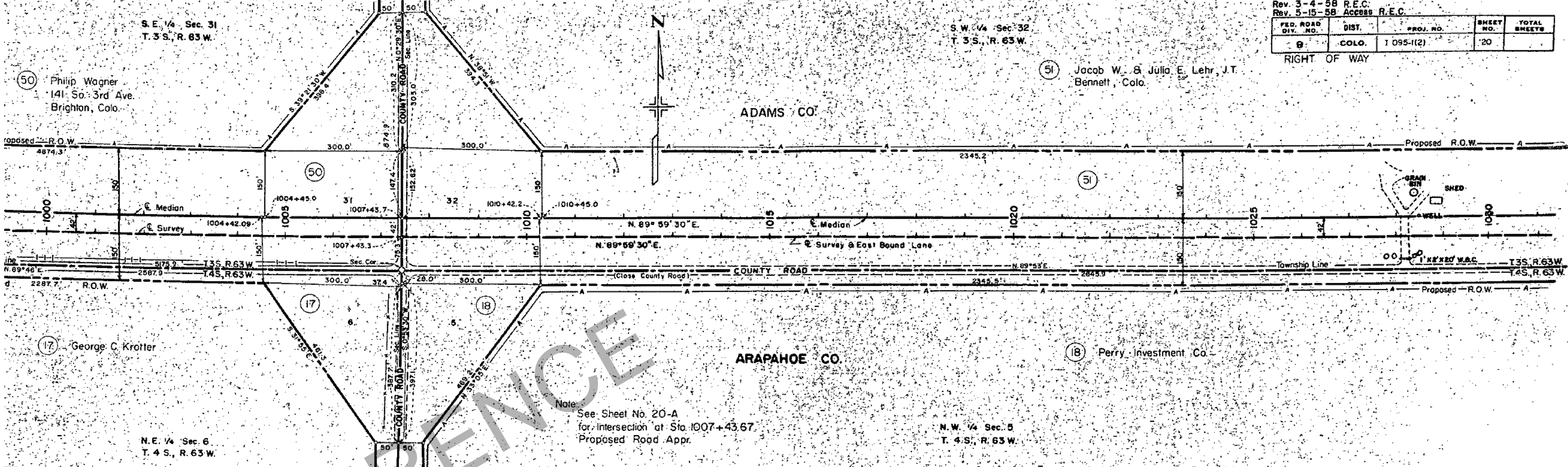
ADAMS CO.

ARAPAHOE CO.

N.E. 1/4 Sec. 6  
T. 4 S., R. 63 W.

N.W. 1/4 Sec. 5  
T. 4 S., R. 63 W.

Note:  
See Sheet No. 20-A  
for Intersection at Sta. 1007+43.67  
Proposed Road Appr.



S.W. 1/4 Sec. 32,  
T. 3 S., R. 63 W.

S.E. 1/4 Sec. 32,  
T. 3 S., R. 63 W.

Rev. 3-4-58 R.E.C. Rev. 10-14-58 20 Rev. R.E.C.

Rev. 5-15-58 Access R.E.C.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1 095-(2)	21	

(51) Jacob W. & Julia E. Lehr J.T.

(52) 1/2 Morguerite Muegge Hand  
1/2 Dent N. Hand &  
1/2 Pauline B. Muegge  
Box 811  
Newcastle, Wyoming

ADAMS CO.

ARAPAHOE CO.

(18) Perry Investment Company

(19) Byron W. & Thelma J. Trupp

N.W. 1/4 Sec. 5,  
T. 4 S., R. 63 W.

N.E. 1/4 Sec. 5,  
T. 4 S., R. 63 W.

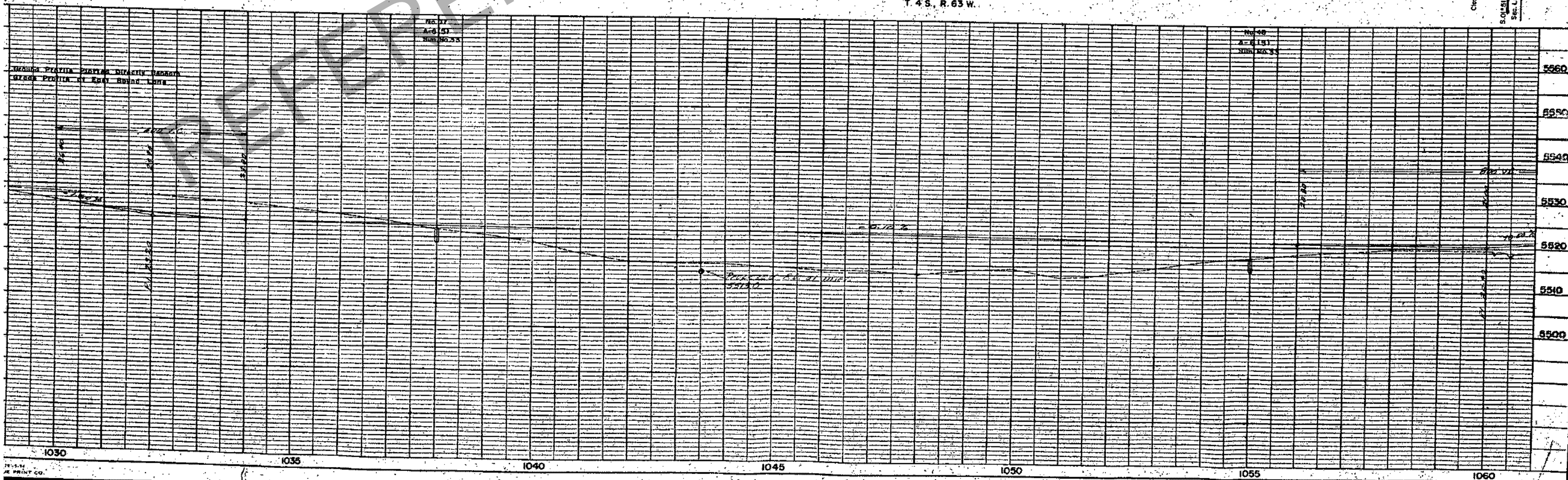
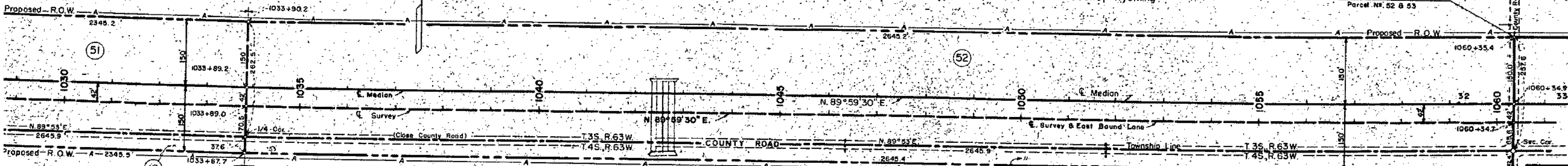
RIGHT OF WAY

Point of Beginning  
Parcel No. 52 & 53

Point of Beginning  
Parcel No. 19

Close County Road Rt. & Lt.  
No Access

(20)  
Rev.



No. 17  
A-6 53  
Sum No. 55

No. 48  
A-6 151  
Sum No. 35

GRAND PRIMA PLATA DISTRICT RECORD  
GRAND PRIMA PLATA DISTRICT RECORD

PROPERTY OF BYRON W. & THELMA J. TRUPP

1030 1035 1040 1045 1050 1055 1060

S.W. 1/4 Sec. 33  
T. 3 S., R. 63 W.

ADAMS CO.

(53) 1/2 Marguerite Muegge Hand  
Dent N. Hand  
1/2 Pauline B. Muegge  
Box 811  
Newcastle, Wyo.

RIGHT OF WAY				
FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1095-1(2)	22	

Rev. 3-4-58 R.E.C.  
Rev. 5-15-58 Access R.E.C.  
Rev. 10-14-58 20 Rev. R.E.C.

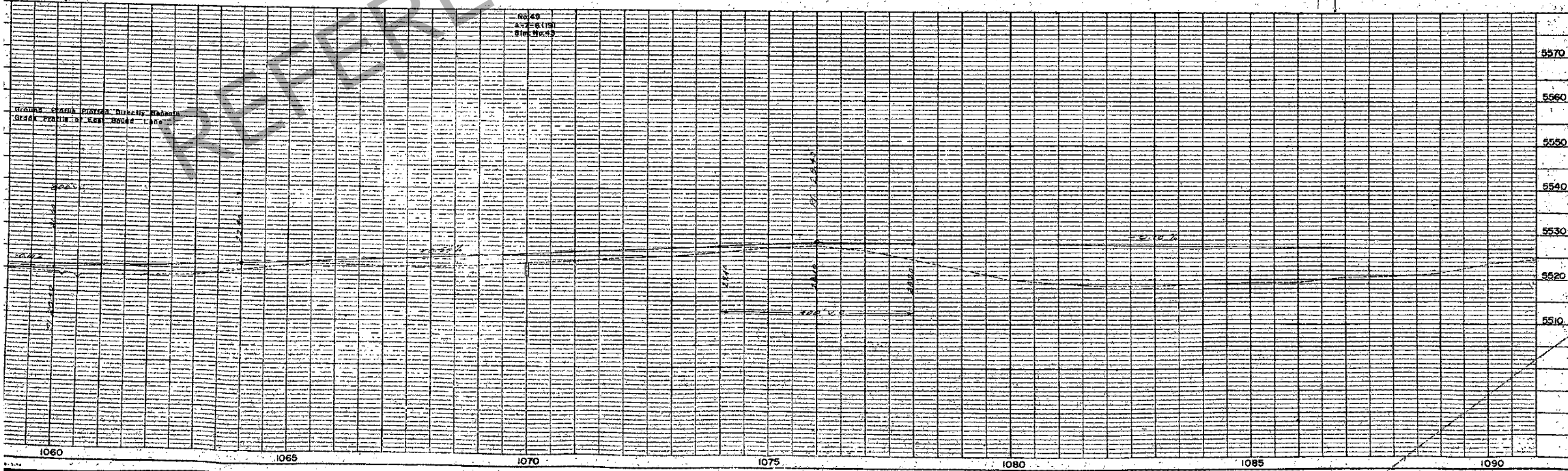
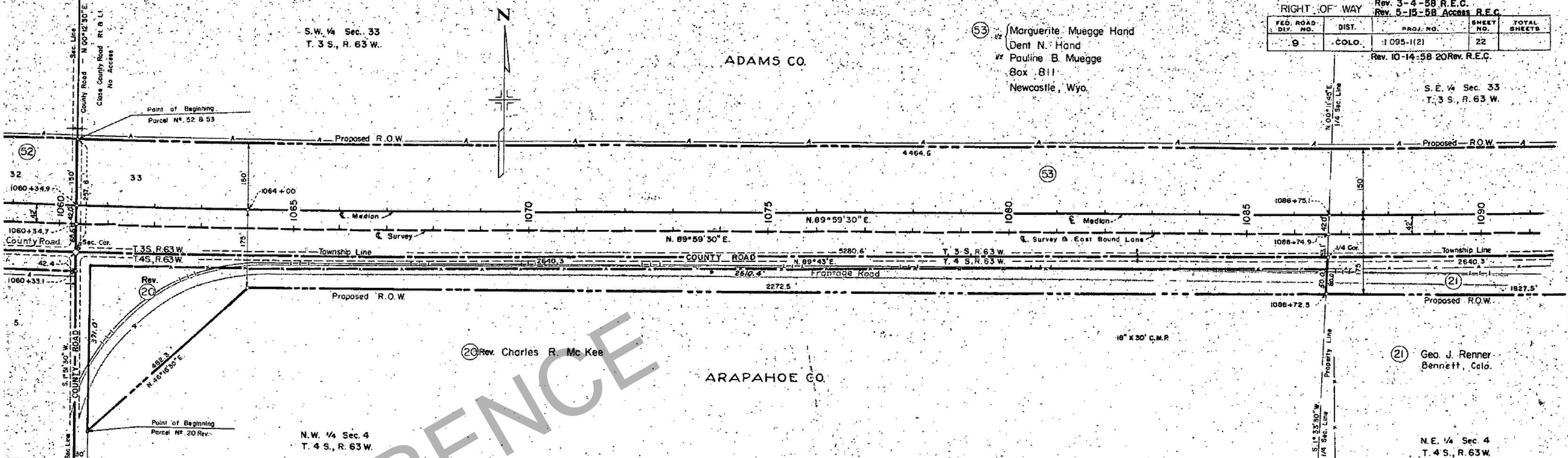
S.E. 1/4 Sec. 33  
T. 3 S., R. 63 W.

N.W. 1/4 Sec. 4  
T. 4 S., R. 63 W.

ARAPAHOE CO.

(21) Geo. J. Renner  
Bennett, Colo.

N.E. 1/4 Sec. 4  
T. 4 S., R. 63 W.



No. 49  
A-7-6(19)  
Sims No. 49

GRADES PLAIN PLAYS DIRECTLY BEHIND  
GRADE PROFILE OF ROAD BOUND LANE



W 1/4 Sec. 34  
35, R. 63W.

NW 1/4 Sec. 3  
T4S, R63W.

RIGHT OF WAY  
Rev. 3-4-58 R.E.C.  
Rev. 5-15-58 Access R.E.C.

FILE NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLD.	1095-1(2)	24	

Bennett, Appr. 1113+



North 100' of east A-line  
reconveyed September 27th, 2004,  
Rec. No. 20041213001262030 to  
Jagee Real Properties.

56 Geo. J. Renner, Jr.  
Bennett, Colo.

21 22 Geo. J. Renner, Jr.  
Bennett, Colo.

53 1/2 Marguerite Muegge Hand  
Dent N. Hand  
1/2 Pauline B. Muegge  
P.O. B. 811  
Newcastle, Wyo.

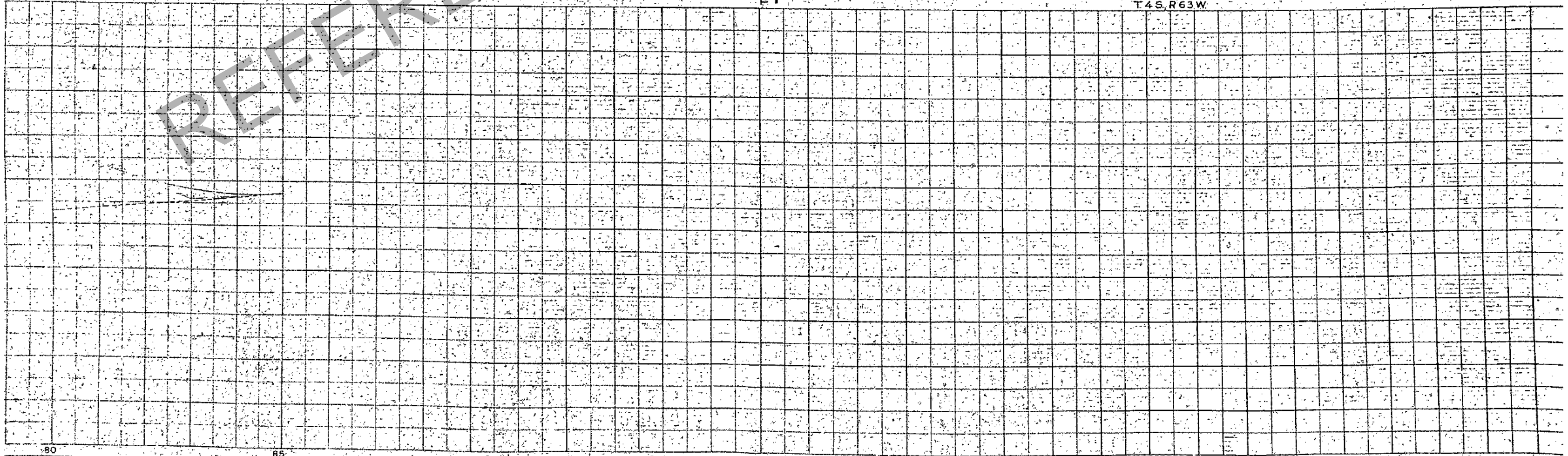
Note:  
Detail Sheet Showing  
Proposed Bennett Approach  
at Sta. 1113+15, 26

E 1/4 Sec. 33  
35, R. 63W.

NE 1/4 Sec. 4  
T4S, R63W.

ADAMS CO.

ARAPAHOE CO.



SW 1/4 Sec. 34  
T.35, R.63W

RIGHT OF WAY  
Rev. 3-4-88 R.E.C.  
Rev. 5-15-88 Access R.E.C.

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLD	1095-1(2)	25	



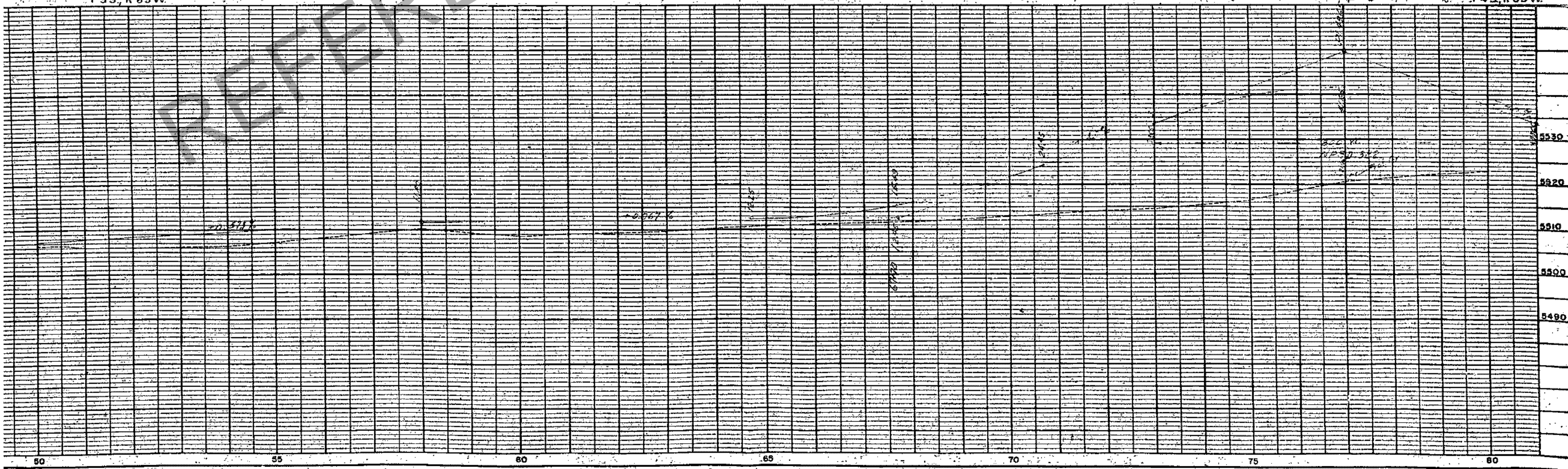
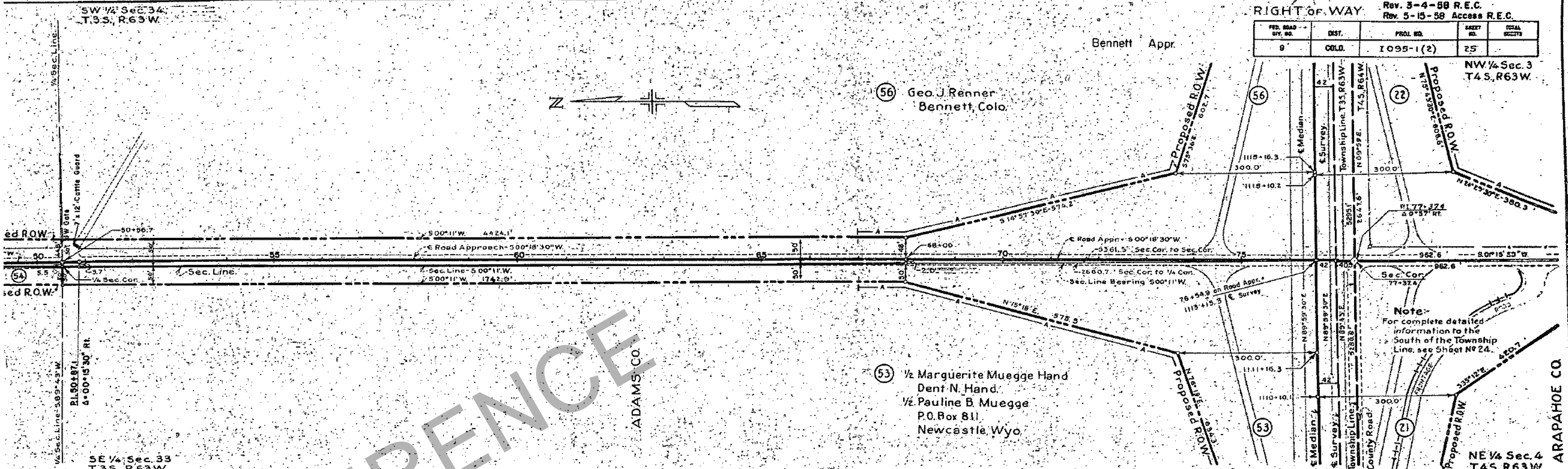
Bennett Appr.

(56) Geo. J. Renner  
Bennett, Colo.

NW 1/4 Sec. 3  
T.45, R.63W

(53) 1/2 Marguerite Muegge Hand  
Dent N. Hand  
1/2 Pauline B. Muegge  
P.O. Box 811  
Newcastle, Wyo

Note:  
For complete detailed  
information to the  
South of the Township  
Line, see Sheet No 24.



ADAM'S CO.

ARAPAHOE CO.



NW 1/4 Sec. 27  
T.3S., R.63W.

NW 1/4 Sec. 34  
T.3S., R.63W.

RIGHT OF WAY				
POST. ROAD DIV. NO.	DIST.	PRJ. NO.	SHEET NO.	TOTAL SHEETS
0	COLD	1095-1(2)	26	

Bennett Appr.

ADAMS CO.

(56) Geo. J. Renner  
Bennett, Colo.

(54) Charles W. Muegge  
Bennett, Colo.

NE 1/4 Sec. 39  
T.3S., R.63W.

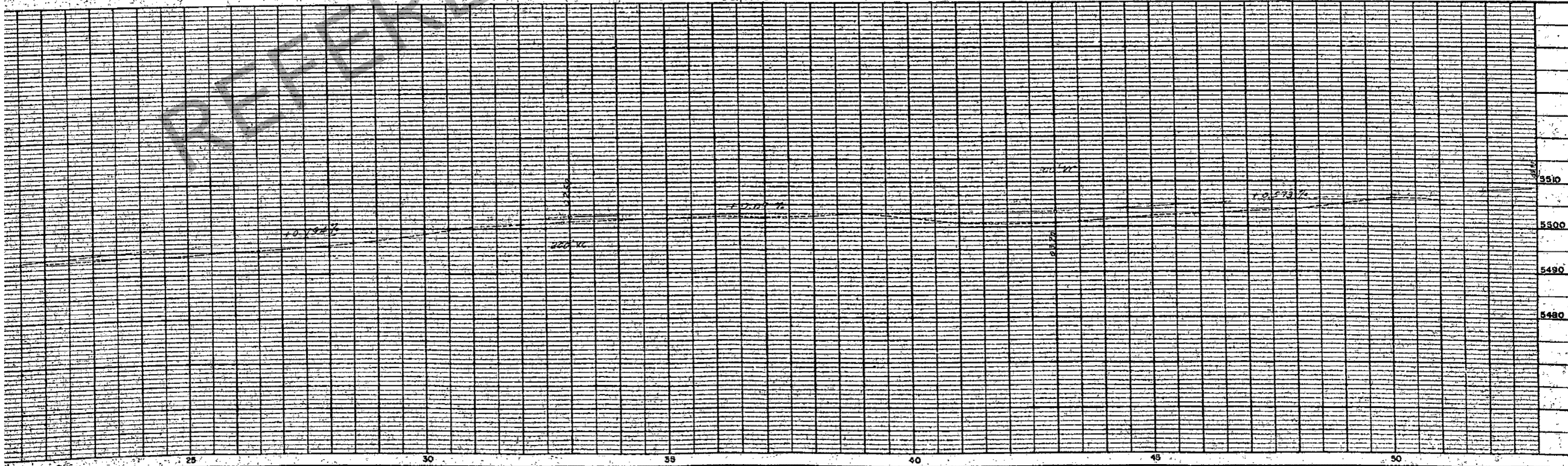
Proposed R.O.W.

Proposed R.O.W.

Proposed R.O.W.

SE 1/4 Sec. 2B  
T.3S., R.63W.

REFERENCE



23775.9

Point of Beginning  
Parcel Nos 53-55

Point of Beginning  
Parcel Nos 54 & 53

Sec. Line  
N. 89°49' W.

Sec. Line  
N. 89°49' W.

Sec. Line  
N. 89°49' W.

Sec. Line  
N. 89°49' W.

Sec. Line  
N. 89°49' W.

Sec. Line  
N. 89°49' W.

B.W. Electric

County Road

Road Approach 500°03'00" W

Mail Box

PI. 50+87.1  
4=00°19'30" Rt.

25 30 35 40 45 50

5510  
5500  
5490  
5480

N 1/4 Sec. 34  
35, R63W

SE 1/4 Sec. 34  
T35, R63W

Rev. 3-4-58 R.E.C.		Rev. 10-7-58 T.45. R.E.C.		
Rev. 5-15-58 Access R.E.C.				
FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1095-1(2)	28	

ADAMS CO.

56 Geo. J. Renner  
Bennett, Colo.

56

22 Geo. J. Renner Jr.  
Bennett, Colo.

ARAPAHOE CO.

23 Amelia Renner

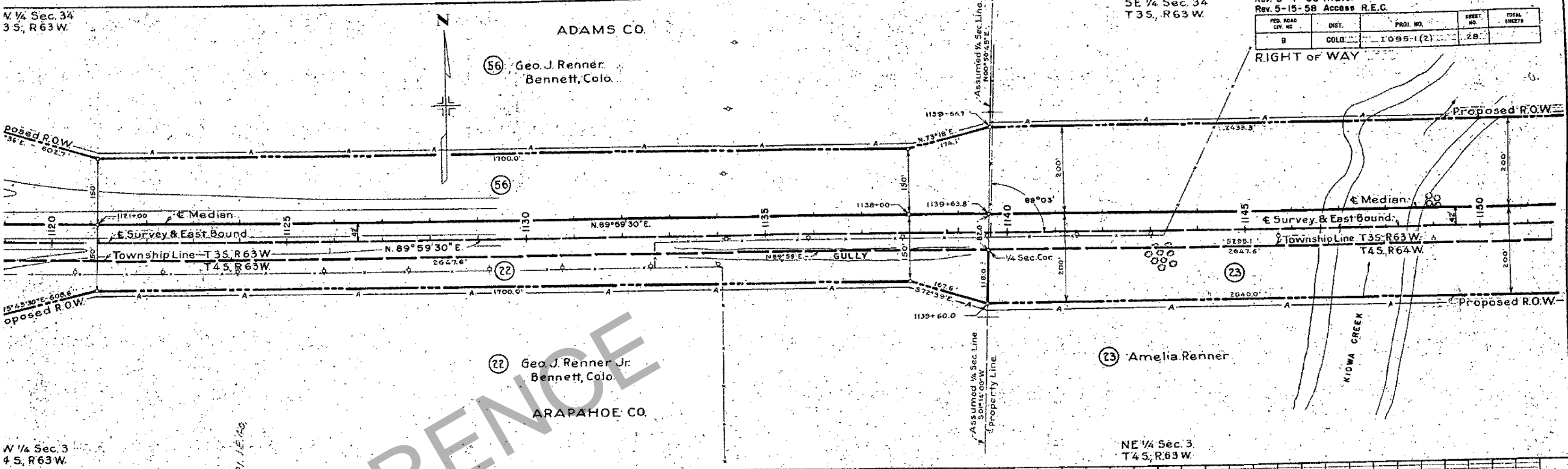
NE 1/4 Sec. 3  
T45, R63W

Proposed R.O.W.

Proposed R.O.W.

Proposed R.O.W.

RIGHT OF WAY



W 1/4 Sec. 3  
45, R63W

SECTION	OWNER	ACRES	BEARING	DISTANCE	REMARKS
36	Geo. J. Renner	160.00	N. 89° 59' 30" E.	1700.0'	
35	Geo. J. Renner Jr.	160.00	N. 89° 59' 30" E.	1700.0'	
34	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
33	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
32	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
31	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
30	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
29	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
28	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
27	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
26	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
25	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
24	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
23	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
22	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
21	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
20	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
19	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
18	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
17	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
16	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
15	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
14	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
13	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
12	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
11	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
10	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
9	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
8	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
7	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
6	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
5	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
4	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
3	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
2	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	
1	Amelia Renner	160.00	N. 89° 59' 30" E.	1700.0'	

1120 1125 1130 1135 1140 1145 1150

S. E. 1/4 SEC. 34  
T. 3 S., R. 63 W.

ADAMS CO.

SW 1/4 Sec. 35  
T. 3 S., R. 63 W.

Rev. 3-4-58 R.E.C. Rev. 5-15-58 Access R.E.C.  
Rev. 4-28-58 C.E.B. 24 Rev. Rev. 5-9-58 F.C.M. 24 Rev. 2

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	1095-1 (2)	29	

Right of Way Rev. 6-17-58 57 Rev. F.C.M.

56 Geo. J. Renner  
Bennett, Colo.

57 R. Miller  
Boulder, Colo.  
P.O. Box 183

23 Amelia Renner

24 Rev. 2 Leda (M)(H) (Peterson) Dooley  
B Vonce M. Holden

ARAPAHOE CO.

NW 1/4 Sec. 2  
T. 4 S., R. 63 W.

Med. R.O.W.  
Median  
Survey & East Bound Lane  
Township Line T. 3 S., R. 63 W.  
T. 4 S., R. 63 W.

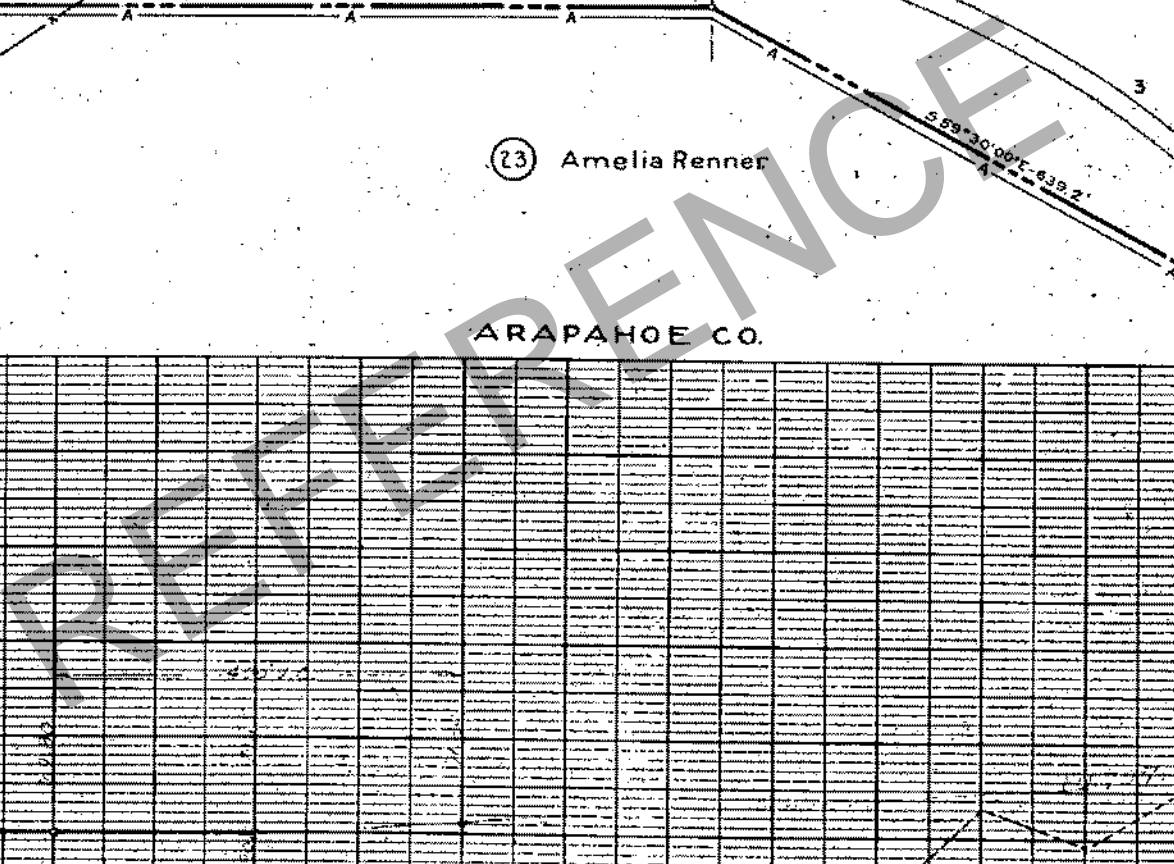
Proposed R.O.W.  
Strasburg Connection  
& South Lane

Notes:  
For Parcels No. 24 Rev. 2 & 57 Rev. see Sheet No. 32.  
For Intersection on Proposed Road Approach, see Sheets No. 29-A & 29-B.

Δ 11°15'00" Rt.  
D 1°00'  
T 564.3'  
L 1125.0'  
R 5730.0'

Profile of Survey Line C Median

1150 1155 1160 1165 1170 1175 1180





SW 1/4 Sec. 35  
T 3 S, R 63 W

Rev. 5-15-58 Access R.E.C. Rev. 12-10-58 bearing R.E.C.  
Rev. 6-17-58 57 Rev F.C.M.

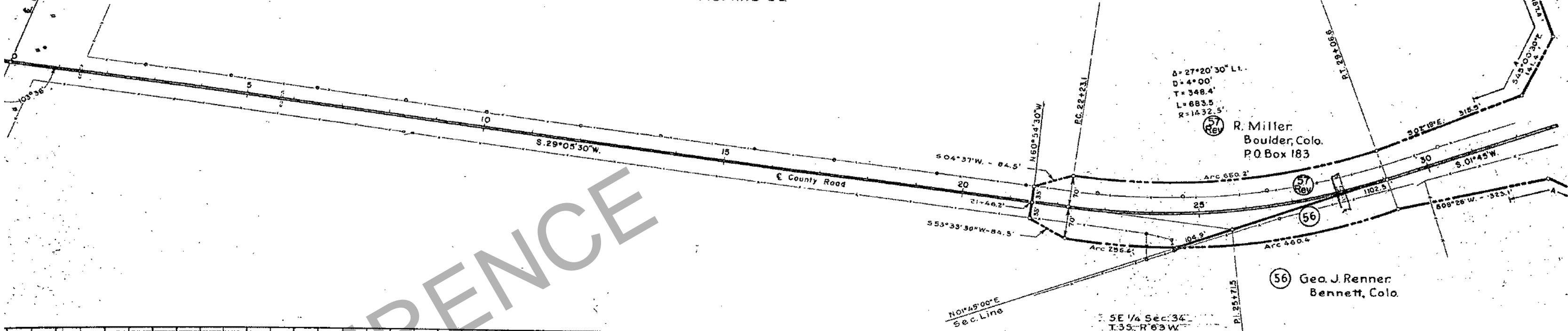
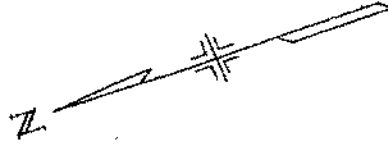
FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLO.	1095-1(2)	29-B	

RIGHT OF WAY

Kiowa Appr.

ADAMS CO.

U.S. 840 TO DENVER  
N. 47° 18' 30" W



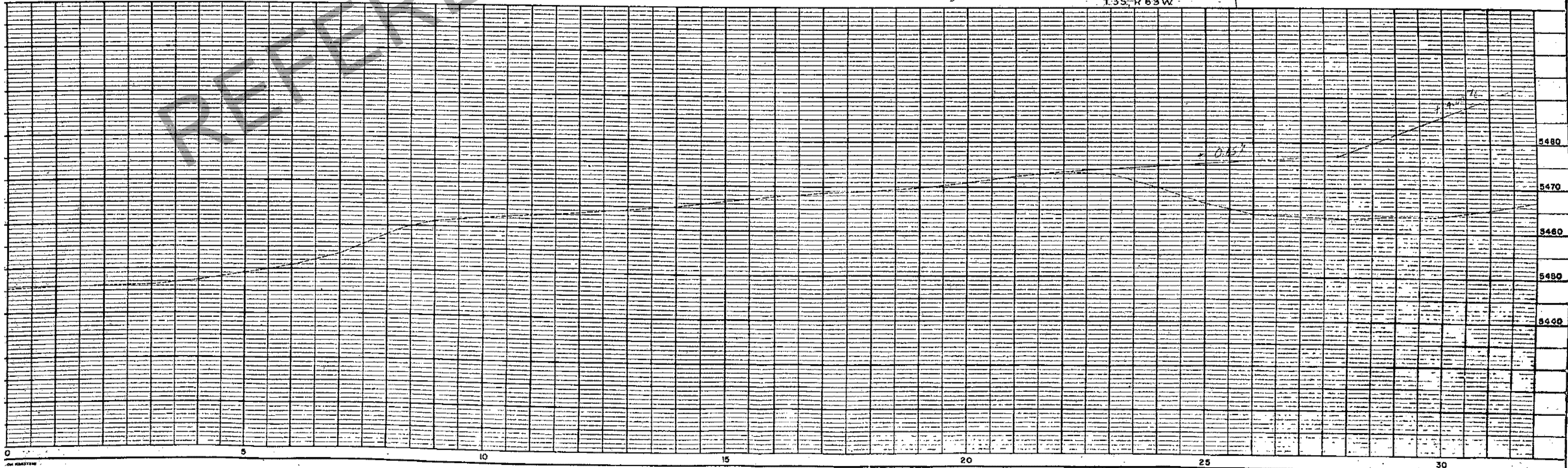
$\Delta = 27^{\circ} 20' 30''$  Lt.  
 $D = 4^{\circ} 00'$   
 $T = 348.4'$   
 $L = 683.5'$   
 $R = 1432.5'$

57  
R. Miller  
Boulder, Colo.  
P.O. Box 183

56  
Geo. J. Renner  
Bennett, Colo.

SE 1/4 Sec. 34  
T. 3 S, R. 63 W

REFERENCE



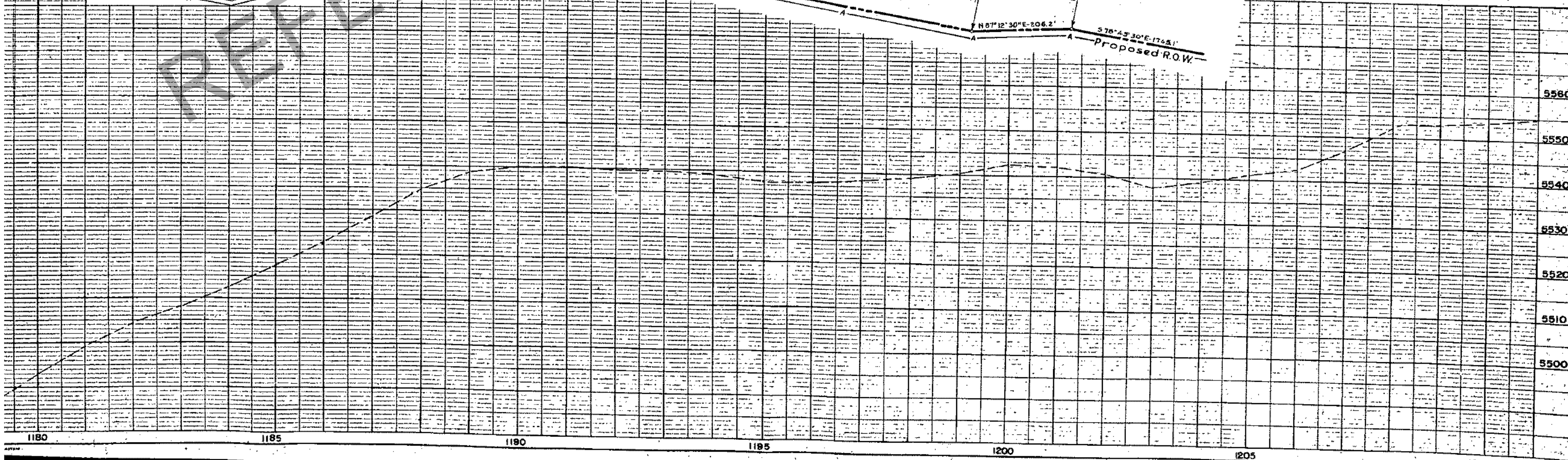
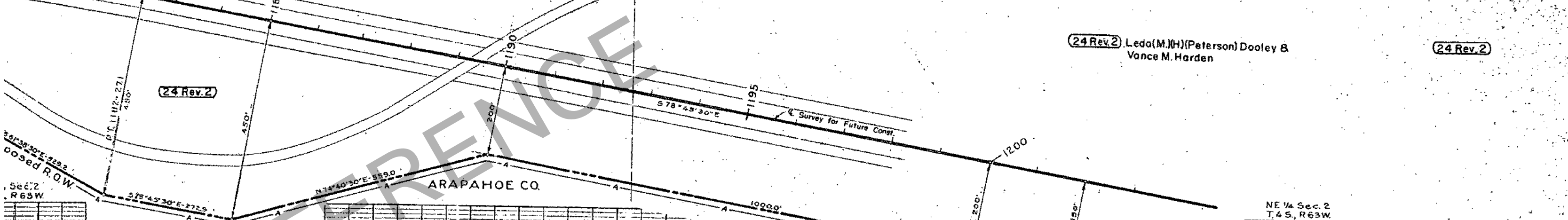
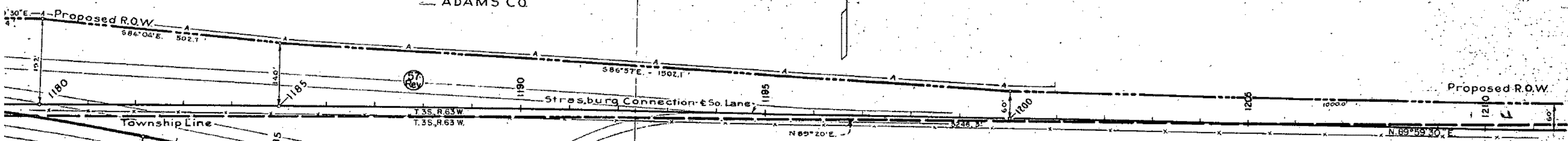
23, N 63 W.

SE 1/4 Sec. 35  
T 35, R 63 W.

Rev. 3-4-58 R.E.C.		Rev. 5-15-58 Access R.E.C.	
Rev. 4-28-58 C.E.B.		24 Rev. Rev. 5-9-58 F.C.M. 24 Rev. 2	
FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.
9	C.O.D.	[ 095-1(2)	30
RIGHT OF WAY			Rev. 6-17-58 57 Rev. F.C.M.

R. Miller  
Boulder, Colo.  
P.O. Box 183

ADAMS CO.



(24 Rev. 2) Leda (M.H.) (Peterson) Dooley & Vance M. Harden

(24 Rev. 2)

ARAPAHOE CO.

NE 1/4 Sec. 2  
T. 4 S., R. 63 W.

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLL.	1095-1(2)	30A	

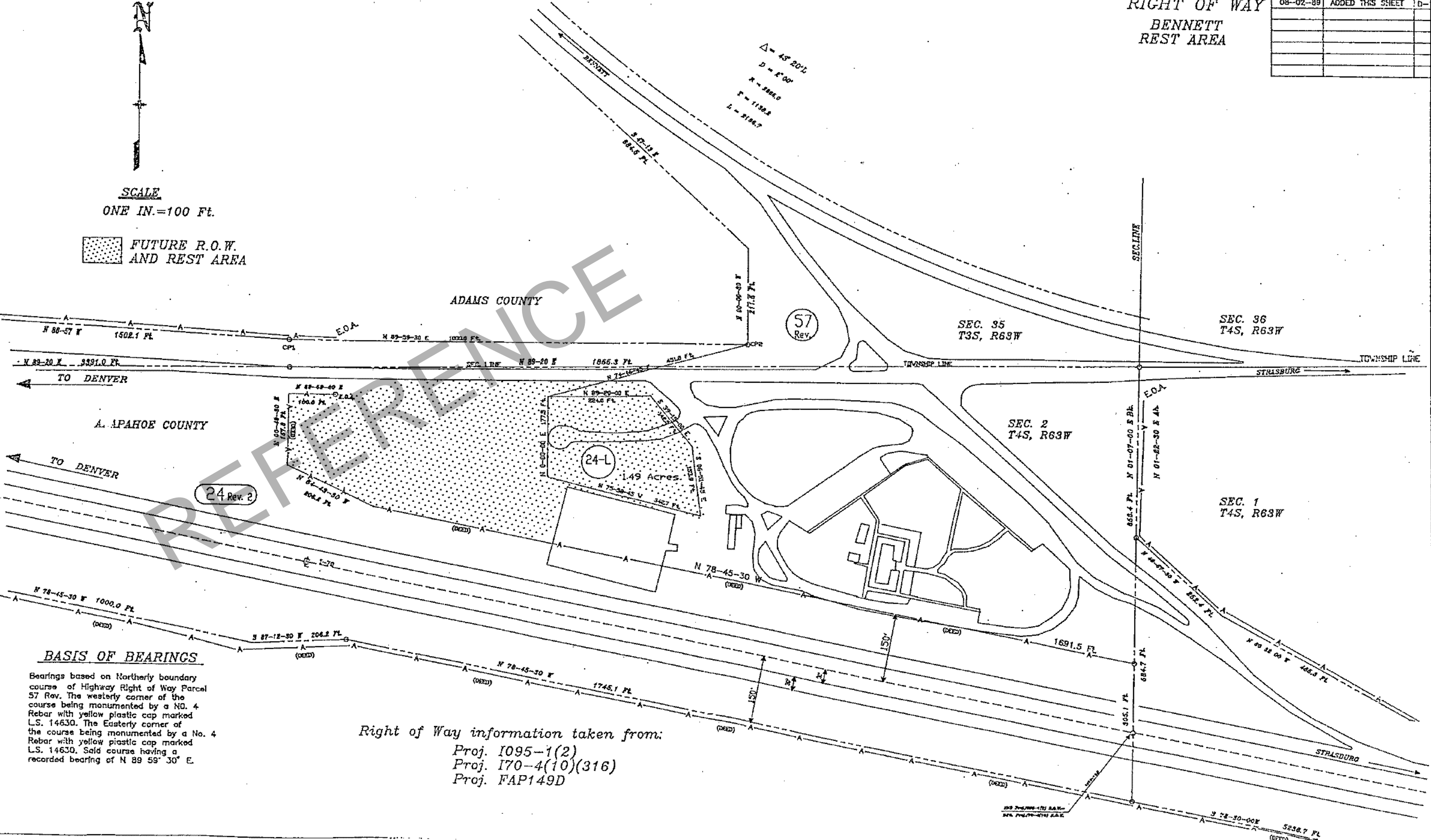
REVISIONS		
DATE	DESCRIPTION	BY
08-02-89	ADDED THIS SHEET	D-

**RIGHT OF WAY  
BENNETT  
REST AREA**



**SCALE**  
ONE IN. = 100 FT.

**FUTURE R.O.W.  
AND REST AREA**



**BASIS OF BEARINGS**

Bearings based on Northerly boundary course of Highway Right of Way Parcel 57 Rev. The westerly corner of the course being monumented by a NO. 4 Rebar with yellow plastic cap marked L.S. 14630. The Easterly corner of the course being monumented by a No. 4 Rebar with yellow plastic cap marked L.S. 14630. Said course having a recorded bearing of N 89 59' 30" E.

Right of Way information taken from:  
 Proj. 1095-1(2)  
 Proj. 170-4(10)(316)  
 Proj. FAP149D





4 Sec. 35  
R 63 W

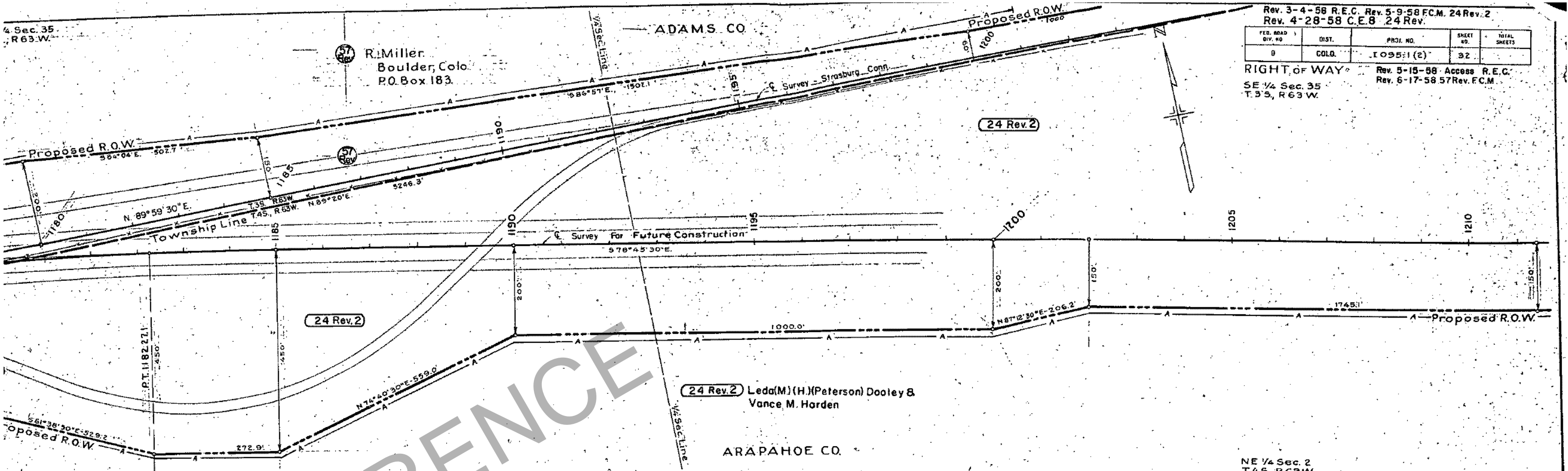
ADAMS CO

R. Miller  
Boulder, Colo.  
P.O. Box 183

Rev. 3-4-58 R.E.C. Rev. 5-9-58 F.C.M. 24 Rev. 2  
Rev. 4-28-58 C.E. 8 24 Rev.

FED. ROAD DIV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	10951 (2)	32	

RIGHT OF WAY  
SE 1/4 Sec. 35  
T. 35, R. 63 W.  
Rev. 5-15-58 Access R.E.C.  
Rev. 6-17-58 57 Rev. F.C.M.



N 1/4 Sec. 2  
T. 45, R. 63 W.

1180	1185	1190	1195	1200	1205	1210	5570
1180	1185	1190	1195	1200	1205	1210	5560
1180	1185	1190	1195	1200	1205	1210	5550
1180	1185	1190	1195	1200	1205	1210	5540
1180	1185	1190	1195	1200	1205	1210	5530
1180	1185	1190	1195	1200	1205	1210	5520
1180	1185	1190	1195	1200	1205	1210	5510
1180	1185	1190	1195	1200	1205	1210	5500

RIGHT OF WAY

NE 1/4 SEC. 2  
 T. 4 S., R. 63 W.

N.W. 1/4 Sec. 1  
 T. 4 S., R. 63 W.

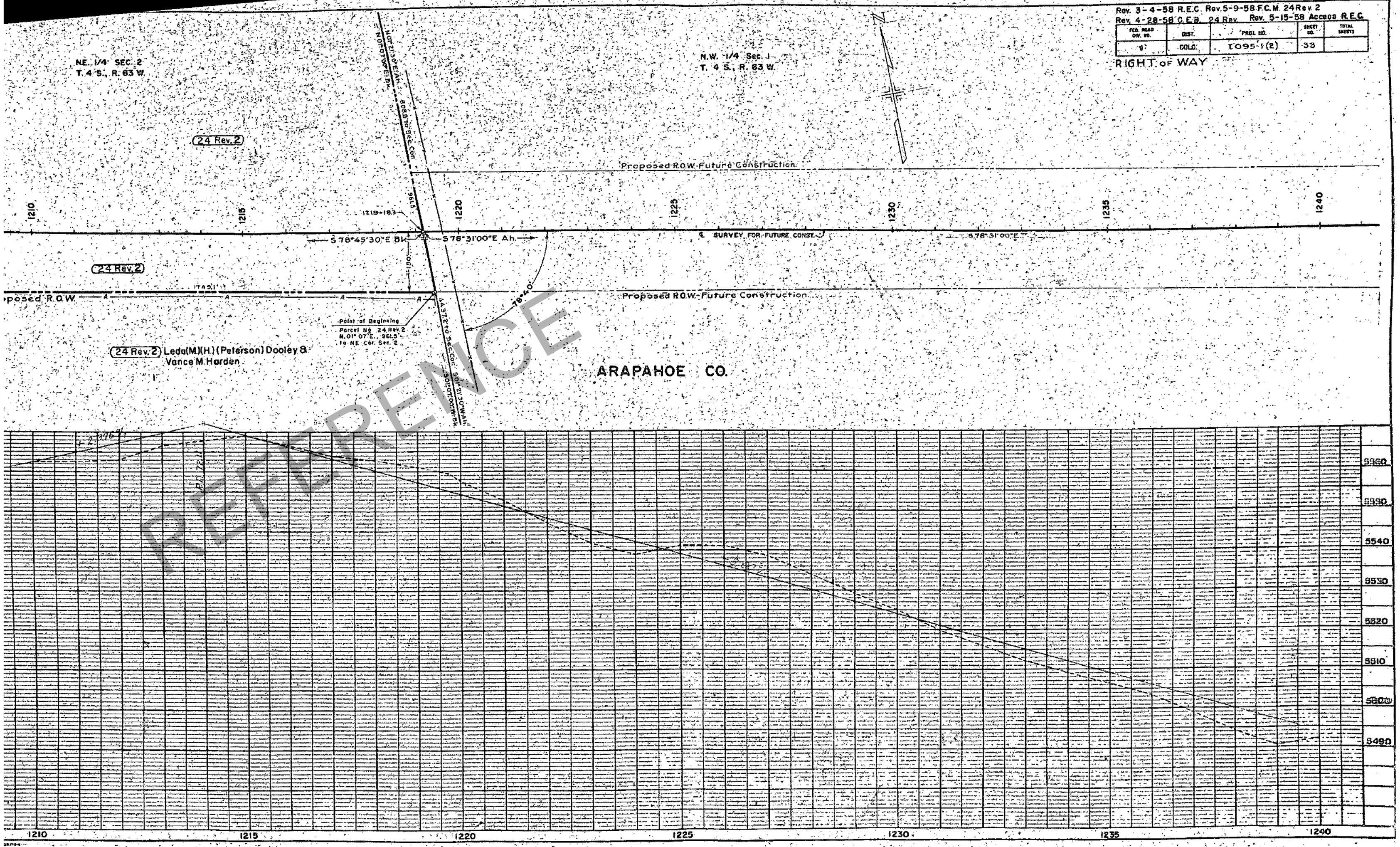
(24 Rev. 2)

(24 Rev. 2)

(24 Rev. 2) Leda (M.H.) (Peterson) Dooley &  
 Vance M. Harden

Point of Beginning  
 Parcel No. 24 Rev. 2  
 N. 01° 07' E., 961.5'  
 to NE Cor. Sec. 2

ARAPAHOE CO.



FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	I-095-1(2)	34	

RIGHT OF WAY Rev. 3-25-58 F.C.M.

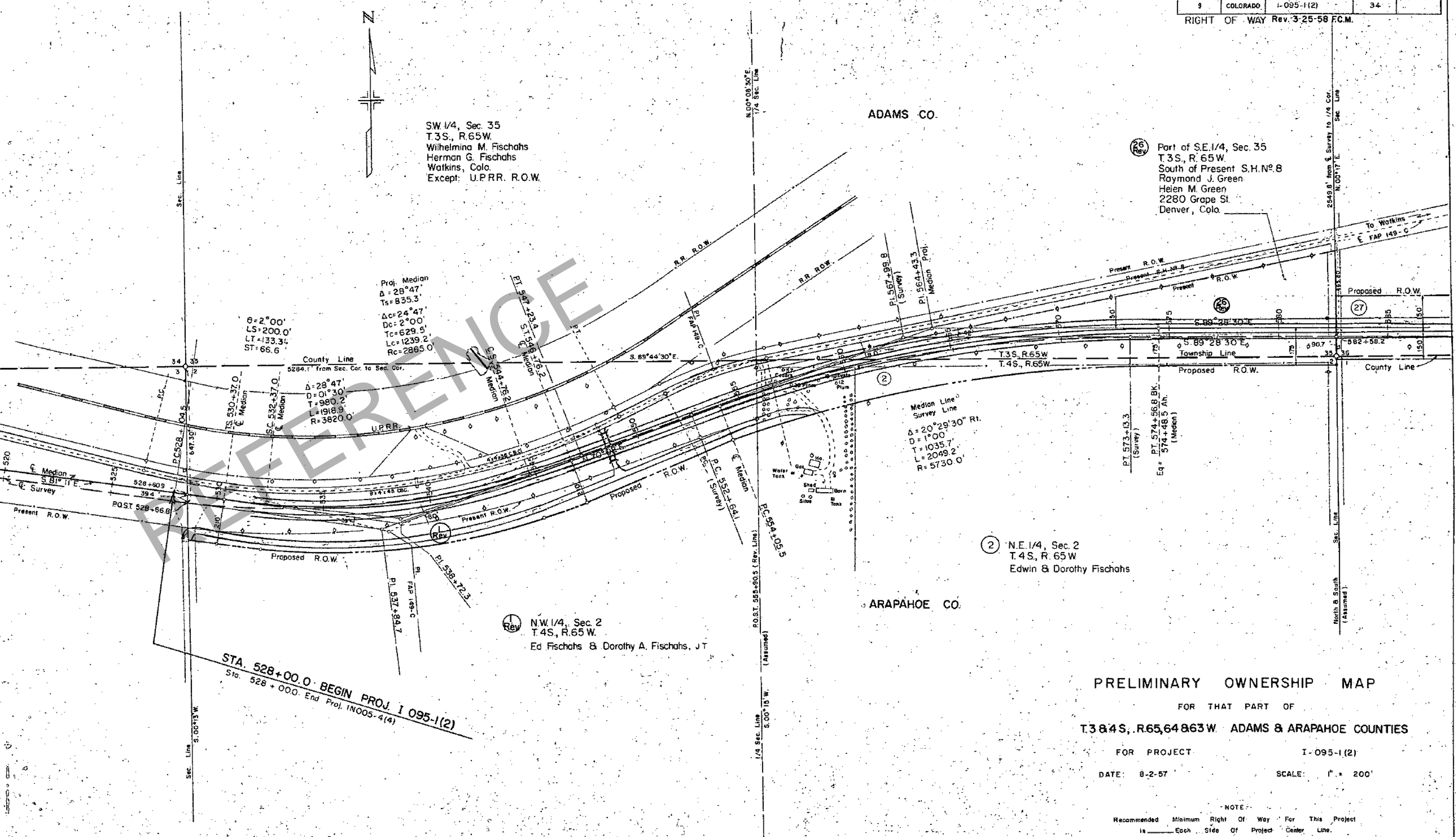


SW 1/4, Sec. 35  
 T.3S., R.65W.  
 Wilhelmina M. Fischahs  
 Herman G. Fischahs  
 Watkins, Colo.  
 Except: U.P.R.R. R.O.W.

Part of SE 1/4, Sec. 35  
 T.3S., R.65W.  
 South of Present S.H. No. 8  
 Raymond J. Green  
 Helen M. Green  
 2280 Grape St.  
 Denver, Colo.

ADAMS CO.

ARAPAHOE CO.



STA. 528+00.0 BEGIN PROJ. I 095-1(2)  
 Sta. 528+00.0 End Proj. I 095-1(2)

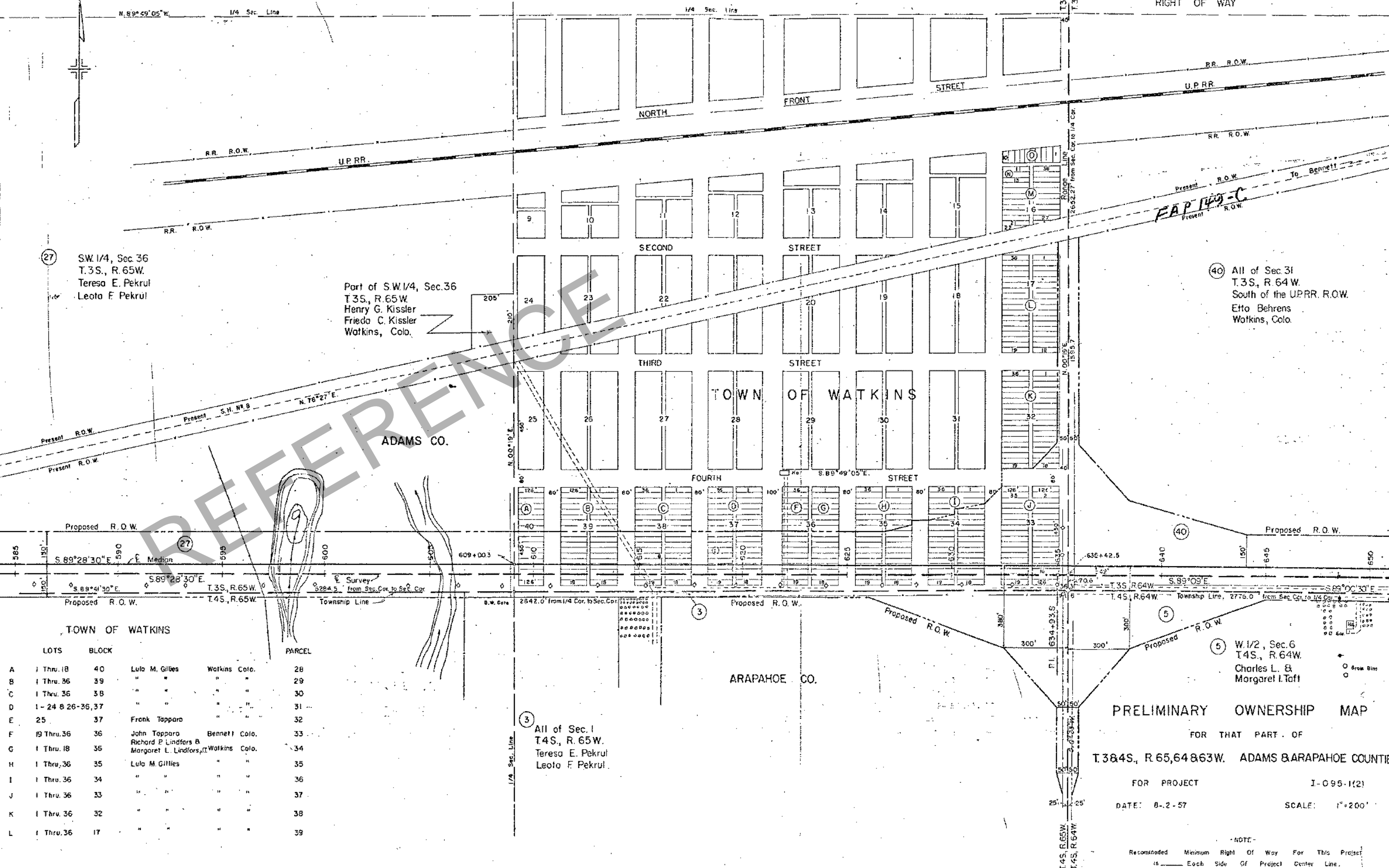
PRELIMINARY OWNERSHIP MAP  
 FOR THAT PART OF  
 T.3&4S., R.65,64&63 W. ADAMS & ARAPAHOE COUNTIES  
 FOR PROJECT I-095-1(2)  
 DATE: 8-2-57 SCALE: 1" = 200'

NOTE:  
 Recommended Minimum Right Of Way For This Project  
 is \_\_\_\_\_ Each Side Of Project Center Line.

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	I-095-1(2)	35	



RIGHT OF WAY



(27) SW 1/4, Sec. 36  
T.3S., R.65W.  
Teresa E. Pekrul  
Leota F. Pekrul

Part of S.W. 1/4, Sec. 36  
T.3S., R.65W.  
Henry G. Kissler  
Frieda C. Kissler  
Watkins, Colo.

(40) All of Sec. 31  
T.3S., R.64W.  
South of the U.P.R.R. R.O.W.  
Etto Behrens  
Watkins, Colo.

ADAMS CO.

ARAPAHOE CO.

(3) All of Sec. 1  
T.4S., R.65W.  
Teresa E. Pekrul  
Leota F. Pekrul

(5) W. 1/2, Sec. 6  
T.4S., R.64W.  
Charles L. &  
Margaret I. Taft

TOWN OF WATKINS

LOTS	BLOCK	PARCEL	OWNER	ADDRESS
A	1 Thru. 18	40	Lula M. Gillies	Watkins Colo. 28
B	1 Thru. 36	39	"	" " 29
C	1 Thru. 36	38	"	" " 30
D	1-24 & 26-36, 37		"	" " 31
E	25	37	Frank Tapparo	" " 32
F	19 Thru. 36	36	John Tapparo	Bennett Colo. 33
G	1 Thru. 18	35	Richard P. Lindfors & Margaret L. Lindfors	Watkins Colo. 34
H	1 Thru. 36	35	Lula M. Gillies	" " 35
I	1 Thru. 36	34	"	" " 36
J	1 Thru. 36	33	"	" " 37
K	1 Thru. 36	32	"	" " 38
L	1 Thru. 36	17	"	" " 39

PRELIMINARY OWNERSHIP MAP

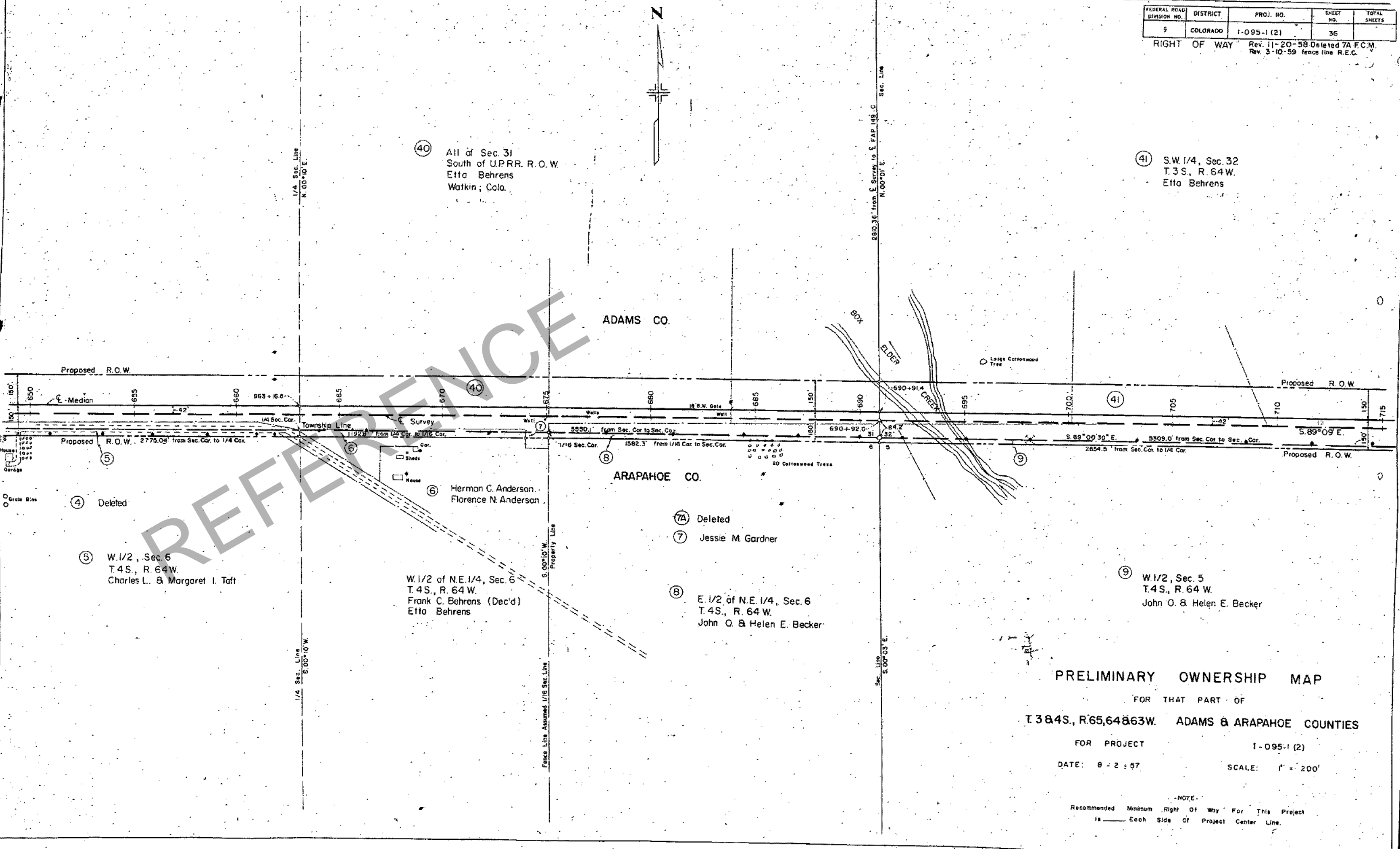
FOR THAT PART OF  
T.3&4S., R.65,64 & 63W. ADAMS & ARAPAHOE COUNTIES

FOR PROJECT I-095-1(2)  
DATE: 8-2-57 SCALE: 1"=200'

-NOTE-  
Recommended Minimum Right Of Way For This Project  
is Each Side Of Project Center Line.

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	1-095-1 (2)	36	

RIGHT OF WAY Rev. 11-20-58 Deleted 7A F.C.M.  
Rev. 3-10-59 fence line R.E.C.



**PRELIMINARY OWNERSHIP MAP**

FOR THAT PART OF  
T. 3 & 4 S., R. 65, 64 & 63 W. ADAMS & ARAPAHOE COUNTIES

FOR PROJECT 1-095-1 (2)  
DATE: 8-2-57 SCALE: 1" = 200'

-NOTE-  
Recommended Minimum Right Of Way For This Project  
Is \_\_\_\_\_ Each Side Of Project Center Line.

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	1-095-1(2)	37	

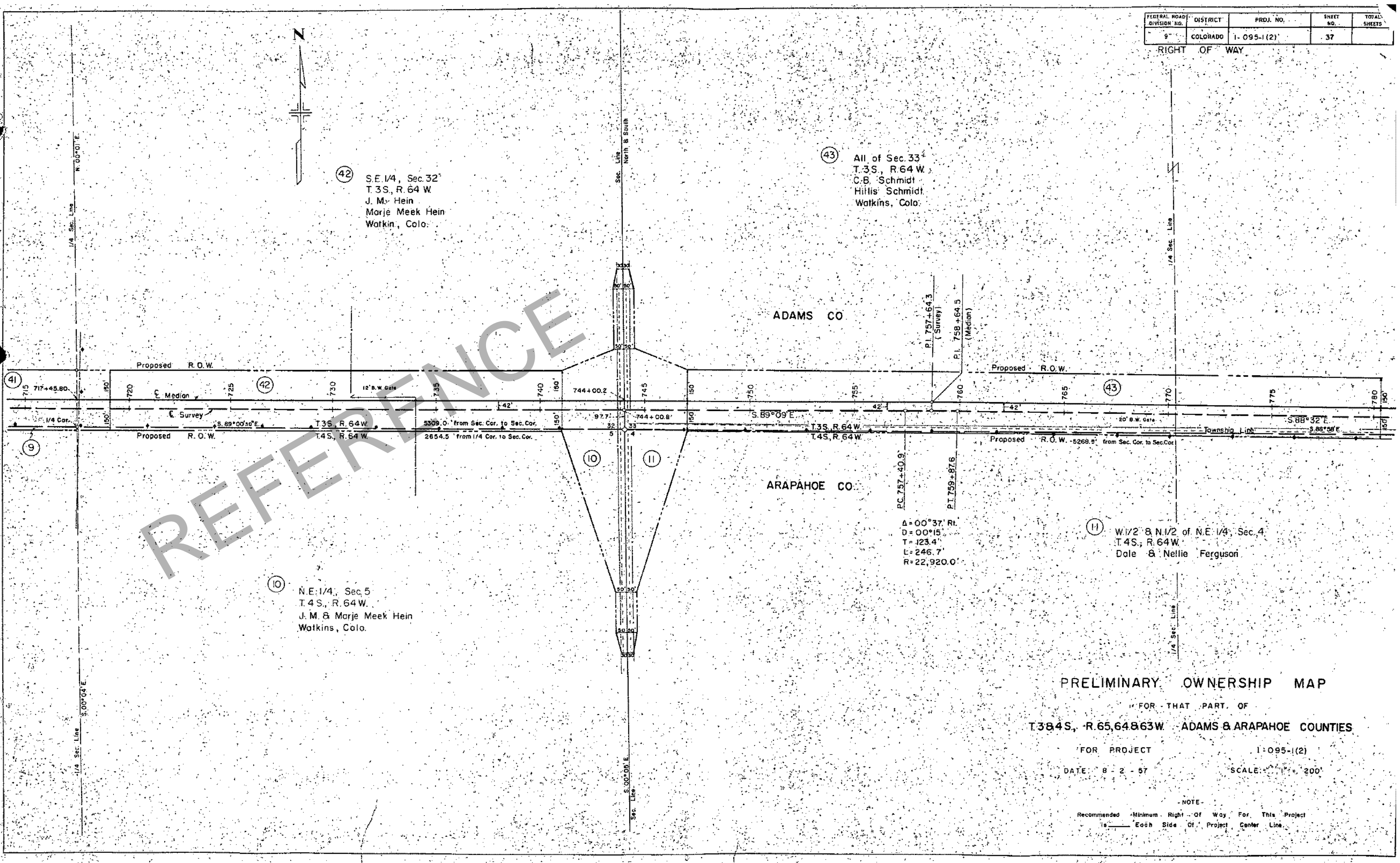
RIGHT OF WAY



42 S.E. 1/4, Sec. 32  
T. 3 S., R. 64 W.  
J. M. Hein  
Marje Meek Hein  
Watkin, Colo.

43 All of Sec. 33  
T. 3 S., R. 64 W.  
C. B. Schmidt  
Hillis Schmidt  
Watkins, Colo.

REFERENCE



PI 757+64.3  
(Survey)

PI 758+64.5  
(Median)

PC 757+40.9  
PT 759+87.6

$\Delta = 00^\circ 37' R$   
 $D = 00^\circ 15'$   
 $T = 123.4'$   
 $L = 246.7'$   
 $R = 22,920.0'$

11 W 1/2 & N 1/2 of N.E. 1/4, Sec. 4  
T. 4 S., R. 64 W.  
Dale & Nellie Ferguson

10 N.E. 1/4, Sec. 5  
T. 4 S., R. 64 W.  
J. M. & Marje Meek Hein  
Watkins, Colo.

PRELIMINARY OWNERSHIP MAP

FOR THAT PART OF  
T. 38.4 S., R. 65.64 & 63 W. ADAMS & ARAPAHOE COUNTIES

FOR PROJECT 1-095-1(2)

DATE: 8-2-57

SCALE: 1" = 200'

NOTE -  
Recommended Minimum Right Of Way For This Project  
is \_\_\_\_\_ Each Side Of Project Center Line.

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	I-095-1(2)	38	

RIGHT OF WAY

(43) All of Sec. 33  
T.3S., R.64 W.  
O. B. Schmidt  
Hillis Schmidt  
Watkins, Colo.

(45) S. W. 1/4, Sec. 34  
T. 3S., R. 64 W.  
Maud B. Worts  
1361 South York St.  
Denver, Colo.

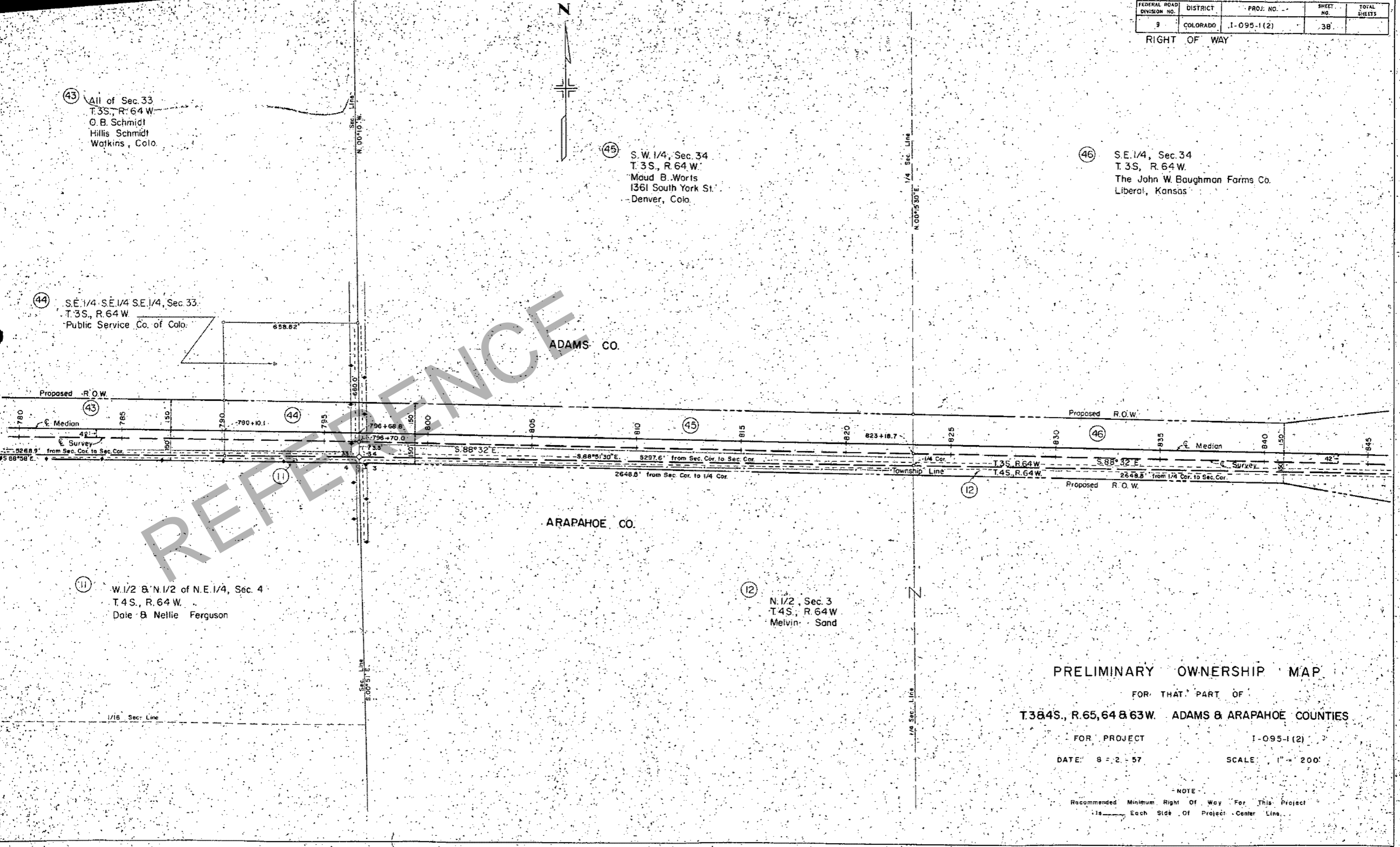
(46) S.E. 1/4, Sec. 34  
T. 3S., R. 64 W.  
The John W. Baughman Farms Co.  
Liberal, Kansas

(44) S.E. 1/4 S.E. 1/4 S.E. 1/4, Sec. 33.  
T. 3S., R. 64 W.  
Public Service Co. of Colo.

(11) W. 1/2 & N. 1/2 of N.E. 1/4, Sec. 4  
T. 4S., R. 64 W.  
Dale & Nellie Ferguson

(12) N. 1/2, Sec. 3  
T. 4S., R. 64 W.  
Melvin Sand

REFERENCE



PRELIMINARY OWNERSHIP MAP

FOR THAT PART OF  
T.384S., R.65, 64 & 63W. ADAMS & ARAPAHOE COUNTIES

FOR PROJECT I-095-1(2)  
DATE: 8-2-57 SCALE: 1" = 200'

NOTE  
Recommended Minimum Right Of Way For This Project  
Is \_\_\_\_\_ Each Side Of Project Center Line.

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	1-095-1(2)	39	

RIGHT-OF-WAY Rev. 3-18-58 F.C.M. Rev. 3-25-58 F.C.M.

(47) S.W. 1/4, Sec. 35  
T.3S, R.64W  
The John W. Baughman Farms, Co.  
Liberal, Kansas

(48) S.E. 1/4, Sec. 35  
T.3S, R.64W  
Joseph Nowacki  
Frank Nowacki  
Eastlake, Colo.

(49) ALBERT F. LORENZENI &  
AMY E. LORENZENI

A=1°28'30"  
D=0°00'15"  
T=295.0'  
L=590.0'  
R=22,920.0'

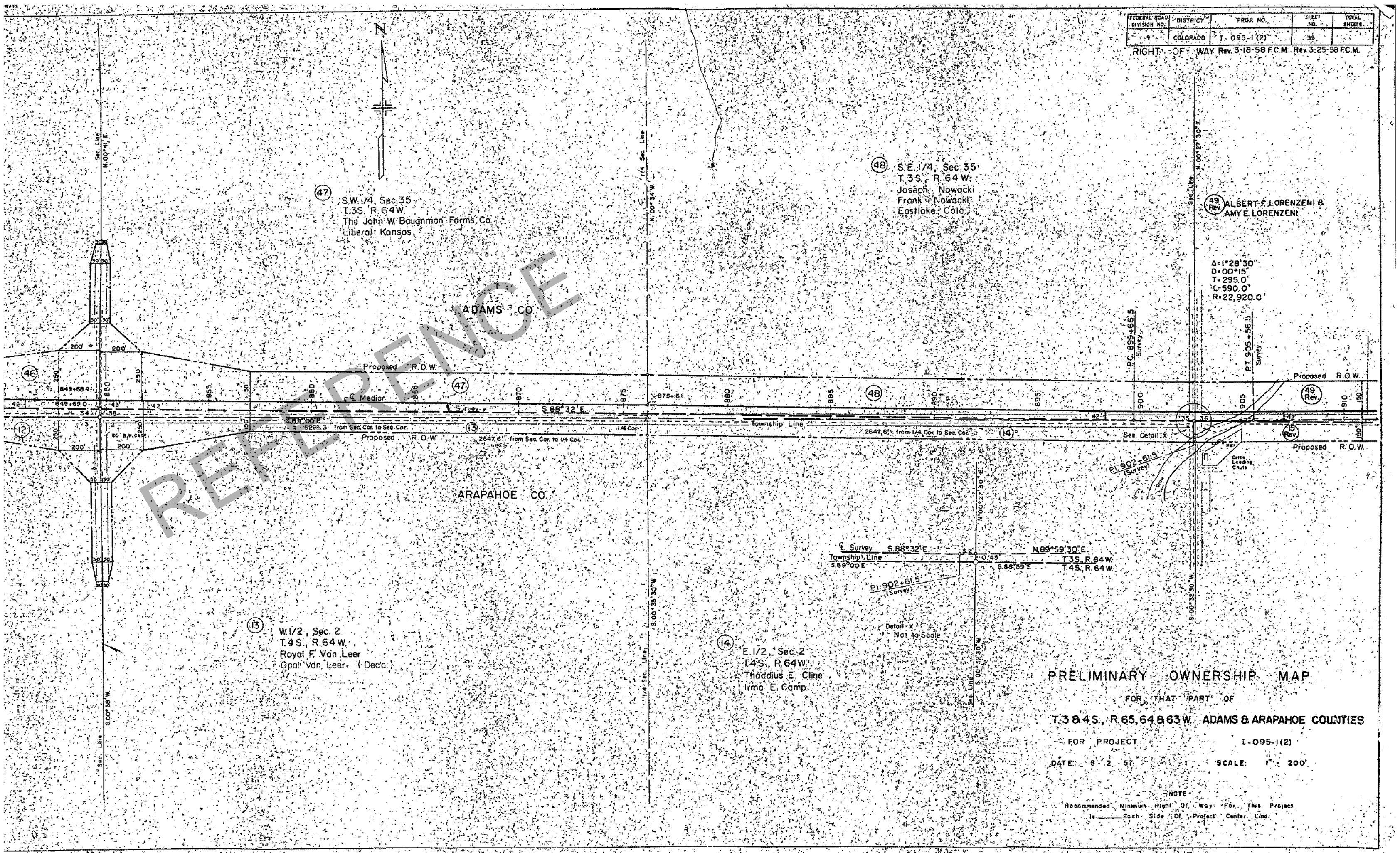
(13) W. 1/2, Sec. 2  
T.4S, R.64W  
Royal F. Van Leer  
Opal Van Leer (Dec'd.)

(14) E. 1/2, Sec. 2  
T.4S, R.64W  
Thaddeus E. Cline  
Irma E. Camp

**PRELIMINARY OWNERSHIP MAP**  
FOR THAT PART OF  
T.38.4S., R.65.64 & 63W. ADAMS & ARAPAHOE COUNTIES  
FOR PROJECT 1-095-1(2)  
DATE: 8-2-57 SCALE: 1" = 200'

NOTE  
Recommended Minimum Right Of Way For This Project  
is \_\_\_\_\_ Each Side Of Project Center Line.

REVISIONS





FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
40	COLORADO	1-095-1(2)	40	

RIGHT OF WAY Rev. 3-18-58 F.C.M. Rev. 3-25-58 F.C.M.



All of Sec 36  
T3S, R64W

N 1/2 of Sec 36, Certificate of Purchase  
to Katherine G. Reid  
S 1/2 of Sec 36, Certificate of Purchase  
to Albert F. & Amy E. Loranzen  
Watkins, Colo.

50

All of Sec 31  
T3S, R. 63 W  
Philip Wagner  
141 So. 3rd Ave.  
Brighton, Colo.

ADAMS CO.

ARAPAHOE CO.

15 Rev

All of Sec 1  
T4S, R.64W  
Leonard O.M. Larson

16

N.W 1/4, Sec 6  
T.4S, R.63W  
Philip Wagner  
141 So. 3rd Ave.  
Brighton, Colo.

REVISIONS

**PRELIMINARY OWNERSHIP MAP**

FOR THAT PART OF  
T384S, R65,64&63W ADAMS & ARAPAHOE COUNTIES

FOR PROJECT 1-095-1(2)

DATE 6-2-57 SCALE 1" = 200'

NOTE:  
Recommended Minimum Right of Way For This Project  
is 60' Each Side Of Project Center Line.

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	1-095-1 (2)	41	

RIGHT OF WAY



(50) All of Sec. 31  
T.3S., R.63W.  
Philip Wagner  
141 So. 3rd Ave.  
Brighton, Colo.

(51) S.W. 1/4, Sec. 32  
T.3S., R.63W.  
Jacob W. Lehr  
Julio E. Lehr  
Bennett, Colo.

ADAMS CO.

ARAPAHOE CO.

(17) N.E. 1/4, Sec. 6  
T.4S., R.63W.  
Geo. C. Kratter

(18) N.W. 1/4, Sec. 5  
T.4S., R.63W.  
Perry Investment Co.

PRELIMINARY OWNERSHIP MAP

FOR THAT PART OF  
T.384S., R.65,64 & 63W. ADAMS & ARAPAHOE COUNTIES

FOR PROJECT 1-095-1(2)

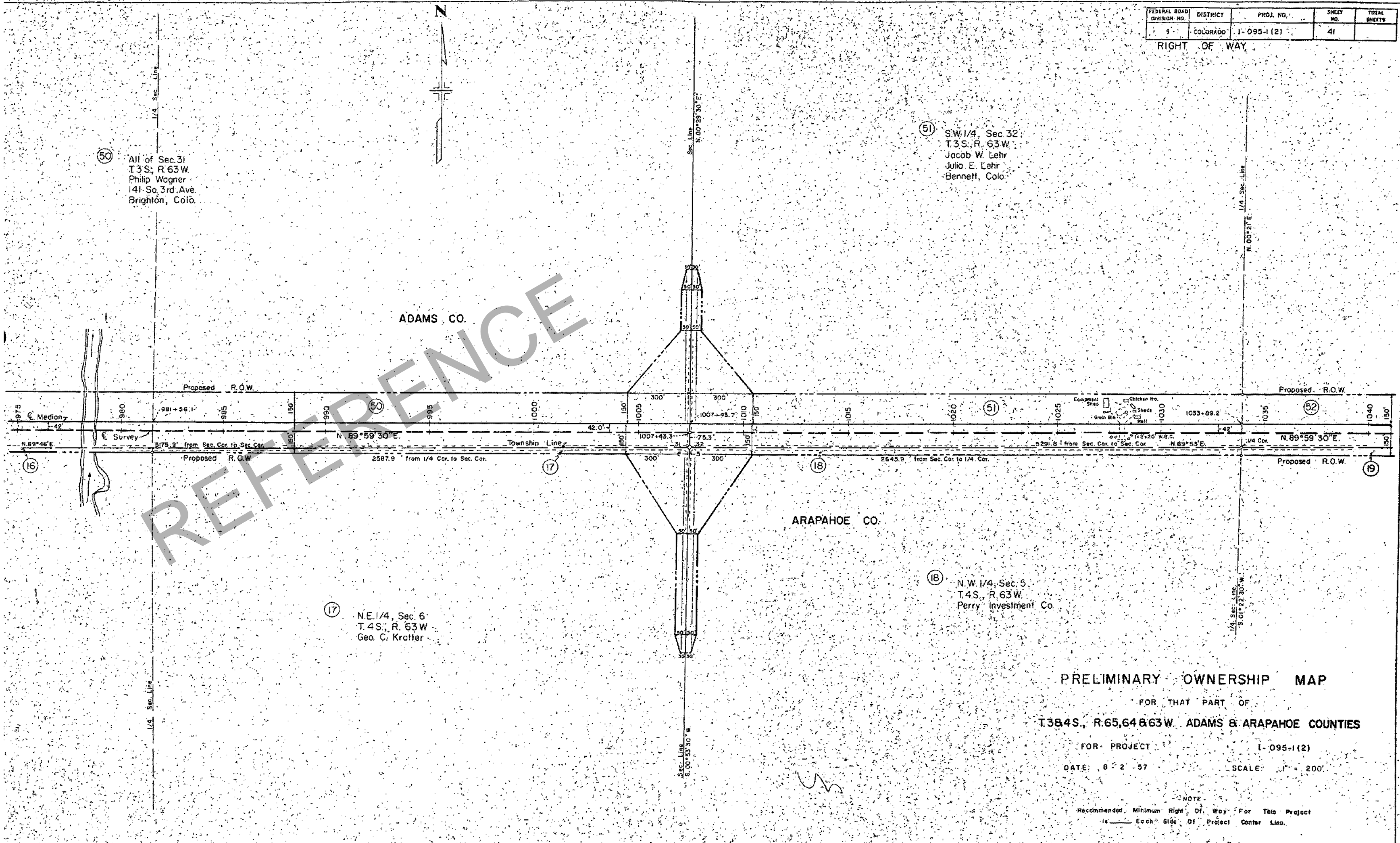
DATE: 8-2-57

SCALE: 1" = 200'

NOTE

Recommended Minimum Right Of Way For This Project  
is \_\_\_\_\_ Each Side Of Project Center Line.

REFERENCE



FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	I-095-1 (2)	42	

RIGHT OF WAY Rev. 10-14-58 R.E.C.



(52) S.E. 1/4, Sec. 32  
T.3 S., R.63 W.  
1/2 Marguerite Muegge Hand  
1/2 Dent N. Hand  
1/2 Pauline B. Muegge  
New Castle Wyoming  
Box 811

(53) S. 1/2 of Sec. 33  
T.3 S., R.63 W.  
1/2 Marguerite Muegge Hand  
1/2 Dent N. Hand  
1/2 Pauline B. Muegge  
Box 811  
New Castle, Wyoming

ADAMS CO.

ARAPAHOE CO.

(19) N.E. 1/4, Sec. 5  
T.4 S., R.63 W.  
Byron W. & Thelma J. Trupp

(21) N.E. 1/4 Sec. 4  
T.4 S., R. 63 W.  
Geo. J. Renner

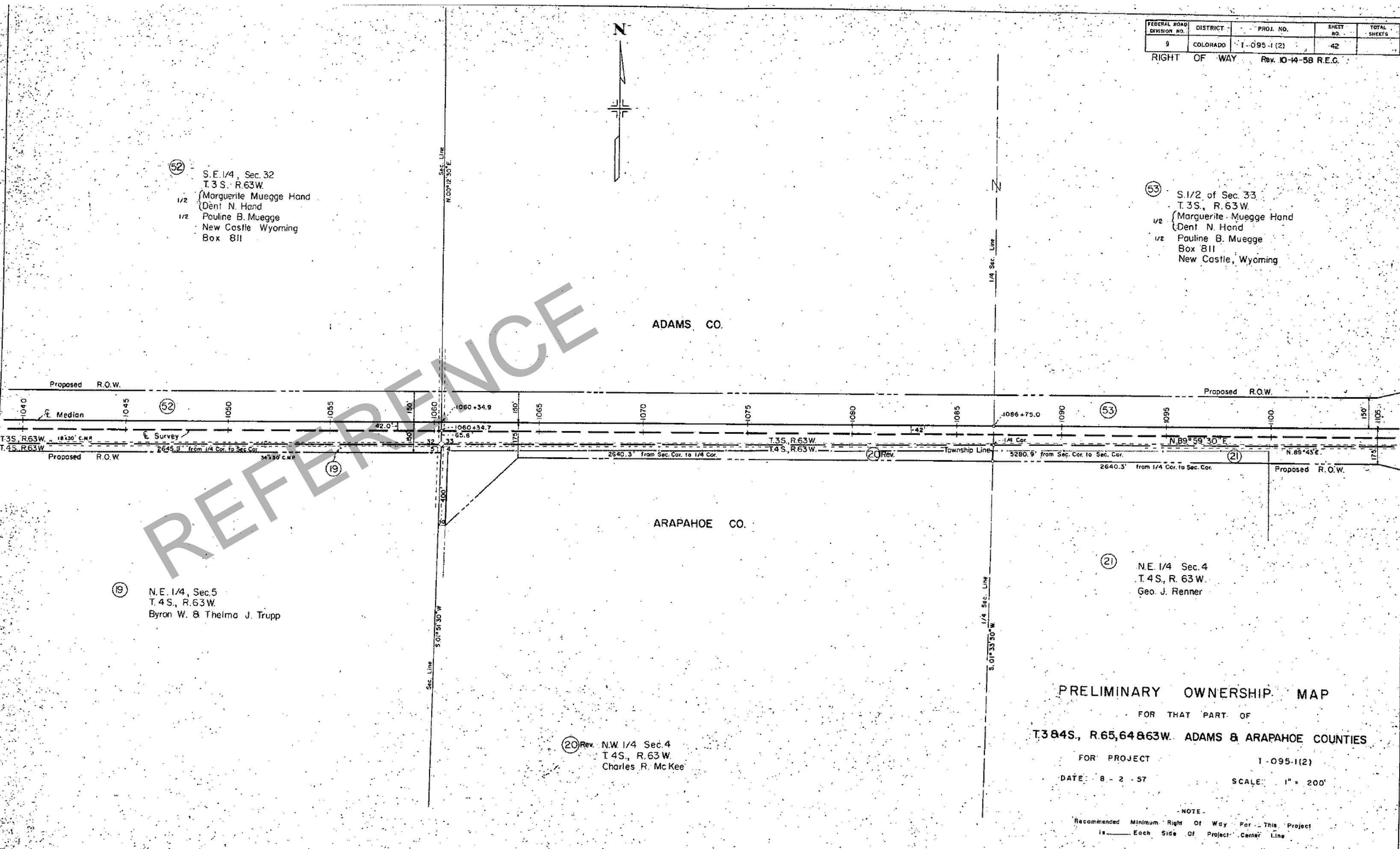
(20) Rev. N.W. 1/4 Sec. 4  
T.4 S., R.63 W.  
Charles R. McKee

PRELIMINARY OWNERSHIP MAP  
FOR THAT PART OF  
T384S., R.65,64 & 63W. ADAMS & ARAPAHOE COUNTIES

FOR PROJECT I-095-1(2)  
DATE: 8-2-57 SCALE: 1" = 200'

NOTE:  
Recommended Minimum Right Of Way For This Project  
is \_\_\_\_\_ Each Side Of Project Center Line

REFERENCE



FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	I-095-1 (2)	43	

RIGHT OF WAY  
 Rev. 4-28-58 C.E.B.  
 Rev. 5-9-58 F.C.M. 24 Rev 2  
 Rev. 6-17-58 F.C.M. 57 Rev

NOTE:  
 For Bennett Appr.  
 see Sheets 45 & 46



(56) S.E. 1/4, Sec. 34  
 W. 1/2, Sec. 34  
 T. 3 S., R. 63 W.  
 George J. Renner  
 Bennett, Colo.

ADAMS CO

ARAPAHOE CO.

(22) N.W. 1/4, Sec. 3  
 T. 4 S., R. 63 W.  
 Geo. J. Renner, Jr.

(23) N.E. 1/4, Sec. 3  
 T. 4 S., R. 63 W.  
 Amelia Renner

PRELIMINARY OWNERSHIP MAP

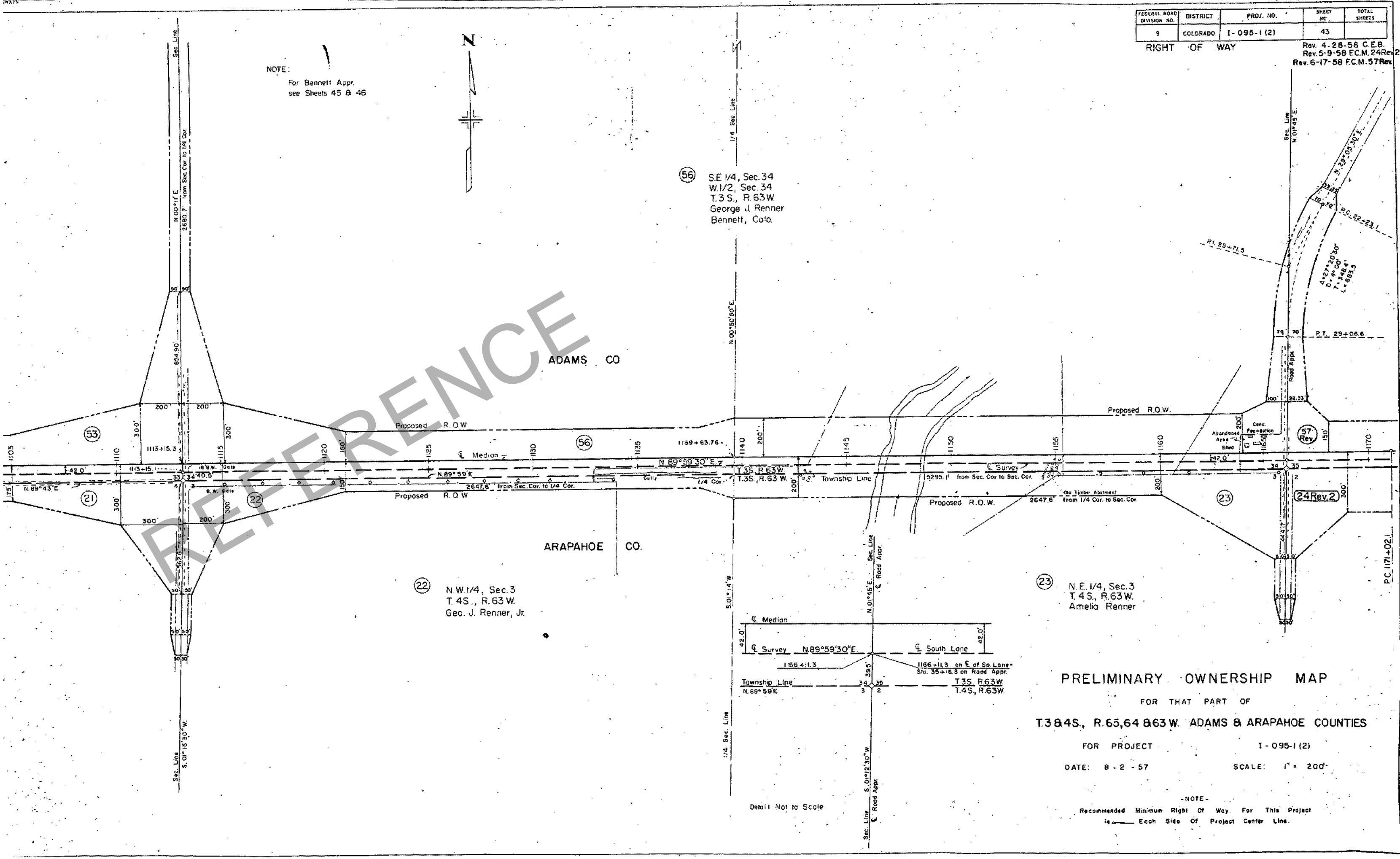
FOR THAT PART OF  
 T. 3 & 4 S., R. 65, 64 & 63 W. ADAMS & ARAPAHOE COUNTIES

FOR PROJECT I-095-1 (2)

DATE: 8-2-57

SCALE: 1" = 200'

-NOTE-  
 Recommended Minimum Right Of Way For This Project  
 is \_\_\_\_\_ Each Side Of Project Center Line.



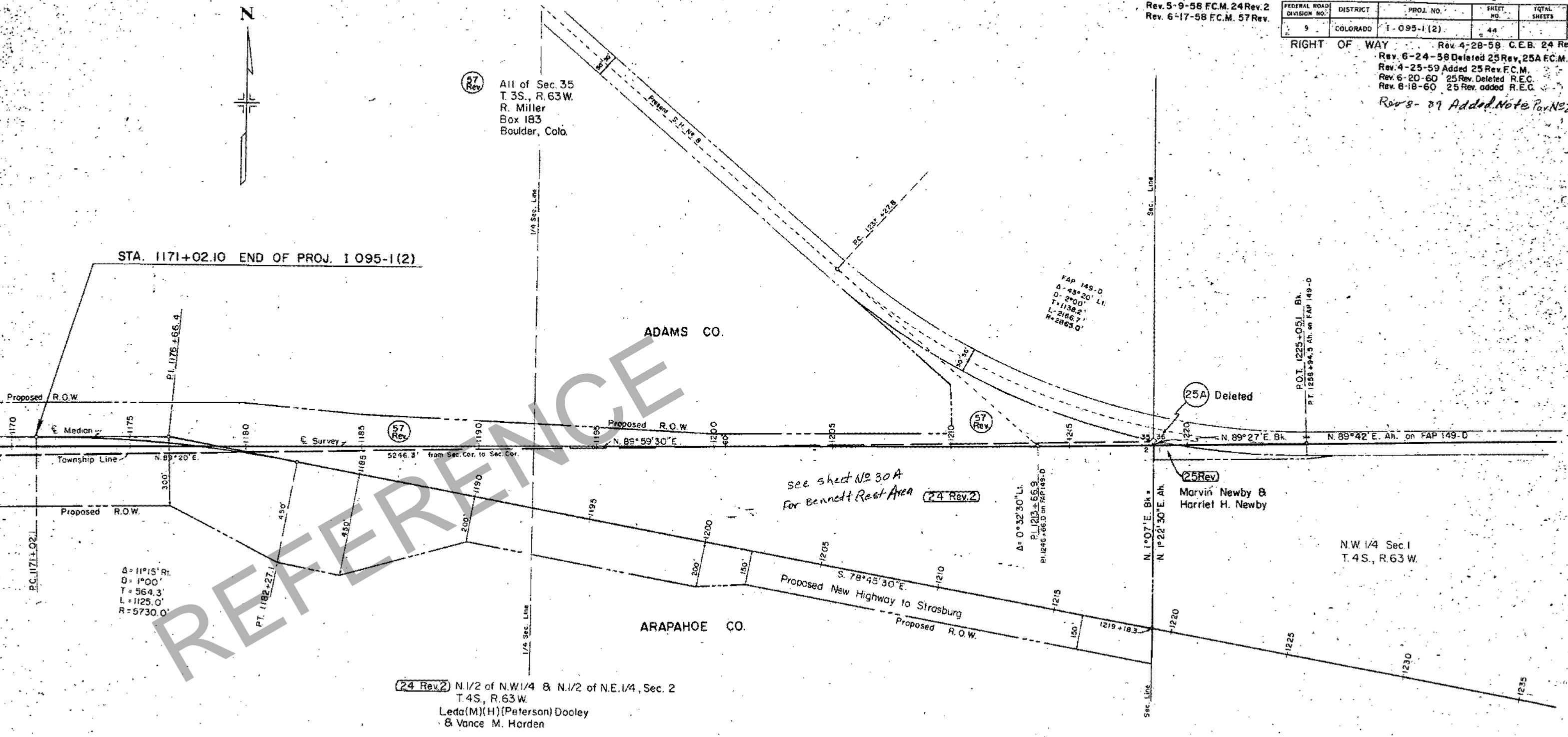
Detail Not to Scale

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	1-095-1(2)	44	

RIGHT OF WAY Rev. 4-28-58, C.E.B. 24 Rev.  
 Rev. 6-24-58 Deleted 25 Rev. 25A F.C.M.  
 Rev. 4-25-59 Added 25 Rev. F.C.M.  
 Rev. 6-20-60 25 Rev. Deleted R.E.C.  
 Rev. 8-18-60 25 Rev. added R.E.C.  
 Rev. 8-29 Added Note Part 24



57 Rev  
 All of Sec. 35  
 T. 3S., R. 63W.  
 R. Miller  
 Box 183  
 Boulder, Colo.



24 Rev. 2 N. 1/2 of N.W. 1/4 & N. 1/2 of N.E. 1/4, Sec. 2  
 T. 4S., R. 63W.  
 Leda (M)(H) (Peterson) Dooley  
 & Vance M. Harden

**PRELIMINARY OWNERSHIP MAP**

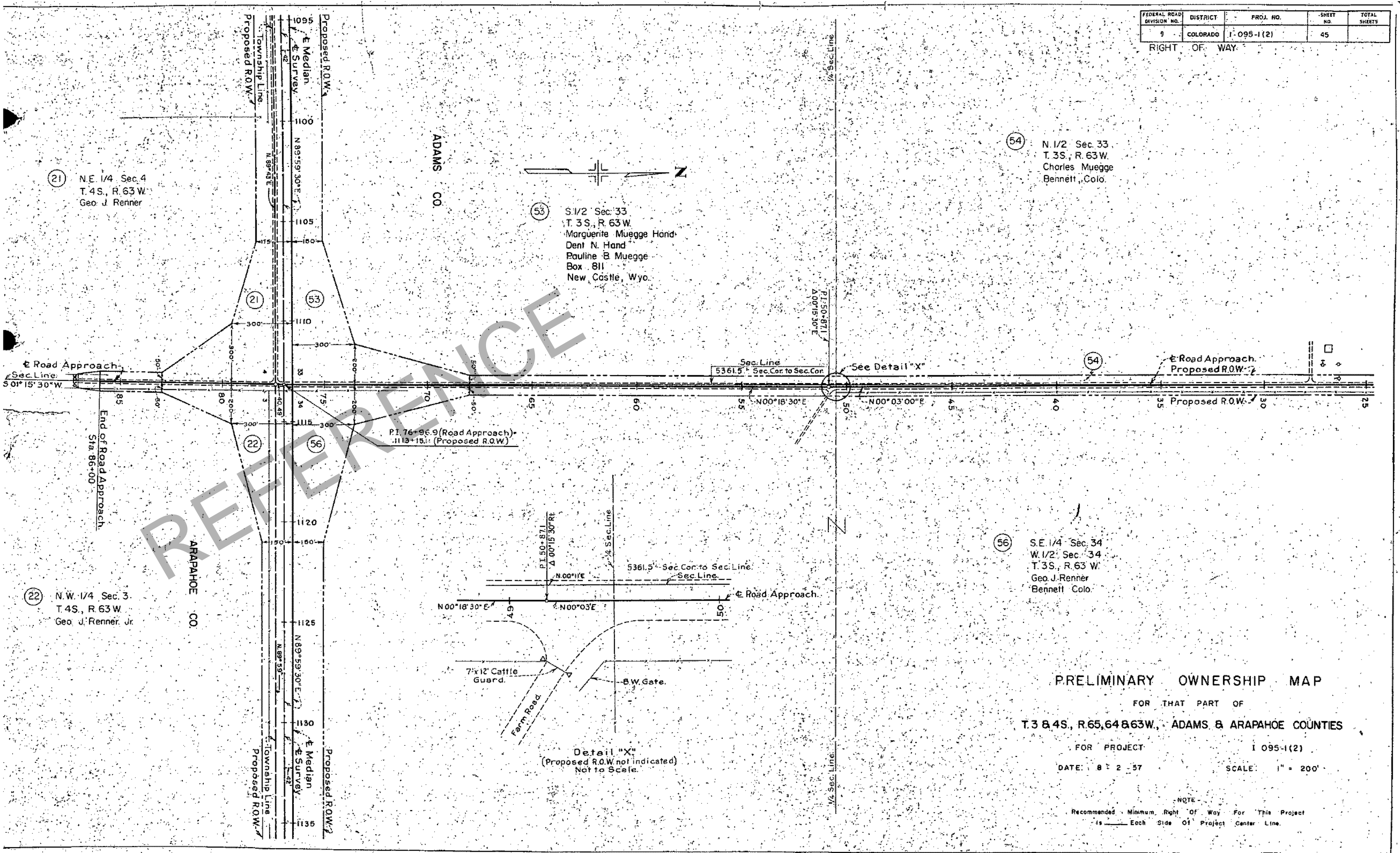
FOR THAT PART OF  
**T. 38 4S., R. 65, 64 & 63 W. ADAMS & ARAPAHOE COUNTIES**

FOR PROJECT 1-095-1(2)  
 DATE: 8-2-57 SCALE: 1" = 200'

NOTE -  
 Recommended Minimum Right Of Way For This Project  
 is \_\_\_\_\_ Each Side Of Project Center Line.

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	1-095-1(2)	45	

RIGHT OF WAY



(21) N.E. 1/4 Sec. 4  
T. 4S., R. 63 W.  
Geo. J. Renner

(53) S. 1/2 Sec. 33  
T. 3S., R. 63 W.  
Marguerite Muegge Hand  
Dent N. Hand  
Pauline B. Muegge  
Box 811  
New Castle, Wyo.

(54) N. 1/2 Sec. 33  
T. 3S., R. 63 W.  
Charles Muegge  
Bennett, Colo.

(22) N.W. 1/4 Sec. 3  
T. 4S., R. 63 W.  
Geo. J. Renner, Jr.

(56) S.E. 1/4 Sec. 34  
W. 1/2 Sec. 34  
T. 3S., R. 63 W.  
Geo. J. Renner  
Bennett, Colo.

**PRELIMINARY OWNERSHIP MAP**

FOR THAT PART OF  
T. 3 & 4S., R. 65, 64 & 63 W., ADAMS & ARAPAHOE COUNTIES

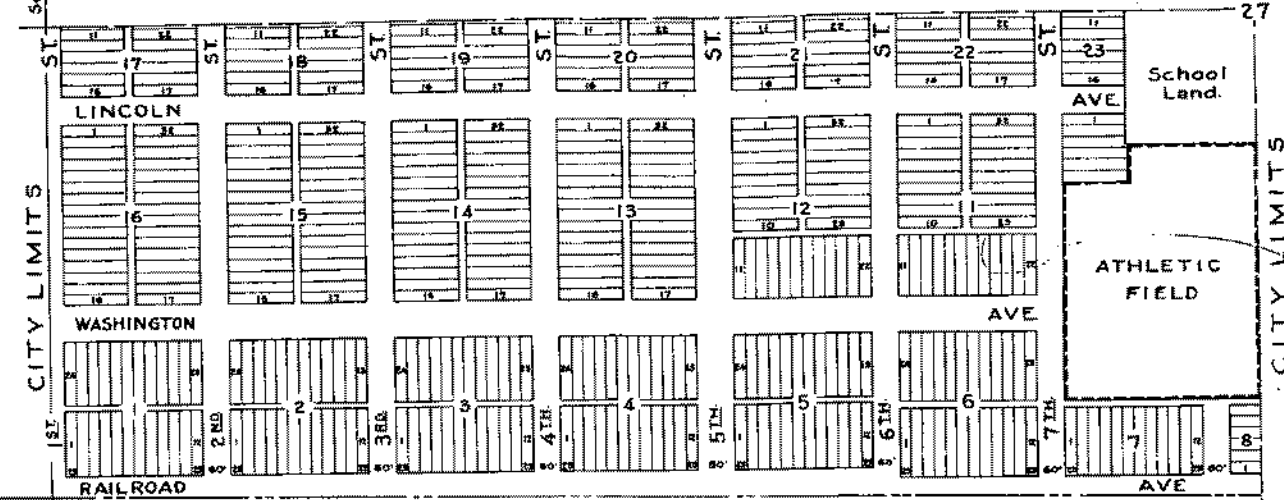
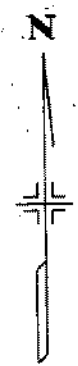
FOR PROJECT 1-095-1(2)  
DATE: 8-2-57 SCALE: 1" = 200'

NOTE  
Recommended Minimum Right of Way For This Project  
is \_\_\_\_\_ Each Side Of Project Center Line.

Detail "X"  
(Proposed R.O.W. not indicated)  
Not to Scale.

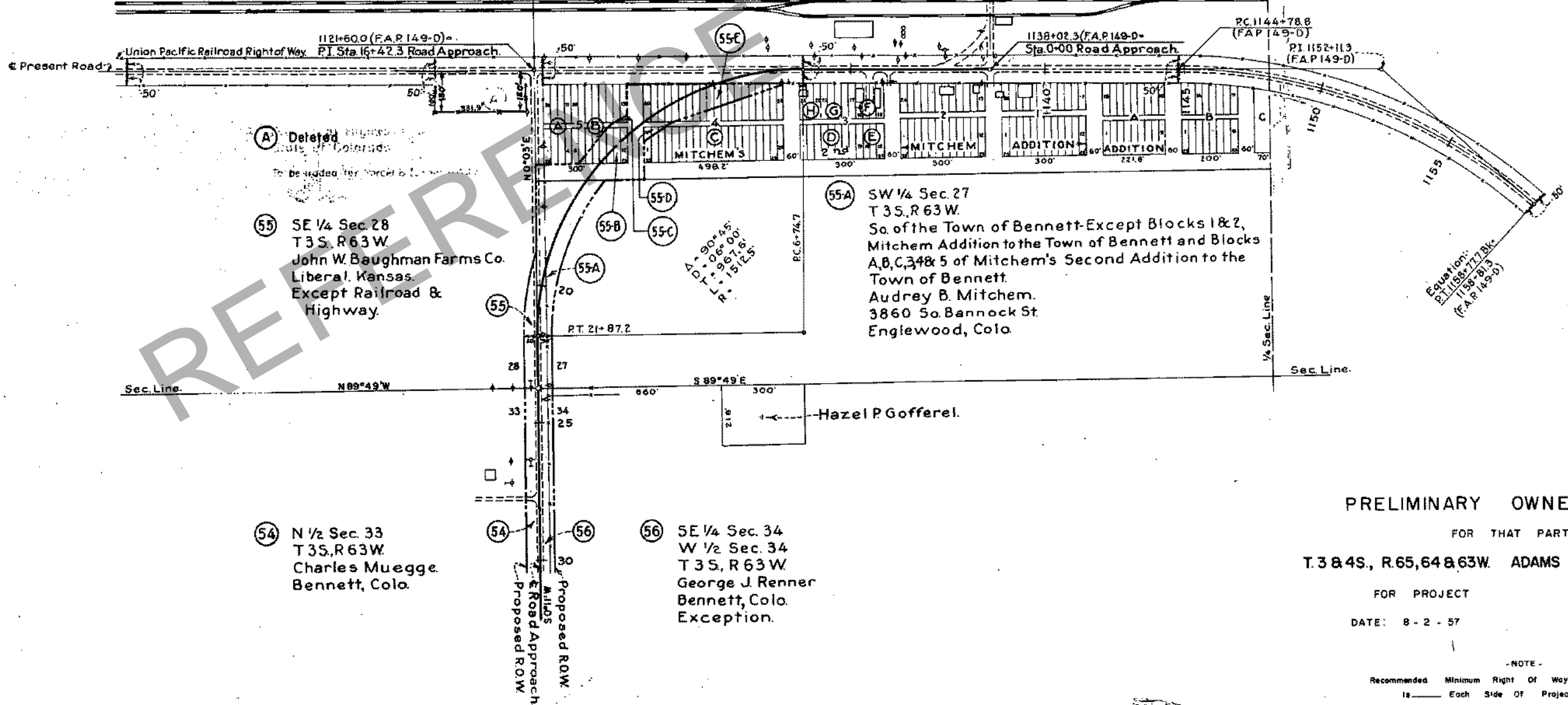
FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	I-095-1(2)	46	

# TOWN OF BENNETT



## OWNERSHIP MAP FOR APPR. TO BENNETT

Mitchem's Second Addition to the Town of Bennett				
Parcel	Lots	Block	Owner	Address
	A 1-4 & 21-24	5	George D. Mitchem	3860 So. Bannock Englewood, Colo.
55-B	B 5-20	5	Annie E. Mitchem	3780 So. Broadway Englewood, Colo.
55-C				
55-D	C 1-40	4	Alfred N. Mitchem	3780 So. Broadway Englewood, Colo.
55-E	D 1-9	3	Alfred N. Mitchem	3780 So. Broadway Englewood, Colo.
	E 10-12	3	George D. Mitchem	3860 So. Bannock Englewood, Colo.
	F 13-16	3	Mrs. Ethel White	Bennett, Colo.
	G 17-21	3	George D. Mitchem	3860 So. Bannock Englewood, Colo.
	H 22-24	3	The California Co.	The California Bldg. New Orleans 12, La.



## PRELIMINARY OWNERSHIP MAP

FOR THAT PART OF  
T.3 & 4S., R.65, 64 & 63W. ADAMS & ARAPAHOE COUNTIES

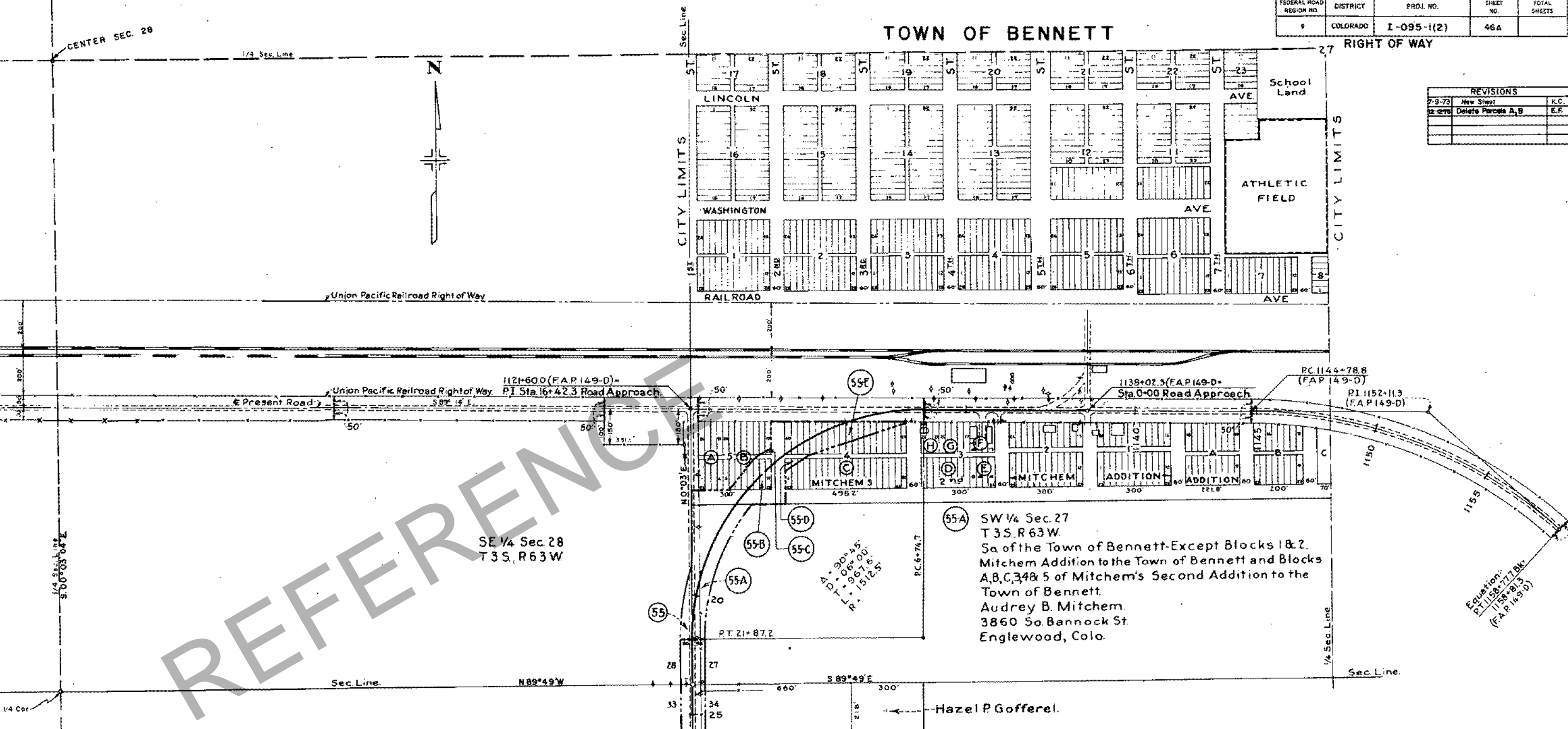
FOR PROJECT I 095-1(2)  
DATE: 8-2-57 SCALE: 1" = 200'

-NOTE-  
Recommended Minimum Right Of Way For This Project  
is \_\_\_\_\_ Each Side Of Project Center Line.

# TOWN OF BENNETT

RIGHT OF WAY

REVISIONS		
DATE	DESCRIPTION	K.C.
7-9-73	New Sheet	
12-12-70	Delete Parcels A, B	E.F.



REFERENCE

- (A) Deleted
- (55) John W. Baumann Farms Co. Liberal, Kansas
- (56) SE 1/4 Sec. 28 T. 3 S., R. 63 W. So. of Union Pacific Railroad Charles W. Muegge 9130 E. Lehigh, Denver, Colo. Except Highway R.O.W.
- (54) N 1/2 Sec. 33 T. 3 S., R. 63 W. Charles Muegge. Bennett, Colo.
- (56) SE 1/4 Sec. 34 W 1/2 Sec. 34 T. 3 S., R. 63 W. George J. Renner Bennett, Colo. Exception.

### OWNERSHIP MAP FOR APPR. TO BENNETT

Mitchems Second Addition to the Town of Bennett				
Parcel	Lots	Block	Owner	Address
	A 1-4 B 21-24	5	George D. Mitchem	3860 So. Bannock Englewood, Colo.
55-B	B 5-20	5	Annie E. Mitchem	3780 So Broadway Englewood, Colo.
55-C	C 1-40	4	Alfred N. Mitchem	3780 So Broadway Englewood, Colo.
55-D	D 1-9	3	Alfred N. Mitchem	3780 So Broadway Englewood, Colo.
55-E	E 10-12	3	George D. Mitchem	3860 So Bannock Englewood, Colo.
	F 13-16	3	Mrs. Ethel White	Bennett, Colo.
	G 17-21	3	George D. Mitchem	3860 So. Bannock Englewood, Colo.
	H 22-24	3	The California Co.	The California Bldg. New Orleans 12, La.

**PRELIMINARY OWNERSHIP MAP**  
 FOR THAT PART OF  
**T. 3 & 4 S., R. 65, 64 & 63 W. ADAMS & ARAPAHOE COUNTIES**  
 FOR PROJECT I 095-1(2)  
 DATE: 8-2-57 SCALE: 1" = 200'

-NOTE-  
 Recommended Minimum Right Of Way For This Project  
 is \_\_\_\_\_ Each Side Of Project Center Line.



SW 1/4 Sec. 27  
T. 35, R. 63 W.

PER. ROAD REV. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLO.	1095-1(2)	27	

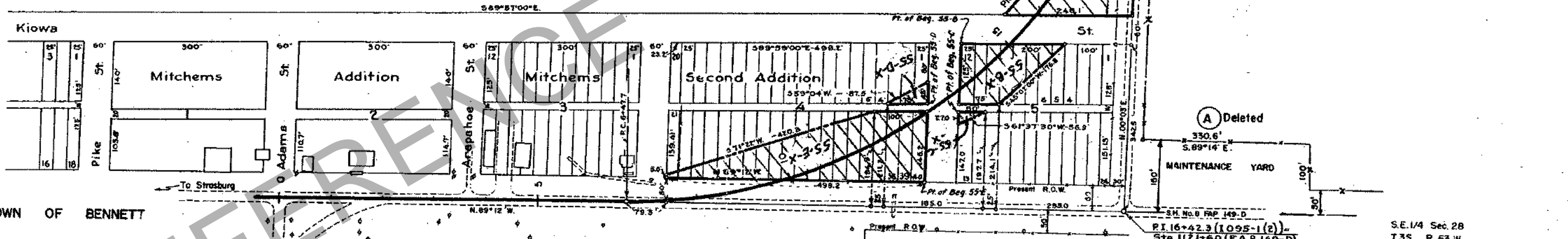
RIGHT OF WAY

Bennett Appr. 1113+

ADAMS CO.

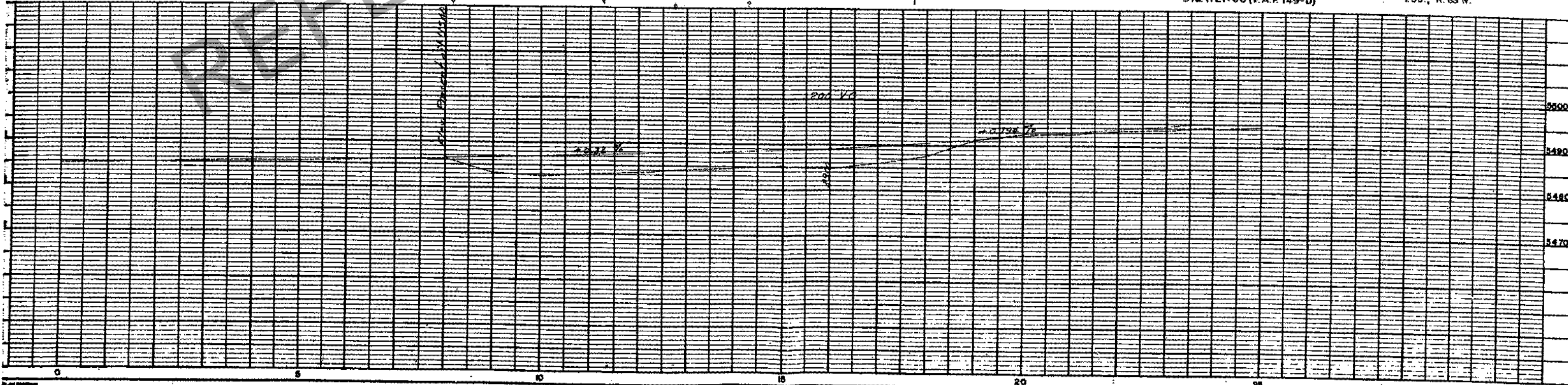
PARCELS TO  
TOWN OF  
BENNETT

A-90795  
D-108700  
L-96756  
L-18728  
R-95530



S.M. No. 8 F.A.P. 149-D  
P.I. 16-42.3 (1095-1(2))  
Sta. 1121+60 (F.A.P. 149-D)

S.E. 1/4 Sec. 28  
T. 35, R. 63 W.



S.W. 1/4 Sec. 27  
T. 35 S., R. 63 W.

ADAMS CD.

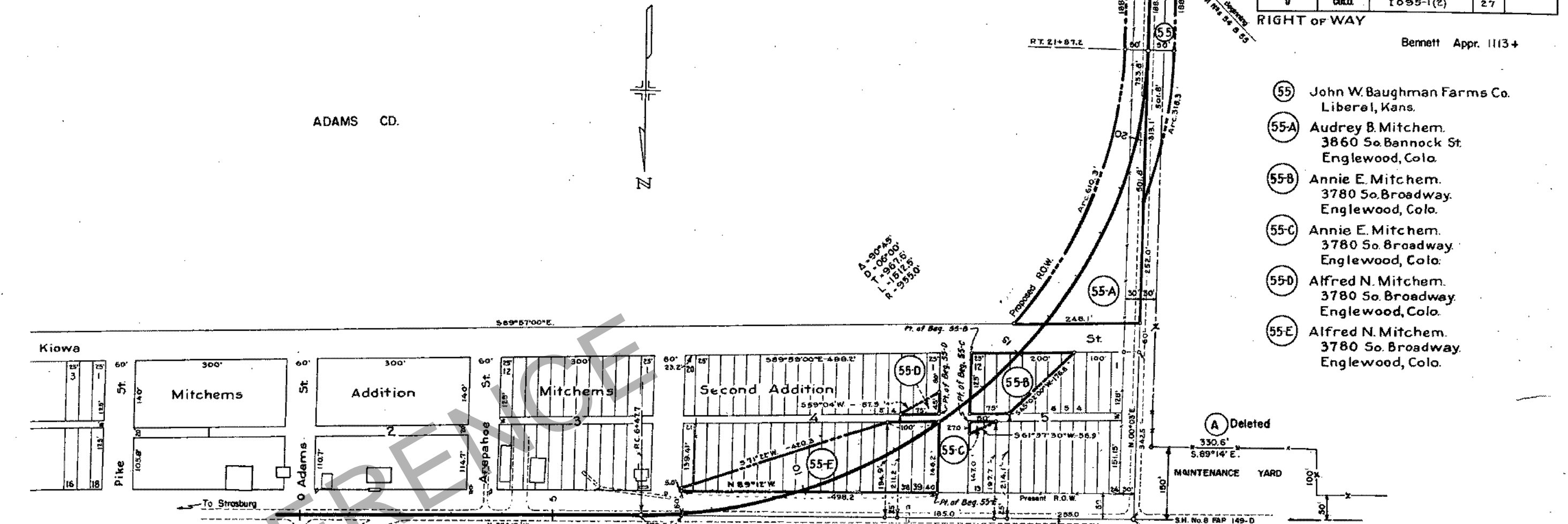


FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	CRD.	1095-1(2)	27	

RIGHT OF WAY

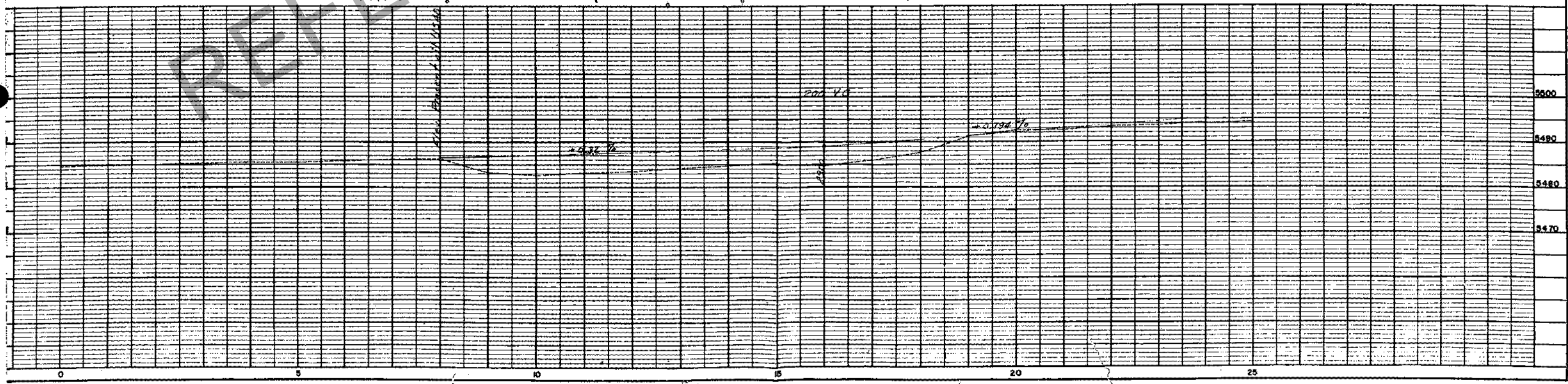
Bennett Appr. 1113+

- 55 John W. Baughman Farms Co.  
Liberal, Kans.
- 55-A Audrey B. Mitchem.  
3860 So. Bannock St.  
Englewood, Colo.
- 55-B Annie E. Mitchem.  
3780 So. Broadway.  
Englewood, Colo.
- 55-C Annie E. Mitchem.  
3780 So. Broadway.  
Englewood, Colo.
- 55-D Alfred N. Mitchem.  
3780 So. Broadway.  
Englewood, Colo.
- 55-E Alfred N. Mitchem.  
3780 So. Broadway.  
Englewood, Colo.



TOWN OF BENNETT

S.E. 1/4 Sec. 28  
T. 35 S., R. 63 W.

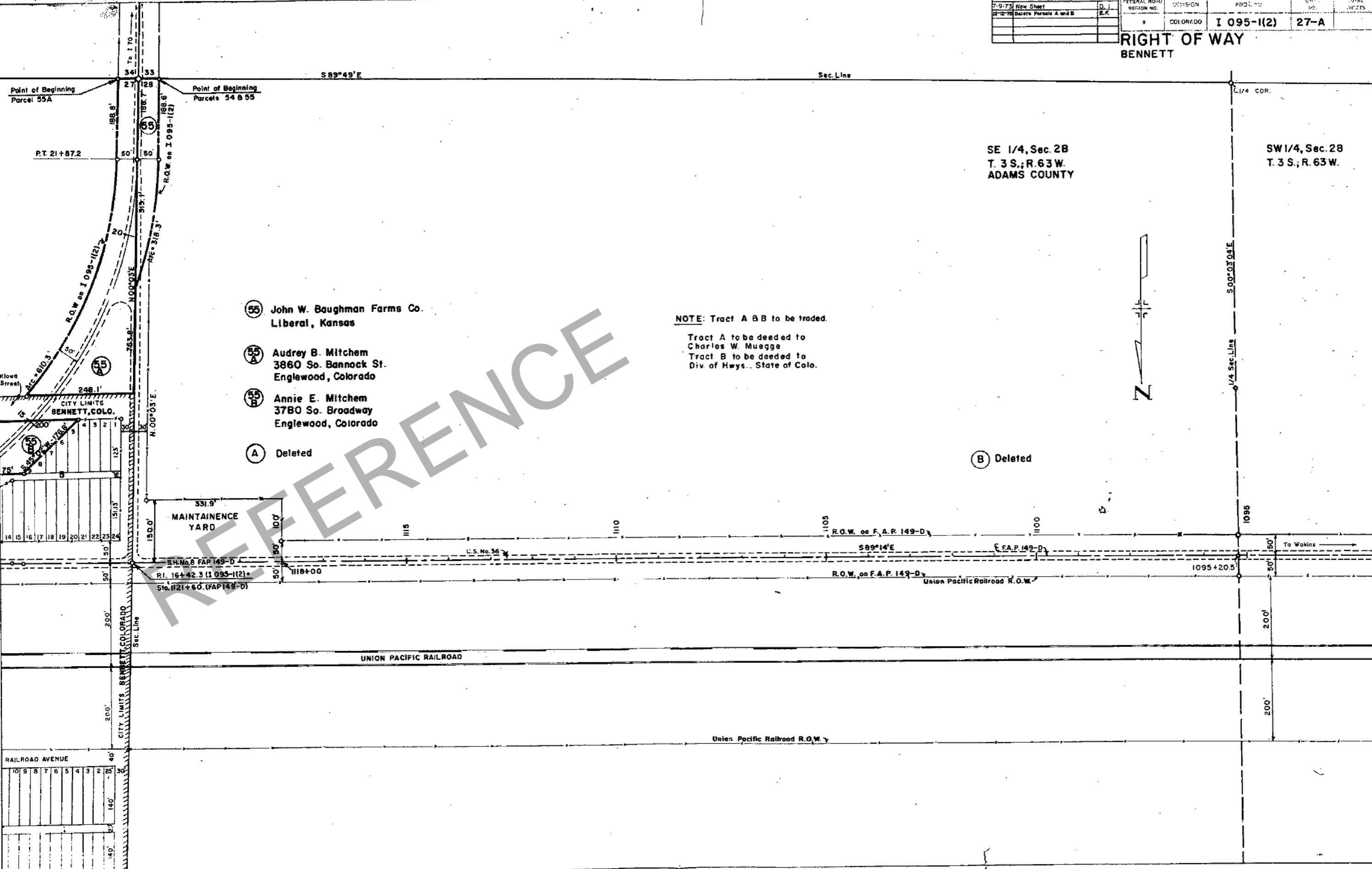


REVISIONS		FEDERAL ROAD DISTRICT	SECTION	SHEET NO.	TOTAL SHEETS
7-9-73	New Sheet	D. J. B. K.			
12-12-70	Deleted Parcels A and B				

**RIGHT OF WAY  
BENNETT**

SE 1/4, Sec. 28  
T. 3 S., R. 63 W.  
ADAMS COUNTY

SW 1/4, Sec. 28  
T. 3 S., R. 63 W.



- 55 John W. Baughman Farms Co.  
Liberal, Kansas
- 55A Audrey B. Mitchem  
3860 So. Bannock St.  
Englewood, Colorado
- 55B Annie E. Mitchem  
3780 So. Broadway  
Englewood, Colorado
- A Deleted

**NOTE:** Tract A & B to be traded.  
Tract A to be deeded to Charles W. Muagge  
Tract B to be deeded to Div. of Hwys., State of Colo.

REFERENCE

# IMPROVEMENT LOCATION CERTIFICATE

Tri-Jurisdictional Sub-Station at Bennett Rest Area, Arapahoe County  
 For Use by the Colorado State Patrol, Adams and Arapahoe County Sheriff's Dept.  
 Section 2, Range 63 West, Township 4 South

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLD.	1095-1(2)	44B	

REVISIONS		
NO.	DATE	DESCRIPTION
01	10/27/91	ADD 3RD 44B

RIGHT OF WAY

### LEGAL DESCRIPTION

A lease parcel No. 24-L containing 1.49 acres, more or less, contained in parcel 24 Rev. 2 of grantor's Project No. I-095-1(2) in the N 1/2 of the S 1/2 of Sec. 2, T.4 S., R.63 W. of the 6th P.M. in Arapahoe County, Colorado, said lease parcel being more particularly described as follows:  
 Beginning at an iron rebar with plastic cap set on the northern boundary of parcel 57 Rev. of grantor's Project I-095-1(2) in the S 1/2 of the S 1/2 of Sec. 35, T.4 S., R.63 W. from which a second iron rebar with a plastic cap set on the northern boundary of parcel 57 Rev. bears S. 89° 59' 30" W. a distance of 998.9 ft. -

1. Thence S. 74° 46' 45" E. a distance of 451.6 ft. to the true beginning of lease parcel No. 24.
2. Thence N. 89° 20' 00" E. a distance of 224.0 ft.
3. Thence S. 39° 15' 00" E. a distance of 142.5 ft.
4. Thence S. 06° 51' 45" E. a distance of 153.9 ft.
5. Thence N. 75° 58' 48" W. a distance of 342.7 ft.
6. Thence N. 0° 00' 00" E. a distance of 177.5 ft. more or less, to the true point of beginning.

The above described parcel contains 1.49 acres, more or less.

### IMPROVEMENT LOCATION CERTIFICATE

I hereby certify that this improvement location certificate was prepared for the Colorado State Patrol, that it is not a land survey plat or improvement survey plat, and that it is not to be relied upon for the establishment of fence, building, or other future improvement lines.

I further certify that the improvements on the above described parcel on this date, May 29, 1991, except utility connections, are entirely within the boundaries of the parcel, except as shown, that there are no encroachments upon the described premises by improvements on any adjoining premises, except as indicated, and that there is no apparent evidence or sign of any easement crossing or burdening any part of said parcel, except as noted.

BY: Joseph P. Gandy  
 DATE: June 4, 1991

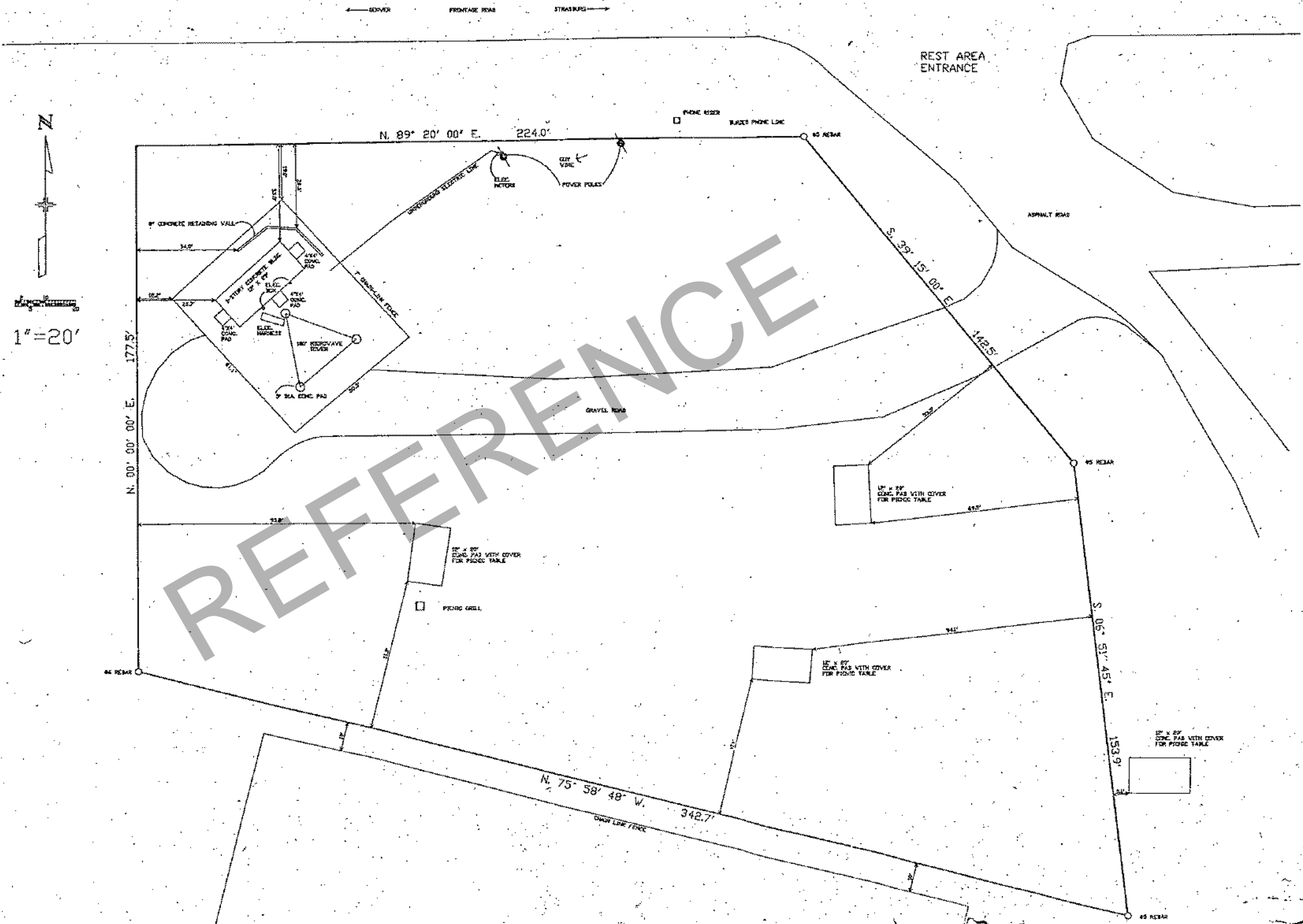


### BASIS OF BEARINGS

Bearings based on Northerly boundary course of Highway Right of Way Parcel 57 Rev. The westerly corner of the course being monumented by a No. 4 Rebar with yellow plastic cap marked L.S. 14630. The Easterly corner of the course being monumented by a No. 4 Rebar with yellow plastic cap marked L.S. 14630. Said course having a recorded bearing of N. 89° 59' 38" E.

NOTE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown.

NOTE: No guarantee as to the accuracy of the information contained on the attached plat is either stated or implied unless this copy bears an original signature of the registered land surveyor.



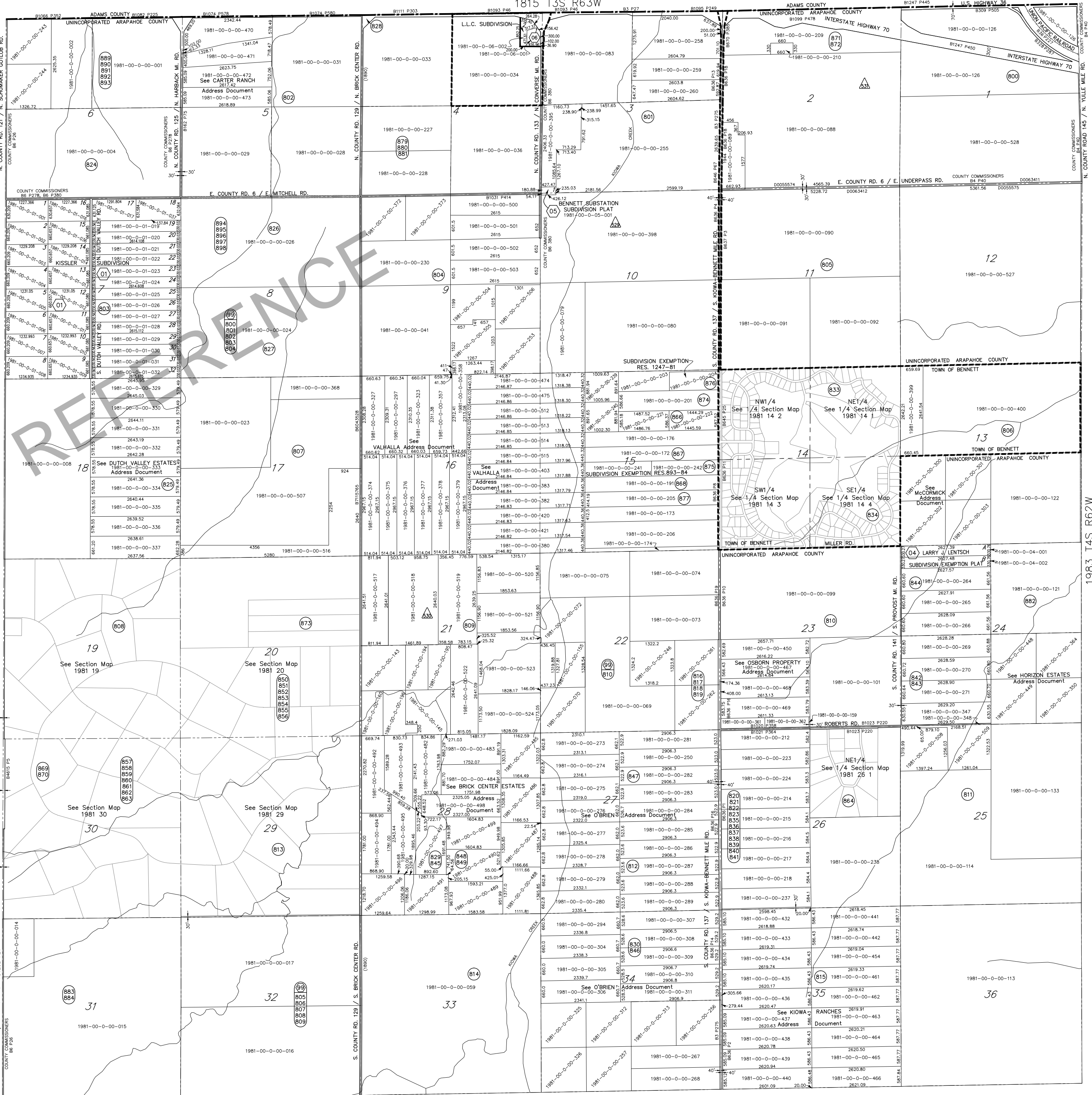
REFERENCE

**Assessor Maps**



REVISIONS

12-03-69	Epps	Add Parcels & Changes to date
05-26-70	SC	Updated
07-10-72	JM	Breakdowns
06-06-73	Epps	Breakdowns
04-08-74	TSW	Breakdowns
01-02-74	TSW	Breakdowns
03-19-74	TSW	Breakdowns
09-29-75	TSW	Breakdowns
11-03-75	TSW	Breakdowns
04-22-76	RCK	Breakdowns
01-10-77	RCK	Breakdowns
02-16-77	LJH	Breakdowns
05-08-78	LJH	Breakdowns
01-22-79	LJH	Breakdowns
04-11-79	LJH	Breakdowns
01-22-80	LAC	Breakdowns
08-05-80	LAC	Breakdowns
02-18-81	LAC	Breakdowns
03-09-81	LAC	Breakdowns
03-04-82	LAC	Breakdowns
04-20-83	LAC	Breakdowns
04-26-84	LAC	Breakdowns
05-08-85	LAC	Breakdowns
01-07-86	LC	Breakdowns
02-05-87	GPH	Breakdowns
03-28-88	GPH	Breakdowns
02-27-89	LC	Breakdowns
03-27-89	LC	Breakdowns
03-26-91	GP	Breakdowns
03-30-93	TSW	Breakdowns
04-14-94	GP	Breakdowns
01-31-95	LC	Breakdowns
03-08-96	TSW	Breakdowns
10-03-96	GPH	Breakdowns
04-08-98	LC	Breakdowns
03-17-99	LC	Breakdowns
03-27-00	LC	Breakdowns
04-12-00	LC	Breakdowns
03-06-01	TSW	Breakdowns
04-09-01	LC	Breakdowns
12-04-02	TSW	Breakdowns
04-01-03	LC	Breakdowns
11-18-03	GPH	Breakdowns
02-11-04	LC	Breakdowns
09-10-04	TSW	Breakdowns
12-29-04	LC	Breakdowns
10-27-05	TSW	Breakdowns
12-20-05	TSW	Breakdowns
06-02-06	GPH	Breakdowns
12-28-06	TSW	Breakdowns
09-06-07	GPH	Breakdowns
12-27-07	GPH	Breakdowns
01-05-10	KK	Digital Map
05-21-10	KK	Breakdowns
06-10-10	GPH	Breakdowns
06-30-10	GPH	Breakdowns
12-31-11	KK	Water Wells
08-21-12	KK	Breakdowns
12-11-12	KK	New Sub.
12-31-12	KK	Water Well

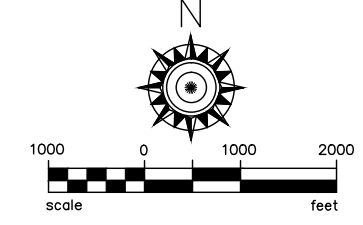


R68W R67W R66W R65W R64W R63W R62W R61W R60W R59W R58W R57W

T4S	1971	1973	1975	1977	1979	1981	1983	1985	1987	1989	1991	1993	T4S
T5S	2077	2075	2073	2071	2069	2067	2065	2063	2061	2059	2057	2055	T5S

TOWNSHIP CODE MAP

2067 T5S R63W

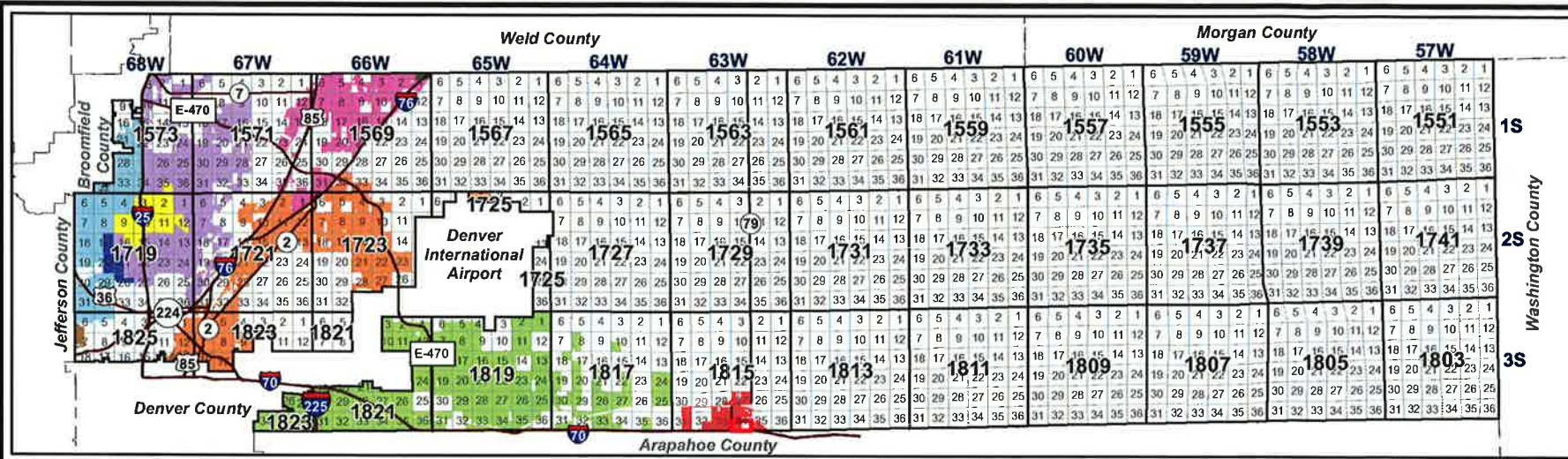


DISCLAIMER

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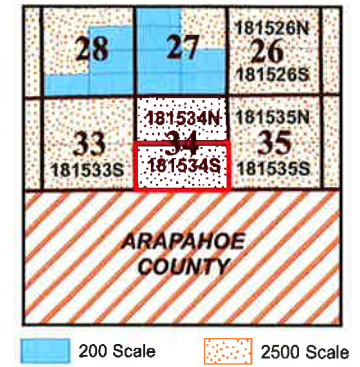
ARAPAHOE COUNTY COLORADO		
TOWNSHIP CODE	SECTION	QUARTER
1981	00	0

12-31-2012



Township: T3S Range: R63W Section: 34

# Map 181534S



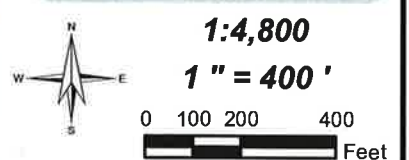
## ASSESSOR'S PARCELS ADAMS COUNTY, COLORADO

HOW TO READ PARCEL IDENTIFICATION NUMBERS (PIN's):  
Place **1815** in front of the eight digit number in the parcel. (i.e. **1815** 10102067)



### Legend

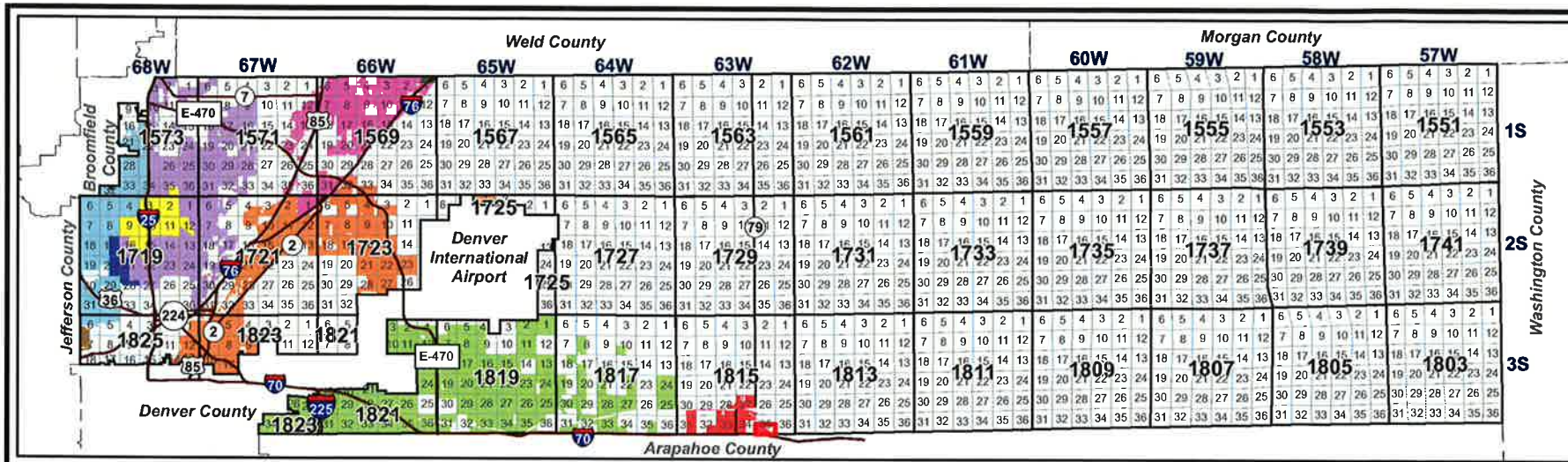
- 10404132 Parcel
- Subd Subdivision
- 8 Block
- 2 Lot / Tract
- 3848 Address
- Tower Rd** Streets / Roads
- Cities**
- Arvada
- Aurora
- Bennett
- Brighton
- Commerce City
- Federal Heights
- Lochbuie
- Northglenn
- Thornton
- Westminster



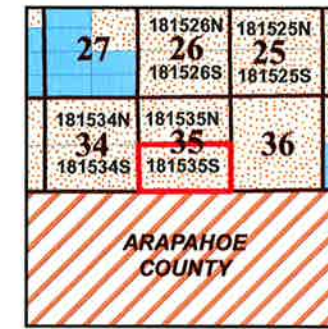
Disclaimer:  
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**ASSESSOR'S OFFICE  
ADAMS COUNTY, COLORADO**  
4430 S. Adams County Pkwy - 2nd Floor  
Brighton, CO 80601  
Phone: 720-523-6038; Fax: 720-523-6037  
Voice Response System 720-523-6380  
www.adcogov.org

Aerial Date: Spring 2012  
Revision Date: 2/12/2014



Township: T3S Range: R63W Section: 35



200 Scale 2500 Scale

# Map 181535S

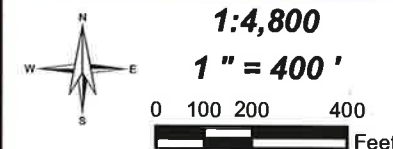
## ASSESSOR'S PARCELS ADAMS COUNTY, COLORADO

HOW TO READ PARCEL IDENTIFICATION NUMBERS (PIN's):  
Place **1815** in front of the eight digit number in the parcel. (i.e. **1815**10102067)



### Legend

- 10404132 Parcel
- Subd Subdivision
- 8 Block
- 2 Lot / Tract
- 3848 Address
- Tower Rd Streets / Roads
- Cities**
- Arvada
- Aurora
- Bennett
- Brighton
- Commerce City
- Federal Heights
- Lochbuie
- Northglenn
- Thornton
- Westminster



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Aerial Date: Spring 2012  
Revision Date: 2/12/2014

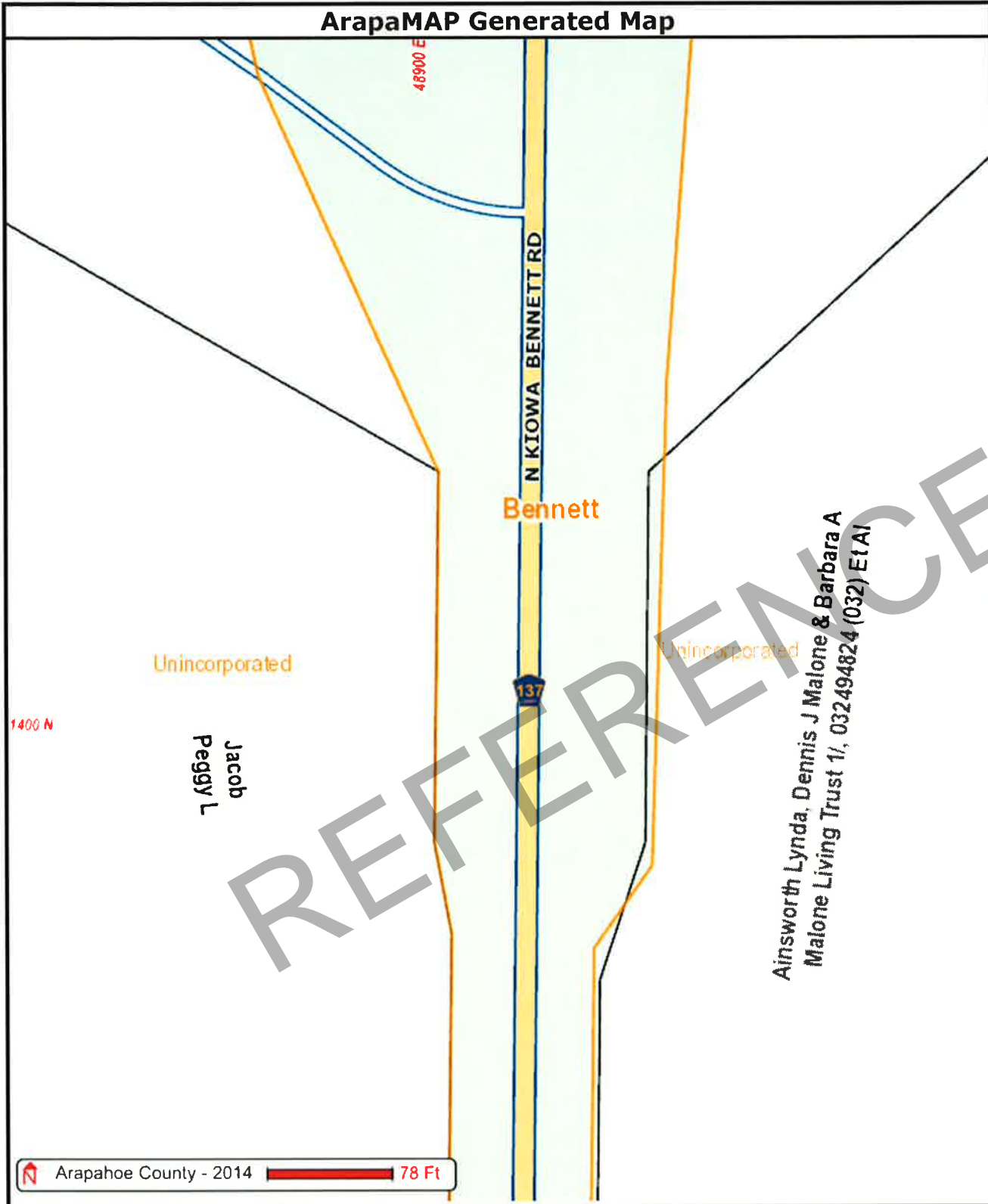


REFERENCE

**Parcel Information**



ArapaMAP Generated Map



Arapahoe County - 2014 78 Ft

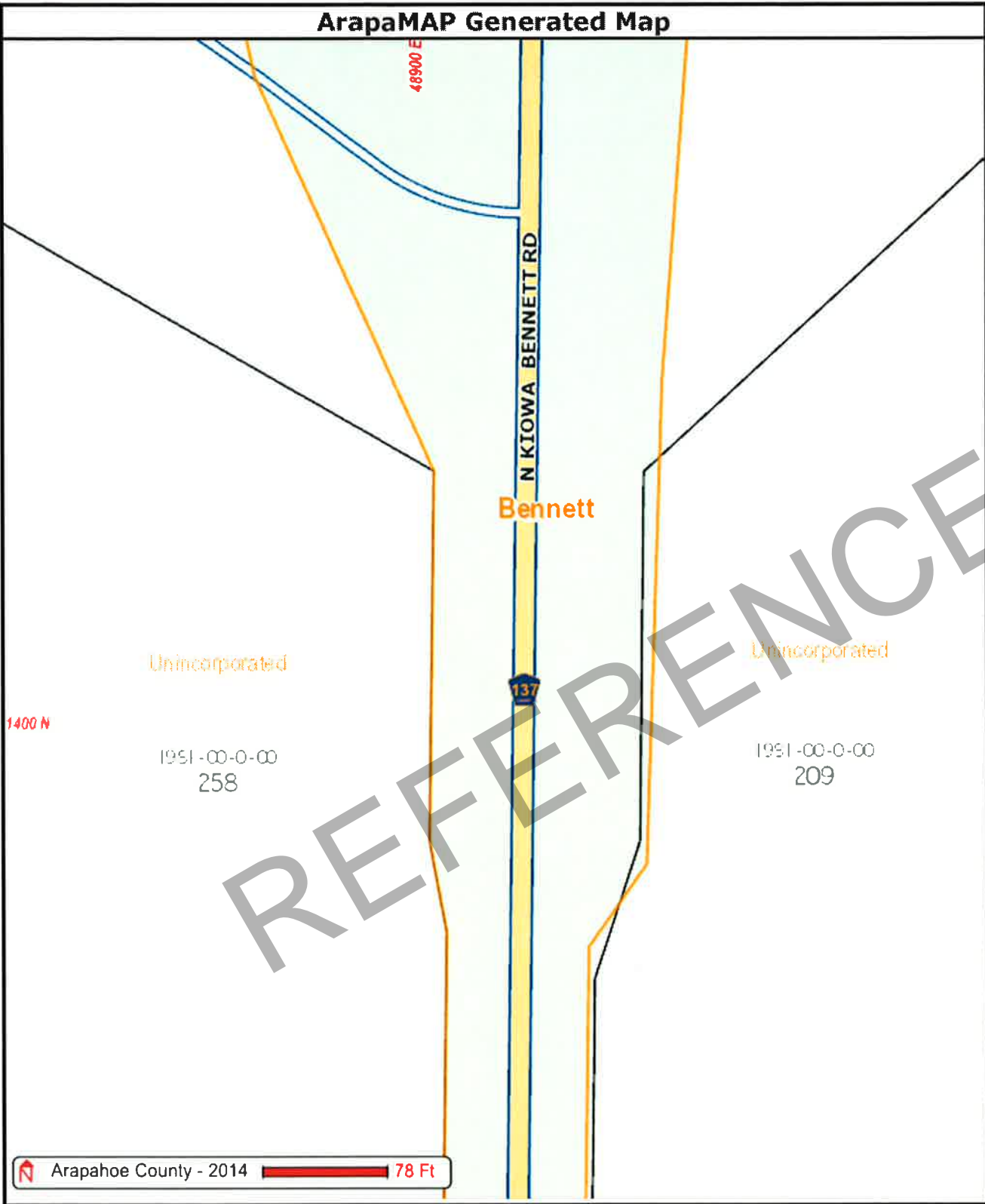
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Map Generated: Mon Feb 24 08:36:39 MST 2014

Map Scale: 1:940

Generated by ArapaMAP

ArapaMAP Generated Map



Arapahoe County - 2014 78 Ft

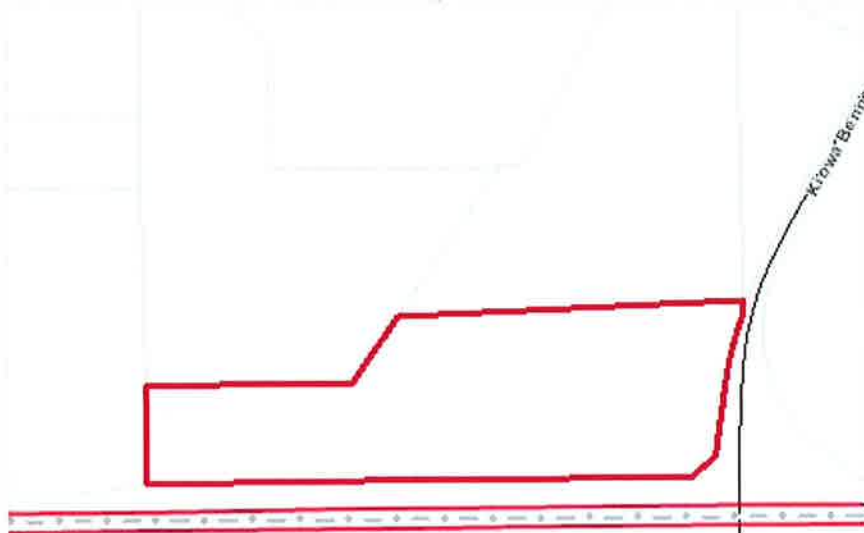
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Map Generated: Mon Feb 24 08:37:56 MST 2014

Map Scale: 1:940

Generated by ArapaMAP

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REFERENCE

**Identify Results**

**Coordinate Position**

lambert: 3304394, 1695282

**Parcels**

No records found.

[Go to Account Information](#)
[Go to Sales Information](#)
[Go to Value Information](#)
[Go to Tax Information](#)
[Map It](#)

## Adams County Agricultural Property Profile

### Account Summary

Parcel Number: 0181534400002

Account Number: R0133644

**Owners Name and Address:**

CALISTO MARY ANN  
1863 N KIOWA BENNETT ROAD  
BENNETT CO 80102

**Property Address:**

0  
CO 000000000

**Legal Description**

SECT,TWN,RNG:34-3-63 DESC: TRACT 2 PT OF THE SE4 OF SEC 34 DESC AS FOLS BEG AT THE E4 COR OF SD SEC 34 TH S 1603/08 FT TO THE POB TH S 82/75 FT TH ALG A NLY ROW LN OF I-70 HIWAY THE FOL 4 COURSES 1)NON-TANG CURVE LEFT FROM WHENCE THE RADIUS PT BRS S 74D 40M E RADIAL DIST OF 1502/39 FT HAV A DELTA ANG OF 13D 12M AN ARC LNG OF 346/18 FT 2)S 08D 06M W 320/14 FT 3)S 65D 20M W 126/36 FT 4)W 2433/30 FT TH N 400 FT TH E 800 FT TH N 35D 59M E 316/72 FT TH N 85D 13M E 1664/48 FT TO THE POB 36/221A

**Subdivision Plat**

N/A

**Account Summary**

Account Numbers	Date Added	Tax District	Mill Levy
R0133644	07/20/2001	445	81.680

**Permit Cases**

OSG2011-00006

**Note:** Values are as of Jan 1, 2013. Data is updated daily. Above data was updated as of: 01/21/14

**Legal Disclaimer:** Although every reasonable effort has been made to ensure the accuracy of the public information data and graphic representations, Adams County cannot be responsible for consequences resulting from any omissions or errors contained herein. Adams County assumes no liability whatsoever associated with the use or misuse of this data

REFERENCE

Adams County Assessor  
Sales Summary

Parcel Number: 0181534400002

Account Number: R0133644

**Owners Name and Address:**

CALISTO MARY ANN  
1863 N KIOWA BENNETT ROAD  
BENNETT CO 80102

**Property Address:**

0  
CO 000000000

Sales Summary

Sale Date	Sale Price	Deed Type	Reception Number	Book	Page	Grantor	Grantee	Doc. Fee	Doc. Date
04/01/1997	\$147,500.00	WD	C0270867	4982	282-283	CALISTO JOSEPH L AND CALISTO M	CALISTO JOSEPH L AND CALISTO M	\$14.75	04/11/1997
07/19/2001	\$10.00	OTH	C0830634			CALISTO JOSEPH L AND	CALISTO JOSEPH L AND	\$0	07/19/2001
07/15/2003	\$10.00	QC	C1181149			CALISTO JOSEPH L AND	CALISTO JOE L AND	\$0	07/24/2003

Note: Values are as of Jan 1, 2013. Data is updated daily. Above data was updated as of: 01/21/14

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REFERENCE

Adams County Assessor  
Valuation Summary

Parcel Number: 0181534400002

Account Number: R0133644

**Owners Name and Address:**

CALISTO MARY ANN  
  
1863 N KIOWA BENNETT ROAD  
BENNETT CO 80102

**Property Address:**

0  
CO 000000000

Land Valuation Summary

Land Type	Unit of Measure	Number of Units	Fire District	School District	Vacant/Improved	Actual Value	Assessed Value
Agricultural	Acres	36.2240	FIRE DISTRICT 7 BENNETT	School District 29-Bennett	V	\$1,343.00	\$400.00
<b>Land Subtotal:</b>						<b>\$1,343.00</b>	<b>\$400.00</b>

Buildings Valuation Summary

Building Number	Property Type	Actual Value	Assessed Value
<b>Improvements Subtotal:</b>		<b>0</b>	<b>0</b>

Total Property Value

\$1,343.00

\$400.00

**Note:** Values are as of Jan 1, 2013. Data is updated daily. Above data was updated as of: 01/21/14

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REFERENCE

**Adams County Assessor  
Building Summary**

**Owners Name and Address:**

CALISTO MARY ANN

1863 N KIOWA BENNETT ROAD  
BENNETT CO 80102

**Property Address:**

0  
CO 00000000

**Note:** Values are as of Jan 1, 2013. Data is updated daily. Above data was updated as of: 01/21/14

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REFERENCE



Adams County Treasurer  
Tax Summary

---

**Owners Name and Address:**

CALISTO MARY ANN

1863 N KIOWA BENNETT ROAD  
BENNETT CO 80102

**Property Address:**

0  
CO 000000000

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**Please note:** Please use the following link to access the Treasurer's Tax payment system.

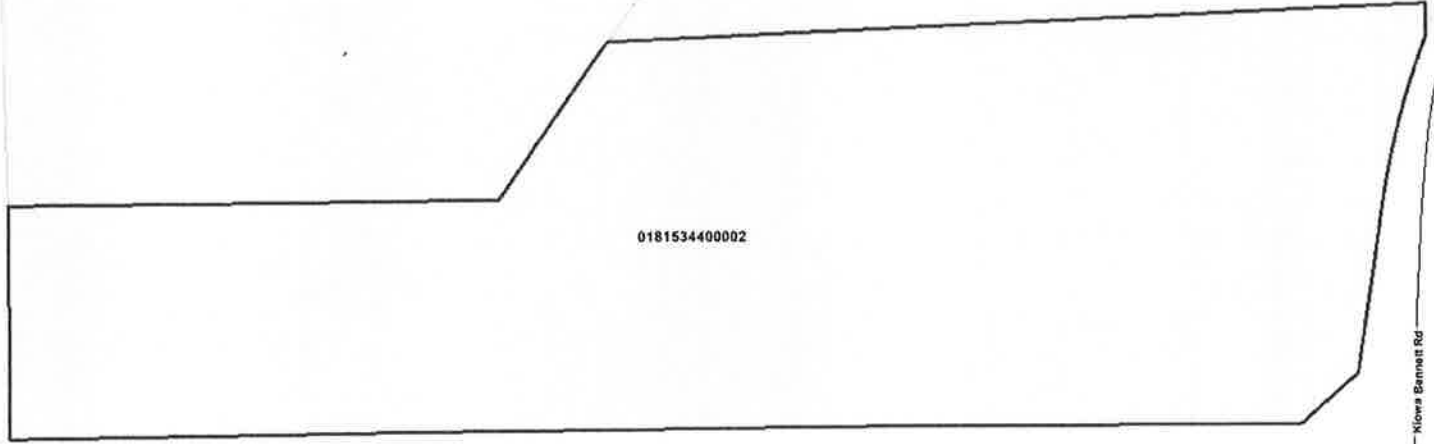
REFERENCE

Click [here](#) to go to Treasurer tax payment page.

**Note:**

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REFERENCE



Enterprise Zone

Enterprise Zone	EZ Name
92	AMENDMENT ENTERPRISE ZONE 1

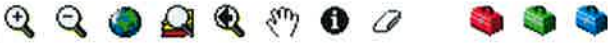
98AMENDMENT ENTERPRISE ZONE 7

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REFERENCE

Identify Results

Coordinate Position

lambert: 3306011, 1696390

Parcels

[view report](#)

Parcel #: 0181535300002  
 PIN: 181535300002  
 Township: 1815  
 Section: 353  
 Block: 00  
 Parcel: 002  
 Area: 4488693.006935  
 Stacked: N  
 Imps\_Only: N  
 Mltip\_Acct: N

+ Parcel Data

Subdivision Name:

Parcel Addr:

Owner Name: CARDON FAMILY LLC UND 53.57% INT AND

Owner Addr: 1819 E SOUTHERN AVE SUITE B 10

Owner Loc: MESA AZ 85204

Scale: 1: 10,291

Map Tool: Pan Active Layer: Parcels



[Go to Account Information](#)
[Go to Sales Information](#)
[Go to Value Information](#)
[Go to Tax Information](#)
[Map It!](#)

**Adams County**  
**Agricultural Property Profile**

**Account Summary**

**Parcel Number:** 0181535300002

**Account Number:** R0119595

**Owners Name and Address:**

CARDON FAMILY LLC UND 53.57% INT ANDSPG-BENNETT LLC UND 46.43% INT

1819 E SOUTHERN AVE SUITE B 10  
MESA AZ 85204

**Property Address:**

BENNETT CO

**Legal Description**

SECT,TWN,RNG:35-3-63 DESC: ALL THAT PT OF SEC 35 LYING SWLY OF SWLY LN OF U S HIWAY 36 AND 40 EXC PARCS AND EXC RDS AND HIWAY 115/55A

**Subdivision Plat**

N/A

**Account Summary**

Account Numbers	Date Added	Tax District	Mill Levy
R0119595	10/13/1999	425	84.757

**Permit Cases**

ANX1987-00002

**Note:** Values are as of Jan 1, 2013. Data is updated daily. Above data was updated as of: 01/21/14

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REFERENCE

**Adams County Assessor  
Sales Summary**

Parcel Number: 0181535300002

Account Number: R0119595

**Owners Name and Address:**

CARDON FAMILY LLC UND 53.57% INT ANDSPG-BENNETT LLC UND 46.43% INT

1819 E SOUTHERN AVE SUITE B 10  
MESA AZ 85204**Property Address:**

BENNETT CO

**Sales Summary**

Sale Date	Sale Price	Deed Type	Reception Number	Book	Page	Grantor	Grantee	Doc. Fee	Doc. Date
09/30/1991	\$0	WD	2673	3820	392			\$0	
10/04/1997	\$0	QC	C0323993	5121	577	SAMFORD MARY BATES TRUST THE	SAMFORD N J	\$0	10/06/1997
12/18/2000	\$0	BS	06000993099	2006		SAMFORD N J	SAMFORD N J TRUST	\$0	10/23/2006
12/18/2000	\$10.00	BS	C0743863	6366	308-311	SAMFORD N J	SAMFORD N J TRUST	\$0	12/21/2000
09/07/2006	\$0	BS	06000993100	2006		SAMFORD N J TRUST	CARDON FAMILY LLC UND 50% INT AND	\$0	10/23/2006
09/07/2006	\$782,000.00	SWD	06000993098	2006		SAMFORD N J TRUST	CARDON FAMILY LLC UND 50% INT AND	\$78.2	10/23/2006
10/17/2006	\$0	BS	06000996219	2006		CARDON FAMILY LLC UND 50% INT AND	CARDON FAMILY LLC UND 53.57% INT AND	\$0	11/02/2006
10/17/2006	\$0	BS	06000998592	2006		CARDON FAMILY LLC UND 50% INT AND	CARDON FAMILY LLC UND 53.57% INT AND	\$0	11/08/2006

Note: Values are as of Jan 1, 2013. Data is updated daily. Above data was updated as of: 01/21/14

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REFERENCE

Adams County Assessor  
Valuation Summary

Parcel Number: 0181535300002

Account Number: R0119595

**Owners Name and Address:**

CARDON FAMILY LLC UND 53.57% INT ANDSPG-BENNETT LLC UND 46.43% INT

1819 E SOUTHERN AVE SUITE B 10  
MESA AZ 85204

**Property Address:**

BENNETT CO

Land Valuation Summary

Land Type	Unit of Measure	Number of Units	Fire District	School District	Vacant/Improved	Actual Value	Assessed Value
Agricultural	Acres	115,5490	FIRE DISTRICT 7 BENNETT	School District 29-Bennett	V	\$12,290.00	\$3,560.00
<b>Land Subtotal:</b>						<b>\$12,290.00</b>	<b>\$3,560.00</b>

Buildings Valuation Summary

Building Number	Property Type	Actual Value	Assessed Value
<b>Improvements Subtotal:</b>		<b>0</b>	<b>0</b>

Total Property Value

\$12,290.00

\$3,560.00

Note: Values are as of Jan 1, 2013. Data is updated daily. Above data was updated as of: 01/21/14

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REFERENCE



**Adams County Assessor  
Building Summary**

---

**Owners Name and Address:**

CARDON FAMILY LLC UND 53.57% INT ANDSPG-BENNETT LLC UND 46.43% INT

1819 E SOUTHERN AVE SUITE B 10  
MESA AZ 85204

**Property Address:**

BENNETT CO

---

**Note:** Values are as of Jan 1, 2013. Data is updated daily. Above data was updated as of: 01/21/14

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REFERENCE

**Adams County Treasurer  
Tax Summary**

---

**Owners Name and Address:**

CARDON FAMILY LLC UND 53.57% INT ANDSPG-BENNETT LLC UND 46.43% INT

1819 E SOUTHERN AVE SUITE B 10  
MESA AZ 85204

**Property Address:**

BENNETT CO

---

**Please note:** Please use the following link to access the Treasurer's Tax payment system.

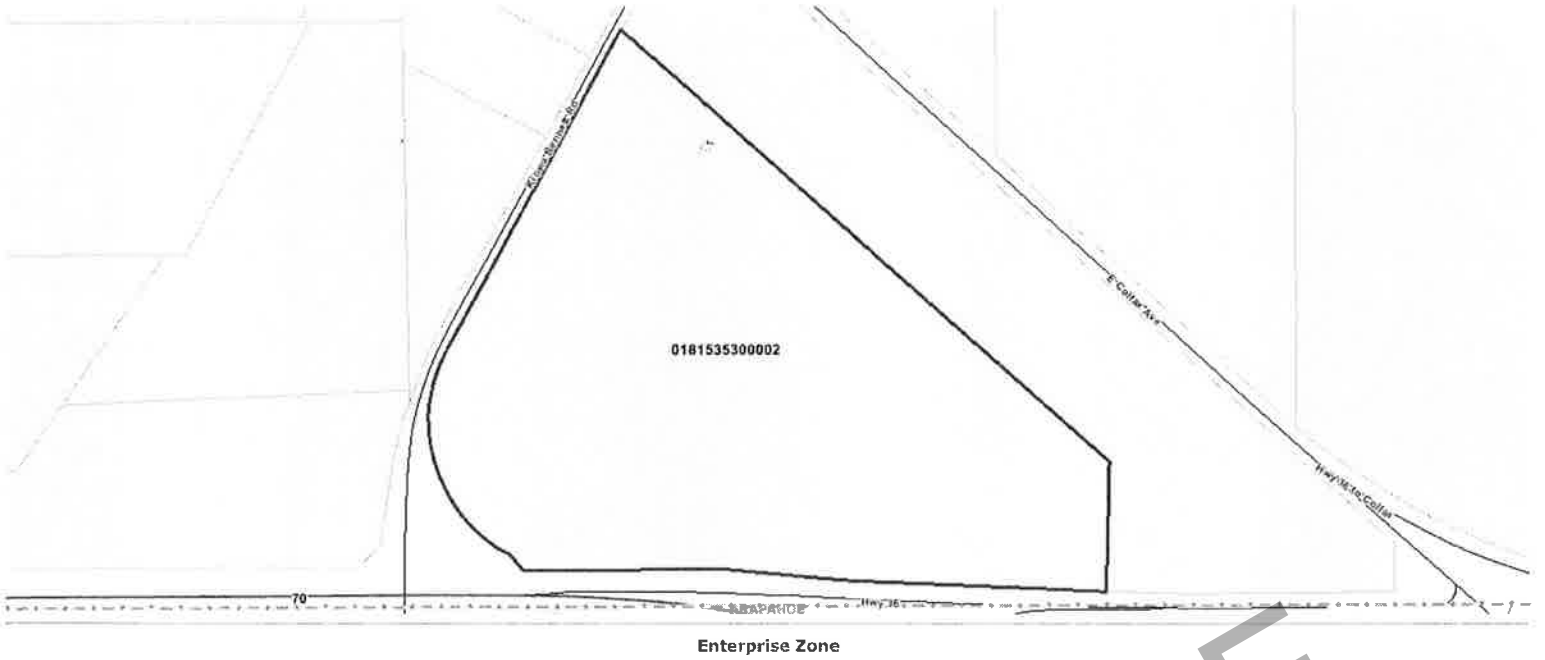
REFERENCE

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**Note:**

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Enterprise Zone	EZ Name
98	AMENDMENT ENTERPRISE ZONE 7

**Note:** The Enterprise Zone is a State of Colorado program that provides tax credits to businesses. It does not affect residential property. Adams County Economic Development oversees this program. If your business is in the Enterprise Zone please visit [www.adamscountycolorado.com/ez.html](http://www.adamscountycolorado.com/ez.html) for more information  
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REFERENCE

REFERENCE

**PIN:** 032494824  
**AIN:** 1981-00-0-00-209  
**Situs Address:** 1200 County Road 137  
**Situs City:** Bennett

**Full Owner List:** Ainsworth Lynda, Dennis J Malone & Barbara A Malone Living Trust 1/,  
 032494824 (032) Et Al  
**Owner Address:** 8865 Star Valley Ct  
**City/State/Zip:** Las Vegas, NV 89123-3635

**Neighborhood:** Out East Nbhd  
**Neighborhood Code:** 2946.00  
**Acreage:** 89.0000  
**Land Use:** Single Family  
**Legal Desc:** N 1/2 N 1/2 Lying S Of Hi/Way Ex That Part Desc As Beg 1311.5 Ft S & 3823.7 Ft W Of Ne Cor  
 Sec 2-4-63 Th N 330 Ft Th E 660 Ft Th S 330 Ft Th W 660 Ft To Beg & Ex Rd & Ex 40% M/R Sec  
 2-4-63

	Total	Building	Land
Appraised Value	211,300	110,300	101,000
Assessed Value	16,820	8,780	8,040
		<b>2013 Mill Levy:</b>	69.306

Sale	Book Page	Date	Price
	D010 0317	08/19/2010	0
	D004 2819	04/22/2010	0
	D004 2820	04/22/2010	0
	D005 3590	04/22/2010	0
	A914 6035	09/30/1999	0

Building	Building	Attributes	Recorded
	1	Quality Grade	Good Plus
		Bedrooms	3.00
		Improvement Type	Single Family
		Architectural	1 Story/Ranch
		Floors	0.00
		Heat Method	Hot & Chilled Water
		Cool Method	
		Year Built	1971
		Roof	Asphalt/Composition Shingle Roof

Area	Building	Description	SqFt
	1	First Floor	1306
		Attached Garage	530
		<b>Total Living Area:</b>	<b>1306</b>

Misc Impr	Type	Line	Units	LenDia	WdtHgt	Qual	EcoLife
	RES PREFAB MB	1	836 SF	22	38	2	50
	R YARD IMPRV	1	2 EA	0	0	3	20
	RES POLE SHED	1	180 SF	20	9	2	15
	RES PREFAB MB	1	322 SF	14	23	1	50
	R UTILITY SHD	1	100 SF	10	10	3	35

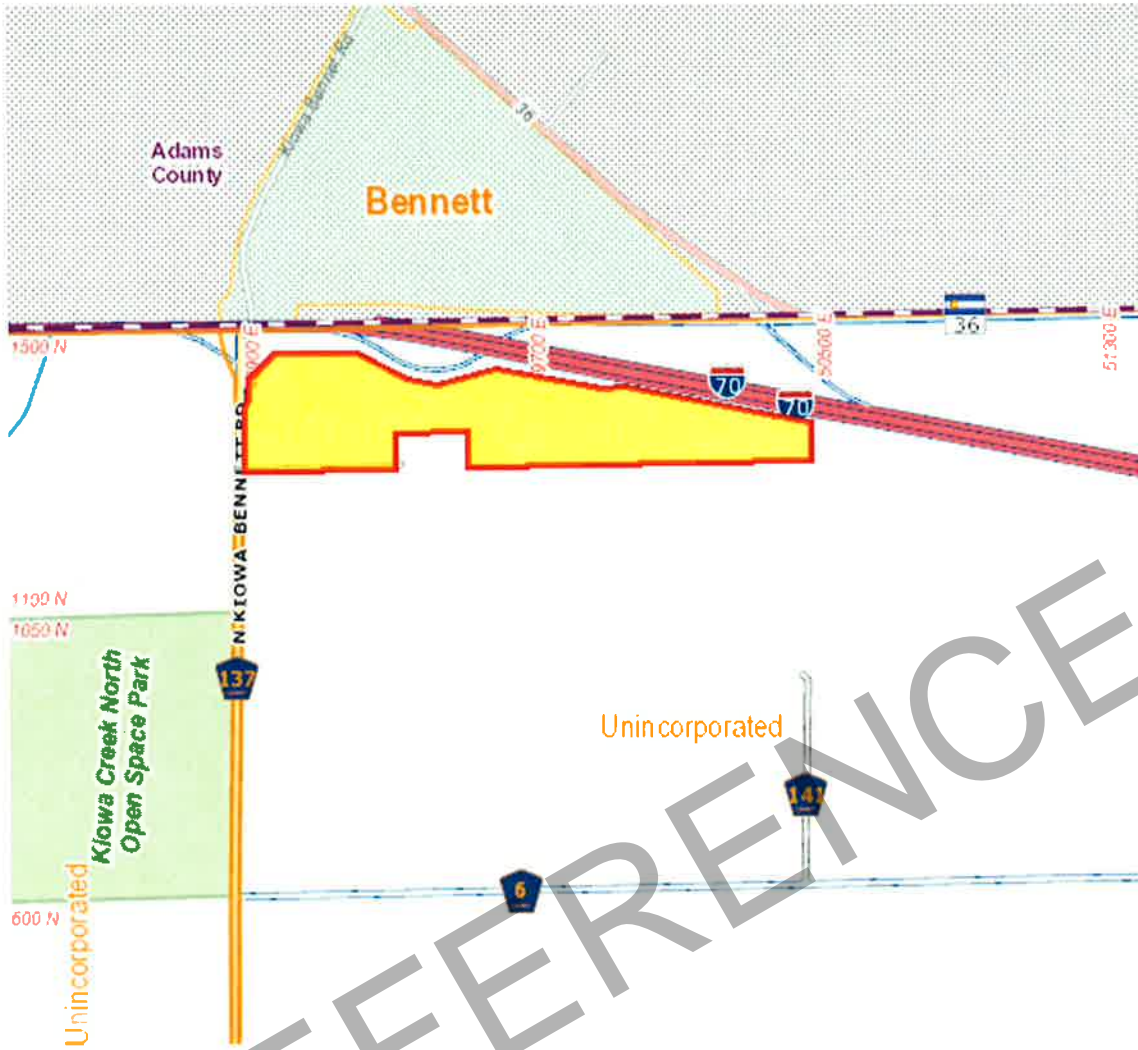
\* Not all parcels have available photos / sketches.

In some cases a sketch may be difficult to read. Please contact the Assessors Office for assistance. Measurements taken from the exterior of the building.

The Arapahoe County Assessors Office does not warranty the accuracy of any sketch, nor assumes any responsibility or liability to any user.

Although some parcels may have multiple buildings and photos, at this time our system is limited to 1 sketch and 1 photo per parcel number. Sorry for any inconvenience.

REFERENCE





**PIN:** 033648820  
**AIN:** 1981-00-0-00-258  
**Situs Address:**  
**Situs City:**

**Full Owner List:** Jacob Peggy L  
**Owner Address:** 1099 S County Road 137  
**City/State/Zip:** Bennett, CO 80102-8606

**Neighborhood:** Ag  
**Neighborhood Code:** 5001.00  
**Acreage:** 75.7000

**Land Use:**  
**Legal Desc:** That Part Of Ne 1/4 Sec 3-4-63 Desc As Beg 1267.39 Ft N Of Center 1/4 Corner Of Sd Sec 3 Th N 1275.91 Ft To A Pt On S Row Line Of I-70 Th E 2040 Ft Th Se 637.89 Ft Th S 200 Ft Th Se 51 Ft Th S 619.71 Ft Th W 2604.79 Ft To Beg Ex M/R Sec 3-4-63

	<b>Total</b>	<b>Building</b>	<b>Land</b>
<i>Appraised Value</i>	5,123	0	5,123
<i>Assessed Value</i>	1,490	0	1,490
		<b>2013 Mill Levy:</b>	69.306

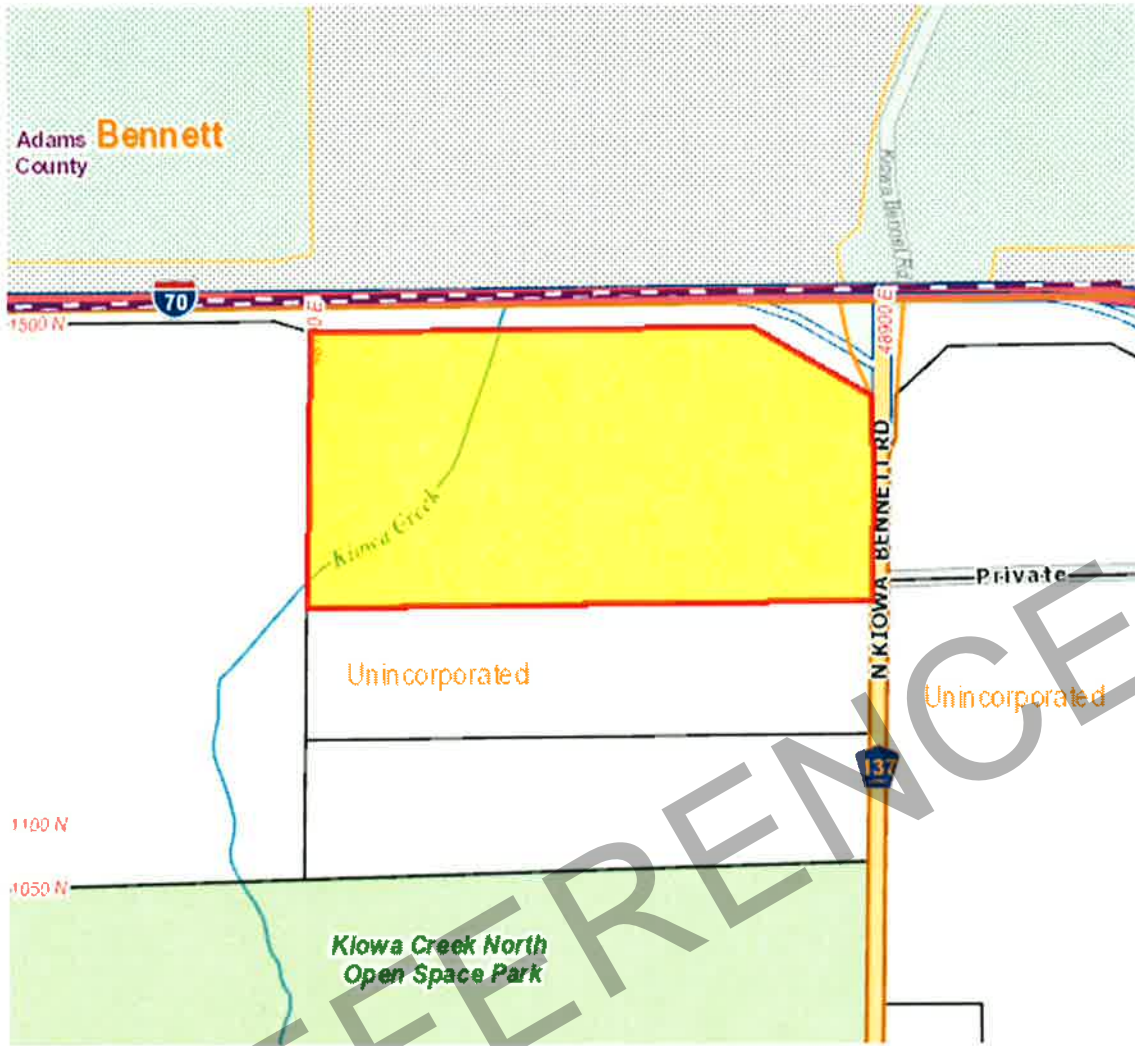
<i>Sale</i>	<b>Book Page</b>	<b>Date</b>	<b>Price</b>
	A801 2472	10/02/1996	0
	7868 0384	02/15/1995	59,200

\* Not all parcels have available photos / sketches.

In some cases a sketch may be difficult to read. Please contact the Assessors Office for assistance. Measurements taken from the exterior of the building.

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Although some parcels may have multiple buildings and photos, at this time our system is limited to 1 sketch and 1 photo per parcel number. Sorry for any inconvenience.



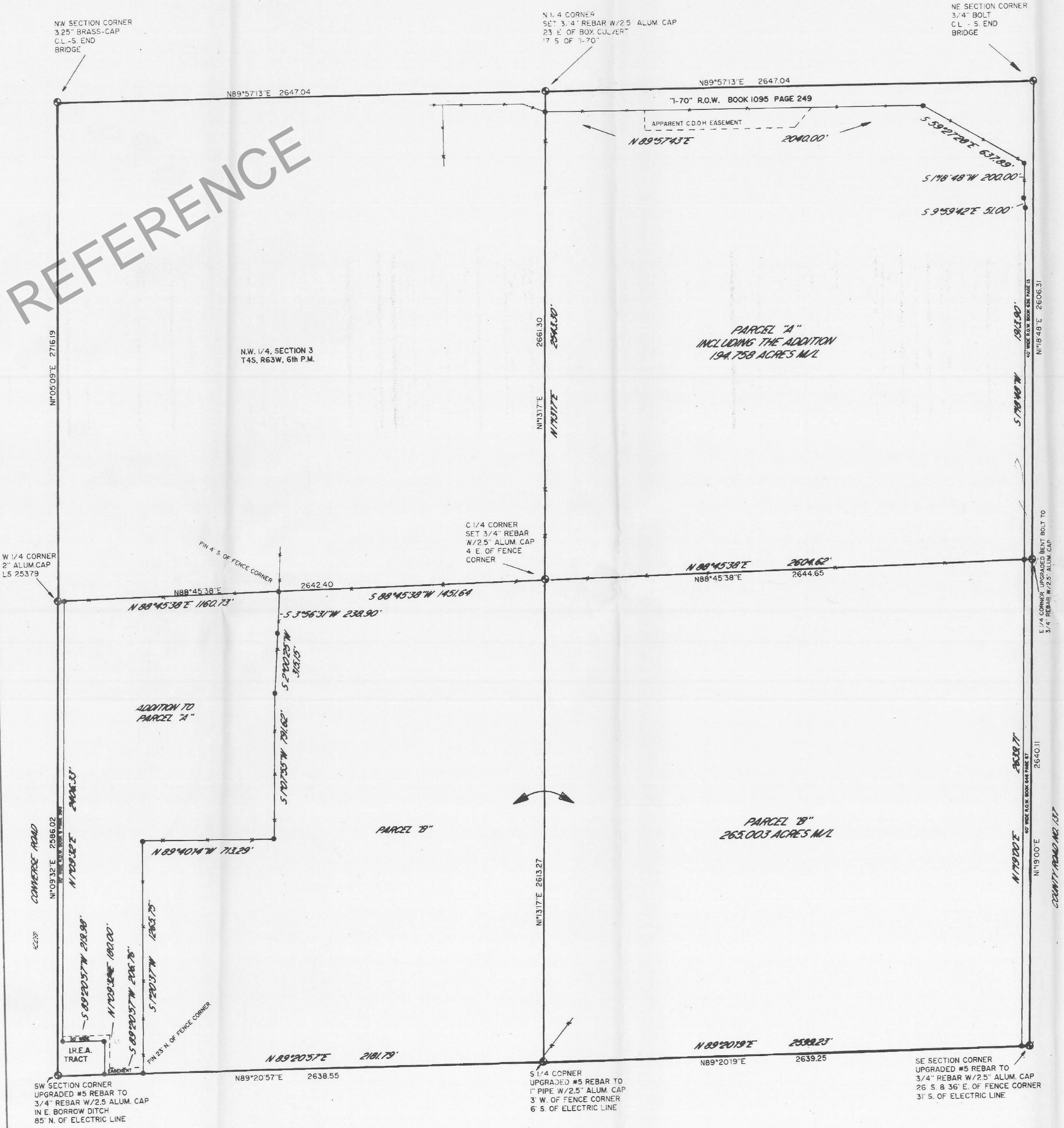
REFERENCE

**Survey and Subdivision Plats**

REFERENCE



REFERENCE



**LEGAL DESCRIPTION PARCEL "A"**  
 A PARCEL OF LAND LOCATED IN BOTH THE N.E. 1/4 & THE S.W. 1/4 OF SECTION 3, T4S, R63W, OF THE 6th P.M. COUNTY OF ARAPAHOE, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE CENTER 1/4 CORNER OF SAID SECTION 3;  
 THENCE N131°17'E ALONG THE WEST LINE OF THE N.E. 1/4 OF SAID SECTION 3 A DISTANCE OF 2643.30 FEET TO A POINT ON THE SOUTH R.O.W. LINE OF "I-70", AS DESCRIBED IN A DEED RECORDED IN BOOK 1095 AT PAGE 249;  
 THENCE ALONG SAID SOUTH R.O.W. LINE THE FOLLOWING FOUR (4) COURSES:  
 1) N89°57'43"E A DISTANCE OF 2040.00 FEET;  
 2) S59°27'28"E A DISTANCE OF 637.89 FEET;  
 3) S1°18'48"W A DISTANCE OF 200.00 FEET;  
 4) S9°59'42"E A DISTANCE OF 51.00 FEET TO A POINT ON THE WEST R.O.W. LINE OF COUNTY ROAD NO. 137 AS DESCRIBED IN A DEED RECORDED IN BOOK 636 AT PAGE 13;  
 THENCE S1°18'48"W ALONG SAID WEST R.O.W. LINE A DISTANCE OF 1913.90 FEET TO A POINT ON THE SOUTH LINE OF SAID N.E. 1/4;  
 THENCE S88°45'38"W ALONG SAID SOUTH LINE A DISTANCE OF 2604.62 FEET TO THE POINT OF BEGINNING.

INCLUDING THE ADDITION TO PARCEL "A", AS DESCRIBED AS FOLLOWS:  
 COMMENCING AT THE CENTER 1/4 CORNER OF SAID SECTION 3;  
 THENCE S88°45'38"W ALONG THE NORTH LINE OF THE S.W. 1/4 OF SAID SECTION 3, A DISTANCE OF 1451.64 FEET TO THE POINT OF BEGINNING, SAID POINT IS LOCATED ON AN EXISTING NORTH-SOUTH FENCE LINE;  
 THENCE ALONG SAID NORTH-SOUTH FENCE LINE THE FOLLOWING FIVE (5) COURSES:  
 1) S3°56'31"W A DISTANCE OF 238.90 FEET;  
 2) S2°00'25"W A DISTANCE OF 315.15 FEET;  
 3) S1°07'55"W A DISTANCE OF 791.62 FEET;  
 4) N89°40'14"W A DISTANCE OF 713.29 FEET;  
 5) S1°20'37"W A DISTANCE OF 1265.75 FEET TO A POINT ON THE SOUTH LINE OF THE S.W. 1/4 OF SAID SECTION 3;  
 THENCE S89°20'57"W ALONG SAID SOUTH LINE A DISTANCE OF 206.76 FEET TO THE S.E. CORNER OF THE "I.R.E.A." TRACT AS DESCRIBED IN A COURT DECREE RECORDED IN BOOK 6050 AT PAGE 440;  
 THENCE ALONG SAID TRACT THE FOLLOWING TWO (2) COURSES:  
 1) N1°09'32"E A DISTANCE OF 180.00 FEET;  
 2) S89°20'37"W A DISTANCE OF 219.98 FEET TO A POINT ON THE EAST R.O.W. LINE OF CONVERSE ROAD AS DESCRIBED IN ROAD BOOK 6 AT PAGE 380;  
 THENCE N1°09'32"E ALONG SAID EAST R.O.W. LINE A DISTANCE OF 2406.33 FEET TO A POINT ON THE NORTH LINE OF SAID S.W. 1/4;  
 THENCE N88°45'38"E A DISTANCE OF 1160.73 FEET TO THE POINT OF BEGINNING.

CONTAINING 194.758 ACRES MORE OR LESS.  
 SUBJECT TO A 30 FOOT WIDE NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS FOR PARCEL "B", AS DESCRIBED AS FOLLOWS:

COMMENCING AT THE S.W. CORNER OF SAID SECTION 3;  
 THENCE N89°20'57"E A DISTANCE OF 250.00 FEET TO THE POINT OF BEGINNING;  
 THENCE N89°20'57"E A DISTANCE OF 206.76 FEET;  
 THENCE N1°20'37"E A DISTANCE OF 30.00 FEET;  
 THENCE S89°20'57"W A DISTANCE OF 176.86 FEET;  
 THENCE N1°09'32"E A DISTANCE OF 180.00 FEET;  
 THENCE S89°20'37"W A DISTANCE OF 249.98 FEET TO THE EAST R.O.W. LINE OF CONVERSE ROAD;  
 THENCE S1°09'32"W ALONG SAID EAST R.O.W. LINE A DISTANCE OF 30.00 FEET;  
 THENCE N89°20'57"E A DISTANCE OF 219.98 FEET;  
 THENCE S1°09'32"W A DISTANCE OF 180.00 FEET TO THE POINT OF BEGINNING.

SUBJECT TO AN APPARENT ELECTRIC EASEMENT IN THE S.W. 1/4 OF SAID SECTION 3.  
 SUBJECT TO AN APPARENT C.D.O.H. BANK MAINTENANCE EASEMENT LOCATED IN THE N.E. 1/4 OF SAID SECTION 3.

**LEGAL DESCRIPTION PARCEL "B"**  
 A PARCEL OF LAND LOCATED IN BOTH THE S.E. 1/4 & THE S.W. 1/4 OF SECTION 3, T4S, R63W, OF THE 6th P.M. COUNTY OF ARAPAHOE, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE CENTER 1/4 CORNER OF SAID SECTION 3;  
 THENCE S88°45'38"W ALONG THE NORTH LINE OF SAID S.W. 1/4 OF SECTION 3 A DISTANCE OF 1451.64 FEET TO A POINT LOCATED ON AN EXISTING NORTH-SOUTH FENCE LINE;  
 THENCE ALONG SAID NORTH-SOUTH FENCE LINE THE FOLLOWING FIVE (5) COURSES:  
 1) S3°56'31"W A DISTANCE OF 238.90 FEET;  
 2) S2°00'25"W A DISTANCE OF 315.15 FEET;  
 3) S1°07'55"W A DISTANCE OF 791.62 FEET;  
 4) N89°40'14"W A DISTANCE OF 713.29 FEET;  
 5) S1°20'37"W A DISTANCE OF 1265.75 FEET TO A POINT ON THE SOUTH LINE OF THE S.W. 1/4 OF SAID SECTION 3;  
 THENCE N89°20'57"E ALONG SAID SOUTH LINE OF THE S.W. 1/4 A DISTANCE OF 2181.79 FEET TO THE SOUTH 1/4 CORNER OF SAID SECTION 3;  
 THENCE N89°20'19"E ALONG THE SOUTH LINE OF THE S.E. 1/4 OF SAID SECTION 3 A DISTANCE OF 2599.23 FEET TO A POINT ON THE WEST R.O.W. LINE OF COUNTY ROAD NO. 137 AS DESCRIBED IN A DEED RECORDED IN BOOK 646 AT PAGE 67;  
 THENCE N1°19'00"E ALONG SAID WEST R.O.W. LINE A DISTANCE OF 2639.71 FEET TO A POINT ON THE NORTH LINE OF THE S.E. 1/4 OF SAID SECTION 3;  
 THENCE S88°45'38"W ALONG SAID NORTH LINE OF THE S.E. 1/4 A DISTANCE OF 2604.62 FEET TO THE POINT OF BEGINNING.

CONTAINING 265.003 ACRES MORE OR LESS.  
 INCLUDING A 30 FOOT WIDE NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS AS DESCRIBED AS FOLLOWS:

COMMENCING AT THE S.W. CORNER OF SAID SECTION 3;  
 THENCE N89°20'57"E A DISTANCE OF 250.00 FEET TO THE POINT OF BEGINNING;  
 THENCE N89°20'57"E A DISTANCE OF 206.76 FEET;  
 THENCE N1°20'37"E A DISTANCE OF 30.00 FEET;  
 THENCE S89°20'57"W A DISTANCE OF 176.86 FEET;  
 THENCE N1°09'32"E A DISTANCE OF 180.00 FEET;  
 THENCE S89°20'37"W A DISTANCE OF 249.98 FEET TO THE EAST R.O.W. LINE OF CONVERSE ROAD;  
 THENCE S1°09'32"W ALONG SAID EAST R.O.W. LINE A DISTANCE OF 30.00 FEET;  
 THENCE N89°20'57"E A DISTANCE OF 219.98 FEET;  
 THENCE S1°09'32"W A DISTANCE OF 180.00 FEET TO THE POINT OF BEGINNING.

SUBJECT TO AN APPARENT ELECTRIC EASEMENT LOCATED IN BOTH THE S.W. 1/4 & THE S.E. 1/4 OF SAID SECTION 3.

**SURVEYOR'S CERTIFICATE**  
 I, CHARLES H. RUSSELL, A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF COLORADO, DO HEREBY CERTIFY THE SURVEY REPRESENTED BY THIS PLAT WAS MADE BY ME OR UNDER MY SUPERVISION, AND THE MONUMENTS SHOWN HEREON ACTUALLY EXIST, AND THIS PLAT ACCURATELY REPRESENTS SAID SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

CHARLES H. RUSSELL DATE MARCH 20, 1994  
 PLS 23519



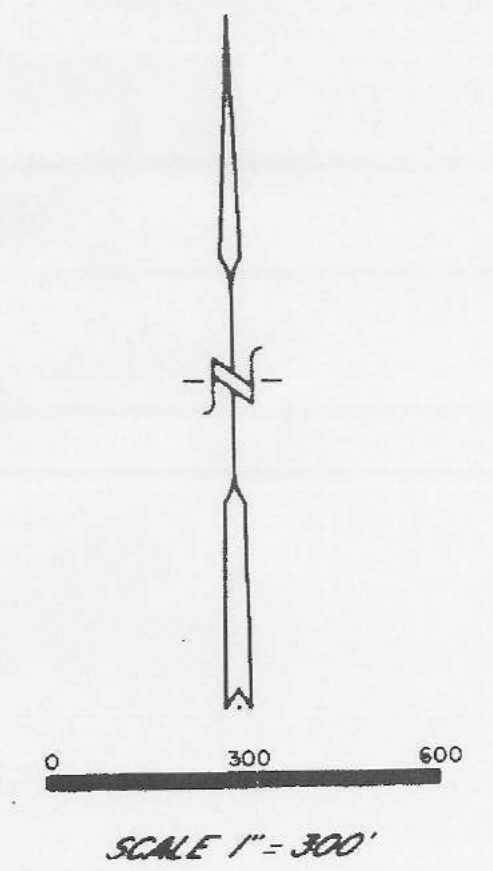
NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT, IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

NOTE: THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY RUSSELL SURVEYING TO DETERMINE OWNERSHIP, RIGHTS-OF-WAY, OR EASEMENTS OF RECORD. THE CLIENT DID NOT REQUIRE EASEMENTS OR RIGHTS-OF-WAY, RECORDED OR APPARENT, TO BE RESEARCHED OR SHOWN ON THIS LAND SURVEY PLAT.

DEPOSITED THIS DAY OF MARCH 19 1994 AT 11:00 AM, IN THE BOOK OF THE COUNTY SURVEYOR'S LAND SURVEY PLATS & RIGHT-OF-WAY SURVEYS AT PAGE 23519 WITH RECEIPTION NO. 1111. THIS LAND SURVEY PLAT COMPLIES WITH SECTION 38-51-102, COLORADO REVISED STATUTES.

● - SET 1/2" REBAR W/YELLOW PLASTIC CAP  
 RUSSELL LS 23519

**BASIS OF BEARING**  
 BEARINGS ARE BASED ON THE NORTH LINE OF THE S.W. 1/4 OF SECTION 3, T4S, R63W, 6th PM, AS S88°45'38"W.



District Court, County of Arapahoe, State of Colorado  
 Case No. 91-CV-4108, Division 4  
 The Partition of the N.E. 1/4, the S.E. 1/4, and the S.W. 1/4 of Section 3, T4S, R63W, of the 6th P.M. As Per Instructions from the Report of the Partition Commissioners, Dated the 29th Day of July, 1993.

**COUNTY CERTIFICATE**  
 I, County Clerk, do hereby certify that the within and foregoing plat of land survey was filed for record in the County of Arapahoe, State of Colorado, on the 20th day of March, 1994, at 11:00 AM, and that the same complies with the provisions of Section 38-51-102, Colorado Revised Statutes.

**CHARLES H. RUSSELL**  
 PROFESSIONAL LAND SURVEYOR  
 P.O. Box 1403, Platte, Colorado 81428  
 (303) 927-3650

**LAND SURVEY PLAT**  
 SECTION 3, T4S, R63W, 6th PM  
 ARAPAHOE COUNTY COLORADO

DATE MARCH 8, 1994  
 JOB NO. 94066  
 REVISED LEGAL MARCH 20, 1994 by CHR

REFERENCE

**SURVEYOR'S CERTIFICATE**

I, Charles H. Russell, a Professional Land Surveyor, Registered in the State of Colorado, do hereby Certify the Survey represented by this Plat was made by me or under my supervision, and the monuments shown hereon actually exist, and this Plat accurately represents said Survey to the best of my knowledge and belief.

Charles H. Russell  
Date: October 24, 1994  
PLS 23519



NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event, may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

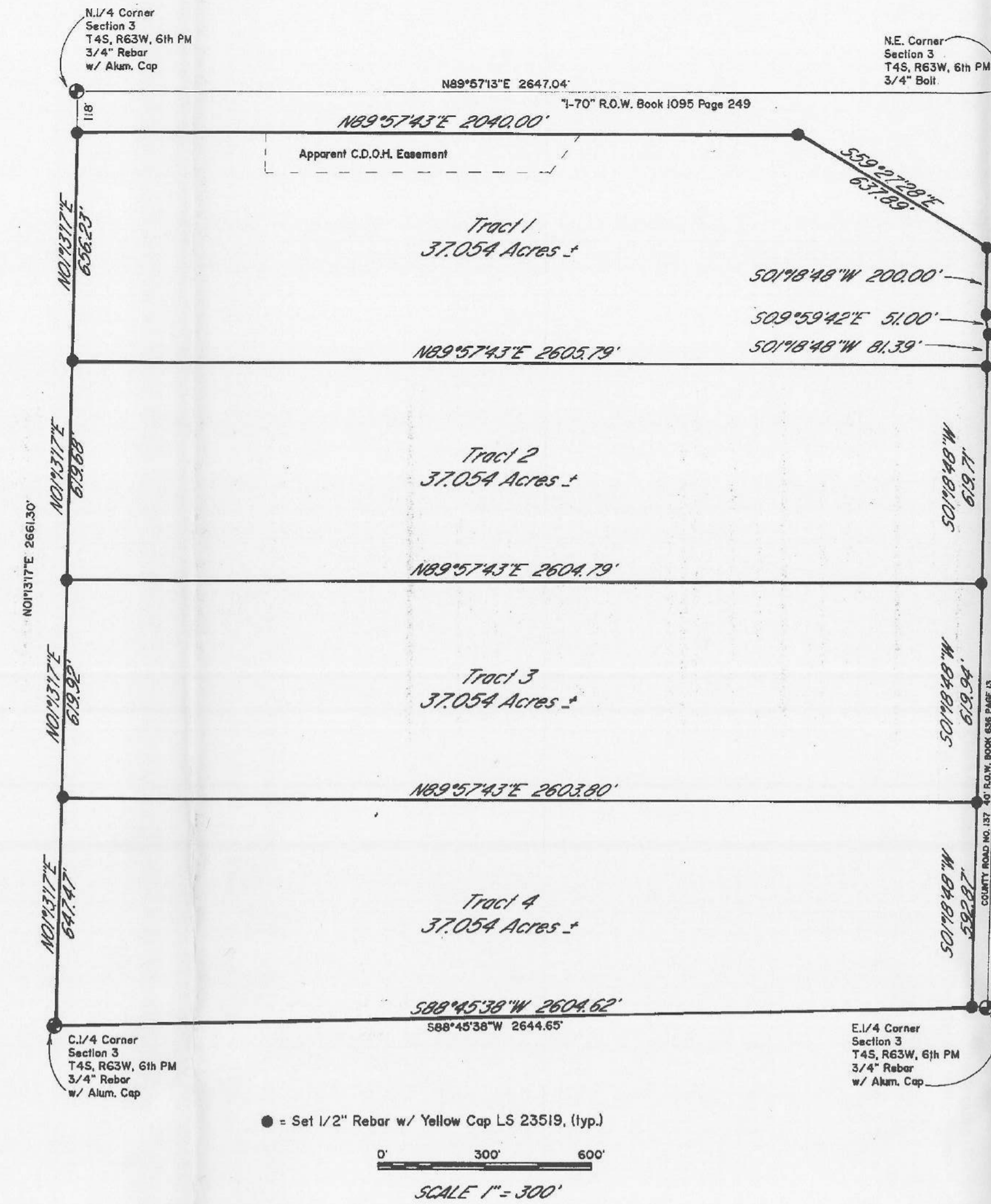
NOTE: This survey does not constitute a title search by Russell Surveying to determine ownership, rights-of-way, or easements of record. The client did not require easements or rights-of-way, recorded or apparent, to be researched or shown on this land survey plat.

**BASIS OF BEARING**

Bearings are Based on a Bearing of N01°31'7"E for the West Line of the N.E. 1/4 of Section 3, T4S, R63W, 6th PM, Arapahoe County Colorado.

Deposited this 11<sup>th</sup> day of Nov, 1994 at 2:06 P.M. in the Book 1 of the County Surveyor's Land Survey Plat & Right-of-Way Surveys at Page        with reception No. 6 PLAT 00680. This Land Survey Plat complies with section 38-51-102, Colorado Revised Statutes.

*Margie Page*  
By: *Thomas Ruppert, Deputy*



**LEGAL DESCRIPTION TRACT 1**

A Tract of land located in the N.E. 1/4 of Section 3, T4S, R63W of the 6th PM, County of Arapahoe, State of Colorado. Being more Particularly described as follows:

Commencing at the Center 1/4 Corner of said Section 3;  
Thence N01°31'7"E along the West line of the N.E. 1/4 of said Section 3 a distance of 1887.07 feet to the Point of Beginning;  
Thence continuing N01°31'7"E along said West line a distance of 656.23 feet to a point on the South R.O.W. line of "L-70", as described in a Deed Recorded in Book 1095 at Page 249;  
Thence along said South R.O.W. line the following four (4) courses:  
1) N89°57'43"E a distance of 2040.00 feet;  
2) S59°27'28"E a distance of 637.89 feet;  
3) S01°18'48"W a distance of 200.00 feet;  
4) S09°59'42"E a distance of 51.00 feet to a point on the West R.O.W. line of County Road No. 137, as described in a Deed Recorded in Book 636 at Page 13;  
Thence S01°18'48"W along said West R.O.W. line a distance of 81.39 feet;  
Thence S89°57'43"W a distance of 2605.79 feet to the Point of Beginning.  
Containing 37.054 Acres more or less.  
Subject to an Apparent C.D.O.H. Bank Maintenance Easement.

**LEGAL DESCRIPTION TRACT 2**

A Tract of land located in the N.E. 1/4 of Section 3, T4S, R63W of the 6th PM, County of Arapahoe, State of Colorado. Being more Particularly described as follows:

Commencing at the Center 1/4 Corner of said Section 3;  
Thence N01°31'7"E along the West line of the N.E. 1/4 of said Section 3 a distance of 1267.39 feet to the Point of Beginning;  
Thence continuing N01°31'7"E along said West line a distance of 619.68 feet;  
Thence N89°57'43"E a distance of 2605.79 feet to a point on the West R.O.W. line of County Road No. 137, as described in a Deed Recorded in Book 636 at Page 13;  
Thence S01°18'48"W along said West R.O.W. line a distance of 619.71 feet;  
Thence S89°57'43"W a distance of 2604.79 feet to the Point of Beginning.  
Containing 37.054 Acres more or less.

**LEGAL DESCRIPTION TRACT 3**

A Tract of land located in the N.E. 1/4 of Section 3, T4S, R63W of the 6th PM, County of Arapahoe, State of Colorado. Being more Particularly described as follows:

Commencing at the Center 1/4 Corner of said Section 3;  
Thence N01°31'7"E along the West line of the N.E. 1/4 of said Section 3 a distance of 647.47 feet to the Point of Beginning;  
Thence continuing N01°31'7"E along said West line a distance of 619.92 feet;  
Thence N89°57'43"E a distance of 2604.79 feet to a point on the West R.O.W. line of County Road No. 137, as described in a Deed Recorded in Book 636 at Page 13;  
Thence S01°18'48"W along said West R.O.W. line a distance of 619.94 feet;  
Thence S89°57'43"W a distance of 2603.80 feet to the Point of Beginning.  
Containing 37.054 Acres more or less.

**LEGAL DESCRIPTION TRACT 4**

A Tract of land located in the N.E. 1/4 of Section 3, T4S, R63W of the 6th PM, County of Arapahoe, State of Colorado. Being more Particularly described as follows:

Beginning at the Center 1/4 Corner of said Section 3;  
Thence N01°31'7"E along the West line of the N.E. 1/4 of said Section 3 a distance of 647.47 feet;  
Thence N89°57'43"E a distance of 2603.80 feet to a point on the West R.O.W. line of County Road No. 137, as described in a Deed Recorded in Book 636 at Page 13;  
Thence S01°18'48"W along said West R.O.W. line a distance of 592.87 feet to a point on the South line of said N.E. 1/4;  
Thence S88°45'38"W along said South line a distance of 2604.62 feet to the Point of Beginning.  
Containing 37.054 Acres more or less.

<p><b>CHARLES H. RUSSELL</b> PROFESSIONAL LAND SURVEYOR P.O. Box 1403 Poncha, Colorado 81428 (303) 527-5404 (303) 527-3690</p>
<p><b>LAND SURVEY PLAT</b> for Loyd Sargent located in the N.E. 1/4 Section 3, T4S, R63W, 6th PM Arapahoe County Colorado</p>
<p>Job No. 94088 Date October 24, 1994</p>

**Appendix C**  
**Utility Contact List and Plans**

REFERENCE



## Utility Contact List

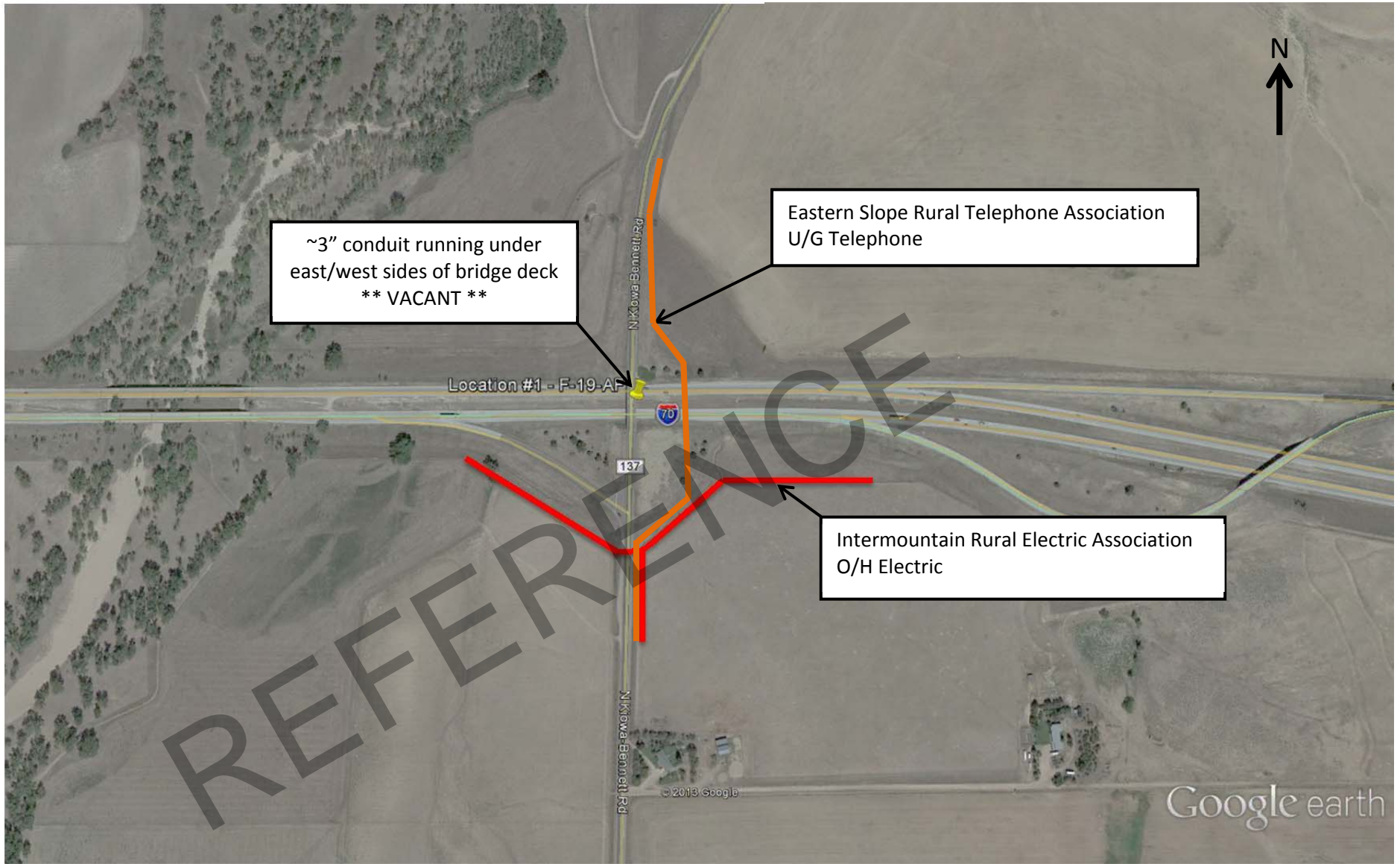
The known utilities within the limits of this project are:

UTILITY	CONTACT/EMAIL	PHONE/FAX
Town of Bennett <i>F-19-AF</i> 355 4 <sup>th</sup> St. Bennett, CO 80102	Jose Rochas	303-644-3249 off 303-644-4125 fax
CDOT Region 1 <i>F-19-AF</i> 2000 S. Holly Denver, CO 80222	Jeff Lancaster	303-757-9950 off 303-757-9866 fax
Eastern Slope Rural Telephone Association <i>F-19-AF</i> 403 3 <sup>rd</sup> Ave. Hugo, CO 80821	Tom Hudson	720-743-2441 off
Intermountain Rural Electric Association <i>F-19-AF</i> 1497 Main Street P.O. Box 495 Strasburg, CO 80136	Audra Mangus	303-622-9231 off 303-622-4885 fax

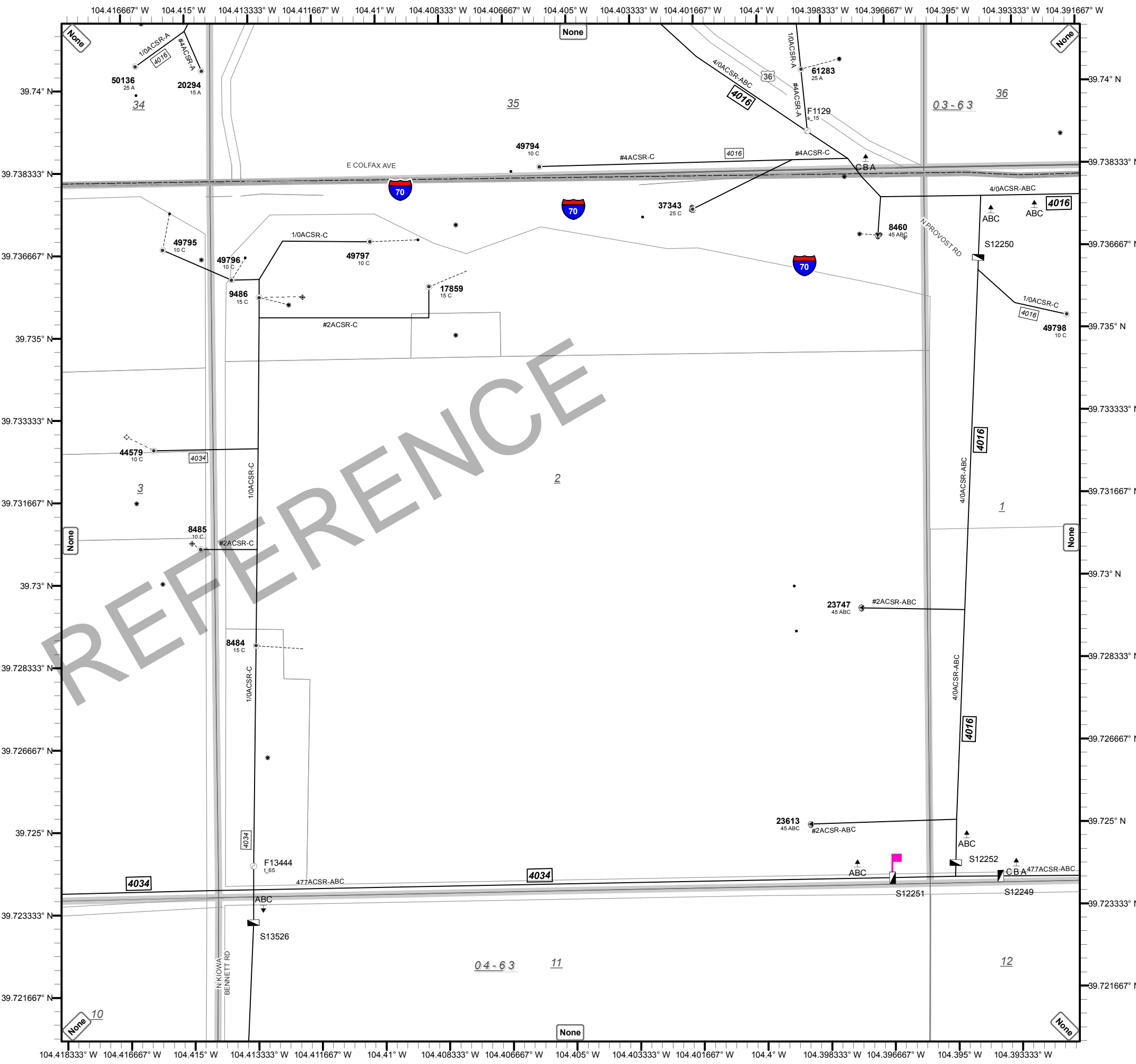
REFERENCE



**Structure F-19-AF:** Kiowa-Bennett Rd over I-70







REFERENCE



**INTERMOUNTAIN  
RURAL ELECTRIC ASSOCIATION, INC.**  
SEDALIA, COLORADO  
COLORADO 16 JEFFERSON

**DISCLAIMER**  
INTERMOUNTAIN REA MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OF THESE BASE MAPS, AND ASSUMES NO RESPONSIBILITY OR LIABILITY TO ANY USER. THIS BASE MAP IS NOT A LEGAL DOCUMENT AND IT IS INTENDED TO SERVE ONLY AS A GRAPHIC REPRESENTATION.

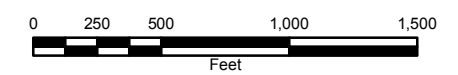
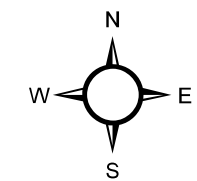
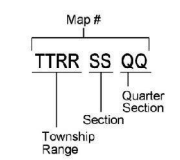
Coordinate System: State Plane  
Colorado Central Zone - NAD 27

Graticule: WGS 1984 LL  
Major Ticks - 0° 0' 6" = 0.001667 Dec. Deg.  
Minor Ticks - 0° 0' 1" = 0.000278 Dec. Deg.

Township Section Key

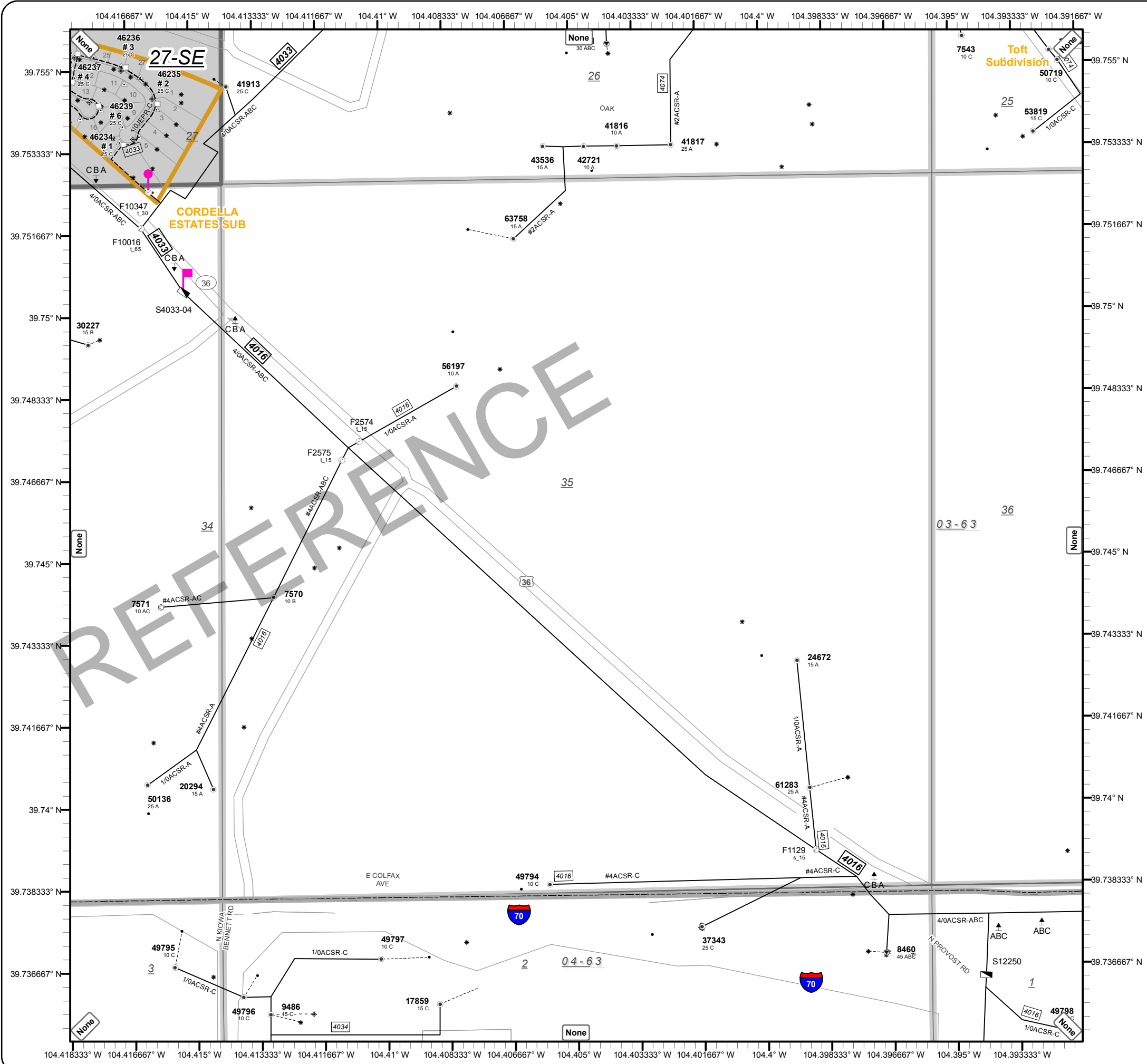
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7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

1/4 Section Key  
NW NE  
SW SE



**0463-02**

Published: 12/11/2013



**INTERMOUNTAIN  
RURAL ELECTRIC ASSOCIATION, INC.**  
SEDALIA, COLORADO  
COLORADO 16 JEFFERSON

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Coordinate System: State Plane  
Colorado Central Zone - NAD 27

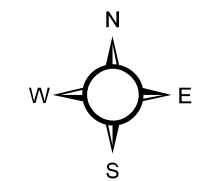
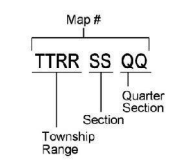
Graticule: WGS 1984 LL  
Major Ticks - 0° 0' 6" = 0.001667 Dec. Deg.  
Minor Ticks - 0° 0' 1" = 0.000278 Dec. Deg.

Township Section  
Key

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

1/4 Section Key

NW	NE
SW	SE



**0363-35**

Published: 12/11/2013

SEE SHT # 4

C LINE

BUR SPLICE  
8-89

REPL PED  
10-89

$\frac{C3}{2}$

$\frac{C3}{3}$

$\frac{C3}{4}$

$\frac{C3}{5}$

$\frac{C3}{6}$

486

1582

1030

440

810

BUR. SPLICE 350' FROM  
PED C/4 8/93

$\frac{C3}{4A}$

RD. 137 (KIOWA-BENNETT)

Hwy 36

914'

W/O# 644-243-01

SEE SHEET 2  
C - LINE  
EX. BU 12x22

INTERSTATE 70

SEE SHEET 2

C2 - LINE

## Appendix D

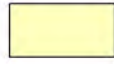






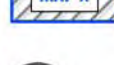

### Hydraulic Information and Plans

REFERENCE

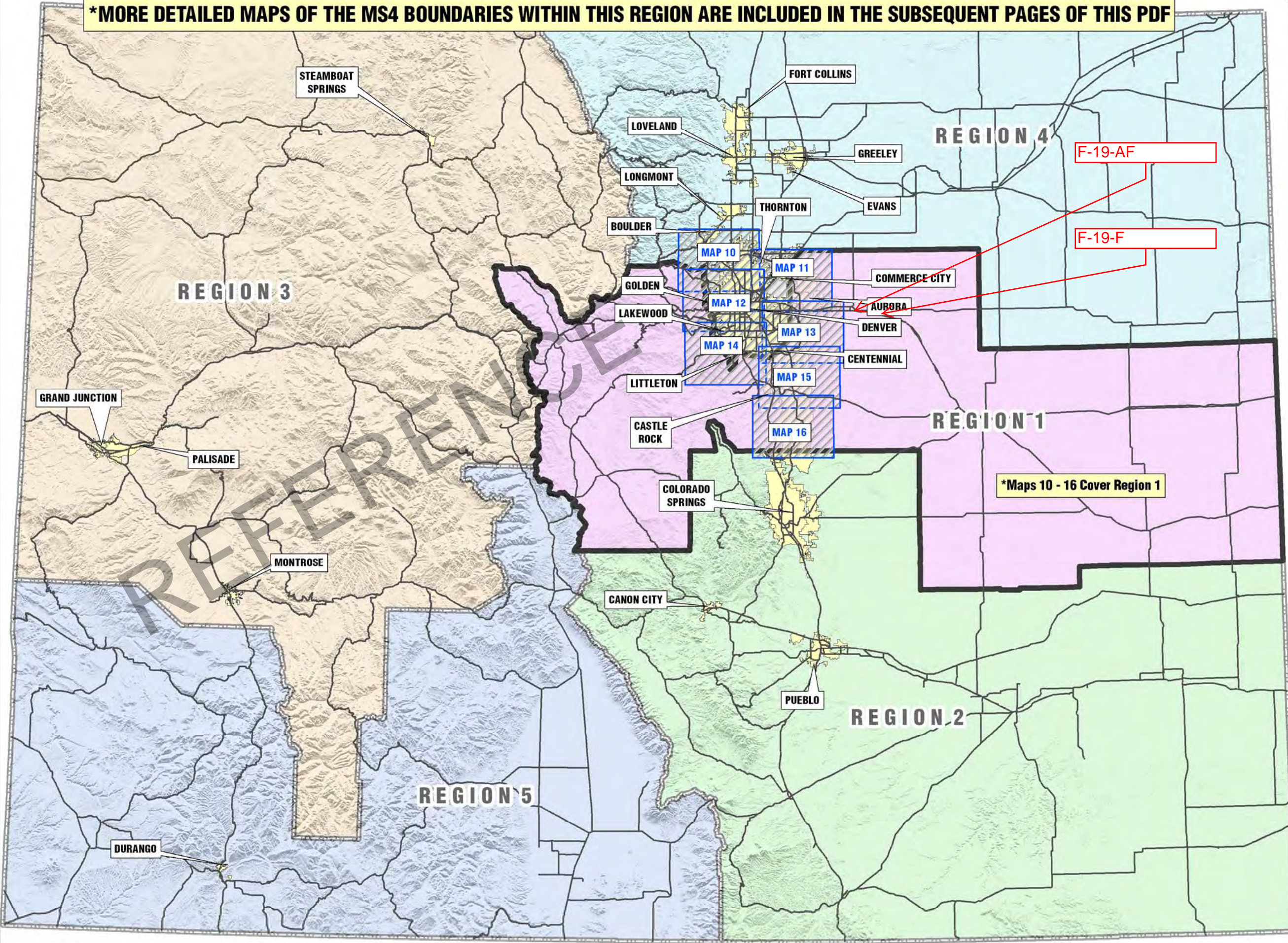


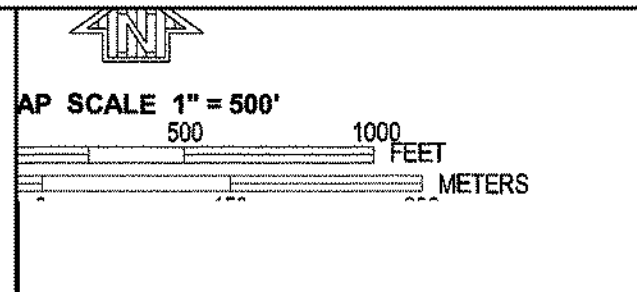
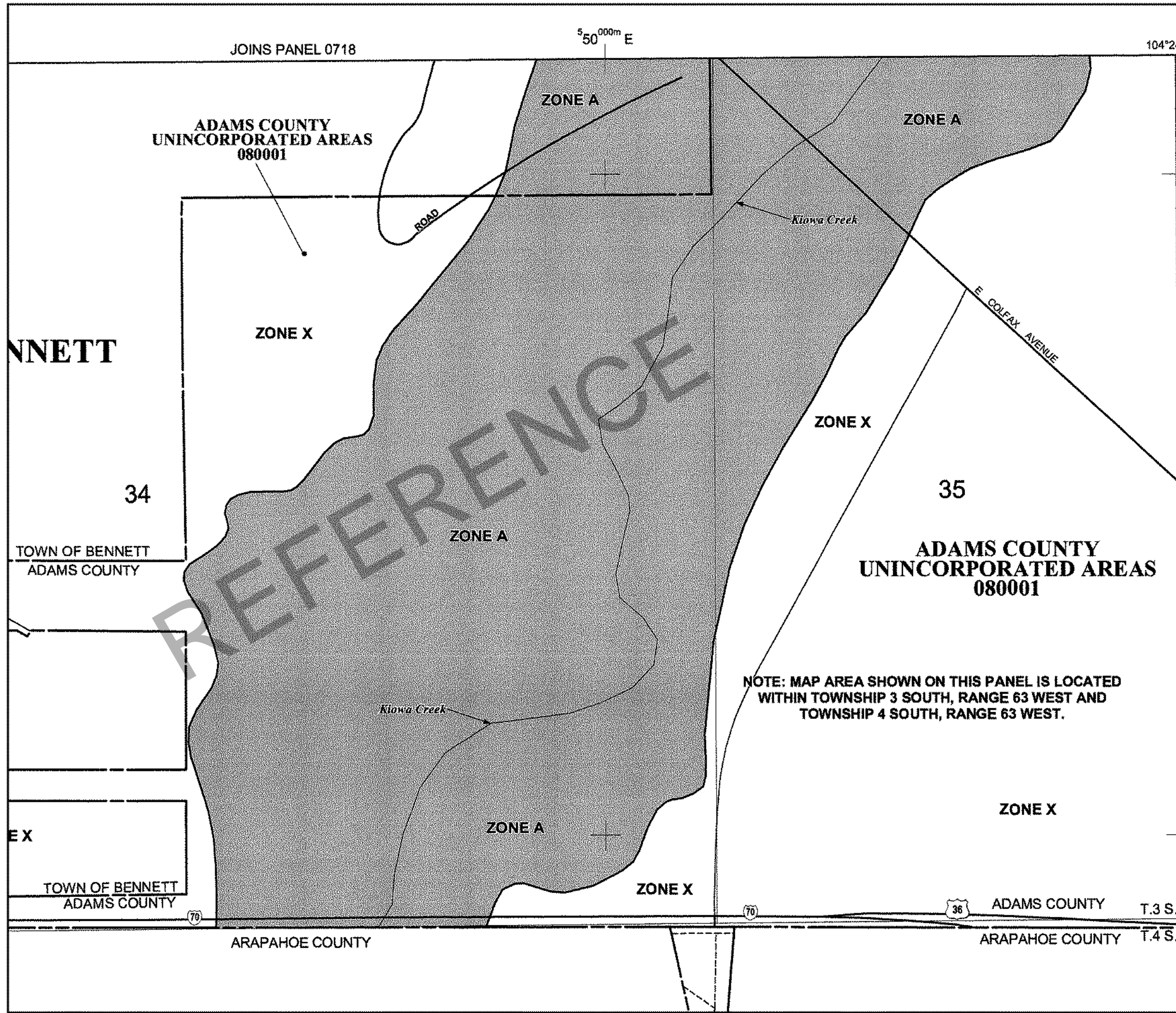
**\*MORE DETAILED MAPS OF THE MS4 BOUNDARIES WITHIN THIS REGION ARE INCLUDED IN THE SUBSEQUENT PAGES OF THIS PDF**

### LEGEND

-  CDOT MS4 Coverage Area
-  CDOT REGION 1
-  CDOT Region 2
-  CDOT Region 3
-  CDOT Region 4
-  CDOT Region 5
-  CDOT Region 6
-  Detailed Map Page
-  Highways

*\*CREATED APRIL 2009*





**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**ADAMS COUNTY,**  
**COLORADO**  
**AND UNINCORPORATED AREAS**

PANEL 981 OF 1150  
 SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ADAMS COUNTY	080001	0981	H
BENNETT, TOWN OF	080003	0981	H

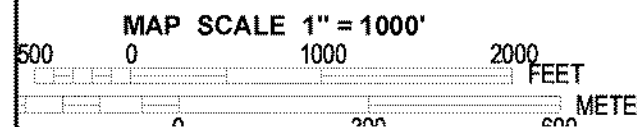
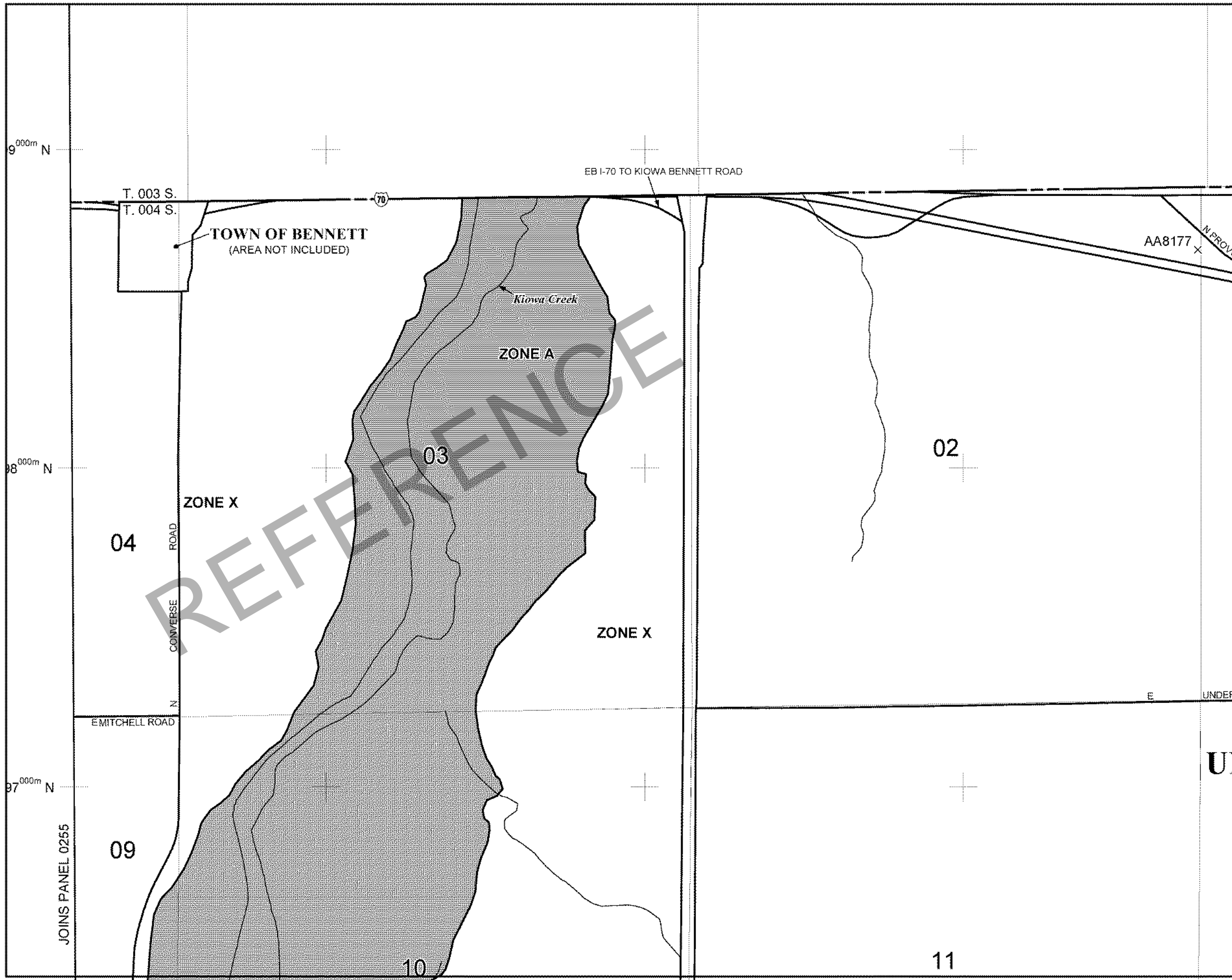
Note to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**08001C0981H**  
**MAP REVISED**  
**MARCH 5, 2007**

**Federal Emergency Management Agency**

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



PANEL 0260K

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**ARAPAHOE COUNTY,**  
**COLORADO**  
**AND INCORPORATED AREAS**

**PANEL 260 OF 725**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL	SUFFIX
ARAPAHOE COUNTY	080011	0260	K

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
**08005C0260K**  
**MAP REVISED**  
**DECEMBER 17, 2010**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

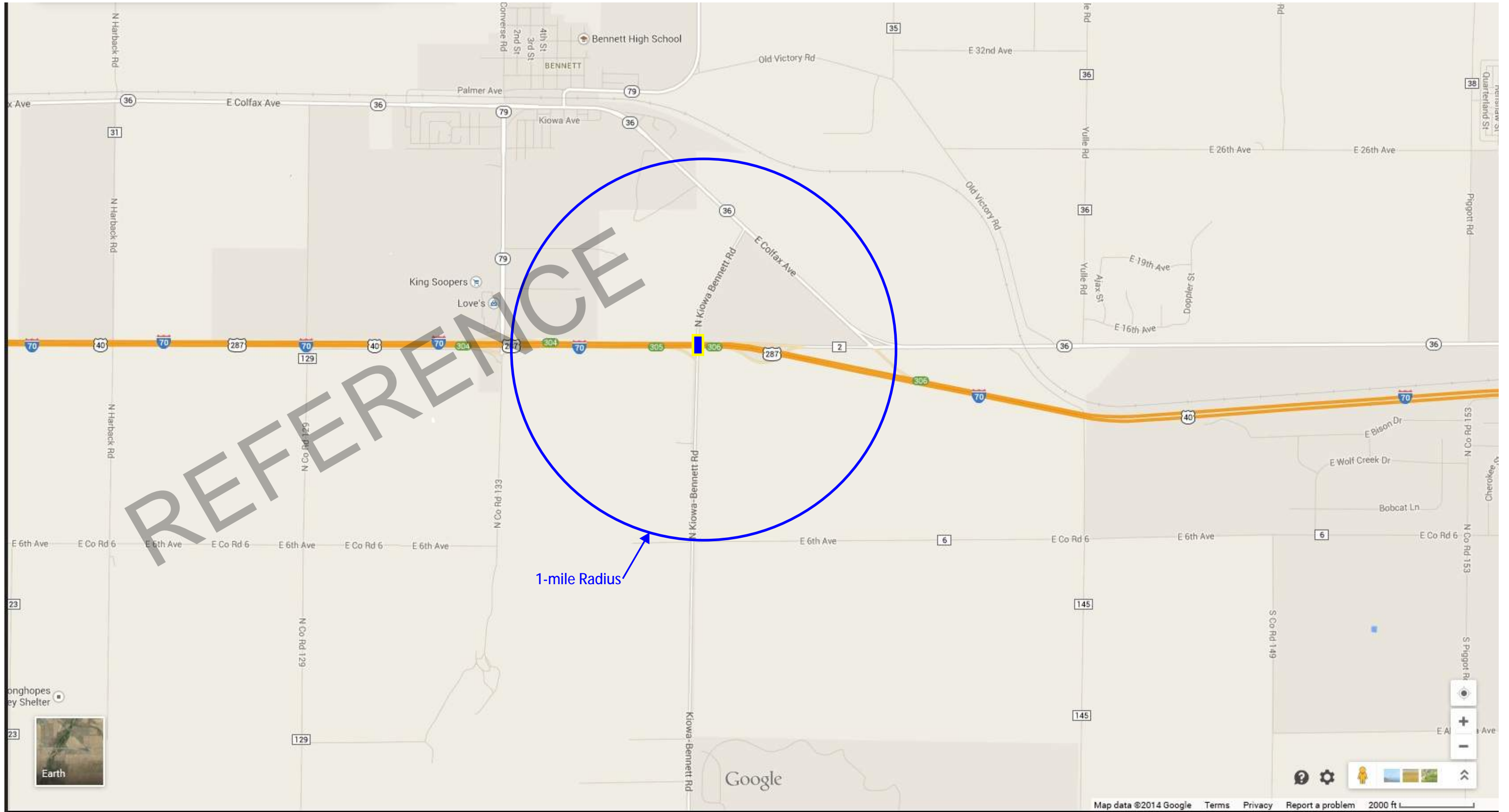
**Appendix E**  
**Ditch Information**

REFERENCE





# Kiowa-Bennett Road over I-70

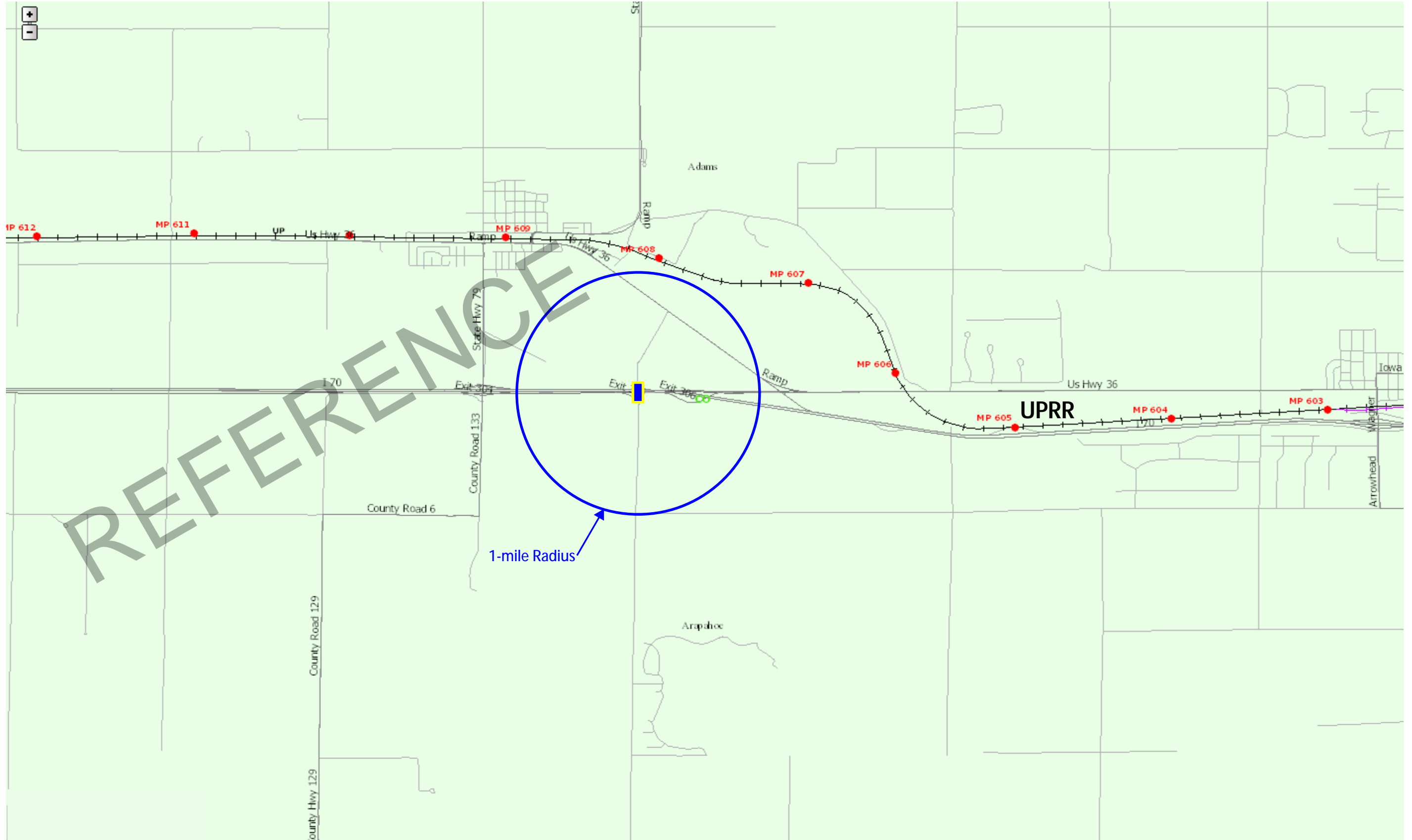
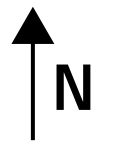


**Appendix F**  
**Railroad Information**

REFERENCE



# KIOWA-BENNETT RD. over I-70



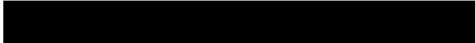
**Appendix G**  
**Local Agency Meeting Minutes**

REFERENCE






# 19928 BE Pre-Scoping – Local Agency Coordination

<b>PROJECT:</b>	CDOT Region 1 BE (Bridge Enterprise) Pre-Scoping
<b>PURPOSE:</b>	Local Agency Coordination with Arapahoe County
<b>DATE HELD:</b>	February 10, 2014
<b>LOCATION:</b>	Arapahoe County
<b>ATTENDING:</b>	Bryan Weimer, Brian Love (Arapahoe County); 

## Meeting Notes

### I. Background

 is under contract with CDOT Region 1 to provide pre-scoping reconnaissance for three Bridge Enterprise (BE) bridges. The goal of the project is to identify conditions and/or issues that could make bridge replacement or rehabilitation more difficult for each site (e.g., environmental issues, conflicting local agency plans, ROW needs, phasing impacts), which will help CDOT prioritize BE bridges.

Local agency coordination at this early stage is important to identify local plans and items to be considered prior to design and construction. Arapahoe County representatives answered a series of questions regarding the bridges in their jurisdiction.

### II. Kiowa-Bennett Road over I-70

- What permits would be required for bridge reconstruction or rehabilitation?
  - No permits from the County would be required because Kiowa-Bennett Road is in the Town of Bennett and CDOT ROW surrounds the road/bridge.
- Are there any planned or potential Arapahoe County projects in the area?
  - A PEL Study for SH 79 and Kiowa-Bennett Road was recently completed. This study recommended a full interchange be constructed at Kiowa-Bennett Road and I-70, as well as improvements at other locations in the Bennett area.
    - Arapahoe County has suggested to the Town of Bennett that the Kiowa-Bennett/I-70 interchange be the first priority from the study recommendations. This would benefit Arapahoe County, and also assist Bennett with implementation of their Downtown Plan (by redirecting trucks from Converse Road interchange to Kiowa-Bennett).
    - Arapahoe County put a placeholder for the new interchange funding in the CIP. Shares of cost for the new interchange between Adams County, Arapahoe County, CDOT and the Town of Bennett haven't been discussed. The County needs to know CDOT's programmed timeframe for bridge replacement/reconstruction in order to proactively move forward with the interchange clearances such the IAR, 1601 and NEPA.
    - Arapahoe County Commissioners have interest in moving this interchange project forward, and have discussed bringing it to Corey Gardner's attention in hopes of obtaining funding.

- Are there any existing agreements for the highway facility located within the study area: City Agreements, County Agreements, and State Agreements?
  - Arapahoe County and CDOT are working towards a maintenance agreement for bridges over I-70, but that doesn't apply to this bridge because Bennett maintains Kiowa-Bennett Road.
- Identify existing studies (previous or ongoing) and/or Corridor Vision Plans to assist in determining the vision for ultimate build-out requirements.
  - SH 79 and Kiowa-Bennett Corridor PEL Study
  - Arapahoe County 2035 Transportation Plan
- Would Arapahoe County desire to participate in structure enhancements such as widening, sidewalk, or architectural enhancements?
  - Yes, Arapahoe County would participate in construction of the ramps and bridge needs related to a new interchange. They believe CDOT would realize a regional benefit through better utilization of SH 79 and fewer complaints from Bennett residents regarding truck traffic. It would also delay the need for improvements at Converse Road and I-70 (an interchange not included in the BE list).

### III. US 36 over Draw

- What permits would be required for bridge reconstruction or rehabilitation?
  - Floodplain permit (the floodplain is not mapped and there is no FEMA floodplain)
- Are there any planned or potential Arapahoe County projects in the area?
  - May Farms is a major event facility adjacent to the bridge. They have interest in expanding the allowable uses of the property, and have requested a "use by special review" permit from Arapahoe County. Matt Reay is currently conducting a traffic study related to the permit. A Commissioner has requested an independent review of the traffic study.
    - Paving of Bradbury may be required for the permit. (A large event, Riot Fest, was held last summer. Wet weather caused many cars to be stuck in the mud on unpaved roads such as Bradbury.)
    - The traffic study may also recommend improvements to US 36. (Traffic back-ups occurred during Riot Fest due to poorly planned parking arrangements.)
    - Access, pedestrian and roadway improvements (shoulders, turn lanes) could be necessary along US 36, which should be coordinated with the bridge replacement/reconstruction.
  - ACTION: Investigate if Arapahoe County Open Spaces has any plans that would identify a trail or sidewalks in the bridge area (Josh Garcia).

- Are there any existing agreements for the highway facility located within the study area: City Agreements, County Agreements, and State Agreements?
  - Arapahoe County and CDOT are working towards a maintenance agreement for bridges over I-70, but that doesn't apply to this bridge.
- Identify existing studies (previous or ongoing) and/or Corridor Vision Plans to assist in determining the vision for ultimate build-out requirements.
  - May Farms Traffic Study (in process)
  - Arapahoe County 2035 Transportation Plan (included Bradbury Road improvements)
- Would Arapahoe County desire to participate in structure enhancements such as widening, sidewalk, or architectural enhancements?
  - No.

REFERENCE



# 19928 BE Pre-Scoping – Local Agency Coordination

<b>PROJECT:</b>	<b>CDOT Region 1 BE (Bridge Enterprise) Pre-Scoping</b>
<b>PURPOSE:</b>	<b>Local Agency Coordination with Adams County</b>
<b>DATE:</b>	<b>March 11, 2014</b>
<b>LOCATION:</b>	[REDACTED]
<b>ATTENDING:</b>	<b>Jeanne Shreve (Adams County)</b> [REDACTED]

## Meeting Notes

### **I. Background**

[REDACTED] is under contract with CDOT Region 1 to provide pre-scoping reconnaissance for three Bridge Enterprise (BE) bridges. The goal of the project is to identify conditions and/or issues that could make bridge replacement or rehabilitation more difficult for each site (e.g., environmental issues, conflicting local agency plans, ROW needs, phasing impacts), which will help CDOT prioritize BE bridges.

Local agency coordination at this early stage is important to identify local plans and items to be considered prior to design and construction. Jeanne Shreve answered a series of questions regarding the bridges in Adams County's jurisdiction.

These bridges are on the BE list, but are not programmed.

- Adams County would like CDOT to notify them (and other local agencies) as soon as the bridges are programmed, and would like CDOT to provide the local jurisdictions the safety and sufficiency ratings of the bridges on an annual or bi-annual basis.
- Jeanne requested this pre-scoping effort be used to reach a common understanding of standards and policies for sidewalks, water quality maintenance, etc., related to bridge replacement with BE funds. CDOT needs to be proactive to determine policies and standards that all involved agencies agree to adhere to.

### **II. York Street over I-270**

- Adams County provided general input regarding the project area:
  - York is an important north-south corridor in the area and is used by many as an alternate route for I-25 when it is congested.
  - Operational issues on York are likely due to too many signals.
  - Jeanne suggested the evaluation of lane balance and lane transitions to 58<sup>th</sup> when the cross section across the bridge is determined.
- What permits would be required for bridge reconstruction or rehabilitation?
  - A construction permit.
  - Jeanne has contacted other County staff and not heard of other permits needed. She will follow up.



- Are there any planned or potential County or City projects in the area around the bridge?
  - I-270 is on Adams County's list of top 10 priorities. The County has asked CDOT to fund NEPA documentation to determine laneage, types of operations, etc.
  - Adams County and Thornton are looking to widen York from 88<sup>th</sup> to SH 224 (to the north of this bridge), some day when funding is available.
  - Through discussions between Adams County, Denver and Commerce City regarding I-270 and I-70, the agencies are looking at other projects they can partner on and looking at priorities for those corridors, which would include evaluating York Street.
- Are there any existing agreements for the highway facility located within the area around the bridge: City Agreements, County Agreements, and State Agreements?
  - No commitments, but Adams County expects CDOT to contribute funding toward the I-270 NEPA documentation.
- Identify existing studies (previous or ongoing) and/or Corridor Vision Plans to assist in determining the vision for ultimate build-out requirements.
  - *Adams County Transportation Plan* – Adams County plan notes this bridge as “needs study”. Jeanne will let us know if a study is planned or if it will be a design effort.
  - I-70 EIS - Adams County hopes the final I-70 EIS coincides closely (within a year or two) with the I-270 EA.
- Would your agency desire to participate in structure enhancements such as widening, sidewalk, or architectural enhancements?
  - Adams County would assume sidewalks be included as the standard to provide connectivity to other nearby facilities.

### III. Kiowa-Bennett Road over I-70

- Jeanne is most interested in determining the best use of the \$1.5 M CDOT has promised to the Town of Bennett for the SH 79 improvements. Adams County plans to support the Town of Bennett's desires, and prioritize requests for funding based on the Town's priorities.
- [REDACTED] recently met with Arapahoe County representatives and they would like to leverage CDOT's funding for this bridge. Arapahoe County will proactively complete clearances in order to meet CDOT's bridge replacement schedule. The County would like to know as soon as CDOT programs the project. At this time Arapahoe County does not plan to push the project ahead without leveraging CDOT funds.
- What permits would be required for bridge reconstruction or rehabilitation?
  - A construction permit.
  - Jeanne has contacted other County staff and not heard of other permits needed. She will follow up.

- Are there any planned or potential projects in the area around the bridge?
  - SH 79 PEL Study recommended improvements are the County's top priority in the east/rural portion of the County. They include the SH 79 Railroad Grade Separation, SH 79 Realignment, I-70/SH 79 Interchange, and the I-70/Kiowa-Bennett Interchange.
  - Others – depending on Town priorities
  - Adams County is pursuing a human services transportation grant to link the rural communities with transit and bicycle/pedestrian facilities.
- Are there any existing agreements for the highway facility located within the area around the bridge: Town Agreements, County Agreements, and State Agreements?
  - CDOT has committed \$1.5 M to the Town of Bennett for SH 79 improvements.
    - ACTION: [REDACTED] to discuss the Town's priorities and preferred use of the \$1.5 M when meeting with Dave Ruble. (Town of Bennett needs to let Adams County know priorities within the next two months so they can include it in their funding plan.)
- Identify existing studies (previous or ongoing) and/or Corridor Vision Plans to assist in determining the vision for ultimate build-out requirements.
  - *SH 79 and Kiowa-Bennett Corridor PEL Study (2013)*
  - *The Town of Bennett Downtown Planning Study (2010)*
  - *2012 Town of Bennett Comprehensive Plan (2012)*
  - *Bennett Regional Trail Plan (2011)*
  - *Adams County Transportation Plan*
- Would Adams County desire to participate in structure enhancements such as widening, sidewalk, or architectural enhancements?
  - Adams County would like to work together to build the ultimate desired bridge, not assume replace-in-kind. More study is needed to identify what should be included on the bridge.
  - Adams County wants a shovel ready project, to be positioned to use funding as it becomes available.



# 19928 BE Pre-Scoping – Local Agency Coordination

<b>PROJECT:</b>	CDOT Region 1 BE (Bridge Enterprise) Pre-Scoping
<b>PURPOSE:</b>	Local Agency Coordination with Town of Bennett
<b>DATE HELD:</b>	April 8, 2014
<b>LOCATION:</b>	[REDACTED]
<b>ATTENDING:</b>	Dave Ruble, Jr. (Bennett); [REDACTED]

## Meeting Notes

### I. Background

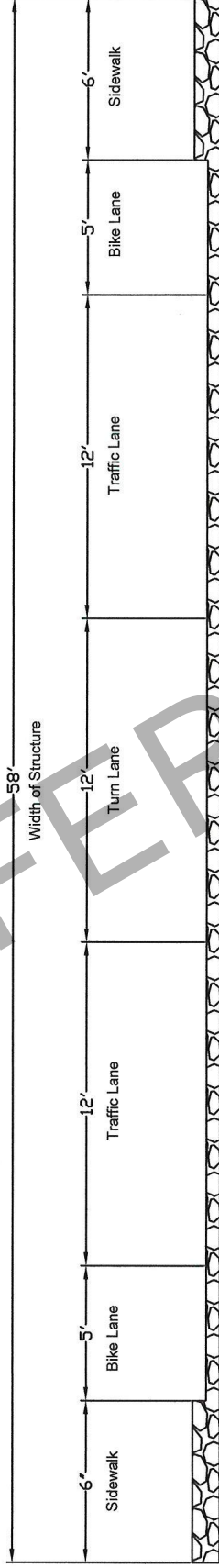
[REDACTED] is under contract with CDOT Region 1 to provide pre-scoping reconnaissance for three Bridge Enterprise (BE) bridges. The goal of the project is to identify conditions and/or issues that could make bridge replacement or rehabilitation more difficult for each site (e.g., environmental issues, conflicting local agency plans, ROW needs, phasing impacts), which will help CDOT prioritize BE bridges.

Local agency coordination at this early stage is important to identify local plans and items to be considered prior to design and construction. Dave Ruble, Jr., representing the Town of Bennett, answered a series of questions regarding the Kiowa-Bennett Road over I-70 bridge.

### II. Kiowa-Bennett Road over I-70

- What permits would be required for bridge reconstruction or rehabilitation?
  - There would be a construction permit (\$40) required.
- Are there any planned or potential Town of Bennett projects in the area around the bridge?
  - SH 79 Railroad Grade Separation (evaluated as part of SH 79 and Kiowa-Bennett Corridor PEL Study)
  - Kiowa-Bennett Road/I-70 Interchange (evaluated as part of SH 79 and Kiowa-Bennett Corridor PEL Study)
    - The Town developed two cross-section options for the Kiowa-Bennett structure, which were presented at this meeting (attached). Alternative No. 1 shows the Town’s preference of three-lanes. Alternative No. 2 is a narrower option.
    - CDOT’s BE will only pay to replace the bridge in-kind (up to current standards), but would partner with the Town to build the ultimate if other non-BE funding (most likely local funding) is identified.
    - If CDOT was going to move forward with reconstruction before other funding was identified, the bridge could be designed to accommodate future widening.

- ACTION: Send cost estimates for replace in-kind and the Town's preferred cross-section, so the Town can understand and plan for the difference.
- The Town is pursuing funding for the Feasibility Study, 1601 and IAR (would like to have FHWA approval for the improved interchange so the project gets in the queue for regional funding).
- The Town would like two years notice to complete NEPA for the interchange before the BE project.
- The Kiowa-Bennett Trail is planned to cross Kiowa-Bennett Road and end north of Peggy Jacob's fence line (property southeast of the bridge). The Town is currently developing the A-line for the trail; the exact location has not been determined. No agreements with property owners have been established. Construction of the new bridge would likely not impact the trail.
  - ACTION: Dave will send the current trail alignment plan.
- Are there any existing agreements for the highway facility located within the area around the bridge: Town Agreements, County Agreements, and State Agreements? No.
- Identify existing studies (previous or ongoing) and/or Corridor Vision Plans to assist in determining the vision for ultimate build-out requirements.
  - *SH 79 and Kiowa-Bennett Corridor PEL Study (2013)*
  - *The Town of Bennett Downtown Planning Study (2010)*
  - *2012 Town of Bennett Comprehensive Plan (2012)*
  - *Bennett Regional Trail Plan (2011)*
- Would the Town of Bennett desire to participate in structure enhancements such as widening, sidewalk, or architectural enhancements?
  - Yes, the Town would be interested in participating in enhancements, depending on cost. Forming a Metro District to help fund the interchange construction is being considered.
  - The Town's priorities for improvements recommended by the PEL Study are:
    1. Advance the SH 79 realignment with the railroad grade separation through NEPA
    2. Improve the existing SH 79/I-70 interchange
    3. Complete clearances for the Kiowa-Bennett Road/I-70 interchange (lowest priority)

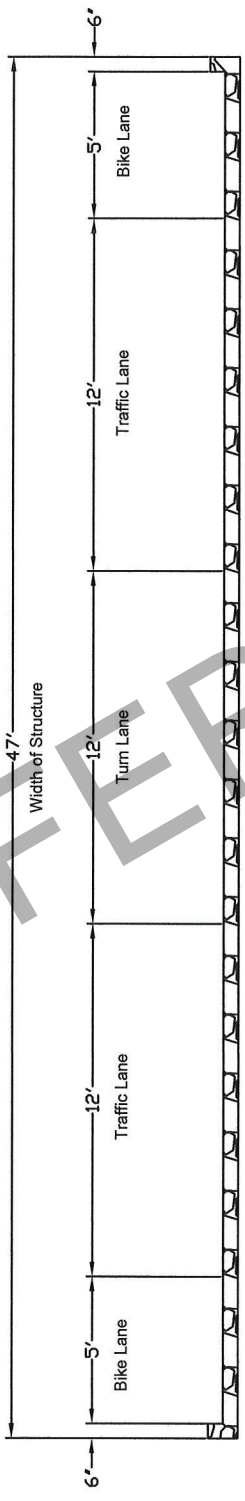


# Alternative No. 1

## Kiowa-Bennett Road Structure

### Proposed Cross-Section





# Alternative No. 2 Kiowa-Bennett Road Structure Proposed Cross-Section



**Appendix H**  
**Environmental Information**

REFERENCE



COLORADO DEPARTMENT OF TRANSPORTATION

**Preliminary Environmental Review**

RAMP Bridge Program

<b>Date:</b> 10 January 2014	<b>Project Code #:</b> 19620
<b>Region/Program:</b> Region 1	<b>Project Location:</b> Southeast of Bennett
<b>Route:</b> 070A	<b>Road Name:</b> Kiowa-Bennett Road
<b>Milepost:</b> 305.4 (1-70)	<b>Roadway Type:</b> Road
<b>County:</b> Adams/Arapahoe	<b>Year Built:</b> 1959



Bridge F-19-AF, view to the south-southeast.

<b>Feature Intersected:</b> Interstate 70	<b>Bridge ID#:</b> F-19-AF	<b>Structure Type:</b> CSGC	<b>Surface Type:</b> Asphalt
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**Proposed Action:**

**ENVIRONMENT SETTING AND POTENTIALLY AFFECTED RESOURCES**

Setting / Resource / Circumstance	Adjacent or Potentially Affected Resources			Comments
	Yes	No	N/A	
Hazardous Materials	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Asbestos testing not required per CDOT agreement with Colorado Department of Health and Environment (CDPHE). Asbestos inspection not required on bridges older than 1975 scheduled for demolition or improvements.  Peeling paint was not observed on bridge.
Historic Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The bridge was constructed in 1959. According to the COMPASS database search conducted for the project area, the bridge has not been surveyed. However, Interstate 70 and most features on the Interstate (bridges, overpasses, on-ramps, etc.) are excluded from review under Section 106, which includes the F-19-AF bridge.  Parcels potentially impacted by the project were not surveyed to determine eligibility for the National Register of Historic Places (NRHP) in compliance with Section 106.
Section 4(f)/6(f) (Parks, Open Spaces, Trails, Wildlife Refuges and Historic Resources)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Designated bike lanes or pedestrian paths are not located on the bridge and there are no recreational facilities or Section 6(f) properties in the study area.  Any impacted parcels that are eligible or listed on the NRHP with adverse effect determinations under Section 106 would require a Section 4(f) evaluation (See Historic).



## ENVIRONMENT SETTING AND POTENTIALLY AFFECTED RESOURCES

Setting / Resource / Circumstance	Adjacent or Potentially Affected Resources			Comments
	Yes	No	N/A	
Threatened/Endangered/Candidate Species and Colorado State Sensitive Species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>US Fish and Wildlife Service (USFWS) Clearance will be needed; nine species are listed as threatened or endangered in Adams and Arapahoe Counties combined. The likelihood for presence of the species is low based on development within the project area. Of the nine species, there is potential habitat for Preble's Meadow Jumping Mouse. Habitat for the Utes Ladies'-tresses and Whooping Crane (during migration) were observed approximately 1,000 feet west of the bridge.</p> <p>Coordination with the Colorado Parks and Wildlife Division (CPW) may be required. Habitat for the following Colorado State Sensitive Species was observed: Bald Eagle and Ferruginous Hawk (raptor nest observed within 100 feet and riparian habitat located within CPW species recommended ½ mile buffer), Northern Pocket Gopher.</p>
Utilities and Railroad	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A conduit route extends under the bridge deck along the western side of the bridge. A railway line is located approximately one mile north of the project site and generally extends east to west. The project is not anticipated to impact the railway line.
Wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Migratory Bird Treaty Act (USFWS): Multiple swallow nests were observed underneath the bridge deck. One raptor nest was observed in a deciduous tree locate approximately 100 feet southwest of the bridge. Trees and shrubs that could contain nests are located 50 feet from the northeast corner of the bridge. Raptor/Bald Eagle habitat is located 1,000 feet west of the bridge along Kiowa Creek. CDOT Spec 240 will need to be followed.</p> <p>Other signs of wildlife were observed adjacent to the bridge including deer and raccoon tracks and a turtle shell.</p>
Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The repair or replacement of the bridge currently does not include addition of capacity at this preliminary design phase.
Archaeological Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ground disturbance is anticipated, which may extend outside the existing right of way.
Economic Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Small scale projects will not affect local economies.
Farmland	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Land utilized for agriculture is located adjacent to the project area. However, according to US Department of Agriculture, Natural Resources Conservation Service (NRCS), the land is not designated as prime farmland.

## ENVIRONMENT SETTING AND POTENTIALLY AFFECTED RESOURCES

Setting / Resource / Circumstance	Adjacent or Potentially Affected Resources			Comments
	Yes	No	N/A	
Floodplains	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A floodplain is located approximately 600 feet west. However, ground disturbance and work within the floodplain is not anticipated.
Geologic/Soils/ Groundwater Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ground disturbance is anticipated, these resources will need to be evaluated.
Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No change in surrounding land use or access is anticipated with the exception of small slivers of adjacent right of way. This conversion of land use is not anticipated to change the functionality of the adjacent parcels.
Noise	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No noise receptors are located within 500 feet of the bridge. Therefore a noise assessment would not be required.
Paleontological Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Paleontological resources are unlikely as most of the area has been previously disturbed. However, since ground disturbance is anticipated and right of way may be acquired, this resource will need further investigation.
Residential/Business Right of Way	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preliminary design indicates that right of way may be acquired.
Riparian/Senate Bill 40 (SB 40)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Riparian areas are not located within the immediate vicinity of the bridge; therefore, SB 40 Clearance will not be required.
Social Resources/ Environmental Justice	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No change.
Transportation Resources (rail, bus, bike, pedestrian, etc)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Trails and bicycle lanes are not located on the bridge.
Vegetation and Noxious Weeds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vegetation including noxious weeds was observed during the site visit and ground disturbance is anticipated within the project area.
Visual Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the vertical alignment changes by five feet or more, a Visual Site Assessment should be performed.
Water Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Greater than one acre of ground disturbance is anticipated.  A drainage is located approximately 350 feet east of the project area and Kiowa Creek is located approximately 1,000 feet west.
Wetlands/other Waters of the US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No wetlands or Waters of the US are present.
Other(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



**NEXT STEPS / ADDITIONAL STUDIES / PERMITS REQUIRED FOR PROPOSED ACTION**

Information/Resource	Action	Due Date
Historic Resources and Section 4(f) Evaluation (if required)	<p>Review assessor's information to determine if impacted parcels are potentially eligible for the NRHP.</p> <p>Based on the results of the assessor review, the following may be required: Completion of a Cultural Resources Survey of the project area in compliance with Section 106 to determine if impacted parcels are eligible for listing on the National Register of Historic Places (NRHP); identification of potential effects to eligible properties (if applicable); and coordination with the State Historic Preservation Officer (SHPO) regarding concurrence of findings may be required.</p> <p>If adverse effect(s) to eligible parcel(s) are identified, a Section 4(f) evaluation will be required.</p>	Prior to completion of right of way acquisition.
Archeological and Paleontological Resources	Research and potential field surveys as well as associated concurrence of impact, or lack thereof, from CDOT and regulatory agencies.	Prior to completion of right of way acquisition
Threatened and Endangered Species	Coordination with CPW regarding species of concern (Bald Eagle/raptor habitat within ½ mile and Northern Pocket Gopher) and concurrence with anticipated finding of No Effects or Not Likely to Affect threatened and endangered species from USFWS.	Prior to completion of right of way acquisition.
Wildlife	<p>The nesting official season is April 1 - August 31. If construction activities occur during nesting season, the structure will need to be maintained free of nesting birds prior to and during construction. The existing inactive swallow nests under the bridge structure should be removed prior to construction. A qualified biologist will need to survey for, and manage migratory birds or their nests. If an active nest (eggs or fledglings) are found on the structure, or within 50 feet, work will need to cease until all the young fully fledge (fly away on their own).</p> <p>If construction occurs between February 15 and August 31, a pre-construction survey for nesting raptors must be completed within a half-mile buffer of the project limits. If any nesting raptors occur within the buffer area, then CPW "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors" guidelines should be followed. The CPW may reduce the buffer requirements based on conditions of the study area and type of work being done, but must be consulted for approval prior to construction within the recommended buffer zone of an active nest.</p>	Prior to and during construction for MBTA.
Vegetation and Noxious Weeds	Complete an official survey for noxious weeds prior to start of construction. Adhere to and comply with CDOT policies regarding weed free topsoil and equipment, as well as reseeding techniques, timing, and noxious weed best management practices.	Prior to construction.
Visual	If vertical alignment is altered by five feet or greater, a visual site assessment should be conducted.	Prior to acquisition of right of way.
Water Quality	Obtain Colorado Discharge System Permit (CDSP) and generate Stormwater Management Plan (SWMP). Project not located in CDOT MS4 Permit area. Compliance with Adams and/or Arapahoe County MS4 Permit may be required.	Prior to construction.



**MAPPING AND PHOTOS**

Name	Photo/Map	Date (direction)
Location of Project.		N/A
Aerial view of project.		06 Sept 2013



**MAPPING AND PHOTOS**

Name	Photo/Map	Date (direction)
Panoramic view of bridge		10 Jan 2014 View to the northeast of the western side of the bridge.
Grassland northeast of the bridge.		10 Jan 2014 View to the north, northeast of the bridge.



**MAPPING AND PHOTOS**

Name	Photo/Map	Date (direction)
<p>Grassland northeast of the bridge.</p>		<p>10 Jan 2014 View to the east, northeast of the bridge.</p>
<p>Shrubs (juniper bushes) on the eastern side of the bridge.</p>		<p>10 Jan 2014 View to the south of the eastern side of the bridge.</p>

**MAPPING AND PHOTOS**

<b>Name</b>	<b>Photo/Map</b>	<b>Date (direction)</b>
<p>Trees and grassland southwest of the bridge.</p>		<p>10 Jan 2014 View to the southwest of the bridge.</p>
<p>Grassland and I-70, west of the bridge. Kiowa Creek riparian area visible further west.</p>		<p>10 Jan 2014 View to the west of the bridge</p>

**MAPPING AND PHOTOS**

Name	Photo/Map	Date (direction)
<p>View of the raptor nest located approximately 100 feet southwest of the bridge.</p>		<p>10 Jan 2014 View of the raptor nest, facing north-northeast and up.</p>
<p>View of the drainage and associated culvert located east of the bridge.</p>		<p>10 Jan 2014 View to the northeast, of southeast of the bridge.</p>



**MAPPING AND PHOTOS**

Name	Photo/Map	Date (direction)
View of a swallow nest under the bridge deck.	 A photograph showing the underside of a concrete bridge deck. A horizontal support beam is visible, and a small, circular, brownish nest is attached to the concrete surface. The concrete shows signs of weathering and discoloration.	10 Jan 2014 View of a support beam and swallow nest on the underside of the bridge.

REFERENCE

**Appendix I**  
**Existing Bridge Data and Photos**

REFERENCE

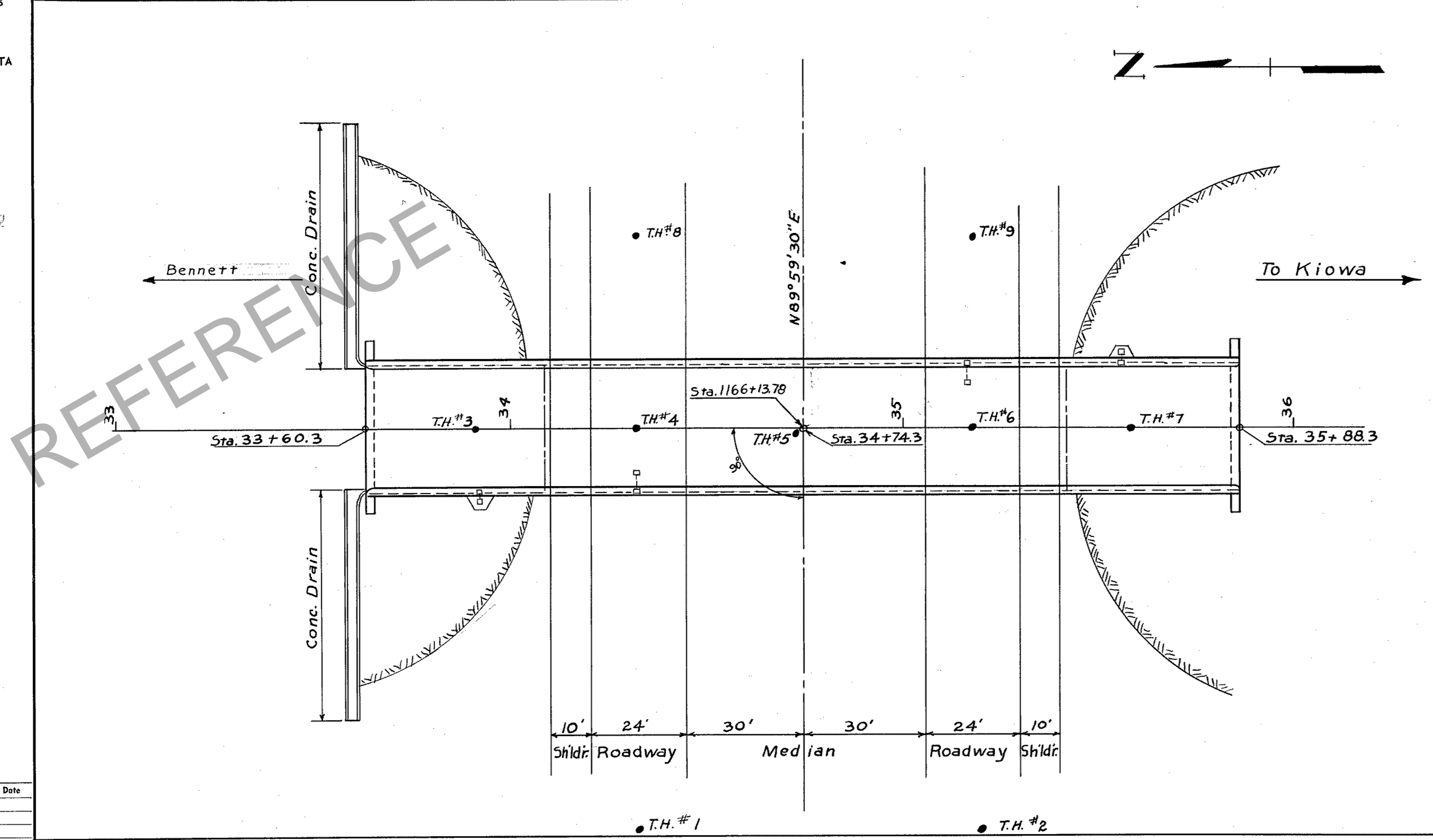


COLO. DEPT. OF HIGHWAYS  
FORM C.D.H. 138  
JULY 1953-500  
BRIDGE TRACING  
SHEETS - LOADING DATA  
AND GENERAL NOTES

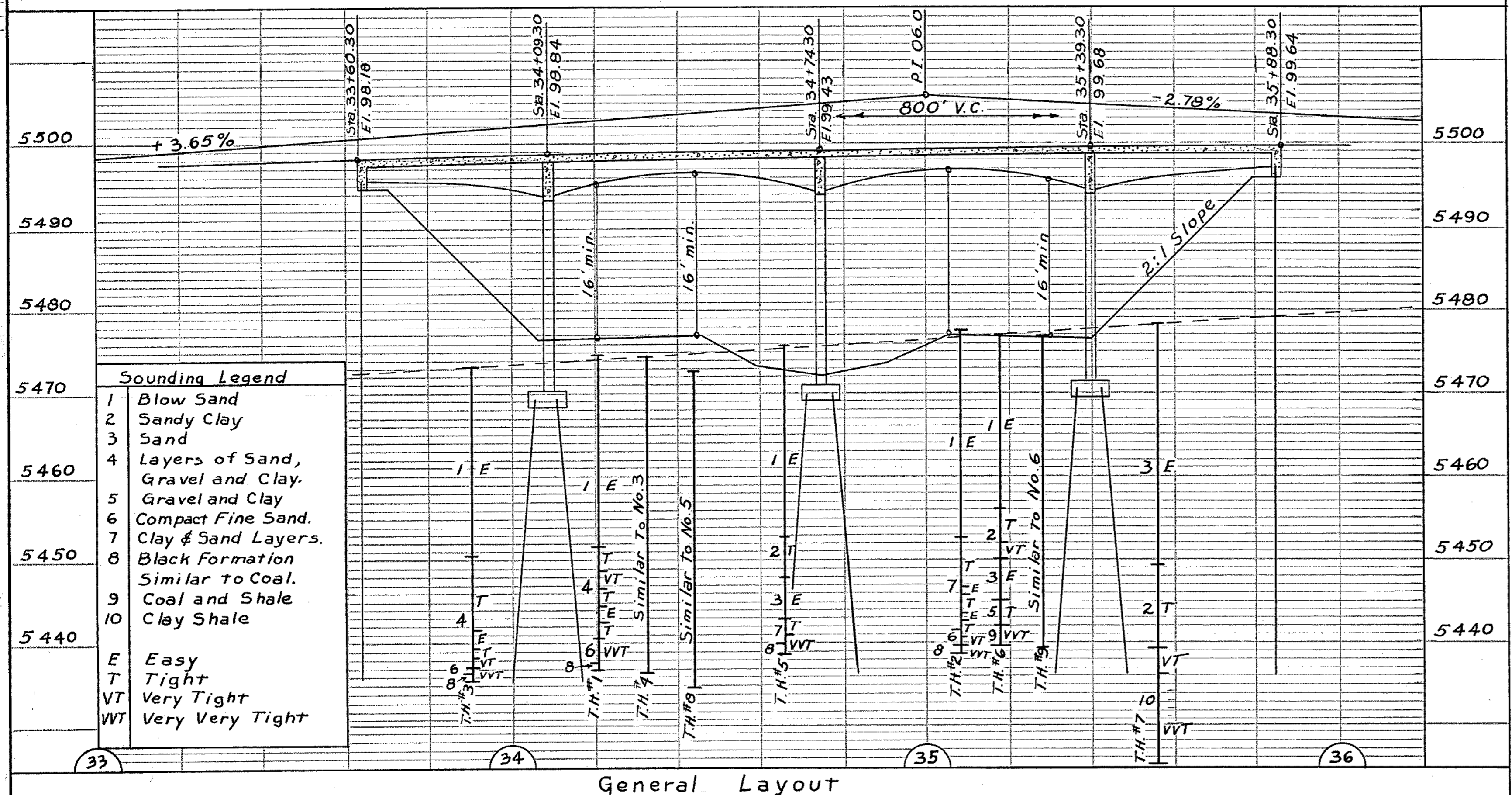
FED. ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	I-70-A(7)303	81	

SUMMARY OF QUANTITIES									
Item	Description	Unit	Super-structure	Abut. No. 1	Pier No. 2	Pier No. 3	Pier No. 4	Abut. No. 5	Totals
14	Unclassified Structural Excavation - Bridges	Cu. Yd.			72	29	63		164
16	Structure Backfill (Class 1)	Cu. Yd.			48	11	41		100
18	Station Yard Overhaul	Sta. Yd.							1,100
18	Yard Mile Overhaul	Yd. Mi.							48
32	Plant Mixed Asphaltic Surfacing	Ton.	74.5						74.5
42	Treated Bridge Timber	Mft. bm.		0.112					0.224
46	Class "A" Concrete	Cu. Yd.	366.5	20.0	24.5	24.5	24.5	11.0	471
47	Reinforcing Steel (Includes +1%± for overrun)	Lb.	97,560	1,115	7,770	7,770	7,770	1,115	123,100
48	Structural Steel (Includes +1/2%± for paint)	Lb.	17,725	580				580	18,885
61	12" B.P. @ 53# Steel Piling	Lin. Ft.		240	175	175	175	240	1,005
90	1/2" Electrical Conduit with Junction Boxes	Lin. Ft.	478						478
30	Asphaltic Road Material R.C.	Gal.	71						71

- ① Includes 9.0 Cu. Yd. for slope drains @ Abut. No. 1
- ② Handrail Steel
- ③ Future



Designed By	Initial	Date
Checked By		
Drawn By		
Checked By		
Traced By		
Checked By		



**GENERAL NOTES**

ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO DEPARTMENT OF HIGHWAYS APPLICABLE TO THE PROJECT.

ALL CONCRETE SHALL BE CLASS "A" AND AIR ENTRAINED AS SPECIFIED.

SURFACES MARKED WITH THE SYMBOL "F" AS SHOWN ON SHEET NO. 92 SHALL RECEIVE CLASS 1 SURFACE FINISH.

CONCRETE GIRDERS AND FLOOR SLABS SHALL BE POURED MONOLITHICALLY.

FORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIP LAP OR TONGUE AND GROOVE LUMBER S 3 S UNLESS FACED WITH PANEL BOARD.

FOOTINGS IN ROCK SHALL BE POURED OUT TO ROCK AND NOT FORMED.

SOUNDINGS AND DEPTH OF FOOTING SHOWN ARE IN ACCORDANCE WITH THE BEST AVAILABLE DATA AND WHEN DIFFERENT CONDITIONS ARE ENCOUNTERED THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.

ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A 305-S01 OR THE LATEST REVISION THEREOF, AND SHALL BE INTERMEDIATE GRADE STEEL OF A DEFORMED TYPE. EACH BAR SHALL BE TAGGED WITH THE NUMBER DESIGNATION AND THE STATION NUMBER OF THE PROJECT.

HANDRAIL BOLTS SHALL BE SECONDARY BARS WHEN SPICED SHALL LAP 1/4 DIAMETERS OF THE BAR. DIMENSIONS FOR REINFORCING STEEL NOT SHOWN AS CLEAR SHALL BE TO THE CENTER LINE OF THE BAR.

ALL STRUCTURAL STEEL SHALL BE PAINTED ONE SHOP COAT OF ZINC CHROMATE AND TWO FIELD COATS OF ALUMINUM, UNLESS OTHERWISE NOTED, EXCEPT THE UNEXPOSED PORTION OF STEEL PILING NEED NOT BE PAINTED.

HANDRAIL BOLTS SHALL HAVE HEX HEADS, NUTS, AND LOCK WASHERS UNLESS OTHERWISE SPECIFIED AND ALL RIVETS, EXCEPT AS NOTED ARE 3/4" DIA. AND SHALL BE POWER DRIVEN.

WHEN TREATED TIMBER OR PILING IS SHOWN ON THE DRAWING THE PRESERVATIVE FOR TREATMENT SHALL BE CREOSOTE OIL.

WHEN EXCAVATING FOR FOOTINGS THE FINAL ONE FOOT IN DEPTH SHALL BE DONE BY HAND LABOR METHODS.

IF BY PERMISSION OF THE ENGINEER PRIMARY BARS ARE SPICED, THEY SHALL LAP 34 DIAMETERS, FOR BARS NEAR TOP OF BEAMS AND GIRDERS HAVING MORE THAN 12 INCHES OF CONCRETE UNDER THE BARS AND 20 DIAMETERS FOR BARS NEAR BOTTOM OF MEMBERS.

GIRDER SHORING SHALL REMAIN IN PLACE FULL LENGTH UNTIL ALL GIRDER POURS HAVE REACHED A MINIMUM STRENGTH OF 2500 P.S.I.

FOR DETAILS OF STRUCTURAL EXCAVATION AND STRUCTURE BACKFILL SEE STD. M-60-B.

**LOADING DATA INTERSTATE ALTERNATE LOADING**  
LIVE LOAD = A. S. H. O. (H20-56-A)

DESIGNING DATA  
A. S. H. O. 1953 UNIT STRESSES, EXCEPT AS NOTED.  
Reinforcing Steel fs = 20000 lbs. per sq. in.  
Structural Steel fs = 18000 lbs. per sq. in.  
fc = 12000 lbs. per sq. in.  
n = 10

**COLORADO DEPARTMENT OF HIGHWAYS**  
Continuous Concrete Slab and Girder Bridge, 4 Spans (48'-65'-65'-48'), 28' Roadway - General Layout.

Across Under County Road  
Sta. 1166+13.78

Near Bennett Sec. 34/35 T. 3 S. R. 63W

Designed by *A. W. Newbold*  
Checked by *March 3, 1958*

Approved by *A. W. Newbold*  
Bridge Engineer  
Date: *March 3, 1958*

STRUCTURE NO. F-19-AF

MICROFILMED

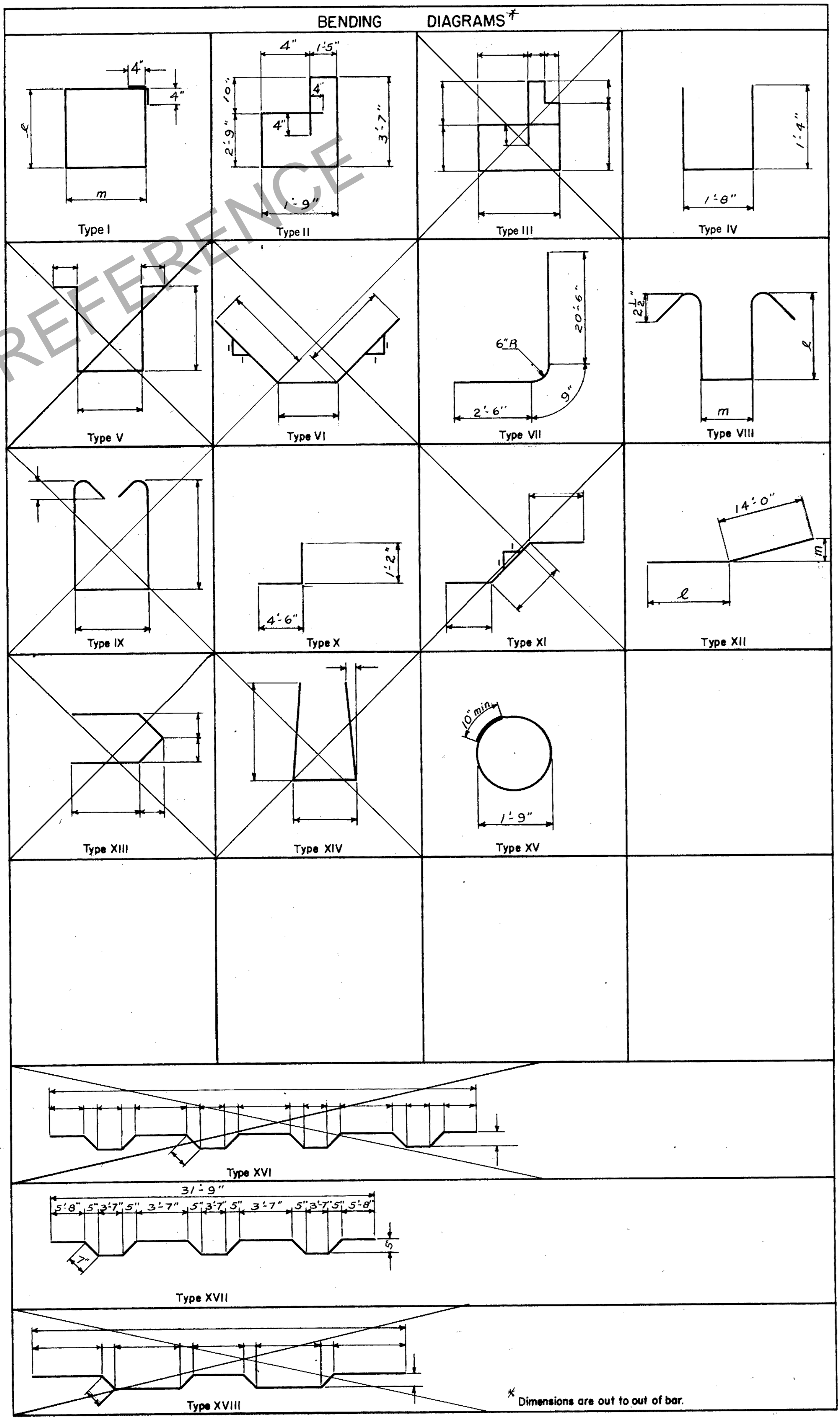
CO. DEPT. OF HIGHWAYS  
IN C.D.H. 137  
1956

EDGE TRACING  
EETS—PLAIN

JUL 24 1952

REVISIONS

FED. ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	I-70-4(7)303	82	



BAR LIST~ SUPERSTRUCTURE

MARK	SIZE	NO. REQ'D	LENGTH	TYPE	DIMENSIONS	
					$\ell$	$m$
401	1/2" φ	8	6'-9"	VIII	2'-3 1/2"	1'-5"
402	1/2" φ	8	6'-9"		2'-3 1/2"	
403	1/2" φ		6'-9 1/2"		2'-3 1/2"	
404	1/2" φ		6'-9 1/2"		2'-3 1/2"	
405	1/2" φ		6'-10"		2'-4"	
406	1/2" φ		6'-10"		2'-4"	
407	1/2" φ		6'-10 1/2"		2'-4 1/2"	
408	1/2" φ		6'-10 1/2"		2'-4 1/2"	
409	1/2" φ		6'-11"		2'-4 1/2"	
410	1/2" φ		6'-11 1/2"		2'-4 3/4"	
411	1/2" φ		7'-0 1/2"		2'-5 1/2"	
412	1/2" φ		7'-1"		2'-5 1/2"	
413	1/2" φ		7'-2"		2'-6"	
414	1/2" φ		7'-2 1/2"		2'-6 1/2"	
415	1/2" φ		7'-3 1/2"		2'-6 3/4"	
416	1/2" φ		7'-4 1/2"		2'-7 1/4"	
417	1/2" φ		7'-5 1/2"		2'-7 3/4"	
418	1/2" φ		7'-6 1/2"		2'-8 1/4"	
419	1/2" φ		7'-7 1/2"		2'-8 3/4"	
420	1/2" φ		7'-8 1/2"		2'-9 1/4"	
421	1/2" φ		7'-9 1/2"		2'-9 3/4"	
422	1/2" φ		7'-11"		2'-10 1/2"	
423	1/2" φ		8'-0"		2'-11"	
424	1/2" φ		8'-1 1/2"		2'-11 3/4"	
425	1/2" φ		8'-3"		3'-0 1/2"	
426	1/2" φ		8'-4 1/2"		3'-1 1/2"	
427	1/2" φ		8'-6"		3'-2"	
428	1/2" φ		8'-7 1/2"		3'-2 1/2"	
429	1/2" φ		8'-10"		3'-4"	
430	1/2" φ		9'-0 1/2"		3'-5 1/4"	
431	1/2" φ		9'-3"		3'-6 1/2"	
432	1/2" φ		9'-5 1/2"		3'-7 3/4"	
433	1/2" φ		9'-8 1/2"		3'-9 1/4"	
434	1/2" φ		9'-11 1/2"		3'-10 3/4"	
435	1/2" φ		10'-2 1/2"		4'-0 1/2"	
436	1/2" φ		10'-6"		4'-2"	
437	1/2" φ		10'-9"		4'-3 1/2"	
438	1/2" φ		11'-0 1/2"		4'-5 1/4"	
439	1/2" φ	8	11'-4 1/2"		4'-7 1/4"	
440	1/2" φ	16	11'-2 1/2"		4'-6 1/4"	
441	1/2" φ		10'-11"		4'-4 1/4"	
442	1/2" φ		10'-8"		4'-3"	
443	1/2" φ		10'-4 1/2"		4'-1 1/2"	
444	1/2" φ		10'-1 1/2"		3'-11 1/4"	
445	1/2" φ		9'-10 1/2"		3'-10 1/4"	
446	1/2" φ		9'-7 1/2"		3'-8 3/4"	
447	1/2" φ		9'-5"		3'-7 1/2"	
448	1/2" φ		9'-2"		3'-6"	
449	1/2" φ		8'-11 1/2"		3'-4 3/4"	
450	1/2" φ		8'-9"		3'-3 1/2"	
451	1/2" φ		8'-7"		3'-2 1/2"	
452	1/2" φ		8'-4 1/2"		3'-1 1/2"	
453	1/2" φ		8'-2 1/2"		3'-0 1/2"	
454	1/2" φ		8'-0 1/2"		2'-11 1/2"	
455	1/2" φ		7'-10 1/2"		2'-10 1/4"	
456	1/2" φ		7'-9"		2'-9 1/4"	
457	1/2" φ		7'-7 1/2"		2'-8 3/4"	
458	1/2" φ		7'-6"		2'-8"	
459	1/2" φ		7'-4 1/2"		2'-7 1/4"	
460	1/2" φ		7'-3"		2'-6 1/2"	
461	1/2" φ		7'-2"		2'-6"	
462	1/2" φ		7'-0 1/2"		2'-5 1/4"	
463	1/2" φ		7'-0"		2'-5"	
464	1/2" φ		6'-11"		2'-4 1/2"	
465	1/2" φ		6'-10"		2'-4"	
466	1/2" φ		8'-9 1/2"		2'-3 3/4"	
467	1/2" φ		6'-9"		2'-3 1/2"	
468	1/2" φ		6'-8 1/2"		2'-3 1/4"	
469	1/2" φ		6'-8 1/2"		2'-3 1/4"	
470	1/2" φ	16	6'-8"		2'-3"	
471	1/2" φ	8	6'-8"	VIII	2'-3"	1'-5"
472	1/2" φ	69	11'-8 1/2"	VIII	4'-7 1/2"	1'-8"
473	1/2" φ	12	26'-2"	Str.		
474	1/2" φ	84	5'-1"	VIII	1'-11 1/2"	5"
475	1/2" φ	265	40'-0"	Str.		
476	1/2" φ	53	32'-0"	Str.		
477	1/2" φ	12	5'-8"	X		
478	1/2" φ	4	2'-0"	Str.		

BAR LIST~ SUPERSTRUCTURE (CONT.)

MARK	SIZE	NO. REQ'D	LENGTH	TYPE	DIMENSIONS	
					$\ell$	$m$
479	1/2" φ	4	3'-2"	Str.		
480	1/2" φ	18	4'-0"	Str.		
481	1/2" φ	16	40'-0"	Str.		
482	1/2" φ	48	20'-0"	Str.		
483	1/2" φ	32	30'-0"	Str.		
490	1/2" φ	96	3'-7"	I	1'-0"	5 1/2"
492	1/2" φ	456	4'-4"	IV		
501	1/2" φ	312	31'-8"	Str.		
502	1/2" φ	152	32'-9"	XVII		
503	1/2" φ	32	25'-4"	Str.		
506	1/2" φ	64	6'-8"	VIII	2'-3"	1'-5"
804	1" φ	12	26'-2"	Str.		
805	1" φ	12	31'-8"	Str.		
806	1" φ	64	4'-6"	Str.		
1001	1 1/2" φ	16	18'-0"	Str.		
1002	1 1/2" φ	16	25'-6"	Str.		
1003	1 1/2" φ	16	36'-6"	Str.		
1004	1 1/2" φ	16	47'-6"	Str.		
1006	1 1/2" φ	48	60'-0"	Str.		
1007	1 1/2" φ	16	23'-9"	VII		
1008	1 1/2" φ	8	18'-0"	Str.		
1009	1 1/2" φ	8	27'-0"	Str.		
1010	1 1/2" φ	8	38'-0"	Str.		
1011	1 1/2" φ	8	48'-0"	Str.		
1012	1 1/2" φ	16	13'-6"	Str.		
1101	1 1/2" φ	24	40'-6"	Str.		
1102	1 1/2" φ	16	36'-6"	Str.		
1103	1 1/2" φ	24	25'-0"	XII	11'-0"	3'-3"
1104	1 1/2" φ	24	41'-8"	Str.		
1105	1 1/2" φ	16	35'-0"	Str.		
1106	1 1/2" φ	12	28'-0"	XII	14'-0"	3'-9"
1107	1 1/2" φ	16	33'-0"	Str.		
1108	1 1/2" φ	16	24'-0"	Str.		
1109	1 1/2" φ	18	15'-0"	Str.		
1110	1 1/2" φ	16	28'-0"	Str.		
1111	1 1/2" φ	16	21'-6"	Str.		
25572	1 1/2" φ		Lin.Ft. 17082			
16,095	1 1/2" φ		Lin.Ft. 16,787			
981	1 1/2" φ		Lin.Ft. 2,622			
6,564	1 1/2" φ		Lin.Ft. 28,245			
5,996	1 1/2" φ		Lin.Ft. 31,857			
Plus 1% for Overrun = 967 Lbs.						
Total = 97560 Lbs.						

BAR LIST~ PIER NO. 2 (PIER NO. 3 & 4 SIMILAR)

MARK	SIZE	NO. REQ'D	LENGTH	TYPE	DIMENSIONS	
					$\ell$	$m$
493	1/2" φ	92	6'-4"	XV		
504	1/2" φ	56	4'-8"	Str.		
901	1 1/8" φ	20	29'-4"	Str.		
1022	1 1/2" φ	32	5'-3"	Str.		
1020	1 1/2" φ	36	22'-10"	Str.		
1021	1 1/2" φ	36	5'-0"	Str.		
<b>BAR SUMMARY</b>						
583 Lin.Ft. 1/2" φ @ 0.668 Lb./Lin.Ft. = 389 Lbs.						
261 Lin.Ft. 3/8" φ @ 1.043 Lb./Lin.Ft. = 272 Lbs.						
587 Lin.Ft. 1/8" φ @ 3.400 Lb./Lin.Ft. = 1,996 Lbs.						
1170 Lin.Ft. 1/4" φ @ 4.303 Lb./Lin.Ft. = 5,035 Lbs.						
Plus 1% for Overrun = 78 Lbs.						
Total = 7,770 Lbs.						
<b>BAR LIST~ ABUT. NO. 1 (ABUT. 5 SIMILAR)</b>						
MARK	SIZE	NO. REQ'D	LENGTH	TYPE	DIMENSIONS	
					$\ell$	$m$
484	1/2" φ	4	11'-1"	I	3'-5 1/2"	1'-9"
485	1/2" φ	16	4'-6"	Str.		
486	1/2" φ	4	3'-3"	Str.		
487	1/2" φ	4	2'-9"	Str.		
488	1/2" φ	12	8'-6"	Str.		
489	1/2" φ	4	3'-6"	Str.		
491	1/2" φ	17	11'-4"	II		
498	1/2" φ	1	28'-0"	Str.		
801	1" φ	4	31'-8"	Str.		
802	1" φ	2	43'-8"	Str.		
803	1" φ	2	40'-0"	Str.		
<b>BAR SUMMARY</b>						
477 Lin.Ft. 1/2" φ @ 0.668 Lb./Lin.Ft. = 319 Lbs.						
294 Lin.Ft. 1" φ @ 2.670 Lb./Lin.Ft. = 785 Lbs.						
Plus 1% for Overrun = 11 Lbs.						
Total = 1,115 Lbs.						

INITIAL	DATE
SIGNED BY	
CHECKED BY	
DRAWN BY	
CHECKED BY	
DESIGNED BY	76B 12-6-57
CHECKED BY	

MICROFILMED

**COLORADO**  
DEPARTMENT OF HIGHWAYS

BENDING DIAGRAMS & BAR LIST

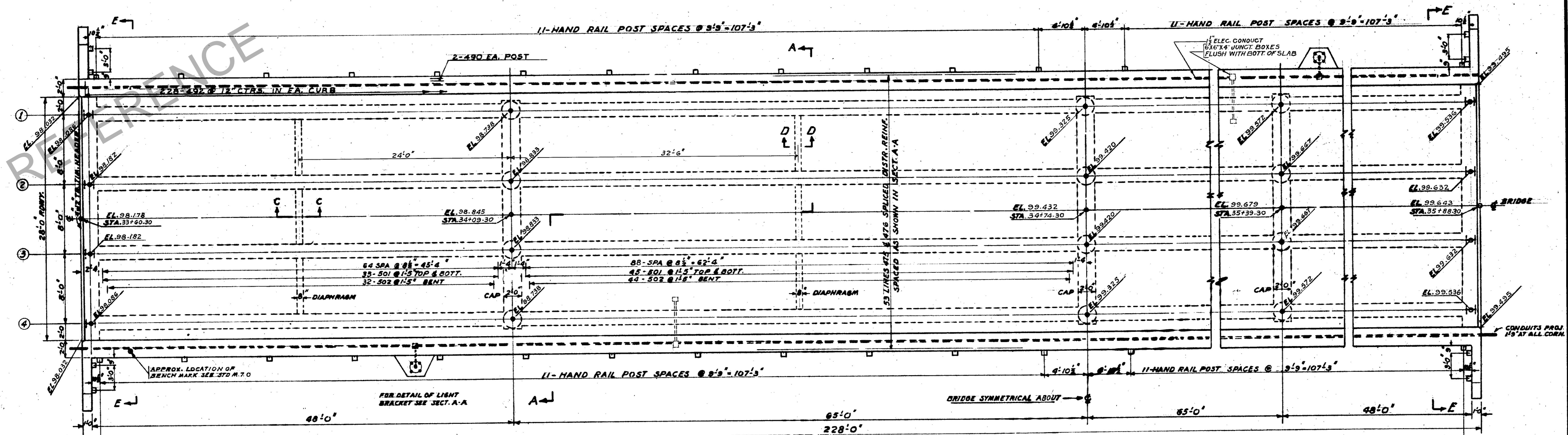
Under County Road  
Sta. 1166 + 13.78  
Near Bennett Sec. 34 R. 63W

Designed by *J.B.* Approved by *J.B. Roswell*  
Checked by *J.B.* Date: *March 3, 1957*  
Bridge Engineer

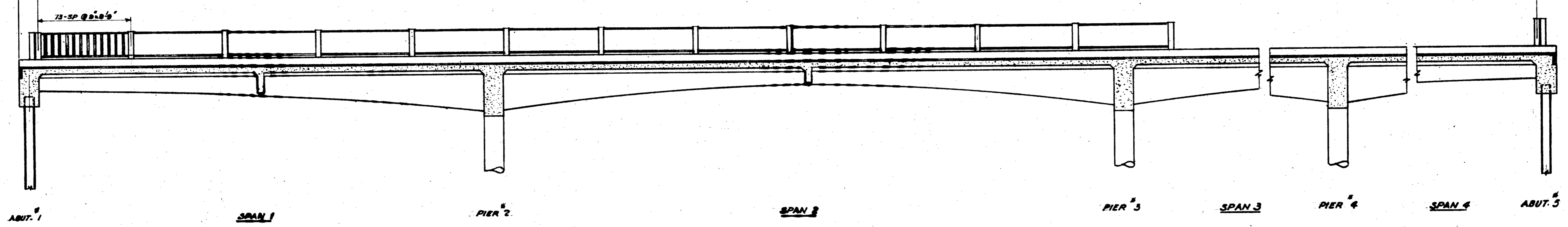
STRUCTURE NO. F-19 - AF

DIVISION	PROJECT NO.	DATE	BY
COND.	I-70-4(7) 303	83	

DEPT. OF HIGHWAYS  
S.A. 117  
JUL 24 1962



SUPERSTRUCTURE PLAN



SECTION ALONG & OF ROADWAY

MICROFILMED

**COLORADO DEPARTMENT OF HIGHWAYS**

4-SPANS 48', 65', 65', 48' CONT. CONC. SLAB & GIRDER BRIDGE 28'-0" RDWY.

**SUPERSTRUCTURE UNDER COUNTY ROAD**

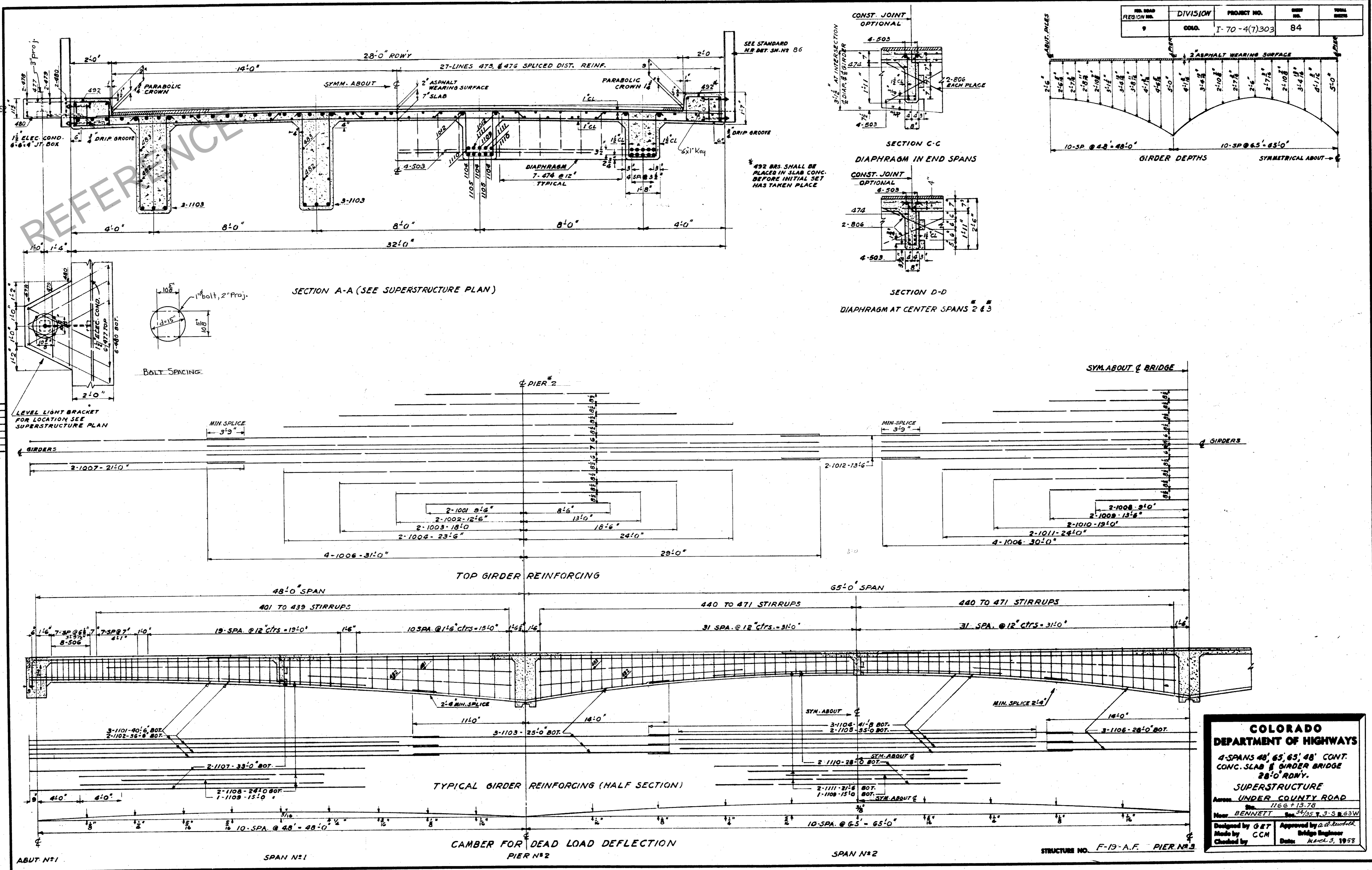
Loc. BENNETT Sta. 34+35.3-S 63W

Designed by G.E.T. Approved by A.P. Starbuck  
 Made by C.C.M. Bridge Engineer  
 Checked by Date March 3, 1958

STRUCTURE NO. F-19-A.F.

REG. ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COND.	I-70-4(7)303	84	

DEPT. OF HIGHWAYS  
JUL 24 1958

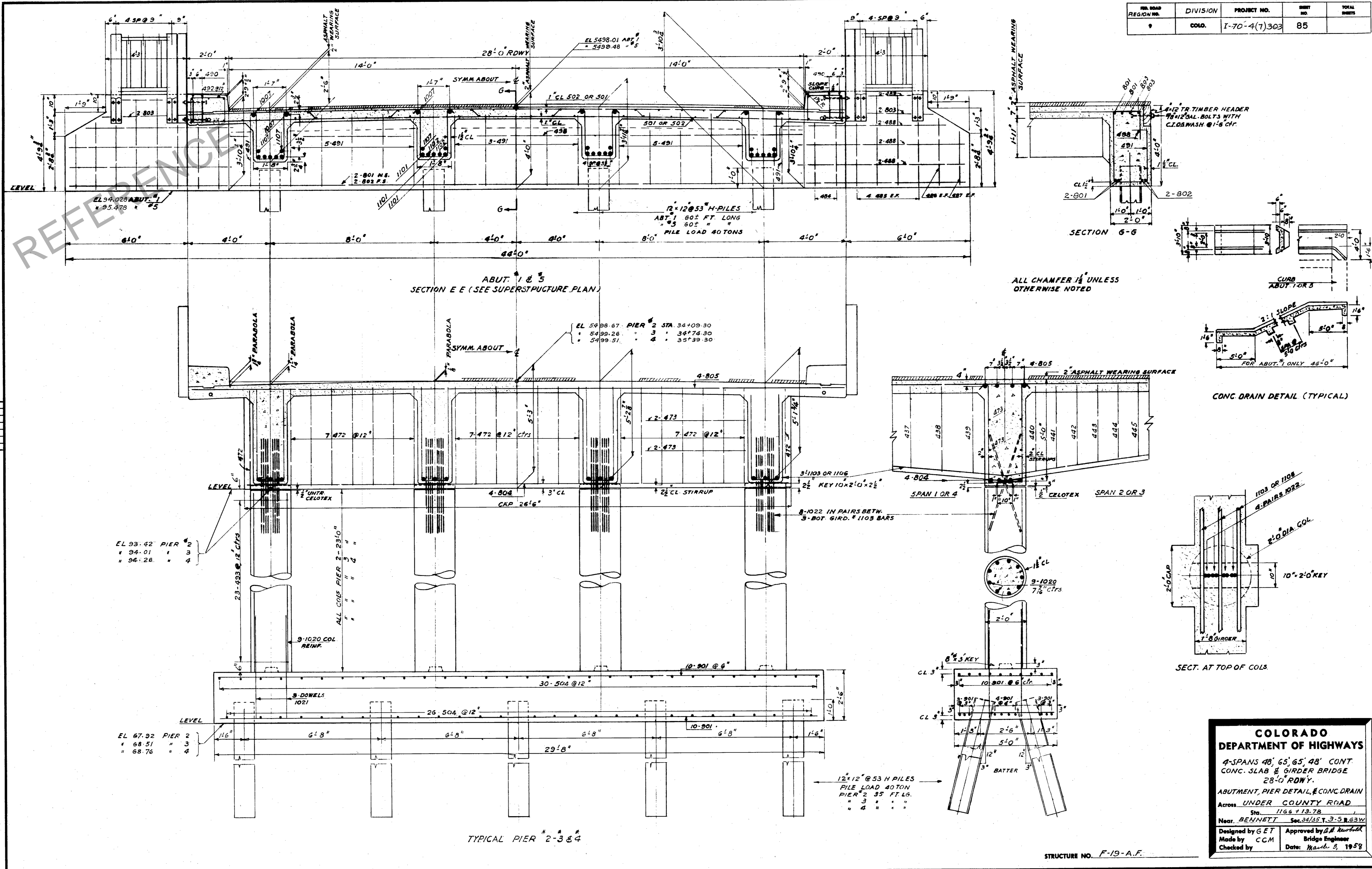


**COLORADO DEPARTMENT OF HIGHWAYS**  
 4-SPANS 48', 65', 65', 48' CONT. CONC. SLAB & GIRDER BRIDGE 28'0" RDWY.  
 SUPERSTRUCTURE  
 Aves. UNDER COUNTY ROAD  
 Sta. 116.6 + 13.78  
 Near BENNETT Sec. 34/66 T. 3-S. R. 63W  
 Designed by G&T Approved by A.W. Kuehler  
 Made by CCM Bridge Engineer  
 Checked by Date: March 3, 1958

MICROFILMED

REG. ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	I-70-4(7)303	85	

JUL 24 1962



**COLORADO DEPARTMENT OF HIGHWAYS**  
4-SPANS 48', 65', 65', 48' CONT. CONC. SLAB & GIRDER BRIDGE 28'-0" RDWY.  
ABUTMENT, PIER DETAIL & CONC. DRAIN  
Across UNDER COUNTY ROAD  
Sta. 1166 + 13.78  
Near BENNETT Sec. 34/35 T. 3-S R. 63W  
Designed by GET Approved by D.A. Kuehler  
Made by CCM Bridge Engineer  
Checked by Date: March 3, 1958

STRUCTURE NO. F-19-A.F.





**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 0

Mile Post (ON)11: 0.000 mi

Bridge Name: F-19-AF      Inspection Date: 5/28/2013      Sufficiency Rating: 46.8    SD

NBI Reporting ID:	F-19-AF
Rgn/Sectn 2E/2M:	15
Trans Region 2T	02
County Code 3:	001
ADAMS	
Place Code 4:	06090
06090	
Rte.(On/Under)5A:	1
Signing Prefix 5B:	4
Level of Service 5C:	1
Directional Suffix 5E:	0
Feature Intersected 6:	
I 70 ML	
Facility Carried 7:	
COUNTY ROAD	
Alias Str No.8A:	
Pril Str No. 8P	
Location 9:	
1 MI E OF JCT SH 79	
Max Clr 10:	328.1 ft
BaseHiway Net12:	0
IrsinvRout 13A	0000000000
IrrsubRout No13B:	00
Latitude 16:	39d 44' 16"
Longitude 17:	104d 24' 52"
Range18A:	63 W
Township18B:	63
Section18C:	35
Detour Length 19:	4.0 mi
Toll Facility 20:	3
Custodian 21:	1
Owner 22:	1
Functional Class 26:	09
Year Built 27:	1959
Lanes on 28A:	2
Lanes Under 28B:	4
ADT 29:	1,100
Year of ADT 30:	2008
Design Load 31:	6
Apr Rdwy Width 32:	24.0 ft
Median 33:	0
Skew 34:	0.00 °
Structure Flared 35:	0
Sfty Rail 36a/b/c/d:	1 1 1 1
Rail ht36h:	37 "in"

Hist Signif 37:	5
Posting status 41:	A
Service on/un 42A/B:	1 1
Main Mat/Desgn 43A/B:	2 4
Aprr Mat/Desgn 44A/B:	0 0
Main Spans Unit 45:	4
Approach Spans 46:	0
Horiz Clr 47:	28.0 ft
Max Span 48:	65.0 ft
Str Length 49:	228.0 ft
Curb Wdth L/R 50A/B:	0.0 ft 0.0 ft
Width Curb to Curb 51	28.0 ft
Width Out to Out 52:	32.0 ft
Deck Area:	7,297.9 sq. ft
Min Clr Ovr Brgd 53:	99.99
Min Undrclr Ref 54A:	H
Min Undrclr 54B:	17.8 ft
Min Lat Clrnce Ref R 55A:	H
Min Lat Undrclr R 55B:	10.0 ft
Min Lat Undrclr L 56:	30.0 ft
Deck 58:	3
Super 59:	4
Sub 60:	5
Channel/Protection 61:	N
Culvert 62:	N
Oprtg Rtg Method 63:	1 LF Load Factr
Operating Rating 64:	42.0
Inv Rtg Method 65:	1
Inventory Rating 66:	25.0
Asph/Fill Thick 66T:	001 "in"
Str. Evaluation 67:	4
Deck Geometry 68:	5
Undrclr Vert/Hor 69:	4
Posting 70:	5
Waterway Adequacy 7	N
Approach Alignment 72:	6
Type of Work 75A:	31
Work Done By 75B:	1
Length of Improvment 76:	228.0 ft
Insp Team Indicator 90B:	BLUE TEAM
Inspector Name 90C:	MACIASA
Frequency 91:	24 months
FC Frequency 92A:	
UW Frequency 92B:	
SI Frequency 92C:	
FC Inspection Date 93A:	1/1/1900

UW Inspection Date 93B:	1/1/1900
SI Date 93C:	
Bridge Cost 94:	\$ 1,155,990
Roadway Cost 95:	\$ 115,599
Total Cost 96:	\$ 1,733,985
Year of Cost Estimate 97:	2006
Brdr Brgd Code/% 98A/B:	
Border Bridge Number 99:	
Defense Highway 100:	0
Parallel Structure 101:	N
Direction of Traffic 102:	2
Temporary Structure 103:	
Highway System 104:	0
Fed Lands Hiway 105:	0
Year Reconstructed 106:	0000
Deck Type 107:	1
Wearing Surface 108A:	6
Membrane 108B:	0
Deck Protection 108C:	0
Truck ADT 109:	22 %
Trk Net 110:	0
Pier Protection 111:	#
NBIS Length 112:	Y
Scour Critical 113:	N
Scour Watch 113M:	
Future ADT 114:	1,500
Year of Future ADT 115:	2028
CDOT Str Type 120A:	CSGC
CDOT Constr Type 120B:	5.
Inspection Indic 122A:	
Inspection Trip 122AA:	
Inspection Schedule ID:	ODD APR F13
Maintenance Patrol 123:	20
Expansion Dev/Type124:	0
Brdg Rail Type/Mod 125A/B:	Y 0
Posting Trucks 129A/B/C:	0 0 0
Str Rating Date 130:	8/7/1998
Special Equip 133:	-1
Vert Clr N/E 134A/B/C:	X 99.99 0
Vert Clr S/W 135A/B/C:	X 99.99 0
Vertical Clr Date:	1/1/1901
Weight Limit Color: 139:	0
Str Billing Type:	U
Userkey 1 - System:	ONSYS
Userkey 7-Update Indic:	

Inspector Name: MACIASA

**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 0

Mile Post (ON)11: 0.000 mi

**Element Inspection Report**

Elm/En	Description	Units	Total Qty	% in 1	CS 1	% in 2	CS 2	% in 3	CS 3	% in 4	CS 4	% in 5	CS 5
13/1	Unp Conc Deck/AC Ovl	(SF)	7,296	0 %	0	0 %	0	0 %	0	100 %	7,296	0 %	0
110/1	R/Conc Open Girder	(LF)	904	98 %	884	1 %	8	1 %	8	0 %	4	0 %	0
205/1	R/Conc Column	(EA)	12	67 %	8	8 %	1	25 %	3	0 %	0	0 %	0
215/1	R/Conc Abutment	(LF)	64	100 %	64	0 %	0	0 %	0	0 %	0	0 %	0
234/1	R/Conc Cap	(LF)	80	100 %	80	0 %	0	0 %	0	0 %	0	0 %	0
308/1	Constr Non Exp Jt	(LF)	64	0 %	0	50 %	32	50 %	32	0 %	0	0 %	0
325/1	Slope Prot/Berms	(EA)	2	0 %	0	50 %	1	50 %	1	0 %	0	0 %	0
326/1	Bridge Wingwalls	(EA)	4	100 %	4	0 %	0	0 %	0	0 %	0	0 %	0
334/1	Metal Rail Coated	(LF)	456	100 %	456	0 %	0	0 %	0	0 %	0	0 %	0
338/1	Conc Curbs/SW	(LF)	456	100 %	456	0 %	0	0 %	0	0 %	0	0 %	0
359/1	Soffit Smart Flag	(EA)	1	0 %	0	0 %	0	0 %	0	100 %	1	0 %	0
362/1	Traf Impact SmFlag	(EA)	3	100 %	3	0 %	0	0 %	0	0 %	0	0 %	0
380/1	Comp. Deck Repair	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
520/1	AppRdAlign	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
13/1	Unp Conc Deck/AC Ovl	0 to 2 Inches of asphalt, worn surface, raveling in the wheel lines, deteriorating and potholing along the shoulders. Many areas of scale and deterioration in exposed areas of the concrete, at shoulders. 100% of shoulders are in very poor condition; (see 7/2007 PHOTO). A thin overlay of asphalt has been placed above Span 1, and is worn. Areas in Spans 1, and 2, on the Left; and midspan of Span 2 on the Right, are spalled with exposed rebar; (see 06/14/1995 PHOTO). Many patches in the rough surface. The asphalt is breaking up with potholes and an exposed timber header at A5, which has been patched several different times, but re-patching. Asphalt trans cracked and raveling at A1. Areas of exposed concrete deck surface are partially covered with sand during 2007 and 2009 inspections. SEE 2005, 2007, and 2009 PHOTOS, for deck surface and deck bottom conditions. Up to 10 inches of sand and gravel along shoulders in 2007; (see 7/2007 and 5/28/13 photos).
110/1	R/Conc Open Girder	Spalling with exposed corroded rebar and delam., at the bottom of Girder 2D (4 lineal feet), near Pier 2; (see 06/19/2003 PHOTO). Light random cracking with scale and rust stains, in Girder 2A, at Pier 2. The inside faces of Girders 1A (10 lineal feet), and 1D (3 lineal feet), are scaled near A1, from seepage through the deck. A patch at the bottom of Girder 1A near A1, is delaminating. A few light diagonal cracks in exterior girders, near piers. A couple of minor scrapes and nicks from high loads, on the bottom flange of Girder 3D.

Colorado Department of Transportation

Highway Number (ON) 5D: 0

Structure Inspection and Inventory Report (English Units)

Mile Post (ON)11: 0.000 mi

Elem/Env	Description	Element Notes
205/1	R/Conc Column	The repair to Column 4D looks good. Columns have hairline map cracks in places. Concrete is starting to delam. at Columns: 2A (at top, 6 square feet, and bottom, 1 square foot see 07/20/2005 PHOTO), 2C with 1 square foot, and 4C with 6.5 square feet. Spalling (11.5 square feet) with exposed corroded rebar (20% section loss), at the bottom of Column 2D; (see 7/20/2005, and 7/05/2007 PHOTOS). Column 4C has a 4 square foot spall with exposed rebar behind the barrier. Column 1C is starting to delam. above the rail, on the traffic side. A few minor scrapes on most. Light horizontal cracking at tops of some columns, where they join the caps.
215/1	R/Conc Abutment	A few light vertical cracks, some with efflor.
234/1	R/Conc Cap	Hairline vertical cracks with efflor., in the P2 Cap, at Girder 1A.
308/1	Constr Non Exp Jt	At abutments. Cracking, D-cracking, and potholing at both joints, the worst at A5.
325/1	Slope Prot/Berms	Erodable sandy clay fill slopes. Both berms and slopes have an erosion trough from washing below abutments. A large erosion trough (2 feet deep X 5 feet wide, see 07/20/2005 PHOTO), at the Right side of the A5 Slope (drainage under girders 3 and 4). The Berm at A1 is up to 5 inches low, with exposed steel piles. The Berm at A5 is up to 9 inches low, with an exposed and R3 corroded steel pile, below Girder 4D.
326/1	Bridge Wingwalls	Stub type wingwalls. Look good. Some light delam. at #1 Left.
334/1	Metal Rail Coated	Galvanized Type Y railing. Looks good.
338/1	Conc Curbs/SW	Typical light transverse cracks in the tops of both, and vertical cracks in faces of both. Some light random cracks in the Left curb at A1. The Right curb has areas of horizontal and map cracking.
359/1	Soffit Smart Flag	Many areas of map cracking with moderate scale, efflor., stalactites, rust stains, and small areas of delams., primarily in Bays A, and C; approximately 60% total contamination. Many transverse and longitudinal cracks with efflor. A 16 square foot spall with exposed corroded rebar in Bay 3C, which appears to have been spray painted in 2009; (see 07/20/2005, 07/05/2007, and 04/30/2009 PHOTOS). One 6 square foot spall with exposed rebar, below the Right overhang in Span 3, which appears to have been spray painted in 2009; (see 07/05/2007 PHOTO). A small delam. with rust stains in the Right overhang, near P4. One 2 square foot, 2 inch deep spall with exposed rebar, in the Right overhang in Span 4. The entire Right overhang, and Span 1 of the Left overhang, have many spots of delam., scale, rust, and efflor. Light scale and efflor., along the haunch of the Left overhang.
362/1	Traf Impact SmFlag	A couple of minor nicks and scrapes from high load impacts, on Girder 3D. IMP ???/??/??; INSP 05/09/01; REP 00/00/00
380/1	Comp. Deck Repair	Type Y bridge railing installed in 1997.
520/1	AppRdAlign	Top of vertical curve.

Colorado Department of Transportation  
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 0 -

Mile Post (ON)11: 0.000 mi

Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
399	Replace	5/28/2013		2014	10000

Replace sections of deck where deterioration is most severe.

Bridge Notes

Utilities: One each, 2.5 inch diameter metal conduit, attached to the deck bottom, below both overhangs.

REFERENCE

Colorado Department of Transportation  
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 0

Mile Post (ON)11: 0.000 mi

Inspection Notes

TIME: 11:30    TEMP: 73    WEATHER: Partly cloudy

Scope:

NBI:  Element:  Underwater:  Fracture Critical:  Other:    Type: Regular NBI

Team Leader Inspection Check-off:

- FCM's
- Posting Signs
- Essential Repair Verification
- Vertical Clearance
- Stream Bed Profile

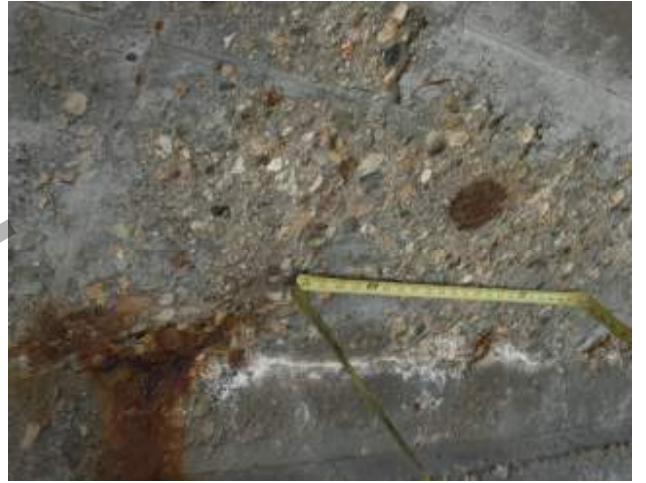
Inspection Team:

Inspection Date: 05/28/2013

Inspector: MACIASA

Inspector (Team Leader)





REFERENCE



REFERENCE





**Region 1 Bridge Enterprise Structures Scoping R100-208 (19928)**

---

## CDOT Maintenance Responses

- What regular routine maintenance do you provide on bridges?
  - Deck repairs – only emergency
  - Rail rehab or replacements – only when hit/emergency
  - Expansion joints – only emergency
  - Overlay – overlay approaches when necessary
  - Approach slabs – none
  - Mud decking and settlement – jacking of approach slabs when necessary
  - Sub-structure – only emergency, typically for scour
  - Other
- What maintenance has been completed on this bridge in the past?
  - US 36 over Draw – no history found
  - Kiowa-Bennett Rd over I-70 – no history found
  - York St. over I-270 – Repairs include deck repairs, girder repairs, and girder collision repairs.
- What maintenance is planned moving forward for the next 70 years?
  - Maintenance plans and funding plans are currently in the works, including joint cleaning and inlet cleaning, but may take time to create/fund. Currently maintenance is based off of repair list from Bridge Inspection Reports.
- Have any maintenance projects occurred in recent years that required engineering? If so, are plans available?
  - All non-emergency repairs require engineering drawings. No plans found for US 36 over Draw and Kiowa-Bennett Rd over I-70. For York St. over I-270, plans for the heat straightening of the girders were sent. Fatigue cracks repaired in the east exterior girder of the north span, but no plans found.
- What is the average frequency of emergency or unknown repairs in terms of calculating life cycle costs?
  - Depends on the bridge. York St. over I-270 had 4 repairs in the past year.
- For bridges that cross over water:

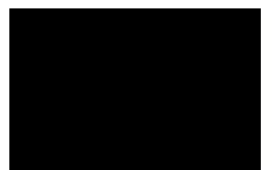




**Region 1 Bridge Enterprise Structures Scoping R100-208 (19928)**

- When flooding occurs, have you seen the bridge overtopped?
  - No history of overtopping found.
- Have you completed scour repairs?
  - No history of scour repairs found.
- Have you seen debris get jammed under bridges in terms of identifying freeboard requirements?
  - No history found.
- In terms of routine maintenance, have barrier collapses occurred?
  - No history found.
- Does the bridge have issues with drainage?
  - All three bridges have drainage issues.

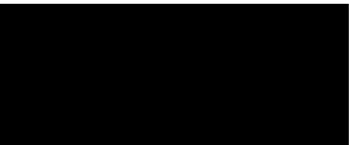
REFERENCE



**Appendix J**  
**Sufficiency Rating Calculations**

REFERENCE





JN. \_\_\_\_\_  
 BY CSK DATE 1/28/2013  
 SHEET \_\_\_\_\_ OF \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

JOB DESCRIPTION Kiowa-Bennett Rd over I-70  
 CALCULATION FOR Sufficiency Rating

**Sufficiency Rating**  
**Kiowa-Bennett Rd over I-70**

Bridge ID = F-19-AF

County = Adams

**Curent Sufficiency Rating**

Input:  
 Detour Length (19) = 4 mi  
 Lanes on Structure (28) = 2  
 ADT on Structure (29) = 1100  
 Approach Roadway Width (32) = 24 ft  
 Traffic Safety (36A) = 1  
 Traffic Safety (36B) = 1  
 Traffic Safety (36C) = 1  
 Traffic Safety (36D) = 1  
 Main Structure Type (43) = 2 4  
 Roadway Width - Curb to Curb (51) = 28 ft  
 Vertical Clearance (53) = 99.99 ft  
 Deck Condition Rating (58) = 3  
 Superstructure Rating (59) = 4  
 Substructure Rating (60) = 5  
 Culvert Rating (62) = N  
 Inventory Rating (66) = 25 Tons  
 Structural Condition Rating (67) = 4  
 Deck Geometry Rating (68) = 5  
 Underclearance Rating (69) = 4  
 Waterway Adequacy Rating (71) = N  
 Approach Alignment Rating (72) = 6  
 Defense Highway (100) = 0

**Structural Adequacy & Safety (S1):**

Min. 59 & 60 or 62 = 4  
 A = 25 %  
 $B = (36 - IR)^{1.5} * 0.2778 = 10.1$  %  
 $S_1 = 55 - A - B = 19.9$  %

**Serviceability and Functional Obsolescence (S2):**

A = 5 D = 2 %  
 B = 2 E = 0 %  
 C = 1 F = 0 %  
 J = A + B + C + D + E + F = 10 %

X = 550 Y = 14  
 G = 0 H = 7.5  
 G + H = 7.5 I = 0  
 $S_2 = 30 - J - (G + H) - I = 12.5$

**Essentiality for Public Use (S3):**

K = 0.38 A = 0.9  
 B = 0  
 $S_3 = 15 - A - B = 14.1$

**Special Reductions (S4)**

S1 + S2 + S3 = 46 A = 0.0  
 B = 0 C = 0  
 $S_4 = A + B + C = 0.0$

Sufficiency Rating = S1 + S2 + S3 - S4 = 46.5

**Rehabilitation Sufficiency Rating**

Input:  
 Detour Length (19) = 4 mi  
 Lanes on Structure (28) = 2  
 ADT on Structure (29) = 1100  
 Approach Roadway Width (32) = 34 ft  
 Traffic Safety (36A) = 1  
 Traffic Safety (36B) = 1  
 Traffic Safety (36C) = 1  
 Traffic Safety (36D) = 1  
 Main Structure Type (43) = 2 4  
 Roadway Width - Curb to Curb (51) = 34 ft  
 Vertical Clearance (53) = 99.99 ft  
 Deck Condition Rating (58) = 8  
 Superstructure Rating (59) = 8  
 Substructure Rating (60) = 5  
 Culvert Rating (62) = N  
 Inventory Rating (66) = 36 Tons  
 Structural Condition Rating (67) = 5  
 Deck Geometry Rating (68) = 6  
 Underclearance Rating (69) = 4  
 Waterway Adequacy Rating (71) = N  
 Approach Alignment Rating (72) = 8  
 Defense Highway (100) = 0

**Structural Adequacy & Safety (S1):**

Min. 59 & 60 or 62 = 5  
 A = 10 %  
 $B = (36 - IR)^{1.5} * 0.2778 = 0.0$  %  
 $S_1 = 55 - A - B = 45.0$  %

**Serviceability and Functional Obsolescence (S2):**

A = 0 D = 2 %  
 B = 1 E = 0 %  
 C = 0 F = 0 %  
 J = A + B + C + D + E + F = 3 %

X = 550 Y = 17  
 G = 0 H = 0.0  
 G + H = 0.0 I = 0  
 $S_2 = 30 - J - (G + H) - I = 27.0$

**Essentiality for Public Use (S3):**

K = 0.85 A = 0.4  
 B = 0  
 $S_3 = 15 - A - B = 14.6$

**Special Reductions (S4)**

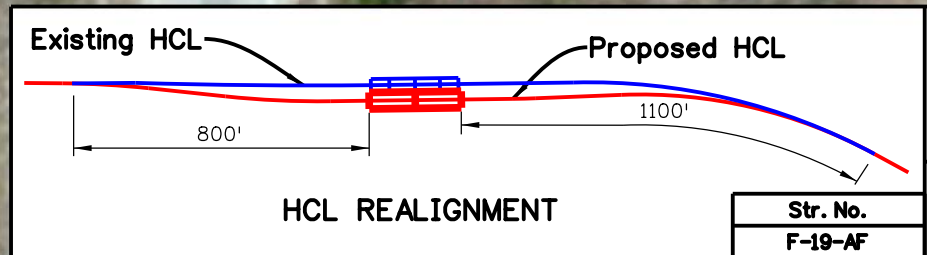
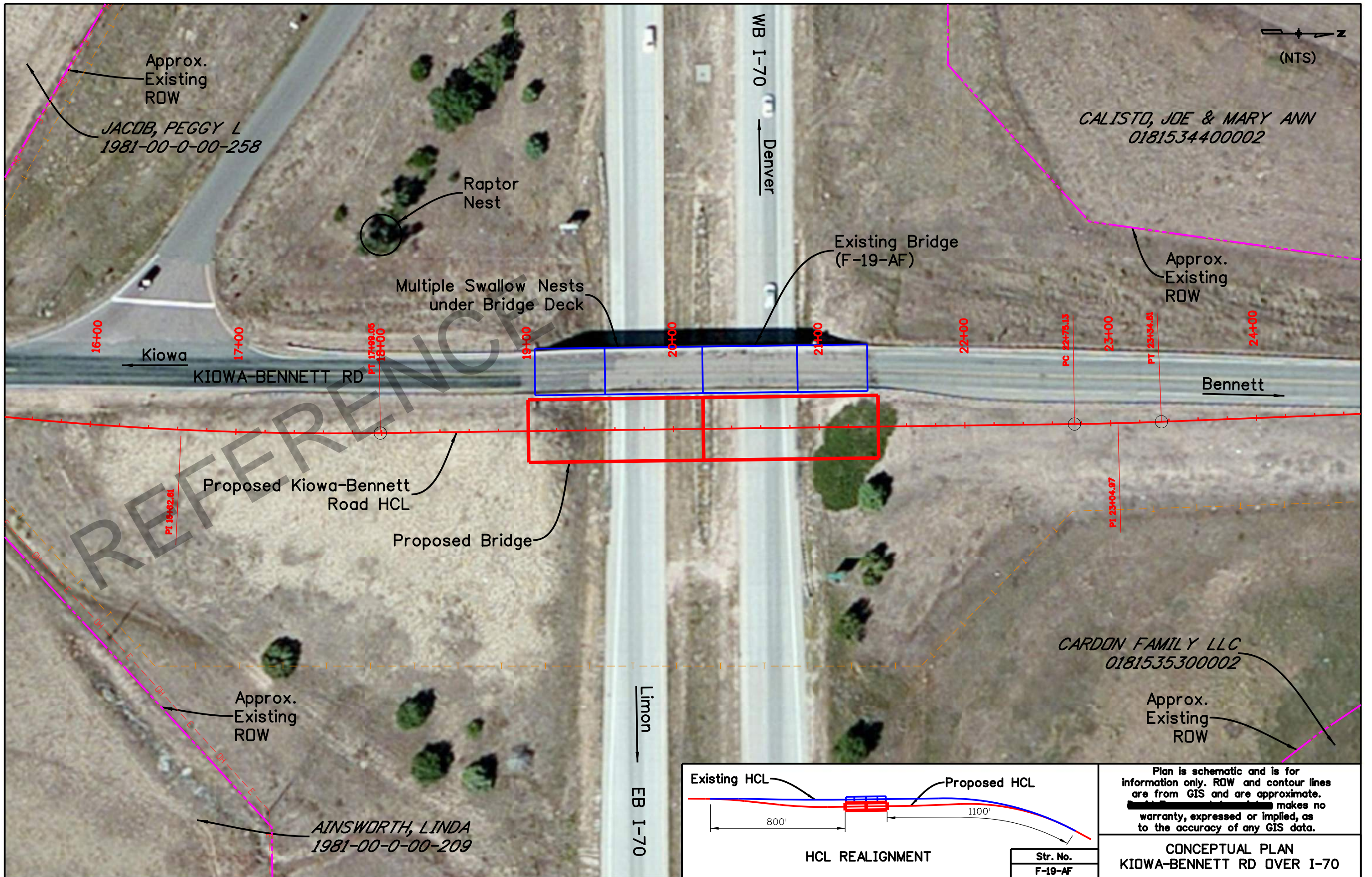
S1 + S2 + S3 = 87 A = 0.0  
 B = 0 C = 0  
 $S_4 = A + B + C = 0.0$

Sufficiency Rating = S1 + S2 + S3 - S4 = 86.7

**Appendix K**  
**Conceptual Plan/Layout**

REFERENCE





Plan is schematic and is for information only. ROW and contour lines are from GIS and are approximate. [Redacted] makes no warranty, expressed or implied, as to the accuracy of any GIS data.

**CONCEPTUAL PLAN  
KIOWA-BENNETT RD OVER I-70**

**Appendix L**  
**Life Cycle Cost Analysis**

REFERENCE



**Present Value Analysis (Using Current Dollars)**

CDOT Structure No.: **F-19-AF**  
 Existing Year Built: **1959**  
 Road Name: **Kiowa-Bennett Rd**  
 Feature Intersected: **I-70**  
 County: **Adams**

Rate of Inflation (I) = **3.00%**

Existing Bridge	
Length:	228 ft
Width:	32 ft
Area:	7296 ft <sup>2</sup>

Proposed Bridge	
Length:	240 ft
Width:	43 ft
Area:	10320 ft <sup>2</sup>

Initial Construction	Units	Costs	Total Costs
Proposed Bridge	SF	\$130	\$1,341,600
User Cost	Each	\$246,375	\$246,375
Grand Total =			<b>\$1,587,975</b>

Maintenance Items	Units	Costs	Maintenance Interval (yrs)	Interval	Applicable?
Clean/Rinse Bridge	HR	\$60.00	Every 5 years after construction	5	Y
Mill & Overlay Asphalt Surface	SF	\$4.00	Every 20 years; starting year 10	20	Y
Repaint Steel (Protection)	GAL	\$350.00	Every 15 years after construction	15	N
Replace Expansion Joints	LF	\$100.00	Every 15 years after construction	15	Y
Replace Waterproofing Membrane & Asphalt Overlay	SF	\$4.45	Every 20 years after construction	20	Y
Reseal Non-Expansion Joints	LF	\$100.00	Every 15 years after construction	15	Y
Reseal Splash Zone Concrete	SY	\$11.00	Every 10 years; starting year 5	10	Y

Year	Discount Adj. Factor	Rehab / Replace		Clean/Rinse Bridge		Mill & Overlay		Repaint Steel		Replace Expansion Jts		Membrane & Overlay		Non-Expansion Jts.		Splash Zone Concrete		Cumulative Cost	
		(Replace/Rehab)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)		
0	1.00	Replace	\$1,587,975															\$1,587,975	
5	1.16			Y	\$70											Y	\$13	\$1,590,349	
10	1.34			Y	\$81	Y	\$5											\$1,657,330	
15	1.56			Y	\$93					Y	\$156			Y	\$156	Y	\$17	\$1,687,317	
20	1.81			Y	\$108							Y	\$8					\$1,787,120	
25	2.09			Y	\$126											Y	\$23	\$1,791,407	
30	2.43			Y	\$146	Y	\$10			Y	\$243			Y	\$243			\$1,954,131	
35	2.81			Y	\$169											Y	\$31	\$1,959,894	
40	3.26			Y	\$196							Y	\$15					\$2,140,147	
45	3.78			Y	\$227					Y	\$378			Y	\$378		Y	\$42	\$2,212,935
50	4.38			Y	\$263	Y	\$18											\$2,431,429	
55	5.08			Y	\$305											Y	\$56	\$2,441,836	
60	5.89			Y	\$353					Y	\$589	Y	\$26	Y	\$589			\$2,868,730	
65	6.83			Y	\$410											Y	\$75	\$2,882,717	
70	7.92			Y	\$475	Y	\$32											\$3,277,342	
75	9.18			Y	\$551					Y	\$918			Y	\$918	Y	\$101	\$3,454,016	
80	10.64			Y	\$638							Y	\$47					\$4,042,011	
85	12.34			Y	\$740											Y	\$136	\$4,067,273	
90	14.30			Y	\$858	Y	\$57			Y	\$1,430			Y	\$1,430			\$5,025,976	
95	16.58			Y	\$995												Y	\$182	\$5,059,927
100	19.22			Y	\$1,153							Y	\$86					\$6,121,910	
PV Total Cost/Unit =			\$1,587,975		\$7,956		\$121		\$0		\$3,714		\$182		\$3,714		\$676		
Replace Bridge Units=		1	EA	28	HR	12,040	SF	0	GAL	86	LF	12,040	SF	86	LF	33	SY		
Grand Total =			<b>\$1,587,975</b>		<b>\$222,775</b>		<b>\$1,462,782</b>		<b>\$0</b>		<b>\$319,385</b>		<b>\$2,187,015</b>		<b>\$319,385</b>		<b>\$22,593</b>		

**Bridge Life Span Grand Total (Present Value) = \$6,121,910**

**Annual Present value Cost over 100 Years = \$61,219**



JOB DESCRIPTION Kiowa-Bennett Rd over I-70: Life Cycle Cost Analysis  
 CALCULATION FOR Bridge Rehabilitation Alternative

**Present Value Analysis (Using Current Dollars)**

CDOT Structure No.: F-19-AF Rate of Inflation (I) = 3.00%  
 Existing Year Built: 1959  
 Road Name: Kiowa-Bennett Rd  
 Feature Intersected: I-70  
 County: Adams

Rehab. Bridge	
Length:	<u>228</u> ft
Width:	<u>39</u> ft
Area:	<u>8,892</u> ft <sup>2</sup>

Proposed Bridge	
Length:	<u>240</u> ft
Width:	<u>43</u> ft
Area:	<u>10,320</u> ft <sup>2</sup>
Replace @ Year:	<u>35</u>

Replace Bridge at End Life			
	Units	Costs	Total Costs
Proposed Bridge	SF	\$130	\$1,341,600
User Cost	Each	\$246,375	\$229,950
Grand Total =			<b>\$1,571,550</b>
Rehab Construction			
	Units	Costs	Total Costs
Rehabilitation Alternative	SF	\$100	\$889,200
User Cost	Each	\$182,250	\$182,250
Grand Total =			<b>\$1,071,450</b>

Maintenance Items	Units	Costs	Maintenance Interval (yrs)	Interval	Applicable?
Clean/Rinse Bridge	HR	\$60.00	Every 5 years after construction	5	Y
Mill & Overlay Asphalt Surface	SF	\$4.00	Every 20 years; starting @ year 10	20	Y
Repaint Steel (Protection)	GAL	\$350.00	Every 15 years after construction	15	N
Replace Expansion Joints	LF	\$100.00	Every 15 years after construction	15	Y
Replace Waterproofing Membrane & Asphalt Overlay	SF	\$4.45	Every 20 years after construction	20	Y
Reseal Non-Expansion Joints	LF	\$100.00	Every 15 years after construction	15	Y
Reseal Splash Zone Concrete	SY	\$11.00	Every 10 years; starting year 5	10	Y

Year	Discount Adjust. Factor	Rehab / Replace		Clean/Rinse Bridge		Mill & Overlay		Repaint Steel		Replace Expansion Jts		Membrane & Overlay		Non-Expansion Jts.		Splash Zone Concrete		Cumulative Cost
		Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	Replace (Y)	Present Value (PV)	
0	1.00	Rehab	\$1,071,450															\$1,071,450
5	1.16			Y	\$70											Y	\$13	\$1,072,254
10	1.34			Y	\$81	Y	\$5											\$1,120,538
15	1.56			Y	\$93					Y	\$156			Y	\$156	Y	\$17	\$1,145,923
20	1.81			Y	\$108							Y	\$8					\$1,218,040
25	2.09			Y	\$126											Y	\$23	\$1,219,493
30	2.43			Y	\$146	Y	\$10			Y	\$243			Y	\$243			\$1,344,565
35	2.81	Replace	\$4,422,126															\$5,766,690
40	3.26			Y	\$196											Y	\$36	\$5,772,196
45	3.78			Y	\$227	Y	\$15											\$5,959,310
50	4.38			Y	\$263					Y	\$438			Y	\$438	Y	\$48	\$6,042,112
55	5.08			Y	\$305							Y	\$23					\$6,321,112
60	5.89			Y	\$353											Y	\$65	\$6,331,056
65	6.83			Y	\$410	Y	\$27			Y	\$683			Y	\$683			\$6,786,480
70	7.92			Y	\$475											Y	\$87	\$6,799,844
75	9.18			Y	\$551							Y	\$41					\$7,303,749
80	10.64			Y	\$638					Y	\$1,064			Y	\$1,064	Y	\$117	\$7,504,733
85	12.34			Y	\$740	Y	\$49											\$8,115,104
90	14.30			Y	\$858											Y	\$157	\$8,139,241
95	16.58			Y	\$995					Y	\$1,658	Y	\$74	Y	\$1,658			\$9,334,493
100	19.22			Y	\$1,153											Y	\$211	\$9,366,932

PV Total Cost/Unit =					\$7,787		\$107		\$0		\$4,242		\$145		\$4,242		\$775	
Rehab Bridge Costs =	1	EA		6	HR	8,892	SF	0	GAL	78	LF	8,892	SF	78	LF	30		SY
			\$1,071,450			\$3,740		\$134,133		\$0		\$31,085		\$71,467		\$31,085		\$1,605
Replace Bridge Costs =	1	EA		22	HR	12,040	SF	0	GAL	86	LF	12,040	SF	86	LF	33		SY
			\$4,422,126			\$157,610		\$1,105,141		\$0		\$330,523		\$1,652,305		\$330,523		\$24,139
Grand Total =			\$5,493,576			\$161,350		\$1,239,275		\$0		\$361,608		\$1,723,771		\$361,608		\$25,744

**Rehab. & Replace. Bridge Life Span Grand Total (Present Value) = \$9,366,932**  
**Annual Present value Cost over 100 Years = \$93,669**

**Appendix M**  
**ABC Rating Calculations**

REFERENCE





CDOT00R1005

JN. \_\_\_\_\_  
 BY CSK DATE 1/30/2014  
 SHEET \_\_\_\_\_ OF \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

JOB DESCRIPTION Kiowa-Bennett Rd over I-70  
 CALCULATION FOR ABC Rating

5/29/2014

**ABC Rating Summary**  
**Kiowa-Bennett Rd over I-70**

Bridge ID = F-19-AF County = Arapahoe

**Input:**

General Input:

Existing Deck Area = 7,296 SF  
 Conceptual Deck Area = 10,320 SF  
 % User Cost Inc. = 40.0% (1999 to 2014)

Kiowa-Bennett Rd Data:

Construction Length = 0.5 mi  
 Posted Speed = 45 mph  
 Construction Speed = 25 mph  
 Assumed Const. Yr ADT = 2,000  
 Assumed % Trucks = 4.0%

I-70 Data:

Construction Length = 0.5 mi  
 Posted Speed = 75 mph  
 Construction Speed = 65 mph  
 Assumed Const. Yr ADT = 17,000  
 Assumed % Trucks = 20.0%

**Summary:**

ABC Rating = 55%

Construction Alternative	Roadway	Delay Cost (Per Day)	Construction Duration (Days)	User Cost	Construction Cost	Total Cost
Traditional Construction	On: K-B Rd.	\$315	<u>365</u>	\$114,975		
	Under: I-70	\$360	<u>365</u>	\$131,400		
	Total			\$246,375	\$ 1,542,840	\$1,789,215
ABC Alternative 1: Precast Elements	On: K-B Rd.	\$315	<u>335</u>	\$105,525		
	Under: I-70	\$360	<u>335</u>	\$120,600		
	Total			\$226,125	\$ 1,663,584	\$1,889,709
ABC Alternative 2: Slide-In/Roll-In/SPMT	On: K-B Rd.	\$315	<u>270</u>	\$85,050		
	Under: I-70	\$360	<u>270</u>	\$97,200		
	Total			\$182,250	\$ 1,837,992	\$2,020,242

**ABC Constraints/Analysis**

If profile shift is needed, may reduce possibility of using ABC construction. Site is open which promotes simple phasing scheme by shifting alignment to either side. Open site also promotes use of either a slide-in, roll-in, or SPMT move. GRS abutments are a possibility at this site if geotech properties allow.

Profile Shift (ft) = 2 Existing Struct. D (ft) = 4 Incr. for Min. Vert. Clr. = -1.0 ft  
 Proposed Struct. D (ft) = 6.5 Incr. for Wider Struct. = 0.11 ft

**ABC Assumptions**

(Two-Span BT 63 Structure)

Traditional 2-phase construction duration is 12 months. Precast element construction duration is 11 months. Slide-In/Roll-In/SPMT construction duration is 9 months. Assumed Construction Lengths (or speed reduction length). Assumed Average Daily Speed during construction. Speed reduction on I-70 is for drivers slowing down due to cones/barriers needed next to I-70 to construct pier and abutments. Assumes \$130/SF of bridge for Construction Cost for Conventional cost. Assumes 10% additional cost for Precast Alternative. Assumes 25% additional cost for Slide-In/Roll-In/SPMT Alternative. Assumes traffic control is 15% of bridge cost for conventional, 14% for Precast, 12% for Slide/Roll In. Assumes current traffic counts without increase for future projected traffic at time of construction. Cost is for bridge only and does not include wall, roadway, ROW, utility, or drainage costs.

**Construction Cost Calculation**

Assumed Bridge Cost/SF = <u>130</u>	Deck Area = 10,320 SF
Assumed Alt. 1 Added Cost = <u>10%</u>	Bridge Cost = \$ 1,341,600
Assumed Alt. 2 Added Cost = <u>25%</u>	
Assumed Traffic Control Trad. = <u>15%</u>	
Assumed Traffic Control Alt. 1 = <u>14%</u>	
Assumed Traffic Control Alt. 2 = <u>12%</u>	
	Traditional Alternative 1 Alternative 2
	Additional Cost = \$ - \$ 134,160 \$ 335,400
	Traffic Control = \$ 201,240 \$ 187,824 \$ 160,992
	<u>Total Bridge Cost = \$ 1,542,840 \$ 1,663,584 \$ 1,837,992</u>



Project:	19928		
By:	CSK	Checked:	
Date:	1/30/2014		0/0/00
Sheet No.	1	of	3

## Pre-Scoping ABC Rating

May 2012

Enter values for each aspect of the project. Attach applicable supporting data.

<b>Average Daily Traffic</b> Combined on and under Enter 5 for Interstate Highways	<input type="text" value="5"/>	0 1 2 3 4 5	No traffic impacts Less than 5000 5000 to 10000 10000 to 15000 15000 to 20000 More than 20000
<b>Delay/Detour Time</b>	<input type="text" value="1"/>	0 1 2 3 4 5	No delays Less than 5 minutes 5-10 minutes 10-15 minutes 15-20 minutes More than 20 minutes
<b>Bridge Importance</b>	<input type="text" value="1"/>	1 3 5	Normal Bridge - minimal access impacts Essential Bridge - impacts to locals and business Critical Bridge - only access to community or business
<b>User Costs</b>	<input type="text" value="5"/>	0 1 2 3 4 5	No user costs Less than \$10,000 \$10,000 to \$50,000 \$50,000 to \$75,000 \$75,000 to \$100,000 More than \$100,000
<b>Economy of Scale</b> (repetitive work or standard details)	<input type="text" value="2"/>	0 1 2 3	1 span 2 to 3 spans 4 to 5 spans > 5 spans or multiple structures
<b>Safety</b>	<input type="text" value="1"/>	1 2 3 4 5	Short duration impact with simple MOT scheme Short duration impact with multiple traffic shifts Normal duration impact with multiple traffic shifts Extended duration impact with multiple traffic shifts Extended duration impact with complex MOT scheme
<b>Railroad Impacts</b>	<input type="text" value="0"/>	0 3 5	No railroad or minor railroad spur One mainline railroad track Multiple mainline railroad tracks
<b>Site Conditions</b>	<input type="text" value="5"/>	0 3 5	Inhibiting site constraint (e.g. > 1 ft. profile shift) Time sensitive constraint (e.g. utility shedules) Favorable site conditions



Project:	19928		
By:	CSK	Checked:	0
Date:	1/30/2014		0/0/00
Sheet No.	2	of	3

## Pre-Scoping ABC Rating

May 2012

Note: Do not adjust weight factors without prior consultation with CDOT Project Development Manager

ABC RATING SCORE FACTORS AND WEIGHTS					
	Score	Weight Factor	Adjusted Score	Maximum Score	Adjusted Score
Average Daily Traffic	5	10	50	5	50
Delay/Detour Time	1	10	10	5	50
Bridge Importance	1	5	5	5	25
User Costs	5	10	50	5	50
Economy of Scale	2	3	6	3	9
Safety	1	10	10	5	50
Railroad Impacts	0	5	0	5	25
Site Conditions	5	5	25	5	25
	Total Score		156	Max. Score	284

**ABC Rating Score: 55 % of Maximum Score**

The ABC Rating Score is driven by the four most heavily weighted factors: Average Daily Traffic, Delay/Detour Time, User Costs and Safety. For a detailed explanation, review the narrative on page 4 of the ABC Decision Making Process.

**Cost Considerations:**

Calculate the following costs for use in determining the lowest total project cost

TOTAL PROJECT COST EVALUATION			
	Traditional Const.	ABC Construction 1	ABC Construction 2
* Construction Costs	\$1,542,840	\$1,663,584	\$1,837,992
User Costs	\$246,375	\$226,125	\$182,250
<b>Total Project Cost</b>	<b>\$1,789,215</b>	<b>\$1,889,709</b>	<b>\$2,020,242</b>

- \* Account for the following Construction Costs that can be dramatically reduced with ABC construction:

**Detour**  
**Traffic Control**  
**Railroad flagging**  
**Railroad shoefly**  
**Increased Contractor and/or CDOT safety**

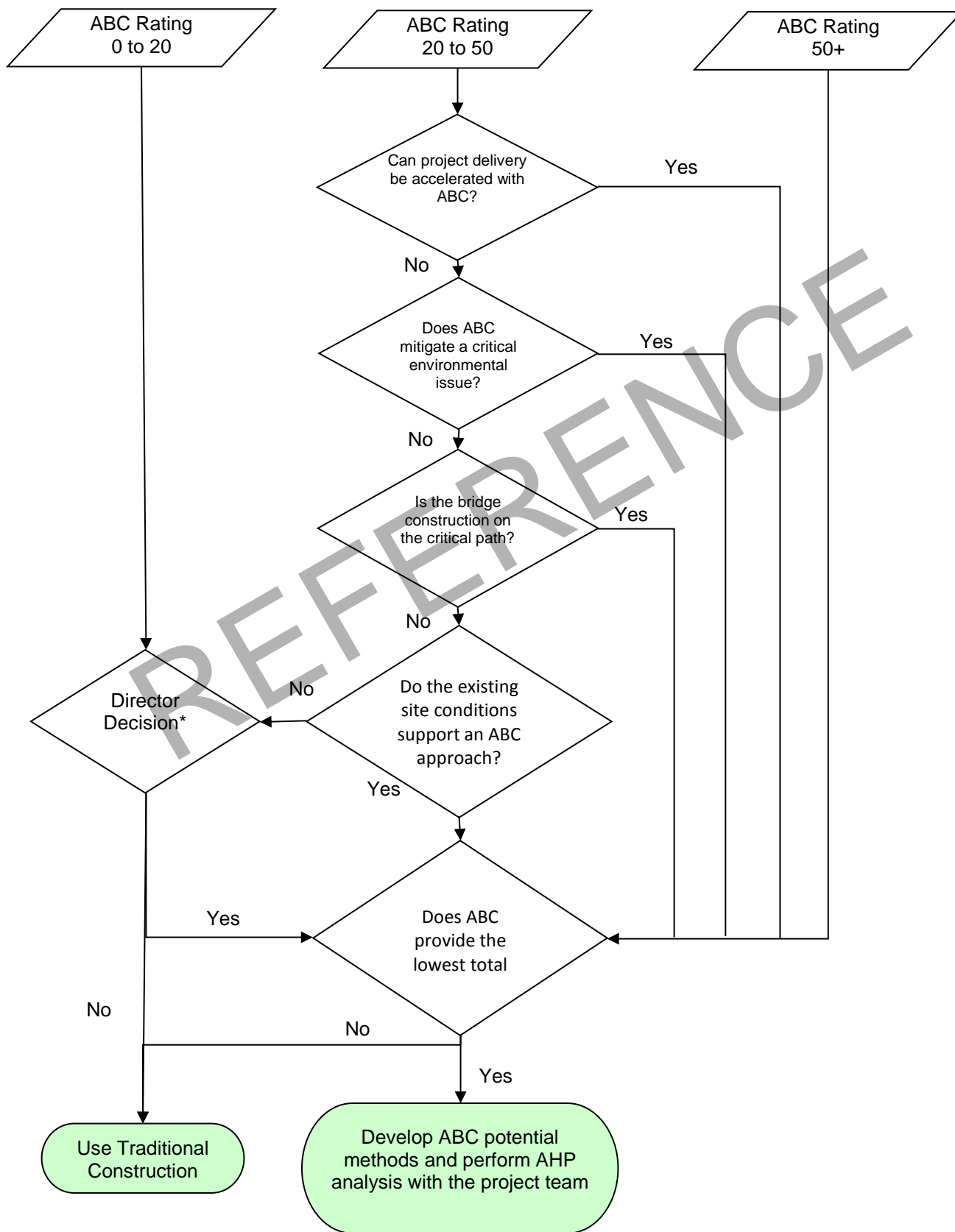


Project:	19928	
By:	CSK	Checked: 0
Date:	1/30/2014	0/0/00
Sheet No.	3 of	3

Pre-Scoping ABC Rating

May 2012

\* Region Director or Chief Engineer to evaluate possible indirect benefits



## ROAD USER COST CALCULATIONS

Subaccount:  Project Name:  Highway No.:

Construction Year ADT:  % Trucks:

### NON-CONSTRUCTION CONDITIONS

Posted Speed =  Length =  Miles

Travel Time = Mileage ÷ (Posted Speed ÷ 60 min/hr) = 0.67 Minutes

### CONSTRUCTION CONDITIONS

Total Construction Length including Detours:  Miles

	<u>*Length</u>		<u>Construction Speed MPH</u>		<u>Travel Time</u>
Segment 1:	<input type="text" value="0.5"/> Mi	÷	<input type="text" value="25"/>	x 60 =	<input type="text" value="1.20"/>
Segment 2:	<input type="text"/> Mi	÷	<input type="text"/>	x 60 =	<input type="text" value="0.00"/>
Segment 3:	<input type="text"/> Mi	÷	<input type="text"/>	x 60 =	<input type="text" value="0.00"/>
Segment 4:	<input type="text"/> Mi	÷	<input type="text"/>	x 60 =	<input type="text" value="0.00"/>

\*Segment Length Total: 0.5 Total Travel Time = 1.20 Minutes

\*Segment mileage should add up to Total Construction Length.

### TRAVEL TIME COSTS:

Delay Cost Factors:

Passenger Cars:  \$ / veh-hr of delay

Multi-Unit Trucks:  \$ / veh-hr of delay

	[%]	X	[ADT]	X	[COST FACT]	÷	60 min/hr =	Daily Cost per Minute of Delay
Passenger Car Component:	<u>0.96</u>	X	<u>2000</u>	X	<u>17.03</u>	÷	60 min/hr =	<u>\$544.96</u>
Truck Component:	<u>0.04</u>	X	<u>2000</u>	X	<u>33.86</u>	÷	60 min/hr =	<u>\$45.15</u>

Total Daily Cost per Minute of Delay = \$590.11

### ROAD USER COSTS

Construction Delay = Construction Travel Time - Non-Construction Travel Time = 0.53 Minutes

Total Resultant Delay Costs = 0.53 X \$590 = \$315 per day

USE

## ROAD USER COST CALCULATIONS

Subaccount:  Project Name:  Highway No.:

Construction Year ADT:  % Trucks:

### NON-CONSTRUCTION CONDITIONS

Posted Speed =  Length =  Miles

Travel Time = Mileage ÷ (Posted Speed ÷ 60 min/hr) = 0.40 Minutes

### CONSTRUCTION CONDITIONS

Total Construction Length including Detours:  Miles

	<u>*Length</u>		<u>Construction Speed MPH</u>		<u>Travel Time</u>
Segment 1:	<input type="text" value="0.5"/> Mi	÷	<input type="text" value="65"/>	x 60 =	<b>0.46</b>
Segment 2:	<input type="text"/> Mi	÷	<input type="text"/>	x 60 =	<b>0.00</b>
Segment 3:	<input type="text"/> Mi	÷	<input type="text"/>	x 60 =	<b>0.00</b>
Segment 4:	<input type="text"/> Mi	÷	<input type="text"/>	x 60 =	<b>0.00</b>

\*Segment Length Total: 0.5 Total Travel Time = 0.46 Minutes

\*Segment mileage should add up to Total Construction Length.

### TRAVEL TIME COSTS:

Delay Cost Factors:

Passenger Cars:  \$ / veh-hr of delay

Multi-Unit Trucks:  \$ / veh-hr of delay

	[%]	[ADT]	[COST FACT]		Daily Cost per Minute of Delay
Passenger Car Component:	<u>0.8</u>	X <u>17000</u>	X <u>17.03</u>	÷ 60 min/hr =	<b>\$3,860.13</b>
Truck Component:	<u>0.2</u>	X <u>17000</u>	X <u>33.86</u>	÷ 60 min/hr =	<b>\$1,918.73</b>

Total Daily Cost per Minute of Delay = \$5,778.87

### ROAD USER COSTS

Construction Delay = Construction Travel Time - Non-Construction Travel Time = 0.06 Minutes

Total Resultant Delay Costs = 0.06 X \$5,779 = \$356 per day

USE



**Appendix N**  
**Cost Estimate**

REFERENCE



**Project Cost Estimate**

**Project Name:** Kiowa-Bennett Road over I-70 (F-19-AF)

Project Number:

County: Adams

Sub-Account Number: 19928

Route: Kiowa-Bennett Road/I-70

Region: 1

Begin MP:

Project Description

End MP:

Bridge Enterprise Pre-scoping Project - Kiowa-Bennett Road over I-70: Conceptual Opinion of Probable Cost for Bridge Replacement

**PROJECT MAJOR CONSTRUCTION ITEMS**

Major Pavement Items	Unit	Unit Cost	Quantity	Cost
Removal of Asphalt Mat	SY	\$4	6,572	\$26,288.00
Embankment Material (Complete in Place)	CY	\$10	28,390	\$283,900.00
Aggregate Base Course	TON	\$25	3,066	\$76,650.00
Hot Mix Asphalt	TON	\$75	3,133	\$234,975.00
Guardrail Type 3 (6-3 Post Spacing)	LF	\$16	2,800	\$44,800.00
Estimated Cost: Remaining Pavement Items				5.00%
<b>Estimated Cost Pavement</b>				<b>\$699,944</b>

Structures	Length	Width	Unit Cost	Quantity	Cost
<b>Bridge Replacement</b>					
Bridge Replacement	240	43	\$130	10,320	\$1,341,600.00
				0	\$0.00
<b>Bridge Repair/Rehabilitation</b>					
				0	\$0.00
				0	\$0.00
<b>Walls</b>					
				0	\$0.00
				0	\$0.00
<b>Culverts</b>					
				0	\$0.00
				0	\$0.00
<b>Other Structures</b>					
				0	\$0.00
				0	\$0.00
<b>A. Total Major Items</b>					<b>\$2,041,544</b>

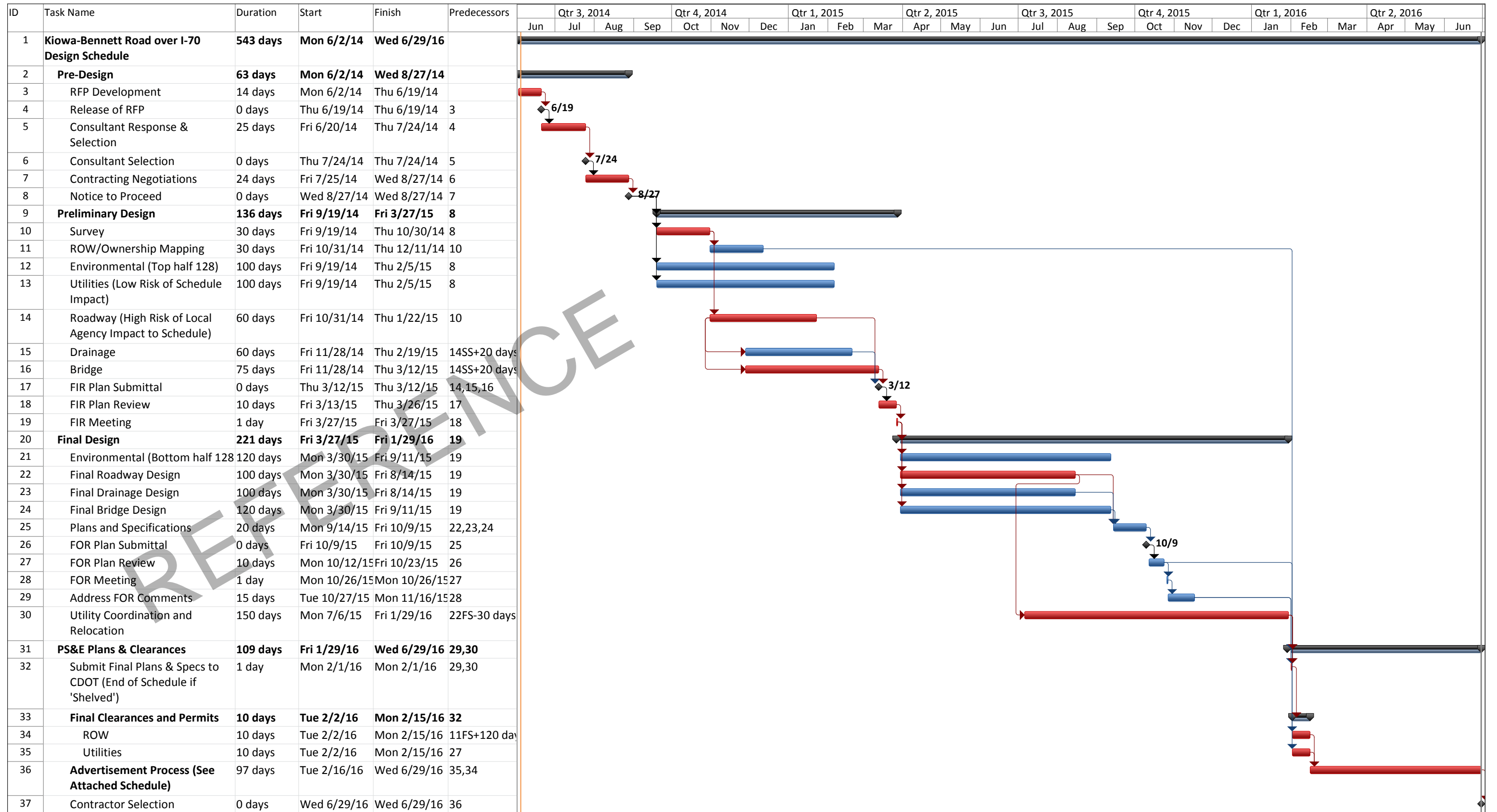
	% Major Item Cost		Category Cost
B-1 Drainage/Utilities	8.0%	of A	\$163,323
B-2 Earthwork	20.0%	of A	\$408,309
B-3 Environmental	12.5%	of A	\$255,193
B-5 Miscellaneous	4.0%	of A	\$81,662
B-6 Mobilization	13.0%	of A	\$265,401
B-7 Removals/Resets	2.0%	of A	\$40,831
B-8 Roadway	9.0%	of A	\$183,739
B-9 Signing and Striping	2.0%	of A	\$40,831
B-10 Traffic/Lighting/ITS	2.0%	of A	\$40,831
B-11 Traffic Control/Detour	8.0%	of A	\$163,323
B-12 Structural - Minor Structural/Walls	1.0%	of A	\$20,415
B-13 Bid Force Accounts	2.0%	of A	\$40,831
<b>B. TOTAL OF BID CONSTRUCTION ITEMS</b>			<b>\$3,746,233</b>
C-1 Force Account - Misc.	8.0%	of B	\$299,699
C-2 Minor Contract Revisions	15.0%	of B	\$561,935
<b>C. TOTAL BID CONSTRUCTION &amp; FORCE ACCOUNT ITEMS</b>			<b>\$4,607,866</b>
D-1 Design Engineering	12.0%	of C	\$552,944
D-2 Construction Engineering	22.1%	of C	\$1,018,338
<b>D. TOTAL PROJECT DESIGN AND CONSTRUCTION</b>			<b>\$6,179,148</b>
E-1 Right-of-Way	\$0.25 /SF	0.05 Acres	\$1,000
E-2 Utilities	4.0%	of D	\$247,166
<b>E. TOTAL PROJECT DESIGN AND CONSTRUCTION</b>			<b>\$6,427,314</b>
F. CONTINGENCY	15.0%	of D1, D2, E1, E2	\$272,917
<b>G. TOTAL PROJECT COST ESTIMATE</b>			<b>\$6,700,232</b>

REFERENCE

**Appendix O**

**Schedule**





Project: Kiowa-Bennett.mpp Date: Wed 6/4/14	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Critical	
	Milestone		External Milestone		Manual Task		Start-only		Critical Split	
	Summary		Inactive Task		Duration-only		Finish-only		Progress	

ID	Task Name	Duration	Start	Finish	Predecessors	March					April				May				June				Jul								
						2/14	2/21	2/28	3/6	3/13	3/20	3/27	4/3	4/10	4/17	4/24	5/1	5/8	5/15	5/22	5/29	6/5	6/12	6/19	6/26						
1	<b>Advertisement Process - Kiowa-Bennett Rd over I-70</b>	<b>97 days</b>	<b>Tue 2/16/16</b>	<b>Wed 6/29/16</b>																											
2	<b>Final Plan Package</b>	<b>44 days</b>	<b>Tue 2/16/16</b>	<b>Fri 4/15/16</b>																											
3	Final Plan and Spec Package Assembly	1 day	Tue 2/16/16	Tue 2/16/16																											
4	Review Final Plan Package	1 day	Wed 2/17/16	Wed 2/17/16	3																										
5	Put on Shelf (Ready for Ad)	0 days	Wed 2/17/16	Wed 2/17/16	4																										
6	Submit PS&E Plans and Specs to FHWA for Review	14 days	Thu 2/18/16	Tue 3/8/16	4																										
7	Receive/Address FHWA Comments	14 days	Wed 3/9/16	Mon 3/28/16	6																										
8	Request Final Pricing	14 days	Tue 3/29/16	Fri 4/15/16	7																										
9	<b>Advertisement Process</b>	<b>95 days</b>	<b>Thu 2/18/16</b>	<b>Wed 6/29/16</b>	<b>6</b>																										
10	Complete Form 859a and Construction Schedule	14 days	Thu 2/18/16	Tue 3/8/16	4																										
11	Complete Final 463 Form	5 days	Thu 2/18/16	Wed 2/24/16	4																										
12	Request UDBE and OJT Goals from EEO	7 days	Mon 4/18/16	Tue 4/26/16	8																										
13	Obtain Env (Form 128, bottom) or EA Crt Ltr	3 days	Tue 3/29/16	Thu 3/31/16	7																										
14	Budget Action Request - C Phase	1 day	Mon 4/18/16	Mon 4/18/16	8																										
15	Submit 1180 (Hard Copy & SAP)	2 days	Tue 4/19/16	Wed 4/20/16	14																										
16	Obligation Packets Process by BO	2 days	Thu 4/21/16	Fri 4/22/16	11,13,15																										
17	Obligation Packets Process by OFMB	2 days	Mon 4/25/16	Tue 4/26/16	16																										
18	Obligation Packets Process by FHWA	2 days	Wed 4/27/16	Thu 4/28/16	17																										
19	Submit PS&E Package to FHWA for Concurrence	14 days	Tue 4/19/16	Fri 5/6/16	15SS																										
20	FHWA Approval Date	1 day	Fri 5/6/16	Fri 5/6/16	19FF																										
21	Create Pur. Req. in SAP & Generate N.T.C. in Transport	1 day	Mon 5/9/16	Mon 5/9/16	20																										
22	Submit PS&E to Repro along with Form 155 and 644	1 day	Wed 5/11/16	Wed 5/11/16	21FS+1 day																										
23	Email Authorization Letter to Advertise Project	1 day	Wed 5/11/16	Wed 5/11/16	22FF																										
24	Advertise Date	1 day	Wed 6/1/16	Wed 6/1/16	23FS+14 days																										
25	4 Week Advertisement	20 days	Thu 6/2/16	Wed 6/29/16	24																										
26	Contractor Selection	0 days	Wed 6/29/16	Wed 6/29/16	25																										

Project: Kiowa-Bennett\_AdSchedu  
Date: Wed 6/4/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Critical	
Milestone		External Milestone		Manual Task		Start-only		Critical Split	
Summary		Inactive Task		Duration-only		Finish-only		Progress	

**Appendix P**  
**References and Specific Design Criteria**

REFERENCE



**DESIGN CRITERIA**

Kiowa-Bennett Road over I-70			
Design Element	Kiowa-Bennett Road	I-70	Reference
<b>GENERAL</b>			
Functional Classification	Rural Arterial	Interstate	CDOT 2005, 1.1, pg. 1-2
Posted Speed Limit (mph)	45	75	
Design Speed	50	80	
Design Vehicle	WB-67	WB-109D	AASHTO PGDHS 2011, Table 2-1b, pg. 2-4 CDOT 2005, Table 9-3
<b>HORIZONTAL ALIGNMENT</b>			
Number of Lanes	2 initial 3 future	4 initial 4 future	SH 79 and Kiowa-Bennett Corridor PEL Study (2013)
Horizontal Curve Radius (feet)	833 ft (min) (e=6%)	2670 ft (min) (e=8%)	CDOT M-203-12 AASHTO PGDHS 2011, Tables 3-9 and 3-10b
Lane Widths (feet)	14	12	CDOT 2005, 8.1.4, pg. 8-2 SH 79 and Kiowa-Bennett Corridor PEL Study (2013)
Median Width (feet)	N/A	60 ft	<i>Existing 60-foot median on I-70</i>
Min Curb Return Radius (feet)	20	N/A	CDOT Highway Access Code 4.6
Standard Cross Slope	2%	2%	CDOT 2005, 4.1.2, pg. 4-2
Acceleration Lane Length	550 ft	<1590 ft	CDOT Highway Access Code Table 4-6
Deceleration Lane Length	435 ft	<900 ft	CDOT Highway Access Code Table 4-6
Accel/Decel Taper Ratio	13.5:1	25:1	CDOT Highway Access Code Table 4-6
Intersection Minimum Sight Distance (left)	555 ft	N/A	AASHTO PGDHS, 2001, Table 9-6, Passenger Car, Left Turn from Stop
Intersection Minimum Sight Distance (right)	480 ft	N/A	AASHTO PGDHS, 2001, Table 9-8, Passenger Car
Superelevation (e <sub>max</sub> )	6%	8%	AASHTO PGDHS 2011, Tables 3-9 and 3-10, pg. 3-45 and 3-47
<b>Shoulder Widths</b>			
Left Inside (feet) minimum/desirable	N/A	10 / 12	CDOT 2005, 8.1.4, pg. 8.2
Right Outside (Feet)	6	12	CDOT 2005, 8.1.4, pg. 8.2, AASHTO PGDHS 2011, pg. 10-102, Arapahoe County 2035 Transportation Plan
<b>VERTICAL ALIGNMENT</b>			
Crest Vertical Curve Rate, Min K	84	384	CDOT 2005, 3.1.2 Table 3-1, pg. 3-2
Sag Vertical Curve Rate, Min K	96	231	CDOT 2005, 3.1.2 Table 3-1, pg. 3-2
Stopping Sight Distance (feet)	84	910	AASHTO PGDHS 2011, Table 3-34, pg. 3-155
Grade (maximum / minimum)	5% / 0.5%	4% / 0.5%	CDOT 2005, Sec. 3.3.3
<b>Minimum Vertical Clearance at Structures (feet)</b>			
Highways/Streets (feet)	N/A	16.5	CDOT 2005, 3.3.2 Table 3-3, pg. 3-31
Overhead Wires	N/A	21.5	CDOT 2005, 3.3.2 Table 3-3, pg. 3-31
<b>ALTERNATIVE MODES</b>			
Sidewalk Width (feet)	5 - 10 future	N/A	Town of Bennett Downtown Planning Study (2010)
<b>On-Street Bike Lanes</b>			
Shoulder Minimum Width (feet)	6	N/A	Arapahoe County 2035 Transportation Plan

## References

1. **AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)**

**PUBLICATIONS** (using latest approved versions):

- A. A Policy on Design Standards-Interstate System
- B. A Policy on Geometric Design of Highways and Streets
- C. Guide for Design of Pavement Structures
- D. Standard Specifications for Highway Bridges
- E. Guide for the Design of High Occupancy Vehicle and Public Transfer Facilities
- F. Guide for the Development of Bicycle Facilities
- G. Standard Specifications for Transportation Materials and Methods of Sampling and Testing – Part 1, Specifications and Part II, Tests
- H. Highway Design and Operational Practices Related to Highway Safety
- I. Roadside Design Guide
- J. Load Resistance Factor Design (LRFD) Specifications

2. **COLORADO DEPARTMENT OF TRANSPORTATION PUBLICATIONS** (using latest approved versions):

- A. Design Guide (all volumes)
- B. Bridge Design Manual
- C. Bridge Detailing Manual
- D. Bridge Rating Manual
- E. Project Development Manual
- F. Erosion Control and Stormwater Quality Guide
- G. Field Log of Structures
- H. Cost Data Book
- I. Drainage Design Manual
- J. NEPA Manual
- K. Environmental Stewardship Guide
- L. Quality Manual
- M. Survey Manual
- N. Field Materials Manual
- O. Standard Plans, M & S Standards
- P. Standard Specifications for Road and Bridge Construction and Supplemental Specifications
- Q. Item Description and Abbreviations (with code number) compiled by Engineering Estimates and Market Analysis Unit (“Item Book”)
- R. Right-of-Way Manual
- S. The State Highway Access Code
- T. Utility Manual
- U. Noise Guidance





3. **CDOT PROCEDURAL DIRECTIVES** (using latest approved versions):

- A. No. 27.1 Social Marketing – Use of Web 2.0 and Similar Applications
- B. No. 31.1 Web Site Development
- C. No. 400.2 Monitoring Consultant Contracts
- D. No. 500.1 Plans, Specifications and Estimates (PS&E) and Authorization to Advertise for Bids under Certifications Acceptance (CA)
- E. No. 500.5 Local Entity/State Contracts and Local Entity/Consultant Contracts and Local Entity/R.R. Contracts under CA
- F. No. 501.2 Cooperative Storm Drainage System
- G. No. 514.1 Field Inspection Review (FIR)
- H. No. 516.1 Final Office Review (FOR)
- I. No. 1217a Survey Request
- J. No. 1304.1 Right-of-Way Plan Revisions
- K. No. 1305.1 Land Surveys
- L. No. 1601.1 Interchange Approval Process
- M. No. 1700.1 Certification Acceptance (CA) Procedures for Location and Design Approval
- N. No. 1700.6 Railroad/Highway Contracts (Under Certification Acceptance)
- O. No. 1905.1 Preparation of Plans and Specifications for Structures prepared by Staff Bridge Branch

4. **FEDERAL PUBLICATIONS** (using latest approved versions):

- A. Manual on Uniform Traffic Control Devices
- B. Highway Capacity Manual
- C. Urban Transportation Operations Training – Design of Urban Streets, Student Workbook
- D. Reference Guide Outline – Specifications for Aerial Surveys and Mapping by Photogrammetric Methods for Highways
- E. Executive Order 12898
- F. FHWA Federal-Aid Policy Guide
- G. Technical Advisory T6640.8A
- H. U.S. Department of Transportation Order 5610.1E
- I. Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques
- J. ADAAG Americans With Disabilities Act Accessibility Guidelines
- K. 23 CFR 771, the FHWA Technical Advisory T6640.8A

5. **AREA:**

- A. Manual for Railway Engineering
- B. Any appropriate local agencies references as appropriate



## Specific Design Criteria

**Note:** The following criteria will be developed by the consultant and coordinated with the CDOT/PM prior to starting the design. The Consultant shall develop the CDOT Form 463 and insert a copy upon completion.

### 1. ROADWAY

#### A. BASIC DESIGN

The basis for design will be the data in CDOT Form 463, Design Data. A copy of the latest applicable design Data form will be furnished to the consultant.

#### B. GEOMETRIC AND STRUCTURE STANDARDS:

- a Design Speed, horizontal alignment, curvature, vertical alignment, sight distance and superelevation is specified in Form 463
- b Use of Spirals – not applicable
- c Passing Sight Distance
- d Decision Sight Distance
- e Frontage Roads, Separation Width
- f CDOT Access Code
- g Airway – Highway Clearances Design Guide
- h Bridges and Grade Separation Structures, Clearances to Structures and Obstructions, CDOT Design Guide
- i Curb and Gutters, Type

#### C. GEOMETRIC CROSS SECTION are as specified in Form 463

#### D. INTERSECTIONS AT GRADE:

- a Type
- b Special Considerations

#### E. TRAFFIC INTERCHANGES:

- a Type
- b Ramp Type
- c Special Considerations

#### F. DESIGN OF PAVEMENT STRUCTURE:

- a Pavement Type & Percent Trucks are as specified in Form 463
- b Economic Analysis Period
- c Design Life

#### G. MISCELLANEOUS DESIGN CONSIDERATIONS:

- a Fence Type
- b FEMA Category
- c Design Flood Frequency



H. ROADSIDE DEVELOPMENT

- a Landscaping
- b Specifications for Re-vegetating Disturbed Areas to be provided by CDOT
- c Noise Control
- d Type
- e Guardrail and End Treatments -

I. LIGHTING:

- a Type

REFERENCE



REFERENCE

**Appendix Q**  
**Bridge Prioritization Plan**





Project:	F-19-AF	SIA 5/28/13
By:	MEK	Checked: Initials
Date:	2/26/2014	0/0/00
Sheet No.	1 of	2

**Bridge Prioritization Plan**

**Scoring Worksheet**

Major Criteria	Point totals	Sub-Criteria
----------------	--------------	--------------

**Bridge Designation**  
(pick one)

**8**

- Structurally Deficient
- Functionally Obsolete
- None

**Sufficiency Rating**  
(pick one)  
Rating = 46.8

**3**

- < than 30.0
- 30.1 to 40.0
- 40.1 to 49.9
- > than 50.0

**Bridge Condition or Structural Condition**  
(select if relevant)  
Superstructure = 4  
Sub-structure = 5  
Deck = 3

**14.5**

- Load Restricted
- Scour Critical rating ≤ 4
- Sub-structure rating ≤ 4
- Superstructure rating ≤ 4
- Deck structure rating ≤ 4
- Insufficient vertical clearance

**Average Daily Traffic**  
(pick one)  
ADT = 1100

**1**

- 0 - 400
- 401 - 5,000
- 5,001 - 15,000
- 15,001 - 25,000
- 25,001 +

**% of Truck Traffic**  
(pick one)  
TT = 22%

**4**

- Group Box 52
- Low (TT < 5%)
  - Medium (6% to 10%)
  - High (TT > 10%)

**Bridge Importance**  
(select if relevant)  
Detour = 4 mile

**3**

- Emergency/Evacuation Route
- Located along National Interstate Highway System
- Primary Access to Local Community
- Located along economic strategic corridor; freight, tourism, AG, oil/gas, etc.
- Historic Structure
- Significant pedestrian/bike crossing (CSS)

**Economic Factors / Impacts**  
(select if relevant)

**2**

- Rehabilitation
- Replacement
- Combine structure repair/replacement with companion bridge
- Combine structure with adjacent roadway improvement project
- Continued significant long-term maintenance and/or interim repair costs

**Other Factors or Issues**  
(select if relevant)

Identify other item(s) not listed above that positively/negatively impact rehabilitation or replacement of the structure. Use judgement to assign ± 5 points. Describe items in this text box.

**Structure Score 35.5**

COUNTY ROAD over I 70 ML

8/20/2013 review with Region 1: Steve Olson and Andy Pott



Project:	F-19-AF		
By:	MEK	Checked:	Initials
Date:	41696		0/0/00
Sheet No.	2 of		2

Bridge Prioritization Plan

Workflow

