Legend for added text below:	Strike through or <b>bold italic</b> sentences are FONSI	Note: Many of the items below are covered in CDOT Std Specifications
_	impacts modified in the March 4, 2008 EA Update	or other referenced documents if not otherwise included in the RFP Books

Category/Impacts	Mitigation	Status and Resolution
Land Use and Zoning		
Construction would result in a direct conversion of land (approximately 51 acres) to a transportation use.	No mitigation is required.  Property owners with lands impacted directly by the Preferred Alternative have been contacted by City and County staff and through project newsletters.	N/A
Indirectly, the Preferred Alternative could encourage development in currently undeveloped areas to which access would be improved.		
Consistent with Broomfield Master, Transportation, and Strategic Plans.		
Provides improvements to overall accessibility, mobility and safety within the area.		
Farmland		
No direct or indirect impacts to Prime Farmland or Farmland of Statewide Importance.	No mitigation is required.	N/A
Social		
Would improve traffic flow and connectivity, and would enhance access to school, fire, police and other services through a more direct east-west connection.	Residential and commercial areas that experience a change in access will be provided with alternate access through the 120 <sup>th</sup> Avenue Connection and relocated Allison Street.	Primarily a Phase 2 mitigation requirement
Would require changes to the local street network, particularly along Old Wadsworth Boulevard and on Allison Street.	All residential and business acquisition and relocations will comply with the <i>Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</i> , as amended.	CDOT/Contractor requirement per RFP Book 2 Section 8.1.1 & 8.1.3
Out of direction travel would be required in some areas to access 120 <sup>th</sup> Avenue. The slight increase	During construction, good communication will be maintained with the communities and residents regarding road delays, access and special construction activities.	Contractor requirement per RFP Book 2 Section 4 4.1 Public Information Plan
in travel time would not be as substantial as the travel delays that currently exist on study area roadways.	The project will comply with 23 CFR 771.105(f).	Contractor requirement per RFP Book 1
Relocation of 5 residences, none are minority or		

Category/Impacts	Mitigation	Status and Resolution
low-income.		
Environmental Justice		
Relocation of 2 minority-owned businesses. Acquisition of 6 minority-owned parcels (zoned commercial).  Small increase in air pollution, including an 8% increase in CO concentrations.  Noise impacts to some residents of the mobile home park.  Would improve traffic flow and ease congestion within the study area, benefiting existing businesses in the long-term.  Substantial decrease in traffic volumes along the US 287 diagonal, lower noise and air pollution levels in this area.	All right-of-way acquisition and relocation of businesses and residences will comply with the <i>Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</i> , as amended. CDOT will provide assistance to any eligible owner or tenant in relocating their business or residence at the time of displacement. Relocation resources are available to a residents and businesses without discrimination.  No mitigation is required for the increase in air pollution, as it does not result in any violations of the NAAQS.  A noise wall will be built along the northern edge of the Broomfield Mobile Home Park to reduce noise impacts.	CDOT/Contractor requirement per RFP Book 2 Section 8.1.1 & 8.1.3  Phase 2 Contractor requirement per RFP Book 2 Section 5.1.2 Noise
Right-of-Way and Relocations		
Approximately 51 acres of right-of-way is required for construction of the Preferred Alternative affecting 29 parcels (6 parcels are minority-owned).  Approximately five residences and eight businesses (2 businesses are minority-owned) would need to be relocated.	Right-of-way acquisition and relocation of displaced persons and businesses will comply with the <i>Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</i> , as amended.  The acquisition process will be negotiated in a fair and equitable manner, using market value determined by expert appraisers as required.  All qualified relocatees are eligible to receive monetary payments.  No person shall be displaced from their residence by this project unless and until adequate replacement housing has been offered to such person regardless of race, color, religion, sex or national origin.	CDOT/Contractor requirement per RFP Book 2 Section 8.1.1 & 8.1.3
Economic		
Eight business relocations are anticipated.	Impacts of the Preferred Alternative would not result in substantial adverse	

Category/Impacts	Mitigation	Status and Resolution
Businesses along 120 <sup>th</sup> Avenue and in the area surrounding the 120 <sup>th</sup> Avenue Connection would experience some negative short-term impacts through a loss of revenue due to temporary changes in travel direction and accessibility.	economic impacts to the overall community.  Relocation of businesses (8) will be completed pursuant to the <i>Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</i> , as amended.	CDOT/Contractor requirement per RFP Book 2 Section 8.1.1 & 8.1.3
Short and long-term increase in jobs and income.		
Would improve access and visibility and ease roadway congestion.		
Would reduce circulation problems and enhance the economic vitality of the community.		
The US 287 diagonal would experience a substantial decrease in traffic volumes. Businesses located along the diagonal would suffer in the long-term from less drive-by traffic.		
Transportation		
Would provide east-west continuity in the region, would eliminate out-of-direction travel and improve access to the surrounding land uses, and would provide improved access to the planned RTD park-n-Ride lots.	No mitigation is required.	N/A
Would accommodate east-west travel demand and improve north-south travel, while also allowing future multi-modal improvements anticipated in the US 36 Corridor to occur.		
Access to transit hubs by all modes would be improved.		
Pedestrian and Bicycle Facilities		
The construction contract will include provisions for informing the bicycling community through	The construction contract will include provisions for informing the bicycling community through Broomfield Parks and Recreation and the US 36 TMO, who	Contractor requirement per RFP Book 2

Category/Impacts	Mitigation	Status and Resolution
Broomfield Parks and Recreation and the US 36 TMO, who will provide bike detour and route information.	will provide bike detour and route information.	Section 4.2 Stakeholders
Air Quality		
CO and PM <sub>10</sub> concentrations would not exceed current NAAQS.	No mitigation is required.	N/A
Results of CO dispersion model showed an 8 percent increase in CO concentrations near the mobile home park.		
Noise		
Four residences would experience noise levels above the approach criteria of 66 dB(A).	A noise wall will be included to minimize noise impacts along the north edge of the Broomfield Mobile Home Park. This addresses one of the four impacted	Phase 2 Contractor requirement per RFP Book 2 Section 5.1.2 Noise
Twenty-one locations, including a mixture of commercial and residential sites located near existing 120 <sup>th</sup> Avenue and along Old Wadsworth Boulevard, are projected to experience decreases in noise levels. Thirty-eight mobile homes in the mobile home park would experience increases in noise levels, one would exceed the NAC.	residences.  Noise mitigation is not reasonable or feasible for the other three residences located at 11910 Allison Street, 8375 120 <sup>th</sup> Avenue, and 8357 120 <sup>th</sup> Avenue (see EA Section 3.9.3, pages 3-61 to 3-63).	
Ten residences just north of the proposed 120 <sup>th</sup> Avenue Connection alignment would experience an increase of 5 to 9 dB(A).		
Two residences on 120 <sup>th</sup> Avenue near Carr and Commerce Streets would experience noise levels above the NAC impact threshold.		
Water Resources and Water Quality		
Impervious surface area would increase by approximately 30 acres due to transportation improvements.  A portion of Dry Creek Valley Ditch, southwest	The use of standard erosion and sediment control BMPs in accordance with CDOT's <i>Erosion Control and Storm Water Quality Guide</i> will be included in the final design plans. All work on the project will be in conformity with Section 107.25 and Section 208 of the CDOT <i>Standard Specifications for Road</i>	Contractor requirement per RFP Book 2 Section 12.1.2.1 second paragraph Contractor requirement per RFP Book 2 Section 12.3 Const Reqts in accordance

Category/Impacts	Mitigation	Status and Resolution
of US 36, would need to be moved from the existing channel bed to the west to accommodate the bridge abutment locations for the 120 <sup>th</sup> Avenue Connection.  Approximately 300 feet of the Dry Creek Valley Ditch southwest of US 36 would need to be enclosed in a linear pipe and another 520 lineal feet would need to be rerouted on either side of the enclosed ditch. The segments north and south of the pipe enclosure would be within an open channel and would not be enclosed. Since the original EA, approximately 400 feet of Dry Creek Valley Ditch west of US 36 has been relocated into a pipe that travels under the development to the south.	and Bridge Construction. Water quality mitigation will adhere to the CDOT MS4 Permit New Development and Redevelopment Program, Phase I and II. The following specific BMPs from the Erosion Control and Storm Water Quality Guide and the CDOT MS4 Permit New Development and Redevelopment Program will be applied during construction to reduce construction-related and/or long-term operation impacts to water resources and water quality as appropriate:  All disturbed areas will be revegetated with native grass and forb species. Seed, mulch and mulch tackifier will be applied in phases throughout construction.  Where permanent seeding operations are not feasible due to seasonal constraints (e.g., summer and winter months), disturbed areas will have mulch and mulch tackifier applied to prevent erosion.  Erosion control blankets will be used on steep, newly seeded slopes to control erosion and to promote the establishment of vegetation. Slopes should be roughened at all times and concrete washout contained.  Temporary erosion control blankets will have flexible natural fibers.  Erosion bales, erosion logs, silt fence or other sediment control device will be used as sediment barriers and filters adjacent to wetlands, surface waterways and at inlets where appropriate.  To minimize the loss of sand from the road surface during winter sanding operations, permanent sediment catch basins will be constructed and maintained.  Where appropriate, slope drains will be used to convey concentrated runoff from top to bottom of the disturbed slopes. Slope and cross-drain outlets will be constructed to trap sediment.  Storm drain inlet protection will be used where appropriate to trap sediment before it enters the cross-drain.  Check dams will be used where appropriate to slow the velocity of water through roadside ditches and in swales.  Disturbance to vegetated areas will be minimized.	Contractor requirement per RFP Book 2 Section 12.1.2.2  Contractor requirement per RFP Book 2 Section 12.1.2.1 Stormwater Discharge Permit and reference to BMP's and the CDOT Erosion Control and Stormwater Quality Guide  CDOT Std Specs for erosion control blankets to be used versus this  Contractor requirement per RFP Book 2 Section 12.1.2.1 Stormwater Discharge Permit and reference to BMP's and the CDOT Erosion Control and Stormwater Quality Guide

Category/Impacts	Mitigation	Status and Resolution
	Temporary retention ponds (during construction) will be used to allow sediment to settle out of runoff before it leaves the construction area. These ponds may be combined with permanent detention ponds.	
	Structural BMPs may include extended detention basins with sediment forebays, grass swales, and grass buffers to retain sediment and roadway pollutants resulting from winter sanding, chemical deicing and normal traffic operations.	
	Non-structural BMPs may include litter and debris control, and landscaping and vegetative practices.	
	Settling ponds for effluent from dewatering operations, if needed.	
	Construction of the ditch will be planned during the non-irrigation season. If this is not possible, the hydraulic integrity of the ditch will be maintained through the use of temporary systems.	N/A - ditch relocated to a pipe
	If contaminated groundwater is encountered during the dewatering process, mechanisms will be in place to analyze groundwater for contaminants and effectively treat this groundwater pumped discharge, as necessary per the Phase II requirements.	Contractor requirement per RFP Book 2 Section 5.2.5 and 5.4 and CDOT Std Spec Section 250
Floodplains		
No impact.	No mitigation is required.	N/A
Wetlands		
Permanent impacts to approximately 0.07 acre of isolated, non-jurisdictional wetlands. Temporary impacts total <0.01 acre. Approximately 0.335 acres of non-jurisdictional wetlands would be impacted for the construction of a water quality pond.	The roadway design includes avoidance and minimization of impacts to most study area wetlands. Impacts to wetlands will be avoided and minimized as much as practical during the final design process. The design shall comply with Executive Order 11990. Wetlands as well as their associated functions permanently impacted by the Preferred Alternative will be mitigated at a 1:1 ratio within the study area by wetland creation/restoration at study area sites to be coordinated with the City and County of Broomfield and approved by the CDOT landscape architect and a CDOT wetland biologist, and, if necessary, by purchase of credits at a wetland mitigation bank within the primary service area. Consistent with CDOT's policy to mitigate wetland impacts at a ratio of 1:1,	Contractor requirement per RFP Book 2 Section 5.2.2 404 Permit/Wetlands

Category/Impacts	Mitigation	Status and Resolution
	this loss will be offset by purchasing 0.4 credits from a mitigation bank prior to construction. Wetland impacts will be reduced as much as possible during final design. Specific strategies include steepening embankment slopes and piping only selected portions of irrigation ditches. Replaced wetland functions and values are anticipated to include bank stabilization, sediment/toxin retention, nutrient removal/transformation, food chain support, wildlife habitat, and visual quality.	Contractor requirement per RFP Book 2 Section 5.2.2 404 Permit/Wetlands
	Final selection of preferred wetland mitigation sites will be determined on the basis of stable hydrology, availability of water rights, construction feasibility, and overall potential for successful wetland creation. Wetland mitigation design will be coordinated with CDOT, Broomfield and local property owners. All wetland mitigation sites will be guaranteed in writing to remain wetland in perpetuity. Wetland mitigation concepts, species lists, and seeding and planting methods will be included in the engineering plans.	
	Table 3-19 of the <i>Environmental Assessment</i> (EA) lists wetland plant species suitable for wetland mitigation sites. A tree and shrub wetland buffer zone (see Table 3-20 of the EA) will be planted, as appropriate, on slopes above wetland mitigation sites.	
	Where possible, wetland topsoil will be stockpiled on site for use in wetland creation areas. Only topsoil free from viable noxious weed seeds will be stockpiled. Wetland areas temporarily impacted by construction activities will be replanted as soon as possible following completion of the activity, if needed.	
	Since all wetlands are non-jurisdictional, application to the USACE for a 404 permit would not be necessary.	Contractor requirement per RFP Book 2 Section 12.1.2.1 Stormwater Discharge
	The following specific BMPs from CDOT's <i>Erosion Control and Storm Water Quality Guide</i> will be required during construction to reduce the potential for wetlands to be indirectly affected by sedimentation from accelerated erosion or by hazardous materials (e.g., fuel, equipment lubricants):  All disturbed areas will be revegetated with native grass and forb species. Seed,	Permit and reference to BMP's and the CDOT Erosion Control and Stormwater Quality Guide  Contractor requirement per RFP Book 2 Section 17.1.1
	mulch and mulch tackifier will be applied in phases throughout construction.	Secuon 17.1.1
	Where permanent seeding operations are not feasible due to seasonal constraints	

Category/Impacts	Mitigation	Status and Resolution
	(e.g., summer and winter months), disturbed areas will have mulch and mulch tackifier would be applied to prevent erosion.	
	Erosion control blankets will be used on steep, newly seeded slopes to control erosion and to promote the establishment of vegetation. Slopes should be roughened at all times and concrete washout contained.	
	Temporary erosion control blankets will have flexible natural fibers.	
	Erosion bales, erosion logs, silt fence or other sediment control device will be used as sediment barriers and filters adjacent to wetlands, surface waterways and at inlets where appropriate.	
	To minimize the loss of sand from the road surface during winter sanding operations, sediment catch basins will be included during construction and put in place permanently with continual maintenance.	
	Where appropriate, slope drains will be used to convey concentrated runoff from top to bottom of the disturbed slopes. Slope and cross-drain outlets will be constructed to trap sediment.	
	Storm drain inlet protection will be used where appropriate to trap sediment before it enters the cross-drain.	
	Check dams will be used where appropriate to slow the velocity of water through roadside ditches and in swales.	Contractor requirement per RFP Book 2
	Additionally, the following BMPs to minimize wetland impacts during construction will be employed	Section 5.2.2 404 Permit/Wetlands  Contractor requirement per RFP Book 2
	All wetland areas and water bodies not impacted by the project will be protected from unnecessary encroachment by temporary fencing. Sediment control such as silt fence or erosion logs, will also be used where needed to protect the area from sediment. Siltation control devices (e.g., fences) will be placed on the down-gradient side of construction areas to prevent soil from entering wetland	Section 12.1.2.1 Stormwater Discharge Permit and reference to BMP's and the CDOT Erosion Control and Stormwater Quality Guide
	No staging of construction equipment, equipment refueling or storage of construction supplies will be allowed within 50 feet of a wetland or any water-	Contractor requirement per CDOT Std Spec Section 107.25

Category/Impacts	Mitigation	Status and Resolution
	related area.  Standard erosion control measures will be observed and an erosion control plan will be developed prior to and for inclusion in the construction bid plans. All bare fill or cut slopes adjacent to streams or intermittent drainages will be stabilized as soon as practicable.  No fertilizers, hydrofertilizers, hydroseeding or hydromulching will be allowed anywhere on the project.  Work areas will be limited as much as possible to minimize construction impacts to wetlands.	Contractor requirement per RFP Book 2 Section 12.1.2.1  Contractor will be required to use fertilizer as per Book 2 Section 17.2.5 and CDOT Std Specs and CCB Specs  Contractor requirement per RFP Book 2 Section 5.2.2 404 Permit/Wetlands
Vegetation, Wildlife and Aquatic Resources		
Direct impacts to vegetation would occur from clearing, excavation and grading for the proposed improvements. The Preferred Alternative affects 51 acres of land in the study area. However, there are no conservation sites or sensitive plant communities within the study area. The construction process would remove existing vegetation leaving those areas bare.  Impacts to 1.2 2.7 acres of prairie dog habitat (see Section 3.14). Of the 51 acres impacted, approximately 32 acres are vacant lands planned for development and 19 acres are developed. Construction activity could result in direct wildlife mortality.	The following BMPs will be used to mitigate impacts to vegetation associated with the Preferred Alternative.  Minimize the amount of disturbance and limit the amount of time that disturbed areas are allowed to be non-vegetated.  Implement the project Integrated Weed Management Plan.  Avoid existing trees, shrubs and vegetation, to the maximum extent possible, especially wetlands and riparian plant communities.  Salvage weed free topsoil for use in revegetation.  Implement temporary and permanent erosion control measures to limit erosion and soil loss. Erosion control blankets will be used on steep, newly seeded slopes to control erosion and to promote the establishment of vegetation. Slopes should be roughened at all times and concrete washout contained.	Contractor requirement per RFP Book 2 Section 17.1.1 Re-vegetation Plan Contractor requirement per RFP Book 2 Section 17.2.6 Noxious Weed Mgt Plan RFP Book 2 Section 5.2.2 for wetlands  Contractor requirement per RFP Book 2 Section 17.2.4 Topsoil  Contractor requirement per RFP Book 2 Section 12.1.2.1
No impacts to fisheries would occur, as none are present in the study area.  Construction of the Preferred Alternative would disturb areas that are already inhabited by weeds and would disturb areas that are currently weed free, resulting in the potential for the introduction of weeds into those areas. Temporary work areas	Time tree removal for outside of nesting season per the Migratory Bird Treaty Act (MBTA).  All disturbed areas will be revegetated with native grass and forb species. Seed, mulch and mulch tackifier will be applied in phases throughout construction.  Removed trees, shrubs and vegetation will be replaced on a 1:1 basis, if	Contractor requirement per RFP Book 2 Section 5.1.6 Vegetation  Contractor requirement per RFP Book 2 Section 17.2.5 Not practicable in some areas

Category/Impacts	Mitigation	Status and Resolution
would also be susceptible to weed invasion.  Nearly all of the study area is vegetated by non- native, highly invasive species; however, the listed noxious weed species known in the study area which are most likely to spread to construction sites include redstem filaree, diffuse	practicable, as required by CDOT Region 6.  Since soil disturbance with accompanying invasion by noxious weed species can be associated with highway construction, the Integrated Weed Management Plan will be incorporated into the project design and implemented during construction.	Contractor requirement per RFP Book 2 Section 17.2.6 Noxious Weed Mgmt Plan
knapweed, musk thistle, and Scotch thistle.	Specific BMPs will be required during construction to reduce the potential for introduction and spread of noxious weed species and include:  Mapping will be included in the construction documents along with appropriate control methods for noxious weeds.	By CCB per EA Appendix F
	Highway right-of-way areas will periodically be inspected during construction and during post-construction weed monitoring for invasion of noxious weeds.  As detailed in the Integrated Weed Management Plan (Appendix F of the EA), weed management measures will include removal or burial of heavily infested topsoil, chemical treatment of lightly infested topsoil, limiting disturbance areas, phased seeding with native species throughout the project, monitoring during and after construction, other chemical and/or mechanical treatments.	Contractor requirement per RFP Book 2 Section 17.2.6 Noxious Weed Mgmt Plan
	Use of herbicides will include selection of appropriate herbicides and timing of herbicide spraying, and use of a backpack sprayer in and adjacent to sensitive areas such as wetlands and riparian areas.  Certified weed-free hay and/or mulch will be used in all revegetated areas.  No fertilizers will be allowed on the project site.	Contractor requirement per RFP Book 2 Section 17.2.and CDOT Std Specs 213 Contractor will be required to use fertilizer as per Book 2 Section 17.2.5 and CDOT Std Specs and CCB Specs
	Supplemental weed control measures may be added during design and construction planning.  The removal of trees will be scheduled to avoid the breeding season of birds from April 1 to August 31.  Preventative Control Measures for project design and construction may include:	Contractor requirement per RFP Book 2 Section 5.1.6 Vegetation  Contractor requirement per RFP Book 2
	Native Plants: Use of native species in revegetation sites.  Weed Free Forage Act: Materials used for the project will be inspected and	Section 17.2.5 paragraph 2

Category/Impacts	Mitigation	Status and Resolution
	regulated under the Weed Free Forage Act, Title 35, Article 27.5, CRS.	G
	All topsoil, either imported or salvaged on site, shall be treated with an herbicide for noxious weeds, prior to final seeding.	Contractor requirement per RFP Book 2 Section 17.2.4 Topsoil
	All materials for mulching shall consist of certified weed under the the Colorado Department of Agriculture Weed Free Forage Act.	Contractor requirement per RFP Book 2 Section 17.2.and CDOT Std Specs 213
	Equipment Management: Equipment will remain on designated roadways and stay out of weed- infested areas until the areas are treated. All equipment will be cleaned of all soil and vegetative plant parts prior to arriving on the project site.	Section 17.2.and CDO1 Std Specs 213
	Several conservation measures will be incorporated with the Preferred Alternative to reduce impacts to wildlife and may include:	
	Minimizing disturbance to native plant communities.	
	Minimizing tree removal.	Contractor requirement per RFP Book 2 Section 5.1.6 Vegetation
	Restricting tree removal during breeding season (April 1 to August 31) in compliance with the MBTA or a depredation permit from USFWS will be obtained. If construction is to commence between April 1 and August 31, a ground nesting survey will be completed by a wildlife biologist.	Contractor requirement per RFP Book 2 Section 5.1.6 and 5.2.3
	Erosion control techniques such as silt fence or erosion logs will be used to protect surrounding areas from construction related erosion.	Contractor requirement per RFP Book 2 Section 17.1.1
	Noxious weeds will be spot sprayed. In locations where spot application is not practicable a wildlife biologist will inspect the area prior to spraying to ensure crucial habitat will not be impacted.	Contractor requirement per RFP Book 2 Section 17.2.6
	Temporary erosion control blankets will have flexible natural fibers.	Contractor requirement per RFP Book 2
	No mitigation is required for aquatic resources.	Section 17.2.5
	Prior to construction, the study area will be surveyed by CDOT for any migratory birds.	Contractor requirement per RFP Book 2 Section 5.2.3
Threatened and Endangered Species		

Category/Impacts	Mitigation	Status and Resolution	
No impact to federally listed species.  Impact to 1.2 2.7 acres of black-tailed prairie dog habitat; a state species of special concern.	Prior to construction, CDOT (in coordination with the City and County of Broomfield and the Colorado Division of Wildlife) will conduct a survey of the impacted prairie dog town will be conducted to determine size and population density. If prairie dogs are relocated or removed during the burrowing owl nesting season (April 1 through July 31) the affected habitat will be surveyed by a qualified biologist for the presence of burrowing owls. A survey also will be conducted to determine burrowing owl presence in the construction area. Based on that information, CDOT, in cooperation with Broomfield, will identify appropriate relocation sites. Broomfield will identify general potential relocation sites during review of their Prairie Dog policy. CDOT will follow the CDOT Impacted Black-tailed Prairie Dog Policy (2005) and will coordinate with Broomfield and other appropriate entities in the mitigation effort.	CDOT to conduct survey per FONSI/EA Update on March 4, 2008	
Historic and Archaeological Preservation			
Determinations of no adverse effect and no historic properties affected.	No mitigation is required. In the event historic or prehistoric cultural remains are exposed during any phase of construction, all work in the vicinity of the finds will cease and the CDOT Senior Staff Archaeologist will be contacted to evaluate the materials. Work will not resume until the archaeologist has completed necessary consultation with the SHPO and any other agencies or entities, as appropriate, and provided the Engineer with clearance to proceed.	Contractor requirement per RFP Book 2 Section 5.1.3 Archaeology	
Paleontological Resources			
No previously documented fossil occurrences were recorded or observed.	Paleontological clearance is recommended only for the surface of the study area. Because of its paleontologic sensitivity, monitoring of all areas where the Denver/Arapahoe Formation would be impacted during construction excavations is recommended. When the project design plans are finalized, the CDOT staff paleontologist will examine them in order to estimate the impact to the Denver Formation and the scope of paleontological monitoring work, if any, which is required.	Contractor/CDOT requirement per RFP Book 2 Section 5.1.5 Paleontology and CDOT Std Spec's 107.23	
	It is possible that fossils could be present in Pleistocene-aged deposits within the study area, and that these could be impacted during ground-disturbance.  Because Pleistocene-aged bones may be only partially mineralized and are often superficially similar to modern bones, they can be difficult to distinguish. If any sub-surface bones or other potential fossils are found anywhere within the study	Contractor/CDOT requirement per RFP Book 2 Section 5.1.5 Paleontology and CDOT Std Spec's 107.23	

Category/Impacts	Mitigation	Status and Resolution	
	area during construction, the CDOT staff paleontologist will be notified immediately to assess their significance and make further recommendations.		
Hazardous Waste			
Potential impacts from 8 sites identified in the study area.	Further environmental investigation of potentially contaminated properties is recommended once the final design in completed and the final construction footprint is identified.	Contractor requirement per RFP Book 2 Section 8.2.1 Demolition and Section 5.4 Recognized Hazardous Materials	
	Contamination will be properly managed in accordance with the requirements set forth in <i>CDOT Colorado Highway Specifications</i> .	Contractor requirement per RFP Book 2 Section 5.4 Hazardous Materials and CDOT Std Spec Section 250	
	The implementation of a <i>Materials Management Plan</i> (CDOT Standard Specifications Section 250) will facilitate proper handling of anticipated and unanticipated contaminated materials during the construction phase of the project.		
	The development of a project <i>Health and Safety Plan</i> (CDOT Standard Specifications Section 250) will address the health and safety of all workers involved in construction of the project.		
	Any excavation, pumping and/or dewatering activities of contaminated soils or waters will require proper treatment and disposal.		
Visual Resources			
Substantial visual impacts are not anticipated, nor would the project disrupt significant feature views or adversely affect any viewscapes of historic properties of national or state significance.	All disturbed areas will be revegetated with native grass and forb species. Seed, mulch and mulch tackifier will be applied in phases throughout construction.	Contractor requirement per RFP Book 2 Section 17.2.5 Perm. Native Seeding	
	Efforts to minimize visual impacts associated with construction will be made.		
Parks and Recreation Properties			
No impact.	No mitigation is required.	N/A (RFP Book 2 Section 5.1.5)	
Section 6(f) Coordination			
No impact.	No mitigation is required.	N/A (RFP Book 2 Section 5.1.5)	

Construction Otential for decreased mobility during		
construction, dust, noise, runoff, traffic congestion, temporary restricted access to esidences and businesses, and visual intrusions to notorists and residents.  Etail operations may be temporarily interrupted.	Mitigation for direct impacts could include implementation of the following measures during construction:  Construction of noise walls (determined to be feasible and reasonable during design stages) prior to construction or in an early phase of construction.  Maintain access to local businesses and residences, especially along 120 <sup>th</sup> Avenue.  Coordinate detour routes to avoid overloading local streets.  Minimize construction duration in residential areas, as much as possible.  Avoid nighttime activities in residential areas, as much as possible.  Re-route truck traffic away from residential streets, where possible.  Combine noisy operations to occur in the same period.  Conduct pile driving and other high-noise activities during daytime construction, where possible.  Develop traffic management plans.  Maintain traffic flow during peak travel times by minimizing lane closures, if possible.  Coordinate with emergency service providers to minimize delays and ensure access to properties.  Use signage, T.V. and radio announcements to announce and advertise timing of road closures.  During peak travel times, keep as many lanes as possible open by temporarily shifting lanes within the existing framework of the roadway.	Phase 2 only  Contractor requirement per RFP Book 2 Section 16.1.6 Bus. & Private Access  Contractor Requirement per RFP Book 2 Section 16 Maintenance of Traffic and CDOT Std Specs Section 107.07  Contractor requirement per RFP Book 2 Section 5.1.2.1 Construction Noise  Contractor requirement per RFP Book 2 Section 16.1.2  Contractor Requirement per RFP Book 2 Section 16  Contractor requirement per RFP Book 2 Section 16  Contractor requirement per RFP Book 2 Section 16.1.5 2 <sup>nd</sup> to last paragraph  Contractor requirement per RFP Book 2 Section 4 4.1 Public Information Plan RFP Book 2 Section 16

Category/Impacts	Mitigation	Status and Resolution
	The following permits or coordination may be required for the Preferred Alternative and will be obtained prior to construction:	
	National Pollutant Discharge Elimination System (NPDES), issued by the Colorado Department of Public Health and Environment (CDPHE). This storm water discharge permit is required to assure the quality of storm water runoff.	Contractor requirement per RFP Book 2 Section 5.2 & Section 12.1.2.1 NPDES Stormwater Discharge Permit
	<ul> <li>Municipal Separate Storm Sewer System (MS4) Permit issued by CDPHE. The study area falls within the CDPHE Phase II Storm Water Regulations "Urbanized Areas," and therefore would follow the requirements of CDOT's MS4</li> </ul>	Contractor requirement per RFP Book 2 Section 12.1.2.2 Municipal Separate Storm Sewer System (MS4) Permit
	<ul> <li>Section 402: Construction Dewatering Permit issued by CDPHE-Water Quality Control Division (WQCD) would be required for dewatering of construction areas, if necessary. In addition, if contaminated groundwater is anticipated, an Individual Construction Dewatering Permit would be required wherever construction dewatering could potentially strike contaminated groundwater.</li> </ul>	Contractor requirement per RFP Book 2 Section 5.2.5 Construction Dewatering Permit and CDOT Std Specs Section 107.25 and Section 250
	<b>Nest Take Permit</b> , issued by the U.S. Fish and Wildlife Service (USFWS) if active nests are to be removed or if the nest is a raptor nest, active or not.	Contractor requirement per RFP Book 2 Section 5
	<b>Prairie Dog Relocation or Removal Permit</b> , issued by the Colorado Division of Wildlife (CDOW). This permit will be required for relocation or removal of prairie dogs from private or public land. Prairie dog relocations from private lands also would require a permit issued by the City and County of Broomfield.	CDOT and Contractor requirements per RFP Book 2 Section 5.3.1
	In conformance with state law, prairie dogs shall not be relocated to other counties without the prior approval of the County Commissioners of that county.	Contractor requirement per RFP Book 2 Section 5.2 table
	<b>Fugitive Dust Permit</b> is required if more than 25 acres of land is impacted and/or project duration is longer than six months.	Contractor requirement per RFP Book 2 Section 5.2 table
	State Access Permit, from CDOT.	Contractor requirement per RFP Book 2 Section 5.2 table
	<b>Construction Access Permits</b> from CDOT and the City and County of Broomfield for detours and lane closures along West 120 <sup>th</sup> Avenue.	Contractor requirement per RFP Book 2

Category/Impacts	Mitigation	Status and Resolution
	Access Permits and authorizations as required by CDOT.	Section 5.2 table
	Other Local Permits, such as railroad, building, utility or survey.	
Cumulative Impacts		
The incremental impacts of the Preferred Alternative, when added to past, present and reasonably foreseeable projects would not result in a significant cumulative impact.  Land development is anticipated to proceed in an around the study area with or without the improvements proposed.  Based on current modeling statistics, air quality is not expected to deteriorate substantially at a regional level as a result of this project.  The 120 <sup>th</sup> Avenue Connection project does not add to the cumulative loss of wetlands in the area. Wetland impacts as a result of the proposed project consist of impacts to 0.07 acre of nonjurisdictional wetlands. These wetlands are manmade and are not part of the larger watershed or connected to other area wetlands or major surface water resources.  Past and present development occurring in and around the study area has fragmented habitat for wildlife species. The projected 1.2.2.7 acre impact to a black-tailed prairie dog colony is relatively small and would not affect populations within the cumulative study area.	The City and County planning process controls the type and rate of growth through Master Plan and zoning regulations. Broomfield has an adopted policy concerning the amount of open space that is required to be set aside as a public land dedication for new developments. This requirement utilizes a density-based formula. Land obtained from the public land dedication may be used for parks, open space, public facilities such as a fire station, or elementary school sites. The incremental effects of this project when added to the baseline that includes the other area projects, is not expected to be substantial and is expected to be consistent with adopted land use plans.  This project is currently listed in the fiscally constrained 2030 RTP adopted on January 19, 2005. A conformity analysis was completed on the 2030 RTP. This project would not result in any exceedance of the NAAQS.  CDOT is committed to avoidance, minimization, and compensatory wetland mitigation resulting in no net loss and a requirement for mitigation of all impacts, regardless of jurisdiction, at a 1:1 ratio. This project, when added to the baseline that includes past, present and reasonably foreseeable future projects, is not expected to result in a substantial loss of wetlands in this area.  The state of Colorado has entered into a Memorandum of Understanding with ten other state and federal agencies for the conservation of black-tailed prairie dogs. In the January 2002 Memorandum "Black-tailed Prairie Dog Relocation Guidelines," CDOT created guidelines for addressing black-tailed prairie dogs affected by department projects and stated the importance of adopting a statewide strategy for prairie dogs. Black-tailed prairie dog mitigation will follow guidelines as directed by CDOT including those developed in the recent Memorandum, "CDOT Impacted Black-tailed Prairie Dog Policy" (2005). CDOT will coordinate with the City and County of Broomfield for mitigation efforts. Relocation is the mitigation option of first choice, if available.	Contractor requirement per RFP Book 2 Section 5.2.2 404 Permit/Wetlands  Contractor requirement per RFP Book 2 Section 5.3.1