

**AGENDA FOR THE
ENGLEWOOD CITY COUNCIL
Study Session
MONDAY, JULY 13, 2015
COMMUNITY ROOM
6:00 P.M.**

- I. Cities of Service Day of Service**
Library Director Dorothy Hargrove will be present to address Council about the Cities of Service Day of Service in September.

- II. Building Code and Fire Code Adoption – 6:15 p.m.**
Englewood Fire Marshal Laura Herblan and Chief Building Official Lance Smith will be present to discuss adoption of the 2015 Fire Code and Building Code.

- III. Next Steps Study– Review Draft Documents – 6:45 p.m.**
Deputy City Manager Michael Flaherty, Senior Planner Harold Stitt, Planner II John Voboril, and members of the consulting team will be present to review draft documents.

- IV. Expansion of Enterprise Zone – 7:05 p.m.**
Economic Development Coordinator Darren Hollingsworth will be present to discuss the proposed expansion of Englewood’s Enterprise Zone.

- V. Recreation Center Roof Replacement – 7:20 p.m.**
Public Works Facilities and Operations Manager Michael Hogan will be present to discuss the proposed roof replacement of the Englewood Recreation Center.

- VI. Intergovernmental Agreement - Urban Drainage & Flood Control District - 7:30 p.m.**
Director of Public Works Rick Kahm will be present to discuss the Urban Drainage & Flood Control District Intergovernmental Agreement pertaining to NorthEast Englewood.

- VII. Colorado Municipal League Reports – 8:00 p.m.**
Council will report on their attendance at the 2015 Colorado Municipal League Conference.

- VIII. Council Member’s Choice**

- IX. City Manager’s Choice**

- X. City Attorney’s Choice**

Please Note: If you have a disability and need auxiliary aids or services, please notify the City of Englewood, 303-762-2407, at least 48 hours in advance of when services are needed. Thank you.

MEMORANDUM

TO: Eric Keck, City Manager
City Council

THROUGH: Michael Flaherty, Deputy City Manager

FROM: Lance Smith, Chief Building Official

DATE: July 13, 2015

SUBJECT: International Codes and National Electrical Code Adoption

Englewood Construction Code Update

Background

The 2012 editions of the International Codes are currently being administered in the City of Englewood. Englewood has enacted construction regulations since 1943, and has typically adopted updated regulations of the codes as they are revised.

The Division of Building and Safety is recommending adoption of the 2015 International Series of Codes and 2014 National Electrical Code to provide regulatory guidelines which reflect the most recent technological advancements and life safety concerns, and to consolidate provisions under a single code edition. A substantial number of new provisions in these codes will have a positive impact on construction within Englewood.

Financial Impact

The estimated costs for the purchase of code books is approximately \$1,600.00 and has been budgeted for in the 2015 budget.

2015 International Codes

- **International Building Code (IBC)**
- **International Residential Code (IRC)**
- **International Mechanical Code (IMC)**
- **International Plumbing Code (IPC)**
- **International Energy Conservation Code (IECC)**
- **International Fuel Gas Code (IFGC)**
- **International Property Maintenance Code**
- **2014 National Electrical Code**

COUNCIL COMMUNICATION

Date:	Agenda Item:	Subject: 1st Reading - Adoption of the International Building Code 2015	
Initiated By: Community Development/Division of Building and Safety		Staff Source: Lance Smith, Chief Building Official	

COUNCIL GOAL AND PREVIOUS COUNCIL ACTION

The adoption of the International Building Code 2015 was reviewed by City Council at the _____ study session.

RECOMMENDED ACTION

Staff requests City Council approve an ordinance adopting the International Building Code 2015 to establish minimum requirements to safeguard the public health, safety and general welfare.

BACKGROUND, ANALYSIS, AND ALTERNATIVES IDENTIFIED

The City of Englewood has used the Building Code and International Codes as model construction codes since 1971 and updates this code periodically to keep pace with changing construction technology.

The Building and Safety staff has reviewed the International Building Code 2015 and recommends adoption subject to certain exceptions, modifications and amendments.

FINANCIAL IMPACT

The only costs associated with the ordinance would be for the purchase of code books. The estimated amount is approximately \$400.00 and has been budgeted for in the 2015 Budget.

LIST OF ATTACHMENTS

Bill for an ordinance

Proposed Amendments to the 2015 International Building Code

- **101.1 Title.** These regulations shall be known as the Building Code of the City of Englewood, hereinafter referred to as “this code”.
- **105.2 Work Exempt from Permit.**
Building:
 2. *(Deleted in its entirety and substitute the following)* Refer to EMC Title 16-2-9 for Zoning Site Plan Review requirements.
 4. *(Deleted in its entirety and substitute the following)* Refer to EMC Title 16-2-9 for Zoning Site Plan Review requirements.
- **109.2 Schedule of Permit Fees.** These fees shall be determined by the City Council and set by resolution.
(Increase the Elevator Inspection fee to \$240 from the current fee of \$210. These inspections are performed by a third party consultant that has increased their fee to \$210 from the previous fee of \$180.)
- **109.3 Building Permit Valuations.** *(Add the following sentence)* The building official may also utilize Building Valuation Data published in the ICC Building Safety Journal as a guideline to establish valuation.
- **109.6 Fee Refunds.** *(Amended to read as follows)*
The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The building official may authorize refunding not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment.

- **110.7 Reinspections.** *(Add new section)* A reinspection fee may be assessed for each inspection or reinspection when, such portion of work for which inspection is called is not complete, the corrections called for are not made, the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failing to provide access to the site or for deviating from plans requiring approval of the building official.

To obtain a reinspection, the applicant shall file an application therefore in writing on a form furnished for that purpose and pay the reinspection fee in accordance with Table 1.

In instances where reinspection fees have been assessed, no additional inspections of the work will be performed until the reinspection fees have been paid.

- **111.3.1 Temporary Occupancy Fee.** *(Add new section)* The fee for a Temporary Certificate of Occupancy is as set forth in Section 109.2 of this Chapter.
- **113 Board of Appeals.** *(Delete section and amend to read)* Refer to Englewood Municipal Code 8-1-7 for the requirements of this section.
- **1608.2 Ground Snow Loads.** *(Add sentence to end of section)* Ground snow load as determined by Case Study shall be 30 lb/sq ft.
- **1612.3.3 Establishment of flood hazard areas.** Insert the City of Englewood and November 1, 2010
- **2111.1.1 Fireplace restrictions.** *(This section was amended to be consistent with the EMC requirements for solid fuel burning appliances.)* Fireplaces shall comply with the Englewood Municipal Code, Sections 6-1-11 and 6-1-12.
- **CHAPTER 35 – REFERENCED STANDARDS**
A18.1-~~2008~~ 2011 Safety Standard for Platform Lifts and Stairway Chairlifts *(This amendment is required by the State of Colorado Department of Oil and Public Safety)*

COUNCIL COMMUNICATION

Date:	Agenda Item:	Subject: 1st Reading - Adoption of the International Residential Code 2015	
Initiated By: Community Development, Division of Building and Safety		Staff Source: Lance Smith, Chief Building Official	

COUNCIL GOAL AND PREVIOUS COUNCIL ACTION

The adoption of the International Residential Code 2015 was reviewed by City Council at the _____ study session.

RECOMMENDED ACTION

Staff requests City Council approve an ordinance adopting the International Residential Code 2015 to establish minimum requirements to safeguard the public health, safety and general welfare.

BACKGROUND, ANALYSIS, AND ALTERNATIVES IDENTIFIED

The City of Englewood has used the Building Code and International Codes as model construction codes since 1971 and updates this code periodically to keep pace with changing construction technology.

The Building and Safety staff has thoroughly reviewed the International Residential Code 2015 and recommends adoption subject to certain exceptions, modifications and amendments.

FINANCIAL IMPACT

The only costs associated with the ordinance would be for the purchase of code books. The estimated amount is approximately \$400.00 and has been budgeted for in the 2015 Budget.

LIST OF ATTACHMENTS

Bill for an ordinance

Amendments to the 2015 International Residential Code
Appendix H – Patio Covers
Appendix M - Home Day Care – R-3 Occupancy

- **R101.1 Title.** These regulations shall be known as the Building Code of the City of Englewood, and shall be cited as such and will be referred to as “this code”.
- **R105.2 Work exempt from permit.** *(Items 2, 3 and 10 have been deleted from exemption. EMC Title 16-2-9 has specific zoning codes regulating fences, retaining walls, driveways and sidewalks and requires a site plan review by Community Development.)*

Building:

2. *(Deleted in its entirety and substitute the following)* Refer to EMC Title 16-2-9 for fence requirements.
 3. *(Deleted in its entirety and substitute the following)* Refer to EMC Title 16-2-9 for retaining wall requirements.
 10. *(Delete in its entirety and substitute the following)* Refer to EMC Title 16-2-9 for deck requirements.
- **R108.2 Schedule of permit fees.** *(Delete in its entirety and substitute the following, fees are to be set by Council Resolution. Fees are the same as those proposed in the resolution for the building code)* Refer to Section 109.2 of the amended (IBC) Building Code of the City of Englewood for requirements of this section.
 - **R108.3 Building permit valuations.** *(Delete in its entirety and substitute the following)* Refer to Section 109.3 of the amended (IBC) Building Code of the City of Englewood for additional requirements of this section.
 - **R108.5 Fee Refunds.** *(Delete in its entirety and substitute the following)* Refer to Section 109.6 of the amended (IBC) Building Code of the City of Englewood for requirements of this section.
 - **R110.4.1 Temporary Occupancy Fee.** *(Add new section)* Refer to Section 111.3.1 of the amended (IBC) Building Code of the City of Englewood for requirements of this section.
 - **R112 Board of Appeals.** *(Delete in its entirety and substitute the following)* Refer to Englewood Municipal Code 8-1-7 for requirements of this section.
 - **R113.1 Unlawful acts.** *(Delete in its entirety and substitute the following)* Refer to Englewood Municipal Code 8-1-8 for requirements of this section.
 - **R113.4 Violation penalties.** *(Delete in its entirety and substitute the following)* Refer to Englewood Municipal Code 8-1-9 and 8-1-10 for requirements of this section.

- **Table R301.2(1)** *(The various categories in this table are determined by case study and have been added to the table.)*

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Ground Snow Load – 30 PSF
 Wind Speed – 105 MPH
 Topographic Effects – Yes
 Special Wind Region – No
 Wind-borne Debris Zone - No
 Seismic Design Category - B
 Weathering – Severe
 Frost Line Depth – 36”
 Termite – Slight
 Winter Design Temp – 1 Degree F
 Ice Barrier Underlayment Required - Yes
 Flood Hazards - FIRM
 Air Freezing Index – 1500
 Mean Annual Temp - 45

- **R313.1 Townhouse automatic fire sprinkler systems.** *(Amend the following sentence)*
 An automatic residential fire sprinkler system ~~shall~~ may be installed in townhouses.
- **R313.2 One- and two-family dwellings automatic fire systems.** *(Amend the following sentence)*
 An automatic residential fire sprinkler system ~~shall~~ may be installed in one- and two-family dwellings.
- **R1001.1.1 Fireplace restrictions.** *(Delete in its entirety and substitute the following)*
 Fireplaces shall comply with the Englewood Municipal Code, Sections 6-1-11 and 6-1-12.
- **R1004.1.1 Fireplace restrictions.** *(Delete in its entirety and substitute the following)*
 Fireplaces shall comply with the Englewood Municipal Code, Sections 6-1-11 and 6-1-12.
- **P2603.6.1 Sewer depth.** *(Insert the following)* Building sewers that connect to private sewage disposal systems shall be a minimum of 12 inches below finished grade at the point of septic tank connection. Building sewers shall be a minimum of 12 inches below grade.

APPENDICES

- **Appendix H Patio Covers** *(This appendix will provide minimum requirements for attached and detached patio covers.)*
- **Appendix M Home Day Care R-3 Occupancy** *(This appendix will minimum safety requirements for home day care occupancies.)*

COUNCIL COMMUNICATION

Date:	Agenda Item:	Subject: 1st Reading - Adoption of the International Mechanical Code 2012	
Initiated By: Fire Department, Division of Building and Safety		Staff Source: Lance Smith, Chief Building Official	

COUNCIL GOAL AND PREVIOUS COUNCIL ACTION

The adoption of the International Mechanical Code 2012 was reviewed by City Council at the _____ study session.

RECOMMENDED ACTION

Staff requests City Council approve an ordinance adopting the International Mechanical Code 2012 to establish minimum requirements to safeguard the public health, safety and general welfare.

BACKGROUND, ANALYSIS, AND ALTERNATIVES IDENTIFIED

The City of Englewood has used the Uniform Mechanical Code as a model construction code since 1975 and updates this code periodically to keep pace with changing construction technology.

The Building and Safety staff has thoroughly reviewed the International Mechanical Code 2012 and recommends adoption subject to certain exceptions, modifications and amendments.

FINANCIAL IMPACT

The only costs associated with the ordinance would be for the purchase of code books. The estimated amount is approximately \$300.00 and has been budgeted for in the 2012 Budget.

LIST OF ATTACHMENTS

Bill for an ordinance

Amendments to the 2012 International Mechanical Code

- 101.1 Title. Insert “the City of Englewood” to complete sentence.
- 106.5.2 Fee schedule. Permit fees remain unchanged from the previous code and are the same as fees in the Building Code.
- 106.5.3 Fee Refunds. Refund policy remains the same as the Building Code.
- 107.3.3 Reinspections. Reinspection procedures remain the same as in the Building Code.
- 108.1 Unlawful acts. Refers procedures for unlawful acts to EMC 8-1-8.
- 108.4 Violation penalties. Refers procedures for violations to EMC 8-1-9 and 8-1-10.
- 108.5 Stop work orders. A sentence was added to reference the penalties section of 108.4
- 109 Means of appeal. This section was amended to refer to EMC 8-1-7.

COUNCIL COMMUNICATION

Date:	Agenda Item:	Subject: 1st Reading - Adoption of the International Plumbing Code 2012	
Initiated By: Fire Department, Division of Building and Safety		Staff Source: Lance Smith, Chief Building Official	

COUNCIL GOAL AND PREVIOUS COUNCIL ACTION

The adoption of the International Plumbing Code 2012 was reviewed by City Council at the _____ study session.

RECOMMENDED ACTION

Staff requests City Council approve an ordinance adopting the International Plumbing Code 2012 to establish minimum requirements to safeguard the public health, safety and general welfare.

BACKGROUND, ANALYSIS, AND ALTERNATIVES IDENTIFIED

The City of Englewood has used the Plumbing Code and International Codes as model construction codes since 1972 and updates this code periodically to keep pace with changing construction technology.

The Building and Safety staff has thoroughly reviewed the International Plumbing Code 2012 and recommends adoption subject to certain exceptions, modifications and amendments.

FINANCIAL IMPACT

The only costs associated with the ordinance would be for the purchase of code books. The estimated amount is approximately \$300.00 and has been budgeted for in the 2012 Budget.

LIST OF ATTACHMENTS

Bill for an ordinance

Amendments to the 2012 International Plumbing Code

- 101.1 Title. Insert “the City of Englewood” to complete the sentence.
- 106.6.2 Fee schedule. Permit fees remain unchanged from the previous code and are the same as fees in the Building Code.
- 106.6.3 Fee refunds. Refund policy remains the same as in the Building Code.
- 107.4.3 Reinspections. Reinspection policy remains the same as in the Building Code.
- 108.1 Unlawful acts. Refers unlawful acts to EMC 8-1-8 and 8-1-9 for requirements.
- 108.4 Violations penalties. Refers violations to EMC 8-1-10 for requirements.
- 108.5 Stop work orders. A sentence was added to refer to 108.4 for penalties.
- 109 Means of appeal. This section was amended to refer to EMC 8-1-7.
- 305.4.1 Sewer Depth. This section was amended to provide a minimum sewer depth of 12 inches.
- 903.1 Roof Extension. This section was amended to provide a minimum height requirement for roof vents.

COUNCIL COMMUNICATION

Date:	Agenda Item:	Subject: 1st Reading - Adoption of the International Fuel Gas Code 2015	
Initiated By: Community Development/ Division of Building and Safety		Staff Source: Lance Smith, Chief Building Official	

COUNCIL GOAL AND PREVIOUS COUNCIL ACTION

The adoption of the International Fuel Gas Code 2015 was reviewed by City Council at the _____ study session.

RECOMMENDED ACTION

Staff requests City Council approve an ordinance adopting the International Fuel Gas Code 2015 to establish minimum requirements to safeguard the public health, safety and general welfare.

BACKGROUND, ANALYSIS, AND ALTERNATIVES IDENTIFIED

The City of Englewood has used the Uniform Plumbing and Mechanical Codes as a model construction code for installation of fuel gas systems since 1972 and updates this code periodically to keep pace with changing construction technology.

The Building and Safety staff has thoroughly reviewed the International Fuel Gas Code 2015 and recommends adoption subject to certain exceptions, modifications and amendments.

FINANCIAL IMPACT

The only costs associated with the ordinance would be for the purchase of code books. The estimated amount is approximately \$200.00 and has been budgeted for in the 2015 Budget.

LIST OF ATTACHMENTS

Bill for an ordinance

Amendments to the 2015 INTERNATIONAL FUEL GAS CODE

- **101.1 Title.** These regulations shall be known as the International Fuel Gas Code (IFGC) of the City of Englewood, hereinafter referred to as “this code.”
- **106.6.2 Fee schedule** *(Delete in its entirety and substitute the following)*
Refer to Section 109.2 of the amended Building Code of the City of Englewood for requirements of this section.
- **106.6.3 Fee refunds.** *(Delete in its entirety and substitute the following)*
Refer to Section 109.6 of the amended Building Code of the City of Englewood for requirements of this section.
- **107.2.3.1 Reinspections.** *(Delete in its entirety and substitute the following)*
Refer to Section 110.7 of the amended Building Code of the City of Englewood for requirements of this section.
- **108.4 Violation penalties.** *(Delete in its entirety and substitute the following)*
Refer to Englewood Municipal Code 8-1-10 for requirements of this section.
- **108.5 Stop work orders.** *(Amend the last sentence)*
Upon notice from the code official that work is being done contrary to the provisions of this code or in a dangerous or unsafe manner, such work shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, the owner’s agent, or the person doing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work. Any person who shall continue any work on the system after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for a fine of not less than ~~[AMOUNT] dollars or more than [AMOUNT] dollars penalties~~ as prescribed in 108.4 as amended.
- **109 MEANS OF APPEAL.** *(Delete in its entirety and substitute the following)*
Refer to Title 8-1-7 of the Englewood Municipal Code of the City of Englewood for requirements of this section.

COUNCIL COMMUNICATION

Date:	Agenda Item:	Subject: 1st Reading - Adoption of the International Property Maintenance Code 2015	
Initiated By: Community Development, Division of Building and Safety		Staff Source: Lance Smith, Chief Building Official	

COUNCIL GOAL AND PREVIOUS COUNCIL ACTION

The adoption of the International Property Maintenance Code 2015 was reviewed by City Council at the _____ study session.

RECOMMENDED ACTION

Staff requests City Council approve an ordinance adopting the International Property Maintenance Code 2015 to establish clear and specific property maintenance requirements with required property improvement provisions.

BACKGROUND, ANALYSIS, AND ALTERNATIVES IDENTIFIED

The City of Englewood has used the Englewood Municipal Code Title 9 Housing Regulations as a residential property maintenance code since 1985 and updates this code periodically to keep pace with changing technology.

The Building and Safety staff has reviewed the International Property Maintenance Code 2015 and recommends adoption subject to certain exceptions, modifications and amendments.

FINANCIAL IMPACT

The only costs associated with the ordinance would be for the purchase of code books. The estimated amount is approximately \$200.00 and has been budgeted for in the 2015 Budget.

LIST OF ATTACHMENTS

Bill for an ordinance

Amendments to the 2015 International Property Maintenance Code

- **101.1 Title.** *(Insert the following)*
These regulations shall be known as the Property Maintenance Code of the City of Englewood, hereinafter referred to as “this code”.
- **102.3 Application of other codes.** *(Deleted reference to International Zoning Code as an applicable code.)*
Repairs, additions or alterations to a structure, or changes of occupancy, shall be done in accordance with the procedures and provisions of the International Building Code, International Existing Building Code, International Energy Conservation Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Residential Code, International Plumbing Code and NFPA 70. ~~Nothing in this code shall be construed to cancel, modify or set aside any provision of the International Zoning Code.~~
- **103.5 Fees.** *(There are no fees proposed for enforcement of the IPMC)*
The fees for activities and services performed by the department in carrying out its responsibilities under this code shall be ~~as indicated in the following schedule~~ set by council resolution.
- **107.2 Form.** *(Amend Item #4 as indicated, provides a time limit for repairs to an IPMC violation to 30 calendar days.)*
4. Include a correction order allowing a reasonable time, but in no event more than 30 days, to make the repairs and improvements required to bring the dwelling unit or structure into compliance with the provisions of this code.
- **108.5 Prohibited occupancy.** *(Amend as indicated. Sets a time limit to vacate within ten days unless a lesser time is necessary depending on the degree of hazard)*
Any occupied structure condemned and placarded by the code official shall be vacated as ordered by the code official. Such placard shall be deemed an order directing vacation and shall provide not more than ten (10) days from the date of such placarding for the vacation of such dwelling unit unless a lesser time is stated in the order as in the judgment of the building official is reasonable and proper in view of the facts of the situation and hazard involved. Any person who shall occupy a placarded premises or shall operate placarded equipment, and any owner or any person responsible for the premises who shall let anyone occupy a placarded premises, or operate placarded equipment, or remove such placard from the premises or equipment, shall be liable for the penalties provided by this Code.
- **Section 111 Means of Appeal** *(Delete in its entirety and substitute the following)*
Refer to 8-1-7 EMC for requirements of this section.
- **301.2.1 Responsibility- Hotel/Motel Owners** *(Add new section to require hotel/motel owners to maintain the individual unit as well as common areas).*
The owner of the premises shall maintain the structures, dwelling unit, rooming unit, housekeeping unit and exterior property in compliance with these requirements. A person shall not occupy as owner-occupant or permit another person to occupy

premises which are not in a sanitary and safe condition and which do not comply with the requirements of this chapter.

- **302.4 Weeds.** *(Deleted in its entirety. This section is deleted and deferred to Code Enforcement for enforcement.)*
- **302.8 Motor vehicles.** *(Deleted in its entirety. This section is deleted and deferred to Code Enforcement for enforcement.)*
- **302.9 Defacement of property.** *(Deleted in its entirety. This section is deleted and deferred to Code Enforcement for enforcement.)*

- **304.14 Insect screens.** *(Amended to require insect screens year round for all openings.)*

~~During the period from [DATE] to [DATE],~~ Every door, window and other outside opening required for ventilation of habitable rooms, food preparation areas, food service areas of any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with approved tightly fitting screens of not less than 16 mesh per inch (16 mesh per 25 mm), and every screen door used for insect control shall have a self-closing device in good condition.

Exception: Screens shall not be required where other approved means, such as air curtains or insect repellent fans, are employed.

- **602.3 Heat supply.** *(Delete partial sentence and set a minimum requirement for heat to 68 degrees for dwelling units.)*
Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units on terms, either expressed or implied, to furnish heat to the occupants thereof shall supply heat ~~during the period from [DATE] to [DATE]~~ to maintain a temperature of not less than 68 F (20 C) in all habitable rooms, bathrooms, and toilet rooms.
- **602.4 Occupiable work spaces.** *(Delete partial sentence and set a minimum requirement for heat to 65 degees for indoor work spaces.)*
Indoor occupiable work spaces shall be supplied with heat ~~during the period from [DATE] to [DATE]~~ to maintain a temperature of not less than 65 F during the period the spaces are occupied.

COUNCIL COMMUNICATION

Date:	Agenda Item:	Subject: 1st Reading - Adoption of the National Electrical Code 2014	
Initiated By: Community Development/ Building and Safety Division		Staff Source: Lance Smith, Chief Building Official	

COUNCIL GOAL AND PREVIOUS COUNCIL ACTION

The adoption of the National Electrical Code 2014 was reviewed by City Council at the _____ study session.

RECOMMENDED ACTION

Staff requests City Council approve an ordinance adopting the National Electrical Code 2014 to establish minimum requirements to safeguard the public health, safety and general welfare.

BACKGROUND, ANALYSIS, AND ALTERNATIVES IDENTIFIED

The City of Englewood has used the National Electrical Code as a model construction code since 1971 and updates this code periodically to keep pace with changing construction technology.

The Building and Safety staff has reviewed the National Electrical Code 2014 and recommends adoption.

FINANCIAL IMPACT

The only costs associated with the ordinance would be for the purchase of code books. The estimated amount is approximately \$400.00 and has been budgeted for in the 2015 Budget.

LIST OF ATTACHMENTS

Bill for an ordinance

Amendments to the National Electrical Code

There are no amendments proposed to the 2014 NEC.

MEMORANDUM

TO: Eric Keck, City Manager
City Council

THROUGH: John Collins, Police Chief

FROM: Laura Herblan, Fire Marshal

DATE: July 13, 2015

SUBJECT: 2015 International Fire Code Adoption

Englewood International Fire Code Update

Background

The 2012 edition of the International Fire Code is currently being administered in the City of Englewood. Englewood has enacted construction regulations since 1943, and has typically adopted updated regulations of the codes as they are revised.

The Division of Fire Prevention is recommending adoption of the 2015 International Fire Code to provide regulatory guidelines which reflect the most recent technological advancements and life safety concerns, and to consolidate provisions under a single code edition. A substantial number of new provisions in these codes will have a positive impact on construction and life safety within the City of Englewood.

Financial Impact

There is no cost associated with the ordinance, as an online code subscription is renewed annually, which provides electronic access to all of the 2015 International Codes, as well as subsequent editions.

COUNCIL COMMUNICATION

Date:	Agenda Item:	Subject: 1st Reading - Adoption of the International Fire Code 2015	
Initiated By: Police Department / Division of Fire Prevention		Staff Source: Laura Herblan, Fire Marshal	

COUNCIL GOAL AND PREVIOUS COUNCIL ACTION

The adoption of the 2015 International Fire Code was reviewed by City Council at the July 13, 2015 study session.

RECOMMENDED ACTION

Staff requests City Council approve an ordinance adopting the 2015 International Fire Code to establish the minimum requirements to safeguard the public health, safety and general welfare.

BACKGROUND, ANALYSIS, AND ALTERNATIVES IDENTIFIED

The City of Englewood has used the Fire Code and International Codes as model construction codes since 1980, and updates this code periodically to keep pace with changing construction technology and advances in life safety measures.

I have reviewed the 2015 International Fire Code and recommend adoption subject to certain exceptions, modifications and amendments.

FINANCIAL IMPACT

There is no cost associated with the ordinance, as an online code subscription is renewed annually, which provides electronic access to all of the 2015 International Codes, as well as subsequent editions.

LIST OF ATTACHMENTS

Bill for an ordinance

Proposed Amendments to the 2015 International Fire Code

- **101.1 Title.** These regulations shall be known as the Fire Code of the City of Englewood, hereinafter referred to as “this code”.
- **103.1 General.** *(Amended to read as follows)*
The department of fire prevention is established within the jurisdiction under the direction of the Fire Marshal. The function of the department shall be the implementation, administration and enforcement of the provisions of this code.
- **107.2.1 Reinspection and Testing.** *(Add new section)* A reinspection fee may be assessed for each inspection or reinspection when, such portion of work for which inspection is called is not complete, the corrections called for are not made, the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failing to provide access to the site or for deviating from plans requiring approval of the Fire Marshal.

To obtain a reinspection, the applicant shall file an application therefore in writing on a form furnished for that purpose and pay the reinspection fee in accordance with fees determined by the City Council and set by resolution.

In instances where reinspection fees have been assessed, no additional inspections of the work will be performed until the reinspection fees have been paid.

- **108 Board of Appeals.** *(Delete section and amend to read)* The Englewood Municipal Code shall establish the requirements of this section.
- **111.4 Failure to Comply.** *(Amended to read as follows)*
Any person who shall continue work after having been served with a stop work order, shall be subject to penalties or other action in accordance with the EMC.
- **113.2 Schedule of Permit Fees.** *(Delete section and amend to read)*
A fee for each permit shall be paid as required, in accordance with the fee schedule determined by the City Council and set by resolution.
- **CHAPTER 35 – REFERENCED STANDARDS.**
The application of referenced standards shall be applicable as specified per Section 102.7.
- **Appendices.**
Appendix Chapters of the International Fire Code listed herein are adopted as follows: A through J.



M E M O R A N D U M

TO: Mayor Penn and Council Members

THRU: Eric Keck, City Manager
Mike Flaherty, Deputy City Director

FROM: John Voboril, Long Range Planner II

DATE: July 13, 2015

SUBJECT: Englewood Light Rail Corridor Next Steps Study Draft Document

The Englewood Light Rail Corridor Next Steps Study draft document is being presented this evening to City Council for review in anticipation of upcoming public hearing processes. Council has recently received oral presentations from the consultants on the results of the transportation improvements analysis, and the real estate development assessment and implementation analysis. The draft document offers Council an opportunity to absorb the findings in a written, more detailed format, and to indicate to staff Council's comfort with starting the formal public hearing and adoption process.

Due to the length of the document and its technical engineering nature, staff has pulled out the main highlights for Council to focus on, while also making the entire document available on the Community Development webpage for Council members who wish to have it available to them for later reference.

- Att. 1 Executive Summary, pages ES-1 through ES-17
- Att. 2 Recommended Transportation Improvements, pages 121-128
- Att. 3 Action Plan, pages 138-159

The Englewood Light Rail Corridor Next Steps Study is a follow up to the original Englewood Light Rail Corridor Station Area Master Plan completed and approved in 2013. The Next Steps Study was primarily divided into two focus areas: a transportation alternative design feasibility and evaluation, and a real estate market development assessment and implementation strategy.

Transportation Alternative Design Feasibility and Evaluation

Key transportation infrastructure projects identified in the Englewood Light Rail Corridor Station Area Master Plan were analyzed for constructability, conceptualized in terms of general dimensions and physical location, and cost estimated.

Rail Trail

The Rail Trail will connect with the Big Dry Creek Trail at the southern terminus and include bridge crossings of Oxford, Hampden, and Dartmouth Avenues. The northern terminus will be located at Bates Avenue and Galapago Street, where the trail will seamlessly connect to the Bates Avenue on-street bicycle route with the option of heading north on the Elati on-street bicycle route. The Rail Trail is the most critical piece of infrastructure in the plan, due to market readiness for redevelopment projects at Oxford Station and General Iron Works. The Rail Trail has been divided into three sections to be developed near, mid, and long term.

Short Term: Big Dry Creek to Oxford Station (south section)	\$2,375,000
Mid Term: Little Dry Creek to Bates Avenue (north section)	\$2,604,000
Long Term: Oxford Station to Little Dry Creek (middle section)	\$2,558,000

Floyd Avenue Extension

A full blown roadway that would go under Santa Fe Drive proved too have too many construction difficulties, as well as exceedingly high costs. The Floyd extension idea was dropped in favor of a pedestrian bridge at Englewood Station. The Englewood Parkway Piazza redesign was also nixed due to the Floyd Avenue extension being dropped.

Oxford Station Pedestrian Bridge/Tunnel

The original conception of the Oxford Station Pedestrian Bridge/Tunnel over Santa Fe Drive was dropped due to difficulties in identifying as an acceptable landing spot on the west side of Santa Fe Drive. Alternative locations were sought to the north, however, the City of Sheridan did not see a benefit to the Sheridan community in this location. The City of Sheridan opted to seek a CDOT solution that would bridge Oxford Avenue, similar to Belleview Avenue in the long term future.

Oxford-Clarkson-Dartmouth Bikeway Loop

The City of Sheridan opted to stay with a two way separated bikeway along the north side of Oxford Avenue due to high truck traffic and the desire to maintain passing lanes. For the City of Englewood stretch of Oxford from Navajo Street to Broadway, the City opted for one way pairs of protected bike lanes. The City feels that this design will be more expected and have a more natural feel to automobile drivers. The Oxford route would then give way to a bicycle boulevard treatment east of Broadway, and continue north on Clarkson to Dartmouth. The Dartmouth portion of the loop would incorporate a shared bicycle/parking lane similar to the stretch of Dartmouth east of Downing Street. The proposed design for Dartmouth was chosen due to the input received from neighbors who

wanted to keep on-street parking, but also wanted traffic calming treatments put in place as well, and did not want to see any part of the current footprint expanded.

The Next Steps Study also identified an additional 25 potential enhancement projects for the station planning area. All projects were classified as short, medium, and long term, and possible sources of funding were identified for each project.

Real Estate Market Development Assessment and Implementation Strategy

The four neighborhood areas originally identified in the Englewood Light Rail Corridor Station Area Master Plan were analyzed in terms of market readiness for redevelopment:

- North Neighborhood (General Iron Works area)
- South Neighborhood (Oxford Station area)
- West Neighborhood (South Platte River area)
- CityCenter Neighborhood (CityCenter and areas immediately south of US 285 and east of Elati Street)

The North and South neighborhoods are on the verge of seeing the first private investments in redevelopment come out of the ground. Furthermore, the developer forum revealed that there is interest in future development near the Oxford Station. In order to bridge missing gaps in existing infrastructure, raise the bar on the quality of the immediate development environments, and ensure the success of the proposed developments as well as setting up the area for future interest in additional development, the City should begin taking the following steps to develop transportation connections and infrastructure site plans for the North and South neighborhoods.

North Neighborhood – Short Term Initiatives

- Continue support for housing tax credits
- Assist developers with communication to the existing neighborhood
- Work with developer to market site to employment prospects
- Monitor construction defects issue

North Neighborhood – Long Term Initiatives

- Sub-area planning for adjacent neighborhood
- Rail Trail Connection to Englewood Station
- Dartmouth Avenue Bicycle Improvements
- Intersection Improvements – Dartmouth at Santa Fe and Inca

South Neighborhood – Short Term Initiatives

- Improved Bicycle Markings on Oxford Avenue
- Rail Trail Connection to Oxford Station
- Transit Oriented Development Overlay Zone District Regulations

South Neighborhood – Long Term Initiatives

- Develop a shared use parking plan with RTD
- Consider use of tax increment financing in conjunction with retail use for site improvements
- Continue planning for intersection improvements – Oxford at Santa Fe and Navajo

West Neighborhood

The West Neighborhood is generally not ripe for development at this time. However, many property owners expressed interest in general improvements in the area, as well as the key project that could change the development potential of the area, the Englewood Station Pedestrian Bridge over Santa Fe Drive. The City of Englewood should work closely with the City of Sheridan in order to develop infrastructure plans for the area, as well as advance design work on the pedestrian bridge project.

CityCenter Neighborhood

As the Next Steps Study was progressing, the City Manager’s Office made a new effort to reach out and engage key property stakeholders in the CityCenter neighborhood area through a visioning exercise facilitated by Galloway, a planning, architecture, and engineering consulting firm. The outreach effort has revealed that many of the potential players have been recently thinking of the long term future of the area, and show a willingness to engage in dialogue and early visioning. The City should continue to take this opportunity to engage with property owners in order to create a shared vision for the reinvention of the CityCenter area as well as immediate areas to the south and east, and begin to take steps to put the necessary administrative structures in place, such as a Downtown Development Authority.

Although the CityCenter Englewood development is not immediately ripe for redevelopment at this time, there are a number of short term initiatives that the City can pursue and help facilitate that will bolster economic activity and investment in the area. Chief among these initiatives are bicycle improvements to Floyd Avenue from Sherman to Inca Street, and the continued support of residential infill opportunities similar to the LIV Apartments project, and the Acoma redevelopment site.

Future Next Steps Study Funding

The recommendations for each neighborhood should be advanced using a third installment of Station Area Master Planning funding from the Denver Regional Council of Governments.

C: Eric Keck
Mike Flaherty
Dan Brotzman
File



Executive Summary

Why was the Next Steps Study conducted?

This Next Steps Study documents the results of a coordinated planning effort between the cities of Englewood and Sheridan to improve community-wide access to the Southwest Light-Rail Transit (LRT) Corridor Englewood (Englewood – CityCenter) and Oxford – City of Sheridan (Sheridan – Oxford) stations, to encourage transit supportive development within the corridor, and to stimulate private investment. The cities of Englewood and Sheridan initiated the study to:

- ▶ Analyze existing and future challenges and opportunities for multi-modal (bicycle, pedestrian, transit, and vehicle) connectivity to the LRT Corridor within the study area (using the year 2035 as a planning horizon),
- ▶ Evaluate further the previously proposed multi-modal transportation infrastructure projects recommended in the *Englewood Light Rail Corridor Station Area Master Plan* and projects identified by the cities of Englewood and Sheridan staff,
- ▶ Identify potential complementary transportation improvements that enhance connectivity to the LRT stations, in addition to those previously recommended,
- ▶ Conduct a real estate development and marketing/implementation strategy for the four areas in the city of Englewood adjacent to the LRT stations, and
- ▶ Prepare an action plan that prioritizes and identifies implementation strategies for the recommended transportation infrastructure projects.

What is the purpose of the improvements?

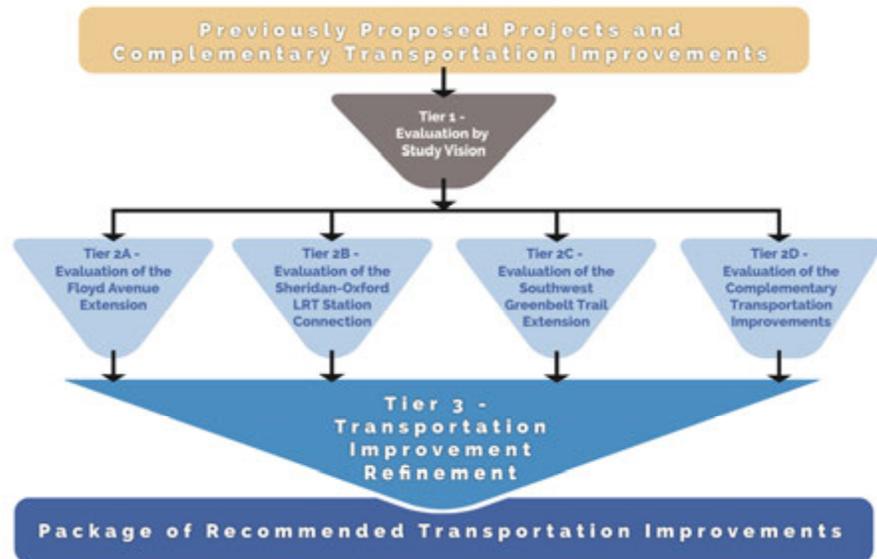
The purpose of the transportation improvements is to enhance multi-modal connections (bicycle, pedestrian, transit, and vehicle) to the Englewood – CityCenter and Sheridan – Oxford LRT stations in a manner that enhances adjacent existing and planned land uses.

How was the community engaged in the Next Steps Study?

Open and transparent community engagement and public participation were key elements in the process of developing the Next Steps Study. The goal of community engagement and outreach was to increase public awareness of the study, including study goals and objectives, and to promote community participation in the study process. Public input was solicited throughout the entire study process (**Chapter 7.0**). Community engagement included open discussion through small group meetings, stakeholder interviews, neighborhood walk-about, an agency staff technical meeting, city council briefings, a developer forum, written comments, surveys, and well-publicized public meetings. Public meetings were held on November 12, 2014; February 11, 2015; and June 20, 2015.

How was the package of Recommended Transportation Improvements identified?

A three-tier evaluation process identified a recommended set of transportation improvements (Chapter 5.0). Tier 1 of the evaluation process assessed if the planned alternatives and proposed complementary transportation improvements met the project vision. Alternatives were then advanced from the Tier 1 evaluation to the Tier 2 evaluation. Each transportation improvement was evaluated based on criteria relevant to that particular improvement. The evaluation includes:



- ▶ Tier 2A: Evaluation of the Floyd Avenue Extension
 - Above or below grade separation of Floyd Avenue with the LRT tracks, Consolidated Mainline Railroad (CML) railroad tracks, US 85 (Santa Fe Drive), and the South Platte River
- ▶ Tier 2B: Evaluation of the Sheridan – Oxford Station Pedestrian Tunnel/Bridge
 - Alignment of the above or below grade separation with the LRT tracks, CML railroad tracks, US 85 (Santa Fe Drive)
- ▶ Tier 2C: Evaluation of the Southwest Greenbelt Trail
 - Alignment of the extension from Huron Street to the Rail Trail
- ▶ Tier 2D: Evaluation of the Potential Complementary Transportation Improvements

Tier 3 focused on refinement of the alternatives based on feedback from the cities of Englewood and Sheridan, the public, and elected officials.

What improvements are included in the package of Recommended Transportation Improvements?

Figure ES-1, Figure ES-2, Figure ES-3, and Figure ES-4 show the following transportation improvements included in the package Recommended Transportation Improvements.

Figure ES-1. Package of Recommended Transportation Improvements – Bikeway Loop and Rail Trail



Figure ES-2. Package of Recommended Transportation Improvements – Englewood – CityCenter Station Area



Figure ES-3. Package of Recommended Transportation Improvements – Sheridan – Oxford Station Area

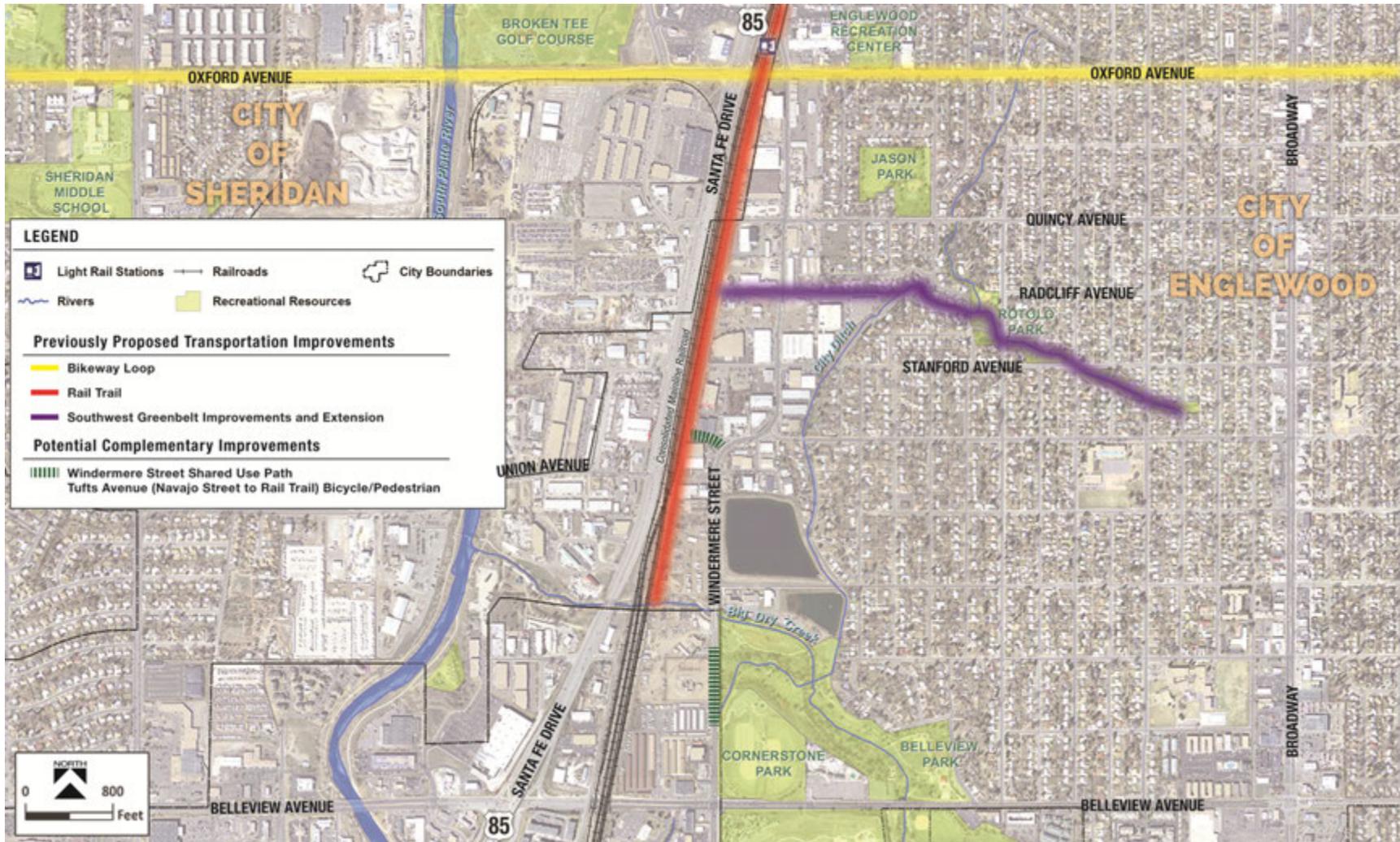
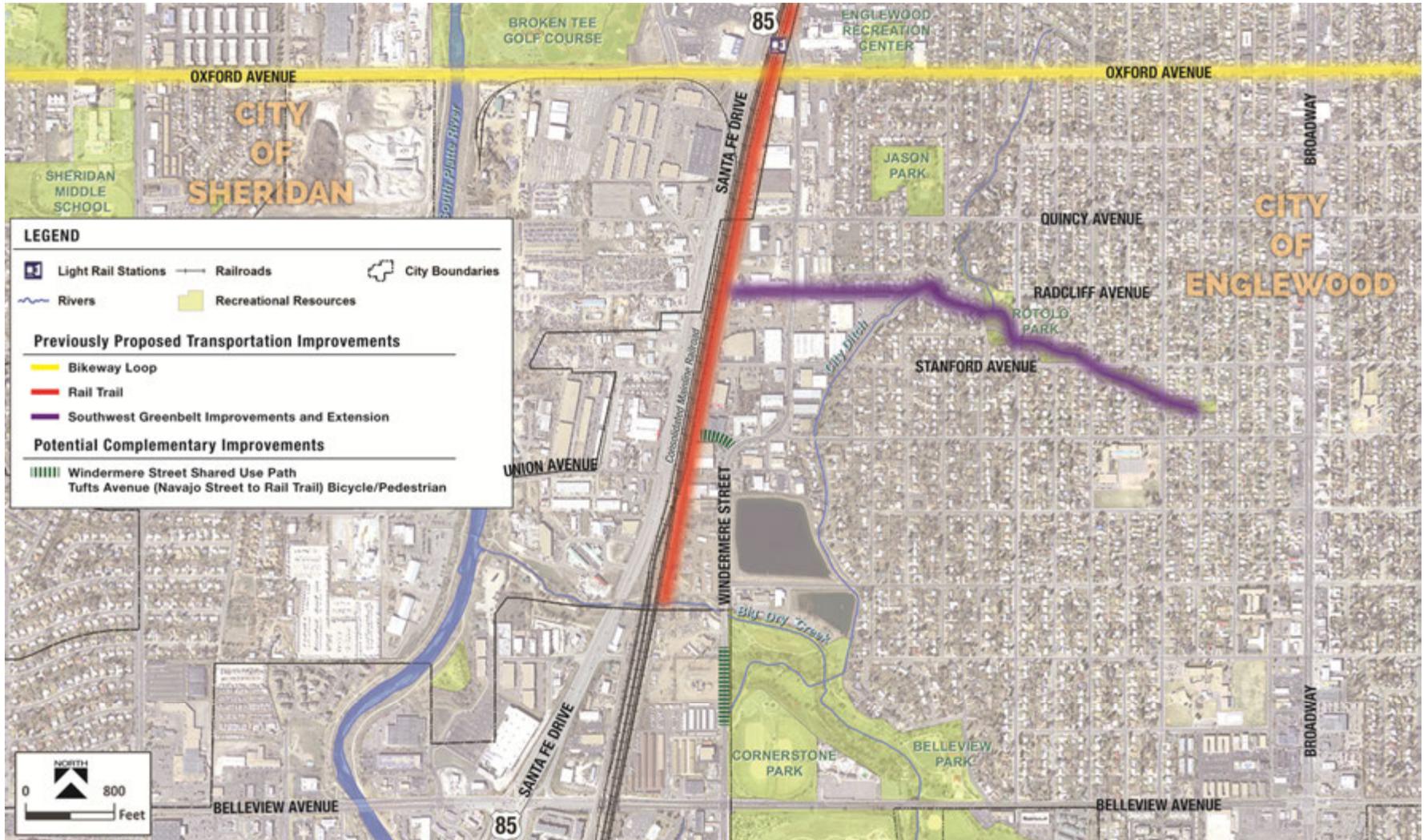


Figure ES-4. Package of Recommended Transportation Improvements – South of Oxford Avenue





- ▶ Rail Trail (Big Dry Creek Trail Connection to Elati Street)
 - Constructing a 10-foot-wide multi-use bicycle/pedestrian trail adjacent to the Southwest LRT Corridor from the Big Dry Creek Trail to Elati Street with bicycle/pedestrian bridges over Oxford Avenue, Hampden Avenue, and Dartmouth Avenue..
- ▶ Dartmouth Avenue, Clarkson Street, and Oxford Avenue Bikeway Loop
 - Dartmouth Avenue Bikeway
 - Installing a one-way couplet of buffer separated shared parking and bicycle lane along Dartmouth Avenue from Inca Street to Clarkson Street.
 - Clarkson Street Bikeway
 - Installing a bicycle boulevard along Clarkson Street from Dartmouth Avenue to Oxford Avenue with shared lane markings, wayfinding signs for bicyclists, and street treatments to give bicyclists priority, to slow traffic, and to improve bicycle and pedestrian safety.
 - Oxford Avenue Bikeway
 - Installing a bicycle boulevard along Oxford Avenue from Clarkson Street to Broadway with shared lane markings, wayfinding signs for bicyclists, and street treatments to give bicyclists priority, to slow traffic, and to improve bicycle and pedestrian safety.
 - Installing a one-way couplet along Oxford Avenue from Broadway to Navajo Street at the sidewalk level separated from the parking lanes.
 - Installing a 10-ft multi-use trail on the north side of Oxford Avenue from Navajo Street to Irving Street.
 - Installing a bicycle boulevard along Oxford Avenue from Irving Street to Lowell Boulevard with shared lane markings, wayfinding signs for bicyclists, and street treatments to give bicyclists priority, to slow traffic, and to improve bicycle and pedestrian safety.
- ▶ Southwest Greenbelt Trail Improvements and Extension
 - Reconstructing an existing 8-foot-wide asphalt trail in Rotolo Park from Cherokee Street to Huron Street with a 10-foot-wide multi-use trail and constructing a new 10-foot-wide multi-use trail from Huron Street to the Rail Trail.
- ▶ Englewood - CityCenter Station Platform Shelter
 - Reconstructing the Englewood - CityCenter Station Platform Shelter with a weather shelter.
- ▶ Englewood - CityCenter LRT Station Bicycle/Pedestrian Bridge
 - Constructing a 12-foot-wide pedestrian grade-separated crossing of the LRT tracks, CML railroad tracks, and US 85 (Santa Fe Drive) with an elevator and a staircase to the Englewood - CityCenter LRT Station platform.



- ▶ Floyd Avenue Bike Lanes (Englewood – CityCenter LRT Station to Sherman Street)
 - Restriping to include 5-foot bike lanes in both directions, requiring the removal of the center turn lane from the Englewood – CityCenter LRT Station to Elati Street, and a road diet from four lanes to two lanes with a possible center turn lane from Elati Street to Sherman Street or a similar type of treatment.
- ▶ Dartmouth Avenue Bikeway (Little Dry Creek Trail to Federal Boulevard)
 - Extending the construction of a bi-directional, 6 to 8-foot wide bikeway along Dartmouth Avenue from the Little Dry Creek Trail to Federal Boulevard.
- ▶ Windermere Shared Use Path Extension (Batting Cages at Cornerstone Park Entrance to Englewood Canine Corral Entrance)
 - Replacing the existing sidewalk with an extension of the existing 8-foot shared use path along the east side of Windermere Street (Bellevue Avenue to the Batting Cages at Cornerstone Park entrance) north to the Englewood Canine Corral entrance, providing connectivity to the Big Dry Creek Trail.
- ▶ Tufts Avenue Bicycle and Pedestrian Improvements (Navajo Street to Rail Trail)
 - Extending the sidewalk along the south side of Tufts Avenue to connect with the future Rail Trail where Tufts Avenue turns north into Windermere Street.
 - Painting bike sharrows and installing “Share the Road” signs.
 - Installing crosswalks where Tufts Avenue turns north into Windermere Street (including Americans with Disabilities Act [ADA]-compliant ramps), where Windermere street continues south from Tufts Avenue, and where Navajo Street continues north from Tufts Avenue.
- ▶ Little Dry Creek Trail Connection Bicycle/Pedestrian Improvements (Along the frontage road west of US 85 to Little Dry Creek Trail, Mary Carter Greenway [South Platte Trail], and west across the South Platte River)
 - Adding and improving bicycle/pedestrian facilities along the frontage road west of US 85 to Little Dry Creek.
 - Establishing additional connections westward from the Englewood – CityCenter LRT Station Bicycle/Pedestrian Bridge
- ▶ US 85 / Dartmouth Avenue Intersection Improvements
 - Providing a fourth northbound and southbound through-lane in coordination with CDOT along US 85 to the next largest intersections (US 85/Hampden Avenue and US 85/Evans Avenue).
- ▶ US 85 / Oxford Avenue Intersection Improvements
 - Providing a fourth northbound and southbound through-lane along US 85 in coordination with CDOT to the next largest intersections (US 85/Hampden Avenue and US 85/Bellevue Avenue).



- ▶ Oxford Avenue / Navajo Street Intersection Improvements
 - Improving bus circulation in coordination with RTD to the Sheridan – Oxford Avenue station
- ▶ US 285 / Shoshone Street Right-In / Right-Out
 - Working with CDOT to construct a right-in / right-out to/from US 285 and Shoshone Street to provide easier vehicular access to areas west of US 85 and north of US 285.
- ▶ Dartmouth Avenue Intersection Improvements (South Platte River Drive to Zuni Street)
 - Providing intersection and access control improvements along Dartmouth Avenue from South Platte River Drive to Zuni Street as the street grid is reestablished (Dartmouth Avenue/Shoshone Street, Dartmouth Avenue/Quivas Street, etc.).
- ▶ Sheridan – Oxford Station park-n-Ride / Shared Use Parking
 - Redeveloping a nearby parcel into either a RTD park-n-Ride facility or working with a developer/landowner to construct a shared use parking structure as part of a mixed-use redevelopment where a portion of parking would be dedicated to RTD riders using the Sheridan – Oxford Station.
- ▶ Hamilton Place or Floyd Avenue Bridge Bicycle and Pedestrian Improvements
 - Widening the Hamilton Place Bridge to accommodate 8-foot sidewalks and 5-foot bike lanes on each side or providing a separate adjacent bicycle/pedestrian only bridge and/or providing a separate Floyd Avenue Bridge over the South Platte River.

How will the proposed improvements be prioritized and potentially funded for implementation?

Experience has shown that an articulate and thoughtful action plan will help increase the probability of funding success in the current economic environment. Good information, collaboration, broad support, and readiness to proceed to construction are all keys to successful project prioritization. With this understanding, the study team developed a project prioritization process and Action Plan (**Chapter 8.0**) that is easy to use, objective, and easy to replicate.

The primary intent of this plan is to identify and prioritize projects so that the leadership of the City of Englewood and the City of Sheridan can have a basis for consideration and ultimate selection and funding of projects. To simplify the prioritization process, the approach was more qualitative than quantitative, although there is rich information available through this Next Steps Study to assist with a qualitative evaluation. It is designed to provide decision-makers with key information required to effectively understand potential projects, their benefits, and their readiness to encumber transportation funds. Key objectives of this Action Plan are to pursue opportunities in advance of project requests, identify a variety of potential funding sources, and to take advantage of unanticipated funding that might become available.

What is the potential for development in the Study Area?

The project team conducted a market study to determine the market potential for various types of land uses (including retail, residential, entertainment, and office / employment) for four particular focus areas in the Englewood and Sheridan areas, defined as:



- ▶ Focus Area 1: North Neighborhood - Bates / Elati Area
- ▶ Focus Area 2: West Neighborhood - Area west of Englewood Station
- ▶ Focus Area 3: Englewood City Center Neighborhood – Area east of Englewood Station
- ▶ Focus Area 4: South Neighborhood – Area east and south of Oxford Station Area

Overall, the market study revealed that although the Englewood and Sheridan communities are landlocked and have remained fairly stable from a demographic standpoint over the last few decades, the overall projected significant growth of the Denver metro area over the next 20 to 25 years presents notable opportunities for redevelopment that would benefit from and leverage a number of the transportation improvements outlined in the Next Steps Study. The Denver metro area is projected to grow from around 3 million residents in 2015 to around 4 million in 2040, as the area continues to attract in-migration from around the country given its overall good quality of life. Furthermore, the metro area is projected to add around 36,000 new positions on average each year over the next 10 years, as new companies continue to migrate to the region and existing companies continue to expand. While Downtown Denver and the heart of the city, as well as the outlying suburbs that have room available for expansion, will experience a good deal of this overall economic growth in terms of new development, the position of Englewood and Sheridan as “inner ring” suburbs enjoying relative proximity to a variety of key destinations in the metro area presents the opportunity for redevelopment and economic growth in the focus areas examined as part of the Next Steps Study. The Englewood area enjoys access to Downtown Denver and the Denver Tech Center area and is within minutes of some of the most desirable areas in the city, including Washington Park and other highly successful neighborhoods in south Denver. As the areas just to the north of Englewood continue to redevelop and attract increased levels of wealth, the proximity of the areas examined in the Next Steps Study to this part of Denver presents opportunities for economic growth.

The following summarizes the key takeaways from the market study and feasibility analysis for each of the four focus areas examined in the NSS.

North Neighborhood (Bates / Elati Area)

The North Neighborhood focus area primarily includes the Winslow Crane property, located just to the north of Dartmouth Street and east of the RTD southwest line, and stretches north toward Bates Avenue. The area has the potential to tie into the existing grid system of streets to the east in Englewood and, therefore, connect more directly to the Broadway corridor. The area is located fairly close to a number of neighborhoods in south Denver that are redeveloping with new residential and infill projects and enjoys good access, via the Santa Fe corridor and the RTD rail line, to Downtown Denver. While the lack of visibility to the Santa Fe corridor is less favorable for redevelopment, the fact that most of the area is controlled by one landowner (Winslow Crane) makes executing redevelopment in this area much easier. Overall, the urban framework is favorable for redevelopment.

From a market perspective, while the area lacks visibility to the Santa Fe corridor and has been perceived to date as more of a gritty industrial area, a redevelopment of the Winslow Crane



parcel and adjacent parcels to the east could yield a successful mixed use development over the near term (the next five to ten years) centered on the following components:

Residential: Several hundred residential units, including a mixture of for-sale units (townhomes) and for-rent units (apartments).

Retail: Local-serving retail, including retail uses (coffee shop, bank, hair salon, etc.) that would serve the everyday uses of residents in the study area. The lack of visibility to the Santa Fe corridor limits the demand for retail beyond a small amount of local-serving retail uses.

Office: Given the orientation of the study area, the North Neighborhood would absorb only small quantities of office uses over the long term (limited to under 20,000 square feet in aggregate) oriented to smaller format office tenants (including medical office and small professional offices).

West Neighborhood (Area west of Englewood Station)

The site constraints of properties in the West Neighborhood limit the potential for redevelopment over the near term, and larger scale redevelopment of this area, to the west of Santa Fe and between Dartmouth and Hampden, would require a more coordinated implementation strategy from the cities of Englewood and Sheridan over the longer term. Larger scale industrial uses dominate this area, particularly west of the South Platte River. The West Neighborhood also lacks a good deal of infrastructure (including utilities and street facilities) that would be necessary to execute redevelopments in the area. The properties located to the west of the river lack visibility and direct access to the Santa Fe corridor and the LRT line and, therefore, are more removed from the drivers of redevelopment that are moving south from the City of Denver. The very fragmented pattern of ownership of parcels in the area presents perhaps the largest challenge to redevelopment of this area, coupled with the fact that many of the industrial users and existing tenants in the area have a limited desire to relocate their existing operations.

From a market perspective, the West Neighborhood has the potential to support the following mix of land uses, primarily over the longer term:

Retail: The areas directly along Santa Fe could support a small amount of retail geared to take advantage of the adjacency to the Santa Fe corridor (including limited uses such as a coffee shop, drive-through uses, and other inline retail), over the near term. Over the longer term, the West Neighborhood is unlikely to develop as a larger scale retail destination, given the recent development of the River Point area in Sheridan.

Residential: Over the near term, demand may exist for a few hundred residential units (either apartment or townhome) in the area between Santa Fe and the South Platte River, but would not be viable to the west of the river. Over the longer term, residential uses (including several hundred multi-family or attached residential units) could be viable to the west of the river, but development of commercial or business park uses in this area may be a better use of the land, going forward.



Office / Business Park: The area between Santa Fe and the South Platte River has the potential to absorb smaller format office uses (including medical office, smaller companies, etc.) over the near term. However, at least over the near term, this area is unlikely to develop as a larger format office node, serving the metro area. The area to the west of the South Platte River has the potential to develop as a revamped business park or similar type of development, providing space for a variety of users, including forms of light industrial. The repositioning of this part of Englewood could help to provide additional areas for employment-generating uses in the community over the long term.

Englewood CityCenter Neighborhood

The CityCenter area enjoys a strategic position in the metro area, with good access via the Southwest LRT line and the Santa Fe corridor, to Downtown Denver and to other suburbs to the north and south. Furthermore, the local street network provides good access to the Broadway corridor, to the east. However, the potential for redevelopment and growth in this area has been limited by the overall perception and orientation of the area to date. Most people in the Denver area continue to think of this part of Englewood as an area dominated by suburban big box and junior box stores and strip commercial centers oriented along aging corridors such as Hampden Avenue. The redevelopment of the area requires the creation of a new vision and a more detailed plan for different parts of the neighborhood that help to create a sense of place. From a site analysis perspective, while the area benefits from a strong grid of local streets and access to the Hampden and Santa Fe corridors, the fractured pattern of ownership in the area, legal restrictions in place around the CityCenter dating back to the redevelopment of the area in the early 2000s and limiting the flexibility of developers, and the perception of the area as a relatively tired suburban strip center area challenge prospects for redevelopment.

From a market perspective, the Englewood CityCenter area has the potential to support the following types of land uses:

Retail: Overall, demand does not exist for larger scale additional retail square footage in this neighborhood, as the area is currently saturated across the full spectrum of retail uses. Limited additional demand is possible over the longer term. However, the redevelopment of the CityCenter area could reposition a number of retail spaces and the existing quantity of retail square footage in the area into more viable and updated versions of retail, with new tenants, and thus could help stimulate overall success of this district.

Residential: Over the longer term, the CityCenter area has the potential to support a few thousand additional residential units (townhome or apartment) depending on how potential redevelopment scenarios move forward (in terms of density and orientation).

Office: Over the longer term, the CityCenter area has the potential to emerge as a small node of office development, of a few hundred thousand square feet. While the Denver Tech Center and Downtown Denver will continue to dominate the nearby office markets, the favorable access of the Englewood area could present the opportunity for some additional office development over the longer term, particularly if the overall district is repositioned over time.



Entertainment: Over the longer term, the CityCenter could emerge as a subregional hub of entertainment uses, including family entertainment destinations (similar to concepts such as Dave and Busters or Gameworks) and uses geared to sports (in particular, youth sports). The area to the south of Hampden, given the larger parcel areas available for redevelopment, could accommodate larger format entertainment uses that require larger land areas (such as a regional youth sports or indoor aquatic center, or larger format concepts such as Top Golf).

South Neighborhood (Area East and South of Oxford Station Area)

The presence of the elevated LRT line impedes visibility of the South Neighborhood from the Santa Fe corridor and, therefore, limits the potential market for development as residential and related neighborhood-oriented land uses. While the properties to the south of the Sheridan – Oxford station are owned by a diverse set of entities, the group as a whole is interested in redevelopment and sees the area as having potential for revitalization over the near term and long term.

The South Neighborhood has the potential to support the following land uses over time:

Residential: The study area, south of Oxford and east of the Southwest LRT line, has the potential to support up to 1,000 residential units (townhome or apartment) over the longer term. These units would likely be oriented as part of "mixed use" developments incorporating a small amount of retail uses as well.

Office: The South Neighborhood has limited potential for smaller format and creative office uses of no more than 10,000 square feet in total.

Retail: Given the lack of visibility to the Santa Fe corridor, the South Neighborhood is unlikely to attract a sizeable component of retail development. Total retail demand in this area is limited to 20,000 square feet in total and would likely include local-serving uses (such as a coffee shop, dry cleaner, etc.).

In addition, a portion of the industrial land uses may remain in the South Neighborhood over time, integrated with the new types of land uses that may result from redevelopment.

How can redevelopment strategies for the four neighborhoods be implemented?

The Next Steps Study outlined a set of implementation strategies for each neighborhood area profiled in the market study. This section outlines the key strategies for each area, and the Next Steps Study report provides additional details and implementation recommendations for the community to use going forward.

North Neighborhood

The Winslow Crane property is the primary development opportunity in this area. Given the nature of the neighborhood surrounding this area, this planned redevelopment could be sizeable enough with enough critical mass to start changing perceptions of the area. Mixed income housing can be a catalyst for area redevelopment. Metro area redevelopments have often seen the introduction of tax credit affordable, senior and rental housing as the first housing types into a market to help catalyze future area redevelopment. Although there is currently market support



for the development, the creation of better connectivity to the Englewood - CityCenter Station, as well as amenities along the South Platte River, is critical to attracting future residents to the area. A stronger, vibrant, more attractive Broadway corridor would also enhance the neighborhood's redevelopment potential.

The key implementation action steps for the North Neighborhood include the following. The Next Steps Study contains details about additional recommended action steps:

- ▶ Support the current development proposal for mixed income housing on the Winslow Crane property through the CHFA Low Income Housing Tax Credit approval process.
- ▶ Assist the developer of the Winslow Crane property with communications with neighborhoods and other stakeholders.
- ▶ Continue to seek funding for rail trail improvements that would enhance connectivity from the North Neighborhood to the Englewood - CityCenter LRT station
- ▶ Assist the developer in attracting employment uses to the area
- ▶ Develop a subarea plan for the area
- ▶ Assist the developer with planning for the use of Tax Increment Financing (TIF) in concert with development activities
- ▶ Plan and pursue funding for the Dartmouth Avenue Separated Bikeway, US 85 / Dartmouth intersection improvements, and other intersection improvements along Dartmouth Avenue

West Neighborhood

The West Neighborhood has the potential over the longer term to redevelop as an area geared to employment and a mixture of other land uses. However, in the near term, the cities of Englewood and Sheridan should continue to coordinate planning activities that will lay the groundwork for redevelopment of this area over time. The implementation action items are outlined below, and the Next Steps Study provides additional details and recommendations for the cities to use going forward:

- ▶ The cities of Englewood and Sheridan should develop a Cross-Jurisdictional subarea plan identifying critical businesses to maintain in the area, potential parcels that could serve as the locations for catalytic redevelopment projects, prioritized connections to enhance the neighborhood and key amenities or destinations, primary infrastructure needs, and appropriate zoning to facilitate redevelopment.
- ▶ As part of the overall planning effort, Englewood and Sheridan should create a working group of officials to meet regularly to coordinate ongoing redevelopment efforts in this area.
- ▶ The cities should plan for and pursue funding for the potential bike and pedestrian bridge connecting the Englewood - CityCenter LRT station to the area west of Santa Fe Drive.
- ▶ The cities should continue to collaborate inter-jurisdictionally to create improved and enhanced connections to the South Platte River.



Englewood City Center Area

To realize the long-term goal of creating an activated and high-quality CityCenter station area, current market conditions require incremental infill development, phasing over time, the use of public private partnerships, and the potential use of tools such as a Downtown Development Authority (DDA), along with TIF. Additional potential tools include Title 32 Metropolitan Districts and Public Improvements Fees, both of which are tools not historically used in the City of Englewood.

A new master plan for the area should be developed, in conjunction with the creation of a DDA. The plan should be developed in concert with a detailed development strategy (planning, design, financial, and legal) that has the cooperation and buy-in of major property owners and large employers along both sides of Hampden Avenue. A new TIF district orchestrated through the DDA should be put into place with both sales and property tax TIFs used at the appropriate times to generate revenues to help fund needed public improvements.

Given the importance of the Broadway corridor to the City Center area, the DDA boundaries should include the City Center area and critical sections of the Broadway corridor. Given the breadth of the area, subareas should be designated with specific plans in place for each. Areas could be subdivided into:

- ▶ Property and businesses west of Wal-mart, as their focus tends to be CityCenter and the Englewood LRT station
- ▶ Property and businesses east of Wal-mart, as the focus tends to be Broadway
- ▶ Property and businesses along the Broadway corridor, north of Hampden
- ▶ Property and businesses along the Broadway corridor, south of Hampden

The City previously had a Business Improvement District (BID) along the Broadway corridor. An expanded DDA can undertake the same types of projects that a BID typically oversees.

The following outlines the key implementation action items for the Englewood - City Center area and the Next Steps Study contains additional details and additional action items for consideration:

- ▶ The City should institute a DDA in the area, as well as other appropriate financial tools and mechanisms, including Title 32 Metropolitan Districts, other special districts, and Public Improvement and Retail Sales Fees.
- ▶ The City should investigate and potentially modify legal agreements in place for particular parcels in the CityCenter area to inform or help implement elements of the Vision / Master Plan for the area.
- ▶ The City should outline a financial plan for redevelopment concurrently with property owners in the area.
- ▶ The City should continue to refine and evolve the design of the Rail Trail as it passes through the CityCenter area to help facilitate and support redevelopment efforts in the area.



- ▶ The City should determine whether an Owner's Representative with development experience should represent the City during discussions about the CityCenter area, or whether a relationship with a Master Developer should be pursued.

South Neighborhood

South of the Sheridan - Oxford Station, the former industrial area has begun transitioning to a mixed-use land use orientation. Given the current activity, rail trail improvements to help facilitate station connectivity and area redevelopment should be prioritized. Over the longer term, development of a shared parking strategy would help enhance area redevelopment. As mixed use retail develops in the area, the City should consider using Urban Renewal as a financial tool to capture sales (and property) tax increment to help pay for shared structured parking.

The following outlines some of the key implementation action items for the South Neighborhood:

- ▶ The City should develop TOD zoning regulations for this area that would allow a mixture of residential, retail, and office land uses, in addition to the existing industrial land uses present in the area.
- ▶ The City should work with developers and property owners to facilitate the creation of shared parking facilities in the area that would align with RTD's Transit Access Guidelines for parking. It should also work with RTD to secure additional parking spaces in the area and assist with securing properties that could be used for future parking facilities, and explore funding for additional park-n-Ride or Shared Use parking in the area.
- ▶ The City should continue to refine design and pursue funding of the Rail Trail that would connect the south side of Oxford with the LRT station.
- ▶ The City should continue to plan and pursue funding for intersection improvements at US 85 / Oxford, and at Oxford and Navajo.
- ▶ The City should also continue planning and secure funding for the Oxford Avenue Separated Bikeway improvements.

Public Finance Tools

The Next Steps Study outlines a roster of potential Public Finance tools available to help support ongoing redevelopment and revitalization in the various focus areas, including TIF, Urban Renewal Authorities, DDAs, General Improvement Districts, and Local Improvement Districts. The Next Steps Study outlines additional tools at the disposal of the City of Englewood to support development and to help fund public improvements associated with redevelopment or overall community revitalization.



Acknowledgements

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6.0 Recommended Transportation Improvements

Chapter 6.0 describes the package of Recommended Transportation Improvements resulting from the analysis conducted in this Next Steps Study. **Figure 6-1, Figure 6-2, Figure 6-3, and Figure 6-4** show the package of Recommended Transportation Improvements. **Appendix D** includes the conceptual engineering plans and opinions of probable cost for the Recommended Transportation Improvements. Conceptual engineering plans and opinions of probable cost were not prepared for the Complementary Transportation Improvements.

6.1 *Transportation Improvements*

- ▶ Rail Trail (Big Dry Creek Trail Connection to Elati Street)
 - Constructing a 10-foot-wide multi-use bicycle/pedestrian trail adjacent to the Southwest LRT Corridor from the Big Dry Creek Trail to Elati Street with bicycle/pedestrian bridges over Oxford Avenue, Hampden Avenue, and Dartmouth Avenue.
- ▶ Dartmouth Avenue, Clarkson Street, and Oxford Avenue Bikeway Loop
 - Dartmouth Avenue Bikeway
 - Installing a one-way couplet of a buffer separated shared parking and bicycle lane along Dartmouth Avenue from Inca Street to Clarkson Street.
 - Clarkson Street Bikeway
 - Installing a bicycle boulevard along Clarkson Street from Dartmouth Avenue to Oxford Avenue with shared lane markings, wayfinding signs for bicyclists, street treatments to give bicyclists priority, to slow traffic, and to improve bicycle and pedestrian safety.
 - Oxford Avenue Bikeway
 - Installing a bicycle boulevard along Oxford Avenue from Clarkson Street to Broadway with shared lane markings, wayfinding signs for bicyclists, street treatments to give bicyclists priority, to slow traffic, and to improve bicycle and pedestrian safety.
 - Installing a one-way couplet along Oxford Avenue from Broadway to Navajo Street at sidewalk level separated from the parking lanes.
 - Installing a 10-ft multi-use trail on the north side of Oxford Avenue from Navajo Street to Irving Street.
 - Installing a bicycle boulevard along Oxford Avenue from Irving Street to Lowell Boulevard with shared lane markings, wayfinding signs for bicyclists, street treatments to give bicyclists priority, to slow traffic, and to improve bicycle and pedestrian safety.



- ▶ Southwest Greenbelt Trail and Extension
 - Reconstructing the existing 8-foot-wide asphalt trail in Rotolo Park from Cherokee Street to Huron Street with a 10-foot wide multi-use trail and constructing a new 10-foot-wide multi-use trail from Huron Street to the Rail Trail
- ▶ Englewood - CityCenter Station Platform Shelter
 - Reconstructing the Englewood – CityCenter Station Platform Shelter with a weather shelter
- ▶ Englewood – CityCenter Station Bicycle/Pedestrian Bridge
 - Constructing a 12-foot-wide pedestrian grade-separated crossing of the LRT tracks, CML railroad tracks, and US 85 (Santa Fe Drive) with an elevator and a staircase to the Englewood – CityCenter Station Platform

Table 6.1 summarizes the opinions of probable cost for the transportation improvements.

Table 6-1. Summary of Opinions of Probable Cost

Transportation Improvement	Opinion of Probable Cost
Rail Trail (Big Dry Creek Trail Connection to Elati Street)	\$5,043,000
Rail Trail (Big Dry Creek Trail to Sheridan – Oxford Station) ¹	\$2,375,000
Bridge over Oxford Avenue	\$773,000
Rail Trail (Sheridan – Oxford Station to Little Dry Creek Trail Connection to South Platte River Trail) ¹	\$1,566,000
Bridge over Hampden Avenue	\$1,038,000
Rail Trail (Little Dry Creek Trail Connection to South Platte River Trail to Bates Avenue) ¹	\$1,102,000
Bridge over Dartmouth Avenue	\$1,456,000
Dartmouth Avenue, Clarkson Street, and Oxford Avenue Bikeway Loop	\$11,050,000
Dartmouth Avenue Bikeway (Inca Street to Clarkson Street)	\$204,000
Clarkson Street Bicycle Boulevard (Dartmouth Avenue to Oxford Avenue)	\$297,000
Clarkson Street Bicycle Boulevard (Dartmouth Avenue to Oxford Avenue) – Pavement Markings Only	\$30,000
Oxford Avenue Bicycle Boulevard (Clarkson Street to Broadway)	\$26,000
Oxford Avenue Bikeway (Broadway to Navajo Street)	\$9,163,000
Oxford Avenue Bikeway (Navajo Street to Irving Street)	\$1,347,000
Oxford Avenue Bicycle Boulevard (Irving Street to Lowell Boulevard)	\$13,000
Southwest Greenbelt Trail Extension	\$2,959,000
Englewood – CityCenter Station Platform Shelter	\$200,000
Englewood – CityCenter Station Bicycle/Pedestrian Bridge	\$7,162,000

Notes:

- (1) Includes bridge cost for segment.

Figure 6-1. Package of Recommended Transportation Improvements – Bikeway Loop



Figure 6-2. Package of Recommended Transportation Improvements – Englewood - CityCenter Station Area

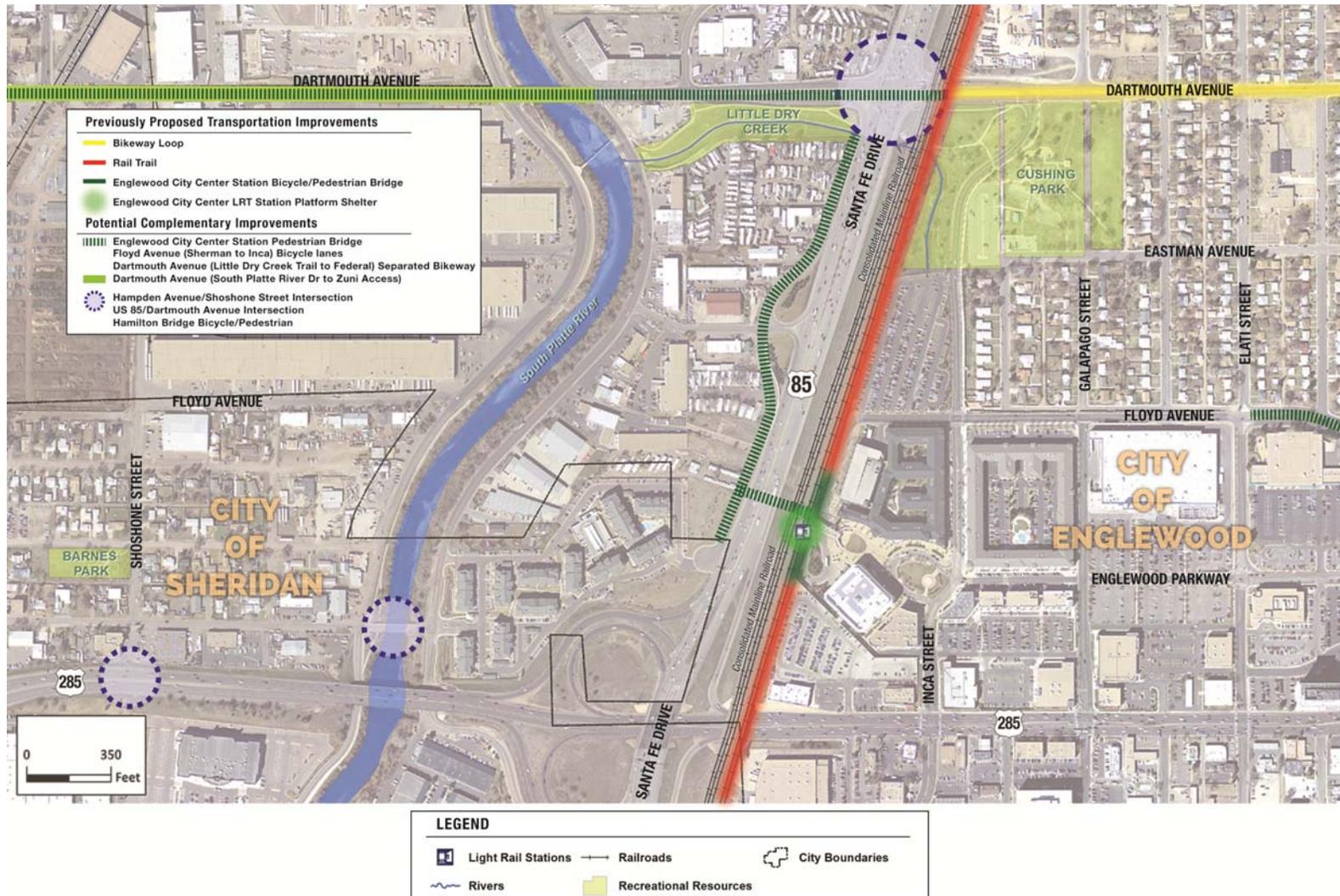
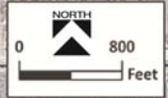
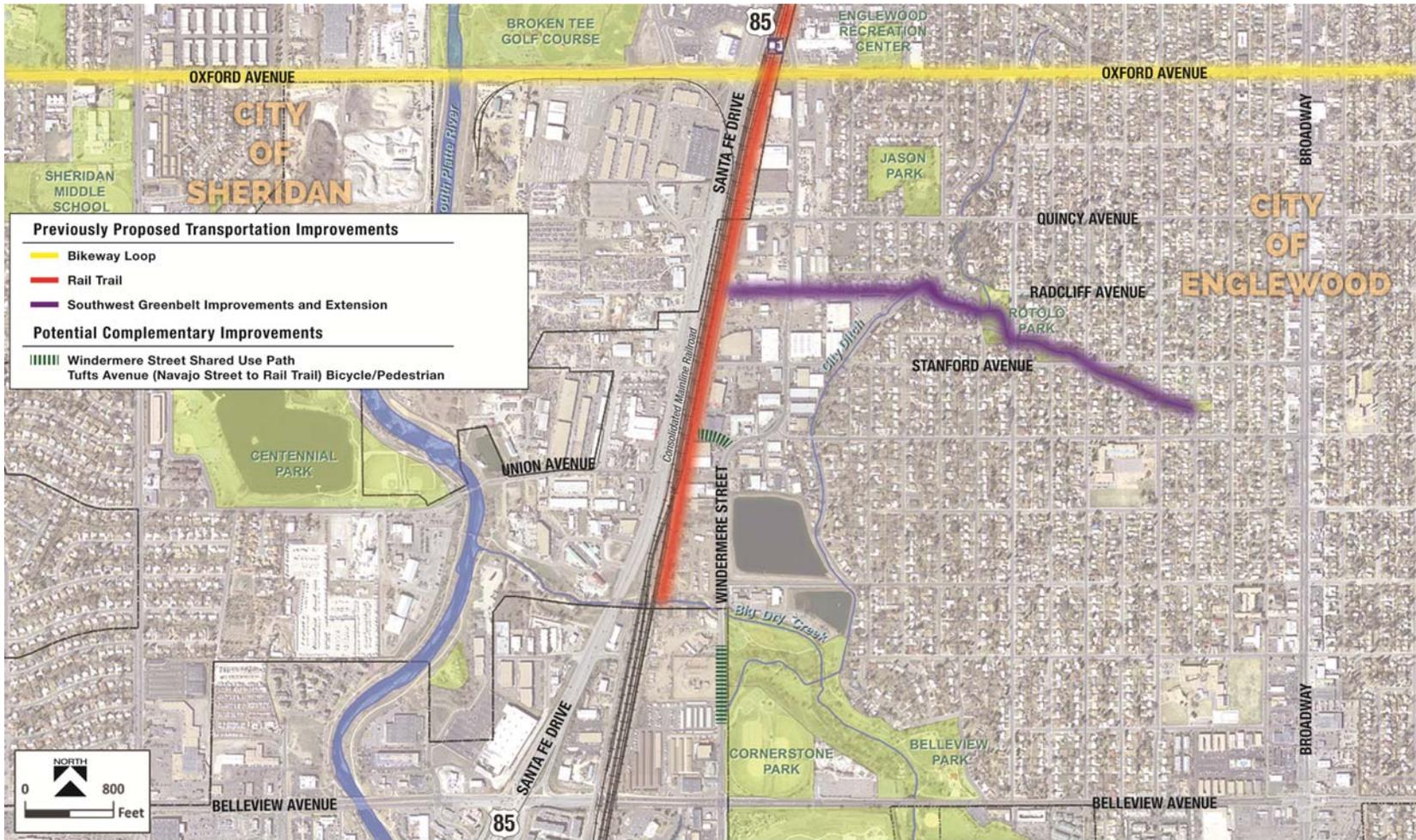


Figure 6-3. Package of Recommended Transportation Improvements – Sheridan – Oxford Station Area



Figure 6-4. Package of Recommended Transportation Improvements – South of Oxford Avenue



LEGEND

Light Rail Stations	Railroads	City Boundaries
Rivers	Recreational Resources	



6.2 Complementary Transportation Improvements

The following represent the Complementary Transportation Improvements.

6.2.1 Bicycle/Pedestrian Improvements

- ▶ Floyd Avenue Bike Lanes (Englewood – CityCenter Station to Sherman Street)
 - Restriping to include 5-foot bike lanes in both directions, requiring the removal of the center turn lane from the Englewood – CityCenter Station to Elati Street, and a road diet from four lanes to two lanes with a possible center turn lane from Elati Street to Sherman Street or a similar type of treatment.
- ▶ Dartmouth Avenue Bikeway (Platte River Trail to Federal Boulevard)
 - Extending the construction of a bi-directional, 6- to 8-foot-wide protected bikeway along Dartmouth Avenue from the Little Dry Creek Trail to Federal Boulevard.
- ▶ Windermere Shared Use Path Extension (Batting Cages at Cornerstone Park Entrance to Englewood Canine Corral Entrance)
 - Replacing the existing sidewalk with an extension of the existing 8-foot shared use path along the east side of Windermere Street (Bellevue Avenue to the Batting Cages at Cornerstone Park Entrance), north to the Englewood Canine Corral Entrance, providing connectivity to the Big Dry Creek Trail.
- ▶ Tufts Avenue Bicycle and Pedestrian Improvements (Navajo Street to Rail Trail)
 - Extending the sidewalk along the south side of Tufts Avenue to connect with the future Rail Trail where Tufts Avenue turns north into Windermere Street
 - Painting bike sharrows and installing “Share the Road” signs
 - Installing crosswalks where Tufts Avenue turns north into Windermere Street (including ADA ramps), where Windermere Street continues south from Tufts Avenue, and where Navajo Street continues north from Tufts Avenue
- ▶ Little Dry Creek Trail Connection Bicycle/Pedestrian Improvements (Along the frontage road west of US 85 to Little Dry Creek Trail, Mary Carter Greenway [South Platte Trail], and west across the South Platte River)
 - Extending the sidewalk along the frontage road west of US 85 to Little Dry Creek Trail

6.2.2 Intersection/Access Improvements

- ▶ US 85 / Dartmouth Avenue Intersection Improvements
 - Providing a fourth northbound and southbound through-lane along US 85 to the next largest intersections (US 85/Hampden Avenue and US 85/Evans Avenue).
- ▶ US 85 / Oxford Avenue Intersection Improvements
 - Providing a fourth northbound and southbound through-lane along US 85 to the next largest intersections (US 85/Hampden Avenue and US 85/Bellevue Avenue).



- ▶ Oxford Avenue / Windermere / Navajo Street Intersection Improvements
 - Improving bus circulation to the Sheridan – Oxford Station
- ▶ US 285 / Shoshone Street Right-In / Right-Out
 - Working with CDOT to construct a right-in / right-out to/from US 285 and Shoshone Street to provide easier vehicular access to areas west of US 85 and north of US 285
- ▶ Dartmouth Avenue Intersection Improvements (South Platte River Drive to Zuni Street)
 - Providing intersection and access control improvements along Dartmouth Avenue from the South Platte River Drive to Zuni Street as the street grid is reestablished (Dartmouth Avenue/Shoshone Street, Dartmouth Avenue/Quivas Street, etc.)

6.2.3 Other Improvements

- ▶ Sheridan - Oxford Station park-n-Ride / Shared Use Parking
 - Redeveloping a nearby parcel into a RTD park-n-Ride facility or working with a developer to construct a shared use parking structure as part of a mixed-use redevelopment where a portion of parking would be dedicated to RTD riders using the Sheridan - Oxford Station.
- ▶ Hamilton Place or Floyd Avenue Bridge Bicycle and Pedestrian Improvements
 - Widening the Hamilton Place Bridge to accommodate 8-foot sidewalks and 5-foot bike lanes on each side or providing a separate adjacent bicycle/pedestrian only bridge and/or providing a separate Floyd Avenue Bridge over the South Platte River.



8.0 Action Plan

Experience has shown that an articulate and thoughtful action plan will help increase the probability of funding success in the current economic environment. Good information, collaboration, broad support, and readiness to proceed to construction are all keys to successful project prioritization.

The primary intent of this action plan is to identify and prioritize projects so that the leadership of the City of Englewood and the City of Sheridan can have a basis for consideration and ultimate selection and funding of projects. To simplify the prioritization process, the approach was more qualitative than quantitative, although there is rich information available through this Next Steps Study to assist with a qualitative evaluation. It is designed to provide decision-makers with key information required to effectively understand potential projects, their benefits, and their readiness to encumber transportation funds. A key objective of this Action Plan is to pursue opportunities in advance of project requests, identify a variety of potential funding sources, and take advantage of unanticipated funding that might become available.

8.1 *Identification and Evaluation of Projects*

The study team identified projects for consideration in the action plan using input from the cities of Englewood and Sheridan, public feedback, and the transportation improvements analysis (Chapter 5.0). The package of Recommended Transportation Improvements summarizes the projects identified.

The study team developed evaluation criteria to qualitatively rate the projects' characteristics that cumulatively identify project benefits for the traveling public and the cities of Englewood and Sheridan. The study team identified five evaluation criteria:

- ▶ Project readiness
- ▶ Safety benefits
- ▶ Multimodal benefits
- ▶ Community benefits
- ▶ Estimated cost

Project readiness evaluates how quickly a project could go to construction. This considers the approximate length of time for preliminary and final engineering design, if property is required for right-of-way acquisition, and if environmental clearances can readily be obtained (if required by funding). Evaluation thresholds are as follows:

- ▶ **Low:** Advertisement (for bidding) would likely require more than 18 months
- ▶ **Medium:** Can likely be advertised (for bidding) between 6 and 18 months
- ▶ **High:** Can likely be advertised (for bidding) in less than 6 months

Safety benefits evaluate the need for safety improvements and the potential for improving conditions. Hot spots for crashes and potential vehicle, bicycle, and pedestrian conflict points are



considered when evaluating the need for safety improvements. Evaluation thresholds are as follows:

- ▶ **Low:** Little anticipated benefit
- ▶ **Medium:** Moderate anticipated benefit
- ▶ **High:** Significant anticipated benefit

Multimodal benefits evaluate if a project is likely to improve access to and use of transit, bicycle, and pedestrian modes, as well as vehicular movement. Improvements to bicycle, pedestrian, and transit facilities are considered when evaluating multimodal benefits. Evaluation thresholds are as follows:

- ▶ **Low:** No anticipated enhancements to bicycle, pedestrian, or transit facilities or access to those facilities
- ▶ **Medium:** Anticipated enhancements to a single modal facility, bicycle, pedestrian, or transit facilities or access to those facilities
- ▶ **High:** Anticipated enhancements to a combination of bicycle, pedestrian, or transit facilities or access to those facilities

Community benefits evaluate if the project enhances or furthers the realization of the goals and plans of the cities of Englewood and Sheridan, including those for economic development. The study team considered specific input provided during public meetings, project management team meetings, public official meetings, the developer forum, and specific stakeholder input and information from relevant comprehensive and transportation planning documents. Evaluation thresholds are as follows:

- ▶ **Low:** No stakeholders identified the project as a priority and the project is not supported by the relevant planning documents
- ▶ **Medium:** Stakeholders identified the project as a priority or the project is supported by relevant planning documents, but not both
- ▶ **High:** Stakeholders identified the project as a priority and the project is supported by relevant planning documents

Estimated cost evaluates the opinion of probable cost for preliminary and final engineering design and construction, including acquisition of property for right-of-way if necessary, for each project. Evaluation thresholds are as follows:

- ▶ **Low:** Greater than \$10 million
- ▶ **Medium:** \$500,000 to \$10 million
- ▶ **High:** Less than \$500,000

The study team rated all of the projects as low, medium, or high based on the identified criteria, as summarized in **Table 8-1**. These ratings are based on the information developed through this study. Once the cities of Englewood and Sheridan advance specific projects, these criteria could be updated accordingly.

Table 8-1. Composite Rating of Projects

Transportation Improvement	Evaluation Criteria					
	Project Readiness	Safety Benefits	Multimodal Benefits	Community Benefits	Estimated Cost	Prioritization
Rail Trail (Big Dry Creek Trail Connection to Sheridan - Oxford Station)	Medium	High	High	High	Medium	Short-term
Rail Trail (Oxford Station to Little Dry Creek Trail)	Low	High	High	Medium	Medium	Long-term
Rail Trail (Little Dry Creek Trail to Bates Avenue)	Medium	High	Medium	High	Medium	Mid-term
Dartmouth Avenue Separated Bikeway (Inca Street to Clarkson Street)	High	Medium	Medium	Medium	High	Short-term
Clarkson Street (Dartmouth Avenue to Oxford Avenue) and Oxford Avenue (Clarkson Street to Broadway) Bicycle Boulevard	High	Medium	Medium	Medium	High	Short-term
Oxford Avenue (Broadway to Navajo Street) Separated Bikeway	Medium	Medium	Medium	Medium	Low	Long-term
Oxford Avenue (Navajo to Irving Street) Separated Bikeway	Medium	Medium	Medium	Medium	Medium	Mid-term
Oxford Avenue (Irving Street to Lowell Boulevard) Bicycle Boulevard	High	Medium	Medium	Medium	High	Short-term
Southwest Greenbelt Trail Improvements and Extension	Medium	Medium	Medium	Medium	Medium	Mid-term ¹
Englewood – CityCenter Station Bicycle/Pedestrian Bridge	Medium	High	High	High	Medium	Mid-term ^{2, 5}
Englewood – CityCenter Station Platform Shelter	High	Low	Low	Medium	High	Mid-term
Complementary Transportation Improvements						
Floyd Avenue Bike Lanes (Englewood – CityCenter Station to Sherman Street)	High	Medium	Medium	Medium	High	Short-term
Dartmouth Avenue (South Platte River Drive to Federal Boulevard) Separated Bikeway	Medium	Medium	Medium	Low	Medium	Mid-term
Windermere On-Street Shared Use Path Extension (Batting Cages at Cornerstone Park Entrance to Englewood Canine Corral Entrance)	High	High	Medium	Low	High	Mid-term ¹
Tufts Avenue Bicycle/Pedestrian Improvements (Navajo Street to Rail Trail)	High	High	Medium	Low	High	Mid-term ¹

Transportation Improvement	Evaluation Criteria					
	Project Readiness	Safety Benefits	Multimodal Benefits	Community Benefits	Estimated Cost	Prioritization
Little Dry Creek Trail Connection Bicycle/Pedestrian Improvements (Along the frontage road west of US 85 to Little Dry Creek Trail, Mary Carter Greenway [South Platte Trail], and west across the South Platte River)	Medium	Medium	Medium	Low	Medium	Long-term ²
US 85/Dartmouth Avenue Intersection Improvements	Low	High	Medium	Low	Low	Long-term ³
US 85/Oxford Avenue Intersection Improvements	Low	High	Medium	Low	Low	Long-term ³
Oxford Avenue/Navajo Street Intersection Improvements	Low	High	High	Low	Medium	Mid-term ⁴
US 285 (Hampden Avenue)/Shoshone Street Right-in/Right-out Intersection	Medium	Low	Low	High	Medium	Mid-term ⁵
Dartmouth Avenue Intersection Improvements (South Platte River Drive to Zuni Street)	Low	Low	Low	High	Medium	Long-term
Sheridan – Oxford Station park-n-Ride or Shared Use Parking	Medium	Low	Medium	Low	Medium	Long-term ⁶
Hamilton Place Bridge Bicycle/Pedestrian Improvements or separate adjacent bicycle/pedestrian only bridge and/or Floyd Avenue Bridge over the South Platte River	Medium	High	Medium	Medium	High	Mid-term ⁷

Notes:

- (1) Requires construction of Rail Trail to provide connectivity to either the Englewood – CityCenter Station or the Sheridan – Oxford Station
- (2) Could be implemented sooner if parcels west of US 85 redevelop and install adequate bicycle/pedestrian facilities along frontage road
- (3) Should be pursued by CDOT in relation to the US 85 corridor
- (4) Would require modification of RTD buses accessing the Sheridan – Oxford Station, as well as redevelopment of adjacent parcels to warrant further analysis
- (5) Would provide additional access to the parcels west of US 85
- (6) May be implemented sooner as parcels in the vicinity of the Sheridan – Oxford Station redevelop
- (7) Requires construction of the Englewood - CityCenter Station bicycle/pedestrian bridge to optimize connectivity to the station



Based on the ratings (**Table 8-1**), projects were prioritized into three categories: short-term, mid-term, and long-term. Projects, such as the Tufts Avenue Bicycle/Pedestrian Improvements, that require completion of another project (such as the Rail Trail) were categorized as mid-term projects. Projects, such as the Little Dry Creek Trail Connection Bicycle/Pedestrian Improvements, that would require acquisition of property for right-of-way or redevelopment of parcels, were categorized as long-term projects.

8.2 Potential Funding Sources

There are many options worth exploring for suitability for funding the package of Recommended Transportation Improvements. These strategies require coordination and participation among the departments of the cities of Englewood and Sheridan, as well as RTD, DRCOG, and CDOT, among others. A concerted team effort will most likely result in successfully securing funds for the improvements. The presence of a champion to guide this effort is important.

The potential funding sources outlined in **Table 8-2** are proposed for consideration, in addition to funding opportunities through CDOT and DRCOG. It is likely that a mix of the strategies will form a final funding package for Recommended Transportation Improvements. **Table 8-3** matches potential funding sources with the package of Recommended Transportation Improvements.

Table 8-2. Summary of Potential Funding Sources

Funding Source	Description
US DOT Transportation Investment Generating Economic Recovery (TIGER) grant	The TIGER discretionary grant funds capital investments in surface transportation infrastructure.
US Department of Interior National Park Service Land and Water Conservation Fund (LWCF)	The LWCF Program provides matching grants to states and to local governments for the acquisition and development of public outdoor recreation areas and facilities.
State Infrastructure Bank (SIB)	The SIB is in effect a bank funded by the state. It provides loans for infrastructure projects at a low rate of interest. For planned improvements, the SIB could provide the up-front capital to form a local match against CDOT or FHWA dollars. The cities could then pay back the SIB by dedicating a small amount of its revenues over a period of several years.
Federal Highway Administration Transportation Alternatives Program (TAP)	This program for non-motorized forms of transportation activities includes facilities for pedestrians and bicyclists, safety and educational activities for pedestrians and bicyclists; and conversion of abandoned railroad corridors to trails. Administered through the DRCOG Transportation Improvement Program (TIP).



Funding Source	Description
Federal Highway Administration Recreational Trails Program – funds drawn from larger TAP	This program focuses on the maintenance and restoration of existing trails; development or rehabilitation of trailside and trailhead facilities and linkages; acquisition of necessary easements; associated administrative costs; and new trails and educational programs. Administered through the DRCOG TIP.
Colorado State Recreational Trails Grant Program (Colorado Parks and Wildlife)	This program administers funds for trail layout, design, engineering, feasibility studies, inventory, use studies, analysis of existing and proposed trails, master plans, or prepares plans to build a volunteer organization or increase capacity, and trail training.
CDOT Bridge Pool Funding	This funding pool provides for the construction, repair, and replacement of off-system bridge projects based on performance measures, as well as public safety, engineering judgment, project readiness, and funding limits. Administered through the DRCOG TIP.
CDOT Funding Advancements for Surface Transportation and Economic Recovery Act of 2009 (FASTER) Safety Improvements	This funding pool provides for the construction, reconstruction, or maintenance of projects that are needed to enhance the safety of a state highway, county road, or city street. Administered through the DRCOG TIP.
CDOT FASTER Colorado Bridge Enterprise	This program finances the repair, reconstruction, and replacement of bridges designated as structurally deficient or functionally obsolete and rated "Poor." Administered through the DRCOG TIP.
CDOT FASTER Transit Grants	FASTER transit funds are split between local transit grants (\$5 million per year) and statewide projects (\$10 million per year). The \$5 million in local transit grants is awarded competitively by CDOT regional offices. Local recipients are required to provide a minimum 20% local match. Types of projects that have been awarded include those that improve transit access (bicycle/pedestrian access, park-n-Ride facilities, bus shelters, etc.). Administered through the DRCOG TIP.
CDOT Responsible Acceleration of Maintenance and Partnerships (RAMP)	Program funding will be revisited annually by the Transportation Commission. To be eligible, a project must be constructed within 5 years, be consistent with the Long Range Statewide Transportation Plan and CDOT Policies, incorporate on-system improvements or be integrated with the state highway system, and provide project-specific sufficient information on additional eligibility and evaluation criteria. Administered through the DRCOG TIP.
CDOT Federal Discretionary Funds	Program funding is through the DRCOG TIP for projects using federal discretionary funds.
DRCOG Congestion Mitigation and Air Quality (CMAQ) grants	These grants are provided for projects that reduce congestion and improve air quality for the people of Colorado, including bicycle/pedestrian improvements. Administered through the DRCOG TIP.



Funding Source	Description
<p>CDOT and DRCOG CMAQ Travel Demand Management (TDM) Pool</p>	<p>These grants facilitate mobility options for residents of the Denver region while reducing single-occupant vehicle (SOV) travel by eliminating or shortening trips, changing the mode of travel, or changing the time of day a trip is made. It includes actions that increase transportation system efficiency through the promotion and facilitation of transportation options such as, but not limited to, carpooling, carsharing, vanpooling, transit, bicycling, bike sharing and walking. Administered through the DRCOG TIP.</p>
<p>US Department of Housing and Urban Development (HUD) Sustainable Communities Regional Planning Grants</p>	<p>This grant program supports locally led collaborative efforts that bring together diverse interests from the many municipalities in a region to determine how best to target housing, economic and workforce development, and infrastructure investments to create more jobs and regional economic activity.</p>
<p>FTA Urbanized Area Formula Grants- 5307 Funds (Urbanized areas of more than 200,000 people)</p>	<p>This program provides grants to urbanized areas for bicycle routes that connect to transit. Administered through the DRCOG TIP.</p>
<p>Federal Transit Administration Enhanced Mobility of Seniors and Individuals with Disabilities – 5310 Funds</p>	<p>This program provides grants for bicycle improvements that provide access to an eligible public transportation facility and meet the needs of the elderly and individuals with disabilities. Administered through the DRCOG TIP.</p>
<p>Arapahoe County Open Space Grants</p>	<p>This program funds projects in Arapahoe County that provide trail connections and provide for park development.</p>
<p>Great Outdoors Colorado Grants</p>	<p>Local government grants typically fund community parks, trails, and recreation facilities like skate parks, bike parks, ice rinks, pools, and other amenities that help communities gain easy access to the outdoors.</p>



Funding Source	Description
Foundation and Company Grants	<ul style="list-style-type: none"> <li data-bbox="594 436 1442 667"> <p>▪ People for Bikes Foundation Community Grants This grant program provides funding for important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S. These projects include bike paths and rail trails, as well as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives.</p> <li data-bbox="594 674 1442 926"> <p>▪ Gates Family Foundation Capital Grants The Urban Land Conservancy (ULC), Enterprise Community Partners, the City and County of Denver, and several other investors have partnered to establish the first affordable housing TOD acquisition fund in the country. The purpose of the Denver TOD Fund is to support the creation and preservation of over 1,000 affordable housing units through strategic property acquisition in current and future transit corridors.</p> <li data-bbox="594 932 1442 1102"> <p>▪ Mile High Connects This program supports projects that establish and improve safe connections (connected and intact sidewalks, bike routes, pedestrian bridges, ADA-accessible amenities, addressing safety concerns, etc.) to and from transit stops and destinations.</p>
Railway-Highway Crossing Hazard Elimination	The program provides funding for safety improvements at both public and private highway-rail grade crossings along federally designated high-speed rail corridors. Federal Railroad Administration (FRA) and FHWA jointly administer the program.
City of Englewood and City of Sheridan Bonding	The cities of Englewood and Sheridan can issue bonds to raise local revenue for transportation improvements.

Table 8-3. Summary of Potential Funding Sources for Recommended Transportation Improvements

Funding Source	Package of Recommended Transportation Improvements																				
	Rail Trail (Big Dry Creek Trail Connection to Bates Avenue)	Dartmouth Avenue Separated Bikeway (Inca Street to Clarkson Street)	Clarkson Street (Dartmouth Avenue to Oxford Avenue) and Oxford Avenue (Clarkson Street to Broadway) Bicycle Boulevard	Oxford Avenue (Broadway to Navajo Street) Separated Bikeway	Oxford Avenue (Navajo Street to Irving Street) Separated Bikeway	Oxford Avenue (Irving Street to Lowell Boulevard) Bicycle Boulevard	Southwest Greenbelt Trail Improvements and Extension	Englewood – CityCenter Station Bicycle/Pedestrian Bridge	Englewood – CityCenter Station Platform Shelter	Floyd Avenue Bike Lanes (Englewood CityCenter Station to Sherman Street)	Dartmouth Avenue (South Platte River Drive to Federal Boulevard) Separated Bikeway	Windermere On-Street Shared Use Path Extension (Batting Cages at Cornerstone Park Entrance to Englewood Canine Corral Entrance)	Turfs Avenue Bicycle/Pedestrian Improvements (Navajo Street to Rail Trail)	Little Dry Creek Trail Connection Bicycle/Pedestrian Improvements (Along the frontage road west of US 85 to Little Dry Creek Trail, Mary Carter Greenway South Platte Trail, and west across the South Platte River)	US 85/Dartmouth Avenue Intersection Improvements	US 85/Oxford Avenue Intersection Improvements	Oxford Avenue/Navajo Street Intersection Improvements	US 285 (Hampden Avenue)/Shoshone Street Right-in/Right-out Intersection	Dartmouth Avenue Intersection Improvements (South Platte River Drive to Zuni Street)	Sheridan – Oxford LRT Station park-n-Ride or Shared Use Parking	Hamilton Place Bridge Bicycle/Pedestrian Improvements or separate adjacent bicycle/pedestrian only bridge and/or Floyd Avenue Bridge over the South Platte River
US DOT TIGER Grant	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
US Department of Interior National Park Service LWCF							✓														
SIB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FHWA TAP	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓								✓
FHWA Recreational Trails Program	✓						✓														
Colorado State Recreational Trails Grant Program	✓						✓														
CDOT Bridge Pool Funding	✓							✓													✓
CDOT FASTER Safety								✓						✓	✓	✓			✓		

Package of Recommended Transportation Improvements

Funding Source	Rail Trail (Big Dry Creek Trail Connection to Bates Avenue)	Dartmouth Avenue Separated Bikeway (Inca Street to Clarkson Street)	Clarkson Street (Dartmouth Avenue to Oxford Avenue) and Oxford Avenue (Clarkson Street to Broadway) Bicycle Boulevard	Oxford Avenue (Broadway to Navajo Street) Separated Bikeway	Oxford Avenue (Navajo Street to Irving Street) Separated Bikeway	Oxford Avenue (Irving Street to Lowell Boulevard) Bicycle Boulevard	Southwest Greenbelt Trail Improvements and Extension	Englewood – CityCenter Station Bicycle/Pedestrian Bridge	Englewood – CityCenter Station Platform Shelter	Floyd Avenue Bike Lanes (Englewood CityCenter Station to Sherman Street)	Dartmouth Avenue (South Platte River Drive to Federal Boulevard) Separated Bikeway	Windsmere On-Street Shared Use Path Extension (Baiting Cages at Cornerstone Park Entrance to Englewood Canine Corral Entrance)	Turfis Avenue Bicycle/Pedestrian Improvements (Navajo Street to Rail Trail)	Little Dry Creek Trail Connection Bicycle/Pedestrian Improvements (Along the frontage road west of US 85 to Little Dry Creek Trail, Mary Carter Greenway (South Platte Trail, and west across the South Platte River)	US 85/Dartmouth Avenue Intersection Improvements	US 85/Oxford Avenue Intersection Improvements	Oxford Avenue/Navajo Street Intersection Improvements	US 285 (Hampden Avenue)/Shoshone Street Right-in/Right-out Intersection	Dartmouth Avenue Intersection Improvements (South Platte River Drive to Zuni Street)	Sheridan – Oxford LRT Station park-n-Ride or Shared Use Parking	Hamilton Place Bridge Bicycle/Pedestrian Improvements or separate adjacent bicycle/pedestrian only bridge and/or Floyd Avenue Bridge over the South Platte River	
Improvements																						
CDOT FASTER Colorado Bridge Enterprise																						✓
CDOT FASTER Transit Grants	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓								✓
CDOT RAMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CDOT Federal Discretionary Funds	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DRCOG CMAQ grants	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
CDOT and DRCOG CMAQ TDM Pool	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
HUD Sustainable Communities Regional Planning Grants	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Package of Recommended Transportation Improvements

Funding Source	Rail Trail (Big Dry Creek Trail Connection to Bates Avenue)	Dartmouth Avenue Separated Bikeway (Inca Street to Clarkson Street)	Clarkson Street (Dartmouth Avenue to Oxford Avenue) and Oxford Avenue (Clarkson Street to Broadway) Bicycle Boulevard	Oxford Avenue (Broadway to Navajo Street) Separated Bikeway	Oxford Avenue (Navajo Street to Irving Street) Separated Bikeway	Oxford Avenue (Irving Street to Lowell Boulevard) Bicycle Boulevard	Southwest Greenbelt Trail Improvements and Extension	Englewood – CityCenter Station Bicycle/Pedestrian Bridge	Englewood – CityCenter Station Platform Shelter	Floyd Avenue Bike Lanes (Englewood CityCenter Station to Sherman Street)	Dartmouth Avenue (South Platte River Drive to Federal Boulevard) Separated Bikeway	Windsmere On-Street Shared Use Path Extension (Batting Cages at Cornerstone Park Entrance to Englewood Canine Corral Entrance)	Turfis Avenue Bicycle/Pedestrian Improvements (Navajo Street to Rail Trail)	Little Dry Creek Trail Connection Bicycle/Pedestrian Improvements (Along the frontage road west of US 85 to Little Dry Creek Trail, Mary Carter Greenway (South Platte Trail, and west across the South Platte River)	US 85/Dartmouth Avenue Intersection Improvements	US 85/Oxford Avenue Intersection Improvements	Oxford Avenue/Navajo Street Intersection Improvements	US 285 (Hampden Avenue)/Shoshone Street Right-in/Right-out Intersection	Dartmouth Avenue Intersection Improvements (South Platte River Drive to Zuni Street)	Sheridan – Oxford LRT Station park-n-Ride or Shared Use Parking	Hamilton Place Bridge Bicycle/Pedestrian Improvements or separate adjacent bicycle/pedestrian only bridge and/or Floyd Avenue Bridge over the South Platte River	
FTA Urbanized Area Formula Grants- 5307 Funds	✓	✓	✓	✓	✓	✓	✓			✓	✓										✓	
FTA Enhanced Mobility of Seniors and Individuals with Disabilities – 5310 Funds	✓	✓	✓	✓	✓	✓		✓		✓	✓										✓	
Arapahoe County Open Space Grants	✓						✓															
Great Outdoors Colorado Grants	✓						✓															
People for Bikes Foundation Community Grants	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓								✓
Gates Family Foundation	✓							✓														

Package of Recommended Transportation Improvements

Funding Source	Package of Recommended Transportation Improvements																			
Capital Grants																				
Mile High Connects	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓					✓
Railway-Highway Crossing Hazard Elimination								✓												
City of Englewood and City of Sheridan Bonding	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓



8.3 DRCOG RTP and TIP

The *Metro Vision Plan* serves as a comprehensive guide for future development of the Denver metropolitan region with respect to growth and development, transportation, and the environment. One component of the *Metro Vision Plan* is the RTP. The RTP presents the vision for a multimodal transportation system that is needed to respond to future growth and to influence how the growth occurs. The fiscally-constrained RTP defines the specific transportation elements that can be provided by the planning year based on reasonably expected revenues. The DRCOG RTP is amended on a six-month cycle.

The TIP is a short-term capital improvement program that is consistent with the long-range RTP. The TIP is updated every four years and includes a six-year planning horizon. All projects to be granted federal funds through the TIP must implement the improvements and/or policies in the *Metro Vision RTP* and abide by federal and state laws.

8.4 General NEPA Requirements

This study provides a framework for the long-term implementation of the transportation improvements as funding becomes available. Although NEPA will not apply to all projects and will depend on funding sources and interaction with CDOT facilities, this Next Steps Study is to be used as a resource for future NEPA documentation. **Chapter 5.0** of this study has identified issues that will require additional evaluation in any future NEPA documentation.

Funding for the package of Recommended Transportation Improvements has not been identified at this time. However, the identification of a package of Recommended Transportation Improvements is consistent with FHWA's objective of analyzing and selecting transportation solutions on a broad enough scale to provide meaningful analysis and avoid segmentation. Fiscal constraint requirements must be satisfied for FHWA and CDOT to approve further NEPA documentation. Before FHWA and CDOT can sign a final NEPA decision document (Record of Decision, Finding of No Significant Impact, or programmatic or non-programmatic Categorical Exclusion), the proposed project, as defined in the NEPA document, must meet the following specific fiscal-constraint criteria:

- ▶ The proposed project or phases of the proposed project within the time horizon of the RTP must be included in the fiscally-constrained RTP, and other phase(s) of the project and associated costs beyond the RTP horizon must be referenced in the fiscally-unconstrained vision component of the RTP.
- ▶ The project or phase of the project must be in the fiscally-constrained TIP, which includes:
 - At least one subsequent project phase, or the description of the next project phase (For project phases that are beyond the TIP years, the project must be in the fiscally-constrained RTP and the estimated total project cost must be described within the financial element of the RTP and/or applicable TIP).
 - Federal-Aid projects or project phases and state/locally funded, regionally significant projects that require a federal action.
 - Full funding is reasonably available for the completion of all project phase(s) within the time period anticipated for completion of the project.



In cases where a project is implemented in more than one phase, care must be taken to ensure that the transportation system operates acceptably at the conclusion of each phase. This is referred to as “independent utility,” the ability of each phase to operate on its own. Additionally, it must be demonstrated that air quality conformity will not be jeopardized. Any mitigation measures needed in response to project impacts must be implemented with the phase in which the impacts occur, rather than deferred to a later phase.

Once funding is secured, the environmental planning process can be initiated. The environmental process will build on the environmental work, public outreach, and agency outreach conducted by this study.

CatExs are the most common NEPA documents and are for actions that do not individually or cumulatively have a significant environmental impact, are excluded from the requirement to prepare an EA or an EIS, and do not have substantial public controversy. CatExs are defined in 23 CFR 771.117, meet the definition from the Council on Environmental Quality in 40 CFR 1508.4, and are based on the past experience with similar actions of FHWA.

8.5 *Real Estate Implementation*

The prioritized transportation improvements must work with complementary economic development initiatives and activities to fully realize the potential of Englewood’s station areas and key neighborhoods in Englewood and Sheridan. The following section outlines the project team’s recommendations pertaining to future land use activities and public policies. The Englewood - CityCenter and Sheridan - Oxford station areas are discussed first, followed by a discussion of the North Neighborhood focusing on the redevelopment site at Bates and Elati Streets, and the West neighborhood, which is the area west of Santa Fe and north of Hampden. The associated market study more fully discusses these areas, the market potentials, and the outreach conducted that informs the implementation recommendations.

8.5.1 Englewood - CityCenter

To realize the long term goal of creating an activated and high-quality CityCenter station area, current market conditions require incremental infill development, phasing over time, the use of public private partnerships, and the potential use of tools such as a DDA, along with TIF. Additional potential tools include Title 32 Metropolitan Districts and Public Improvements Fees, both of which are tools not historically used in the City of Englewood.

A new master plan for the area should be developed in conjunction with the creation of a DDA. The plan should be developed in concert with a detailed development strategy (planning, design, financial and legal) that has the cooperation and buy-in of major property owners and large employers along both sides of Hampden Avenue. A new TIF district orchestrated through the DDA should be put into place with both sales and property tax TIFs used at the appropriate times to generate revenues to help fund needed public improvements.

Given the importance of the Broadway corridor to the City Center area, the DDA boundaries should include the City Center area and critical sections of the Broadway corridor. Given the breadth of the area, subareas should be designated with specific plans in place for each.



Areas could be subdivided into:

- ▶ Property and businesses west of Wal-mart, as their focus tends to be CityCenter and the Englewood LRT station
- ▶ Property and businesses east of Wal-mart, as the focus tends to be Broadway
- ▶ Property and businesses along the Broadway corridor, north of Hampden
- ▶ Property and businesses along the Broadway corridor, south of Hampden

The City previously had a Business Improvement District (BID) along the Broadway corridor. An expanded DDA can undertake the same types of projects that a BID typically oversees.

Other potential tools include:

- ▶ Title 32 Metropolitan Districts have been successfully used in urban infill developments, such as Belmar, to help offset the cost of public infrastructure. One of the impediments to the use of this tool in CityCenter may be the fractured pattern of ownership in the area. These districts are typically most effective when property is under one ownership.
- ▶ Public Improvement Fees (PIFs), which are added on top of sales taxes, are currently being used at River Point and Belmar. The River Point PIF of 1 percent was established to pay for the River Point public improvements, including environmental remediation, open space and trails, public roads and bridges, public street lighting, regional stormwater facilities, and water quality and protection. A Retail Sales Fee can also be considered. At the Centerra development in Loveland, retailers collect a PIF and a Retail Sales Fee (RSF) within The Promenade Shops, Centerra Marketplace, and Centerra Motorplex.

The following table outlines specific recommendations with suggested time frames.

CityCenter Station Action Items	Short Term (0-3 Years)	Medium Term (3-5 Years)	Long Term (6-10 Years)
Institute a Downtown Development Authority	✓		
Institute other financial tools and mechanisms as appropriate including Title 32 Metropolitan Districts, other special districts, Public Improvement and Retail Sales Fees	✓	✓	
In conjunction with the current visioning process at CityCenter, obtain strategic development advice from organizations like the Urban Land Institute Technical Advisory Panel program, the University of Denver (DU) or University of Colorado (CU)	✓		
Develop detailed master / vision plan for the properties east of Wal-mart		✓	



CityCenter Station Action Items	Short Term (0-3 Years)	Medium Term (3-5 Years)	Long Term (6-10 Years)
Develop detailed master / vision plan for the immediate CityCenter area (north and south side of Hampden) with major property owners	✓		
Investigate current legal agreements at CityCenter with an attorney to determine if agreements can/should be modified to inform or help implement the Vision /Master Plan.	✓		
Determine the future role of the Englewood Environmental Foundation	✓		
Develop a financial plan concurrently with the major property owners	✓	✓	
Rezone appropriately based on outcomes of Vision / Master Plans	✓	✓	
Pursue shorter term residential infill opportunities aligned with the longer term vision of property owners	✓		
Determine whether an Owner's Representative with development experience should represent the City during discussions about the immediate CityCenter area or whether a relationship with a Master Developer should be pursued	✓		
Develop TOD Overlay District Regulations	✓		
Stay in touch with and determine the role of major employers in the area including Sports Authority, Wal-mart	✓	✓	✓
Explore, with property managers, a wider range of shorter term uses for unsuccessful ground floor retail	✓		
Continue to refine alignment of the Rail Trail Section in CityCenter area as a Vision / Master Plan is developed		✓	
Regularly follow up with area developers and developers who participated in the forum	✓	✓	✓
Pursue funding for Station Bicycle/Pedestrian Bridge at Englewood Light Rail Station		✓	
Construct Floyd Avenue Bike Lane	✓		
Continue to coordinate with RTD and pursue funding for LRT Station Platform Shelter		✓	



8.5.2 Sheridan - Oxford Station

South of the Sheridan - Oxford Station, the former industrial area has begun transitioning to a mixed-use land use orientation. Given the current activity, rail trail improvements to help facilitate station connectivity and area redevelopment should be prioritized. Longer term, development of a shared parking strategy would help enhance area redevelopment. As mixed use retail develops in the area, the City should consider using Urban Renewal as a financial tool to capture sales (and property) tax increment to help pay for shared structured parking.

Oxford Station Action Items	Short Term (0-3 Years)	Medium Term (3-5 Years)	Long Term (6-10 Years)
Develop TOD zoning regulations to accommodate industrial mixed use areas	✓		
Work with area developers and property owners to facilitate area redevelopment and shared parking in locations that fit within RTD's Transit Access Guidelines for parking, ideally south of Oxford	✓	✓	
Proactively work with the development community to acquire properties for shared parking / development	✓	✓	
Work with RTD on securing additional parking spaces		✓	
Institute Urban Renewal as area redevelopment includes retail and restaurant uses	✓	✓	
Continue to refine design and pursue funding for Rail Trail connection in this segment	✓		
Pursue Oxford Avenue Separated Bikeway short-term actions in addition to long-term improvements. Short-term improvements could include painting the section from the Sheridan - Oxford station area to Broadway	✓	✓	✓
Plan and pursue funding for US 85/Oxford Intersection Improvements		✓	✓
Plan and pursue funding for Oxford Avenue / Navajo Street Intersection Improvements		✓	✓
Plan and pursue funding for Sheridan-Oxford LRT Station park-n-Ride or Shared Use Parking			✓

8.5.3 North Neighborhood

The Winslow Crane property is the primary development opportunity in the North Neighborhood. Given the nature of the neighborhood surrounding this area, this planned redevelopment could be sizeable enough with enough critical mass to start changing perceptions of the area. Mixed income housing can be a catalyst for area redevelopment. Metro area redevelopments have often seen the introduction of tax credit affordable, senior and rental housing as the first housing



types into a market to help catalyze future area redevelopment. Although there is currently market support for the development, better connectivity to the Englewood - CityCenter Station and amenities along the South Platte River is critical to attracting future residents to the area. A stronger, vibrant, more attractive Broadway corridor would also enhance the neighborhood's redevelopment potential.

North Neighborhood Action Items	Short Term (0-3 Years)	Medium Term (3-5 Years)	Long Term (6-10 Years)
Support current development proposal for mixed income housing development through CHFA LIHTC process. Facilitate letters of support from City, Urban Renewal Authorities (URAs), neighborhood organizations, affordable housing groups, and others.	✓		
Work with RTD to reroute RTD Bus Route 27	✓		
Assist the developer of the Winslow Crane property in communicating with neighborhoods about the overall master plan for the development project	✓		
Continue to plan and seek funding for Rail Trail improvements commensurate with the timing of development	✓	✓	
Develop strategies and programs that encourage exterior home/yard improvements in the single family residential neighborhoods surrounding the North Neighborhood	✓		
Work closely with the developer on identifying and attracting appropriate employment to the station area	✓		
The Winslow Crane property is within the General Ironworks URA. Work with the developer on the potential timing of triggering the TIF mechanism to offset / assist with public infrastructure costs.	✓	✓	
Develop subarea plan for the North Neighborhood focusing on neighborhood revitalization and connectivity		✓	
Work with developer / help with publicizing / branding of the area.	✓		
Monitor the construction defects issue and consider taking action if it is not resolved in the state legislature. Lakewood and Lone Tree have passed local ordinances allowing "right to repair" before litigation and modifying the requirements of Homeowners Association's ability to sue	✓	✓	
Develop appropriate TOD overlay regulations	✓		
Plan and pursue funding for the Dartmouth Avenue Separated Bikeway	✓		



North Neighborhood Action Items	Short Term (0-3 Years)	Medium Term (3-5 Years)	Long Term (6-10 Years)
Plan and pursue funding for US 85/Dartmouth Avenue Intersection Improvements			✓
Plan and pursue funding for Dartmouth Avenue Intersection Improvements			✓

8.5.4 West Neighborhood

The most critical challenges with redevelopment in the West Neighborhood are the current industrial nature of the area and the potential jurisdictional issues. The inadequacy of infrastructure in the area and the lack of connectivity to the surrounding street network are also significant barriers to redevelopment. On the other hand, the regionally central location of the area, coupled with the prospect of improved connectivity to the east side of Santa Fe and the potential to create enhanced amenities along the South Platte River, will enhance the viability of future real estate development. Additional planning by both Englewood and Sheridan is critical in realizing this potential.

Action Item	Short Term (0-3 Years)	Medium Term (3-5 Years)	Long Term (6-10 Years)
Develop Englewood and Sheridan cross-jurisdictional subarea plan, which would identify critical businesses to maintain, potential catalytic parcels, prioritized connections, infrastructure needs, appropriate zoning	✓		
As part of this effort, create a working group of Englewood and Sheridan officials who would meet regularly to focus and coordinate redevelopment efforts in this area and along the Santa Fe corridor (including the Sheridan - Oxford station area)		✓	✓
Plan and pursue funding for CityCenter / LRT Station Bike / Pedestrian Bridge	✓	✓	✓
Continue to work inter-jurisdictionally on the creation of improved and better connections to South Platte River	✓	✓	✓

8.6 Public Finance

8.6.1 Special Authorities / Tax Increment Financing

Special authorities are quasi-municipal organizations intended to address and redevelop deteriorating or “blighted” areas. Two types of special authorities exist: DDAs and URAs. Both can employ TIF, which is a special fund consisting of increases in property or sales tax (or both) revenues generated within the specified areas. A base property valuation or base sales tax level



is identified or “frozen.” The taxing jurisdictions continue to receive the revenue in the base, and the TIF entity collects the revenue generated by the levy on the incremental increase above the base.

A mayor-appointed authority board governs these authorities, which are designed to address multiple projects over a period of time. The City of Englewood has used URAs in the past. The team is recommending the establishment of a DDA for the CityCenter area, which would also encompass parts of the Broadway Corridor, to potentially provide revenues for needed public improvements in the CityCenter and in strategic locations along the Broadway Corridor.

There are important differences between DDAs and URAs:

- ▶ The timeframes for TIF districts for URAs are 25 years and 30 years for DDAs.
- ▶ URAs require a resolution stating that blight is being eliminated while DDAs require a statement indicating that blight is being prevented.
- ▶ The City Council or a separate board can administer a URA. A separate board must be created to administer a DDA.
- ▶ A City Council ordinance initiates a DDA. URAs are initiated by 25 registered voters signing a petition.
- ▶ URAs don't require a public vote to establish a district and issue bonds. DDAs require a vote to establish the district. They do not have the ability to issue bonds on their own behalf (although they can work with an entity that does have the authority). They do have the ability to levy taxes.
- ▶ URAs have condemnation authority while DDAs do not.

8.6.2 Improvement Districts

There are a number of different types of improvements districts.

Business Improvement Districts

BIDs are formed by petition and election by commercial property owners to provide services such as planning, management of development activities, promotion or marketing, business recruitment, and/or maintenance.

Public Improvement Districts / General Improvement Districts / Local Improvement Districts

A General Improvement District (GID) in a city is a public infrastructure district that applies an additional property tax or assessment to a specific improvement area to pay for new public infrastructure. GIDs are commonly used to fund shared infrastructure facilities. They can be initiated by a majority of property owners. Boulder has used a GID to pay for shared parking facilities in its downtown, its University Hills neighborhood, and its Transit Village area.

A Local Improvement District (LID) is a public infrastructure district that assesses specific improvement costs to abutting property. It charges an assessment for a specific capital



improvement project. A LID is best applied for very specific infrastructure costs relating to a discrete number of abutting properties that directly benefit from the improvements. They are not separate entities but rather are under the full control of the City. The City of Denver created a LID to help pay for the streetscape amenities of the South Broadway street reconstruction.

Title 32 Metropolitan Districts

Title 32 Metropolitan Districts (Metro Districts) are often seen particularly in large scaled master planned new development and redevelopment projects where there are major property owners. Several TOD sites in Metro Denver have metro districts including Alameda Station (BMP Metro District) and Belleview Station (Madre Metro District). A metro district is a quasi-governmental entity and political subdivision of the state formed to finance, construct, and maintain public facilities. A wide array of public improvements can be addressed, including: street improvements, water, sewer, drainage, parks and recreation, fire protection, public transportation systems, ambulance, solid waste, and limited security. Metro districts are most often created by a land developer (but require the City's approval of the service plan) to apply an additional mill levy to future development to help pay for infrastructure costs. There is a statutory maximum of 50 mills but no time limit on the duration of the district. Metro Districts have the power to issue general obligation and revenue bonds and have limited condemnation powers.

8.6.3 Retail Fees and Programs

There are several fees and programs in place that specifically leverage retail sales taxes for local improvements. Tools such as PIFs and Retail Sales Fees (RSFs) have been used in large scale developments in Lakewood and Loveland, for instance, but so far not in Englewood.

Public Improvement Fees

A PIF is a fee imposed by the developer on retail and service tenants to fund public improvements. PIFs are used to finance public improvements and are collected as a fee charged on sales within a set of negotiated categories and a designated geographic boundary. General obligation or revenue bonds may be issued. Because PIFs are fees, they become a part of the cost of the sale or service and are subject to sales tax. The fee is administered through covenants on the retail lease and is usually collected by a metro district established as part of a project. Because the additional fee can result in a higher effective tax rate, the center can potentially be at a disadvantage to competitive retail destinations so cities sometimes forego a portion of the existing sales tax rate to offset the cumulative impact of the PIF. PIFs have been used at Belmar and River Point.

Retail Sales Fee

Similar to a PIF, a RSF is imposed by developers on retail tenants as a percentage of the retail transaction. It is typically used for retail operations, primarily in the form of marketing, events and promotions. RSFs are administered through covenants on the retail lease and collected by a metro district or similar entity. Although this tool has been used at the Centerra project in Loveland, it tends not to be widely used.



Enhanced Sales Tax Incentive Program

Cities use an Enhanced Sales Tax Incentive Program (ESTIP) to promote new development and/or provide funding for renovations or improvements to local businesses. ESTIPs allow local sales taxes generated from specific new businesses to be earmarked for local development improvements. ESTIPs do not require that the project be located in a special district and are often executed through a formal development agreement on a case-by-case basis.

8.6.4 City of Englewood Tools

Enterprise Zones

All of the station areas examined as part of the Next Steps Study are located in enterprise zones. The enterprise zone program provides tax incentives to encourage businesses to locate and expand in designated economically distressed areas, defined as areas with high unemployment rates, low per capita income, and/or slower population growth. The program encourages job creation and capital investment by providing tax credits to businesses and projects that promote and encourage economic development activities. Costs eligible for tax credits include:

- ▶ 3 percent investment tax credit for equipment acquisition
- ▶ \$500 per employee tax credit for new and expanding business facilities
- ▶ Two-year credit of \$200 per employee, for a total of \$400, for employer sponsored health insurance programs for new and expanding businesses
- ▶ Tax credit of 10 percent for expenditures on job training and school-to-career related programs
- ▶ Tax credit of up to 25 percent of expenditures to rehabilitate vacant buildings at least 20 years old and vacant for a minimum of 2 years

8.6.5 Economic Development Incentives

The incentives outlined below are provided by the City of Englewood, at the sole discretion of City Council, and are considered on a case-by-case basis.

Building Use Tax Reimbursements

The City may consider a reimbursement of construction and equipment use tax generated by the development of a project. All proceeds of the use tax reimbursement must be used for purposes such as public infrastructure, eliminating obstacles or eyesores to development, or public improvements such as public spaces. Building use tax rebates shall not exceed 50 percent (with a maximum rebate to be determined by cost/benefit analysis) of the *actual* use tax collected.

Furniture Fixtures and Equipment Use Tax Reimbursements

The City may consider partial or full reimbursement of the use taxes paid for furniture fixtures and equipment generated by a project. All proceeds of the use tax reimbursement must be used for purposes such as public infrastructure, eliminating obstacles or eyesores to development, or



public improvements such as public spaces. Rebates of up to 100 percent (with a maximum rebate to be determined by cost/benefit analysis) may be granted for furniture, fixtures, and equipment use tax.

City Property Tax Reimbursement

The City may consider partial or full reimbursement of the City's portion of property tax collections for a finite period of time.

Reduction in Fees

The City may consider offsetting all or a portion of the development fees for commercial or residential projects that meet the goals and objectives of the Comprehensive Plan and Subarea Plans (if applicable), and provide a unique and quality project in terms of product type, tenant mix, and overall physical environment.

Rebates of up to 100 percent (with a maximum rebate to be determined by cost/benefit analysis) may be granted for building permit fees and development application fees, not to include plan review fees or other contractual fees.



M E M O R A N D U M

TO: Mayor Penn and Members of City Council
THROUGH: Eric Keck, City Manager
Michael Flaherty, Deputy City Manager
FROM: Darren Hollingsworth, Economic Development Manager
Nancy Fenton, Arapahoe County Enterprise Zone Administrator
DATE: July 13, 2015
SUBJECT: Enterprise Zone and Administration Update

At the July 13 Study Session, staff will provide an update on the administration of the Arapahoe County Enterprise Zone. Staff will seek Council support for Englewood's Enterprise Zone re-designation application to Colorado's Economic Development Commission. If Council is supportive, City Manager Keck will sign a letter of support for the City's re-designation application which will be submitted on July 15.

This topic was previously discussed at the April 14, 2015 Council study session.

Background on the Administrative Grant

The City of Englewood administers the Arapahoe County Enterprise Zone, which covers portions of Sheridan, Littleton and Englewood. Englewood has administered the Enterprise Zone for Arapahoe County since its inception in 1990. The Enterprise Zone means a great deal to Englewood businesses and is a significant element of our Economic Development program, and comes at very little expense to the City, other than staff time. Each year approximately 100 Englewood businesses claim valuable State of Colorado tax credits offered through the Enterprise Zone.

Background on the Re-Designation of the Enterprise Zone

Due to a change in Colorado's enabling legislation for Enterprise Zones, all Enterprise Zones statewide must requalify through a re-designation process. Newly designated Enterprise Zone areas will take effect in 2016. Englewood's economic staff has coordinated with staff from Sheridan, Littleton, and Arapahoe County to confirm their interest in continuing the benefits of the Enterprise Zone. At the end of March, staff completed the preliminary application for re-designation. At that time, the State's Enterprise Zone Administrator indicated that Parker and Castle Rock are interested in joining our Enterprise Zone. Given the increased geography, staff approached the South Metro Denver Chamber of Commerce and Arapahoe County staff to discuss the possibility of the SMDCC taking over the administration of the Enterprise Zone. We believe that zone administration for a multi-county area in the South Metro Denver area falls outside the scope and interest of the City of Englewood. Staff from the Colorado Office of Economic Development agree and are assisting us in finding a suitable administrator to cover this larger Enterprise Zone area.

City of Englewood

Facilities and Operations
2800 S. Platte River Drive
Englewood, CO 80110
303-762-2540



City of Englewood

MEMORANDUM

TO: City Council

THROUGH: Eric Keck, City Manager

THROUGH: Rick Kahm, Director of Public Works ✓

FROM: Michael Hogan, Facilities and Operations Manager

DATE: July 8, 2015

SUBJECT: Recreation Center Roofing and Skylight Replacement

Recreation Center Roofing and Skylight Replacement

The replacement of the Recreation Center sloped roofing sections and skylights was approved in the 2015 capital budget. Public Works has completed the engineering, bid process, and proposals, and the project is ready for implementation.

The project was bid through U.S. Communities a governmental purchasing alliance.

"With U.S. Communities, agencies can utilize competitively solicited contracts to help save time and resources while still meeting state, local and federal purchasing requirements. All cooperative purchasing contracts from U.S. Communities have been competitively solicited by a lead public agency and meet our rigorous cooperative standards and supplier commitments. Each supplier commits to delivering their best overall government pricing so you can buy with confidence." US Communities Website

Scope Summary:

1. Tear off existing cement tile roofing system to the wood deck and dispose.
2. Replace Skylights over the pool and gym areas.
3. Mechanically attach 1.5" cross-vented OSB panels into existing 3/4 plywood decking Fastening pattern will be determined by insulation manufacturer.
4. Add insulated decking board to meet current Englewood roofing codes.
5. Replace and raise metal fascia and color match.
6. Place one ply of HPR Aqua Shield underlayment and have ends lapped a minimum of 4 inches.
7. Coat gutter laps with White Knight Plus.
8. Install 50 year shingles in accordance with manufacturer's instructions.
 - a. Malarkey's shingles with Flexor™ SBS polymer modified asphalt technology received the UL 2218 Class 4 impact resistance rating, which is the highest rating possible. In a Class 4 impact test, Malarkey's shingles with Flexor™ withstood a simulation of hailstones impacting a roof at 90 mph (145 kph) without sustaining damage
9. Install shingle as per Englewood local building codes.

City of Englewood

Facilities and Operations
2800 S. Platte River Drive
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303-762-2540



City of Englewood

Garland/DBS, Inc. administered a competitive bid process under the guidance of the U.S. Communities agreements for the project with the hopes of providing a lower market adjusted price.

Garland/DBS has provided the City of Englewood with a not to exceed price of \$467,047.

Costs associated with the project are as follows:

Original Project Funds 1005-0005-02	\$475,000
Garland/DBS	<u>\$467,047</u>
Total Savings	\$ 7,953

Staff recommends contracting with Garland/DBS for the project.
Recreation Center Roofing and Skylight Replacement Project,
(U.S. Communities MICPA #14-5903 - Proposal # 25-CO-150254)

Not to exceed ~~\$467,047.00~~


~~Michael Hogan~~
Facilities and Operations Manager
City of Englewood
303-762-2540
MHogan@Englewoodgov.org



Garland/DBS, Inc.
3800 East 91st Street
Cleveland, OH 44105
Phone: (800) 762-8225
Fax: (216) 883-2055



ROOFING MATERIAL AND SERVICES PROPOSAL

City of Englewood
Rec Center Roof Replacement
Date Submitted: 06/24/2015
Proposal #: 25-CO-150254
MICPA # 14-5903

Please Note: The following estimate is being provided according to the pricing established under the Master Intergovernmental Cooperative Purchasing Agreement (MICPA) with Cobb County, GA and U.S. Communities. This estimate should be viewed as the maximum price an agency will be charged under the agreement. Garland/DBS, Inc. administered a competitive bid process for the project with the hopes of providing a lower market adjusted price whenever possible.

Scope of Work:

- 1 Tear off existing cement tile roofing system to the wood deck and dispose.
- 2 Repair any deficiencies of substrate.
- 3 Coordinate with Skylight installer for proper roof curbing/flashing install.
- 4 Mechanically attach 1.5" crossvented OSB panels into existing 3/4 plywood decking
Fastening pattern will be determined by insulation manufacturer.
- 5 Replace and raise fascia and color match.
- 6 Place one ply of HPR Aqua Shield underlayment and have ends lapped a minimum of 4 inches over itself. Stagger end laps of each consecutive layer a minimum of 3 feet.
In valleys, run HPR Aqua Shield minimum 6 inches over valley protection. Nail in place per manufacturer's requirements.
- 7 At all vent pipes, install a 2 square foot piece of HPR Aqua Shield underlayment.
- 8 At all vertical walls, install HPR Aqua Shield so that it extends at least 6 inches up the vertical wall and 12 inches onto the horizontal roof.
- 9 Install 50 year shingles in accordance with manufacturer's instructions.
- 10 Install shingle as per Englewood local building codes. Staples are not acceptable.
- 11 Install Hip and Ridge shingles per manufacturer's instructions.
- 12 Coat gutter laps with White Knight Plus.

Line Item Pricing

Item #	Item Description	Unit Price	Quantity	Unit	Extended Price
RS Means # 70505104 120	Selective Demo Thermal and Moisture Protection; Slate Shingles	\$ 1.09	35000	SF	\$ 38,150
16.13	INSTALLATION OF SHAKE, TILE, OR SHINGLE ROOF SYSTEMS: INSTALL NEW DIMENSIONAL SHINGLE ROOF SYSTEM - New Dimensional Shingle Roof System with Base Sheet as an Underlayment; Install Self-Adhering Underlayment on All Eaves, Peaks & Valleys	\$ 5.27	35000	SF	\$ 184,450
	Sub Total Prior to Multipliers				\$ 222,600
22.11	JOB SITE SPECIFIC MULTIPLIERS APPLIED TO EACH LINE ITEM ON ASSOCIATE JOB: MULTIPLIER - LIMITED / OBSTRUCTED / DIFFICULT ROOF ACCESS Multiplier Applied when Access to the Roof is Limited to Specific Entry Points, Equipment & Materials Cannot be Lifted by Crane on the Roof, or Access is Dependent Upon Road Closure			30% %	\$ 66,780
22.21	MULTIPLIER - ROOF HEIGHT IS GREATER THAN 2 STORIES EQUAL TO OR LESS THAN 5 STORIES Multiplier Applied when the Roof Height Exceeds 2 Stories, but is Equal to or Less than 5 Stories. Situation Creates the Need for Additional Safety Protection and Increased Crane Work.			25% %	\$ 55,650
	Sub-Totals After Multipliers				\$ 345,030

Base Bid Total Maximum Price of Line Items under the MICPA: \$ 345,030

Proposal Price Based Upon Market Experience: \$ 306,735

Competitive Bid Results:

Roofmasters Roofing & Sheet Metal Co. Inc.	\$ 306,735
B&M Roofing of Colorado, Inc.	\$ 340,158
Front Range Roofing Systems, LLC	\$ 383,015

Add Alternate: Fascia Replacement

Proposal Price Based Upon Market Experience: \$ 41,260

Competitive Bid Results:

Roofmasters Roofing & Sheet Metal Co.	\$ 41,260
B&M Roofing of Colorado, Inc.	\$ 62,737
Front Range Roofing Systems, LLC	\$ 86,087

Unforeseen Site Conditions:

Wood Blocking	\$	6.27	per lf
Decking Replacement	\$	2.85	per sq ft

Alternate: Skylight Replacement

Proposal Price Based Upon Market Experience: \$ 119,052
*Skylight cost based on plan drawings provided by Legacy Architecture Studio LLC on 8-23-2015

Competitive Bid Results:

Skylight Specialists, Inc.	\$	119,052
AIA Industries	\$	119,480
Power Products Co.	\$	147,426

Inclusions For Skylights:

Permit	Permit Fee	\$	1,106
Shop Drawings			

Exclusions For Skylights:

- Insulation with skylight framing
- Engineering Calculations
- Framing / Curb at new skylight.

Potential issues that could arise during the construction phase of the project will be addressed via unit pricing for additional work beyond the scope of the specifications. This could range anywhere from wet insulation, to the replacement of deteriorated wood nailers. Proposal pricing valid through 12/31/2015. **Taxes are not included in this proposal pricing. Permit fee for roof is expected to be \$2142.00.**

If you have any questions regarding this proposal, please do not hesitate to call me at my number listed below.

Respectfully Submitted,

Jeff Kozak

Jeff Kozak
Garland/DBS, Inc.

MEMORANDUM

TO: City Council

THROUGH: Eric Keck, City Manager

THROUGH: Rick Kahm, Public Works Director

FROM: Dave Henderson, Deputy Public Works Director

DATE: July 8, 2015

**SUBJECT: PROPOSED INTERGOVERNMENTAL AGREEMENT
FLOOD STUDY NORTH ENGLEWOOD**

Staff will attend the July 13th Council Study Session to discuss a draft Intergovernmental Agreement (IGA) with the Urban Drainage and Flood Control District (UDFCD). The proposed IGA would include north Englewood in a detailed Floodplain study being conducted by UDFCD and the Army Corps of Engineers. The study will develop a drainageway master plan, define the Flood Hazard Area Delineation (FHAD), and provide recommended alternatives to mitigate flooding impacts to private property.

Once the FHAD has been defined, the properties subject to flooding from a 100 year storm will be included in a FEMA regulated floodplain. Based on preliminary, unofficial mapping performed in 1999, approximately 901 Englewood properties could be affected (see attached map). Any property located within a designated floodplain would be subject to floodplain development building and zoning codes. These code requirements may limit improvements to existing properties (including additions, garages, and fences). Properties located in a FEMA regulated floodplain are required to purchase flood insurance.

Advantages of detailed floodplain mapping include a better delineation of the floodplain limits, development of a master plan to address to reduce or eliminate the number of private properties within the floodplain, preliminary cost estimates for budgeting purposes, proactive public notification and increased public awareness, along with the decreased risk of personal injury and property damage from storm events.

We have included a copy of last week's short term response with the draft IGA, along with pictures taken by a resident in the 2900 block of S. Ogden St. after the June 11, 2015 rainstorm. For reference, three previous short term responses from 2013 are also attached.

/dh

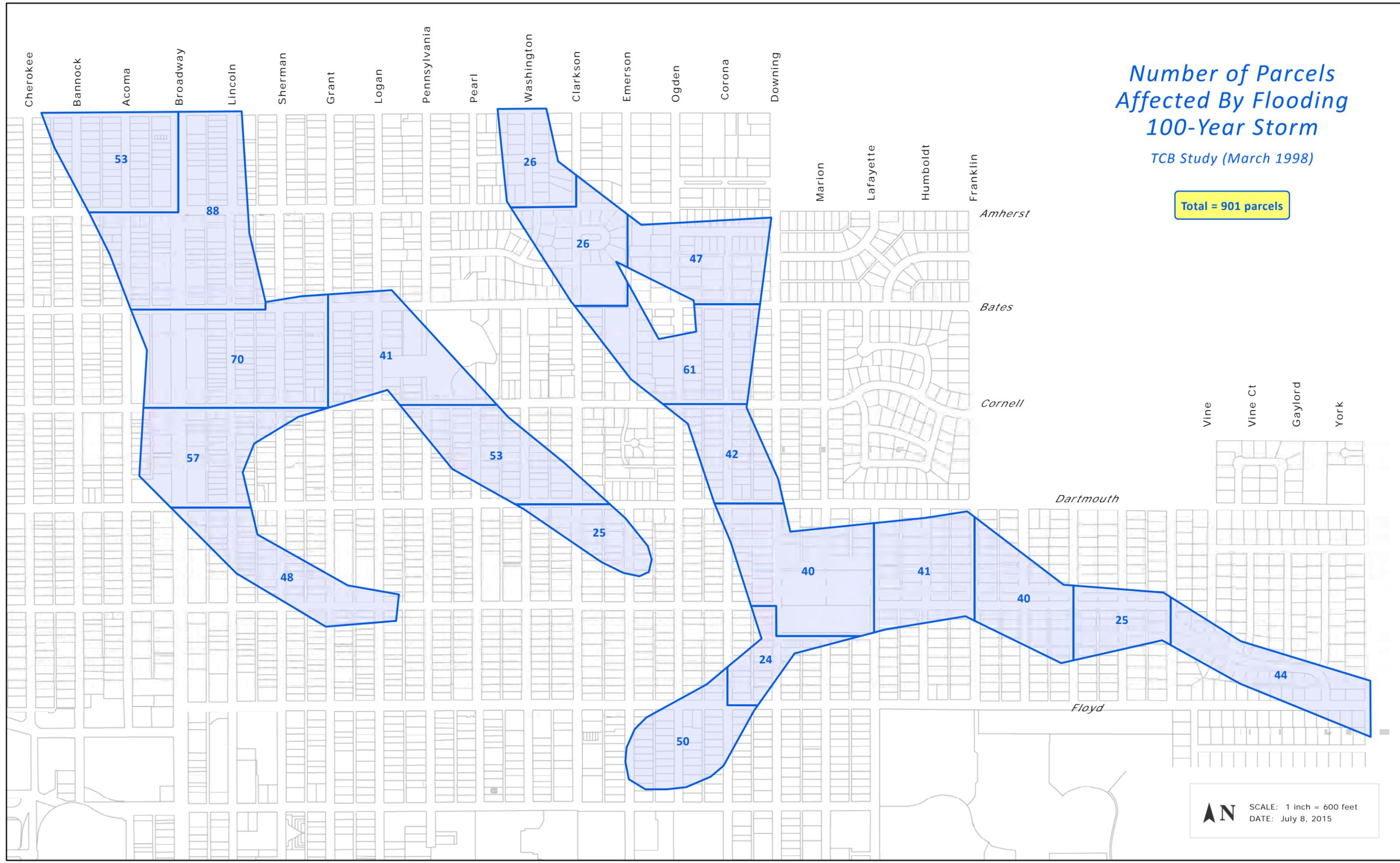
Attachments:

Properties Affected Map
Pictures of June 11th storm event
July 2, 2015 Short Term response
August 22, 2013 Short Term response
September 18, 2013 Short Term response
October 23, 2013 Short Term response

Number of Parcels Affected By Flooding 100-Year Storm

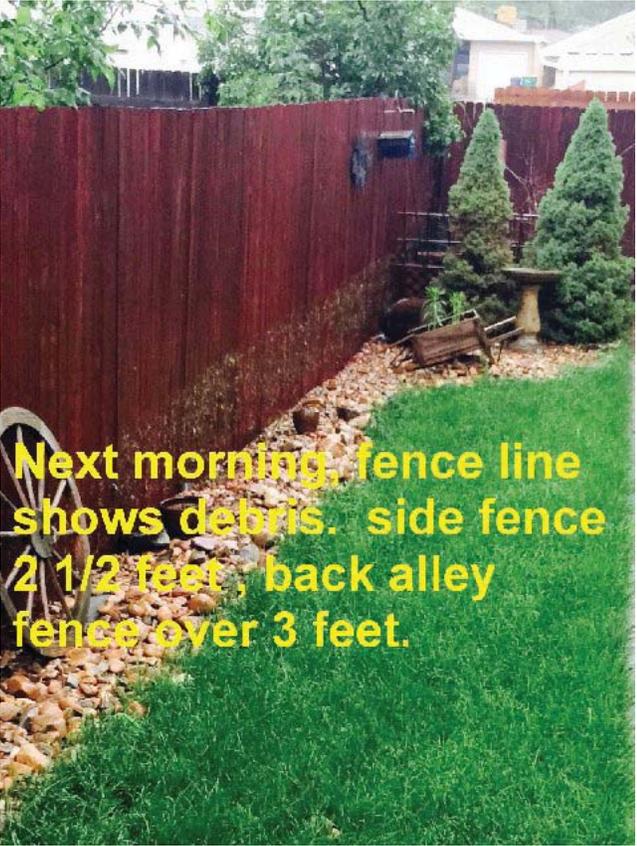
TCB Study (March 1998)

Total = 901 parcels



SCALE: 1 inch = 600 feet
DATE: July 8, 2015

Photos of flooding in northeast Englewood (Ogden Street) resulting from the June 11, 2015 storm.



MEMORANDUM

TO: City Council

THROUGH: Eric Keck, City Manager

THROUGH: Rick Kahm, Public Works Director

FROM: Dave Henderson, Deputy Public Works Director

DATE: July 2, 2015

**SUBJECT: NORTHEAST ENGLEWOOD FLOODING
COUNCIL REQUEST NO. 15-120**

City Council requested a summary of drainage issues that led to recent flooding in Northeast Englewood.

Summary

The storm event on June 11, 2015 dropped approximately 2.5” of rain in a one hour period, as recorded by a private rain gauge located at Yale and Emerson. The overall rainfall total for the storm was approximately 3.9”. Based on the rainfall intensity data reported, this storm exceeded a 50 year event (based on the “Urban Drainage and Flood Control District Manual” with data specific to Englewood).

Storm sewer flows in NE Englewood were designed to carry a 2 year storm. For a point of reference, a 2 year storm event would equate to a little less than 1” of rainfall in a one-hour period. Flows are conveyed in a 66” diameter concrete pipe that runs completely full during any storm exceeding 1” per hour. Once the system reaches capacity, flows are conveyed in the streets and alleys and, in some areas, over private property causing flooding issues for our residents.

The NE Englewood basin generally follows the path shown on the attached drawing from a study performed in 1998. This drainage way is known by the Urban Drainage and Flood Control District (UDFCD) as “Dry Gulch” and is a tributary to “Harvard Gulch”. Staff has previously responded to Council Short Term requests about flooding in this area and has heard directly from a number of the residents affected by flood waters.

Recommended Action

UDFCD, along with the Army Corps of Engineers, is in the process of performing a detailed flood plain study for Harvard Gulch basin. Staff contacted UDFCD and requested a proposal to join the study. The draft Intergovernmental Agreement is attached.

UDFCD has previously selected Matrix Design as their consultant for this project. Staff recommends joining the study for the very reasonable cost of \$10,000. The study will develop a drainageway master plan and officially define the Flood Hazard Area Delineation (FHAD) in this watershed. Once mapped, the area will become a regulated FEMA floodplain. The study will provide recommended alternatives to mitigate flooding impacts to private property. Staff requested the attached letter from Muller Engineering to help

City Council and staff understand the impacts of officially mapping an area of known flooding.

Staff expects to attend a City Council study session to discuss the proposed IGA at an upcoming Study Session. We would hope to present the formal agreement at the July 20th City Council meeting.

/dh

c: Leigh Ann Hoffhines

Attachments:

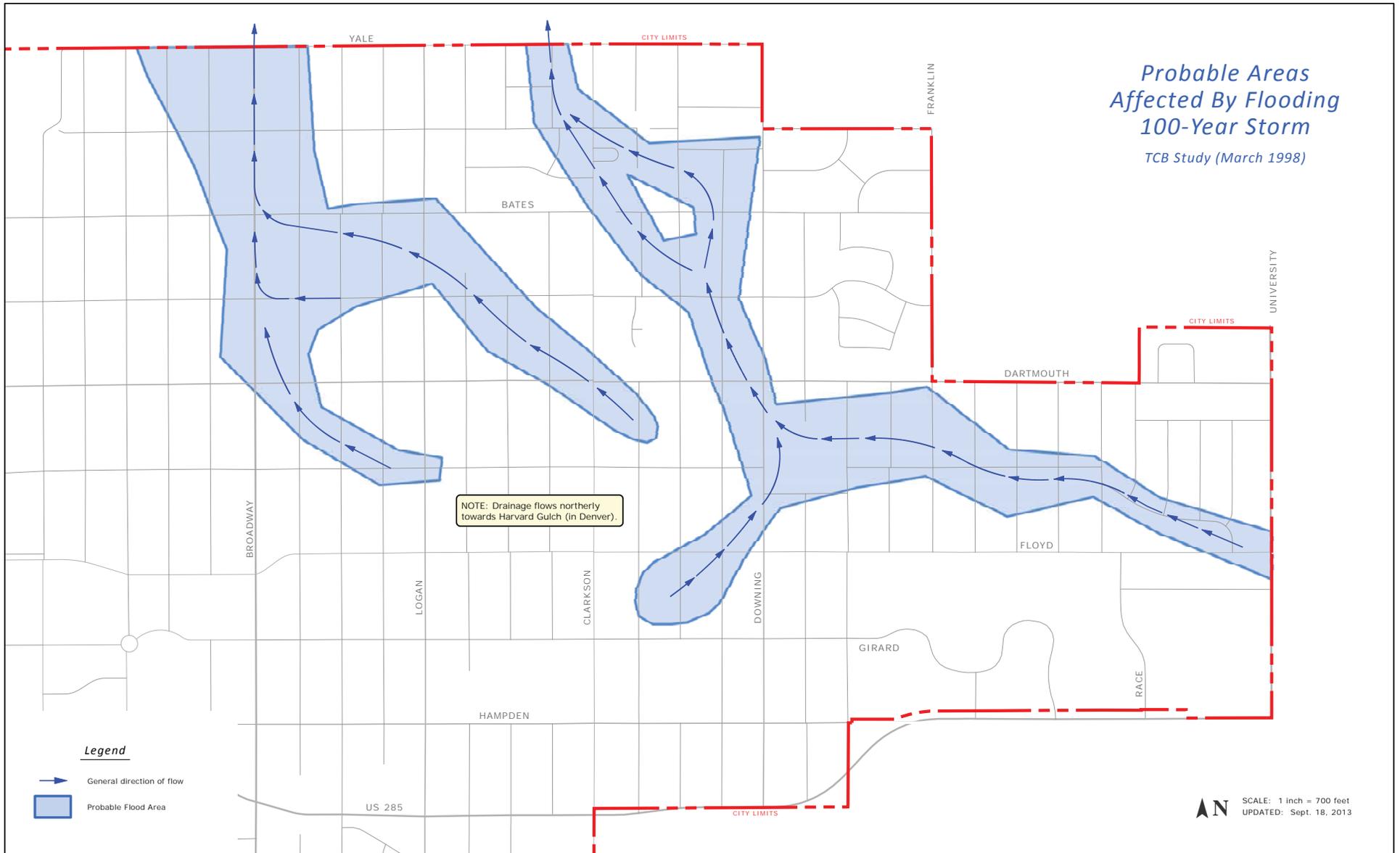
Area of Probable Flooding Map

Draft IGA

Muller Engineering letter

Probable Areas Affected By Flooding 100-Year Storm

TCB Study (March 1998)



Legend

-  General direction of flow
-  Probable Flood Area

 SCALE: 1 inch = 700 feet
UPDATED: Sept. 18, 2013

AGREEMENT REGARDING FUNDING OF
MAJOR DRAINAGEWAY PLANNING AND
FLOOD HAZARD AREA DELINEATION FOR
DRY GULCH IN ENGLEWOOD

Agreement No. 15-07.02

THIS AGREEMENT, made this _____ day of _____, 2015, by and between URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (hereinafter called "DISTRICT") and CITY OF ENGLEWOOD (hereinafter called "ENGLEWOOD"); (hereinafter ENGLEWOOD shall be known as "PROJECT SPONSOR" and DISTRICT and PROJECT SPONSOR shall be collectively known as "PARTIES");

WITNESSETH THAT:

WHEREAS, DISTRICT in a policy statement previously adopted (Resolution No. 14, Series of 1970), expressed an intent to assist public bodies which have heretofore enacted floodplain zoning measures; and

WHEREAS, DISTRICT has previously established a Work Program for 2015 (Resolution No. 51, Series of 2014) which includes master planning; and

WHEREAS, DISTRICT has previously engaged with City and County of Denver in an "Agreement Regarding Funding of Major Drainageway Planning and Flood Hazard Area Delineation for Harvard Gulch" (Agreement No. 14-10.04); and

WHEREAS, PARTIES now desire to proceed with development of a drainageway master plan and a flood hazard area delineation (FHAD) report for Dry Gulch (tributary to Harvard Gulch) within the City of Englewood (hereinafter called "PROJECT"); and

WHEREAS, PARTIES desire to engage an engineer to render certain technical and professional advice and to compile information, evaluate, study, and recommend design solutions to such drainage problems for PROJECT which are in the best interest of PARTIES.

NOW, THEREFORE, in consideration of the mutual promises contained herein, PARTIES hereto agree as follows:

1. SCOPE OF AGREEMENT

This Agreement defines the responsibilities and financial commitments of PARTIES with respect to PROJECT.

2. PROJECT AREA

DISTRICT shall engage an engineer and obtain mapping as needed to perform or supply necessary services in connection with and respecting the planning of PROJECT of the area and watershed shown on the attached Exhibit A dated July 2015, (hereinafter called "AREA").

3. SCOPE OF PROJECT

The purpose of PROJECT is to develop a drainageway master plan and FHAD, including hydrologic information and the locations, alignments, and sizing of storm sewers, channels, detention/retention basins, and other facilities and appurtenances needed to provide efficient

stormwater drainage within AREA. The proposed work shall include, but not be limited to, mapping; compilation of existing data; necessary field work; and development and consistent evaluation of all reasonable alternatives so that the most feasible drainage and flood control master plan can be determined and justified for AREA. Consideration shall be given to costs, existing and proposed land use, existing and proposed drainage systems, known drainage or flooding problems, known or anticipated erosion problems, stormwater quality, right-of-way needs, existing wetlands and riparian zones, open space and wildlife habitat benefits, and legal requirements. Schematic alternative plans shall be developed such that comparison with other alternatives can be made. Drainage system planning shall be done in three phases by the engineer engaged by DISTRICT, culminating in a drainage master plan report. During the first phase, the selected engineer shall perform all data gathering and modeling needed to prepare the baseline hydrology section of the master plan report containing an introduction, study area description and hydrologic analysis description. During the second phase, the engineer shall perform all studies and data gathering needed to prepare the alternatives analysis sections of the master plan report containing a hydraulic analysis discussion, schematics of alternatives developed and their costs along with a discussion of the pros and cons of each alternative and a recommended plan. A single alternative will be selected by PARTIES after the review and evaluation of the alternatives analysis report. The FHAD report preparation and submittal will be concurrent with the second phase of the master plan. During the third phase, the engineer shall be directed to prepare a conceptual design for the selected alternative and prepare the conceptual design section of the master plan report.

4. PUBLIC NECESSITY

PARTIES agree that the work performed pursuant to this Agreement is necessary for the health, safety, comfort, convenience, and welfare of all the people of the State, and is of particular benefit to the inhabitants of PARTIES and to their property therein.

5. PROJECT COSTS

PARTIES agree that for the purposes of this Agreement PROJECT costs shall consist of, and be limited to, mapping, master planning, FHAD and related services and contingencies mutually agreeable to PARTIES. Project costs are estimated not to exceed \$10,000.

6. FINANCIAL COMMITMENTS OF PARTIES

PARTIES shall each contribute the following percentages and maximum amounts for PROJECT costs as defined in Paragraphs 5:

	Master Plan <u>Percentage Share</u>	Maximum <u>Contribution</u>
DISTRICT	0.00%	\$0
<u>ENGLEWOOD</u>	<u>100.00%</u>	<u>\$10,000</u>
TOTAL	100.00%	\$10,000

7. MANAGEMENT OF FINANCES

Payment by by ENGLEWOOD of \$10,000 shall be made to DISTRICT subsequent to execution of this Agreement and within thirty (30) calendar days of request for payment by DISTRICT. The payments by PARTIES shall be held by DISTRICT in a special fund to pay for increments of PROJECT as authorized by PARTIES, and as defined herein. DISTRICT shall provide a periodic accounting of PROJECT funds as well as a periodic notification to PROJECT SPONSOR of any unpaid obligations. Any interest earned by the monies contributed by PARTIES shall be accrued to the special fund established by DISTRICT for PROJECT and such interest shall be used only for PROJECT and will not require an amendment to this Agreement.

In the event that it becomes necessary and advisable to change the scope of work to be performed, the need for such changes shall first be discussed with PARTIES, and their general concurrence received before issuance of any amendments or addenda. No changes shall be approved that increase the costs beyond the funds available in the PROJECT fund unless and until the additional funds needed are committed by PARTIES by an amendment to this Agreement.

Within one year of completion of PROJECT if there are monies including interest earned remaining which are not committed, obligated, or dispersed, each party shall receive a share of such monies, which shares shall be computed as were the original shares.

8. PROJECT MAPPING

No new mapping is anticipated under this Agreement for PROJECT. Upon execution of this Agreement, PROJECT SPONSOR shall provide copies of the most recent mapping within their jurisdictional area in digital format to DISTRICT to the extent such mapping is available without additional cost.

9. MASTER PLANNING AND DFHAD

Upon execution of this Agreement, PARTIES shall select an engineer mutually agreeable to PARTIES. DISTRICT, with the approval of PROJECT SPONSOR, shall contract with the selected engineer, shall administer the contract, and shall supervise and coordinate the planning for the development of alternatives and of conceptual design.

10. PUBLISHED REPORTS AND PROJECT DATA

DISTRICT will provide to PROJECT SPONSOR access to the draft and final electronic FHAD report files and draft and final electronic report files.

Upon completion of PROJECT, electronic files of all mapping, drawings, and hydrologic and hydraulic calculations developed by the engineer contracted for PROJECT shall be provided to PROJECT SPONSOR upon request.

11. TERM OF THE AGREEMENT

The term of this Agreement shall commence upon final execution by all PARTIES and shall terminate two years after the final master planning report is delivered to DISTRICT and the final accounting of funds on deposit at DISTRICT is provided to all PARTIES pursuant to Paragraph 7 herein.

12. LIABILITY

Each party hereto shall be responsible for any suits, demands, costs or actions at law resulting from its own acts or omissions and may insure against such possibilities as appropriate.

13. CONTRACTING OFFICERS

- A. The contracting officer for PROJECT SPONSOR shall be the Deputy Public Works Director, 1000 Englewood Parkway, Englewood, Colorado 80110.
- B. The contracting officer for DISTRICT shall be the Executive Director, 2480 West 26th Avenue, Suite 156B, Denver, Colorado 80211.
- C. The contracting officers for PARTIES each agree to designate and assign a PROJECT representative to act on the behalf of said PARTIES in all matters related to PROJECT undertaken pursuant to this Agreement. Each representative shall coordinate all PROJECT-related issues between PARTIES, shall attend all progress meetings, and shall be responsible for providing all available PROJECT-related file information to the engineer upon request by DISTRICT or PROJECT SPONSOR. Said representatives shall have the authority for all approvals, authorizations, notices, or concurrences required under this Agreement. However, in regard to any amendments or addenda to this Agreement, said representative shall be responsible to promptly obtain the approval of the proper authority.

14. RESPONSIBILITIES OF PARTIES

DISTRICT shall be responsible for coordinating with PROJECT SPONSOR the information developed by the various consultants hired by DISTRICT and for obtaining all concurrences from PROJECT SPONSOR needed to complete PROJECT in a timely manner. PROJECT SPONSOR agrees to review all draft reports and to provide comments within 21 calendar days after the draft reports have been provided by DISTRICT to PROJECT SPONSOR. PROJECT SPONSOR also agrees to evaluate the alternatives presented in the alternatives analysis sections of the report, to select an alternative, and to notify DISTRICT of their decision(s) within 30 calendar days after the alternatives analysis report is provided to PROJECT SPONSOR by DISTRICT.

15. AMENDMENTS

This Agreement contains all of the terms agreed upon by and among PARTIES. Any amendments to this Agreement shall be in writing and executed by PARTIES hereto to be valid and binding.

16. SEVERABILITY

If any clause or provision herein contained shall be adjudged to be invalid or unenforceable by a court of competent jurisdiction or by operation of any applicable law, such invalid or unenforceable clause or provision shall not affect the validity of the Agreement as a whole and all other clauses or provisions shall be given full force and effect.

17. APPLICABLE LAWS

This Agreement shall be governed by and construed in accordance with the laws of the State of Colorado. Jurisdiction for any and all legal actions regarding this Agreement shall be in the State of Colorado and venue for the same shall lie in the County where the Project is located.

18. ASSIGNABILITY

No party to this Agreement shall assign or transfer any of its rights or obligations hereunder without the prior written consent of the nonassigning party or parties to this Agreement.

19. BINDING EFFECT

The provisions of this Agreement shall bind and shall inure to the benefit of PARTIES hereto and to their respective successors and permitted assigns.

20. ENFORCEABILITY

PARTIES hereto agree and acknowledge that this Agreement may be enforced in law or in equity, by decree of specific performance or damages, or such other legal or equitable relief as may be available subject to the provisions of the laws of the State of Colorado.

21. TERMINATION OF AGREEMENT

This Agreement may be terminated upon thirty (30) days' written notice by any party to this Agreement, but only if there are no contingent, outstanding contracts. If there are contingent, outstanding contracts, this Agreement may only be terminated upon the cancellation of all contingent, outstanding contracts. All costs associated with the cancellation of the contingent contracts shall be shared between PARTIES in the same ratio(s) as were their contributions.

22. PUBLIC RELATIONS

It shall be at PROJECT SPONSOR's sole discretion to initiate and to carry out any public relations program to inform the residents in PROJECT area as to the purpose of PROJECT and what impact it may have on them. Technical information shall be presented to the public by the selected engineer. In any event DISTRICT shall have no responsibility for a public relations program, but shall assist PROJECT SPONSOR as needed and appropriate.

23. GOVERNMENTAL IMMUNITIES

The PARTIES hereto intend that nothing herein shall be deemed or construed as a waiver by any PARTY of any rights, limitations, or protections afforded to them under the Colorado Governmental Immunity Act (Section 24-10-1-1, C.R.S., et seq.) as now or hereafter amended or otherwise available at law or equity.

24. NO DISCRIMINATION IN EMPLOYMENT

In connection with the performance of work under this Agreement, PARTIES agree not to refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified on the basis of race, color, ancestry, creed, religion, national origin, gender, age, military status, sexual orientation, marital status, or physical or mental disability and further agrees to insert the foregoing provision in all subcontracts hereunder.

25. APPROPRIATIONS

Notwithstanding any other term, condition, or provision herein, each and every obligation of PROJECT SPONSOR and/or DISTRICT stated in this Agreement is subject to the requirement of a prior appropriation of funds therefore by the appropriate governing body of PROJECT SPONSOR and/or DISTRICT.

26. NO THIRD PARTY BENEFICIARIES

It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to PARTIES, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other or third person on such Agreement. It is the express intention of PARTIES that any person or party other than PROJECT SPONSOR or DISTRICT receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

27. ILLEGAL ALIENS

PARTIES agree that any public contract for services executed as a result of this intergovernmental agreement shall prohibit the employment of illegal aliens in compliance with §8-17.5-101 *et seq* C.R.S. The following language shall be included in any contract for public services: "The Consultant or Contractor shall not and by signing this Agreement certifies that it does not knowingly employ or contract with an illegal alien to perform work under this Agreement. Consultant or Contractor shall not enter into a subcontract with a subcontractor that fails to certify to the Consultant or Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services. Consultant or Contractor affirms that they have verified or attempted to verify through participation in the Employment Eligibility Verification Program (E-Verify) previously known as the Basic Pilot Program (created in Public Law 208, 104th Congress, As Amended, and expanded in Public Law 156, 108th Congress, As Amended, that is administered by the United States Department of Homeland Security that Consultant or Contractor does not employ illegal aliens.

Consultant or Contractor shall not use the E-Verify procedures to undertake pre-employment screening of job applicants while the public contract for services is being performed.

In the event that the Consultant or Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, the Consultant or Contractor shall be required to:

- A. Notify the subcontractor and PARTIES within three days that the Consultant or Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and
- B. Terminate the subcontract with the subcontractor if within three days of receiving the notice required if the Subcontractor does not stop employing or contracting with the illegal alien; except that the Consultant or Contractor shall not terminate the contract with the Subcontractor if during such three days the Subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

Consultant or Contractor is required under this Agreement to comply with any reasonable request by the Colorado Department of Labor and Employment (CDL) made in the course of an investigation the CDL is undertaking pursuant to §8-17.5-102(5) C.R.S.

DISTRICT may terminate this agreement for a breach of contract if Consultant or Contractor does not fully and completely comply with these conditions. If this Agreement is so terminated, the Consultant or Contractor shall be liable for actual and consequential damages to PARTIES.

WHEREFORE, PARTIES hereto have caused this instrument to be executed by properly authorized signatures as of the date and year above written.

URBAN DRAINAGE AND
FLOOD CONTROL DISTRICT

(SEAL)

ATTEST:

By _____

Title Executive Director

Date _____

CITY OF ENGLEWOOD

(SEAL)

ATTEST:

By _____

Title _____

Date _____

APPROVED:

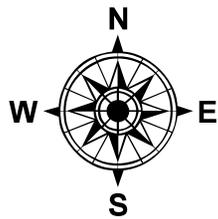
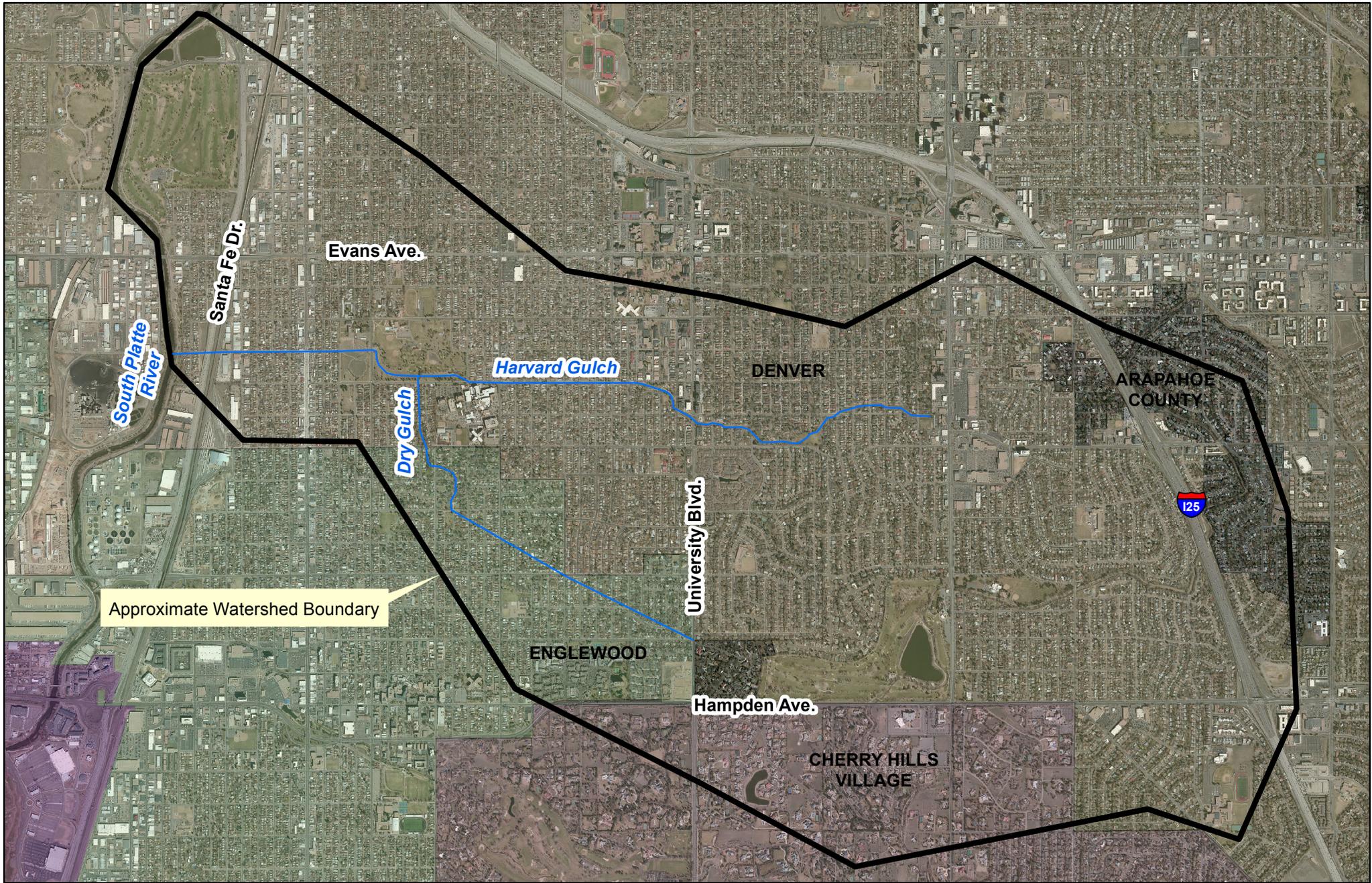


EXHIBIT A
DRY GULCH
Major Drainageway Plan & FHAD
July 2015

April 22, 2015

Dave Henderson
City of Englewood / Public Works
1000 Englewood Parkway
Englewood, CO 80110

Muller Engineering Company, Inc.
Consulting Engineers

777 S. Wadsworth Blvd., Ste. 4-100
Lakewood, Colorado 80226-4355
TEL (303) 988-4939
FAX (303) 988-4969
www.mullereng.com

Re: Master Planning Study for Dry Gulch
Muller Project Number: 15-006.01

Dear Mr. Henderson:

Thank you for requesting Muller Engineering Company's input regarding the potential issues associated with the decision to extend the Major Drainageway Planning (MDP) Study and Flood Hazard Area Delineation (FHAD) of Dry Gulch, upstream from the City of Denver boundary into Englewood. Currently, Dry Gulch, a tributary to Harvard Gulch, does not have a regulatory floodplain delineation nor has it been mapped as part of a FHAD.

Previous Studies

We reviewed the following previous studies that incorporate information related to Dry Gulch to understand the analysis completed previously along the drainageway:

1. 1971 Storm Drainage Plan, by Sellards and Grigg
2. City of Englewood Probable Areas Affected By Flooding From the 100-Year Storm, completed by Turner, Collie, and Braden, Inc., dated March 1998
3. City of Englewood Outfall Systems Planning Study, Preliminary Design Report, dated September 1999, completed by Turner, Collie and Braden

The 1971 Storm Drainage Plan includes a couple of "boxed areas" along the Dry Gulch drainageway, indicating "schematic design of approximate areas of "Flood Danger" from the 100-year storm." This report provides early indications that there is some flooding concerns for the area. The City of Englewood Probable Areas Affected By Flooding From the 100-Year Storm indicates a schematic evaluation indicating a fairly large area being included within the potential flood zone, as shown in Drawing 1, attached. The City of Englewood Outfall Systems Planning Study, Preliminary Design Report, includes hydrology for Dry Gulch, which indicates a 100-year flow of 2,335 cfs south of the City of Denver Boundary, and a 100-year peak flow of 1,260+/- at the Floyd and University intersection further upstream, which were taken off the peak flood profile data.

Value of Dry Gulch Mapped / Study Completed by UDFCD

These flow rates and the indication of potential flooding limits shown in the previous studies are significant enough to warrant consideration of completing a flood mapping study and related major drainageway planning along this corridor. If the City decides to proceed with the UDFCD FHAD modelling along Dry Gulch drainageway, the City will benefit by possibly having the hydrology for the basin updated and having the 100-year and 500-year floodplains delineated.

Their study will determine the extents of flooding as well as other related characteristics of the 100-year flood event. These characteristics include determining what insurable structures will be located within the floodplain, depth of roadway overtopping, which roadways will be inundated, flow velocities, etc.. All of these characteristics can be utilized by the City to proactively address areas of concern in the future, including master planning improvements that can reduce the floodplain limits off current structures located within the floodplain, assist in determining budgeting for future improvements, as well as increase awareness within the community related to the potential flooding that currently exist, and improving public safety. For example, the City could get this information out to its constituents so they are aware of the flood risks in the area and take a proactive approach to mitigating flood-prone areas and being safe during flooding events. This information would also allow the City's constituents to individually be proactive to take flood protection measures around their dwellings, buy flood insurance, etc..

Concerns about not including the Dry Gulch Area in the Study

While choosing not to extend the study upstream into Englewood would perpetuate the status quo by not having a floodplain delineation along Dry Gulch, it may not be in the best interest of the City and its constituents to take this approach, as it puts the city in a reactive mode of floodplain management along this corridor. Meaning that the City and its constituents would have to react to the repercussions of a 100-year flood in the Dry Gulch basin. Currently, they can buy flood insurance at a lower rate since they are not located in a FEMA regulatory 100-year floodplain, but many may not even know their current level of risk since the floodplain for the area has not been mapped.

Concerns with Participating in the Study but Not Updating the FEMA Maps

Englewood is a community that participates in FEMA's National Flood Insurance Program. Therefore, the City will need to decide whether to proceed further to have the delineations incorporated into the Community Flood Insurance Rate Map (FIRM) and the FEMA regulatory map. The City may need to investigate the issues associated with not mapping a flood hazard area into the regulatory mapping, and whether that has implications to FEMA's Community Rating System (CRS) program, which Englewood is a participating community, and the City's rating. Muller has not looked into this issue to date, but can do so on the city's behalf if the City would like us to look into this issue further. The Community Rating System is a manner in which communities can lower their insurance premiums by up to 40% based on their ranking, based on the extents of the floodplain management measures the community has in place. This could be another important consideration in the City's decision to get the Dry Gulch floodplain mapped into the FEMA program. Due to there being minimal stormwater conveyance systems built in the area, with 100-year flows being from 1,200 cfs to 2,300 cfs along the drainageway, the limits of the floodplain delineation could show certain insurable structures being located within the 100-year or 500-year floodplains, which could potentially burden these properties with a requirement to get flood insurance for in order to get mortgages. While this can be a downside to proceeding toward getting the floodplain mapping updated, we believe the positives of being proactive and getting the floodplain mapped for this area outweighs the negatives that can come with having better information to regulate to and assist the city with mitigating this flooding concern that has been around for decades.

A summary of the pros and cons of having Dry Gulch mapped as part of the UDFCD Master Planning Study are listed as follows:

Pros

- Have a better delineation of the extents of the 100-year and 500-year flood limits.
- Ability to update the FEMA regulatory flood map.
- Have a plan showing improvements to address reducing the limits of the floodplain to reduce or eliminate the quantity of structures located within the floodplain.
- Obtain a preliminary cost of improvements needed so that budgets can be planned for to accomplish these improvements.
- Proactive public notification and increased community awareness.
- Ability for local government to regulate to a more accurate limit of floodplain for development and redevelopment issues and concerns.

Cons

- Potential need to complete a FEMA regulatory map update bringing properties that were previously not in a regulatory floodplain into the floodplain, thus requiring flood insurance premiums to be paid on those properties in the floodplain with mortgages. (These premiums are high and rapidly getting higher at 14% increases per year until the rates are sustainable.)
- Negative public sentiment from the insurance requirements and possible inability to cover the costs for insurance.
- Potential adverse impact to Englewood's Community Rating if the City elects to not complete a FEMA regulatory map update.

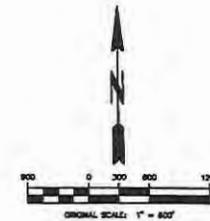
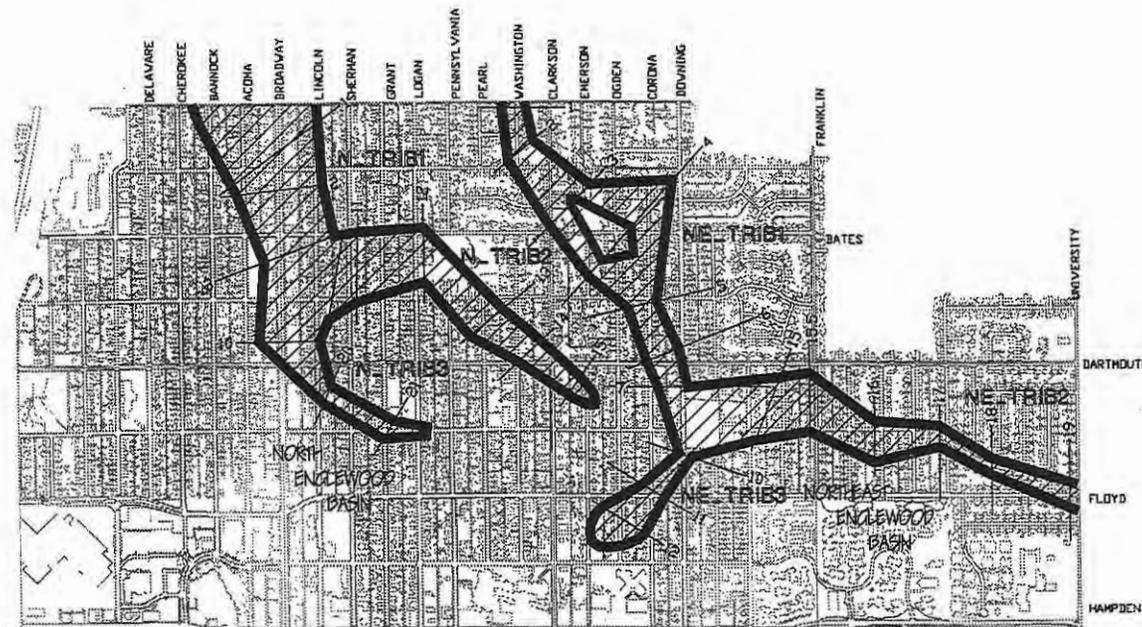
We hope this gives you some insight into the pros and cons of participating in the study to include Dry Gulch within the City of Englewood into the Harvard Gulch MDP and FHAD study. Please contact us at 303-988-4939 with any questions or comments or if you would like to discuss this issue further.

Sincerely,

MULLER ENGINEERING COMPANY, INC.

Bruce Behrer, P.E., CFM, CPESC

Senior Project Manager



PROBABLE AREAS
AFFECTED BY
FLOODING FROM THE
100-YEAR STORM

1

CROSS SECTION

NE_TRIB1

CATCHMENT
IDENTIFICATION
NUMBER

* SEE THE MARCH 1998 REPORT TITLED
"CITY OF ENGLEWOOD APPROXIMATE 100-YEAR
FLOODPLAIN DEFINITION" FOR ADDITIONAL INFORMATION

Note: This map illustrates probable areas of potential flooding during a 100-year storm and was prepared for informational purposes only for exclusive use by the City of Englewood

Turner Collette & Braden Inc.
CONSULTING ENGINEERS
399 DORTCHVILLE STREET, SUITE 1300
DENVER, COLORADO 80202

DESIGNED	DATE
DRAWN	DATE
CHECKED	DATE
REVISED	DATE

URBAN DRAINAGE AND FLOOD CONTROL DISTRICT
CITY OF ENGLEWOOD

PROBABLE AREAS AFFECTED BY
FLOODING FROM THE
100-YEAR STORM

NORTHERN ENGLEWOOD

DWG NO.
1

MEMORANDUM



TO: City Council

THROUGH: Gary Sears, City Manager

THROUGH: Rick Kahm, Director of Public Works ✓

FROM: Dave Henderson, Deputy Public Works Director ✓

DATE: September 18, 2013

SUBJECT: UPDATE - DRAINAGE ISSUES-FLOODING IN NORTHEAST
ENGLEWOOD
COUNCIL REQUEST NO. 13-139 UPDATE

City Council requested a follow up on the area in northeast Englewood (near Dartmouth Avenue) that was flooded on August 8th.

Since our initial short term response dated August 22nd, staff has exchanged emails and met personally with the property owner and her son who had attended the Council meeting on August 19th. Public Works staff checked the area looking for obvious signs of flooding that may have caused damage to private property. Additionally, staff has contacted a consulting engineer experienced with stormwater related calculations as well as reviewing rainfall intensity data.

Staff offers the following:

- Our initial estimate, per the August 22nd memo, determined the storm to be a five-year event. Based on more recent data, including a rain gauge owned by a City employee near Yale and Emerson, we find **the storm exceeded a ten-year event**. On August 8th, the private rain gauge collected 1.5 inches in 24 minutes. Our consulting engineer calculated the storm as a ten-year event based on an official rain gauge in Cherry Hills that collected 1.02 inches in 30 minutes.
- Public Works staff received calls or correspondence from two property owners regarding flooding issues on August 8th. Most of the water was contained within the streets and yards; however, based on our observations, we suspect that others likely had some water inside structures. City Council may have received calls from other residents.
- Staff observed several garages in the alley east of 3000 S. Corona Street that showed high water lines above the garage floor. These structures, along with the rear carriage house at 3089 S. Downing, are located below the grade of the adjacent street or alley.
- The main 66-inch diameter storm sewer pipe in Dartmouth at the Downing intersection, along with storm inlets connected to the main, were inspected by the Utilities Department and found to be clear and operating as designed. They found evidence that the main line was surcharged (grass on the top rung of the manhole). This confirms an engineering report from 1999 that the 66-inch storm line is at capacity and running full during a storm in excess of a 2- year event.

In our previous response to this issue, we noted that the 1999 report recommended detention ponds and additional piping in the area to protect residents from a 5-year event. The report concluded that the most cost effective option was to construct detention facilities at Romans Park and Barde Park (at Charles Hay Elementary School). Detention facilities can be constructed at less cost than concrete pipe installation in streets. These improvements are estimated to cost in excess of \$2 million. It should be noted that, even with these proposed improvements, a 10-year event similar to the August 8th storm would still likely result in street flooding and property damage.

Englewood's storm sewer system is typically designed to handle a 2-year event. Had the intense rainfall been located in another area of Englewood, localized flooding would be expected in those areas.

Subsequent to the August 8th event, Public Works staff explored the feasibility of other options that might reduce flooding to private property in NE Englewood. Staff did not find any other feasible public improvement options that would help.

During our discussions with the property owners at 3089 S. Downing, we explained the findings in the 1999 report. We also discussed other alternatives that might reduce flooding damage to the carriage house. Alternatives discussed included: raising the elevation of the carriage house (not financially feasible), raising the furnace inside the home that has been damaged by flooding a few times (the property owner stated they will explore this option with their furnace contractor), and flood proofing the exterior foundation wall to 2' above grade (difficult to add permanently to an existing structure).

We have updated the map of the "Probable Areas Affected by Flooding" by showing the general direction of flows through northeast Englewood towards Harvard Gulch in Denver (see attached exhibit).

A resident in the 3100 block of S. Gilpin sent the attached email and photo.

/lt

c: Leigh Ann Hoffhines
attach

Dave Henderson

From: Linda Trujillo
Sent: Tuesday, August 13, 2013 8:14 AM
To: Rick Kahm
Cc: Dave Henderson
Subject: FW: Thank you!
Attachments: photo-1.jpg

From: Kimberly Browning
Sent: Monday, August 12, 2013 7:20 PM
To: Linda Trujillo
Subject: Thank you!

I spoke with Brad on Friday morning, and asked if he could put us on the schedule for street sweeping. Yes, I am one of those people that call at 8 am. :-(The City was over here by noon to help us clean up. We had a mini lake/whirlpool out front. I have attached a picture for your entertainment. I have never seen this here before, and have lived in this house since 1982. However, my Grandma told me stories before the storm drains were installed in the 1960's. Thanks again, Brad, and the ones who cleaned us up.

Best Regards,
Kim Browning

3182 S. Gilpin St.

