

FILING CERTIFICATION: DEPOSITED THIS 19 DAY OF M., FOR INFORMATION ONLY IN BOOK OF THE COUNTY LAND SURVEYS/RIGHT OF WAY SURVEYS AT PAGE RECEPTION NUMBER

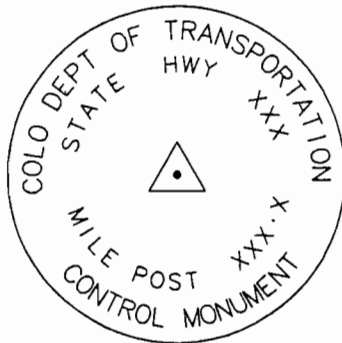
SIGNED: DEPT.:

DEPARTMENT OF TRANSPORTATION - STATE OF COLORADO CONTROL SURVEY DIAGRAM

Project IM 0252 - 323
INTERSTATE HIGHWAY #25 - MP 173.70 to MP 181.70
Sections 2,10,11,14,15,22,27,33,&34 of
T. 8 S., R. 67 W., of the 6th Principal Meridian.
Sections 4,9,&16 of
T. 9 S., R. 67 W., of the 6th Principal Meridian.
DOUGLAS COUNTY, COLORADO
Prepared by Mountain Surveying & Mapping, Inc.

CONSTRUCTION SURVEYING AND MONUMENTATION REQUIREMENTS:

- 1). This Control Survey Diagram represents the horizontal and vertical control for the project established by Mountain Surveying and Mapping, Inc. 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 access cover shall be positively secured to the PVC pipe with screws or glue. The access cover shall be caulked with asphalt caulking between the cover and the edges of the roadway surface to provide a positive moisture barrier around the access cover.
- 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.



TYPICAL:
CM-MP - Control Monuments were set by Mountain Surveying and Mapping, Inc. They were CDOT Type 2 monuments, a 3 1/4" dia. aluminum control monument cap (as shown) on a 3' X 3/4" dia. finned aluminum security rod on a 3' X 3/4" dia smooth aluminum rod.

BASIS OF BEARING: Bearings used in the calculations of coordinates are based on a grid bearing of N 06°31'28" E from I-25 CM-MP CONTROL POINT 187.60 and I-25 CM-MP CONTROL POINT 187.75 as obtained from a Global Positioning System (GPS) survey based on the Colorado High Accuracy Reference Network (CHARN).

BASIS OF ELEVATIONS: Project is based on NGS benchmark N 393 1983, a 3" brass disk set in a rock outcropping, with a NAVD 88 elevation of 1896.507m. N 393 1983 is a first order second class benchmark.

COORDINATE DATUM: Project coordinates are modified Colorado state plane central zone NAD '83 coordinates. The combined elevation/scale factor used to modify the coordinates was 0.9996202416. Combined elevation/scale factor was calculated using a project mean elevation of 2045m. The coordinates were then truncated by 300,000 meters in the northing and 700,000 meters in the easting.

NOTE: Refer to NEW-629-1 SURVEY MONUMENTS of the STANDARD PLANS, COLORADO DEPARTMENT OF TRANSPORTATION M & S STANDARDS MARCH 15, 1996 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.

NOTE: This control survey is for the use of 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 restrictions, as described in the instruments of record, was not included in this control survey.

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 statement shown.

SURVEYORS STATEMENT, I, Michael D. Heimbuck, a Professional Land Surveyor in the State of Colorado, hereby state that this Control Survey Diagram was prepared under my supervision this ____ day of _____ from a field survey performed under my supervision from _____ to _____, and checking for and on behalf of the Department of Transportation, State of Colorado, and is not a Land Survey Plot or Right-of-Way Survey Plot and to the best of my knowledge and belief this control survey, as shown meets the minimum horizontal control tolerances of a Type B Survey.

Michael D. Heimbuck, RLS 17488

Computer File Information		Sheet Revisions		 Mountain Surveying & Mapping, Inc. 8751 E. Hampden Ave. Suite B-1 Denver, Colorado, 80231 Phone: (303) 306-1858 FAX: (303) 306-6145 Project Manager Michael Heimbuck	As Constructed		CONTROL SURVEY DIAGRAM			IM 0252 - 323		
Creation Date:	09\29\99 Initials: FCA	(R-1)	/ /		No Revisions: / /		12522			I-25 MP 173.7 TO 181.7		
Last Modification Date:	09\29\99 Initials: FCA	(R-2)	/ /									
Full Path:	P:\PROJECTS\CDOT\98050\SCD	(R-3)	/ /		Revised: / /		Designer:		Structure		12522	
Drawing File Name:	98050acd.dwg	(R-4)	/ /		Void: / /		Detailer:		Numbers		Sheet Number	
Acad Ver.	R14 Scale: 1 : 3000 Units: METERS	(R-5)	/ /			Sheet Subset: Survey		Subset Sheets: 1 of 4		Sheet Number		

DEPARTMENT OF TRANSPORTATION - STATE OF COLORADO

CONTROL SURVEY DIAGRAM

Project IM 0252 - 323

INTERSTATE HIGHWAY #25 - MP 173.70 to MP 181.70

Sections 2,10,11,14,15,22,27,33,&34 of

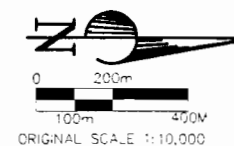
T. 8 S., R. 67 W., of the 6th Principal Meridian.

Sections 4,9,&16 of

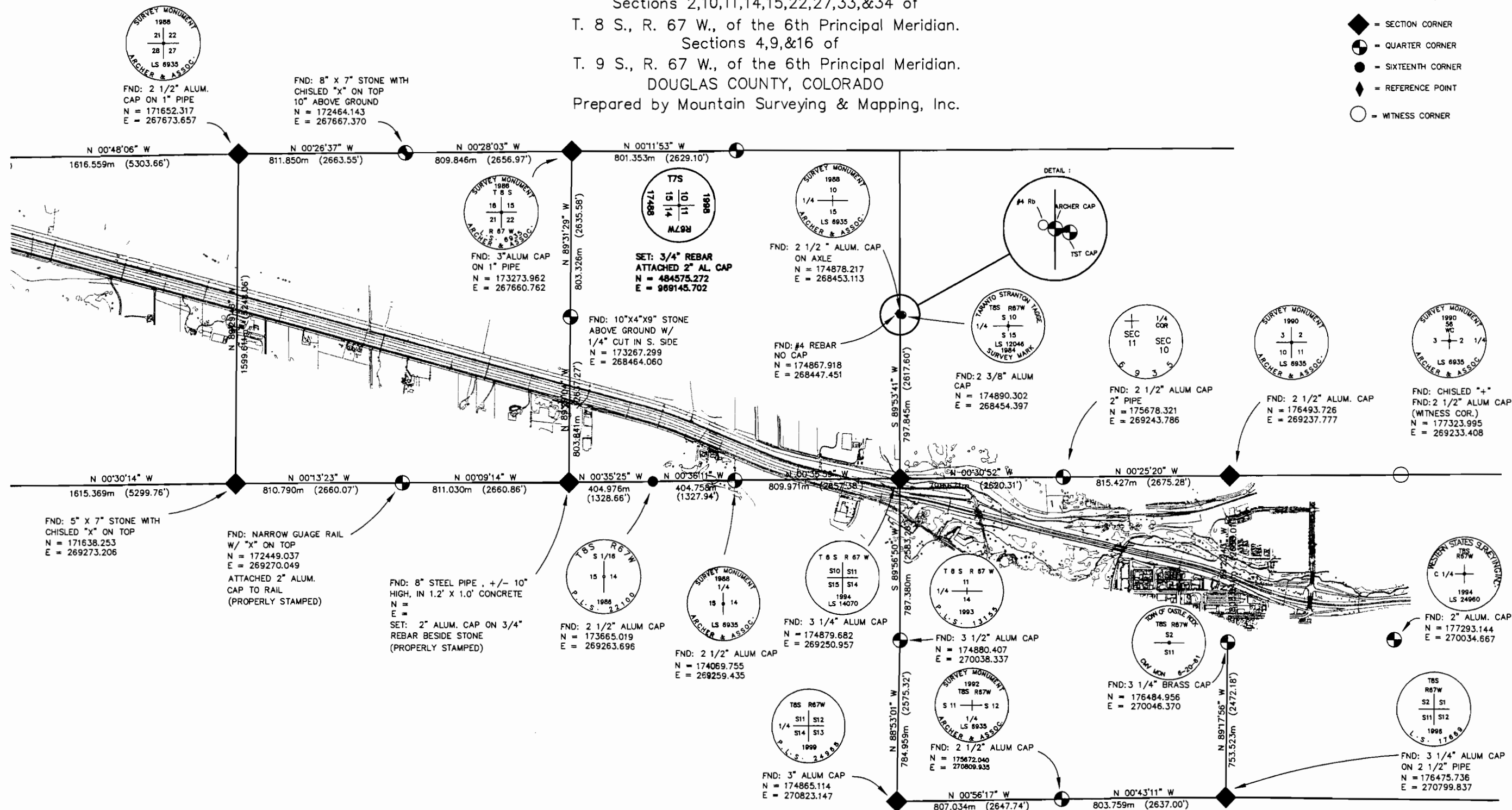
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DOUGLAS COUNTY, COLORADO

Prepared by Mountain Surveying & Mapping, Inc.



-  = SECTION CORNER
 = QUARTER CORNER
 = SIXTEENTH CORNER
 = REFERENCE POINT
 = WITNESS CORNER



FILED CERTIFICATION: _____ DAY OF _____, 19____ AT _____ M., FOR INFORMATION
DEPOSITED THIS _____ OF THE COUNTY LAND SURVEYS/RIGHT OF WAY
ONLY IN BOOK _____ RECEPTION NUMBER _____
SURVEYS AT PAGE _____

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Last Modification Date: 09\29\99 Initials: FCA		(R-2)	/ /		Revised: / /		Designer:		Structure		12522	
Full Path: P:\PROJECTS\CDOT\98050\SCD		(R-3)	/ /		Void: / /		Detailer:		Numbers			
Drawing File Name: 98050scd.dwg		(R-4)	/ /				Sheet Subset: Survey		Subset Sheets: 3 of 4		Sheet Number	
Acad Ver. R14 Scale:1 : 10000 Units: METERS		(R-5)	/ /									

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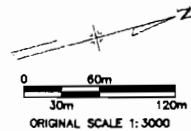
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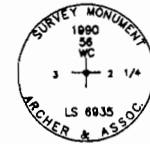
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DOUGLAS COUNTY, COLORADO

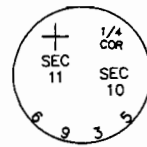
Prepared by Mountain Surveying & Mapping, Inc.



- GPS CONTROL MONUMENT
- SECTION CORNER
- QUARTER CORNER
- PROPERTY PIN / ROW MONUMENT
- NOAA BENCHMARK / HARN STATION
- DOUGLAS COUNTY GIS MONUMENT



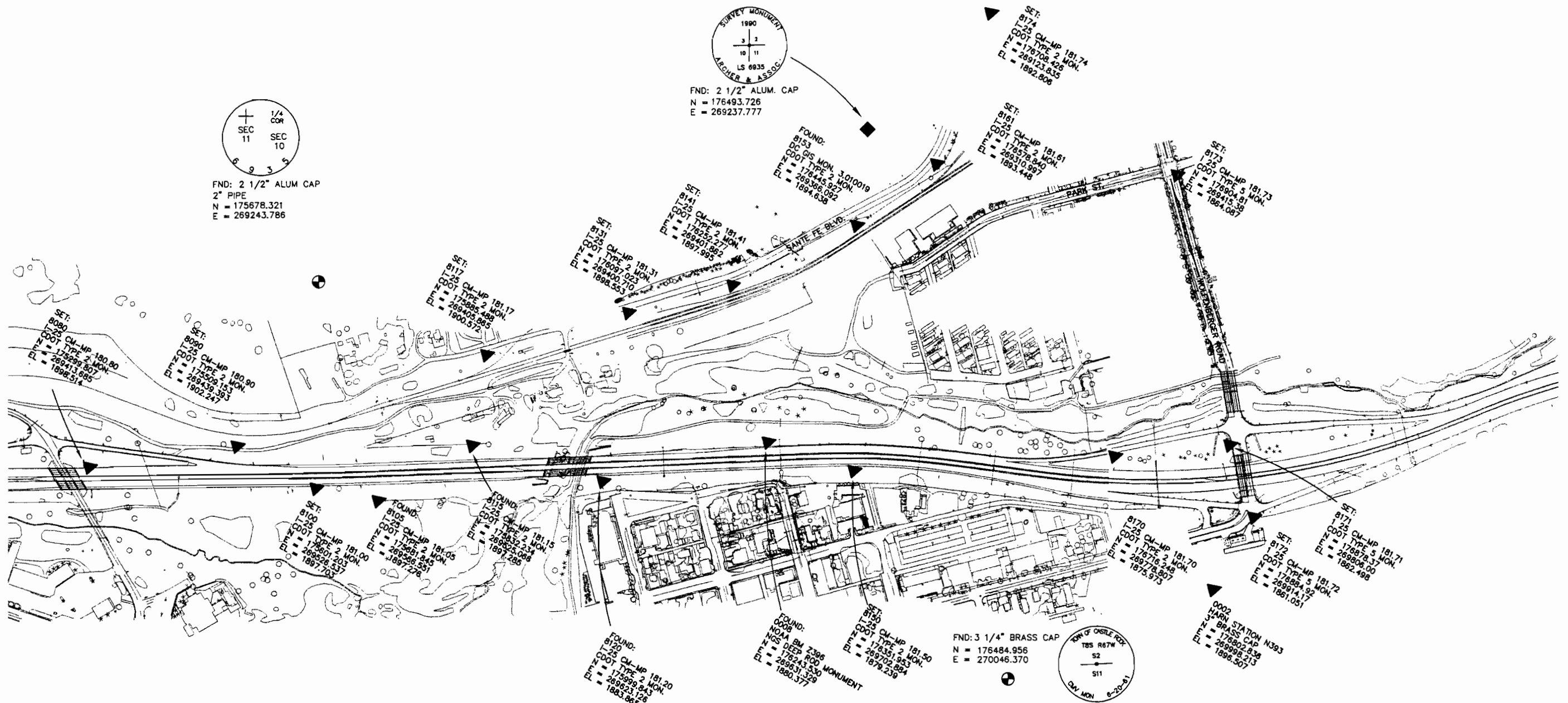
FND: CHISLED "+"
FND: 2 1/2" ALUM CAP
(WITNESS COR.)
N = 177323.995
E = 269233.408



FND: 2 1/2" ALUM CAP
2" PIPE
N = 175678.321
E = 269243.786



FND: 2 1/2" ALUM. CAP
N = 176493.726
E = 269237.777



FLING CERTIFICATION: DEPOSITED THIS 19 DAY OF 1999 AT 11:00 AM, FOR INFORMATION ONLY IN BOOK OF THE COUNTY LAND SURVEYS/RIGHT OF WAY SURVEYS AT PAGE 12522

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				Project Manager Michael Heimbuck											