



**Place Right of Way  
Plans Unit Cell Here**

757-9746

Region 1

JPC

Sheet Revisions

Date mm/yy	Description XXXXXXXX	Initials XXX

Sec. 31 of T5S, R77W  
Sec. 6, 7, 18, 19, 30 of T6S, R77W  
SUMMIT COUNTY, COLORADO

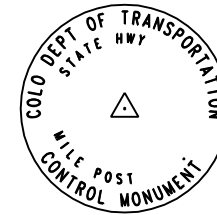
Land Survey Control Diagram

Title Sheet

Project Number: STA 0091-024				
Project Location: SH 9 - Valley Brook to Swan Mtn. Rd.				
Project Location: M.P. 87.92 to M.P. 93.52				
Project Code:	Last Mod. Date	Subset Sheets	Sheet No.	Total No. of Sheets
14927	05-04-06	1 of 1	3	

PROJECT COORDINATE SUMMARY TABLE  
(ADJUSTED FIELD DATA) - US FEET

**Level: DRAFT\_TEXT-1  
Text Style: .14" ENG-80**



Typical Control Monument Cap  
Not to Scale

POINT NAME	PROJECT COORDINATES		ELEV. (NAVD)	DESCRIPTION
	NORTHING	EASTING		
879	1607328.90	2847194.17	9465.41	SH 9 CM-MP 87.92 CDOT Type 2
881	1608435.89	2847016.13	9448.52	SH 9 CM-MP 88.13 CDOT Type 2
883	1609464.05	2846889.73	9446.37	SH 9 CM-MP 88.33 CDOT Type 2
885	1610334.02	2846790.65	9432.31	SH 9 CM-MP 88.49 CDOT Type 2
887	1611278.04	2846713.11	9398.78	SH 9 CM-MP 88.67 CDOT Type 2
888	1612111.36	2846519.31	9396.04	SH 9 CM-MP 88.84 CDOT Type 2
889	1613213.00	2846477.04	9372.07	SH 9 CM-MP 88.99 CDOT Type 2
892	1614305.95	2846714.96	9343.30	SH 9 CM-MP 89.17 CDOT Type 2
894	1615256.96	2846889.45	9328.64	SH 9 CM-MP 89.36 CDOT Type 2
895	1616271.60	2847121.46	9314.79	SH 9 CM-MP 89.50 CDOT Type 2
896	1616965.92	2847301.30	9292.46	SH 9 CM-MP 89.60 CDOT Type 2
899	1618035.68	2847513.85	9271.39	SH 9 CM-MP 89.90 CDOT Type 2
901	1619129.13	2847709.13	9250.78	SH 9 CM-MP 90.09 CDOT Type 2
903	1620058.85	2847912.58	9236.17	SH 9 CM-MP 90.26 CDOT Type 2 DESTROYED
905	1621008.37	2848306.22	9217.08	SH 9 CM-MP 90.46 CDOT Type 2 ROD-NO CAP
906	1621975.45	2848338.12	9201.08	SH 9 CM-MP 90.64 CDOT Type 2
908	1623031.11	2848611.70	9178.14	SH 9 CM-MP 90.85 CDOT Type 2
910	1624148.67	2848718.92	9168.71	SH 9 CM-MP 91.03 CDOT Type 2
912	1625210.67	2849045.34	9151.68	SH 9 CM-MP 91.24 CDOT Type 2
915	1626304.32	2848753.20	9144.22	SH 9 CM-MP 91.46 CDOT Type 2
916	1627042.12	2848193.24	9126.95	SH 9 CM-MP 91.63 CDOT Type 2
918	1627800.60	2847614.62	9113.33	SH 9 CM-MP 91.81 CDOT Type 2
920	1628607.62	2846769.56	9097.11	SH 9 CM-MP 92.03 CDOT Type 2
922	1629270.54	2846208.43	9088.37	SH 9 CM-MP 92.19 CDOT Type 2
924	1630413.03	2845961.48	9073.28	SH 9 CM-MP 92.41 CDOT Type 2
926	1631375.34	2845779.67	9060.12	SH 9 CM-MP 92.60 CDOT Type 2
928	1632315.97	2845604.93	9049.86	SH 9 CM-MP 92.78 CDOT Type 2
931	1632981.00	2844839.73	9038.12	SH 9 CM-MP 93.12 CDOT Type 2
933	1633926.52	2844417.76	9040.76	SH 9 CM-MP 93.33 CDOT Type 2
935	1635065.81	2844757.80	9039.18	SH 9 CM-MP 93.52 CDOT Type 2 Traversed

CM-MP - Control Point Monuments set by CDDT. They are CDDT 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 BEARINGS: Bearings used in the calculation of coordinates are based on a grid bearing of N09°08'12"W from CM-MP 87.92 to CM-MP 88.13 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 a U.S. Coast and Geodetic Survey (USCGS) benchmark J 299, a found 3/4" brass cap in a 10" diameter concrete post stamped "J 299 1951". The mark is approximately 1054 ft. easterly of the present east edge of asphalt of SH 9 at Mile Post 89.64 with a NAVD 1988 and project elevation of 9301.74 ft. (2835.175 m). J 299 1951 is on Colorado Line 89, a First Order Class II benchmark leveled in 1951 and adjusted by National Geodetic Survey in June 1991.

COORDINATE DATUM: Coordinates on this project are for the exclusive use of the CDDT for the construction of this project and are considered Project Coordinates only. Project coordinates are modified Colorado State Plane Central Zone NAD '83(92) coordinates. State plane coordinates are modified to a mean project elevation of 2810.000 m. The combined project factor used to convert from state plane to project coordinates is 1.000475081. Conversion example: Conversion Meters to Feet: 3937/1200. State Plane Northing in USFT x 1.000475081 = Project Northing in USFT. State Plane Easting in USFT x 1.000475081 = Project Easting in USFT.

NOTE: This Land Survey Control Diagram is prepared for CDDT purposes only. It is not a Boundary Survey, Land Survey Plat, or Right of Way Plat. No determination has been made to determine if the found monuments as shown are in their proper position or if they are at the corners they are intended to monument. Title Policy, Title Commitment, and title research, are not a part of this survey, therefore easements, rights, and restrictions of record were not researched and are not shown on this diagram.

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

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 hereon.

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.

Construction Surveying and Monumentation Requirements

- This Project Control 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.
- All Type 1 and Type 2 monuments shall be set flush with the ground. Witness posts shall be installed 2 feet from and facing all Type 1 and Type 2 monuments, or as directed by the Project Engineer.
- 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.
- 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.
- Control survey procedures, statistical analysis, and accuracy obtained for horizontal and vertical control shall be documented in the field book.
- Legible copies of the field books shall be submitted to the Project Engineer for review on a monthly basis.
- It is ultimately the prime Contractor's responsibility to insure that these requirements, as well as any contained in the CDDT specifications, project special provisions, and CDDT Survey Manual are fulfilled under this contract.
- The minimum staking intervals for each item are described on the plans or in the CDDT 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.
- Whenever the contract includes the setting of CDDT Primary Control monuments, a Project Control Diagram, signed and sealed by the P.L.S. in responsible charge, shall be submitted to the Project Engineer. A Micro Station drawing on CD shall accompany the hard copy.

**Cell: SHEET\_SURV-LSCD-Title-Sheet  
(General cell library)**

SURVEYOR STATEMENT (LAND SURVEY CONTROL DIAGRAM)

I, Betty J. Claybrook, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Land Survey Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

Betty J. Claybrook,  
PLS No. 31150

Date