HIGHLANDS RANCH METROPOLITAN DISTRICT
STUDY SESSION ADDENDA

May 25, 2016

Addendum documents can also be viewed at
http://highlandsranch.org
or
http://intranet.highlandsranch.org/default.aspx

- Holiday Lighting Program
- Zone 4C Pump Station Project May 2016
- IGA for New C-470 Water Quality Facilities
- Alternate Broomed Concrete Panels vs Colored Patterned Concrete
- Regulation 11.39 Backflow Prevention and Cross-Connection Control Guidance
Holiday Lighting Program

Prepared for the
Metro District Board of Directors
May 25, 2016
Current Lighted Entries

- Community Entries (7)
  - Santa Fe
  - Broadway
  - University
  - Colorado
  - Quebec
  - Lincoln
  - South Quebec

- Medians (2)
  - Broadway
  - University

- Other Sites (3)
  - District Office Building
  - PROS Service Center
  - Civic Green Park

- 130 Trees Total
Current Lincoln Entry Display
## Current Costs and Constraints

### Initial Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>New Lights</td>
<td>$28,500</td>
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### Annual Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Equipment</td>
<td>$5,850</td>
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<tr>
<td>Replacement Lights</td>
<td>$2,850</td>
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<tr>
<td>Labor – 39 days</td>
<td>$28,000</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$36,700</strong></td>
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### Constraints

- New lights should be purchased, bigger bulbs and more
- Managing inventory and storage
- Availability of bucket truck
- Not our expertise
- Our lighting displays need updating
Swingle Lawn and Tree, Landscaping Company
Proposal A

- Swingle performs installation and removal
- $36,481
- About 86 trees total at 12 locations
- Greater impact, larger lights and professional installation

- **Community Entries (7)**
  - Santa Fe – both sides
  - Broadway – both sides
  - University – both sides
  - Colorado – one side
  - Quebec - both sides
  - Lincoln – both sides
  - South Quebec – one side

- **Medians (2)**
  - Broadway
  - University

- **Other Sites (3)**
  - District Office Building
  - PROS Service Center
  - Civic Green Park
Swingle Lawn and Tree, Landscaping Company Proposal B

- Swingle performs installation and removal
- $26,052
- About 61 trees total at 6 locations
- Fewer entries, no medians, no buildings

- Community Entries (5)
  - Santa Fe – both sides
  - Broadway – both sides
  - University – both sides
  - Quebec - both sides
  - Lincoln – both sides

- Other Sites (1)
  - Civic Green Park
Advantage of Contracting

- Leased lights
- Ability to change lighting annually if desired
- Professional presentation
- No repair and re-ordering costs
- No storage needed
- Staff available for other projects
- Less wear and tear on the bucket truck
Staff Recommendation

• Hire Swingle for one year trial
• Proposal A – all existing locations
• Evaluate at end of season
  • Swingle 3-5 year contract
  • Maximum 1.5% increase per year
Questions & Comments
ZONE 4C
PUMP STATION
PROJECT
MAY 2016
AGENDA

• Project Purpose
• Project Status
• Public Outreach and County Approval Process
• Timeline/Schedule
PROJECT PURPOSE

- Centennial Water completed a hydraulic analysis in 2010
- Analysis identified weaknesses in the transmission system capacity
- Not feasible to adequately upgrade existing pump stations and pipelines
- Recommendation: Construct 4C Pump Station
4C PUMP STATION BENEFITS

• Addresses system bottleneck conditions to meet peak system demands
• Relieves stressed portions of the distribution system
• Reduces demand on multiple pump stations
• High efficiency design reduces pumping costs to upper Zones (4, 5 and 6)
PROJECT UPDATE

• 75% Design Phase Completed in June

• Project Cost = $14 Million (including pipeline)

• Initiating Public Outreach and County L&E Process
PUMP STATION AND PIPELINE
FUTURE SCHOOL
ON ADJACENT PROPERTY TO SOUTH 4C Pump Station
BUILDING OVERVIEW

• Location controlled by hydraulics and existing elevations

• Similar in footprint to existing delivery system facilities
  ➢ South Platte Pump Station
  ➢ McLellan B Pump Station
  ➢ GWTP #1 (Wildcat/Summit View)
  ➢ GWTP #2 (Griggs Rd)

• Site Plan designed to maximize berm screening and minimize trail impacts

• Ranch Barn type architecture similar to other community structures
SITE PLAN

OPEN SPACE TRAIL
ARCHITECTURAL THEME:

RANCH BARN

Wildcat Reserve and Summit View

Outbuilding at Historic Park
INTERIOR – MULTI LEVEL

Configuration Similar to South Platte Pump Station
SIMULATION PHOTOS

KEY

ZONE 4C PUMP STATION
WEST SIDE OF S. BROADWAY NEAR 10152 AUTUMN BLAZE TRAIL LOOKING SOUTHEAST

PROJECT

A
B
C
D
E
F

16
SIMULATION PHOTOS

ZONE 4C PUMP STATION
OPEN SPACE NEAR 458 FAIRCHILD DRIVE LOOKING SOUTHWEST

KEY

PROJECT

A

B

C

D

E

F
SIMULATION PHOTOS

KEY

ZONE 4C PUMP STATION
OPEN SPACE NEAR 10246 PENNINGTON LANE LOOKING WEST
SIMULATION PHOTOS

KEY

ZONE 4C PUMP STATION
OPEN SPACE NEAR 706 RIDGEMONT CIRCLE LOOKING WEST
PUBLIC OUTREACH AND COUNTY PROCESS

• Presentations with Community Partners
  • Metro District
  • HRCA Development Review
  • Douglas County (L&E Process)

• Open House at DOB
  • Notification of Neighbors by Mail and Media

• Websites – CWSD and HRMD

• Messenger Info

• Public Outreach – July/August

• L&E Process – Sept/Oct
ZONE 4C TIMELINE

- **Public Outreach/Complete Design**: Summer 2016
- **Bidding/Contractor Selection**: Fall 2016
- **Complete Construction**: Spring 2018
- **Begin Operation**: Summer 2018
QUESTIONS
IGA for New C470 Water Quality Facilities

May 2016
C470 Corridor Improvements
Current Status

- CDOT has completed RFP process for Design/Build – Flatirons Construction
- Current water quality design 30% completion
- Final Design part of Design Build process
- Stormwater Management important component
C470 Water Quality Improvements

• Proposed Facilities are for 7 areas

• 3 existing facilities will be utilized

• 4 new facilities will be required to treat impervious areas ranging from 12 to 71 acres in size – Requires use of 6.3 acres of Metro District property

• New facilities drainage basins will be 30% C470 (CDOT) and 70% Highlands Ranch/Douglas County property

• Total new Highlands Ranch acreage treated will be 90 acres
C470 WQ Improvements

Staff Recommendations for IGA with CDOT

- Concept presented to Board July 2015
- CDOT presented IGA to staff in February 2016
- Douglas County now part of the IGA due to permit issues

1. Level of maintenance – Defined by Douglas County standards
2. Maintenance Responsibilities
   - Metro District performs routine maintenance
   - CDOT responsible for spills along C470.
   - Major replacement - CDOT’s responsibility
     - New ponds are CDOT’s responsibility
     - Existing ponds are shared cost with District/CDOT
   - Intermediate levels of maintenance be a shared cost
C470 WQ Improvements

Staff Recommendations for IGA with CDOT

3. Reciprocal Easements required

4. Metro District staff will be part of approval process
   • Metro District and County staff part of task force for design and construction

5. Douglas County responsible for inspections and reporting.
C470 WQ Improvements
C470 WQ Improvements

Benefits-

1. Provide water quality improvements to additional 99 acres of Highlands Ranch
2. Capital costs borne by Project approximately $200,000 – $300,000
3. Provide HR Partnership in C470 Coalition
4. No transfer of property – Reciprocal easements required
5. Staff included in design process
C470 WQ Improvements

Costs-

1. No additional costs for 3 ponds
2. Average annual costs for the four new ponds less than $3,000 in total
3. Will add staff time for inspection and documentation—Now DC responsibility.
Next Steps

• Finalize IGA – Approve at June Board meeting

• Design Process – Staff will be on task force-starting in June

• Finalize stormwater design – start construction

• Execute Easements
C470 WQ Improvements

Questions?
End
C470 WQ Improvements
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C470 WQ Improvements
### C470 WQ Improvements

<table>
<thead>
<tr>
<th>Location (by project Station)</th>
<th>CDOT ROW Acres for facility</th>
<th>HRMD Acres for facility</th>
<th>Existing CDOT Impervious Acres (total)</th>
<th>NEW CDOT Impervious Acres treated</th>
<th>Total CDOT Impervious Acres treated</th>
<th>Total HRMD Impervious Acres treated</th>
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<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
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<td>38.57</td>
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* The option at location 1185S includes WQ treatment for both C-470 and HRMD’s upstream basin.
Alternate Broomed Concrete Panels vs Colored Patterned Concrete
Alternate Broomed Concrete Panels

Alternate Broomed Concrete already exists from County Line south to medians

- Contemporary look
- Easily repaired
- Cost estimated at $7-$9/sf
Colored Patterned Concrete

- Color change on same median project
- Replaced concrete difficult to match original color
- Cost estimated at $15/sf +
- Not included in budget

Plaza Drive Median (west of Broadway)

Quebec Median at King Soopers
Regulation 11.39 Backflow Prevention and Cross-connection Control Guidance
Changes That Impact CWSD

• Effective January 1, 2016

• Clarifies the Department’s interpretation of a cross-connection control program and multi-family dwellings

• Requires annual reports for backflow prevention and cross-connection control program compliance

• Compliance schedule