

Bee Branch Restoration Alignment Study

Bee Branch Citizen Advisory Committee

Meeting #5 Optimize Preferred Alternatives

May 3, 2004

CDM

WHKS & Co.

Agenda

- ◆ **Introduction / Meeting Objectives**
- ◆ **Public Meeting Summary**
- ◆ **Alignments**
- ◆ **Alternative Refinement**
 - ◆ **Open Channel Alternative**
 - ◆ **Pipe Alternative**
 - ◆ **Open Channel Concept**
- ◆ **Alternative Ranking**
- ◆ **Discussion of Refined Alternatives**
- ◆ **Preferred Alternative for Preliminary Design**

Introduction / Primary Objectives

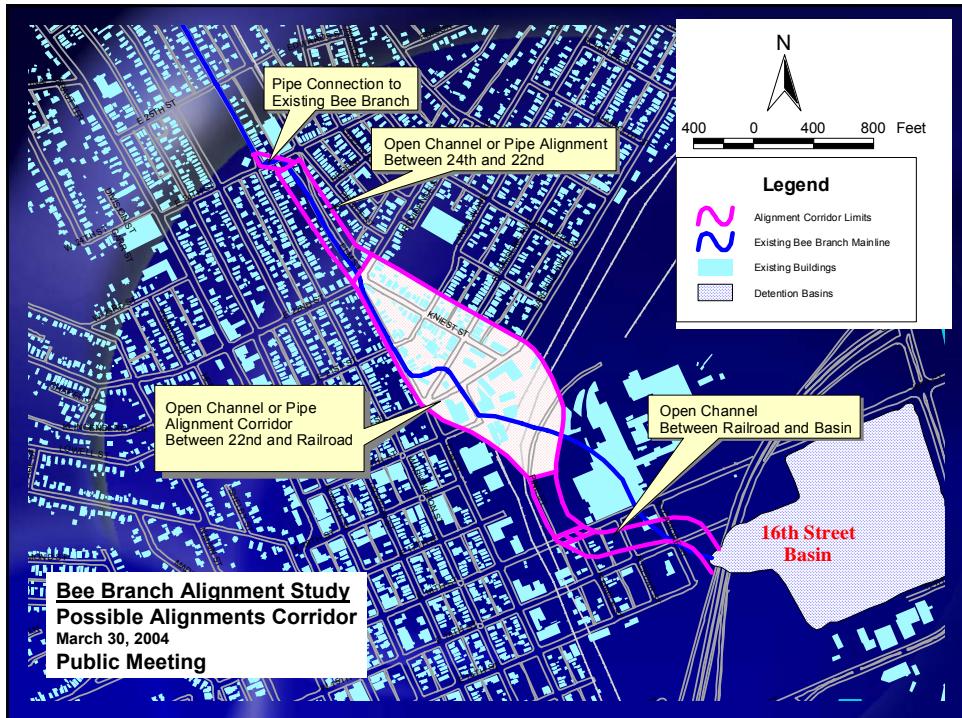
- ◆ Identify any outstanding items from Meeting #4
- ◆ Discuss Public Meeting comments
- ◆ Review selected alignment
- ◆ Select preferred alternative for Preliminary Design

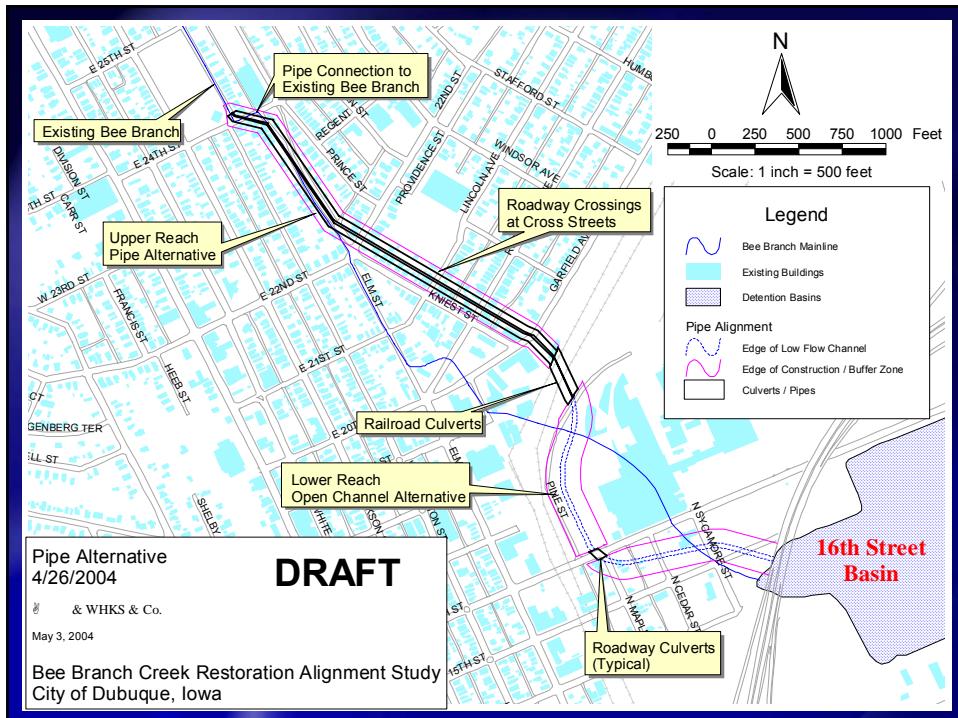
Public Meeting Summary

- ◆ Discuss Public Meeting held March 30, 2004
 - ◆ Outcome
 - Discussions with public were positive
 - BBCAC role
 - ◆ Future Public Meeting Ideas
 - Was the format effective?
 - How well did it serve the public in attendance?
 - Should we conduct the next public meeting the same way when a preferred alternative has been selected?
 - ◆ Comfortable with current alignment?

Alignments

- ◆ Discuss BBCAC Alignments selected from Meeting 4
 - Open Channel Alternative
 - Pipe Alternative
- ◆ Discuss outcomes of discussions with the railroad and Audubon School
- ◆ Reach consensus on alignment

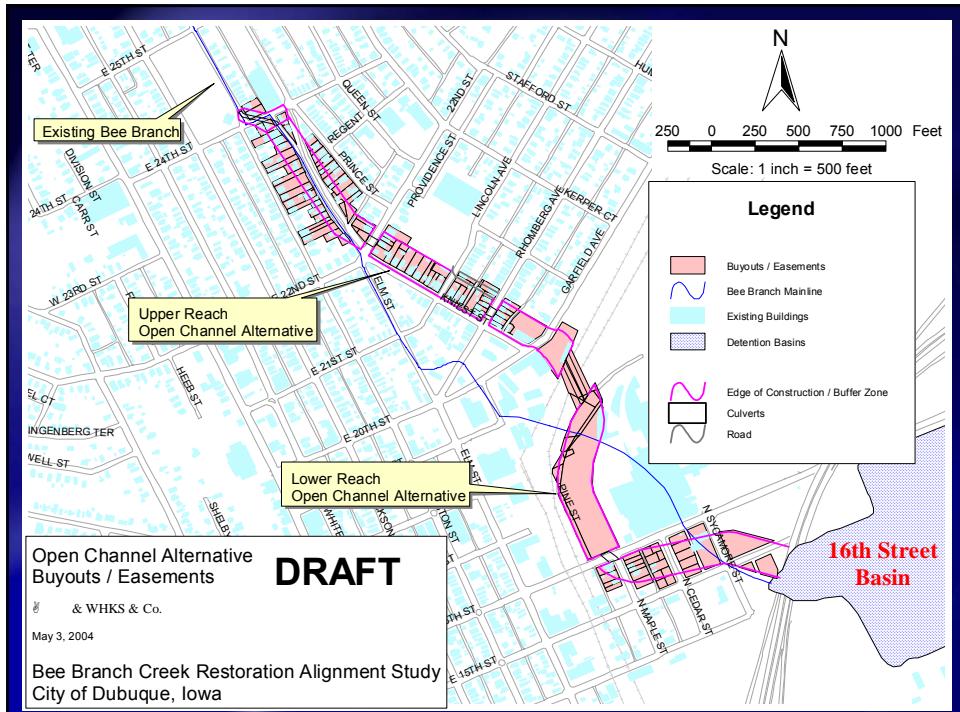
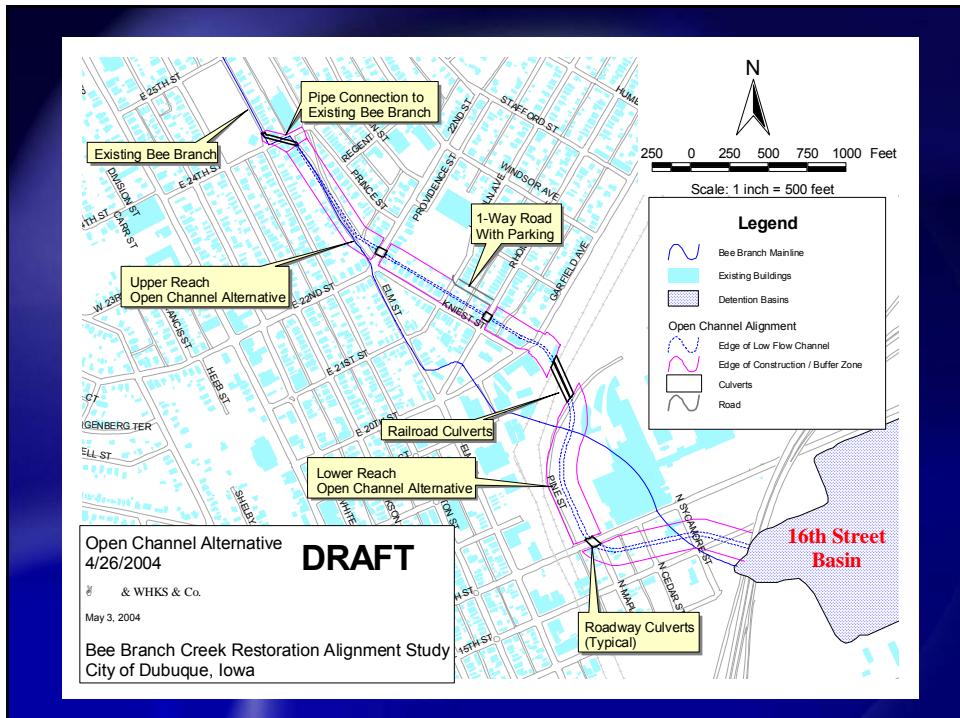




Alternative Refinement (\$25M)

The refined Open Channel Alternative along the preferred alignment includes:

- 4,100 feet of open channel, 12-14 feet deep
- 4 bridges
- Road closures at Lincoln, Garfield, Sycamore, Elm, and converting Kniest St. to a one-way street with parking
- New one-way street with parking Lincoln Ave. to Rhomberg Ave. for Audubon School.
- Low flow channel reduced to a width of 15 feet in the reach upstream of railroad.
- 13 commercial; 65 residential acquisitions
- Some additional properties for acquisitions/easements



Preliminary Open Channel Concept

View Looking Northwest from 22nd Street Crossing

Existing Conditions



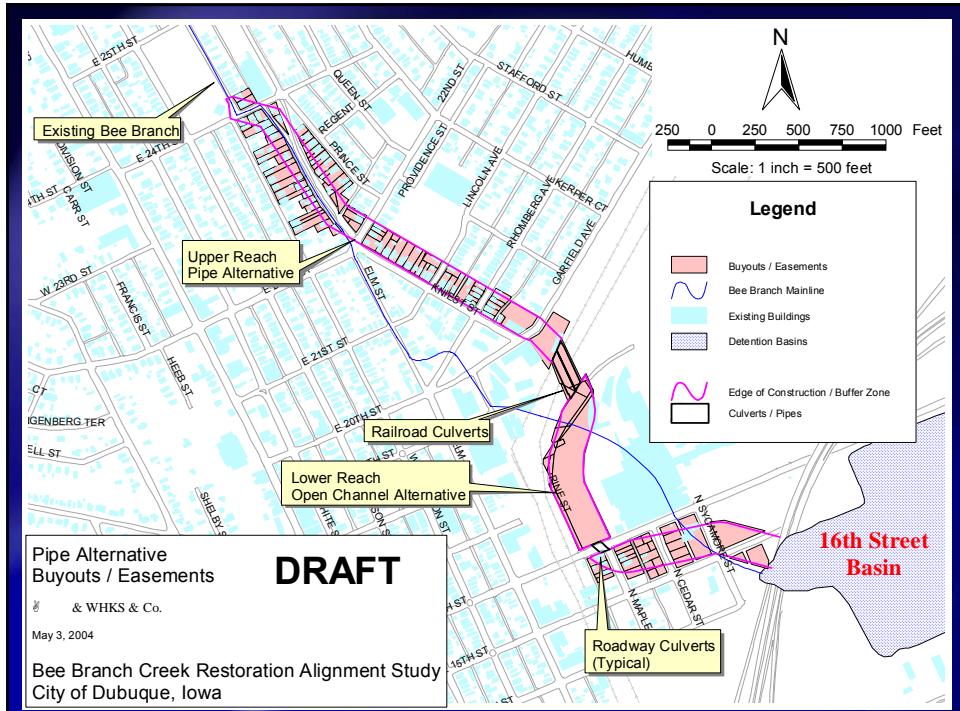
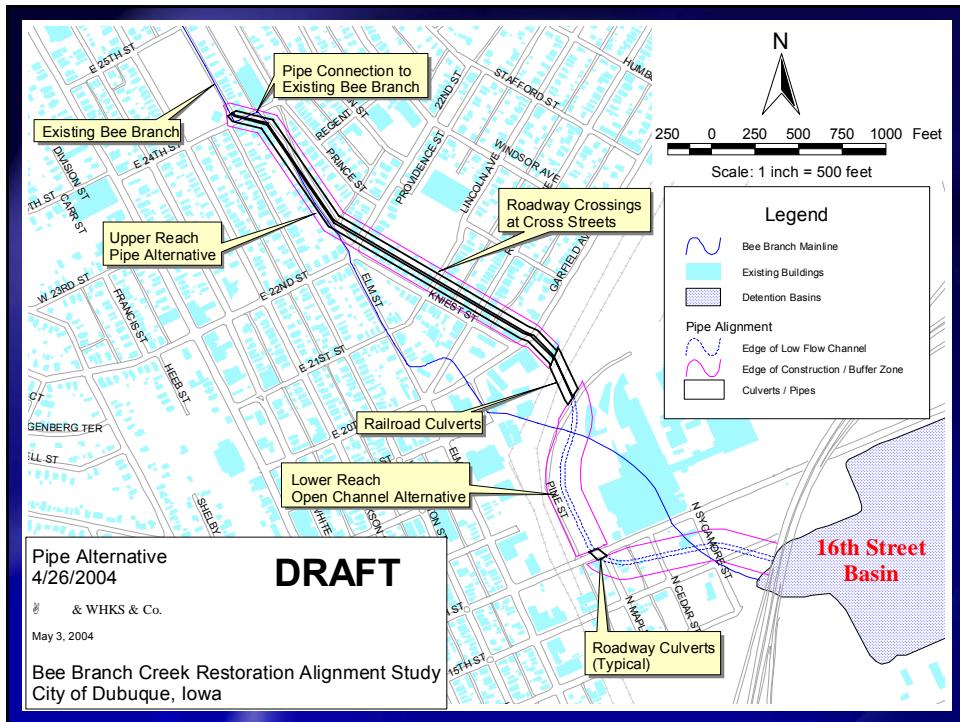
Proposed Channel



Alternative Refinement (\$41M)

The Pipe Alternative has been refined from Meeting 4 to follow the preferred alignment and includes:

- 2,740 feet of double box culvert
- 1,360 feet of open channel
- 1 bridge
- Road closures at Elm and Sycamore, and modification of Kniest St. to one-way with parking.
- Double box culverts 10 feet tall; 28 and 42 feet wide a piece.
- Open channel section downstream of the railroad tracks same as the channel alternative discussed previously.
- 14 commercial; 64 residential acquisitions
- Some additional properties/easements



Preferred Alternative for Preliminary Design

- ◆ Get direction from BBCAC on “preferred” alternative Preliminary Design
- ◆ Work with BBCAC to develop the recommendation wording that can be sent to Council.
- ◆ Refine the preferred alternative in preparation for final Meeting #6
- ◆ Prepare a summary of the alignment/alternative evolution process.

Alternative Ranking

- ◆ Revised ranking criteria as per BBCAC comments at Meeting 4
- ◆ Provide new ranking with final two alternatives
- ◆ Discuss ranking outcome and scoring

Alternative Evaluation

- ◆ Preserve Commercial/Noncommercial Services
- ◆ Minimize Residential Property Acquisitions
- ◆ Minimize Cost
- ◆ Preserve Neighborhood Access/Connectivity
- ◆ Minimize Health and Safety Risk
- ◆ Enhance Quality of Life
- ◆ Protect Environment

Property Acquisitions

Acquisitions for both the Open Channel and Pipe Alternatives are very similar

Objective	Weight	Alternate 1 - Channel		Alternate 2 - Pipe	
		Raw Score	Weighted Score	Raw Score	Weighted Score
Preserve Commercial Services	2.4	13	22.3	14	24.0
Minimize Residential Acquisitions	2.1	65	21.0	64	20.7

Cost Comparison

Original HDR estimate ≈ \$17 million

Open Channel Alternative Cost ≈ \$25 million

Pipe Alternative Cost ≈ \$41 million

Alternative Evaluation Ranking

	Alternate 1 - Channel	Alternate 2 - Pipe
	Weighted Score	Weighted Score
Preserve Commercial Services	22.3 (13)	24.0 (14)
Minimize Residential Acquisitions	21.0 (65)	20.7 (64)
Minimize Cost	10.8 (\$25M)	18.0 (\$41M)
Preserve Neighborhood Access	10.5	8.4
Minimize Health & Safety Risks	11.2	5.6
Enhance Quality of Life	0.0	-2.6
Protect Environment	-1.0	1.0
TOTAL	74.7	75.1
RANK	1	2

BBCAC Discussion of Evaluation Results

- ◆ What do these results mean?
- ◆ Why are the results so similar?
- ◆ Should the evaluation criteria be revised?
- ◆ Is there a preference by the BBCAC?
- ◆ What are the important considerations that should be discussed prior to a decision?

Cost Impacts

- ◆ Original budget: \$17 million
- ◆ \$5M revenue from DRA – will not materialize
- ◆ Open Channel costs approx \$8 million more than budget
- ◆ Pipe Alternative costs approx \$24 million more than budget
- ◆ Additional revenue sources will be required for the budget shortfall

Potential Schedule (based on \$17 million)

- ◆ **Design – 2005**
- ◆ **Property Acquisition Begins – 2005-2007**
- ◆ **Construction Complete - 2013**
- ◆ **Subject to Council Approval and identification of required funding**

Decision Point

- ◆ **Given the cost constraints, is there consensus on an Open Channel or Pipe Alternative?**
- ◆ **What additional issues must be resolved?**

Discussion of Refined Alternatives

- ◆ Acquisitions comparison
- ◆ Cost effectiveness and funding ideas
- ◆ Desired time frame for completion of preferred alternative
- ◆ Any lingering concerns with alternatives
- ◆ Ways to make the alternatives more acceptable to BBCAC

Likes and Dislikes

- ◆ List characteristics of each alternative that the BBCAC likes
- ◆ List characteristics of each alternative that the BBCAC does not like

Tradeoffs of each Alternative

- ◆ **Affordability**
- ◆ **Constructability (Implementation)**
- ◆ **Schedule**
- ◆ **An “acceptable” solution vs. an “ideal” solution**

Decision Point

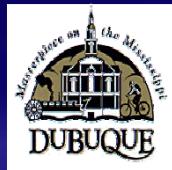
- ◆ **Is there consensus on an Open Channel or Pipe Alternative?**
- ◆ **Any other recommendations to Council?**

Recommendation Options

- ◆ **Recommend one alternative**
- ◆ **Recommend a alternative, with minority opinion**
- ◆ **No recommendation (can't develop consensus) – Council should choose**

Recommendation Wording

- ◆ **The BBCAC recommends.....**



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**Meeting #5
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