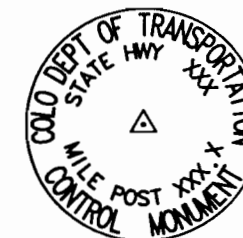


GEODETTIC COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA)

POINT NAME	GEODETTIC COORDINATES NAD-83(92) (CHARN)		ELEV. (m)	MAPPING ANGLE	SCALE	NAD 83(92) Central Zone	
	LATITUDE(N)	LONGITUDE(W)				NORTHING (m)	EASTING (m)
DMWV BM 272 1930	39° 23' 35.26422" N	105° 16' 42.45105" W	2022.235	0° 8' 23.00579"	0.999948871	477974.296	933485.515
US 285 CM-MP 232.103	39° 29' 23.61059" N	105° 21' 13.19143" W		0° 5' 32.25266"	0.999958892	488703.661	926989.964
US 285 CM-MP 232.308	39° 29' 24.83886" N	105° 20' 59.78196" W	2554.209	0° 5' 40.70987"	0.999958932	488742.062	927310.322
US 285 CM-MP 232.309	39° 29' 23.75604" N	105° 20' 59.28136" W	2551.864	0° 5' 41.02560"	0.999958896	488708.689	927322.339
US 285 CM-MP 232.511	39° 29' 30.81390" N	105° 20' 45.36048" W		0° 5' 49.80535"	0.999959129	488926.903	927654.610
US 285 CM-MP 232.665	39° 29' 33.55792" N	105° 20' 38.45760" W	2564.908	0° 5' 54.15893"	0.999959220	489011.807	927819.404
PINEHELI 1995	39° 28' 20.77186" N	105° 24' 11.55205" W	2604.1	0° 3' 39.76248"	0.999956873	486760.083	922730.089
STOLLARD 1995	39° 30' 25.26468" N	105° 17' 08.87239" W	2447.6	0° 8' 6.34213"	0.999960963	490616.594	932823.496



Typical Control
Monument Cap
Not to Scale

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. flinned aluminum security rod on a 3' X 3/4" dia. smooth aluminum rod.

PROJECT COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA METRIC)

POINT NAME	PROJECT COORDINATES		ELEV(m)	DESCRIPTION
	NORTH (m)	EAST (m)		
STOLLARD 1995	90796.680	33165.899	2447.6	NGS 3-1/4" aluminum cap in concrete
US 285 CM-MP 232.665	89191.305	28159.970	2564.908	CDOT Type II Control Monument
US 285 CM-MP 232.511	89106.369	27995.115		CDOT Type II Control Monument
DMWV BM 272 1930	78149.741	33828.160	2022.235	DMWV 3-1/4" brass cap in concrete
US 285 CM-MP 232.309	88888.075	27662.722	2551.864	CDOT Type II Control Monument
US 285 CM-MP 232.308	88921.461	27650.701	2554.209	CDOT Type II Control Monument
US 285 CM-MP 232.103	88883.045	27330.226		CDOT Type II Control Monument
PINEHELI 1995	86938.753	23068.787	2604.1	NGS 3-1/4" brass cap in concrete

BASIS OF BEARINGS: Bearings used in the calculation of coordinates are based on a grid bearing of N 58°37'29" E from U.S. 285 CM-MP 232.309 to U.S. 285 CM-MP 232.665 as obtained from a Global Positioning System (GPS) Survey, based on the Colorado High Accuracy Network (CHARN).

BASIS OF ELEVATIONS: Project is based on an assumed elevation of 2551.864(m) or 8372.24ft. on U.S. 285 CM-MP 232.309, assumed datum.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83 (92) coordinates. State Plane Coordinates are modified to a mean project elevation of 2076.902m. Project Latitude is 39°29'23.76". Multiply state plane coordinates by an elevation/scale factor of 1.000367061 to convert to project coordinates. Project coordinates are truncated by 400,000m in the Northing and 900,000m in the Easting. Project Coordinates in feet are in US Survey Feet. The CHARN is based in the NAD '83 (92) 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.

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.

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.

SURVEYORS STATEMENT: I, Daniel A. Smith, a Professional Land Surveyor in the State of Colorado, hereby state that this Control Survey Diagram was prepared under my direct supervision this 24th day of June, 1999, from a field survey performed under my supervision and checking from May 18, 1999 to June 8, 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 the Colorado Department of Transportation 1992 Survey Manual Chapter Three.

Daniel A. Smith
Colorado PLS No. 29769

Date

PROJECT COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA FEET)

POINT NAME	PROJECT COORDINATES		ELEV(ft)	DESCRIPTION
	NORTH (ft)	EAST (ft)		
STOLLARD 1995	297888.77	108811.79	8030.	NGS 3-1/4" aluminum cap in concrete
US 285 CM-MP 232.665	292621.80	92388.17	8415.04	CDOT Type II Control Monument
US 285 CM-MP 232.511	292343.15	91847.31		CDOT Type II Control Monument
DMWV BM 272 1930	256396.28	110984.56	6634.62	DMWV 3-1/4" brass cap in concrete
US 285 CM-MP 232.309	291626.96	90756.78	8372.24	CDOT Type II Control Monument
US 285 CM-MP 232.308	291736.49	90717.34	8379.93	CDOT Type II Control Monument
US 285 CM-MP 232.103	291610.46	89665.92		CDOT Type II Control Monument
PINEHELI 1995	285231.56	75684.84	8544.	NGS 3-1/4" brass cap in concrete

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.



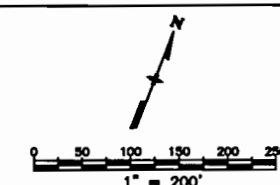
Region One
18500 East Colfax Avenue
Aurora, Colorado 80033
Phone: (303) 757-9744 FAX: (303) 757-9746

SURVEY UNIT: Joseph P. Conway

U.S. 285 MP 232.103 to MP 232.665
Located in the
North 1/2 of Section 33,
Township 6 South, Range 71 West
of the 6th Principal Meridian
Jefferson County,
Colorado

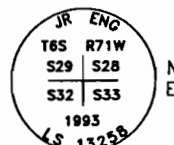
SURVEY
CONTROL DIAGRAM
NH 2854-076
KINGS VALLEY

PROJECT CODE: 12316 SHEET NUMBER: 2 OF 2



NOTE: FX = Fence

NW COR. SEC. 33 T.6S. R.71W.
FOUND:
3-1/4" AL CAP
STAMPED AS SHOWN:



N: 292586.96
E: 89527.24

Note: Position of NW COR. SEC. 33
not shown, actual location approx.
790' off of this sheet.

SET:
US 285 CM-MP 232.103
GPS PROJECT STATION
N: 291610.46 N: 88883.045m
E: 89665.92 E: 27330.226m
EL:

FOUND:
CDH BRASS CAP IN CONC POST
STA 823+09.3 EL 8271.49
N: 291315.91
E: 88973.25

Note: Position of CDH brass cap not
shown, actual location approx 330'
off of this sheet.

SET:
US 285 CM-MP 232.308
GPS PROJECT STATION
N: 291736.49 N: 88921.461m
E: 90717.34 E: 27650.701m
EL: 8379.93

FOUND:
#4 REBAR 1" BLUE PLASTIC
CAP LS 19618 1.3' N OF FX
N: 291831.53
E: 91184.95

FOUND:
#4 REBAR 0.2' N OF FX
N: 291715.07
E: 91039.29

FOUND:
#3 REBAR 5.3' N OF FX
N: 291753.31
E: 91076.05

FOUND:
1" GREEN PLASTIC CAP ON REBAR
CAP IS ILLEGIBLE
N: 292058.17
E: 91227.40

FOUND:
SPIKE 1.0' S
OF FX
N: 291839.66
E: 91203.74

FOUND:
SPIKE IN DIRT ROAD
N: 291941.87
E: 91374.44

FOUND:
1-1/2" AL CAP
JR DEV RLS 10377
N: 292363.66
E: 91627.99

FOUND:
1-1/2" AL CAP
JR DEV RLS 10377
N: 292366.83
E: 91630.37

SET:
US 285 CM-MP 232.511
GPS PROJECT STATION
N: 292343.15 N: 89106.369m
E: 91847.31 E: 27995.115m
EL:

N 1/4 COR. SEC. 33 T.6S. R.71W.
FOUND:
0.7"x0.5"x1.1' STONE WITH 1/4 CHIS.
ON S. SIDE IN SMALL MOUND OF STONES
N: 292664.23
E: 92138.25

FOUND:
1-1/4" AL CAP
ROBINSON RLS 2132
N: 292538.75
E: 92024.04

FOUND:
1" AXLE 0.3' N OF FX
N: 292365.34
E: 92123.08

FOUND:
1.5" OD PIPE ON FX LINE
N: 292345.23
E: 92090.50

FOUND:
#4 REBAR 1" BLUE PLASTIC
CAP PLS 19618 0.7' N OF FX
N: 292048.50
E: 91590.61

FOUND:
3" DIA AXLE 8.5' N OF FX
N: 292039.37
E: 91543.14

SET:
US 285 CM-MP 232.665
GPS PROJECT STATION
N: 292621.80 N: 89191.305m
E: 92388.17 E: 28159.970m
EL: 8415.04 EL: 2564.908m

Note: Position of CM-MP 232.665 not
shown, actual location approx. 420'
off this sheet.

FOUND:
SPIKE IN DIRT ROAD
N: 291798.62
E: 91589.38

FOUND:
SPIKE IN DIRT ROAD
N: 291724.45
E: 91677.01

FOUND:
1.5" OD PIPE 5.6' N OF E-
W FX 3.5' W OF N-S FX
N: 291640.11
E: 91387.31

FOUND:
BENT #6 REBAR 2' OUT
OF GROUND
N: 291742.94
E: 91253.58

FOUND:
SPIKE 0.3' EAST OF FX COR
N: 291742.94
E: 91253.38

FOUND:
SMOOTH #5 BAR AT FX COR
N: 291674.92
E: 91166.17

FOUND:
1" OD PIPE INSIDE 1.5" OD
PIPE 0.3' NE OF FX COR
N: 291690.02
E: 91119.62

FOUND:
#5 REBAR 1-1/2" AL CAP PSCO
PLS 19607 6.5' N OF FX
N: 291640.33
E: 90893.07

SET:
US 285 CM-MP 232.309
GPS PROJECT STATION
N: 291626.96 N: 88888.075m
E: 90756.78 E: 27662.722m
EL: 8372.24 EL: 2551.864m

FOUND:
CDH BRASS CAP IN CONC POST
STA 823+09.3 EL 8241.14
N: 291152.77
E: 89088.42

Note: Position of CDH brass cap not
shown, actual location approx 330'
off of this sheet.

DEPOSITED THIS DAY OF 19 AT FOR INFORMATION
ONLY IN BOOK OF THE COUNTY LAND SURVEYS/RIGHT OF WAY
SURVEYS AT PAGE RECEPTION NUMBER

SIGNED DEPT.