



Sheet Revisions

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Project Control Diagram

Title Sheet

Project Number: SHE 0761-215			
Project Location: I-76 CABLERAIL TO LOCHBUIE			
Sections 1, 2 & 11, T1S, 6TH P.M.			
Project Code: 18856	Last Mod. Date: 3-9-12	Subset: 3.01 of 3.03	Sheet No.: 3.01

DEPARTMENT OF TRANSPORTATION  
STATE OF COLORADO

PROJECT CONTROL DIAGRAM

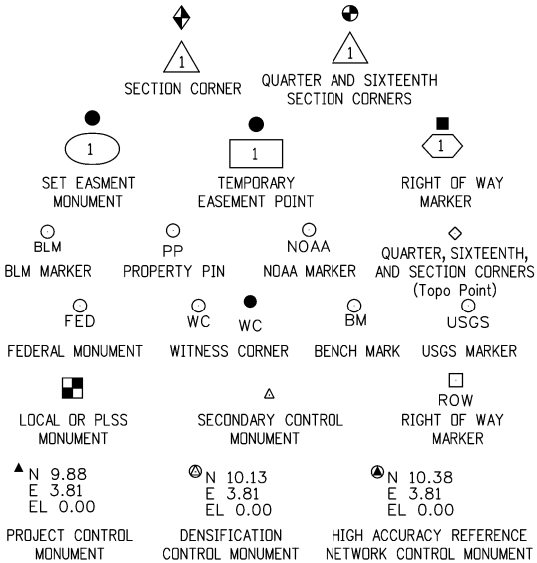
State Highway 76 MP 22.407 to 25.144  
Sections 1, 2 & 11  
Township 1 South, Range 66 West  
of the 6th Principal Meridian  
County of Adams

SHEET NO.

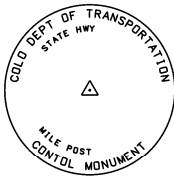
3.01  
3.02  
3.03

INDEX OF SHEETS

(1) Title Sheet  
(1) Coordinate Tables  
(1) Plan Sheet  
(3) Total Sheets



Note: For a complete listing of symbololgy used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication dated July 2006.



Typical Control Monument Cap  
Not to Scale

▲ CM-MP - Control Point Monuments set by CDOT. They are CDOT Type 2 monuments, a 3¼" dia. aluminum control monument cap (as shown) on a 3' x¾" dia. aluminum security rod on a 3' x¾" dia. smooth aluminum rod.

General Notes:

- This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
- This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.
- Refer to the M-629-1 Survey Monuments of the Standard Plans dated July, 2006 found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.



PROJECT LOCATION MAP



BASIS OF BEARINGS: Bearings used in the calculations of coordinates are based on a grid bearing of S13°10'05"W, (31,721.85 feet), from BRIGHTON 2 (NGS standard horizontal control disk set in concrete), to Control Point Number 43 (Burlington), a CDOT Type II A monument. The survey data was obtained from a Global Positioning System (GPS) survey based on the Denver Metro Area Network.

BASIS OF ELEVATIONS: Project elevations are based on the Denver Metro Area Network NAVD 88 elevations for Point 43 (Burlington) and Point 44 (Barr) and verified by GPS observation elevation check to NGS Bench Mark S62, PID: KK0529, a standard bench mark disk set in concrete, with a NAVD 88 elevation of 5079.70.

Project Specific Control was verified to an accuracy of +/- 0.035 ft. times the square root of the distance traversed in miles, using dual base RTK observations from Primary control points and meaning the two observations at each location

Horizontal Control Tolerance for Primary control meets CDOT class A (+/- 0.07' with 95% certainty.) Horizontal Control Tolerance for Secondary control meets CDOT class B (+/-0.13' with 95% certainty.)

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Colorado Central Zone 502, NAD '83(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.000263082. The Denver Metro Area Network is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing \* 1.000263082) – 1,000,000.

Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting \* 1.000263082) – 3,000,000).

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 certification shown hereon.

SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)

I, Kathryn Lyon, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project 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.

PLS No. 38110

Colorado Department of Transportation



2000 South Holly  
Denver, CO 80222  
Phone: 303-757-9923 FAX: 303-757-9390

Region 6

SLK

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Project Control Diagram

Coordinate Tables

Project Number: SHE 0761-215				
Project Location: I-76 CABLERAIL TO LOCHBUIE				
SECTIONS 1, 2, & 11 T1S, R66W, 6TH P.M.				
Project Code:	Last Mod. Date	Subset	Sheet No.	
18856	3-13-12	3.01 TO 3.03	3.02	



Basis of Elevations (NAVD88) in U.S. Survey Feet



Point No.	Geodetic Coordinates NAD-83(92) (CHARN)		Elip Height	NAVD88 Elevation	Description
	Latitude(N)	Longitude(W)			
S62	39°58'14.70719"N	104°44'56.46044"W	5020.75	5079.700	Found 3.5" Brass cap "USC&G S62 1934" (Used For Elevation Check)



Basis of GPS Survey in U.S. Survey Feet



Denver Metro Net Table

Point No.	Geodetic Coordinates NAD 83 (92)		Elip Height	NAVD88 Elevation	Mapping Angle	Grid Scale Factor	NAD 83(92) Zone 502		Description
	Latitude(N)	Longitude(W)					Northing(sft)	Easting(sft)	
43	39°56'36.77971"N	104°47'06.12948"W	5052.08	5110.78	0°27'03.3"	1.00030713	769829.01	201320.07	Found 3.25" Aluminum CD0H control cap stamped "GPS JFSA19" Mile Post 19.7 (Burlington)
44	39°57'13.51781"N	104°46'12.92752"W	5050.13	5108.97	0°27'36.9"	1.00030977	773580.50	205435.09	Found 3.25" Aluminum CD0H control cap stamped "GPS JFSA24" Mile Post 20.8 (Barr)
55	40°01'41.34463"N	104°45'30.14283"W	5162.95	5222.10	0°28'03.9"	1.00032999	800716.77	208546.58	Found 3.25" Brass USGS disk set in concrete marked "HORZ. Control Mark Brighton 2" USGS 1975



Project Specific Coordinate Table in U.S. Survey Feet



PROJECT COORDINATE TABLE

Point No.	Project Coordinates		Elev (NAVD88)	Description
	Northing	Easting		
JOHN	783782.74	213369.33	5066.68	Set CDOT Type 5(S) Alloy Cap (1" Brass Cap) marked "CDOT JOHN" Set in the north center in concrete inlet
BRIAN	788300.08	217754.97	5035.75	Set CDOT Type 5(S) Alloy Cap (1" Brass Cap) marked "CDOT BRIAN" Set in the north center in concrete inlet



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Region 6

SLK

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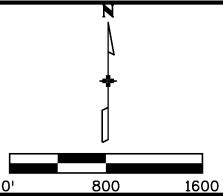
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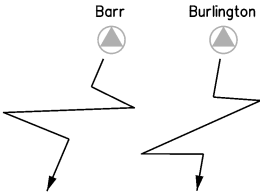
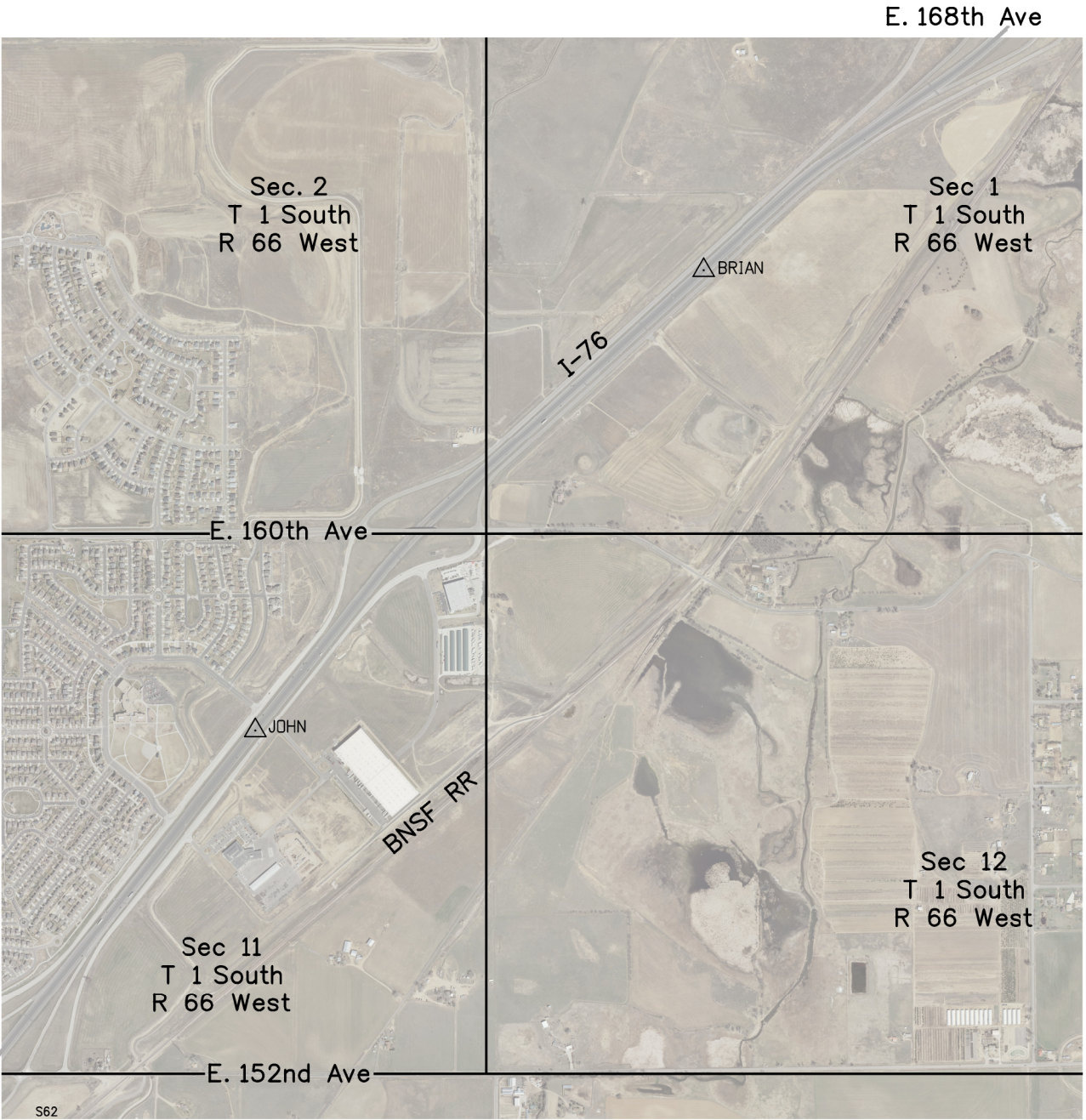
Project Control Diagram

Plan Sheet

Project Number: SHE 0761-215			
Project Location: I-76 CABLERAIL TO LOCHBUIE			
SECTIONS 1, 2 & 11, T1S, R66W, 6TH P.M.			
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18856	3-19-12	3.01 to 3.03	3.03



Brighton 2



Barr

Burlington

S62