

HABS/HAER INVENTORY

U.S. Department of the Interior
National Park Service
Washington, DC 20240

1. SITE I.D. NO

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2. NAME(S) OF STRUCTURE

Costilla Crossing Bridge; State Bridge CN01
Bridge over Rio Grande River
CDH: CON14.6E-00.ON

5. ORIGINAL USE

roadway bridge

7. CLASSIFICATION

BT&A: TRUSS: WROUGHT IRON

7 6 0 2

9. RATING

national

10. DATE

1892

3. SITE ADDRESS (STREET & NO)

County Road over Rio Grande River
13.8 miles east of Antonito
SE¼ S22, T33N, R11E

6. PRESENT USE

roadway bridge

8

UTM ZONE

EASTING

NORTHING

1

3

4

3

2

7

8

0

4

1

0

3

6

5

0

0

0

0

0

0

11. REGION

RMRO

4. CITY/VICINITY

Antonito vicinity

COUNTY

Conejos

STATE

Colorado

SCALE

1:24

1:62.5

QUAD

NAME Kiowa Hill

12. OWNER/ADMIN ADDRESS

Conejos County Conejos County Courthouse Box 127 Conejos Colorado 81129

13. DESCRIPTION AND BACKGROUND HISTORY INCLUDING CONSTRUCTION DATE(S), PHYSICAL DIMENSIONS, MATERIALS, MAJOR ALTERATIONS, EXANT EQUIPMENT, AND IMPORTANT BUILDERS, ARCHITECTS, ENGINEERS, ETC.

Pin/rigid-connected, 8-panel iron/steel Thatcher through truss

span number: 2 end/top chrd: 4 Z-sections w/continuous plate; 2 channels w/lacing
span length: 155'4" bottom chord: 2 rectangular eyebars
overall length: 313'6" vertical: 2 square eyebars; 4 angles w/ lacing
overall height: 25'0" diagonal: 2 square or rectangular eyebars; 2 channels w/ lacing
clearance hgt.: 17'6" flr./decking: timber decking w/timber/log/steel stringers and tapered
roadway width: 15'8" built-up steel floor beams
substructure: stone abutments w/ steel-cased concrete twin-tube pier

In April 1891 the Colorado State Legislature appropriated \$10,000 for a bridge at the Costilla Crossing of the Rio Grande River between Costilla and Conejos counties. Rather than design the bridge as usual, the State Engineer solicited plans and specifications with the competitive bids from bridge companies. The response was unprecedented: 38 proposals were submitted. In February 1892, the construction contract was awarded to the Wrought Iron Bridge Company of Canton, Ohio, for \$8400. Using wrought and cast iron and steel components, the contractor erected this two-span Thatcher truss that year, completing it by the end of August. Once a pivotal crossing of the river in southern Colorado, the bridge now serves as an isolated and relatively minor span. Its condition is unaltered.

14. CONDITION

☐ EXCELLENT

☐ GOOD

☒ FAIR

☐ DETERIORATED

☐ RUINS

15. DANGER OF DEMOLITION?
(SPECIFY THREAT)

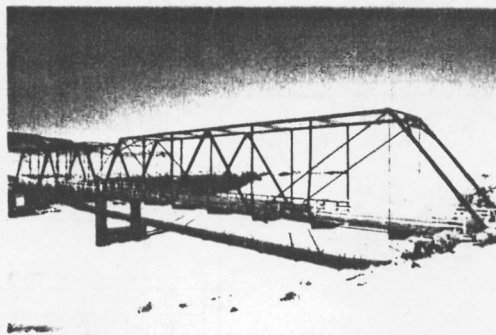
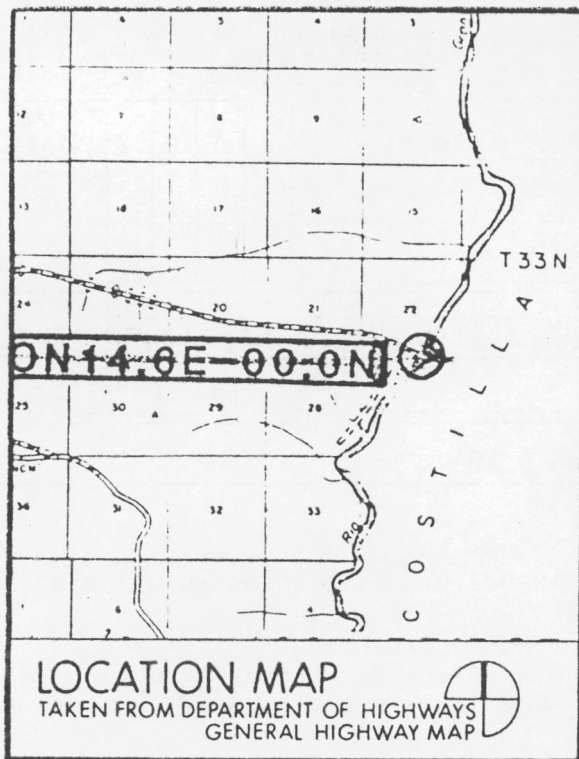
☒ YES

☐ NO

☐ UNKNOWN

16. SIGNIFICANCE AREA OF SIGNIFICANCE: Engineering

Edwin Thatcher, Chief Engineer of the Keystone Bridge Company, patented a namesake truss in 1884. An innovative structural type, it never quite caught on, and Wrought Iron Bridge was apparently the only bridgebuilder to manufacture all-metal versions of it. With perhaps 30-40 ever built in the country, only three are known to exist today, including the Costilla Crossing Bridge. This bridge is historically significant as the oldest vehicular truss in southern Colorado and one of the oldest in the state, the oldest still-functioning State Bridge, one of the few bridges left in Colorado with iron components and one of only two roadway bridges in the survey erected by Wrought Iron Bridge before that firm was absorbed to form the gargantuan American Bridge Company. In absolutely pristine condition, the Costilla Crossing Bridge is one of the last of its type - the state's most technologically significant vehicular bridge.



18. LOCATED IN AN HISTORIC DISTRICT?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NAME							
19. PUBLIC ACCESSIBILITY		<input type="checkbox"/> YES, LIMITED <input checked="" type="checkbox"/> YES, UNLIMITED <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN		20. EXISTING SURVEYS					
				<input type="checkbox"/> NR <input type="checkbox"/> NHL <input type="checkbox"/> HABS <input type="checkbox"/> HAER-1 <input type="checkbox"/> HAER <input type="checkbox"/> NPS <input checked="" type="checkbox"/> STATE <input type="checkbox"/> COUNTY <input type="checkbox"/> LOCAL <input type="checkbox"/> OTHER					

21. REFERENCES—HISTORICAL REFERENCES, PERSONAL CONTACTS, AND/OR OTHER

Structure Inventory and Appraisal: CON14.6E-00.ON. Colorado Department of Highways, Denver Colorado.

6th Biennial Report of the State Engineer, Colorado: 1891-1892. Denver, Colorado: Smith-Brooks Printing Company, 1892, pages 368-69.

Highway Planning Survey photograph, 30 September 1936. Colorado Department of Highways, Denver Colorado.

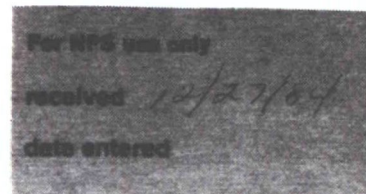
Donald Jackson, HAER Historian. Oral interview with Clayton Fraser, 13 January 1984.

Field inspection by Clayton Fraser, 3 January 1984.

Builder's plate on bridge portal: "1892 Built by Wrought Iron Bridge Co. Canton Ohio."

"Organization of the American Bridge Company." Electrical World and Engineer, Vol. XXXVI, Number 1 (7 July 1900). page 38.

22. INVENTORIED BY		AFFILIATION		DATE
Clayton Fraser and Carl Hallberg		Fraserdesign Loveland Colorado		13 January 1984

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Inventory—Nomination Form

Continuation sheet

Item number

Page 2 of 6

Multiple Resource Area
Thematic GroupName Vehicular Bridges in Colorado Thematic Resources
State COLORADO

Nomination/Type of Review

Date/Signature

11. Avondale Bridge

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

12. Black Bridge

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

13. Bridge over Fountain Creek

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

14. Bridge No. 10/Adelaide
BridgeEntered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

15. Broadway Bridge

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

16. Commercial Street Bridge

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

17. Costilla Crossing Bridge

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

18. Delta Bridge

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

19. Elson Bridge

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

20. Escalante Canon Bridge

Entered in the
National Registerfor
Keeper

Melvyn Byers 2/4/85

Attest

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Costilla Crossing Bridge (Vehicular Bridges in
Colorado TR)
Conejos County
COLORADO

- ☐ resubmission
☐ nomination by person or local government
☐ owner objection
☐ appeal

Substantive Review: ☐ sample ☐ request ☐ appeal ☐ NR decision

Reviewer's comments:

Working No. DEC 27 1984
Fed. Reg. Date: 2/4/86
Date Due: 1/24/85 - 2/10/85
Entered Action ☒ ACCEPT 2-4-85
National Register ☐ RETURN
☐ REJECT
Federal Agency: _____

Recom./Criteria _____
Reviewer _____
Discipline _____
Date _____
_____ see continuation sheet

Nomination returned for: _____ technical corrections cited below
_____ substantive reasons discussed below

1. Name

2. Location

3. Classification

Category	Ownership	Status	Present Use
	Public Acquisition	Accessible	

4. Owner of Property

5. Location of Legal Description

6. Representation in Existing Surveys

Has this property been determined eligible? ☐ yes ☐ no

7. Description

Condition

- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> excellent | <input type="checkbox"/> deteriorated |
| <input type="checkbox"/> good | <input type="checkbox"/> ruins |
| <input type="checkbox"/> fair | <input type="checkbox"/> unexposed |

Check one

- ☐ unaltered
☐ altered

Check one

- ☐ original site
☐ moved date _____

Describe the present and original (if known) physical appearance

- ☐ summary paragraph
☐ completeness
☐ clarity
☐ alterations/integrity
☐ dates
☐ boundary selection

8. Significance

Period Areas of Significance—Check and justify below

Specific dates Builder/Architect

Statement of Significance (*in one paragraph*)

- ☐ summary paragraph
- ☐ completeness
- ☐ clarity
- ☐ applicable criteria
- ☐ justification of areas checked
- ☐ relating significance to the resource
- ☐ context
- ☐ relationship of integrity to significance
- ☐ justification of exception
- ☐ other

9. Major Bibliographical References

10. Geographical Data

Acreage of nominated property _____

Quadrangle name _____

UTM References _____

Verbal boundary description and justification _____

11. Form Prepared By

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

_____ national _____ state _____ local

State Historic Preservation Officer signature

title

date

13. Other

- ☐ Maps
- ☐ Photographs
- ☐ Other

Questions concerning this nomination may be directed to _____

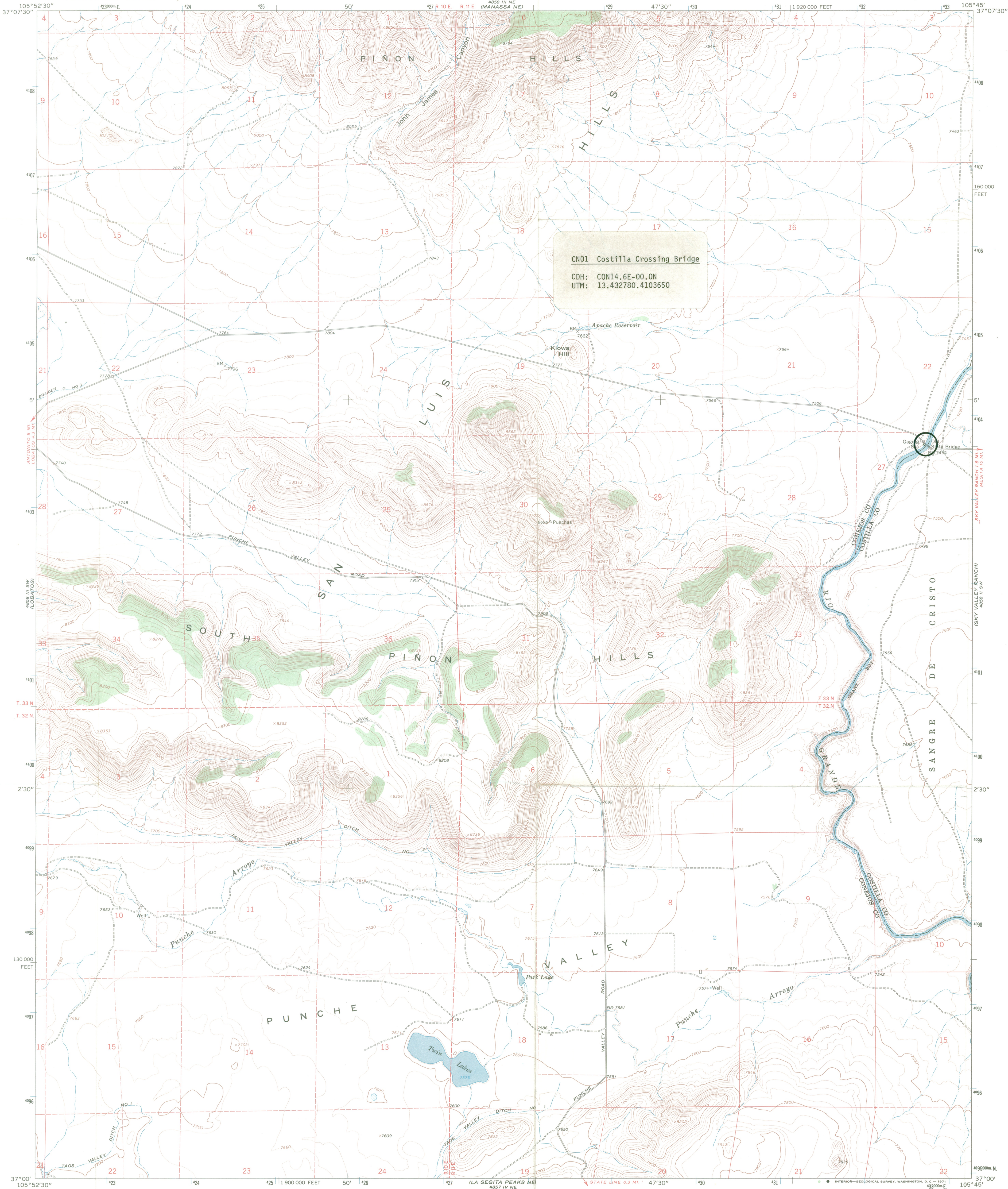
Signed _____ Date _____ Phone: _____

Comments for any item may be continued on an attached sheet



CN01 Costilla Crossing Bridge 12
Antonito vicinity Colorado
view from northeast

Clayton B. Fraser, photographer
Loveland Colorado
3 January 1984



Maped, edited, and published by the Geological Survey

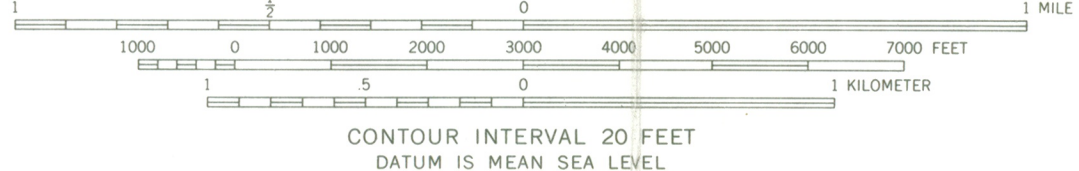
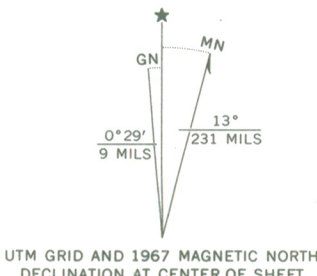
Control by USGS and USC&GS

Topography by photogrammetric methods from aerial
photographs taken 1965. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Colorado coordinate system,
south zone

1000-meter Universal Transverse Mercator grid ticks,
zone 13, shown in blue

Fine red dashed lines indicate selected fence lines



ROAD CLASSIFICATION
Light-duty ————— Unimproved dirt —————

KIOWA HILL, COLO.
N3700—W10545/7.5

1967

AMS 4858 III SE—SERIES V877