

Brief History of  
Colorado's Civil Engineering  
and Colorado Section

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Colorado Section's  
Centennial Celebration  
January 8, 2009

# Morefield Reservoir - Mesa Verde ca 750-1100 A.D.



# Farview Reservoir

## Prehistoric Mesa Verde Reservoirs

### NHCEL 2004



# Mesa Verde Cliff Dwellings



# Bent's Fort (ca. 1846)

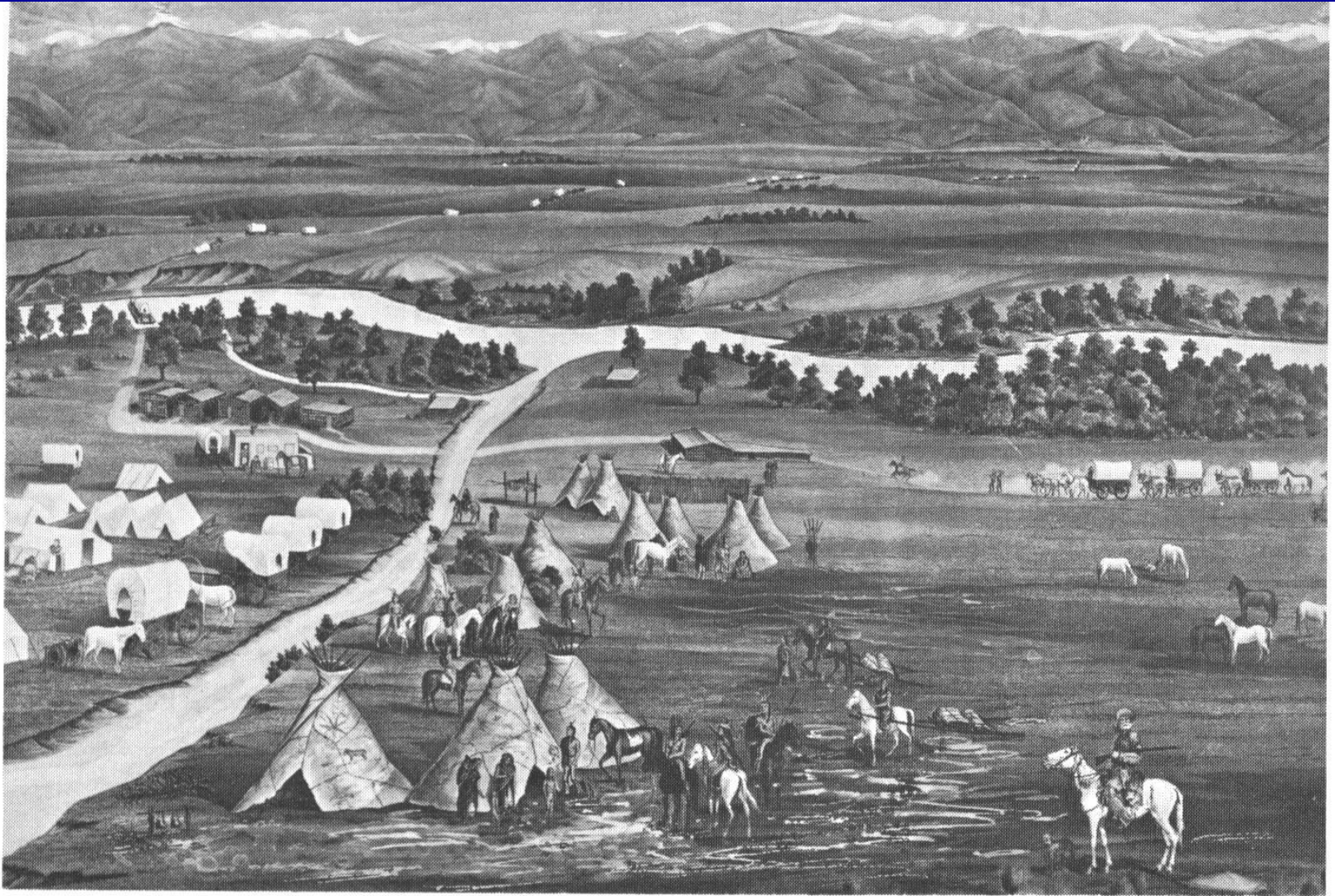




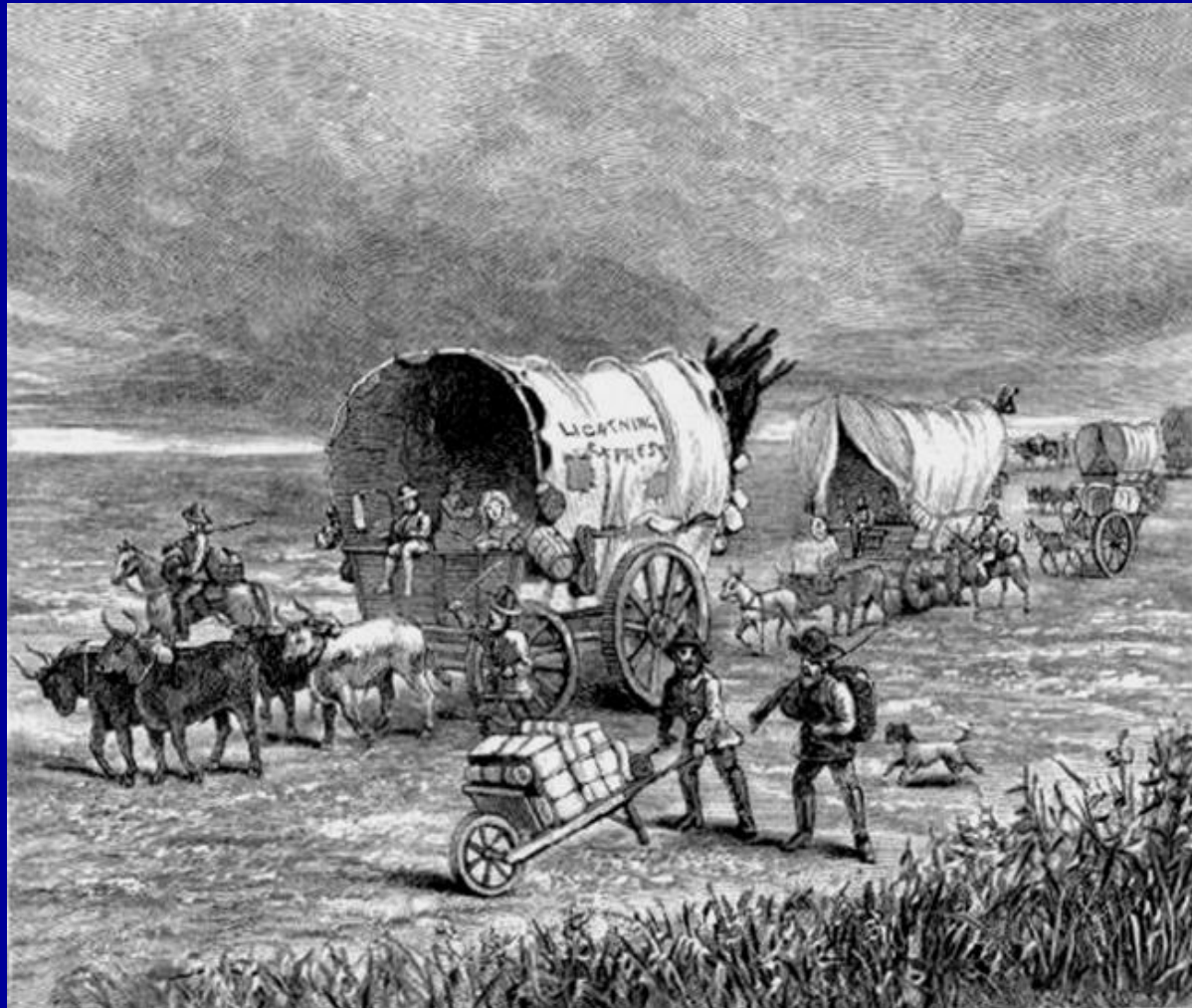
Founding of American Society  
of Civil Engineers and  
Architects in New York City  
November 5, 1852

Twelve “Founders” at the Croton  
Aqueduct Department office in  
Rotunda Park

# Transportation and Land Use in 1858 Denver Region (pop. 1,000?)



# Crossing the Great Plains in 1860 (Thayer, 1887)



# Ute Pass toll road – 1870s (Thayer, 1887)

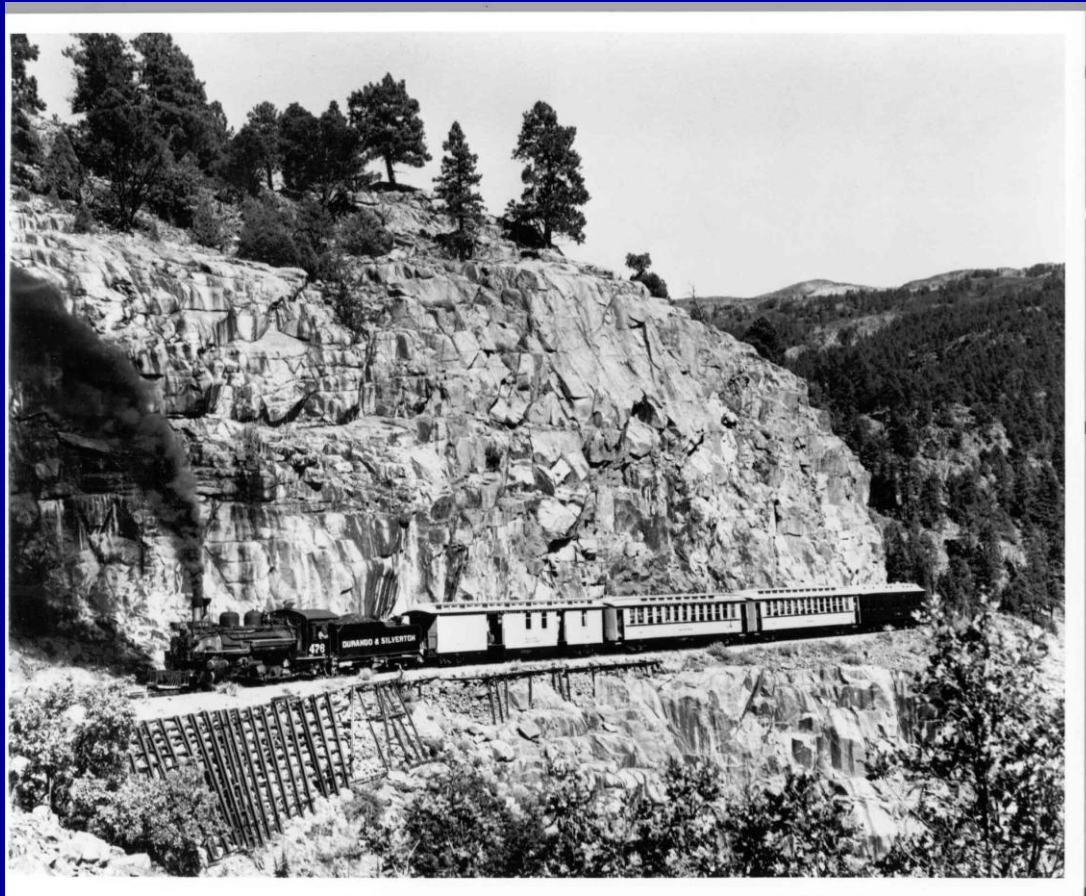


# Alpine Tunnel - Hancock Pass

Const. 1880-81; 1,773 Ft. long at El. 11,523  
View of Palisades Terrace below tunnel



# Durango & Silverton Railroad Const. 1881-82 NHCEL 1968



# The Devil's Gate Viaduct above Georgetown - January 23, 1884



# Denver Region - 1889



DENVER, 1889.

# Denver - Railroad Era



# Ames Hydroelectric Powerplant 1891-2009



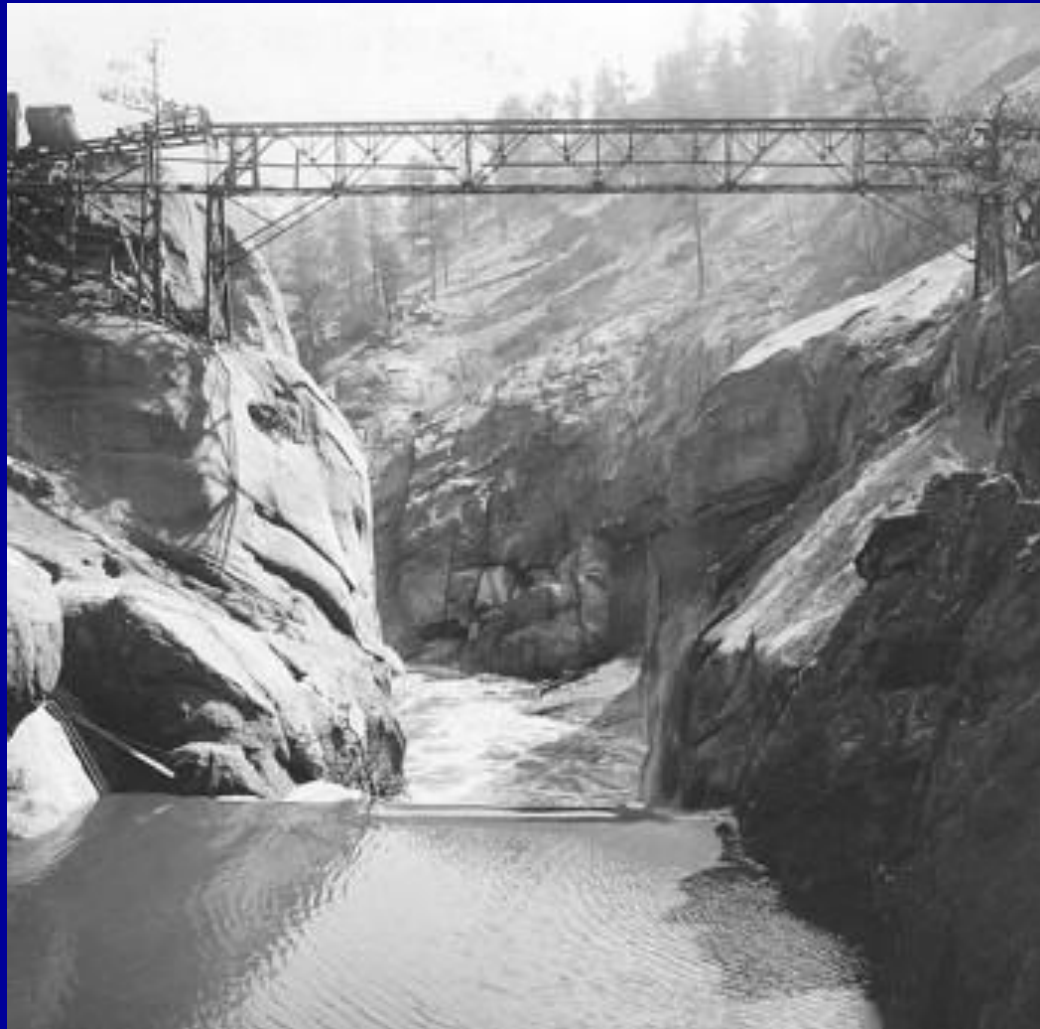
# Brown Palace Hotel - 1892



# Cheesman Dam Const. 1899 – Steel-faced Rockfill



# Cheesman Dam Const. Flood of May 3, 1900



# Skaguay Dam & Pike's Peak Hydroelectric Power Co. Project (near Victor) - 1901



# Pike's Peak Hydroelectric Project 30-in-dia wood-stave pipeline



# Pike's Peak Hydroelectric Project Penstock and Powerhouse



# Skaguay Dam

## Steel-faced Rockfill - 1901-2009



# Cheesman Dam Const. – 1901 Masonry Curved-Gravity Dam

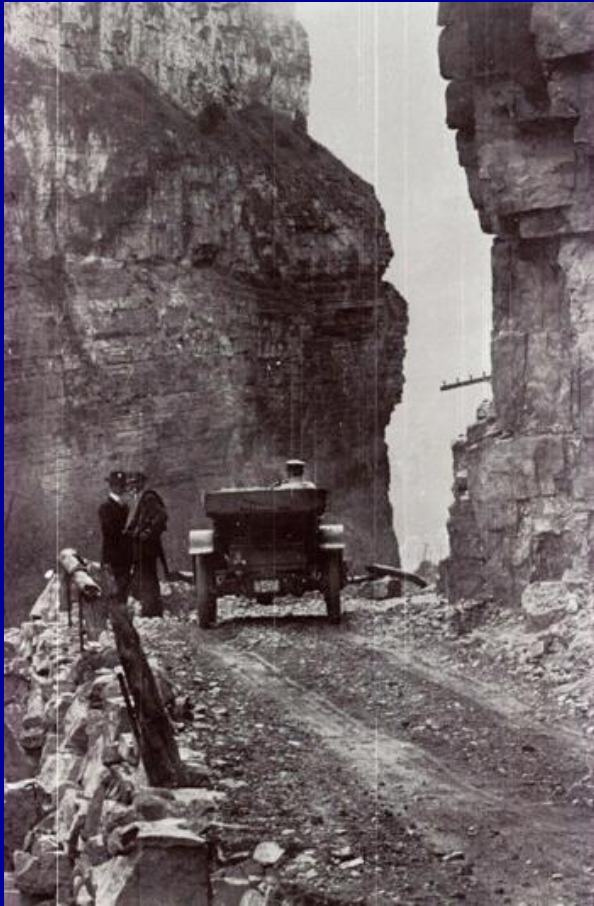


# Cheesman Dam – 1905-2009

## NHCEL 1973



# Glenwood Canyon - 1903 dirt road, bike trail construction, & I-70 (1992)





40<sup>th</sup> Annual Convention of  
American Society of Civil  
Engineers in Denver  
June 23 to 26, 1908

At the Adams Hotel in Denver and  
the Antlers Hotel in Colorado  
Springs – 440 attendees



Founding of Colorado  
Association of Members of the  
American Society of Civil  
Engineers January 9, 1909

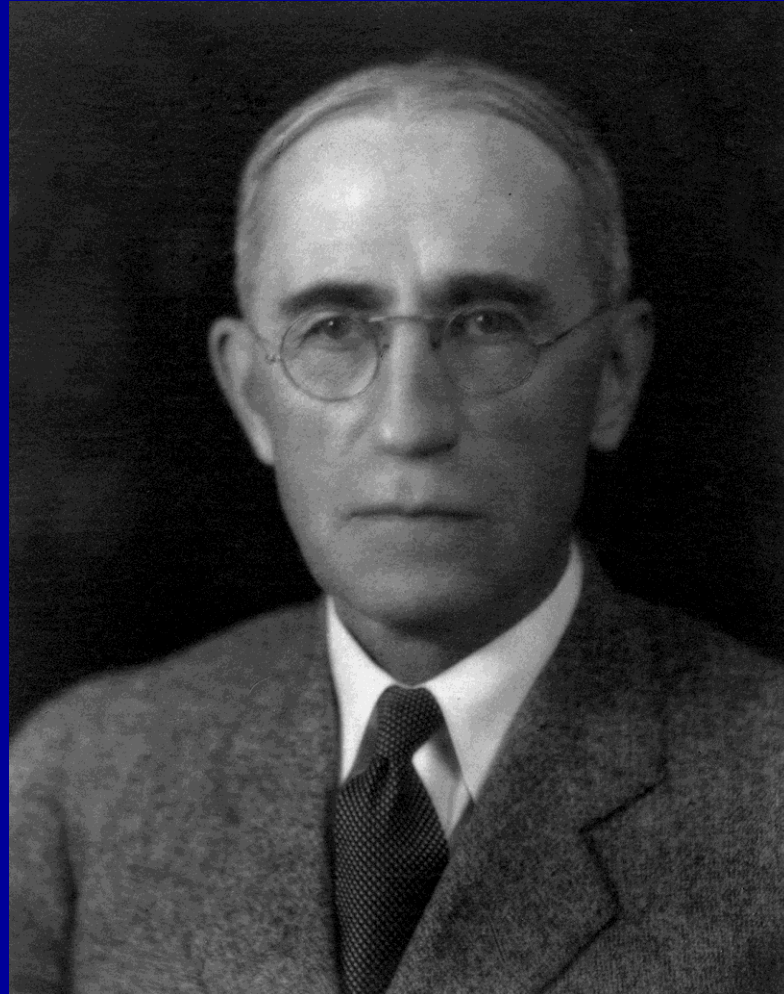
First Meeting at the Traffic Club in  
the Quincy Building at 17<sup>th</sup> St. and  
Curtis

# 1909 Officers Colorado Association of Members of ASCE

President – Herbert S. Crocker

Vice President – George G. Anderson

Secretary/Treasurer – Henry J. Burt



**Herbert S. Crocker, Hon. M. ASCE (1939)**

1909 – Colorado Association of Members of ASCE – 1<sup>st</sup> President

1932 – ASCE President

# ASCE Members in Colorado – February 1909 (63)

**Members** – M.S. Ketchum (Sr.), A.R. Livingston, G.G. Anderson, L.E. Ashbaugh, J.A. Beeler, L.D. Blauvelt, G.M. Bull, H.J. Burt, C.W. Comstock, H.W. Cowan, H.S. Crocker, J.E. Field, J.B. Hunter, T.W. Jaycox, G.H. Matthes, H.F. Meryweather, W. Pearl, G.T. Prince, H.A. Sumner, R.S. Sumner, J.C. Ulrich, W.C. Wetherill, T.L. Wilkinson, O.F. Shattuck, F.M. Bisbee, J.E. Maloney, M.W. Cooley, R.B. Ketchum, and J.W. Deen.

**Associate Members** – W.E. Belcher, A.G. Allan, J.B. Bond, L.B. Curtis, W.W. DeBerard, G.N. Houston, E.C. Jansen, V.A. Kauffman, E.A. Lee, I.W. McConnell, C.W. Raynor, F.G. Skinner, A. Spengler, R.D. Tyler, C.D. Vail, S.W. Henderson, F.H. Tillinghast, J.R. Wortham, S.G. Porter, A.L. Parsons, and W.R. Lewis.

**Associates** – L.C. Phipps and A.P. Poorman

**Juniors** – S.A. Miller, A.L.B. Moser, L.A. Andrus, L.R. Hinman, R.W. Gay, S.O. Harper, J.H. Fertig, W. Holbrook, T. Lindsley, and R.G. Tyler.

# Interurban Era



# South Platte Bridge - 1909



# Gunnison Tunnel

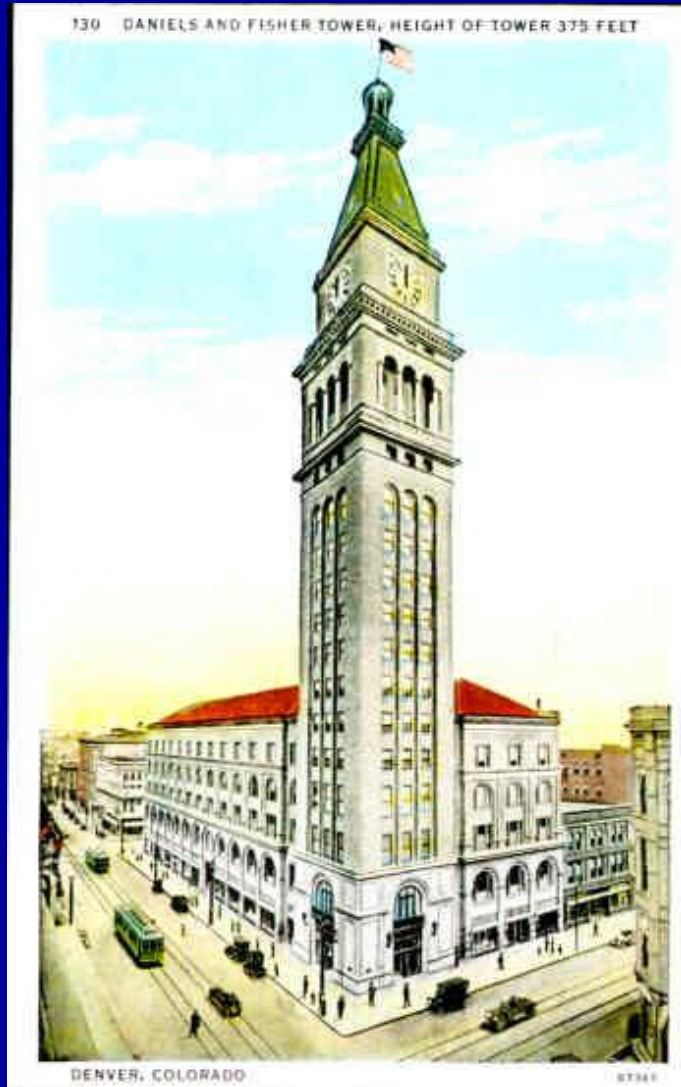
Pres. Taft dedication – 1909  
NHCEL 1972



# Alameda Overpass - 1910



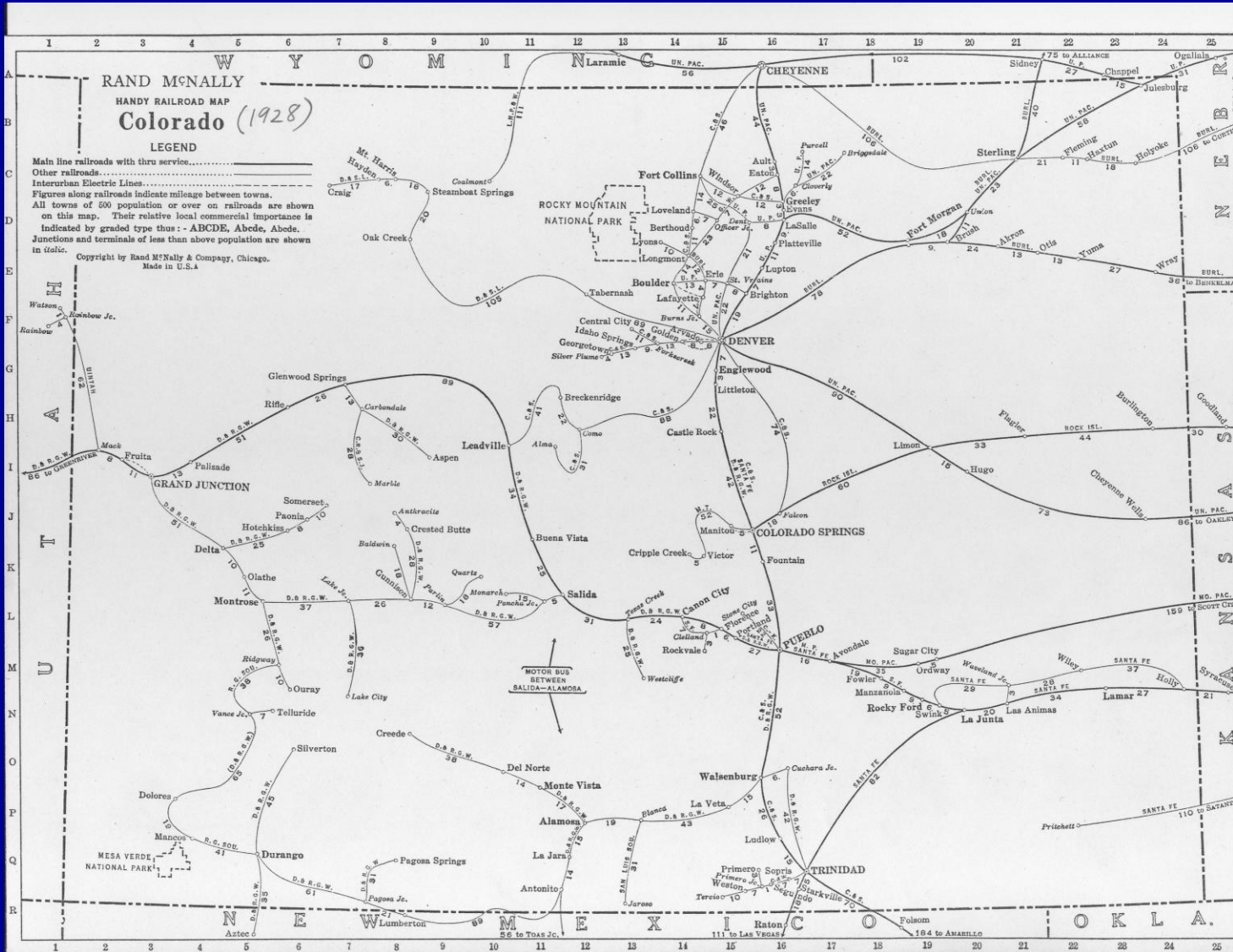
# Daniels & Fisher Tower - 1910



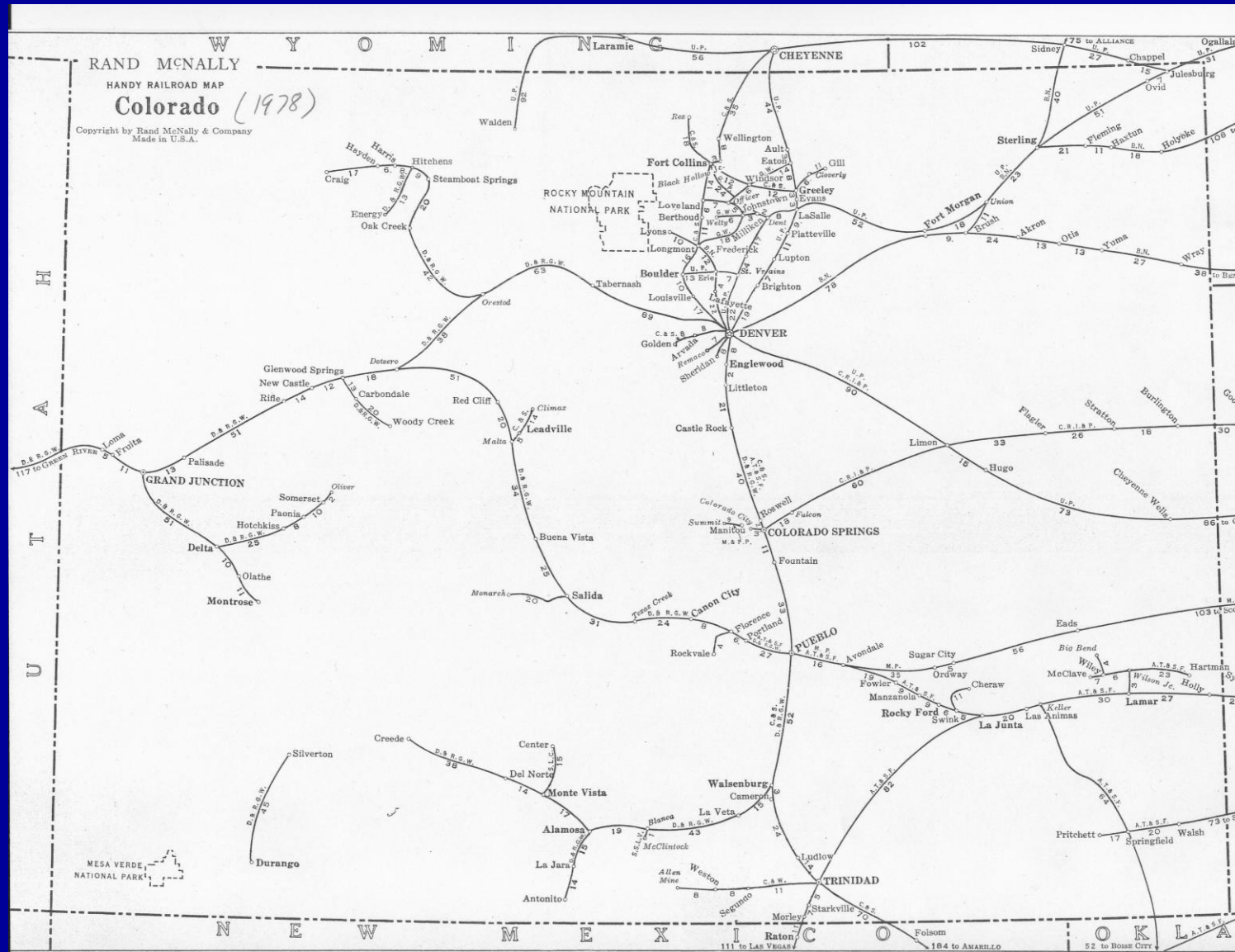
# Broadmoor Hotel - 1918



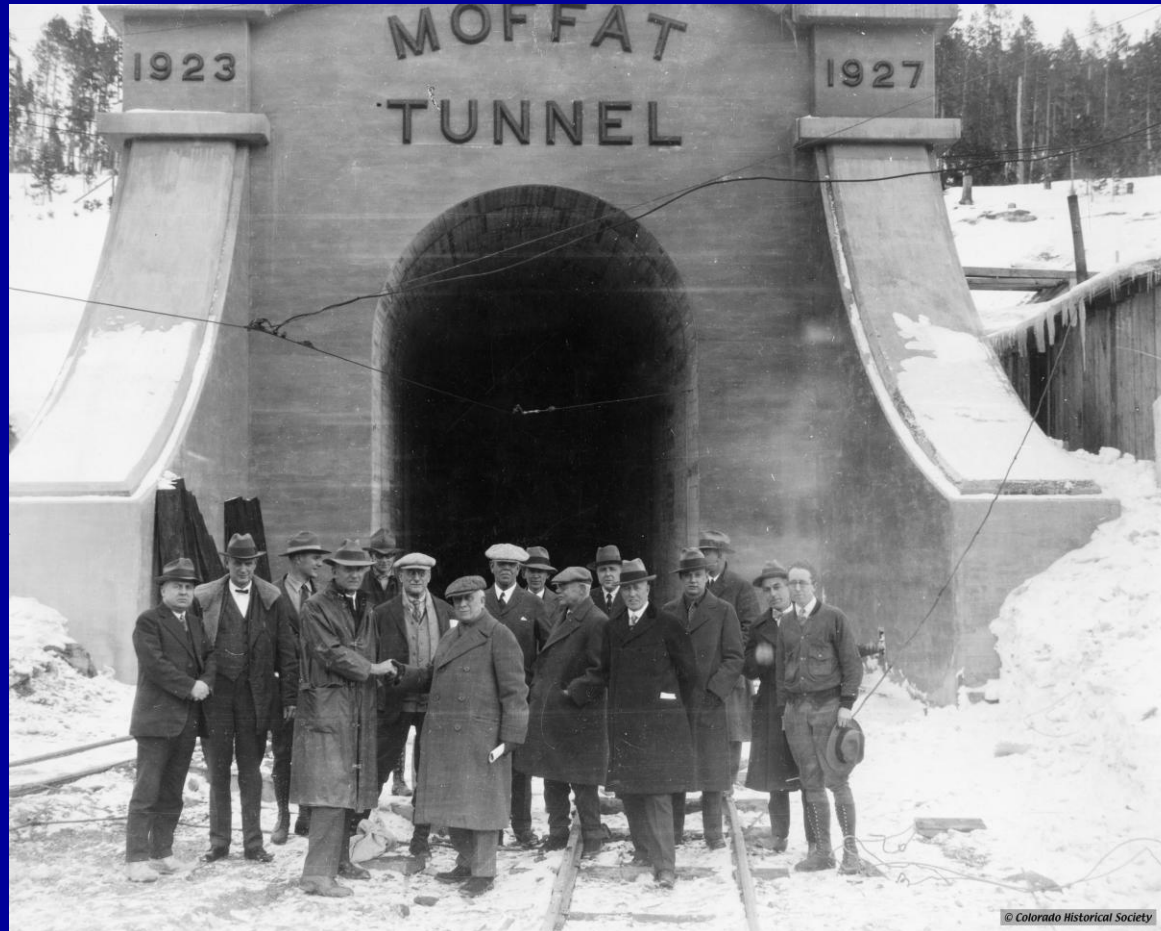
# Colorado's Railroads - 1928



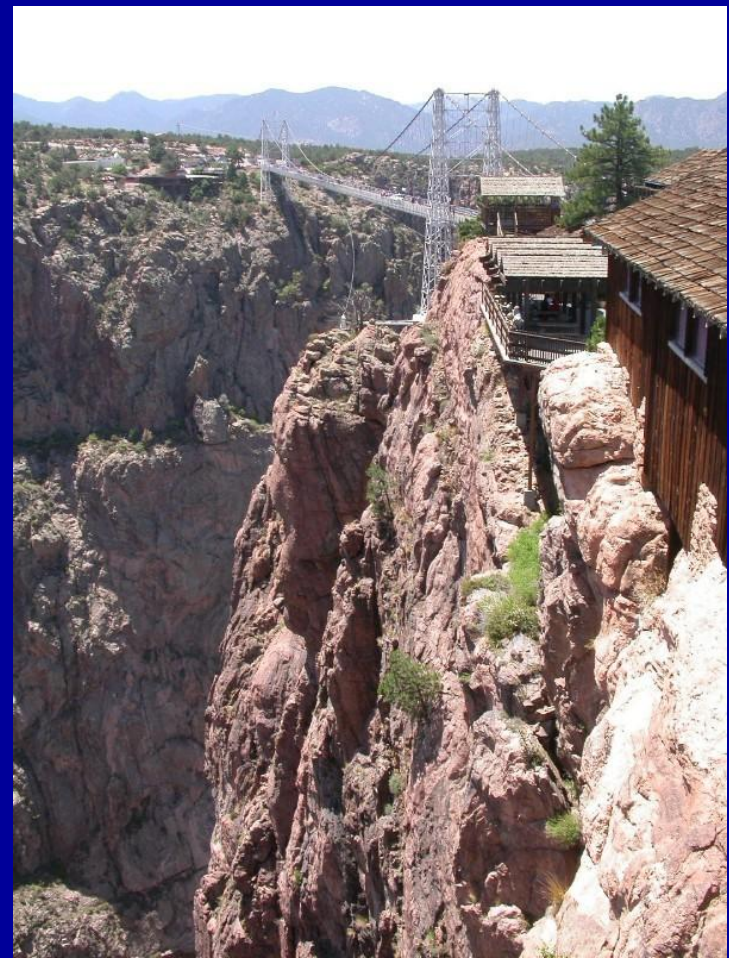
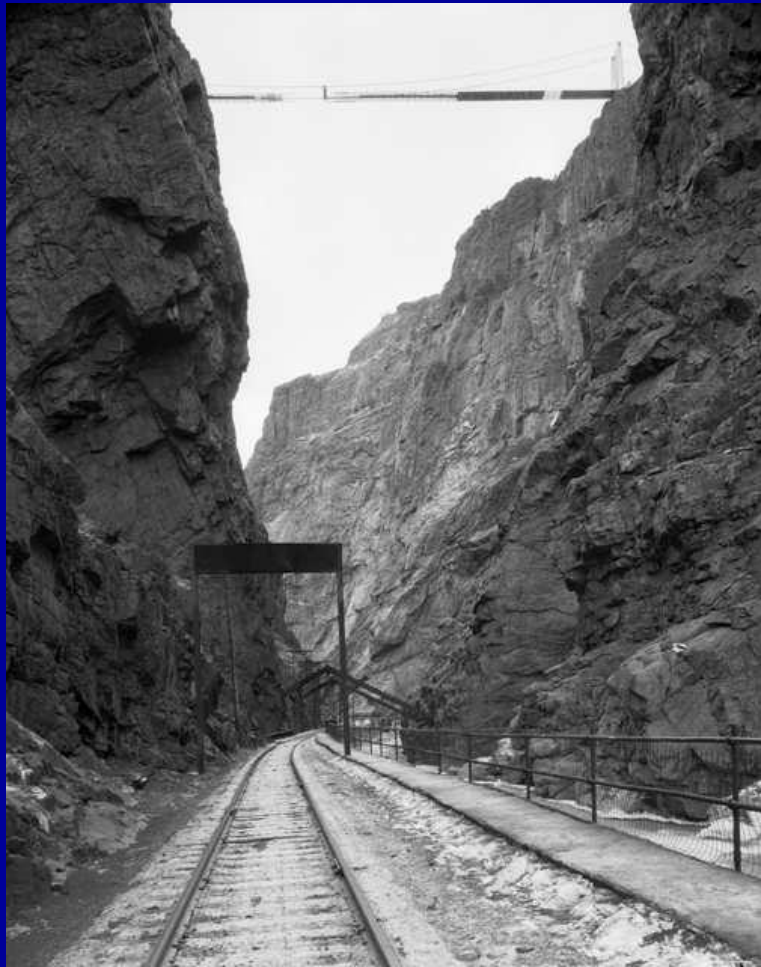
# Colorado's Railroads - 1978



# Moffat Tunnel Commission & Consulting Engineers – 1/28/1928 NHCEL 1979



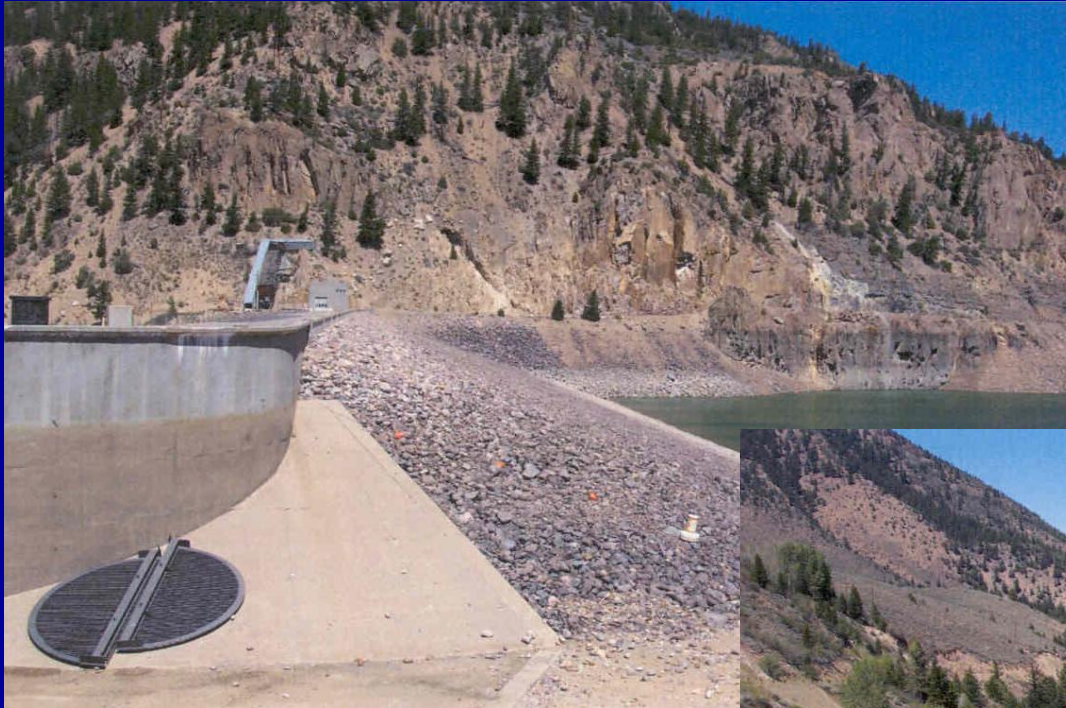
# D&RG's Hanging Bridge - 1880 and Royal Gorge Bridge - 1929



# US Hwy 6 Tunnel – 1940s



# CBT's Green Mountain Dam - 1943



# Stapleton Airport – 1940s



# Valley Highway Under Construction - 1949



# Cadet Chapel - Air Force Academy 1962



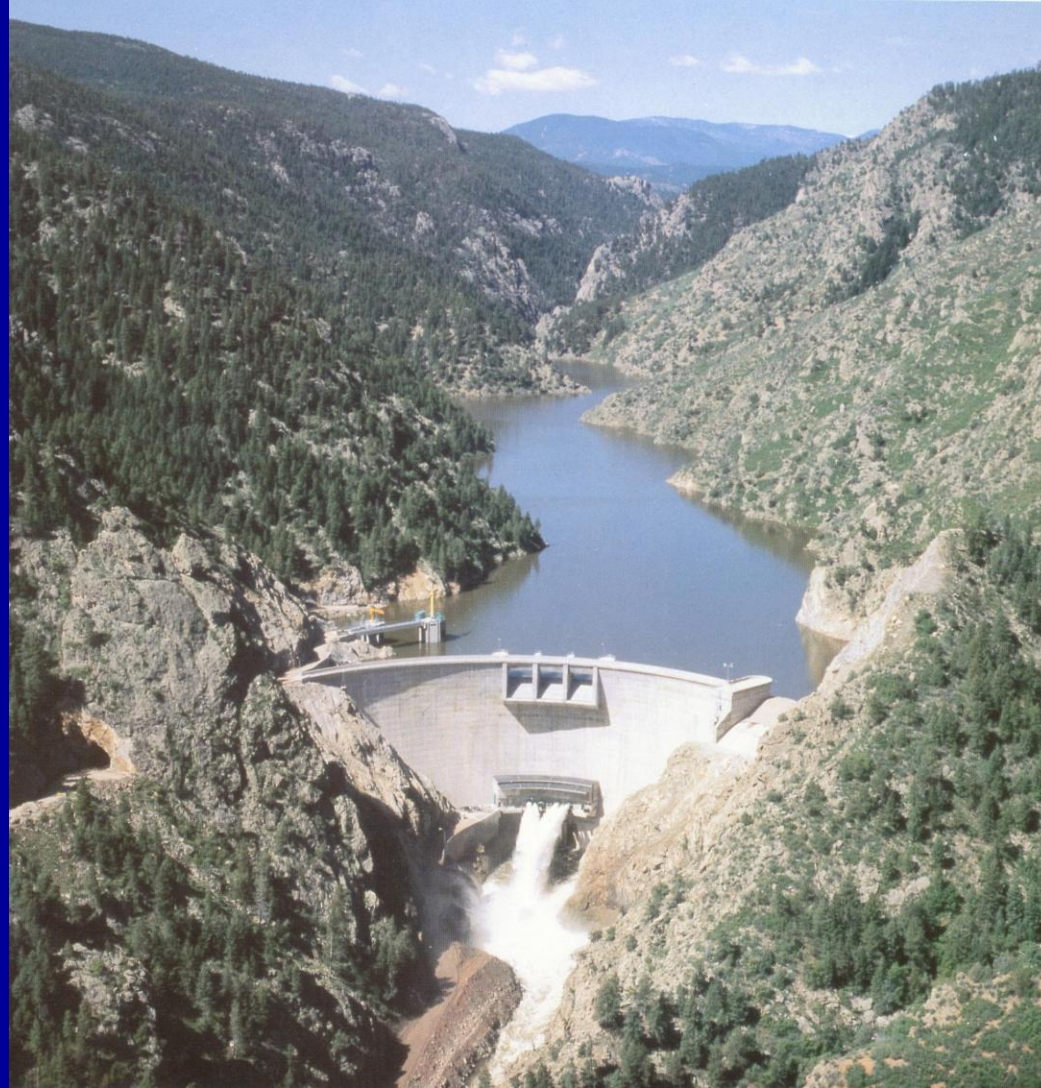
# Eisenhower and Johnson Tunnels – 1973 and 1979



# Pueblo Dam - 1975



# Strontia Springs Dam - 1983



# Ridgway Dam - 1987



# Jeffco Government Center 1993



# Denver International Airport – 1995

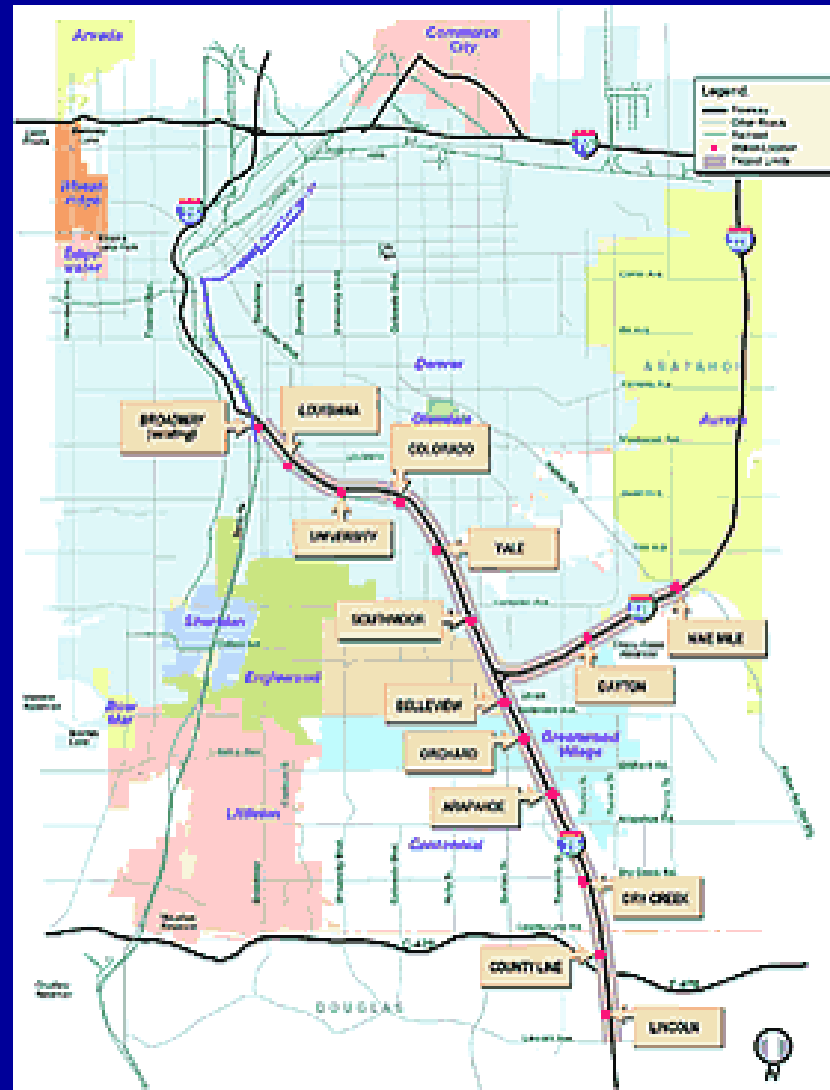
## ASCE's OCEA Award - 1997



# Denver Metro's Light Rail



# T-REX Project - 2006



# ASCE Colorado Section's Honorary/Distinguished Members

Paul E. Bartlett, P.E., Dist.M. - 1996  
Philip H. Burgi, P.E., Hon.M. - 2003  
Jack E. Cermak, Ph.D., P.E., Hon.M. - 2000  
Fu Hua Chen, Ph.D., P.E., Hon.M. - 1986  
Herbert S. Crocker, Hon.M. - 1939  
Clarence L. Eckel, Hon. M. - 1962  
Larry J. Feeser, Ph.D., P.E., Hon.M. - 2000  
Julian Hinds, Hon.M. - 1959  
Whitney C. Huntington, Hon.M. - 1957  
Jack R. Janney, Hon.M. - 1991  
A. Ivan Johnson, P.E., Hon.M. - 1992  
Milo S. Ketchum, Jr., P.E., Hon.M. - 1978  
Emory W. Lane, Hon.M. - 1963  
Stephen H. Long, Hon.M. - 1853  
Jorj O. Osterberg, Ph.D., P.E., Hon.M. - 1988  
John C. Page, Hon.M. - 1953  
Ralph B. Peck, Ph.D., P.E., Dist.M. - 1975  
George S. Richardson, Hon.M. - 1961  
John L. Savage, Hon.M. - 1941  
Charles L. Shumate, P.E., Hon.M. - 1974  
Richard G. Weingardt, P.E., Dist.M. - 2002  
Frank E. Weymouth, Hon.M. - 1938  
Kenneth R. Wright, P.E., L.S., Dist.M. - 2006

(Included are those ASCE Honorary/Distinguished Members who worked and/or lived in Colorado at one time or another.)

# Art Greengard's Book (1997)

