



CONNECTING THE PEOPLE TO THEIR RIVER

SOUTH PLATTE RIVER VISION IMPLEMENTATION PROGRAM: GRANT-FRONTIER PARK TO OVERLAND POND PARK REACH

The South Platte River Vision Implementation Program (River Vision) delivers creative solutions for valuable enhancements to the River ecosystem, public health, safety, welfare, and enjoyment of the surrounding environment. Components of the program are also serving as models for similar successful riverine corridor improvements nearby.

An Ambitious Plan:

Transforming the blighted South Platte River and surrounding environment into Denver's greatest natural resource.



In 1974, The Greenway Foundation (TGF), along with the City and County of Denver Parks and Recreation Department (DPR), began a decades-long partnership to initiate improvements positioning the nearly eleven-mile South Platte River Greenway Corridor as a valuable unifying element in the City's overall scheme for purposeful, sustainable redevelopment.

River Vision, developed as a single implementation and priority setting document for those improvements, focuses on enhancing the health of the South Platte River, and ultimately establishes a new, contemporary vision that recommends aquatic habitat; recreational, environmental, and flood control enhancements; expanded public open space; aesthetic enhancements; and improved water quality along the riverine corridor.

Focused Implementation Connecting the People to Their River

The City and County of Denver, along with TGF and Urban Drainage and Flood Control District (UDFCD), worked with CDM Smith, landscape architects THK Associates (THK), and playground designers PKM to help develop and implement River Vision, including the Grant-Frontier Park to Overland Pond Park Reach (GFO) improvements.

River Vision focused on:

- ***Creation of a river-focused urban environment;***
- ***Promotion of ecosystem restoration;***
- ***Enhanced accessibility, safety and security, aesthetics, and water quality;***
- ***Creation of a parks/open space-oriented model for urban living;***
- ***Maintaining or improving flood control capacity and stability of the River.***

The City and County of Denver, UDFCD, and Colorado Water Conservation Board (CWCBC) partnered to fund the implementation of five priority projects along the Greenway Corridor. The CDM Smith Team (including THK and PKM) worked with project stakeholders and local neighborhood associations to lead the GFO project, including the analysis, design, and construction of multi-purpose improvements spanning floodplain reconnection; instream aquatic habitat, channel, and bank modifications; park enhancements, nature play, and recreational use improvements. The completed work has balanced the multiple objectives of many stakeholders (TGF, DPR, CWCBC, UDFCD, Denver Public Works (DPW), Denver Water (DW), Trout Unlimited, citizens, property owners, and other City and County Departments, and public and private organizations) to deliver creative, holistic solutions enhancing the river corridor for future generations.

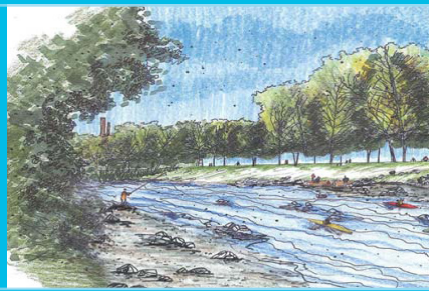
Goals

Specific goals for River Vision were actually derived from the River North (RINO) Corridor and River South (RISO) Corridor Greenway Master Plans. Goals for River Vision focused on enhancing the public health, safety, welfare, and environment, including:

- Creation of a River-focused urban environment.
- Promotion of ecosystem restoration.
- Augmentation of existing successful parks and venues along the Central Platte Valley by creating new diversified activity centers.
- Creation of a parks/open space-oriented model for urban living.
- Enhancement of the River corridor's safety.
- Utilization of existing and proposed parks as the organizing elements that create a sense of place and community focal point.
- Creation of a regional gateway to downtown.
- Establishment of the RISO and RINO Greenway corridors as destinations for entertainment, recreation, and commercial and residential amenities.
- Connection of neighborhoods and public facilities.
- Encouragement of multiple, alternate transportation modes.
- Making the River edge more accessible through additional Americans with Disabilities Act (ADA) access points.
- Providing local, nationally recognized destinations for boaters and anglers with varying skills and abilities.
- Improving native fish passage throughout the South Platte River Corridor.
- Improvement of aquatic and terrestrial habitats.
- Improvement of water quality.
- Adoption of an adaptive management approach to reducing trash.
- Implementation of the RINO and RISO Greenway Master Plans by identifying and fostering project partners.
- Maintenance or improvement of the flood control capacity and stability of the South Platte River.



1.



2.



3.



4.



5.



6.

Implementation

The River Vision GFO project began as one large project, with a focus on completion of the RISO Plan improvements detailed in that master plan document. As design moved to 60% complete and contractors began to bid the work, however, increasing construction costs quickly made the desired River Vision scope unattainable for the City, in spite of their desire to get under way quickly.

In order to keep the project moving, CDM Smith worked with the City and County of Denver to prioritize needs and value engineer the project into manageable packages that could be implemented as funding became available—with each still delivering on TGF and the City and County of Denver's Vision. Those project packages became known as Schedule B, C, and D. Schedule B was developed to focus specifically on the South Platte River restoration within the GFO, while Schedules C and D focused on specific river corridor, park, and recreational improvements along the GFO reach.

Images

1. Schedule B - Boat jetty rendering
2. Schedule B - River restoration rendering
3. Schedule B - During construction
4. Schedule B - During construction
5. Schedule B - Post-construction
6. Schedule B - During construction, post-2015 high water



Schedule B - South Platte River Restoration

River Restoration efforts have resulted in an enhanced, River-focused urban environment. Benefits have included:

- **Ecosystem restoration** resulting in improved fish passage, improved aquatic and terrestrial habitats, and a more abundant fish population;
- **Increased accessibility to the River and connectivity** to neighborhoods and public spaces;
- **Increased recreational usage;**
- **Improved safety, security, and aesthetics;**
- **Improved native fish passage;**
- **Improved flood control capacity and stability** of the River.

For the River restoration efforts, the CDM Smith Team provided heavy technical support, stakeholder outreach, and grant application assistance — ultimately helping secure more than \$13 million in funding for the construction of recreation and habitat improvements.

The City partnered with UDFCD, TGF, and the CWCBC for project implementation, with UDFCD driving the river restoration efforts. The CDM Smith Team worked with all of these stakeholders to provide planning services, reassess and prioritize improvements, and deliver needed environmental studies and engineering services. Specific improvements included:

- **Reduced sediment deposit transfers to create a healthier river** through the replacement of the existing grade control structure at Florida Avenue with a multi-use drop structure for recreation and boat passage.
- **Increased accessibility** throughout with additional boat jetties, a bike trail underpass, and new landscaping.
- **Improved river ecology** through new plantings and the removal of invasive, non-native vegetation.
- **Increased fish population** through the addition of several riffles.



7.



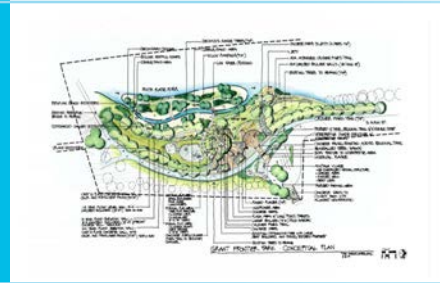
8.



9.



10.



11.



12.

The cumulative effect of these improvements ultimately delivered improved aesthetics (and increased property values), safety, and security (through more open, accessible public spaces, along with decreased flooding risks, etc.) along the river corridor.

To aid in communication and coordination with the neighborhood associations, the CDM Smith Team prepared schematic plans addressing how to incorporate improvements such as trails, hardscape finishes, plantings, recreational access, fencing, and vehicular and pedestrian maintenance access. This played an important role in the success of the public involvement, grant funding, and permitting processes.

Schedule B Results

All of the Schedule B work was completed within budget and schedule, despite the challenges brought by high 2015 water flows.

Images

- 7. Schedule C - Pasquinel's Landing Park Plan
- 8. Schedule C - During construction
- 9. Schedule C - During construction
- 10. Schedule C - Post-construction
- 11. Schedule D - Grant-Frontier Park Plan
- 12. Schedule D - Eco-Playground rendering

Schedule C - Pasquinel's Landing/Overland Pond Park Improvements

The Pasquinel's Landing / Overland Pond Park improvements focused on improving accessibility to the park and to the River—with River access being top priority.

The existing park consisted of an upland area from the river—with no river access due to thick vegetation—with a playground, and field. Improvements included:

- **River accessibility** through the addition of a secondary channel.
- **Increased connectivity with the neighborhood and improved park access and use** through the addition of pathways throughout.
- **Enhanced aquatic and terrestrial habitats, fish passage, flood control capacity, and river health** through the addition of a riffle (improved river hydraulics on the secondary channel).

Schedule C required heavy involvement from multiple stakeholders to deliver results. The CDM Smith Team and the Contractor, ECI, worked together to refine scope and costs, while still ensuring the needs of DPR and the Overland Neighborhood Group were met. The work also included extensive coordination with DPW, and UDFCD.

Schedule C Results

Schedule C was completed below budget and on schedule. The end result delivered the accessibility the community desired, extremely positive neighborhood feedback, immediate increased park usage, increased property values, enhanced neighborhood safety and security through all of the infrastructure and accessibility improvements, as well as cost savings through an under budget delivery that were used to enhance the Schedule D scope.

Schedule D - Grant Frontier Park Improvements

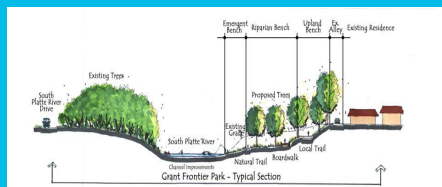
The Grant Frontier Park improvements focused on accessibility, creation of a true recreational destination along the Greenway Corridor, and interactivity and connectivity with the river through the addition of unique educational components.

Through assistance with a grant from the Greenway Foundation, as well as remaining funds from Schedule C, the Grant Frontier Park Improvements benefited from an enhanced scope delivering River access, as well as outdoor educational opportunities.

First, a secondary channel and additional jetty were developed to provide River access to the community. A formal access point to the east of the Park was also created, promoting more usage. Then, DPR, the



13.



14.



15.

CDM Smith Team, contractor ECI, worked together to develop educational components to:

- **Relate an understanding of the functions of a river** to the community.
- **Highlight local history, create a focal point, and sense of place** through the "Montana City" component.
- **Encourage an appreciation for outdoor play** through an environmental playground.

Flood elevation markers were constructed for river education demonstrations, while the Montana City exhibit teaches the history of one of the first gold strikes in the area, complete with a historical cabin and working gold panning station. The environmental playground uses logs, trees, and boulders to encourage kids to engage creatively with the outdoor world around them. Recreational pathways were also completed to encourage use of these enhancements throughout the park.

Schedule D Results

The Schedule D improvements are being completed on schedule and budget, thanks to creative alternative solutions provided by the project team throughout to ensure the most scope for the available funds. A few additional enhancements are currently being discussed as funds allow, such as wider bike lanes for the future.

The local community has already seen returns on the investments in the Park, including better access to the Park and River, resulting in increased usage throughout, and very positive feedback regarding the educational and historical elements—fueling a greater interest and understanding in our riverine corridors.

Images

13. Schedule D - Grant Park rendering
14. Schedule D - Grant Park section
15. Schedule D - During construction

Balancing Multiple Objectives

The South Platte River Vision Program involved the development of unique, creative, and often innovative solutions to satisfy the varied objectives of multiple stakeholders. It also involved an ample amount of give and take among its stakeholders to deliver successful results.

While involvement in the River Vision - GFO project initially included the DPR and TGF, key stakeholders (and our involvement with them) have since grown to include the CWCB, UDFCD, DPW, DW, Trout Unlimited, as well as citizens, property owners, City and County of Denver Departments, and other public and private organizations. To ensure citizen and expert participation in the process, DPR also assembled and managed community meetings to solicit and document participation and input from landowners, residents, community organizations, businesses, schools, and area service providers throughout the planning process.

Delivery of these projects was truly a partnership, with TGF and DPR first working to establish general scopes and budgets, and then CWCB and especially UDFCD joining in to refine and drive the river restoration efforts that were the backbone of the River Vision GFO project. The give and take process included heavy refinement of individual project scopes among CDM Smith and the contractors for that work, and an educational exchange among DPW and the implementation teams to understand our "softer" river engineering solutions focused on restoration and health, rather than the more traditional flood control focused strategies previously employed. We worked with UDFCD and DPR to answer their questions and concerns regarding each project, benefited from DPR and UDFCD's experience

and assistance in timely and cost effective delivery of project elements, and learned together how the river would react to our solutions—working together to ultimately make each solution successful.

Models for the Future

As the RINO real estate market begins to heat up with the National Western Development and other improvements, the river restoration and park enhancements completed by this team along the RISO reach are being used as ready models for development and delivery of RINO Plan elements. That area includes many of the same riverine development challenges and opportunities as the RISO reach — spanning accessibility, recreation, river health and ecology, sedimentation, channel stability, safety and security, fish passage, etc.

Ultimately, the successful outcomes of River Vision can be used in the development of parks and open space oriented models for urban living along riverine corridors across the country, customized to fit the unique history and character of each location, just as is being done along our Greenway Corridor.

Supplemental Graphics



1. Schedule B - Boat jetty rendering



2. Schedule B - River restoration rendering



3. Schedule B - During construction



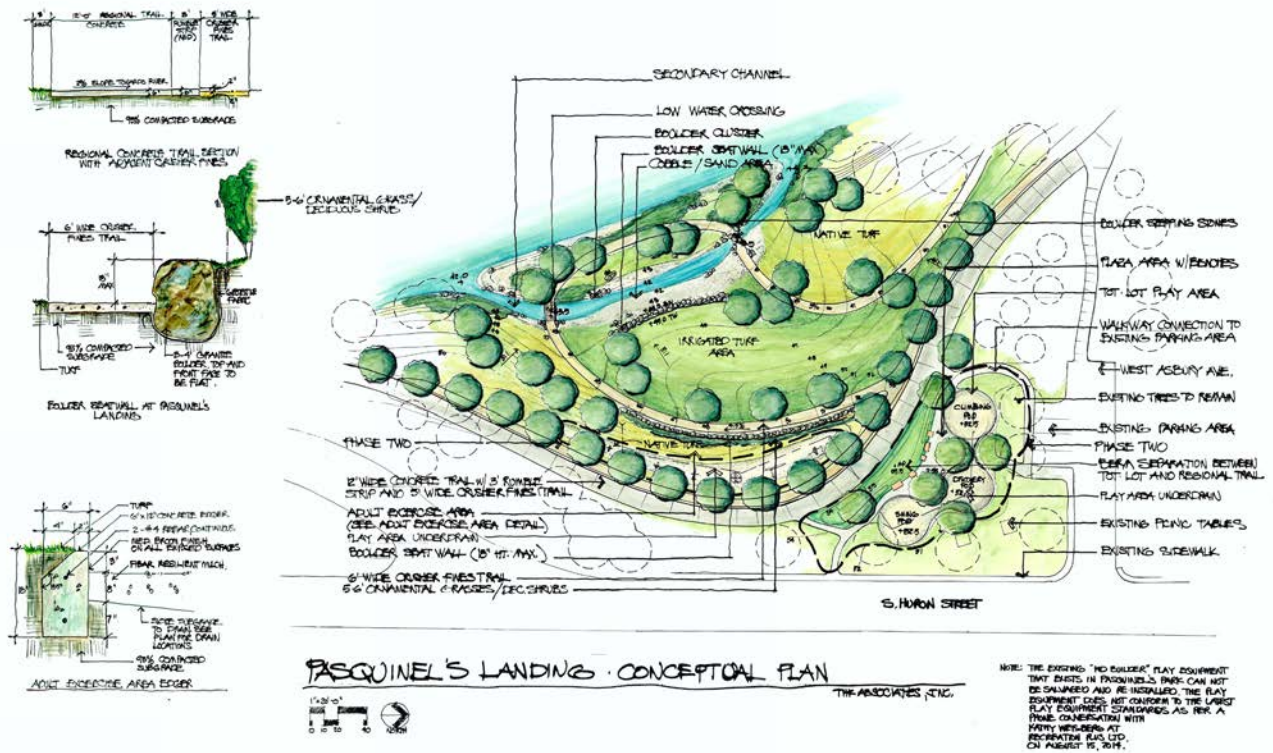
4. Schedule B - During construction



5. Schedule B - Post-construction



6. Schedule B - During construction, post-2015 high water



7. Schedule C - Pasquinel's Landing Park Plan



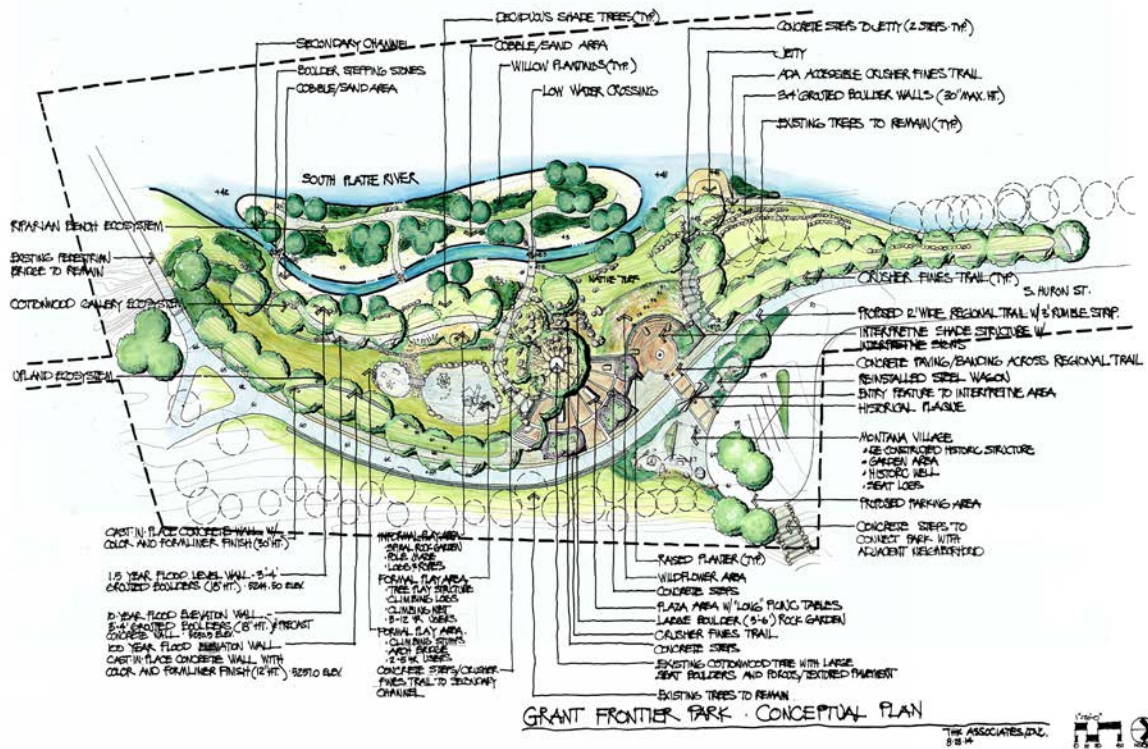
8. Schedule C - During construction



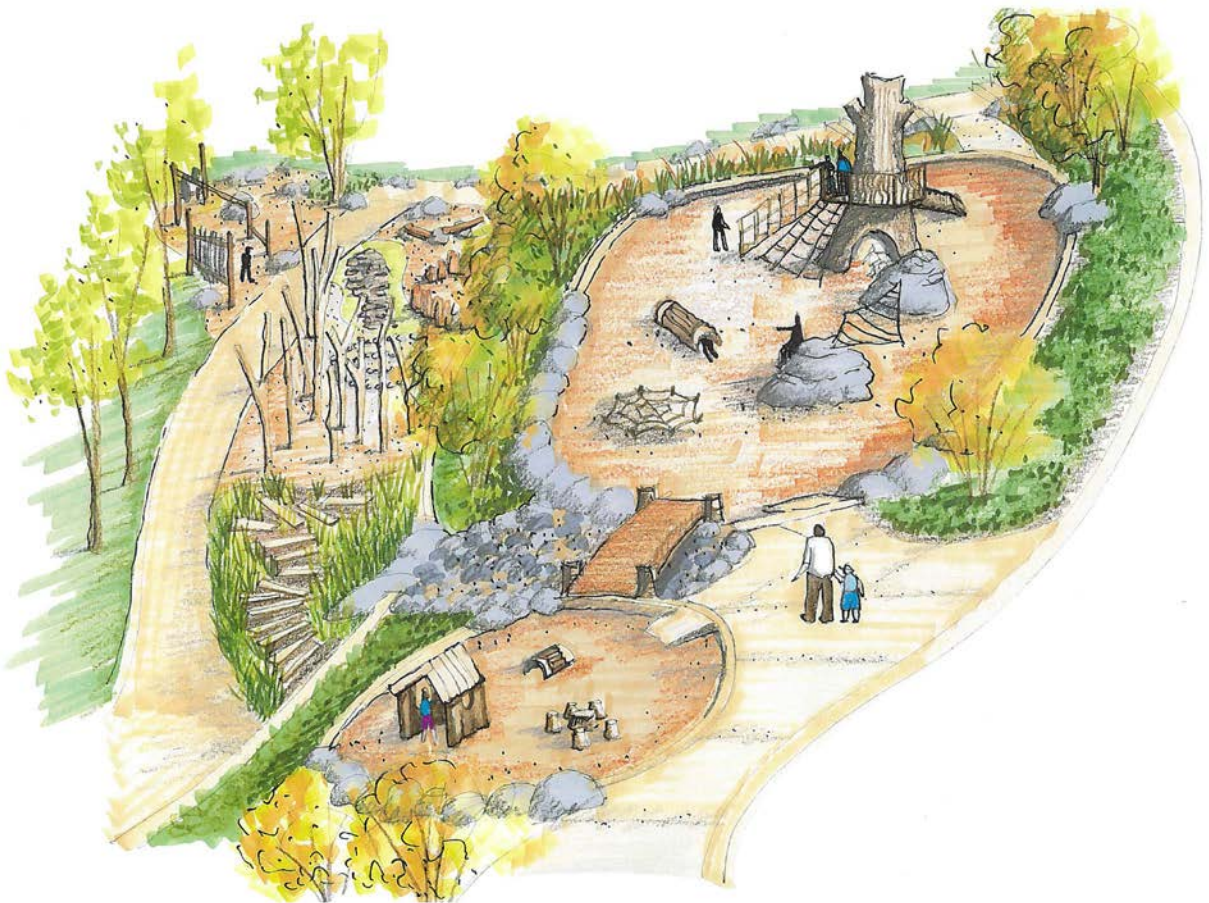
9. Schedule C - During construction



10. Schedule C - Post-construction



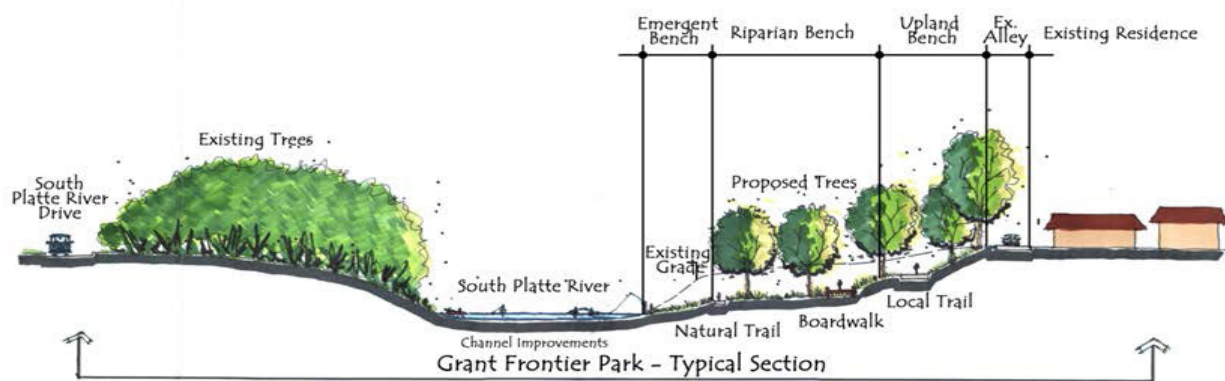
11. Schedule D - Grant-Frontier Park Plan



12. Schedule D - Eco-Playground rendering



13. Schedule D - Grant Park rendering



14. Schedule D - Grant Park section



15. Schedule D - During construction