

COLORADO DEPARTMENT OF TRANSPORTATION



Region One
18500 East Colfax Avenue
Aurora, Colorado 80011
Phone: (303) 757-9744 FAX: (303) 757-9746

SURVEY UNIT: Joseph P. Conway

Sheet Revisions

SH 24 MP 374.9 to MP 376.8

Located in Sections 13, 14, 23, 24
T.9S. R.57W. of the 6th P.M.
Elbert County, and
Section 18,
T.9S. R.56W. of the 6th P.M.
Lincoln County, Colorado

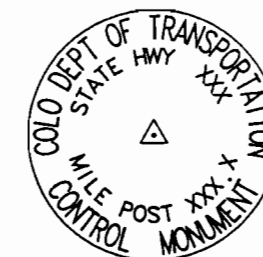
SURVEY

CONTROL DIAGRAM

FC-NH(CX) 024-3(036)

SH 24 S.W. of Limon

PROJECT CODE: 91044 SHEET NUMBER: 1 of 4



Typical Control
Monument Cap
Not to Scale

PROJECT COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA FEET)

POINT NAME		PROJECT COORDINATES		ELEV(ft)	DESCRIPTION
		NORTH (ft)	EAST (ft)		
SH 24 CM-MP 375.2		51770.44	63649.62	5413.78	CDOT Type II Control Monument
US 24 CM-MP 375.6	(Not Found)	52584.37	65584.09	5434.25	CDOT Type II Control Monument
SH 24 CM-MP 376.1		53763.30	68045.22	5407.95	CDOT Type II Control Monument
SH 24 CM-MP 376.3	(Not Found)	53892.02	68862.38	5379.64	CDOT Type II Control Monument
SH 24 CM-MP 376.6		55047.21	70183.48	5395.89	CDOT Type II Control Monument
SH 24 CM-MP 376.9		54927.40	71498.27	5388.06	CDOT Type II Control Monument

CM-MP - Control Point Monuments set by CDOT. They are CDOT type 2 monuments, a 3-1/4" dia. aluminum control monument cap (as shown) on a 3' X 3/4" dia. flined aluminum security rod on a 3' X 3/4" dia. smooth aluminum rod.

BASIS OF BEARINGS: Bearings used in the calculation of coordinates are based on an assumed bearing of N 84°47'36" W from SH 24 CM-MP 376.9 to SH 24 CM-MP 376.6.

BASIS OF ELEVATIONS: Project is based on a U.S. Coast and Geodetic Survey (USCGS) benchmark R 92 1935, a found 3-1/2" brass cap set in the S.W. concrete footing of a water tower with an elevation of 5369.61' NGVD 1929 datum. R 92 1935 is part of Colorado Line 65, a second order line leveled in 1935. (For levels on this project, see CDOT project STA 071A-012, and field book 93010 in box 275.)

COORDINATE DATUM: Project coordinates are on an assumed datum.

NOTE: This control survey is for the use of the Colorado Department of Transportation personnel. The survey is not a complete boundary survey and does not subdivide land. Title policy, title commitment, and title research were not part of this control survey, therefore, easements, rights, and restrictions of record are not shown. The verification of the physical evidence with relation to easements, rights of way, property boundaries, and restriction, as described in the instruments of record, were not included in this control survey.

NOTE: No guarantee as to the accuracy of the information contained on the attached drawing is either stated or implied to any persons or entity unless this copy bears an original signature of the professional land surveyor hereon named, naming such persons or entity in the surveyor's statement.

NOTE: Refer to M-629-1 Survey Monuments of the Standard Plans, Colorado Department of Transportation, M & S Standards November 1992 for survey monument descriptions. Refer to M-100-1 Standard Symbols of the Standard Plans, Colorado Department of Transportation, M & S Standards November 1992 for standard symbol definitions.

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 statement shown hereon.

SURVEYORS STATEMENT: I, Joseph P. Conway, a Professional Land Surveyor in the State of Colorado, hereby state that this Control Survey Diagram was prepared under my direct supervision this 7th day of July, 1999, from a field survey performed under my supervision and checking from November, 1999 to June, 1999, for and on behalf of the Department of Transportation, State of Colorado, and is not a Land Survey Plat or Right-of-Way Survey Plat and to the best of my knowledge and belief this control survey, as shown, meets the minimum horizontal control tolerances of a CDOT Type B Survey, as listed in Chapter Three of the Colorado Department of Transportation 1992 Survey Manual.

CONSTRUCTION SURVEYING AND MONUMENTATION REQUIREMENTS:

- 1). This Control Survey Diagram represents the horizontal and vertical control for the project established by the Division. It is possible that some of the survey control monuments listed have been disturbed or obliterated. It is the Contractor's responsibility to verify the existence and stability of the control monuments before submitting a bid price.
- 2). All Type 1 and Type 2 monuments shall be set flush with the ground. Witness posts shall be installed 1 foot from and facing all Type 1 and Type 2 monuments, or as directed by the Project Engineer.
- 3). Installation of Type 3 and Type 3-A monuments shall be completed in the same day that installation is commenced. Under no circumstances shall holes in the roadway be left open overnight.
- 4). When installing Type 3-A monuments, the aluminum monument box shall be positively secured in the roadway surface. The monument box shall be caulked with asphalt caulking between the monument box and the edges of the roadway surface to provide a positive moisture barrier around the monument box.
- 5). Control survey procedures, statistical analysis, and accuracy obtained for horizontal and vertical control shall be documented in the field book.
- 6). Legible copies of the field books shall be submitted to the Project Engineer for review on a monthly basis.
- 7). It is ultimately the prime Contractor's responsibility to insure that these requirements, as well as any contained in the CDOT specifications, project special provisions, and CDOT Survey Manual are fulfilled under this contract.
- 8). The minimum staking intervals for each item are described on the plans or in the CDOT Survey Manual. If the contractor wishes to reduce the minimum intervals, a Contract Modification Order must be negotiated and the cost of the item reduced accordingly.

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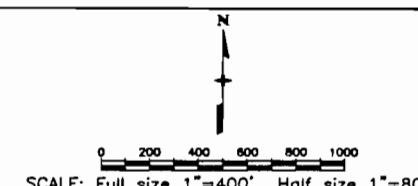
SURVEY

CONTROL DIAGRAM

FC-NH(CX) 024-3(036)

SH 24 S.W. of Limon

PROJECT CODE: 91044 SHEET NUMBER: 2 of 2



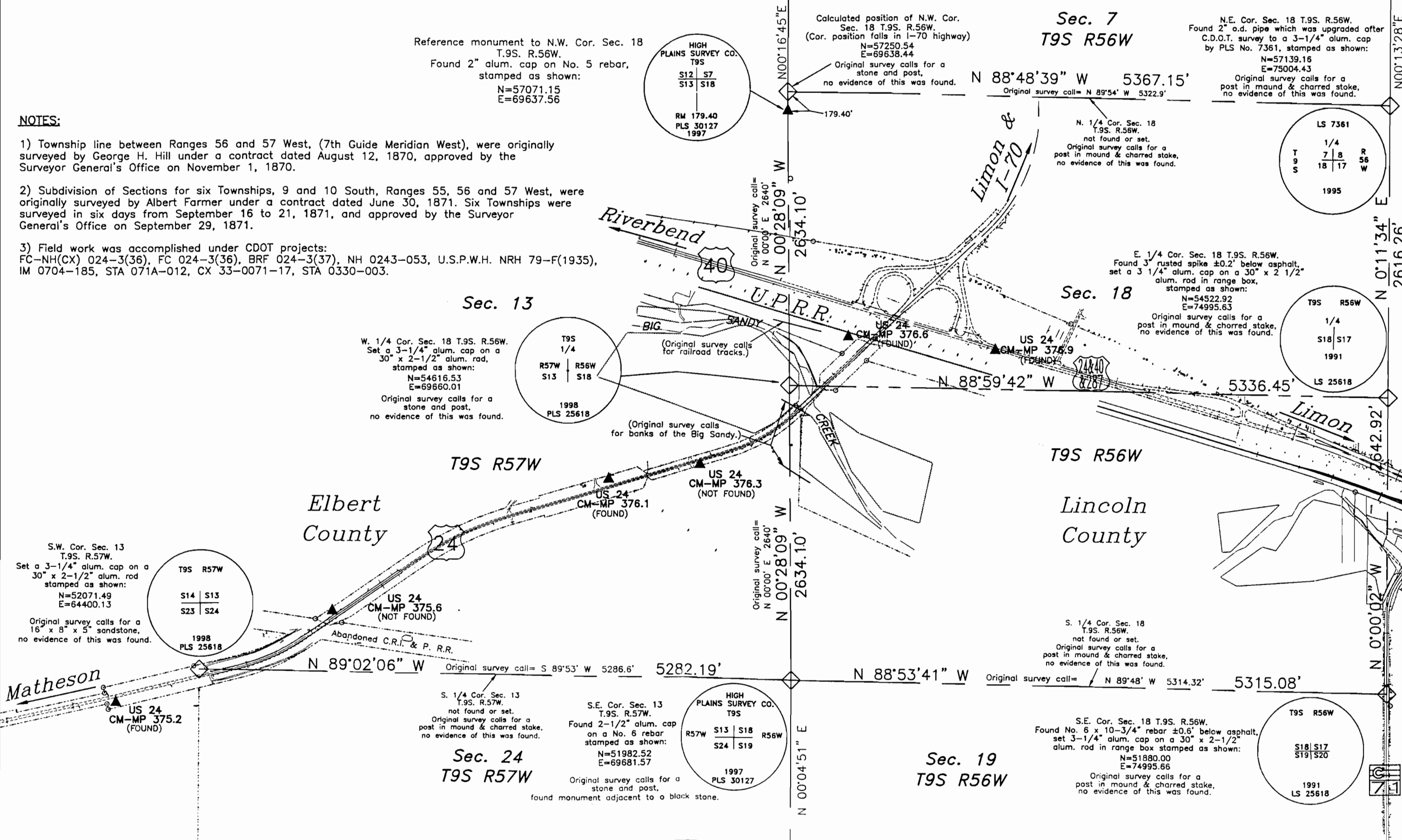
NOTES:

- 1) Township line between Ranges 56 and 57 West, (7th Guide Meridian West), were originally surveyed by George H. Hill under a contract dated August 12, 1870, approved by the Surveyor General's Office on November 1, 1870.
- 2) Subdivision of Sections for six Townships, 9 and 10 South, Ranges 55, 56 and 57 West, were originally surveyed by Albert Farmer under a contract dated June 30, 1871. Six Townships were surveyed in six days from September 16 to 21, 1871, and approved by the Surveyor General's Office on September 29, 1871.
- 3) Field work was accomplished under CDOT projects:
FC-NH(CX) 024-3(36), FC 024-3(36), BR 024-3(37), NH 0243-053, U.S.P.W.H. NRH 79-F(1935), IM 0704-185, STA 071A-012, CX 33-0071-17, STA 0330-003.

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91044csd1.dwg 26 July 1999 13:01:36.7 PLOT/EDIT by D.A.S.



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SURVEY

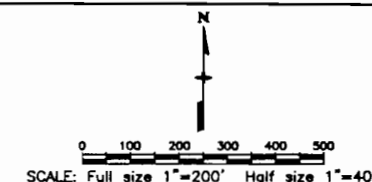
CONTROL DIAGRAM

FC-NH(CX) 024-3(036)

SH 24 S.W. of Limon

PROJECT CODE: 91044

SHEET NUMBER: 3 of 4



NOTE: Typical found S.H.D. R-O-W 3-1/4" Brass Cap in deteriorated concrete post.

Sec. 14
T9S R57W

Sec. 13
T9S R57W

Limon

NOT FOUND:
US 24
CM-MP 375.6
N=52584.37
E=65584.09
EL=5434.25

Found: S.H.D. R-O-W 3-1/4" Brass Cap
in deteriorated conc. post stamped:
FAP NO NRH 79G Sta 1380+24
N=52519.19 E=65433.50

Found: S.H.D. R-O-W 3-1/4" Brass Cap
in deteriorated conc. post stamped:
FAP NO NRH 79G Sta 1368+33
N=52101.00 E=64352.12

Found: S.H.D. R-O-W 3-1/4" Brass Cap
in deteriorated conc. post stamped:
FAP NO NRH 79G Sta 1360+00
N=51911.44 E=63539.38

Found: S.H.D. R-O-W 3-1/4" Brass Cap
in deteriorated conc. post stamped:
FAP NO NRH 79G Sta 1360+00
N=51862.80 E=63550.55

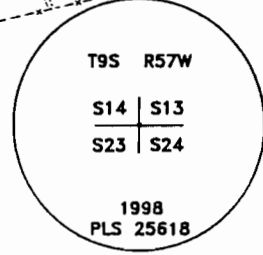
Found: S.H.D. R-O-W 3-1/4" Brass Cap
in deteriorated conc. post stamped:
FAP NO NRH 79G Sta 1360+00
N=51765.55 E=63573.09

Found: S.H.D. R-O-W 3-1/4" Brass Cap
in deteriorated conc. post stamped:
FAP NO NRH 79G Sta 1360+00
N=51716.94 E=63584.62

FOUND:
US 24
CM-MP 375.2
N=51770.44
E=63649.62
EL=5413.78

Not Found: S.H.D. R-O-W 3-1/4" Brass Cap
in deteriorated conc. post stamped:
FAP NO NRH 79G Sta 1381+84
N=52486.06 E=65667.34

N 89°02'06" W 5282.19'



S.W. Cor. Sec 13
T.9S. R.57W.
Set a 3-1/4" alum. cap on a
30" x 2-1/2" alum. rod,
Stamped as shown:
N=52071.49
E=64400.13

Sec. 24
T9S R57W

County

Sec. 23
T9S R57W

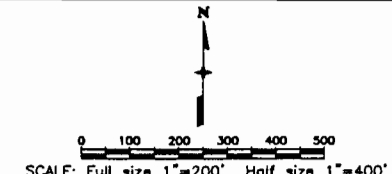
Matheson

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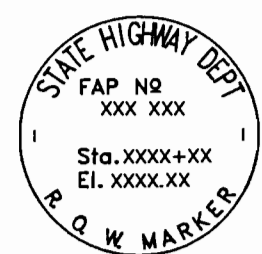
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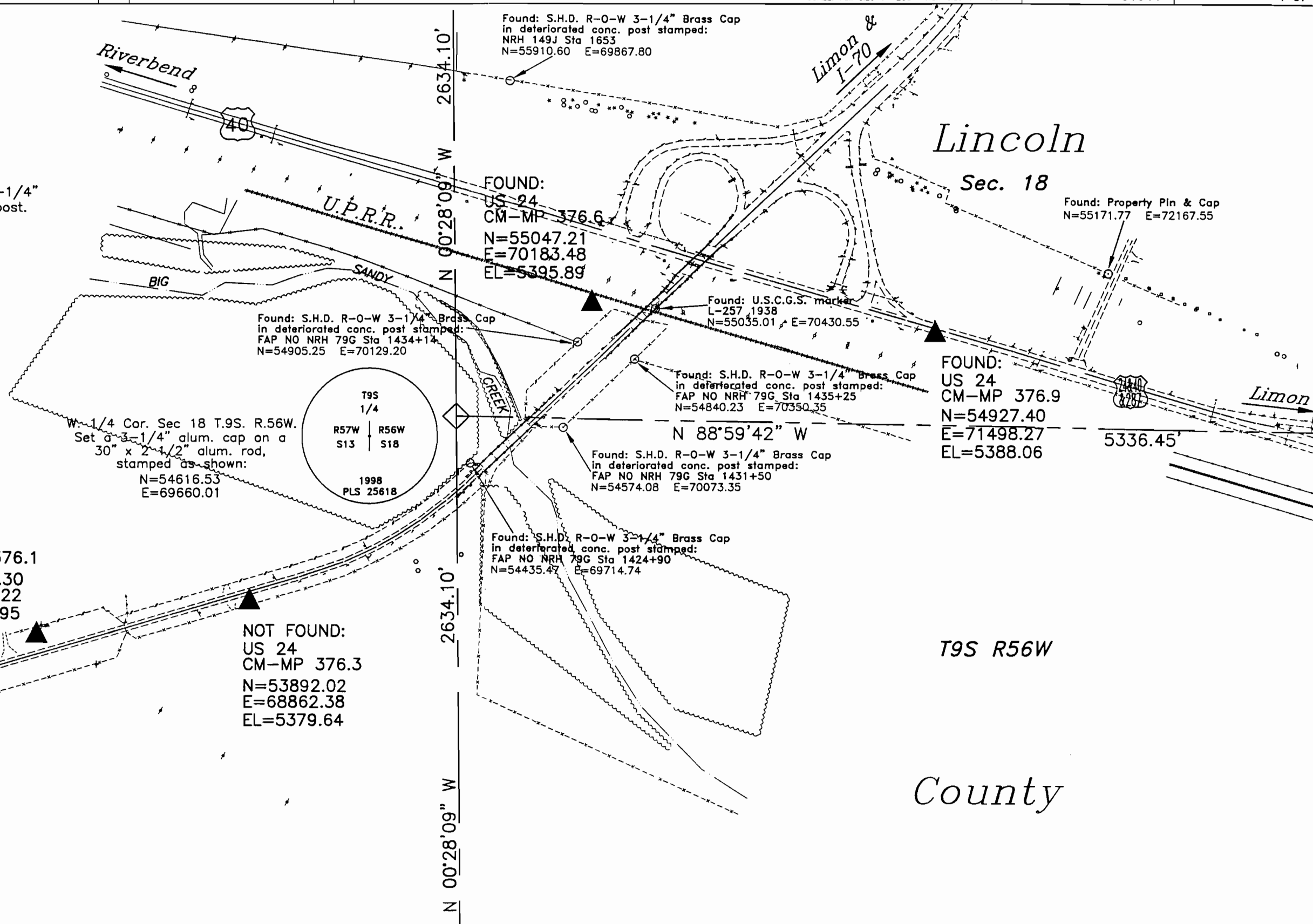
SURVEY	
CONTROL DIAGRAM	
FC-NH(CX) 024-3(036)	
SH 24 S.W. of Limon	
PROJECT CODE: 91044	SHEET NUMBER: 4 of 4



NOTE: Typical found S.H.D. R-O-W 3-1/4" Brass Cap in deteriorated concrete post.

Elbert

Sec. 13
T9S R57W



Lincoln
Sec. 18

County

County

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