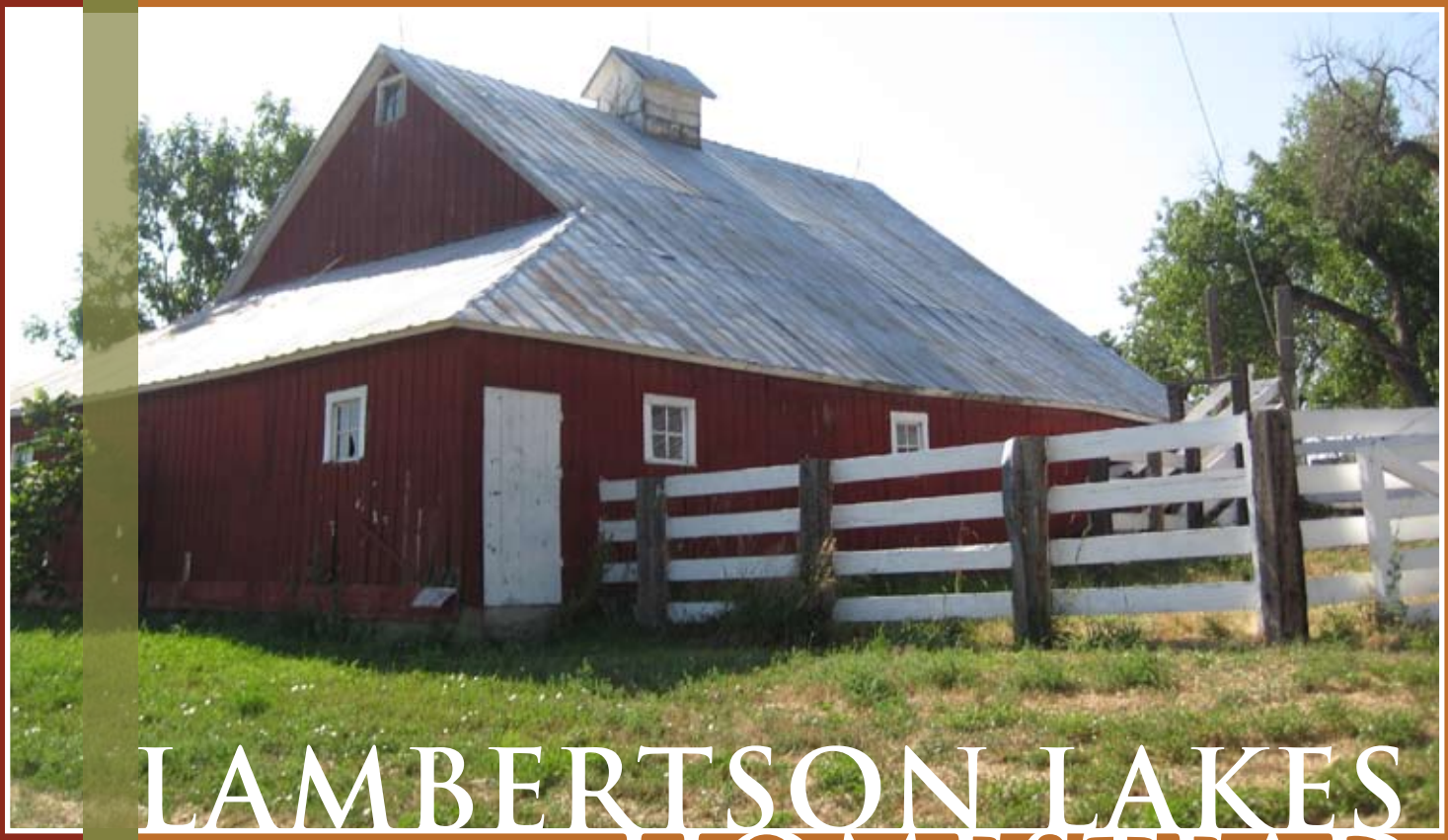


LAMBERTSON LAKES HOMESTEAD

MASTER PLAN
FINAL REPORT
APRIL 19, 2010

Table of Contents

DESIGN CONCEPTS
Community and Landscape Architects

City of Thornton

BASELINE corporation
planning ▸ engineering ▸ surveying

ERO
ERO Resources Corp.

Project Scope and Vision

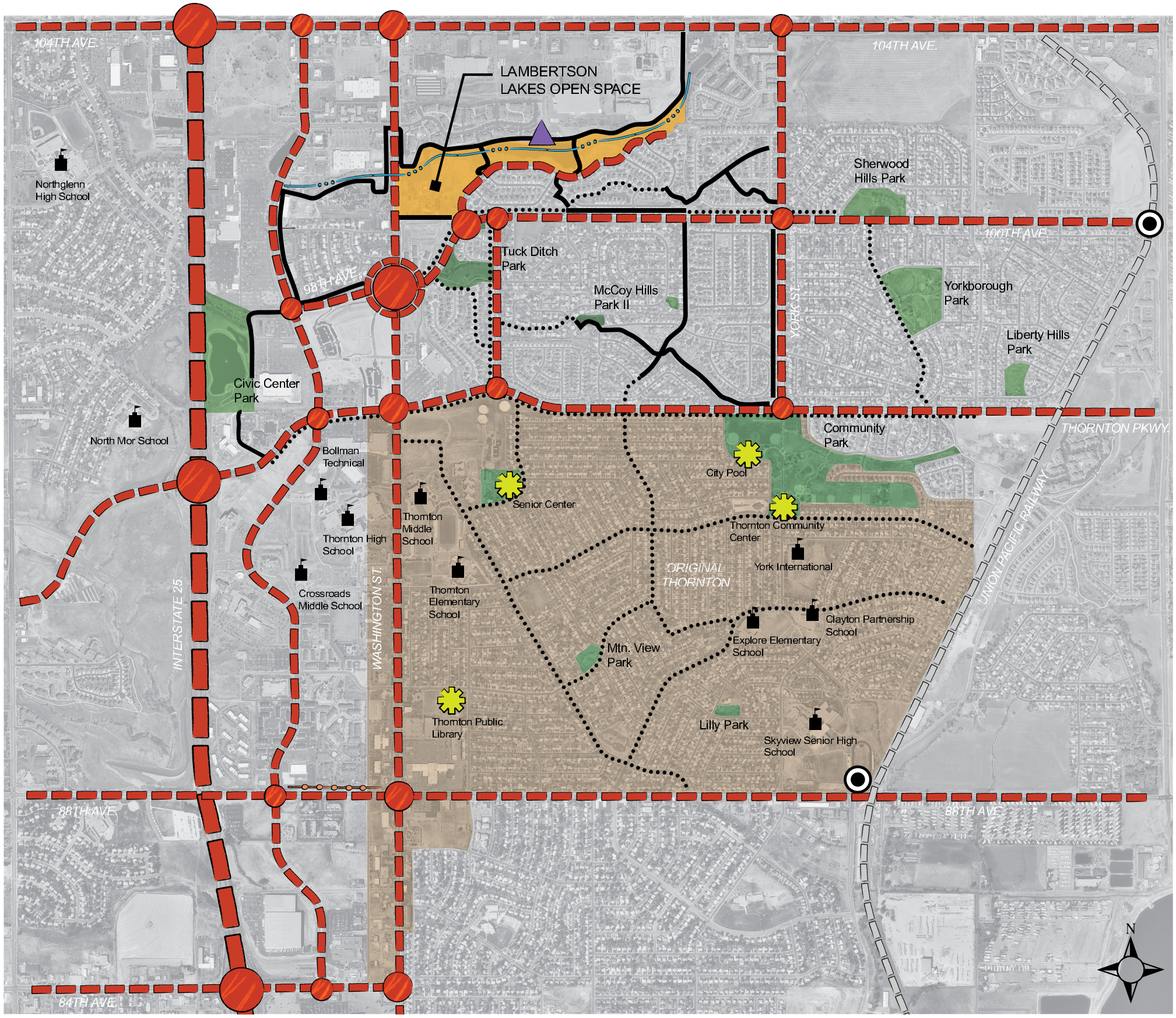
The Lambertson Lakes Homestead Master Plan will be developed within the 32 acre Thornton-owned Lambertson Lakes Park and Open Space area in Thornton, CO. In order to identify and develop this homestead site, the Master Plan shall review the historic, cultural, educational, and recreational use opportunities. As a result, the City of Thornton will possess a framework from which to develop the homestead into a unique cultural and recreational resource for the benefit of the public and preservation of Thornton history. Currently held under a life estate, the homestead portion of the park and open space is not open to the public. The Master Plan addresses the access to and within the homestead site so that, upon acquisition of the farm by the City, visitors will be able to fully experience all that the Lambertson Homestead has to offer.

Existing Conditions

Site Analysis

In order to understand the historic, cultural and social context of the Lambertson Lakes Homestead site, the project team investigated several aspects of the existing site conditions. Mapping analysis, site visits, family interviews, public and City of Thornton meetings were conducted throughout the summer and fall. This on-the-ground contact provided an inside look at how the site functioned historically and its context within the growing City of Thornton. In addition, elements were examined such as existing and proposed neighborhood trail connections and the larger multi-modal curculation system, the existing Original Thornton neighborhood - its architecture materials, and signage throughout the area.

The site analysis also included an in-depth survey of existing conditions, building condition assessment and environmental impact assessment to determine features that are important in understanding the site's assets and constraints as we move toward the development of the master plan.



LEGEND

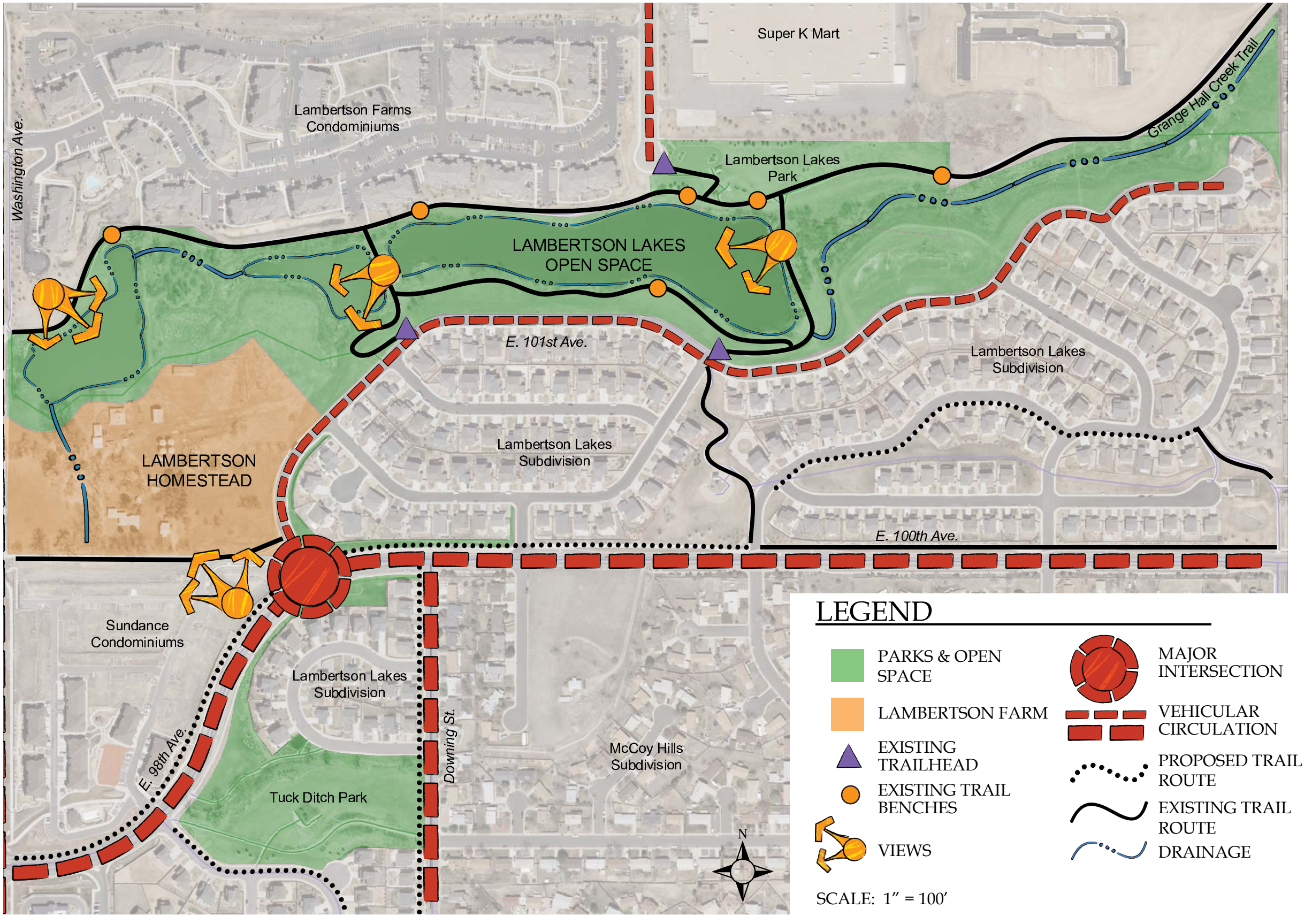
- LAMBERTSON LAKES OPEN SPACE
- PARK
- SCHOOL
- LANDMARK
- INTERSECTION/ NODE
- MAJOR INTERSECTION/ NODE
- FUTURE FASTRACKS STOP
- EXISTING TRAILHEAD
- RAILWAY
- VEHICULAR CIRCULATION
- PROPOSED TRAIL ROUTE
- EXISTING TRAIL ROUTE
- DRAINAGE

Note: Trail information was obtained from the City of Thornton's *Guide to the City's Parks, Open Space, & Trails* pamphlet.

SCALE: 1″ = 500′

Lambertson Lakes Open Space Master Plan

Regional Site Analysis | November 2009 | City of Thornton, Colorado



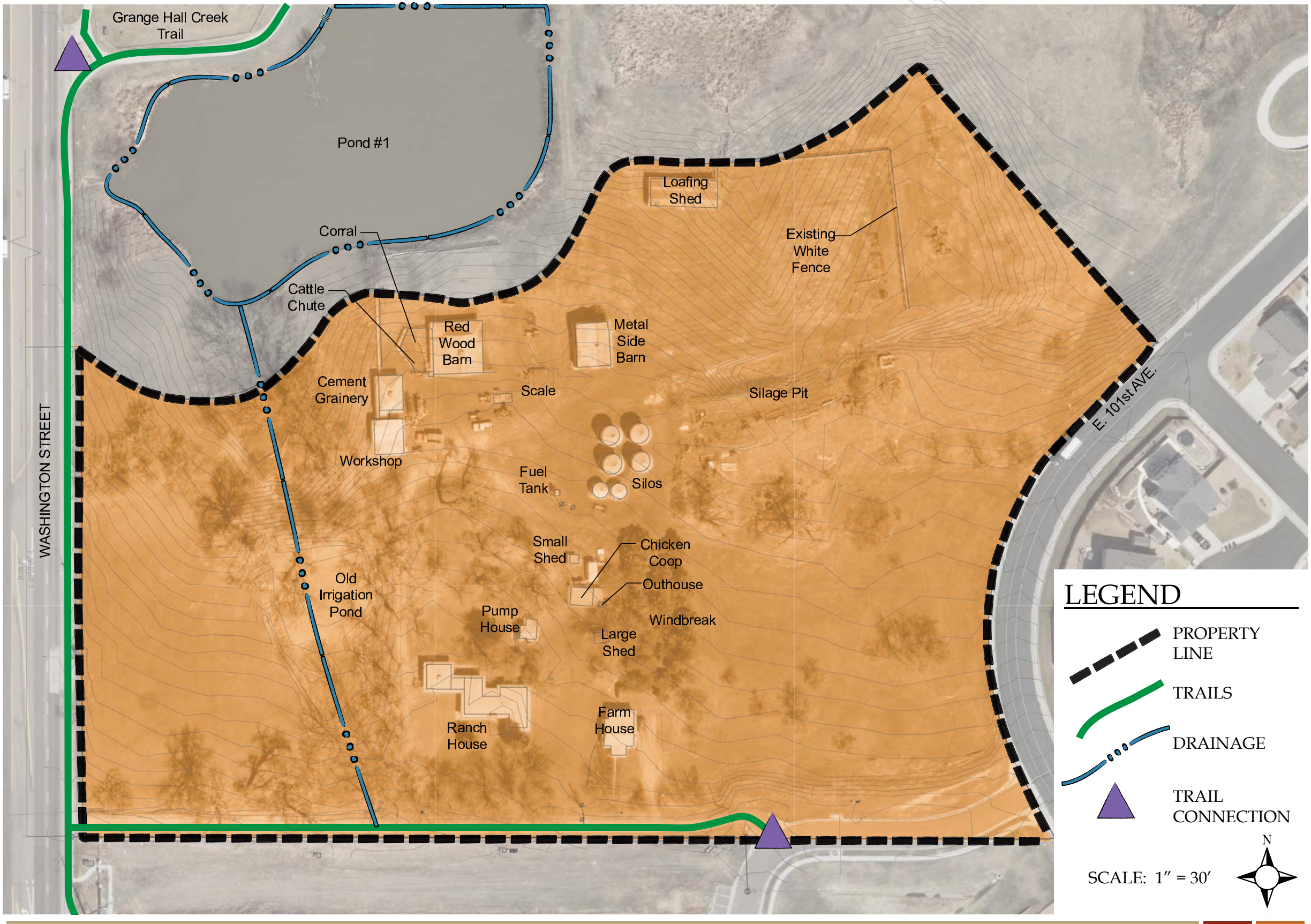
LEGEND

- PARKS & OPEN SPACE
- LAMBERTSON FARM
- EXISTING TRAILHEAD
- EXISTING TRAIL BENCHES
- VIEWS
- MAJOR INTERSECTION
- VEHICULAR CIRCULATION
- PROPOSED TRAIL ROUTE
- EXISTING TRAIL ROUTE
- DRAINAGE

SCALE: 1″ = 100′

Lambertson Lakes Open Space Master Plan

Site Analysis | November 2009 | City of Thornton, Colorado



Lambertson Lakes Open Space Master Plan

Site Survey | November 2009 | City of Thornton, Colorado

Meeting Minutes

KICKOFF MEETING NOTES

LOCATION: City of Thornton Parks Offices
DATE: July 29, 2009
ATTENDEES: Diane Van Fossen, City of Thornton
Vince Harris, Baseline
Shanen Weber, Design Concepts,
Axel Bishop, Design Concepts
Faye Crowe

PLEASE REVIEW THE CONTENTS AND NOTIFY OF ANY INACCURACY OR MIS-STATEMENTS.

Prepared by:

Shanen Weber
Design Concepts
August 21, 2009

AGENDA ITEMS and NOTES:

1. Introductions
   -Consultants
   -Vince Harris – Baseline, Corp.
   -Faye Crowe – architect
   -Axel Bishop – Design Concepts
   -Shanen Weber – Design Concepts
   -City staff
   -Diane Van Fossen – City of Thornton
   -Paul Spacese – City of Thornton

2. Goal – To gather input and information for the master plan of Lambertson Homestead.
   -Some ideas that have come up for the site have been a living museum, to continue the agriculture/farm vision, continue to carry through with the history of the site, to potentially move the arts/culture department to the site. Looking for other ideas from us. The existing lakes are on creek dams, lakes are a part of Grange Hall Creek.

3. Review scope of work
   -provide 3 conceptual master plans for the site. Consider low, medium, high concepts. Low being least costs and low impact, high being everything possible and high impact.
   -provide 3 concepts for signage, specifically for the connection to the Heritage trail.
   -need a site survey completed per RFP right away - Baseline

-architect needs to get into buildings with engineers to begin assessments
-if there is asbestos, City has on call consultants that can help identify hazardous materials
-consider and recommend phasing for the project
-provide cost estimates for each concept

4. Givens to date:
-budget
-none at this time
-existing site conditions
-old farm house, newer farm house, outbuildings, barns, granaries, farm equip., etc.
-3 lakes, regional trail runs north of site
-public input/process
-2 public meetings
-city/staff input
-will also get input from:
-Parks/Open Space Advisory
-TASHCO – arts and humanities
-Glenda – Historic Dept.
-Bertha Lambertson – age 91
-Gary Green – nephew of Bertha
-timetables/schedules
-schedule site survey
-schedule architectural assessments
-put together a detailed project schedule with milestones
-schedule a site visit with Gary Green and City – Diane needs schedules from everyone to schedule a time with Gary
-schedule staff and community group meetings
-schedule public meeting #1 – Monday's are best.
-public meeting mailings are sent out 2 weeks prior to meeting by City
-deadline for project is first of December of 2009

5. Open discussion
-public process:
-visit site and become knowledgeable of project
-get input from City staff, community groups and public
-provide conceptual plans with sketches
-conduct second public meeting for additional input and buy in
-provide final conceptual plans
-Lambertson Lakes Subdivision has been pretty vocal for different things and typically are positive.
-point of contact is Diane for this project and for site visits
-Shanen is point of contact for consultants
-Invoicing needs the PO#, project name and number, hourly not to exceed reimbursable. Invoices need to show the % complete along with hours spent.

SITE VISIT MEETING NOTES

LOCATION: Lambertson Farm
DATE: August 10, 2009
ATTENDEES: Diane Van Fossen, City of Thornton
Paula Schulte, City of Thornton
Jack Mulhall, City of Thornton
Andy Jennings, City of Thornton
Buzz Hedglin, City of Thornton – Arts/Culture Manager
Gary Green, nephew of Bertha and Kelly Lambertson
Vince Harris, Baseline
Deon, Baseline
Shanen Weber, Design Concepts
Axel Bishop, Design Concepts
Mark Ballock, Design Concepts
Maureen Cameron, Design Concepts

PLEASE REVIEW THE CONTENTS AND NOTIFY OF ANY INACCURACY OR MIS-STATEMENTS.

Prepared by:

Maureen Cameron/Shanen Weber
Design Concepts
August 21, 2009

COMMENTS
Gary Green

- Gary is the nephew of Bertha and Kelly Lambertson. His mother and Bertha were sisters.
- Gary's cousins were Dwayne, Ron and Kaye…all children of Bertha and Kelly.
- The main house was built in 1952.
- The pump house/well house included a generator.
- Thought they bought the property in the 1920's-1930's.
- The grain bins came in the 1960's.
- There were 200-300 head of cattle and a couple horses.
- The cattle were brought into the meadow during the winter
- They had 2 chicken coops that were just for the family
- Thornton was a new city to the south, and this farm was alone in the middle of all the fields. North-glenn wasn't built yet.
- The second house was 'slid down' from the upper ditch location (where Culver's is now)
- This was his uncle's parents' house; they died in the 50's & 60's
- Water came from the High Line Canal, to the Tuck Ditch across Washington (100th?) and was piped down to the lakes; we could draw from the lakes to irrigate. Other water sources were Marshall, Frico, Stanley Lake, Colo. Ag.
- There were irrigated alfalfa fields all around, wheat and pasture land - 360 -400 acres.
- The cottonwoods are about 100 years old.
- The buildings, in order of location were the workshop, the cement grain building where we would clean the grain, and the barn where we would stack hay. The equipment stayed outside. The little granaries

(silos) were original and not sure when they were brought in. The family built the larger metal ones.

They would do three cuttings of alfalfa per year:

1. The first was often bad and weedy
2. The second was better, often went to the dairies
3. The third got less money than the first; it was mostly for the horses.

- They sold wheat at the Denver Farmer's Union, which may have been at the current Purina Dog Food Company.
- They farmed approx. 1500 acres, 60% was irrigated acres.
- They grew barley for Coors for a while.
- The farm on 136th and Huron was mostly for growing corn.
- All the old tools and workbenches are still here in place in the workshop.
- That is a 1961 John Deere combine.
- There is a 1926 International truck.
- In the 40's they would milk a few cows here as well.
- The corrals were in arranged in a square behind the barn.
- There were feed boxes along the fences, they would fill them up with grain and feed the cattle that way.
- We used silage (ensilage) pits rather than bale 1st cutting of alfalfa, would put the mix in the feed box which keeps it wet. Cattle would eat anything. We would use a dump truck to put the mix in the silage pits.
- The lakes were built with a little dozer, but not sure exactly when. Lambertson built the lakes.
- They would spread manure along the fields in the fall and retill them.
- Gary would stay here all summer long and work on the farm.
- Gary, "I like it the way it is, it needs to be cleaned up but I would really like to see it stay the way it is. It could be in better shape, it could look better."
- Uncle Kelly never retired, he was always doing something.
- Always had 4th of July celebrations with the entire family. Set up a volleyball net, play horseshoes, badminton, and hit golf balls into the lake.
- There are abandoned wells around, not sure why.
- Gary does not remember growing veggies at the farm, there may have been some at Eastlake.
- German POW's would come here in the 40's and work on the farm.
- The City has ownership, has the deed and the property is considered a living estate until Bertha passes away.
- Dam project was completed just last year.

BUZ HEDGLIN

- I would like to maintain things the way they are
- Display history
- Do tours with kids
- Show what life was like on the farm
- Maybe a small wedding chapel
- Farm museum of equipment
- The house is very 50's, would like to maintain the motif
- Make the house available for small groups
- Maybe a community garden
- Farmers Market – pumpkin patch
- Keep with the original intent
- A place for older folks to relive the days too and reminisce
- Maybe a picnic space for rent
- Perhaps small, intimate concerts with country & western music, bluegrass
- Want to display the farm equipment, the family does not plan to auction it off
- Looking for a caretaker that is also a curator

ANDY JENNINGS

- Would like to see use of animals in some way
- Maybe raise chickens, a couple of cows
- Back to the working farm
- A caretaker could live in the other smaller house and it would keep vandalism down
- Like to see it restored to a living museum with interpretive elements
- There will need to be some body to overlook the property
- Brings up issue of access to the general public
- There would have to be some restricted access
- Might need to charge for some things, such as the museum, animals, etc.
- We could rent the pavilion for family picnics, etc.
- City of Thornton does the tree limbing and mowing. The City has 3 arborist on staff. Tree evaluations have been done. The irrigation tap is in the budget.

SITE WALK THROUGH WITH BERTHA LAMBERTSON

LOCATION: Lambertson Farm
DATE: August 31, 2009
ATTENDEES: Diane Van Fossen, City of Thornton
Paula Schulte, City of Thornton
Andy Jennings, City of Thornton
Buzz Hedglin, City of Thornton – Arts/Culture Manager
Bertha Lambertson
Gary Green, nephew of Bertha and Kelly Lambertson
Kay, daughter of Bertha Lambertson
Pam, friend of family
Lisa, City of Thornton Senior Center
Vince Harris, Baseline
Deon, Baseline
Shanen Weber, Design Concepts
Axel Bishop, Design Concepts

PLEASE REVIEW THE CONTENTS AND NOTIFY OF ANY INACCURACY OR MIS-STATEMENTS.

Prepared by:

Shanen Weber
Design Concepts
September 1, 2009

COMMENTS:

<u>BERTHA</u>

- Bertha David grew up in Aurora, CO. - near 6th Ave.
- She walked 3 miles everyday to get to school.
- She met Kelly Lambertson through a mutual friend. He proposed to her when she was 18 years old but she preferred to wait until she was 20 before getting married.
- Bertha worked at a 5 and dime (Woolworths) when she was dating Kelly and he always referred to her as his 'million dollar baby that he got at a 5 and dime'.
- Once married they took a 1 month honeymoon to California.
- Kelly went to college and once he graduated his folks told him if he would come back to the farm they would give him the entire farm.
- Kelly's parents were Christian and Francis and were from a Danish and Scottish/Irish descent. Kelly's official name is Christian Goddard II (?) and went by Kelly.
- Kelly had one older brother – Lester.
- Kelly and Bertha had 3 children; Dwayne, Ron and Kay and they went to school in Eastlake then later to Thornton H.S.
- Kelly and Bertha were married 67 years and she enjoyed every bit of it.
- Kelly passed away in 2003 at the age of 93.
- Kelly and Bertha moved to the farm house in 1937. In 1934 they took over the farm.
- The current 'smaller house' came from property south of the farm where Culver's is now.

- The original 2 story house was torn down when the current larger house was built in 1952.
- They grew alfalfa, corn and wheat – approx. 320 acres were farmed. The farm had a feedlot with ensilage pit that supported 300 head of cattle.
- Lester farmed at Eastlake and 136 and Huron – mostly corn. Kelly was always good at mechanics and Lester was always good at irrigation.
- The red barn was on the farm when they moved to the farm which was in 1934.
- Currently, the barn houses a combine and a 1926 International truck that will be donated to the City of Thornton. Ron is the son donating.
- Dwayne still farms in eastern Colorado (Seibert) but lives in Westminster.
- Bertha always painted the barn and corrals every year.
- They had a few horses for mostly work and to farm with it, then they had a palomino for horseback riding.
- In 1936, Kelly bought a caterpillar tractor and began building the furthest lake dike to the east. It took a year to build. There have always been 3 lakes.
- Many times they would hire a couple of men to work the farm. They lived in the bunk house (where ?).
- Kelly attended the Emily Griffin school to learn how to weld.
- Part of their farm life was getting seed ready for hauling. They would load 100 lb. sacks. They either used the seed or sold it in Eastlake.
- A normal farm day consisted of getting up at 5:00 am every morning.
- Bertha also drove tractors when ever needed. They felt very fortunate to get $2.00 a bushel.
- The Lambertson grandparents had a vegetable garden that included everything. They enjoyed gardening.
- The loafing shed was built in the 1940's. The shed includes a 1939 Chevy truck, 30's-40's Leo Oliver tractor that you stood when drove, 1972 Lincoln – the family car at the time.
- The farm never had a windmill because water ran naturally through the site.
- There was a dock or pier out to the lake. Kelly and Dwayne enjoyed fishing. They swam, ice skated and had wiener roasts with bonfires.
- There was a basketball hoop (located on the tree with 2 boards still attached), tetherball and Kay would play in the barn cupola (play house).
- On the east side of the grandparents home was an apple orchard along with an orchard at 100th and Washington. The trees were irrigated but were not maintained year round. Bertha canned, made apple sauce and other apple treats. Bertha doesn't care too much for apples to this day. Kelly was constantly chasing people from the orchard if stealing, but didn't care if you asked to pick.
- The long chicken coop and coop to the south (brooders houses) were used to raise eggs for market. Baby chicks would be ordered for the small coop until could produce and then moved to the larger coop for laying eggs. The eggs were traded for groceries in Eastlake.
- July 4th was a big family/community celebration. Everyone brought something (potluck) and they would play baseball in the old orchard.
- The pump house had coal in it and laundry was done in the pump house.
- The outhouse is called the Roosevelt due to being built per Roosevelts 'New Deal' program.
- The coniferous trees to the east were part of buying small trees from the government for windbreaks. The intent was to plant all of them now and then transplant when they get larger…but they never got around to transplanting.
- Kelly wanted to participate in the war but the government would not let him because they said it was important to keep farmers farming. Dwayne was also denied for the same reason.
- They did have some pigs, dogs and cats…lots of cats – strays.
- Concrete edge in lawn north of pump house is where the cellar was – kept potatoes in there.
- Bertha did do sewing and quilting and lots of cooking.

- Elgin Kelly was the architect and builder for the 1952 house.
- The red flagstone came from Lyons and Kelly and the boys would go get the stone and cut it for the house façade.
- Dwayne was 11, Ron was 10 and Kay was 5 when the City of Thornton encroached upon the land. In later years, the Lambertsons had to keep kids out of the lakes and away from the cattle to keep from being sued if something were to happen.
- The chickens were Plymouth Rocks – red
- Always went to the Congregation Church in Eastlake.
- Kelly was a part of the Riverdale Grange and volunteered for the fire department.
- No nicknames for the farm other then 'Rocky Ridge' (near water tanks at 92nd) due rocky landscape in that area.

BERTHA'S VISION

To become a living farm – would like to see today's children educated about farm life. A place for children to visit on a field trip and learn about everyday life on a farm.

CITY OF THORNTON TASHCO/POSAC MEETING

LOCATION: City of Thornton offices
DATE: August 31, 2009
ATTENDEES: Shanen Weber, Axel Bishop, Mark Ballock, Diane Van Fossen, Paula Schulte, Vince Harris, Buz Hedglin, TASHCO, POSAC

C.C.: Diane Van Fossen, Vince Harris

PLEASE REVIEW THE CONTENTS AND NOTIFY OF ANY INACCURACY OR MIS-STATEMENTS.

Prepared by:

Mark Ballock
Design Concepts
September 1, 2009

COMMENTS

- Washington Street was a major historic North/South route in Colorado.
- E. 100th Ave was known historically as "Rural Route #1".
- In 1934, the Lambertsons began farming. The farm was primarily used for raising cattle and growing cattle feed.
- It was requested that the existing historic farm equipment stay on-site and be incorporated into the park master plan.
- Historically, the site never required a windmill for moving water. Barring drought years, having ditch water gravity flow on/off the site was never an issue.
- TASHCO/POSAC suggestions for the site:
  - Living museum. (see Adams County museum)
  - Preservation of pastoral history
  - Preservation of existing and/or creation of new areas for wildlife habitat
  - Educational center
  - Reserved, private space over a fully public park
  - A place to showcase the arts (art shows, gallery space), sciences ("the science of farming") & humanities (festivals, historic reenactments)
  - Allow a portion of the site to be a working farm
  - Art gallery with pastoral art
  - Community gardens
  - A working apiary (bee garden)
  - Multi-generational themes – "farming through the decades"
  - Seasonal activities – farmers market, thematic reenactments, etc.
- Regarding recreation, it was a common suggestion that the site contain "extremely passive" recreational activities. The preference of preservation was much more desired than that of recreation as typical.

PUBLIC MEETING #1

LOCATION: Thornton Elementary School
DATE: September 14, 2009
ATTENDEES: Shanen Weber, Axel Bishop, Diane Van Fossen, Paula Schulte, Buz Hedglin Vince Harris, Maureen Cameron

Public Attendees

Jim Osmun	9966 Logan Street
Richard Logan	640 E 99th Street
Terry Wintory	2030 E 101st Court
Carolyn Woempner	10043 Vine Court
Val Vigil	9908 Garfield Court
Rick Reeser	9883 Pearl Street
Dilsha Happel	2128 East 101st Way
Karina Sweeney	1226 East 101st Ave
Kevin Sweeney	1226 East 101st Ave
Eva Henry	City Council

C.C.: Diane Van Fossen, Vince Harris

PLEASE REVIEW THE CONTENTS AND NOTIFY OF ANY INACCURACY OR MIS-STATEMENTS.

Prepared by:

Maureen Cameron
Design Concepts
September 14, 2009

- Introduction to the property, location, and status of ownership. Property will eventually be given to the city.
- The goal now is to develop a master plan for the site.
- Need to get things in order, make sure that buildings work, etc. and plan/budget for the future.

- Overview of site, iconic setting and location.
- Have visited with family, toured the property and seen buildings. Now try to come up with a use for the site.
- Scope of project - Heritage Loop Trail, looking for ways to connect to larger loop.
- There is now a partial trail that goes through condos to the south and as far as Northglen to the north. Goal is to connect these.
- Continued to show site analysis maps.
- Currently there are no historic designations on any part of the site.
- There is a long-term caretaker living in the smaller house on the east side of farm.
- Historic building assessment is underway and the information will be available by the end of the project.
- As a possibility, historic designation is not something to be feared. It is a process to determine importance at the federal, state and local designation levels.

- The buildings are sound, some are concrete formed walls, and foundations are good. The red barn foundation has some damage but is stable.
- Explanation of site conditions, building interiors, adjoining trails, farm equipment remaining, etc.
- The family "bought everything and sold nothing." A great deal of the equipment and tools remain in place.
- Creating a vision for the site – factors that are taken into consideration such as education, historical context, community gathering space and public safety.

Attendee Suggestions for Site Uses

- The Lambertson Performing Arts Center – with a dance floor, stage, kids performance area using the old red barn to store equipment. Some sort of terrace to the lake. A cultural facilities type thing like they have at the Arvada Arts Center. We don't need the metal barn or silos – that area can be used for parking. There is a need in the community and it is in the long-range plan. There were more accidents at the Washington/100th Avenue intersection – do not reopen that. There used to be a light there. Traffic can come in on 98th Ave. This is a community theater, a cultural facilities district and should be a primary consideration, there is lots of open space for it.
- If it is a ranch or a farm, leave it as is. Don't just get rid of things because we don't need it right now. We are maxed out with space around here, will people from the north come all the way here?
- Compare to Silo Park – would love it if this property became something like that. There is a lot of preserved open space, trails, baseball, yet it feels isolated inside the park. It must have been cost effective because they took and used the old farm. There are rolling hills, grass, open space, a silo. It is visually a farm but has a lot of open space. Love the rolling hills, and some of the buildings are bolted shut but still remain there. At Lambertson, keep and shut the cement buildings, keep the barn and silos, etc. There is no value in the old houses, would love to see a dock or a pier.
- Concerns about water quality. They are drainage ponds, retaining ponds that collect everything. If recreation is to happen, the city needs to do something about the water. Geese are a problem too. This is an opportunity to do some water quality management. The city needs to plan to spend money on it, do it right and make the ponds more useful. Northglen cleaned theirs up. We could put watercraft in there and this place has its location going for it.
- Some concerns – population density is high. Ward 2 has the highest proportion of apartments to residents. Any way to preserve open space is good. No new structures, no new buildings. Need to mitigate traffic density, anything to increase property values. The area needs value for people to walk there. Need to find a themed open space park, add some continuity to the area. Prefer use as open space as opposed to something that increases traffic.
- People want to connect across dam to neighborhood in both directions. Need a concrete or gravel walk at the turn where people are cutting through. Trash is dropped along the way on the way to/from Kmart.
- Water quality – is there anything to do about the water west of Washington? It goes to Grant Street, all the way down the drains need to be looked at. Who owns the water rights?
- Would like to see some buildings used to highlight the family – their story, how they got there, used the land, photos etc. Would like to speak for the (2) great blue herons, cormorants, geese, foxes (red and black). Would like a community gathering place – some sort of facility with a community garden, bird watching, fishing, farmers market, beekeeping, demo live crafts. Like a grange hall for various clubs. A chicken coop, demonstration lab, intensive gardening, solar/wind/geothermal energy demonstration. Adams County extension classes, 4H, scouts, etc. An arts venue for square dances. There are other spaces that are condemned or blighted (like the old Target) that are more appropriate for a larger venue for the arts. The trails need to be integrated and connected; maybe a pedestrian/bike bridge to

cross Washington, the path is nowhere near any lights.

- Nothing that is proposed can impede on traffic on Washington Street. There is more traffic than ever before on the street.
- The equipment on the farm is a goldmine, there is more there than the Adams County Fairgrounds.
- Can we get a traffic count for various times of the day for the Arvada Center for the Arts? How many can the theater fit?
- Talk to councilpersons about the need for an arts center, see what is in the works and decide the best location for it.
- A smaller community theater, not as big as Arvada is becoming more of a priority. Maybe reuse a church or partner with a local school.
- People want the opportunity to gather, more personal scale. It can be more successful.
- Frisbee golf would be great here; they are more and more popular.

<u>Additional comments received through email</u>

- My wife and I were the couple that showed up late and left early to the planning meeting tonight. I apologize for that but want to express my interest in this project. In May we moved into the Lambertson Lakes subdivision (we are right across the street from the planning site). The woman who spoke about the residents wanting a quiet, peaceful trail/open space/park said it perfectly. We couldn't agree more with her, as that was the primary reason we chose this area to live in. We love being right next to the parks and lakes and really want to keep it peaceful and quiet as it is now. I didn't like the idea of the concert hall with
- parking lots and people coming from all around, I think that would not only hurt our property values but also our quality of life. I was under the impression that an open space was to remain an open space and
- not a "cultural center" with big buildings and parking lots.
- I received an invitation to come to the Lambertson Lakes public meeting and though I would like to
- come, am not sure I will make it. I wanted to let you know that this past month I saw a black fox near the lake where the new dam went in. I hope you will be taking such wildlife into consideration in any actions you make concerning the Lakes. I moved to Colorado eight months ago after spending most of my life in Washington State, and this is the first time I have seen a fox and didn't realize a black species existed until I looked them up on the internet afterwards.
- Additional items mentioned on the phone were allowing fishing, possible community garden where each group would have a plot to work, having tours for kids, create a working farm, keep it as a farmstead, open up a silo and put up some interpretive signage that tells something about its history.
- I work evenings so I will be unable to attend the meeting this evening. I would like to share some of my personal thoughts/visions for the Lambertson home site. As a person raised on a farm in western Nebraska I feel that an agricultural education is important to our children today since they have been inundated with ipods, video games, cell phones, etc. Having said that, I feel that the farm machinery, corral, grain silos, chicken coop, farm house and other out buildings should remain in tact and be put to use as some kind of interactive learning center or agricultural museum/campus. Another use could be some kind of community garden center in which participants could pay a fee for a garden plot. Watering would be up to the city so that people wouldn't get carried away and waste water. I believe the above ideas could generate some revenue to help offset the costs of implementing and maintaining them. Many more ideas and details to mention at this time. I would encourage you to visit malabarfarm.org which is in northern Ohio. My wife and I were married in the Big House there and had our reception in the rustic cabin. The cabin is seen in the opening scene of the movie "Shawshank Redemption". This farm was owned by the author/playwright Louis Bromfield and Humphrey Bogart and Lauren Bacall spent their honeymoon there. Bromfield's daughters eventually left this farm to the state of Ohio and it is still a working farm today. I envision something similar to this for the Lambertson farm except on a much smaller scale of course.

PUBLIC MEETING #2

LOCATION: Thornton Senior Center
DATE: November 18, 2009
ATTENDEES: Shanen Weber, Diane Van Fossen, Paula Schulte, Buz Hedglin, Maureen Cameron

1	Jim Osmun	9966 Logan Street
2	Dilsha Happel	2128 East 101st Way
3	Eugene Wood	1173 E 100th Place
4	Mary Ann Nichols	10260 Washington Street # 1915
5	Sherri McNabb	10260 Washington Street # 1737
6	Terry Wintory	2030 E. 101st Court
7	Joel Yoder	421 E. 99th Place
8	Cindy Yoder	421 E. 99th Place
9	Merilee Appel	10957 Clermont Court
10	Bertha Lambertson	1010 Meade Court
11	Jackie Lambertson	10114 Meade Court
12	Dwayne Lambertson	10114 Meade Court
13	Jason Teti	1010 Meade Court
14	Jessica Johnson	5313 E. 128th Circle
15	Barry Smith	9457 Steele Drive
16	Resident	1173 E. 100th Place
17	Resident	10260 Washington Street

C.C.: Diane Van Fossen

PLEASE REVIEW THE CONTENTS AND NOTIFY OF ANY INACCURACY OR MIS-STATEMENTS.

Prepared by:
Maureen Cameron
Design Concepts

- Introduction of POSAC and TASHCO members by Diane Van Fossen.
- Introduction of the property and ownership status. Property will eventually be given to the city.
- Diane Van Fossen introduced Bertha Lamberston and family.
- Design Concepts introduce 3 concept plans for the Lambertson Lakes Homestead site, proposed trail alignment and signage options.

Attendee Comments/Questions
- What is the impact of the plans on the wildlife (foxes, cranes, etc)?
- Shanen Weber explained scope and findings of the ERO Environmental assessment.
- Keep in mind it was a feedlot, need to figure out way to either preserve this, show how farm was truly used.
- Thank Lambertson family for their involvement, what is Bertha's response to concepts?
- Bertha commented that they would like to see it used as a living farm. She had previously made her wishes known and they are part of the concepts.
- Bertha remarked that churches and families used to come to the farm for pictures near the barn. Ponds were used for baptisms.

- The small pond near the driveway was used for irrigation. Many view it as a visual focal point from the past. This pond is no longer as visible from Washington Street.
- Preserve the beauty of the large cottonwood trees.
- I am a 5th grade teacher – we need something like this. Kids need this, whether in elementary or high school. The community gardens and orchard are great ways to get schools involved. Would like to see a combination of the Active and Moderate Use concepts.
- What is the phasing plan and how will this all be done?
- Diane Van Fossen remarked that figuring the phasing out would be part of this project.
- This will become a trailhead, it is a really nice place to start a ride. It will become a destination.
- There will be a lot of traffic with the Active plan and the animals will leave.
- What will take place in the barn – I would like to see room for square dancing.
- Diane commented that many of the details depend on programming and funding for the site.
- Next steps – present the concepts at the City Council Meeting.
- The timing of the project could take several years, 10-20 possibly.
- Will all buildings remain?
- Shanen Weber commented that all structures have been assessed and most are in good/stable condition. The red barn foundation will need to be reinforced.
- How will animals (wild and domestic) be protected from all of the dogs that people walk near there?
- It would be nice if the pier was located on the north side looking south to the farm.
- Questions about the new dam at the third pond – how is that affected?
- Diane commented that it is jurisdictional and controlled by the Army Corps of Engineers.
- Please do not encourage parking along 100th or 101st.

Natural Resources Assessment

Introduction

The City of Thornton retained ERO Resources Corporation (ERO) to provide a natural resources assessment for the Lambertson Lakes Homestead Site Master Plan in Adams County, Colorado (Figure 1). On October 9, 2009, Sadie Russo, a natural resource specialist with ERO, visited the property to review natural resources (2009 site visit). The 2009 site visit included a review of potential wetlands, identification of potential federally threatened and endangered species habitat, and identification of other natural resources that might affect development of the property. A jurisdictional wetland delineation was not conducted during the 2009 site visit. This report provides information on existing site conditions and resources, as well as current regulatory requirements related to those resources. ERO assumes the landowner or developer is responsible for obtaining all federal, state, and local permits for development of the project.

Site Description

The project area is located within the NW ¼ of Section 14, Township 2 South, Range 68 West of the 6th Principal Meridian in Adams County, Colorado (Figure 1). The UTM coordinates of the approximate center of the project area are 502173mE and 4414420mN, Zone 13. The latitude/longitude of the project area is 39.87983°N/104.97459°W.

The Lambertson Lakes Homestead Site is located at 98th Avenue and Washington Street along Grange Hall Creek in Thornton, Colorado (Figure 2). The project area is primarily disturbed upland grasslands dominated by field bindweed (*Convolvulus arvensis*) and smooth brome (*Bromopsis inermis*) around the existing homestead site and along existing trails (Photo 1). Riparian habitats, located west of the homestead site and between Lambertson Lakes #1 and #2, are dominated by plains cottonwood (*Populus deltoides*), crack willow (*Salix fragilis*), and Russian olive (*Elaeagnus angustifolia*) in the tree overstory and wild rose (*Rosa* sp.) and currant (*Ribes* sp.) in the shrub understory

(Photo 1). Wetlands border the Lambertson Lakes and are dominated by broadleaf cattail (*Typha latifolia*) and sandbar willow (*Salix exigua*) (Photos 2 and 3). The project area is surrounded by residential development to the north and south, Grange Hall Creek to the east, and Washington Street to the west.

Wetlands and Waters of the U.S.

Background

The Clean Water Act (CWA) protects the physical, biological, and chemical quality of waters of the U.S. The U.S. Army Corps of Engineers' (Corps) Regulatory Program administers and enforces Section 404 of the CWA. Under Section 404, a Corps' permit is required for the discharge of dredged or fill material into wetlands and waters of the U.S. The Corps defines waters of the U.S. as all navigable waters and their tributaries, all interstate waters and their tributaries, all wetlands adjacent to these waters, and all impoundments of these waters. As a result of the 2001 ruling by the Supreme Court in the matter of *Solid Waste Agency of Northern Cook County vs. U.S. Army Corps of Engineers*, 531 U.S. 159 (S.Ct. 2001), the Corps' regulatory jurisdiction over isolated, nonnavigable, intrastate waters has been eliminated if the sole nexus to interstate commerce was use of the waters by migratory birds. In 2006, the Supreme Court ruled in the consolidated cases of *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* (Rapanos), which questioned the scope of the Corps' jurisdiction over wetlands associated with ephemeral and intermittent drainages, and man-made ditches and canals. In 2007, the Corps issued guidance on the Rapanos ruling stating that the Corps considers traditionally navigable waters (TNWs), wetlands adjacent to a TNW, and tributaries to TNWs that are relatively permanent waters (RPWs) and their abutting wetlands to be jurisdictional waters. Other wetlands and waters that are not TNWs or RPWs will require a significant nexus evaluation to determine their jurisdiction. A significant nexus evaluation assesses the flow characteristics and functions of a tributary and its adjacent wetlands to determine if they significantly affect the chemical, physical, or biological integrity of downstream TNWs.

Site Conditions and Regulations

ERO assessed the project area for potential isolated wetlands, jurisdictional wetlands, and other waters of the U.S. The Lambertson Lakes are on a tributary to Grange Hall Creek. The tributary to Grange Hall Creek is shown as an intermittent stream on the U.S. Geological Survey (USGS) Eastlake topographic quadrangle (Figure 1). The Lambertson Lakes are three interconnected lakes with pockets of wetlands along the edges (Figure 2; Photos 1, 2, and 3). Wetlands along the edges of the Lambertson Lakes are dominated by broadleaf cattails and sandbar willow. A large cattail wetland is located at the west end of Lambertson Lake #2 (Photo 2). A small pocket of wetlands is located west of the homestead site (Figure 2). This pocket of wetlands is dominated by broadleaf cattail and curly dock (*Rumex crispus*). This wetland did not appear to have a surface connection to the unnamed tributary to Grange Hall Creek or Lambertson Lakes.

If any work is planned within the wetlands described above, such as trail crossings, a jurisdictional determination should be requested from the Corps. If the Corps determines any of the wetlands in Figure 2, the unnamed tributary to Grange Hall Creek, or the Lambertson Lakes to be under its jurisdiction, then any activities that would require the placement of dredged or fill material within wetlands or below the ordinary high water mark would require authorization under Section 404 of the CWA. A jurisdictional wetland delineation is recommended for any wetland or water determined to be jurisdictional. If the wetlands in Figure 2, the unnamed tributary to Grange Hall Creek, or the Lambertson Lakes are determined nonjurisdictional or if no work is planned within those wetlands and waters, no action would be necessary. No other wetlands or waters of the U.S. occur within the project area.

Threatened, Endangered, and Candidate Species

ERO assessed the project area for potential habitat for threatened, endangered, and candidate species. Federally threatened and endangered species are protected under the Endangered Species Act, as amended (ESA). Adverse effects to a federally listed species or its habitat require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 or 10 of the ESA. The Service lists several threatened and endangered species

with potential habitat in Adams County, or potentially affected by projects in Adams County (Table 1).

Table 1. Federally threatened, endangered, and candidate species potentially found in Adams County or potentially affected by projects in Adams County.

Common Name	Scientific Name	Status*	Habitat	Suitable Habitat Present
Mammals				
Black-footed ferret	*Mustela nigripes*	E	Active prairie dog towns	No prairie dog colony and within block clearance zone
Preble's meadow jumping mouse	*Zapus hudsonius preblei*	T	Shrub riparian/wet meadows	No, within block clearance zone
Birds				
Interior least tern**	*Sterna antillarum athalassos*	E	Sandy/pebble beaches on lakes, reservoirs, and rivers	No
Mexican spotted owl	*Strix occidentalis*	T	Closed canopy forests in steep canyons	No cliffs, piñon-juniper, or old-growth forest in the project area
Piping plover**	*Charadrius melodus*	T	Sandy lakeshore beaches, river sandbars	No
Whooping crane**	*Grus americana*	E	Mudflats around reservoirs and in agricultural areas	No
Fish				
Pallid sturgeon**	*Scaphirhynchus albus*	E	Large, turbid, free-flowing rivers with a strong current and gravel or sandy substrate	No
Plants				
Ute ladies'-tresses orchid	*Spiranthes diluvialis*	T	Moist to wet alluvial meadows, floodplains of perennial streams, and around springs and lakes below 6,500 feet	No

*T = Federally Threatened Species, E = Federally Endangered Species.

**Water depletions in the South Platte River may affect the species and/or critical habitat in downstream reaches in other counties or states.

Source: Service 2009a.

The proposed project would not likely affect the black-footed ferret or Preble's meadow jumping mouse because the project is located within the block clearance zones for both species (Service 2009b; ERO 2007). In designating a block clearance zone, the Service eliminated the need for individuals or agencies to coordinate with the Service prior to conducting activities in habitats that otherwise would be deemed to have potential to support Preble's (Carlson 2000).

The project area lacks any potentially suitable habitat for the Mexican spotted owl. The interior least tern, piping plover, whooping crane, and pallid sturgeon are species affected by water depletions from the South Platte River. If the project includes activities that deplete water in the South Platte River, such as diverting water from a stream, these species could be affected and a consultation with the Service may be required. If no depletions are associated with the project, there would be no affect on these species.

Potential habitat for the Preble's meadow jumping mouse and Ute ladies'-tresses orchid is more prevalent within development sites across the Front Range. Because these species are more likely to be addressed by counties and regulatory agencies such as the Corps, a more detailed discussion is provided below.

Preble's Meadow Jumping Mouse

Species Background

Preble's meadow jumping mouse (Preble's) was listed as a threatened species on May 13, 1998. On July 10, 2008, the Service removed the Preble's populations in Wyoming from the list of species protected under the ESA. The Service also amended the listing for Preble's to indicate the subspecies remains threatened in the Colorado portion of its range. Under existing regulations, either a habitat assessment or a full presence/absence survey for Preble's is required for any habitat-disturbing activity within areas determined to be potential Preble's habitat (generally stream and riparian habitats along the Colorado Front Range). Typically, Preble's occurs below 7,600 feet in elevation, generally in lowlands with medium to high moisture along permanent or intermittent streams and canals (Meaney et al. 1997). Preble's occurs in low undergrowth consisting of grasses and forbs, in open wet meadows, riparian corridors near forests, or where tall shrubs and low trees provide adequate cover (Service 1999; Meaney et al. 1997). Preble's typically

inhabits areas characterized by well-developed plains riparian vegetation with relatively undisturbed grassland and a water source nearby.

Potential Habitat and Possible Effects

The project area is located within the Preble's Denver metro block clearance zone. In designating a block clearance zone, the Service eliminated the need for individuals or agencies to coordinate with the Service prior to conducting activities in habitats that otherwise would be deemed to have potential to support Preble's (Carlson 2000).

Ute Ladies'-Tresses Orchid

Species Background

The Ute ladies'-tresses orchid (ULTO) is federally listed as threatened. ULTO occurs at elevations below 6,500 feet in moist to wet alluvial meadows, floodplains of perennial streams, and around springs and lakes where the soil is seasonally saturated within 18 inches of the surface. Generally, the species occurs where the vegetative cover is relatively open and not overly dense or overgrazed. Once thought to be fairly common in low elevation riparian areas in the interior western United States, ULTO is now rare (Service 1992a).

The main reason for the decline of this species appears to be drastic modification of riparian habitat by urbanization and stream channelization. Because of this decline, the Service listed this species as threatened under the ESA in 1992 (Service 1992b). When listing occurred, ULTO was found only in Colorado, Utah, and Nevada. Since then, the species has been found in Wyoming, Montana, Nebraska, and Idaho. The largest known population occurs in Colorado. Other historical populations in Utah, Colorado, and Nevada are presumed to be extirpated (NatureServe 2006).

In Colorado, the Service requires surveys in areas of suitable habitat on the 100-year floodplain of the South Platte River, Fountain Creek, and Yampa River and their perennial tributaries, or in any area with suitable habitat in Boulder and Jefferson counties (Service 1992a). ULTO does not bloom until late July to early September (depending on the year) and timing of surveys must be synchronized with blooming (Service 1992a).

Potential Habitat and Possible Effects

The project area was assessed for potential ULTO habitat. The cattail and sandbar willow vegetation in the wetland areas is not suitable habitat for ULTO; therefore, it is unlikely that ULTO would occur within the project area.

State Threatened, Endangered, and Species of Concern

Numerous species that potentially occur in Adams County are considered threatened, endangered, or species of concern by the State of Colorado (Table 2). According to Colorado law (Colo. Rev. Stat. Ann. §§ 33-2-102-106), the State must maintain a list of species determined to be threatened or endangered within the State. State-listed wildlife species that are not already protected under the ESA are protected under State Statute 33, which is regulated by the Colorado Division of Wildlife (CDOW).

The habitat affinities, presence of potential habitat on the property, and impacts to these species or habitats are provided in the following discussion. No regulations currently exist for state species of concern. However, if any species were to be listed during construction, state regulations could be enforced.

Table 2. CDOW threatened, endangered, and species of concern.

Common Name	Scientific Name (Status*)	General Colorado Range	Potentially Suitable Habitat Present
Mammals			
Black-tailed prairie dog	*Cynomys ludovicianus (SC)*	Eastern Plains/urban	Yes
Townsend's big-eared bat	*Corynorhinus townsendii pallescens (SC)*	Western and mountain portions of Eastern Colorado	No
Swift fox	*Vulpes velox (SC)*	Eastern Colorado	No
Birds			
Bald eagle	*Haliaeetus leucocephalus (ST)*	Nest near reservoirs and rivers; winter habitat includes grasslands near prairie dog colonies	Yes
Western burrowing owl	*Athene cunicularia (ST)*	Grassland, shrublands, and deserts with ground squirrels	Yes
Greater sandhill crane	*Grus canadensis tabida (SC)*	Eastern Colorado; Grand Valley	No
Mountain plover	*Charadrius montanus (SC)*	Shortgrass in eastern plains and mountain valleys	Yes
Ferruginous hawk	*Buteo regalis (SC)*	Northwestern, eastern Colorado	Yes
American peregrine falcon	*Falco peregrinus (SC)*	Statewide except far east counties – cliffs/canyons	No

Common Name	Scientific Name (Status*)	General Colorado Range	Potentially Suitable Habitat Present
Fish			
Greenback cutthroat trout	*Oncorhynchus clarki stomias (SE)*	Cold, and well-oxygenated headwater streams with gravel substrate	No
Plains minnow	*Hybognathus placitus (SE)*	Mainstream channels of Eastern Plains rivers. Cache la Poudre River	No
Suckermouth minnow	*Phenacobius mirabilis (SE)*	Deeper habitats in river and tributary streams, preferably with gravel stream bottoms; South Platte River east of Fort Morgan; Arkansas River	No
Brassy minnow	*Hybognathus hankinsoni (ST)*	Cool, clear water with abundant aquatic vegetation and a gravel substrate overlaid by organic sediment. Cache la Poudre River, Fossil Creek, St. Vrain River (Boulder Creek), and South Platte River, Plum Creek	No
Northern redbelly dace	*Phoxinus eos (SE)*	Slow-moving, cool-water streams, spring-fed streams and ponds with sandy bottoms and aquatic vegetation – only known in West Plum Creek	No
Common shiner	*Luxilus cornutus (ST)*	Cool, clear, gravel-bottomed water with overhanging shade - St. Vrain River and South Platte River, West Plum Creek	No
Iowa darter	*Etheostoma exile (SC)*	Cool, clear water over a sand or organic matter substrate, Cache la Poudre River, Big Thompson River, St. Vrain River, Plum Creek	No
Stonecat	*Noturus flavus (SC)*	Fast water riffles and runs of streams, hide under rocks, woody debris; St. Vrain River	No
AMPHIBIANS AND REPTILES			
Northern leopard frog	*Rana pipiens (SC)*	Eastern Colorado wetlands	Yes

*SE = Colorado Endangered Species, ST = Colorado Threatened Species, SC = Colorado Species of Special Concern.
Source: CDOW 2007.

There is no likelihood for the proposed project to directly affect the greater sandhill crane, American peregrine falcon, or Townsend's big-eared bat because of the lack of potentially suitable habitat on the project area. There is no evidence that the fish species listed above occur within the project area.

Potentially suitable habitat is more likely to occur for the species discussed in detail below.

Black-Tailed Prairie Dog

Species Background

The black-tailed prairie dog is a Colorado species of special concern (CDOW 2007). Black-tailed prairie dogs are social animals that occur in colonies or "towns" formed by a series of burrows. Species such as black-footed ferret, burrowing owl, prairie rattlesnake, and mountain plover are closely linked to prairie dog burrow systems that provide food, breeding areas, and cover. Prairie dogs also provide an important prey resource for numerous predators including badger, coyote, fox, golden eagle, ferruginous hawk, and other raptors.

In 1998, the Service received a petition from the National Wildlife Federation to list the black-tailed prairie dog as a threatened species under the ESA. The Service announced that listing of the black-tailed prairie dog under the ESA is warranted but precluded by other higher priority actions (65 FR 5476, February 4, 2000). After several years of research and with new information on population levels, the Service has removed the black-tailed prairie dog as a candidate species from the ESA list (69 FR 15951217, August 12, 2004). The Service is currently conducting a status review of the black-tailed prairie dog.

No black-tailed prairie dogs were observed on the project area and none were noted in the surrounding areas. Because of the amount of development in the project area and the lack of nearby prairie dogs colonies, it is unlikely that prairie dogs would colonize the property.

Swift Fox

The swift fox is a Colorado species of special concern (CDOW 2007). The distribution of the swift fox includes the grasslands of eastern Colorado (Fitzgerald et al.

1994). Dens are usually located on sites dominated by native shortgrass prairie species such as blue grama and buffalo grass. The swift fox is sometimes associated with prairie dog towns, although they generally excavate their own dens (Fitzgerald et al. 1994). The swift fox is a shy, secretive animal that avoids development and urban areas. The project area does not contain potential habitat for this species.

Bald Eagle

Species Background

The bald eagle is a large North American bird with a historical distribution throughout most of the U.S. The bald eagle was listed as an endangered species in 1978. Population declines were attributed to habitat loss, the use of organochlorine pesticides, and mortality from shooting. Since its listing, the bald eagle population has been increasing. On July 9, 2007, the Service announced the delisting of the bald eagle from the threatened and endangered species list (Service 2007). Although removed from the list of threatened and endangered species, the bald eagle continues to be protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act.

Most bald eagle nesting in Colorado occurs near lakes or reservoirs or along rivers. Typical bald eagle nesting habitat consists of forests or wooded areas that contain tall, aged, dying, and dead trees (Martell 1992). Bald eagles seek aquatic habitat for foraging and typically prefer fish, although they also feed on birds, mammals, and carrion, particularly in winter (Buehler 2000; Sharps and Uresk 1990). Prairie dogs provide a major food resource for bald eagles wintering along the Colorado Front Range (ESE 1988).

Potential Habitat and Possible Effects

ERO assessed the project area for potential bald eagle habitat. No known nest sites (NDIS 2008) or habitat suitable for nesting or as winter roost sites for bald eagles occurs in the project area. The project area also lacks a concentrated food source, such as prairie dogs, that could attract wintering eagles. The proposed project should have no long-term adverse effects on the bald eagle.

Western Burrowing Owl

Species Background

The western burrowing owl is a Colorado threatened species (CDOW 2007). This small, migratory owl typically inhabits grasslands, shrublands, and desert habitats using burrows created by other species, most notably those excavated by prairie dogs and other ground squirrels. The burrowing owl is active during the day and uses the abandoned ground squirrel burrows for nesting and roosting. In addition to being listed as threatened in Colorado, the burrowing owl is protected under the MBTA, which prohibits the killing of burrowing owls, their eggs or young, and/or destruction or removal of active nests (burrows). Burrowing owls are present in Colorado between March 1 and October 31.

Because no prairie dog colonies or other burrows capable of supporting burrowing owls were seen on the project area, this species will not likely be impacted by the proposed project.

Mountain Plover

The mountain plover is a Colorado species of special concern (CDOW 2007). The mountain plover is a bird of the dry tablelands and Colorado Plateau, nesting primarily in shortgrass prairie sites used historically by prairie dogs, bison, and pronghorn. This species breeds in shortgrass prairie from northern Montana, Wyoming, and Colorado to central New Mexico. The habitat requirements of this bird generally consist of open, flat tablelands and short, intensively grazed grasslands. Typically plovers nest in areas that maintain approximately 30 percent bare ground and are often found in disturbed habitats, burned prairie, fallow agricultural fields, and prairie dog colonies (Knopf 1996). Plovers avoid vegetation greater than 6 inches in height and hillsides or steep slopes. No mountain plovers or suitable habitat for this species was observed on the project area. Therefore, the mountain plover will not likely be impacted by the proposed project.

Ferruginous Hawk

The ferruginous hawk is the largest hawk in North America and is a Colorado species of special concern (CDOW 2007). This species inhabits open prairie and desert habitats, and is strongly associated with primary prey species such as ground squirrels and jackrabbits. Ferruginous hawks are relatively common winter residents in eastern

Colorado, particularly in association with the black-tailed prairie dog (Beane 1996). Conversion of native shortgrass prairie to urban development or grazed rangeland has posed a significant threat to populations of this species in Colorado. There is no suitable nesting habitat for the ferruginous hawk on the project area, although ferruginous hawks may occasionally forage on the project area in winter.

Northern Leopard Frog

The northern leopard frog is listed as a Colorado species of special concern (CDOW 2007). This species typically inhabits the banks and shallow portions of wetlands, ponds, lakes, streams, and other permanent bodies of water. In Colorado, the elevational range of the northern leopard frog extends from below 3,500 feet to approximately 11,000 feet (Hammerson 1999). The Lambertson Lakes and abutting wetlands provide potential habitat for the northern leopard frog. All wetlands, ponds, and other suitable habitat for the northern leopard frog should be avoided to the maximum extent possible.

Other Species of Concern

Migratory Birds

Regulations

Migratory birds, as well as their eggs and nests, are protected under the MBTA. The MBTA does not contain any prohibition that applies to the destruction of a bird nest alone (without birds or eggs), provided that no possession occurs during the destruction. While destruction of a nest by itself is not prohibited under the MBTA, nest destruction that results in the unpermitted take of migratory birds or their eggs is illegal and fully prosecutable under the MBTA (Migratory Bird Permit Memorandum, U.S. Fish and Wildlife, April 15, 2003). The regulatory definition of a take means to pursue, hunt, shoot, wound, kill, trap, capture, or collect; or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect. Most birds in Colorado, except grouse species and nonnative house sparrow, starling, Eurasian collared dove, and rock pigeon (common pigeon) are protected by the MBTA.

Under the MBTA, the Service may issue nest depredation permits, which allow a permittee to remove an active nest. The Service, however, issues few permits and only

under specific circumstances, usually related to human health and safety. Obtaining a nest depredation permit is unlikely and involves a process that takes from 4 to 8 weeks. The best way to avoid a violation of the MBTA is to remove vegetation outside of the active breeding season, which typically falls between April and August, depending on the species. Public awareness of the MBTA has grown in recent years, and most MBTA enforcement actions are the result of a concerned member of the community reporting a violation.

Recommended Avoidance and Minimization Procedures

The active nesting season for most migratory bird species in Colorado is between April 1 and August 15, which coincides with the prime construction season. Over the past few years, the Service and CDOW have suggested that the best way to avoid a violation of the MBTA is to remove vegetation outside of the active breeding season.

ERO recommends the following step-down approach that is consistent with state and federal recommendations to avoid disturbing active bird nests on the project area:

1. **Avoidance:** Conduct habitat-disturbing activities (e.g., tree removal, grading, scraping, and grubbing) in the nonbreeding season (August 16 to March 31) to the extent practicable.
2. **Habitat Manipulation/Removal:** If work activities are planned between April 1 and August 15, remove or alter vegetation within construction footprints prior to April 1 to discourage nesting within areas scheduled for summer construction. Note that some early nesting species such as hawks and owls begin nesting in February and March and may require specific clearance surveys or avoidance activities. Removal or alteration of vegetation will also discourage nesting in areas adjacent to the construction footprints and encourage birds to nest in more suitable habitat. Vegetation-altering activities can include mowing or and/or trimming to a height of six (6) inches or less, grazing vegetation to a height of six (6) inches or less, discing, or herbicide application.
3. **Habitat Maintenance:** Once vegetation has been removed and/or trimmed, appropriate measures (i.e., repeated mowing/trimming) should be implemented to assure vegetation does not grow to more than six (6) inches.
4. **Clearance Surveys:** If activities 1 or 2 cannot be completed, conduct preconstruction clearance surveys during the nesting season by a trained biologist to identify any active nests and implement avoidance measures.

Note: Implementing these procedures demonstrates a "Good-Faith" effort to avoid incidental violation of the MBTA, but does not guarantee that migratory birds will not continue to nest in some areas despite these efforts.

Raptors

The MBTA also protects raptors, including active nest sites. Additionally, CDOW (2008) has adopted guidelines/regulations that recommend restrictions on human disturbance within specified buffer zones surrounding raptor nests (see below). ERO assessed the project area for potential habitat and the presence of raptor species. The riparian areas shown in Figure 2 offer potential habitat for raptors. A potential raptor nest was located in a cottonwood tree between Lambertson Lakes #1 and #2 (Figure 2). This nest could be used by red-tailed or Swainson's hawks or great horned owls.

According to CDOW (2008), raptor species and individual raptors vary in their tolerance limits to disturbance. Some individuals habituate and tolerate human activity at a proximity that would cause the majority of the species to abandon their nests. Other individuals become sensitized to repeated encroachment and react at greater distances. A raptor's response also will vary depending upon the reproductive stage. A breeding raptor pair may be more sensitive during egg laying and incubation, and may be more defensive of the nest site when the chicks hatch (CDOW 2008). Thus, CDOW recommends a "holistic" approach when protecting raptor habitat (CDOW 2008) that protects both nest sites and important foraging areas that support the pairs' nesting effort. One aspect of this approach is establishing buffer zones around active nest sites. State guidelines are exactly that, "Guidelines"; however, any project that goes through a development review process generally needs to address raptor issues. ERO's experience along the Colorado Front Range is that CDOW and local planning commissions often adopt and implement these guidelines as regulations or policy.

Recommended Buffer Zones

The buffer zones and seasonal restrictions suggested by CDOW (2008) reflect an informed opinion that, if implemented, should assure the majority of individuals within a species will continue to occupy the area. Measurements are somewhat imprecise and reflect the need to maintain some flexibility to adjust buffer zones, depending upon intervening terrain and vegetation screens that obscure human activity. CDOW

recommends the following buffer zones for raptors most likely to nest within urban/suburban areas of the Colorado Front Range.

Red-Tailed Hawk (*Buteo Jamaicensis*)

Nest Site: Typically a large stick nest near the top of a large mature tree. No surface occupancy (beyond that which historically occurred in the area) within a ⅓-mile radius of active nests. Seasonal restriction to human encroachment within ⅓ mile of active nests from February 15 to July 15. Some members of this species have adapted to urbanization and may tolerate human habitation to within 200 yards of their nest. Development that encroaches on rural sites is likely to cause abandonment.

Swainson's Hawk (*Buteo Swainsoni*)

Nest Site: Typically, a small stick and weed or twig nest, often on the periphery of the canopy. No surface occupancy (beyond that which historically occurred in the area) within a ¼-mile radius of active nests. Seasonal restriction to human encroachment within ¼ mile of the nest from April 1 to July 15. Some members of this species have adapted to urbanization and may tolerate human habitation to within 100 yards of their nest.

Great Horned Owl (*Bubo virginianus*)

Nest Site: Great horned owls do not build their own nest, but will use buildings, tree cavities, cliff ledges, and the nests of other raptors, magpies, or other birds. Great horned owls occur in lowland riparian forests and agricultural areas, and less commonly in urban areas, foothill riparian forests, and coniferous forests. No buffer zones or seasonal restrictions are recommended for this species, although the MBTA prohibits removal or destruction of an active nest. A rule of thumb is that human encroachment should be restricted within 500 feet of an active nest from February 15 through August 31.

Recommended Avoidance and Mitigation Procedures

Avoidance and mitigation options for the Lambertson Lakes Homestead property consists of 1) avoidance, 2) habitat modification for temporary impacts, 3) habitat modification of permanent impacts, and 4) mitigation for permanent impacts. Currently, there are no expected permanent impacts to existing raptor nests. The intent of any

mitigation is to encourage individual raptor pairs to nest at selected and more secure locations. The top priority is to maintain a given pair within their normal home range despite disturbance or destruction of traditional nest sites. ERO recommends the following options for addressing raptor issues:

- **Annual Surveys** – Conduct annual surveys during the breeding season in March and June to confirm nesting activity on the existing nest site and locate any new nest sites.
- **Avoid/Minimize –** Design project activities and scheduling that avoid disturbance to nest sites and important foraging areas, either spatially using recommended buffers or temporally using seasonal restrictions. Minimize master plan options that bring human influences closer to the nest site than previously established on the site. Avoidance can consist of complying with state guidelines or developing a site-specific management plan that avoids and minimizes disturbance.
- **Habitat Modification for Temporary Impacts –** Temporary installation of nest deterrents, where appropriate, prior to the nesting season in any known or suspected active nests that will be temporarily rendered unproductive by demolition or construction. Nest deterrents in known or suspected active nests need to be coordinated with the CDOW District Wildlife Managers. ERO recommends that nest deterrents be coupled with installation of artificial mitigation nests on-site. Nest deterrents will be removed upon project completion.
- **Habitat Modification for Permanent Impacts** – Permanent removal of nests that will be likely rendered unproductive by construction and project operation activities. All nests must be removed prior to the nesting season identified in CDOW guidelines (2008). ERO recommends that nest removal be coupled with installation of artificial mitigation nests on-site (see below). Determination of nests to be removed and suitable nest relocation locations should be coordinated with CDOW District Wildlife Managers.
- **Mitigate –** Regulatory agencies and local planning commissions often require that removed or destroyed nest sites be mitigated. ERO recommends developing a comprehensive mitigation approach that accounts for all aspects of raptor ecology, including adequate nesting substrate, protection from predators and human disturbance, and protection of available food resources.

Other Wildlife

As with any human development, including residential development, wildlife species sensitive to human disturbance are likely to decline in abundance or abandon the area, while other wildlife species adapted to urban development are likely to increase in

abundance. Species likely to decline would include some raptors and possibly coyotes. Species likely to increase would include the red fox, raccoon, and great horned owl. Overall, surrounding and continuing development contributes to a decline in the number and diversity of wildlife species nearby and to a change in species composition to favor species that adapt better to human disturbance.

Potential Habitat and Possible Effects

A silver-phased red fox has been observed in the vicinity of the project area. The riparian areas offer the best suitable habitat for red fox, raccoon, migratory birds, and other wildlife (Figure 2). The riparian areas are dominated by mostly native vegetation.

To enhance portions of the Lambertson Lakes Homestead Site for wildlife, native grasses, shrubs, and trees should replace nonnative or noxious weed species. Russian olives are a dominant tree around the edge of the Lambertson Lakes. Russian olives are on the State noxious weed B list (Colorado Department of Agriculture 2008). Replacing Russian olives with native shrubs and trees such as snowberry, wild rose, or native gooseberry or currant would provide a wider food base and cover for wildlife. Other wildlife enhancements could include attaching bat boxes to existing homestead structures or installing wood duck nest boxes on trees surrounding the lakes to encourage this species to nest at the lakes. To enhance wildlife opportunities, recreational activities should be minimized in the riparian areas.

Regulations and Recommendations

- **Wetlands and Waters of the U.S.** The Lambertson Lakes are on a tributary to Grange Hall Creek within the project area. If any work is planned within the Lambertson Lakes, a jurisdictional determination should be requested from the Corps. If the Lambertson Lakes are considered jurisdictional, a Section 404 permit would be required for the placement of fill or dredged material within wetlands or waters of the U.S. If the Lambertson Lakes are determined nonjurisdictional, or if no work is planned within the Lambertson Lakes, no action would be necessary.
- **Preble's Meadow Jumping Mouse.** The project area is within an area designated as the Preble's Denver metro block clearance zone by the Service; therefore, no action is necessary regarding Preble's.
- **Ute Ladies'-tresses Orchid.** The site does not fall under the guidelines for ULTO surveys because the project area is within Adams County, and the

cattails and sandbar willow are dense and do not provide suitable habitat for ULTO; therefore no action is necessary regarding ULTO.

- **Raptors and Migratory Birds.** A potential raptor nest was identified between Lambertson Lakes #1 and #2 (Figure 2). CDOW-recommended buffer guidelines should be observed. No other migratory bird nests were observed within the project area; however, activities should be restricted during the breeding season near any newly identified raptor or migratory bird nest.
- **Bald Eagle.** No known nesting or winter roost sites for bald eagles and no designated critical or essential bald eagle habitat are within the project area. No action is necessary regarding the bald eagle.
- **Other Wildlife.** A silver-phased red fox is known to inhabit the project area. The riparian areas in the project area offer the best wildlife habitat on the site. If wildlife habitat enhancement is an objective of the master plan, recreational activities within the riparian areas should be minimized and nonnative and noxious weed species around the Lambertson Lakes should be minimized.

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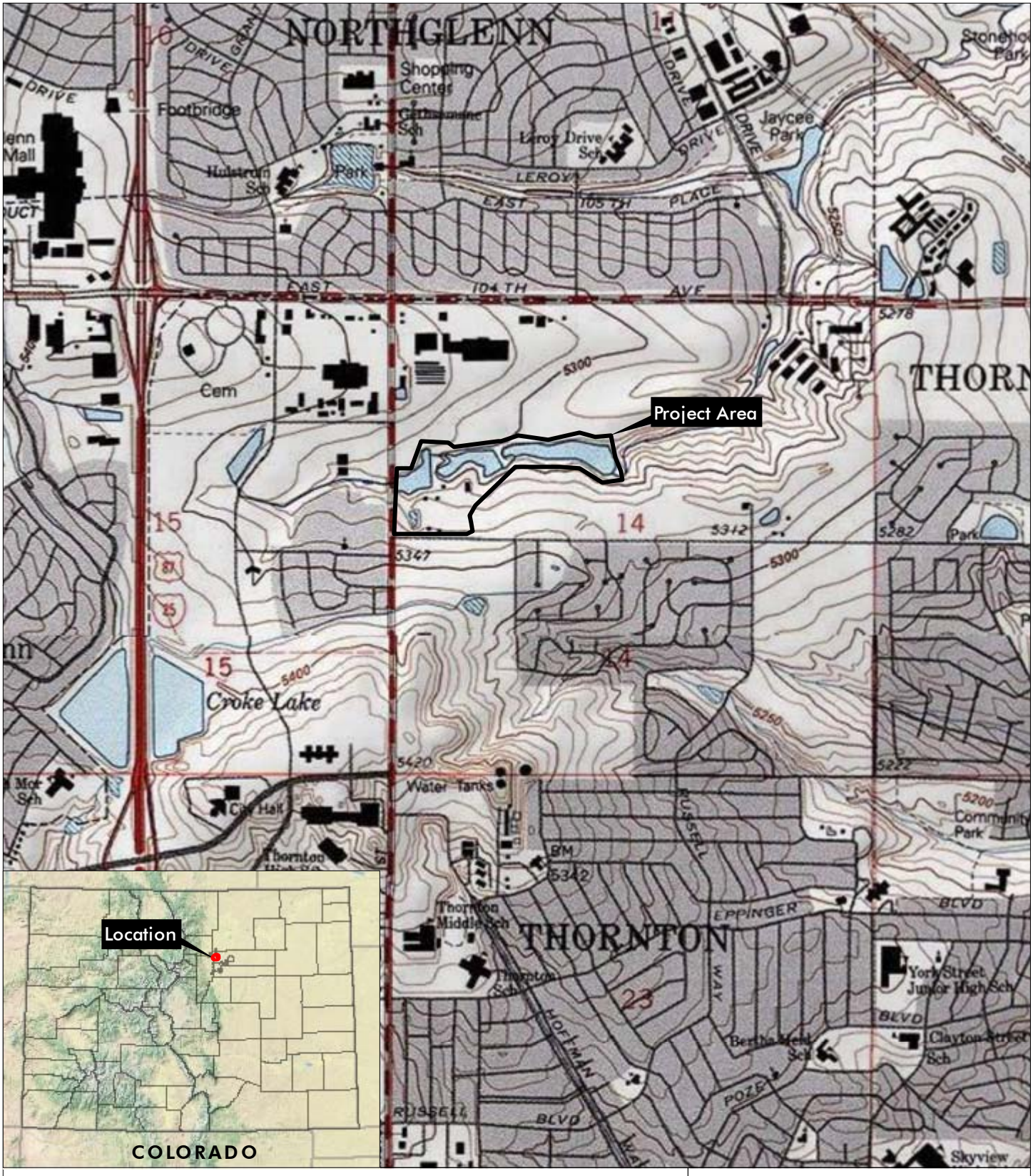


Lambertson Lakes Homestead Site
Section 14, T2S, R68W, 6th PM
UTM NAD 83: Zone 13N; 502173mE, 4414420mN
Latitude, Longitude: 39.87983°N, 104.97459°W
USGS Eastlake, CO Quad.; Adams County, Colorado

0 750 1,500 feet
1 inch = 1,500 feet

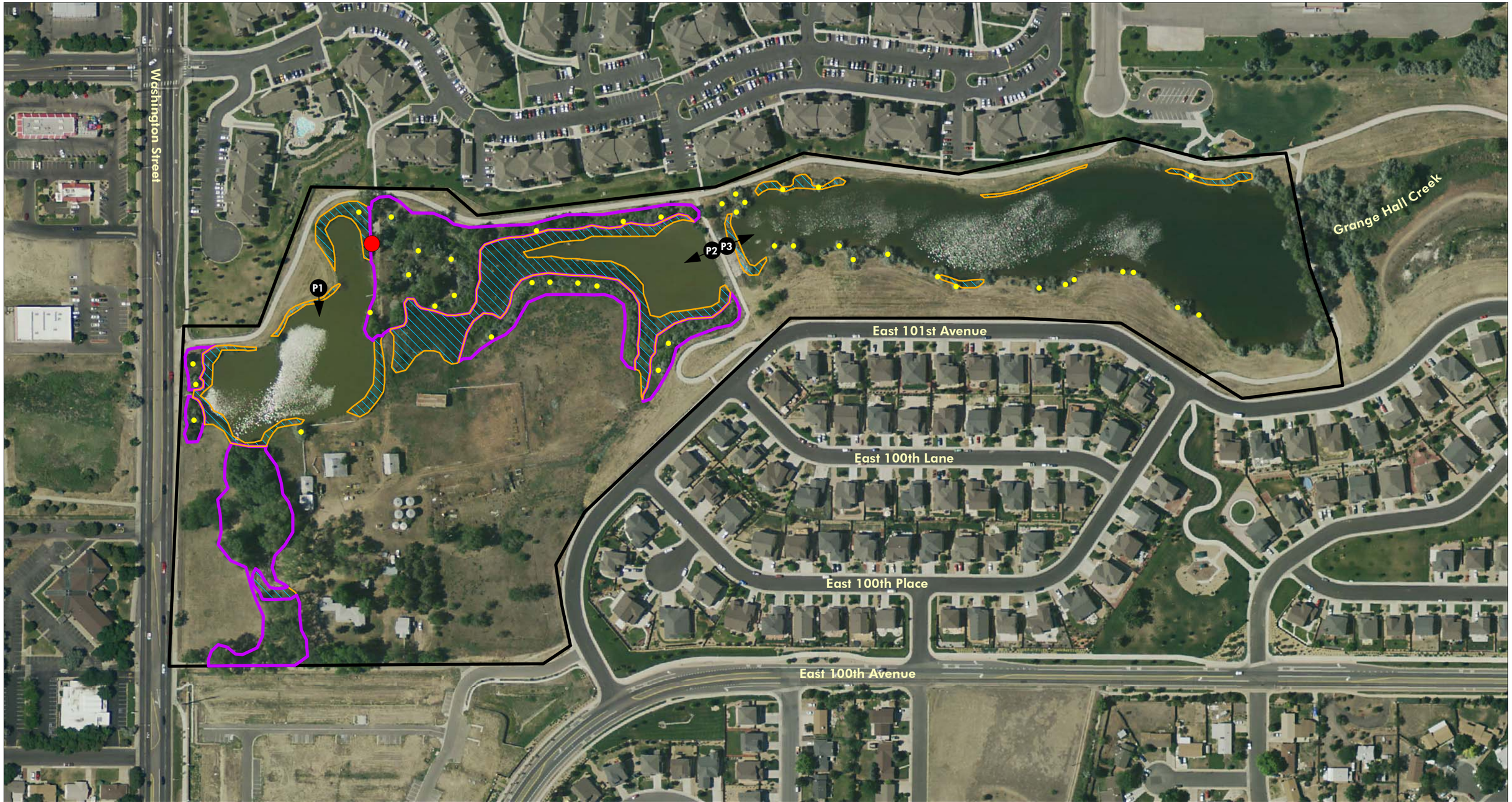
N

Figure 1
Site Location

Prepared for: City of Thornton
File: 4572 figure 1.mxd [dlH]
October 2009

ERO Resources Corp.

INSERT 11x17 ERO MAP HERE



Lambertson Lake Homestead Site

- Area of Environmental Review
- Potential wetland
- Riparian area
- Potential raptor nest
- Russian olive
- Photo point

0 100 200 feet

1 inch = 200 feet

N

Figure 2
Natural Resource Assessment

Prepared for: City of Thornton
File: 4572 figure 1.mxd [dlH]
October 2009

ERO Resources Corp.

BACK OF ERO MAP HERE

Photo 1 - View of homestead site. Looking south across Lambertson Lake #1.

Photo 2 - View of Lambertson Lake #2 from spillway into Lambertson Lake #3. Looking west.

Photo 3 - View of Lambertson Lake #3 from Lambertson Lake #2. Looking east.

1.0 Introduction
2.0 History and Use

1.0 Introduction

1.1 Research Background

The City of Thornton has requested that Design Concepts assist them to create the Lambertson Lakes Homestead Site Master Plan at the northwest corner of East 100th Avenue and Washington Street. Included with the Site Master Plan project this historic assessment project has been completed to evaluate existing conditions of the numerous buildings on the original homestead property. This initial buildings and structures assessment provides information related to existing conditions of each building on the site.

1.1 Participants

The following firms are involved in this assessment:

Baseline Corporation
1536 Cole Blvd.
Suite 220
Golden, CO 80401

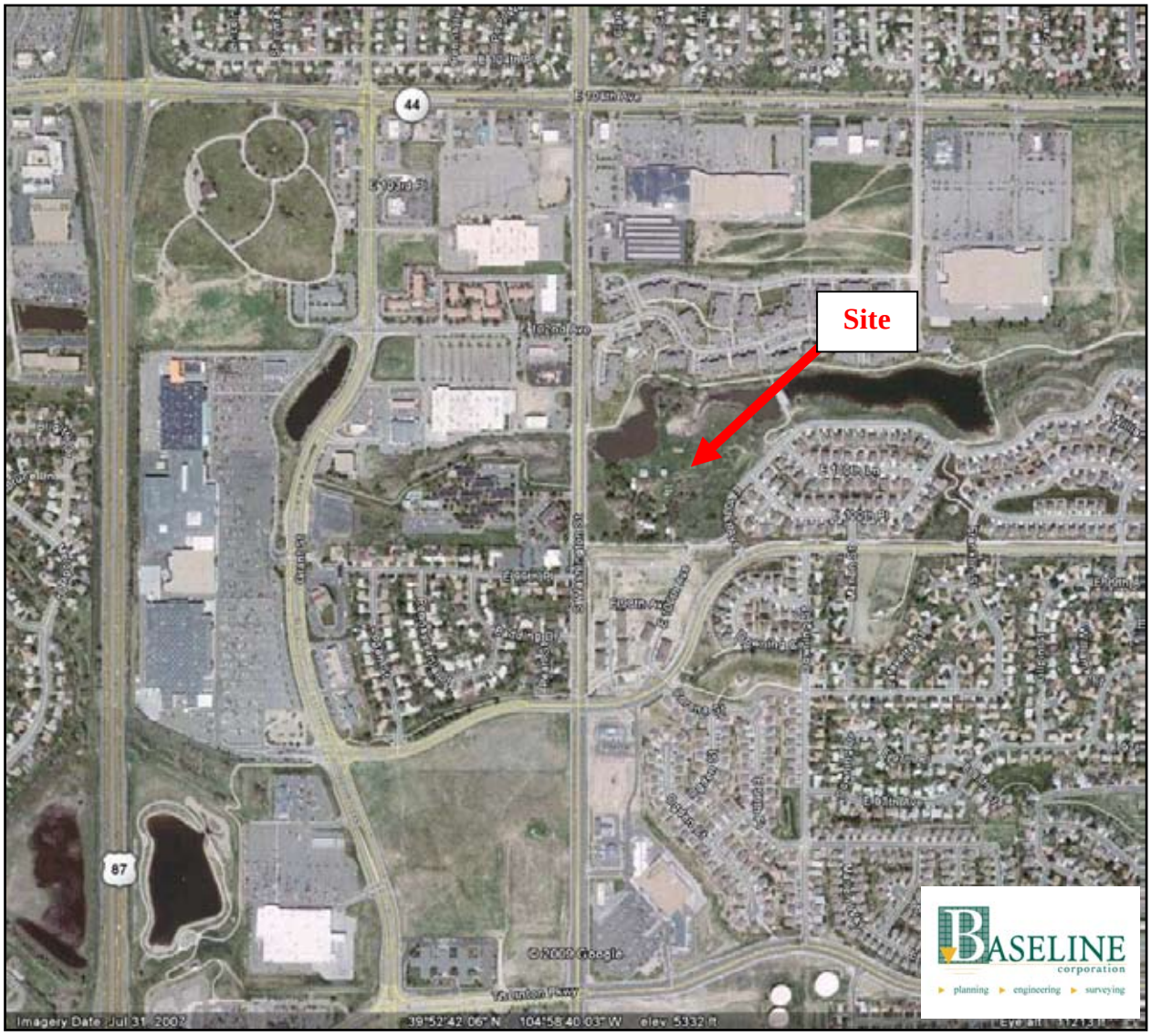
Design Concepts
211 N. Public Road
Suite 200
Lafayette, CO 80026

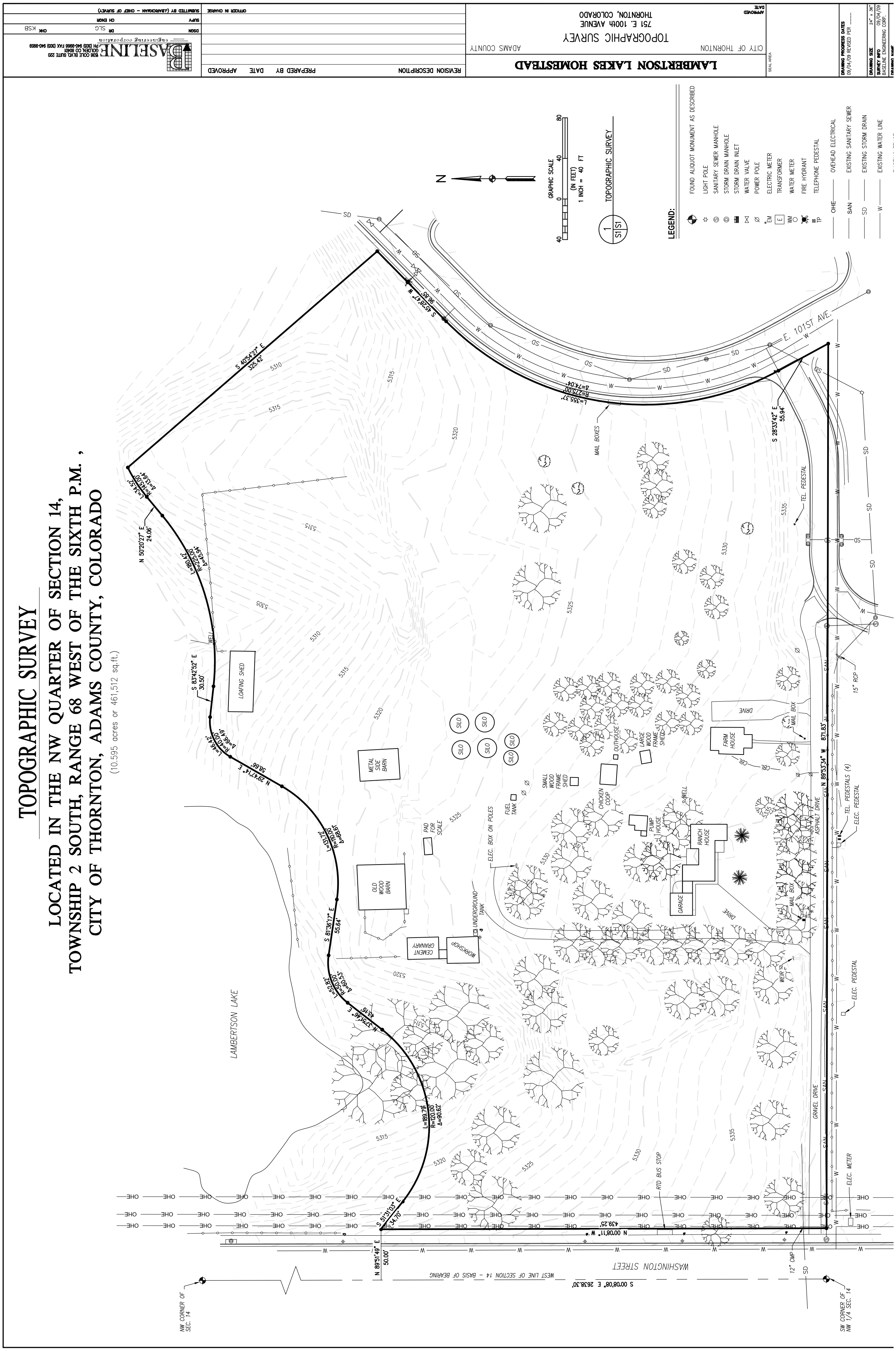
Given & Associates, Inc.
735 S. Xenon Ct.
Suite 201
Lakewood, CO 80228

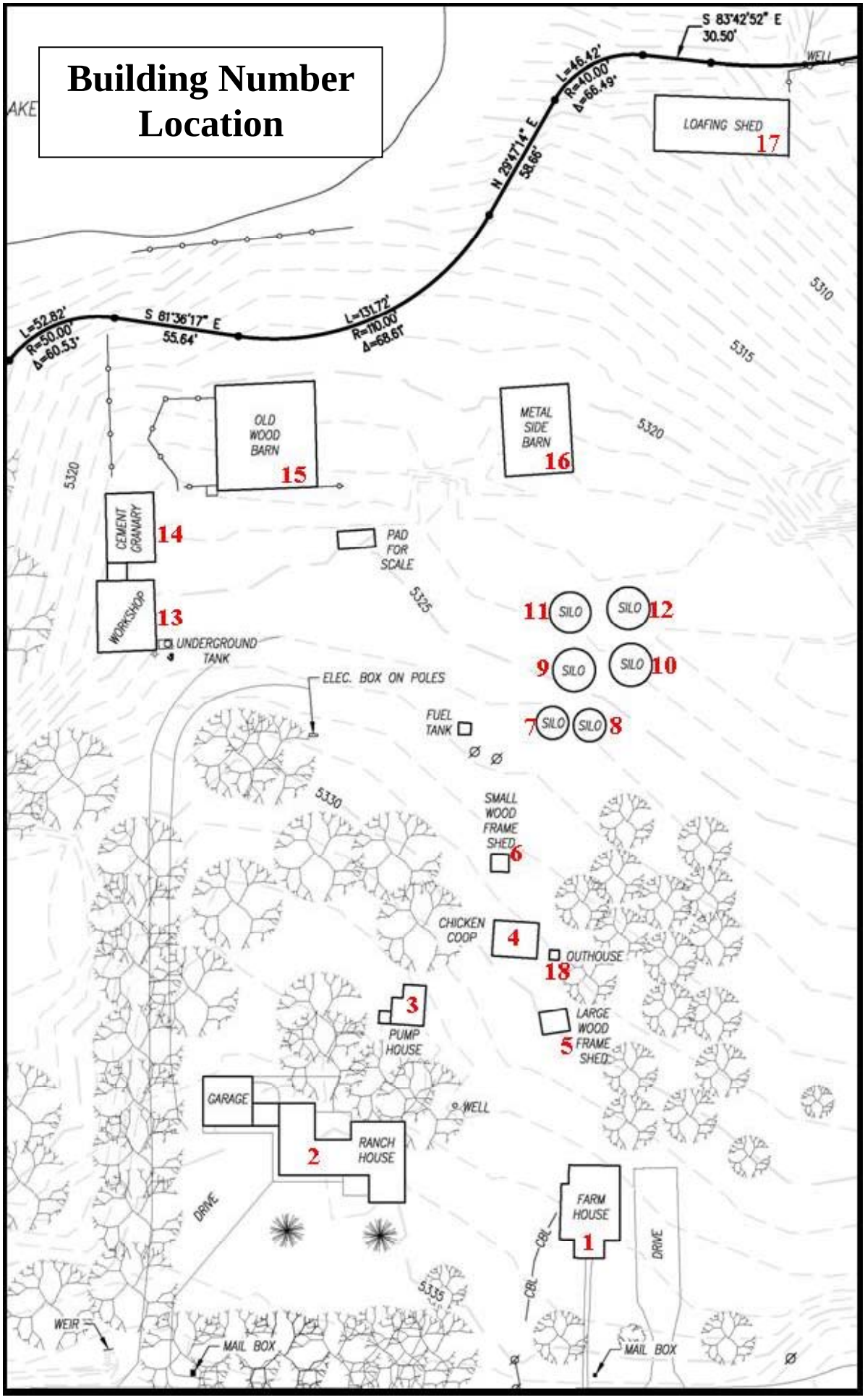
Thomas A. Kingdom, P.E.
3152 S. Josephine St.
Denver, CO 80210

Three Gables Preservation
Deon Wolfenbarger
320 Pine Glade Road
Nederland, CO 80466

1.2 Building Location/Site Plan or Vicinity Map




TOPOGRAPHIC SURVEY
LOCATED IN THE NW QUARTER OF SECTION 14,
TOWNSHIP 2 SOUTH, RANGE 68 WEST OF THE SIXTH P.M. ,
CITY OF THORNTON, ADAMS COUNTY, COLORADO
(10.595 acres or 461,512 sq.ft.)
LAMBERTSON LAKES HOMESTEAD
TOPOGRAPHIC SURVEY
751 E. 100th AVENUE
THORNTON, COLORADO
CITY OF THORNTON
ADAMS COUNTY
BASELINE
engineering corporation
LEGEND:
FOUND ALIQUOT MONUMENT AS DESCRIBED
LIGHT POLE
SANITARY SEWER MANHOLE
STORM DRAIN MANHOLE
STORM DRAIN INLET
WATER VALVE
POWER POLE
ELECTRIC METER
TRANSFORMER
WATER METER
FIRE HYDRANT
TELEPHONE PEDESTAL
OVEHEAD ELECTRICAL
EXISTING SANITARY SEWER
EXISTING STORM DRAIN
EXISTING WATER LINE
GRAPHIC SCALE
(IN FEET)
1 INCH = 40 FT
E. 101ST AVE.
WASHINGTON STREET
LAMBERTSON LAKE
LOAFING SHED
METAL SIDE BARN
OLD WOOD BARN
WORKSHOP
CEMENT GRANARY
SILO
FARM HOUSE
RANCH HOUSE
GARAGE
PUMP HOUSE
CHICKEN COOP
OUTHOUSE
NW CORNER OF SEC. 14
SW CORNER OF NW 1/4 SEC. 14


Building Number Location
S 83°42'52" E
30.50'
WELL
L=46.42'
R=40.00'
Δ=66.49'
N 29°47'14" E
58.66'
LOAFING SHED
17
L=52.82'
R=50.00'
Δ=60.53'
S 81°36'17" E
55.64'
L=131.72'
R=110.00'
Δ=68.61'
5310
5315
5320
OLD WOOD BARN
15
METAL SIDE BARN
16
CEMENT GRANARY
14
PAD FOR SCALE
WORKSHOP
13
UNDERGROUND TANK
5325
11
SILO
12
9
10
ELEC. BOX ON POLES
FUEL TANK
7
8
5330
SMALL WOOD FRAME SHED
6
CHICKEN COOP
4
OUTHOUSE
18
3
PUMP HOUSE
LARGE WOOD FRAME SHED
5
GARAGE
WELL
2
RANCH HOUSE
DRIVE
FARM HOUSE
1
CBL
5335
WEIR
MAIL BOX

2.1 Architectural Significance and Construction History

Lambertson Farm is not currently listed on any national, state or local historic register. The following is an evaluation of the property according to the standards for the National Register of Historic Places. However, it is not a nomination or a determination of eligibility.

Historic Significance

Lambertson Farm is associated with the historic agricultural development of Adams County under National Register criteria A. While initial reports of Colorado's dry plains deterred early emigrants from settling here, that changed once reports of the gold and silver strikes lured settlers from the east to the territory after the Civil War. Since not all were able to strike it rich, some found a more reliable source of income in providing food for prospectors and the new city of Denver, either by raising crops or livestock. Commercial agriculture in Colorado thus got its start by serving the mining industry. It continued to expand when railroads reached Denver in 1870, allowing farmers to ship their produce to various points across the country. Now newcomers come to Colorado specifically for farming. In the area that would eventually become Adams County, the plains also offered attractive range for cattle. Adams County farmers played an important role in the growth of Denver not only by providing food for its residents, but in helping establish many agricultural related businesses.

Although the South Platte and its tributaries were important water sources that helped establish agriculture in the county, water was always a precious and rare commodity. Irrigation and water law quickly moved to the forefront of Colorado agricultural issues. The earliest settlers claimed the well-watered bottom lands, while later arrivals had to figure out how to acquire water from rivers and move it onto their land. This almost always required the assistance and cooperation of other farmers, the local community, and either private or government agencies. An extensive system of ditches and canals were constructed that allowed farmers to tap distant water sources and help promote crop cultivation such as hay, alfalfa, sugar beets, fruit trees, and grains. In addition to cattle, Adams County farmers also grew grain and crops after irrigation became prevalent.

The Lambertson Farm was operated by the Lambertson family from the early 1900's until 2003. By the early part of the twentieth century, agriculture in Adams County was well established. There were a few small towns in the primarily agricultural county, but most of the county was farmland. The area around the farm was served by the small railroad community of Eastlake. The farm was noticed by Kristian Lambertson [Sr.] and his wife Francis. Lambertson was riding horseback in the area when he noticed sunflowers growing. He decided it would be a good location for a farm and proceeded to purchase the property. The Lambertsons owned and operated more than one farm property, though, including a large farm at 120th and Huron.

The Lamberston family lived in California during the school terms, while summers were spent on the family farms in Colorado. Their son Kristian (Kelly) graduated from high school in Long Beach, California and entered college. However, his father wanted him to return to Colorado and help him farm. As an incentive, he offered Kelly the property located in present day Thornton. Kelly took over the farm operations in 1934; the property at that time included a two-story frame farm house (demolished), a frame wood barn, a chicken coop, orchards, and concrete block granary. The Thornton farm encompassed about 320 acres, which included an 80 acre section across the street that Kelly purchased.

Kelly immediately set about improving the farm, in part as preparation for his new bride. He met Bertha David, who was working at a five & dime store in Denver, through a mutual friend, and they were married in December 1937. Bertha and Kelly raised their family and worked together at their farm for sixty-seven years. Although the Lambertsons were careful with their finances and only purchased items when they had the money, they were constantly improving the farm. In many instances, they provided most of the manpower. Buildings or structures constructed while they owned the farm include the workshop (garage), pump house, six silos, the metal sided barn, outhouse, loafing shed, ranch house, and the large easternmost lake.[1]

The Lambertson Farm was a diversified operation, growing alfalfa, corn, and wheat, in addition to operating a feed lot for approximately three hundred cattle. Kelly purchased the cattle, which were over a year old, through a Denver broker, and would then fatten them for market. They grew their own feed for the cattle, including hay and corn, and also produced extra for market. The fields were planted every other year, and were left fallow during the off years. However, it was still necessary to cultivate the fallow fields in order to keep weeds down. Early farm operations relied on horse-drawn tractors and equipment, but they were eventually replaced by combustion engine machinery. The buildings on the farmstead reflect the varied farming operations.

The daily farm operations were handled by Kelly and hired men (usually two) with Bertha taking the responsibilities for feeding the crew, caring for the chickens, canning, and helping out with various other farm chores - even running the tractors when needed. Kelly's brother Lester helped out with irrigation. The Lambertson children and their nephew Gary also worked once they were old enough. Kelly took classes in welding, and also handled all the mechanical issues for the farm.

The small railroad town of Eastlake was the closest community. The Lambertson children attended school there, and they traded their eggs for groceries at the Eastlake Mercantile. The market wheat was also transported to Eastlake immediately after harvest. Farm life was not all work, however. The Lambertsons belonged to the Farmers' Union, and the children attended the Farmer's Union Camp in the summer. They were also members of the Riverdale Grange. The 4th of July was always a time for celebration, and the Lambertsons hosted a large day-long party at the farm, inviting families from all around. Classmates enjoyed swimming in the lakes in the summer, and ice skating parties and wiener roasts in the fall and winter.

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[1]Construction date for the two wood sheds is unknown.

In the 1950s, even as the surrounding farm lands began to be developed for subdivisions, the Lambertsons continued to improve their property. A new ranch house was built in 1951-'52, designed by Elgin T. Kelly. Both Elgin Kelly and Kelly Lambertson worked on its construction. Even after the City of Thornton was incorporated in 1956, the Lamberstons not only continued to farm but expanded their operations, even as development began to encroach on all sides. In the 1960s, Kelly was able to purchase metal grain bins from the federal government for a good price. They came to the farm unassembled, and along with his boys and a neighbor, Kelly installed them himself. These bins significantly increased the storage capability of the farm, which had previously relied on the small cement granary to handle all the grain storage. Silage was stored in the silage pit, a shallow pit dug into the ground, and the old wood barn was used to store alfalfa after it was no longer needed for horses. With the old barn converted for hay storage, a new building was needed for farm machinery. The metal sided barn was built during the 1950s to house the equipment needed for crops.

Architectural Significance

The Lambertson Farm is a good example of an intact twentieth century diversified farm complex, which consists of landscape features and buildings that were constructed over several decades and represent changing agricultural trends and technologies. As farm operations changed, most significantly when combustion engine machinery replaced horse-drawn tractors, the use of existing barns changed and new buildings were required to accommodate the new tractors. In addition to the numerous agricultural buildings and structures, the landscape features, such as the trees, corrals, fencing, and the insilage (silage) pit provide insight into daily farm operations. The relationship of the buildings to the landscape and to each other is also significant, as it helps understand the layout of a typical farmstead. For example, the outhouse and chicken coops were located east of the original farm house, and just northeast of the newer ranch house, insuring that the prevailing westerly winds kept the offending odors from the house.

The Ranch House is an intact example of a "ranch" style house. This style was popular from the mid-1930s through 1975, although it was most dominant during the 1950s and '60s. Typically associated with subdivisions and the automobile, it is noted for maximizing the facade width, which was even further increased by the attached garage to the side. A ranch house is most often an asymmetrical one-story building with low-pitched roof. Large picture windows and enclosed courtyards and patios may also be present. The Lambertson Ranch House features a free-standing garage which is attached by a breezeway, thus further maximizing the facade width and giving the impression of a larger house. Lyons sandstone, laid in thin horizontal rows, glass block windows, and a large picture window on the front facade are modern design elements that represent a complete break from the pre-World War II residential styles.

The "Old Wood Barn" is an excellent example of a transverse frame barn. The one-and-half story barn type had a central aisle, with the side areas of the barn used for storage, or in this case, one side used for livestock. The entrance is on the gable end, and the main entry was supplemented by two smaller doors from which side aisles passed through the length of the structure. It is typically called a "transverse frame barn" if used primarily for storage and

processing.

The Granary is an excellent example of a free-standing granary building specifically constructed for long-term storage of grain, particularly seed grain. Granaries are typically square or small rectangular one-story buildings, and are characterized by a lack of windows in order to keep the building as animal proof as possible. Pyramidal or hipped roofs are common. The cupola on top provided needed ventilation for the grain respiration as it continued to dry.

Chronology of Additions and Alterations[2]

ca. 1934	Kelly Lambertson took over operations of the Lambertson Farm. Already extant on the property were the Old Barn, Cement Granary, Chicken Coop, and an old farm house (demolished). Garage constructed[3]
ca. 1935-1943	Outhouse installed by the Works Progress Administration (WPA)
1936	Large easternmost lake built by Kelly Lambertson
ca. 1936-1937	Kelly Lamberston moved Farm House (Building 1) to property
ca. 1938	Pump House constructed.
ca. 1940s	Loafing Shed constructed
ca. 1950s	Metal Side Barn constructed. Numerous trees planted, purchased through federal government program.
1951-1952	Ranch House (building 2) constructed by Elgin Kelly and Kelly Lambertson.
ca. 1960s	Metal bins for grain storage (six) purchased from federal government and installed.

[2]See site map for building names.

[3]Note: labeled as "workshop" on site map.

Past and current uses of the historic resources on the Lambertson Farm-*The building numbers below correspond to the Building Number Location Map found in Section 1.0-Introduction*

1-Farm House

Originally built as a farm house for another property, the building was moved to this property in the 1930s for use by Kelly Lambertson's parents. It was later used by hired farm hands. It is currently a caretaker's residence.

2-Ranch House

The building served as the Lambertson family residence from 1952 until 2003. It is presently empty.

3-Pump House

The pump house housed the water pump for the original two-story frame farm house, in addition to housing the electric plant on the east side fueled by coal. It also contained the original clothes washing machine. It is no longer used.

4-Chicken Coop

The coop housed chickens from the time it was constructed until they were no longer raised by the Lambertsons. It is presently empty.

5-Large Wood Frame Shed

Used to store farming equipment and supplies.

6-Small Wood Frame Shed

Used to store farming equipment and supplies.

7-12-Silos

These were used to store grain from the time of their installation in the 1960s. They are presently empty.

13-Workshop

This building was used as a garage, workshop, and welding shop from the mid-1930s until 2003. It is presently used for storage.

14-Granary

Originally used primarily for seed wheat, the building is no longer in use.

15-Old Wood Barn

This multi-purpose barn originally housed livestock, farm equipment, and feed. The Lambertson's horses were stalled on the western half, where the tack room was located. After horses were no longer used for farming, the barn stored alfalfa after harvesting. It is presently used for storage.

16-Metal Side Barn

This was used as a machinery building and storage from the 1940s until 2003. It is presently used for storage.

17-Loafing Shed

The loafing shed provided protection for the cattle in the feed lot from the 1940s until the end of feed operations. There were feed bins on the sides of the corral fences.

18-Outhouse

This was used as a privy from the late 1930s until 1952. It is no longer used.

2.2 Existing Sketch Plan

See Topographic Survey in Section 1.0-Introduction showing existing improvements.

Building 1 – Farm House

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

STRUCTURE CONDITION ASSESSMENT
Building 1 – Farm House

3.1 Site

The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses both the ranch house and the farm house.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations

Foundation System

The foundation consists of a cast-in-place concrete perimeter walls with a partial basement. There is crawl space under the remainder of the building. The foundation appears to be in fair condition. The concrete is showing signs of weather. Some vertical cracking (approximately 1/4" in width) was observed. The location of the cracks (middle of the building) and type of crack (vertical) indicates that the crack is most likely due to shrinkage and lack of adequate reinforcement. The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Repair
The vertical cracks should be epoxy injected to prevent further deterioration.

Perimeter Foundation Drainage

The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

3.3 Building Structural System

General Structural System Description

The general structural system for the building is a conventional wood frame structure with wood framed stud walls with horizontal lap siding.

Recommended treatment: None

Floor and Ceiling Systems

The floor structure is framed with 2x6 joists at 16 " o.c. supported by the foundation walls and interior timber posts and beams at two locations. The framing observed appears to be in good condition and is performing as intended.

Roof Framing System

The roof structure is a conventional wood frame gable roof. The actual structure could not be observed, but appears to performing adequately.

3.4 Building Envelope – Exterior Walls

Exterior Wall Construction: General Description

Wood frame construction

Exterior Finishes: Aluminum siding

Historic Condition:

Could not view any original siding.

Description:

Siding appears to cover the original wood siding.

Evaluation:

Good - with some dents, shows signs of being previously painted.

Recommended Treatment:

Preserve until a time when it can be restored to the original siding material.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – roof shingles

Historic Condition:

The overall condition of the roof appears to match the historical period.

Description:

White single layer Fiberglass strip shingle roofing material.

Evaluation:

Good.

Recommended Treatment:

Preserve.

Roofing Systems - Fascia

Historic Condition:

The overall condition of the roof appears to match the historical period.

Description:

Painted 1 x 6 with exposed rafter tails, some areas 1 x 2 on 1 x 6.

Evaluation:

Fair. Recommend cleaning and repaint.

Recommended Treatment:

Preserve.

Roofing Systems - Sheet Metal Flashing

Historic Condition:

Main part of the roof does not appear to have been flashed. The North (back) portion has roof flashing.

Description:

Edge flashing.

Evaluation:

Good.

Recommended Treatment:

Preserve.

Drainage Systems

Historic Condition:
There are no gutters or downspouts with less than 1-foot overhangs, which appears consistent with the historical period.

Description:
The roof slopes away from the doors.

Evaluation:
Since there appears to be proper site drainage and some protection at the entrances the house can function adequately without gutters and downspouts.

Recommended Treatment:
Preserve.

3.6 Windows and Doors

Doors – Front Door & Hardware

Historic Condition:
Wood Front door with glass lights consistent with the historical conditions.

Description:
Solid Wood panel door with 3 divided upper glass lights with Thumb set handle.

Evaluation:
Good.

Recommended Treatment:
Preserve.

Doors – Wood with Glass Light

Historic Condition:
Painted Wood rear door with glass light is consistent with the historical conditions.

Description:
Painted panel Wood panel door with glass light, weathered with peeling paint.

Evaluation:
Good

Recommended Treatment:
Preserve, clean & repaint

Windows –

Historic Condition:
Most of the windows have been replaced with Vinyl. Some wood windows in the rear still exist.

Description:
Window Sash is double hung 1 over 1. Front enclosed porch has large sliders, some wood windows in the rear
Interior window frames are wood trim and have been preserved

The window hardware is functional as is the screening.

Evaluation:

Good.

Recommended Treatment:

Preserve, clean & repaint wood windows.

Exterior Appendages: Front Porch

Historic Condition:

The porch appears to have been an opened porch, which has since been enclosed.

Description:

Enclosed porch with iron screen doorstep up at threshold to original wood front door.

Evaluation:

Good.

Recommended Treatment:

Preserve until exterior porch can be restored.

3.7 Interior Finishes

Wall Finish Material

Historic Condition:

The wall finishes match the condition of the period of the buildings age.

Description:

Plaster walls and ceilings, stained bead board paneling in the back room.

Evaluation:

Good.

Recommended Treatment:

Preserve.

Ceiling Finish Materials

Historic Condition:

The ceiling finishes match the condition of the period of the buildings age.

Description:

Plaster ceilings, stained bead board paneling in the back room ceiling.

Evaluation:

Good.

Recommended Treatment:

Preserve.

Floor finish materials

Historic Condition:

Hardwood flooring throughout house.

Description:

Vinyl flooring in kitchen. Carpet in remaining main floor rooms.

Evaluation:

Good.

Recommended Treatment:

Preserve.

Interior Doors, Windows, Hardware, Trim

Historic Condition:
Finishes match the condition of the period of the buildings age.
Description:
Stained and painted panel doors with hardware consistent with the age of the structure.
Evaluation:
Good.
Recommended Treatment:
Preserve.

3.8 Mechanical Systems:

Heating/Air Conditioning

Poor Condition

The buildings HVAC system consists of a Carrier gas fired furnace approximately 25 to 30 years old. This unit is located in the basement and distributes sheet metal ductwork through a crawl space to the main level floor air registers. The furnace flue appears to be in OK condition and rises and terminates at the roof level. Overall the ductwork is in good condition and could be reused. The furnace is in poor condition and should be replaced. No cooling is present in the house. The basement has no combustion air present and both the furnace and water heater are atmospheric type appliances. This building would be classified as having a loose construction so some natural infiltration is occurring, but this is no substitute for the code minimum combustion air. This item should be addressed in a timely matter as this has potential health risks to the tenants.

Ventilation

N/A – All ventilation is through operable windows.

Water Service, Plumbing and Sewer Services

Poor Condition

The building's hot water is served by a 30 gallon atmospheric heater located in the basement. This heater is approximately 25 to 30 years old and should be replaced. The domestic water piping material is galvanized iron. This is typical for buildings of this age, but it should be replaced as this material degrades and deposits build up within the pipe restricting flow and adding pressure. New copper or plastic piping should be installed. The gas service is sub fed from building 2 (Ranch House). No meter is present for Building 1. The water service is fed from the well located on the site. A new well was dug recently and is in good operation. It is suspected that the new well is tied into the existing galvanized domestic water piping which should be removed.

The buildings sanitary system could not be assessed as below grade investigation work is required. Due to the age of the building it is conceivable that clay piping is present. This should be removed and replaced with PVC or cast iron.

The basement has no combustion air present and both the furnace and water heater are atmospheric type appliances. This building would be classified as having a loose construction so some natural infiltration is occurring, but this is no substitute for the code minimum combustion air. **This item should be addressed in a timely matter as this has potential health risks to the tenants.**

Fire Suppression – Sprinklers
N/A – None present

3.9 Electrical Systems

Electrical Service and Panels
Poor Condition
Relocated residence contains a 100 amp panel which is possibly back feeding Building 2

Electrical Distribution System
Poor Condition
All wiring and electrical services contained in all buildings is 1950 or older and would not be suitable for reuse for any purpose by the City of Thornton. The systems are derogated, improperly grounded and would represent a hazard to any occupants or users under any circumstances. It would be necessary to completely redo the entire site electrical service for any planned or renovated usages.

Lighting
Fair Condition
The building has a number of incandescent lights through out the building. These are fed by 1950's wire and should be replaced with a building electrical upgrade.

Fire Detection System
N/A – None present

Security Alarm
N/A – None present

4.0 ANALYSIS AND COMPLIANCE

4.1Hazardous Materials

None Visible.

4.2Materials Analysis

For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior)
* Motor
* Linoleum flooring
* Plaster
*Insulation

4.3 Zoning Code Compliance

The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance

Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.
Code Analysis

Occupancy Existing R single family residential
Approximate area: 1,100 sq. ft. Main floor
Construction Type Required: Based on 2006 IBC Table 503, R occupancy is allowed the following stories and area based on Type V –B construction.

- Height 3 stories: Complies
- Area is allowed under Table 503.

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems Including a Carbon Dioxide alarm
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no public ally accessible path of travel to this building. The drive is dirt and gravel and the sidewalk is uneven concrete. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of public facility, access to areas of primary function within the building would be impractical due to the existing room sizes, door widths, and floor plan layout. Office uses may be difficult unless accommodations are approved by the City of Thornton Building Department.

Evaluation
Poor

Recommended Treatment
Consideration should be made for retaining the residential use or use as new small offices. Offices may require additional code compliance. The owner should note that there are accessibility requirements for new construction.

5.0 PRESERVATION PLAN

5.1 Prioritized work

The following items are recommended:

- Furnace replacement
- Plumbing system replacement
- Electrical system replacement

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 2 – Ranch House

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 2 – Ranch House

3.1 Site

The Lambertson Family Farm is served by two farm like gravel/dirt driveway which accesses both the ranch house and the farm house**.**

Associated Landscape Features: There are numerous trees on site with native grasses.

Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.

Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations

Foundation System

The foundation consists of a full basement with cast-in-place concrete perimeter walls and concrete interior bearing walls. The foundation appears to be in good condition. No signs of movement, cracking or duress were observed.

Perimeter Foundation Drainage

The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: None

3.3 Building Structural System

General Structural System Description

The general structural system for the building is a conventional wood frame structure with wood framed stud walls with horizontal lap siding.

Floor and Ceiling Systems

The floor structure is framed with wood joists supported by the exterior foundation walls and interior concrete bearings walls. The framing observed appears to be in good condition and is performing as intended.

Roof Framing System

The roof structure is a conventional wood frame gable roof. The actual structure could not be observed, but appears to performing adequately.

Recommended treatment: None

3.4 Building Envelope – Exterior Walls

Exterior Wall Construction: General Description

Wood frame construction

Exterior Finishes: Aluminum siding

Historic Condition:
Could not view any original siding.
Description:
Siding appears to cover the original wood siding.
Evaluation:
Good - with some dents, shows signs of being previously painted.
Recommended Treatment:
Preserve until a time when can restore the original siding material.

Exterior Finishes: Aluminum soffits

Historic Condition:
Could not view any original soffit material.
Description:
Soffit appears to cover the original material.
Evaluation:
Good - with some dents.
Recommended Treatment:
Preserve until a time when can restore the original material.

Exterior Masonry: Stone on part of façade as well as chimney

Historic Condition:
Stone matches the conditions of the period of the buildings age
Description:
Full width horizontal red sandstone veneer.
Evaluation:
Good.
Recommended Treatment:
Preserve.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – roof shingles

Historic Condition:
The overall condition of the roof appears to match the historical period.
Description:
White single layer Fiberglass 3 tab shingle roofing material
Evaluation:
Good.
Recommended Treatment:
Preserve.

Drainage Systems: Gutters & downspouts

Historic Condition:

The overall condition of the roof appears to match the historical period.

Description:

Evaluation:

Good.

Recommended Treatment:

Preserve & repair as needed.

3.6 Windows and Doors

Doors – Front Door & Hardware

Historic Condition:

Wood Front door with glass lights & hardware consistent with the historical conditions.

Glass block sidelight into closet is particularly consistent with the building era.

Description:

Wood door with 3 divided upper glass lights angled at base with Thumb set handle.

Evaluation:

Good.

Recommended Treatment:

Preserve.

Doors –Garage Doors

Historic Condition:

Painted wood door is consistent with the historical conditions.

Description:

Painted wood weathered with peeling paint.

Evaluation:

Fair.

Recommended Treatment:

Preserve, repair.

Doors – Wood

Historic Condition:

Consistent with the historical conditions.

Description:

Stained wood door with glass light

Evaluation:

Good.

Recommended Treatment:

Preserve.

Windows – Metal

Historic Condition:

Consistent with the historical conditions.

Description:
Window Sash is double hung 1 over 1 and fixed which appear to be steel windows with aluminum storm windows. The window frames are drywall wrap head and jamb with a travertine sill detail. The hardware is functional as well as the screening.
Evaluation:
Good.
Recommended Treatment:
Preserve.

Windows – Metal Basement

Historic Condition:
Consistent with the historical conditions.
Description:
Window sash and steel windows- unsure of window operation.
Evaluation:
Fair.
Recommended Treatment:
Preserve & repair.

Windows – Glass Block

Historic Condition:
The glass block windows are consistent with the historical conditions.
Description:
There are fixed drywall wrap at head, jamb and sill. 8 x 8 and 12 x 12
Evaluation:
Good.
Recommended Treatment:
Preserve.

3.7 Interior Finishes

Wall Finish Material - Paint

Historic Condition:
The wall finishes match the condition of the period of the buildings age.
Description:
Plaster walls smooth finish, Eased soffits at ceiling in living /dining room.
Evaluation:
Good.
Recommended Treatment:
Preserve.

Ceiling Finish Materials

Historic Condition:
The ceiling finishes match the condition of the period of the buildings age.
Description:
Plaster ceilings smooth finish

Evaluation:
Good.
Recommended Treatment:
Preserve.

Wall Finish Material – Tile

Historic Condition:
The wall finishes match the condition of the period of the buildings age.
Description:
Tile bath room walls in tile and tile color reflecting the period of the building.
Evaluation:
Good.
Recommended Treatment:
Preserve.

Floor Finish Materials

Historic Condition:
Original flooring not visible in areas due to carpet installation
Description:
The vinyl flooring in the kitchen is newer. There is carpet in remaining main floor rooms including bathrooms.
Evaluation:
Good.
Recommended Treatment:
Preserve.

Floor Finish Materials- Basement

Historic Condition:
Original flooring is not completely visible in areas due to carpet installation
Description:
There is linoleum flooring under carpet in areas.
Evaluation:
Poor.
Recommended Treatment:
Remove and replace. Note of possible asbestoses.

Interior Doors

Historic Condition:
Finishes match the condition of the period of the buildings age.
Description:
Stained hollow core wood doors with hardware consistent with the age of the structure.
Evaluation:
Good.
Recommended Treatment:
Preserve.

Interior Windows– Glass Block

Historic Condition:
The wall finishes match the condition of the period of the buildings age.
Description:
Fixed drywall wrap at head, jamb and sill. 8 x 8 and 12 x 12
Evaluation:
Good.
Recommended Treatment:
Preserve.

Interior Finishes – Built-in Cabinets & Closets

Historic Condition:
Finishes match the condition of the period of the buildings age. Considered custom level of finish for the time.
Description:
Stained wood consistent with the age of the structure.
Evaluation:
Good.
Recommended Treatment:
Preserve.

Interior Finishes – Kitchen Cabinets

Historic Condition:
Kitchen had been remodel at some point for it does not match the cabinetry in the rest of the house.
Description:
White laminate cabinets with oak trim. Laminate countertop
Evaluation:
Good.
Recommended Treatment:
Restore to original if possible.

3.8 Mechanical Systems

Heating/Air Conditioning

Fair Condition

The buildings HVAC system consists of a Hydrotherm gas fired boiler approximately 50-60 years old. This unit is located in the basement and distributes hot water to two heating zones through out the building. Each zone is controlled by a thermostat which activates a pump to distribute the hot water. Each heating zone serves baseboard heaters on the main level and radiators on the basement level. The boiler has a 4" flue which is routed through the building to the roof. The boiler has been well maintained but due to its age a replacement should be considered. The zone pumps and controls should also be replaced due to age. The piping, baseboards and radiators are in good condition and should service the building for another 20 years. No central cooling is present in the property. A thru the wall evaporative cooler is located on the north wall and discharges into one of

the bedrooms. The basement has no combustion air present and the boiler is an atmospheric type appliance. The building would be classified as having a loose construction so some natural infiltration is occurring, but this is no substitute for the code minimum combustion air. This item should be addressed in a timely matter as this has potential health risks to the tenants.

Ventilation
Poor Condition
All ventilation is through operable windows. This space is very difficult to occupy due to the fumes released by chemicals.

Water Service, Plumbing and Sewer Services
Fair Condition

The building's hot water is served by a 50 gallon atmospheric heater located in the basement. This heater is approximately 30 to 35 years old and should be replaced. The domestic water piping material is galvanized iron. This is typical for buildings of this age, but it should be replaced as this material degrades and deposits build up within the pipe restricting flow and adding pressure. New copper or plastic piping should be installed. The gas service fed from the street and is a ¾" low pressure service. The meter is located on the North wall. The ¾" water service is fed from the well located on the site. A new well was dug recently and is in good operation. It is suspected that the new well is tied into the existing galvanized domestic water piping which should be removed. The buildings sanitary system could not be assessed as below grade investigation work is required. Due to the age of the building it is conceivable that clay piping is present. This should be removed and replaced with PVC or cast iron.

Fire Suppression – Sprinklers
N/A – None present

3.9 Electrical Systems

Electrical Service Panels
Poor Condition
Electrical service to the entire site is from a singe 25Kva 120/240 volt single phase overhead transformer feeding a 200 amp main breaker exterior service panel located centrally in the vicinity of the original house (now demolished).

Electrical Distribution System
Poor Condition
The site distribution panel contains.

- One 100 amp 2P breaker which feeds the 1950 residence, the relocated house and the existing well pump house.
- One 60 amp 2P breaker feeding the workshop with a 60 amp fuse to an existing welding unit and tapping to a 30 amp 2P breaker feeding a small load center in the work shop. The associated garage area of the shop and north building are feed from this shop distribution panel.

- One 30 amp 1P breaker feeding the existing Red Barn
- One 30 amp 1P breaker feeding the East (NE) Barn. The routing of the feeders seems to be both circuits to the Red Barn (Building 15) and then one to the Metal Side.

The house panel contains:

- One 70 amp 2P main panel with one 50A-2p Range breaker and room individual circuit breakers
- One 35A 2P breaker possibly feeding the well house
- One 35A 2P breaker in the boiler room.

All wiring and electrical services contained in all buildings is 1950 or older and would not be suitable for reuse for any purpose by the City of Thornton.

The systems are derogated, improperly grounded and would represent a hazard to any occupants or users under any circumstances.

It would be necessary to completely redo the entire site electrical service for any planned or renovated usages.

Lighting
Fair Condition
The building has a number of incandescent lights through out the building. These are fed by 1950's wire and should be replaced with a building electrical upgrade.

Fire Detection System
N/A – None present

Security Alarm
N/A – None present

4.0 ANALYSIS AND COMPLIANCE
Building 2- Ranch House

4.1Hazardous Materials
None Visible.

4.2Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior)
* Motor
* Linoleum flooring
* Plaster
* Insulation

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.
Code Analysis

Occupancy Existing R single family residential
Approximate area: 2,000 sq. ft. Main floor
2,000 sq. ft. Basement
Construction Type Required: Based on 2006 IBC Table 503, R occupancy is allowed the following stories and area based on Type V –B construction.

- Height 3 stories: Complies
- Area is allowed under Table 503.

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination

- Exit signage
- Alarm systems
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no publicly accessible path of travel to this building. There is a gravel drive with a concrete sidewalk and steps to the front door. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses as a public facility, access to areas of primary function within the building would be impractical due to the existing room sizes, door widths, and floor plan layout. Office uses may be difficult unless accommodations are approved by the City of Thornton Building Department.

Evaluation
Poor

Recommended Treatment
Consideration for retaining residential use or new small offices should be made.
However, offices may require additional code compliance.
The owner should note that there are accessibility requirements for new construction.

5.0 PRESERVATION PLAN
Building 2 – Ranch House

5.1 Prioritized work

The following items are recommended:

- Boiler replacement
- Plumbing system replacement
- Hot water heater
- Electrical system replacement

5.2 Phasing plan

Safety items should be addressed and replaced first depending on future use and an approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 3 – Pump House

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 3 – Pump House

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation consists of a cast-in-place concrete perimeter walls with a full basement. The foundation appears to be in poor condition. The concrete is showing signs of weather. Some vertical cracking (approximately 1/4" in width) was observed. The location of the cracks (middle of the building) and type of crack (vertical) indicates that the crack is most likely due to shrinkage and lack of adequate reinforcement. The basement wall also exhibits signs of failure around the windows on the east wall. The crack pattern indicates inadequate reinforcement to resist the imposed earth pressure.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Rehabilitation
The vertical cracks should be epoxy injected to prevent further deterioration. The basement wall on the east side of the building should be reinforced or replaced as required to resist earth pressure and any other design loads.

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame structure with wood framed stud walls with horizontal lap siding.

Floor and Ceiling Systems
The floor structure is framed with 2x8 joists at 16 " o.c.

Roof Framing System
The roof structure is a conventional wood frame gable roof consisting of 2x4 rafters at 24" o.c. w/ 2x4 collar ties at 24" o.c. The framing observed appears to be in good condition and is performing as intended.

Recommended treatment: None

3.4 Building Envelope – exterior walls

Exterior Wall Construction: General Description

Wood frame construction

Exterior Finishes: Paint

Historic Condition:

Siding indicates multiple layers of paint.

Description:

Paint has peel and cracked in some areas has failed exposing weathered wood.

Evaluation:

Poor.

Recommended Treatment:

Remove existing paint, prep surfaces and repaint. Due to the possibility of lead based paint, it is important that preparation of the substrate be done by a contractor qualified to perform this work. Where appropriate, abatement should include removal of paint material down to the wood substrate suitable for receiving new primer and paint finish.

Exterior Finishes: Wood Siding

Historic Condition:

Siding matches other buildings on the property of approximately the same era.

Description:

Channel lap siding with a 5" weather including a 1" reveal.

Evaluation:

Fair as there is water damage apparent on the interior of the structure.

Recommended Treatment:

Repair boards as needed.

Exterior Masonry- Exposed Brick Flue

Historic Condition:

Appears to be a stove vent for it terminates on the interior above the floor.

Description:

Red Brick and mortar.

Evaluation:

Fair as the flue is leaning but did not have access to the roof to completely evaluate conditions.

Recommended Treatment:

Repair as needed.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – roof shingles

Historic Condition:
The overall condition of the roof appears to match the historical period.

Description:
White 3 tab Fiberglass shingle roofing material.

Evaluation:
Good.

Recommended Treatment:
Preserve.

3.6 Windows and Doors

Doors –

Historic Condition:
Wood is consistent with the historical conditions.

Description:
Painted solid wood panel door.

Evaluation:
Poor.

Recommended Treatment:
Preserve, repair and paint.

Windows –

Historic Condition:
There are painted wood windows with interior exposed framing.

Description:
Window Sash and Wood True divided lights awning with hinge from bottom or top. The hardware appears functional. There is no screening. Due to condition did not open to verify.

Evaluation:
Fair to poor.

Recommended Treatment:
Preserve, repair clean & seal interior paint exterior wood windows as needed.

3.7 Interior Finishes

Wall Finish Material

Historic Condition:
Exposed framing
Description:
The interior framing is exposed with no finish, exposing the back of the siding. There appears to be some water damage.
Evaluation:
Poor.
Recommended Treatment:
Preserve, Repair, clean & seal interior wood as needed.

Ceiling Finish Materials

Historic Condition:
Exposed framing
Description:
The interior framing is exposed with no finish, exposing the wood plank sheathing. There is apparent water damage.
Evaluation:
Poor.
Recommended Treatment:
Preserve, Repair, clean & seal interior wood as needed.

Floor finish materials

Historic Condition:
Wood plank appears to match the historical period
Description:
Unfinished boards
Evaluation:
Poor.
Recommended Treatment:
Preserve Repair, clean & seal interior wood as needed.

3.8 Mechanical Systems:

Heating/Air Conditioning

N/A – No HVAC is present in this building

Ventilation

All ventilation is through operable windows.

Water Service, Plumbing and Sewer Services

Poor Condition
The basement of the building holds an approximately 200 gallon domestic water tank which is fed from the new well located on the site. From the tank the water is distributed

to the Farm and Ranch houses. The piping is made from galvanized iron and should be replaced with copper or plastic materials.

Fire Suppression – Sprinklers
N/A – None present

3.9 Electrical Systems

Electrical Service and Panels
Poor Condition
One 35A 2P breaker possibly fed from the Ranch House Panel

Electrical Distribution System
Poor Condition
Well house contains a 2 HP well pump motor starter and controller, plus, a lighting and general circuit serving the main floor. All wiring and electrical services contained in all buildings is 1950 or older and would not be suitable for reuse for any purpose by the City of Thornton. The systems are derogated, improperly grounded and would represent a hazard to any occupants or users under any circumstances. It would be necessary to completely redo the entire site electrical service for any planned or renovated usages.

Lighting
Fair Condition
The building has a number of incandescent lights through out the building. These are fed by 1950's wire and should be replaced with a building electrical upgrade.

Fire Detection System
N/A – None present

Security Alarm
N/A – None present

4.0 ANALYSIS AND COMPLIANCE
Building 3 – Pump House

4.1Hazardous Materials
There were many chemicals seen in the pump house but none were analyzed.

4.2Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. -Complies

*Rating of exterior walls: -non-rated - complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no publicly accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of a public facility (not likely), access to areas of primary function within the building would be impractical due to the existing room sizes, door widths, and floor plan layout.

Evaluation
Poor

Recommended Treatment
Evaluate future use options first.

5.0 PRESERVATION PLAN
Building 3 – Pump House

5.1 Prioritized work

The following items are recommended:

- Foundation rehabilitation/repair
- 200 Gallon water tank replacement
- Electrical system replacement

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 4 –Chicken Coop

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 4-Chicken Coop

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property

3.2 Foundations
Foundation System
The foundation consists of a cast-in-place concrete grade beam. The depth of the grade beam could not be determined at the time of the site visit. The foundation appears to be in fair condition. Some vertical cracking (approximately 1/4" in width) was observed. The location of the cracks (middle of the building) and type of crack (vertical) indicates that the crack is most likely due to shrinkage and lack of adequate reinforcement. It is also likely that the grade beam does not extend below the frost line (36"), which could cause some movement.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Rehabilitation
The vertical cracks should be epoxy injected to prevent further deterioration.

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame structure with wood framed stud walls with horizontal lap siding.

Floor and Ceiling Systems
The floor structure is non-existent (dirt).

Roof Framing System
The roof structure is a conventional wood shed roof consisting of 2x4 rafters at 24" o.c. supported by a center beam line. The center beam is a 4x6 timber beam supported by (2) 4x4 posts.

Recommended treatment: Rehabilitation

The vertical cracks should be epoxy injected to prevent further deterioration.
The roof appears to be deflecting and consideration should be given to reinforce the roof to resist current design snow loads of 30 psf.

3.4 Building Envelope – Exterior Walls

Exterior Wall Construction: General Description

Wood frame construction
Exterior Finishes: Paint

Historic Condition:
Siding indicates multiple layers of paint.
Description:
Paint has peeled and cracked in some areas has failed exposing weathered wood.
Evaluation:
Poor.
Recommended Treatment:
Remove existing paint, prep surfaces and repaint. Due to the possibility of lead based paint, it is important that preparation of the substrate be done by a contractor qualified to perform this work. Where appropriate, abatement should include removal of paint material down to the wood substrate suitable for receiving new primer and paint finish.

Exterior Finishes: Wood siding

Historic Condition:
Siding matches other buildings on the property of approximately the same era.
Description:
Channel lap siding with a 5" weather including a 1" reveal.
Evaluation:
Fair as there is water damage apparent on the interior of the structure.
Recommended Treatment:
Repair boards as needed.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – Corrugated metal/rolled asphalt

Historic Condition:
The overall condition of the roof appears to match the historical period.
Description:
Corrugated metal/rolled asphalt.
Evaluation:
Poor.
Recommended Treatment:
Replace with like materials.
Historic Condition:

3.6 Windows and Doors

Doors-Door and Hardware

Historic Condition:

Wood is consistent with the historical conditions. Hardware appears functional.
Due to condition did not open to verify.

Description:
Painted slat

Evaluation:
Poor.

Recommended Treatment:
Preserve, repair and paint.

Windows –

Historic Condition:
Painted wood windows with interior exposed framing.

Description:
Window sash and Wood True divided lights awning fixed window frames

3.7 Interior Finishes

Wall Finish Material-Unfinished

Historic Condition:
Dirt floor exposed framing

Description:
The interior framing is exposed with no finish, exposing the back of the siding. There is apparent water damage.

Evaluation:
Poor.

Recommended Treatment:
Preserve, Repair, clean & seal interior wood as needed.

3.8 Mechanical Systems

Heating/Air Conditioning
N/A – No HVAC is present in this building.

Ventilation
All ventilation is through operable windows.

Water Service, Plumbing and Sewer Services
No services to the Chicken Coop.

Fire Suppression – Sprinklers
N/A – None present

3.9 Electrical Systems

There are no electrical systems in the chicken coop.

4.0 ANALYSIS AND COMPLIANCE
Building 4 - Chicken Coop

4.1 Hazardous Materials
None visible.

4.2 Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. -Complies

*Rating of exterior walls: -non-rated - complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no publicly accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of a public facility, access to areas of primary function within the building would need to be evaluated due to the door widths, and floor plan layout and that there is no flooring.

Evaluation
Poor

Recommended Treatment
Evaluate future use options.

5.0 PRESERVATION PLAN
Building 4 - Chicken Coop

5.1 Prioritized work

The following items are recommended:

- Foundation repair
- Stabilization of structure
- Painting

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 5 – Large Wood Frame Shed

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 5 – Large Wood Frame Shed

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation consists of a cast-in-place concrete grade beam. The depth of the grade beam could not be determined at the time of the site visit. The foundation appears to be in fair condition. Some vertical cracking (approximately 1/4" in width) was observed. The location of the cracks (middle of the building) and type of crack (vertical) indicates that the crack is most likely due to shrinkage and lack of adequate reinforcement. It is also likely that the grade beam does not extend below the frost line (36"), which could cause some movement.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Rehabilitation
The vertical cracks should be epoxy injected to prevent further deterioration.

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame structure with wood framed stud walls with horizontal lap siding.

Floor and Ceiling Systems
The floor structure is wood planks on grade (dirt) and is in poor condition.

Roof Framing System
The roof structure is a conventional wood shed roof consisting of 2x4 rafters at 24" o.c.

Recommended treatment: Rehabilitation
The vertical cracks should be epoxy injected to prevent further deterioration.

The roof appears to be deflecting and consideration should be given to reinforce the roof to resist current design snow loads of 30 psf.

3.4 Building Envelope – exterior walls

Exterior Wall Construction: General Description

Wood frame construction with dirt floor

Exterior Finishes: Paint

Historic Condition:

Accessory structure

Description:

Paint has peeled and cracked in some areas has failed exposing weathered wood.

Evaluation:

Poor.

Recommended Treatment:

Rebuild as needed.

Exterior Finishes: Wood Siding

Historic Condition:

Siding matches other buildings on the property of approximately the same era.

Description:

Channel lap siding with a 5" weather including a 1" reveal

Evaluation:

Poor.

Recommended Treatment:

Repair boards as needed.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – corrugated metal / rolled asphalt

Historic Condition:

The overall condition of the roof appears to match the historical period.

Description:

Corrugated metal

Evaluation:

Poor.

Recommended Treatment:

Replace with like materials

.

3.6 Windows and Doors

Doors – Front door & hardware

Historic Condition:

Painted Wood windows with interior exposed framing. Windows appear to be installed as a filler material in some instances set directly on the dirt.

Description:
Window Sash and Wood True divided lights .
Evaluation:
Poor.
Recommended Treatment:
Replace /Repair clean & seal interior paint exterior wood windows as needed.

Windows –

Historic Condition:
There are painted wood windows with interior exposed framing. Windows appear to be installed as a filler material in some instances set directly on the dirt.
Description:
Window Sash and Wood True divided lights
Evaluation:
Poor.
Recommended Treatment:
Replace /Repair clean & seal interior paint exterior wood windows as needed.

3.7 Interior Finishes

Historic Condition:
Dirt floor /exposed framing
Description:
The interior framing is exposed with no finish, exposing the back of the siding. Apparent water damage.
Evaluation:
Poor.
Recommended Treatment:
Replace with like materials. Preserve, and repair as needed.

3.8 Mechanical Systems:

There are no mechanical systems in the large wood frame shed.

3.9 Electrical Systems

There are no electrical systems in the large wood frame shed

4.0 ANALYSIS AND COMPLIANCE
Building 5 – Large Wood Frame Shed

4.1 Hazardous Materials
None visible.

4.2 Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. -Complies

*Rating of exterior walls: -non-rated - complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location. At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no publicly accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of a public facility, access to areas of primary function within the building would need to be evaluated due to the door widths, and floor plan layout and that there is no flooring.

Evaluation
Poor

Recommended Treatment
Evaluate future options first.

5.0 PRESERVATION PLAN
Building 5 – Large Wood Frame Shed

5.1 Prioritized work

The following items are recommended:

- Foundation repair
- Stabilization of structure
- Painting

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 6 – Small Wood Frame Shed

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 6 – Small Wood Frame Shed

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation consists of a cast-in-place concrete grade beam. The depth of the grade beam could not be determined at the time of the site visit. The foundation appears to be in poor condition. It is also likely that the grade beam does not extend below the frost line (36”), which could be causing some movement.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Rehabilitation

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame structure with wood framed stud walls with horizontal lap siding.

Floor and Ceiling Systems
The floor structure is wood planks on grade (dirt) and is in poor condition.

Roof Framing System
The roof structure is a conventional wood shed roof consisting of 2x4 rafters at 24” o.c.

Recommended treatment: Rehabilitation
The roof appears to be deflecting and consideration should be given to reinforce the roof to resist current design snow loads of 30 psf.

3.4 Building Envelope – Exterior Walls
Exterior Wall Construction: General Description
Wood frame construction with dirt floor

Exterior Finishes: Paint

Historic Condition:
Accessory structure
Description:
Paint has peel and cracked in some areas has failed exposing weathered wood.
Evaluation:
Poor
Recommended Treatment:
Paint and Rebuild as needed.

Exterior Finishes: Wood Siding

Historic Condition:
Channel lap siding with a 5" weather including a 1" reveal
Description:
Plain beveled lap siding with a 5" weather
Evaluation:
Poor
Recommended Treatment:
Rebuild as needed.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – Corrugated Metal / Rolled Asphalt

Historic Condition:
The overall condition of the roof appears to match the historical period.
Description:
Corrugated metal
Evaluation:
Poor
Recommended Treatment:
Replace with like materials.

3.6 Windows and Doors

Doors – no doors of historical interest

3.7 Interior Finishes

Wall Finish Material - Interior is unfinished

3.8 Mechanical Systems:

There are no mechanical systems in the small wood frame shed.

3.9 Electrical Systems

There are no electrical systems in the small wood frame shed.

4.0 ANALYSIS AND COMPLIANCE
Building 6 – Small Wood Frame Shed

4.1 Hazardous Materials
None visible.

4.2 Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance

Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. -Complies

*Rating of exterior walls: -non-rated – complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no publicly accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of a public facility, access to areas of primary function within the building would need to be evaluated due to the door widths, and floor plan layout and that there is no flooring.

Evaluation
Poor

Recommended Treatment
Evaluate future use options first.

5.0 PRESERVATION PLAN
Building 6 – Small Wood Frame Shed

5.1 Prioritized work

The following items are recommended:

- Foundation repair
- Stabilization of structure
- Painting

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Buildings 7–12
The Silos

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Buildings 7 – 12 The Silos

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation could not be determined at the time of the site visit. The foundation appears to be in good condition and is performing as intended.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Preservation

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a pre-engineered prefabricated metal silo building manufactured by Butler Manufacturing Co.

Recommended treatment: None

3.4 Building Envelope – exterior walls
Exterior Wall Construction: General Description
Corrugated metal 'Butler' silo

Exterior Finishes: Unpainted Metal

Historic Condition:
Accessory storage structure
Description:
Prefabricated metal structures
Evaluation:
Good
Recommended Treatment:
None

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – Metal

Historic Condition:
Accessory storage structure
Description:
Metal
Evaluation:
Good
Recommended Treatment:
None

3.6 Windows and Doors

There are no doors in the Silos.

3.7 Interior Finishes

Same as exterior-corrugated metal.

3.8 Mechanical Systems:

There are no mechanical systems in the Silos

3.9 Electrical Systems

There are no electrical systems in the silos

4.0 ANALYSIS AND COMPLIANCE
Buildings 7-12 The Silos

4.1 Hazardous Materials
None visible.

4.2 Materials Analysis
N/A

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.
Code Analysis

Occupancy U - accessory structure
Approximate area:
Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. -Complies
*Rating of exterior walls: -non-rated - complies

4.5 Accessibility Compliance
N /A

5.0 PRESERVATION PLAN
Buildings 7-12 The Silos

5.1 Prioritized work

None needed.

5.2 Phasing plan

N/A

5.3 Estimate of probable cost of construction

No costs.

Building 13 –Workshop

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 13 – Workshop

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation consists of a cast-in-place concrete perimeter walls. The foundation appears to be in poor condition. There are large cracks at the rear of the building possibly due to settlement. Some horizontal and vertical cracking (approximately 1/4" in width) was observed. The cracks in the wall exhibit horizontal displacement, which is a sign of failure. The crack pattern indicates inadequate reinforcement to resist the imposed earth pressure.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Rehabilitation
The foundation wall at the rear of the building should be replaced as required to resist earth pressure and any other design loads.

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame structure with wood framed stud walls with horizontal lap siding.

Floor and Ceiling Systems
The floor is concrete slab-on-grade, which is poor condition.

Roof Framing System
The roof structure is a conventional shed roof consisting of 2x6 rafters at 24" o.c. w a center beam (3-2x6) supported by (2) 6" diameter log columns. The roof and wall framing observed appears to be in good condition and is performing as intended.

Recommended treatment: Replace concrete slab-on-grade.

3.4 Building Envelope – Exterior Walls

Exterior Wall Construction: General Description
Wood frame construction

Exterior Finishes: Paint

Historic Condition:
Accessory structure
Description:
Paint has peeled and cracked in some areas has failed exposing weathered wood.
Evaluation:
Poor
Recommended Treatment:
Remove existing paint, prep surfaces and repaint. Due to the possibility of lead based paint, it is important that preparation of the substrate be done by a contractor qualified to perform this work. Where appropriate, abatement should include removal of paint material down to the wood substrate suitable for receiving new primer and paint finish.

Exterior Finishes: Wood Siding

Historic Condition:
Siding matches other buildings on the property of approximately the same era.
Description:
Channel lap siding with a 5" weather including a 1" reveal
Evaluation:
Fair as there is water damage apparent on the interior of the structure.
Recommended Treatment:
Repair boards as needed.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – Roof Shingles

Historic Condition:
The overall condition of the roof appears to match the historical period.
Description:
Painted standing seam metal with what appears to be lead flashing. Due to lack of access to the roof the condition needs to be verified.
Evaluation:
Fair
Recommended Treatment:
Repair as needed.

3.6 Windows and Doors

Doors – Exterior

Historic Condition:
Wood is consistent with the historical conditions.
Description:
Painted solid wood panel door
Evaluation:
Good
Recommended Treatment:
Preserve, repair and paint

Doors – Garage doors

Historic Condition:
Wood is consistent with the historical conditions.
Description:
Sliding with track at door head, Painted Solid Wood panel door with cross bracing
Evaluation:
Good
Recommended Treatment:
Preserve, repair and paint

Windows –

Historic Condition:
Painted Wood windows with interior exposed framing
Description:
Window sash and Wood True divided lights
Window Frames
Evaluation:
Fair to poor
Recommended Treatment:
Preserve, Repair clean & seal interior paint exterior wood windows as needed.

3.7 Interior Finishes

Interior Contents

Historic Condition:
Workshop is consistent with the historical conditions of a working farm.
Description:
Workshop with built in shelves and tool racks.
Evaluation:
Good
Recommended Treatment:
Preserve, repair, clean & paint interior wood shelving and storage racks as needed.

3.8 Mechanical Systems:

Heating/Air Conditioning

Poor Condition

An oil heater is present within this building and is approximately 50 years old. No information was present on the heater. A 6" flue removes the products of combustion to the north wall. This unit has evidence of oil leakage and should be removed. It could be cleaned and used as a display piece.

Ventilation

All ventilation is through operable windows.

Water Service, Plumbing and Sewer Services

N/A – None present

Fire Suppression – Sprinklers

N/A – None present

3.9 Electrical Systems

Electrical Service and Panels

Poor Condition

One 60 amp 2P breaker is feeding the workshop with a 60 amp fuse to an existing welding unit and tapping to a 30 amp 2P breaker feeding a small load center in the work shop. The associated garage area of the shop and Cement Granary are feed from this shop distribution panel.

All wiring and electrical services contained in all buildings is 1950 or older and would not be suitable for reuse for any purpose buy the City of Thornton. The systems are derogated, improperly grounded and would represent a hazard to any occupants or users under any circumstances. It would be necessary to completely redo the entire site electrical service for any planned or renovated usages.

4.0 ANALYSIS AND COMPLIANCE
Building 13-Workshop

4.1 Hazardous Materials
There are possible oil settlings and tank near entrance.

4.2 Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior
* Oil storage and contamination

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. -Complies

*Rating of exterior walls: -non-rated – complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress

- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no publicly accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of a public facility, access to areas of primary function within the building would need to be evaluated due to the door widths, and floor plan layout and that there is no flooring.

Evaluation
Poor

Recommended Treatment
Evaluate future use editions first

5.0 PRESERVATION PLAN
Building 13-Worskshop

5.1 Prioritized work

The following items are recommended:

- Replace flooring
- Foundation repair
- Stabilization of structure
- Painting
- Electrical system replacement

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 14–Cement Granary

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 14-Cement Granary

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation consists of a cast-in-place concrete perimeter walls extending full height to the roof structure. There are small hairline cracks in the walls due shrinkage and temperature changes. The cracks are considered to be normal and do not impact the structural performance of the walls.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Preservation

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame hip roof structure supported by the exterior concrete walls.

Floor and Ceiling Systems
The floor is concrete slab-on-grade, which in poor condition.

Roof Framing System
The hip roof structure is braced with minimal interior braces. The roof observed appears to be in fair condition, additional bracing should be installed to resist current building code design loads.

Recommended treatment:
Replace concrete slab-on-grade. Install additional roof bracing.

3.4 Building Envelope – Exterior Walls

Exterior Wall Construction: General Description

Concrete

Exterior Finishes:

Historic Condition:

Paint

Description:

Paint has peeled in some areas has failed exposing concrete walls.

Evaluation:

Poor

Recommended Treatment:

Remove existing paint, prep surfaces and repaint. Due to the possibility of lead based paint, it is important that preparation of the substrate be done by a contractor qualified to perform this work. Where appropriate, abatement should include removal of paint material down to the wood substrate suitable for receiving new primer and paint finish.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – Standing Seam Metal

Historic Condition:

The overall condition of the roof appears to match the historical period

Description:

Painted standing seam metal with what appears to be lead flashing. Due to lack of access to the roof the condition needs to be verified.

Evaluation:

Fair

Recommended Treatment:

Repair as needed.

3.6 Windows and Doors

Doors – Door and Hardware

Historic Condition:

Wood consistent with the historical conditions.

Description:

Sliding with rod track and cart iron hardware at door head. Painted solid wood panel

Evaluation:

Good

Recommended Treatment:

Preserve, repair and paint

3.7 Interior Finishes

Interior of Granary

Historic Condition:
Workshop consistent with the historical conditions of a working farm.
Description:
Exposed concrete
Evaluation:
Good
Recommended Treatment:
Preserve, repair, clean as needed

3.8 Mechanical Systems:

There are no mechanical systems in the cement granary

3.9 Electrical Systems

Electrical Service Panels

Poor Condition
Service is fed from building 14 – Work Shop. Refer to building 14 for details. All wiring and electrical services contained in all buildings is 1950 or older and would not be suitable for reuse for any purpose buy the City of Thornton. The systems are derogated, improperly grounded and would represent a hazard to any occupants or users under any circumstances. It would be necessary to completely redo the entire site electrical service for any planned or renovated usages.

Electrical Distribution System
N/A

Lighting
N/A

Fire Detection System
N/A

4.0 ANALYSIS AND COMPLIANCE
Building 14 – Cement Granary

4.1 Hazardous Materials
None visible.

4.2 Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:
* Paint interior and exterior)

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.
Code Analysis
Occupancy U - accessory structure
Approximate area:
Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. -Complies
*Rating of exterior walls: -non-rated - complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress

- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description

Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building

At this time there is no public ally accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building

Should this building be redeveloped for uses of a public facility, access to areas of primary function within the building would need to be evaluated due to the door widths, and floor plan layout and that there is no flooring.

Evaluation

Poor

Recommended Treatment

Evaluate future options first

5.0 PRESERVATION PLAN
Building 14 – Cement Granary

5.1 Prioritized work

The following items are recommended:
Replace concrete floor
Painting
Electrical system

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 15 – Old Wood Barn

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 15 – Old Wood Barn

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation consists of grade beam constructed with brick masonry covered with a skim coating of concrete. The grade beam is currently in total failure with large horizontal and vertical displacements and general deterioration around the entire building.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: The entire foundation requires complete replacement.

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame walls (2x6 at 24" o.c.) with diagonal bracing and vertical board and batten siding. There is a shed structure attached to the rear of the building and appears to be in complete failure mode (foundation and roof structure).

Floor and Ceiling Systems
There is a loft floor each side of the building framed with 2x6 at 24" o.c. supported by interior bearing walls. The shed structure attached to the rear of the building has a missing/non-existent floor. It appears that the floor was originally wood plank on-grade.

Roof Framing System
The gable roof structure consists of 2x4 rafters at 24" o.c. with diagonal bracing down to the loft structure. The rafters are tied together with 2x collar-ties at the top of the loft. One of the collar-ties is broken. In addition there are 2x4 collar-ties near the peak of the

roof. The roof observed appears to be in fair condition, damaged or broken bracing should be installed to resist current building code design loads.

Recommended treatment: Replace wood plank floor structure. Install additional roof bracing. Completely rebuild shed structure at rear of building.

3.4 Building Envelope – Exterior Walls

Exterior Wall Construction: General Description

Wood Frame, post and beam

Exterior Finishes: Paint

Historic Condition:

Accessory structure

Description:

Paint has peeled and cracked in some areas.

Evaluation:

Fair

Recommended Treatment:

Remove existing paint in areas, prep surfaces and repaint. Due to the possibility of lead based paint, it is important that preparation of the substrate be done by a contractor qualified to perform this work. Where appropriate, abatement should include removal of paint material down to the wood substrate suitable for receiving new primer and paint finish.

Exterior Finishes: Wood consistent with the historical conditions

Description:

Vertical Board and Batten

Evaluation:

Fair to poor as the siding rotted in areas with water damage apparent on the interior of the structure.

Recommended Treatment:

Repair and replace boards as needed.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – Standing Seam Metal

Historic Condition:

The overall condition of the roof appears to match the historical period.

Description:

Painted standing seam metal with what appears to be lead flashing. Due to lack of access to the roof the condition needs to be verified.

Evaluation:

Fair

Recommended Treatment:

Repair as needed

3.6 Windows and Doors

Doors – Door

Historic Condition:
Wood consistent with the historical conditions.

Description:
Sliding with rod track, Painted Solid Wood panel door with loser cross bracing

Evaluation:
Good

Recommended Treatment:
Preserve, repair and paint

3.7 Interior Finishes

Wall Finish Material

Historic Condition:
Exposed post and beam framing

Description:
Exposed wood plank wall with no finish.
Apparent water damage.

Evaluation:
Good

Recommended Treatment:
Replace damage boards Preserve, Repair, clean as needed

3.8 Mechanical Systems:

There are no mechanical systems in the old wooden barn

3.9 Electrical Systems

Electrical Service and Panels

Poor Condition
One 30 amp 1P breaker is feeding the existing Red Barn from the site distribution panel. All wiring and electrical services contained in all buildings is 1950 or older and would not be suitable for reuse for any purpose buy the City of Thornton. The systems are derogated, improperly grounded and would represent a hazard to any occupants or users under any circumstances. It would be necessary to completely redo the entire site electrical service for any planned or renovated usages.

Lighting
N/A

Fire Detection System
N/A

Security Alarm System
N/A

4.0 ANALYSIS AND COMPLIANCE
Building 15 – Old Wood Barn

4.1 Hazardous Materials
None visible.

4.2 Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. –Verify

*Rating of exterior walls: -non-rated - complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress

- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no public ally accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of a public facility, access to areas of primary function within the building would need to be evaluated due to the door widths, and floor plan layout and that there is no flooring.

Evaluation
Poor

Recommended Treatment
Evaluate future use options first.

5.0 PRESERVATION PLAN
Building 15 – Old Wooden Barn

5.1 Prioritized work

The following items are recommended:

- Foundation replacement
- Stabilize structure
- Reconstruct rear part of barn
- Painting
- Electrical system replacement
- Flooring Replacement

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 16 – Metal Side Barn

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 16 – Metal Side Barn

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation consists of a cast-in-place concrete grade beam. The depth of the grade beam could not be determined at the time of the site visit. The foundation appears to be in fair condition. Some vertical cracking (approximately 1/4" in width) was observed. The location of the cracks (middle of the building) and type of crack (vertical) indicates that the crack is most likely due to shrinkage and lack of adequate reinforcement. It is also likely that the grade beam does not extend below the frost line (36"), which could cause some movement.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: Rehabilitation
The vertical cracks should be epoxy injected to prevent further deterioration.

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame structure with wood framed stud walls (2x6 at 16" o.c.) with horizontal lap siding.

Floor and Ceiling Systems
The floor structure is concrete slab-on-grade and is in fair condition.

Roof Framing System
The roof structure is a conventional wood shed roof consisting of 2x4 rafters at 24" o.c. The roof structure consists of 2x6 rafters at 24" o.c. supported by two beam lines (3-2x6) diagonally braced to roof. The beams are supported by (4) 6x6 timber columns (foundation unknown).

Recommended treatment: Rehabilitation
The roof structure appears to be performing as intended and does not require repair or rehabilitation.

3.4 Building Envelope – Exterior Walls

Exterior Wall Construction: General Description
Wood Frame with metal siding, metal sliding doors at north and south

Exterior Finishes: Unfinished Corrugated Metal

Historic Condition:
Accessory structure
Description:
Unfinished corrugated metal
Evaluation:
Fair
Recommended Treatment:
Repair and replace as needed

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – Standing Seam Metal

Historic Condition:
The overall condition of the roof appears to match the historical period.
Description:
Standing seam metal with signs of rust. Due to lack of access to the roof the condition needs to be verified.
Evaluation:
Fair
Recommended Treatment:
Repair as needed.

3.6 Windows and Doors

Doors

Historic Condition:
Consistent with the historical conditions.
Description:
Unfinished corrugated metal
Evaluation:
Fair
Recommended Treatment:
Repair and replace as needed.

3.7 Interior Finishes

Historic Condition:
Exposed post and beam framing
Description:
Exposed wood plank wall with no finish.
Apparent water damage
Evaluation:
Good
Recommended Treatment:
Replace damage boards preserve, repair, and clean as needed

3.8 Mechanical Systems:

There are no mechanical systems in the metal side barn.

3.9 Electrical Systems

Electrical Service and Panels
Poor Condition
One 30 amp 1P breaker is feeding the Metal Side Barn. The routing of the feeders seems to be both circuits to the Old Wood Barn and then one to the Metal Side Barn.

4.0 ANALYSIS AND COMPLIANCE
Building 16 – Metal Side Barn

4.1 Hazardous Materials
None visible.

4.2 Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. –Verify

*Rating of exterior walls: -non-rated - complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resolved, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no publicly accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of a public facility, access to areas of primary function within the building would need to be evaluated due to the door widths, and floor plan layout and that there is no flooring.

Evaluation
Poor

Recommended Treatment
Evaluate future use options first.

5.0 PRESERVATION PLAN
Building 16 – Metal Side Barn

5.1 Prioritized work

The following items are recommended:

- Foundation repair
- Electrical system replacement

5.2 Phasing plan

All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 17 – Loafing Shed

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 17 – Loafing Shed

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation consists of a cast-in-place concrete grade beam. The foundation appears to be in good condition. No signs of movement, cracking or duress were observed.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended treatment: None

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame structure with wood framed stud walls (2x6 at 16" o.c.) with horizontal lap siding.

Floor and Ceiling Systems
There is no flooring.

Roof Framing System
The roof structure is a conventional wood shed roof consisting of 2x8 rafters at 24" o.c., supported by a double 2x12 beam along the front (open side) with diagonally braces to the cantilevered roof rafters. The beam is supported by 6x6 timber columns (foundation unknown).

Recommended treatment: Rehabilitation

The structure appears to be performing as intended. However, several wood struts from the rear wall to the roof structure are broken and should be replaced.

3.4 Building Envelope – Exterior Walls

Exterior Wall Construction: General Description
Wood frame with corrugated metal
Exterior Finishes: unfinished corrugated metal

Historic Condition:
Accessory structure
Description:
Unfinished corrugated metal
Evaluation:
Fair
Recommended Treatment:
Repair and replace as needed.

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems –standing seam metal

Historic Condition:
The overall condition of the roof appears to match the historical period.
Description:
Standing seam metal with signs of rust. Due to lack of access to the roof the condition needs to be verified.
Evaluation:
Fair
Recommended Treatment:
Repair as needed.

3.6 Windows and Doors

There are no windows or doors.

3.7 Interior Finishes

Interior

Historic Condition:
Exposed post and beam framing
Description:
Exposed wood plank wall with no finish.
Apparent water damage
Evaluation:
Good
Recommended Treatment:
Replace damage boards Preserve, Repair, clean as needed

3.8 Mechanical Systems:

There are no Electrical systems in the loafing shed

3.9 Electrical Systems

There are no electrical systems in the loafing shed

4.0 ANALYSIS AND COMPLIANCE
Building 17 – Loafing Shed

4.1 Hazardous Materials
None visible.

4.2 Materials Analysis
For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior

4.3 Zoning Code Compliance
The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance
Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. –Verify

*Rating of exterior walls: -non-rated - complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of aggress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

After building function is resoled, this report recommends a review with the Owner, historic architect and local regulatory authorities to develop regulatory solutions that are sensitive to the building fabric and provide the required level of code compliance. Then cost estimates can be prepared for construction and rehabilitation needs.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no public ally accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
Should this building be redeveloped for uses of public facility, access to areas of primary function within the building would be impractical due to the existing room sizes, door widths, and floor plan layout.

Evaluation
Poor

Recommended Treatment
Evaluate future use options first.

5.0 PRESERVATION PLAN
Building 17 – Loafing Shed

5.1 Prioritized work
The structure needs to stabilized.

5.2 Phasing plan
All safety related items should be replaced first depending on future use and approved park master plan. Many other cosmetic repairs should occur and be prioritized based on budget and use.

5.3 Estimate of probable cost of construction
Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Building 18 – The “Roosevelt” Outhouse

3.0 STRUCTURE CONDITION ASSESSMENT
4.0 ANALYSIS AND COMPLIANCE
5.0 PRESERVATION PLAN

3.0 STRUCTURE CONDITION ASSESSMENT
Building 18 – Outhouse

3.1 Site
The Lambertson Family Farm is served by two farm like gravel/dirt driveways which accesses rear portions of the property.
Associated Landscape Features: There are numerous trees on site with native grasses.
Parking: Off street parking is provided along the dirt road to the farm house and in a two car garage attached to the ranch house by a 20 foot long breezeway.
Archeology: To date, no archeologically significant items have been found on the property.

3.2 Foundations
Foundation System
The foundation appears to be a cast-in-place concrete grade beam. The depth of the grade beam could not be determined at the time of the site visit. The foundation appears to be in poor condition. There is a large amount of differential settlement. It is also likely that the grade beam does not extend below the frost line (36”), which could be causing the movement.

Perimeter Foundation Drainage
The perimeter drainage appears to be adequate with positive drainage around the entire perimeter.

Recommended Treatment: Replace the entire foundation.

3.3 Building Structural System
General Structural System Description
The general structural system for the building is a conventional wood frame structure with wood framed stud walls with horizontal lap siding.

Floor and Ceiling Systems
The floor structure is unknown as access was not available at the time of the site visit.

Roof Framing System
The roof structure is a conventional wood shed roof consisting of 2x4 rafters at 24” o.c.

Recommended Treatment: Rehabilitation

3.4 Building Envelope – Exterior Walls
Exterior Wall Construction: General Description
Wood frame construction

Exterior Finishes: Paint

Historic Condition:
Consistent with the historical conditions.

Description:
Paint has peeled and cracked in some areas has failed exposing weathered wood.

Evaluation:
Poor

Recommended Treatment:
Remove existing paint, prep surfaces and repaint. Due to the possibility of lead based paint, it is important that preparation of the substrate be done by a contractor qualified to perform this work. Where appropriate, abatement should include removal of paint material down to the wood substrate suitable for receiving new primer and paint finish.

Exterior Finishes: Wood Siding

Historic Condition:
Siding matches other buildings on the property of approximately the same era.

Description:
Channel lap siding with a 5" weather including a 1" reveal

Evaluation:
Poor

Recommended Treatment:
Replace and Repair boards as needed

3.5 Building Envelope – Roofing & Waterproofing

Roofing Systems – Rolled Asphalt

Historic Condition:
The overall condition of the roof appears to match the historical period.

Description:
Rolled asphalt

Evaluation:
Poor

Recommended Treatment:
Repair as needed.

3.6 Windows and Doors

Doors –

Historic Condition:
Wood consistent with the historical conditions.

Description:
Painted vertical slat

Evaluation:
Poor

Recommended Treatment:
Preserve, repair and paint

3.7 Interior Finishes
There are no Interior finishes of interest.

3.8 Mechanical Systems:
There are no mechanical systems in the outhouse.

3.9 Electrical Systems
There are no electrical systems in the outhouse.

4.0 ANALYSIS AND COMPLIANCE
Building 18 - Outhouse

4.1 Hazardous Materials

4.2 Materials Analysis

For the purposes of historic investigation, the following materials should be analyzed:

* Paint interior and exterior

4.3 Zoning Code Compliance

The property is in the City of Thornton and is zoned PD (Planned Development). The existing and previous use of agricultural and residential are allowed uses. All improvements are on one lot/property, including two single family homes. Currently only one home is used as a residence, the other is currently vacant.

4.4 Building Code Compliance

Building Code compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Code Analysis

Occupancy U - accessory structure

Approximate area:

Construction Type Required: Based on 2006 IBC Table 503 Type V –B construction.

- Number of stories allowed is one: Complies

*Max. Area allowed 5,500 sq. ft. under Table 503. – complies

*Rating of exterior walls: -non-rated - complies

The following items are examples of the additional areas of concern that should be reviewed with code officials prior to occupancy of the building for future uses. Historic buildings are typically reviewed on a case by case basis with the code official determining requirements in connection with a specific detailed design for the future use of the building:

- Construction details of doors and door hardware
- Egress illumination
- Exit signage
- Alarm systems
- Handicap egress
- Toilet fixture counts

Of particular concern are means of egress. Two means of egress may be required, each complying with width and location.

At this time the building has questionably compliant means of egress.

4.5 Accessibility Compliance

Accessibility compliance should be analyzed based on complete construction documents and then verified with regulatory agencies. The following preliminary analysis is for the purpose of defining, in a preliminary way, some code issues that have the potential of impacting historic treatment of the building.

Description
Accessibility compliance within this building is based on the following factors:

Path of travel from off site to the building
At this time there is no public ally accessible path of travel to this building. There is no handicapped access.

Access to support spaces within the building
It is very likely that the public will not use the outhouse. No access is planned or proposed!

Evaluation
Poor

Recommended Treatment
Restore for visual use only.

5.0 PRESERVATION PLAN
Building 18 – Outhouse

5.1 Prioritized work

The following items are recommended:

- Stabilize the structure
- Paint

5.2 Phasing plan

Paint and stabilize when funds become available. Not a high priority structure.

5.3 Estimate of probable cost of construction

Detailed construction and repair estimates can be scheduled for deficiencies noted in this report at a future date. Until such time as future use options are determined, detailed code analysis and construction estimates cannot be narrowed down. Historic preservation plans and a scope of work are needed to fully analyze the appropriate costs necessary to properly rehabilitate and restore the buildings on this site.

Precedents

Images of existing places with similar themes and characteristics can be helpful tools in illustrating the opportunities that exists within the Lambertson Lakes Homestead and surrounding area. The following is a collection of images that help explain the vision and many of the themes that were explored with the master plan concepts. They are focused on deepening the civic, educational, recreational and natural experiences of the Thornton community through a piece of the City's history. The master plan concepts, as illustrated through the images and subsequent concept plans, take into consideration the following factors:

- Passive and natural park amenities
- Historical connection
- Educational experience/opportunities
- Civic opportunities
- Community gathering spaces
- Connection to City bike/pedestrian routes
- Connection to natural areas
- Environmental sustainability
- Public safety
- Washington Street buffer
- Response to community input
- Visible Thornton landmark
- Preserve historical and cultural sites in their traditional condition for the benefit of the future generations.

EDUCATIONAL

Recreation

Natural Areas

Site Concepts

Passive Use Concept

PASSIVE USE CONCEPT PLAN

This concept seeks to limit the amount of new development within the homestead site. Approaching the site with this in mind, the design was developed around a program containing less activity and more personal/intimate space.

In order to celebrate the homestead way of life, this concept plans for a network of interpretive signage to aid in guiding visitors on an intended procession through the site. From the historic structures to the displayed farm equipment, the casual visitor will be able to experience the homestead at their leisure. In addition to a self guided tour, visitors will also have the opportunity to further enrich their knowledge in the proposed museum, educational center and farm house.

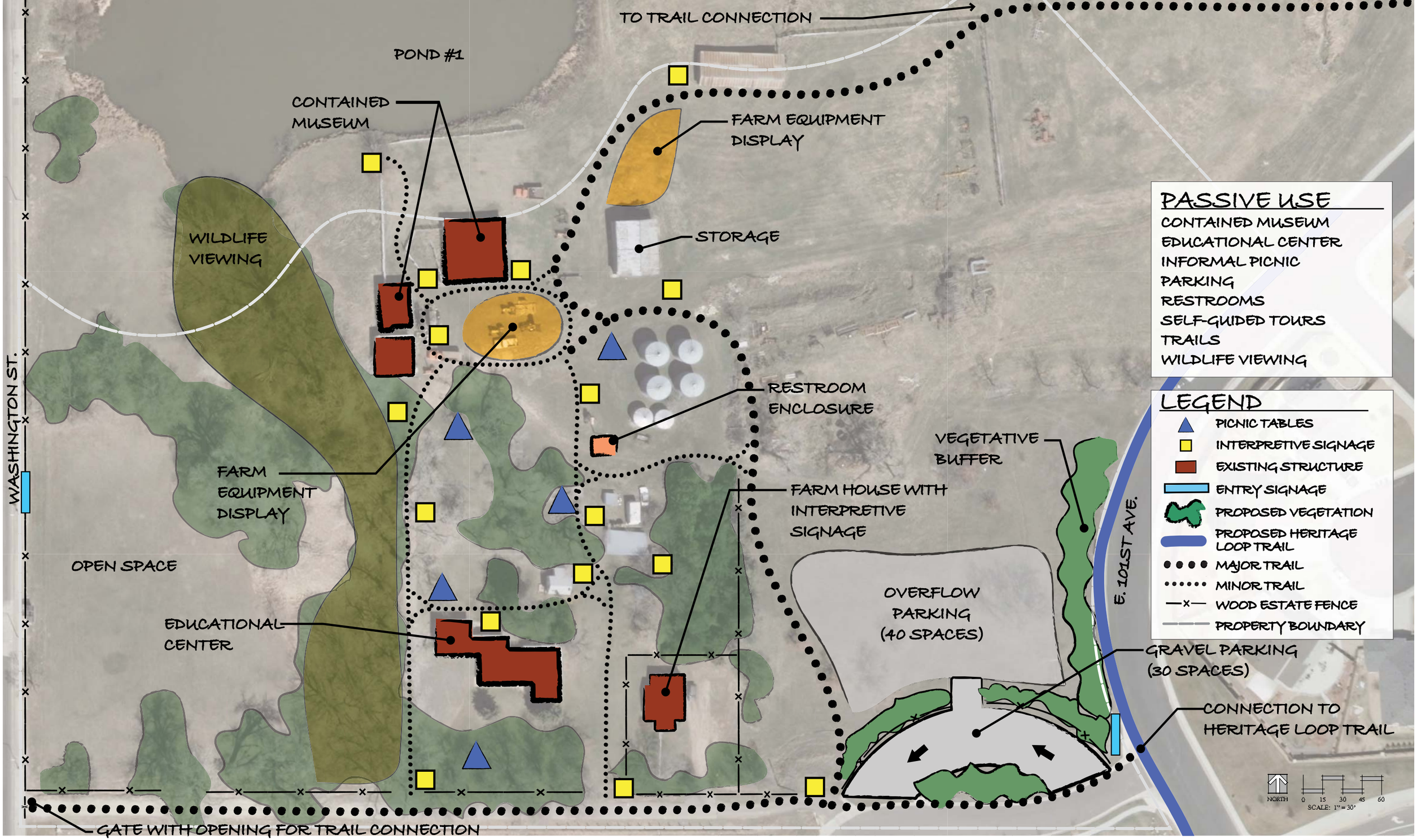
To provide greater connectivity within the Lambertson Lakes Park and Open Space site, this design contains a series of soft-surface trails. Along these trails, visitors will find informal picnic and seating areas from which to enjoy the natural and cultural beauty of the site. Parking is kept to minimum to avoid disturbance to the land while providing some vehicular access. Overflow parking is available for an infrequent, large-scale event that may occur on the site.

PROGRAM ELEMENTS

Contained Museum – The contained museum is located within the existing workshop, cement granary and old wood barn. These buildings will be brought up to existing building codes and used for displaying information about their past uses and significance on the farm. Visitors will be able to tour these buildings as part of the self-guided tours.
Educational Center – The existing ranch house will be utilized as an educational center accessible to the community. It will have space to be used for informational displays, small group activities, meetings and other uses as needed.
Informal Picnic Area – Picnic tables are located at scenic areas throughout the site for individuals and small groups.
Parking – A gravel lot to accommodate 30 spaces is located at the southeast corner of the site. An adjacent section of open space will be preserved as 40 spaces of overflow parking and utilized as needed.
Restrooms – A centrally-located restroom enclosure will house two port-o-lets.
Self-Guided Tours – Interpretive signage will be located throughout the homestead at areas of interest, such as historic buildings or features related to the farm, such as silos or important wildlife areas. Visitors can tour the homestead at their own pace while learning about family history, farming life, and the natural surroundings.
Trails – The trail system consists of major and minor trails that create a network on the site and regional scales. The minor trail network primarily connects features within the homestead and along the self-guided tour. The major trails connect the homestead to the existing Grange Hall Creek Trail, Lambertson Lakes Park, and the Lambertson Lakes Subdivision.
Wildlife Viewing – The Lambertson Homestead and Lambertson Lakes Open Space area provide a rich habitat for wildlife in the urban setting. Key areas and vantage points have been designated to maximize wildlife viewing potential. Interpretive signage will alert visitors to the plant and animal species present on the site.

PHASING

If future development were determined, the passive concept would be considered the first phase of the Lambertson Homestead site. The concept is designed for minimal activity, development and expense. The goal would be to clean-up and protect the existing site features and surrounding space, stabilize and update any buildings and structural foundations, and restore the building, farm equipment, fences and landscape to their original condition. Refer to the Historic Structure Assessment for architectural phasing recommendations. Completing these tasks would be the basis for all the proposed concepts and is necessary for the development of each concept.



Lambertson Lakes Open Space Master Plan

Passive Use Concept Plan | March 2009 | City of Thornton, Colorado

Site Concepts

Moderate Use Concept

MODERATE USE CONCEPT PLAN

This concept builds upon the Passive Use concept to greater expand the activity and educational components available from the homestead site to the community. As the potential program for the site is increased, the plan becomes a mosaic of activities and their relationships.

To strengthen the educational component of this concept, the core area of the homestead will exhibit a living museum. Here, visitors can observe both the passive attributes of the farm, such as the structures and equipment, as well as some active processes as performed by a select staff. Light crop farming will also occur on site to reclaim some of the original uses of the homestead. In addition, guided tours will also be available as well as indoor gallery space for viewing a collection pastoral-themed artwork.

To further strengthen the Lambertson Homestead as a social hub, a portion of the site is designed to harbor community gardens. Adjacent to the gardens is an outdoor community meeting space to provide a location for community events. For the more casual visitor, the design provides trail access in both soft-surface as well as concrete-surface throughout the site and designated spaces for wildlife viewing.

PROGRAM ELEMENTS

Community Gardens – Community garden plots are available for Thornton residents who wish to grow fruits and vegetables. The gardens offer water, tool storage and areas for compost and are located within the homestead site to enhance the farm gardening experience and atmosphere. Historically, this is the location of the original apple orchard on the Lambertson Homestead. For easy hauling access, the gardens are near parking which is screened by vegetation from surrounding neighborhoods.
Outdoor Community Space – This space serves as a possible area for community gatherings. It will be a hard surface plaza with a permanent picnic shelter and restrooms. The space can be used for things such as field trip meeting areas or space for small gatherings.
Crop Farming – Demonstration crop and vegetable farming will be in the area formerly used as the feed lot. It will be used to show historic and modern farming methods, crop lifecycles and farming best practices.
Guided Tours – The history of the Lambertson family and farm will be told by guides who lead visitors around the homestead. The guides will explain past farming technology and share tales of the Lambertson family and their activities while on the farm. The tours will visit many of the remaining structures and landscape features, such as chicken coops, silos, and the barn.
Outdoor Living Museum – The museum is where the historic activities of farming are re-enacted for visitors. Using equipment and methods of the past, people in costume will show how the entire farm functioned.
Parking – An asphalt lot to accommodate 50 spaces is located at the southeast corner of the site.
Picnic Shelters – Two picnic shelters accommodate small group gatherings. Located at the Outdoor Community Space and the yard behind the main residence, these are the perfect setting for school groups, family gatherings and small scale civic get-togethers.
Private Event Space – The tree-filled lawn between the primary residence and the barnyard is the setting for larger private and public events. The space can be used for events such as weddings, craft fairs, family reunions and larger school outings. The space can accommodate temporary seating and staging and is served by adjacent restrooms.
Restrooms – One set of vaulted restrooms is located within the picnic shelter at the Outdoor Community Space. Another stand-alone restroom is located within close proximity to the living museum, serving event visitors or those touring the homestead.
Trails – The trail system consists of major and minor trails that create a network on the site and regional scales. The minor trail network primarily connects features within the homestead and along the self-guided tour. The major trails connect the homestead to the existing Grange Hall Creek Trail, Lambertson Lakes Park, and the Lambertson Lakes Subdivision.
Wildlife Viewing – The Lambertson Homestead and Lambertson Lakes Open Space area provide a rich habitat for wildlife in the urban setting. Key areas and vantage points have been designated to maximize wildlife viewing potential. Interpretive signage will alert visitors to the plant and animal species present on the site.

PHASING

The moderate concept would be the second phase of the Lambertson Homestead site. Taking this concept one level higher to expand the activity and uses of the site will require some additional planning, development, maintenance and staff.

With the improvements and renovations from Phase I – the passive concept, the moderate concept can be easily implemented by adding the additional components described. The ground work of clean-up, stabilizing and restoring are complete. As with all recreational / educational facilities, protection of the site wetlands, buildings and other amenities will be necessary and on-going. Refer to the Historic Structure Assessment for architectural phasing recommendations.

POND #1

TO TRAIL CONNECTION

CONTINUE FENCE DOWN 101ST AVENUE TO PROPERTY LINE AND WRAP THE CORNER

CONTAINED MUSEUM

CROP FARMING/ VEGETABLE FARMING

STORAGE

OBSERVATION AREA FOR CROP FARMING

LIVING MUSEUM

WILDLIFE VIEWING

RESTROOM/ SHELTER

WASHINGTON ST.

RESTROOM

OPEN SPACE

PRIVATE EVENT SPACE (OUTDOOR)

OUTDOOR COMMUNITY SPACE

COMMUNITY GARDENS (45 - 10'X10' PLOTS)

SMALL SHADE SHELTER

GALLERY SPACE

E. 101ST AVE.

TRAIL CONNECTION

FARM HOUSE LIVING MUSEUM

PARKING (50 SPACES)

HERITAGE LOOP TRAIL CONNECTION

GATE WITH OPENING FOR TRAIL CONNECTION

MODERATE USE

- COMMUNITY GARDENS
- OUTDOOR COMMUNITY SPACE
- CROP FARMING
- GUIDED TOURS
- OBSERVATION AREA
- OUTDOOR LIVING MUSEUM
- PARKING
- PICNIC SHELTERS
- PRIVATE EVENT SPACE
- RESTROOMS
- TRAILS
- WILDLIFE VIEWING

LEGEND

- INTERPRETIVE SIGNAGE
- EXISTING STRUCTURE
- ENTRY SIGNAGE
- PROPOSED VEGETATION
- PROPOSED HERITAGE LOOP TRAIL
- MAJOR TRAIL
- MINOR TRAIL
- WOOD ESTATE FENCE
- PROPERTY BOUNDARY

NORTH

0 15 30 45 60

SCALE: 1" = 30'

Lambertson Lakes Open Space Master Plan

Moderate Use Concept Plan | March 2009 | City of Thornton, Colorado

Site Concepts

Active Use Concept

ACTIVE USE CONCEPT PLAN

This concept demonstrates a more complete build-out of the Lambertson Lakes Homestead site. The Active Use Concept Plan represents a place where heritage elements are intertwined with civic and community features. The overall tone of the plan is a two-fold combination of bringing life to the original homestead while creating places for community gathering, sharing and expression.

In keeping with the agrarian history of the site, the concept displays and interprets the Lambertsons' farming past via several outlets: a museum with live and permanent interpretation, a small-scale animal display with animals such as chickens, pigs and cows, open space, and a display of the vast collection of farm equipment. This will have a multi-generational focus where all ages will share knowledge and learn about farming and ranching life, science and technologies – past and future.

Elements are added or augmented in order to integrate the site within the surrounding neighborhood and community. A central gathering space for small-scale public entertainment and festivals takes stage in the heart of the site. A community meeting /gallery space gives a needed home to community groups and the Thornton arts scene. Community gardens and a farmer's market continue the heritage from the past and open up new possibilities. Use of the lake is opened up to include fishing and wildlife observation, activities to be enjoyed by many. An extensive system of walking and multipurpose trails through the site strengthens connections to the community.

PROGRAM ELEMENTS

Animal Display – The homestead will feature a small-scale animal display, adhering to its historic roots. Chickens, pigs, horses and a few head of cattle will add to the educational and authentic experience of the farm.
Pond Overlook – A small deck behind the barn will allow visitors to take in the scenery of the site from the water.
Community Gardens – Community garden plots are available for Thornton residents who wish to grow fruits and vegetables. The gardens offer water, tool storage and areas for compost and are located on the outer edge of the homestead site for easy access to participating neighbors and to screen on-site parking. The gardens will also be surrounded with vegetation to enhance the aesthetics of the entrance into the homestead and screen from surrounding neighborhoods.
Community Meeting Space –The existing ranch house will be utilized as a meeting center accessible to the community. It will have space to be used for informational displays, small group activities, art shows, meetings and other uses as needed.
Residence – The existing original farm house will be the residence of a round the clock caretaker for this site, a portion of the property will be fenced off for privacy with an open rail fence that compliments the farm character.
Farmers Market – An area adjacent to the community gardens will remain undeveloped as a possible farmers market space. Users of the community gardens will periodically have the opportunity to sell their crops to the community. Location of the market space could shift closer to the community gardens and homestead entrance for easier customer access although existing location is closer to parking.
Community Gathering/Festival Space – The open lawn between the main residence and barn can function as a community gathering/festival space. It will be programmed by the city for events such as small concerts, craft fairs and performances.
Open Space – An open / grazing area off Washington Street will be periodically utilized for art cattle displays, adding to the scenic authenticity of the farm. Animals will be a life size art sculpture silhouetting grazing cattle.
Guided Tours – The history of the Lambertson family and farm will be told by guides who lead visitors around the homestead. The guides will explain past farming technology and share tales of the Lambertson family and their activities while on the farm. The tours will visit many of the remaining structures and landscape features, such as chicken coops, silos, and the barn.
Outdoor Living Museum – The museum is where the historic activities of farming are re-enacted for visitors. Using equipment and methods of the past, people in costume will show how the entire farm functioned.

Parking – An asphalt lot to accommodate approximately 34 spaces is located at the southeast corner of the site. An adjacent section of open space will be preserved as 40 spaces of overflow parking and utilized as needed. On the western side of the site, approximately 16 pull-in parking spaces accommodate access to the Homestead and surrounding trails.
Picnic Shelters – Two mid-sized group picnic shelters will be located on-site, in addition to single picnic tables throughout. One shelter will be centrally located within the main area of the homestead. The other smaller shelter will be on the edge of the homestead as it connects to the adjacent open space. This shelter will serve smaller groups looking for a more quiet setting.
Public Event Stage/Shelter – The Community Gathering/Festival Space will have a permanent stage and shelter where small concerts, performances and gatherings can take place. Temporary seating can be brought in as needed.
Restrooms – One set of vaulted restrooms is located at the center of the homestead, and serves the festival and farm spaces. A second restroom is located at the community gardens and is also accessible to those using the recreational trails. A third restroom is located at the outlying picnic shelter.
Trails – The trail system consists of major and minor trails that create a network on the site and regional scales. The minor trail network primarily connects features within the homestead and along the self-guided tour. The major trails connect the homestead to the existing Grange Hall Creek Trail, Lambertson Lakes Park, and the Lambertson Lakes Subdivision.
Wildlife Viewing – The Lambertson Homestead and Lambertson Lakes Open Space area provide a rich habitat for wildlife in the urban setting. Key areas and vantage points have been designated to maximize wildlife viewing potential. Interpretive signage will alert visitors to the plant and animal species present on the site.

PHASING

The final phase of Lambertson Homestead site will be the active concept with all of its activities, facilities and potential uses. Building on the passive and moderate concepts, a few additional components will need to be added to support the proposed concept. Round the clock supervision and additional maintenance of the homestead will be necessary for site protection and stabilization. Refer to the Historic Structure Assessment for architectural phasing recommendations.

POND #1

POND OVERLOOK

ANIMAL DISPLAY

CONTINUE FENCE DOWN 101ST AVENUE TO PROPERTY LINE AND WRAP THE CORNER

PICNIC AREA
- SHELTER /
- RESTROOMS
- SMALL TURF AREA

OPEN SPACE/ PASTURELAND

STORAGE

LIVING MUSEUM

INTERPRETIVE BUILDINGS

WILDLIFE VIEWING

ORCHARD

CONNECTION TO GRANGE HALL CREEK TRAIL

OPEN SPACE/CROP FARMING

OVERFLOW PARKING 34 spaces

COMMUNITY FESTIVAL/ GATHERING SPACE

OPEN SPACE

PUBLIC EVENT STAGE/LARGE SHELTER

GRAZING CATTLE SILHOUTTES

WILDLIFE BUFFER

ANIMAL DISPLAY

RELOCATED SILO GATEWAY

COMMUNITY GARDENS 25 10X30 plots

PARKING 34 spaces

HERITAGE LOOP TRAIL CONNECTION

GATE WITH OPENING FOR TRAIL CONNECTION

COMMUNITY MEETING/GALLERY SPACE

RESIDENCE WITH PRIVACY RAIL FENCE

FARMER'S MARKET SPACE

PULL-IN PARKING

16 spaces

WASHINGTON STREET

E 101ST AVENUE

ACTIVE USE

- ANIMAL DISPLAY
- POND OVERLOOK
- COMMUNITY GARDENS
- COMMUNITY MEETING SPACE
- FARMER'S MARKET
- FESTIVAL SPACE
- OPEN SPACE
- GUIDED TOURS
- OUTDOOR LIVING MUSEUM
- PARKING
- PICNIC SHELTERS
- PUBLIC EVENT STAGE/SHELTER
- RESTROOMS
- TRAILS
- WILDLIFE VIEWING

LEGEND

- INTERPRETIVE SIGNAGE
- EXISTING STRUCTURE
- RESTROOMS
- HOMESTEAD SIGN
- PROPOSED VEGETATION
- SERVICE ROAD
- MAJOR TRAIL
- MINOR TRAIL
- WOOD ESTATE FENCE
- PROPERTY BOUNDARY
- PROPOSED HERITAGE TRAIL LOOP

NORTH 0 15 30 45 60

SCALE: 1" = 30'

Lambertson Lakes Open Space Master Plan

Active Use Concept Plan | March 2009 | City of Thornton, Colorado

Site Concepts

Open Space Concept

OPEN SPACE CONCEPT

The Lambertson Lakes Heritage Trail will be incorporated into the existing Grange Hall Creek Trail and enhanced for a greater user experience. The trail system will be an extension of the Lambertson Lakes Homestead, connecting the site to the surrounding neighborhoods for accessibility and a more complete experience.

A small pier will be added to pond #3, making the scenic amenities of the site more accessible and granting access to the natural features. Interpretive signage related to the Homestead will be implemented throughout the Lambertson Lakes Open Space at significant vantage points. Additional signage indicating trail access will be included to clarify main access to the trails.

Super K Mart

Grange Hall Creek Trail

Lambertson Farms Condominiums

Washington Ave.

Lambertson Lakes Park

LAMBERTSON LAKES OPEN SPACE

Pond #3

Pond #2

Pond #1

E. 101st Ave.

Lambertson Lakes Subdivision

LAMBERTSON HOMESTEAD

Lambertson Lakes Subdivision

E. 100th Ave.

Sundance Condominiums

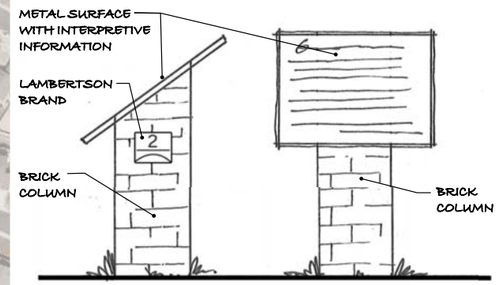
E. 98th Ave.

Lambertson Lakes Subdivision

Downing St.

N

INTERPRETIVE SIGN



LEGEND

- TRAILHEAD
- PIER/PICNIC SHELTER
- EXISTING BENCH
- INTERPRETIVE SIGNAGE
- HERITAGE LOOP TRAIL ROUTE
- EXISTING TRAILS
- SITE FENCING

SCALE: 1″ = 100′

Lambertson Lakes Open Space Master Plan

Open Space Concept | November 2009 | City of Thornton, Colorado

Site Concepts

LAMBERTSON LAKES SIGNAGE

HOMESTEAD SIGNAGE

PASSIVE CONCEPT

Building from the minimalist architecture of the Original Thornton Neighborhood sign, this concept boasts the addition of planters, in lieu of a capstone, on top of all of the columns. When planted with appropriate species, the produced effect will soften the architecture and provide a pastoral-themed interest throughout the year.

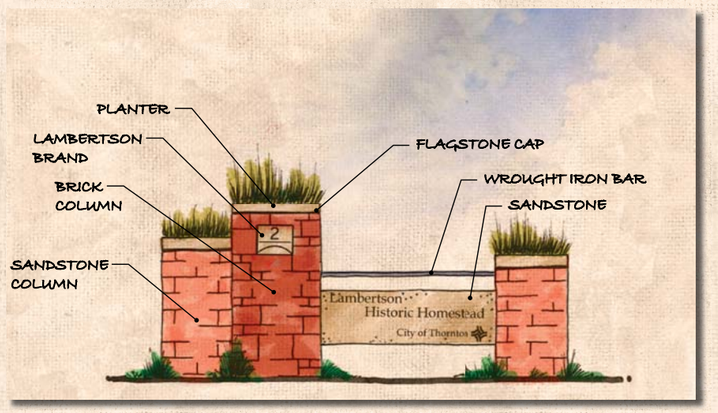
MODERATE CONCEPT

Creating a composite of the Original Thornton Neighborhood sign and the Passive concept homestead sign, this design is further differentiated by the addition of a cupola to the dominant column. This feature pays tribute to an iconic symbol of the farm. Each of the secondary columns will be topped with a planter box and plantings reminiscent of the pastoral landscape.

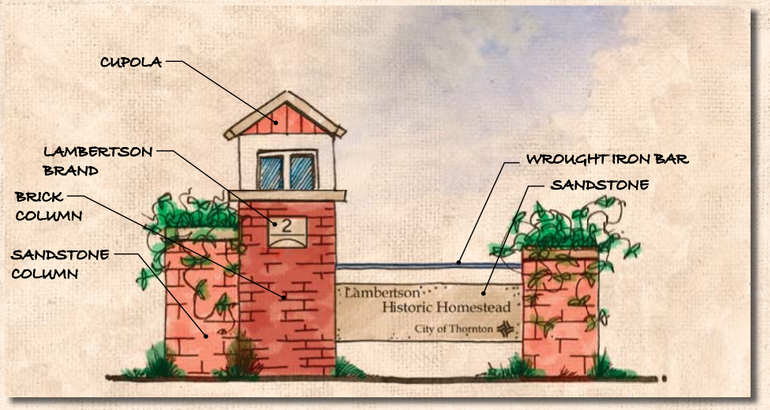
ACTIVE CONCEPT

Taking the level of detail one step further than the Moderate concept homestead sign, this design sees the removal of the column planters and the addition of two other iconic farm elements: decorative ironwork and the weathervane. By addition of these elements, the aesthetic of the sign shifts from pastoral to agrarian, and ultimately to that of the Lambertson Homestead.

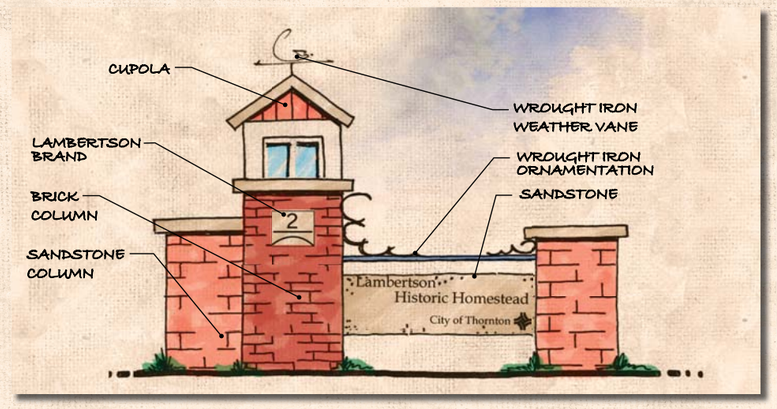
ENTRY SIGN
Passive Concept



ENTRY SIGN
Moderate Concept



ENTRY SIGN
Active Concept



Site Concepts

Heritage Loop Trail

HERITAGE LOOP TRAIL CONCEPTS

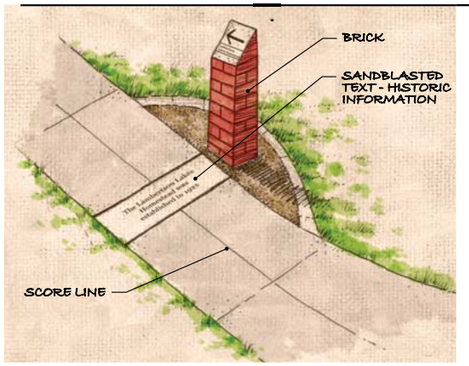
The Heritage Loop Trail is designed to deepen the identity of Thornton's heritage and celebrate the places where the city of today originated. The trail connects current and future assets, such as the Lambertson Lakes Homestead, Thornton Community Center, Community Park, City Pool, Tuck Ditch Park, The Senior Center and various schools. Utilizing a mix of existing and proposed trails, surface roads and bike lanes, the trail network creates ways for people from all over Original Thornton and beyond to experience the heritage and sense of community found in the historic parts of Thornton.

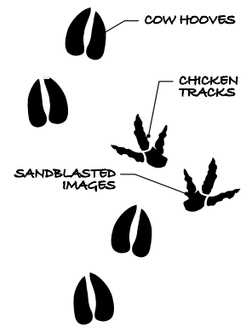
To achieve this, the concepts are presented as a Proposed Heritage Trail with two loop alternates. The Heritage Trail creates a strong connection between the Community Park and Lambertson Lakes Homestead and Open Space, with the majority located along existing multi-use trails. Proposed Trail Loop #1 furthers the experience into Original Thornton, connecting elements important to the area's history. Proposed Trail Loop #2 deepens the experience in Original Thornton, with more exposure to the original architecture and character of mid-century Thornton.

Signage along the trails uses two forms to make navigation possible. Concept B demarcates key entry points and intersections using brick vertical columns and text bands for clear direction-finding. Concept C uses sandblasted agrarian images to span and unify the entirety of the Heritage Loop Trail along sidewalks and multi-purpose trails, tying the Lambertson Homestead history to that of Original Thornton.

Grange Hall Creek Trail
LAMBERTSON LAKES OPEN SPACE
LAMBERTSON HOMESTEAD
E101ST AVE
E100TH AVE
E 98TH STREET
Sherwood Hills Park
104TH AVE
Yorkborough Park
Tuck Ditch Park
McCoy Hills Park II
E 97TH STREET
DOWNING STREET
Civic Center Park
Community Park Trail
Liberty Hills Park
THORNTON PKWY
Community Park
City Pool
Lu Murray Park
Senior Center
Heritage Loop Trailhead
Thornton Community Center
Bollman Technical
Thornton High School
Thornton Middle School
Thornton Elementary School
Crossroads Middle School
EPPINGER BOULEVARD
ORIGINAL THORNTON
York International
YORK STREET
INTERSTATE 25
WASHINGTON ST.
RUSSELL WAY
HOFFMAN WAY
Mtn. View Park
Explore Elementary School
Clayton Partnership School
POZE BOULEVARD
MOON COURT
Lilly Park
Skyview Senior High School
UNION PACIFIC RAILWAY
88TH AVENUE

B & C. HERITAGE TRAIL SIGNAGE





B. HERITAGE TRAIL WAYFINDING SIGNAGE: Located at trailheads and key intersections.

C. HERITAGE TRAIL WAY FINDING SIGNAGE: Distributed along length of concrete sidewalks and trails. Farm animal prints that wer part of the Lambertson Homestead.

LEGEND

- Vehicular Circulation
- Existing Trail
- Proposed Heritage Trail ~ 1.5 mi
- Proposed Trail Loop Alternate #1 ~ 1.3 mi
- Proposed Trail Loop Alternate #2 ~ 3 mi
- Proposed Improved Crossing
- Lambertson Lakes Open Space
- Existing Park
- Existing School
- Existing Landmark
- Existing Trailhead
- Original Thornton Signs
- Proposed FasTracks Station
- Lambertson Property Boundary

N

SCALE: 1" = 500'

Lambertson Lakes Open Space Master Plan

Heritage Loop Trail | November 2009 | City of Thornton, Colorado

ORIGINAL THORNTON NEIGHBORHOOD SIGNAGE CONCEPTS

The Original Thornton signage concepts were developed to replace the existing Thornton signage which are currently located off of 88th Avenue & Washington Street. Finding its roots in the minimalist, post-WWII architecture of the neighborhood, these designs pay homage to the visual aesthetic and geometry of the structures found in Original Thornton. In order to make these designs unique to Thornton, materials typical of residential construction in the 1950's will be utilized. The combination of these design elements result in an object that is strong in form yet sensible in detail.

The chosen concept will replace the existing signs located in the following four locations: Northern corner of 88th Ave. & Hoffman Way, 88th Ave. & Poze Blvd., 88th Ave. & York St., and Washington St. at Russell Blvd. A fifth location at the southeast corner Eppinger Blvd & Washington St. is also being considered for new signage.

Four potential slogan options have been chosen to be incorporated in the Original Thornton signage are as follows:

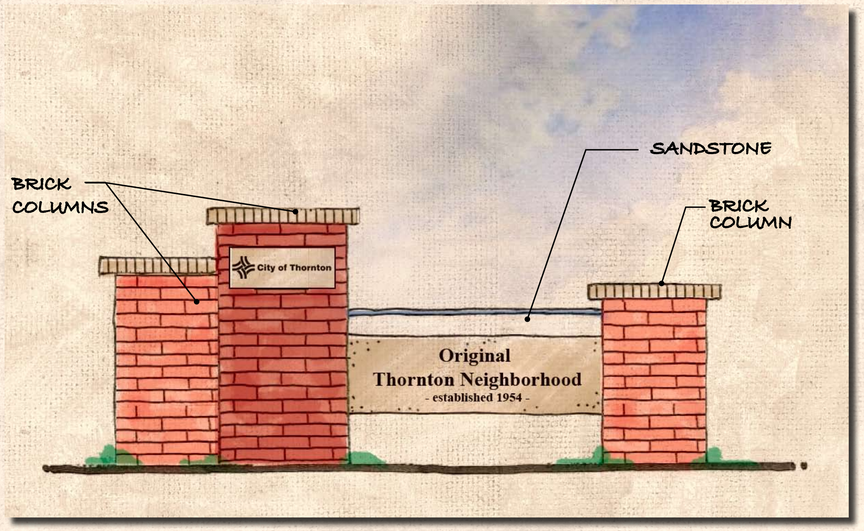
1. Where It All Began
2. The Roots of Our Future
3. Looking Back Towards Tomorrow
4. Honoring Our Past, Anticipating Our Future

The option selected will be added to each sign to commemorate Original Thornton and its past.

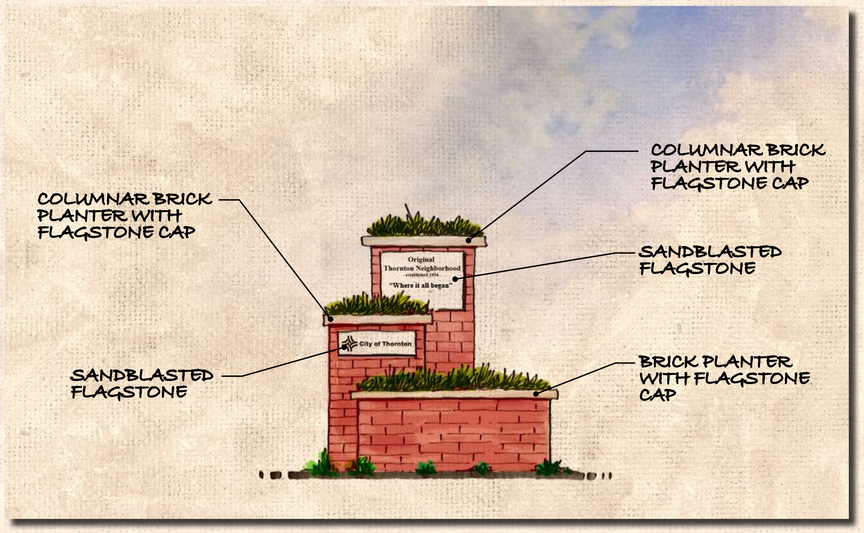
Site Concepts

original thornton signage

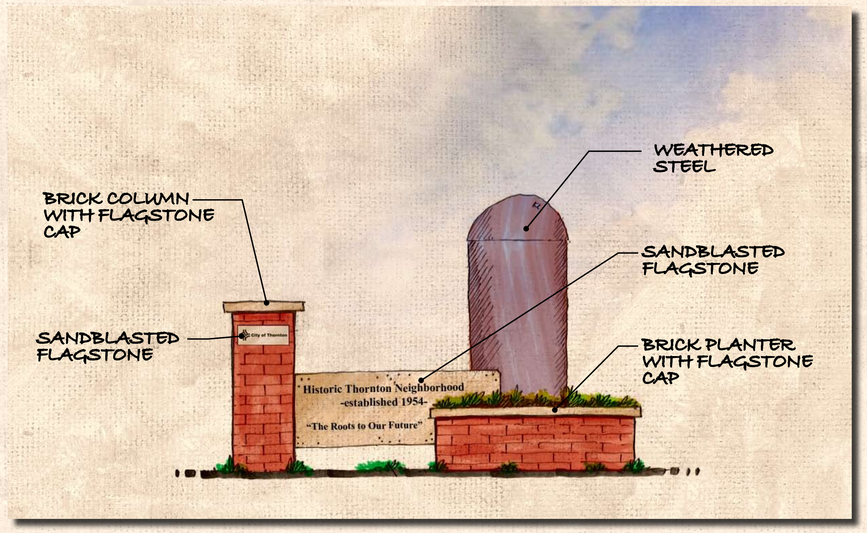
ORIGINAL THORNTON SIGNAGE (OPTION 1)



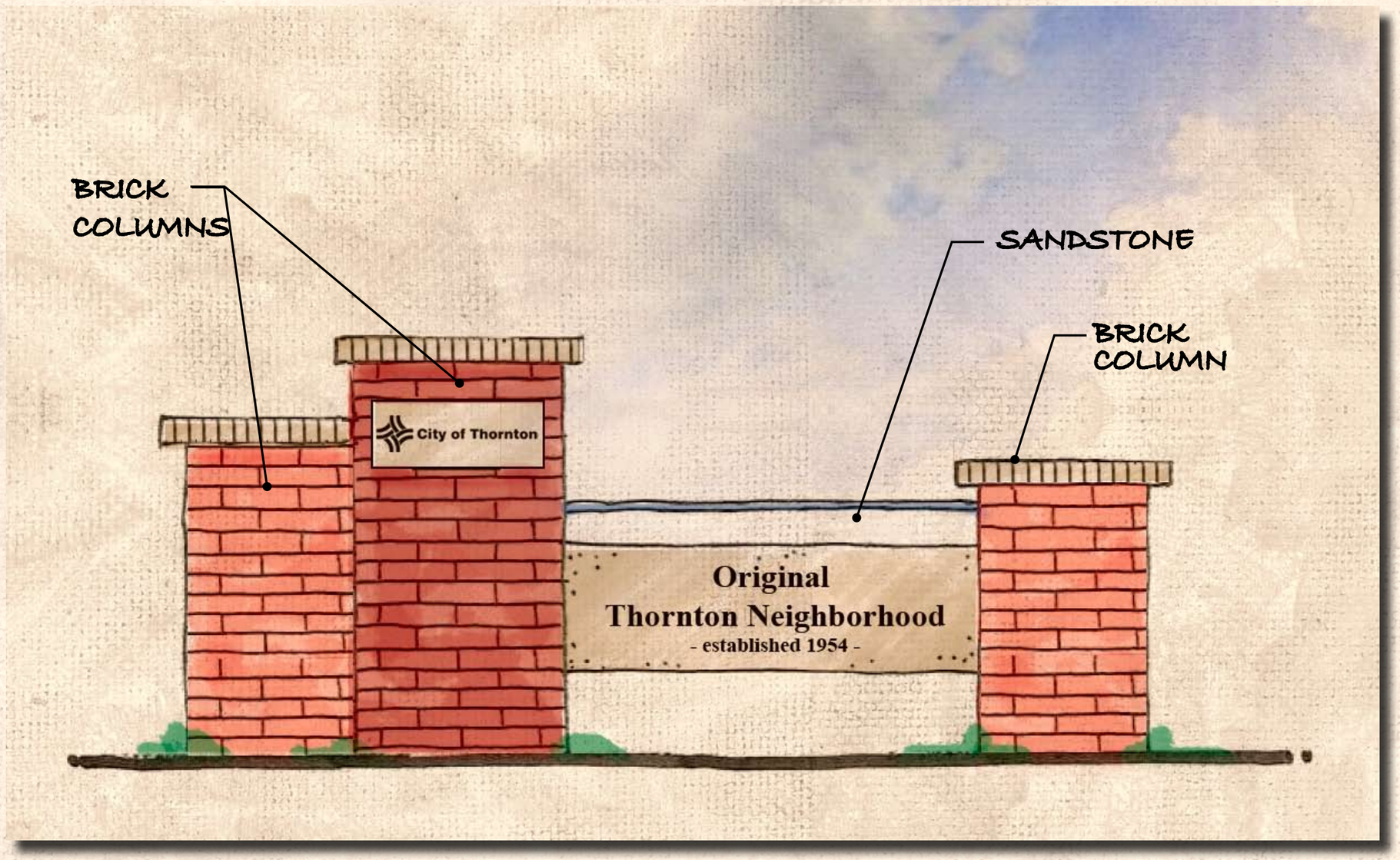
ORIGINAL THORNTON SIGNAGE (OPTION 2)



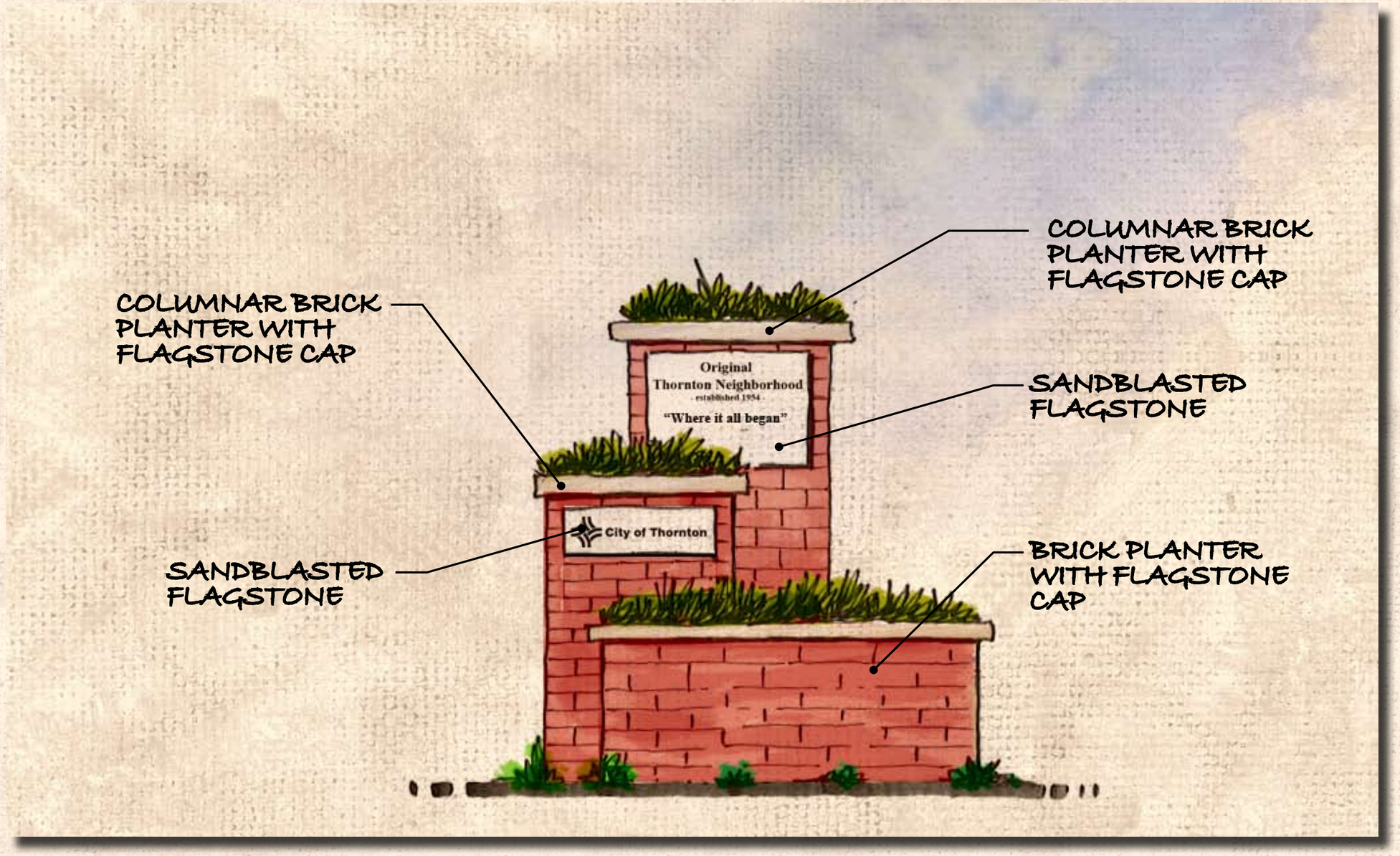
ORIGINAL THORNTON SIGNAGE (OPTION 3)



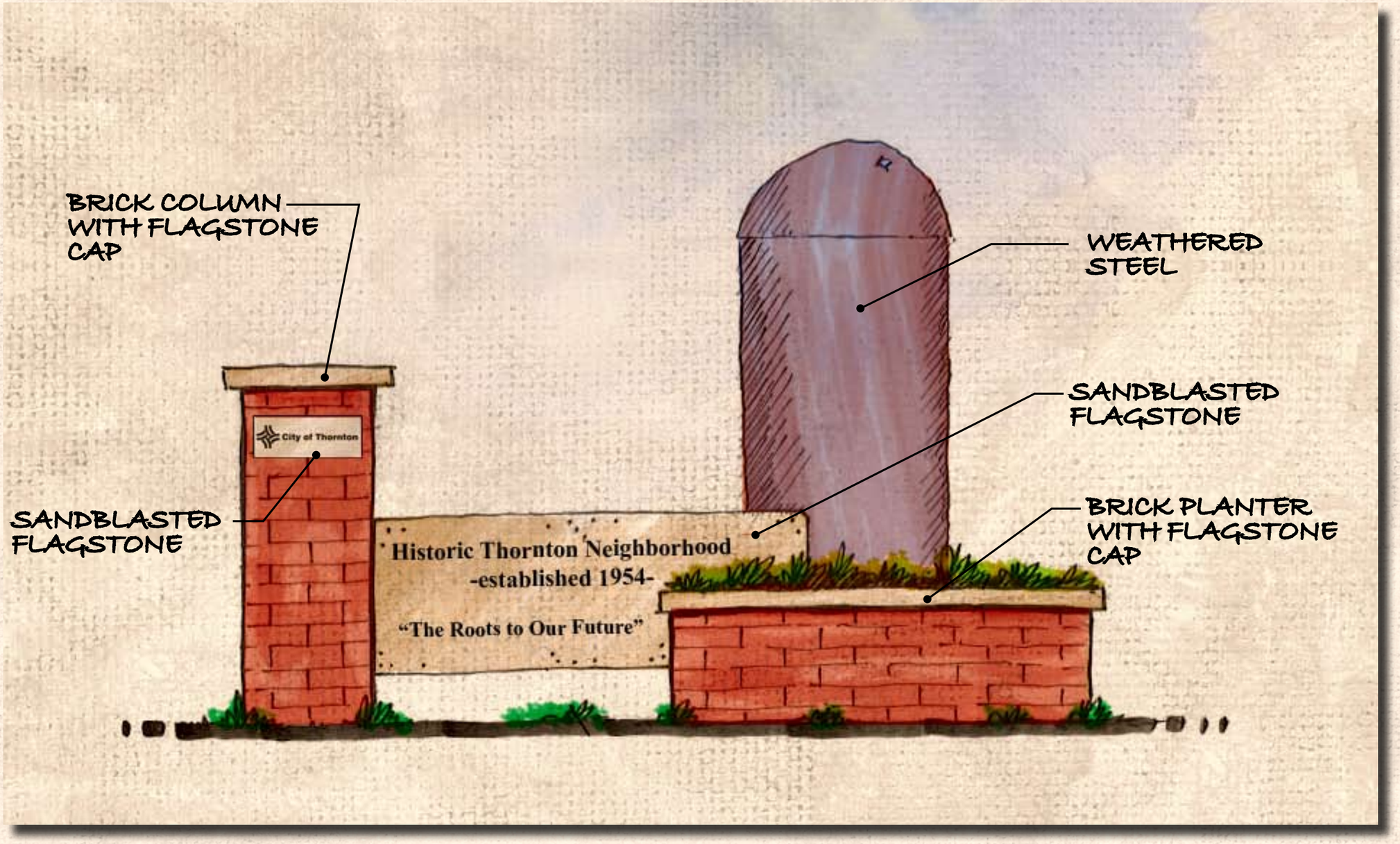
ORIGINAL THORNTON SIGNAGE
(OPTION 1)



ORIGINAL THORNTON SIGNAGE
(OPTION 2)



ORIGINAL THORNTON SIGNAGE
(OPTION 3)



Cost Estimates

LAMBERTSON LAKES - Passive Use Concept
Estimate of Probable Costs
DATE: April 8, 2010

DESIGN CONCEPTS
Community and Landscape Architects

	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
SITE DEMOLITION					
	Clear & grub site	240,500	SF	$0.20	$48,100.00
SITE CONSTRUCTION					
	Perimeter fence	1,500	LF	$24.00	$36,000.00
	4' Wood estate fence	1,600	LF	$24.00	$38,400.00
	4' Wood gate	2	EA	$400.00	$800.00
	Washington Street gate	1	EA	$1,500.00	$1,500.00
	Gravel parking lot - 6" roadbase	9,250	SF	$0.65	$6,012.50
	Crusher fines trail (major trails) - 8' wide	17,500	SF	$5.50	$96,250.00
	Crusher fines trail (minor trails) - 6' wide	9,750	SF	$1.75	$17,062.50
				SUBTOTAL	**$196,025.00**
SITE AMENITIES AND FURNISHINGS					
	Benches	6	EA	$1,200.00	$7,200.00
	Trash receptacles	8	EA	$700.00	$5,600.00
	Bike racks	1	EA	$800.00	$800.00
	Homestead entry signage	2	EA	$15,500.00	$31,000.00
	Picnic tables	5	EA	$1,200.00	$6,000.00
	Restroom enclosure	1	EA	$26,000.00	$26,000.00
	Interpretive signage	14	EA	$800.00	$11,200.00
	Miscellaneous site lighting	1	LS	$15,000.00	$15,000.00
				SUBTOTAL	**$102,800.00**
LANDSCAPE					
	Trees deciduous	40	EA	$450.00	$18,000.00
	Trees evergreen	10	EA	$400.00	$4,000.00
	Trees ornamental	10	EA	$325.00	$3,250.00
	Shrubs, #5 container	150	EA	$27.00	$4,050.00
	Perennials, #1 container	25	EA	$10.00	$250.00
	Grasses, #1 container	100	EA	$15.00	$1,500.00
	Soil prep and native seed	43,425	SF	$0.20	$8,685.00
	Shredded cedar mulch, planting beds	8,000	SF	$1.00	$8,000.00
	Irrigation Tap	1	LS	$175,000.00	$175,000.00
	Irrigation	180,000	SF	$0.75	$135,000.00
				SUBTOTAL	**$357,735.00**
CONTAINED MUSEUM					
	Historic farm equipment display	1	LS	$10,000.00	$10,000.00
				SUBTOTAL	**$10,000.00**
BUILDING UPDATES *					
	Education center				
	- Ranch house	1	LS	$90,000.00	$90,000.00
	Contained museum structures				
	- Workshop	1	LS	$20,000.00	$20,000.00
	- Concrete granary	1	LS	$10,000.00	$10,000.00
	- Old wood barn	1	LS	$130,000.00	$130,000.00
	Farm house	1	LS	$80,000.00	$80,000.00
				SUBTOTAL	**$330,000.00**
	BASE BID CONSTRUCTION SUBTOTAL				**$1,044,660.00**

	Bonding and Mobilization	6.5%			**$67,902.90**
	Contingency	20.0%			**$208,932.00**
	BASE BID CONSTRUCTION TOTAL				**$1,321,494.90**

* Refer to page 211-212 Mechanical/Structural Systems repair cost option for an itemized list of recommended structural improvements and associated costs.

LAMBERTSON LAKES - Moderate Use Concept
Estimate of Probable Costs
DATE: April 8, 2010

DESIGN CONCEPTS
Community and Landscape Architects

	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
SITE DEMOLITION					
	Clear & grub site	240,500	SF	$0.20	$48,100.00
SITE CONSTRUCTION					
	Perimeter fence	1,200	LF	$24.00	$28,800.00
	4' Wood estate fence	2,550	LF	$24.00	$61,200.00
	4' Wood gate	1	EA	$400.00	$400.00
	Washington St. gate	1	EA	$1,500.00	$1,500.00
	Asphalt parking lot	21,000	SF	$2.50	$52,500.00
	Curb & gutter	850	LF	$14.00	$11,900.00
	Parking lot lighting	1	LS	$20,000.00	$20,000.00
	Concrete flatwork (picnic shelter pads, etc.)	1,500	SF	$4.50	$6,750.00
	Concrete walk (major trails) - 8' wide	13,000	SF	$5.50	$71,500.00
	Crusher fines trail (minor trails) - 6' wide	11,525	SF	$1.75	$20,168.75
				SUBTOTAL	**$274,718.75**
SITE AMENITIES AND FURNISHINGS					
	Benches	8	EA	$1,200.00	$9,600.00
	Trash receptacles	6	EA	$700.00	$4,200.00
	Bike racks	2	EA	$800.00	$1,600.00
	Homestead entry signage	2	EA	$17,000.00	$34,000.00
	Picnic tables	8	EA	$1,200.00	$9,600.00
	Interpretive signage	8	EA	$800.00	$6,400.00
	Miscellaneous site lighting	1	LS	$35,000.00	$35,000.00
				SUBTOTAL	**$100,400.00**
LANDSCAPE					
	Trees deciduous	50	EA	$450.00	$22,500.00
	Trees evergreen	20	EA	$400.00	$8,000.00
	Trees ornamental	20	EA	$325.00	$6,500.00
	Shrubs, #5 container	250	EA	$27.00	$6,750.00
	Perennials, #1 container	50	EA	$10.00	$500.00
	Grasses, #1 container	150	EA	$15.00	$2,250.00
	Soil prep and native seed	54,000	SF	$0.20	$10,800.00
	Shredded cedar mulch, planting beds	11,500	SF	$1.00	$11,500.00
	Irrigation Tap	1	LS	$175,000.00	$175,000.00
	Irrigation	190,000	SF	$0.75	$142,500.00
				SUBTOTAL	**$386,300.00**
COMMUNITY GARDENS					
	Concrete retaining walls	1,900	FF	$12.00	$22,800.00
	Fencing - wood rail with wire mesh	600	LF	$40.00	$24,000.00
	Compost/soil amendment	175	CY	$2.00	$350.00
	Crusher fines walkways	14,700	SF	$1.75	$25,725.00
	Irrigation	4,600	SF	$0.75	$3,450.00
	Signage	3	EA	$800.00	$2,400.00
	Benches	6	EA	$1,200.00	$7,200.00
	Trash receptacles	8	EA	$700.00	$5,600.00
				SUBTOTAL	**$91,525.00**

OUTDOOR COMMUNITY SPACE					
	Misc site lighting	1	LS	$20,000.00	$20,000.00
	Concrete flatwork	2,750	SF	$5.50	$15,125.00
	Picnic shelter/restroom, vaulted	1	EA	$140,000.00	$140,000.00
	Seatwalls	1	LS	$30,000.00	$30,000.00
	Benches	6	EA	$1,200.00	$7,200.00
	Trash receptacles	4	EA	$700.00	$2,800.00
				SUBTOTAL	**$215,125.00**
LIVING MUSEUM/PRIVATE EVENT SPACE (INDOOR)					
	Historic farm equipment display	1	LS	$15,000.00	$15,000.00
				SUBTOTAL	**$15,000.00**
PRIVATE EVENT SPACE (OUTDOOR)					
	Crusher fines walk	800	SF	$1.75	$1,400.00
	Benches	8	EA	$1,200.00	$9,600.00
	Trash receptacles	3	EA	$700.00	$2,100.00
	Picnic Shelter (20 'x 20')	1	EA	$20,000.00	$20,000.00
				SUBTOTAL	**$33,100.00**
POND AREA ACTIVITIES					
	Benches	2	EA	$1,200.00	$2,400.00
	Trash receptacles	1	EA	$700.00	$700.00
				SUBTOTAL	**$3,100.00**
BUILDING UPDATES *					
	Gallery space				
	- Ranch house	1	LS	$90,000.00	$90,000.00
	Living museum structures				
	- Farm house	1	LS	$80,000.00	$80,000.00
	- Workshop	1	LS	$20,000.00	$20,000.00
	- Granary	1	LS	$10,000.00	$10,000.00
	- Old wood barn	1	LS	$130,000.00	$130,000.00
	- Chicken coop	1	LS	$10,000.00	$10,000.00
	- Large wood shed	1	LS	$10,000.00	$10,000.00
	- Outhouse	1	LS	$1,500.00	$1,500.00
	- Pump house	1	LS	$35,000.00	$35,000.00
				SUBTOTAL	**$386,500.00**
	BASE BID CONSTRUCTION SUBTOTAL				**$1,553,868.75**

	Bonding and Mobilization	6.5%			**$101,001.47**
	Contingency	20.0%			**$310,773.75**
	BASE BID CONSTRUCTION TOTAL				**$1,965,643.97**

* Refer to page 211-212 Mechanical/Structural Systems repair cost option for an itemized list of recommended structural improvements and associated costs.

LAMBERTSON LAKES - Active Use Concept
Estimate of Probable Costs
DATE: April 8, 2010

DESIGN CONCEPTS
Community and Landscape Architects

	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
SITE DEMOLITION					
	Clear & grub site	1,850	SF	$0.20	$370.00
SITE CONSTRUCTION					
	Perimeter fence	1,300	LF	$24.00	$31,200.00
	4' Wood estate fence	2,400	LF	$24.00	$57,600.00
	Washington Street gate	1	LS	$1,500.00	$1,500.00
	Asphalt parking lots	14,500	SF	$2.50	$36,250.00
	Parking lot curb & gutter	800	LF	$14.00	$11,200.00
	Concrete walks (major trails) - 8' wide	13,000	SF	$5.50	$71,500.00
	Crusher fines trails (minor trails) - 6' wide	8,910	SF	$1.75	$15,592.50
	Service road/Roadbase - 10' wide	7,630	SF	$0.65	$4,959.50
	Concrete flatwork (picnic shelter pads, etc)	2,500	SF	$4.50	$11,250.00
	Parking lot lighting	1	LS	$35,000.00	$35,000.00
				SUBTOTAL	**$276,052.00**
SITE AMENITIES AND FURNISHINGS					
	Benches	8	EA	$1,200.00	$9,600.00
	Trash receptacles	6	EA	$700.00	$4,200.00
	Bike racks	2	EA	$800.00	$1,600.00
	Homestead entry signage	2	EA	$20,000.00	$40,000.00
	Restrooms - vaulted	2	EA	$120,000.00	$240,000.00
	Restrooms - plumbed	1	EA	$140,000.00	$140,000.00
	Picnic shelter - open space (20' x 20')	1	EA	$20,000.00	$20,000.00
	Picnic tables	12	EA	$1,200.00	$14,400.00
	Relocated silos	2	EA	$1,000.00	$2,000.00
	Handicap ramps	2	EA	$1,000.00	$2,000.00
	Interpretive signage	14	EA	$800.00	$11,200.00
	Miscellaneous site lighting	1	LS	$70,000.00	$70,000.00
	Grills	3	EA	$1,000.00	$3,000.00
	Cattle art silhouettes	8	EA	$2,000.00	$16,000.00
				SUBTOTAL	**$574,000.00**
LANDSCAPE					
	Trees deciduous	60	EA	$450.00	$27,000.00
	Trees evergreen	20	EA	$400.00	$8,000.00
	Trees ornamental	40	EA	$325.00	$13,000.00
	Shrubs, #5 container	300	EA	$27.00	$8,100.00
	Perennials, #1 container	50	EA	$10.00	$500.00
	Grasses, #1 container	200	EA	$15.00	$3,000.00
	Soil prep and sod	2,000	SF	$0.70	$1,400.00
	Soil prep and native seed	72,000	SF	$0.20	$14,400.00
	Shredded cedar mulch, planting beds	8,000	SF	$1.00	$8,000.00
	Irrigation Tap	1	LS	$175,000.00	$175,000.00
	Irrigation	200,000	SF	$0.75	$150,000.00
				SUBTOTAL	**$408,400.00**

Active Use Concept, continued

COMMUNITY GARDENS/FARMERS MARKET					
	Concrete retaining walls	2,000	FF	$12.00	$24,000.00
	Fencing - wood rail with wire mesh	600	LF	$40.00	$24,000.00
	4' gate	2	EA	$400.00	$800.00
	Compost/soil amendment	250	CY	$2.00	$500.00
	Crusher fines walkways	8,000	SF	$1.75	$14,000.00
	Irrigation	7,500	SF	$0.75	$5,625.00
	Signage	3	EA	$800.00	$2,400.00
	Benches	6	EA	$1,200.00	$7,200.00
	Trash receptacles	8	EA	$700.00	$5,600.00
	Concrete pads for tents	2,750	SF	$5.50	$15,125.00
				SUBTOTAL	**$99,250.00**
LIVING MUSEUM					
	Historic farm equipment display	1	LS	$20,000.00	$20,000.00
				SUBTOTAL	**$20,000.00**
COMMUNITY FESTIVAL SPACE					
	Concrete stage (15' x 30')	1	LS	$20,000.00	$20,000.00
	Picnic shelter (15' x 40')	1	EA	$40,000.00	$40,000.00
	Benches	8	EA	$1,200.00	$9,600.00
	Trash receptacles	3	EA	$700.00	$2,100.00
	Sound system	1	LS	$10,000.00	$10,000.00
	Miscellaneous site lighting	1	LS	$20,000.00	$20,000.00
				SUBTOTAL	**$101,700.00**
POND AREA ACTIVITIES					
	Pond overlook	1	LS	$30,000.00	$30,000.00
	Benches	4	EA	$1,200.00	$4,800.00
	Trash receptacles	2	EA	$700.00	$1,400.00
				SUBTOTAL	**$36,200.00**
ANIMAL DISPLAY					
	Historic farm equipment display	1	LS	$0.00	$0.00
	Corral fencing - 5' estate fence	400	LF	$45.00	$18,000.00
	5' gate	2	EA	$800.00	$1,600.00
	Feeding bin/watering trough	1	LS	$2,000.00	$2,000.00
				SUBTOTAL	**$21,600.00**
BUILDING UPDATES *					
	Living museum structures				
	- Workshop	1	LS	$20,000.00	$20,000.00
	- Granary	1	LS	$10,000.00	$10,000.00
	- Old wood barn	1	LS	$130,000.00	$130,000.00
	- Pumphouse	1	LS	$35,000.00	$35,000.00
	- Metal side barn	1	LS	$6,000.00	$6,000.00
	Animal display structures				
	- Chicken coop	1	LS	$10,000.00	$10,000.00
	- Large wood shed	1	LS	$10,000.00	$10,000.00
	- Outhouse	1	LS	$1,500.00	$1,500.00
	- Small wood shed	1	LS	$8,000.00	$8,000.00
	- Loafing shed	1	LS	$4,000.00	$4,000.00
	Community meeting/gallery space				
	- Ranch house	1	LS	$90,000.00	$90,000.00
	Farm house	1	LS	$80,000.00	$80,000.00
				SUBTOTAL	**$404,500.00**
	BASE BID CONSTRUCTION SUBTOTAL				**$1,942,072.00**

	Bonding and Mobilization	6.5%			**$126,234.68**
	Contingency	20.0%			**$388,414.40**
	BASE BID CONSTRUCTION TOTAL				**$2,456,721.08**

* Refer to page 211-212 Mechanical/Structural Systems repair cost option for an itemized list

LAMBERTSON LAKES - Heritage Trail
Estimate of Probable Costs
DATE: December 8, 2009

DESIGN CONCEPTS
Community and Landscape Architects

	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
ORIGINAL THORNTON SIGNAGE					
A.	Neighborhood Entry Signage				
	Brick Columns with caps	3	EA	$4,000.00	$12,000.00
	Sandstone sign face	1	EA	$2,000.00	$2,000.00
	Text and logo sandblasting	1	LS	$1,000.00	$1,000.00
				SUBTOTAL (for one)	**$15,000.00**
				SUBTOTAL (for four)	**$60,000.00**
HERITAGE TRAIL WAYFINDING SIGNAGE					
B.	Brick columns with directional sandblasting, text insert and brick sidewalk band				
	Heritage Trail	12	EA	$300.00	$3,600.00
	Trail Loop Alternate 1	6	EA	$1,500.00	$9,000.00
	Trail Loop Alternate 2	15	EA	$1,500.00	$22,500.00
				SUBTOTAL	**$35,100.00**
C.	Trail imagery: 6-10 sandblasted and stained images approximately every 100'				
	Heritage Trail	85	EA	$500.00	$42,500.00
	Trail Loop Alternate 1	70	EA	$500.00	$35,000.00
	Trail Loop Alternate 2	165	EA	$500.00	$82,500.00
				SUBTOTAL	**$160,000.00**
IMPROVED CROSSINGS					
	Crosswalk (E 98th & E 101st)	1	EA	$1,000.00	$2,000.00
	Pedestrian-activated signal system	2	EA	$30,000.00	$60,000.00
	(Thornton Pkwy & Downing Street)			**SUBTOTAL**	**$62,000.00**
INTERPRETIVE SIGNAGE					
	Throughout Lambertson Lakes Open Space	6	EA	$800.00	$4,800.00
				SUBTOTAL	**$4,800.00**
PIER/PICNIC SHELTER					
	Pier	1	LS	$35,000.00	$35,000.00
	Picnic Shelter	1	EA	$20,000.00	$20,000.00
	Picnic Tables	2	EA	$1,200.00	$2,400.00
				SUBTOTAL	**$57,400.00**
	BASE BID CONSTRUCTION SUBTOTAL				**$379,300.00**
	Bonding and Mobilization	6.5%			**$24,654.50**
	Contingency	20.0%			**$75,860.00**
	BASE BID CONSTRUCTION TOTAL				**$479,814.50**

Mechanical / Structural Systems Repair Cost Opinion

The table below provides detailed cost and priority for the mechanical/structural recommended repair options noted in each concept's cost estimate. Costs below are not reflective of total expected repair costs, such as interior or exterior finish work, only those associated with mechanical/structural related repairs for life safety improvements. Refer to the Historical Structure Assessment for further information on each building structure.

Long and Short Term Repairs Opinion of Probable Cost/Prioritization		**Priority**		
Building	**Recommended Improvement**	**High**	**Medium**	**Low**
Farm House	• Foundation		$10,000	
80,000	• Furnace	$17,000		
	• Entire Plumbing System		$20,000	
	• Entire Electrical System	$18,000		
	• ADA Access			$15,000
Ranch House	• Boiler Replacement (heating system)		$20,000	
90,000	• Hot Water Heater	$4,000		
	• Entire Plumbing System		$30,000	
	• Entire Electrical System	$20,000		
	• ADA Access		$16,000	
Pump House	• Foundation		$10,000	
35,000	• Water tank and system	$15,000		
	• Entire Electrical System	$10,000		
Chicken Coop	• Foundation			$3,000
10,000	• Stabilize Structure		$4,000	
	• Repairs			$3,000
Large Wood Shed	• Foundation			$3,000
10,000	• Stabilize Structure		$4,000	
	• Repairs			$3,000
Small Wood Shed	• Foundation			$3,000
8,000	• Stabilize Structure		$3,000	
	• Repairs			$2,000
Silos (6)	No recommendations			
Work Shop	• Foundation		$5,000	
20,000	• Stabilize Structure		$3,000	
	• Electrical		$4,000	
	• Heating			$3,000
	• Flooring			$5,000

Long and Short Term Repairs Opinion of Probable Cost/Prioritization		Priority		
Building	**Recommended Improvement**	**High**	**Medium**	**Low**
Cement Granary 10,000	• Flooring			$5,000
	• Electrical			$5,000
Old Wood Barn 130,000	• Foundation	$50,000		
	• Stabilize Structure	$32,000		
	• Reconstruct Rear Portion	$35,000		
	• Flooring		$10,000	
	• Electrical		$3,000	
Metal Side Barn 6,000	• Foundation			$4,000
	• Electrical			$2,000
Loafing Shed 4,000	• Stabilize Structure			$2,000
	• Replace some beams			$2,000
Outhouse 1,500	• Stabilize Structure			$1,500
Subtotals		**$201,000**	**$142,000**	**$61,500**
TOTAL COSTS ALL PRIORITY ITEMS				**$404,500**

MEMORANDUM

To: Shanen Weber, Design Concepts

CC: Diane Van Fossen, City of Thornton,

From: Vincent Harris, AICP

Date: 12/4/2009

Re: Costs for Life Safety, Structural and Mechanical needs for the Lambertson Homestead facilities

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Shanen, attached are the broad cost estimates related to the 18 Lambertson Homestead facilities. These numbers are for ***planning purposes only*** and specifically ***do not include*** interior or even exterior finishes the City may desire to add to their buildings depending on the type and level of use for the buildings. For example, what type of lighting, flooring/carpet, painting, remodel needs, historical appropriateness, security systems/locks does Thornton wants to implement for each building? Therefore, the City will also need to factor in additional funds related to interior and exterior finish work for some or all buildings depending on the type of use, accessibility for the public, level of use, as well as buried and unknown factors.

The included estimate ranges were determined based on the visual, structural and mechanical assessments conducted on August 21, 2009 related to life safety type needs The estimated costs would allow the buildings to be structurally safe and current day appropriate and necessary upgrades to be added. The included estimate has tried to include potential needs related to seen and in some cases unseen (ie-sanitary sewer lines, piping, buried electrical, buried oil tank, etc.) items. More research on the below ground items is necessary to better define costs associated with the reuse of the property.

Once one of the three Concept Plans is chosen and scheduling of uses is determined for each of the 18 buildings, we can submit a more accurate architectural estimate for the life safety and finish costs desired and have plans prepared for bids.

I am available to answer your questions. Thank you.