

Presentation Notes



Greenways: Where From, Where To

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“In the long run the mass estrangement from things natural bodes ill for the care of the earth. If we are to forge new links to the land, we must resist the extinction of experience. We must save not only the wildernesses but the vacant lots, the ditches as well as the canyon lands and the woodlots...”

--Robert M. Pyle

Abstract and Overview:

The concept of greenways evolved as an adaptive landscape form and is becoming a key component of urban infrastructure. This presentation traces the emergence and growth of this concept highlighting the evolution of Denver’s metro area greenway system from the Olmsted era legacy of parks and parkways through the 21st Century. It examines the landscape value of urban greenways and considers the broader multi-objective values of greenways including stormwater management, water quality, habitat preservation and economic development. The presentation discusses successful implementation strategies and examines how greenway advocates in Denver and surrounding communities led the way in creating 200-mile plus metro-wide system. Finally, we look forward and discuss where the greenway movement is headed in the future, how future generations will perceive greenways and how the Denver model can help shape the greenways of the 21st Century.

1. The Evolution of Greenways as An Adaptive Landscape Form

- Boulevards and Parkways
- Urban Trails and Trail Corridors
- Greenways as Multi-Purpose Urban Infrastructure
- Metropolitan Networks, Bioregions and Mega Trails

Greenways are an adaptive urban landscape concept growing out of classic human needs. Over the past three decades, urban greenways, as a landscape endeavor have expanded explosively. More than 500 communities in North America alone, have greenway projects in place or underway. Greenways and the greenway movement reflect an evolving centuries-old landscape form. This form provides a counterpoint to the loss of natural landscape in

the face of growing urbanization. The roots are in the European palace gardens, boulevards, parkways and axes, the ancestral greenways that inspired the likes of Olmsted, Birkenhead, Schuetze, Kessler, Burham and others. Indeed Reinhard Schuetze, a pivotal figure in Denver’s parkway legacy trained in contemporary 19th Century Europe

Inspired by the 19th Century ideas and the Garden Cities and New Town/Greenbelt movements in the in 20’s, a second generation, trail-oriented recreational greenways, emerged in the 1970’s along rivers, streams and abandoned rail lines. This was also inspired as an escape from an automobile-dominated environments.

A third generation emerged in the 1980’s, multi-objective greenways that become infrastructure for wildlife, flood hazard reduction, water quality protection and utility ways.

An emerging forth generation of greenways will express itself as regional, inter-city and inter-open space networks—even as links between remaining “islands” of deep habitat.



From Olmsted to Shoemaker: Key Events in The Evolution of Denver’s Greenway and Open Space System

“Ugly things do not please. It is much easier to love a thing of beauty—and this applies to cities as well as to persons and things.... every time a private citizen, by gift or otherwise, adds to a city’s beauty, he rekindles the spirit of pride in other citizens”

--Robert Speer, Former Denver Mayor



Timeline for the Evolution of Denver's Park, Parkway and Greenway System:

- Parkway System and Speer Boulevard—Schuetze/Kassler/Speer 1880's—1940's
- The Denver Mountain Parks—14,000 acres set aside, 1900 through 1930's
- The High Line Canal Trail—45-mile canal trail opened to public in 1960's
- South Platte Park—Money spent to buy the floodplain rather than channelize, 1968
- The Denver Platte River Greenway—reclaiming the blighted river, 1974-2002
- Jefferson County Open Space Sales Tax preserved 30,000 acres of open space—1972
- Mary Carter Greenway and Emerald Strands Projects—Since 1979
- Second Wave of Denver Platte Greenway and adjacent development—Since 1990
- Denver's "City in a Park" 50-year vision and other area plans---2000 and beyond

The genesis and evolution of Denver's park and parkway system occurred over a five-decade period beginning in the 1800's and culminating in the 1930's. Key elements in the foundation of this vision were the Parkway and Mountain Parks systems. While there had been improvements including the 1859 city plan that include parks, and the Park Avenue Parkway (1874), perhaps the first impetus was a scathing 1873 critique by commentator Horace W. S. Cleveland decrying the banality of Midwestern and Western cities including Denver and how those cities "failed to take advantage of the natural shape of the land—an outrage of common sense and beauty in dividing the land for profit." This led to a push for creating a rudimentary parkway system in Denver. In 1894, a very forward-looking parkway system master plan was drafted by an obscure draftsman named Edward Rollandet though it was most likely directed by Schuetze.

A major turning point came around the turn of the century when Mayor Robert Speer and other leaders and consultants including notable Kansas

City planner George Kessler refined the parkway plan and initiated its implementation. Reinhard Schuetze was a key player in this process along with other distinguished participants in the process including, the Olmsted brothers, Charles Mulford Robinson and S. R. De Boer.

A catalyzing moment in this process was Speer's 1893 visit to the Chicago World's Columbian Exposition. The fairgrounds, designed by Burnham and Olmsted epitomized a vision of a ideal city with grand buildings built along landscaped urban waterways. It left an indelible mark on Speer.

"No one would care to sit down behind rows of automobiles to enjoy life and scenery and to eat luncheon"

--Frederick Law Olmsted, Jr., 1914
(Commenting on plan to level top of Genesee Peak to create a parking lot.)

A key element of the parkway vision was to offer a landscaped "circulatory" network along a hub and spoke system linking parks, gardens and neighborhoods together. A key component of the system followed Cherry Creek traversing the heart of town. Heading off a plan to re-route the "sandy and miserable waste" of a creek into a trunk sewer, Speer began acquiring land and, starting in 1907, stabilized the creek banks with retaining walls and landscaping. Thus, Denver's first *greenway* was created.



At the same time Speer was implementing the Parkway system, the community also embraced a vision set forth by the Denver Chamber of Commerce and promoter John Brisben Walker.



The plan was to acquire and preserve as chain of Mountain parks forming a semi-circle in the foothills along the western fringe of the metropolitan area. The parks were to be made accessible to the people “linked by a well-built road connected at each end to Denver by a splendid drive”. Frederick Law Olmsted, Jr. was hired to plan the network and today the legacy is a 14,000-acre system.

In the 1960’s two other major decisions were made that significantly contributed to Denver’s and, indeed America’s trail and open space legacy—the creation of the High Line Canal Trail and preservation of South Platte Park.

The High Line Canal was an engineering marvel of the 19th Century. With a dream of irrigating “The Great American Desert”, work began on the High Line in 1879 creating a 70-plus mile waterway winding through the eastern flanks of the metro area. Originally built for irrigation purposes, the canal ditch rider road was opened for public recreational use in the 1960’s forming one of Denver’s longest and most popular greenways.

South Platte Park was the result of activists saying no to a U.S. Army Corps of Engineers plan to put the South Platte River in a structural channel along its reach through much of Littleton. Lead by trout fishing activists and elected officials in Littleton, the Corps of Engineers was “convinced” to use a non-structural alternative (i.e. use the construction money to buy and preserve the floodplain) and set aside over 600-acres of riparian land as an open space and nature center. It took an Act of Congress to change policy but the legacy of the non-structural alternative lives on nation-wide.



South Platte Park, 2002

It was an act of nature over 35 years ago that kick-started Denver’s urban greenway system. In 1965, the South Platte, neglected and abused for so many years, flooded causing millions of dollars of damage. Under the leadership of then Mayor Bill McNichols and Colorado Senator Joe Shoemaker, a nine-member task force set out to reclaim the river as a major community asset. At that time, there were few examples of similar successful projects except perhaps the San Antonio Riverwalk. Nonetheless, the City Council approved a modest seed grant and the City secured matching funds from a number of federal, state and philanthropic sources.



The South Platte River in 1974

The effort started by building several demonstration sections of trail along the river complemented by small parks and feature areas. Unsightly rubble and trash on the riverbanks was cleaned up and numerous (and dangerous) small dams were notched to create chutes for kayaks, rafts and canoes. These beginnings were modest but monumental in their impact because they demonstrated what could be done.



Platte (Mary Carter Greenway, Littleton, 2002



In the years that followed the project continued to grow until a continuous trail and string of parks lined the 10-mile reach of the South Platte River through the heart of Denver. People began to use the trail, paddle in the water and support the project. The concept soon caught on in the suburbs and virtually all of the communities in the metro area began building connecting trails and greenways. Developers joined in and connected new planned communities to the system.

Today, the Metro Denver Area has well over 200 miles of interconnected trails and greenways and many thousands of acres of protected open space and the system continues to grow. The idea also spread to the other cities up and down the Colorado Front Range.



Mary Carter (Platte River) Greenway, 2002

Building on a continuum of greenway efforts that began with Shoemaker, and was continued by McNichols successor Federico Pena, Mayor Wellington Webb continued in the 1990's a second wave over of \$10 Million worth of improvements along the Platte adding new parks, upgrades, wetland restorations and boating facilities.



Denver Platte River Greenway, 2002

With the greenway as a focal point, new development flourished along once blighted Platte including new residences, a REI Flagship store, a *Six Flags* theme park, and aquarium. Ultimately, over a billion dollars of private investment occurred.

Another important offshoot of the greenway effort was the engagement of community volunteers in major tree plantings, wetland restoration and revegetation projects. Partnering with Volunteers for Outdoor Colorado a tradition of annual urban stream stewardship projects began in the 1990's, single-day events that engaged thousands of area youth, families and employers. This promoted strong local corporate and philanthropic financial support.

Another important offshoot was the formation of a regional greenway network that includes a series of loops following the Platte and its tributaries including a new 50-mile loop formed by the Sand Creek Greenway, The High Line Canal and The Cherry Creek Greenway.

2. Planning and Designing Outstanding Greenways: Guiding Principles

Resources Conservation and Infrastructure

- Continuity, Connectivity and Accessibility
- Resource Integrity
- Floodplain and Geomorphology
- Vistas and Views
- Buffering
- Education and Stewardship
- Safe and Maintainable

Trails and Recreation

- Continuous and Interconnected
- State of the Art Design
- Avoid User Conflict and Conflicts with Adjacent Lands
- Trail Experiences
- Information and Wayfinding
- Water Recreation
- Infrastructure Benefits
- Safe and Maintainable

Guiding Principles Elaborated

Resource Conservation

- Establish and preserve continuous, interconnected open space corridors of adequate width to accommodate natural



plant communities, movement of wildlife, water quality, scenic qualities and healthy geomorphic processes. All neighborhoods should have readily accessible from neighborhoods where public.

- Preserve and restore the scenic, ecological, paleontological, and cultural integrity of the corridors. Conservation lands should be naturalistic, undeveloped and managed for optimal wildlife and scenic values. Open space may be privately or publicly owned provided that guiding principles are met.
- Preserve and enhance the floodways and 100-year flood plains of creeks and rivers. Adequate floodplain land should be set aside to naturally contain the 100-year flood without the use of channelization and hard structures.
- Preserve vistas when viewed from the corridors, adjacent roadways and other important prospect points.
- Adequately buffer resource conservation lands and scenic areas from any potential adverse impacts. Open space should not create nuisances, adversely impact or be adversely impacted by adjacent land uses.



Boat Chute, Mary Carter Greenway, 2002

- Promote interpretive and educational opportunities to inform the public and build public support for resource conservation including the involvement of youth and volunteers in stewardship activities.
- Conservation lands should be safe and affordable to set aside and maintain.

Trails and Recreation Facilities

- Trails should be continuous and interconnected. They should meet state-of-the-art design standards appropriate to the types of trail uses and be accessible regardless of physical ability, age, income or location in the community.
- All trail and trail improvements should be designed for minimal visual intrusion and impact on the environment. All impacts should be mitigated.
- The trail system should be properly designed and adequate to avoid user conflict and overcrowding.
- Trails should run through pleasant and serene settings, buffered from unpleasant noise, odors or visual intrusion, offering a variety of experiences and connecting to places of interest. All off-street trails should be grade-separated from road traffic using safe underpasses and overpasses. There should be local trail loops, tributary trails and safe on-street bike routes connecting to communities and other destinations. There should be a variety of trail outing lengths offered that provide a range of experiences from a 20-minute work out to a multi-day journey. There should be an integrated system of rest areas “way-stations” (places to stop and buy food and water or spend the night on longer trails) with sources of drinking water, toilets and shelter from weather.
- There should be an integrated and adequate information system including safety and degree-of-difficulty/accessibility signage, user wayfinding, directional and milepost signage and educational/interpretive systems.
- Where applicable, trail access should include continuous access by paddle craft (canoes, rafts, dories, etc.) and anglers.
- Trails and trail facilities should not adversely impact or be adversely impacted by homes, places of business, agriculture/ranching, mineral extraction and the natural environment.



- Where feasible trails should serve multiple objectives such as drainageway maintenance, utility rights of way and access, emergency access and commuter transportation.
- Trails should be safe and affordable to build and maintain. Youth and volunteers should be involved in the patrol and stewardship of the trail and trail corridor.



Platte (Mary Carter)Greenway, Littleton, 2002

3. Vision to Reality: Making Greenways Happen

Start building the greenway now and don't stop until it is done!

No power is all power

--Joe Shoemaker, Chair Mayor's Platte River Development Committee

Key Implementation Components

1. Agree Upon a Vision and Action Plan
2. Build Community Support
3. Commit Agency Staff and Community Leadership to Champion the Plan
4. Project Administration and Professional Services
5. Begin Securing Land, Rights of Way and Permits.
6. Identify and Secure Funding Sources and Partners

7. Initiate Pilot Projects and Phasing Scheme (Roster of Projects)
8. Plan for Follow-Through and Long Term Continuity

The master plan provides the vision and steps for realizing the greenway vision. The plan may be succinct and simple or it may be extensive and detailed. In all cases it must be visionary, inspiring and reflect the goals and aspirations of the community. It may take a generation or more to realize all of the improvements envisioned. A good plan should also lay out the "roadmap" for taking the plan from vision to reality in a systematic series of steps with emphasis on accomplishing clear and publicly visible objectives each year. A key will be to understand the scope of the project, the costs, the likely available resources and how to build and maintain strong community support for and commitment to completing the project.

Solid community support for the project is critical. Residents, user groups, business people and agency partners must not only be inspired by the plan, but also embrace it over the long term. The community needs to be kept informed, involved and realize a direct benefit from the project. This can be accomplished by:

- Engaging stakeholders and leaders in the planning and implementation process through presentations, surveys, planning workshops, volunteer projects and special events.
- Having an effective public information program including clear, easy-to-read reports, brochures, web site updates, posters, and progress presentations. Several prominently located "status boards" should be posted at prominent locations including existing access points along the river corridor. The status boards should show the plan map and key objectives and a contact number for more information or to volunteer. The boards should be regularly updated to show progress and need for suggestions, additional support and funds.
- Prioritizing, completing and building public awareness of projects that will demonstrate the benefits of the project.



- Immediately moving forward with pilot projects that demonstrate the plan's vision as well as completing and dedicating additional projects or project elements year by year.
- Having a quality management and maintenance program that includes an effective citizen/user feedback mechanism to provide a responsive ear for each user concern.

Leadership and Governance Models

(Thank you to Chuck Flink for his input and collaboration on this topic)

Organization and leadership is the single most important consideration in taking a plan from concept to reality. Almost without exception, success hinges on the leadership of a committed individual or a small group of individuals who embrace and champion the plan. Often, these are public-spirited citizens, a business leaders, or political leaders who have a passion for the plan, who embrace the effort and commit to its fulfillment over the long term. For example:

- Joe Shoemaker championed the \$ 20 Million Platte River Greenway in Denver.
- Mary Carter, a local mayor in the Littleton area spearheaded the creation of the \$ 4 Million Arapahoe Greenway in the south metro Denver area (later named the Mary Carter Greenway after her passing).
- Colorado Springs identified a cadre of "trail champions" who lead effort in each of their respective districts to fulfill a citywide trail and greenway plan.
- In each case it was this leadership, backed by local agency staff and recruited professional services that resulted in success. In each case the champions stayed with the efforts for many years posting accomplishments year by year. Their key skills were diplomacy, patience, resourcefulness and persistence.

Governance, or the organizational structure for project ownership and administration may take a number of different forms including:

- **Single Agency**—where a designed governmental agency leads and manages the

project. Pitkin County, CO and Boulder, CO are good examples of this model.

- **Multiple Agencies**—where several governmental agencies form a coalition or an intergovernmental agreement to lead and manage the project. Charlotte/Mecklenburg County, NC is a good example where the parks, stormwater and utility agencies have partnered to pursue a trail and greenway system.
- **Public-Private Leadership (strong side public)**—where a public agency takes the lead in partnership with a citizen's action group or non-profit that helps promote the project and raise funds.
- **Public-Private Leadership (strong side private)**—where a private organization leads the effort with strong support and backing by a public agency. The South Suburban Park Foundation, Inc. in Littleton is a very successful example of this approach.
- **Private Sector Leadership**—where a private organization takes on all or almost all of the project leadership, financial responsibility and ownership. The Yakima Greenway in Washington State is an excellent example of this model.



Platte River Greenway, Denver, 2002

Project Administration and Development Services

Functions such as fund raising; grant administration; right of way negotiation; budget management; hiring and supervising design and other technical consultants; agency coordination; project promotion and other services are vital to the successful implementation of the plan.



Professional and Technical Services

These include landscape architects, engineers, ecologists, and attorneys to prepare construction documents, conduct environmental studies, prepare property conveyance documents and other necessary technical functions.

Project Owner

In addition to securing administrative and technical services, it will be important to designate a contracting agency or agencies that will act as the project “owner”. This a best performed by the city, county, or a special district that will oversee both development and long-term maintenance of the project.

Policies and Funding Resources

There are a number of kinds of resources that can be brought to bear in implementing the plan. These include:

- Polices and Regulatory Measures Including Incentives
- Local Public Funding and Public In-Kind Resources
- Outside Pubic Funding
- Private Sector Funding
- In-kind, Youth and Volunteer Resources

Begin with an assessment of Current Implementation Policies and Resources

The process should begin with an inventory of currently available resources. This includes a tabulation of grant programs and existing and potential taxation and regulatory measures. The tabulation should assess the potential annual amount that can be raised in order to project the scope and pace of improvements that can be financed.

Though not traditionally thought of as a “resource”, local, state and federal regulations and policies should be considered. This should begin with a review of existing policies and ordinances particularly subdivision regulations. The examination should consider dedication of trail rights of way, dedication of open space, incentives for cluster development that sets aside common open space, funding for trails construction and other improvements that can be ethically and legally required. There are a

number of examples of long standing policies and ordinances communities nationwide that have already passed the required political and constitutional tests. A strong emphasis, however, should be placed on incentives.

Identify local seed money and matching funds

There are a number of potential outside funding sources at the state and federal level as well as private sector grants that could bring substantial resources to a project. Most of these however, require a substantial local commitment of matching dollars as well as evidence of community support, a sound master plan, secured right of way and the administrative capability to complete and maintain projects. Identify and securing these local resources and capabilities, therefore is a first priority.

Pilot Projects, Phasing and Replication

Creating and sticking to a realistic plan implementation schedule is vital to, and will insure the success, credibility and continuity of a greenway project. The process begins with identifying a project or projects for immediate implementation (begin construction or acquisition within 12-18 months) and creating a strategic roster of projects for implementation over the next three to five years. Several criteria for selecting and prioritizing projects include:

- Identified By Local Communities & Stakeholders as High Priority
- Broadest Range of Community and User Benefits
- High Visibility and Demonstrates the Concept and Mission of the Plan
- Provides a Vital Regional Linkage or Network Opportunity
- Provides a Vital Resource Preservation Opportunity
- Helps Form the Spine of a Larger System or Network
- Ties In With Multiple Objectives (i.e. Drainage & Transportation)
- Land or Financial Resources Available or Potentially Available Soon



- Can Be Completed Within a 1-5 Year Time Frame
- Opportunity May Be Lost If Not Pursued Now

Follow-Through and Continuity

Follow through is key to maintaining the credibility and thereby the success of the project. Solid leadership, committed staff, and securing the financial resources necessary to administer the project best achieve follow through. Adopting and sticking to a roster of projects with demonstrated progress—building logical and meaningful segments each year—would do much to promote long-term continuity.

Dealing With Nay Sayers, NIMBYS and Curmudgeons

Almost without exception, greenway projects will encounter resistance. Even Robert Speer, the great visionary of Denver's Parkway system encountered staunch and bitter criticism. The keys to overcoming this sometimes-daunting challenge are willingness to listen, to compromise where appropriate and, most importantly, the virtues of perseverance and patience.

4. The Future of Greenways

Indeed, the greenway movement is firmly entrenched nationally and even spreading worldwide. The concept has evolved from parkways and trails to multi-functional infrastructure. Where will the greenway movement go next and what role will it play in the mission of urban resource conservation? Looking at Denver's experience and the greenway movement nation-wide, are there patterns and trends we can detect? Is there a direction indicated that we should follow? Here are a few topics for contemplation and discussion:

The 4th Generation of Greenways— The Vision

Denver's system has evolved into a regional-wide interconnected trail and greenway network and there are urban resource conservation plans emerging in a number of the surrounding quadrants. This model is also being looked at in other major metro areas including St. Louis, Kansas City and Toronto. This is an evolving 4th

generation that looks at networks and bio-regions.

We are also seeing the evolution of mega trails and mega greenways that cross entire states or regions such as the Missouri Katy Trail and Florida's Lake Wales Ridge corridor.

The Challenges

- Fragmented Habitat
- Growing Population and Development
- Accommodating Catastrophic Natural Events
- Virtualization of our Culture with Simulated Experiences Such as Computer Games and Theme Parks.
- Resources and Funding



The Opportunities

- Economic and Technological Incentives
- Expanded Awareness and Constituency
- Baby Boomers User Market
- New Conservation Technologies
- Economic Incentives and Justice
- Innate Human Needs for Nature
- New Recreational Technologies (PDA, Eco-bike, Segway)



The Big Questions:

Resources and Impetus:

- Distraction by the coming era of crisis. In the post 9/11 era, will trails and greenways be a priority?
- Will things change without either a crisis or a technological leap?

Know-how and Purpose

- Are we able to fix nature?
- Is it Eden or the Ark?
- Are we in the environmental business, the infrastructure business or the entertainment business?

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About the presenter:



Robert M. Searns plans and develops trails, greenways, and bicycle/pedestrian facilities. He also plans open space, interpretive and youth/volunteer stewardship projects. He was Project Director of

Denver's *Platte River Greenway* and developed the national award-winning *Mary Carter Greenway* in Littleton, CO. He has a 30-year track record working with communities to implement and manage their projects.

He has been an instructor and advisor for the *National Park Service*, the *National Recreation and Park Association* and the *National Rails to Trails Conservancy*. He has written articles and editorials for *Landscape Architecture Magazine*, *Planning Magazine*, *The Kansas City Star* and other publications and has conducted workshops in the U.S. and abroad. He co-authored with Chuck Flink, *Greenways: A Guide to Planning, Design and Development* and *Trails for the Twenty First Century* (Island Press) and contributed to *Greenways* (Elsevier Press). He is a member of the Board of Trustees of *American Trails* and serves on the Editorial Board of the *International Urban Water Journal*.

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