

COLORADO DEPARTMENT OF TRANSPORTATION

Region 1
18500 East Colfax Avenue
Aurora, CO 80011
Phone: (303) 757-9744 Fax: (303) 757-9746

SURVEY COORDINATOR Joseph P. Conway

Sheet Revisions

Rev/Date	Description	Rev
	XXXX	XXX

SH 103 EROSION CONTROL

MP 7.21-7.34 & MP 9.38-9.53

CLEAR CREEK COUNTY, COLORADO

SECTIONS 19 & 30, TOWNSHIP 4 SOUTH, RANGE 73 WEST

Project Control Diagram

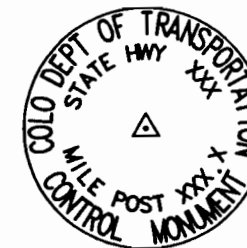
Title Sheet

Project Number: STA 103A-007

Project Location: State Hwy 103

Project Location: MP 7.21-7.34 & MP 9.38-9.53

Project Code	Last Mod. Date	Subst. Sheets	Sheet No.	Total No. of Sheets
13508	11/07/02	1 of 3		

Typical Control
Monument Cap
Not to Scale

LOWER SITE MP 7.21 - MP 7.34

PROJECT COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA)

POINT NAME	PROJECT COORDINATES		ELEV(ft)	DESCRIPTION
	NORTH (ft)	EAST (ft)		
SH 103 CM-MP 7.21	7250.14	5000.00	8900.00	CDOT Type 2 Control Monument
SH 103 CM-MP 7.26	7000.00	5000.00	8916.25	CDOT Type 2 Control Monument
SH 103 CM-MP 7.34	6634.00	4758.27	8931.47	CDOT Type 2 Control Monument

UPPER SITE MP 9.38 - MP 9.53

PROJECT COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA)

POINT NAME	PROJECT COORDINATES		ELEV(ft)	DESCRIPTION
	NORTH (ft)	EAST (ft)		
SH 103 CM-MP 9.38	8639.53	5851.54	9600.00	CDOT Type 2 Control Monument
SH 103 CM-MP 9.45	9000.00	6000.00	9624.41	CDOT Type 2 Control Monument
SH 103 CM-MP 9.53	9363.87	6132.44	9646.34	CDOT Type 2 Control Monument

BASIS OF BEARINGS: Bearings for the Lower Site are based on CM-MP 7.21 to CM-MP 7.26 being an assumed bearing of S00°E with assumed coordinates on CM-MP 7.26. Bearings for the Upper Site are based on CM-MP 9.38 to CM-MP 9.45 being an assumed bearing of S20°W with assumed coordinates on CM-MP 9.45. The two sites are on a different bearing basis.

BASIS OF ELEVATIONS: Project is based on assumed elevation of 8900.00 on CM-MP 7.21 (Lower Site) and assumed elevation of 9600.00 on CM-MP 9.38 (Upper Site) both are a CDOT Type 2 Control Monument. There are no existing Bench Marks in the project area. Therefore elevations were not verified to any existing Bench Mark Datums. All other Control Points on this Project were then tied in by means of running a Bench Loop. The two sites are referenced to different assumed elevation datums at the direction of the engineer.

COORDINATE DATUM: Coordinates on this project are for the exclusive use of the CDOT for the construction of this project and are considered Project Coordinates only. Time and budget constraints prohibited establishing geodetic control and ROW on this project.



CM-MP - Control Point Monuments set by CDOT. They were 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.

NOTE: This control survey is for the use of the Colorado Department of Transportation personnel. The survey is not a complete Boundary Survey. 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: 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.

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

SURVEYORS STATEMENT: I, Betty Claybrook, a Professional Land Surveyor in the State of Colorado, hereby state that this Control Survey Diagram was prepared under my direct supervision this 28th day of May, 2002 from a field survey performed under my supervision and checking from September 25, 2000 to October 13, 2000, 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 meets the minimum horizontal accuracy tolerances of a Type B Survey and this topographic survey, as shown, meets the minimum horizontal accuracy tolerances of a Type D Survey as listed in Colorado Department of Transportation Survey Manual Chapter.

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 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.

Betty J. Claybrook, PLS 31150

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LOWER SITE MP 7.21 - MP 7.34

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SECTION 19, TOWNSHIP 4 SOUTH, RANGE 73 WEST

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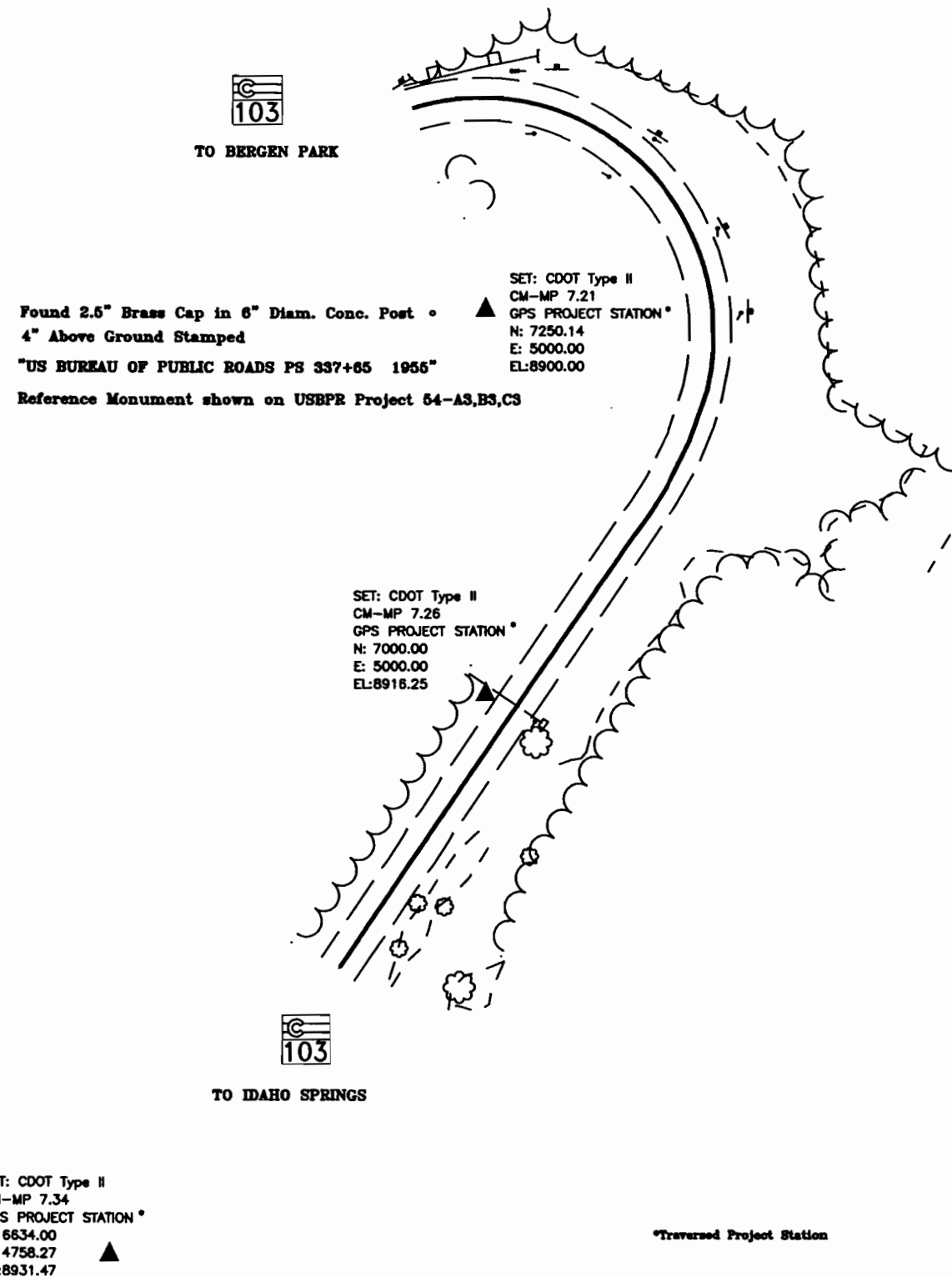
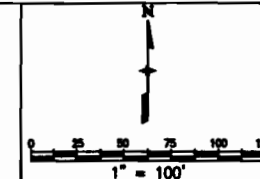
Plan Sheet

Project Number: STA 103A-007

Project Location: State Hwy 103

Project Location: MP 7.21-7.34 & MP 9.38-9.53

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13508	11/07/02	2 of 3	



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UPPER SITE MP 9.38 - MP 9.53

CLEAR CREEK COUNTY, COLORADO

SECTION 30, TOWNSHIP 4 SOUTH, RANGE 73 WEST

Project Control Diagram

Plan Sheet

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Project Location: State Hwy 103

Project Location: MP 7.21-7.34 & MP 9.38-9.53

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