Oregon
Theodore R. Kulongoski, Governor

Department of Land Conservation and Development
635 Capitol Street, Suite 150
Salem, OR 97301-2540
(503) 373-0050
Fax (503) 378-5518
www.lcd.state.or.us

NOTICE OF ADOPTED AMENDMENT

07/30/2013

TO: Subscribers to Notice of Adopted Plan or Land Use Regulation Amendments

FROM: Plan Amendment Program Specialist

SUBJECT: City of Baker City Plan Amendment
DLCD File Number 001-13

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. Due to the size of amended material submitted, a complete copy has not been attached. A Copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office.

Appeal Procedures*

DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: Monday, August 12, 2013

This amendment was submitted to DLCD for review prior to adoption pursuant to ORS 197.830(2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

*NOTE: The Acknowledgment or Appeal Deadline is based upon the date the decision was mailed by local government. A decision may have been mailed to you on a different date than it was mailed to DLCD. As a result, your appeal deadline may be earlier than the above date specified. NO LUBA Notification to the jurisdiction of an appeal by the deadline, this Plan Amendment is acknowledged.

Cc: Jenny Long, City of Baker City
Gordon Howard, DLCD Urban Planning Specialist
Grant Young, DLCD Regional Representative
Gary Fish, DLCD Transportation Planner

<paa> YA

FORM 2 DLCD Notice of Adoption

This Form 2 must be mailed to DLCD within 20-**Working Days after the Final Ordinance is signed** by the public Official Designated by the jurisdiction and all other requirements of ORS 197.615 and OAR 660-018-000

☐ In person ☐ electronic ☐ mailed

DATE STAMP: DEPT OF JUL 25 2013 LAND CONSERVATION AND DEVELOPMENT

For Office Use Only

Jurisdiction: **City of Baker City, Oregon**

Local file number: **CPA-13-132**

Date of Adoption: **6/25/2013**

Date Mailed: **7/22/2013**

Was a Notice of Proposed Amendment (Form 1) mailed to DLCD? ☒ Yes ☐ No Date: 4/24/2013

☒ Comprehensive Plan Text Amendment

☐ Comprehensive Plan Map Amendment

☒ Land Use Regulation Amendment

☐ Zoning Map Amendment

☐ New Land Use Regulation

☐ Other:

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

The amendments include the adoption of a new Transportation System Plan (TSP) and related policy and code amendments for the Comprehensive Plan and Development Code to implement the updated goals and objectives. The TSP includes updated analysis of roadway conditions and standards, refinement of bicycle and pedestrian improvement projects, and specific Capital Improvement Program projects for inclusion in the Statewide Transportation Improvement Program.

Does the Adoption differ from proposal? Yes, Please explain below:

A few projects were added, modified, and/or removed from the draft TSP submitted in April, and the Public Involvement record was included.

Plan Map Changed from: to:

Zone Map Changed from: to:

Location: Acres Involved:

Specify Density: Previous: New:

Applicable statewide planning goals:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
☒	☒	☐	☐	☐	☐	☐	☒	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐

Was an Exception Adopted? ☐ YES ☒ NO

Did DLCD receive a Notice of Proposed Amendment...

35-days prior to first evidentiary hearing? ☒ **Yes** ☐ **No**

If no, do the statewide planning goals apply? ☐ **Yes** ☐ **No**

If no, did Emergency Circumstances require immediate adoption? ☐ **Yes** ☐ **No**

DLCD file No. 001-13 (19814) [17557]

Please list all affected State or Federal Agencies, Local Governments or Special Districts:

Oregon Department of Transportation, Baker County

Local Contact: **Jenny Long, Planner** Phone: **(541) 523-8219** Extension:

Address: **1995 Third Street, Suite 131** Fax Number: **541-523-5925**

City: **Baker City** Zip: **97814-** E-mail Address: **jlong@bakercounty.org**

ADOPTION SUBMITTAL REQUIREMENTS

This Form 2 must be received by DLCD no later than 20 working days after the ordinance has been signed by the public official designated by the jurisdiction to sign the approved ordinance(s)

per ORS 197.615 and OAR Chapter 660, Division 18

1. This Form 2 must be submitted by local jurisdictions only (not by applicant).
2. When submitting the adopted amendment, please print a completed copy of Form 2 on light **green paper if available**.
3. Send this Form 2 and **one complete paper copy** (documents and maps) of the adopted amendment to the address below.
4. Submittal of this Notice of Adoption must include the final signed ordinance(s), all supporting finding(s), exhibit(s) and any other supplementary information (ORS 197.615).
5. Deadline to appeals to LUBA is calculated **twenty-one (21) days** from the receipt (postmark date) by DLCD of the adoption (ORS 197.830 to 197.845).
6. In addition to sending the Form 2 - Notice of Adoption to DLCD, please also remember to notify persons who participated in the local hearing and requested notice of the final decision. (ORS 197.615).
7. Submit **one complete paper copy** via United States Postal Service, Common Carrier or Hand Carried to the DLCD Salem Office and stamped with the incoming date stamp.
8. Please mail the adopted amendment packet to:

ATTENTION: PLAN AMENDMENT SPECIALIST
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
635 CAPITOL STREET NE, SUITE 150
SALEM, OREGON 97301-2540

9. **Need More Copies?** Please print forms on **8½ -1/2x11 green paper only if available**. If you have any questions or would like assistance, please contact your DLCD regional representative or contact the DLCD Salem Office at (503) 373-0050 x238 or e-mail **plan.amendments@state.or.us**.

BAKER CITY-COUNTY PLANNING DEPARTMENT

1995 Third Street, Suite 131
Baker City, OR 97814
Phone: (541) 523-8219
Fax: (541) 523-5925

July 22, 2013

ATTN: Plan Amendment Specialist
Department of Land Conservation & Development
635 Capitol Street NE, Suite 150
Salem, OR 97301-2540

Re: NOTICE OF ADOPTION – Local Case No. CPA-13-132

To Whom It May Concern:

The proposed Transportation System Plan, Comprehensive Plan Text, and Land Use Regulation amendments previously sent have been adopted.

Please find enclosed with this letter the following documents:

1. Form 2, DLCD Notice of Adoption
2. Ordinance No. 3323
3. Exhibit A of Ordinance No. 3323: Baker City Transportation System Plan
    a. Adopted Plan (Volume I), dated June 2013
    b. Technical Appendix (Volume II), dated May 2013
4. Supplemental Information
    a. Minutes from Planning Commission meeting on June 5, 2013
    b. Minutes from City Council meetings on June 11, 2013, and June 25, 2013

Please contact me at (541) 524-2028 if you have any questions or need additional information.

Sincerely,

Jenny Long

Jenny Long, P.E., CFM
Planner

Enclosures

ORDINANCE NO. 3323

AN ORDINANCE ADOPTING AMENDMENTS TO THE TRANSPORTATION SYSTEM PLAN AND INCORPORATING RELEVANT POLICIES, MAPS, AND STANDARDS INTO THE COMPREHENSIVE PLAN AND DEVELOPMENT CODE

WHEREAS, the Baker City Transportation System Plan, last updated in 1996, does not address the City's current transportation planning needs; and

WHEREAS, the City received a grant from the State of Oregon Transportation and Growth Management Program to update its Transportation System Plan and implementing regulations in conformance with the State Transportation Planning Rule (OAR 660, Division 12); and

WHEREAS, the City solicited public input in developing and reviewing the Transportation System Plan, including the proposed Comprehensive Plan and Development Code amendments, through a series of public open house meetings and work sessions hosted by the Baker City Planning Commission and City Council; and

WHEREAS, the Planning Commission and City Council conducted joint work sessions on the proposed Transportation System Plan and amendments to the Comprehensive Plan and Development Code during April 16-17, 2013; and

WHEREAS, the State Department of Land Conservation and Development was duly notified of the proposed amendments on April 24, 2013, at least 35 days before the first evidentiary hearing on the Transportation System Plan, and did not object to said amendments;

WHEREAS, notice to each property owner within the City Limits and Urban Growth Boundary was mailed on May 9, 2013, at least 20 days in advance of the first public hearing to consider adoption of said amendments; and

WHEREAS, notice to the public was advertised in a newspaper of general circulation on May 15, 2013, at least 14 days in advance of the first public hearing on said amendments; and

WHEREAS, the Planning Commission held a duly noticed public hearing on the proposed Transportation System Plan and amendments to the Comprehensive Plan and Development Code on May 29, 2013, continued on June 5, 2013, and the Planning Commission recommended City Council adoption of said amendments; and

WHEREAS, the City Council conducted a public hearing on said amendments on June 11, 2013, received public testimony, deliberated and made a decision to adopt said amendments based on the public health, safety and welfare; and

WHEREAS, the City Council found that said amendments conform to applicable State Land Use Planning Goals, particularly Goal 1 – Citizen Involvement, Goal 2 – Land Use Planning, Goal 8 – Recreational Needs, and Goal 12 – Transportation; and

NOW THEREFORE, BE IT ORDAINED by the City of Baker City, Oregon:

Section 1:
Transportation System Plan Adoption: The 1996 Baker City Transportation System Plan is hereby repealed and replaced by Ordinance No. 3323 adopting the 2013 Baker City Transportation System Plan, contained in Exhibit A attached hereto, and by this reference, made a part hereof.

Section 2:
Comprehensive Plan Text Amendments: The Transportation Element of the Baker City Comprehensive Plan is hereby amended as provided on pages 1-7 of Section 6 in Volume II of Exhibit A.

Section 3:
Development Code Amendments: The Baker City Development Code is hereby amended as provided on pages 8-17 of Section 6 in Volume II of Exhibit A.

READ for the first time in full this 11th day of June, 2013.

READ for the second time by title only this 11th day of June, 2013 upon the unanimous vote of the members present, after the text of the Ordinance was offered to the members of the Council and the press and public for their use during the meeting.

READ for the third time by title only this 25th day of June, 2013 upon the unanimous vote of the members present, after the text of the Ordinance was offered to the members of the Council and the press and public for their use during the meeting.

PASSED AND ADOPTED by the City Council of the City of Baker City, Oregon, and signed by the Mayor of the City of Baker City, Oregon, this 25th day of June, 2013.

Mayor

ATTEST:

City Recorder

Ayes: *6 (Mosier, Button, Langrell, Johnson, Downing, Coles)*
Nays: ____
Absent: *1 (Dorrah)*
Abstain: ____

Baker City Planning Commission
Special Meeting
June 5, 2013
7:00 p.m.

MINUTES

The meeting was called to order at 7:05 p.m. by Chairman Alan Blair. Commission members present included: Alan Blair, Tim Collins, Ken Rockwell, Rob Ellingson, and Wayne Wall. Commission members Myrna Neumann and Gail VanSickel were absent.

Staff present: Jenny Long, Holly Kerns, Kevin Berryman, and Michelle Owen.

Special Meeting – Planning Commission Case No. CPA-13-132 Continued: A request by the City of Baker City to adopt amendments to the Transportation System Plan and incorporating relevant policies, maps, and standards into the Comprehensive Plan and Development Code.

Planner Long gave a brief summary of the case, and presented a packet for the public involvement report to be a replacement for that section of the TSP.

Mardell Ebell, 12 Koehler Lane, Baker City 97814
Ms. Ebell requested that the Smith Ditch, portion of the proposed plan be removed.

Chair Blair asked what property she is representing. She replied that she is the trustee of the Ebell Estate surrounding the cemetery.

Ron Davis, 1500 Vista Heights, Baker City, OR 97814
Mr. Davis stated that he protested the Smith Ditch paths last week, and formally requested that the Smith Ditch be deleted from the TSP. There was discussion of the location of his property.

Ron Engelhardt 1520 Vista Heights, Baker City, OR 97814
Mr. Engelhardt gave testimony in opposition to the proposed Smith Ditch path. He said that he didn't want their private road used by the public because of potential danger from bicycles speeding down and colliding with vehicles driving up the private road. He further stated that if the path were built, then access to their private road should be blocked.

Judy Head, 905 Elm Street, Baker City, OR 97814
Ms. Head read a prepared statement detailing concerns for public notification. She requested that the southeast connector road not be approved, that Senate Bill 100 be upheld, that bike lanes be tabled, and that the proposed pathways require 100% approval from all affected property owners.

Commissioner Rockwell asked for clarification of Ms. Head's use of the phrase "this matter". There was discussion of the phrase and she agreed that "this matter" refers to all of her concerns in her prepared statement.

Commissioner Ellingson asked for the project number. Ms. Owen informed the Commissioners that the referred project number is R6. Ellingson asked for the map number and Commissioner Collins stated that it is Figure 3-6.

Ms. Long gave background on the connector road project which was brought forward from the previous plan. There was discussion of the history behind the proposed connector road project.

Brenda Paul, 889 Elm Street, Baker City, OR 97814
Ms. Paul said that her property was involved in the connector road (R6) and the multi-use pathway. She said she owns the property on both sides of the river and has water rights for irrigation. She said that the pathway will interfere with her horses and water rights access. Ms. Paul stated that additional traffic may increase criminal activity. She noted that many wildlife deaths occur because of the railroad and said that the pathway's location near the railroad could cause problems.

Chair Blair asked for her plot plan. He said that the project plan for the pathway is M1. Commissioner Collins stated that her property was probably platted before the river took the current channel.

There was discussion of the proposed location of the connector road. Chair Blair stated that the location has yet to be officially engineered.

Ms. Paul said she does not want her property value to go down. In response to a question from Commissioner Ellingson, Ms. Paul said she was the owner of the property.

There was discussion of her water rights and solutions for water access. Commissioner Collins said that all the details would need to be worked out before the project was actually built. He referred to the property owner issues with the existing Leo Adler Pathway and the solutions involved.

Ms. Paul restated her concerns for the connector road and pathway.

Mark and Dona Servid, 14138 Hunt Mountain Lane, Baker City, OR 97814
Ms. Servid gave testimony in opposition to development near their business property located at 2601 Oak near Cedar Street. She said that the proposed cul-de-sac and access road to Albertson's will cut their property in half.

There was discussion of the property layout and proposed improvements.

Mr. Servid explained their plans for erecting a building on the property and that the preliminary plan for project R25 would not allow it. He suggested a roundabout as an alternative to a cul-de-sac. Ms. Servid said that the current plan would destroy their property value. Mr. Servid added that they will continue to work with staff on their plans.

Commissioner Collins asked what development would drive the proposed changes. Ms. Long explained that it was taken from the Campbell Refinement Plan from 2000. She said that the project was carried over and said that the location of the road can be flexible.

In response to a question from Commissioner Ellingson, Mr. Servid said they did own the property. Mr. Servid stated that they have no objections to the sidewalk and landscaping requirements.

John Chakarun, 1600 Vista Heights Dr., Baker City, OR 97814
Mr. Chakarun gave testimony against the Smith Ditch plan. He said that the private road that he helps to maintain could be used as a shortcut against his wishes. He stated that maps should be published in the newspaper to make sure there is enough input.

Mr. Chakarun declared opposition to the city government using grant money. He recommended utilizing existing access roads in the County for recreation instead of building paths in the City.

Commissioner Wall asked if he is referring to the paved road. Mr. Chakarun said yes and said he doesn't want to see the path used for downhill biking.

Pat Guymon, 1515 Clark Street, Baker City, OR 97814
Mr. Guymon asked what caused the proposed changes to 10th Street and Broadway. Chair Blair explained the legal requirement for a TSP and the process taken to adopt it. Mr. Guymon asked what would happen if the plan was not adopted. Blair said that without a plan no grant money could be received. Mr. Guymon discussed taxpayer burdens.

Bill Harvey, 3370 10th Street, Baker City, OR 97814
Mr. Harvey thanked the Commission for postponing the decision to allow for more input. He explained the difference between 9th Street and 9th Drive and asked for clarification on the proposed sidewalk route. Ms. Long explained the purpose of the proposal. Mr. Harvey stated that there is not enough room for a walkway on a street that only has room for one way travel. He said that his property is affect on three sides and discussed foreseeable problems.

He said the plan states that within five years, 10th Street will be changed. He gave testimony in opposition to the proposed changes and study of 10th Street. He suggested to not bother spending money on the studies for 10th and Broadway and recommended that they be dropped from the plan.

There was discussion of pedestrian solutions. Mr. Harvey described the traffic on 9th Street. He said that it is a dangerous situation. Commissioner Collins asked why pedestrian traffic is not directed to Highway 30. Ms. Long explained that sidewalks were included in the study.

Commissioner Rockwell asked if there was a previous concern was for H Street. Mr. Harvey explained his opposition was primarily on changing 10th Street to two lanes with a turn lane.

Ms. Long stated that if the 10th Street study were removed, then a sidewalk project should be included. She explained that the Smith Ditch could be piped to alleviate many concerns, but for the city to participate in the expense, an associated city project would be required.

Mardell Ebell, 12 Koehler Lane, Baker City 97814
Ms. Ebell gave additional testimony opposing to the Smith Ditch paths. She explained the existing easement was 25 feet from the center of the ditch, and expressed that she was doubtful the land owners would grant a new easement for public access. Ms. Ebell added that the current maintenance was a lot of work, it would be expensive to pipe, and she was concerned about possible damage to the water flow.

There was discussion of the easement. Ms. Long explained that the pathway was intended to use the existing ditch road.

Dennis Hackney, 1525 16th Street, Baker City, OR 97814
Mr. Hackney recommended that the Commissioners adopt the suggestions brought forth by the community, but warned that dropping major portions of the plan could result in the city losing a good funding opportunity. He further stated that with the current fiscal challenges, it is difficult to support existing infrastructure, and grant money helps get projects accomplished.

There was a brief outburst from the audience.

Mr. Hackney reiterated that without grant money it will be difficult to fund future development.

Judy Head, 905 Elm Street, Baker City, OR 97814
Ms. Head stated that sometimes funds need to be left on the table.

John Chakarun, 1600 Vista Heights Dr., Baker City, OR 97814
Mr. Chakarun asked Mr. Hackney a question and Commissioner Collins informed him that he was to address the Commission, and should take personal conversations outside the room. Mr. Chakarun discussed how the city should not operate like the Forest Service and stated that he is against grant money being used. Collins explained how city projects have been funded in the past.

Pat Guymon, 1515 Clark Street, Baker City, OR 97814
Mr. Guymon gave testimony against using grant money.

With no further questions or testimony, Chair Blair closed the public hearing at 8:15 p.m. The Commission members then entered into discussions.

There was discussion of the public requests. Commissioner Wall read a summary of the Transportation Planning Rule. He said that the rule calls for short, direct pathways. He discussed the length of proposed pathways, and that their purpose was for recreation instead of transportation. Commissioner Rockwell agreed with Wall and cautioned that the city does not need to be involved in paying to pipe the Smith Ditch because that amount of money could be better spent elsewhere. Rockwell recommended that projects M11 and M8 be removed from the plan, but M10 could still be considered. Wall commented that ditches in other communities are posted to prohibit pedestrian access.

Commissioner Collins stated that the TSP maps would not be reprinted for next week's meeting, but notes would be added for the City Council to consider. Ms. Kerns confirmed that it was most cost effective to not reprint the maps yet. There was discussion for how to proceed.

Commissioner Ellingson suggested that projects M8 and M11 be eliminated. The Commissioners were all in consensus. Commissioner Collins noted that the Smith Ditch path could still be considered for inclusion as a recreation element of the Parks Plan.

The Broadway and 10th Street studies were discussed. Commissioner Collins suggested that the studies remain in the plan and Commissioner Rockwell was in agreement, but there was not a majority consensus. Chair Blair then suggested to remove the studies, and add a pedestrian project for the sidewalk portion. There was consensus from Commissioners Ellingson and Wall.

There was discussion of what Chair Blair referred to as the "south end cut-off". Commissioner Collins suggested that the cut-off be kept in the plan because the issues brought forth were on specific details and the project was only conceptual. The Commissioners were all in consensus.

Pathway M1 was discussed. The Commissioners agreed to keep it in the plan.

There was discussion of the 9th Street pedestrian project. Commissioner Collins suggested that it be removed north of H Street. The Commissioners were all in consensus.

The proposed sidewalk on 15th Street was discussed. Commissioner Collins suggested that it be left in the plan. The Commissioners were all in consensus, except for Commissioner Wall.

The B Street and Oak cul-de-sac project was discussed. Ms. Long informed the Commission of a proposed drive aisle on the property. Chair Blair suggested that the project be modified in such a way to reduce negative impact on the property owners. The Commissioners were all in consensus.

There was discussion of the proposed expense for the H Street overpass to Best Frontage Road. Ms. Long explained that the overpass project was carried over from the previous plan and was dependent on future development of that area.

The truck traffic on Plum Street, the possible realignment of Birch Street, and the island on Campbell Street were all discussed.

Ms. Long gave a recap of the changes recommended to remove projects M8 and M11; remove projects R11 and R12, and add a 10th Street pedestrian project; remove a portion of project P35; and revise R25 to lessen property owner impact.

Commissioner Collins made a MOTION to recommend that the proposed Transportation Plan be adopted by the City Council with the changes described by Ms. Long. The motion was seconded by Commissioner Wall and with all in favor; the motion CARRIED.

No regular June meeting was set.

With no further items to discuss, the meeting was ADJOURNED at 8:57 p.m.

BAKER CITY COUNCIL
REGULAR MEETING
Tuesday, June 11, 2013

#1) Call to Order

The meeting was called to order at 7:00 p.m. by Mayor Richard Langrell in Baker City Hall Council Chambers.

#2) Pledge/Invocation

The Pledge of Allegiance and Invocation were led by Councilor Coles.

#3) Roll Call

Roll call was answered by Mayor Richard Langrell and Councilors Clair Button, Roger Coles, Barbara Johnson and Mike Downing. Councilor Kim Mosier was present via the internet [Skype]. Councilor Dennis Dorrah was absent. Also present were City Manager Mike Kee, City Recorder Becky Fitzpatrick, Public Works Director Michelle Owen and City Engineer Doug Schwin.

Also in attendance were City/County Planning Director Holly Kerns and Planner Jenny Long.

#4) Consent Agenda
- **a) Minutes of the May 28, 2013 Regular Meeting**
- **b) BIG DEAL Grants**

At this time, the Council reviewed the Consent Agenda which included the minutes of the May 14, 2013 regular meeting and five Baker Incentive Grants for Downtown Economic and Aesthetic Livability (BIG DEAL).

Upon a MOTION by Ms. Johnson, seconded by Mr. Coles and with Mayor Langrell and Councilors Button, Coles, Downing, Mosier and Johnson in favor, the Consent Agenda was APPROVED as presented.

#5) Citizen's Participation

The next item on the agenda was citizen's participation.

Bill Uttenreuther, 1410 Dewey, Baker City, indicated that he had called City code enforcement, but had not received a call back. He asked if all the code issues, such as weeds and dogs, were complaint driven for enforcement.

Mr. Uttenreuther noted concern with the dogs being allowed to run off their leashes in areas such as the pathway and the golf course. He also had a list of properties with weed issues. Mr. Uttenreuther commented that since Baker City was a "Tree City" these things should be taken care of.

Mr. Coles commented that Mr. Uttenreuther was a retired firefighter so he was aware of how things had been done in the past.

He noted that he had seen a fire hydrant with high weeds surrounding it.

Mr. Uttenreuther commented that he thought the Fire Department handled the weed issue better than the Police Department. He added that the little City parks near his residence were not being cared for.

In response to a question from Mayor Langrell, Mr. Kee explained that the code enforcement was now part-time and the Fire Department had reduced staff. He suggested that citizens read the weekly update to see what issues were being addressed by code enforcement. Mr. Kee stated that the process included sending letters to property owners to give them time to be compliant. He continued, explaining that once the time allowed has passed, the City hires someone to take care of the matter then send the bill to the property owner.

Mr. Uttenreuther suggested that as employees drive around they take note of these problems. He noted concern for laws that were not being enforced.

Mr. Kee commented that there were many things going on. He noted that although the golf course prohibits dogs, enforcement in that area was complaint driven. Mr. Kee asked Mr. Uttenreuther to leave his list of problem properties and he would follow up with him.

Milo Pope, 935 D Street, Baker City, read a prepared statement to the group. He spoke of the long history of achievements in the City including ample water, clean air, easy access to the interstate and good people. Yet, he continued, there was not much happening and the population had not grown. Mr. Pope commented that a vibrant economy was needed to support some growth. He said that he thought the last thing that the City should do was cut employee compensation. Mr. Pope stated that the City work force supported the community and the City should be obliged to support them.

Mayor Langrell commented that the employees were well compensated. Mr. Pope responded, saying that there was not a thing wrong with that.

Cathy Tressler came forward, noting that she had come before the Council regarding people accessing the Powder River through her property and was not aware of any action from the City.

Mr. Kee explained that although nothing had been decided

about that issue, the City was working on the project off Myrtle Street to allow river access to the public.

Ms. Tressler commented that, unlike the river beach at her property, the area by the Myrtle Street bridge was full of rocks.

Mayor Langrell commented that this had been discussed at a previous meeting. He suggested that she set up a time to talk to Mr. Kee.

Ms. Tressler explained that she wanted to make sure this issue was not set aside. Mayor Langrell assured her that no decision had been made.

#6) Proclamation for Cattlemen's Association

Next on the agenda was a proclamation for the 100th anniversary of the Cattlemen's Association.

At the request of Mayor Langrell, Ms. Fitzpatrick read the proclamation. Mayor Langrell then presented the proclamation to Curt Martin, President and Kay Teisl, Executive Director of the Cattlemen's Association.

They thanked the Council and the community for their support of the Cattlemen's Association.

#7) Ordinance No. 3323
- **a. Public Hearing for TSP**
- **b. Possible 1st and 2nd Readings of Ordinance No. 3323**

The next item on the agenda was a public hearing for the Transportation System Plan (TSP) and the possible first and second readings of Ordinance No. 3323.

Background:

Taken from staff report:

Baker City's Transportation System Plan (TSP) was last updated in 1996, and no longer addresses the City's current transportation planning needs because many of the recommended street system projects have been completed. This update will guide the management of existing transportation facilities, as well as the design and implementation of future facilities, for the next 20 years.

Mayor Langrell opened the public hearing at 7:26.

Ms. Long gave a brief summary of the TSP and explained its purpose. As she reviewed the timeline, she noted that citizen input included that of local youth. Ms. Long stated that there had been several open house events, allowing input from the public. She indicated that the Planning Commission had approved the plan with a few changes. One change, Ms. Long explained, was the removal of the Smith Ditch trail project. She noted that there was concern

regarding maintenance and the large cost of the project.

Ms. Long continued to summarize the plan, stating that the Broadway and Tenth Street change from four lanes to three was scaled down to do a refinement study regarding the traffic in those areas. She spoke of the possible obstructions where sidewalks would be installed and noted that there may need to be some changes in the street to accommodate those issues.

The next change recommended by the Planning Commission, she stated, was the Cedar, Oak and B Streets intersection. Ms. Long explained that this area was looked at in 1996 as part of the Campbell Street project. She indicated that she was working with the property owners of the greenhouse on the triangle property to lessen the impact. Ms. Long further explained that the Planning Commission had recommended working with the property owners on a plan that would reduce the impact and improve the intersection.

Matt Hughart from Kittleson and Associates commented that it was exciting to be present and look at the year of work come together. He noted that he had worked with Siegel Planning and Anderson Perry for the benefit of the citizens. Mr. Hughart explained that this project was developed and reviewed by the citizens of Baker City. He agreed that it would not be detrimental to remove the items that Ms. Long had mentioned.

Mr. Hughart explained that things had changed and that included methods of transportation. He noted that there were people who chose to get around without the use of automobiles which led to the infill sidewalks and recreational trails. He agreed that automobiles were still the main mode of transportation which is why the plan addressed ways to improve the roadway network and intersections. He spoke of the importance of safety issues.

Mr. Hughart continued, noting that there was a transit plan, but the City did not have direct control over how transit was supplied to the community.

Mr. Hughart addressed the concerns for the proposed change on Tenth Street and Broadway. He reminded the group that when they looked at safety, they wanted to make sure sidewalks were available. Mr. Hughart commented that the response from the community was that four travel lanes were still needed.

Grant Young, representing the Department of Land Conservation and Development (DLCD), explained the importance of

this plan. He commented that many of the projects in the last plan, from 1996, had been completed and other things like philosophy had changed. Mr. Young stated that currently there were bicycle and motorcycle clubs and Amtrak was no longer coming to Baker City. He stressed that this was a twenty-year plan, looking to the needs for population growth. Mr. Young encouraged the group to leave in the Tenth Street and Broadway studies as they would affect possible funding streams. He asked the group not to limit themselves.

Mayor Langrell asked what the projected growth for the community was. Mr. Young stated that the forecast was for 1% growth.

There was a brief discussion regarding the growth of Baker City.

Mayor Langrell asked for proponents of the plan.

Kata Bulinski, 3555 Indiana, Baker City, noted concern that specific citizen feedback was not part of the plan. She asked that they be included.

Ms. Bulinski addressed the Tenth Street and Broadway change, commenting that she had concerns such as the cost, snow removal and bicycle safety. She suggested that the draft be revised to add comments, add four lane alternatives and remove bike racks from Main Street.

Mayor Langrell then asked for opponents of the plan.

Duane Crampton, 1420 17th Street, Baker City, was present because of the Smith Ditch project. He suggested eliminating that part of the plan.

Mayor Langrell told Mr. Crampton that the Smith Ditch project had already been removed from the plan.

Vernon Hull, 3665 8th Drive, Baker City, indicated that he was opposed to the Tenth Street and Broadway plan. He commented that he had seen traffic counters and would like to know who was implementing that study. Ms. Owen responded that it was not the City, but she would talk to ODOT and see if it was them.

Donna and Mark Servid, 1413 Hunt Mountain Lane, Baker City, commented that they owned the property at 2601 Oak Street and were concerned about the cross-section of Cedar, B and Oak Streets.

Ms. Servid read a letter that they had sent to the Planning Commission, explaining that they owned the greenhouse at Oak and Cedar Streets and had been providing locally grown plants to the community for twenty years. She continued, adding that they had requested a zoning change to establish a permanent retail business at that location. Ms. Servid commented that this plan would destroy the property and their plans. She asked for an alternative when there are undue hardships.

There were no more public comments.

Ms. Long followed up on the request for comments in the plan. She explained that the initial plan was somewhat incomplete, but there was a public involvement section added to the binders with all the written comments in chronological order.

Ms. Long explained that refinement studies were opportunities to continue looking for alternatives. She then distributed copies of corrections and reviewed them with the group. Ms. Long noted that if the Council considered adopting the plan, these modifications would be included in the document.

Mr. Button asked if the Tenth Street and Broadway project was removed and the sidewalk infill was left in, could the City proceed. Ms. Long indicated that it could.

Mr. Button suggested designating alternative streets for bicycles to separate them from high-speed commercial traffic. He was not sure exactly how that could be incorporated into the plan.

Ms. Long reminded the Council that the hearing would need to be closed before deliberations could begin.

Mayor Langrell then closed the public hearing at 8:18 pm.

Mr. Button made a MOTION to retain the refinement study for Tenth Street and Broadway corridors; determine alternative routes for bicycles on side streets and determine what it would take to accomplish sidewalk infill. Ms. Johnson seconded the motion.

Ms. Long asked if they were recommending only those items and not the other recommendations.

Because there was no vote the motion FAILED.

There was CONSENSUS to add the refinement studies back in

and accept the corrections presented by staff.

At the request of the Council, Mr. Kee read Ordinance No. 3323 for the first time in its entirety.

Mr. Button made a MOTION to approve the first reading with the Planning Commission recommendations including one modification. Ms. Johnson seconded the motion and with Mayor Langrell and Councilors Button, Coles, Downing, Mosier and Johnson in favor, the first reading of Ordinance No. 3323 was APPROVED.

With consensus from the Council, Mr. Kee read Ordinance No. 3323 for the second time by title only.

Mr. Button made a MOTION to approve the second reading. The motion was seconded by Mr. Downing and with Mayor Langrell and Councilors Button, Coles, Downing, Mosier and Johnson in favor the second reading of Ordinance No. 3323 was APPROVED.

Mayor Langrell thanked everyone for all the time put into this study.

#8) Ordinance No 3320, Improving the Livability of Baker City

Next on the agenda was Ordinance No. 3320, improving livability/neighborhood project grant.

Background:

Taken from staff report:

One of the Council goals [2012] was to establish a City fund that could be used to help fund neighborhood public projects.

During the budget process a fund was identified and a manner to provide some funding was established

The Council has tabled this matter on April 9, 2013 and again on April 23, 2013.

Mr. Kee reviewed the staff report and explained that there was the possibility of accruing $80,000 within ten years in this fund. He continued, explaining that this was established to assist citizens with neighborhood projects.

Ms. Mosier commented that this ordinance had been presented on three different occasions and would like to see it refined more. She suggested creating the application process and figure out how the community would apply for the funds. She suggested a sub-committee. Ms. Mosier indicated that she would volunteer to be on this committee.

Mr. Button agreed that more discussion was needed on this and

added that he, too, would volunteer to refine this process.

Mr. Coles made a MOTION to form a sub-committee and clearly define the process in the ordinance. The motion was seconded by Mr. Button and with Mayor Langrell and Councilors Button, Coles, Downing, Mosier and Johnson in favor, the motion CARRIED.

#12) Council Goals Prioritized

Mayor Langrell then moved agenda item 12 to this time.

Background:
Taken from staff report:

The Baker City Council has prioritized several goals for the upcoming year. This item needs no action; it is intended for information only.

The group agreed to the following list:

1. *reduction of labor costs*
2. *create an HSA*
3. *analyze ways to consolidate public works/analyze wastewater*
4. *prepare cost analysis for contracting City services*
5. *defer mountain line project for UV plant*
6. *support parks*
7. *town hall meetings*
8. *increase wastewater rates to pay for wetlands project*
9. *yearly performance reports*
10. *sell Salmon Creek property*
11. *reduce purchasing policy to $20,000*
12. *re-development of properties*

Mr. Kee reviewed the staff report, explaining how the goals were prioritized. Mayor Langrell asked what the number one goal was. Mr. Kee responded that it was to reduce labor costs over the next five years.

Mr. Coles asked why the goal to reduce staff purchasing authority to $20,000 was still on the list. He commented that he thought that would be brought to the Council for approval separate from the goals.

Mr. Kee commented that he had explained at prior meetings that he was updating the City's purchasing policy, which would include this change, but would need to have the City Attorney review it since there had been some changes to the laws.

Mayor Langrell clarified that although the policy change was not in writing at this time, the policy was already in effect. Mr. Kee noted that there had been no purchases over $20,000 in quite some time but if there had been, it would have come before the Council.

#9) Ratification of the BCEA Contract

The next item on the agenda was the ratification of the Baker City Employee's Association (BCEA) labor contract.

Background:
Taken from staff report:

The City has been bargaining for a new contract with the Baker City Employees Association since December of 2012. The current contract expires on June 30, 2013. The two parties have bargained a proposed three year contract that has been ratified by the employee's association.

Mr. Kee reviewed the staff report for the group and explained the changes that shown in the draft.

Mayor Langrell asked what the total increase was over the previous year. Mr. Kee responded that the increase for the 1% COLA was approximately $13,000 and 1% for ten–year step was an additional $8,000. Mayor Langrell noted that benefit packages would also increase.

Mr. Kee explained that the insurance plan could not be changed until January, 2014 which was the reason for the costs being higher in the 2013-14 fiscal year. He noted that premiums for the high deductible plan are approximately $300 less per month.

Mayor Langrell asked if this contract stated no new employees. Mr. Kee responded that it did not.

Ms. Mosier commented that she believed the contract to be good for the City, citizens and the employees. She noted that she thought it was something that the City could live with. Ms. Mosier said that saving on labor costs was a goal that she thought could be achieved with this contract. She added that the increases were less than the actual cost of living. Ms. Mosier commented that she thought the changes were positive.

Ms. Johnson made a MOTION to ratify the BCEA contract as presented. She commented that it was negotiated in good faith. The motion was seconded by Mr. Button and with Councilors Button, Downing, Mosier and Johnson in favor and Mayor Langrell and Councilor Coles opposed, the labor contract was RATIFIED.

10) Boards and Commissions
a. PWAC
b. Parks & Recreation

Next on the agenda were appointments to City boards and commissions.

Background:
Taken from staff report:

The City currently has two partial-term vacancies on two of its boards

and commissions. To date, we have received applications for the following positions:

Public Works Advisory Committee (1 vacancy, term ends January 2015)

- Gary Marlette
- Kenneth Dudley
- Ronald Hogg
- Jim Horan
- Von Miller

Parks & Recreation Board (1 partial-term vacancy-term ends July 2014)

- Jim Horan
- Von Miller
- Gary Marlette
- Kenneth Dudley

Ms. Fitzpatrick distributed ballots to the Council for the selection of a volunteer for PWAC. The votes were tallied as noted below:

Mayor Langrell-Miller
Mr. Downing-Marlette
Mr. Button-Miller
Ms. Johnson-Marlette
Mr. Coles-Horan
Ms. Mosier-Marlette

With Gary Marlette receiving the most votes, he was APPOINTED to the partial term on the Public Works Advisory Committee.

Mr. Kee distributed ballots to the Council for the selection of a volunteer for the Parks and Recreation Advisory Board. The votes were tallied:

Mayor Langrell-Miller
Mr. Downing-Dudley
Mr. Button-Horan
Ms. Johnson-Miller
Mr. Coles-Miller
Ms. Mosier-Horan

With Von Miller receiving the majority of votes, he was APPOINTED to the Parks and Recreation Advisory Board.

#11) Resolution No. 3701, Sidewalk Utility Fee

The next item on the agenda was Resolution No. 3701, setting the sidewalk utility fee.

Background:
Taken from staff report:

On April 9, 2013 the Council discussed whether or not to continue an ordinance to collect a sidewalk utility fee. At the April 23, 2013 meeting the Council agreed to remove the fee from the City's master fee resolution.

The current fee which is $1.00 per month for residences and $2.00 per month for commercial accounts will expire on July 1, 2013.

Mr. Kee reviewed the staff report, noting that he did not receive any feedback from the Council so he proceeded with the resolution as presented. He noted that, if the Council choses, it could be changed.

In response to a question from Mr. Downing, Ms. Owen indicated that there had been quite a few inquiries about the new grant program.

Mr. Button made a MOTION to approve the resolution as presented. The motion was seconded by Mr. Coles, who verified that the fee would continue at $1.00 per month for residential property. With Councilors Button, Downing, Mosier, Coles and Johnson in favor and Mayor Langrell opposed, Resolution No. 3701 was ADOPTED.

RESOLUTION NO. 3701
A RESOLUTION AUTHORIZING THE CITY OF BAKER CITY TO COLLECT A SIDEWALK UTILITY FEE AT A RATE OF $1.00 PER MONTH FOR EACH RESIDENTIAL WATER ACCOUNT AND $2.00 PER MONTH FOR EACH COMMERCIAL WATER ACCOUNT WITHIN THE CITY OF BAKER CITY, TAKING EFFECT JULY 1, 2013

#13) City Manager/ Director Comments

Under City Manager/Director comments Ms. Owen indicated that although Baker County had drought conditions, Baker City had a water curtailment code. She added that, should the need arise, the City had an adopted plan in place. She informed the group that Goodrich Reservoir looked good and still had snowpack in the area. Ms. Owen noted that the Aquifer Storage and Recover (ASR) well was also doing well. She suggested that the Council review the steps for the curtailment plan.

Ms. Fitzpatrick commented that she had given the Council a list of definitions from the Oregon Ethics Commission. She reminded the group of webinars that were available at no cost to help them understand their roles. Ms. Fitzpatrick noted that if any Councilor felt they had a potential or actual conflict of interest, they should disclose it during a meeting.

#14) Council Comments

Under City Council comments, Ms. Johnson commented that it worked out well to have Ms. Mosier join the meeting via Skype.

Ms. Mosier thanked the group for allowing her to be present through this medium.

Ms. Johnson apologized for coughing during the meeting. She noted that allergies were bothering her. Ms. Johnson added that now that a Councilor has used the internet for meetings, maybe she would also try to attend meetings when she goes out of town.

#15) Adjourn

With no further business to discuss the meeting was ADJOURNED at 9:02 p.m.

SIGNED:_____
Mayor

ATTEST:_____
City Recorder

BAKER CITY COUNCIL
REGULAR MEETING
Tuesday, June 25, 2013

#1) Call to Order

The meeting was called to order at 7:00 p.m. by Mayor Richard Langrell in Baker City Hall Council Chambers.

#2) Pledge/Invocation

The Pledge of Allegiance and Invocation were led by Councilor Johnson.

#3) Roll Call

Roll call was answered by Mayor Richard Langrell and Councilors Clair Button, Kim Mosier, Roger Coles, Barbara Johnson, and Mike Downing. Councilor Dennis Dorrah was absent. Also present were City Manager Mike Kee, Finance Director Jeanie Dexter, City Recorder Becky Fitzpatrick, Public Works Director Michelle Owen and City Attorney Brent Smith.

Also in attendance were City/County Planning Director Holly Kerns and Planner Jenny Long.

#4) Consent Agenda
a) Minutes of the June 11, 2013 Regular Meeting

At this time, the Council reviewed the Consent Agenda which included the minutes of the June 11, 2013 regular meeting.

Mr. Coles made a MOTION to approve the minutes; the motion was seconded by Ms. Johnson.

Ms. Fitzpatrick informed the group that Mr. Downing had brought her attention to an error in the draft minutes. She indicated that she had made the correction to Curt Martin's name.

Mr. Coles changed his motion to approve the minutes as amended; Ms. Johnson concurred on her second. With Mayor Langrell and Councilors Button, Coles, Downing, Mosier and Johnson in favor, the Consent Agenda was APPROVED as amended. Mayor Langrell thanked Mr. Downing for reporting the error.

#5) Citizen's Participation

The next item on the agenda was citizen's participation.

Beverly Calder, 1246 Dewey, Baker City, reminded the community of Baker City Cycling Classic on the upcoming weekend. She noted that they hoped for a sunny, safe weekend. Ms. Calder pointed out that there would be some street closures that she wanted everyone to be aware of.

#6) Ordinance No. 3323, TSP Amendments

Next on the agenda was the third reading of Ordinance No. 3323.

Background:

Taken from staff report:

The Council will consider the third and final reading of Ordinance No. 3323 at this meeting.

Amendments to the Transportation System Plan (TSP) are being proposed to address the City's current transportations planning needs and projected needs for the next 20 years.

The first and second readings of this ordinance were on June 11, 2013.

Mayor Langrell indicated that there was one citizen who wished to speak on this topic.

Brenda Paul, 889 Elm Street, Baker City, indicated that she owned the property where the old steam station used to be. She explained that she was there to address the part of the plan that included a pathway across part of her property. She noted that she had water rights on that property and irrigated from the Powder River. Ms. Paul shared her concern that the proposed pathway would cut off her water access. She asked to be informed of further proceedings involving this pathway.

Ms. Long explained that Ms. Paul's concerns had been addressed by the Planning Commission and the preservation of her water rights would be considered when this plan proceeded. She reminded the group that rights-of-way acquisition would be the first of part of that plan and specific details would be worked out at the time the project proceeds. Ms. Long explained that when acquisitions are not possible, other routes would be considered.

Ms. Paul commented that she thought a pathway under the train trestle would be a poor idea.

Ms. Johnson asked why the pathway was diverted to go under the trestle. Ms. Long responded that it was primarily for the safety of the pedestrians. She noted that there was enough room along the river bank under the trestle that crosses the Powder River.

In response to a question from Ms. Johnson, Ms. Long stated that all these factors would be considered as the project actually is planned and constructed. She added that the property owners would be part of that process.

Ms. Paul noted that she owned the property on both sides of

the river.

Mayor Langrell thanked Ms. Paul for bringing this matter to the Council's attention.

Ms. Kerns indicated that she wanted to share an email she had received that day from citizen Christopher Christie. She continued, explaining that Mr. Christie had specifically asked about the citizen involvement program. She further explained that this program was goal one of the comprehensive plan. Ms. Kerns stated that Citizen Involvement Advisory Committee (CIAC) was a state committee. She noted that the City of Baker City had in the past had a Citizen Advisory Council, but in 1981 that council became the Planning Commission.

At the request of the Council, Mr. Kee read Ordinance No. 3323 for the third and final time, by title only.

Mr. Button made a MOTION to approve the third reading. Ms. Mosier seconded the motion.

Mayor Langrell commented that there were many things in the Plan that he did not agree with, but reminded the group that this was just an idea being put out there. He noted that this plan was not set in stone.

With Mayor Langrell and Councilors Button, Coles, Downing, Mosier and Johnson in favor, Ordinance No. 3323 was ADOPTED.

ORDINANCE NO. 3323
AN ORDINANCE ADOPTING AMENDMENTS TO THE TRANSPORTATION SYSTEM PLAN AND INCORPORATING RELEVANT POLICIES, MAPS AND STANDARDS INTO THE COMPREHENSIVE PLAN AND DEVELOPMENT CODE

#7) Interfund Loans
- **a. Resolution No. 3705-Silvers/LID**
- **b. Resolution No. 3706-Equipment & Vehicle/ General Fund**

The next items on the agenda were Resolutions No. 3705 and 3706, approval of interfund loans.

a.

Background:

Taken from staff report:

A local improvement assessment for the Resort Street underground utility project was approved by Resolution No. 3686.

The property owners with application to the City will be allowed to pay the assessment over a period of time not to exceed twenty years yet the construction costs have already been incurred. In order to fund the financing of the local improvement assessment to the property owners the

LID Fund will need to borrow $294,881. Based on the amount and timing of the loan we are proposing an interfund loan from the Anthony Silvers Street Tree Trust Fund for $294,881.

Ms. Dexter reviewed the staff report and explained how this loan would work. She stated that the City could not use the principal so the money would be paid back to the fund with interest. Ms. Dexter explained that this matter had been reviewed by David Blanc of the Corey, Byler, Rew, Lorenzen & Hojem law firm [see attached written opinion] as required by law.

Mr. Coles asked if this was the resolution that was the mechanism to initiate the LID. Ms. Dexter explained that the LID had been approved in October and this resolution was to fund the LID.

Mr. Coles asked when the property owners would begin paying back this loan. Ms. Dexter responded that it would start in September or October 2013. She noted that since construction had already begun cash flow was needed.

Mr. Button commented that he thought this was a good way to go, noting that the Silvers Fund was restricted so the Tree Board could move forward with the projects using the interest as it is paid back to the fund.

Mayor Langrell suggested approving both the interfund resolutions together.

b.
Background:
Taken from staff report:

At the May 22nd Budget Committee meeting, the committee approved the early payoff of the City's Note Payable to the Oregon Economic and Community Development Department in order to reduce interest costs.

On July 1, 2013 the General Fund will borrow $36,256 of the payoff amount from the Equipment and Vehicle Fund to reduce the current year payoff from the General Fund.

Ms. Dexter reviewed the staff report and explained how this interfund loan would work.

Upon a MOTION by Ms. Johnson and a second by Mr. Downing, and with Mayor Langrell and Councilors Button, Coles, Downing, Mosier and Johnson in favor, Resolutions No. 3705 and 3706 were ADOPTED.

RESOLUTION NO. 3705
AUTHORIZING AN INTERFUND LOAN FROM THE ANTHONY SILVERS STREET TREE TRUST FUND TO THE LID FUND

RESOLUTION NO. 3706
AUTHORIZING AN INTERFUND LOAN FROM THE EQUIPMENT & VEHICLE FUND TO THE GENERAL FUND

#8) Budget Items

- **a. Public Hearing Regarding Possible Uses of State Revenue Sharing Dollars**
- **b. Public Hearing Regarding the Allocations in the 2013-2014 Approved Budget**
- **c. Consideration of Resolution No. 3702 Electing to Receive State Revenue Sharing Dollars**
- **d. Consideration of Modifications to the 2013-2014 Approved Budget**
- **e. Consideration of Adoption of the Appropriations for the General Fund's Administration Services Department**
- **f. Consideration of Resolution No. 3703 Adopting the 2013-2014 Budget, Making Appropriations and Imposing and Categorizing Taxes**
- **g. Consideration of Resolution No. 3704 Making Modifications to the 2012-2013 Budget**

Next on the agenda were budget items.

Background:

Taken from staff report:

a. *In order to receive State Revenue Sharing dollars, the State requires a hearing before the City Council for citizens to provide input on the use of State Revenue Sharing funds.*
b. *Oregon budget law requires a hearing before the City Council for public input on the 2013-2014 approved budget.*
c. *Resolution No. 3702 declares the City's intention to receive state revenue sharing dollars. Passage of this resolution will allow the City's General Fund to receive $95,000 in state revenue which is included in the 2013-14 approved budget.*
d. *Resolution No. 3703 reflects the approved budget with recommended adjustments.*

f. *The City's operational requirements have varied from the projections made when preparing and adopting the 2012-13 budget a year ago. If passed, Resolution No. 3704 will make changes to the budget to correspond to the 2012-13 needs.*

Ms. Dexter explained the procedure for item a, noting that the public hearing was required by the state of Oregon.

Mayor Langrell opened the hearing at 7:26 pm. With no public comment, he closed the hearing at 7:27 pm.

Mayor Langrell then opened the public hearing at 7:28 pm as stated in item b.

Mick Borisoff, 2809 Baker Street, Baker City, asked where the money would come from to pay for the raises for Public Works employees.

Ms. Dexter explained that the increases Mr. Borisoff was questioning were from the Baker City Employees Association and were not just Public Works employees. She continued explaining that the majority of those employees were paid with water and wastewater user fees. Ms. Dexter indicated that those fees were

increased by 1.9%. She added that the Street Fund dollars came from the gas tax.

Mr. Borisoff noted concern about these salary increases, commenting that in some places wages were reduced and jobs had been lost. He commented that he felt he had been failed by the Fire and Police Departments.

Ms. Johnson stated that she appreciated his concerns and reminded him that the salary increases were less than the cost of living increases in Oregon were. She commented that the contract was the result of six months of negotiations and stated that the City had excellent employees.

In response to a comment from Mr. Borisoff, Ms. Johnson indicated that the City was looking as contracting more work out.

After further comments by Mr. Borisoff, Mr. Button commented that the Council had taken a number of factors into account and it did not seem fair to be cross examined. Mr. Button explained that it was a negotiation process with both sides giving up something.

Ms. Mosier commented that she was happy to give justification for her decision to ratify the contract. She reiterated that neither side got exactly what they wanted, but worked together in good faith. Ms. Mosier explained that the change in health She indicated that she would vote the same way at this time as she had at the prior meeting.

Mr. Downing agreed that the contract was negotiated in good faith and would also vote the same way.

Ms. Calder asked whether the funds being reallocated from the Community Development Department were going into the ending fund balance. Mayor Langrell responded that they were not. Ms. Calder asked for the reason. Ms. Dexter explained that one labor contract had been settled so the increase had to be put into the budget to cover those increases. She noted that because there was a tentative agreement with the Fire union, those funds were also appropriated in the budget. Ms. Dexter told the group that the PERS rate came in very close to what was estimated.

Ms. Dexter explained that the reduction in the amount that was being paid to the county for community development services was used to offset the salary increases. She added that the police

contract had yet to be settled and any cost of living increases would need to come out of contingency during 2013-2014.

After further discussion, Ms. Dexter indicated that the ending fund balance had not changed from what was approved by the Budget Board.

Ms. Calder noted that it was unfortunate that the labor contracts were settled after the Budget Board meetings. She added that she disagreed with reducing the community development and using it to cover other costs.

Mr. Coles agreed and stated that he thought the $20,000 from community development should go into the ending fund balance.

Mr. Kee reminded the group that they were still in the public hearing.

Mayor Langrell commented that he was disappointed that the salaries for Ontario and La Grande had not been available prior to the budget meetings. He added that the Council had agreed that the number one problem was labor costs. Mayor Langrell said that he did see an effort to save money and he would agree to disagree with the majority of the Council.

Mayor Langrell closed the public hearing at 7:49.

Ms. Mosier asked for clarifications of transfers. Ms. Dexter indicated that she would explain them when item (d) was discussed.

Ms. Dexter proceeded to (c), which was the approval of Resolution No. 3702.

Mr. Button made a MOTION to approve Resolution No. 3702, electing to receive state revenues. The motion was seconded by Ms. Johnson and with Mayor Langrell, Councilors Downing, Button, Mosier, Johnson and Coles in favor, the resolution was ADOPTED.

Ms. Dexter explained to the group that she sent the budget form LB-1 to the Record Courier and the second page was not printed. The Courier acknowledged that they had received the entire form. She added that she then reprinted it in the Baker City Herald and it had been available to the public the entire time on the City's website. Ms. Dexter indicated that she had contacted the Department of Revenue who stated that it was considered a clerical error and not a violation of Oregon budget law.

Ms. Dexter then reviewed the staff report for Resolution No. 3703, which would adopt the 2013-14 budget. She explained the changes and reminded the group that negotiations of labor contracts and budget were not usually at the same time.

Ms. Dexter reviewed the changes listed in the staff report. She noted that the City would only use the appropriations for grant writing, not for community development at this time.

Ms. Dexter explained the changes due to delays with the Resort Street project. She noted that some costs would be forwarded to the next year due to these delays.

In response to a question from Mr. Coles, Ms. Dexter explained that the increase in legal costs in 2012-2013 was primarily for labor negotiations.

Ms. Mosier asked why the $8,565 net savings from the Community Development Department was placed in contingency instead of the ending fund balance. Ms. Dexter explained that then it could be used to cover any increase from the Police labor contract.

Mayor Langrell commented that the Budget Board had decreased the contingency fund to help keep labor costs down. He indicated that he would prefer to keep the contingency low to prohibit increases in labor and wanted the additional funds to go into the ending fund balance.

Mr. Coles commented that he thought contingency could not be used for labor costs, only unforeseen or emergency type reasons. He noted that the labor costs were not unforeseen; therefore he felt the entire savings from the Community Development Department should go into the ending fund balance.

Ms. Dexter explained that contingency had not been changed, but if the police contract is settled with an increase funds would need to be moved from contingency to cover those costs.

Ms. Dexter explained that the budget process starts in May, but to allow for changes since the fiscal year is not complete until June, the budget is not adopted by Council until the end of June.

Mr. Coles made a MOTION to move $20,000 from community development to the ending fund balance. The motion was seconded by Mayor Langrell.

Mr. Button commented that this was a small amount considering the size of the budget which was over $21,000,000. He stated that believed in allowing some flexibility for the City Manager. Mr. Button added that he believed the City Manager and staff were working very hard to hold costs down.

Ms. Mosier asked what would happen if those funds were put into the ending fund balance. Ms. Dexter explained that it would reduce contingency. She indicated that the contingency was used for many things, including repairs at the hydro plant and in the current year over $6,000 was used to fix the clock tower.

Ms. Mosier asked if there was a typical amount of contingency spent each year. Ms. Dexter explained that each year is different. She said that she had seen $200,000, $30,000 and $0 transferred from contingency. She noted that Council would need to approve any transfers from contingency.

Ms. Mosier commented that she would like to see some of the savings put into the ending fund balance.

Ms. Dexter recommended addressing item (e) before moving on the motion.

Ms. Johnson agreed with Mr. Button not to tie the hands of the City Manager and staff and did think the Council should micromanage. She noted that the budget that was approved was very lean.

Ms. Calder commented that she did not look at the community development dollars as a savings; she said she thought there still was a need for community development. Ms. Calder commented that she thought the full $20,000 should go into the ending fund balance. She thought that if it was in the ending fund balance the City could do a supplemental budget to use it if necessary.

Ms. Dexter explained that the ending fund balance can only be used in the case of a federal disaster. She further explained that a supplemental budget is needed for example, if there is a transfer of more than 15% of appropriations in a fund from contingency.

Ms. Calder urged the Council to support the budget that was approved by the Budget Board.

Mayor Langrell reminded the group that the Council had given

direction to the City Manager that there was to be no increase in labor costs. He continued that when the budget was proposed it had a 5% increase.

Mr. Button commented that he remembered that in the goal setting session one goal was to hold the labor cost down. Some members of the Council thought it should be a zero dollar increase, but the group as a whole made it clear that they just wanted the City Manager to keep costs down.

Ms. Mosier indicated that she had the same recollection as Mr. Button, expecting the increases to be as close to zero as possible, with good faith negotiations in process.

Ms. Mosier stated that she would support the motion, with $20,000 minus $2,055 going to the ending fund balance.

Mr. Coles stood by his original motion.

Ms. Dexter reminded the group that they needed to follow the order of the proceedings as listed on the agenda. She noted that item (e) needed to be addressed at this time.

Mr. Downing then disclosed that although it was not an actual conflict, he had a cousin that worked in the Fire Department. He added that he did have an actual conflict, in that he was a paid reserve employee for the 911 Consolidated Dispatch which receives payment from the General Fund's Administrative Services Department.

Ms. Dexter explained that the Department of Revenue and Ethics Commission had been contacted regarding this matter and they suggested that the part of the General Fund that included the dispatch contract be voted on separately with Mr. Downing recusing himself during that discussion and vote.

Ms. Dexter indicated that Mr. Coles needed to restate his motion.

At that time Mr. Downing stepped down from the dais.

At the request of Mr. Coles, Ms. Dexter made a suggestion for the motion, separating administrative services from the rest of the budget. This, she noted, was one line item on the resolution. With that, Mr. Coles RESTATED the motion to approve the Administrative Services line of the General Fund as it was approved by the Budget

Board-$1,113,681. Mayor Langrell seconded the restated motion.

Ms. Johnson asked for clarification of the motion. Mayor Langrell explained for her. With Mayor Langrell and Councilor Coles in favor and Councilors Johnson, Button and Mosier opposed, the motion FAILED.

Ms. Dexter reminded the group that they could not discuss this line item as they proceeded. Mr. Kee commented that there was not a successful vote to approve the administrative services line.

Mr. Button made a MOTION to approve the line for administrative services in the General Fund for $1,115,736 as presented in Resolution No. 3703. The motion was seconded by Ms. Mosier and with Councilors Button, Mosier and Johnson in favor and Mayor Langrell and Councilor Coles opposed, the motion was APPROVED.

Mr. Downing returned to his seat at the dais.

Ms. Dexter reviewed Resolution No. 3703 as revised.

Mayor Langrell asked how Mr. Coles' original motion would be revised excluding the administration services line.

Ms. Mosier asked for clarification of the new motion. She asked if they were unchanging the suggested changes. Ms. Mosier then seconded the motion.

Ms. Dexter asked for the motion to be restated for the sake of clarity. Mr. Coles commented that he was not sure he could.

Mr. Coles then made a MOTION to move $17,945 into the ending fund balance. Ms. Dexter explained that he would have to include the decrease in community development by $20,000.

Ms. Mosier asked if she could reword the motion. The Council concurred. She made the MOTION to approve Resolution No. 3703 with the following modifications: take out increase to Fire Department of $9,428; take out increase to the contingency fund of $8,565 and leave the remaining resolution as written. Ms. Dexter tallied the numbers to make sure the motion was correct. She asked them if they only wanted to change the General Fund.

Mr. Downing asked how money was moved from the contingency fund. Ms. Dexter explained that she would prepare a

budget resolution that would need to be approved by the Council.

Mr. Button noted concern because of the reason to anticipate addition costs. He noted that he would rather go with the suggestions of the Finance Director. He noted that the contingency gives more flexibility so the motion would lessen that flexibility.

Mayor Langrell commented that the Budget Board did put that money in contingency.

There was a discussion on this matter. Ms. Johnson commented that this could be needed in the case of an emergency.

Ms. Mosier stated that her interest was being consistent with what had been passed by the Budget Board.

Ms. Dexter then reviewed the numbers that would be tied to the motion: administrative services remains the same at $1,115,736; Police Department $1,816,719; Fire Department $1,491,726; Cemetery Department remains the same at $147,402; Park Department remains the same at $108,338; Airport Department remains the same at $57,140; Planning Department remains the same a $63,000; Hydro Plant remains the same at $6,767; Community Development stays the same at $28,100-she noted that the Budget Board had actually approved $48,100; Debt Service remains the same at $61,256; transfers remain the same at $93,978; and Contingency decreases to $69,000. Ms. Dexter stated that the final changes to the General Fund changed the total to $5,059,162 and the total appropriations to $16,067,972. She indicated that was the effect of the motion on the table.

With Mayor Langrell and Councilors Mosier and Coles in favor and Councilors Downing, Johnson and Button opposed, the motion FAILED.

Mr. Button noted that even though he had expressed his opinion that he did not agree with moving the funds out of contingency, he changed his mind to move the $17,945 from contingency to the ending fund balance, putting his faith in Mr. Kee to come up with some savings to cover any costs not covered by the contingency.

Mr. Button then made a MOTION [exactly as Ms. Mosier had] to approve Resolution No. 3703 with the list of revisions stated by Ms. Dexter. The motion was seconded by Mayor Langrell and with Mayor Langrell, Councilors Button, Coles and Mosier in favor and

Councilors Johnson and Downing opposed, Resolution No. 3703 was ADOPTED.

Ms. Dexter then began her review of item (g), Resolution No. 3704. She explained that they were the changes to the 2012-13 budget and without the changes the City would be over budget. She further explained that the biggest changes were legal and the repairs to the clock tower.

Ms. Johnson made a MOTION to approve Resolution No. 3704 as presented. Ms. Mosier seconded the motion and with Mayor Langrell, Councilors Mosier, Johnson, Downing, Button and Coles in favor, Resolution No. 3704 was ADOPTED.

RESOLUTION NO. 3702
DECLARING THE CITY'S ELECTION TO RECEIVE STATE REVENUES

RESOLUTION NO. 3703
ADOPTING THE ANNUAL BUDGET, MAKING APPROPRIATIONS AND IMPOSING AND CATEGORIZING TAXES FOR THE FISCAL YEAR 2013-2014

RESOLUTION NO. 3704
CHANGING BUDGET APPROPRIATIONS IN THE GENERAL FUND, SAMO SWIM CENTER MAINTENANCE FUND, GOLF COURSE OPERATION FUND, AND THE RESORT UTILITY UNDERGROUND FUND

#9) Discussion of Specialist I Water/Meter Reader Position

The next item on the agenda was a discussion regarding the position of Specialist I Water/Meter Reader.

Background:
Taken from staff report:
Over the past several months there has been a discussion concerning the employment of a Water Specialist I, which is the City employee who primarily reads water meters, however also completes maintenance and treatment duties within the water department.

Mr. Kee reviewed the staff report.

In a discussion regarding companies who contract out meter readers, Mr. Kee explained that they did not provide service to open or close accounts or rereads which sometimes lead to leak credits.

Mr. Kee told the Council that the City currently had great customer service so that would also need to be considered.

In a discussion regarding the water treatment part of the position, Ms. Owen stated that it takes approximately two years to become certified in this field. She added that the hydro plant was also an element of the water plant.

Mr. Button commented that he understood that there could possibly be an employee retiring in the next few years in that department.

In response to a question from Mr. Coles, Ms. Owen explained that the cost of becoming certified was basically two years of wages. She indicated that the test could not be taken until the employee had worked with a person who was already certified.

In further discussion, Ms. Owen stated that there were different levels so there would be the possibility of promotions to upper classifications.

Mayor Langrell asked if there were people who were already certified out there. He suggested waiting until someone retires and hire someone who already has the certifications.

In response to a question from Mayor Langrell, Mr. Kee explained that the IRS has a definition of contracted service. He continued, noting that whatever you hire them to do, they have to do for others, such as the janitorial service, who clean for other organizations. Ms. Dexter noted that as an accountant she had seen people get in trouble over this.

Mayor Langrell asked if a part time person could be hired and not be paid benefits. Mr. Kee responded that benefits would be pro-rated.

In response to a comment by Mayor Langrell, Mr. Downing noted that if you reduce the hours in the winter, there would probably be unemployment benefits to pay.

Ms. Johnson commented that this had been discussed for several months. She noted that this position was in the budget and should be acted on.

Mr. Downing commented that he knew there was a backlog of

work to be done and felt this should move forward. Mr. Kee indicated that this had already been advertised and there were several applicants.

Mr. Smith explained the difference between contractor and employee. He noted that if the City was looking for someone to fill the role of the former employee, there would be no way for a contractor to do so.

10) Boards and Commissions
a. Parks & Recreation

Next on the agenda were appointments to City boards and commissions.

Background:
Taken from staff report:

The City currently has three vacancies on the Parks and Recreation Advisory Board. To date we have received applications for the following positions:

Parks & Recreation Board (3 vacancies–two year terms)

- Rick Taylor (Incumbent)
- Mike Clark (Incumbent)
- Jim Horan
- Von Miller
- Kenneth Dudley
- Christopher Carmiencke

Ms. Fitzpatrick reviewed the staff report and explained that when the board was formed, the Council wanted, although did not require, a member be a youth from the community. She explained that if they chose they could vote for two now and one later, if they wanted to consider a youth member or chose three from the list of applicants.

Mr. Button suggested filling all three positions at this time, knowing that there were often vacancies on the City boards and commissions. There was CONSENSUS to do so.

Mr. Kee distributed ballots to the Council for the selection of a volunteer for the Parks and Recreation Advisory Board. The votes were tallied:

Mayor Langrell-Taylor, Clark, Carmiencke
Mr. Downing- Taylor, Clark, Horan
Mr. Button- Taylor, Clark, Carmiencke
Ms. Johnson- Taylor, Clark, Carmiencke
Mr. Coles- Clark, Horan, Dudley
Ms. Mosier- Taylor, Clark, Horan

After tallying the votes, Ms. Fitzpatrick indicated that Clark

had the most votes at six; Taylor at five; and there was a tie between Horan and Carmiencke at three. The tie breaking vote determined that Horan was the third volunteer appointed. The votes for Horan were Button, Coles, Mosier and Downing.

Ms. Fitzpatrick thanked all the applicants and encouraged them to continue to apply to the City boards and commissions.

#11) Ordinance No. 3322- Prohibiting Tobacco in City Parks

The next item on the agenda was the possible first reading of Ordinance No. 3322 which would prohibit tobacco use in City-owned parks.

Background:

Taken from staff report:

This ordinance was first brought to the Council on April 23, 2013. The Council requested more information concerning the effects of second hand smoke in an outdoor environment.

On May 14, 2013 the proposed ordinance was brought back to the Council. The proposed ordinance was discussed and the Council felt that they needed to allow more time for the public to comment.

The Baker City Council has also been approached by a citizen to consider tobacco free parks. Interested parties who use the City parks wish to promote healthy lifestyles and allow park and pathway patrols who do not smoke to not be subjected to dangerous second hand smoke while attempting to enjoy park or pathway amenities.

Bobbie Danser, 740 Valley Avenue, Baker City, commented that she, once again, wanted to state her opposition to this ordnance, primarily where it applied to smoking. She stated that the Police cannot enforce all the current ordinances. Ms. Danser read a prepared statement which mentioned other hazards such as animals and falling trees. She listed other ordinances that were not enforced, including the discharge of weapons and curfews.

Mr. Kee reviewed the staff report and told the group that Ben Foster had posted signs around town regarding this ordinance. He added that there were some comments.

Mr. Kee indicated that this ordinance would not be well accepted at the golf course.

Mr. Kee explained that a survey had been done long before this ordinance and there had been an interest by the public to make as least part of the parks smoke-free.

Ms. Mosier commented that she had openly supported a smoking ban in the parks. She agreed with excluding the golf

course. Ms. Mosier stated that she wanted to make the City parks family friendly. She agreed that it would be hard to enforce smokeless tobacco. She also agreed with exempting parking lots and sidewalks.

Mr. Downing stated that he, too, was in favor of this ordinance, but was concerned about enforcement. He noted that the public was spoiled by a Police Department that does more than most and was concerned about expecting too much.

Mr. Button stated that he was amazed how little additional input was received. After further supportive comments, Mr. Button commented that the idea was to have rules that people are encouraged to follow.

Ms. Mosier commented that the people she knew did not comment because they did not think it would be a hard decision.

She made a MOTION to accept the ordinance, with the following amendment: exclude golf course, only ban smoking products, include a five-foot buffer around parks, exempt parking lots and sidewalks outside of the buffer. Ms. Johnson asked if the pathway would be included. Ms. Mosier stated that the pathway would not be excluded.

Mr. Coles asked about handling a person smoking medical marijuana in the park.

Ms. Mosier commented that right now they cannot smoke medical marijuana in the park, within the confines of the law. She added that anyone with a violation would have a right to appeal to the Council.

Ms. Johnson seconded the motion.

Ms. Fitzpatrick asked what exactly the motion was. Ms. Mosier clarified that her motion was to amend the ordinance as stated.

Mr. Kee read back the list of changes. He stated that he would re-write with these changes and bring it back. Mr. Smith asked for clarification on the section regarding sidewalks.

Mr. Kee indicated that he would remove the emergency clause.

Mr. Smith asked about electronic cigarettes. Ms. Mosier said she was not familiar with those products, but would not want kids to see that action either.

Ms. Mosier withdrew the motion.

#12) Public Works Bid Awards:

a. **2013 E Street Asphalt Overlay**
b. **2013 E Street Sidewalk Construction**

Next on the agenda were bid awards for the Public Works Department.

a.

Background:

Taken from staff report:

The City advertised for bids for the asphalt overlay of E Street from College to 8th Street. Three valid bids were received. The low bid is from High Desert Aggregate & Paving Inc. for $115,965.

Ms. Owen reviewed the staff report for the Council.

Ms. Johnson made a MOTION to award the bid to High Desert Aggregate & Paving Inc. for $115,965. The motion was seconded by Ms. Mosier and with Mayor Langrell and Councilors Button, Downing, Mosier and Johnson in favor and Councilor Coles opposed, the bid was AWARDED.

b.

Background:

Taken from staff report:

The City advertised for bids for the sidewalk construction related to the E Street overlay project. Only one valid bid was received. The low bid is from VanNevel Concrete & Curb, Inc. for $85,907.

Ms. Owen reviewed the staff report.

Ms. Mosier made a MOTION to award the bid to VanNevel Concrete & Curb, Inc. for $85,907. The motion was seconded by Mr. Button.

Mayor Langrell asked if these were tied into the Resort Street project. Ms. Owen replied that they did not. She noted that one of the subcontractors for Becker on the Resort Street project was going to submit a bid, but did not.

With Mayor Langrell and Councilors Button, Downing, Mosier and Johnson in favor and Councilor Coles opposed, the bid was AWARDED.

#13) City Manager/ Director Comments

Under City Manager/Director comments, Mr. Kee reminded the group of a meeting with HBC the following evening at 6:00 pm.

Ms. Owen told the group that she would contact them via email to set up the field trip down to Wade Williams Park to look at river access. She noted that the press would be included.

#14) Council Comments

Under Council comments, Mr. Downing thanked the Council for the opportunity to present the key to the City to the Cattlemen's Association. He said he recently discovered that a great-great grandfather was one of the founding members. Mr. Downing commented that Jason Yencopal made the key and did a great job.

Mayor Langrell thanked him for his part in that event.

Mr. Button thanked everyone involved in the budget. He noted that even though there were strong feelings, the Council worked through their differences.

#15) Adjourn

With no further business to discuss the meeting was ADJOURNED at 10:12 p.m.

SIGNED:_____
Mayor

ATTEST:_____
City Recorder

ORDINANCE NO. 3323

AN ORDINANCE ADOPTING AMENDMENTS TO THE TRANSPORTATION SYSTEM PLAN AND INCORPORATING RELEVANT POLICIES, MAPS, AND STANDARDS INTO THE COMPREHENSIVE PLAN AND DEVELOPMENT CODE

WHEREAS, the Baker City Transportation System Plan, last updated in 1996, does not address the City's current transportation planning needs; and

WHEREAS, the City received a grant from the State of Oregon Transportation and Growth Management Program to update its Transportation System Plan and implementing regulations in conformance with the State Transportation Planning Rule (OAR 660, Division 12); and

WHEREAS, the City solicited public input in developing and reviewing the Transportation System Plan, including the proposed Comprehensive Plan and Development Code amendments, through a series of public open house meetings and work sessions hosted by the Baker City Planning Commission and City Council; and

WHEREAS, the Planning Commission and City Council conducted joint work sessions on the proposed Transportation System Plan and amendments to the Comprehensive Plan and Development Code during April 16-17, 2013; and

WHEREAS, the State Department of Land Conservation and Development was duly notified of the proposed amendments on April 24, 2013, at least 35 days before the first evidentiary hearing on the Transportation System Plan, and did not object to said amendments;

WHEREAS, notice to each property owner within the City Limits and Urban Growth Boundary was mailed on May 9, 2013, at least 20 days in advance of the first public hearing to consider adoption of said amendments; and

WHEREAS, notice to the public was advertised in a newspaper of general circulation on May 15, 2013, at least 14 days in advance of the first public hearing on said amendments; and

WHEREAS, the Planning Commission held a duly noticed public hearing on the proposed Transportation System Plan and amendments to the Comprehensive Plan and Development Code on May 29, 2013, continued on June 5, 2013, and the Planning Commission recommended City Council adoption of said amendments; and

WHEREAS, the City Council conducted a public hearing on said amendments on June 11, 2013, received public testimony, deliberated and made a decision to adopt said amendments based on the public health, safety and welfare; and

WHEREAS, the City Council found that said amendments conform to applicable State Land Use Planning Goals, particularly Goal 1 – Citizen Involvement, Goal 2 – Land Use Planning, Goal 8 – Recreational Needs, and Goal 12 – Transportation; and

NOW THEREFORE, BE IT ORDAINED by the City of Baker City, Oregon:

Section 1:
Transportation System Plan Adoption: The 1996 Baker City Transportation System Plan is hereby repealed and replaced by Ordinance No. 3323 adopting the 2013 Baker City Transportation System Plan, contained in Exhibit A attached hereto, and by this reference, made a part hereof.

Section 2:
Comprehensive Plan Text Amendments: The Transportation Element of the Baker City Comprehensive Plan is hereby amended as provided on pages 1-7 of Section 6 in Volume II of Exhibit A.

Section 3:
Development Code Amendments: The Baker City Development Code is hereby amended as provided on pages 8-17 of Section 6 in Volume II of Exhibit A.

READ for the first time in full this 11th day of June, 2013.

READ for the second time by title only this 11th day of June, 2013 upon the unanimous vote of the members present, after the text of the Ordinance was offered to the members of the Council and the press and public for their use during the meeting.

READ for the third time by title only this 25th day of June, 2013 upon the unanimous vote of the members present, after the text of the Ordinance was offered to the members of the Council and the press and public for their use during the meeting.

PASSED AND ADOPTED by the City Council of the City of Baker City, Oregon, and signed by the Mayor of the City of Baker City, Oregon, this 25th day of June, 2013.

Mayor

ATTEST:

City Recorder

Ayes: *6 (Mosier, Button, Langrell, Johnson, Downing, Coles)*
Nays: ____
Absent: *1 (Dorrah)*
Abstain: ____

Transportation System Plan

Baker City Transportation System Plan

Baker City, Oregon

June 2013

Transportation System Plan

Baker City Transportation System Plan

Baker City, Oregon

Prepared for:
Baker City

Prepared By:
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June 2013

This project is partially funded by a grant from the Transportation and Growth Management ("**TGM**") Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users ("**SAFETEA-LU**"), local government, and the State of Oregon funds.

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PREFACE

The Baker City Transportation System Plan (TSP) was guided by the Project Management Team (PMT) made up of Baker City staff with input from the Oregon Department of Transportation (ODOT). The project was also guided by a Technical Advisory Committee (TAC), the Baker City Planning Commission (PC), and the Baker City City Council (CC). The TAC provided guidance on technical aspects of the TSP and consisted of staff members from ODOT and Baker County. In addition, city Stakeholders provided guidance and ensured that the needs of the people of Baker City were incorporated into the TSP.

The PMT, TAC, and project stakeholders devoted a substantial amount of time and effort to the development of the Baker City Transportation System Plan (TSP) Update, and their participation was instrumental in the development of this document. The Consultant Team and PMT believe that the city's future transportation system will be better because of their commitment.

Baker City Project Management Team (PMT)

Michelle Owen
Baker City Director of Public Works

Doug Schwin, P.E.
Baker City Engineer

Cheryl Jarvis-Smith
TGM Grant Manager

Jenny Long, P.E.
Baker City~County Planner

Technical Advisory Committee (TAC)

Jeff Wise, P.E.
ODOT Region 5 Traffic Engineer

Don Fine
ODOT Region 5 Signal/ITS Engineer

Dennis Hackney
ODOT District 13 Assistant Manager

Grant Young
Department of Land Conservation and Development

Gary Van Patten, PLS
Baker City Surveyor

Alan Blair
Baker City Planning Commission

Ken Rockwell
Baker City Planning Commission

Dennis Dorrah
City of Baker City Councilor

Heidi Dalton
Baker City YMCA

Debi Bainter
Baker County Chamber of Commerce and Visitors Bureau

Betty Palmer
Baker Elementary School

Mary Jo Carpenter
Community Connection/Public Transit

Jan Morrison-Cooperman
Interested Citizen

Ty Duby
Interested Citizen

Project Stakeholders

Robin Philips
ODOT Region 5 Transit Coordinator

Ken Helgerson
Baker County Road Master

Sheila Lyons
ODOT Bicycle & Pedestrian Facility Specialist

Jeff Smith
Baker County Assistant Road Master

Gary Obery
ODOT Alternative Mode Traffic Engineer

Mike Kee
Baker City City Manager

Fred Warner
Baker County Commissioner

Walt Wegener
Baker City School Superintendent

Rob Ellingson
Baker City Planning Commission

Kate Dimon
Historic Baker City

Mark Bennett
Baker County Planning Director

Terry Schumacher
Public Works Advisory Committee

ALTA Planning + Design

Mathew Berkow
Senior Planner

Drew Meisel
Planner

Anderson Perry & Associates, LLC

Andy Lindsey, P.E.
Project Engineer

Kittelson & Associates, Inc.

Matt Hughart, AICP
Associate Planner

Sonia Hennum, P.E.
Associate Engineer

Jon Crisafi
Transportation Analyst

Siegel Planning Services, LLC

Scot Siegel, AICP
Principal

Section 1
Introduction

INTRODUCTION

Overview

Baker City, in conjunction with the Oregon Department of Transportation (ODOT), initiated an update of the City's Transportation System Plan (TSP) in 2012. The TSP update will guide the management and implementation of the transportation facilities, policies, and programs, within Baker City over the next 20 years. This plan is reflective of the community's vision, while remaining consistent with state and other local plans and policies. The plan also provides the necessary elements for adoption as the transportation element of the City's Comprehensive Plan. In addition, the plan provides ODOT and Baker County with recommendations that can be incorporated into their respective planning efforts.

Plan Background and Regulatory Context

The Oregon Revised Statutes require that the TSP be based on the current Comprehensive Plan land uses and that it provide for a transportation system that accommodates the expected growth in population and employment that will result from implementation of the land use plan. Development of this TSP was guided by Oregon Revised Statute (ORS) 197.712 and the Department of Land Conservation and Development (DLCD) administrative rule known as the Transportation Planning Rule (TPR, OAR 660-012).

The TPR requires that alternative travel modes be given consideration along with the automobile, and that reasonable effort be applied to the development and enhancement of the alternative modes in providing the future transportation system. In addition, the TPR requires that local jurisdictions adopt land use and subdivision ordinance amendments to protect transportation facilities and to provide bicycle and pedestrian facilities between residential, commercial, and employment/institutional areas. It is further required that local communities coordinate their respective plans with the applicable county, regional, and state transportation plans.

Planning Work Foundation

The development of the Baker City TSP began with a review of the local and statewide plans and policies that guide land use and transportation planning in the City. In addition to the previously adopted transportation plan (1996), the TSP incorporates the following other transportation planning efforts:

- Baker City
  - Comprehensive Plan
  - Development Code
- Baker County

- Comprehensive Plan
- Transportation Plan

- State
  - Oregon Highway Plan
  - OAR Chapter 660 division 012
  - OAR Chapter 734 division 051

Public Involvement

The TSP planning process provided the citizens of Baker City with the opportunity to identify their vision and priorities for the future transportation system within the city. The planning process was guided by a Technical Advisory Committee (TAC) and a project stakeholder committee. The TAC was comprised of key stakeholder agencies, including the Baker City, Public Works, and Engineering Departments, the Baker City planning department, and the Oregon Department of Transportation Planning and Rail Divisions. The project stakeholder committee was comprised of community leaders, local business owners and residents.

Members of the PMT, TAC, and stakeholders reviewed the technical aspects of the TSP. They held four joint meetings that focused on all aspects of the TSP development, including the evaluation of existing deficiencies and forecast needs; the selection of transportation options; the presentation of the draft TSP and funding plan; and the presentation of recommended ordinance amendments.

In addition to the established advisory committees, two community workshops were held at key junctures in the process to gather public input regarding transportation needs and priorities. This input was incorporated in the options analysis and final plan development. Finally, the draft plans were discussed with the Planning Commission and City Council at work sessions and at public hearings. Details of the public involvement process are provided in Volume 2, Appendix "A".

Public involvement for developing and reviewing the Baker City TSP was achieved through:

- Two (2) public forums in the form of a public open house
- Targeted outreach of local elementary and high school students
- Joint Planning Commission (PC)/City Council (CC) work sessions, advertised open to the public;
- Public hearings (PC) and (CC) as part of the adoption process.

Organization of the TSP

The Baker City TSP is comprised of a main document (Volume 1) and one volume of technical appendices (Volume 2).

Volume 1 is the Baker City TSP. It is organized into the following sections.

- Section 1 – Introduction (current section)
- Section 2 – Active Transportation Plan (Bicycle and Pedestrian)
- Section 3 – Intersection and Roadway Plan
- Section 4 – Transit Plan
- Section 5 – Other Modes Plan (Air, Rail, Water, Pipeline)
- Section 6 – Funding and Implementation

Volume 2 (under separate cover) contains the technical memorandums prepared during the development of the Baker City TSP including the detailed data and analysis that informed the final plan.

Section 2
Active Transportation Plan

ACTIVE TRANSPORTATION PLAN

The active transportation plan presents those projects focused on facilitating pedestrian and bicycle travel. The projects were identified based on input received through the Alternatives Analysis process and input from the PMT, TAC, and general public and were prioritized based on their proximity to schools, the underlying roadway's functional classification, and overall benefit to the transportation network.

PLANNED PEDESTRIAN NETWORK

Pedestrian facilities include sidewalks, multi-use paths, and neighborhood route designations. The street design standards ensure that pedestrian facilities are provided in conjunction with all new or substantially reconstructed public streets. For existing roadways without sidewalks, the inclusion of sidewalks will be required with any redevelopment of properties or with significant improvements in the roadways.

The planned pedestrian network for Baker City is detailed in Table 2-1 and shown in Figure 2-1. This network improves the connection between residential neighborhoods and commercial, social and educational locations around Baker City. Table 2-1 details the planned pedestrian projects and planning level cost estimates.

Table 2-1: Planned Pedestrian Network

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[1]
(P1) 11th Street/ Hillcrest Drive/ 9th Street	Sidewalk infill and wayfinding from Indiana Avenue to Auburn Avenue	Gap in existing pedestrian network	Near-term	$342,000
(P2) 4th Street	Sidewalk infill and wayfinding from Colorado Avenue to Ohio Avenue, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term/ Development Driven	$113,000
(P3) Tracy Street & 5th Street	Sidewalk infill and wayfinding from 9th to OR 7, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$290,000
(P4) 5th Street	Add sidewalks from C Street to E Street and from F Street to Sports Complex	Improving pedestrian network	Near-term	$98,000
(P5) Auburn Avenue	Add sidewalks from Main Street to Birch Street; enhanced pedestrian crossings at Resort Street and Main Street	Gap in existing pedestrian network	Near-term	$288,000
(P6) Baker Street	Sidewalk infill and wayfinding from Birch Street to Swim Center/Skate Park	Gap in existing pedestrian network	Near-term	$25,000
(P7) Birch Street	Sidewalk infill and wayfinding from Auburn Avenue to Campbell Street, Neighborhood Route, enhanced pedestrian crossing at Campbell Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$218,000
(P8) Broadway Street	Sidewalk infill and wayfinding from 21st Street to 10th Street; pedestrian crossing opportunities at 10th Street; project will require coordination with ODOT Rail Division at rail crossing	Improving pedestrian network, gap in existing pedestrian network	Near-term	$477,000

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[1]
(P9) Broadway Street	Add sidewalks from Clark Street to Oak Street	Improving pedestrian network	Near-term/ Development Driven	$31,000
	Neighborhood Route from Grove Street to Resort Street	Improving pedestrian network	Near-term	$1,000
(P10) Campbell Street	Sidewalk infill and wayfinding from 21st Street to 10th Street; project will require coordination with ODOT Rail Division at rail crossing	Gap in existing pedestrian network	Near-term	$354,000
(P11) Cliff Street	Add sidewalks from Main Street to East Street	Improving pedestrian network	Near-term	$100,000
(P12) E Street	Sidewalk infill and wayfinding from 11th Street to College, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$176,000
(P13) H Street (east)	Sidewalk infill and wayfinding from Cedar Street to Birch Street, Neighborhood Route, enhanced pedestrian crossing at Cedar Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$125,000
(P14) Indiana Avenue	Sidewalk infill and wayfinding from E Fairway to 9th Street, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$83,000
(P15) Madison Street	Sidewalk infill from Plum Street to Cherry Street and from Oak Street to Ash Street	Improving pedestrian network, gap in existing pedestrian network	Development Driven	$114,000
	Neighborhood Route from 10th Street to Birch Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$9,000
(P16) Oak Street	Add sidewalks from Church Street to Auburn Avenue	Improving pedestrian network	Near-term/ Development Driven	$78,000
(P17) Washington Street	Sidewalk infill from Cherry Street to Birch Street	Improving pedestrian network, gap in existing pedestrian network	Development Driven	$54,000
	Neighborhood route from 7th Street to Birch Street; pedestrian crossing investigation at Main Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$8,000
(P18) D Street	Add sidewalks from Cedar Street to Birch Street	Improving pedestrian network	Near-term	$114,000
(P19) D Street	Add sidewalks from 1st Street to 12th Street	Improving pedestrian network	Near-term	$327,000
(P20) Clark Street	Sidewalk infill and wayfinding from Washington Avenue to Broadway Street and Madison Street to Campbell Street	Improving pedestrian network, gap in existing pedestrian network	Development Driven	$147,000
	Neighborhood route from Campbell Street to Auburn Avenue	Improving pedestrian network, gap in existing pedestrian network	Near term	$6,000
(P21) Midway Drive & 13th Street	Sidewalk infill and wayfinding on 13th Street and Midway from H Street to Hughes Lane	Gap in existing pedestrian network	Near-term	$369,000
(P22) 11th Street	Neighborhood route from H Street to Campbell Street	Gap in existing pedestrian network	Long-term	$4,000
(P23) 2nd Street	Neighborhood route from David Eccles Road to Colorado Avenue	Gap in existing pedestrian network	Long-term	$3,000
(P24) 7th Street	Neighborhood route from E Street to Washington Street, pedestrian crossing investigation at Broadway Street	Gap in existing pedestrian network	Long-term	$5,000
(P25) Auburn Avenue	Add wayfinding signage from Resort Street to Railroad Crossing; pedestrian crossing investigation at 4th Street	Improving pedestrian network navigation	Long-term	$19,000
(P26) Birch Street/Lund Lane	Neighborhood route from Campbell Street to Cedar Street, Fill in paving gaps	Gap in existing pedestrian network	Long-term	$406,000

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[1]
(P27) College Street	Neighborhood route from H Street to Campbell Street	Gap in existing pedestrian network	Long-term	$4,000
(P28) Grove Street	Neighborhood route from H Street to Washington Street; opportunities for crossing improvements should be examined at Campbell Street	Gap in existing pedestrian network	Long-term	$7,000
(P29) H Street (east)	Neighborhood route from Kirkway Drive to Cedar Street	Gap in existing pedestrian network	Long-term	$196,000
(P30) Indiana Avenue (east)	Neighborhood route from Resort Street to Bridge Street; pedestrian crossing investigation at Elm Street and Bridge Street	Gap in existing pedestrian network	Long-term	$2,000
(P31) David Eccles Road/Rose Street/Orchard Street	Neighborhood route along Rose Street (from David Eccles Road to Orchard Street) and along Orchard Street (from Rose Street to OR 7)	Gap in existing pedestrian network	Long-term	$19,000
(P32) 15th Street	Sidewalk infill and wayfinding from Auburn Street to Campbell Street	Improving pedestrian network, gap in existing pedestrian network	Long-term	$374,000
(P33) 4th Street	Proposed neighborhood route from Campbell Street to Grace Street; pedestrian crossing enhancements at Auburn Avenue	Gap in existing pedestrian network	Long-term	$6,000
(P34) H Street (west)	Add sidewalks from 17th Street to 8th Street; pedestrian crossing investigation at 10th Street	Improving pedestrian network, gap in existing pedestrian network	Long-term	$408,000
(P35) 9th Street	Sidewalk infill and wayfinding from E Street to H Street	Gap in existing pedestrian network	Long-term	$100,000
(P36) 4th Street	Add sidewalks from A Street to D Street	Improving pedestrian network	Long-term	$95,000
(P37) Ash Street	Add sidewalks from Madison Street to Campbell Street	Improving pedestrian network	Long-term	$28,000
(P38) East Street	Add sidewalks from Campbell Street to D Street	Improving pedestrian network	Long-term	$171,000
(P39) Myrtle Street	Add sidewalks from US 30 to Bridge Street	Improving pedestrian network	Long-term	$57,000
(P40) Virginia Avenue	Sidewalk infill and wayfinding from 4th Street to David Eccles Road	Gap in existing pedestrian network	Long-term	$171,000
(P41) Cedar Street	Add sidewalks from Campbell Street to Hughes Lane; pedestrian crossing opportunities at D Street and H Street	Improving pedestrian network	Long-term	$754,000
(P42) 9th Street	Add sidewalks from D Street to E Street	Improving pedestrian network	Long-term	$6,000
(P43) C Street	Add sidewalks from 12th Street to 10th Street	Improving pedestrian network	Long-term	$71,000
(P44) Campbell Street	Add sidewalks on north side of Campbell Street from I-5 ramps to future extension of Best Frontage Road.	Improving pedestrian network	Long-term	$38,000
(P45) 10th Street	Sidewalk infill from Broadway Street to Hughes Lane/Pocahontas Road	Improving pedestrian network	Long-term	$316,000
Sub-Totals				
Near-Term Priority (0-5 Years)				$3,632,000
Longer-Term Priority (5-20 Years)				$3,260,000
Development Driven[2]				$315,000
Total				$7,207,000

Notes:
[1]Planning level cost estimates are for construction and engineering.
[2]Refers to projects that prioritized exclusively as "Development Driven"

Coordinate with Baker County for future connections outside city limits.

Sidewalk infill is proposed on the Neighborhood Routes as well as on higher volume streets and school walking routes. Proposed pedestrian projects in this plan provide access to destinations such as local parks, schools, and shopping areas. Where sidewalk infill is not proposed there is either sidewalk already existing or the low motor vehicle volumes and speeds support walking on the street.

0 0.25 0.5 1 Miles

- Proposed Neighborhood Route (Wayfinding Only)
- Proposed Neighborhood Route (Sidewalk Infill and Wayfinding)
- Proposed Sidewalk
- Proposed Multi-Use Path
- Planned Future Connection
- Crossing Improvement (pedestrian focus)
- Pedestrian Project
- Multi-Use Path Project
- Existing Transit Stop
- Existing Multi-Use Path
- Urban Growth Boundary

Planned Pedestrian Projects

Figure 2-1

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PLANNED BICYCLE NETWORK

The bicycle plan is intended to establish a network of bicycle lanes and routes that connect the City's bicycle generators and provide a safe and effective bicycle travel system. The planned bicycle network for Baker City is detailed in Table 2-2 and shown in Figure 2-2. This network increases route options and connectivity to serve bicyclists with a wide range of skill sets and comfort levels (i.e. to serve novice to experienced riders).

Table 2-2: Planned Bicycle Network

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[1]
(B1) Cedar Street	Upgrade bike lanes (signing and striping) from Campbell Street to Hughes Lane	Gap in existing bicycle network	Near-term	$35,000
(B2) 10th Street (US 30)	See Table 3-5, 10th Street Refinement Study for further information – project to be considered based on outcome of refinement study	-	-	See Project R11
(B3) Broadway Street (US 30)	See Table 3-5, Broadway Street Refinement Study for further information – project to be considered based on outcome of refinement study	-	-	See Project R12
(B4) D Street	Add bike lanes from 10th Street to Cedar Street	Gap in existing bicycle network	Near-term	$57,000
Sub-Totals				
Near-Term Priority (0-5 Years)				$92,000
Longer-Term Priority (5-20 Years)				-
Total				$92,000

Notes:
[1]Planning level cost estimates are for construction and engineering. Cost estimates assume striping and signing changes occur within the existing pavement width (i.e., no additional construction or road expansion is required.

Coordinate with Baker County for future connections outside city limits.

The bicycle network consists of Bike Lanes and Neighborhood Routes. Formal bike facilities are not recommended on Neighborhood Routes because low traffic volumes and speeds support bicycling without separate facilities.

0 0.25 0.5 1 Miles

Proposed Neighborhood Route
Proposed Bike Lane
Proposed Multi-Use Path
Planned Future Connection
Crossing Improvement (bicyclist focus)
B# Bicycle Project
M# Multi-Use Path Project
Existing Bike Lane
Existing Multi-Use Path
Urban Growth Boundary

Planned Bicycle Projects and Multi-Use Paths

Figure 2-2

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PLANNED MULTI-USE PATH NETWORK

The multi-use path network is intended to establish a network of multi-use paths that serve the City's recreational needs as well as enhance the overall network of bicycle and pedestrian facilities. The planned multi-use path network for Baker City is detailed in Table 2-3 and shown in Figure 2-2. This network increases route options and connectivity to serve bicyclists with a wide range of skill sets and comfort levels (i.e. to serve novice to experienced riders).

Table 2-3: Planned Multi-Use Path Network

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[1]
(M1) Leo Adler Pathway Extension	Add multi-use path from Bridge Street to David Eccles Road; project will require coordination with ODOT Rail Division at rail crossing	Promote recreational and non-motorized travel	Near-term	$627,000
(M2) Pocahontas/ Hughes	Add multi-use path from Settlers Loop to Cedar Street	Promote recreational and non-motorized travel	Long-term	$1,169,000
(M3) Auburn	Add multi-use path from 17th Street to Railroad tracks; project will require coordination with ODOT Rail Division at rail crossing	Promote recreational and non-motorized travel	Near-term	$309,000
(M4) 17th Ave Trail	Add multi-use path from Indiana Avenue to Pocahontas Road; project will require coordination with ODOT Rail Division at rail crossing	Promote recreational and non-motorized travel	Near-term	$1,294,000
(M5) Hospital Connector	Add multi-use path from 17th Street to Midway Drive	Promote recreational and non-motorized travel	Near-term	$116,000
(M6) Sports Complex Connector	Add multi-use path from H Street to Sports Complex	Promote recreational and non-motorized travel	Near-term	$168,000
(M7) Settler's Trail	Add multi-use path from Pocahontas Road to 17th Street	Promote recreational and non-motorized travel	Long-term	$746,000
~~(M8) Cemetery Connector~~[2]	~~Add multi-use path from Bridge Street to Proposed Smith Ditch Trail~~	~~Promote recreational and non-motorized travel~~	~~Long-term~~	~~$213,000~~
(M9) David Eccles Rd	Add multi-use path from 2nd Street to OR 7	Promote recreational and non-motorized travel	Long-term	$378,000
(M10) Golf Course Trail	Add multi-use path from Indiana Avenue to OR 7	Promote recreational and non-motorized travel	Long-term	$691,000
~~(M11) Smith Ditch~~	~~Add multi-use path from Cherry Street to OR 7; project will require coordination with ODOT Rail Division at rail crossing~~	~~Promote recreational and non-motorized travel~~	~~Long-term~~	~~$2,089,000~~
(M12) Indiana Avenue	Add multi-use path from 17th Street to OR 7	Promote recreational and non-motorized travel	Near-term	$259,000
(M13) Best Frontage Road	Add multi-use path from OR 86 to Atwood Road	Promote recreational and non-motorized travel	Near-term	Already Funded
(M14) Central Park Connector	Add multi-use path from Resort Street at Court Street to the LAMP Connector	Promote recreational and non-motorized travel	Near-term	$122,000
Sub-Totals				
Near-Term Priority (0-5 Years)				$2,514,000
Longer-Term Priority (5-20 Years)				$3,365,000
Total				$5,879,000

Notes:
[1]Planning level cost estimates are for construction and engineering. Cost estimates assume striping and signing changes occur within the existing pavement width (i.e., no additional construction or road expansion is required.
[2]Strikethrough text reflects changes made to the project list during Planning Commission and City Council hearings.

Section 3
Intersection and Roadway Plan

INTERSECTION AND ROADWAY PLAN

Baker City's intersection and roadway plan provides guidance on how to best facilitate roadway travel over the next 20 years as well as identifying key elements of a future vision of transportation facilities serving the city. This plan is based on the identified existing and anticipated future operational and circulation needs.

FUNCTIONAL CLASSIFICATION PLAN

The purpose of classifying roadways is to create a mechanism through which a balanced transportation system can be developed that facilitates mobility for all modes of transportation as well as access to adjacent land uses. A roadway's functional classification determines its intended purpose, the amount and character of traffic it is expected to carry, the degree to which non-auto travel is emphasized, and the roadway's design standards and overall management approach.

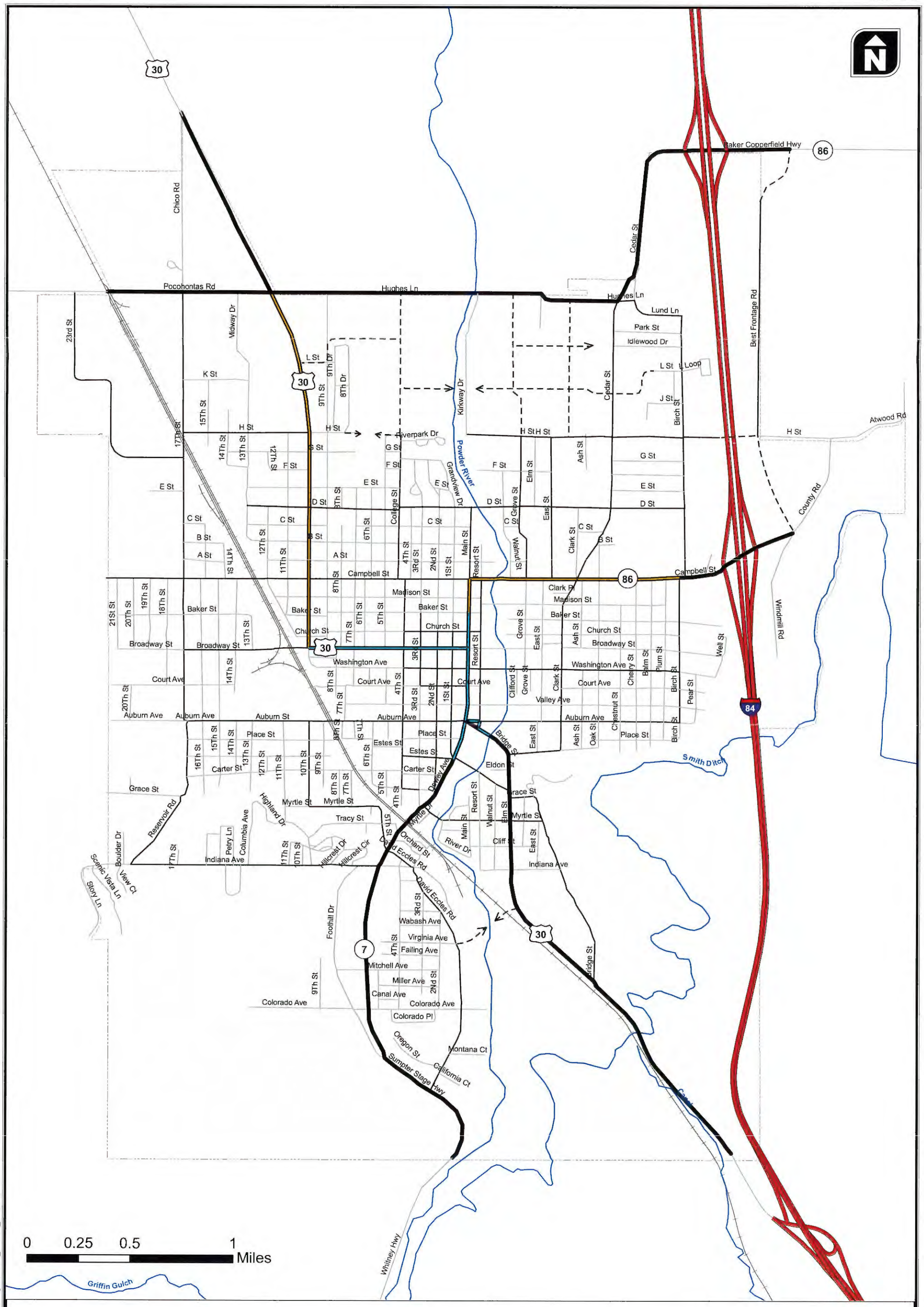
The functional classification plan for Baker City is shown in Figure 3-1. The functional classification plan incorporates three functional categories: arterials, collectors, and local streets[1] as defined below.

Arterials

Arterials are roadways that are primarily intended to serve traffic entering and leaving the urban area. While arterials may provide access to adjacent land, that function is subordinate to the mobility service provided to major traffic movements. Arterials also serve local pedestrian and/or bicycle activities, which should be accommodated in the arterial streetscape.

Within the arterial classification is recognition of special overlay designations for specific state highway segments within Baker City. These overlay designations would allow for the incorporation of the Special Transportation Area (STA) and Urban Business Area (UBA) designations applied at the state level. As the state highway network occurs on multiple roadways within Baker City, Table 3-1 identifies the different STA and UBA overlay designations by individual roadway segments.

[1] The new roadway alignments shown on the plan should be considered as conceptual. The end points of the streets are generally fixed where they make essential connections to other roadways while the alignments between intersections may vary depending on design requirements and right-of-way available at the time a given facility is constructed.



Interstate
Arterial
Future Arterial
Special Transportation Area (Arterial)
Urban Business Area (Arterial)
Collector
Future Collector
Local

Functional Classification Plan

BAKER CITY OREGON EST. 1874

Figure 3-1

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Table 3-1: Baker City STA and UBA Overlay Designations

Roadway	From (milepost)	To (milepost)
STA Designation for US 30 (La Grande-Baker Highway)		
Broadway Street	10th Street (51.23)	Main Street (51.79)
Main Street	Broadway Street (51.79)	Auburn Avenue (52.04)
Auburn Avenue/Bridge Street	Main Street (52.04)	Powder River Bridge (52.13)
UBA Designation for US 30 (La Grande-Baker Highway)		
10th Street	Hughes Lane (49.97)	Broadway Street (51.79)
STA Designation for OR 86 (Baker-Copperfield Highway)		
Main Street	Broadway Street (0.00)	Baker Street (0.13)
UBA Designation for OR 86 (Baker-Copperfield Highway)		
Main Street	Baker Street (0.12)	Campbell Street (0.24)
Campbell Street	Main Street (0.12)	Birch Street (0.98)
STA Designation for OR 7 (Whitney Highway)		
Main Street/Dewey Avenue	Estes Avenue (50.83)	Auburn Avenue (50.96)

Collectors

Collector streets generally facilitate the movement of traffic within the city's urban areas. Collectors provide for circulation and mobility for all users of the system. Collectors carry lower volumes than arterials and typically have two-lane cross-sections with on-street parking. They serve as the primary routes into residential neighborhoods. Although they carry higher volumes than local streets, they are intended to provide direct access to adjacent land rather than serving through traffic.

Local Streets

Local streets are primarily intended to provide access to abutting land uses. Local street facilities offer the lowest level of mobility and consequently tend to be low-speed facilities. As such, local streets should primarily serve passenger cars, pedestrians, and bicyclists. Heavy truck traffic is discouraged. On street parking is common. Sidewalks are provided, though the relatively low travel speeds and traffic volumes allow bicycles to share the vehicle travel lanes.

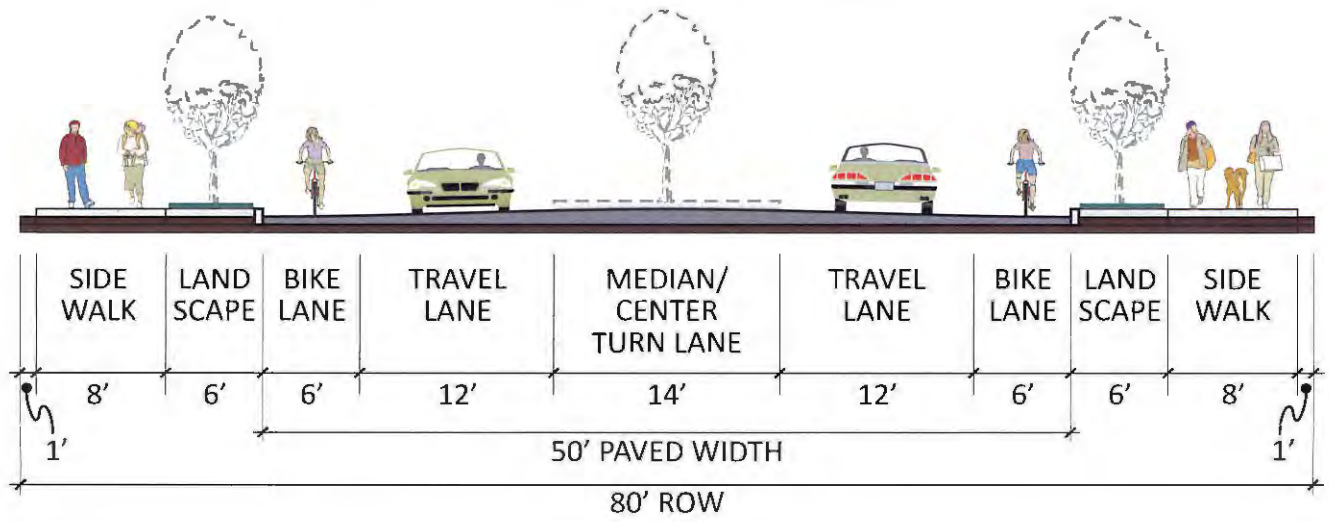
STREET DESIGN STANDARDS

Street design standards support the functional and operational needs of streets such as travel volume, capacity, operating speeds, and safety. The standards also are established to accommodate pedestrian and bicycle travel modes. They are necessary to ensure that the system of streets, as it develops, will be capable of safely and efficiently serving the traveling public while also accommodating the orderly development of adjacent property.

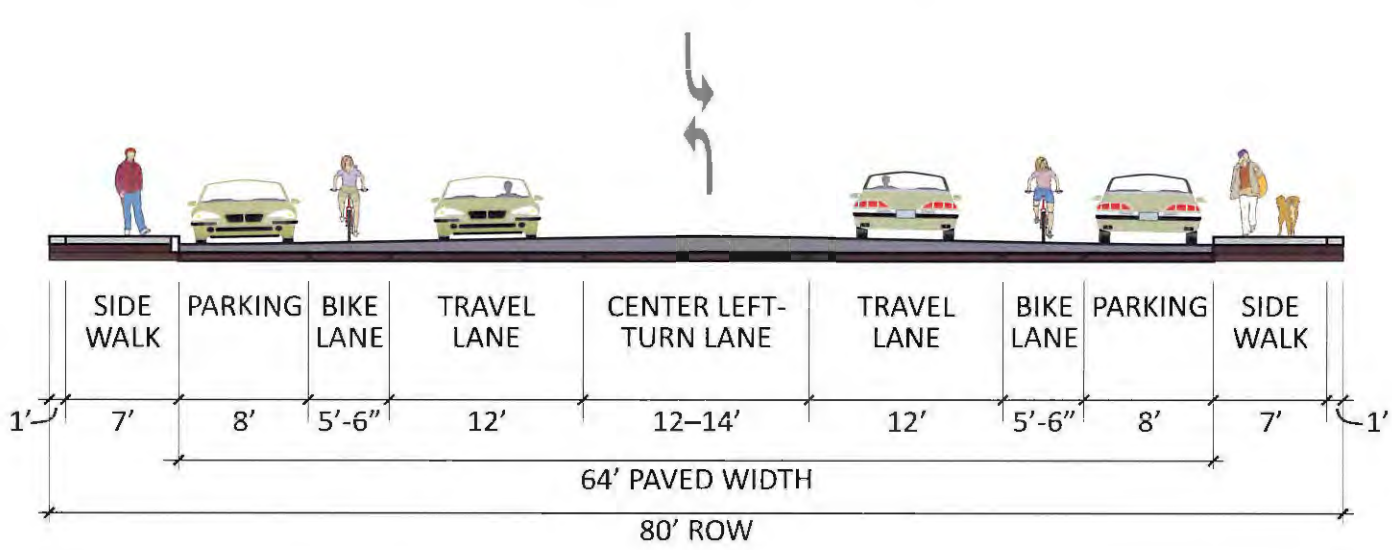
The street design standards are shown as cross sections in Figures 3-2 through 3-4. The cross sections are intended to be used for planning purposes for new road construction, as well as for those locations where it is physically and economically feasible to improve existing streets. Detailed design elements,

such as cross-slopes, are not shown in the figures. Also, additional width for turn lanes may be needed at specific intersections based on an engineering investigation; these are not shown in the street design standards. The standards shown are intended to define typical cross-sections of streets between intersections.

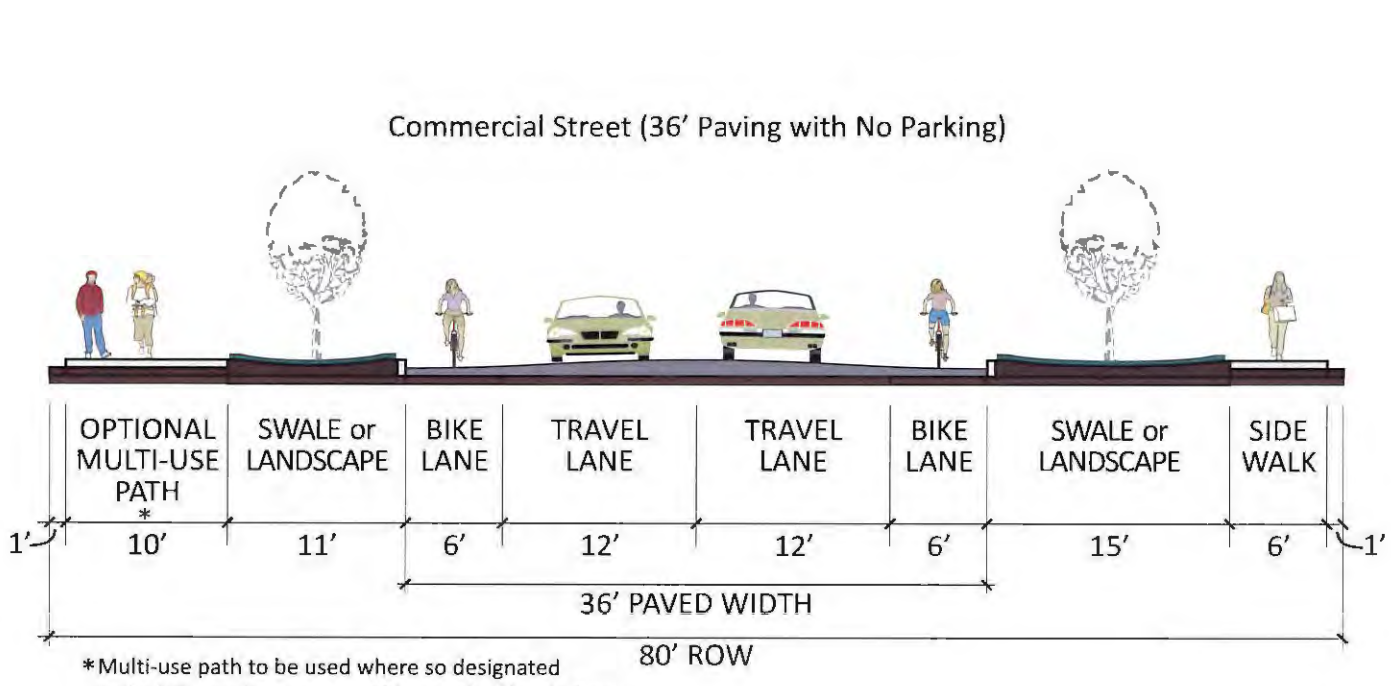
Urban Arterial Street (50' Paving with No Parking)



Urban Arterial Street (with Parking on Both Sides)



Commercial Street (36' Paving with No Parking)



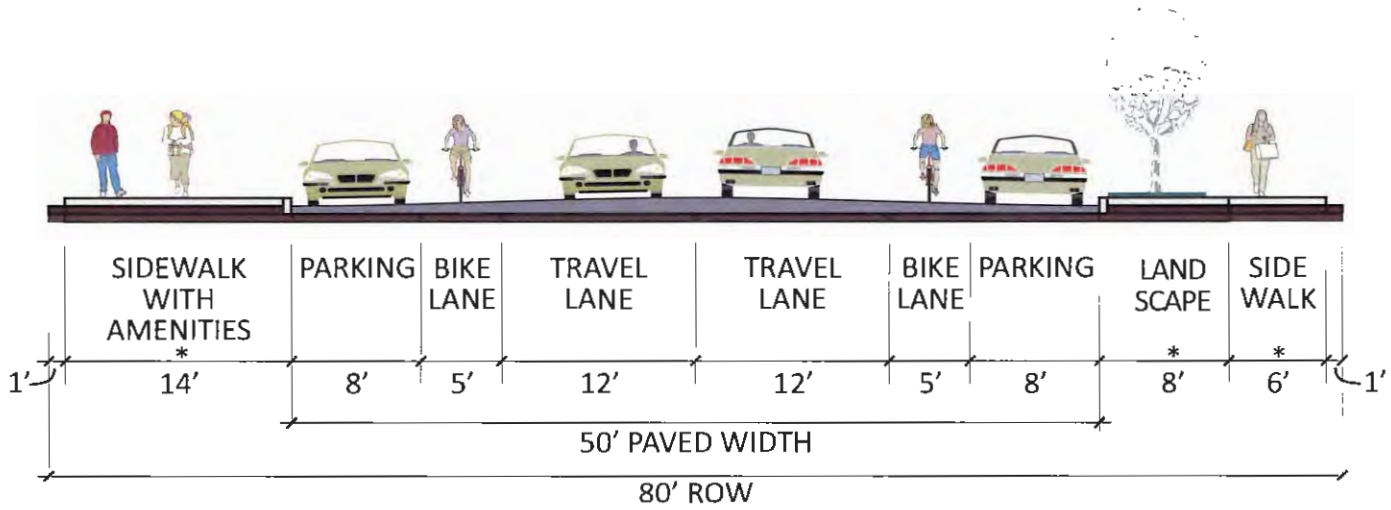
*Multi-use path to be used where so designated in the TSP or where approved for use by City Engineer. When no multi-use path is used, provide 6' sidewalk on both sides.

Trees to be provided per city code and location specific

Roadway Cross Sections

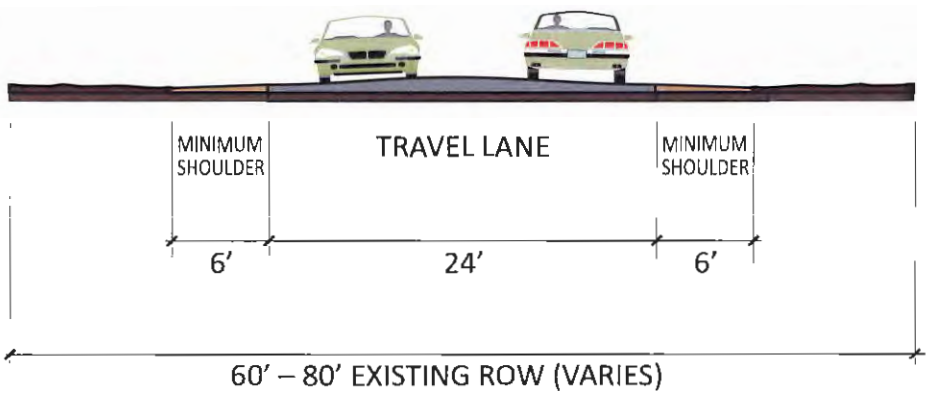
Figure 3-2

Commercial Street (50' Paving – Parking Both Sides)



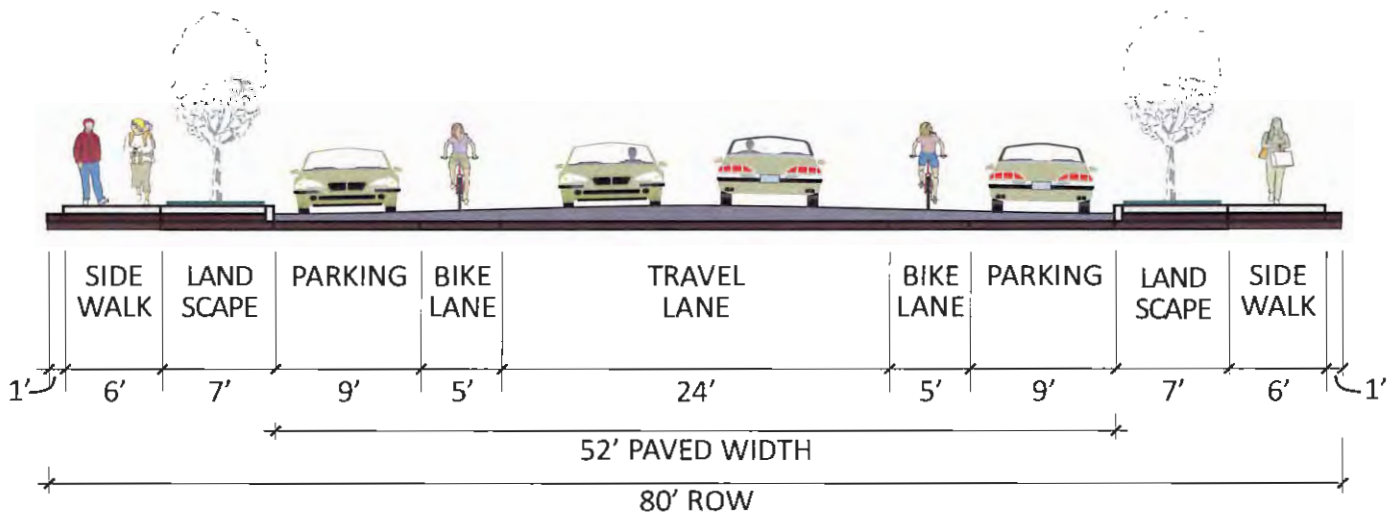
* Design may utilize either setback sidewalks with a landscape strip or a continuous 14' sidewalk with a 4' – 5" wide strip for amenities (lighting, trees, benches, etc.) adjacent to curb. The Central Commercial Zone will have 14' sidewalks with amenities and the General Commercial Zones shall have the landscape strip and sidewalks.

Local Industrial*

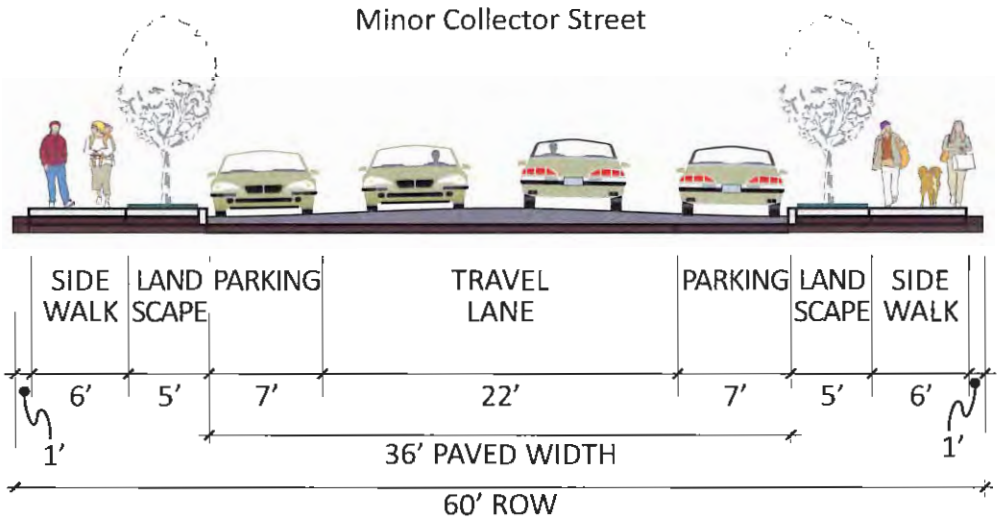


* Section to be used only for industrial streets that are not designated as collectors or arterials.

Major Collector Street



Minor Collector Street

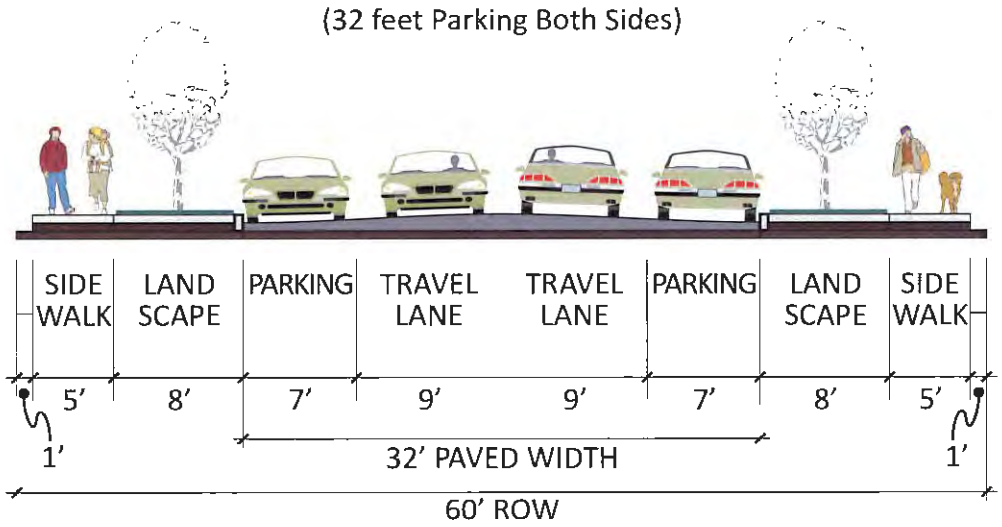


Trees to be provided per city code and location specific

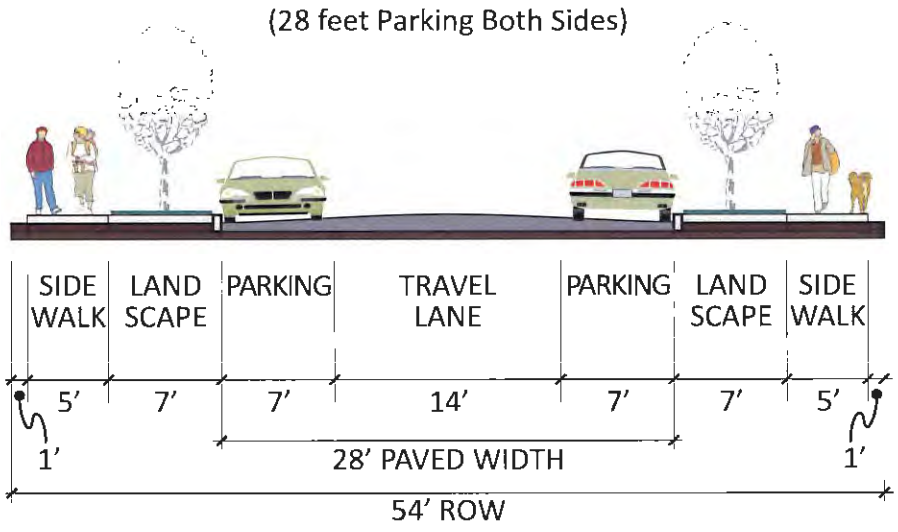
Roadway Cross Sections

Figure 3-3

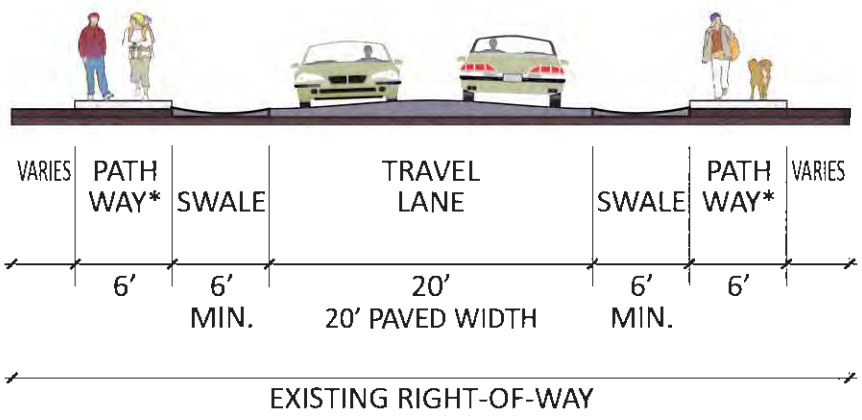
Local Residential Street
(32 feet Parking Both Sides)



Local Residential Street
(28 feet Parking Both Sides)

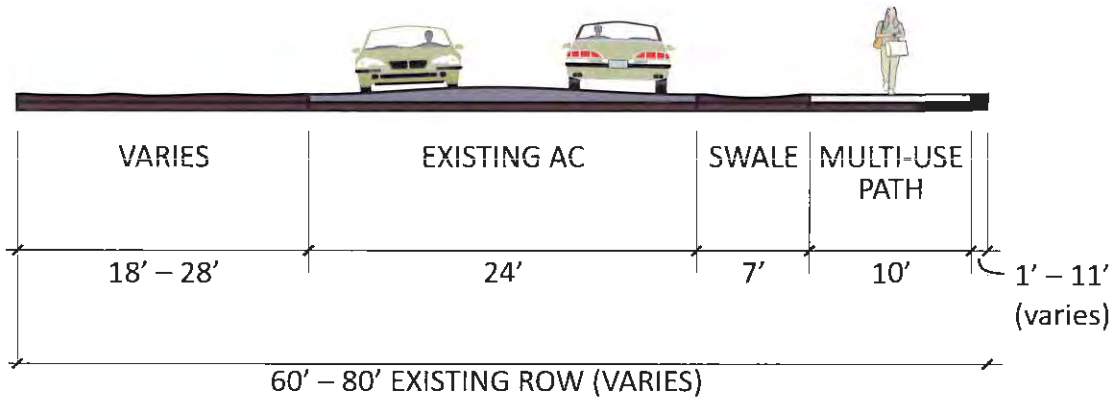


Improvement Option
for
Existing Unpaved Local Residential Streets



* Pathway may be constructed on one side or both sides of street.
Pathway shall be hard surface (concrete, asphalt or equivalent).

Multi-Use Path Street Option



Trees to be provided per city code and location specific

Roadway Cross Sections

Figure 3-4

ACCESS MANAGEMENT

Access management is the systematic implementation and control of the locations, spacing, design, and operations of driveways, median opening, interchanges, roundabouts, and street connections to a roadway. It involves roadway design applications, such as median treatments and auxiliary lanes, and the appropriate spacing and design of signalized intersections. Access management standards vary depending on the functional classification and purpose of a given roadway. Roadways on the higher end of the functional classification system (i.e. arterials and collectors) have higher spacing standards to facilitate movement of through traffic, while facilities such as local streets allow more closely spaced access points to facilitate access to land uses.

ODOT has legal authority to regulate access points along the state highway segments within the city's urban growth boundary. Baker City and Baker County independently manage access on all other arterial, collector and local streets.

The Oregon Transportation Planning Rule defines access management as a set of measures regulating access to streets, roads, and highways, from public roads and private driveways. The TPR requires that new connections to arterials and state highways be consistent with designated access management categories. This TSP includes an access management plan that maintains and enhances the integrity (capacity, safety, and level of service) of the city's streets.

Access management standards vary depending on the functional classification and purpose of a given roadway. Roadways on the higher end of the functional classification system (i.e., arterials and collectors) tend to have higher spacing standards, while local streets allow more closely spaced access points. These standards apply to new development or redevelopment. Existing accesses are allowed to remain as long as the land use does not change and no safety problem is posed. As a result, access management is a long-term process in which the desired access spacing to a street slowly evolves over time as redevelopment occurs.

In implementing access management standards, parcels cannot be land-locked; they must have some way of accessing the public street system. This may mean allowing closer access spacing than would otherwise be allowed or implementation of shared access with a neighboring parcel, where possible. Where a property has frontage on two roadways, access on the roadway of lower classification is preferred, all other things being equal. The following discussion presents the hierarchical access management system for roadways in Baker City.

ODOT Access Management Standards

The OHP specifies an access management classification system for state facilities based on its highway classification system. Table 3-2 summarizes ODOT's current access management standards for all state highway segments within Baker City.

Table 3-2: Access Spacing Standards on State Highways

Posted Speed	Spacing Standards	
	AADT[1] of 5,000 Vehicles of Less	AADT[1] of More Than 5,000 Vehicles
US 30 (La Grande-Baker Highway) and OR 86 (Baker-Copperfield Highway) – District Highways		
55 mph and higher	650	700
50 mph	425	550
40 & 45 mph	360	500
30 & 35 mph	250	350
≤25 mph	150	250
OR 7 (Whitney Highway) – Regional Highway		
55 mph and higher	650	990
50 mph	425	830
40 & 45 mph	360	500
30 & 35 mph	250	350
≤25 mph	150	250

Note: Spacing standards obtained from the latest edition of the OHP. Consult the OHP for updates and addenda.
[1]AADT = Annual Average Daily Traffic

City Roadway Access Standards

Table 3-3 identifies the minimum public street intersection and private access spacing standards for the city's roadway network as they relate to new development and redevelopment. County facilities within the city's UGB should also be planned and constructed in accordance with these street design standards.

Table 3-3: City Access Spacing Standards

Functional Classification	Public Street	Private Drive	Signal Spacing[1]	Median Control[2]
Arterial	¼ mile	300-500 feet	½ mile	Partial
Collector	500 feet	100 feet	¼-1/2 mile	None
Local Street	200-400 feet	Access to each lot	N/A	None

Note: Access spacing standards identified in the Oregon Highway Plan supersede this table on all state highways unless the state highway segment has an STA or UBS overlay designation.
[1]Generally, signals should be spaced to minimize delay and disruptions to through traffic. Signals may be spaced at intervals closer than those shown to optimize capacity and safety.
[2] Partial median control allows well defined and channelized breaks in the physical median barrier between intersections. Use of physical median barriers can be interspearsed with segments on continuous left-turn lane, or, if demand is light, no median at all.

Variances to Access Spacing Standards

Access spacing variances may be provided to parcels whose highway/street frontage, topography, or location would otherwise preclude issuance of a conforming permit and would either have no reasonable access or cannot obtain reasonable alternate access to the public road system. In such a situation, a conditional access permit may be issued by ODOT or Baker City, as appropriate, for a

connection to a property that cannot be accessed in a manner that is consistent with the spacing standards. The permit can carry a condition that the access may be closed at such time that reasonable access becomes available to a local public street. The approval condition might also require a given land owner to work in cooperation with adjacent land owners to provide either joint access points, front and rear cross-over easements, or a rear access upon future redevelopment.

The requirements for obtaining a deviation from ODOT's minimum spacing standards are documented in OAR 734-051. For streets under the City's jurisdiction, the City may reduce the access spacing standards, at the discretion of the City Engineer, if the following conditions exist:

- Joint access driveways and cross access easements are provided in accordance with the standards;
- The site plan incorporates a unified access and circulation system in accordance with the standards;
- The property owner enters into a written agreement with Baker City that pre-existing connections on the site will be closed and eliminated after construction of each side of the joint use driveway; and/or,
- The proposed access plan for redevelopment properties moves in the direction of the spacing standards.

The City Engineer may modify or waive the access spacing standards for streets under the City's jurisdiction subject to Section 3.1.200 of the Baker City Development Code.

Access Management Measures

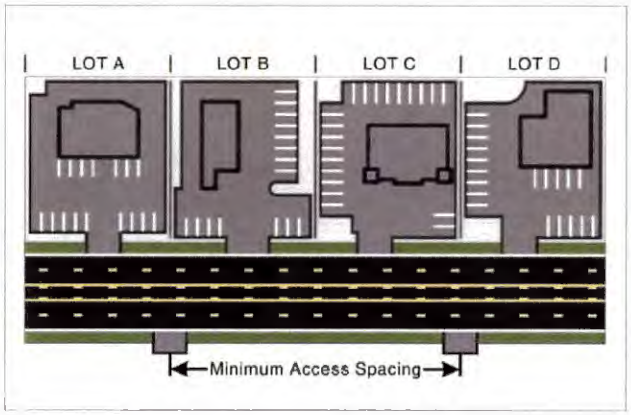
From an operational perspective, access management measures limit the number of redundant access points along roadways. This enhances roadway capacity and benefits circulation. Enforcement of the access spacing standards should be complemented with provision of alternative access points. Purchasing right-of-way and closing driveways without a parallel road system and/or other local access could seriously affect the viability of the impacted properties. Thus, if an access management approach is taken, alternative access should be developed to avoid "land-locking" a given property.

As part of every land use action, Baker City will evaluate the potential need for conditioning a given development proposal with the following items in order to maintain and/or improve traffic operations and safety along the arterial and collector roadways.

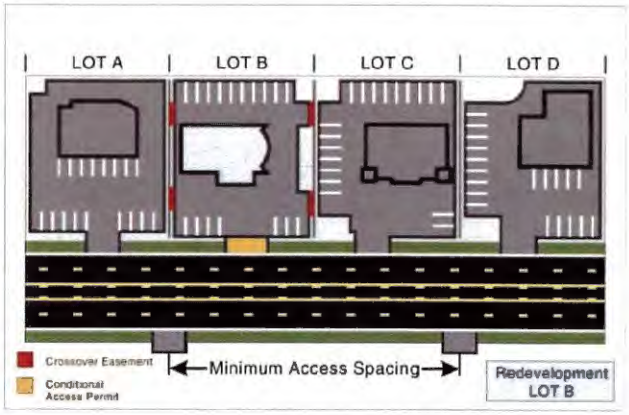
- Provision of crossover easements on all compatible parcels (considering topography, access, and land use) to facilitate future access between adjoining parcels.
- Issuance of conditional access permits to developments having proposed access points that do not meet the designated access spacing policy and/or have the ability to align with opposing driveways.

- Right-of-way dedications to facilitate the future planned roadway system in the vicinity of proposed developments.
- Half-street improvements (sidewalks, curb and gutter, bike lanes/paths, and/or travel lanes) along site frontages that do not have full build-out improvements in place at the time of development.

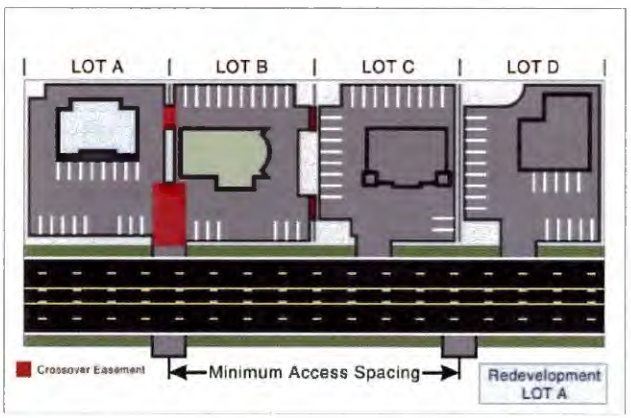
Figure 3-5 illustrates the application of cross-over easements and conditional access permits over time to achieve access management objectives. The individual steps are described in Table 3-4. As illustrated in the figure and supporting table, using these guidelines, all driveways along the highways can eventually move in the overall direction of the access spacing standards as development and redevelopment occur along a given street.



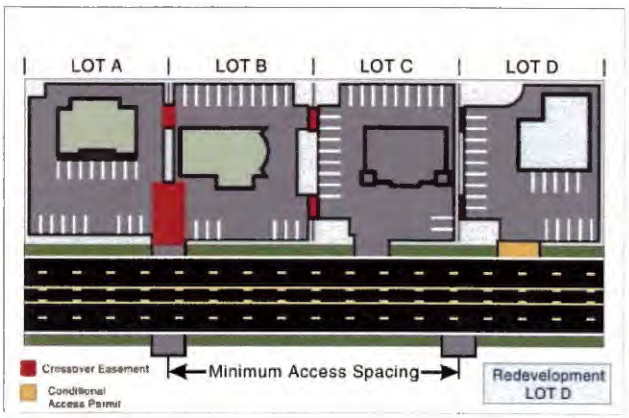
EXISTING CONDITIONS



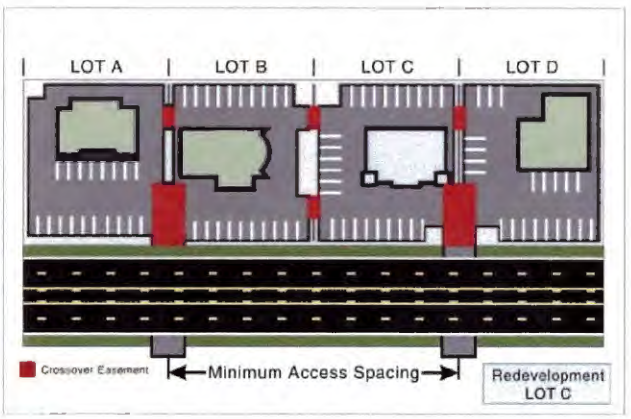
STEP 1
REDEVELOPMENT OF LOT B



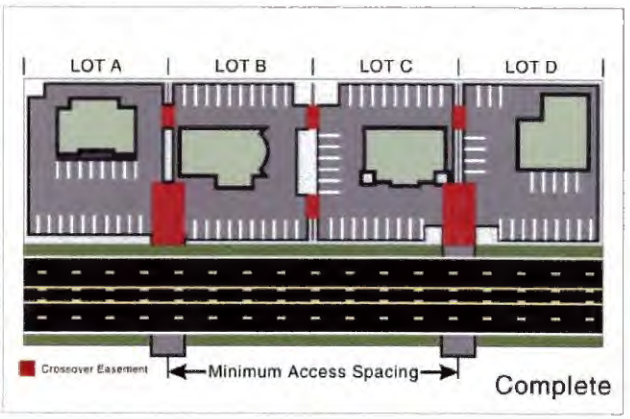
STEP 2



STEP 3



STEP 4



STEP 5

Example of Crossover Easement/Consolidation Conditional Access Process

BAKER CITY OREGON
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Figure

3-5

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Table 3-4: Example of Crossover Easement/Consolidation – Conditional Access Process

Step	Process
1	EXISTING – Currently Lots A, B, C, and D have site-access driveways that neither meet the access spacing criteria of 500 feet nor align with driveways or access points on the opposite side of the highway. Under these conditions motorists are into situations of potential conflict (conflicting left turns) with opposing traffic. Additionally, the number of side-street (or site-access driveway) intersections decreases the operation and safety of the highway
2	REDEVELOPMENT OF LOT B – At the time that Lot B redevelops, the City would review the proposed site plan and make recommendations to ensure that the site could promote future crossover or consolidated access. Next, the City would issue conditional permits for the development to provide crossover easements with Lots A and C, and ODOT/City would grant a conditional access permit to the lot. After evaluating the land use action, ODOT/City would determine that LOT B does not have either alternative access, nor can an access point be aligned with an opposing access point, nor can the available lot frontage provide an access point that meets the access spacing criteria set forth for segment of highway.
3	REDEVELOPMENT OF LOT A – At the time Lot A redevelops, the City/ODOT would undertake the same review process as with the redevelopment of LOT B (see Step 2); however, under this scenario ODOT and the City would use the previously obtained cross-over easement at Lot B consolidate the access points of Lots A and B. ODOT/City would then relocate the conditional access of Lot B to align with the opposing access point and provide and efficient access to both Lots A and B. The consolidation of site-access driveways for Lots A and B will not only reduce the number of driveways accessing the highway, but will also eliminate the conflicting left-turn movements the highway by the alignment with the opposing access point.
4	REDEVELOPMENT OF LOT D – The redevelopment of Lot D will be handled in same manner as the redevelopment of Lot B (see Step 2)
5	REDEVELOPMENT OF LOT C – The redevelopment of Lot C will be reviewed once again to ensure that the site will accommodate crossover and/or consolidated access. Using the crossover agreements with Lots B and D, Lot C would share a consolidated access point with Lot D and will also have alternative frontage access the shared site-access driveway of Lots A and B. By using the crossover agreement and conditional access permit process, the City and ODOT will be able to eliminate another access point and provide the alignment with the opposing access points.
6	COMPLETE – After Lots A, B, C, and D redevelop over time, the number of access points will be reduced and aligned, and the remaining access points will meet the access spacing standard.

TRAFFIC CALMING

Traffic calming elements will be integrated as appropriate into transportation improvement projects. The following traffic calming elements are the City's preferred traffic calming tools to be considered. The measures below can be modified on a case-by-case basis such that they will not prohibit or degrade the City's ability to conduct winter maintenance activities such as snow removal.

Raised Median Islands

Raised median islands provide a protected area in the middle of a crosswalk for pedestrians to stop while crossing the street. The raised median island allows pedestrians to complete a two-stage crossing if needed. The ODOT Traffic Manual states that for state highways a raised median, in combination with a marked crosswalk is desired when average daily traffic (ADT) volumes are greater than 10,000.

Advantages of raised medians include:

- Improves visibility of crossing to approaching motorists;
- Helps slow vehicle speeds by providing a sense of a narrower roadway to motorists;
- Provides a protected place for pedestrians to wait for a gap in traffic;
- Requires shorter gap in traffic for pedestrians to cross the street; and
- Effective for creating a gateway or entry type treatment into an area of high pedestrian activity.

Challenges to implementing raised medians include:

- Raised median must be able to provide at least six-feet of space to accommodate wheel chairs and not streets have sufficient right-of-way; and
- Places a physical barrier in the street and therefore requires distinctive visible attributes such as landscaping and signs.

Raised Crosswalk

A raised crosswalk is raised higher than the surface of the street to give motorists and pedestrians a better view of the crossing area. A raised crosswalk is similar to a speed table marked and signed for pedestrian crossing. Raised crosswalks are not permitted on state highways.

Advantages of a raised crosswalk include:

- Provides better view of pedestrians for motorists;
- Slows vehicle travel speeds; and
- Applicable on arterial and collector streets

Challenges to implementing raised crosswalks include:

- Can be difficult for large trucks, snow plows, and buses to navigate; and
- Requires adequate signing on the approach to inform motorists of raised roadway.

Rectangular Rapid Flashing Beacon

Rectangular Rapid Flashing Beacons, or RRFBs, are user-actuated amber lights that have an irregular flash pattern similar to emergency flashers on police vehicles. These supplemental warning lights are used at unsignalized intersections or mid-block crosswalks to improve safety for pedestrians using a crosswalk. Implementation of RRFBs require meeting minimum design criteria and are not permitted on facilities over 45 miles per hour.

Advantages of using rectangular rapid flashing beacons include:

- Typically increases yielding behavior of motorists;
- May be used at unsignalized intersections and mid-block crossing locations;
- May be installed on two-lane or multilane roadways;
- Low cost alternatives to traffic signals and hybrid signals.

Challenges to implementing rectangular rapid flashing beacons include:

- Flashing beacons do not force motorists to yield;
- Pedestrians may not activate flashing lights.

Pedestrian Hybrid Signal

The pedestrian hybrid signal is a pedestrian-actuated hybrid signal that stops traffic on the mainline to provide a protected crossing for pedestrians at an unsignalized location. Warrants for the installation of pedestrian-actuated hybrid signal are based on the number of pedestrian crossings per hour (PPH), vehicles per hour on the roadway, and the length of the crosswalk. Thresholds are available for two types of roadways: locations where prevailing speeds are above 35 mph and locations where prevailing speeds are below 35 mph.

Advantages of implementing pedestrian hybrid signals include:

- Produce a high rate of motorists yielding to pedestrians; and
- Drivers experience less delay at hybrid signals compared to other signalized intersections.

Challenges to implementing pedestrian hybrid signals include:

- Expensive compared to other crossing treatments; and

- Requires pedestrian activation.

Planting Strips

Planting strips narrow the width of streets by moving curbs away from sidewalks to create space for native street trees and ground cover and/or decorative rock.

Advantages for planting strips include:

- Narrow the roadway and adding planting strips by moving existing curbs into the street will create a buffer between roadways and sidewalks while still retaining enough roadway width for traffic and all existing on-street parking; and
- Storm water can be readily integrated into the design and construction of planting strips through green street treatments.

Challenges associated with implementing planting strips include:

- Construction costs particularly for retrofits can be relatively high, because it may require modifications to the existing drainage system.
- Maintenance responsibility is typically turned over to the adjacent property owner(s).
- In residential areas, the choice of landscaping and the quality of its maintenance varies in quality from home owner to home owner.
- Opportunities to implement this treatment are constrained by the location, design of existing storm drains, and location of low elevations where storm water can collect.

ROADWAY AND INTERSECTION IMPROVEMENT PLAN

This section outlines Baker City's specific roadway and intersection improvement projects for the next 20 years. In addition, a generalized timeline for implementation has been identified for each project. The sequencing plan presented is not detailed to the point of a schedule identifying specific years when infrastructure should be constructed, but rather prioritizes projects to be developed within near-term (0-5 year) and long-term (5-20 year) horizons. In this manner, implementation of identified system improvements has been staged to spread investment in the city's transportation infrastructure over the life of the plan.

Roadway and Intersection Refinement Studies

Table 3-5 summarizes the roadway and intersection refinement plan studies that have been identified to more fully determine the level and extent of the near- or long-term improvement projects.

Table 3-5: Roadway and Intersection Refinement Plan Studies

(Study #) Study Name	Refinement Plan Description	Priority (Timeline)	Cost Estimate[1]
(R11) 10th Street Travel Way Refinement Study	In conjunction with ODOT and local property/business owners, conduct a detailed refinement plan of the 10th Street corridor from Hughes Lane to Broadway Street. The purpose of the plan would be a more thorough investigation of potential modifications to the 10th Street travel way cross section.	Near-Term	$15,000
(R12) Broadway Street Travel Way Refinement Study	In conjunction with ODOT and local property/business owners, conduct a detailed study of the Broadway Street corridor from 10th Street to Main Street. The purpose of the refinement plan would be a more thorough investigation of potential modifications to the Broadway Street travel way cross section	Near-Term	$15,000
(R13) Main Street Refinement Study	An integrated land use and transportation plan that evaluates and prioritizes goals for revitalization on the primary downtown streets supporting commercial business. This will include opportunities for accommodating additional parking, enhancing pedestrian and bicycle modes, and revisiting streetscape options that support a safe and vibrant downtown area.	Near-Term	$50,000
(R21) Hughes/Pocahontas/Highway 30 Intersection	In conjunction with ODOT and the on-going ODOT STIP refinement studies, conduct a more detailed investigation of potential near-term and long-term improvements for the Highway 30/Hughes Lane/Pocahontas Road intersection. Potential near- or long-term improvements may include intersection approach realignments, turn lanes, sidewalks, and intersection traffic control devices such as a traffic signal or roundabout.	Near-Term	$10,000
Near-Term Priority (0-5 Years)			$90,000
Long-Term Priority (5-15 Years)			-
Development Driven			-
		Total	**$90,000**

[1]Cost estimates for engineering and construction costs. They do not include right-of-way. There are rounded to the nearest thousand dollars.

Roadway and Intersection Improvements

The planned roadway and intersection improvement projects will enhance the motorized element of the Baker City transportation network within and through the city. While site specific projects such as traffic signals and turn lanes have been included to improve conditions at particular locations, the plan

also seeks to develop an efficient transportation network that will reduce reliance on the main east-west and north-south state highways through development of parallel facilities. New roadways or roadway extensions are planned to serve all modes. These include road segments to fill gaps in the existing street system, new roads to serve development on adjacent properties, and new arterials and collectors to create an efficient grid system of future roadways.

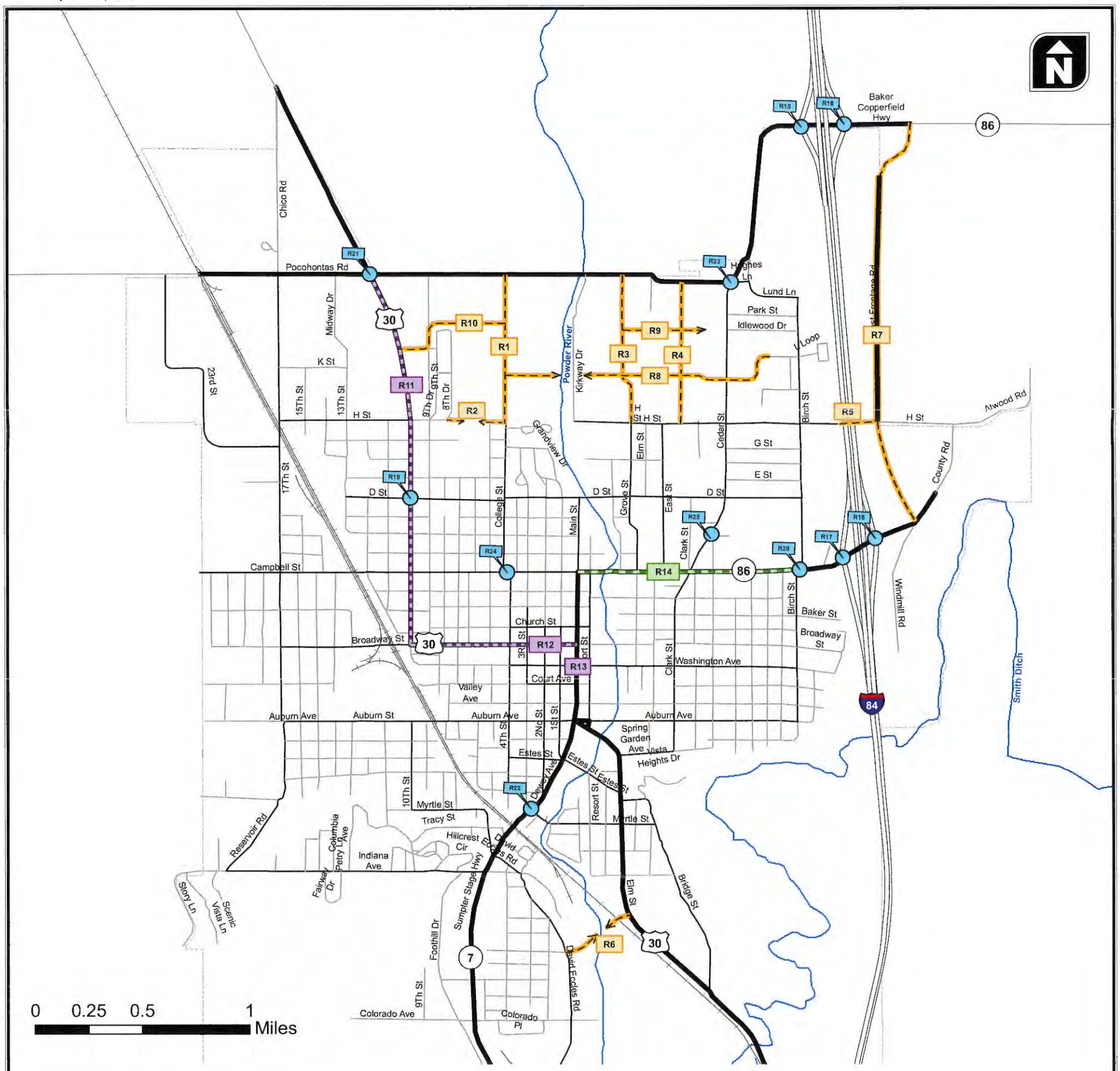
Table 3-6 summarizes the planned roadway extension projects, new roadways, and intersection projects. Figure 3-6 illustrates the location of these projects.

Table 3-6: Planned Roadway and Intersection Projects

(Project #) Project Name	Project Description	Reasons for the Project	Priority (Timeline)	Cost[1]
Planned Roadway Extensions				
(R1) College Street Extension	Extend College Street from H Street to Hughes Lane	Facilitate north-south mobility and connectivity for future growth north of the recreation complex	Development Driven	$2,367,000
(R2) H Street Extension	Extend H Street from 8th Street to College Street	Facilitate east-west mobility and connectivity between the east and west sides of the Sports Complex/High School Area	Development Driven	$928,000
(R3) Grove Street Extension	Extend Grove Street from H Street to Hughes Lane	Facilitate north-south mobility, growth, connectivity, and access for future development north of H Street	Development Driven	$2,455,000
(R4) Clark Street Extension	Extend Clark Street from H Street to Hughes Lane	Facilitate north-south mobility, growth, connectivity, and access for future development north of H Street	Development Driven	$2,274,000
(R5) H Street Overpass	Extend H Street over I-84 from H Street stub to 8est Frontage Road	Facilitate east-west mobility and connectivity between the east and west sides of I-84	Longer-Term	$17,350,000
(R6) Southeast Connector	Construct new roadway connecting David Eccles Road (near Virginia Avenue) to US 30	Facilitate growth, mobility and connectivity in the southeast part of the city	Longer-Term	$4,305,000
(R7) Best Frontage Road Reconstruction/Extension	Extend Best Frontage Road from H Street to Campbell Street	Accommodate growth and facilitate better roadway connectivity on the east side of I-84.	Near-Term	Already Funded
(R8) K Street Alignment	Extend K Street from L Street to College Street Extension	Facilitate east-west mobility, growth, connectivity, and access for future development north of H Street	Development Driven	$4,442,000
(R9) East Idlewood Extension	Extend Idlewood Drive from College Street to Cedar Street	Facilitate east-west mobility, growth, connectivity, and access for future development north of H Street	Development Driven	$1,632,000
(R10) West Idlewood Extension	Construct new roadway connecting College Street Extension through to 10th Street	Facilitate east-west mobility, growth, connectivity, and access for future development north of H Street	Development Driven	$1,920,000
Planned Roadway Modifications				
(R14) Campbell Street	Perform a study of Campbell Street from Main Street to Birch Street that would revisit signal timing plans and median placement.	Accommodate changing traffic and development patterns.	Near-Term	$10,000

(Project #) Project Name	Project Description	Reasons for the Project	Priority (Timeline)	Cost[1]
	Modify the cross-section of Campbell Street from Main Street to Birch Street to provide adequate width for parking and bike lanes.	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	Near-Term	$95,000
Planned Intersection Improvements				
(R15) SB I-84 Ramp & OR 86 Intersection Improvements	Install traffic signal or single-lane roundabout[1]	Accommodate growth and improve long-term traffic operations	Long-Term or Development Driven	$350,000 (traffic signal)
(R16) NB I-84 Ramp & OR 86 Intersection Improvements	Install traffic signal or single-lane roundabout[1]	Accommodate growth and improve long-term traffic operations	Long-Term or Development Driven	$350,000 (traffic signal)
(R17) SB I-84 Ramp & Campbell Street Intersection Improvements	Install traffic signal or single-lane roundabout[1]	Accommodate growth and improve long-term traffic operations	Long-Term or Development Driven	$350,000 (traffic signal)
(R18) NB I-84 Ramp & Campbell Street Intersection Improvements	Install traffic signal or single-lane roundabout[1]	Accommodate growth and improve long-term traffic operations	Long-Term or Development Driven	$350,000 (traffic signal)
(R19) US30/10th Street & D Street Intersection Improvements	Install traffic signal and remove half signal at C Street intersection	Improve long-term traffic operations	Near-Term	$533,000
(R20) Birch Street & Campbell Street Intersection Improvements	A - Modify the concrete separator for the eastbound left-turn lane to allow south to north vehicles the ability to access the left-turn pocket. Install an enhanced pedestrian crossing treatment across Campbell Street on the east side of the intersection.	Discourage illegal left-turn maneuvers for south to north vehicles crossing Campbell Street and accommodate pedestrian crossings	Near-Term	$30,000
	B - Realign north and south legs of Birch Street to eliminate the existing offset and add signalization when warranted	Improve long-term safety and operations	Long-Term or Development Driven	$4,451,000
(R22) Dewey Avenue & Myrtle Street Improvements	Work with adjacent property owners to develop a modification plan for the Myrtle Street/Dewey street intersection that would improve intersection sight distance.	Improve safety	Near-Term	$100,000
(R23) Cedar Street & Hughes Lane Intersection Improvements	Realign intersection as per suggestions in the 2005 Interchange Area Management Plan for Interchange 302	Accommodate growth and improve safety and operations	Long-Term	$4,723,000
(R24) 4th Street/College Street & Campbell Street Intersection Improvements	Install a pedestrian refuge island and crosswalk signage along Campbell Street between 4th Street and College Street approaches	Improve pedestrian safety	Near-Term	$12,000
(R25) Cedar Street & B Street Intersection Improvements	Work with adjacent property owners to develop a modification plan to improve safety and traffic operations in this area.	Improve operations, improve safety	Development Driven	$50,000
Near-Term Priority (0-5 Years)				$780,000
Long-Term Priority (5-15 Years)				$32,229,000
Development Driven				$16,068,000
			Total	**$49,077,000**

[1]Cost estimates for engineering and construction costs. They do not include right-of-way. There are rounded to the nearest thousand dollars.



Planned Roadway Extensions

- R1 College Street Extension
- R2 H Street Extension
- R3 Grove Street Extension
- R4 Clark Street Extension
- R5 H Street Overpass
- R6 Southeast Connector
- R7 Best Frontage Road Extension
- R8 K Street Alignment
- R9 East Idlewood Extension
- R10 West Idlewood Extension

Refinement Studies

- R11 10th Street Refinement Study
- R12 Broadway Street Refinement Study
- R13 Main Street Refinement Study (Extents to be determined)

Planned Roadway Modifications

- R14 Campbell Street Modification

Planned Intersection Improvements

- R15 SB I-84 Ramp & OR 86
- R16 NB I-84 Ramp & OR 86
- R17 SB I-84 Ramp & Campbell Street
- R18 NB I-84 Ramp & Campbell Street
- R19 US 30/10th Street & D Street
- R20 Birch Street & Campbell Street
- R21 US 30/10th Street & Pocahontas/Hughes Lane
- R22 Dewey Avenue & Myrtle Street
- R23 Cedar Street & Hughes Lane
- R24 4th Street/College Street & Campbell Street
- R25 Cedar Street & B Street

IMPROVEMENT TYPE

- Planned Intersection Project
- Refinement Plan
- Roadway Modification
- Roadway Extension
- Roadway Reconstruction

Planned Intersection Improvements and Roadway Connections

Figure 3-6

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Section 4
Transit Plan

TRANSIT PLAN

The transit plan presents policies and guidance focused on strengthening Baker City's support of transit service within and to/from the city.

Summary of Existing Transit Service in Baker City

Northeast Oregon Transit (NEOtransit) provides public transportation services within the Baker City area. NEOtransit provides three forms of service: 1) Fixed Route Trolley Service; 2) Fixed Route Bus Service to La Grande; 3) Dial-A-Ride Service.

Fixed Route Service (Baker City Trolley)

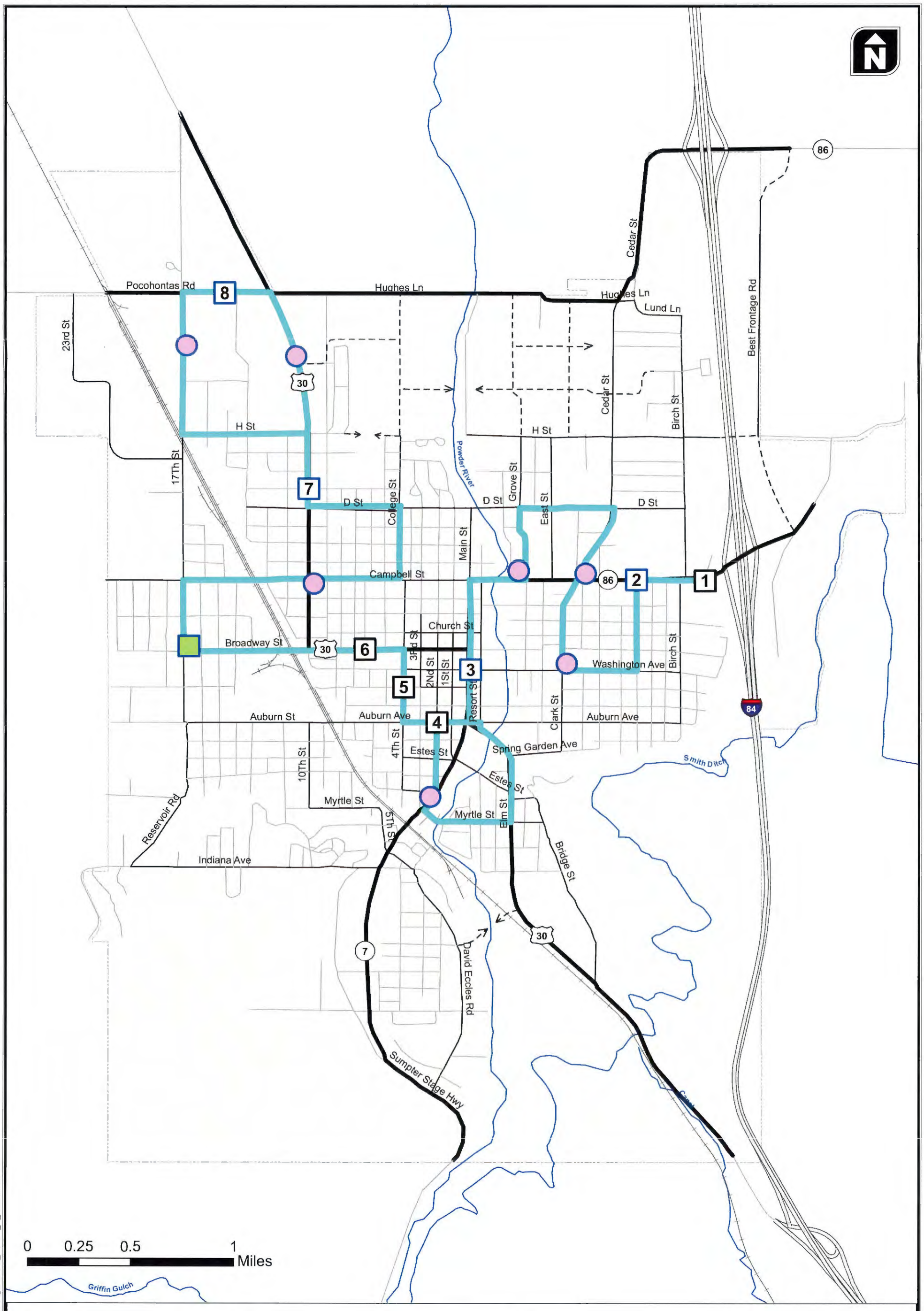
The fixed route Baker City Trolley consists of a single route with eight scheduled stops as shown in Figure 4-1. The total route time is 1 hour and the trolley will stop at each stop twice during the hour (once for the westbound trip and once for an eastbound trip).

Fixed Route Bus Service to La Grande (InterCity Connector)

NEOtransit offers a service that links Baker City to La Grande called the InterCity Connector. This service makes two daily round trips from Baker City to La Grande, one in the morning and one in the afternoon. Stops are also made in Haines and North Powder on the way to La Grande and back to Baker City. This service is available Monday through Friday.

Paratransit

Baker City Paratransit utilizes an application based eligibility process consistent with its obligation under the Americans with Disabilities Act to reserve the service for people who are prevented from using a fixed route due to a disability. Community Connection also provides service to Halfway once per week. It is intended for seniors or persons with disabilities; however general public may ride on space available basis.



Trolley Service Ammenities

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Figure 4-1

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Transit Supportive Policies

The following transit supportive policies will help Baker City improve access to transit and encourage the development of physical elements or attributes which would make transit more accessible to all citizens of Baker City.

- Upgrade Sidewalk Facilities – As project opportunities arise through capital improvement investments or development, upgrade sidewalk facilities to ADA compliance on streets where transit service is provided and/or planned. The identified pedestrian improvement projects shown in the Active Transportation Plan would ensure that all existing transit route roadways would have sidewalk facilities in either the near- or long-term planning horizon.
- Provide Street Lighting - As project opportunities arise through capital improvement investments or development, install and/or improve street lighting at transit stops and along streets leading to transit stops.
- Increase and Improve Pedestrian Crossing Opportunities - As project opportunities arise through capital improvement investments or development; improve pedestrian crossing opportunities across major roadways to facilitate access to transit stops.
- Monitor and Improve Transit Stop Amenities - As opportunities arise; work with local transit providers to upgrade transit stop amenities based on ridership thresholds. Potential ridership thresholds and amenities include:
  - Level 1 (stops with 1 to 10 riders/day) - Bus stop sign with route information and attached bench
  - Level 2 (stops with 11 or more riders/day) - Level 1 amenities plus covered shelter
- Coordinate with local transit providers and ensure that the Baker City TSP is consistent and complimentary to their near- and long-term service priorities. Projects identified in the Baker/Union/Wallowa Coordinated Transit Plan and the Baker/Union/Wallowa Human Services Transportation Plan that would likely require a local City funding match include the following:
  - Purchase an ADA accessible Category D passenger bus.
  - Install digital surveillance security cameras and recorders in five public transit buses serving Baker County.
  - Install bicycle racks on Baker City Trolley and InterCity Connector buses
  - Continued development of public awareness of Travel Options tool – NEO Travel Options
- Coordinate with local transit providers to identify future locations for a multi-modal transfer center or park-n-ride lot.

Section 5
Other Modes Plan (Air, Rail, Water, Pipeline)

OTHER MODES PLAN (AIR, RAIL, WATER, PIPELINE)

This section addresses Baker City's air, rail, surface water, and pipeline plans. Each subsection below describes each respective network and how it operates within the City. Future projects were not identified for these service areas, because service is provided by separate entities.

AIR

Baker City Municipal Airport (BKE) is approximately 3 miles north of the city limits and urban grown boundary to the east of I-84. The airport is owned by Baker City despite being located in an unincorporated portion of Baker County. Service is operated by Baker Aircraft and offers fueling, flight instruction, aircraft rental, charter, and maintenance.

The nearest airport providing scheduled commercial passenger service is in Pendleton, approximately 95 miles away at Eastern Oregon Regional Airport (PDT), followed by Boise, Idaho (BOI), approximately 127 miles away. While commercial air service is beyond the scale of project that Baker City can pursue independently, the City will remain aware of other changes or opportunities to bring other air travel options to the community and will support these efforts, as they are able.

RAIL

Freight rail through Baker City travels on Union Pacific's (UP) east-west mainline, which runs from the southeast corner of the city to the northwest corner of the city. This line connects to Portland and the I-5 corridor, Spokane (via the Hinkle hump yard), Idaho, and other points east. The UP main line is a Federal Railroad Administration (FRA) Class 4 railroad, meaning it allows freight speeds up to 60 MPH. It has no weight or dimension restrictions.

Commercial rail service is beyond the scale of project that Baker City can pursue independently. However, the City will remain aware of other changes or opportunities to bring rail travel options to the community and will support these efforts, as they are able.

SURFACE WATER

The only water based transportation in Baker City is recreational floating of the Powder River.

PIPELINE AND TRANSMISSION SYSTEMS

Pipeline transportation within Baker City includes transmissions lines for electricity, television, and telephone services, as well as transport of water, sanitary sewer, natural gas, and a major north-south petroleum pipeline. Baker City provides water and sanitary sewer within the City Limits. Cascade Natural Gas provides natural gas via a pipeline that runs along the western edge of the City. Chevron's

pipeline carrying petroleum products from Pasco, Washington to Boise, Idaho runs alongside the natural gas pipeline.

Section 6
Funding and Implementation

FUNDING AND IMPLEMENTATION

This section provides context regarding the City's historical funding sources, which was the basis for forecasting the funds likely available in the future for transportation projects, studies, and programs. Also presented in this section is the financially constrained plan which helps guide the City's implementation of the TSP.

HISTORICAL TRANSPORTATION FUNDING

Key funding sources that have contributed to transportation projects within the city over the past five years are summarized below.

Revenue Sources

Table 6-1 displays the total revenue by source used to fund transportation projects within the city over the past ten years.

Table 6-1: Baker City Revenue Source History

Revenue Source	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Avg.
Taxes	$376,713	$397,889	$412,003	$427,673	$448,796	$470,639	$485,411	$512,656	$518,629	$450,045
Inter-Gov. Sources	$687,151	$804,014	$709,956	$568,699	$789,701	$834,790	$492,420	$546,794	$591,012	$669,393
Other[1]	$16,236	$4,016	$14,027	$28,376	$40,592	$51,863	$63,786	$69,547	$69,790	$39,804
Total Revenue	$1,080,100	$1,205,919	$1,135,986	$1,024,748	$1,279,089	$1,357,292	$1,041,617	$1,128,997	$1,179,431	$1,159,242

[1]Other revenue sources generally include miscellaneous revenue, service charges, and interest

Based on the information shown in Table 6, Baker City has generated an average of approximately $1,160,000 per year in total revenue for transportation related projects. Also shown, the largest revenue sources for the city have traditionally been the motor vehicle tax and intergovernmental sources.

Expenditure History

Table 6-2 displays the total expenditures on transportation related projects within Baker City over the last nine years.

Table 6-2: Baker City Expenditure History

Expenditure	2003	2004	2005	2006	2007	2008	2009	2010	2011	Avg.
Maintenance	$432,122	$406,767	$381,629	$413,572	$437,478	$443,475	$446,527	$484,565	$430,566	$430,745
Storm Water	$30,678	$18,308	$32,542	$31,471	$35,128	$84,066	$79,250	$72,735	$43,574	$47,528
Preventative	$357,957	$328,006	$336,963	$262,231	$392,859	$384,014	$366,314	$403,075	$426,222	$361,960
Street Lighting	$70,839	$67,634	$70,957	$63,436	$55,519	$61,656	$66,023	$59,947	$62,134	$64,238
Snow and Ice Control	$17,925	$71,274	$18,415	$46,127	$16,424	$95,782	$76,630	$41,677	$52,180	$48,493
Street Construction	$98,595	$95,174	$20,504	$24,082	$8,090	$5,502	$14,878	$4,848	$5,911	$30,843
Total Overhead	**$1,008,116**	**$987,163**	**$861,010**	**$840,919**	**$945,498**	**$1,074,495**	**$1,049,622**	**$1,066,847**	**$1,020,587**	**$983,806**
Capital Projects	**$838,752**	**$358,490**	**$66,722**	**$27,003**	**$245,705**	**$313,223**	**$494,412**	**$30,323**	**$0**	**$263,848**
Total Expenditures	**$1,846,868**	**$1,345,653**	**$927,732**	**$867,922**	**$1,191,203**	**$1,387,718**	**$1,544,034**	**$1,097,170**	**$1,020,587**	**$1,247,654**

Based on the information shown in Table 6-2, Baker City has spent an average of $263,848 per year on capital improvement projects (or approximately 21 percent of available resources) and $983,806 on maintenance/overhead (or approximately 79 percent of available resources). The information shown in Tables 6-1 and 6-2 were used to project the availability of future funding for transportation improvement projects as described below.

PROJECTED TRANSPORTATION FUNDING

Table 6-3 provides a summary of the potential future project funding (in year 2012/2013 dollars) over the next five, ten, and twenty years based on an assumed average funding level of approximately $1,160,000 per year.

Table 6-3: Baker City Future Transportation Funding Projections

Revenue Source	Average Annual	5-Year Forecast	10-Year Forecast	20-Year Forecast
Total Revenue	$1,160,000	$5,800,000	$11,600,000	$23,200,000
Revenue for Capital Improvements (21%)	$243,600	$1,218,000	$2,436,000	$4,872,000
Revenue for Operations and Maintenance (79%)	$916,400	$4,582,000	$9,164,000	$18,328,000

As shown in Table 6-3, it is anticipated that approximately $23.2 million will be available for transportation project funding over the next 20 years using historical funding trends. Under this methodology, approximately $4.9 million of the $23.2 million can reasonably be assumed to be available for funding the transportation plan while the remaining $18.3 million will be needed for operations and maintenance.

Table 6-4: Estimated Transportation Improvement Costs

Type	Near-Term	Longer-Term	Development Driven	Total
Roadway	$780,000	$32,229,000	$16,068,000	$49,077,000
Bicycle	$92,000	-	-	$92,000
Multi-Use Path	$2,514,000	$3,365,000	-	$5,879,000
Pedestrian	$3,632,000	$3,260,000	$315,000	$7,207,000
Total	$7,018,000	$38,854,000	$16,383,000	$62,255,000
			Available	$4,872,000
			Funding Shortfall	$57,383,000

Based on the estimated projected funding available and the estimated costs of the transportation improvement projects included in this memorandum, Baker City will need to identify additional funding sources to pay for transportation improvements over the next 20 years.

POTENTIAL FUNDING SOURCES

The remainder of this section provides an overview of funding and financing options that are potentially available for Baker City. For each of the funding options listed below, there is a brief description and a short discussion. No effort has been made to screen funding options according to their political or legal feasibility. The funding environment is dynamic so the list shown should not be considered exhaustive.

Federal Resources

Federal Highway Trust Fund (HTF)

Description: Highway Trust Fund (HTF) revenues consist primarily of taxes on the sale of fuel as well as a number of other smaller transportation related taxes. The federal legislation that appropriates the HTF is the Moving Ahead for Progress in the 21st Century (MAP 21) which was authorized in October 2012. Funds to local agencies within the State of Oregon are primarily allocated by the Oregon Department of Transportation (ODOT) unless dedicated to a local agency.

Potential: The potential for Baker City to take advantage of this funding source will be to lobby to get local highway projects included on the next ODOT STIP and applying for funds dedicated to specific types of projects such as bicycle and pedestrian projects.

Community Development Block Grants (CDBG)

Description: Community Development Block Grants (CDBG) are offered through the Federal Department of Housing and Urban Development. To receive CDBG funds, cities must compete for grants based upon a formula that includes factors such as rural/urban status, demographics, local

funding match, and potential benefits to low-to-moderate income residents, including new job creation. CDBG funds can also be used for emerging public work needs.

Potential: In small rural communities this program has limited application but may be a source of street funds for roads serving new developments supporting job creation or multifamily housing. CDBG funding requests should be coordinated through Baker County.

State Funding Options

State Motor Vehicle Tax Fund

The State of Oregon currently collects the following fuel and vehicles fees for the State Motor Vehicle Fund:

- State Gas Tax $0.30 per gallon
- Regular Vehicle Registration Fees (for renewals)
  - Light Trailer $86.00 two-year fee
  - Low-Speed Vehicle $86.00 two-year fee
  - Motorcycles/Mopeds $48.00 two-year fee
  - Passenger Vehicles $86.00 two-year fee
  - Snowmobiles $10.00 two-year fee

In addition, a weight-mile tax is assessed on freight carriers to reflect their use of state highways. The revenue from the fund is used by ODOT and distributed to cities and counties throughout the state with each city's distribution based on a city's share of statewide population, and the county distribution based on a county's share of statewide vehicle registration.

Existing Application: ODOT Region 5, Baker County, and Baker City each receive funds from the state Motor Vehicle Fund. ODOT uses their allocation from the State Motor Vehicle Fund for maintenance and capital purposes. Baker County and Baker City typically use their funding allocation for street maintenance; however it could be used for other types of projects such as pedestrian and bicycle projects.

The state currently distributes approximately 16 percent of the State Motor Vehicle Fund to cities and 24 percent to counties based on a per capita rate (cities) and vehicle registration (counties). The remaining amount in the State Motor Vehicle Fund is used to maintain and enhance the state highway system. The state operates a grant program available to cities for bicycle-related transportation system improvements and one percent of the fuel tax returned to cities and counties is designated for bike paths and lanes.

Potential: With an increase in population, number of registered vehicles, and fuel sales, the total revenue from the State Motor Vehicle Fund will rise, but if the fees (tax per gallon) remain at current levels, there will be a reduction in buying power due to inflation. The gas tax will however continue to be a source of funds for Baker City through ODOT for highway and pedestrian and bicycle projects.

Statewide Transportation Improvement Program (STIP)

Description: The Statewide Transportation Improvement Program (STIP) is Oregon's 4-year capital improvement program for major state and regional transportation facilities. This scheduling and funding document is updated every two years. Projects included on the STIP are allocated into the five different ODOT regions. The current 2012-2015 STIP contains a number of roadway projects located throughout Region 5, several of which are located in Baker County. The majority of these projects rely upon federal funds.

Potential: The next STIP (2015-2018) is currently in the development process and is expected to be organized into two different categories that focus on projects that will fix/preserve the existing transportation network and enhance/improve the transportation network. Several projects within Baker County could be included on this list.

Oregon Bicycle and Pedestrian Program

Description: The Oregon Pedestrian and Bicycle Program awards grants to local governments for bicycle and pedestrian improvements within the rights-of-way of streets, roads, and highways. Grants generally range between $80,000 and $S00,000 and examples of eligible uses include pedestrian islands, bike lane striping, and crosswalks.

Oregon Parks and Recreation Funds

Description: Recreational Trails Grants are national grants administered by the Oregon Parks and Recreation Department (OPRD) for recreational trail-related projects, such as hiking, running, bicycling, off-road motorcycling and all-terrain vehicle riding.

Existing Application: OPRD distributes more than $4 million annually to Oregon communities for outdoor recreation project, and has awarded more than $40 million in grants across the state since 1999. Grants can be awarded to non-profits, cities, counties, and state and federal agencies.

Local Funding Options

The following local funding programs are commonly used by cities in the funding of transportation improvements.

General Obligation Bonds (G.O. Bonds)

Description: Bonds are often sold by a municipal government to fund transportation (or other types) of improvements, and are repaid with property tax revenue generated by that local government. Under Oregon Measure 50, voters must approve G.O. Bond sales with at least a 50 percent voter turnout.

Existing Application: Cities all over the state use this method to finance the construction of transportation improvements. For smaller jurisdictions, the cost of issuing bonds versus the amount that they can reasonably issue creates a problem. Underwriting costs can become a high percentage of the total cost for smaller issues. According to a representative of the League of Oregon Cities, the state is considering developing a "Bond Pool" for smaller jurisdictions. By pooling together several small bond issues, they will be able to achieve an economy of scale and lower costs.

Potential: Within the limitations outlined above, G.O. bonding can be a viable alternative for funding transportation improvements when focused on specific projects.

System Development Charges

Description: ORS 223.297 to 223.314 authorizes local governments to impose system development charges (SDCs) for capital projects related to transportation. SDCs are fees imposed on new development projects and are intended to cover a share of costs needed to support growth on the transportation network. SDCs may only be used for capital improvements.

Potential: Baker City does not currently impose transportation SDCs. However, given the ability to use these fees for capital improvement projects, transportation SDCs should be explored.

Local Street Utility/User Fee

Description: This maintenance fee is premised on viewing public streets as utilities used by citizens and businesses similar to a public water or sewer system. Fees are typically assessed by usage (e.g., average number of vehicle trips per property).

Existing Application: Many Oregon cities assess street user fees through a monthly fee charged to local dwelling units and businesses. The assessment formulas range from a flat rate per dwelling unit and per business to fees tied to trip rates calculated for each property individually based on the Institute of Transportation Engineers Trip Generation. The revenues generated by these fees can be used for operations and maintenance and can be used to secure bond debt that would be used to fund capital projects.

Potential: In Baker City, a $5.00 monthly fee charged to the estimated 4,212 households would generate approximately $252,720 per year in revenue from residential uses alone. The ability to use these fees for capital projects, including pedestrian and bicycle projects should be explored.

Local Improvement District (LID)

Description: Under a local improvement district (LID), a street or other transportation improvement is built and the adjacent properties that benefit are assessed a fee to pay for the improvement.

Existing Application: LID programs have wide application for funding new or reconstructed streets, sidewalks, water/sewer or other public works projects. The LID method is used primarily for local or collector roads, though arterials have been built using LID funds in certain jurisdictions.

Potential: LIDs continue to offer a good mechanism for funding projects such as new sidewalks and street surface upgrades. Baker City may be able to fund the cost of sidewalks on collector streets to provide a connected pedestrian system for current and future residents in the previously developed areas of the city lacking sidewalks.

Urban Renewal District

Description: An Urban Renewal District is an area that is designated by a community as a "blighted area" to assist in revitalization. Funding for the revitalization is provided by urban renewal taxes that are generated by the increase in total assessed values in the district from the time it was first established.

Existing Application: Urban Renewal Districts have been formed in over 50 cities in Oregon, generally focused on revitalizing downtowns.

Potential: Urban Renewal dollars can be used to fund infrastructure projects such as roadway, sidewalk, or transit improvements. Because funding relies on taxes from future increases in property value, Baker City may seek to create a District where such improvements will likely result in such an increase.

Developer Dedications of Right-of-Way and Local Street Improvements

Description: New local streets required to serve new development areas are provided at the developer's expense in accordance with the tentative and final plan approvals granted by the City Council.

Existing Application: Current City ordinance requires local streets and utilities to be provided in accordance with the adopted Land Use Plan, and the zoning ordinance and subdivision ordinance. This includes dedication of street/utility right-of-way and construction of streets, pedestrian/bicycle facilities, and utilities to City design standards.

Potential: Private developer street dedications are an excellent means of funding new local street/utility extensions, and are most effective if guided by a local roadway network plan. This funding mechanism could apply to all new local street extensions in Baker City within the 20-year planning period.

Leveraging Transit Funds

Opportunities potentially could be identified to leverage existing transit funds to assist with bicycle and pedestrian projects.

IMPLEMENTATION

The Financially Constrained Plan and Preferred Plan facilitate the TSP's implementation. The projects and refinement plans included in the Financially Constrained Plan are higher priority projects on which the City plans to focus its funding resources. The total Preferred Plan helps the City leverage opportunities that may arise through development, unexpected grants, and/or agency partnerships to implement additional projects, studies, and/or programs identified as needed and desired.

Total Preferred Plan

The total Preferred Plan consists of all of the projects and refinement plans identified in Sections 2 through 5. Table 6-5 summarizes the project costs by mode and desired timeframe based on need and priority.

Table 6-5: Transportation Projects and Refinement Plans Project Cost Summary by Timeline

Priority (Timeline)	Pedestrian	Bicycle	Multi-Use Path	Refinement Studies	Intersection and Roadway	Total Program Study and Project Costs
Near-Term (0-5 Years)	$3,632,000	$92,000	$2,514,000	$90,000	$780,000	$7,108,000
Long-Term (5-15 Years)	$3,260,000	-	$3,365,000	-	$32,229,000	$38,854,000
Development Driven	$315,000	-	-	-	$16,068,000	$16,383,000
Total	**$7,207,000**	**$92,000**	**$5,879,000**	**$90,000**	**$49,077,000**	**$62,345,000**

Note: No City-related transit expenditures to quantify.

As shown in Table 6-5, a total planned cost of 82 of projects and studies have been identified for Baker City over the next 20 years. The following section discusses the Financially Constrained Plan, which includes as many of the near-term projects identified in the total Preferred Plan as fiscally possible.

Financially Constrained Plan

Table 6-6 identifies the projects the City would like to have funded. They include projects that are under jurisdiction of Baker City as well as projects that would likely require the City's financial participation in joint projects with ODOT and Baker County. The City will coordinate with other agencies to leverage funding opportunities and therefore the projects in the Financially Constrained project list should be looked at as an illustration of the City's current funding priorities but one that will change over time.

Table 6-6: Baker City Financially Constrained Projects and Studies List

(Project #) Project Name	Project Description	Reasons for the Project	Priority (Timeline)	Cost[1]
Active Transportation Projects				
(P1) 11th Street/Hillcrest Driver/9th Street	Sidewalk infill and wayfinding from Indiana Avenue to Auburn Avenue	Gap in existing pedestrian network	Near-term	$342,000
(P3) Tracy Street & 5th Street	Sidewalk infill and wayfinding from 9th to OR 7, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$290,000
(P5) Auburn Avenue	Add sidewalks from Main Street to Birch Street	Gap in existing pedestrian network	Near-term	$288,000
(P6) Baker Street	Sidewalk infill and wayfinding from Birch Street to Swim Center/Skate Park	Gap in existing pedestrian network	Near-term	$25,000
(P7) Birch Street	Sidewalk infill and wayfinding from Auburn Avenue to Campbell Street, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$218,000
(P14) Indiana Avenue (west)	Sidewalk infill and wayfinding from 10th Street to Plum Street	Improving pedestrian network, gap in existing pedestrian network	Development Driven	$83,000
(P15) Madison Street	Neighborhood Route from 10th Street to Birch Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$9,000
(P16) Oak Street	Add sidewalks from Court Street to Church Street	Improving pedestrian network	Near-term	$78,000
(P17) Washington Street	Neighborhood route from 7th Street to Birch Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$8,000
(P27) College Street	Neighborhood route from H Street to Campbell Street	Gap in existing pedestrian network	Long-term	$4,000
(P33) 4th Street	Proposed neighborhood route from Campbell Street to Grace Street	Gap in existing pedestrian network	Long-term	$6,000
(M3) Auburn	Add multi-use path from 17th Street to Railroad tracks	Promote recreational and non-motorized travel	Near-term	$309,000
(M4) 17th Ave Trail	Add multi-use path from Indiana Avenue to Pocahontas Road	Promote recreational and non-motorized travel	Near-term	$1,294,000
(M6) Sports Complex Connector	Add multi-use path from H Street to Sports Complex	Promote recreational and non-motorized travel	Near-term	$168,000
(M12) Indiana Avenue	Add multi-use path from 17th Street to OR 7	Promote recreational and non-motorized travel	Long-term	$259,000
(M13) Central Park Connector	Add multi-use path from Resort Street at Court Street to the LAMP Connector	Promote recreational and non-motorized travel	Near-term	$122,000
Roadway and Intersection Projects				
(R11) 10th Street Travel Way Refinement Study	In conjunction with ODOT and local property/business owners, conduct a detailed refinement plan of the 10th Street corridor from Hughes Lane to Broadway Street. The purpose of the plan would be a more thorough investigation of a potential reallocation of the travel way from four lanes to three lanes including a two-way center turn lane and bicycle lanes in both directions.	Reallocate roadway for Improved multi-modal use and increase safety for pedestrians and bicyclists	Near-term	$15,000
(R12) Broadway Street Travel Way	In conjunction with ODOT and local property/business owners, conduct a detailed study of the Broadway Street corridor from 10th Street to Main Street. The	Reallocate roadway for Improved multi-modal use and increase safety for pedestrians and	Near-term	$15,000

(Project #) Project Name	Project Description	Reasons for the Project	Priority (Timeline)	Cost[1]
Refinement Study	purpose of the plan would be a more thorough investigation of a potential reallocation of the travel way from four lanes to three lanes including a two-way center turn lane and bicycle lanes in both directions.	bicyclists		
(R13) Main Street Refinement Study	An integrated land use and transportation plan that evaluates and prioritizes goals for revitalization on the primary downtown streets supporting commercial business. This will include opportunities for accommodating additional parking, enhancing pedestrian and bicycle modes, and revisiting streetscape options that support a safe and vibrant downtown area.	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	Near-Term	$50,000
(R14) Campbell Street Modification	Modify the cross-section of Campbell Street from Main Street to Birch Street to provide full 8'-wide parking lanes by reducing the total wider of the two-way center turn lane.	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	Near-term	$105,000
(R20) Birch Street & Campbell Street Intersection Improvements	Remove concrete separator for the eastbound left-turn lane to allow south to north vehicles the ability to access the left-turn pocket	Discourage illegal left-turn maneuvers for south to north vehicles crossing Campbell Street	Near-term	$30,000
(R22) Dewey Avenue & Myrtle Intersection Improvements	Work with adjacent property owners to develop a modification plan for the Myrtle Street/Dewey Street intersection that would improve intersection sight distance.	Improve safety	Near-term	$12,000
(R24) 4th Street/College Street & Campbell Street Intersection Improvements	Install a pedestrian refuge island and crosswalk signage along Campbell Street between 4th Street and College Street approaches	Improve pedestrian safety	Near-term	$12,000
Near-Term Priority (0-5 Years)				$3,172,000
Long-Term Priority (5-15 Years)				$437,000
Development Driven				$83,000
			Total	**$3,692,000**

[1]Cost estimates for engineering and construction costs. They do not include right-of-way. There are rounded to the nearest thousand dollars.

Transportation System Plan

Baker City Transportation System Plan
Volume II - Appendices

Baker City, Oregon

May 2013

Transportation System Plan

Baker City Transportation System Plan
Volume II - Appendices

Baker City, Oregon

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May 2013

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Existing Conditions Technical Memorandum

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TECHNICAL MEMORANDUM #1

Baker City TSP Update

Existing Conditions

Date: October 22, 2012 Project #: 12196.0

To: Michelle Owen, City of Baker City
Cheryl Jarvis-Smith, Oregon Department of Transportation

From: Nick Foster, AICP; Matt Hughart, AICP; and Jon Crisafi (KAI)
Matt Berkow and Drew Meisel (Alta Planning + Design)

cc: Andy Lindsey, Anderson-Perry & Associates, Inc.

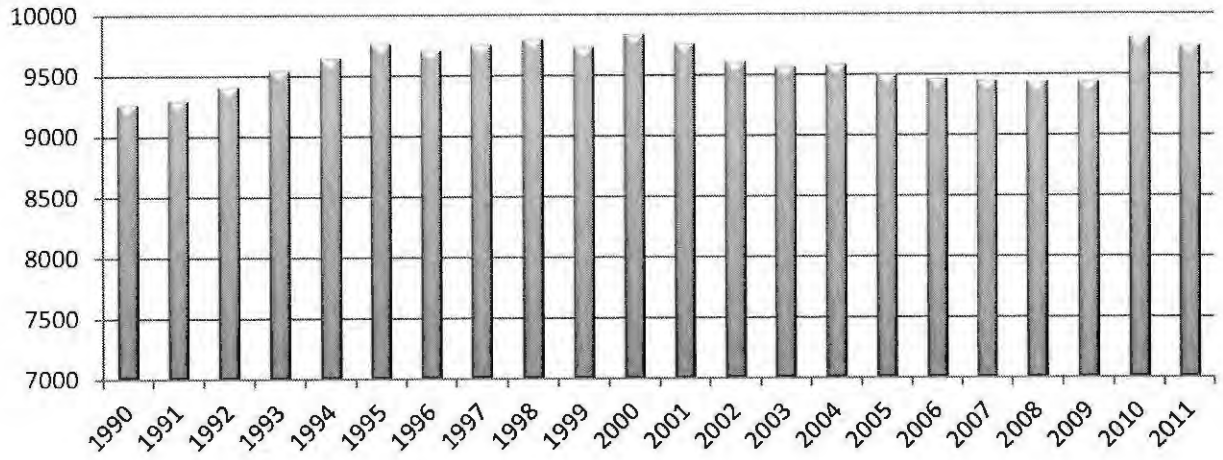
This memorandum provides an overview of the existing multimodal transportation system within the Baker City urban growth boundary (UGB). The purpose of the existing conditions inventory and performance evaluation is to document the baseline transportation system within the Transportation System Plan (TSP) project area, which coincides with the UGB. This inventory and analysis is based on data obtained from the City of Baker City, Baker County, Oregon Department of Transportation (ODOT), and field reviews by the project team.

The information contained in this memorandum is organized into a series of sections. The name and the first page of these sections are listed below.

POPULATION

The purpose of the population inventory is to identify existing, planned, and potential growth within the community. As shown in Exhibit 1, the population of Baker City has remained relatively unchanged since 1990 (staying between 9200 and 9800). Further historical population figures show that the population of Baker City has remained this way as far back as 1940.

Exhibit 1 Baker City Population (1990-2011)



Source:
http://www.google.com/publicdata/explore?ds=kf7tgg1uo9ude_&met_y=population&idim=place:4103650&dl=en&hl=en&q=baker+city+or+population#!ctype=l&strail=false&bcs=d&nselm=h&met_y=population&scale_y=lin&ind_y=false&rdim=country&idim=place:4103650&ifdim=country&hl=en_US&dl=en&ind=false

STREET SYSTEM AND TRAFFIC ANALYSIS

There are four state highways serving Baker City as well as a network of arterial and collector streets maintained by the City and/or County. An overview of the primary roadway facilities is summarized below followed by information on their characteristics and existing operational performance. The material in this section of the memorandum provides information from the automobile or motorists' perspective. Subsequent sections discuss the transportation system in terms of transit, freight movement, pedestrians, and bicyclists.

STREET SYSTEM OVERVIEW

Interstate 84 (I-84), US 30, OR 7, and OR 86 provide regional connectivity to other cities within eastern Oregon, western Idaho, and other destinations beyond. I-84 provides east-west connections to Portland and Boise, Idaho. US 30 was the primary east-west connection from Portland to Boise before the completion of I-84. As such, it generally parallels I-84 immediately north of Baker City providing direct connections to Haines and North Powder before it connects to I-84. US 30 connects

directly back to I-84 on the south end of Baker City. OR 7 continues south beyond Baker City to the historic mining town of Sumpter. OR 86 runs east from Baker City to the cities of Richland and Halfway on its way across the Snake River into Idaho.

Within Baker City, US 30 and OR 7 are the primary arterial roads and are both important commercial corridors. US 30 runs from the I-84 Exit 306 interchange along Elm Street, Bridge Street, turns westward along Broadway Street, and northward along 10th Street. OR 7 terminates at the intersection of Main Street and Broadway Street, runs south down along Main Street and Dewey Avenue to the city limits, and becomes Sumpter Stage Highway south of the city limits. OR 86 begins at the Main Street and Broadway Street intersection, running north on Main Street, turning eastward along Campbell Street to I-84, sharing I-84 to the next interchange to the north, and running eastward to the city limits.

In addition to the state highway facilities that serve travel to, from, and within Baker City, there are also a number of arterial and collector streets that provide connectivity, mobility and access. The street system in Baker City is generally set up in a grid system, providing efficient circulation through the local street system and several route options for Baker City residents. The grid system is broken up in locations by the railroad, natural features, and large-lot developed or undeveloped parcels.

STREET SYSTEM CHARACTERISTICS

Table 1 and Figure 1 illustrate and summarize the current street characteristics within the urban growth boundary including roadway classifications, roadway jurisdiction, intersection characteristics (e.g. signal locations), and number of vehicle travel lanes.

Table 1 Street Classifications, Basic Number of Lanes, and Jurisdictional Responsibilities

Street	Functional Class	Functional Class Bounds[1]	Cross Sections	Jurisdiction
OR 86 (Baker-Copperfield Highway)	District Highway/ Major Arterial[2]	--	2/4	State
US 30 (La Grande-Baker Highway)	District Highway/ Major Arterial/ Minor Arterial	--	2/4	State
OR 7 (Whitney Highway)	Regional Highway/ Major Arterial	--	2	State
I-84 (Old Oregon Trail)	Interstate Highway[3,4]	--	4	State
Main Street	Collector	D Street → Campbell Street	2	City
1st Street	Collector	Church Street → Dewey Avenue	2	City
2nd Street	Collector	Church Street → Dewey Avenue	2	City
3rd Street	Collector	Baker Street → Court Avenue	2	City
4th Street	Collector	Campbell Street → Grace Street	2	City
5th Street	Collector	Myrtle Street → Dewey Avenue	2	City

Street	Functional Class	Functional Class Bounds[1]	Cross Sections	Jurisdiction
10th Street	Collector	Auburn Avenue → Myrtle Street	2	City
17th Street	Collector	Pocahontas Road → Auburn Avenue	2	City
Spring Garden Avenue	Collector	Clark Street → Bridge Street	2	City
Auburn Avenue	Collector	--	2	City
Birch Street	Collector	Campbell Street → Auburn Avenue	2	City
David Eccles Road	Collector	Dewey Avenue → Sumpter Stage Hwy	2	City
South Bridge Street	Collector	Grace Street → US 30	2	City
Broadway Street	Collector	10th Street → 17th Street	2	City
Campbell Street	Collector	Main Street → city limits	2	City
Cedar/Clark Street	Collector	Hughes Ln → Spring Garden Avenue	2	City
Church Street	Collector	Main Street → 4th Street	2	City
College Street	Collector	--	2	City
Court Avenue	Collector	Main Street → 3rd Street	2	City
D Street	Collector	--	2	City
East Street	Collector	H Street → Campbell Street	2	City
Estes Street	Collector	Grace Street → 4th Street	2	City
Grove Street	Collector	H Street → Campbell Street	2	City
H Street	Collector	--	2	City
Indiana Avenue	Collector	--	2	City
Myrtle Street	Collector	--	2	City
Pocahontas Road/Hughes Lane	Collector	--	2	City[4]
Resort Street	Collector	Campbell Street → Auburn Avenue	2	City
Washington Avenue	Collector	Birch Street → Main Street	2	City

[1]Boundaries for the stretch of road designated as "collector" or higher functional class; "--" indicates entire stretch is same functional class

[2]ODOT designated trucking route between milepost 1.57 and 2.43 (common with I-84)

[3]ODOT designated trucking route

[4]ODOT designated freight route

[5]Pocahontas Road is designated under Baker County jurisdiction outside the city limits

Existing Functional Classification

Figure 1

0 0.25 0.5 1 Miles

Other Landmarks
Park
School
Signalized Intersections
INTERSTATE
ARTERIAL
COLLECTOR
LOCAL
Baker City UGB

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TRAFFIC ANALYSIS

Traffic counts have been obtained and analyzed at a number of study intersections deemed critical for the TSP Update. This section describes the process and results of this analysis. Appendix 1 contains the traffic count summary sheets provided by ODOT and Appendix 2 contains the operational analysis summary worksheets.

Mode Split

Table 2 shows how Baker City workers travel to and from work.

Table 2 2010 Mode Splits for Baker City Workers

Mode	% of Workers[1]
Drove Alone	79%
Carpool	9%
Bicycled	6%
Walked	4%
Took Public Transportation	<1%
Other means	2%

[1]Does not include individuals working from home
Table Source: US Census, 2010 American Community Survey, Table B08301

As the table shows, most individuals use an automobile to commute to work, whether it is by driving alone or carpooling. Bicycle and walking combine to account for 10% of all commuter trips. The remaining 2% of all trips are made by other means, including public transportation.

Comparing these percentages to data collected for the 2000 Census, reveals the following:

- The percentage of commuters biking to work has increased from 1% in 2000
- The percentage of commuters driving alone, taking public transportation, or walking to work is unchanged from 2000
- The percentage of commuters carpooling is down from 14% in 2000 (Reference: 2000 US Census)

Analysis Methodology and Performance Measures

All operations analyses described in this memorandum have been performed in accordance with the procedures in the 2000 *Highway Capacity Manual* (Reference 1). The year 2000 manual is used instead of the 2010 manual because software that reliably implements all of the year 2010 version's procedures is not yet available. The use of the 2000 manual has been discussed with and approved by ODOT Region 5 Traffic staff.

All study intersections are located along highways owned and maintained by ODOT. Therefore, the *Oregon Highway Plan* (OHP, Reference 2) sets the operational performance standards for the study intersections. The OHP uses volume-to-capacity (v/c) ratio measures to assess performance, as shown in Table 3 below.

Table 3 ODOT Required Volume-to-Capacity Performance by Functional Class[1]

Functional Class	Required v/c Performance
Interchange ramps	v/c ≤ 0.85[2]
Statewide	v/c ≤ 0.90[3]
Regional	v/c ≤ 0.90[3]
District/Local	v/c ≤ 0.95[3]

[1]All functional class types are outside a metropolitan area and inside an urban growth boundary.
[2]v/c ≤ 0.90 if roadway is urban and area has an Interchange Area Management Plan (IAMP)
[3]For roadways with speed limits less than or equal to 35 MPH.
Table Source: Resource 2

Table 4 below shows the applicable intersection control and performance targets for each intersection. All intersections fall under ODOT jurisdiction.

Table 4 Intersection Performance Targets

Intersection	Control	Performance Target
OR 86 (Baker-Copperfield Hwy) & NB I-84 Ramp	Two-Way Stop-Controlled	0.85 v/c
OR 86 (Baker-Copperfield Hwy) & SB I-84 Ramp	Two-Way Stop-Controlled	0.85 v/c
OR 86 (Campbell Street) & Birch Street	Two-Way Stop-Controlled	0.90 v/c
OR 86 (Campbell Street) & SB I-84 Ramp	Two-Way Stop-Controlled	0.85 v/c
OR 86 (Campbell Street) & NB I-84 Ramp	Two-Way Stop-Controlled	0.85 v/c
C Street & US 30 (10th Street/La Grande-Baker Hwy)	Two-Way Stop-Controlled	0.90 v/c
D Street & US 30 (10th Street/La Grande-Baker Hwy)	Two-Way Stop-Controlled	0.90 v/c
Pocahontas Road & US 30 (10th Street/La Grande-Baker Hwy)	All-Way Stop-Controlled	0.90 v/c
OR 86 (Campbell Street) & Cedar Street	Signalized	0.90 v/c
OR 86 (Campbell Street) & OR 86 (Main Street)	Signalized	0.90 v/c
US 30 (Broadway Street) & OR 7/OR 86 (Main Street)	Signalized	0.90 v/c
Washington Avenue & OR 7 (Main Street)	Signalized	0.90 v/c
Auburn Avenue & OR 7 (Main Street)	Signalized	0.90 v/c
US 30 (Broadway Street) & 2nd Street	Signalized	0.90 v/c
US 30 (Broadway Street) & 4th Street	Signalized	0.90 v/c
Campbell Street & US 30 (10th Street/La Grande-Baker Hwy)	Signalized	0.90 v/c

Traffic Volumes

Intersection turning movement counts have been provided by ODOT at each of the study intersections to assess the operational performance and characteristics within the study area. These counts were conducted on mid-week days in May 2012 while local schools were still in session. Turning movement counts at each intersection were recorded from 6:00 a.m. to 10:00 p.m., with a factor applied to adjust these 16-hour counts to full daily traffic volumes. Figure 2 shows the daily traffic volumes along the study roadways.

The weekday p.m. peak hour is analyzed for the purposes of assessing traffic operations at the study intersections. Based on the counts provided by ODOT, the system peak hour is 5:15 p.m. to 6:15 p.m. There are two intersections that fall outside this hour which are the two unsignalized intersections that make up the OR 86 and I-84 interchange to the north of the city limits. The turning movement volumes at each study intersection were balanced where appropriate during this hour to account for the differences in data collection

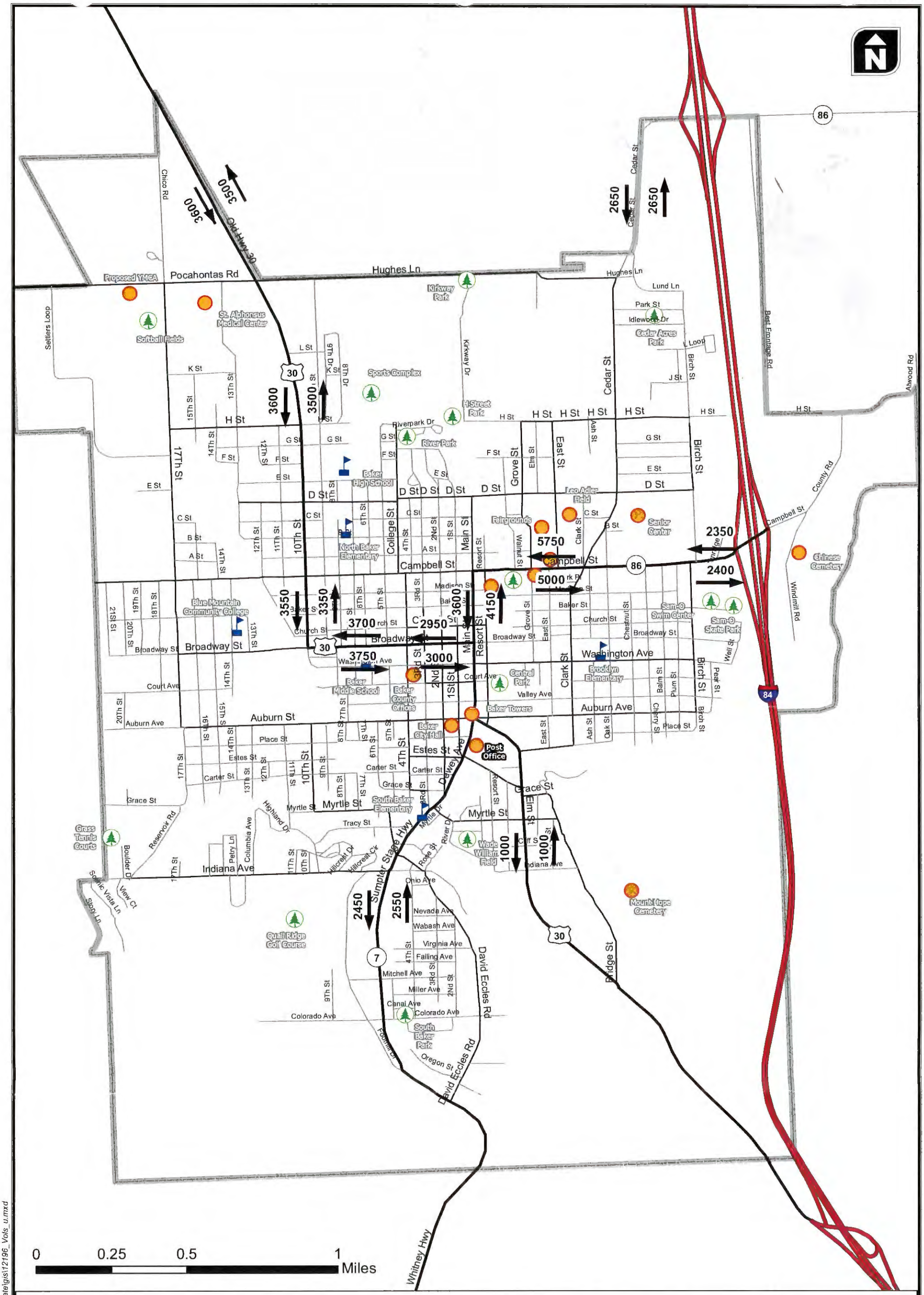
Seasonal Adjustment

Following the methodology outlined by ODOT's Analysis Procedures Manual (APM) (Reference 3), a seasonal adjustment factor is applied to the traffic counts collected for the existing conditions analysis in order to estimate 30th highest hour volumes.

The on-site method was used to determine the factor for I-84 traffic utilizing automatic traffic recorder (ATR) #01-011, located on I-84 about 16 miles north of Baker City. Using this ATR, an adjustment factor of 1.19 was calculated for the counts conducted in May.

There is no on-site ATR within Baker City limits and the two nearest ATRs on roads into/out of Baker City are located in rural locations that are not representative of traffic patterns within the city itself. Therefore, both the ATR Characteristic and the Seasonal Trend Table methods from the APM were considered. There are no other ATRs within Oregon that meet the criteria set forth by the APM for using the Characteristic method, so the Seasonal Trend Table method was applied. In doing so, both the commuter and summer trends were utilized to develop the following factors for counts taken in May:

- *Commuter* - 1.03
- *Summer* - 1.17



Daily Traffic Volumes

#
Daily Traffic Volume
Other Landmarks
Park
School

Figure 2

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Per the APM guidance on the two trends for mid-sized cities, the average of the two factors was applied (1.10) to all non I-84 traffic volumes in Baker City. The use of this factor has been reviewed and approved by ODOT Region 5 Traffic.

Traffic Operations Analysis Results

Merge and diverge analyses were done for the Exit 302 and 304 interchanges on I-84. Level-of-service (LOS), volume-to-capacity (v/c) ratios and 95th percentile queue lengths were calculated for each of the study intersections identified for the Baker City TSP update. The following two sub-sections present the results of these analyses and discuss which intersections do not meet the applicable standards.

Merge and Diverge Analysis

Merge and diverge analyses were done for all ramps in the interchanges for Exit 302 and Exit 304 on I-84. Analysis was done with *Highway Capacity Software 2010* software package. There are no differences in procedures between the 2000 and 2010 versions of the software that apply to this stretch of I-84. Due to the relatively low volumes experienced by the two interchanges, all ramps operate at LOS A. Output for this analysis can be found in Appendix 2.

Intersection Delay and Capacity Analysis

Figure 3 illustrates the study intersection locations, lane configurations and traffic control devices while Figure 4 summarizes the existing intersection operations. All study intersections are evaluated against OHP standards for signalized and non-signalized intersections. Based on these standards, **no deficiencies are identified**. Appendix 2 details the results of the operations analysis.

Intersection Queuing Analysis

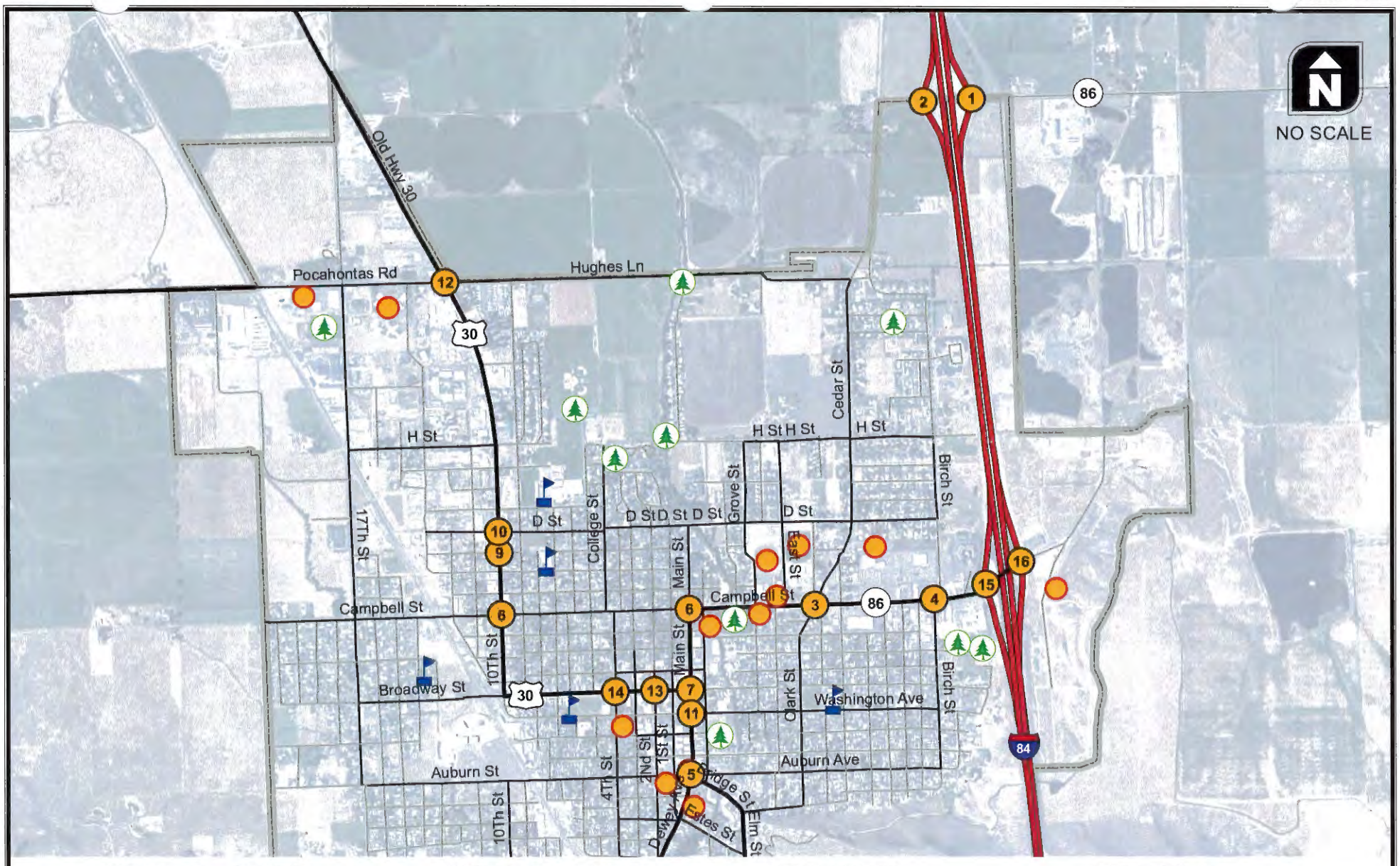
Queuing analysis is performed at the study intersections. The 95th-percentile queue length reported are from those calculated using Synchro 7 software, which implements the *2000 Highway Capacity Manual* methodology.

There are 16 intersections included in the analysis. No queues from the analysis exceeded the capacity of storage lanes or encroached on upstream signalized intersections. Appendix 2 contains the results of the queuing analysis for all of the study intersections.

Existing Conditions Operations Summary

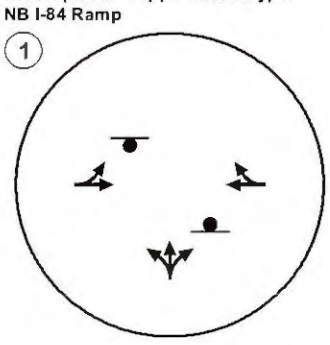
- All 16 study intersections are found to meet operational performance standards under existing conditions.

- All 16 study intersections are found to have no problems with queuing for all movements under existing conditions.



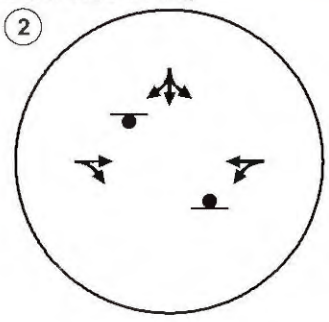
OR 86 (Baker-Copperfield Hwy) & NB I-84 Ramp

1



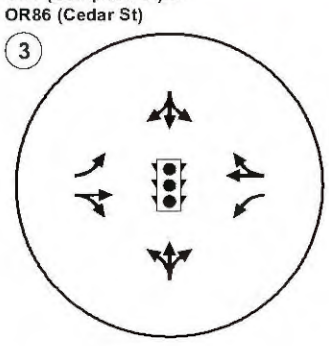
OR86 (Baker-Copperfield Hwy) & OR86/I-84 SB Off-ramp

2



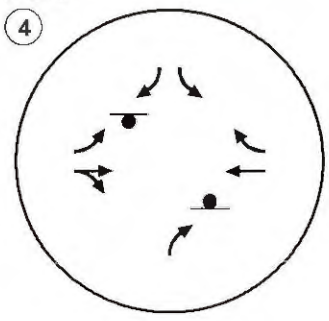
OR7 (Campbell St) & OR86 (Cedar St)

3



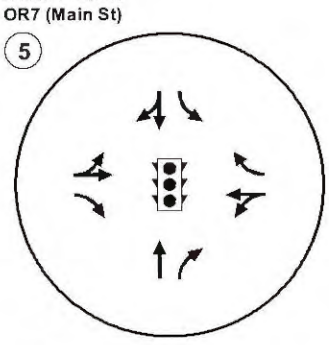
OR7 (Campbell St) & Birch St

4



Auburn Ave & OR7 (Main St)

5



Campbell St & Main St

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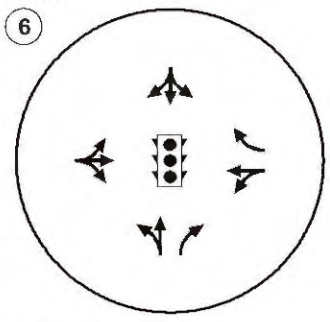
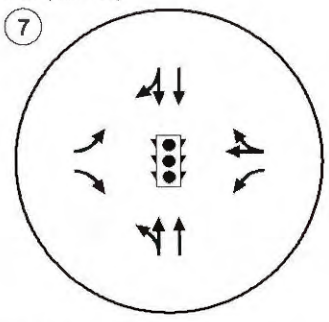


US30 (Broadway St) & OR7 (Main St)

7



Campbell St & US30 (10St/La Grande-Baker Hwy)

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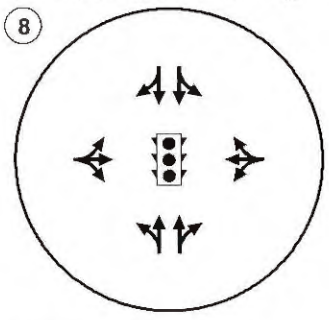

C St & US 30 (10th St/La Grande Baker Hwy)

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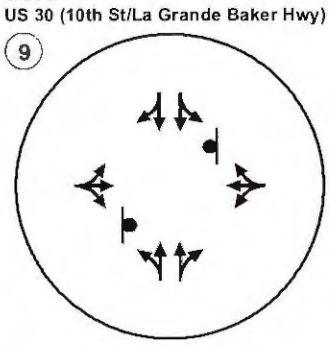
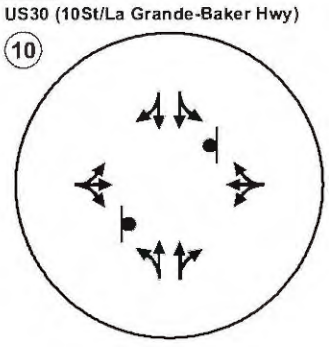


D St & US30 (10St/La Grande-Baker Hwy)

10



Washington Ave & OR7 (Main St)

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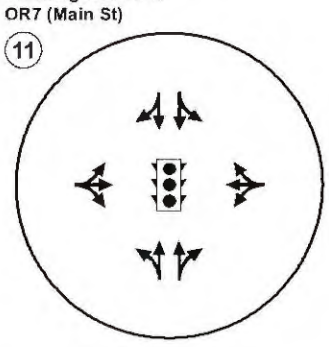
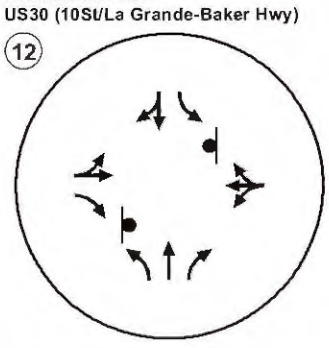


Pocahontas Rd & US30 (10St/La Grande-Baker Hwy)

12



US30 (Broadway St) & 2nd St

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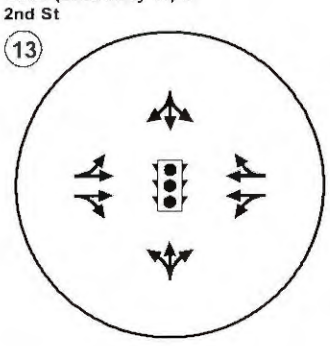

US30 (Broadway St) & 4th St

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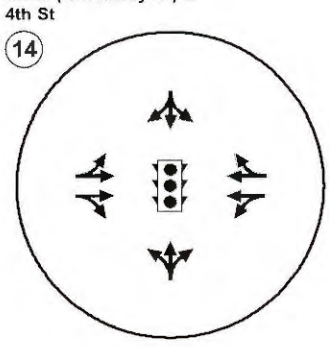
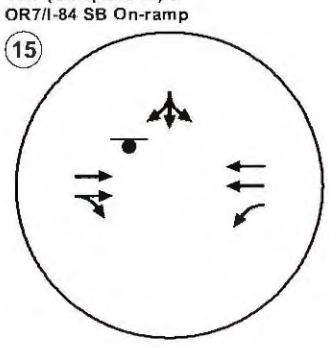


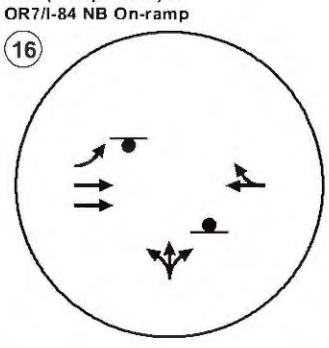
OR7 (Campbell St) & OR7/I-84 SB On-ramp

15



OR7 (Campbell St) & OR7/I-84 NB On-ramp

16



Study Intersections
INTERSTATE
ARTERIAL
COLLECTOR
LOCAL
Baker City UGB
School
Park
Other Landmarks

Existing Lane Configurations and Traffic Control Devices

Figure 3

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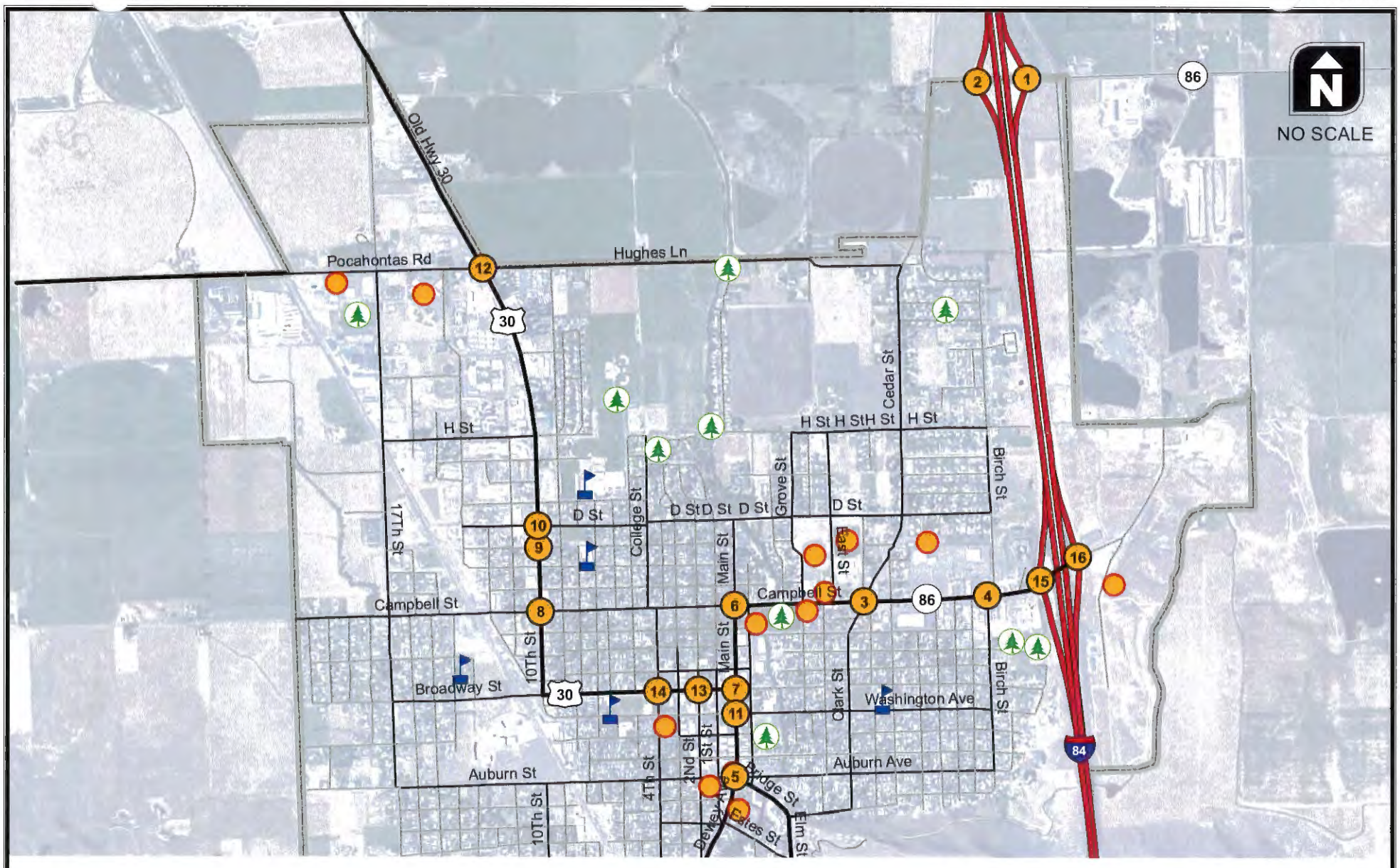
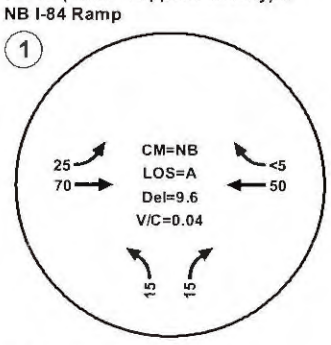
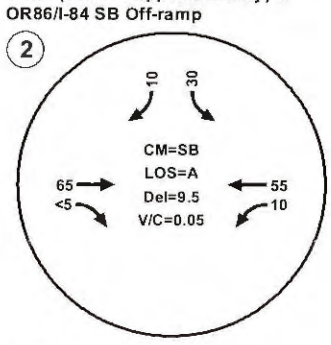


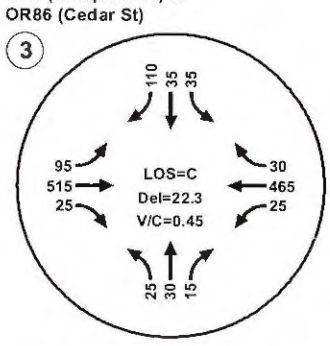
OR 86 (Baker-Copperfield Hwy) & NB I-84 Ramp



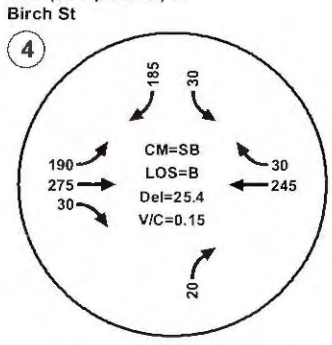
OR86 (Baker-Copperfield Hwy) & OR86/I-84 SB Off-ramp



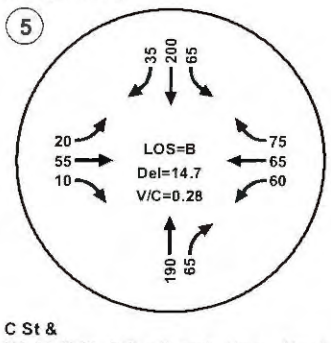
OR7 (Campbell St) & OR86 (Cedar St)



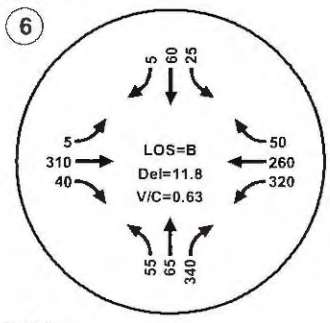
OR7 (Campbell St) & Birch St



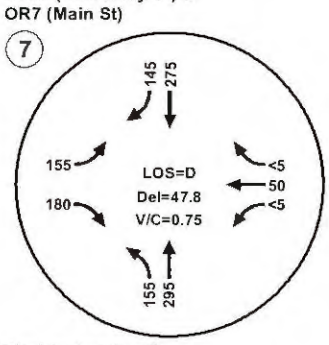
Auburn Ave & OR7 (Main St)



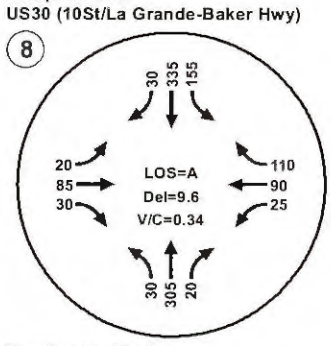
Campbell St & Main St



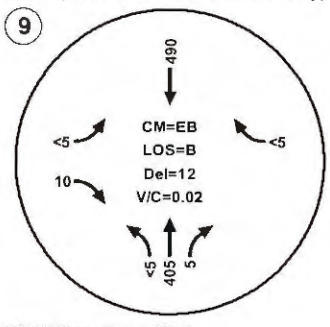
US30 (Broadway St) & OR7 (Main St)



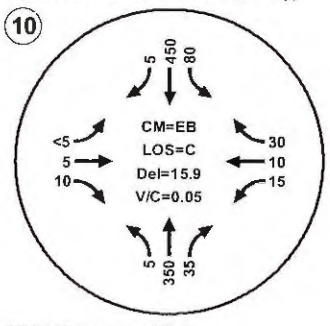
Campbell St & US30 (10St/La Grande-Baker Hwy)



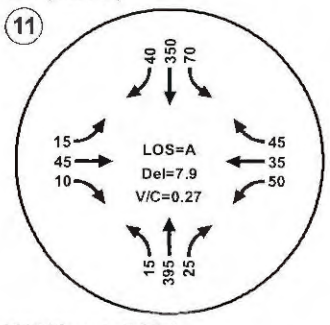
C St & US 30 (10th St/La Grande Baker Hwy)



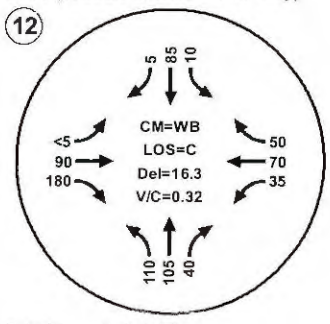
D St & US30 (10St/La Grande-Baker Hwy)



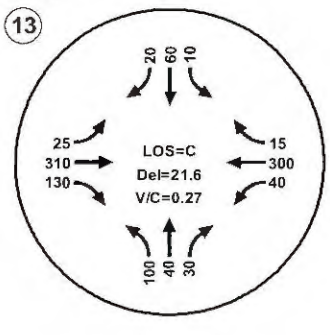
Washington Ave & OR7 (Main St)



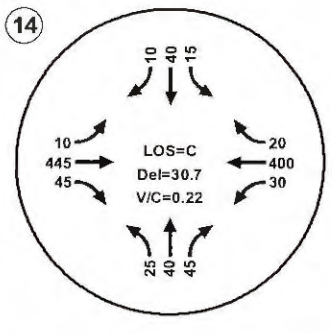
Pocahontas Rd & US30 (10St/La Grande-Baker Hwy)



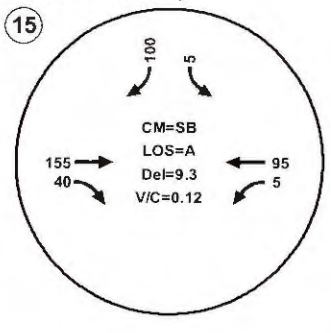
US30 (Broadway St) & 2nd St



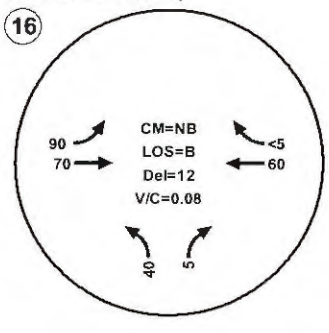
US30 (Broadway St) & 4th St



OR7 (Campbell St) & OR7/I-84 SB On-ramp



OR7 (Campbell St) & OR7/I-84 NB On-ramp



Study Intersections
INTERSTATE
ARTERIAL
COLLECTOR
LOCAL
Baker City UGB
School
Park
Other Landmarks

Existing Intersection Operations

Figure 4

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CRASH ANALYSIS

The purpose of documenting the crash history from the past five years in Baker City and conducting crash analyses for the study intersections and key roadway segments in the area is to identify intersections and roadway segments that may benefit from roadway and/or operation adjustments to reduce the occurrence and severity of crashes. However, not all crashes are preventable through roadway engineering. The review conducted here highlights the locations that have a higher occurrence of crashes than expected and provides preliminary ideas on what additional studies and/or countermeasures may help reduce crashes at those locations.

The five most recent years of crash data were collected from ODOT for the study intersections and key roadway segments within Baker City. The Statewide Priority Index System (SPIS) was also reviewed to determine if any crash sites within the study area are included in the top ten percent of all crash sites in the state. ODOT's SPIS analysis uses the most recent three years of data (i.e., 2009 through 2011); the intersection and segment crash analysis conducted as part of this TSP update uses the five most recent years of crash data (i.e. 2007 through 2011). No SPIS sites were identified in the study area. Figure 5 illustrates the total number of crashes reported within the Baker City limits from 2007 through 2011.

Segments

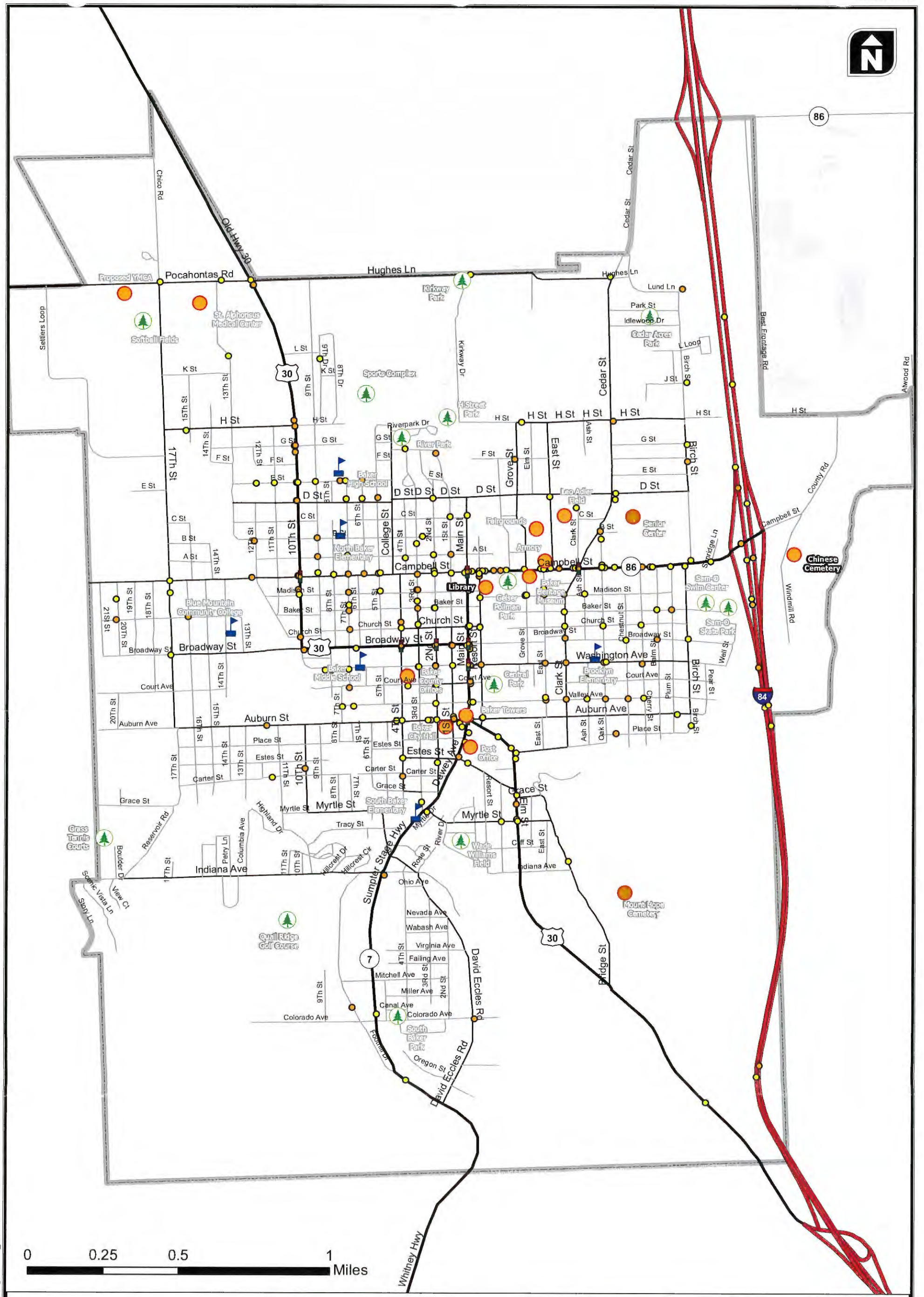
Crash analyses for roadway segments are useful for identifying stretches of road that exhibit an over representation of crashes based on similar roadway segment crash histories. For reliability of the study, roadway segments should be around one mile in length or more to avoid over exaggeration of crash rates. Considering the smaller size of the Baker City roadway network, only a two of the analysis segments exceed one mile; both do not have a crash rate exceeding the rate established by the ODOT Crash Rate Table II (Reference 4). The remaining segments identified for analysis (Broadway Street, Main Street, and Campbell Street) all have segment around one half of a mile or less, and therefore are not reliable.

Intersections

The following two sub-sections present a summary of the historical crashes at the 16 study intersections and the intersection crash analysis results.

Intersection Historical Crash Inventory

Table 5 summarizes the crash data by study intersection. The table summary provides the number of crashes and crash severities reported from 2007 through 2011.



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Crash Severity
- Injury
- Property Damage Only

- Other Landmarks
- Park
- School

Crash Locations and Severities (2007 - 2011)

Figure 5

Table 5 Summary of Reported Crashes at Study Intersections (2007-2011)

Intersection	PDO[1]	Injury	Fatal	Total
OR 86 (Baker-Copperfield Hwy) & NB I-84 Ramp	0	0	0	0
OR 86 (Baker-Copperfield Hwy) & SB I-84 Ramp	0	0	0	0
OR 86 (Campbell St) & Birch St	2	0	0	2
OR 86 (Campbell St) & SB I-84 Ramp	0	0	0	0
OR 86 (Campbell St) & NB I-84 Ramp	0	0	0	0
C St & US 30 (10th St/La Grande-Baker Hwy)	0	0	0	0
D St & US 30 (10th St/La Grande-Baker Hwy)	3	2	0	5
Pocahontas Rd & US 30 (10th St/La Grande-Baker Hwy)	2	1	0	3
OR 86 (Campbell St) & Cedar St	3	0	0	3
OR 86 (Campbell St) & OR 86 (Main St)	0	1	0	1
US 30 (Broadway St) & OR 7 (Main St)	0	2	0	2
Washington Ave & OR 7 (Main St)	2	0	0	2
Auburn Ave & OR 7 (Main St)	1	1	0	2
US 30 (Broadway St) & 2nd St	1	1	0	2
US 30 (Broadway St) & 4th St	0	1	0	1
Campbell St & US 30 (10th St/La Grande-Baker Hwy)	1	4	0	5
Total Study Intersection Crashes	**15**	**13**	**0**	**28**

Notes:
[1]PDO stands for property damage only

As shown in Table 5, over 50 percent of reported crashes from 2007 to 2011 at the 16 study intersections were property damage only (PDO), and there were no fatal crashes reported. The highest frequency of injury crashes occurred at Campbell St and US 30 (10th St/La Grande-Baker Hwy). The injury crashes were associated with turn-related crashes, likely from northbound/southbound vehicles turning off US 30.

Intersection Crash Analysis

Crash analysis was performed for each study intersection. The analysis was done in accordance with the *Highway Safety Manual* 2010 (HSM) Part C Predictive method. Table 6 summarizes the observed, predicted, and expected crash frequencies for all study intersections for a five-year period (2007 through 2011). The expected value reflects the frequency that is expected to remain consistent over a future five-year period until traffic volumes, traffic control, or roadway geometry changes.

Table 6 Study Intersection Crash Analysis Results[1]

Intersection	PDO[2]			Fatal and Injury		
	Observed	Total Predicted	Total Expected	Observed	Total Predicted	Total Expected
OR 86 (Baker-Copperfield Hwy) & NB I-84 Ramp	0	0.45	0.4	0	0.2	0.1
OR 86 (Baker-Copperfield Hwy) & SB I-84 Ramp	0	0.5	0.45	0	0.2	0.15
OR 86 (Campbell St) & Birch St	2	1.66	1.84	0	0.95	0.63
OR 86 (Campbell St) & SB I-84 Ramp	0	1.1	0.85	0	0.55	0.4
OR 86 (Campbell St) & NB I-84 Ramp	0	0.45	0.4	0	0.2	0.15
C St & US 30 (10th St/La Grande-Baker Hwy)	0	1.5	1.05	0	0.75	0.5
D St & US 30 (10th St/La Grande-Baker Hwy)	3	2.21	2.65	2	1.25	1.45
Pocahontas Rd & US 30 (10th St/La Grande-Baker Hwy)	2	1.79	1.72	1	0.95	0.9
OR 86 (Campbell St) & Cedar St	3	7.2	5.1	0	3.55	2
OR 86 (Campbell St) & OR 86 (Main St)	0	7	2.1	1	3.3	2.45
US 30 (Broadway St) & OR 7/OR 86 (Main St)	0	5.3	1.9	2	2.7	2.65
Washington Ave & OR 7 (Main St)	2	5.8	3.4	0	2.9	1.9
Auburn Ave & OR 7 (Main St)	1	3.7	2.25	1	1.95	1.5
US 30 (Broadway St) & 2nd St	1	5.1	2.55	1	2.55	2.15
US 30 (Broadway St) & 4th St	0	5.25	1.9	1	2.65	2.2
Campbell St & US 30 (10th St/La Grande-Baker Hwy)	1	5.75	2.7	4	2.7	3.45
Study Intersection Total	**14**	**54.70**	**31.21**	**13**	**27.43**	**22.53**

Notes:

[1]Models calibrated with factors suggested from ODOT and OTREC; Source: http://cms.oregon.gov/ODOT/TD/TP_RES/docs/Reports/2012/HSM.pdf

[1]PDO stands for property damage only

Overall, the system exhibits less crashes than predicted and expected. When looking at individual intersections, a higher crash frequency was observed than predicted or expected at four study intersections. The difference between the observed crash frequency exceeding or not exceeding the expected crash frequency is less than one crash over five years. Given the random nature of crashes, the observed crash trends do not indicate the need to provide crash mitigation at these intersections at this time.

BICYCLE AND PEDESTRIAN SYSTEM

The following subsections detail the existing infrastructure, operations, and evaluations for bicyclists and pedestrians in Baker City.

BICYCLE FACILITIES

Existing bicycle facilities in Baker City can be seen in Figure 6 and are described below.

Bike lanes are portions of the roadway designated specifically for bicycle travel via a striped lane and pavement stencils. Bike lanes are most appropriate on collector and arterial roadways to provide a dedicated space for bicycling that is separate from the motor vehicle lane. ODOT standard width for a bicycle lane is six feet. The minimum width of a bicycle lane against a curb or adjacent to a parking lane is five feet. A bicycle lane may be as narrow as four feet, but only in very constrained situations.

- Bike lanes in Baker City are present on Campbell Street between Birch Street and Resort Street. The parking lane adjacent to the bike lane is very narrow, which sometimes results in parked motor vehicles spilling over into the bike lane. Exhibit 2 shows the bike lanes that currently exist on Campbell Street.

Exhibit 2 Existing bike lanes on Campbell Street

Shoulder Bikeways are paved roadways that have striped shoulders wide enough for bicycle travel. ODOT recommends a six-foot paved shoulder to adequately provide for bicyclists, and a four-foot minimum width in constrained areas. Roadways with shoulders less than four feet are considered shared roadways. Shoulder bikeways are sometimes signed to alert motorists to expect bicycle travel along the roadway.

- Shoulder bikeways are found along Hughes Lane and Cedar St. The shoulder on Hughes is narrow in some sections and often contains gravel which causes cyclists to travel closer to the fog line.

Bicycle Parking is an essential component of a community's bikeway network, and can strongly influence one's decision whether to make a trip by bicycle. Bicycle parking can be broadly defined as either short-term or long-term parking. Short-term parking is meant to accommodate visitors,

customers, and others expected to depart within two hours. Long-term parking is meant to accommodate employees, students, residents, commuters, and others expected to park more than two hours. It is especially important that parking meant to accommodate longer-term users be provided in a secure, weather-protected manner and location.

- Requirements for both secure long-term and short-term bike parking are found in Sec 3.3.400 of the City's zoning ordinance. Existing bicycle parking can be found at most schools, downtown, the library, and some government buildings.

MMLOS Analysis (Bicycle)

The 2010 Highway Capacity Manual provides a scientific basis for evaluating multimodal level of service (MMLOS) on urban streets for auto drivers, bicyclists, pedestrians, and transit riders. The MMLOS analysis method for urban streets consists of a set of recommended procedures for predicting traveler perceptions of quality of service and performance measures for urban streets. A level of service (LOS) on an "A" to "F" scale for each mode is derived based on several inputs related to conditions along the corridor. Because the models are perception-based, they offer a measure of how "bicycle friendly" an urban street is.

The following is a list of parameters that have a significant influence on the bicycle LOS scores. This is not a comprehensive list of all inputs.

- Vehicle volume in outside (right) lane
- Percentage of traffic that is heavy trucks
- Vehicle speeds
- Motor vehicle travel lane and bicycle lane widths
- Pavement quality

The vehicular volumes and truck percentages are taken from the traffic counts provided by ODOT. Vehicle speeds are based on posted speed limits and cross-section information is taken from field and aerial photography measurements. A default "average" pavement quality rating is assumed for all roadways.

Level-of-service (LOS) is determined for bicyclists in Baker City for the study roadways:

- US 30 (10th Street/La Grande-Baker Hwy) between Pocahontas Road and Broadway Street.
- US 30 (Broadway Street) between 10th Street and Main Street
- OR 7/OR 86 (Main Street) between Auburn Avenue and Campbell Street
- OR 86 (Campbell Street) between Main Street and the I-84 southbound ramp.

Narrow shoulder in some areas on Hughes

Narrow parking lane sometimes results in parked vehicles partially blocking the bike lane

Limited bike parking at some commercial destinations

A network of well-connected low-traffic streets allows for comfortable bicycle riding in much of Baker City. There are, however, few designated bicycling routes (which could include directional wayfinding and crossing treatments at busier streets) to provide access to schools, recreational areas, employment areas, and commercial centers.

Downtown Baker City

Bikeway Inventory
- Existing Bike Lane
- Existing Shared Use Path
- Existing Shoulder Bikeway
- Park
- School
- Other Landmark
- UGB

0 0.25 0.5 1 Miles

Existing Bicycle Conditions

Figure 6

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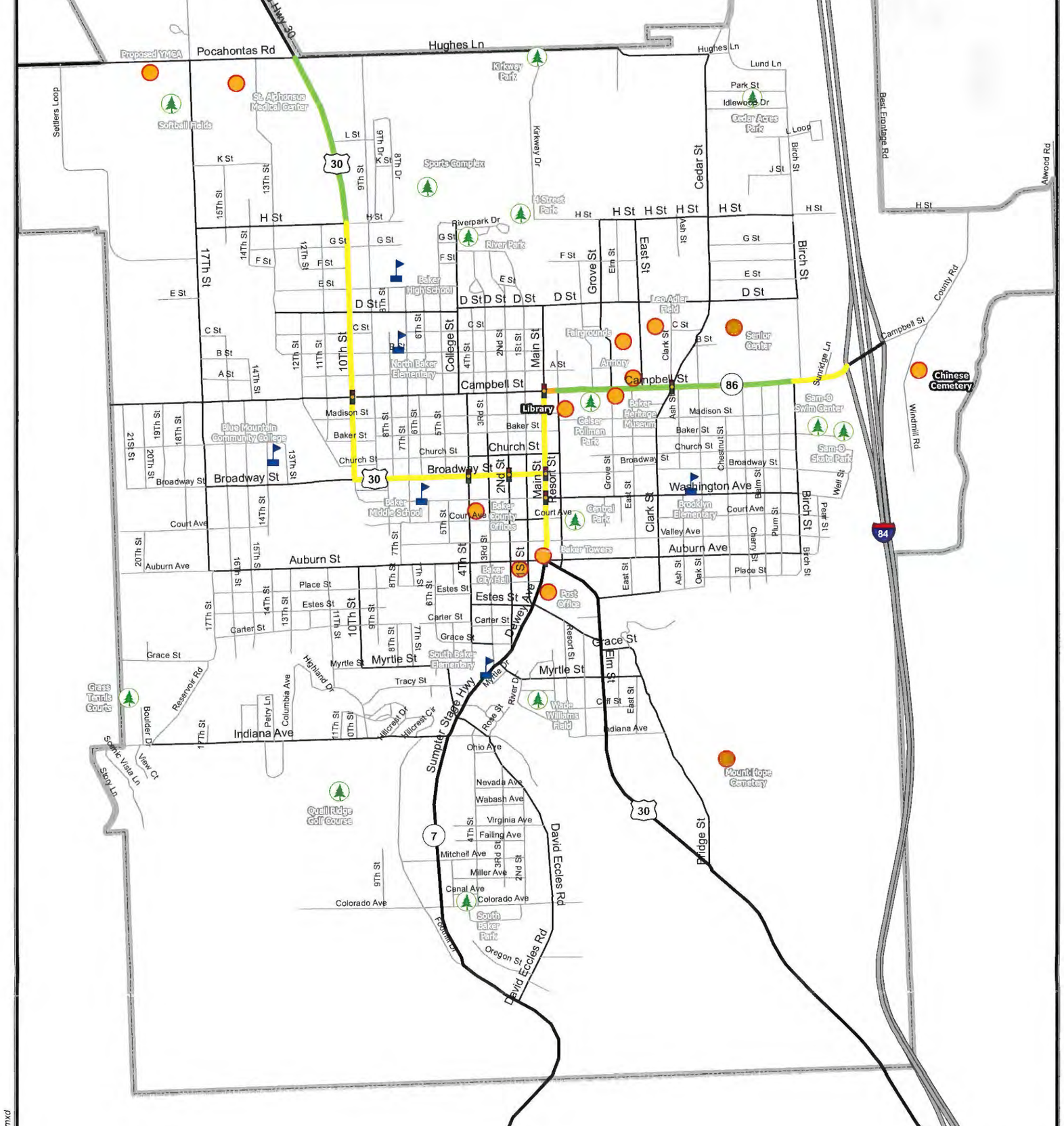
Proposed YMCA
Pocahontas Rd
Hughes Ln
Hwy 30
Kirkway Park
Lund Ln
Park St
Idlewood Dr
Cedar Acres Park
L Loop
Birch St
J St
Best Frontage Rd
Atwood Rd
H St
County Rd
Campbell St
Chinese Cemetery
Windmill Rd
Settlers Loop
St. Alphonsus Medical Center
Softball Fields
L St
K St
9Th Dr
8Th Dr
Sports Complex
Kirkway Dr
Cedar St
15Th St
13Th St
9Th St
H Street Park
Riverpark Dr
River Park
G St
F St
E St
D St
Grove St
Elm St
East St
Ash St
Birch St
17Th St
14Th St
12Th St
8Th St
Baker High School
Lee Adler Field
Fairgrounds
Armory
Senior Center
C St
B St
A St
12Th St
11Th St
10TH St
6th St
College St
4th St
2Nd St
1st St
Main St
North Baker Elementary
Campbell St
Sunridge Ln
86
Library
Baker Heritage Museum
Geiser Pollman Park
Ash St
Madison St
Baker St
Church St
Broadway St
Sam-O Swim Center
Sam-O Skate Park
Blue Mountain Community College
21St St
20Th St
18Th St
16Th St
13Th St
8Th St
7Th St
6Th St
5Th St
3Rd St
Chestnut St
Grove St
Resort St
Baker Middle School
Baker County Offices
Central Park
Brooklyn Elementary
Washington Ave
Court Ave
Valley Ave
Auburn Ave
Baker Towers
Clark St
Birch St
Pearl St
Plum St
Celery St
Oak St
Ash St
Place St
Auburn St
16Th St
15Th St
14Th St
7Th St
5Th St
4Th St
3Rd St
Baker City Hall
Post Office
Dewey Ave
Estes St
Carter St
Grace St
Myrtle St
Resort St
Elm St
Cliff St
East St
17Th St
13Th St
11Th St
10Th St
9th St
8Th St
7Th St
6th St
South Baker Elementary
Myrtle Dr
River Dr
Rose St
Wade Williams Field
Indiana Ave
Tracy St
Grass Tennis Courts
Reservoir Rd
Boulder Dr
Scenic Vista Ln
View Ct
Story Ln
Petry Ln
Columbia Ave
Highland Dr
Hillcrest Dr
Hillcrest Cir
Sumpter Stage Hwy
Ohio Ave
Nevada Ave
Wabash Ave
Virginia Ave
Failing Ave
Mitchell Ave
Miller Ave
Canal Ave
Colorado Ave
Quail Ridge Golf Course
South Baker Park
Fonnin Dr
Oregon St
David Eccles Rd
7
30
Mount Hope Cemetery
Bridge St
84

Figure 7 shows a map of the facilities described and the respective LOS that the average bicyclist experiences. It should be noted that the analysis assumes that the bicyclist is in the roadway and not riding on the sidewalk. As shown in Figure 7, all bicycle facilities studies range from LOS "B" to LOS "D." The best LOS scores are seen on Campbell Street from Birch Street to Resort Street where there are bicycle lanes and on 10th Street from "H" Street to Pocahontas Road because the traffic volumes are relatively low. The worst LOS, "D," is on Campbell Street from Resort Street to Main Street likely due to the bike lane being dropped along this block requiring bicyclists to share the road with motor vehicles. All other study roadways are at LOS "C" due to their moderate traffic volumes and lack of bike lanes or shoulders.

PEDESTRIAN FACILITIES

Existing sidewalks in Baker City can be seen in Figure 8 and are described below.

Sidewalks are the most fundamental element of the walking network. Sidewalks are typically constructed of concrete and separated by a curb and gutter, landscaping, and on-street parking. The unobstructed travelway for pedestrians on a sidewalk should be clear of utility poles, sign posts, fire hydrants, vegetation, and other street furnishings. The ODOT standard for sidewalk width is six feet, with a minimum width of five feet acceptable on local streets. Baker City requires sidewalks constructed within a residential zone to be at least five feet wide while sidewalks within a commercial zone must be at least six feet wide. Baker City has a Sidewalk Replacement Grant Program where residents can apply to have an existing sidewalk considered for improvement.

Exhibit 3 Examples where sidewalks are present along Myrtle Street (left) and absent along 9th Street (right)

Walking routes needed to serve employment areas

Continuous walking routes needed to schools

Lack of sidewalks near Fairgrounds and Leo Adler Field

No sidewalks/ pedestrian crossings of railroad tracks

Additional wayfinding needed to direct users to the Leo Adler Memorial Parkway

Few existing sidewalks west of railroad tracks

Opportunity to extend the Leo Adler Memorial Parkway to South Baker

Alternate walking route needed in constrained section of Indiana

No signage directing pedestrians to existing overcrossing

No continuous walking route from South Baker

Downtown Baker City

0 0.25 0.5 1 Miles

Sidewalk Inventory
- Sidewalk on both sides
- Sidewalk on one side only
- No sidewalk present
- Park
- School
- Other Landmark
- UGB
- Transit Stop
- Existing Shared Use Path

Existing Pedestrian Conditions

Figure 8

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- As indicated in Figure 8, Baker City has a relatively complete sidewalk network, particularly in the central portion of the city, while many streets on the outer portions of town tend to lack sidewalks. Sidewalks are present on both sides of most streets in commercial areas such as Main Street, Campbell Street and Broadway.
- Sidewalks are present in many residential neighborhoods, though gaps do exist in the residential sidewalk network. Sidewalks tend to be absent in neighborhoods outside of the core, such as in South Baker, though the residential streets in many of these areas generally have little traffic. There are, however, certain higher volume streets, such as 17th Street, that lack sidewalks but are traveled by pedestrians due to a lack of alternate routes. Exhibit 3 shows examples of streets in Baker City with and without sidewalks.
- Providing safe pedestrian and bicycle access to schools is invaluable for encouraging physical activity in children that will carry into adulthood. The existing sidewalk network provides connections between Baker City schools and many nearby residential neighborhoods, but there are opportunities at each school to improve sidewalk connections to particular neighborhoods. An assessment of pedestrian access to Baker City schools is provided in the 'Schools' section later in this document.
- Good pedestrian access to transit improves the overall level of service provided by the transit system. It increases the likelihood that individuals will choose transit as a travel mode because it allows users to safely and comfortably arrive at transit stops. As indicated in Figure 8, many Baker City Trolley stations are well-served by the sidewalk system, though there are few sidewalks that provide access to stops on the western portion of the route.

Roadway shoulders, such as those found on Hughes Lane, serve as pedestrian routes in many rural Oregon communities. On roadways with low traffic volumes (i.e., less than 3,000 vehicles per day), roadway shoulders can be adequate for pedestrian travel. These roadways (examples shown in Exhibit 4) should have shoulders wide enough so that both pedestrians and bicyclists can use them, usually six feet or greater.

Exhibit 4 Pedestrians walking along roadway shoulder on Hughes Lane (left) and Cedar Street (right) in Baker City

MMLOS Analysis (Pedestrian)

A level-of-service analysis is also performed for pedestrians. As with bicyclists, because the LOS models are perception-based, they offer a measure of how "pedestrian friendly" an urban street is.

The following is a list of parameters that have a significant influence on the pedestrian LOS scores. This is not a comprehensive list of all inputs.

- Vehicle volume in outside (right) lane
- Vehicle speeds
- Presence and width of sidewalk and buffer
- Lateral separation between vehicles and pedestrians

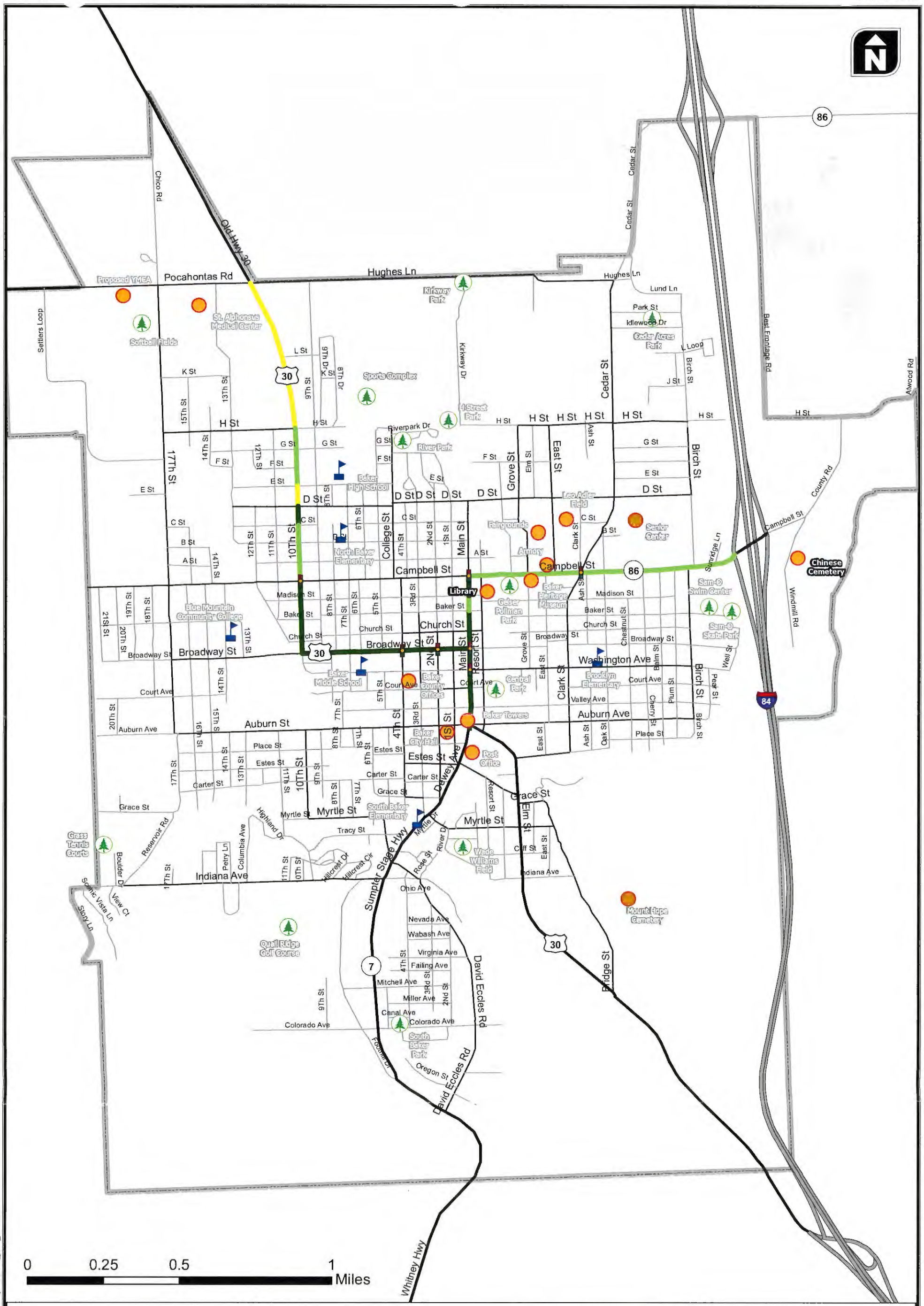
The vehicular volumes are taken from the traffic counts provided by ODOT. Vehicle speeds are based on posted speed limits and cross-section information is taken from field and aerial photography measurements.

Level-of-service (LOS) is determined for pedestrians in Baker City for the study roadways:

- US 30 (10th Street/La Grande-Baker Hwy) between Pocahontas Road and Broadway Street.
- US 30 (Broadway Street) between 10th Street and Main Street
- OR 7/OR 86 (Main Street) between Auburn Avenue and Campbell Street
- OR 86 (Campbell Street) between Main Street and the I-84 southbound ramp.

Figure 9 shows a map of the facilities described and the respective LOS that the average pedestrian experiences. Information used to determine this traffic volume information provided by ODOT and aerial views to specify geometric cross sections.

As shown in Figure 9, all pedestrian facilities studies range from LOS "A" to LOS "C." The best pedestrian LOS is along the downtown blocks of OR 7/OR 86 (Main Street) and US 30 (Broadway Street). These blocks provide wider sidewalks, buffer space in the form of trees and benches, and the lowest vehicle speeds among the study roadways. The pedestrian LOS drops to LOS C on US 30 (10th Street/La Grande-Baker Hwy) north of H Street because sidewalks mostly discontinue after H Street, requiring pedestrians to walk along the side of the road.



Pedestrian LOS

- LOS A
- LOS B
- LOS C

- Other Landmarks
- Park
- School

Existing Pedestrian LOS

Figure 9

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SHARED PEDESTRIAN AND BICYCLE FACILITIES

There are many existing facilities that benefit walking and bicycling in Baker City. These include marked crossings that aid in crossing busy streets as well as multi-use paths.

Multi-use paths are used by a variety of non-motorized users, including pedestrians, bicyclists, skateboarders, and runners. Multi-use paths are typically paved (asphalt or concrete) but may also consist of an unpaved smooth surface as long as it meets Americans with Disabilities Act (ADA) standards. Multi-use paths are usually wider than an average sidewalk (i.e. 10 – 14 feet).

- The Leo Adler Memorial Parkway, which follows the Powder River through the center of town, provides a 3-mile north-south connection, serving destinations such as Baker City High School/sports fields, the library and Geiser Pollman Park. Refer to the Leo Adler Memorial Parkway section for additional discussion of the multi-use path.

Marked Crossings are present in a variety of forms in Baker City, including crosswalks, overhead flashing beacons and median refuge islands. Example crossing types are described below.

- Transverse Crosswalks are marked crossings that consist of two parallel white lines. Marked crosswalks and curb ramps exist at most signalized intersections on major streets and within downtown Baker City. Marked crosswalks are also present at intersections near schools and other pedestrian trip generators. An example is shown in Exhibit 5.
- Continental (or Zebra) Crosswalks increase the visibility of the crossing by marking the crossing with a series of parallel or diagonal lines. The majority of marked crossings in Baker City are transverse crossings, though there are examples of continental crosswalks, including across higher volume streets such as US 30. An example is shown in Exhibit 5.

Exhibit 5 Examples of transverse crosswalks near Brooklyn Elementary School (left) and continental crosswalks on US 30 (Elm Street) at Myrtle Street (right)

- Refuge island crossings minimize pedestrian exposure during crossings by shortening the crossing distance. They help improve safety by providing a refuge that tends to slow motor vehicle traffic and allows pedestrians and bicyclists to gauge safe crossing of "one direction" of traffic at a time. A median refuge island crossing is present on Campbell Street adjacent to Geiser Pollman Park
- Flashing beacons – There is a constantly flashing overhead beacon on Campbell Street at Grove Street. This crossing provides access to the museum, Geiser Pollman Park and the farmers market. Overhead beacons that flash constantly can be ineffective at increasing motorist awareness and yield behavior, as motorists become accustomed to the constant flashing of a beacon and begin tuning it out. This is not the case with a Rectangular Rapid Flashing Beacon (RRFB), which flashes brightly in an irregular pattern when activated by a pedestrian. ODOT has funding to install an RRFB at the median refuge island crossing of Campbell Street east of Resort Street described in the previous bullet.
- Streets with higher traffic volumes and speeds can be difficult to cross and serve as barriers to pedestrian and bicycle travel. The TSP project list will identify projects that provide for additional marked crossings or enhancements to existing crossings on streets such as Broadway, 10th Street and Campbell Street, including where these streets intersect with proposed pedestrian and bicycle routes.

Traffic Calming is designed to reduce motor vehicle speeds and volumes to create a more safe and comfortable environment for walking and bicycling. Common traffic calming treatments include speed humps, traffic circles, diverters and chicanes. Traffic calming is relatively uncommon in Baker City. Speed humps are present on 5th Street near Baker City High School.

EVALUATION OF BICYCLE AND PEDESTRIAN MOBILITY, SAFETY, AND ACCESS

This section discusses bicycle and pedestrian conditions in relation to major pedestrian and bicyclist destinations, including residential development, schools, employment centers, commercial centers, and parks. Potential opportunities for improvement are also identified.

Residential Development

Many Baker City neighborhoods are characterized by wide streets, relatively slow speeds and a mostly complete sidewalk network. However, as can be seen in Figure 8, many roadways in the outer portions of Baker City lack sidewalks. Many of these streets are wide and have light traffic, making them comfortable for walking and bicycling.

The South Baker neighborhood is unique in that its access to the rest of Baker City is constrained by railroad tracks to the north and OR 7 to the west. The impact of these barriers has been somewhat alleviated by the development of a pedestrian overpass at the railroad tracks, which provides a direct connection from South Baker to South Baker Intermediate School. However, there are no wayfinding signs to direct pedestrians and bicyclists to the overpass. The opportunity also exists to create an off-

street connection between South Baker and the rest of the city via an extension of the Leo Adler Memorial Parkway south, with a possible connection through Wade Williams Field.

Schools

This section provides an assessment of existing conditions for walking and bicycling in the vicinity of Baker City schools. Many intersections at all schools have marked crosswalks. The visibility of school crossings could be enhanced by providing school crossing signs (currently present at some crossings) and continental (zebra) crosswalks, which mark the crossing with a series of parallel or diagonal lines. Sidewalk conditions vary, with several schools having missing sidewalks or sidewalk segments in poor repair. The schools also generally lack a dedicated drop-off/pick-up area, which can be useful for ensuring that vehicle drop-offs occur in an organized way that does not present a hazard to other students. The following maps highlight notable existing conditions around each school.

Brooklyn Elementary School

As indicated in Figure 10, marked crosswalks are present at all intersections bordering the school, though many corners do not have curb ramps to ease travel for people traveling with strollers or with physical disabilities. Sidewalks are only complete on two sides of the school and the sidewalk on the west side of school (Clark Street) is in poor condition. The east side of the building is paved, but is not a formal sidewalk. There is no sidewalk on much of the north side. The other streets in the vicinity of the school are generally low volume with sidewalks present on at least one side. Major sidewalk gaps are present on Balm, Plum and Birch Streets to the east as well as on Auburn and Place to the south. A walking route is particularly needed to provide access to Brooklyn Elementary School from the east.

South Baker Intermediate School

As shown in Figure 11, South Baker Intermediate School is located in South Baker at the intersection of OR 7 and the railroad tracks. Recent improvements have been made at the intersection of OR 7 and Grace Street. Signage indicates that crossings of OR 7 are no longer permitted at Myrtle Street, with pedestrians and bicyclists instead expected to cross at Grace Street to the north or the new pedestrian overpass at the railroad tracks to the south. In the immediate vicinity of the school, sidewalk access along Grace Street between 2nd and 3rd is extremely limited, with a narrow sidewalk on the north side of the street and the sidewalk missing completely for a half block on the south side. The sidewalk network to the north is complete and a relatively new high visibility zebra-style marked crosswalk provides access from neighborhoods east of OR 7. The pedestrian overpass at the railroad tracks provides access from South Baker neighborhoods, though there is no wayfinding signage to direct pedestrians and bicyclists to the connection. Most streets in South Baker lack sidewalks, though traffic volumes tend to be low. Another route students take to reach South Baker Elementary is along Indiana Avenue to reach OR 7. Indiana is constrained and lacks sidewalks as it approaches OR 7 and an alternate route, perhaps via Tracy Street, is needed. Access to South Baker Intermediate School could be improved by identifying a walking/bicycling route from the South Baker neighborhood as

well as Indiana, providing wayfinding signage to the crossing at the overpass, and widening existing sidewalks and completing sidewalk gaps on Grace Street between 2nd and 3rd.

Baker Middle School

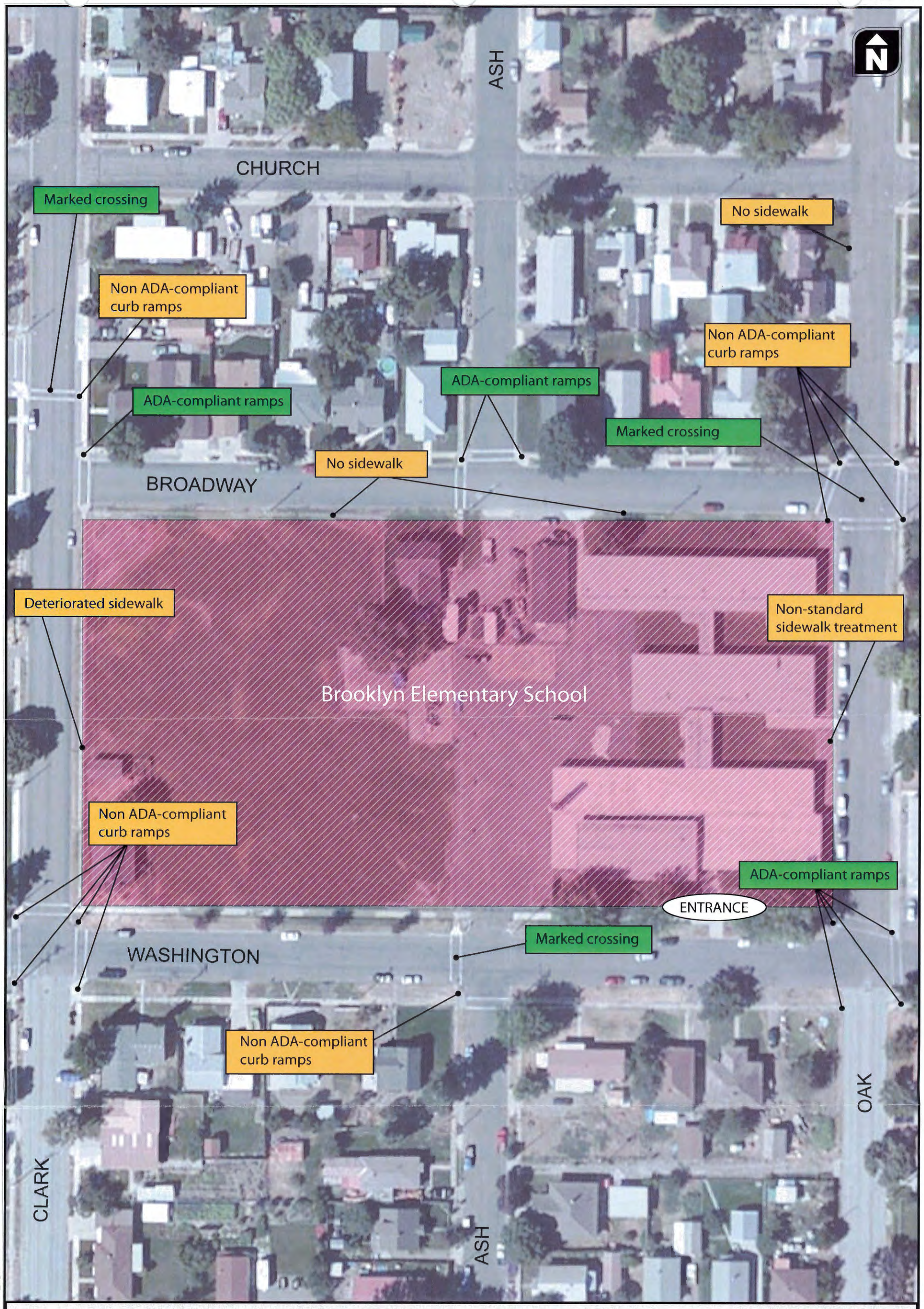
As shown in Figure 12, Baker Middle School is located in central Baker City, between Broadway and Washington from 4th Street to 7th Street. Marked crosswalks are located at four locations on Broadway to the north, the busiest street bordering the school. The crossing at 4th Street is signalized with a pedestrian push button. The other crossings could be enhanced with higher visibility continental/zebra crosswalks and advanced warning signage. The sidewalk network in the vicinity of Baker City Middle School is mostly complete, with the exception of neighborhoods east of the railroad tracks, which generally lack sidewalks. Higher visibility crossings and an identified walking/bicycle route from the east, including a crossing of the railroad tracks at Broadway, would improve access to Baker Middle School.

Baker High School

As shown in Figure 13, the sidewalk network is very incomplete in the vicinity of Baker High School. While there is a good sidewalk network connecting Baker High School to neighborhoods to the south, the sidewalk network breaks down close to the school, with 7th, 8th, 9th and D Streets all lacking sidewalks in the block south of the school. Access is also limited from the north due to a lack of sidewalks on 9th Street and H Street. Access to Baker High School is particularly difficult from the west. 10th Street is a busier road that lacks sidewalks north of the school and there are few sidewalks in the neighborhood streets west of 10th Street.

Baker Charter School

As shown in Figure 14, the sidewalk network is mostly complete in the immediate vicinity of Baker Charter School. Crosswalks are provided at all intersections, though most corners lack curb ramps to aid people with mobility impairments or those traveling with strollers. The sidewalk network along streets providing access to the school from nearby neighborhoods to the south and east is relatively complete, with sidewalks generally present on at least one side of the street. The sidewalk network is less complete to the north while neighborhoods west of the railroad tracks generally lack sidewalks.



School
Strength
Weakness

Brooklyn Elementary School: Existing Crossing Conditions

Figure 10

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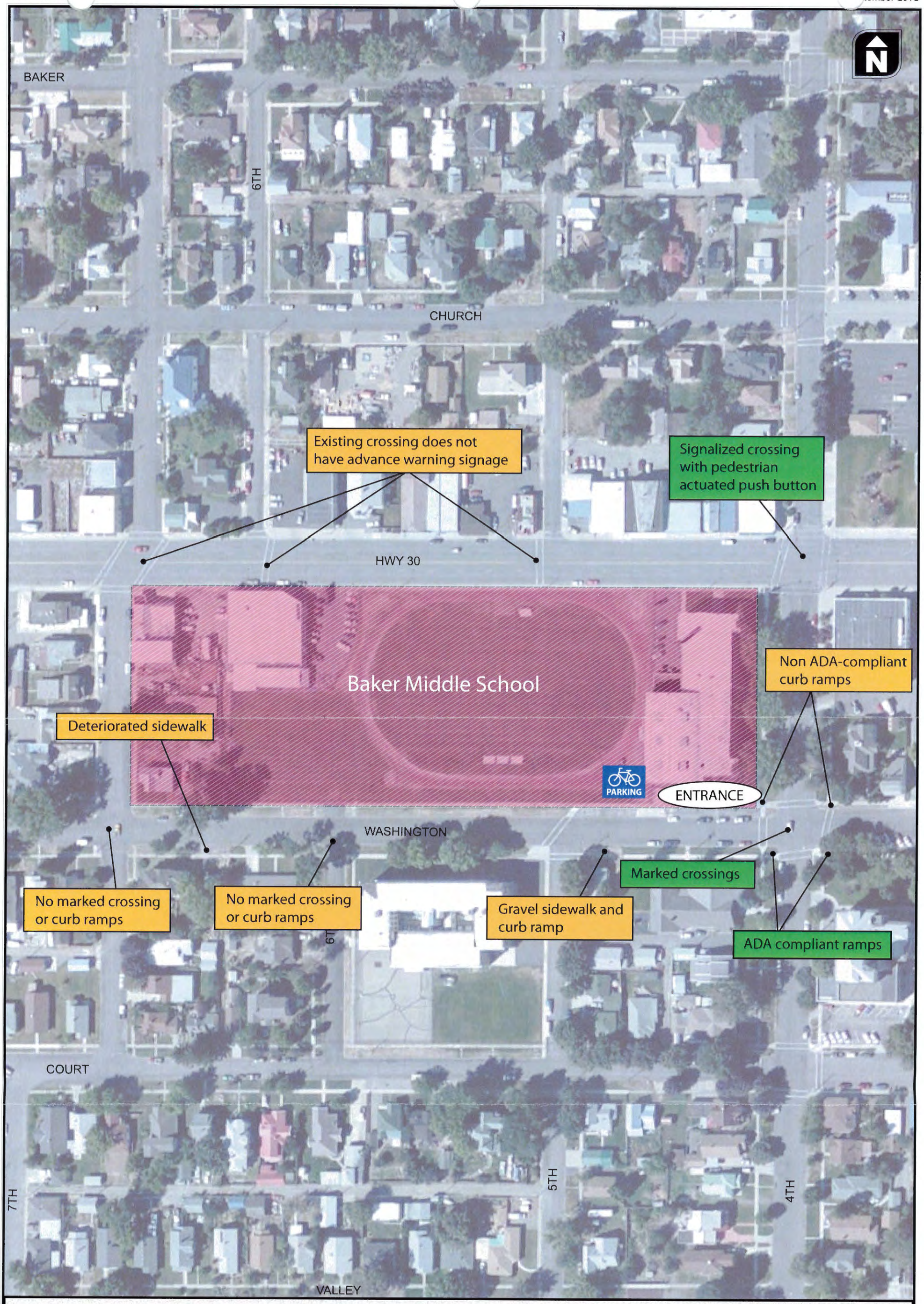

School
Strength
Weakness

Baker Middle School: Existing Crossing Conditions

Figure 12

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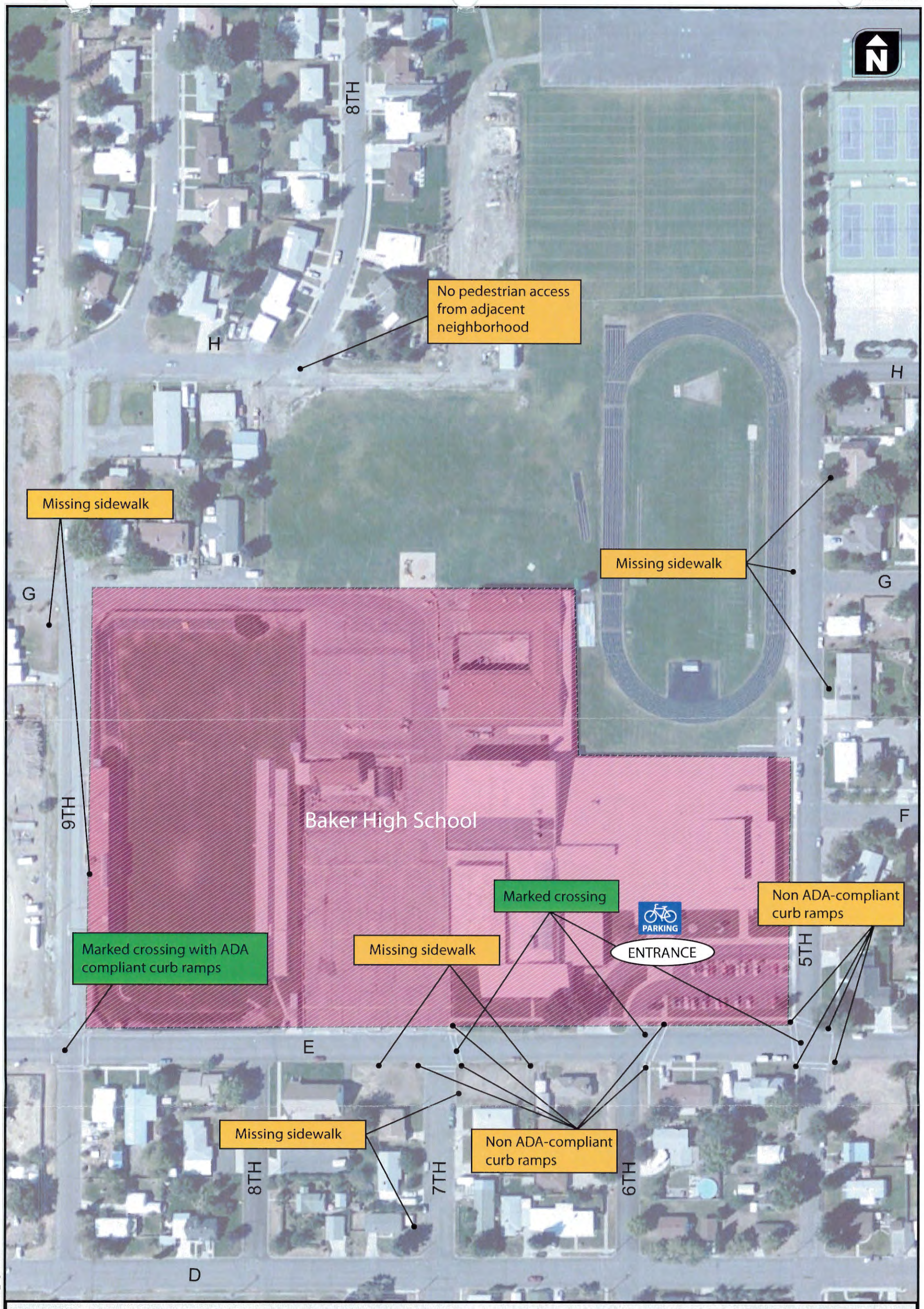

School
Strength
Weakness

Baker High School: Existing Crossing Conditions

Figure 13

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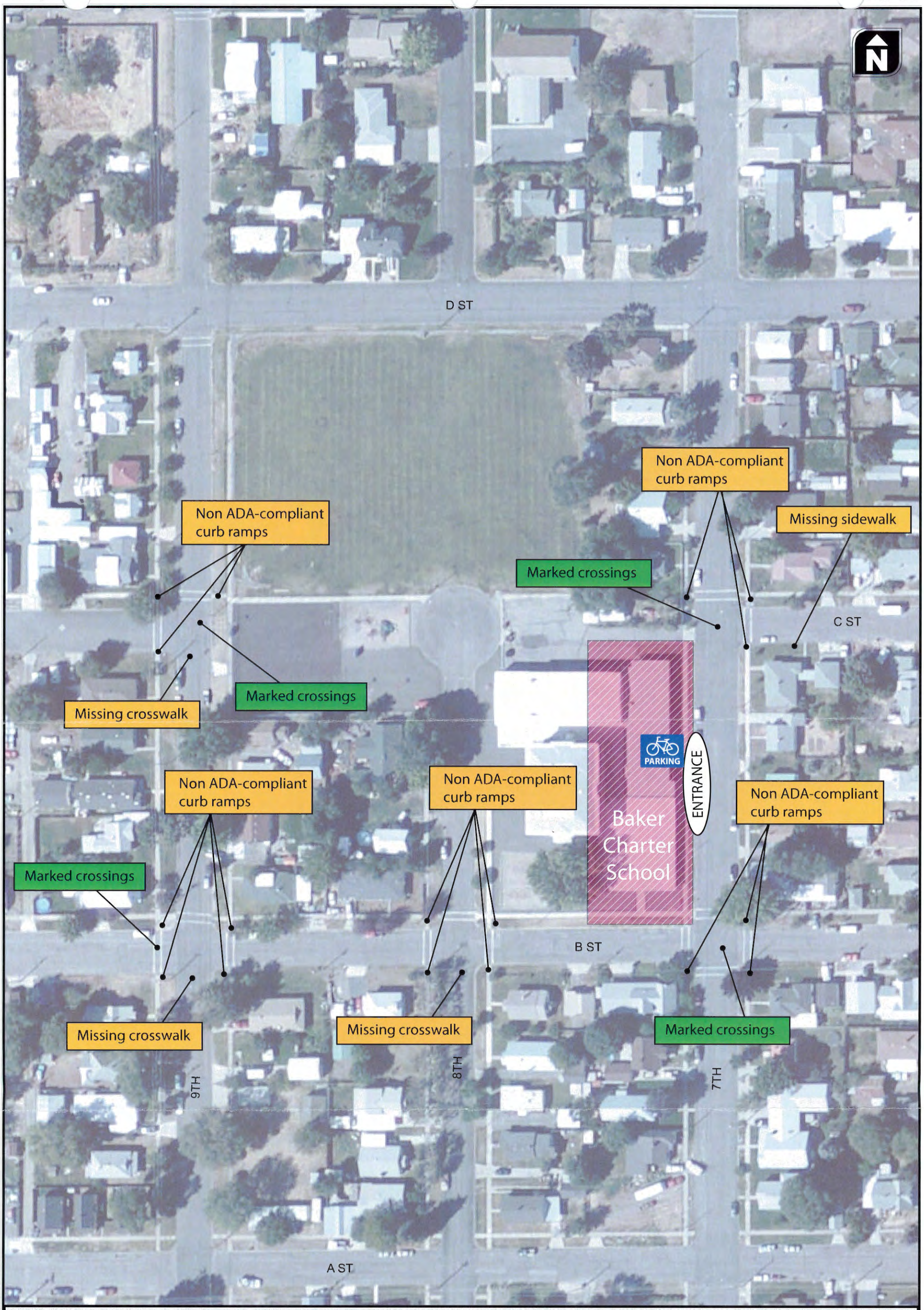


School
Strength
Weakness

Baker Charter School: Existing Crossing Conditions

Figure 14

G:\2012-130 Baker City TSP\MXD\KAI Border_logos.mxd

FAIRGROUNDS

The Fairgrounds in Baker City are bordered by Grove Street, D Street and Clark Street. Sidewalks are present on one side of Grove Street and both sides of D Street, but are lacking on Clark Street. D Street is a direct east/west thoroughfare that provides access to the Fairgrounds and Leo Adler Field. The lack of buildings in this area causes this street to feel wider than it is (36 feet), which appears to result in motorists traveling faster than they would on a similar sized street in downtown. Completion of sidewalks near the fairgrounds and traffic calming on D Street would benefit this area, as it receives a lot of activity from children using the ball park and families visiting the fairgrounds.

RECREATION/PARKS

There are a number of recreational facilities and parks in Baker City that are popular walking and biking destinations, particularly with children. These include Geiser Pollman Park, Sam O Skate Park, Wade William Park, Leo Adler Field (discussed in the Fairgrounds section above), the Baker High School sports complex, and the Quail Ridge Golf Club.

- Geiser Pollman Park is served by the Leo Adler Memorial Parkway, though there is no wayfinding signage within the park to direct users to the continuation of the path in either the north or south direction. The park is bordered by low volume, residential streets on three sides and busier Campbell Street to the north. A marked crossing with a median refuge island helps pedestrians and bicyclists get across this busy roadway.
- The Sam O Skate Park and Swim Center is located at the east end of Baker Street and is a popular destination with youth. Several low-volume parallel streets can be used to get within a block of the park, though sidewalk gaps are present in sections of all of them (Shown in Exhibit 6). Opportunities exist to identify one of these streets, possibly Madison Street, as a priority walking and bicycling route to complete the sidewalk network. An additional marked crossing on the eastern portion of Campbell would help youth access this park from the north.
- Wade Williams Park is located in South Baker, bordered by Kathryn Street and Main Street. While sidewalks are not present on these short, low volume streets, they are present on both sides of Myrtle Street which provides access from the north. Sidewalks are not present on Cliff Street which provides additional access from the east.
- Baker High School sports complex is located north of Baker High School. The Leo Adler Memorial Parkway has an eastern spur that provides a walking and bicycle connection to the sports complex. As discussed in the Baker High School section, there are several sidewalk gaps in the vicinity of the high school to the south, though speed humps are present on 5th Street to limit vehicular speeds. 10th Street to the west lacks sidewalks in the vicinity of the complex and is a major barrier to accessing the sports fields from this direction.
- Quail Ridge Golf Club is located in the southwest corner of Baker City and is a popular area for recreational walking, including along Reservoir Road. The golf course is bordered by Indiana Street to the north and 9th Street to the east. While Indiana Street has sidewalks for much of its length on the south side, Reservoir Road is a narrow, winding road that lacks sidewalks.

Exhibit 6 Example of incomplete sidewalk network around Sam O Skate Park

LEO ADLER MEMORIAL PARKWAY

The Leo Adler Memorial Parkway is a 2.6 mile multi-use path that follows the Powder River through the heart of Baker City. An entrance to the pathway is shown in Exhibit 7. The path also includes a 0.4 mile connection east to Baker City High School/sports complex. The Leo Adler Memorial Parkway has proven very popular with both residents and visitors, providing a comfortable environment for walking and bicycling that is completely separated from vehicular traffic. There are, however, a number of opportunities to enhance the path. There is limited wayfinding signage to direct people to existing path access points. As discussed in the Geiser Pollman Park section above, there is no signage in the park indicating how to continue on the trail. Where the path meets H Street and Kirkway Drive in its northern portion, there is an opportunity to add a curb cut to allow bicycles to access the Kirkland neighborhood. Finally, there is also an opportunity to extend the path south to connect to South Baker.

Exhibit 7 Entrance to Leo Adler Memorial Parkway on Washington Street (left).

COMMERCIAL CENTERS

Main Street is the historic commercial center of Baker City, with commercial activity also present on Campbell Street, Broadway, and 10th Street.

- Main Street has sidewalks on both sides and buildings that come right up to the sidewalk, creating a very comfortable walking environment. Access to Main Street is very good, with this area being surrounded by the most complete sidewalk network in Baker City. Travel speeds are relatively low on Main Street and intersections have marked crosswalks. While Main Street does not have bike lanes, low travel speeds make bicycling on this street relatively comfortable and bicyclists can also use parallel lower volume routes to travel in this area. There are several bicycle racks on Main Street.
- Campbell Street has sidewalks present on both sides. Higher traffic volumes and speeds make for a less comfortable walking environment than Main Street, though there are several marked crossings, including the median refuge island near the library. The intersection of Birch Street is in need of attention, as vehicles traveling north on Birch frequently ignore the existing traffic controls and illegally continue on Birch, adding complexity to this area for bicycles and pedestrians. An additional marked crossing is likely needed on this eastern portion of Campbell. Campbell Street is the only street currently marked with a bike lane in Baker City. As discussed in the bike lanes section above, the parking adjacent to the bike lane is very narrow, which causes parked motor vehicles to spill over into the bike lane, which may be uncomfortable for some bicyclists.
- Broadway and 10th Street are both four lane roadways with some commercial destinations. Broadway has sidewalks on both sides of the street for much of its length. Travel volumes are light, making it relatively easy to cross at marked crossings. 10th Street, by contrast, has a more limited sidewalk network. Both of these streets appear to be under capacity from a motor vehicle standpoint, offering the opportunity of reducing the number of travel lanes, which would allow for adding bike lanes and enhanced crossings such as median refuge islands.

WORKPLACES

The commercial centers described above represent employment for some Baker City residents. The other major destination for residents who work within the city is the industrial area in the northwestern portion of the city as well as employment located near the railroad tracks between Auburn and Broadway.

Pedestrian and bicycle access is limited in the northwest industrial area, which is home to several industrial employers as well as the medical center and is also the proposed future site for the YMCA. Most roads in this area lack sidewalks, including Hughes and the residential streets to the south. The lack of sidewalks on 17th Street is an issue as there are few alternatives to this north-south route. The parallel north-south streets to the west of 17th Street are not continually paved and also tend to lack

sidewalks, though traffic volumes are lower. From a bicycling perspective, Hughes and Pocahontas Road have a shoulder wide enough for bicycling up until Pocahontas crosses the railroad tracks, at which point the shoulder narrows. Similar to challenges facing pedestrians, there is no bike lane on 17th Street and the parallel north-south routes are not continuously paved.

While there is a good sidewalk network to the east of employment located near the railroad tracks between Auburn and Broadway, there are no sidewalks approaching the railroad tracks on either Auburn or Broadway. Sidewalks are also not present along 10th Street in this area, providing another potential barrier to accessing employment in these areas on foot. The Auburn Avenue corridor, which lacks sidewalks west of 7th, is an important east-west corridor that links downtown to 17th Street and a number of large industrial sites.

Despite a lack of sidewalks and dedicated bicycle routes, people do walk and bike in these areas, as exemplified by the photo below showing bicycles parked at the Powder River Correctional Facility located south of Hughes. Routes for walking and bicycling are needed in this area to improve conditions for people who walk and bike currently and to give more people the option to walk or bicycle to access employment.

Exhibit 8 Evidence of people traveling by bicycle to the Powder River Correctional Facility

SUMMARY

As discussed in this memo, Baker City has a number of characteristics that contribute to a positive walking and bicycling environment in many parts of the city. These include:

- Relatively complete sidewalk network in the downtown area and central neighborhoods.
- Examples of good marked crossings of major roadways, such as the pedestrian refuge island at Campbell east of Resort Street.
- A well-connected street grid in downtown and surrounding neighborhoods that facilitates convenient and direct bicycle and pedestrian travel.

- Wide neighborhood streets with low volumes of vehicles which are comfortable for walking and bicycling.
- Relatively slow vehicle speeds on most streets.
- A multi-use path that is well-used and valued by the community
- Community support of walking and bicycling

There are opportunities to build on the many positive characteristics in Baker City to further improve conditions for walking and bicycling. Several of these opportunities are shown in Table 7.

Table 7 Potential Improvement to Bicycle and Pedestrian Conditions

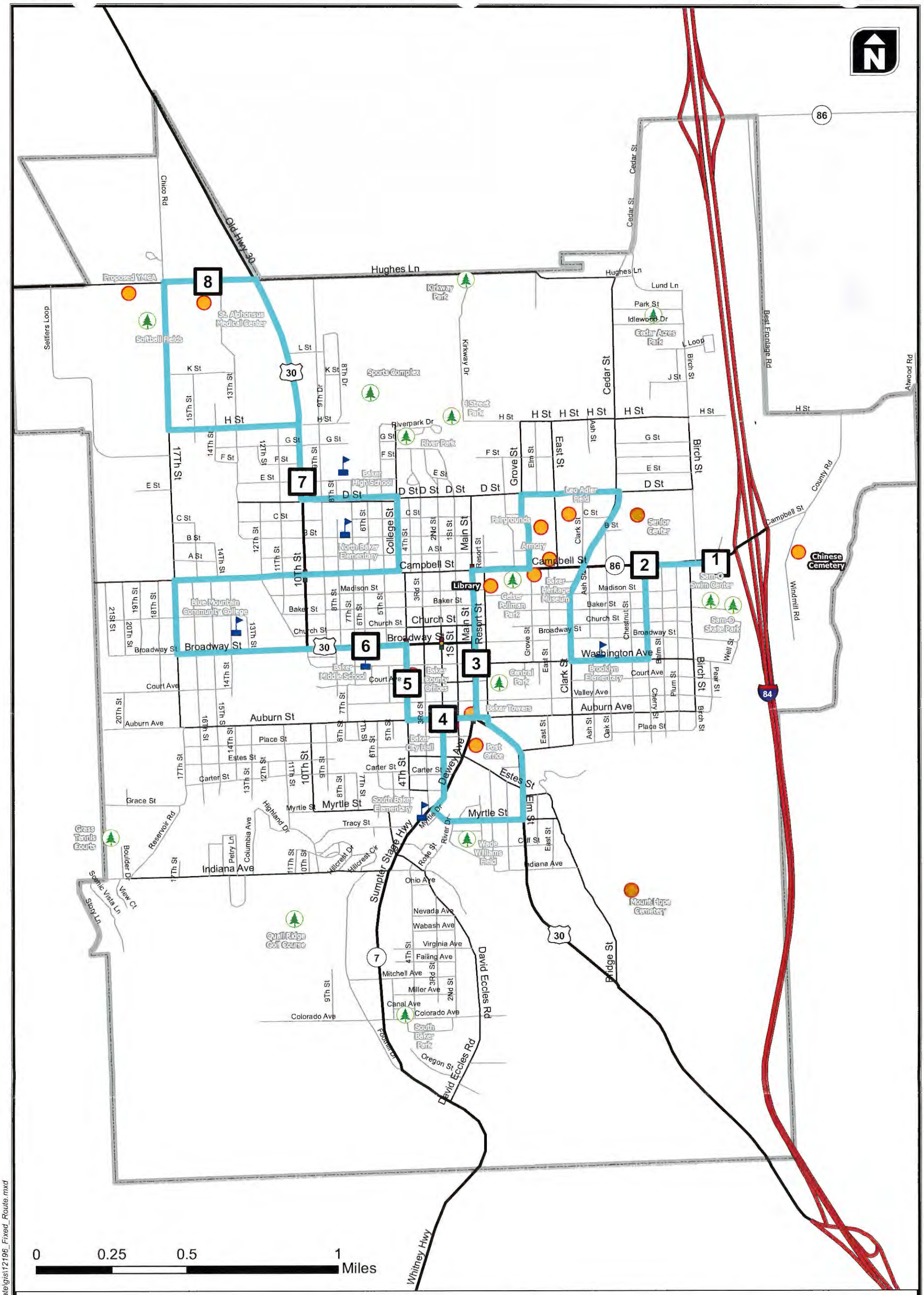
Improvement	Description
Identify priority walking and bicycling routes	Prioritize sidewalk improvements along a network of routes that provide access to schools, recreational areas, employment areas, and commercial areas. Provide marked crossings where these routes cross major roadways such as Main Street, Resort Street, Campbell and Broadway.
Improve access to schools	Address gaps in the sidewalk network to improve neighborhood connections to each of Baker City's four main schools.
Improve visibility of marked crossings	High visibility marked crossings can be added to increase the visibility of pedestrians and bicyclists in high use areas such as near schools.
Improve wayfinding	Provide signage and/or pavement markings to identify walking and bicycling routes to destinations.
Improve access to the Leo Adler Memorial Parkway	Increase the amount of signage indicating the location of pathway access points. Curb cuts could also be added to improve access from the Kirkway neighborhood.
Additional multi-use paths	Consider extending the Leo Adler south to South Baker. Consider additional trail connections along the Smith Ditch and near Quail Ridge Golf Course. Maps to identify potential new trail alignments are being developed as part of this TSP. These trail maps will be stand-alone documents that are separate from the TSP.
Consider re-allocating space on certain arterial roads	Consider reducing the number of travel lanes on 10th Street and Broadway to make crossings easier and make for more comfortable pedestrian and bicycle travel along these roads without causing impacts to motor vehicles.
Increase bicycle parking	Increase the amount of bicycle parking available at destinations.

PUBLIC TRANSPORTATION SYSTEM

Northeast Oregon Transit (NEOtransit) provides public transportation services within the Baker City area. NEOtransit provides three forms of service: 1) Fixed Route Trolley Service; 2) Fixed Route Bus Service to La Grande; 3) Dial-A-Ride Service. There are no formal park-and-ride locations offered in Baker City. In addition to transit services, there is a Greyhound bus station near the OR 86 (Campbell Street) and I-84 interchange. Each of these services is discussed below.

Fixed Route Service

The fixed route Baker City Trolley consists of a single route with eight scheduled stops as shown in Figure 15. The total route time is 1 hour and the trolley will stop at each stop twice during the hour (once for the westbound trip and once for an eastbound trip). Table 8 shows the times and locations



Transit Stop
Transit
Other Landmarks
Park
School

Existing Fixed Route Trolley Service

Figure 15

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for each stop. The trolley runs Monday through Friday from 7 AM to 6 PM, Saturday from 10 AM to 6 PM, and does not operate on Sundays or any Federal Holidays.

Table 8 Trolley Transit Service Fixed Route Schedule[1]

Stop	Location	Westbound	Eastbound
1	Baker Truck Corral	On the hour	-
2	Campbell & Cherry	:01	:52
3	Main & Washington	:11	:43
4	2nd St. & Auburn	:12	:39
5	4th St. & Washington	:13	:38
6	6th St. & Broadway	:14	:37
7	10th St. & "E" St.	:21	:30
8	St. Elizabeth Hospital	-	:28

Notes:
[1]Source: http://neotransit.org/BakerTrolley/RiderGuide.pdf

The Trolley is predominately used by the general public and annually has a ridership around 11,000 passengers. The elderly and passengers with disabilities are reported to make up approximately five percent of the total ridership. Current ridership fares for the Baker City Trolley are summarized in Table 9 below.

Table 9 Baker City Trolley Ridership Fares for Fixed Routes[1]

Fare	Regular	Family[2]
One-way trip	$1.00/rider	N/A
Day pass	$3.00/rider	$5.00/family
Month pass	$35.00/rider	$50.00/family

Notes:
[1]Source: http://neotransit.org/BakerTrolley/RiderGuide.pdf
[2]Family is defined as at least one parent with at least one child
[3]Passengers under the age of six ride for free

MMLOS analysis (Transit)

A level-of-service analysis is also performed for the fixed route transit service. As with bicyclists and pedestrians, because the LOS models are perception-based, they offer a measure of how "transit friendly" an urban street is.

The following is a list of parameters that have a significant influence on the pedestrian LOS scores. This is not a comprehensive list of all inputs.

- Number of stops on a segment
- Average transit speeds

- Percentage of stops with shelters and/or benches
- Whether the transit service takes place in a central business district.

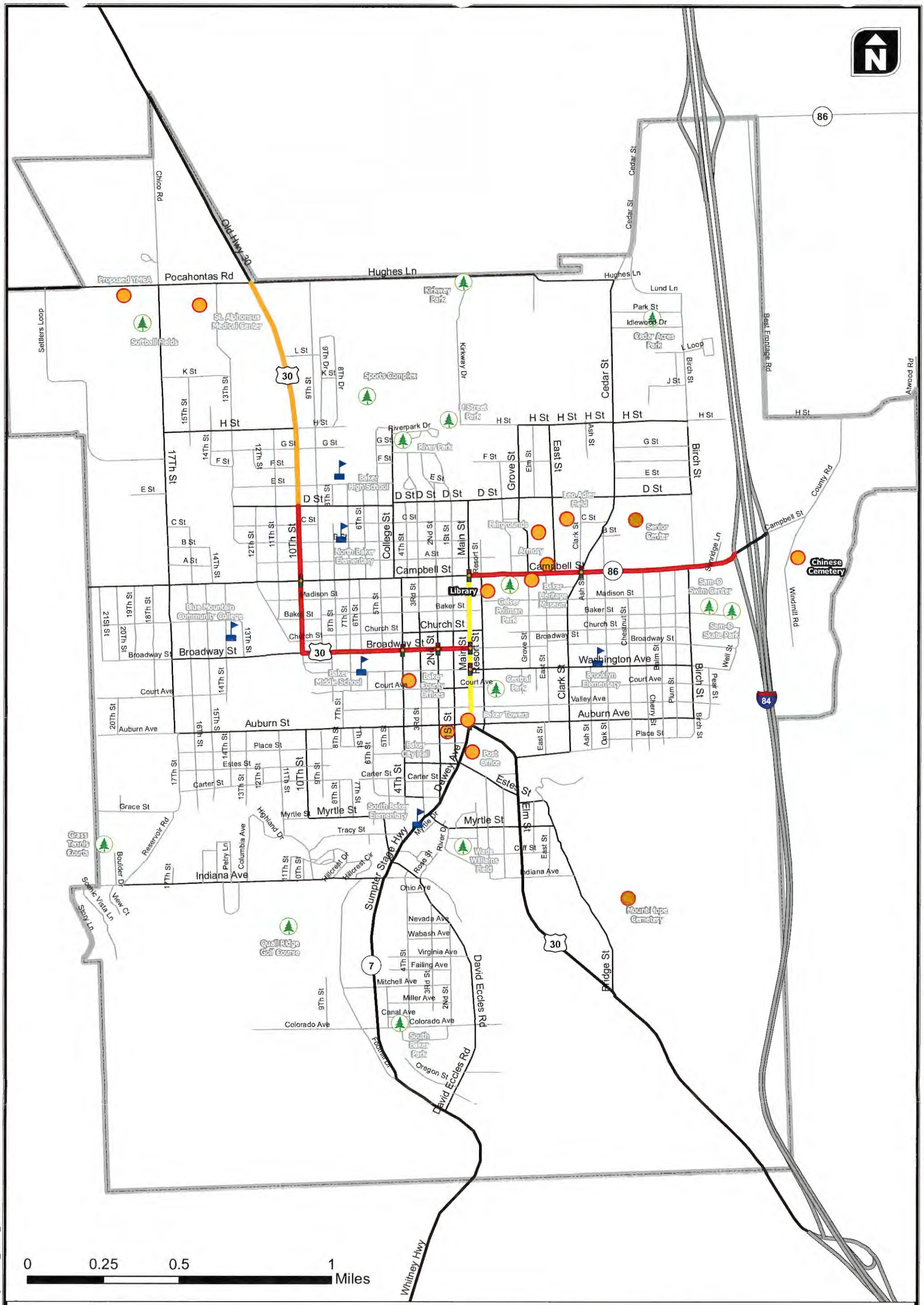
Transit LOS is also determined as a function of pedestrian LOS (i.e. better pedestrian facilities improve transit LOS). Transit stops and frequencies are taken from the Baker City transit website (Reference 5). Transit speeds are based on headways and distance traveled between stops. The size of Baker City does not consider any part of the fixed route transit service to be within a central business district.

Level-of-service (LOS) is determined for transit riders in Baker City for the study roadways:

- US 30 (10th Street/La Grande-Baker Hwy) between Pocahontas Road and Broadway Street.
- US 30 (Broadway Street) between 10th Street and Main Street
- OR 7 (Main Street) between Auburn Avenue and Campbell Street
- OR 7 (Campbell Street) between Main Street and the I-84 southbound ramp.

Figure 16 shows a map of the facilities described and the respective LOS that the average transit rider experiences. Information used to determine this traffic volume information provided by ODOT and aerial views to specify geometric cross sections.

As shown in Figure 16, all transit facilities range from LOS "D" to LOS "F." The best transit LOS is along the downtown blocks of OR 7 (Main Street). These blocks provide coincide with the best pedestrian LOS and also provide benches (not available at any other stops). The remainder of the transit LOS along the study routes exhibit LOS "E" and LOS "F." This poor level-of-service can be attributed to areas with poor pedestrian LOS, lack of shelters and benches, low transit stop frequency (once per hour in each direction), and relatively low transit speed along these routes (due to minor street diversions).



Transit LOS

- LOS D
- LOS E
- LOS F

- Other Landmarks
- Park
- School

Existing Transit LOS

Figure 16

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Fixed Route Bus Service to La Grande

NEOtransit also offers a service that links Baker City to La Grande called Baker Bow. This service makes two daily round trips from Baker City to La Grande, one in the morning and one in the afternoon. Stops are also made in Haines and North Powder on the way to La Grande and back to Baker City. This service is available Monday through Friday. Table 10 summarizes the arrival and departure times for each stop.

Table 1 Baker Bow Service Fixed Routes Time of Day Service[1]

Stop	Arrivals	Departures
Community Connection Baker City		7:00 AM/4:15 PM
Haines Mercantile Store	7:14 AM/4:29 PM	7:16 AM/4:31 PM
North Powder Truck Stop	7:26 AM/4:41 PM	7:28 AM/4:43 PM
La Grande Transit Hub	8:03 AM/5:18 PM	8:15 AM/5:25 PM
North Powder Truck Stop	8:40 AM/5:50 PM	8:42 AM/5:52 PM
Haines Mercantile Store	8:52 AM/6:02 PM	8:54 AM/6:04 PM
Community Connection Baker City	9:08 AM/6:18 PM	

Notes:
[1]Source: http://www.neotransit.org/Baker/

Baker Bow produces an estimated 3,000 rides annually. The elderly and passengers with disabilities are reported to make up approximately seven percent of ridership. Current ridership fares are summarized in Table 11.

Table 2 Baker Bow Transit Service Ridership Fares for Fixed Routes[1]

Origin	Destination	One Way Fare	Round Trip Fare	Monthly Pass
Baker City	Haines	$3	$5	$50
Baker City	North Powder	$5	$8	$80
Baker City	La Grande	$8	$11	$110

Notes:
[1]Source: http://www.neotransit.org/Baker/BowFare.html

Paratransit

Baker City Paratransit utilizes an application based eligibility process consistent with its obligation under the Americans with Disabilities Act to reserve the service for people who are prevented from using a fixed route due to a disability. By definition, all 207 unduplicated riders are living with a disability. The agency produces approximately 15,000 deliveries using this service every year. The fare is $2.00 and service is offered from 7:00 a.m. to 6:00 p.m. Monday through Friday. Community Connection also provides service to Halfway once per week. It is intended for seniors or persons with

disabilities, however general public may ride on space available basis. If the vehicle is based in Baker City, it provides a round trip to Halfway.

Dial-A-Ride

Baker Cab Company offers a Demand Response Service (Dial-A-Ride) that can be reached 24 hours a day, 7 days a week. The service is available by appointment and offers discounts for senior citizens on Wednesdays and Sundays. The service can be reached at (541)523-6070.

The Baker Cab Company also provides 24-hour/7 days-a-week taxi services in Baker City. It provides discounts to senior citizens on Wednesdays and Sundays (Reference 5).

Greyhound Bus Service

Baker City has one Greyhound bus station at 515 Campbell Street. The station has varying departure times but holds hours of operation weekdays between 9:00 a.m. and 3:00 p.m. for the station and ticketing. Both the fixed route trolley and Baker Bow services provide access to the Greyhound station.

Other Services

The YMCA provides bus service for its summer lunch program. The stops for this bus service are listed as follows:

1. Baker Valley Christian School;
2. D Street at Elm Street;
3. North Baker Street;
4. Churchhill School;
5. Baker Middle School;
6. South Baker School;
7. South Baker Park;
8. Wade Williams;
9. Old OSP Office;
10. Auburn Avenue and;
11. Brooklyn School/Oak Street.

Community Connection provides linkages between Head Start Baker Program and daycare for children.

TRUCK FREIGHT ROUTES

I-84 is the primary truck freight route through Baker City with approximately 41 percent of the daily volume being heavy vehicles. It provides regional connections to Portland, Boise, Idaho, and other

areas in-between and beyond. Within Baker City, the City has designated the following street segments as allowing freight truck traffic:

- 5th Street from OR 7 (Whitney Highway) to Myrtle Street;
- Myrtle Street from 5th Street to 10th Street;
- 10th Street from Myrtle Street to Auburn Avenue;
- Auburn Avenue from 10th Street to 17th Street;
- 17th Street from Auburn Avenue to Pocahontas Road; and
- Campbell Street from I-84 to eastern City limits (truck parking is prohibited on Campbell Street).

AIR TRANSPORTATION SYSTEM

Baker City Municipal Airport (BKE) is approximately 3 miles north of the city limits and urban grown boundary to the east of I-84. The airport is owned by Baker City despite being in located in an unincorporated portion of Baker County. Service is operated by Baker Aircraft and offers fueling, flight instruction, aircraft rental, charter, and maintenance. Table 12 below provides information regarding the BKE runway inventory.

Table 3 BKE Runway Inventory

	Runways		
	13-31	17-35	8-26
Length and Width	5085' x 100'	4360' x 75'	4000' x 150'
Approach Type	12 - non-precision 30 - visual	Visual	Visual
Landing Aids	12 – VOR/DME; VASI; REIL 30 – PAPI	None	None
Runway Lighting	Medium Intensity	None	None
Taxiway Lighting	Reflectors	None	None

The nearest airport providing scheduled commercial passenger service is in Pendleton, approximately 95 miles away at Eastern Oregon Regional Airport (PDT), followed by Boise, Idaho (BOI), approximately 127 miles away.

RAIL TRANSPORTATION SYSTEM

Baker City has freight rail service, but Amtrak's *Pioneer* route, which formerly provided passenger rail service through the area, has been discontinued since the current TSP was adopted. Freight rail through Baker City travels on Union Pacific's (UP) east-west mainline, which runs from the southeast

corner of the city to the northwest corner of the city. This line connects to Portland and the I-5 corridor, Spokane (via the Hinkle hump yard), Idaho, and other points east (Reference this map: http://www.up.com/cs/groups/public/documents/up_pdf_nativedocs/omhq17a129812003015.pdf). The UP main line is a Federal Railroad Administration (FRA) Class 4 railroad, meaning it allows freight speeds up to 60 MPH. It has no weight or dimension restrictions (reference the ODOT rail plan: http://cms.oregon.gov/ODOT/RAIL/docs/Publications/railplan01.pdf?ga=t). Grade separated crossings will be evaluated as part of the alternatives analysis at Pocahontas Road and the proposed trail at Smith ditch.

PIPELINE TRANSPORTATION SYSTEM

Pipeline transportation within Baker City includes transmissions lines for electricity, television, and telephone services, as well as transport of water, sanitary sewer, natural gas, and a major north-south petroleum pipeline. The City of Baker city provides water and sanitary sewer within the City Limits. Cascade Natural Gas provides natural gas via a pipeline that runs along the western edge of the City. Chevron's pipeline carrying petroleum products from Pasco, Washington to Boise, Idaho runs alongside the natural gas pipeline.

WATER TRANSPORTATION SYSTEM

The only water based transportation in Baker City is recreational floating of the Powder River.

FUNDING ANALYSIS

Roadways within the Baker City UGB fall under the jurisdiction of: 1) City of Baker City; 2) Baker County; or 3) ODOT. This section discusses existing funding sources for capital improvement project as well as operations and maintenance activities.

CITY OF BAKER CITY

Funding for capital projects as well as operation and maintenance for transportation within the city limits primarily comes from the City's Streets Division in the Public Works Department. Revenue streams for the City's Street Fund include:

- Property taxes
- Intergovernmental sources (i.e., state gas tax and federal, state, and other grants)
- Service charges
- Interest on investments
- Other miscellaneous sources

Table 13 summarizes the City's average revenue from each source from 2002 to 2011.

Table 4 Average Revenues by Source for Baker City

Source	Average Revenue (2002-2011)
Property Taxes	$441,154.60
Intergovernmental Sources	$648,540.20
Service Charges	$22,821.30
Interest on Investments	$12,757.40
Other Misc. Investments	$2,016.90

Table 14 details the average expenditures from the Baker City Street fund.

Table 5 Average Expenditures for Baker City Street Fund

Source	Average Expenditures (2002-2011)
Maintenance	$424,046
Storm Water	$43,401
Preventative	$339,455
Street Lighting	$63,655
Snow and Ice Control	$50,736
Street Construction	$33,294
Capital Projects	$293,018

Occasionally the City undertakes transportation projects that are funded outside of the Street Fund. Table 15 shows a listing of projects funded outside of Street Fund projects.

Table 6 Projects Funded Outside of Street Fund Projects

Year	Project	Amount
2011	Leo Adler Parkway Extension	$666,135
	Resort Street Improvement	$34,414
	Airport Taxiway design	$195,007
	Airport Master plan	$85,000
2010	LAMP extension	$229,901
	LAMP property acquisition	$337,981
	D Street Construction	$1,771,670
	Birch Street Construction	$562,149
2007	Airport Runway work	$440,882
	Airport Taxiway work	$37,585
2004	Airport Runway rehab	$44,240
2003	Airport Runway construction	$1,279,731

BAKER COUNTY

Baker County occasionally undertakes projects on County roadways within the Baker City UGB. According to Baker County, since 2002 these projects have included:

- Overlaying, paving, and shoulder work on Hughes Lane - $150,500 in 2002
- Chip sealing and fog sealing work on Hughes Lane and Cedar Road - $47,000 in 2007
- Reconstruction of Chico Road - $622,000 in 2011 with funding provided by the Oregon Legislature's Jobs and Transportation Act

ODOT

Baker County has also had several projects funded through Oregon Department of Transportation (ODOT) funding. ODOT maintenance expenditures are not broken down to the city level and will not be discussed here. It should be noted that funding sources from the American Recovery and Reinvestment Act (ARRA) and the ODOT Jobs and Transportation Act (JTA) are stimulus funding and will not available as a future funding source. Table 16 summarizes all of the ODOT funded projects.

Table 7 ODOT Funded Projects

Project Title	Year	Cost	Funding Source
Dewey Street (Baker City)	2003	$1,806,025	TE-045/OTIA with Match
OR7: Cedar St. Traffic Signal (Baker City)	2005	$228,875	Construction Operations
Campbell Ave. –I-84	2006	$161,381	Preservation
OR7: Campbell – 184/Cedar St. Signal (Baker City	2006	$1,614,770	Construction Operations
Elkhorn View Industrial Park Rail Spur	2006	N/A	Connect Oregon
OR7: Dewey Ave. U'xing (Baker City)	2009	$1,435,397	Bridge/ARRA
Birch St. (Baker City) Improvements	2009	$642,023	ARRA
Powder River Mitigation Banks	2010	$147,756	Minimum Mod
184: Baker Valley ITS 2013	2011	$45,999	Construction Operations

REFERENCES

1. Transportation Research Board. *Highway Capacity Manual.* 2000
2. The Oregon Department of Transportation. *Oregon Highway Plan.* 1999.
3. The Oregon Department of Transportation. *Analysis Procedures Manual.* 2006
4. The Oregon Department of Transportation. *2011 State Highway Crash Rate Tables.* 2012.
5. Northeast Oregon Public Transportation (NEOTransit). http://www.neotransit.org/. Accessed September 13, 2012.

APPENDICIES

Appendix 1 – Traffic Count Summary Sheets

Appendix 2 – Operations and Queuing Analysis Results

Appendix 1 Traffic Count Summary Sheets

Summary of Traffic Count
Transportation Development Division

Site: 1012012
County: Baker
City: Baker City

Milepoint: 49.95
Count Number: 1.00

Date: 5/16/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066
US30 @ Pocahontas Rd. & Hughes
Location: Lane
Weather: Clear

	Summary By Movements													Entering Volumes			
Time of Day	E-SE	E-W	E-NW	SE-E	SE-W	SE-NW	W-E	W-SE	W-NW	NW-E	NW-SE	NW-W	TOTAL	East	South-East	West	North-West
6:00	2	9	0	4	3	4	2	3	0	0	7	1	35	11	11	5	8
6:15	2	5	2	1	9	6	4	1	2	3	2	1	38	9	16	7	6
6:30	4	4	6	9	12	11	8	8	0	6	11	3	82	14	32	16	20
6:45	5	14	3	0	21	6	7	15	1	10	8	2	92	22	27	23	20
7:00	5	10	3	3	13	5	9	12	2	6	11	0	79	18	21	23	17
7:15	9	11	3	5	21	6	8	13	2	5	27	0	110	23	32	23	32
7:30	17	14	2	6	23	13	8	28	1	4	37	3	156	33	42	37	44
7:45	8	33	6	12	37	12	7	20	1	12	18	1	167	47	61	28	31
8:00	7	16	0	10	25	7	9	27	3	3	20	3	130	23	42	39	26
8:15	5	13	2	6	15	9	9	17	1	4	22	1	104	20	30	27	27
8:30	11	17	5	7	27	6	12	27	0	6	20	2	140	33	40	39	28
8:45	9	16	3	10	31	9	10	32	0	4	13	2	139	28	50	42	19
9:00	28	54	17	28	81	42	52	101	5	17	74	9	508	99	151	158	100
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	32	52	25	37	105	38	45	105	3	24	65	7	538	109	180	153	96
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	4	14	6	13	25	16	11	38	1	3	22	0	153	24	54	50	25
11:15	7	13	4	3	23	11	19	28	3	2	10	2	125	24	37	50	14
11:30	8	15	16	8	20	14	19	36	0	3	23	1	163	39	42	55	27
11:45	4	9	5	9	33	13	16	33	4	3	8	0	137	18	55	53	11
12:00	9	16	6	11	20	8	14	35	2	6	15	3	145	31	39	51	24
12:15	5	13	7	7	28	10	15	28	0	8	13	1	135	25	45	43	22
12:30	5	12	2	8	28	10	11	32	2	9	16	2	137	19	46	45	27
12:45	13	22	6	11	34	16	10	35	0	3	18	1	169	41	61	45	22
13:00	34	55	24	34	128	57	54	114	1	22	49	10	582	113	219	169	81
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	33	61	27	31	102	69	50	110	9	17	38	13	560	121	202	169	68
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	10	12	4	13	21	10	17	23	1	5	17	0	133	26	44	41	22
15:15	6	16	7	7	20	13	7	30	3	7	17	4	137	29	40	40	28
15:30	14	16	8	14	32	12	15	28	1	3	21	1	165	38	58	44	25
15:45	10	13	7	14	21	16	9	30	0	2	13	1	136	30	51	39	16
16:00	10	22	5	8	21	22	15	32	1	4	18	4	162	37	51	48	26
16:15	8	16	15	10	14	22	25	45	0	4	19	1	179	39	46	70	24
16:30	6	14	6	8	28	18	21	37	1	2	18	1	160	26	54	59	21
16:45	10	12	7	10	26	26	14	28	2	3	18	2	158	29	62	44	23
17:00	7	16	14	7	25	23	18	44	1	1	17	1	174	37	55	63	19
17:15	13	10	8	12	17	29	21	42	4	5	12	0	173	31	58	67	17
17:30	6	6	7	8	17	19	17	20	3	2	15	1	121	19	44	40	18
17:45	7	9	11	5	18	16	17	16	1	4	11	0	115	27	39	34	15
18:00	27	55	30	47	51	52	42	55	1	14	34	2	410	112	150	98	50
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	14	24	13	16	23	44	16	40	3	3	33	3	232	51	83	59	39
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	23	22	12	15	29	31	15	23	2	2	19	0	193	57	75	40	21
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	4	7	8	9	13	15	6	4	0	1	7	1	75	19	37	10	9
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	441	768	342	476	1240	766	684	1395	67	242	836	90	7347	1551	2482	2146	1168
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	486	845	377	524	1364	843	753	1535	74	267	920	99	8082	1707	2731	2361	1285

Summary of Traffic Count
Transportation Development Division

Site: 1022012
County: Baker
City: Baker City

Milepoint: 50.73
Count Number: 1.00

Date: 5/16/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066

Location: US30(10th St.) @ "D" St.
Weather: Clear

	Summary By Movements													Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S	TOTAL	North	East	South	West
6:00	0	10	0	5	2	0	21	0	0	3	0	0	41	10	7	21	3
6:15	0	10	1	3	1	1	23	0	0	1	0	0	40	11	5	23	1
6:30	1	21	0	6	1	0	45	0	0	2	0	2	78	22	7	45	4
6:45	2	19	0	11	1	0	42	1	2	1	0	2	81	21	12	45	3
7:00	4	34	0	3	6	0	36	0	0	0	0	0	83	38	9	36	0
7:15	4	34	0	6	3	0	51	3	0	0	0	1	102	38	9	54	1
7:30	5	55	2	13	4	2	81	4	3	2	1	1	173	62	19	88	4
7:45	13	67	0	27	4	2	94	3	1	0	1	2	214	80	33	98	3
8:00	10	46	0	13	3	0	53	1	2	1	2	4	135	56	16	56	7
8:15	7	52	0	12	2	1	53	6	1	1	0	2	137	59	15	60	3
8:30	10	57	0	5	1	0	38	1	0	0	0	1	113	67	6	39	1
8:45	10	46	0	18	3	0	61	2	0	0	0	0	140	56	21	63	0
9:00	28	212	4	45	6	3	157	12	2	5	1	3	478	244	54	171	9
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	35	174	3	45	13	6	156	9	8	3	3	3	458	212	64	173	9
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	15	72	1	7	4	0	62	5	1	0	2	3	172	88	11	68	5
11:15	6	71	0	9	3	1	48	6	2	0	1	2	149	77	13	56	3
11:30	8	78	0	8	8	2	55	9	4	0	1	1	174	86	18	68	2
11:45	4	65	2	10	3	2	53	4	3	0	1	3	150	71	15	60	4
12:00	14	110	0	12	4	0	67	7	0	0	3	0	217	124	16	74	3
12:15	8	65	3	20	3	1	80	5	1	0	2	0	188	76	24	86	2
12:30	9	69	1	13	6	2	62	2	3	0	1	1	169	79	21	67	2
12:45	5	78	2	19	7	1	80	5	0	0	1	1	199	85	27	85	2
13:00	34	305	1	52	22	8	314	16	8	5	5	8	778	340	82	338	18
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	35	279	1	53	15	2	286	16	6	6	5	3	707	315	70	308	14
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	8	61	0	21	4	1	64	4	0	2	0	0	165	69	26	68	2
15:15	6	82	0	12	2	0	71	2	0	2	1	1	179	88	14	73	4
15:30	15	76	0	16	2	1	72	5	0	2	0	1	190	91	19	77	3
15:45	10	79	0	19	2	0	68	7	5	1	0	2	193	89	21	80	3
16:00	8	89	5	13	3	0	81	1	1	3	0	0	204	102	16	83	3
16:15	10	81	1	12	3	1	61	4	0	0	1	2	176	92	16	65	3
16:30	18	106	2	17	4	3	65	9	0	0	0	2	226	126	24	74	2
16:45	7	95	2	15	5	1	82	9	5	1	3	0	225	104	21	96	4
17:00	32	104	0	12	1	2	63	7	1	1	1	3	227	136	15	71	5
17:15	11	77	1	12	8	1	73	4	2	0	1	1	191	89	21	79	2
17:30	8	68	1	14	1	3	63	6	0	1	0	2	167	77	18	69	3
17:45	8	51	1	7	8	0	46	7	2	2	0	3	135	60	15	55	5
18:00	31	148	0	37	14	1	150	16	4	1	3	7	412	179	52	170	11
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	11	115	0	19	6	2	107	11	3	1	3	3	281	126	27	121	7
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	8	101	0	13	6	3	78	9	2	1	1	0	222	109	22	89	2
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	7	38	0	8	3	0	38	4	0	0	0	0	98	45	11	42	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	465	3400	34	662	197	53	3200	222	72	48	44	70	8467	3899	912	3494	162
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	512	3740	38	729	217	59	3520	245	80	53	49	77	9314	4289	1004	3844	179

Summary of Traffic Count
Transportation Development Division

Site: 1032012
County: Baker
City: Baker City
Milepoint: 1.28
Count Number: 1.00

Date: 5/16/2012
Hours: 6:00 AM-10:00 PM
Highway #: 012
Location: I-84 s/b ramps @ OR7(Campbell St.)
Weather: Clear

	Summary By Movements									Entering Volumes		
Time of Day	N-E	N-S	N-W	E-S	E-W	W-E	W-S		TOTAL	North	East	West
6:00	0	0	7	0	8	20	6		41	7	8	26
6:15	1	0	3	1	7	14	8		34	4	8	22
6:30	0	0	9	1	12	17	18		57	9	13	35
6:45	1	0	12	0	13	25	9		60	13	13	34
7:00	0	0	13	1	15	30	16		75	13	16	46
7:15	0	0	12	0	24	29	10		75	12	24	39
7:30	1	0	7	1	18	32	14		73	8	19	46
7:45	0	0	24	2	18	30	16		90	24	20	46
8:00	1	0	10	1	17	29	10		68	11	18	39
8:15	1	0	10	1	19	25	9		65	11	20	34
8:30	1	0	19	1	24	46	12		103	20	25	58
8:45	1	0	16	1	29	33	16		96	17	30	49
9:00	2	0	79	4	92	119	62		358	81	96	181
9:15	0	0	0	0	0	0	0		0	0	0	0
9:30	0	0	0	0	0	0	0		0	0	0	0
9:45	0	0	0	0	0	0	0		0	0	0	0
10:00	1	0	87	3	111	138	62		402	88	114	200
10:15	0	0	0	0	0	0	0		0	0	0	0
10:30	0	0	0	0	0	0	0		0	0	0	0
10:45	0	0	0	0	0	0	0		0	0	0	0
11:00	0	0	12	1	33	45	11		102	12	34	56
11:15	2	0	23	0	31	40	12		108	25	31	52
11:30	1	0	32	2	33	40	24		132	33	35	64
11:45	5	0	20	0	35	41	18		119	25	35	59
12:00	0	0	21	3	34	36	24		118	21	37	60
12:15	0	0	23	2	16	38	10		89	23	18	48
12:30	0	0	34	0	20	39	12		105	34	20	51
12:45	1	0	29	0	24	47	24		125	30	24	71
13:00	3	0	80	5	87	149	70		394	83	92	219
13:15	0	0	0	0	0	0	0		0	0	0	0
13:30	0	0	0	0	0	0	0		0	0	0	0
13:45	0	0	0	0	0	0	0		0	0	0	0
14:00	5	0	90	2	73	133	58		361	95	75	191
14:15	0	0	0	0	0	0	0		0	0	0	0
14:30	0	0	0	0	0	0	0		0	0	0	0
14:45	0	0	0	0	0	0	0		0	0	0	0
15:00	2	0	28	1	21	38	20		110	30	22	58
15:15	1	0	22	5	22	33	14		97	23	27	47
15:30	2	0	17	2	19	44	20		104	19	21	64
15:45	0	0	19	4	27	45	10		105	19	31	55
16:00	1	0	26	0	23	28	11		89	27	23	39
16:15	3	0	24	1	26	33	9		96	27	27	42
16:30	1	0	26	1	18	36	16		98	27	19	52
16:45	1	0	16	0	18	34	6		75	17	18	40
17:00	0	0	25	1	23	38	6		93	25	24	44
17:15	3	0	31	1	28	25	6		94	34	29	31
17:30	1	0	21	0	18	25	13		78	22	18	38
17:45	0	0	25	0	17	19	23		84	25	17	42
18:00	5	0	93	5	68	85	56		312	98	73	141
18:15	0	0	0	0	0	0	0		0	0	0	0
18:30	0	0	0	0	0	0	0		0	0	0	0
18:45	0	0	0	0	0	0	0		0	0	0	0
19:00	3	0	52	2	53	64	46		220	55	55	110
19:15	0	0	0	0	0	0	0		0	0	0	0
19:30	0	0	0	0	0	0	0		0	0	0	0
19:45	0	0	0	0	0	0	0		0	0	0	0
20:00	0	0	54	2	49	65	30		200	54	51	95
20:15	0	0	0	0	0	0	0		0	0	0	0
20:30	0	0	0	0	0	0	0		0	0	0	0
20:45	0	0	0	0	0	0	0		0	0	0	0
21:00	1	0	31	0	25	34	14		105	32	25	48
21:15	0	0	0	0	0	0	0		0	0	0	0
21:30	0	0	0	0	0	0	0		0	0	0	0
21:45	0	0	0	0	0	0	0		0	0	0	0
Total Count	51	0	1182	57	1248	1841	831		5210	1233	1305	2672
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1	1.1
24hr Volume	57	0	1301	63	1373	2026	915		5731	1357	1436	2940

Summary of Traffic Count
Transportation Development Division

Site: 1042012
County: Baker
City: Baker City

Date: 5/16/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066

Milepoint: 50.98
Count Number: 1.00

Location: US30 (10th St) @ Campbell St.
Weather: Clear

	Summary By Movements													Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S	TOTAL	North	East	South	West
6:00	2	4	0	10	0	2	10	1	1	0	1	0	31	6	12	12	1
6:15	3	15	1	7	0	2	16	1	1	1	3	1	51	19	9	18	5
6:30	7	20	0	20	3	6	26	2	2	4	12	1	103	27	29	30	17
6:45	8	23	3	11	1	8	29	2	4	1	8	7	105	34	20	35	16
7:00	9	26	4	12	3	11	30	2	1	2	9	1	110	39	26	33	12
7:15	10	37	6	17	4	19	37	4	2	2	15	6	159	53	40	43	23
7:30	11	13	5	8	3	9	17	3	3	3	8	5	88	29	20	23	16
7:45	9	20	3	11	1	7	15	2	3	2	7	2	82	32	19	20	11
8:00	10	26	1	10	2	5	15	1	0	5	5	1	81	37	17	16	11
8:15	20	37	7	16	1	5	31	4	8	0	11	7	147	64	22	43	18
8:30	9	39	5	22	2	12	28	6	11	8	10	2	154	53	36	45	20
8:45	12	41	5	15	3	9	35	3	2	7	8	2	142	58	27	40	17
9:00	72	164	9	51	18	37	133	15	29	19	39	14	600	245	106	177	72
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	68	140	25	64	13	50	145	11	31	16	59	10	632	233	127	187	85
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	32	44	6	20	1	17	35	4	5	2	25	2	193	82	38	44	29
11:15	26	46	5	17	5	24	40	5	3	6	22	6	205	77	46	48	34
11:30	29	50	6	23	3	15	37	3	6	5	9	6	192	85	41	46	20
11:45	29	56	6	15	2	13	44	7	4	2	13	6	197	91	30	55	21
12:00	49	58	4	23	2	16	41	5	3	0	23	3	227	111	41	49	26
12:15	22	49	11	20	7	13	44	2	5	10	15	4	202	82	40	51	29
12:30	32	48	3	26	3	25	49	4	12	4	14	5	225	83	54	65	23
12:45	20	59	5	30	3	13	47	2	5	7	16	4	211	84	46	54	27
13:00	86	213	17	104	11	40	197	12	12	14	52	15	773	316	155	221	81
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	87	173	18	69	11	57	172	16	12	23	46	19	703	278	137	200	88
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	22	46	4	14	2	19	43	2	4	6	15	7	184	72	35	49	28
15:15	11	38	4	9	3	12	28	6	5	7	13	7	143	53	24	39	27
15:30	19	52	7	26	1	8	46	7	5	2	18	4	195	78	35	58	24
15:45	21	53	2	20	3	25	58	7	9	4	7	6	215	76	48	74	17
16:00	21	64	5	18	1	10	42	3	2	3	10	6	185	90	29	47	19
16:15	35	69	7	24	4	19	57	4	5	2	21	6	253	111	47	66	29
16:30	26	56	6	19	7	13	49	3	5	5	13	4	206	88	39	57	22
16:45	38	85	5	28	7	16	67	4	5	3	18	4	280	128	51	76	25
17:00	25	55	6	15	3	23	68	5	8	5	17	8	238	86	41	81	30
17:15	25	54	5	17	3	17	42	5	2	9	15	3	197	84	37	49	27
17:30	19	38	8	9	6	9	50	2	0	6	15	2	164	65	24	52	23
17:45	12	42	4	9	2	6	38	4	5	3	16	3	144	58	17	47	22
18:00	53	121	23	56	13	46	131	13	12	10	41	9	528	197	115	156	60
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	47	86	4	37	4	32	79	16	5	9	35	10	364	137	73	100	54
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	31	59	5	29	8	37	54	7	4	5	12	4	255	95	74	65	21
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	8	25	1	11	1	19	30	4	5	3	12	8	127	34	31	39	23
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	1075	2344	251	962	170	726	2155	209	246	225	708	220	9291	3670	1858	2610	1153
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	1183	2579	277	1059	187	799	2371	230	271	248	779	242	10221	4037	2044	2871	1269

Summary of Traffic Count
Transportation Development Division

Site: 1052012
County: Baker
City: Baker City

Milepoint: 0.24
Count Number: 1.00

Date: 5/14/2012
Hours: 6:00 AM-10:00 PM
Highway #: 012
OR7 (Main St.) @ OR7(Campbell
Location: St)
Weather: Clear

	Summary By Movements														Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
6:00	1	0	0	2	9	16	0	9	2	0	10	0		49	1	27	11	10
6:15	1	3	0	1	10	4	0	16	1	0	14	1		51	4	15	17	15
6:30	0	1	0	0	10	14	2	17	1	0	21	0		66	1	24	20	21
6:45	1	1	0	3	28	16	1	20	1	1	19	7		98	2	47	22	27
7:00	0	1	1	2	21	12	4	16	6	0	25	4		92	2	35	26	29
7:15	8	10	4	8	26	30	11	34	0	2	38	2		173	22	64	45	42
7:30	7	17	0	15	32	46	20	51	10	0	45	6		249	24	93	81	51
7:45	7	13	3	7	43	51	13	49	6	3	56	2		253	23	101	68	61
8:00	3	9	1	3	38	36	9	32	6	0	34	1		172	13	77	47	35
8:15	2	5	1	0	16	25	4	33	1	0	34	3		124	8	41	38	37
8:30	1	4	1	1	18	23	3	34	2	0	31	1		119	6	42	39	32
8:45	1	8	0	2	41	38	5	42	2	1	44	0		184	9	81	49	45
9:00	17	27	3	15	110	100	22	120	22	4	113	7		560	47	225	164	124
9:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:00	19	32	5	15	167	107	37	148	28	9	171	9		747	56	289	213	189
10:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
11:00	6	11	0	4	46	34	9	61	9	1	57	4		242	17	84	79	62
11:15	7	9	2	7	39	50	9	53	7	0	49	3		235	18	96	69	52
11:30	4	13	1	5	43	39	10	72	10	0	62	12		271	18	87	92	74
11:45	10	14	4	8	50	59	13	70	12	3	77	13		333	28	117	95	93
12:00	8	13	1	9	58	65	19	86	12	1	74	5		351	22	132	117	80
12:15	2	9	0	5	41	51	15	66	10	0	44	12		255	11	97	91	56
12:30	5	11	2	5	52	58	13	74	11	1	46	5		283	18	115	98	52
12:45	2	6	1	3	44	50	6	62	9	1	39	13		236	9	97	77	53
13:00	16	31	5	19	176	176	24	191	39	4	177	28		886	52	371	254	209
13:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:00	22	30	4	27	154	151	33	200	29	7	188	16		861	56	332	262	211
14:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
15:00	5	5	1	7	61	55	16	60	7	1	46	6		270	11	123	83	53
15:15	4	7	1	6	56	57	10	51	8	2	51	8		261	12	119	69	61
15:30	4	18	3	5	24	25	15	31	5	3	27	3		163	25	54	51	33
15:45	4	6	0	6	71	72	11	88	10	1	62	1		332	10	149	109	64
16:00	7	13	1	11	38	50	17	44	10	2	60	5		258	21	99	71	67
16:15	9	10	0	7	40	43	13	58	8	1	48	8		245	19	90	79	57
16:30	7	11	0	15	46	42	19	66	16	1	57	6		286	18	103	101	64
16:45	3	9	3	12	49	49	9	65	7	1	61	4		272	15	110	81	66
17:00	0	5	1	5	52	76	8	73	10	1	80	6		317	6	133	91	87
17:15	11	5	1	6	50	43	9	57	11	0	53	3		249	17	99	77	56
17:30	7	10	1	5	43	63	15	40	6	0	51	4		245	18	111	61	55
17:45	5	4	0	8	40	49	11	47	5	1	40	3		213	9	97	63	44
18:00	12	22	0	27	129	133	25	134	10	2	107	16		617	34	289	169	125
18:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:00	8	21	4	21	134	110	26	112	13	0	139	10		598	33	265	151	149
19:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:00	10	7	2	17	111	81	22	109	11	4	62	9		445	19	209	142	75
20:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:00	2	4	0	3	51	50	13	54	10	0	50	5		242	6	104	77	55
21:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Total Count	248	435	57	327	2267	2249	521	2645	383	58	2462	251		11903	740	4843	3549	2771
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1	1.1	1.1
24hr Volume	273	479	63	360	2494	2474	574	2910	422	64	2709	277		13094	814	5328	3904	3049

Summary of Traffic Count
Transportation Development Division

Site: 1062012
County: Baker
City: Baker City
Milepoint: 0.98
Count Number: 1.00

Date: 5/14/2012
Hours: 6:00 AM-10:00 PM
Highway #: 012
OR7(Campbell St.) Birch
Location: SL
Weather: Clear

	Summary By Movements										Entering Volumes			
Time of Day	N-E	N-W	E-N	E-W	S-E	W-N	W-E	W-S		TOTAL	North	East	South	West
6:00	10	21	4	23	3	22	26	3		112	31	27	3	51
6:15	7	23	3	23	2	16	24	2		100	30	26	2	42
6:30	3	17	3	29	1	18	24	2		97	20	32	1	44
6:45	4	14	5	27	2	20	29	2		103	18	32	2	51
7:00	12	8	7	14	1	10	14	2		68	20	21	1	26
7:15	10	8	10	22	0	12	28	4		94	18	32	0	44
7:30	13	20	13	27	2	28	37	3		143	33	40	2	68
7:45	17	26	14	29	6	20	35	4		151	43	43	6	59
8:00	15	17	8	16	3	14	22	5		100	32	24	3	41
8:15	6	21	9	29	2	14	31	5		117	27	38	2	50
8:30	10	25	9	29	5	22	49	2		151	35	38	5	73
8:45	7	38	8	40	2	25	41	2		163	45	48	2	68
9:00	43	108	28	152	6	95	149	13		594	151	180	6	257
9:15	0	0	0	0	0	0	0	0		0	0	0	0	0
9:30	0	0	0	0	0	0	0	0		0	0	0	0	0
9:45	0	0	0	0	0	0	0	0		0	0	0	0	0
10:00	40	118	36	116	7	130	160	15		622	158	152	7	305
10:15	0	0	0	0	0	0	0	0		0	0	0	0	0
10:30	0	0	0	0	0	0	0	0		0	0	0	0	0
10:45	0	0	0	0	0	0	0	0		0	0	0	0	0
11:00	13	39	6	36	2	29	31	4		160	52	42	2	64
11:15	22	31	20	41	2	43	45	6		210	53	61	2	94
11:30	21	42	11	53	3	42	61	4		237	63	64	3	107
11:45	10	35	9	32	1	28	35	3		153	45	41	1	66
12:00	17	51	10	64	7	66	64	4		283	68	74	7	134
12:15	6	41	11	35	3	34	42	5		177	47	46	3	81
12:30	6	40	8	39	3	34	46	5		181	46	47	3	85
12:45	10	37	5	52	2	35	34	4		179	47	57	2	73
13:00	46	146	34	179	14	123	182	11		735	192	213	14	316
13:15	0	0	0	0	0	0	0	0		0	0	0	0	0
13:30	0	0	0	0	0	0	0	0		0	0	0	0	0
13:45	0	0	0	0	0	0	0	0		0	0	0	0	0
14:00	29	144	29	122	2	119	171	10		626	173	151	2	300
14:15	0	0	0	0	0	0	0	0		0	0	0	0	0
14:30	0	0	0	0	0	0	0	0		0	0	0	0	0
14:45	0	0	0	0	0	0	0	0		0	0	0	0	0
15:00	7	46	6	31	0	38	55	1		184	53	37	0	94
15:15	7	34	8	25	3	23	35	5		140	41	33	3	63
15:30	17	25	8	35	5	34	47	4		175	42	43	5	85
15:45	12	39	9	42	3	36	56	6		203	51	51	3	98
16:00	7	34	6	50	1	26	43	3		170	41	56	1	72
16:15	6	20	3	34	1	22	45	3		134	26	37	1	70
16:30	4	33	5	38	3	33	40	6		162	37	43	3	79
16:45	4	32	8	28	4	31	49	5		161	36	36	4	85
17:00	8	40	5	66	6	42	54	7		228	48	71	6	103
17:15	7	30	7	43	1	40	29	6		163	37	50	1	75
17:30	5	34	7	30	4	38	44	3		165	39	37	4	85
17:45	9	27	5	43	4	23	33	5		149	36	48	4	61
18:00	22	124	19	131	12	101	133	18		560	146	150	12	252
18:15	0	0	0	0	0	0	0	0		0	0	0	0	0
18:30	0	0	0	0	0	0	0	0		0	0	0	0	0
18:45	0	0	0	0	0	0	0	0		0	0	0	0	0
19:00	14	72	12	115	5	63	117	11		409	86	127	5	191
19:15	0	0	0	0	0	0	0	0		0	0	0	0	0
19:30	0	0	0	0	0	0	0	0		0	0	0	0	0
19:45	0	0	0	0	0	0	0	0		0	0	0	0	0
20:00	13	49	13	54	1	44	64	5		243	62	67	1	113
20:15	0	0	0	0	0	0	0	0		0	0	0	0	0
20:30	0	0	0	0	0	0	0	0		0	0	0	0	0
20:45	0	0	0	0	0	0	0	0		0	0	0	0	0
21:00	10	25	15	50	1	23	49	11		184	35	65	1	83
21:15	0	0	0	0	0	0	0	0		0	0	0	0	0
21:30	0	0	0	0	0	0	0	0		0	0	0	0	0
21:45	0	0	0	0	0	0	0	0		0	0	0	0	0
Total Count	529	1734	436	2044	135	1616	2273	219		8986	2263	2480	135	4108
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1	1.1	1.1
24hr Volume	582	1908	480	2249	149	1778	2501	241		9885	2490	2728	149	4519

Summary of Traffic Count
Transportation Development Division

Site: 1072012
County: Baker
City: Baker City

Milepoint: 52.04
Count Number: 1.00

Date: 5/14/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066
US30/Main St. & Bridge St.) @
Location: OR7(S Main St.)
Weather: Clear

	Summary By Movements													Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S	TOTAL	North	East	South	West
6:00	2	5	2	3	0	3	5	2	0	0	0	0	22	9	6	7	0
6:15	5	10	1	6	0	2	13	3	0	3	3	0	46	16	8	16	6
6:30	1	12	1	4	3	1	13	4	0	6	3	1	49	14	8	17	10
6:45	4	16	2	10	3	5	21	2	0	2	7	0	72	22	18	23	9
7:00	7	17	7	8	1	7	17	3	0	4	4	0	75	31	16	20	8
7:15	5	20	5	9	11	3	34	6	0	4	7	1	105	30	23	40	12
7:30	4	27	12	21	8	10	26	21	0	8	14	1	152	43	39	47	23
7:45	16	34	12	18	22	19	40	15	0	16	19	2	213	62	59	55	37
8:00	9	26	7	12	5	8	20	3	0	1	11	1	103	42	25	23	13
8:15	5	16	7	9	9	5	26	10	0	5	6	1	99	28	23	36	12
8:30	9	25	4	6	7	9	20	12	0	4	14	0	110	38	22	32	18
8:45	8	17	6	13	7	13	31	12	0	2	10	2	121	31	33	43	14
9:00	42	100	31	43	32	32	148	38	0	18	34	4	522	173	107	186	56
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	51	120	22	54	39	51	147	47	0	14	51	5	601	193	144	194	70
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	10	33	7	13	13	12	28	11	0	10	11	2	150	50	38	39	23
11:15	12	34	2	14	11	11	38	13	0	2	13	0	150	48	36	51	15
11:30	15	24	9	15	15	9	37	11	0	4	13	2	154	48	39	48	19
11:45	17	33	7	20	17	10	27	13	0	11	19	1	175	57	47	40	31
12:00	24	44	10	21	5	13	36	16	0	1	19	0	189	78	39	52	20
12:15	20	30	13	15	11	14	45	19	0	4	9	2	182	63	40	64	15
12:30	11	36	7	18	9	14	44	8	0	3	18	0	168	54	41	52	21
12:45	15	39	13	16	12	19	44	21	0	7	14	3	203	67	47	65	24
13:00	45	135	26	56	34	26	157	33	1	27	44	4	588	206	116	191	75
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	53	142	34	67	49	40	157	59	0	26	53	6	686	229	156	216	85
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	9	44	8	13	13	11	30	10	0	10	15	0	163	61	37	40	25
15:15	3	46	10	16	16	12	44	12	0	6	18	1	184	59	44	56	25
15:30	7	54	10	15	15	24	38	22	0	11	18	0	214	71	54	60	29
15:45	13	45	7	11	9	16	57	15	0	6	10	1	190	65	36	72	17
16:00	14	43	11	16	11	11	32	19	0	4	15	1	177	68	38	51	20
16:15	14	41	9	19	14	17	39	12	0	4	10	3	182	64	50	51	17
16:30	15	43	6	22	14	14	49	13	0	2	12	2	192	64	50	62	16
16:45	12	57	10	12	10	11	46	13	0	5	13	2	191	79	33	59	20
17:00	17	36	7	14	16	16	32	18	0	6	13	2	177	60	46	50	21
17:15	19	43	12	9	10	9	31	17	0	6	12	1	169	74	28	48	19
17:30	15	34	8	11	21	14	37	14	0	15	12	4	185	57	46	51	31
17:45	8	30	7	12	9	10	27	9	0	1	10	0	123	45	31	36	11
18:00	29	103	14	26	31	18	102	38	0	13	38	3	415	146	75	140	54
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	32	86	24	24	27	14	66	21	1	12	26	6	339	142	65	88	44
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	22	81	23	25	16	14	60	15	0	11	20	1	288	126	55	75	32
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	18	30	15	12	14	8	36	10	0	5	10	0	158	63	34	46	15
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	637	1811	428	728	569	555	1900	640	2	299	648	65	8282	2876	1852	2542	1012
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	701	1993	471	801	626	611	2090	704	3	329	713	72	9111	3164	2038	2797	1114

Summary of Traffic Count
Transportation Development Division

Site: 1082012
County: Baker
City: Baker City

Milepoint: 0.61
Count Number: 1.00

Date: 5/14/2012
Hours: 6:00 AM-10:00 PM
Highway #: 012
Baker-Copperfield Hwy(OR7) @
Location: Cedar St. & Clark St.
Weather: Clear

	Summary By Movements													Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S	TOTAL	North	East	South	West
6:00	2	2	2	0	0	26	1	1	0	1	20	1	56	6	26	2	22
6:15	1	1	1	1	0	19	2	1	1	8	17	0	52	3	20	4	25
6:30	1	2	5	1	1	24	1	0	0	5	32	0	72	8	26	1	37
6:45	2	3	14	4	0	32	1	0	0	6	34	1	97	19	36	1	41
7:00	2	3	8	4	0	20	7	1	1	3	32	1	82	13	24	9	36
7:15	1	3	13	2	0	39	4	1	1	14	44	3	125	17	41	6	61
7:30	3	4	14	1	2	58	9	4	6	14	64	10	189	21	61	19	88
7:45	1	12	25	3	2	73	21	8	10	14	79	8	256	38	78	39	101
8:00	5	10	21	5	1	67	9	3	2	15	77	2	217	36	73	14	94
8:15	5	6	7	2	4	41	6	1	0	5	60	1	138	18	47	7	66
8:30	5	0	8	3	2	53	3	3	1	8	57	0	143	13	58	7	65
8:45	12	7	21	7	1	49	5	4	4	8	60	1	179	40	57	13	69
9:00	22	14	65	22	18	263	19	14	8	57	291	13	806	101	303	41	361
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	24	9	62	16	14	307	14	8	10	66	356	9	895	95	337	32	431
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	6	3	16	3	6	82	4	3	1	15	106	3	248	25	91	8	124
11:15	9	4	17	4	3	68	2	2	1	22	90	10	232	30	75	5	122
11:30	6	1	14	5	5	92	2	6	0	15	108	7	261	21	102	8	130
11:45	7	8	17	6	4	102	10	5	2	19	102	5	287	32	112	17	126
12:00	5	11	14	5	5	124	5	3	5	24	141	7	349	30	134	13	172
12:15	10	6	11	2	5	100	10	7	2	11	126	8	298	27	107	19	145
12:30	6	6	14	3	0	111	1	6	1	12	103	4	267	26	114	8	119
12:45	6	5	22	8	2	114	9	2	5	15	102	3	293	33	124	16	120
13:00	18	20	94	23	16	384	15	8	12	54	426	11	1081	132	423	35	491
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	29	23	65	21	20	310	18	19	4	60	404	11	984	117	351	41	475
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	8	5	26	4	8	121	8	6	3	15	105	1	310	39	133	17	121
15:15	7	10	19	7	3	98	8	4	3	19	103	10	291	36	108	15	132
15:30	10	6	12	8	5	93	14	10	13	13	96	8	288	28	106	37	117
15:45	13	14	27	10	3	113	9	4	7	23	106	6	335	54	126	20	135
16:00	10	5	24	7	2	98	8	2	4	25	110	10	305	39	107	14	145
16:15	10	6	24	8	3	91	9	3	4	24	111	10	303	40	102	16	145
16:30	2	6	18	4	1	87	8	3	3	21	97	2	252	26	92	14	120
16:45	9	9	22	3	4	91	4	3	6	16	106	3	276	40	98	13	125
17:00	9	10	20	11	11	88	5	9	0	17	111	5	296	39	110	14	133
17:15	8	5	16	10	4	102	5	6	2	14	102	6	280	29	116	13	122
17:30	2	7	12	7	9	79	7	4	1	12	88	6	234	21	95	12	106
17:45	12	4	9	5	1	75	10	6	5	8	81	1	217	25	81	21	90
18:00	18	14	66	23	18	291	12	13	14	67	306	10	852	98	332	39	383
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	19	9	45	16	18	237	3	12	7	41	219	8	634	73	271	22	268
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	12	10	30	8	4	164	8	4	3	11	159	6	419	52	176	15	176
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	9	9	12	7	7	110	3	3	1	12	91	3	267	30	124	7	106
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	346	292	932	289	212	4496	299	202	153	809	4922	214	13166	1570	4997	654	5945
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	381	322	1026	318	234	4946	329	223	169	890	5415	236	14483	1727	5497	720	6540

Summary of Traffic Count
Transportation Development Division

Site: 1092012
County: Baker
City: Baker City

Milepoint: 304.65
Count Number: 1.00

Date: 5/16/2012
Hours: 6:00 AM-10:00 PM
Highway #: 006
Location: I-84 northbound ramps at OR7(Campbell St.)
Weather: Clear

	Summary By Movements					Entering Volumes		
Time of Day	E-N	S-E	S-W	W-N	TOTAL	East	South	West
6:00	0	3	2	21	26	0	5	21
6:15	6	1	3	15	25	6	4	15
6:30	3	2	1	9	15	3	3	9
6:45	4	1	6	13	24	4	7	13
7:00	5	4	6	17	32	5	10	17
7:15	6	2	7	21	36	6	9	21
7:30	1	1	7	20	29	1	8	20
7:45	3	1	9	19	32	3	10	19
8:00	1	1	11	16	29	1	12	16
8:15	4	4	7	18	33	4	11	18
8:30	7	5	14	25	51	7	19	25
8:45	5	3	12	21	41	5	15	21
9:00	11	11	46	91	159	11	57	91
9:15	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0
10:00	15	12	53	80	160	15	65	80
10:15	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0
11:00	1	2	15	25	43	1	17	25
11:15	0	4	14	27	45	0	18	27
11:30	6	5	19	29	59	6	24	29
11:45	0	3	9	22	34	0	12	22
12:00	1	2	8	26	37	1	10	26
12:15	2	5	8	24	39	2	13	24
12:30	1	0	9	24	34	1	9	24
12:45	1	4	10	19	34	1	14	19
13:00	10	13	29	79	131	10	42	79
13:15	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0
14:00	10	9	24	68	111	10	33	68
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0
15:00	2	6	12	20	40	2	18	20
15:15	2	1	11	21	35	2	12	21
15:30	1	0	6	25	32	1	6	25
15:45	1	2	12	23	38	1	14	23
16:00	1	3	11	21	36	1	14	21
16:15	1	1	14	19	35	1	15	19
16:30	1	1	7	21	30	1	8	21
16:45	0	2	9	24	35	0	11	24
17:00	0	0	3	16	19	0	3	16
17:15	1	2	10	19	32	1	12	19
17:30	2	1	7	14	24	2	8	14
17:45	0	0	8	13	21	0	8	13
18:00	4	11	27	56	98	4	38	56
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
19:00	4	4	24	40	72	4	28	40
19:15	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0
20:00	3	3	33	37	76	3	36	37
20:15	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0
21:00	1	0	16	15	32	1	16	15
21:15	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0
Total Count	127	135	539	1113	1914	127	674	1113
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	140	149	593	1225	2106	140	742	1225

Summary of Traffic Count
Transportation Development Division

Site: 1102012
County: Baker
City: Baker City

Milepoint: 51.67
Count Number: 1.00

Date: 5/15/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066

Location: US30(Broadway St.) @ 2nd St.
Weather: Clear

	Summary By Movements														Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
6:00	1	1	0	1	0	6	1	2	5	0	5	4		26	2	7	8	9
6:15	0	2	0	0	0	12	2	1	11	0	17	4		49	2	12	14	21
6:30	0	0	0	1	0	14	0	0	7	1	14	5		42	0	15	7	20
6:45	0	4	1	1	1	22	1	5	7	0	16	4		62	5	24	13	20
7:00	1	4	0	0	0	20	2	3	12	0	16	7		65	5	20	17	23
7:15	0	5	2	3	1	33	17	10	20	3	21	11		126	7	37	47	35
7:30	0	9	0	4	2	59	17	8	36	1	49	17		202	9	65	61	67
7:45	1	6	2	1	2	30	6	5	10	1	21	12		97	9	33	21	34
8:00	0	5	1	1	4	18	2	2	10	0	38	15		96	6	23	14	53
8:15	0	8	1	0	3	32	6	4	16	0	34	11		115	9	35	26	45
8:30	0	9	2	4	2	38	9	5	14	0	26	9		118	11	44	28	35
8:45	2	8	0	0	4	35	8	6	10	2	37	10		122	10	39	24	49
9:00	5	29	10	12	20	164	32	21	56	12	155	54		570	44	196	109	221
9:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:00	11	24	17	12	22	206	25	29	58	17	175	62		658	52	240	112	254
10:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
11:00	0	6	2	2	2	49	4	9	11	2	61	19		167	8	53	24	82
11:15	0	10	6	6	2	43	8	7	9	2	64	13		170	16	51	24	79
11:30	2	6	4	2	3	46	8	5	21	3	41	18		159	12	51	34	62
11:45	4	9	2	3	4	55	21	5	18	5	75	25		226	15	62	44	105
12:00	2	8	4	4	9	45	11	5	16	3	64	21		192	14	58	32	88
12:15	0	7	2	3	5	39	9	7	17	4	46	18		157	9	47	33	68
12:30	1	13	4	3	3	57	5	8	9	2	51	16		172	18	63	22	69
12:45	3	16	2	7	9	57	5	6	14	1	49	17		186	21	73	25	67
13:00	4	32	13	14	21	208	32	21	63	21	192	60		681	49	243	116	273
13:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:00	7	27	9	18	18	200	29	18	41	14	210	55		646	43	236	88	279
14:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
15:00	1	11	2	6	3	47	11	5	19	9	47	19		180	14	56	35	75
15:15	2	14	5	3	5	50	16	8	19	8	51	28		209	21	58	43	87
15:30	7	12	1	5	5	61	13	11	26	2	53	19		215	20	71	50	74
15:45	0	11	2	2	8	46	10	6	12	5	45	15		162	13	56	28	65
16:00	5	3	0	5	6	34	12	2	15	2	43	15		142	8	45	29	60
16:15	1	14	3	2	5	50	8	5	21	3	50	20		182	18	57	34	73
16:30	0	7	5	5	4	53	9	10	13	3	47	25		181	12	62	32	75
16:45	4	12	1	2	7	65	9	6	11	5	66	29		217	17	74	26	100
17:00	1	13	3	3	4	34	7	2	22	7	60	20		176	17	41	31	87
17:15	4	8	1	3	7	40	8	6	17	1	44	14		153	13	50	31	59
17:30	1	3	1	3	3	37	8	2	12	2	33	5		110	5	43	22	40
17:45	0	5	3	3	5	28	8	5	12	2	23	16		110	8	36	25	41
18:00	4	21	8	5	8	98	27	9	46	2	105	36		369	33	111	82	143
18:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:00	5	16	7	6	7	98	15	11	35	7	90	34		331	28	111	61	131
19:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:00	2	10	5	5	4	62	9	7	13	4	71	32		224	17	71	29	107
20:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:00	0	3	3	1	2	40	9	4	9	1	30	11		113	6	43	22	42
21:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Total Count	81	411	134	161	220	2331	439	291	793	157	2335	825		8178	626	2712	1523	3317
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1	1.1	1.1
24hr Volume	90	453	148	178	242	2565	483	321	873	173	2569	908		8996	689	2984	1676	3649

Summary of Traffic Count
Transportation Development Division

Site: 1112012
County: Baker
City: Baker City

Milepoint: 51.85
Count Number: 1.00

Date: 5/14/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066
US30(S Main St.) @ Washington
Location: Ave.
Weather: Clear

	Summary By Movements													Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S	TOTAL	North	East	South	West
6:00	0	4	0	1	1	1	3	0	0	0	2	0	12	4	3	3	2
6:15	0	12	1	2	3	0	18	1	0	0	0	0	37	13	5	19	0
6:30	3	15	4	3	0	2	24	3	0	0	0	0	54	22	5	27	0
6:45	2	33	5	2	5	1	34	1	2	0	2	0	87	40	8	37	2
7:00	3	26	2	12	6	2	24	4	1	0	3	1	84	31	20	29	4
7:15	6	28	3	6	4	14	52	6	3	0	10	1	133	37	24	61	11
7:30	9	48	7	17	15	14	64	15	4	1	12	0	206	64	46	83	13
7:45	4	39	2	5	10	9	39	5	1	3	7	1	125	45	24	45	11
8:00	5	30	2	5	4	8	45	0	2	3	5	0	109	37	17	47	8
8:15	11	39	6	10	5	10	31	7	4	0	6	2	131	56	25	42	8
8:30	4	34	7	8	5	5	34	3	3	1	4	0	108	45	18	40	5
8:45	4	37	7	3	4	6	44	2	1	1	2	2	113	48	13	47	5
9:00	32	210	22	37	21	28	226	15	11	7	12	12	633	264	86	252	31
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	44	189	28	41	29	20	184	18	9	19	27	20	628	261	90	211	66
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	19	45	9	10	5	9	47	8	5	5	10	6	178	73	24	60	21
11:15	8	66	6	12	3	8	50	4	3	9	5	2	176	80	23	57	16
11:30	9	73	4	10	5	6	52	5	3	2	7	2	178	86	21	60	11
11:45	17	68	3	14	11	5	60	5	4	4	11	3	205	88	30	69	18
12:00	11	68	8	10	14	8	63	5	4	0	11	2	204	87	32	72	13
12:15	17	52	6	10	6	9	63	6	0	6	7	2	184	75	25	69	15
12:30	9	65	8	12	9	9	72	4	2	7	10	1	208	82	30	78	18
12:45	8	61	10	8	7	4	63	10	3	3	8	3	188	79	19	76	14
13:00	51	247	27	32	34	37	271	19	12	11	22	10	773	325	103	302	43
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	48	282	16	32	27	22	255	29	8	8	23	14	764	346	81	292	45
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	10	56	4	12	7	12	57	4	3	2	5	4	176	70	31	64	11
15:15	18	61	8	12	19	14	58	13	4	1	14	2	224	87	45	75	17
15:30	21	80	3	13	10	9	72	2	1	4	8	1	224	104	32	75	13
15:45	10	59	8	10	9	3	58	9	2	0	6	2	176	77	22	69	8
16:00	15	66	3	11	12	7	58	3	1	3	11	5	195	84	30	62	19
16:15	5	49	6	13	10	10	58	8	6	4	10	3	182	60	33	72	17
16:30	17	72	6	2	15	9	70	4	1	1	8	2	207	95	26	75	11
16:45	20	60	6	5	10	5	53	6	4	2	10	1	182	86	20	63	13
17:00	8	64	10	7	6	4	56	3	1	1	7	3	170	82	17	60	11
17:15	10	52	5	4	14	3	52	4	3	1	2	1	151	67	21	59	4
17:30	9	52	4	6	4	5	47	1	1	2	2	1	134	65	15	49	5
17:45	8	37	3	7	8	5	45	3	1	4	7	2	130	48	20	49	13
18:00	25	140	22	22	11	14	147	11	4	3	12	9	420	187	47	162	24
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	16	133	2	12	18	10	130	9	3	2	5	2	342	151	40	142	9
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	15	125	13	12	10	9	105	10	1	1	4	3	308	153	31	116	8
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	11	62	2	10	9	4	60	3	2	2	1	2	168	75	23	65	5
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	542	2939	298	460	405	360	2944	268	123	123	318	127	8907	3779	1225	3335	568
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	597	3233	328	506	446	396	3239	295	136	136	350	140	9798	4157	1348	3669	625

Summary of Traffic Count
Transportation Development Division

Site: 1132012
County: Baker
City: Baker City

Date: 5/15/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066

Milepoint: 51.56
Count Number: 1.00

Location: US30(Broadway St.) @ 4th St.
Weather: Clear

	Summary By Movements													Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S	TOTAL	North	East	South	West
6:00	0	0	0	0	1	5	0	0	0	0	4	0	10	0	6	0	4
6:15	0	1	0	0	0	22	0	0	2	0	17	2	44	1	22	2	19
6:30	0	0	0	0	0	16	1	0	1	0	18	0	36	0	16	2	18
6:45	0	3	2	3	5	22	3	3	3	0	23	6	73	5	30	9	29
7:00	0	0	0	2	0	22	2	2	4	0	25	5	62	0	24	8	30
7:15	0	12	1	3	11	34	9	2	4	0	19	14	109	13	48	15	33
7:30	5	39	3	3	12	67	36	7	13	2	41	19	247	47	82	56	62
7:45	7	20	0	0	8	68	9	5	22	0	51	19	209	27	76	36	70
8:00	1	6	2	2	4	27	5	5	7	0	41	7	107	9	33	17	48
8:15	1	2	1	0	3	30	3	3	3	1	42	6	95	4	33	9	49
8:30	0	5	0	2	2	50	3	0	4	1	30	7	104	5	54	7	38
8:45	1	6	2	3	1	46	5	5	8	1	43	6	127	9	50	18	50
9:00	10	19	5	12	7	193	19	13	16	4	220	31	549	34	212	48	255
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	9	10	7	3	10	242	13	13	14	3	232	20	576	26	255	40	255
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	4	7	2	1	3	71	4	3	6	0	69	6	176	13	75	13	75
11:15	1	4	2	1	4	71	1	2	2	3	72	9	172	7	76	5	84
11:30	2	2	2	7	0	56	5	4	3	0	59	10	150	6	63	12	69
11:45	9	3	3	3	5	73	9	6	3	3	65	6	188	15	81	18	74
12:00	2	14	2	4	2	66	8	2	7	1	86	3	197	18	72	17	90
12:15	1	9	2	2	3	72	2	3	2	1	76	7	180	12	77	7	84
12:30	2	4	4	2	3	54	3	3	8	0	67	6	156	10	59	14	73
12:45	1	9	2	2	1	78	3	2	7	1	66	10	182	12	81	12	77
13:00	7	15	5	8	8	254	14	8	16	6	257	29	627	27	270	38	292
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	7	15	4	9	11	273	11	20	20	5	265	29	669	26	293	51	299
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	2	5	0	0	2	53	0	3	6	4	51	10	136	7	55	9	65
15:15	1	7	4	3	5	66	6	3	2	2	78	15	192	12	74	11	95
15:30	1	21	5	5	4	93	13	8	9	0	83	8	250	27	102	30	91
15:45	3	12	1	3	6	65	7	4	13	1	59	9	183	16	74	24	69
16:00	4	8	0	3	2	56	7	3	7	1	79	7	177	12	61	17	87
16:15	2	6	0	9	1	52	2	8	2	0	53	5	140	8	62	12	58
16:30	2	3	2	4	5	86	9	5	7	2	86	12	223	7	95	21	100
16:45	2	10	2	1	6	72	11	8	5	4	80	5	206	14	79	24	89
17:00	6	10	2	1	10	85	7	11	5	0	107	10	254	18	96	23	117
17:15	2	5	0	1	0	34	9	3	3	0	39	8	104	7	35	15	47
17:30	0	5	1	3	3	50	7	3	8	1	70	5	156	6	56	18	76
17:45	0	4	0	3	5	38	7	2	2	1	27	1	90	4	46	11	29
18:00	7	20	6	3	7	138	14	11	10	1	128	11	356	33	148	35	140
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	4	10	2	3	3	120	12	15	6	3	90	7	275	16	126	33	100
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	9	18	4	2	7	57	10	12	14	8	76	8	225	31	66	36	92
20:15	0	0	0	0	4	0	0	0	0	0	0	0	4	0	4	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	8	2	2	0	52	5	1	6	1	39	3	119	10	54	12	43
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	115	357	82	118	174	3029	294	211	280	61	3033	381	8135	554	3321	785	3475
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	127	393	91	130	192	3332	324	233	308	68	3337	420	8949	610	3654	864	3823

Summary of Traffic Count
Transportation Development Division

Site: 1142012
County: Baker
City: Baker City

Milepoint: 51.79
Count Number: 1.00

Date: 5/15/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066
US30(Broadway St. & S Main st.)/west leg & south leg)
Location: @ OR7(N Main St./north leg
Weather: Clear

	Summary By Movements										Entering Volumes			
Time of Day	N-S	N-W	E-N	E-S	E-W	S-N	S-W	W-N	W-S	TOTAL	North	East	South	West
6:00	8	0	0	0	0	10	8	2	3	31	8	0	18	5
6:15	8	1	0	0	0	11	5	6	5	36	9	0	16	11
6:30	14	4	0	0	1	15	9	10	8	61	18	1	24	18
6:45	15	5	0	0	4	19	12	4	10	69	20	4	31	14
7:00	19	11	0	0	4	12	10	4	9	69	30	4	22	13
7:15	23	10	0	0	3	24	12	9	9	90	33	3	36	18
7:30	39	14	0	1	3	46	22	27	16	168	53	4	68	43
7:45	53	23	0	0	4	44	32	23	24	203	76	4	76	47
8:00	31	12	0	0	3	23	14	9	11	103	43	3	37	20
8:15	18	8	0	0	1	29	14	13	20	103	26	1	43	33
8:30	23	14	0	0	6	36	18	16	14	127	37	6	54	30
8:45	34	15	0	1	3	29	16	16	16	130	49	4	45	32
9:00	150	68	4	1	19	185	79	103	85	694	218	24	264	188
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	187	100	1	0	25	205	119	127	106	870	287	26	324	233
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	50	18	0	0	7	53	29	38	32	227	68	7	82	70
11:15	46	18	3	0	11	60	39	37	27	241	64	14	99	64
11:30	51	22	0	0	6	45	26	39	34	223	73	6	71	73
11:45	63	35	0	0	5	53	27	33	32	248	98	5	80	65
12:00	53	26	2	0	12	64	20	37	35	249	79	14	84	72
12:15	45	28	1	0	6	41	23	37	31	212	73	7	64	68
12:30	51	14	2	0	3	40	30	35	25	200	65	5	70	60
12:45	57	30	1	0	3	76	35	37	36	275	87	4	111	73
13:00	227	87	9	2	25	199	122	111	115	897	314	36	321	226
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	168	102	4	1	29	207	148	138	106	903	270	34	355	244
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	58	26	1	0	3	61	19	21	28	217	84	4	80	49
15:15	44	34	0	1	7	43	18	35	23	205	78	8	61	58
15:30	51	30	0	2	8	40	34	34	34	233	81	10	74	68
15:45	49	22	0	2	8	54	23	30	30	218	71	10	77	60
16:00	61	25	0	1	8	51	22	21	21	210	86	9	73	42
16:15	50	22	0	0	3	59	17	25	28	204	72	3	76	53
16:30	45	26	0	0	8	62	24	33	30	228	71	8	86	63
16:45	57	25	1	1	5	61	28	24	34	236	82	7	89	58
17:00	70	15	0	1	14	56	26	35	43	260	85	15	82	78
17:15	55	15	1	0	8	42	21	26	33	201	70	9	63	59
17:30	49	21	4	2	9	41	7	28	19	180	70	15	48	47
17:45	41	19	0	1	5	51	14	20	14	165	60	6	65	34
18:00	174	49	0	2	9	154	48	78	53	567	223	11	202	131
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	106	45	4	2	9	99	39	56	48	408	151	15	138	104
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	96	24	2	3	4	92	21	46	33	321	120	9	113	79
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	51	19	0	1	4	56	18	16	14	179	70	5	74	30
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	2490	1082	40	25	295	2548	1248	1439	1294	10461	3572	360	3796	2733
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
24hr Volume	2739	1191	44	28	325	2803	1373	1583	1424	11508	3930	396	4176	3007

Summary of Traffic Count
Transportation Development Division

Site: 1152012
County: Baker
City: Baker City

Date: 5/15/2012
Hours: 6:00 AM-10:00 PM
Highway #: 066

Milepoint: 50.80
Count Number: 1.00

Location: US30(10th St.) @ "C" St.
Weather: Clear

	Summary By Movements														Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
6:00	0	15	0	0	0	0	22	0	1	0	0	0		38	15	0	23	0
6:15	0	12	0	0	0	0	23	0	0	0	0	0		35	12	0	23	0
6:30	0	23	0	0	0	0	42	0	0	2	0	1		68	23	0	42	3
6:45	0	20	1	0	0	0	44	1	0	0	0	0		66	21	0	45	0
7:00	0	39	1	0	0	0	35	0	0	0	0	0		75	40	0	35	0
7:15	0	45	0	0	0	0	51	1	0	0	0	2		99	45	0	52	2
7:30	0	70	0	0	0	0	93	0	0	0	0	0		163	70	0	93	0
7:45	1	71	2	1	3	0	101	2	2	1	0	0		184	74	4	105	1
8:00	1	53	1	0	0	0	51	0	0	1	0	2		109	55	0	51	3
8:15	0	56	0	0	1	0	56	0	1	4	0	1		119	56	1	57	5
8:30	0	57	0	0	1	0	41	0	0	0	0	0		99	57	1	41	0
8:45	1	47	1	0	0	0	63	0	1	1	0	2		116	49	0	64	3
9:00	2	250	1	5	0	0	196	0	5	0	0	7		466	253	5	201	7
9:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:00	1	249	3	2	0	0	234	4	3	2	0	7		505	253	2	241	9
10:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
11:00	1	72	1	1	0	0	63	0	3	1	0	3		145	74	1	66	4
11:15	2	74	2	1	0	1	53	0	0	2	0	1		136	78	2	53	3
11:30	0	85	1	1	1	0	58	1	0	1	0	4		152	86	2	59	5
11:45	0	80	1	0	0	0	62	2	1	1	0	1		148	81	0	65	2
12:00	0	112	0	0	0	0	72	2	1	2	0	1		190	112	0	75	3
12:15	0	72	0	1	0	0	77	1	3	0	0	3		157	72	1	81	3
12:30	0	77	1	0	1	0	64	2	1	1	0	3		150	78	1	67	4
12:45	0	83	0	0	1	0	86	0	1	2	0	0		173	83	1	87	2
13:00	1	317	7	2	0	0	329	3	5	4	0	7		675	325	2	337	11
13:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:00	1	281	1	2	0	0	308	1	2	2	0	6		604	283	2	311	8
14:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
15:00	0	72	1	1	0	0	55	0	0	0	0	1		130	73	1	55	1
15:15	3	78	0	0	0	0	63	0	1	0	0	0		145	81	0	64	0
15:30	2	87	1	0	0	0	69	0	1	0	0	0		160	90	0	70	0
15:45	0	77	1	1	0	0	69	1	2	1	0	1		153	78	1	72	2
16:00	0	97	0	1	0	0	74	1	2	1	0	0		176	97	1	77	1
16:15	0	89	0	0	0	0	53	0	0	1	0	0		143	89	0	53	1
16:30	0	106	0	1	0	0	67	0	0	1	0	0		175	106	1	67	1
16:45	0	99	0	0	0	0	84	1	1	0	0	2		187	99	0	86	2
17:00	0	101	0	1	0	0	70	4	0	1	0	2		179	101	1	74	3
17:15	1	74	3	0	2	0	72	1	3	0	0	2		158	78	2	76	2
17:30	1	65	2	0	0	0	67	0	1	1	0	1		138	68	0	68	2
17:45	1	60	0	1	2	0	53	0	1	0	0	1		119	61	3	54	1
18:00	1	193	1	0	0	0	193	2	2	2	0	3		397	195	0	197	5
18:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:00	1	127	0	1	0	0	121	1	2	1	0	3		257	128	1	124	4
19:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:00	1	101	1	0	2	1	90	1	1	0	0	1		199	103	3	92	1
20:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:00	0	40	0	0	0	0	42	0	1	0	0	0		83	40	0	43	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Total Count	22	3726	34	23	14	2	3466	32	48	36	0	68		7471	3782	39	3546	104
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1	1.1	1.1
24hr Volume	25	4099	38	26	16	3	3813	36	53	40	0	75		8219	4161	43	3901	115

Site: 1062012
County: Baker
City: Baker City

Milepoint: 0.98
Count Number: 1.00

Date: 5/14/2012
Hours: 6:00 AM-10:00 PM
Highway #: 086
Location: I-84 n/b ramps @ OR86(Cedar St.) Birch St.
Weather: Clear

Time of Day	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	TOTAL
06:00-07:00A	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-07:15A	0	0	0	1	12	0	0	0	0	0	6	4	23
07:15-07:30A	0	0	0	0	7	0	3	0	1	0	4	5	20
07:30-07:45A	0	0	0	0	14	0	3	0	1	0	4	3	25
07:45-08:00A	0	0	0	1	27	0	2	0	4	0	10	2	46
08:00-08:15A	0	0	0	1	17	0	1	0	1	0	3	4	27
08:15-08:30A	0	0	0	0	16	0	2	0	5	0	6	1	30
08:30-08:45A	0	0	0	1	9	0	1	0	1	0	9	4	25
08:45-09:00A	0	0	0	1	9	0	1	0	1	0	11	6	29
09:00-10:00A	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00-11:00A	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00-11:15A	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30A	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45A	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15P	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30P	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45P	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-01:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00-02:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00-03:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00-04:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00-04:15P	0	0	0	1	9	0	0	0	3	0	9	12	34
04:15-04:30P	0	0	0	1	12	0	4	0	0	0	4	5	26
04:30-04:45P	0	0	0	1	17	0	5	0	0	0	10	4	37
04:45-05:00P	0	0	0	0	5	0	3	0	2	0	6	2	18
05:00-05:15P	0	0	0	1	11	0	3	0	3	0	11	4	33
05:15-05:30P	0	0	0	2	9	0	1	0	4	0	11	6	33
05:30-05:45P	0	0	0	0	10	0	4	0	0	0	14	3	31
05:45-06:00P	0	0	0	2	6	0	2	0	1	0	11	2	24
06:00-07:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-08:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-09:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00-10:00P	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Total													
AM PEAK	43	28	70	114	44	230	102	24	2	0	18	23	698
Heavy Veh	1	1	1	0	2	2	7	0	0	0	1	2	
Heavy Veh %	2.3%	3.6%	1.4%	0.0%	4.5%	0.9%	6.9%	0.0%	0.0%	#DIV/0!	5.6%	8.7%	
Peak Hour Factor	0.76												
PM PEAK	78	66	144	139	143	112	182	77	3	9	168	149	1270
Heavy Veh	0	0	0	0	2	0	3	0	0	0	1	0	
Heavy Veh %	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	1.6%	0.0%	0.0%	0.0%	0.6%	0.0%	
Peak Hour Factor	0.94												
PEAK OF THE DAY	78	66	144	139	143	112	182	77	3	9	168	149	1270
Heavy Veh	0	0	0	0	2	0	3	0	0	0	1	0	
Heavy Veh %	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	1.6%	0.0%	0.0%	0.0%	0.6%	0.0%	
Peak Hour Factor	0.94												
System Peak	0	0	0	4	42	0	12	0	9	0	38	16	121
Heavy Veh	#REF!	#REF!	#REF!	#REF!	0	0	0	0	0	0	0	0	
Heavy Veh %	#REF!	#REF!	#REF!	#REF!	0.0%	#DIV/0!	0.0%	#DIV/0!	0.0%	#DIV/0!	0.0%	0.0%	
Peak Hour Factor	0.82												

Site: 1062012
County: Baker
City: Baker City

Milepoint: 0.98
Count Number: 1.00

Date: 5/14/2012
Hours: 6:00 AM-10:00 PM
Highway #: 086
Location: I-84 s/b ramps @ OR86(Cedar St.) Birch St.
Weather: Clear

	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL
06:00-07:0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-07:1	2	0	0	0	5	4	0	0	0	0	15	0
07:15-07:3	3	0	1	0	12	1	0	0	0	1	11	0
07:30-07:4	2	0	1	0	20	2	0	0	0	2	14	0
07:45-08:0	7	0	1	0	19	3	0	0	0	0	5	0
08:00-08:1	6	0	1	0	15	4	0	0	0	1	15	0
08:15-08:3	9	0	1	0	9	0	0	0	0	0	13	0
08:30-08:4	2	0	0	0	7	2	0	0	0	1	11	0
08:45-09:0	2	0	1	0	13	3	0	0	0	3	12	0
09:00-10:0	0	0	0	0	0	0	0	0	0	0	0	0
10:00-11:0	0	0	0	0	0	0	0	0	0	0	0	0
11:00-11:1	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:3	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:4	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:1	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:3	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:4	0	0	0	0	0	0	0	0	0	0	0	0
12:45-01:0	0	0	0	0	0	0	0	0	0	0	0	0
01:00-02:0	0	0	0	0	0	0	0	0	0	0	0	0
02:00-03:0	0	0	0	0	0	0	0	0	0	0	0	0
03:00-04:0	0	0	0	0	0	0	0	0	0	0	0	0
04:00-04:1	4	1	1	0	24	1	0	0	0	0	10	0
04:15-04:3	7	1	1	0	16	2	0	0	0	1	15	0
04:30-04:4	6	0	4	0	14	2	0	0	0	2	13	0
04:45-05:0	7	0	1	0	16	3	0	0	0	3	15	0
05:00-05:1	7	0	1	0	12	0	0	0	0	0	14	0
05:15-05:3	6	0	3	0	11	6	0	0	0	0	15	0
05:30-05:4	7	0	1	0	11	0	0	0	0	0	15	0
05:45-06:0	6	0	1	0	9	0	0	0	0	1	7	0
06:00-07:0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-08:0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-09:0	0	0	0	0	0	0	0	0	0	0	0	0
09:00-10:0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Total												
AM PEAK	43	28	70	114	44	230	102	24	2	0	18	23
Heavy Vel	1	1	1	0	2	2	7	0	0	0	1	2
Heavy Vel	2.3%	3.6%	1.4%	0.0%	4.5%	0.9%	6.9%	0.0%	0.0%	#DIV/0!	5.6%	8.7%
Peak Hour	0.76											
PM PEAK	78	66	144	139	143	112	182	77	3	9	168	149
Heavy Vel	0	0	0	0	2	0	3	0	0	0	1	0
Heavy Vel	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	1.6%	0.0%	0.0%	0.0%	0.6%	0.0%
Peak Hour	0.94											
PEAK OF	78	66	144	139	143	112	182	77	3	9	168	149
Heavy Vel	0	0	0	0	2	0	3	0	0	0	1	0
Heavy Vel	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	1.6%	0.0%	0.0%	0.0%	0.6%	0.0%
Peak Hour	0.94											
System Pe	26	0	9	0	53	11	0	0	0	5	57	0
Heavy Vel	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vel	0.0%	#DIV/0!	0.0%	#DIV/0!	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	0.0%	0.0%	#DIV/0!
Peak Hour	#DIV/0!											

Appendix 2 Operations and Queuing Analysis Results

HCS 2010: Freeway Merge and Diverge Segments Release 6.3

Phone: Fax:
E-mail:

Merge Analysis

Analyst: JCC
Agency/Co.: Kittelson & Associates, Inc.
Date performed: 10/15/2012
Analysis time period: PM Peak
Freeway/Dir of Travel: I-84 (Old Oregon Trail)/EB
Junction: Exit 302 (OR 86)
Jurisdiction: ODOT
Analysis Year: 2012
Description: Baker City TSP Update

Freeway Data

Type of analysis	Merge	
Number of lanes in freeway	2	
Free-flow speed on freeway	65.0	mph
Volume on freeway	500	vph

On Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-flow speed on ramp	35.0	mph
Volume on ramp	2	vph
Length of first accel/decel lane	900	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist? Yes

Volume on adjacent Ramp	5	vph
Position of adjacent Ramp	Upstream	
Type of adjacent Ramp	Off	
Distance to adjacent Ramp	2000	ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway	Ramp	Adjacent Ramp	
Volume, V (vph)	500	2	5	vph
Peak-hour factor, PHF	0.90	0.91	0.91	
Peak 15-min volume, v15	139	1	2	v
Trucks and buses	41	0	0	%
Recreational vehicles	0	0	0	%
Terrain type:	Level	Level	Level	
Grade	%	%	%	
Length	mi	mi	mi	
Trucks and buses PCE, ET	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.830	1.000	1.000	
Driver population factor, fP	1.00	1.00	1.00	
Flow rate, vp	669	2	5	pcph

Estimation of V12 Merge Areas

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 1.000 Using Equation 0

$v_{12} = v_F (P_{FM}) =$ 669 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
v_{FO}	671	4700	No

v_3 or v_{av34} 0 pc/h (Equation 13-14 or 13-17)

Is v_3 or v_{av34} > 2700 pc/h? No

Is v_3 or v_{av34} > 1.5 v_{12} /2 No

If yes, v_{12A} = 669 (Equation 13-15, 13-16, 13-18, or 13-19)

Flow Entering Merge Influence Area

	Actual	Max Desirable	Violation?
v_{R12}	671	4600	No

Level of Service Determination (if not F)

Density, $D_R = 5.475 + 0.00734\ v_{R12} + 0.0078\ v_{R12} - 0.00627\ L_A$ = 5.1 pc/mi/ln

Level of service for ramp-freeway junction areas of influence A

Speed Estimation

Intermediate speed variable, M_S = 0.266

Space mean speed in ramp influence area, S_R = 58.9 mph

Space mean speed in outer lanes, S_0 = N/A mph

Space mean speed for all vehicles, S = 58.9 mph

HCS 2010: Freeway Merge and Diverge Segments Release 6.3

Phone: Fax:
E-mail:

Merge Analysis

Analyst: JCC
Agency/Co.: Kittelson & Associates, Inc.
Date performed: 10/15/2012
Analysis time period: PM Peak
Freeway/Dir of Travel: I-84 (Old Oregon Trail)/WB
Junction: Exit 302 (OR 86)
Jurisdiction: ODOT
Analysis Year: 2012
Description: Baker City TSP Update

Freeway Data

Type of analysis	Merge	
Number of lanes in freeway	2	
Free-flow speed on freeway	65.0	mph
Volume on freeway	500	vph

On Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-flow speed on ramp	35.0	mph
Volume on ramp	5	vph
Length of first accel/decel lane	900	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist? Yes

Volume on adjacent Ramp	5	vph
Position of adjacent Ramp	Upstream	
Type of adjacent Ramp	Off	
Distance to adjacent Ramp	2000	ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway	Ramp	Adjacent Ramp	
Volume, V (vph)	500	5	5	vph
Peak-hour factor, PHF	0.90	0.77	0.77	
Peak 15-min volume, v15	139	2	2	v
Trucks and buses	41	0	11	%
Recreational vehicles	0	0	0	%
Terrain type:	Level	Level	Level	
Grade	%	%	%	
Length	mi	mi	mi	
Trucks and buses PCE, ET	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.830	1.000	0.948	
Driver population factor, fP	1.00	1.00	1.00	
Flow rate, vp	669	6	7	pcph

Estimation of V12 Merge Areas

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 1.000 Using Equation 0

$v_{12} = v_{F} (P_{FM})$ = 669 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
v_{FO}	675	4700	No

v_{3} or v_{av34} 0 pc/h (Equation 13-14 or 13-17)

Is v_{3} or v_{av34} > 2700 pc/h? No

Is v_{3} or v_{av34} > 1.5 v_{12} /2 No

If yes, v_{12A} = 669 (Equation 13-15, 13-16, 13-18, or 13-19)

Flow Entering Merge Influence Area

	Actual	Max Desirable	Violation?
v_{R12}	675	4600	No

Level of Service Determination (if not F)

Density, $D_R = 5.475 + 0.00734\ v_{R12} + 0.0078\ v_{R12} - 0.00627\ L_A$ = 5.1 pc/mi/ln

Level of service for ramp-freeway junction areas of influence A

Speed Estimation

Intermediate speed variable, M_S = 0.266

Space mean speed in ramp influence area, S_R = 58.9 mph

Space mean speed in outer lanes, S_0 = N/A mph

Space mean speed for all vehicles, S = 58.9 mph

HCS 2010: Freeway Merge and Diverge Segments Release 6.3

Phone: Fax:
E-mail:

Merge Analysis

Analyst: JCC
Agency/Co.: Kittelson & Associates, Inc.
Date performed: 10/15/2012
Analysis time period: PM Peak
Freeway/Dir of Travel: I-84 (Old Oregon Trail)/EB
Junction: Exit 304 (Campbell St)
Jurisdiction: ODOT
Analysis Year: 2012
Description: Baker City TSP Update

Freeway Data

Type of analysis	Merge	
Number of lanes in freeway	2	
Free-flow speed on freeway	65.0	mph
Volume on freeway	500	vph

On Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-flow speed on ramp	35.0	mph
Volume on ramp	5	vph
Length of first accel/decel lane	900	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist? Yes

Volume on adjacent Ramp	12	vph
Position of adjacent Ramp	Upstream	
Type of adjacent Ramp	Off	
Distance to adjacent Ramp	3000	ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway	Ramp	Adjacent Ramp	
Volume, V (vph)	500	5	12	vph
Peak-hour factor, PHF	0.90	0.85	0.85	
Peak 15-min volume, v15	139		4	v
Trucks and buses	41	9	10	%
Recreational vehicles	0	0	0	%
Terrain type:	Level	Level	Level	
Grade	%	%	%	
Length	mi	mi	mi	
Trucks and buses PCE, ET	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.830	0.957	0.952	
Driver population factor, fP	1.00	1.00	1.00	
Flow rate, vp	669	6	15	pcph

Estimation of V12 Merge Areas

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 1.000 Using Equation 0

$v_{12} = v\ (P_{FM}) =$ 669 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
v_{FO}	675	4700	No

v_3 or v_{av34} 0 pc/h (Equation 13-14 or 13-17)

Is v_3 or v_{av34} > 2700 pc/h? No

Is v_3 or v_{av34} > 1.5 v_{12} /2 No

If yes, v_{12A} = 669 (Equation 13-15, 13-16, 13-18, or 13-19)

Flow Entering Merge Influence Area

	Actual	Max Desirable	Violation?
v_{R12}	675	4600	No

Level of Service Determination (if not F)

Density, $D_R = 5.475 + 0.00734\ v_{R12} + 0.0078\ v_A - 0.00627\ L_A$ = 5.1 pc/mi/ln

Level of service for ramp-freeway junction areas of influence A

Speed Estimation

Intermediate speed variable, M_S = 0.266

Space mean speed in ramp influence area, S_R = 58.9 mph

Space mean speed in outer lanes, S_0 = N/A mph

Space mean speed for all vehicles, S = 58.9 mph

HCS 2010: Freeway Merge and Diverge Segments Release 6.3

Phone: Fax:
E-mail:

Merge Analysis

Analyst: JCC
Agency/Co.: Kittelson & Associates, Inc.
Date performed: 10/15/2012
Analysis time period: PM Peak
Freeway/Dir of Travel: I-84 (Old Oregon Trail)/WB
Junction: Exit 304 (Campbell St)
Jurisdiction: ODOT
Analysis Year: 2012
Description: Baker City TSP Update

Freeway Data

Type of analysis	Merge	
Number of lanes in freeway	2	
Free-flow speed on freeway	65.0	mph
Volume on freeway	500	vph

On Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-flow speed on ramp	35.0	mph
Volume on ramp	10	vph
Length of first accel/decel lane	900	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist? Yes

Volume on adjacent Ramp	5	vph
Position of adjacent Ramp	Downstream	
Type of adjacent Ramp	Off	
Distance to adjacent Ramp	4500	ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway	Ramp	Adjacent Ramp	
Volume, V (vph)	500	10	5	vph
Peak-hour factor, PHF	0.90	0.85	0.77	
Peak 15-min volume, v15	139	3	2	v
Trucks and buses	41	3	11	%
Recreational vehicles	0	0	0	%
Terrain type:	Level	Level	Level	
Grade	%	%	%	
Length	mi	mi	mi	
Trucks and buses PCE, ET	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.830	0.985	0.948	
Driver population factor, fP	1.00	1.00	1.00	
Flow rate, vp	669	12	7	pcph

Estimation of V12 Merge Areas

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 1.000 Using Equation 0

$v_{12} = v (P_{FM}) = 669$ pc/h

Capacity Checks

	Actual	Maximum	LOS F?
v_{FO}	681	4700	No

v_3 or v_{av34} = 0 pc/h (Equation 13-14 or 13-17)

Is v_3 or v_{av34} > 2700 pc/h? No

Is v_3 or v_{av34} > 1.5 v_{12} /2 No

v_3 or v_{av34} 12

If yes, v_{12A} = 669 (Equation 13-15, 13-16, 18, or 19)

Flow Entering Merge Influence Area

	Actual	Max Desirable	Violation?
v_{R12}	681	4600	No

Level of Service Determination (if not F)

Density, $D_R = 5.475 + 0.00734\ v_{R12} + 0.0078\ v_A - 0.00627\ L_A$ = 5.1 pc/mi/ln

Level of service for ramp-freeway junction areas of influence A

Speed Estimation

Intermediate speed variable, M_S = 0.266

Space mean speed in ramp influence area, S_R = 58.9 mph

Space mean speed in outer lanes, S_0 = N/A mph

Space mean speed for all vehicles, S = 58.9 mph

HCS 2010: Freeway Merge and Diverge Segments Release 6.3

Phone: Fax:
E-mail:

Diverge Analysis

Analyst: JCC
Agency/Co.: Kittelson & Associates, Inc
Date performed: 10/15/2012
Analysis time period: PM Peak
Freeway/Dir of Travel: I-84 (Old Oregon Trail)/EB
Junction: Exit 302 (OR 86)
Jurisdiction: ODOT
Analysis Year: 2012
Description: Baker City TSP

Freeway Data

Type of analysis	Diverge	
Number of lanes in freeway	2	
Free-flow speed on freeway	65.0	mph
Volume on freeway	500	vph

Off Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-Flow speed on ramp	35.0	mph
Volume on ramp	5	vph
Length of first accel/decel lane	500	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist? Yes

Volume on adjacent ramp	2	vph
Position of adjacent ramp	Downstream	
Type of adjacent ramp	Off	
Distance to adjacent ramp	2000	ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway	Ramp	Adjacent Ramp	
Volume, V (vph)	500	5	2	vph
Peak-hour factor, PHF	0.90	0.90	0.90	
Peak 15-min volume, v15	139		1	v
Trucks and buses	41	0	0	%
Recreational vehicles	0	0	0	%
Terrain type:	Level	Level	Level	
Grade	0.00 %	0.00 %	0.00 %	
Length	0.00 mi	0.00 mi	0.00 mi	
Trucks and buses PCE, ET	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.830	1.000	1.000	
Driver population factor, fP	1.00	1.00	1.00	
Flow rate, vp	669	6	2	pcph

Estimation of V12 Diverge Areas

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 1.000 Using Equation 0

$v_{12} = v_R + (v_F - v_R) P_{FD}$ = 669 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
$v_{Fi} = v_F$	669	4700	No
$v_{FO} = v_F - v_R$	663	4700	No
v_R	6	2000	No

v_3 or v_{av34} 0 pc/h (Equation 13-14 or 13-17)

Is v_{av34} or v_3 > 2700 pc/h? No

Is v_{av34} or v_3 > 1.5 v_{12} /2 No

If yes, v_{12A} = 669 (Equation 13-15, 13-16, 13-18, or 13-19)

Flow Entering Diverge Influence Area

	Actual	Max Desirable	Violation?
v_{12}	669	4400	No

Level of Service Determination (if not F)

Density, $D_R = 4.252 + 0.0086\ v_{12} - 0.009\ L_D$ = 5.5 pc/mi/ln

Level of service for ramp-freeway junction areas of influence A

Speed Estimation

Intermediate speed variable, D_S = 0.429

Space mean speed in ramp influence area, S_R = 55.1 mph

Space mean speed in outer lanes, S_0 = N/A mph

Space mean speed for all vehicles, S = 55.1 mph

HCS 2010: Freeway Merge and Diverge Segments Release 6.3

Phone: Fax:
E-mail:

Diverge Analysis

Analyst: JCC
Agency/Co.: Kittelson & Associates, Inc
Date performed: 10/15/2012
Analysis time period: PM Peak
Freeway/Dir of Travel: I-84 (Old Oregon Trail)/EB
Junction: Exit 302 (OR 86)
Jurisdiction: ODOT
Analysis Year: 2012
Description: Baker City TSP

Freeway Data

Type of analysis	Diverge	
Number of lanes in freeway	2	
Free-flow speed on freeway	65.0	mph
Volume on freeway	500	vph

Off Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-Flow speed on ramp	35.0	mph
Volume on ramp	5	vph
Length of first accel/decel lane	900	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist? Yes

Volume on adjacent ramp	5	vph
Position of adjacent ramp	Downstream	
Type of adjacent ramp	Off	
Distance to adjacent ramp	2000	ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway	Ramp	Adjacent Ramp	
Volume, V (vph)	500	5	5	vph
Peak-hour factor, PHF	0.90	0.71	0.71	
Peak 15-min volume, v15	139	2	2	v
Trucks and buses	41	0	0	%
Recreational vehicles	0	0	0	%
Terrain type:	Level	Level	Level	
Grade	0.00 %	0.00 %	0.00 %	
Length	0.00 mi	0.00 mi	0.00 mi	
Trucks and buses PCE, ET	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.830	1.000	1.000	
Driver population factor, fP	1.00	1.00	1.00	
Flow rate, vp	669	7	7	pcph

Estimation of V12 Diverge Areas

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 1.000 Using Equation 0

$v_{12} = v_R + (v_F - v_R) P_{FD}$ = 669 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
$v_{Fi} = v_F$	669	4700	No
$v_{FO} = v_F - v_R$	662	4700	No
v_R	7	2000	No

v_3 or v_{av34} 0 pc/h (Equation 13-14 or 13-17)

Is v or v > 2700 pc/h? No
3 av34
Is v or v > 1.5 v /2 No
av34 12
If yes, v = 669 (Equation 13-15, 13-16, 18, or 19)
12A

Flow Entering Diverge Influence Area

	Actual	Max Desirable	Violation?
v 12	669	4400	No

Level of Service Determination (if not F)

Density, $D_R = 4.252 + 0.0086\ v_{12} - 0.009\ L_D$ = 1.9 pc/mi/ln

Level of service for ramp-freeway junction areas of influence A

Speed Estimation

Intermediate speed variable, D_S = 0.429

Space mean speed in ramp influence area, S_R = 55.1 mph

Space mean speed in outer lanes, S_0 = N/A mph

Space mean speed for all vehicles, S = 55.1 mph

HCS 2010: Freeway Merge and Diverge Segments Release 6.3

ıone: Fax:
-mail:

Diverge Analysis

nalyst: JCC
gency/Co.: Kittelson & Associates, Inc
ate performed: 10/15/2012
nalysis time period: PM Peak
reeway/Dir of Travel: I-84 (Old Oregon Trail)/EB
ınction: Exit 304 (Campbell St)
ırisdiction: ODOT
nalysis Year: 2012
escription: Baker City TSP

Freeway Data

ype of analysis	Diverge	
umber of lanes in freeway	2	
ree-flow speed on freeway	65.0	mph
olume on freeway	500	vph

Off Ramp Data

ide of freeway	Right	
umber of lanes in ramp	1	
ree-Flow speed on ramp	35.0	mph
olume on ramp	10	vph
ength of first accel/decel lane	900	ft
ength of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

oes adjacent ramp exist? Yes

Volume on adjacent ramp	5	vph
Position of adjacent ramp	Downstream	
Type of adjacent ramp	Off	
D[illegible]nce to adjacent ramp	3000	ft

Conversion to pc/h Under Base Conditions

Junction Components	Freeway	Ramp	Adjacent Ramp	
Volume, V (vph)	500	10	5	vph
Peak-hour factor, PHF	0.90	0.92	0.92	
Peak 15-min volume, v15	139	3	3	v
Trucks and buses	41	10	9	%
Recreational vehicles	0	0	0	%
Terrain type:	Level	Level	Level	
Grade	0.00 %	0.00 %	0.00 %	
Length	0.00 mi	0.00 mi	0.00 mi	
Trucks and buses PCE, ET	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.830	0.952	0.957	
Driver population factor, fP	1.00	1.00	1.00	
Fl[illegible] rate, vp	669	11	6	pcph

Estimation of V12 Diverge Areas

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 1.000 Using Equation 0

$v_{12} = v_R + (v - v_F) P_{FD}$ = 669 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
$v_{Fi} = v_F$	669	4700	No
$v_{FO} = v - v_R$	658	4700	No
v[illegible]	11	2000	No

v_3 or v_{av34} 0 pc/h (Equation 13-14 or 13-17)

v or v > 2700 pc/h? No
3 av34
v or v > 1.5 v /2 No
3 av34 12
yes, v = 669 (Equation 13-15, 13-16, 13-18, or 13-19)
12A

Flow Entering Diverge Influence Area

	Actual	Max Desirable	Violation?
v	669	4400	No
12			

Level of Service Determination (if not F)

ensity, D = 4.252 + 0.0086 v - 0.009 L = 1.9 pc/mi/ln
R 12 D
evel of service for ramp-freeway junction areas of influence A

Speed Estimation

ıtermediate speed variable, D = 0.429
S
pace mean speed in ramp influence area, S = 55.1 mph
R
pace mean speed in outer lanes, S = N/A mph
0
pace mean speed for all vehicles, S = 55.1 mph

HCS 2010: Freeway Merge and Diverge Segments Release 6.3

Phone: Fax:
E-mail:

Diverge Analysis

Analyst: JCC
Agency/Co.: Kittelson & Associates, Inc
Date performed: 10/15/2012
Analysis time period: PM Peak
Freeway/Dir of Travel: I-84 (Old Oregon Trail)/WB
Junction: Exit 304 (Campbell St)
Jurisdiction: ODOT
Analysis Year: 2012
Description: Baker City TSP

Freeway Data

Type of analysis	Diverge	
Number of lanes in freeway	2	
Free-flow speed on freeway	65.0	mph
Volume on freeway	500	vph

Off Ramp Data

Side of freeway	Right	
Number of lanes in ramp	1	
Free-Flow speed on ramp	35.0	mph
Volume on ramp	5	vph
Length of first accel/decel lane	900	ft
Length of second accel/decel lane		ft

Adjacent Ramp Data (if one exists)

Does adjacent ramp exist? Yes

olume on adjacent ramp	10	vph
osition of adjacent ramp	Upstream	
ype of adjacent ramp	Off	
istance to adjacent ramp	2000	ft

Conversion to pc/h Under Base Conditions

nction Components	Freeway	Ramp	Adjacent Ramp	
olume, V (vph)	500	5	10	vph
eak-hour factor, PHF	0.90	0.85	0.85	
eak 15-min volume, v15	139	2	3	v
rucks and buses	41	0	0	%
ecreational vehicles	0	0	0	%
errain type:	Level	Level	Level	
Grade	0.00 %	0.00 %	0.00 %	
Length	0.00 mi	0.00 mi	0.00 mi	
rucks and buses PCE, ET	1.5	1.5	1.5	
ecreational vehicle PCE, ER	1.2	1.2	1.2	
eavy vehicle adjustment, fHV	0.830	1.000	1.000	
river population factor, fP	1.00	1.00	1.00	
low rate, vp	669	6	12	pcph

Estimation of V12 Diverge Areas

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 1.000 Using Equation 0

$v_{12} = v_R + (v_F - v_R) P_{FD}$ = 669 pc/h

Capacity Checks

	Actual	Maximum	LOS F?
$v_{Fi} = v_F$	669	4700	No
$v_{FO} = v_F - v_R$	663	4700	No
v_R	6	2000	No
v_3 or v_{av34}	0 pc/h	(Equation 13-14 or 13-17)	

Is v_3 or v_{av34} > 2700 pc/h? No

Is v_3 or v_{av34} > 1.5 v_{12} /2 No

If yes, v_{12A} = 669 (Equation 13-15, 13-16, 13-18, or 13-19)

Flow Entering Diverge Influence Area

	Actual	Max Desirable	Violation?
v_{12}	669	4400	No

Level of Service Determination (if not F)

Density, $D_R = 4.252 + 0.0086\ v_{12} - 0.009\ L_D$ = 1.9 pc/mi/ln

Level of service for ramp-freeway junction areas of influence A

Speed Estimation

Intermediate speed variable, D_S = 0.429

Space mean speed in ramp influence area, S_R = 55.1 mph

Space mean speed in outer lanes, S_0 = N/A mph

Space mean speed for all vehicles, S = 55.1 mph

HCM Unsignalized Intersection Capacity Analysis
1: OR 86 (Baker-Copperfield Hwy) & NB I-84 Ramp

10/16/2012

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	70	0	0	52	3	13	0	12	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.79	0.79	0.79	0.64	0.64	0.64	0.88	0.88	0.88	0.77	0.77	0.77
Hourly flow rate (vph)	32	89	0	0	81	5	15	0	14	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	86			89			235	238	89	249	235	84
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	86			89			235	238	89	249	235	84
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			98	100	99	100	100	100
cM capacity (veh/h)	1523			1520			689	653	975	688	655	981

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	120	86	28
Volume Left	32	0	15
Volume Right	0	5	14
cSH	1523	1700	802
Volume to Capacity	0.02	0.05	0.04
Queue Length 95th (ft)	2	0	3
Control Delay (s)	2.1	0.0	9.7
Lane LOS	A		A
Approach Delay (s)	2.1	0.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	21.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	65	3	10	55	0	0	0	0	30	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.78	0.78	0.78	0.25	0.91	0.91	0.83	0.83	0.83
Hourly flow rate (vph)	0	79	4	13	71	0	0	0	0	36	0	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	71			83			186	177	81	177	179	71
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	71			83			186	177	81	177	179	71
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	95	100	99
cM capacity (veh/h)	1543			1527			768	714	984	784	712	998

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	83	83	45
Volume Left	0	13	36
Volume Right	4	0	8
cSH	1700	1527	817
Volume to Capacity	0.05	0.01	0.05
Queue Length 95th (ft)	0	1	4
Control Delay (s)	0.0	1.2	9.7
Lane LOS		A	A
Approach Delay (s)	0.0	1.2	9.7
Approach LOS			A

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	20.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	88	481	23	21	434	29	22	29	14	33	34	102
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.97			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1614	1738		1662	1713			1609			1554	
Flt Permitted	0.24	1.00		0.19	1.00			0.90			0.95	
Satd. Flow (perm)	414	1738		329	1713			1474			1486	
Peak-hour factor, PHF	0.92	0.92	0.92	0.93	0.93	0.93	0.89	0.89	0.89	0.91	0.91	0.91
Adj. Flow (vph)	96	523	25	23	467	31	25	33	16	36	37	112
RTOR Reduction (vph)	0	2	0	0	4	0	0	9	0	0	66	0
Lane Group Flow (vph)	96	546	0	23	494	0	0	65	0	0	119	0
Heavy Vehicles (%)	3%	0%	0%	0%	1%	4%	6%	4%	0%	3%	6%	1%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	29.0	24.4		22.8	21.3			25.8			25.8	
Effective Green, g (s)	29.0	24.4		22.8	21.3			25.8			25.8	
Actuated g/C Ratio	0.46	0.39		0.36	0.34			0.41			0.41	
Clearance Time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	277	671		150	577			602			607	
v/s Ratio Prot	c0.03	c0.31		0.00	0.29							
v/s Ratio Perm	0.13			0.05				0.04			c0.08	
v/c Ratio	0.35	0.81		0.15	0.86			0.11			0.20	
Uniform Delay, d1	19.2	17.4		23.2	19.5			11.6			12.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.8	7.5		0.5	11.9			0.4			0.7	
Delay (s)	19.9	24.8		23.7	31.4			11.9			12.7	
Level of Service	B	C		C	C			B			B	
Approach Delay (s)		24.1			31.1			11.9			12.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	24.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	63.2	Sum of lost time (s)	11.5
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		

Description: OR7/86 (Campbell St.) & OR7 (Main St.)

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	141	207	23	0	183	23	0	0	15	24	0	138
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.68	0.68	0.68	0.63	0.63	0.63	0.83	0.83	0.83
Hourly flow rate (vph)	168	246	27	0	269	34	0	0	24	29	0	166
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	303			274			1031	899	260	875	879	269
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	303			274			1031	899	260	875	879	269
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.6	4.0	3.3
p0 queue free %	87			100			100	100	97	87	100	79
cM capacity (veh/h)	1264			1301			150	244	750	224	250	774

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	168	274	269	34	24	29	166
Volume Left	168	0	0	0	0	29	0
Volume Right	0	27	0	34	24	0	166
cSH	1264	1700	1700	1700	750	224	774
Volume to Capacity	0.13	0.16	0.16	0.02	0.03	0.13	0.21
Queue Length 95th (ft)	11	0	0	0	2	11	20
Control Delay (s)	8.3	0.0	0.0	0.0	10.0	23.5	10.9
Lane LOS	A				A	C	B
Approach Delay (s)	3.1		0.0		10.0	12.8	
Approach LOS					A	B	

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	32.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	53	10	59	64	74	0	183	62	64	195	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected		0.99	1.00		0.98	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1699	1488		1693	1430		1733	1458	1662	1673	
Flt Permitted		0.93	1.00		0.86	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1605	1488		1489	1430		1733	1458	1662	1673	
Peak-hour factor, PHF	0.88	0.88	0.88	0.90	0.90	0.90	0.90	0.90	0.90	0.84	0.84	0.84
Adj. Flow (vph)	22	60	11	66	71	82	0	203	69	76	232	42
RTOR Reduction (vph)	0	0	5	0	0	41	0	0	55	0	12	0
Lane Group Flow (vph)	0	82	6	0	137	41	0	203	14	76	262	0
Heavy Vehicles (%)	6%	0%	0%	2%	0%	4%	0%	1%	2%	0%	1%	9%
Turn Type	Perm		Perm	Perm		Perm			Perm	Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4		4	8		8			2			
Actuated Green, G (s)		28.5	28.5		28.5	28.5		11.8	11.8	4.1	19.9	
Effective Green, g (s)		28.5	28.5		28.5	28.5		11.8	11.8	4.1	19.9	
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.21	0.21	0.07	0.35	
Clearance Time (s)		4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		2.5	2.5		2.5	2.5		2.5	2.5	3.5	2.5	
Lane Grp Cap (vph)		811	752		752	723		363	305	121	590	
v/s Ratio Prot								c0.12		c0.05	0.16	
v/s Ratio Perm		0.05	0.00		c0.09	0.03			0.01			
v/c Ratio		0.10	0.01		0.18	0.06		0.56	0.05	0.63	0.44	
Uniform Delay, d1		7.3	6.9		7.6	7.1		20.0	17.8	25.4	14.0	
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	0.0		0.5	0.2		1.5	0.0	10.2	0.4	
Delay (s)		7.5	6.9		8.1	7.3		21.5	17.9	35.6	14.4	
Level of Service		A	A		A	A		C	B	D	B	
Approach Delay (s)		7.5			7.8			20.6			19.0	
Approach LOS		A			A			C			B	

Intersection Summary			
HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	56.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

Description: Main St @ Auburn Ave

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↱		↰	↱		↕	
Volume (vph)	4	271	36	283	231	43	47	56	300	21	53	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.98			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.97	1.00		0.98	1.00		0.99	
Satd. Flow (prot)		1722			1686	1488		1692	1458		1715	
Flt Permitted		0.99			0.51	1.00		0.86	1.00		0.88	
Satd. Flow (perm)		1712			877	1488		1491	1458		1532	
Peak-hour factor, PHF	0.78	0.78	0.78	0.84	0.84	0.84	0.87	0.87	0.87	0.78	0.78	0.78
Adj. Flow (vph)	5	347	46	337	275	51	54	64	345	27	68	5
RTOR Reduction (vph)	0	6	0	0	0	6	0	0	277	0	3	0
Lane Group Flow (vph)	0	392	0	0	612	45	0	118	68	0	97	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%	0%	2%	2%	0%	0%	0%
Turn Type	Prot			Prot		Prot	Perm		Over	Perm		
Protected Phases	7	4		3	8	8		2	3		6	
Permitted Phases							2			6		
Actuated Green, G (s)		23.7			38.4	38.4		7.7	10.7		7.7	
Effective Green, g (s)		23.7			38.4	38.4		7.7	10.7		7.7	
Actuated g/C Ratio		0.44			0.71	0.71		0.14	0.20		0.14	
Clearance Time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Vehicle Extension (s)		2.5			2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)		750			782	1056		212	288		218	
v/s Ratio Prot					c0.15	0.03			0.05			
v/s Ratio Perm		0.23			c0.40			c0.08			0.06	
v/c Ratio		0.52			0.78	0.04		0.56	0.24		0.44	
Uniform Delay, d1		11.1			5.1	2.3		21.6	18.3		21.2	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.5			5.0	0.1		2.5	0.3		1.0	
Delay (s)		11.6			10.1	2.4		24.1	18.6		22.3	
Level of Service		B			B	A		C	B		C	
Approach Delay (s)		11.6			9.5			20.0			22.3	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	0	162	2	44	1	139	262	0	0	244	129
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0		4.0	4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00			0.95			0.95	
Frt	1.00		0.85	1.00	1.00			1.00			0.95	
Flt Protected	0.95		1.00	0.95	1.00			0.98			1.00	
Satd. Flow (prot)	1630		1488	1662	1744			3204			3120	
Flt Permitted	0.20		1.00	0.95	1.00			0.70			1.00	
Satd. Flow (perm)	343		1488	1662	1744			2284			3120	
Peak-hour factor, PHF	0.81	0.81	0.81	0.55	0.55	0.55	0.94	0.94	0.94	0.91	0.91	0.91
Adj. Flow (vph)	173	0	200	4	80	2	148	279	0	0	268	142
RTOR Reduction (vph)	0	0	147	0	1	0	0	0	0	0	66	0
Lane Group Flow (vph)	173	0	53	4	81	0	0	427	0	0	344	0
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	2%	2%	0%	0%	0%	3%
Turn Type	custom		custom	Split			pm+pt					
Protected Phases				8	8		5	2			6	
Permitted Phases	4		4				2					
Actuated Green, G (s)	20.0		20.0	7.3	7.3			35.7			35.7	
Effective Green, g (s)	20.0		20.0	7.3	7.3			35.7			35.7	
Actuated g/C Ratio	0.27		0.27	0.10	0.10			0.48			0.48	
Clearance Time (s)	4.0		4.0	4.0	4.0			4.0			4.0	
Vehicle Extension (s)	2.5		2.5	2.5	2.5			4.5			4.5	
Lane Grp Cap (vph)	91		397	162	170			1087			1485	
v/s Ratio Prot				0.00	c0.05						0.11	
v/s Ratio Perm	c0.50		0.04					c0.19				
v/c Ratio	1.90		0.13	0.02	0.48			0.39			0.23	
Uniform Delay, d1	27.5		20.9	30.6	32.0			12.7			11.6	
Progression Factor	0.44		0.13	1.00	1.00			0.85			1.00	
Incremental Delay, d2	442.4		0.1	0.0	1.5			0.2			0.4	
Delay (s)	454.5		2.8	30.7	33.6			10.9			11.9	
Level of Service	F		A	C	C			B			B	
Approach Delay (s)		212.3			33.4			10.9			11.9	
Approach LOS		F			C			B			B	

Intersection Summary			
HCM Average Control Delay	70.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		

Description: OR7 (Main St.) & US30 (Broadway St.)
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Volume (vph)	17	76	24	23	78	95	25	265	18	136	292	26
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.97			0.93			0.99			0.99	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1690			1612			3254			3227	
Flt Permitted		0.94			0.96			0.90			0.74	
Satd. Flow (perm)		1593			1555			2941			2439	
Peak-hour factor, PHF	0.88	0.88	0.88	0.87	0.87	0.87	0.86	0.86	0.86	0.81	0.81	0.81
Adj. Flow (vph)	19	86	27	26	90	109	29	308	21	168	360	32
RTOR Reduction (vph)	0	15	0	0	57	0	0	4	0	0	4	0
Lane Group Flow (vph)	0	117	0	0	168	0	0	354	0	0	556	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	1%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.5			11.5			41.6			41.6	
Effective Green, g (s)		11.5			11.5			41.6			41.6	
Actuated g/C Ratio		0.19			0.19			0.68			0.68	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		300			293			2002			1661	
v/s Ratio Prot												
v/s Ratio Perm		0.07			c0.11			0.12			c0.23	
v/c Ratio		0.39			0.57			0.18			0.33	
Uniform Delay, d1		21.7			22.6			3.5			4.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			2.7			0.2			0.5	
Delay (s)		22.6			25.3			3.7			4.6	
Level of Service		C			C			A			A	
Approach Delay (s)		22.6			25.3			3.7			4.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

Description: US30 (10th St.) & Campbell St.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	4	0	8	0	0	2	1	368	6	0	447	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.67	0.67	0.67	0.50	0.50	0.50	0.88	0.88	0.88	0.91	0.91	0.91
Hourly flow rate (vph)	6	0	12	0	0	4	1	418	7	0	491	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								991				
pX, platoon unblocked												
vC, conflicting volume	707	918	246	681	915	212	491			425		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	707	918	246	681	915	212	491			425		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	98	100	100	99	100			100		
cM capacity (veh/h)	324	273	761	335	274	799	1083			1145		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	18	4	210	216	246	246
Volume Left	6	0	1	0	0	0
Volume Right	12	4	0	7	0	0
cSH	525	799	1083	1700	1145	1700
Volume to Capacity	0.03	0.01	0.00	0.13	0.00	0.14
Queue Length 95th (ft)	3	0	0	0	0	0
Control Delay (s)	12.1	9.5	0.1	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	12.1	9.5	0.0		0.0	
Approach LOS	B	A				

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	24.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Volume (veh/h)	2	6	8	14	8	29	7	331	35	74	425	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.65	0.65	0.65	0.84	0.84	0.84	0.83	0.83	0.83	0.84	0.84	0.84
Hourly flow rate (vph)	3	9	12	17	10	35	8	399	42	88	506	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	941	1144	257	883	1126	220	513			441		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	941	1144	257	883	1126	220	513			441		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	7.0	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	95	98	92	95	96	99			92		
cM capacity (veh/h)	190	184	749	215	189	777	1063			1115		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	25	61	208	242	341	260
Volume Left	3	17	8	0	88	0
Volume Right	12	35	0	42	0	7
cSH	297	352	1063	1700	1115	1700
Volume to Capacity	0.08	0.17	0.01	0.14	0.08	0.15
Queue Length 95th (ft)	7	15	1	0	6	0
Control Delay (s)	18.2	17.3	0.4	0.0	2.8	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	18.2	17.3	0.2		1.6	
Approach LOS	C	C				

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Volume (vph)	12	39	10	45	31	40	13	350	23	63	310	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.98			0.95			0.99			0.99	
Flt Protected		0.99			0.98			1.00			0.99	
Satd. Flow (prot)		1524			1473			2961			2909	
Flt Permitted		0.93			0.87			0.94			0.83	
Satd. Flow (perm)		1437			1306			2785			2447	
Peak-hour factor, PHF	0.79	0.79	0.79	0.83	0.83	0.83	0.91	0.91	0.91	0.86	0.86	0.86
Adj. Flow (vph)	15	49	13	54	37	48	14	385	25	73	360	41
RTOR Reduction (vph)	0	11	0	0	34	0	0	3	0	0	5	0
Lane Group Flow (vph)	0	66	0	0	105	0	0	421	0	0	469	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.8			9.8			57.2			57.2	
Effective Green, g (s)		9.8			9.8			57.2			57.2	
Actuated g/C Ratio		0.13			0.13			0.76			0.76	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		2.5			2.5			5.0			5.0	
Lane Grp Cap (vph)		188			171			2124			1866	
v/s Ratio Prot												
v/s Ratio Perm		0.05			c0.08			0.15			c0.19	
v/c Ratio		0.35			0.61			0.20			0.25	
Uniform Delay, d1		29.7			30.8			2.5			2.6	
Progression Factor		1.00			1.00			1.00			0.68	
Incremental Delay, d2		0.8			5.5			0.2			0.3	
Delay (s)		30.5			36.3			2.7			2.1	
Level of Service		C			D			A			A	
Approach Delay (s)		30.5			36.3			2.7			2.1	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		

Description: OR7 (Main St.) & Washington Ave.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	86	169	34	64	46	102	98	39	11	79	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.91	0.91	0.91	0.88	0.88	0.88
Hourly flow rate (vph)	5	102	201	40	76	55	112	108	43	12	90	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			5									
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	543	493	93	598	453	108	97			151		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	543	493	93	598	453	108	97			151		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	77	79	84	83	94	93			99		
cM capacity (veh/h)	350	439	967	252	458	938	1510			1437		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	308	171	112	108	43	12	97
Volume Left	5	40	112	0	0	12	0
Volume Right	201	55	0	0	43	0	7
cSH	1252	445	1510	1700	1700	1437	1700
Volume to Capacity	0.25	0.39	0.07	0.06	0.03	0.01	0.06
Queue Length 95th (ft)	24	45	6	0	0	1	0
Control Delay (s)	11.9	18.1	7.6	0.0	0.0	7.5	0.0
Lane LOS	B	C	A			A	
Approach Delay (s)	11.9	18.1	3.2			0.9	
Approach LOS	B	C					

Intersection Summary			
Average Delay	9.0		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	22	271	114	36	263	13	87	36	25	7	51	16
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		0.96			0.99			0.98			0.97	
Flt Protected		1.00			0.99			0.97			1.00	
Satd. Flow (prot)		3177			3220			1649			1691	
Flt Permitted		0.92			0.79			0.81			0.98	
Satd. Flow (perm)		2921			2547			1381			1667	
Peak-hour factor, PHF	0.84	0.84	0.84	0.79	0.79	0.79	0.90	0.90	0.90	0.89	0.89	0.89
Adj. Flow (vph)	26	323	136	46	333	16	97	40	28	8	57	18
RTOR Reduction (vph)	0	80	0	0	6	0	0	6	0	0	6	0
Lane Group Flow (vph)	0	405	0	0	389	0	0	159	0	0	77	0
Heavy Vehicles (%)	0%	0%	0%	3%	2%	0%	0%	3%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.5			16.5			50.5			50.5	
Effective Green, g (s)		16.5			16.5			50.5			50.5	
Actuated g/C Ratio		0.22			0.22			0.67			0.67	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		643			560			930			1122	
v/s Ratio Prot												
v/s Ratio Perm		0.14			c0.15			c0.12			0.05	
v/c Ratio		0.63			0.69			0.17			0.07	
Uniform Delay, d1		26.5			26.9			4.5			4.2	
Progression Factor		0.92			0.66			1.00			1.00	
Incremental Delay, d2		1.9			3.6			0.4			0.1	
Delay (s)		26.3			21.4			4.9			4.3	
Level of Service		C			C			A			A	
Approach Delay (s)		26.3			21.4			4.9			4.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

Description: US30 (Broadway St.) & 2nd St.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	7	359	35	24	325	17	21	32	35	13	32	7
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		0.99			0.99			0.95			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3270			3262			1637			1696	
Flt Permitted		0.95			0.90			0.95			0.94	
Satd. Flow (perm)		3096			2942			1566			1621	
Peak-hour factor, PHF	0.78	0.78	0.78	0.86	0.86	0.86	0.83	0.83	0.83	0.65	0.65	0.65
Adj. Flow (vph)	9	460	45	28	378	20	25	39	42	20	49	11
RTOR Reduction (vph)	0	14	0	0	7	0	0	15	0	0	4	0
Lane Group Flow (vph)	0	500	0	0	419	0	0	91	0	0	76	0
Heavy Vehicles (%)	0%	0%	3%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.3			18.3			48.7			48.7	
Effective Green, g (s)		18.3			18.3			48.7			48.7	
Actuated g/C Ratio		0.24			0.24			0.65			0.65	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		755			718			1017			1053	
v/s Ratio Prot												
v/s Ratio Perm		c0.16			0.14			c0.06			0.05	
v/c Ratio		0.66			0.58			0.09			0.07	
Uniform Delay, d1		25.6			25.0			4.9			4.8	
Progression Factor		1.00			1.60			1.00			1.00	
Incremental Delay, d2		2.2			1.2			0.2			0.1	
Delay (s)		27.8			41.3			5.1			5.0	
Level of Service		C			D			A			A	
Approach Delay (s)		27.8			41.3			5.1			5.0	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	29.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		

Description: US30 (Broadway St.) & 4th St.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱		↰	↑↑						↕	
Volume (veh/h)	0	155	41	3	94	0	0	0	0	6	0	100
Sign Control		Free			Free			Yield			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.81	0.81	0.81	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	180	48	4	116	0	0	0	0	7	0	112
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	116			228			382	328	114	214	351	58
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	116			228			382	328	114	214	351	58
tC, single (s)	4.1			4.8			7.5	6.5	6.9	8.3	6.5	7.1
tC, 2 stage (s)												
tF (s)	2.2			2.5			3.5	4.0	3.3	3.9	4.0	3.4
p0 queue free %	100			100			100	100	100	99	100	88
cM capacity (veh/h)	1485			1139			490	592	923	630	575	974

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	120	108	4	58	58	119
Volume Left	0	0	4	0	0	7
Volume Right	0	48	0	0	0	112
cSH	1700	1700	1139	1700	1700	944
Volume to Capacity	0.07	0.06	0.00	0.03	0.03	0.13
Queue Length 95th (ft)	0	0	0	0	0	11
Control Delay (s)	0.0	0.0	8.2	0.0	0.0	9.4
Lane LOS			A			A
Approach Delay (s)	0.0		0.3			9.4
Approach LOS						A

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	88	73	0	0	61	2	36	0	4	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.75	0.75	0.75	0.73	0.73	0.73	0.85	0.85	0.85
Hourly flow rate (vph)	99	82	0	0	81	3	49	0	5	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	84			82			362	364	41	327	362	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	84			82			362	364	41	327	362	83
tC, single (s)	4.1			4.1			7.6	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			91	100	99	100	100	100
cM capacity (veh/h)	1526			1528			538	531	1028	574	531	967

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	NB 1
Volume Total	99	41	41	84	55
Volume Left	99	0	0	0	49
Volume Right	0	0	0	3	5
cSH	1526	1700	1700	1700	565
Volume to Capacity	0.06	0.02	0.02	0.05	0.10
Queue Length 95th (ft)	5	0	0	0	8
Control Delay (s)	7.5	0.0	0.0	0.0	12.1
Lane LOS	A				B
Approach Delay (s)	4.1			0.0	12.1
Approach LOS					B

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	96	548	23	498	74	185
v/c Ratio	0.36	0.78	0.10	0.82	0.12	0.27
Control Delay	17.1	26.9	11.0	31.7	11.0	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	26.9	11.0	31.7	11.0	7.2
Queue Length 50th (ft)	19	149	4	168	14	18
Queue Length 95th (ft)	41	#366	15	#318	37	56
Internal Link Dist (ft)		1867		1829	149	1075
Turn Bay Length (ft)	75					
Base Capacity (vph)	264	762	226	689	635	695
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.72	0.10	0.72	0.12	0.27

Intersection Summary

Description: OR7/86 (Campbell St.) & OR7 (Main St.)

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	82	11	137	82	203	69	76	274
v/c Ratio	0.10	0.01	0.18	0.10	0.54	0.19	0.34	0.49
Control Delay	9.9	5.9	10.5	3.4	26.1	7.2	29.1	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	5.9	10.5	3.4	26.1	7.2	29.1	15.7
Queue Length 50th (ft)	15	0	26	0	66	0	25	63
Queue Length 95th (ft)	40	8	64	21	122	26	60	104
Internal Link Dist (ft)	225		99		195			883
Turn Bay Length (ft)		80		100		100		
Base Capacity (vph)	836	781	776	784	897	787	237	1234
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.01	0.18	0.10	0.23	0.09	0.32	0.22

Intersection Summary

Description: Main St @ Auburn Ave

Lane Group	EBT	WBT	WBR	NBT	NBR	SBT
Lane Group Flow (vph)	398	612	51	118	345	100
v/c Ratio	39.80	1.81	0.05	0.46	0.61	0.38
Control Delay	17644.2	398.0	2.6	26.9	8.2	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17644.2	398.0	2.6	26.9	8.2	24.0
Queue Length 50th (ft)	~270	~318	2	35	0	28
Queue Length 95th (ft)	#398	#479	11	76	53	56
Internal Link Dist (ft)	275	1867		1212		563
Turn Bay Length (ft)			80			
Base Capacity (vph)	10	338	1107	625	621	644
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	39.80	1.81	0.05	0.19	0.56	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBR	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	173	200	4	82	427	410
v/c Ratio	1.90	0.37	0.02	0.42	0.38	0.26
Control Delay	461.7	2.4	28.0	36.5	12.7	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	461.7	2.4	28.0	36.5	12.7	9.2
Queue Length 50th (ft)	~120	0	2	36	55	38
Queue Length 95th (ft)	#194	0	6	43	85	73
Internal Link Dist (ft)				119	265	1212
Turn Bay Length (ft)						
Base Capacity (vph)	91	543	266	280	1111	1581
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.90	0.37	0.02	0.29	0.38	0.26

Intersection Summary

Description: OR7 (Main St.) & US30 (Broadway St.)

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	132	225	358	560
v/c Ratio	0.42	0.64	0.18	0.34
Control Delay	21.7	23.8	4.3	5.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	21.7	23.8	4.3	5.3
Queue Length 50th (ft)	36	50	18	34
Queue Length 95th (ft)	75	104	42	67
Internal Link Dist (ft)	234	236	1139	911
Turn Bay Length (ft)				
Base Capacity (vph)	664	679	2005	1664
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.33	0.18	0.34

Intersection Summary

Description: US30 (10th St.) & Campbell St.

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	77	139	424	474
v/c Ratio	0.35	0.63	0.19	0.25
Control Delay	27.7	33.3	3.4	2.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	27.7	33.3	3.4	2.5
Queue Length 50th (ft)	27	44	22	7
Queue Length 95th (ft)	50	81	50	64
Internal Link Dist (ft)	209	161	883	265
Turn Bay Length (ft)				
Base Capacity (vph)	507	478	2186	1923
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.29	0.19	0.25

Intersection Summary

Description: OR7 (Main St.) & Washington Ave.

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	485	395	165	83
v/c Ratio	0.67	0.70	0.18	0.07
Control Delay	23.3	23.7	5.5	4.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.3	23.7	5.5	4.6
Queue Length 50th (ft)	41	85	21	9
Queue Length 95th (ft)	22	99	56	28
Internal Link Dist (ft)	508	533	240	235
Turn Bay Length (ft)				
Base Capacity (vph)	1418	1192	935	1127
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.33	0.18	0.07

Intersection Summary

Description: US30 (Broadway St.) & 2nd St.

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	514	426	106	80
v/c Ratio	0.67	0.59	0.10	0.08
Control Delay	28.6	41.5	4.4	5.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	28.6	41.5	4.4	5.6
Queue Length 50th (ft)	109	102	10	10
Queue Length 95th (ft)	117	100	29	21
Internal Link Dist (ft)	1574	508	260	215
Turn Bay Length (ft)				
Base Capacity (vph)	1454	1378	1033	1056
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.35	0.31	0.10	0.08

Intersection Summary

Description: US30 (Broadway St.) & 4th St.

Section 2
Future Conditions and System Alternatives Technical Memorandum

FUTURE CONDITIONS AND SYSTEM ALTERNATIVE TECHNICAL MEMORANDUM

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TECHNICAL MEMORANDUM #2

Baker City TSP Update

Future Conditions and System Alternatives

Project #: 12196.3

Date: December 8, 2012

To: Michelle Owen, City of Baker City
Cheryl Jarvis-Smith, Oregon Department of Transportation

From: Matt Hughart, AICP; and Jon Crisafi (KAI)
Matt Berkow and Drew Meisel (Alta Planning + Design)

cc: Andy Lindsey, Anderson-Perry & Associates, Inc.

This memorandum presents the year 2033 forecast transportation conditions for Baker City. Included is a summary of the future "no-build" traffic conditions analysis conducted for Baker City to identify transportation system deficiencies that may exist by the year 2033 if no additional improvements to the system are made in the next 20 years. This analysis was used to inform the identification and evaluation of transportation system options as identified in a subsequent memorandum.

The future no-build traffic conditions analysis includes an evaluation of how the 16 study intersections will operate in the year 2033 assuming growth and development occurs without any improvements made to the transportation system. The remainder of this document includes a description of the methodology used to develop forecast traffic volumes at the study intersections and presents the results of the future no-build traffic conditions analysis.

2033 TRAFFIC VOLUME FORECAST

Oregon's Transportation Planning Rule (TPR) requires communities to develop a 20-year plan to support the transportation system needs. Baker City anticipates completing and adopting the TSP update in 2013, thus the year 2033 is an appropriate forecast horizon year.

The year 2033 traffic volumes were developed according to the Cumulative Analysis methodology described in the ODOT Analysis Procedures Manual (APM – Reference 1). This type of analysis combines growth in regional traffic volumes along US 30 with growth in local traffic volumes associated with the projected development of available land within the city. A summary of the traffic volume projection process is presented below.

CUMULATIVE ANALYSIS

The cumulative analysis process accounts for the following four categories of vehicle trips.

- Through trips: vehicles that travel through Baker City but do stop in the city or leave the highway. An example of a through trip is someone traveling from La Grande to Ontario along I-84.
- Inbound trips: vehicles that come from outside of Baker City to a destination within the city limits.
- Outbound trips: vehicles that start in Baker City and travel to a destination outside the city limits.
- Local trips: vehicles that travel from one point in Baker City to another without leaving the city limits. An example of a local trip is someone who travels from their home to the grocery store without leaving the city.

There are several steps required to prepare a cumulative analysis, including:

- Developing a growth rate projection for highway traffic volumes;
- Identifying where household and employment growth is likely to occur in the community;
- Developing estimates of the number of vehicle trips associated with household and employment growth, and;
- Allocating those trips across the city to various growth areas.

An overview of each of these steps is presented below.

Background Growth Rate

As outlined in the APM, a background growth rate was developed for the Baker City Urban Growth Boundary based on ODOT's Future Volume Tables. Data points were identified along:

- I-84 – between the Baker Valley Automatic Traffic Recorder, Sta. 01-011 and the South Baker City Interchange
- OR 86 – between Broadway Street and just east of Main Street (along Campbell Street)
- US 30 - between Campbell Street (along 10th Street) and Myrtle Street.

These three highways were examined because of the likely differences in growth between the state routes through Baker City (i.e. OR 86 and US 30) and I-84. The 20-year growth factor for each data point is listed in Table 1, Table 2 and Table 3, along with the existing (2008/2010) and forecast (2030) Average Annual Daily Traffic (AADT). A correlation coefficient (R^2 Value) is also provided that indicates how well the historical traffic volume corresponds with the year. The APM states that R^2 values over 0.75 are preferred.

Table 1 I-85 Background Growth Rate Calculations

Highway Mile Point	Location	AADT 2008	AADT 2030	R^2 Value	20-Year Growth Factor
I-84 - 286.65	Baker Valley Automatic Traffic Recorder, Sta. 01-011, 0.45 mile south of Union-Baker County Line	9,100[1]	13,300	0.86	1.46
I-84 - 302.41	0.30 mile north of Baker-Copperfield Highway Interchange (OR 86)	9,000	13,500	0.85	1.50
I-84 - 303.74	0.40 mile north of Campbell Street Interchange (OR 86)	8,700	13,300	0.81	1.53
I-84 - 306.23	0.30 mile north of South Baker City Interchange (US 30)	7,800	11,900	0.89	1.53
				20-Year Average Growth Factor	***1.50***
				2033 Adjusted Growth Factor[2]	***1.58***

[1]Data recorded in 2010

[2]Factor adjusted from 2030 to 2033

Table 2 OR 86 Background Growth Rate Calculations

Highway Mile Point	Location	AADT 2010	AADT 2030	R^2 Value	20-Year Growth Factor
OR 86 - 0.02	0.02 miles north of Broadway Street	5,600	5,700	0.95	1.02
OR 86 - 0.22	0.02 miles south of Campbell Street	5,500	5,600	0.56	1.02
OR 86 - 0.25	0.01 miles east of Main Street	8,100	8,300	0.15	1.02
				20-Year Average Growth Factor	***1.02***
				2033 Adjusted Growth Factor[1]	***1.02***

[1]Factor adjusted from 2030 to 2033

Table 3 US 30 Background Growth Rate Calculations

Highway Mile Point	Location	AADT 2008	AADT 2030	R^2 Value	20-Year Growth Factor
US 30 - 51.00	0.02 miles south of Campbell Street	4,900	5,000	0.89	1.02
US 30 - 51.21	0.02 miles north of Broadway Street	4,700	4,800	0.92	1.02
US 30 - 51.25	0.02 miles east of 10th Street	4,600	4,700	0.96	1.02
US 30 - 51.54	0.02 miles west of 4th Street	5,100	5,200	0.75	1.02
US 30 - 51.58	0.02 miles east of 4th Street	5,100	5,200	0.94	1.02
US 30 - 51.77	0.02 miles west of Baker-Copperfield Highway	3,700	3,800	0.84	1.03
US 30 - 52.44	0.02 miles north of Myrtle Avenue	2,100	2,200	0.74	1.05
				20-Year Average Growth Factor	***1.03***
				2033 Adjusted Growth Factor[1]	***1.03***

[1]Factor adjusted from 2030 to 2033

Based on the information provided in Table 1, the 20-year growth factor for the interstate traffic through the Baker City area is 1.50 and the average annual growth factor is 2.5-percent[1]. Year 2033 volumes on I-84 will be derived by increasing the year 2008 traffic volumes by 58-percent to

[1] Annual growth factor = 20-year growth factor divided by 20 years = (1.50-1.0)/20 = 0.025

represent 25 years of interstate-related growth[2]. Year 2033 volumes through Baker City will be derived by increasing the year 2010 traffic volumes along OR 86 by 2-percent and along US 30 by 3-percent to represent 23 years of regional growth.

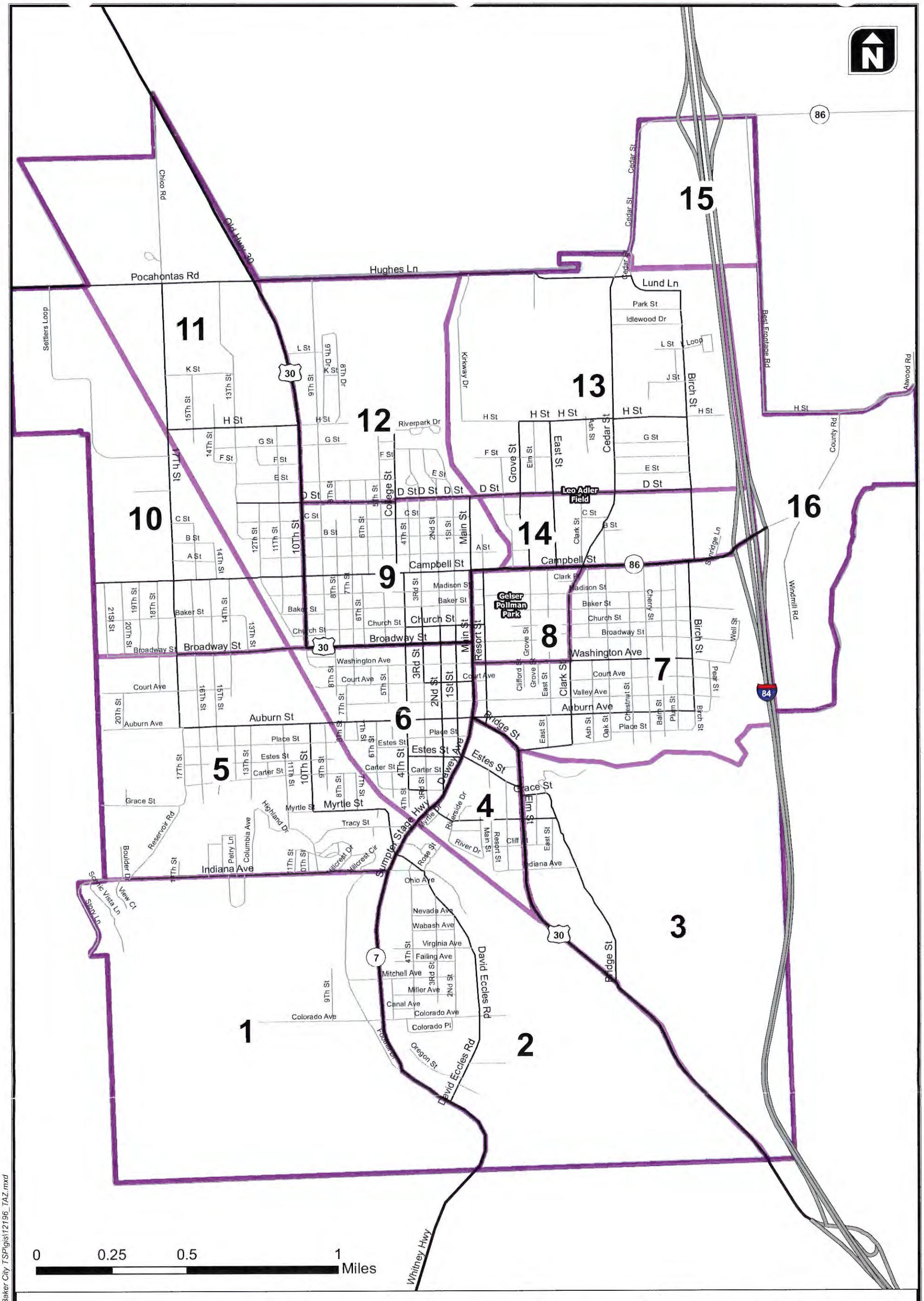
HOUSEHOLD AND EMPLOYMENT GROWTH

The 2033 traffic volume forecast also needs to reflect anticipated employment and household growth in Baker City. Growth estimates were developed based on the coordinated population projection from Baker City as well as a review of existing land use, zoning, and the 2005 Baker Interchange Area Management Plan.

Traffic Analysis Zones

Projected employment and housing growth will be assigned to the traffic network according to Traffic Analysis Zones (TAZs) established for the project to evaluate the anticipated growth in the City. The TAZ boundaries aggregate areas that have common access to major transportation facilities and similar land use patterns. Figure 2-1 illustrates the TAZs established for the TSP update. The Employment and Household Growth forecasts for each TAZ are summarized in Table 4.

[2] 23-years of growth is equivalent to a factor of 1.5 + (3 × 0.02)



INTERSTATE
ARTERIAL
COLLECTOR
LOCAL
TAZ
Baker City UGB

TAZ Map

BAKER CITY OREGON EST. 1874

Figure 1

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Table 4 2033 Population and Employment Growth by TAZ

Growth Sector	TAZ 1 South West	2 South Central	3 South East	4 South Downtown	5 Western Residential	6 Central Government	7 East Residential	8 Central Downtown	9 Central Residential	10 Northwest Industrial	11 Medical/Commercial	12 North Central Sports	13 North Residential	14 US 86 Commercial	15 North Interchange	16 South Interchange
Housing (Units)																
Single Family	20	0	10	5	128	5	10	0	10	0	0	10	330	0	0	0
Multifamily	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
Total	***20***	***0***	***10***	***5***	***128***	***5***	***10***	***0***	***10***	***0***	***0***	***10***	***335***	***0***	***0***	***0***
Employment (1,000 Square Feet)																
Commercial	0	0	0	0	0	0	0	0	0	0	40.5	0	0	0	293	265.1
Industrial	0	250	0	0	250	0	0	0	0	750	0	0	0	0	0	0
Institutional	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	72	0	0
Total	***0***	***250***	***0***	***0***	***250***	***0***	***0***	***0***	***0***	***750***	***40.5***	***0***	***0***	***72***	***293***	***265.1***

Reviewing Table 4, identified trends reflecting zoning and vacant lands include the following:

- Anticipated housing growth tends to be focused in the north and western portions of the City. A large amount of residential growth is anticipated in the northern area of the City north of H Street and to the east of the Powder River. The other main residential growth is expected to develop west of 17th Street and south of Broadway Street.
- Commercial (medical office) development is expected to be occur south of St. Alphonsus Medical Center.
- Highway-related commercial growth is expected to occur to the east of I-84 Exit 304 along Campbell Street and within the urban growth boundary around I-84 Exit 302.
- Industrial growth expected to be concentrated in the northwest region of the City south of Pocahontas Road and west of 17th Street. This industrial development will be serviced by Settlers Loop.
- Other industrial developments are expected to fill lots near the railroad along Auburn Street and David Eccles Road.
- Retail growth is expected to infill to the north of Campbell Street and east of Cedar Street.

Trip Generation

Trip generation estimates reflecting the anticipated growth shown in Table 5 were prepared based on data published in the standard reference manual, *Trip Generation, 9th Edition*, published by the Institute of Transportation Engineers (ITE) and are shown in Table 5. Details regarding the land use assumptions are presented in Appendix B. The values shown in Table 5 were rounded to the nearest 5 trips.

Table 5 2033 Growth Trip Generation Estimate, Weekday PM Peak Hour

TAZ	Housing			Employment			Total		
	In	Out	Total	In	Out	Total	In	Out	Total
1	15	10	25	0	0	0	25	10	35
2	0	0	0	5	40	45	5	40	45
3	10	5	15	0	0	0	10	5	15
4	5	5	10	0	0	0	5	5	10
5	95	50	145	5	40	45	100	90	190
6	5	5	10	0	0	0	5	5	10
7	10	5	15	0	0	0	10	5	15
8	0	0	0	0	0	0	0	0	0
9	10	5	15	0	0	0	10	5	15
10	0	0	0	25	105	130	25	105	130
11	0	0	0	70	105	175	70	105	175

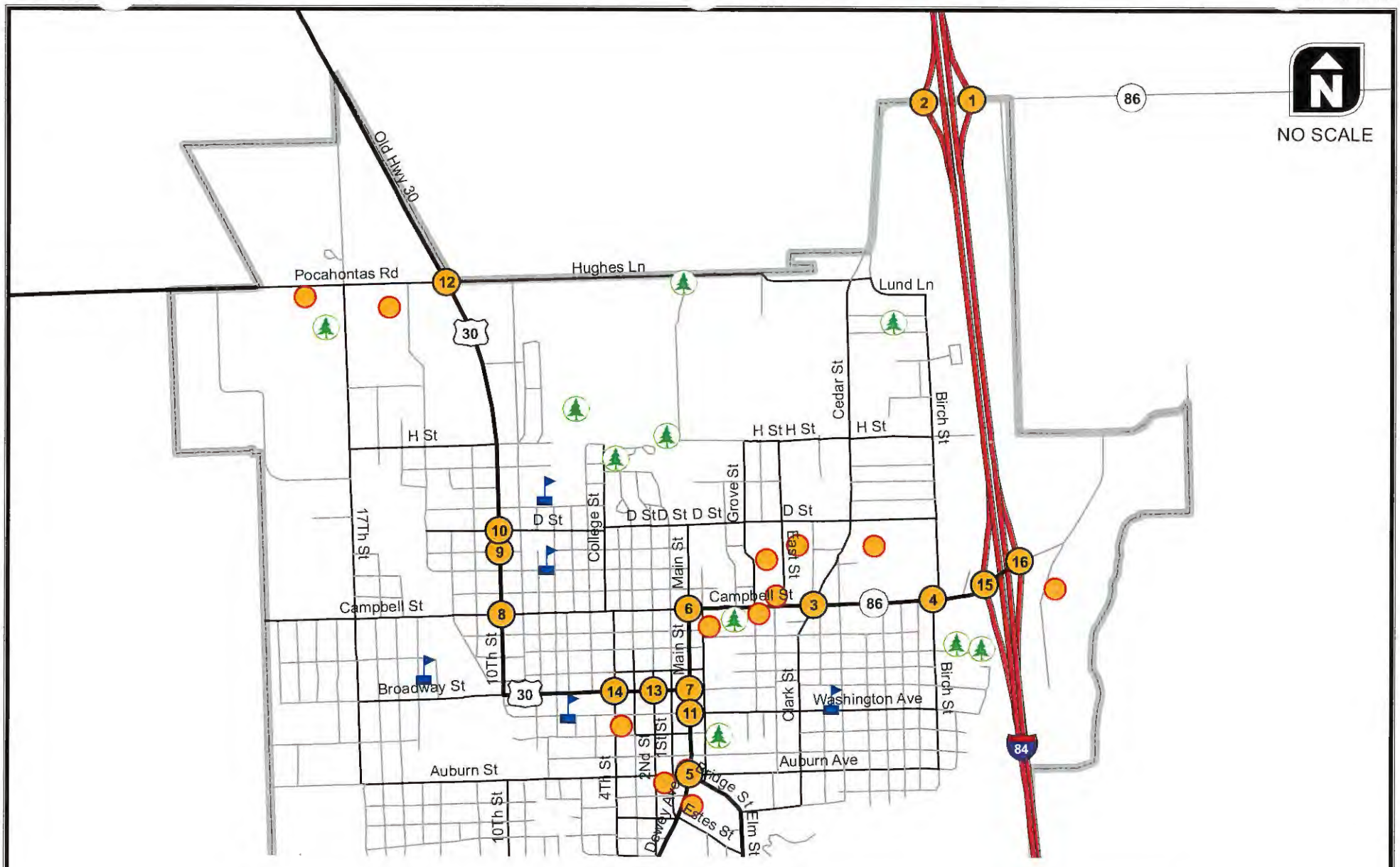
TAZ	Housing			Employment			Total		
	In	Out	Total	In	Out	Total	In	Out	Total
12	10	5	15	0	0	0	10	5	15
13	255	140	395	0	0	0	255	140	395
14	0	0	0	170	185	355	170	185	355
15	0	0	0	545	590	1135	545	590	1135
16	0	0	0	620	565	1185	620	565	1185
Area-wide	***415***	***230***	***645***	***1440***	***1630***	***3070***	***1865***	***1860***	***3725***

2033 FORECAST TRAFFIC VOLUMES

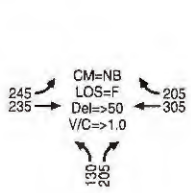
The 2033 forecast traffic volumes were developed by adding the through, inbound, outbound, and local trips derived by the cumulative analysis process to the seasonally adjusted existing traffic volumes (shown in Figure 1-4 of the existing conditions analysis). The 2033 forecast traffic volumes are shown in Figure 2-2. Figure 2-2 also shows the results of an operations analysis performed at each of the study intersections. Additional information related to the operations analysis is provided below.

2033 Forecast Operations Analysis

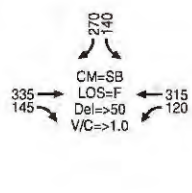
Table 6 summarizes the operational information provided in Figure 2-4 and compares the results to the individual performance standard for ODOT intersections. *Appendix "C" contains the year 2033 forecast traffic operations worksheets used in the analysis.*



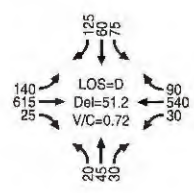
OR 86 (Baker-Copperfield Hwy) &
NB I-84 Ramp
1



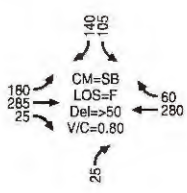
OR 86 (Baker-Copperfield Hwy) &
SB I-84 Ramp
2



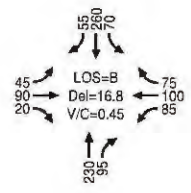
OR 7 (Campbell St) &
OR 86 (Cedar St)
3



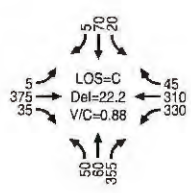
OR 7 (Campbell St) &
Birch St
4



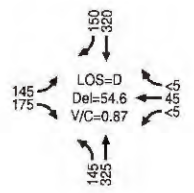
Auburn Ave &
OR 7 (Main St)
5



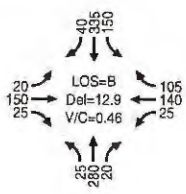
Campbell St &
Main St
6



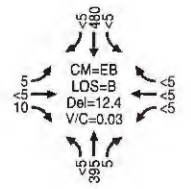
US 30 (Broadway St) &
OR 7 (Main St)
7



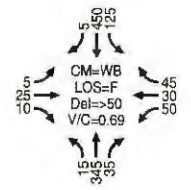
Campbell St &
US 30 (10th St/La Grande-Baker Hwy)
8



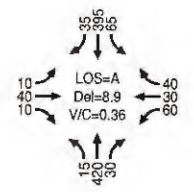
C St &
US 30 (10th St/La Grande-Baker Hwy)
9



D St &
US 30 (10th St/La Grande-Baker Hwy)
10



Washington Ave &
OR 7 (Main St)
11



Pocahontas Road &
US 30 (10th St/La Grande-Baker Hwy)
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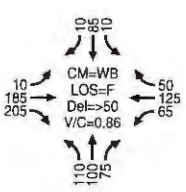
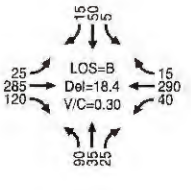
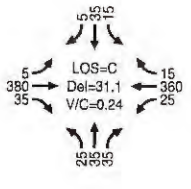


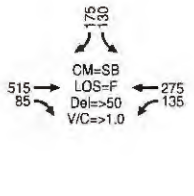
US 30 (Broadway St) &
2nd St
13



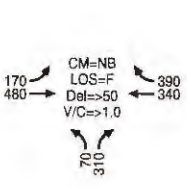
US 30 (Broadway St) &
4th St
14



OR 7 (Campbell St) &
OR7/I-84 SB Ramp
15



OR 7 (Campbell St) &
OR 7/I-84 NB Ramp
16



Study Intersections
INTERSTATE
ARTERIAL
COLLECTOR
LOCAL
Baker City UGB
School
Park
Other Landmarks

Year 2033 Intersection Operations

Figure
2

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Table 6 Intersection Operations Analysis, 2033 Weekday PM Peak Hour

Intersection	Existing Traffic Control	Performance Target	Forecast Intersection Operations (Critical Movement)	Meets Standard?
OR 86 (Baker-Copperfield Hwy) & NB I-84 Ramp	TWSC	V/C ≤ 0.85	>1.00 (NB)	**No**
OR 86 (Baker-Copperfield Hwy) & SB I-84 Ramp	TWSC	V/C ≤ 0.85	>1.00 (SB)	**No**
OR 86 (Campbell Street) & Birch Street	TWSC	V/C ≤ 0.90	0.80 (SB)	Yes
OR 86 (Campbell Street) & SB I-84 Ramp	TWSC	V/C ≤ 0.85	>1.00 (SB)	No
OR 86 (Campbell Street) & NB I-84 Ramp	TWSC	V/C ≤ 0.85	>1.00 (NB)	No
C Street & US 30 (10th Street/La Grande-Baker Hwy)	TWSC	V/C ≤ 0.90	0.16 (EB)	Yes
D Street & US 30 (10th Street/La Grande-Baker Hwy)	TWSC	V/C ≤ 0.90	0.69 (WB)	Yes
Pocahontas Road & US 30 (10th Street/La Grande-Baker Hwy)	AWSC	V/C ≤ 0.90	0.86 (WB)	Yes
OR 86 (Campbell Street) & Cedar Street	Signalized	V/C ≤ 0.90	0.72	Yes
OR 86 (Campbell Street) & OR 86 (Main Street)	Signalized	V/C ≤ 0.90	0.88	Yes
US 30 (Broadway Street) & OR 7/OR 86 (Main Street)	Signalized	V/C ≤ 0.90	0.87	Yes
Washington Avenue & OR 7 (Main Street)	Signalized	V/C ≤ 0.90	0.36	Yes
Auburn Avenue & OR 7 (Main Street)	Signalized	V/C ≤ 0.90	0.45	Yes
US 30 (Broadway Street) & 2nd Street	Signalized	V/C ≤ 0.90	0.30	Yes
US 30 (Broadway Street) & 4th Street	Signalized	V/C ≤ 0.90	0.24	Yes
Campbell Street & US 30 (10th Street/La Grande-Baker Hwy)	Signalized	V/C ≤ 0.90	0.46	Yes

[1]TWSC: Two-way stop controlled (unsignalized)

[2]AWSC: All-way stop controlled (unsignalized)

As shown in Table 6, only the unsignalized ramp intersections do not meet ODOT performance standards under the 2033 future conditions. This is primarily due to the highway related commercial land-uses that will generate more traffic from I-84 that will use an unsignalized intersection to make left turns.

The following section upcoming alternatives analysis must consider the relationship/interaction between the study intersections and explore opportunities to provide greater connectivity through alternative routes to each of the areas served by these intersections.

Additional issues identified through the future conditions analysis include:

- The local Baker City network does not suffer from any operational breakdowns under the future 2033 conditions.
- The grid-network configuration of the Baker City streets allows for easy re-routing of local traffic from intersections that may result in excessive delay from the perspective of Baker City drivers.

Appendix "C" provides the 2033 traffic conditions operational analysis worksheets for each study intersection.

CONCLUSIONS

The results of the future traffic conditions analysis indicate only improvements to the unsignalized ramp intersections at Exit 302 and Exit 304 are needed to meet ODOT minimum performance standards by 2033.

It is unlikely the city and ODOT would allow development to occur without incremental improvements. Readers should understand the results shown in Figure 2 are an illustration of what would happen if growth occurred without corresponding improvements. This analysis offers insights as to probable "hot spots" where planning now can help avoid future congestion and capacity failures.

REFERENCES

1. Oregon Department of Transportation, *Analysis Procedures Manual*. 2006
2. Institute of Transportation Engineers, *Trip Generation Manual*. 2009
3. Oregon Department of Transportation, *Baker Interchange Area Management Plan; Interchanges 302 and 306*, 2005

APPENDIX

A. Methodology
B. Land Use Inventory
C. Year 2033 Forecast Traffic Conditions Worksheets

Appendix A Methodology

CUMULATIVE ANALYSIS

The cumulative method combines historical growth trends with information about existing and planned land uses to predict total future traffic volumes. Similar to a travel demand model, the cumulative process accounts for four categories of trips.

- Through trips: vehicles that travel through Baker City on US 30 or I-84 but do stop in the city or leave the highway. An example of a through trip is someone traveling from Boise, Idaho to Portland, Oregon along I-84.
- Inbound trips: vehicles that come from outside of Baker City to a destination within the city limits. An example of an inbound trip is someone who works in La Grande but returns home to Baker City during the weekday p.m. peak hour.
- Outbound trips: vehicles that start in Baker City and travel to a destination outside the city limits. An example of an outbound trip is someone who works in Baker City but returns home to North Powder during the p.m. peak hour.
- Local trips: vehicles that travel from one point in Baker City to another without leaving the city limits. An example of a local trip is someone who travels from their home to the grocery store without leaving the city.

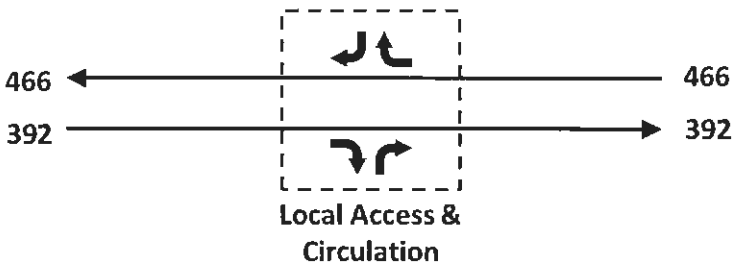
Through Trips

Ideally, through trips would be measured by completing a survey of users on I-84 and US 30. This type of data collection can be a time and resource intensive endeavor. A more simple method of approximating through traffic can be applied through evaluation of existing turning movements from I-84 the interchanges and from US 30. The connectivity of US 30, while running entirely through Baker City, does not facilitate destinations that have origins and destinations outside the City. As a result, all through trips will be assumed to use I-84.

The APM method of assessing through trips assumes that all turning movement volumes off the highway originate outside of the city limits. When applied to Baker City, this method results in unreasonable results and doesn't account for the pass-by trips associated with Exit 304. Based on the existing highway network operations and observed traffic patterns, through movements are expected to represent a more significant portion of highway trips within Baker City that is not reflected in the outcome when the APM method is applied directly.

A modified version of the APM method was developed to estimate the through trips assuming a large majority of departures from I-84 are pass-by trips that will re-enter the interstate highway. Rather than subtracting the entire turning movement volume from the highway volume, 75-percent of traffic departing I-84 at Exit 304 and 50-percent of traffic departing I-84 at Exit 302 are assumed to be pass-by trips.

The existing through trip calculations were used to develop both future 2033 through trips and future 2033 inbound and outbound trips in the Baker City area. Exhibit 1 illustrates the through trip patterns in each direction at the Exit 302 and Exit 304 ramp-related intersections.



Inbound, Outbound Trips

In addition to through trips, it is necessary to understand the pattern of trips with one trip-end inside Baker City and one trip-end outside Baker City. After removing the through trips, the housing and employment trips identified in Table 4 were allocated to inbound and outbound trips for each TAZ. The trips were assigned to the TAZs based on the relative density of future trip making among TAZs.

For example, the Exit 304 interchange area west of I-84 represented by TAZ 16 has a large number of the highway-related commercial uses (1,185 of the 3,725 total area-wide trips). As a result, TAZ 16 would be expected to be the destination for a comparatively higher percentage of the inbound and outbound trips.

Local Trips

After accounting for through, inbound and outbound trips, the remaining trips are assumed to occur between locations within the City. These localized trips occur between uses such as housing and retail, housing and employment, and other uses within the City.

EXTERNAL-EXTERNAL TIPS CALCULATION

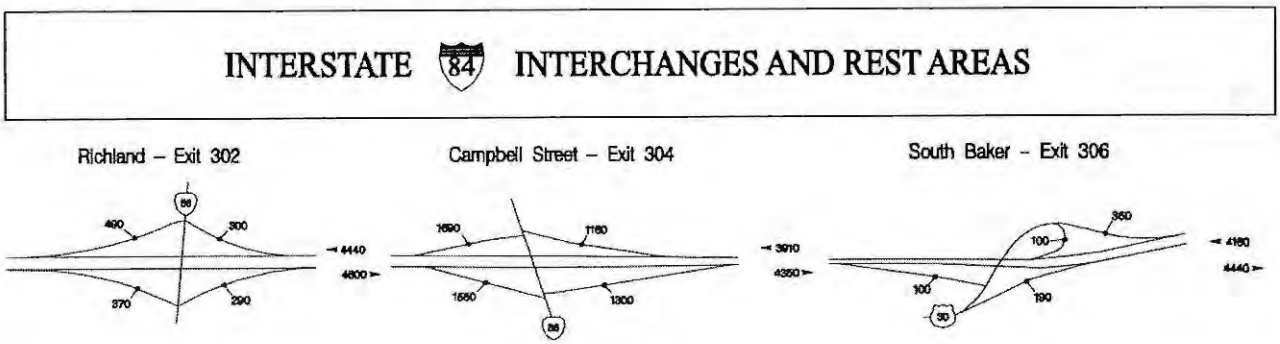
The northbound through volumes at the I-84 Exit 306 South Baker Interchange and southbound through volumes at the I-84 Exit 302 Richland Interchange were used as a basis to develop the E-E volumes in the northbound and southbound directions, respectively. Volumes shown below represent average annual daily traffic, so to convert to PM peak volumes, design hourly volumes (30^{th} Hour Volume, or "K-30") were calculated according to the ODOT APM methodology using the Baker Valley Automated Traffic Recorder on I-84. The highest and lowest 30^{th} hour volume percentage is dropped from a five-year period, and the remaining three years are averaged to determine the factor. Table 7 details the average K-30 calculation.

Table 7 K-30 Calculations based on ATR 01-011, Baker Valley on I-84 MP 286.65

	2010	2009	2008	2007	2006
30th Hour	12.3%	12.2%	11.4%	11.3%	11.2%
Average K-30 =	***11.6%***				

[1]Greyed cells represent dropped minimum and maximum values within the 5-year period.

In the northbound direction, the 4,160 volumes entering the South Baker Interchange at Exit 306 were first reduced by 350 northbound exits. The remaining 3,810 northbound through volumes were then reduced by 1,160 northbound exits at the Campbell Street Exit. The through volumes were reduced again at the Richland Interchange at Exit 302 by 300 northbound exits leaving 2,350 vehicles.



Each interchange was then assumed to have a percentage of pass-by trips associated with them (i.e. vehicles that exit the highway briefly for food, gas, or other services, then re-enter the highway to continue through Baker City). Exit 302 was assumed to specifically service Baker City as an origin or destination as there are no services nearby the interchange. Therefore zero percent of volumes exiting were assumed to be pass-by trips at Exit 302. Exit 304 is serviced by many highway-related commercial locations and is anticipated to have more in the year 2033. This assumes that approximately 75% of volumes exiting I-84 are pass-by trips. The additional highway-related commercial at Exit 302 that is anticipated in the 2005 Baker Interchange Area Management Plan assumes approximately 50% of trips will be pass-by trips.

Each pass-by trip was calculated by multiplying the exit reduction by the estimated pass-by percentage. The sum of all pass-by trips and previous external-external trips results in the assumed total external-external trips for Baker City. Table 8 shows the calculation of these pass-by trips using AADT and then using the K-30 factor to determine the PM peak volumes.

Table 8 Pass-by Trip Calculations

External Trip Station	Direction	Exit 306	Exit Reduction			Exit 302	Est. % Pass-by			Pass-by Trips			Total Pass-by	TOTAL E-E	K-30	2012 E-E Trips
			Exit 306	Exit 304	Exit 302		Exit 306	Exit 304	Exit 302	Exit 306	Exit 304	Exit 302				
I-84/ Exit 306	Enter	4160	-350	-1160	-300	2350	0%	75%	50%	0	870	150	1020	3370	0.116	***392***
	Exit	4680	-100	-1550	-370	2660	0%	75%	50%	0	1163	185	1348	4008	0.116	***466***
						Exit 304										
I-84/ Exit 302	Enter	4680	-100	-1550	-370	2660	0%	75%	50%	0	1163	185	1348	4008	0.116	***466***
	Exit	4160	-350	-1160	-300	2350	0%	75%	50%	0	870	150	1020	3370	0.116	***392***

TRIP CALCULATIONS

The existing External-External trip calculations were used to develop both future 2033 External-External trips and future 2033 External-Internal and Internal-External trips in the Baker City area. Table 9 summarizes the estimated growth in External-External, External-Internal, and Internal-External trips that enter and exit the Baker City area at the I-84 Exit 302 and 306 interchanges.

Table 9 External/External Trip Calculations

External Trip Station	Direction	2010 DHV	Growth Factor[1]	2010 E-E Trips[2]	2031 DHV[3]	E-E Trip Probability[4]	2031 E-E Trip Growth[5]	2031 E-I I-E Trip Growth[6]
I-84/Exit 306	Enter	484	1.55	392	752	0.81	217	51
	Exit	517	1.55	466	803	0.90	258	28
I-84/Exit 302	Enter	544	1.55	466	846	0.86	258	43
	Exit	539	1.55	392	837	0.73	217	81

1 – Background growth rate
2 – Total traffic volume carried through to an external gate
3 – 2031 DHV = (2010 DHV)*(Growth Factor=1.41)
4 – E-E Trip Probability = (2010 E-E Trips)/(2010 DHV)
5 – 2031 E-E Trip Growth = (E-E Trip Probability)*((2031 DHV)-(2010 DHV))
6 – 2031 E-I, I-E Trip Growth = (2031 DHV) – (2010 DHV) – (2031 E-E Trip Growth)

External-Internal, Internal-External Trips

The External-Internal and Internal-External trips identified in Table 4 were further distributed by first calculating the production and attraction probabilities for each TAZ (i.e. TAZ 1 attractions divided by total trip attractions). Table 10 contains the trip attractions and productions.

Table 10 External Trip Attractions and Production Probabilities

TAZ	Total New Trips[1]	Trip Attractions[1]	Attraction Probability[2]	Trip Productions[1]	Production Probability[3]
1	35	25	0.01	10	0.01
2	45	5	0.00	40	0.02
3	15	10	0.01	5	0.00
4	10	5	0.00	5	0.00

TAZ	Total New Trips[1]	Trip Attractions[1]	Attraction Probability[2]	Trip Productions[1]	Production Probability[3]
5	190	100	0.05	90	0.05
6	10	5	0.00	5	0.00
7	15	10	0.01	5	0.00
8	0	0	0.00	0	0.00
9	15	10	0.01	5	0.00
10	130	25	0.01	105	0.06
11	175	70	0.04	105	0.06
12	15	10	0.01	5	0.00
13	395	255	0.14	140	0.08
14	355	170	0.09	185	0.10
15	1135	545	0.29	590	0.32
16	1185	620	0.33	565	0.30
TOTAL	3725	1865	1.00	1860	1.00

1 - TAZ new trip volumes calculated in Table 5.
2 - Attraction Probability = (TAZ Trip Attractions) / (Total Trip Attractions)
3 - Production Probability = (TAZ Trip Productions) / (Total Trip Productions)

The trips were then distributed to each external station by multiplying these trips by each zone's attraction probability. Tables 11 and 12 summarize the External-Internal and Internal-External trip distributions.

Table 11 External-Internal Trip Distribution

TAZ	I-84 Exit 306	I-84 Exit 302	Total
New E-I Trips	51	43	94
1	1	1	1
2	0	0	0
3	0	0	1
4	0	0	0
5	3	2	5
6	0	0	0
7	0	0	1
8	0	0	0
9	0	0	1
10	1	1	1
11	2	2	4
12	0	0	1
13	7	6	13
14	5	4	9
15	265[3]	226[3]	491
16	301[3]	257[3]	558

1 – New External-Internal Trips recorded from "Enter" row of Table 9
2 – TAZ External-Internal Trips = (New E-I Trips) * (TAZ Attraction Probability)
3 – Assumes 90-percent of all trips are highway-related pass-by trips

Table 12 Internal-External Trip Distribution

TAZ	I-84 Exit 306	I-84 Exit 302	Total
New E-I Trips	28	81	109
1	0	0	1
2	1	2	2
3	0	0	0
4	0	0	0
5	1	4	5
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	2	5	6
11	2	5	6
12	0	0	0
13	2	6	8
14	3	8	11
15	136[3]	395[3]	531
16	130[3]	379[3]	509

1 – New External-Internal Trips recorded from "Exit" row of Table 9
2 – TAZ External-Internal Trips = (New E-I Trips) * (TAZ Production Probability)
3 – Assumes 90-percent of all trips are highway-related pass-by trips

Internal-Internal Trips

The remaining new trips were then distributed among the zones within Baker City. Table 13 identifies the internal trip attraction and production probabilities.

Table 13 Internal Trip Attraction and Production Probabilities

TAZ	Total Internal-Internal Trips	Internal Attractions	Attraction Probability	Internal Productions	Production Probability
1	33	24	0.03	9	0.01
2	42	5	0.01	38	0.05
3	14	9	0.01	5	0.01
4	9	5	0.01	5	0.01
5	180	95	0.12	85	0.11
6	9	5	0.01	5	0.01
7	14	9	0.01	5	0.01
8	0	0	0.00	0	0.00
9	14	9	0.01	5	0.01
10	123	24	0.03	99	0.13
11	165	66	0.09	99	0.13
12	14	9	0.01	5	0.01

TAZ	Total Internal-Internal Trips	Internal Attractions	Attraction Probability	Internal Productions	Production Probability
13	374	242	0.31	132	0.17
14	336	161	0.21	174	0.22
15	114	55	0.07	59	0.08
16	119	62	0.08	57	0.07
TOTAL	1560	781	1.00	779	1.00

1 – Total Internal-Internal = (Total New Trips) – (Sum of External-Internal Trips + Sum of Internal-External Trips)
2 – Internal Attractions = (TAZ Trip Attractions) – (Sum of External-Internal Trips)
3 – Attraction Probability = (TAZ Internal Attractions) / (Total Internal Attractions)
4 – Internal Productions = (TAZ Trip Productions) – (Sum of Internal-External Trips)
5 – Production Probability = (TAZ Internal Productions) / (Total Internal Productions)

The matrix in Table 14 shows the distribution of internal trip attractions between and among the zones, and Table 15 shows the distribution for trip productions.

Table 14 Internal Trip Attraction Distribution

Zone	I-I Attraction	TAZ 1	TAZ 2	TAZ 3	TAZ 4	TAZ 5	TAZ 6	TAZ 7	TAZ 8	TAZ 9	TAZ 10	TAZ 11	TAZ 12	TAZ 13	TAZ 14	TAZ 15	TAZ 16
1	24	0	0	0	0	3	0	0	0	0	1	2	0	11	6	2	2
2	5	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0	0
3	9	0	0	0	0	1	0	0	0	0	0	1	0	4	2	1	1
4	5	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0	0
5	95	3	1	1	1	0	1	1	0	1	3	9	1	43	25	7	8
6	5	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0	0
7	9	0	0	0	0	1	0	0	0	0	0	1	0	4	2	1	1
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	9	0	0	0	0	1	0	0	0	0	0	1	0	4	2	1	1
10	24	1	0	0	0	3	0	0	0	0	0	2	0	11	6	2	2
11	66	2	0	1	0	9	0	1	0	1	2	0	1	30	17	5	6
12	9	0	0	0	0	1	0	0	0	0	0	1	0	4	2	1	1
13	242	8	1	3	1	33	1	3	0	3	8	23	3	0	63	18	21
14	161	5	1	2	1	22	1	2	0	2	5	15	2	72	0	12	14
15	55	2	0	1	0	8	0	1	0	1	2	5	1	24	14	0	5
16	62	2	0	1	0	9	0	1	0	1	2	6	1	28	16	5	0

Table 15 Internal Trip Production Distribution

Zone	I-I Production	TAZ 1	TAZ 2	TAZ 3	TAZ 4	TAZ 5	TAZ 6	TAZ 7	TAZ 8	TAZ 9	TAZ 10	TAZ 11	TAZ 12	TAZ 13	TAZ 14	TAZ 15	TAZ 16
1	9	0	0	0	0	1	0	0	0	0	1	1	0	2	3	1	1
2	38	0	0	0	0	5	0	0	0	0	5	5	0	8	11	3	3
3	5	0	0	0	0	1	0	0	0	0	1	1	0	1	1	0	0
4	5	0	0	0	0	1	0	0	0	0	1	1	0	1	1	0	0
5	85	1	4	1	1	0	1	1	0	1	12	12	1	17	24	7	7
6	5	0	0	0	0	1	0	0	0	0	1	1	0	1	1	0	0

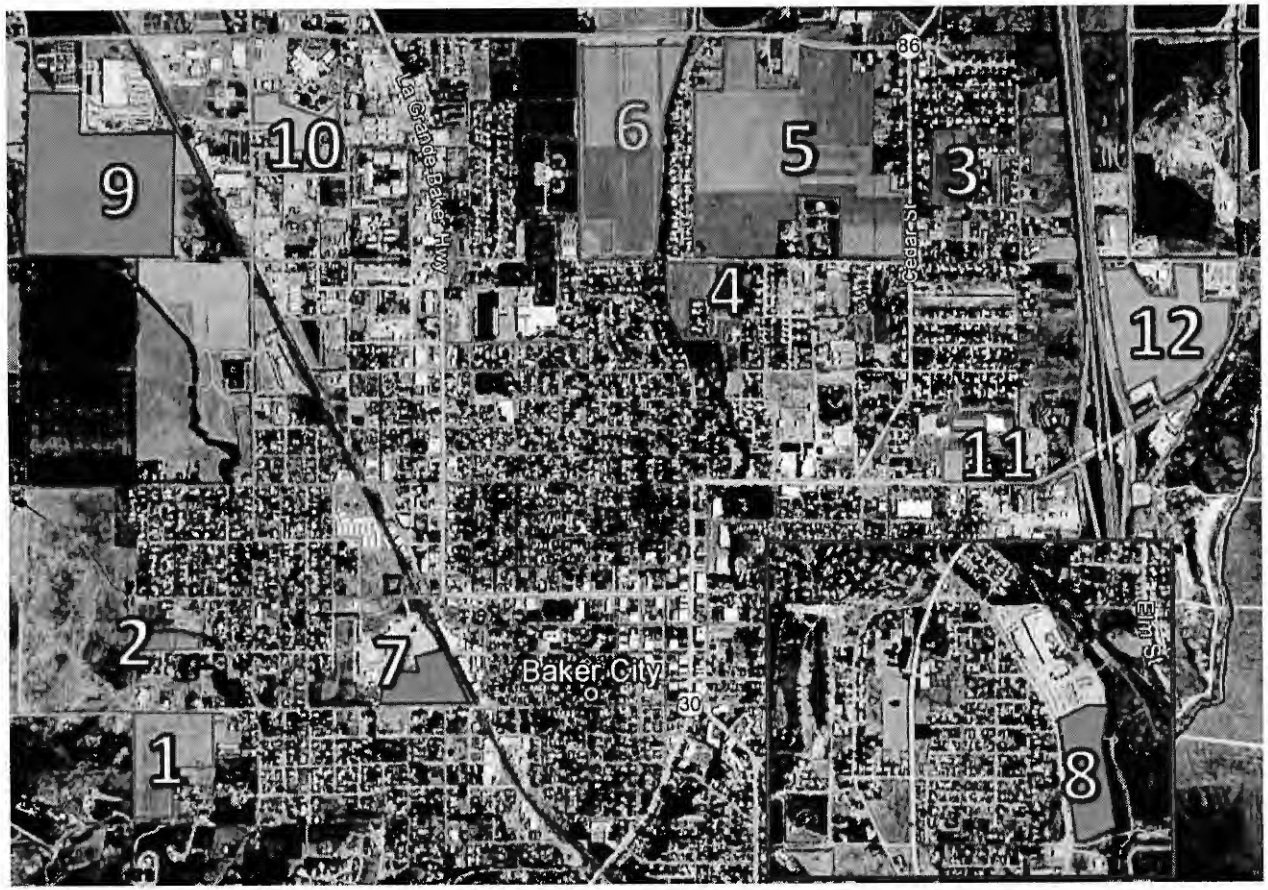
Zone	I-I Production	TAZ 1	TAZ 2	TAZ 3	TAZ 4	TAZ 5	TAZ 6	TAZ 7	TAZ 8	TAZ 9	TAZ 10	TAZ 11	TAZ 12	TAZ 13	TAZ 14	TAZ 15	TAZ 16
7	5	0	0	0	0	1	0	0	0	0	1	1	0	1	1	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	5	0	0	0	0	1	0	0	0	0	1	1	0	1	1	0	0
10	99	1	5	1	1	12	1	1	0	1	0	14	1	20	28	8	8
11	99	1	5	1	1	12	1	1	0	1	14	0	1	20	28	8	8
12	5	0	0	0	0	1	0	0	0	0	1	1	0	1	1	0	0
13	132	2	7	1	1	16	1	1	0	1	19	19	1	0	38	11	10
14	174	2	9	1	1	21	1	1	0	1	25	25	1	35	0	14	14
15	59	1	3	0	0	7	0	0	0	0	9	9	0	12	17	0	5
16	57	1	3	0	0	7	0	0	0	0	8	8	0	12	16	5	0

Appendix B Land Use Inventory

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING
101 S Capitol Boulevard, Suite 301, Boise, ID 83702 P 208.338.2683 F 208.338.2685

Map #	TAZ	Category	Land Use Description	ITE Land Use	Code	Units	Size	Daily	In	Out	Total
	1	Residential Homes	Single family homes	Single-Family Detached Housing	210	20	-	*240*	15	10	*25*
8	2	Industrial	General Industrial	General Light Industrial	110	2	125,000 SF	*1765*	5	40	*45*
	3	Residential Homes	Single family homes	Single-Family Detached Housing	210	10	-	*125*	10	5	*15*
	4	Residential Homes	Single family homes	Single-Family Detached Housing	210	5	-	*65*	5	5	*10*
1	5	Residential Homes	Single family homes	Single-Family Detached Housing	210	64	-	*695*	45	25	*70*
2	5	Residential Homes	Single family homes	Single-Family Detached Housing	210	16	-	*195*	15	5	*20*
2	5	Residential Homes	Single family homes	Single-Family Detached Housing	210	48	-	*535*	35	20	*55*
7	5	Industrial	General Industrial	General Light Industrial	110	2	125,000 SF	*1765*	5	40	*45*
	6	Residential Homes	Single family homes	Single-Family Detached Housing	210	5	-	*65*	5	5	*10*
	7	Residential Homes	Single family homes	Single-Family Detached Housing	210	10	-	*125*	10	5	*15*
	9	Residential Homes	Single family homes	Single-Family Detached Housing	210	10	-	*125*	10	5	*15*
9	10	Industrial	General Industrial	General Light Industrial	130	6	125,000 SF	*4420*	25	105	*130*
10	11	Commercial	Medical Offices	Medical-Dental Office Building	720	6	6,800 SF	*1455*	70	105	*175*
6	12	Residential Homes	Single family homes	Single-Family Detached Housing	210	10	-	*125*	10	5	*15*
6	12	Residential Homes	Single family homes	Single-Family Detached Housing	210	110	-	*1145*	75	40	*115*
3	13	Residential Homes	Single family homes	Single-Family Detached Housing	210	36	-	*410*	30	15	*45*
4	13	Residential Homes	Apartments	Low-Rise Apartment	221	80	-	*795*	40	20	*60*
4	13	Residential Homes	Single family homes	Single-Family Detached Housing	210	36	-	*410*	30	15	*45*
5	13	Residential Homes	Single family homes	Single-Family Detached Housing	210	258	-	*2510*	155	90	*245*
11	14	Commercial	General Retail	Shopping Center	820	2	36,000 SF	*5485*	170	185	*355*
13	15	Commercial	General Commercial	Shopping Center	820	1	108,000 SF	*7140*	225	240	*465*
13	15	Commercial	General Commercial	Shopping Center	820	1	185,000 SF	*10130*	320	350	*670*
12	16	Commercial	Hotel/Motel	Motel	320	3	80 rooms	*1350*	60	55	*115*
12	16	Commercial	Gas Station	Gasoline/Service Station with Convenience Market	945	2	16 pumps	*5210*	95	95	*190*

Map #	TAZ	Category	Land Use Description	ITE Land Use	Code	Units	Size	Daily	In	Out	Total
12	16	Commercial	Fast Food	Fast-Food Restaurant with Drive-Through Window	934	4	5,400 SF	*10715*	265	245	*510*
12	16	Commercial	Restaurant	High-Turnover (Sit-Down) Restaurant	932	5	7,000 SF	*4450*	200	170	*370*



Appendix C Year 2033 Forecast Traffic Conditions Worksheets

HCM Unsignalized Intersection Capacity Analysis
1: OR 86 (Baker-Copperfield Hwy) & NB I-84 Ramp

12/11/2012

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	244	233	0	0	305	206	131	0	206	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.88	0.88	0.88	0.85	0.85	0.85
Hourly flow rate (vph)	271	259	0	0	339	229	149	0	234	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	568			259			1254	1369	259	1489	1254	453
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	568			259			1254	1369	259	1489	1254	453
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	73			100			0	100	70	100	100	100
cM capacity (veh/h)	1014			1317			113	108	785	58	127	611

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	530	568	383
Volume Left	271	0	149
Volume Right	0	229	234
cSH	1014	1700	237
Volume to Capacity	0.27	0.33	1.62
Queue Length 95th (ft)	27	0	605
Control Delay (s)	6.5	0.0	333.0
Lane LOS	A		F
Approach Delay (s)	6.5	0.0	333.0
Approach LOS			F

Intersection Summary			
Average Delay	88.5		
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	336	145	121	315	0	0	0	0	141	0	271
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	373	161	134	350	0	0	0	0	166	0	319
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	350			534			1392	1073	454	1073	1153	350
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	350			534			1392	1073	454	1073	1153	350
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			87			100	100	100	8	100	54
cM capacity (veh/h)	1220			1044			59	193	610	180	173	698

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	534	484	485
Volume Left	0	134	166
Volume Right	161	0	319
cSH	1700	1044	352
Volume to Capacity	0.31	0.13	1.38
Queue Length 95th (ft)	0	11	604
Control Delay (s)	0.0	3.5	217.1
Lane LOS		A	F
Approach Delay (s)	0.0	3.5	217.1
Approach LOS			F

Intersection Summary			
Average Delay	71.1		
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	139	615	23	28	540	89	22	46	29	74	58	126
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.98			0.96			0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1614	1741		1662	1689			1608			1569	
Flt Permitted	0.14	1.00		0.17	1.00			0.91			0.89	
Satd. Flow (perm)	243	1741		292	1689			1481			1417	
Peak-hour factor, PHF	0.92	0.92	0.92	0.93	0.93	0.93	0.89	0.89	0.89	0.91	0.91	0.91
Adj. Flow (vph)	151	668	25	30	581	96	25	52	33	81	64	138
RTOR Reduction (vph)	0	2	0	0	10	0	0	21	0	0	54	0
Lane Group Flow (vph)	151	691	0	30	667	0	0	89	0	0	229	0
Heavy Vehicles (%)	3%	0%	0%	0%	1%	4%	6%	4%	0%	3%	6%	1%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	34.4	28.8		25.6	24.0			25.5			25.5	
Effective Green, g (s)	34.4	28.8		25.6	24.0			25.5			25.5	
Actuated g/C Ratio	0.51	0.43		0.38	0.36			0.38			0.38	
Clearance Time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	254	744		143	601			560			536	
v/s Ratio Prot	c0.06	c0.40		0.00	c0.40							
v/s Ratio Perm	0.25			0.07				0.06			c0.16	
v/c Ratio	0.59	0.93		0.21	1.11			0.16			0.43	
Uniform Delay, d1	25.2	18.3		28.8	21.7			13.9			15.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	3.7	17.8		0.7	70.8			0.6			2.5	
Delay (s)	28.9	36.1		29.6	92.5			14.5			18.0	
Level of Service	C	D		C	F			B			B	
Approach Delay (s)		34.8			89.8			14.5			18.0	
Approach LOS		C			F			B			B	

Intersection Summary			
HCM Average Control Delay	51.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	67.4	Sum of lost time (s)	7.5
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		

Description: OR7/86 (Campbell St.) & OR7 (Main St.)

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	182	285	24	0	282	59	0	0	27	107	0	140
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	202	317	27	0	313	66	0	0	32	126	0	165
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	379			343			1212	1113	330	1066	1061	313
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	379			343			1212	1113	330	1066	1061	313
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.6	4.0	3.3
p0 queue free %	83			100			100	100	95	20	100	77
cM capacity (veh/h)	1185			1227			108	174	685	157	187	732

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	202	343	313	66	32	126	165
Volume Left	202	0	0	0	0	126	0
Volume Right	0	27	0	66	32	0	165
cSH	1185	1700	1700	1700	685	157	732
Volume to Capacity	0.17	0.20	0.18	0.04	0.05	0.80	0.23
Queue Length 95th (ft)	15	0	0	0	4	130	22
Control Delay (s)	8.7	0.0	0.0	0.0	10.5	84.3	11.3
Lane LOS	A				B	F	B
Approach Delay (s)	3.2		0.0		10.5	43.0	
Approach LOS					B	E	

Intersection Summary			
Average Delay	11.7		
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	90	22	86	102	76	19	229	97	69	261	55
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85		1.00	0.85	1.00	0.97	
Flt Protected		0.98	1.00		0.98	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1688	1488		1695	1430		1727	1458	1662	1665	
Flt Permitted		0.87	1.00		0.82	1.00		0.96	1.00	0.95	1.00	
Satd. Flow (perm)		1496	1488		1419	1430		1658	1458	1662	1665	
Peak-hour factor, PHF	0.88	0.88	0.88	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	102	25	96	113	84	21	254	108	77	290	61
RTOR Reduction (vph)	0	0	13	0	0	44	0	0	81	0	13	0
Lane Group Flow (vph)	0	152	12	0	209	40	0	275	27	77	338	0
Heavy Vehicles (%)	6%	0%	0%	2%	0%	4%	0%	1%	2%	0%	1%	9%
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4		4	8		8	2		2			
Actuated Green, G (s)		28.6	28.6		28.6	28.6		14.9	14.9	4.0	22.9	
Effective Green, g (s)		28.6	28.6		28.6	28.6		14.9	14.9	4.0	22.9	
Actuated g/C Ratio		0.48	0.48		0.48	0.48		0.25	0.25	0.07	0.38	
Clearance Time (s)		4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		2.5	2.5		2.5	2.5		2.5	2.5	3.5	2.5	
Lane Grp Cap (vph)		719	715		682	687		415	365	112	641	
v/s Ratio Prot										0.05	c0.20	
v/s Ratio Perm		0.10	0.01		c0.15	0.03		c0.17	0.02			
v/c Ratio		0.21	0.02		0.31	0.06		0.66	0.07	0.69	0.53	
Uniform Delay, d1		8.9	8.1		9.4	8.3		20.0	17.0	27.1	14.1	
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.7	0.0		1.2	0.2		3.6	0.1	16.7	0.6	
Delay (s)		9.6	8.1		10.6	8.4		23.6	17.1	43.8	14.7	
Level of Service		A	A		B	A		C	B	D	B	
Approach Delay (s)		9.4			10.0			21.8			20.0	
Approach LOS		A			A			C			B	

Intersection Summary			
HCM Average Control Delay	16.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

Description: Main St @ Auburn Ave

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	373	37	331	308	47	48	62	356	21	71	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.99			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.97	1.00		0.98	1.00		0.99	
Satd. Flow (prot)		1728			1689	1488		1694	1458		1721	
Flt Permitted		0.99			0.46	1.00		0.85	1.00		0.90	
Satd. Flow (perm)		1718			794	1488		1467	1458		1570	
Peak-hour factor, PHF	0.85	0.85	0.85	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85
Adj. Flow (vph)	5	439	44	368	342	52	53	69	396	25	84	5
RTOR Reduction (vph)	0	5	0	0	0	6	0	0	318	0	3	0
Lane Group Flow (vph)	0	483	0	0	710	46	0	122	78	0	111	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%	0%	2%	2%	0%	0%	0%
Turn Type	Prot			Prot		Prot	Perm		Over	Perm		
Protected Phases	7	4		3	8	8		2	3		6	
Permitted Phases							2			6		
Actuated Green, G (s)		23.5			38.2	38.2		7.8	10.7		7.8	
Effective Green, g (s)		23.5			38.2	38.2		7.8	10.7		7.8	
Actuated g/C Ratio		0.44			0.71	0.71		0.14	0.20		0.14	
Clearance Time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Vehicle Extension (s)		2.5			2.5	2.5		2.5	2.5		2.5	
Lane Grp Cap (vph)		748			739	1053		212	289		227	
v/s Ratio Prot					c0.19	0.03			0.05			
v/s Ratio Perm		0.28			c0.49			c0.08			0.07	
v/c Ratio		0.65			0.96	0.04		0.58	0.27		0.49	
Uniform Delay, d1		12.0			7.2	2.4		21.6	18.3		21.3	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		1.7			23.8	0.1		3.1	0.4		1.2	
Delay (s)		13.7			31.0	2.5		24.6	18.7		22.5	
Level of Service		B			C	A		C	B		C	
Approach Delay (s)		13.7			29.1			20.1			22.5	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	54.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	145	0	175	2	45	1	147	324	0	0	318	152
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0		4.0	4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00			0.95			0.95	
Frt	1.00		0.85	1.00	1.00			1.00			0.95	
Flt Protected	0.95		1.00	0.95	1.00			0.98			1.00	
Satd. Flow (prot)	1630		1488	1662	1745			3210			3133	
Flt Permitted	0.20		1.00	0.95	1.00			0.67			1.00	
Satd. Flow (perm)	343		1488	1662	1745			2189			3133	
Peak-hour factor, PHF	0.90	0.90	0.90	0.85	0.85	0.85	0.94	0.94	0.94	0.91	0.91	0.91
Adj. Flow (vph)	161	0	194	2	53	1	156	345	0	0	349	167
RTOR Reduction (vph)	0	0	142	0	1	0	0	0	0	0	51	0
Lane Group Flow (vph)	161	0	52	2	53	0	0	501	0	0	465	0
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	2%	2%	0%	0%	0%	3%
Turn Type	custom		custom	Split			pm+pt					
Protected Phases				8	8		5	2			6	
Permitted Phases	4		4				2					
Actuated Green, G (s)	20.0		20.0	5.1	5.1			37.9			37.9	
Effective Green, g (s)	20.0		20.0	5.1	5.1			37.9			37.9	
Actuated g/C Ratio	0.27		0.27	0.07	0.07			0.51			0.51	
Clearance Time (s)	4.0		4.0	4.0	4.0			4.0			4.0	
Vehicle Extension (s)	2.5		2.5	2.5	2.5			4.5			4.5	
Lane Grp Cap (vph)	91		397	113	119			1106			1583	
v/s Ratio Prot				0.00	c0.03						0.15	
v/s Ratio Perm	c0.47		0.03					c0.23				
v/c Ratio	1.77		0.13	0.02	0.45			0.45			0.29	
Uniform Delay, d1	27.5		20.9	32.6	33.6			11.9			10.8	
Progression Factor	0.42		0.13	1.00	1.00			0.94			1.00	
Incremental Delay, d2	385.5		0.1	0.0	1.9			0.2			0.5	
Delay (s)	397.1		2.8	32.7	35.5			11.4			11.2	
Level of Service	F		A	C	D			B			B	
Approach Delay (s)		181.6			35.4			11.4			11.2	
Approach LOS		F			D			B			B	

Intersection Summary			
HCM Average Control Delay	54.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		

Description: OR7 (Main St.) & US30 (Broadway St.)

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕↔			↕↔	
Volume (vph)	18	149	25	24	139	106	26	278	18	148	335	39
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.98			0.95			0.99			0.99	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		1712			1635			3256			3221	
Flt Permitted		0.96			0.97			0.90			0.75	
Satd. Flow (perm)		1648			1585			2931			2448	
Peak-hour factor, PHF	0.88	0.88	0.88	0.87	0.87	0.87	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	20	169	28	28	160	122	29	309	20	164	372	43
RTOR Reduction (vph)	0	8	0	0	37	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	209	0	0	273	0	0	353	0	0	572	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	1%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			40.3			40.3	
Effective Green, g (s)		16.0			16.0			40.3			40.3	
Actuated g/C Ratio		0.25			0.25			0.63			0.63	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		410			394			1837			1534	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.17			0.12			c0.23	
v/c Ratio		0.51			0.69			0.19			0.37	
Uniform Delay, d1		20.8			21.9			5.1			5.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			5.2			0.2			0.7	
Delay (s)		21.8			27.1			5.3			6.5	
Level of Service		C			C			A			A	
Approach Delay (s)		21.8			27.1			5.3			6.5	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	64.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

Description: US30 (10th St.) & Campbell St.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↑↑			↑↑	
Volume (veh/h)	4	0	8	0	0	2	1	393	6	0	481	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.90	0.90	0.90	0.91	0.91	0.91
Hourly flow rate (vph)	5	0	9	0	0	2	1	437	7	0	529	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								991				
pX, platoon unblocked												
vC, conflicting volume	751	974	264	716	971	222	529			443		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	751	974	264	716	971	222	529			443		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	100	100	100	100			100		
cM capacity (veh/h)	302	253	740	317	255	788	1049			1127		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	14	2	219	225	264	264
Volume Left	5	0	1	0	0	0
Volume Right	9	2	0	7	0	0
cSH	499	788	1049	1700	1127	1700
Volume to Capacity	0.03	0.00	0.00	0.13	0.00	0.16
Queue Length 95th (ft)	2	0	0	0	0	0
Control Delay (s)	12.4	9.6	0.1	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	12.4	9.6	0.0		0.0	
Approach LOS	B	A				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	7	25	12	50	29	45	17	346	37	127	452	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	29	14	59	34	53	19	384	41	141	502	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1088	1251	254	1005	1234	213	509			426		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1088	1251	254	1005	1234	213	509			426		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	7.0	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	80	98	60	78	93	98			88		
cM capacity (veh/h)	120	150	751	148	153	786	1066			1130		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	52	146	211	233	392	258
Volume Left	8	59	19	0	141	0
Volume Right	14	53	0	41	0	7
cSH	182	212	1066	1700	1130	1700
Volume to Capacity	0.28	0.69	0.02	0.14	0.12	0.15
Queue Length 95th (ft)	28	108	1	0	11	0
Control Delay (s)	32.4	52.5	0.9	0.0	3.9	0.0
Lane LOS	D	F	A		A	
Approach Delay (s)	32.4	52.5	0.4		2.4	
Approach LOS	D	F				

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Volume (vph)	12	41	10	61	32	42	14	419	30	67	393	36
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.98			0.96			0.99			0.99	
Flt Protected		0.99			0.98			1.00			0.99	
Satd. Flow (prot)		1526			1476			2959			2917	
Flt Permitted		0.95			0.86			0.94			0.83	
Satd. Flow (perm)		1462			1292			2779			2437	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	14	48	12	72	38	49	15	460	33	74	437	40
RTOR Reduction (vph)	0	10	0	0	28	0	0	4	0	0	5	0
Lane Group Flow (vph)	0	64	0	0	132	0	0	504	0	0	546	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.5			12.5			54.5			54.5	
Effective Green, g (s)		12.5			12.5			54.5			54.5	
Actuated g/C Ratio		0.17			0.17			0.73			0.73	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		2.5			2.5			5.0			5.0	
Lane Grp Cap (vph)		244			215			2019			1771	
v/s Ratio Prot												
v/s Ratio Perm		0.04			c0.10			0.18			c0.22	
v/c Ratio		0.26			0.61			0.25			0.31	
Uniform Delay, d1		27.2			29.0			3.4			3.6	
Progression Factor		1.00			1.00			1.00			1.01	
Incremental Delay, d2		0.4			4.3			0.3			0.4	
Delay (s)		27.7			33.3			3.7			4.1	
Level of Service		C			C			A			A	
Approach Delay (s)		27.7			33.3			3.7			4.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

Description: OR7 (Main St.) & Washington Ave.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	187	207	67	127	48	108	102	73	11	84	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90
Hourly flow rate (vph)	13	208	230	74	141	53	119	112	80	12	93	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			5									
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	596	552	98	686	476	112	102			192		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	596	552	98	686	476	112	102			192		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	49	76	51	68	94	92			99		
cM capacity (veh/h)	278	404	961	153	442	933	1502			1387		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	451	269	119	112	80	12	102
Volume Left	13	74	119	0	0	12	0
Volume Right	230	53	0	0	80	0	9
cSH	810	312	1502	1700	1700	1387	1700
Volume to Capacity	0.56	0.86	0.08	0.07	0.05	0.01	0.06
Queue Length 95th (ft)	88	193	6	0	0	1	0
Control Delay (s)	17.3	59.2	7.6	0.0	0.0	7.6	0.0
Lane LOS	C	F	A			A	
Approach Delay (s)	17.3	59.2	2.9			0.8	
Approach LOS	C	F					

Intersection Summary			
Average Delay	21.6		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	23	287	118	39	291	14	90	37	26	7	52	16
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		0.96			0.99			0.98			0.97	
Flt Protected		1.00			0.99			0.97			1.00	
Satd. Flow (prot)		3179			3220			1649			1693	
Flt Permitted		0.92			0.80			0.81			0.98	
Satd. Flow (perm)		2924			2592			1375			1669	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	26	319	131	43	323	16	103	43	30	8	60	18
RTOR Reduction (vph)	0	77	0	0	6	0	0	6	0	0	6	0
Lane Group Flow (vph)	0	399	0	0	376	0	0	170	0	0	80	0
Heavy Vehicles (%)	0%	0%	0%	3%	2%	0%	0%	3%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.3			16.3			50.7			50.7	
Effective Green, g (s)		16.3			16.3			50.7			50.7	
Actuated g/C Ratio		0.22			0.22			0.68			0.68	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		635			563			930			1128	
v/s Ratio Prot												
v/s Ratio Perm		0.14			c0.14			c0.12			0.05	
v/c Ratio		0.63			0.67			0.18			0.07	
Uniform Delay, d1		26.6			26.9			4.5			4.1	
Progression Factor		0.86			0.63			1.00			1.00	
Incremental Delay, d2		1.9			2.9			0.4			0.1	
Delay (s)		24.7			19.9			4.9			4.3	
Level of Service		C			B			A			A	
Approach Delay (s)		24.7			19.9			4.9			4.3	
Approach LOS		C			B			A			A	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

Description: US30 (Broadway St.) & 2nd St.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	378	36	25	360	17	24	35	36	14	35	7
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		0.99			0.99			0.95			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3271			3264			1640			1700	
Flt Permitted		0.95			0.90			0.94			0.95	
Satd. Flow (perm)		3097			2961			1565			1633	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	8	420	40	28	400	19	28	41	42	16	41	8
RTOR Reduction (vph)	0	13	0	0	6	0	0	14	0	0	3	0
Lane Group Flow (vph)	0	455	0	0	441	0	0	97	0	0	62	0
Heavy Vehicles (%)	0%	0%	3%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		17.1			17.1			49.9			49.9	
Effective Green, g (s)		17.1			17.1			49.9			49.9	
Actuated g/C Ratio		0.23			0.23			0.67			0.67	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		706			675			1041			1086	
v/s Ratio Prot												
v/s Ratio Perm		0.15			c0.15			c0.06			0.04	
v/c Ratio		0.64			0.65			0.09			0.06	
Uniform Delay, d1		26.2			26.3			4.5			4.4	
Progression Factor		1.00			1.62			1.00			1.00	
Incremental Delay, d2		2.0			2.2			0.2			0.1	
Delay (s)		28.2			44.6			4.7			4.5	
Level of Service		C			D			A			A	
Approach Delay (s)		28.2			44.6			4.7			4.5	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

Description: US30 (Broadway St.) & 4th St.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	516	83	135	275	0	0	0	0	131	0	176
Sign Control		Free			Free			Yield			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	561	90	147	299	0	0	0	0	147	0	198
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	299			651			1247	1198	326	873	1243	149
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	299			651			1247	1198	326	873	1243	149
tC, single (s)	4.1			4.8			7.5	6.5	6.9	8.3	6.5	7.1
tC, 2 stage (s)												
tF (s)	2.2			2.5			3.5	4.0	3.3	3.9	4.0	3.4
p0 queue free %	100			80			100	100	100	9	100	77
cM capacity (veh/h)	1274			750			86	150	676	162	141	849

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	374	277	147	149	149	345
Volume Left	0	0	147	0	0	147
Volume Right	0	90	0	0	0	198
cSH	1700	1700	750	1700	1700	302
Volume to Capacity	0.22	0.16	0.20	0.09	0.09	1.14
Queue Length 95th (ft)	0	0	18	0	0	359
Control Delay (s)	0.0	0.0	11.0	0.0	0.0	133.1
Lane LOS			B			F
Approach Delay (s)	0.0		3.6			133.1
Approach LOS						F

Intersection Summary				
Average Delay	33.0			
Intersection Capacity Utilization	84.1%	ICU Level of Service		E
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	169	478	0	0	340	391	70	0	308	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	188	531	0	0	378	434	82	0	362	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	812			531			1502	1719	266	1598	1502	595
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	812			531			1502	1719	266	1598	1502	595
tC, single (s)	4.1			4.1			7.6	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	77			100			0	100	51	100	100	100
cM capacity (veh/h)	823			1047			69	70	739	30	95	452

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	NB 1
Volume Total	188	266	266	812	445
Volume Left	188	0	0	0	82
Volume Right	0	0	0	434	362
cSH	823	1700	1700	1700	263
Volume to Capacity	0.23	0.16	0.16	0.48	1.69
Queue Length 95th (ft)	22	0	0	0	714
Control Delay (s)	10.7	0.0	0.0	0.0	360.3
Lane LOS	B				F
Approach Delay (s)	2.8			0.0	360.3
Approach LOS					F

Intersection Summary				
Average Delay	82.1			
Intersection Capacity Utilization	84.1%	ICU Level of Service		E
Analysis Period (min)	15			

Section 3
Alternatives Analysis Technical Memorandum

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TECHNICAL MEMORANDUM #3

Baker City TSP Update

Alternatives Analysis (FINAL)

Date: March 8, 2013 Project #: 12196.0

To: Michelle Owen, City of Baker City
Cheryl Jarvis-Smith, Oregon Department of Transportation

From: Matt Hughart, AICP; and Jon Crisafi (KAI)
Matt Berkow and Drew Meisel (Alta Planning + Design)

cc: Andy Lindsey, Anderson-Perry & Associates, Inc.

This memorandum presents multimodal improvement alternatives available to address existing and future transportation system deficiencies within Baker City. The alternatives are grouped into three scenarios. The first scenario focuses on the creation of a complete multi-modal transportation network. The second scenario revisits those improvement recommendations identified in the 1996 Baker City Transportation System Plan that have not been constructed. The third scenario focuses on those roadways and system capacity improvements needed to mitigate the operational and safety deficiencies noted in the Future Conditions analysis.

As this material is reviewed, it is important to note that none of the three individual option scenarios fully addresses the City's long-term transportation system needs. As such, it is expected that the final transportation system plan will likely be developed as a combination of elements of the three scenarios evaluated in this memorandum. The final preferred alternative will be developed based on community feedback and guidance received on the options analysis.

The information contained in this memorandum is organized into a series of sections. The name and the first page of these sections are listed below.

ALTERNATIVE CONCEPTS - COMPLETE STREETS

The Complete Streets concepts seek to improve the future transportation system through the overall enhancement of the multi-modal transportation network. No new intersection capacity-driven improvements are included with these alternative concepts. The Complete Streets option is organized as follows:

- Neighborhood Route Improvements
- Pedestrian System Improvements
- Bicycle System Improvements
- Marked Crossing Improvements
- Potential for US 30 (10th Street and Broadway Street) Road Diet
- Potential for OR 86 (Campbell Street) Striping Modification
- Potential Special Transportation Area and Urban Business Area Designations
- Potential Roadway Cross Section Standard Revisions

The Complete Streets Option includes much of the recommended pedestrian and bicycle facility improvements from the 1996 TSP. Many new pedestrian and bicycle projects identified throughout the current TSP update process are included as well.

NEIGHBORHOOD ROUTE IMPROVEMENTS

Many residential streets have sidewalks and low traffic volumes/speeds that make them comfortable for walking and bicycling. The low traffic volumes and speeds also make these streets comfortable for bicycling on the street. Figure 1: Proposed Network of Neighborhood Routes illustrates a continuous network of routes that connect residential neighborhoods, parks, schools, visitor attractions, and commercial/employment areas. Table 1 provides a more detailed description and discussion of benefits and considerations for each project. As described on the figure, all streets on the network are envisioned to have complete sidewalks, marked crossings where routes cross higher volume/speed roadways, and wayfinding to identify neighborhood routes and direct pedestrians and bicyclists to key destinations.

Table 1 Proposed Neighborhood Route Improvements

Project Name	Details	Benefits	Considerations
Midway Connector	Fill large number of sidewalk gaps where present on Midway, 13th Street, H Street, and 11th Street (mainly north of D Street). Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable walking and bicycling route on local streets that provides access to destinations including the St Alphonsus Hospital and proposed future YMCA facility.	11th Street is not paved between H Street and D Street. Adding curb and gutter to this section will add to project cost, as will paving the road to provide a continuous bike route.
9th Street	Fill sidewalk gaps where present on 9th Street (95% of corridor), between E Street and Hughes Lane. Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable walking and bicycling route on a local street as an alternative to traveling 10th St/Hwy 30. This route will also provide access to Baker High School from the neighborhood located northwest of the school.	9th Street is not paved between L Street and H Street. Adding curb and gutter to this section will add to project cost, as will paving the road to provide a continuous bike route.
E Street	Fill sidewalk gaps between 11th Street and College Street. Provide wayfinding to identify this as a walking/bicycling route. Enhance the existing marked crossing at the intersection with 10th Street/Hwy 30.	Will provide a comfortable walking and bicycling route on a local street that provide access to Baker High School.	E Street is not paved west of 10th Street/Hwy 30. Adding curb and gutter to this section will add to project cost, as will paving the road to provide a continuous bike route.
College/4th Street	Fill two blocks of sidewalk gap between H Street and Grandview. Provide wayfinding to identify this as a walking/bicycling route between H Street and Grace Street.	Will provide a key north/south walking and bicycling route on local streets. This route will connect north and south Baker City and serve multiple destinations.	The crossing of Broadway should include either a push button for bicyclists that does not require them to ride on the sidewalk, or the existing loop detector can be tuned to detect a bicycle, with a marking provided to instruct bicyclists where to stand to trigger the signal.
Campbell Street	Fill the large number of sidewalk gaps between 21st Street and 10th Street. Provide wayfinding to identify this as a walking/bicycling route.	Will provides a comfortable walking and bicycling route to serve the neighborhoods west of the railroad tracks.	None
7th Street	Fill sidewalk gaps between Washington Street and E Street. Provide walking/bicycling route wayfinding. Install high visibility marked crossing at the unsignalized intersections with Broadway and Campbell.	Will provide a comfortable walking and bicycling route on a local street that connects Baker Middle School and Baker High School.	None
Madison Street	Fill small number of sidewalk gaps between 10th Street and Plum Street. Provide wayfinding to identify this as a walking/bicycling route. Installing high visibility marked crossings at the intersections of Main St and Resort St.	Will provide a comfortable east/west walking and bicycling route on a low volume street that connects to numerous destinations.	None
Broadway Street	Add sidewalks between 21st Street and 10th Street and between Resort Street and Grove Street. Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable east/west walking and bicycling route that will connect neighborhoods west of the railroad tracks to the commercial area located on Broadway Street.	The need to include curb and gutter as part of the sidewalk installation will add to project cost.
Grove Street	Fill the small number of sidewalk gaps between H Street and Washington Street. Provide walking/bicycling route wayfinding. Provide high visibility crossing at Campbell.	Will provide a comfortable walking and bicycling route on a low volume street that provides access to the Fairgrounds and Leo Adler Field.	None
Washington Street	Fill the small number of sidewalk gaps between 7th Street and Birch Street. Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable east/west route for pedestrian and bicycle travel that connects to the Middle School and Brooklyn School.	The crossing of Main should include either a push button for bicyclists that does not require them to ride on the sidewalk, or the existing loop detector can be tuned to detect a bicycle, with

Project Name	Details	Benefits	Considerations
			a marking provided to instruct bicyclists where to stand to trigger the signal.
15th Street	Construct sidewalks on 15th Street between Campbell Street and Auburn Avenue.	Will provide a comfortable walking and bicycling route between neighborhoods north and south of Broadway Street.	Would require constructing curb and gutter before sidewalks could be added.
South Baker Connector	Fill the small number of sidewalk gaps on Orchard Street and Rose Street. Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable walking and bicycling route on a local street connects South Baker to the existing pedestrian/bicycle overpass at the railroad tracks.	None
Clark Street	Fill the small number of sidewalk gaps between Campbell Street and Auburn Avenue. Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable walking and bicycling route on a local street that connects to Brooklyn Elementary School.	None
Birch Street	Fill the large number of sidewalk gaps between Cedar Street and Auburn Avenue. Provide wayfinding to identify this as a walking/bicycling route. Install a high visibility marked crossing at the unsignalized intersection with Campbell Street.	Will provide a comfortable walking and bicycling route that can serve as an important north/south connection between north and south Baker City.	None
Southwest Baker Connector	Fill sidewalk gaps where present on Indiana, Hillcrest Drive, and Tracy Street. Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable walking and bicycling route on local streets that connects the neighborhood adjacent to the Quail Ridge Golf Course to central Baker City.	Topography may impact project cost in certain sections.
Golf Course Connector	Construct sidewalks on 11th Street and Hillcrest Drive from Auburn Avenue to Tracy Street. Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable walking and bicycling route on local streets that connects the neighborhood south of Auburn Avenue up to the ridge and Quail Ridge Golf Course.	Topography may impact project cost in certain sections. The need to include curb and gutter as part of the sidewalk installation on 11th Street will add to project cost.
H Street (west)	Fill the large number of sidewalk gaps between 13th Street and 8th Drive. Provide wayfinding to identify this as a walking/bicycling route. Provide a high visibility marked crossing at Hwy 30.	Will provide a comfortable walking and bicycling route on a local street that connects to the Leo Adler Memorial Parkway.	None
H Street (east)	Fill the moderate number of sidewalk gaps between Birch Street and the Leo Adler Memorial Parkway. Provide wayfinding to identify this as a walking/bicycling route. Provide a high visibility marked crossing at Cedar Street.	Will provide a comfortable walking and bicycling route on a local street that connects to the Leo Adler Memorial Parkway.	None
4th Street (South Baker)	Filling the large number of sidewalk gaps between Indiana Street and Colorado Street. Provide wayfinding to identify this as a walking/bicycling route.	Will provide a comfortable walking and bicycling route on a local street that connects to the existing pedestrian/bicycle underpass adjacent to Hwy 7.	None
Virginia Street	Fill the large number of sidewalk gaps between 4th Street and David Eccles. Provide wayfinding to identify this as a walking/bicycling route.	Will act as a neighborhood connector from the proposed Leo Adler Memorial Parkway extension to the South Baker neighborhood.	None
Auburn Avenue	Fill in the moderate number of sidewalk gaps between the railroad tracks (west of 8th Street) and Birch Street. Provide wayfinding to identify this as a walking/bicycling route.	Will act as a neighborhood connector from the proposed shared use path along Auburn, east of the railroad tracks. Will provide an important east/west route for pedestrian and bicycle travel.	None

Project Name	Details	Benefits	Considerations
Indiana Avenue (east)	Fill in the large number of sidewalk gaps between the proposed Leo Adler Memorial Parkway extension and Bridge Street (Mt. Hope Cemetery). Provide wayfinding to identify this as a walking/bicycling route.	Will act as a neighborhood connector between two proposed shared use paths.	None

On-Street Bikeways

On streets with higher speeds and volumes bicycle facilities shold be separated from motor vehicle traffic movements to improve safety and comfort.

Wayfinding

Appropriately spaced signs and pavement markings identify pedestrian and bike routes and direct people to key destinations.

Enhanced Crossings at High Volume Streets

Where pedestrian and bicycle routes cross major streets , or other barriers, care should be taken to provide a safe and comfortable crossings.

Complete Sidewalks

Gaps in the sidewalk network hinder pedestrian travel and reduce opportunities for people to walk to destinations. Completion of sidewalk gaps is a key element of neighborhood route projects.

What is a Neighborhood Route?

Baker City has a well-connected network of neighborhood streets that are comfortable for walking and bicycling. This TSP has identified a network of 'neighborhood routes' to improve access to destinations throughout the city. Implementation of this network will include:

1) Sidewalk installation along pedestrian network gaps

2) Crossing enhancements where neighborhood routes cross major streets

3) Wayfinding such as signs and/or pavement markings to identify neighborhood routes and direct pedestrians and bicyclists to key destinations

4) No formal bike lanes are proposed on these routes because low traffic volumes and speeds support bicycling without separate facilities

A Connected Pedestrian and Bicycle Network

A connected network of safe and intuitive walking and biking routes allows residents to comfortably reach popular destinations such as local parks, schools, and shopping areas. Facilities that support walking and biking encourage people to travel by these modes more often, leading to healthier lives and communities.

On-street bikeways and shared-use paths are shown on this map to illustrate how the proposed Neighborhood Routes connect with other Active Transportation facilities.

0 0.25 0.5 1 Miles

- Proposed Neighborhood Route
- Existing or Proposed On-Street Bikeway
- Existing or Proposed Shared Use Path
- Proposed Crossing Improvement
- Park
- School
- Other Landmark
- UGB

Proposed Network of Neighborhood Routes

Figure 1

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PEDESTRIAN IMPROVEMENT ALTERNATIVES

Improvements to the pedestrian network include sidewalk infill along key corridors, including the network of neighborhood routes identified in Figure 1. Proposed priority sidewalk infill or construction projects (i.e., on roads where no sidewalks exist) are listed in Table 2 below, and can be viewed in Figure 2: Proposed Pedestrian Projects.

Table 2 Pedestrian Improvement Alternatives

Project Name	Project Detail	Benefits	Considerations
Cedar Street	Sidewalk construction	Will provide an important connection from the newer residential development in northeast Baker City to downtown.	Lack of existing curb and gutter will add to project cost.
D Street	Sidewalk infill	Will provide a connection from the neighborhood west of Hwy 30 to the commercial area on Hwy 30. Will provide connection from neighborhood east of Cedar Street to Leo Adler Ball Field and Fairgrounds.	None
East Street	Sidewalk construction	Will provide a connection between downtown and the Fairgrounds, Leo Adler Baseball Field and the Armory.	Lack of existing curb and gutter will add to project cost.
5th Street	Sidewalk infill	Will provide an important connection from Baker High School to the Sports Complex and from residences south of D Street to Baker High School.	None
4th Street	Sidewalk infill	Will fill an important gap in the sidewalk network in a neighborhood where sidewalk connectivity is otherwise complete.	None
C Street	Sidewalk infill	Will provide a connection from the neighborhood west of Hwy 30 to the commercial area on Hwy 30.	None
Oak Street	Sidewalk infill	Will fill an important sidewalk gap adjacent to Brooklyn Elementary School.	None
Broadway Street	Sidewalk infill	Will fill an important sidewalk gap adjacent to Brooklyn Elementary School.	None
Myrtle Street	Sidewalk infill	Will provide a neighborhood connection to Wade Williams Field.	None
Cliff Street	Sidewalk infill	Will provide a neighborhood connection to Wade Williams Field.	None
Ash Street	Sidewalk infill	Will fill a sidewalk gap between Campbell Street and Madison Street.	None
H Street	Sidewalk construction	Will provide a connection to the Sports Complex and Baker High School.	Lack of existing curb and gutter will add to project cost.

Sidewalk infill is proposed on the Neighborhood Routes as well as on higher volume streets and school walking routes. Proposed pedestrian projects in this plan provide access to destinations such as local parks, schools, and shopping areas. Where sidewalk infill is not proposed there is either sidewalk already existing or the low motor vehicle volumes and speeds support walking on the street.

Proposed Neighborhood Route
Proposed Sidewalk Infill
Proposed Shared Use Path
Existing Shared Use Path
Crossing Improvement
Park
School
Other Landmark
UGB

Proposed Pedestrian Projects

Figure 2

G:\2012-130 Baker City TSP\MXD\KAI Border_logos.mxd

BICYCLING IMPROVEMENT ALTERNATIVES

Improvements to the bicycle network include the proposed network of neighborhood routes, , which are streets where low traffic volumes and speeds make for comfortable conditions for riding on the street without additional bicycle facilities. These routes will benefit bicyclists by providing marked crossings where routes cross higher volume/speed roadways (crossing projects are listed in the Shared Walking and Bicycling Solutions section). Bicycling solutions also include bike lanes on higher volume/speed roads such as Hughes, Cedar and US 30. The addition of bicycle detection is proposed at certain traffic signals along bicycle routes to ensure that bicyclists can trigger a signal without having to dismount from the bicycle to reach the pedestrian button. Wayfinding is proposed to identify the network and direct bicyclists to destinations, trail entrances and transit stops. Proposed bicycle solutions can be viewed in Figure 3: Proposed Bike Projects, and are described in more detail in Table 3 below.

Table 3 Bicycle Improvement Alternatives

Project Name	Details	Benefits	Considerations
10th Street/ Hwy 30	Add bike lanes	Will provide an on-street connection to downtown Baker City. 10th Street is part of the Grande Tour Scenic Bikeway.	Securing the necessary pavement width to stripe bike lanes would require removing a travel lane or widening the roadway.
D Street	Add bike lanes	Will provide on street bicycle access to the Leo Adler Field, Leo Adler Memorial Parkway, and the Fairgrounds.	D Street has a constrained right-of-way. Securing the necessary pavement width to stripe bike lanes would require removing a parking lane on one side of the street or widening the roadway.
Cedar Street	Add bike lanes	Will provide an important connection from the newer residential development in northeast Baker City to downtown.	There is an existing shoulder of sufficient width (5' - 6') to serve as a bikeway. This project would involve adding bike lane pavement markings.
Campbell Street	Re-stripe existing bike lanes.	Will improve bicyclist comfort and perception of safety in the existing bike lane on Campbell Street. Campbell Street is part of the Grande Tour Scenic Bikeway.	The existing bike lane is adjacent to a narrow 7' parking lane. This condition has led to parked vehicles sometimes partially blocking the bike lane. To mitigate this problem, pavement width could be re-allocated from the wide center turn lane to widen the parking lane and move bicyclists further from parked vehicles.
Broadway Street	Add bike lanes	Will provide an on-street connection to downtown Baker City.	Securing the necessary pavement width to stripe bike lanes would require removing a travel lane or widening the roadway.
Elm Street/ Hwy 30	Add bike lanes	Will provide an on-street connection to downtown Baker City.	Securing the necessary pavement width to stripe bike lanes would require removing a parking lane on one side of the street or widening the roadway.

The bicycle network consists of Bike Lanes and Neighborhood Routes. Formal bike facilities are not recommended on Neighborhood Routes because low traffic volumes and speeds support bicycling without separate facilities.

0 0.25 0.5 1 Miles

Proposed Neighborhood Route
Proposed Bike Lane
Proposed Shared Use Path
Existing Bike Lane
Existing Shared Use Path
Crossing Improvement
Park
School
Other Landmark
UGB

Proposed Bike Projects

Figure 3

G:\2012-130 Baker City TSP\MXD\KAI Border_logos.mxd

MARKED CROSSING IMPROVEMENTS

Marked crossings are present at many intersections in Baker City, including downtown as well as near schools. Opportunities remain to further enhance existing crossings for improved motor vehicle yielding compliance as well as to provide additional marked crossing opportunities, including where neighborhood routes cross higher volume/speed roadways. Proposed Marked Crossing Improvements are identified in Table 4.

Table 4 Marked Crossing Improvements

Project Name	Location	Project Type	Project Details	Benefits
Broadway Street Crossings	4th Street	Add bicycle detection at existing signalized intersection (north and south approaches)	Bicycle detection can be added to the existing pedestrian push button actuation by installing a curb side push button or tuning existing loop detectors to detect bicycle, with a marking provided to instruct bicyclists where to stand to trigger the signal.	Will provide crossing opportunities for pedestrians and bicyclists traveling along the College/4th St. and 7th St. neighborhood routes.
	7th Street	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher traffic location.	
	10TH Street	US30 (10th & Broadway) sidewalks & improvements. This section is in the process of application for STIP funding for the 2015-2018 STIP Update.	There are no existing facilities to support crossing Broadway Street on the eastern leg of the intersection. There are no facilities to support crossing 10th Street/Hwy 30 on the northern leg of the intersection. This location is very confusing for pedestrians and bicyclists.	
Campbell Street Crossings	Sunridge Lane	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher traffic location.	Will provide crossing opportunities for pedestrian and bicyclists along neighborhood routes and at difficult intersections along Campbell Street, one of the most difficult streets to cross in Baker City.
	Birch Street*	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher traffic location.	
	Cedar Street*	Add bicycle detection at existing signalized intersection	Pole mounted push button.	
	Resort Street	Provide a high visibility Intersection markings for left turning bicyclists.	Existing bike lane ends at Resort; consider treatment (such as a two-stage turn box)	
	Grove Street	Enhance the existing high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher traffic location.	
	7th Street	Add high visibility crosswalks and signage.		
	4th Street	Provide a high visibility crossing	Install high visibility crossing enhancement such as a median refuge island at the south leg intersection with Campbell Street	
Cedar Street Crossings	D Street	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher speed location.	Will provide a crossing opportunity for pedestrians and bicyclists traveling along the H Street neighborhood route.
	H Street*	Provide a high visibility crossing	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher speed location.	

Project Name	Location	Project Type	Project Details	Benefits
Main Street Crossings	Madison Street*	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher speed location.	Will provide crossing opportunities for pedestrians and bicyclists traveling along the Madison Street, Washington Street and Auburn Avenue neighborhood routes.
	Washington Street*	Add bicycle detection at existing signalized intersection.	There is an existing pedestrian push button to actuate the signal to cross Main Street at both Washington Street and Auburn Avenue. In each instance, a second button for bicyclists could be placed curbside, or the existing loop detector for vehicles can be tuned to detect a bicycle, with a marking provided to instruct bicyclists where to stand to trigger the signal.	
	Auburn Avenue*	Add bicycle detection at existing signalized intersection.		
10th Street Crossings	E Street	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher speed location.	Will provide a crossing opportunity for pedestrians and bicyclists traveling to or from Baker High School and the sports complex.
	L Street	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher speed location.	Will provide a comfortable crossing of Hwy 30 in area with crossing demand from Little Pig restaurant and Step Forward.
	H Street*	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher speed location.	Will provide a crossing opportunity for pedestrians and bicyclists traveling to or from Baker High School and the sports complex.
RR crossing at Auburn Avenue		Provide sidewalks on both sides of the existing railroad crossing.	The need for this crossing of the railroad tracks can be addressed by the sidewalk infill proposed as part of the Auburn Avenue neighborhood route and shared use path.	Will provide a pedestrian crossing of the railroad tracks.
Auburn Avenue Crossings	4th Street	Provide a high visibility crossing.	Restrict parking in advance of the intersection and add continental crosswalk to improve visibility between motorists and pedestrians.	Will provide an improved crossing on a route used by students at South Baker Intermediate School.
Indiana Avenue	S Bridge Street	Provide a high visibility crossing.	Install high visibility crosswalk enhancement at this higher speed location.	Will provide a comfortable crossing opportunity on a neighborhood route between two proposed shared use paths.
	Elm Street (Hwy 30)	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher traffic location.	
Hwy 7	David Eccles Road	Enhance the existing high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher traffic location.	Will increase the comfort of pedestrians and bicyclists crossing the highway at this location. The construction of a proposed shared use path along David Eccles Road will increase the frequency and number of trips at this location.
	Foothill Drive	Provide a high visibility crossing.	Install high visibility crossing enhancement such as a flashing beacon and/or median refuge island at this higher traffic location.	Will provide a comfortable crossing opportunity in a higher speed and volume location along a proposed trail alignment.

Project Name	Location	Project Type	Project Details	Benefits
				Crossing project is not required until this path has been built.
Kirkway Drive	Leo Adler Memorial Parkway	Marked crossing and curb ramp	Provide a marked crossing and ADA compliant curb ramp to provide access from the south end of Kirkway Drive to the LAMP.	Will provide access to the LAMP from the southern edge of the Kirkway neighborhood.
SMITH DITCH PLACEHOLDER				

*Crossing is also listed as part of a neighborhood route project

SHARED USE PATH PROJECTS

Project Name	Location	Project Details	Benefits
Pocahontas/Hughes Pathway	Western city boundary to Hwy 86/Cedar Road	Construct a wide 10-12' curb separated hard surface path on the south side of Pocahontas Road/Hughes Lane. Much of the area beside the road is below grade, which would result in trail users not being visible from the road; raising the trail to match the elevation of the road would add to project cost.	Will provide a high quality connection between key destinations: Medical Center, future YMCA, and the Leo Adler Memorial Parkway (LAMP). Allows a seamless off-street transition from the LAMP to employment center west of trail and neighborhoods east of trail.
Sports Complex Connector	8th Street/H Street intersection to Sports Complex	Construct a wide 10-12' hard surface path on High School property.	Will provide a convenient link to the Sports Complex from neighborhoods west of the High School.
17th Street Pathway	Indiana Avenue to Pocahontas Road	Construct a wide 10-12' curb separated hard surface path on the west side of 17th Avenue/Reservoir Road. Challenging conditions at the railroad crossing south of H Street will require careful design to ensure ADA compatibility, maximum visibility, and safety. Reservoir Road may need to be an on-road connection due to limited right-of-way.	Will provide an important link between the neighborhoods in southwest Baker City and the employment center near Pocahontas Road/Hughes Lane
Midway Connector	17th Street to Midway (south of St Alphonsus Hospital)	Construct a wide 10-12' hard surface path on existing ROW easement.	Will provide a direct connection between the proposed shared use path on 17th Street and the proposed neighborhood route along Midway/13th Street in an area with few existing sidewalks/walkways.
Leo Adler Memorial Parkway Extension	Existing southern terminus (Bridge Street) to David Eccles Road	Construct a wide 10-12' hard surface path adjacent to the Powder River.	Will extend the popular LAMP to connect Wade Williams Field and the South Baker neighborhood with the rest of the city.
David Eccles Pathway	Hwy 7 to proposed Smith Ditch Trail	Construct a wide 10-12' curb separated hard surface path on the south/west side of David Eccles Road. South of 2nd Street, David Eccles Road is gravel, with no curb and gutter.	Will provide an important link from the South Baker neighborhood to the pedestrian undercrossing of Hwy 7/Railroad Bridge, and beyond to South Baker Elementary School and downtown.
Mount Hope Cemetery Connector	Bridge Street to proposed Smith Ditch Trail	Provide wayfinding signs and pavement markings on the existing paved roadway leading into the Mt Hope Cemetery.	Will heighten awareness of the connection between the South Baker neighborhood and the proposed Smith Ditch Trail. May require an easement across private property.
Smith Ditch Trail	Cherry/Place Street intersection to Hwy 7	Construct an 8-10' trail following the Smith Ditch alignment.	Will provide a recreational opportunity for walkers, joggers, and bicyclists. Scenic views, exposure to the natural environment. Creates an extended network of trails separated from

Project Name	Location	Project Details	Benefits
			roadways.
Golf Course Trail	Hwy 7 to Reservoir Road	Construct a 10-12' trail following the Pipeline easement and an existing pathway along the south side of Indiana. Care will need to be taken to minimize trail user risk of injury where the trail is adjacent to the Quail Ridge Golf Course.	Will provide a recreational opportunity for walkers, joggers and bicyclists.
Settlers Parkway	17th/A Street intersection to Pocahontas Road	Construct a 10-12' trail along Old Settlers Slough and the Pipeline Easement.	Will provide an off-street, recreational, connection for walkers, joggers and bicyclists. Creates a loop near the proposed YMCA.
West Baker Connector	Along Auburn Avenue from 8th Street to 17th Street	Construct a wide 10-12' curb separated hard surface path on the south side of Auburn Avenue. Special design emphasis will be necessary at the railroad crossing near 8th Street to ensure maximum visibility and ADA compatibility.	Will act as a neighborhood connector from the proposed neighborhood route along Auburn, west of the railroad tracks. Will provide an important east/west route for pedestrian and bicycle travel linking neighborhoods southwest of the city to the downtown core.

CITYWIDE AND PROGRAMMATIC BICYCLE/PEDESTRIAN IMPROVEMENTS

Several types of bicycle and pedestrian needs in Baker City are not related to specific corridors, but pertain to city policy or conditions found in widespread locations. The improvement alternatives listed in Table 5 below address these types of bicycle and pedestrian needs.

Table 5 Potential Citywide Programmatic Improvements

Name	Description	Cost Estimate
Pedestrian and Bicycle Wayfinding	Implement signage and/or pavement markings to identify walking and bicycling routes to destinations and transit stops. Signage can also be placed at entrances to the Leo Adler Memorial Parkway and indicate destinations served.	Example: Cost TBD.
Walking Map	Develop a Baker City walking map that highlights the neighborhood routes that connect residential neighborhoods, parks, schools, visitor attractions, and commercial/employment areas	Example: $5,000 per print, which could be offset by advertising or sponsorship.
Bicycling Map	Develop a Baker City bicycle map illustrating the existing and proposed bicycle network, including the proposed neighborhood routes.	Example: $5,000 per print, which could be offset by advertising or sponsorship.
Sidewalk Infill Program	Capital program to systematically design and construct missing sidewalks along prioritized pedestrian routes. This program could be designed to include City matching funds for private property owners willing to undertake sidewalk improvements along their property frontage (e.g., a 50/50 program).	Example: $50,000/year. Fixed or percentage amount annually for capital improvements.
ADA/Curb Ramp Upgrade Program	Upgrade curb ramps and eliminate gaps in ADA access along prioritized pedestrian routes near key destinations.	Example: $10,000/year. Fixed or percentage amount annually for capital improvements.
Bicycle Parking Program	City program to install bicycle parking at key destinations such as commercial and employment areas and schools.	Example: $2,000/year. Can be funded through fees for developments requesting related design variances.
Safe Routes to Schools Curriculum	Leverage ODOT Safe Routes Program with local investment to bring Safe Routes curriculum to all area K-8 schools.	Example: $25,000/year. Fixed or percentage amount annually for capital improvements.

US 30 (BROADWAY STREET AND 10TH STREET) ROAD DIET MODIFICATION

This section discusses the potential for a modification to the travel way along select segments of US 30 (Broadway Street and 10th Street). This modification could potentially involve the reallocation of the existing travel way (represented by multiple wide travel lanes) to better accommodate other forms of travel such as bicycling. This modification is commonly referred to as a road diet.

Road Diets

Road diets are used to reallocate existing roadway right-of-way to better serve pedestrians, bicycles and transit while continuing to adequately accommodate automobile traffic. Typically, in road diet projects a four-lane undivided roadway is converted to a two-lane roadway with either: 1) a center median (painted or raised) and left-turn pockets at intersections; or 2) a two-way center left-turn lane. This conversion creates space within existing right-of-way to provide:

- Bicycle lanes, cycle tracks, buffered bike lanes, etc.;
- Wider sidewalks for pedestrians;
- Street furniture (e.g., streetscape patios);
- Landscaping buffers between the sidewalk and travel way,
- On-street parking;
- Turn-outs at transit stops; and/or
- Transit stop amenities such as shelters and benches.

Numerous studies have been conducted on road diet projects from across the United States. Several case studies have been documented in the *Road Diet Handbook: Setting Trends for Livable Streets, Second Edition*. Agencies and communities around the United States and Canada have found road diets provide the following benefits:

- Improve traffic flow – Reducing the number of vehicle travel lanes in the same direction eliminates lane changes and weaving, which improves vehicle flow along the corridor.
- Reduce vehicle speeds closer to desired operating speed – Narrowing the roadway cross-section dedicated to personal automobiles as well as adding features such as on-street parking and bike lanes creates a "tunnel effect" that naturally slows motorists' speeds.
- Reduce conflicts and number of crashes – Reducing the number of automobile travel lanes reduces the number of conflicts along the roadway segments and at some intersections. The number of crashes decreases due to the reduced number of conflicts, slower operating speeds and increased motorists' attentiveness due to increased street activity. National research published in the Highway Safety Manual (Reference 1) indicates converting a 4-lane undivided road to a 3-lane road (two-lanes with a center turn lane) reduces crashes by approximately 29%.

- Create a more attractive environment for pedestrians and bicyclists – Reallocating existing right-of-way to designate space exclusive for pedestrian and/or bicycle travel provides a more inviting and comfortable setting for pedestrians and bicyclists. Reduced vehicle speed and streetscape improvements that are often accompanied with road diets also improve the quality of travel for pedestrian and bicyclists.

Table 6 summarizes the specific safety, operational and livability effects from three case studies in the United States.

As can be seen from Table 6, the cost of implementing a road diet can vary widely depending on the treatments used in reallocating the existing right-of-way (e.g., a painted median vs. a raised median), the degree of streetscaping enhancements invested, and other activities incorporated into the project such as relocating above ground utilities to below ground. Road diet concepts can be controversial before implementation but are often widely accepted after implementation.

Road diets have the potential to provide substantial benefits with regards to safety and enhancing the pedestrian and bicycle friendliness of a street; however, to experience the benefits there are situations when extra care needs to be taken to make a road diet successful. These include:

- Relatively high access density – Effort should be made to consolidate access and driveways to help reduce conflicts along the corridor. Conflicts tend to degrade traffic operations and safety.
- Offset minor streets at intersections – Offset minor street approaches at intersections should be realigned and/or consideration should be given to restricting access to/from those minor streets to right-in/right-out only. This is particularly important in instances where the major street left-turn movements are offset unfavorably such that they conflict with each other. Conflicting left-turn movements into and out of offset minor streets can create congestion along the corridor.
- Heavy existing traffic congestion – Efforts should be made to mitigate existing traffic congestion along a corridor with intersections currently operating at or near capacity prior to attempting to implement a road diet on the corridor. In some instances, developing parallel or alternative routes is likely to be a more effective use of funds than a road diet. Potential exceptions to this guidance include, if a road diet is part of a larger effort to facilitate a mode shift from automobiles to pedestrian travel, bicycles, and transit.

Table 6 Summary of Road Diet Case Studies

Case Study	Location	Basic Project Facts	Road Diet Elements	Project Cost	Results
Fourth Plain Boulevard	Vancouver, WA	• Principal Arterial • 12,000 ADT • Posted Speed 30 mph • Residential w/Commercial • 1.0 mile in length	• Two-lanes w/two-way center turn lane • Bike lanes • ADA ramps • Underground utility work	• $1.26M	• Decreased crashes by 52% • Decreased vehicle speeds by 18% • No queues blocking access to driveways or streets • Improved bicycle conditions • No traffic diversion impacts • Economic growth in adjacent and nearby businesses • Easier to cross street • Street feels safer to residents
Baxter Street	Athens-Clarke County, GA	• Arterial • 20,000 ADT • Posted Speed 35 mph • Commercial w/Residential • 1.9 miles in length	• Two-lanes w/two-way center turn lane • Bike lanes • Signal modifications	• $190K	• Decreased total crashes by 53% • Decreased crashes at unsignalized intersections 60% • Decreased rear-end crashes by 45% • No significant changes to traffic volumes • Easier to cross street • Slower vehicle speeds • Perceived street number of lanes and width "just right"
U.S. 18	Clear Lake, IA	• State Highway • 12,000 ADT • Posted Speed 45 mph • Commercial w/Residential • 1.1 miles in length	• Interim project – restriped to two lanes w/two-way center turn lane • Shoulders • Temporary Signal	• $105K	• Decreased total crashes by 65% • Decreased aggressive speeding by 52% • Decreased vehicles over speed limit by 32% • Adequate traffic operations and mobility • More uniform traffic speeds closer to speed limit

Opportunities for Road Diets in Baker City

The following two roadway corridors in Baker City were identified for road diet investigation:

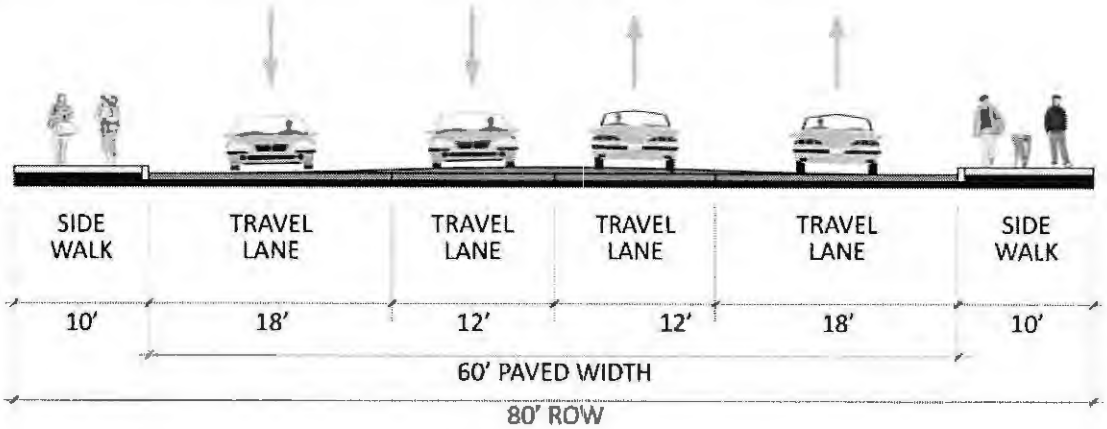
- US 30 (Broadway Street) from Main Street to 10th Street
- US 30 (10th Street) from Broadway Street to Hughes Lane

These corridors were selected based on field observations and discussions amongst the Technical Advisory Committee. The following section provides a preliminary feasibility study and discusses the potential value and impacts. Considerations include the project's potential to increase pedestrian, bicycle, and/or transit trips, existing and potential employment and residential density, and the potential impacts on automobile mobility.

US 30 (Broadway Street and 10th Street) Road Diet

Broadway Street (US 30) from Downtown Baker City at Main Street to 10th Street and 10th Street from Broadway Street to Hughes Lane are two similar roadway segments in Baker City that could undergo a temporary road diet to test the concept and determine where there is public support for permanently changing the roadway cross-section. The current roadway characteristics for Broadway Street and 10th Street include: Classification: Collector, Posted Speed: 30-35 mph, Estimated segment ADT: 9,000 (based on projected 2033 traffic volumes.

Exhibit 1 – Existing Broadway Street/10th Street Typical Cross-Section[12]



[1] It is noted that 10' sidewalks are not present along the entire length of the Broadway/10th corridor

[2] The 18-foot outside travel lane accommodates on-street parking along portions of the 10th Street and Broadway Street corridors.

Road Diet Options

Comments from the Technical Advisory Committee meetings have indicated an interest in accommodating bicycle travel and improving the pedestrian and bicycle friendliness of this important east-west/north-south corridor. Considering these comments, the current available right-of-way on Broadway Avenue, and the desire to maintain reasonable vehicle traffic operations, the following cross-sections could be considered for implementation.

Road Diet Option A

Road Diet Option A is illustrated in Exhibit 2. This option would modify the Broadway Avenue/10th Street corridor to a three lane cross-section (one travel lane in each direction with a center two-way left-turn lane) and include two 6' bike lanes. In order to achieve the dimensional measurements, 5 feet of existing travel way on each side of the street would be removed and added as a landscaping strip between the bike lane and sidewalk. Table 7 summarizes the benefits and drawbacks/considerations associated with this option.

Exhibit 2 - Broadway Street/10th Street Road Diet Option A

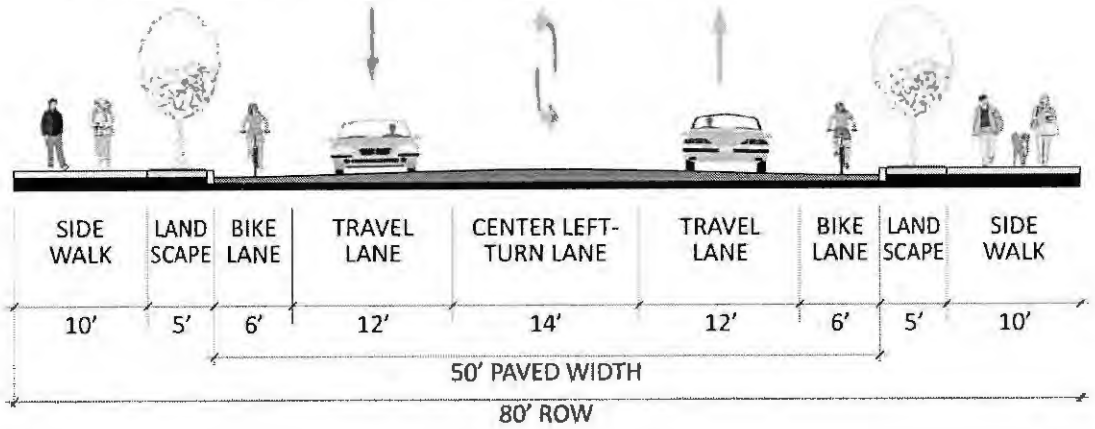


Table 7 Road Diet Option A – Benefits/Considerations

Benefits	Drawbacks/Other Considerations
• A continuous 6' bike lane that would connect Downtown Baker City to the emerging industrial park and employment areas in the northwest part of the city. • Similar road diet studies have concluded that the reallocation of the travel way from 4 to 3 lanes can result in slower travel speeds which can lead to fewer crashes. • A center left-turn lane would remove left-turning vehicles from the through travel lanes, enhancing corridor safety. • A landscape strip would enhance the sidewalk environment by providing a buffer from the adjacent travel lanes. • A narrower roadway width would reduce the pedestrian crossing distance. • Pedestrian refuge islands could be installed at some crossing locations where they don't conflict with left-turn movements.	• The overall travel way width would be reduced by 10 feet with the inclusion of the landscape strip. This reduction in travel way width would need to be reviewed to determine if there is a potential Reduction of Vehicle-carrying Capacity. • On-street parking would be eliminated. This is important as there are existing stretches of both Broadway Avenue and 10th Street that currently utilize the available roadway width for on-street parking. • The landscape strip would require new curbing and drainage. This would be an expensive addition that might not justify the benefit of the landscape strip.

Road Diet Option B

Road Diet Option B is illustrated in Exhibit 3. Like Option A, this option would modify the Broadway Avenue/10th Street corridor to a three lane cross-section (one travel lane in each direction with a center two-way left-turn lane) and include bike lanes. To accommodate on-street parking, the bike lane would be dimensioned to 5 feet, the travel lanes to 11 feet, and the center left-turn lane to 12 feet. This option does not modify the existing 60' roadway curb-to-curb dimension. Table 8 summarizes the benefits and drawbacks/considerations associated with this option.

Exhibit 3 - Broadway Street/10th Street Road Diet Option B

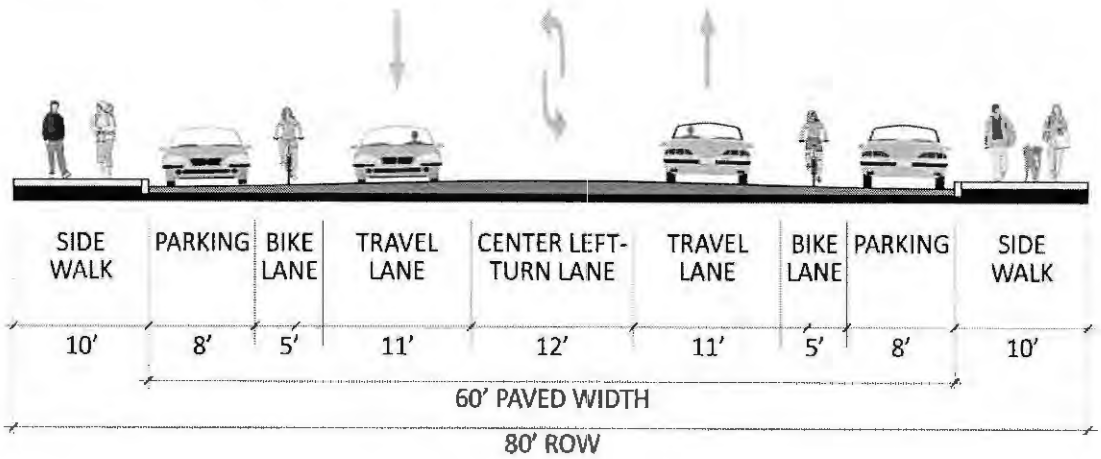


Table 8 Road Diet Option B – Benefits/Considerations

Benefits	Drawbacks/Other Considerations
• Would provide a continuous 5' bike lane that would connect Downtown Baker City to the emerging industrial park and employment areas in the northwest part of the city. • Similar road diet studies have concluded that the reallocation of the travel way from 4 to 3 lanes can result in slower travel speeds which can lead to fewer crashes. • A center left-turn lane would remove left-turning vehicles frorn the through travel lanes, enhancing corridor safety. • On-street parking would be provided along both sides of the roadway. • The existing 60' paved width would remain, thereby minimizing concerns that the road diet would reduce the overall travel way width and impact the ability to accommodate freight movements. • Pedestrian refuge islands could be installed at some crossing locations where they don't conflict with left-turn movements.	• The 11 'travel lane width and 12' center left-turn lane widths are not typical dimensions used by ODOT on state highways. This would require consultation with freight stakeholders to determine impacts to freight movements. • Narrow travel lanes would likely require a design exception.

Road Diet Option C

Road Diet Option C is illustrated in Exhibit 4. This option is a hybrid of Options A and B in the sense that it is trying to maintain the 12' travel lane/14' center left-turn lane dimension, accommodate bike lanes, and maintain some on-street parking. Due to existing right-of-way restrictions, on-street parking would be limited to only one side of the roadway. Table 9 summarizes the benefits and drawbacks/considerations associated with this option.

Exhibit 4 - Broadway Street/10th Street Road Diet Option C

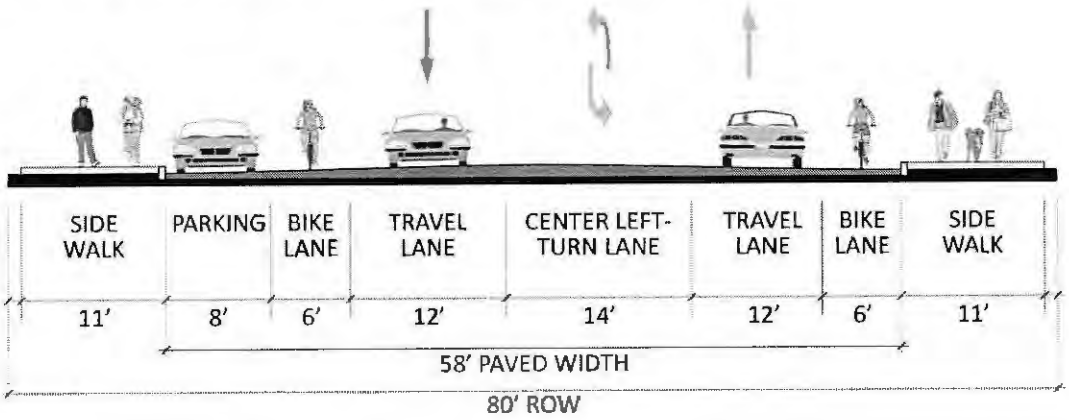


Table 9 Road Diet Option C – Benefits/Considerations

Benefits	Drawbacks/Other Considerations
• Would provide a continuous 6' bike lane that would connect Downtown Baker City to the emerging industrial park and employment areas in the northwest part of the city. • Similar road diet studies have concluded that the reallocation of the travel way from 4 to 3 lanes can result in slower travel speeds which can lead to fewer crashes. • A center left-turn lane would remove left-turning vehicles from the through travel lanes, enhancing corridor safety. • On-street parking would be retained along one side of the roadway. • Would include the more commonly accepted 12' travel and 14' left-turn lane dimensions. • Pedestrian refuge islands could be installed at some crossing locations where they don't conflict with left-turn movements.	• The overall travel way width would be reduced from the existing 60 feet to 58 feet. This reduction in travel way width would need to be reviewed to determine if there is a potential Reduction of Vehicle-carrying Capacity. • On-street parking would be eliminated along one side of the roadway. • The wider sidewalk would require new curbing and drainage. This would be an expensive addition that would likely not justify the benefit from one additional foot of sidewalk width.

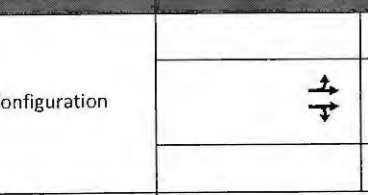
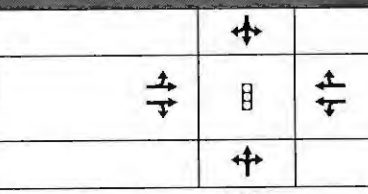
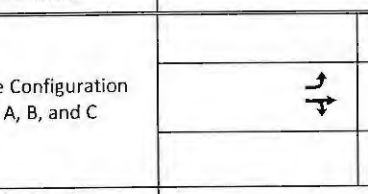
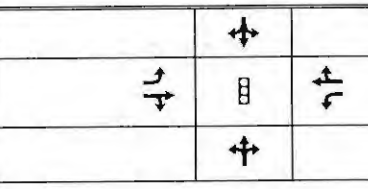
To further support the road diet consideration, a more detailed traffic analysis was performed as documented below. Table 10 summarizes the multi-modal operations along select segments of Broadway Street and 10th Street. As shown in the table, the road diet indicates that all of the different options would have minimal impacts to the vehicular operations when removing one travel lane in each direction. This indicates that existing and projected traffic volumes are low enough to be adequately supported by one travel lane. From a bicycle and pedestrian perspective, the different road diet options have varying degrees of minimal impacts on these travel modes.

Table 10 Preliminary Broadway Street/10th Street Roadway Multi-Modal Roadway Segment Analysis

Highway	Segment	Vehicle Performance (v/c ratio)			
		Future	Option A	Option B	Option C
Broadway Street	Main St → 4th St	0.24	0.36	0.36	0.36
	4th St → 10th St	0.24	0.36	0.36	0.36
10th Street	Broadway St → Campbell St	0.46	0.47	0.47	0.47
	Campbell St → H St	0.28	0.31	0.31	0.31
	H St → Pocahontas/Hughes Lane	N/A	--	--	--
		Bike Score (LOS)			
Broadway Street	Main St → 4th St	3.45 (C)	4.03 (D)	3.49 (C)	3.53 (D)
	4th St → 10th St	4.08 (D)	4.14 (D)	3.96 (D)	4.07 (D)
10th Street	Broadway St → Campbell St	3.27 (C)	3.06 (C)	3.07 (C)	3.23 (C)
	Campbell St → H St	3.49 (C)	3.65 (C)	3.3 (C)	3.45 (C)
	H St → Pocahontas/Hughes Lane	3.78 (D)	3.28 (D)	2.94 (C)	3.65 (D)
		Pedestrian Score (LOS)			
Broadway Street	Main St → 4th St	2.51 (B)	2.99 (C)	2.66 (B)	2.65 (B)
	4th St → 10th St	2.74 (B)	2.72 (B)	2.9 (C)	2.89 (C)
10th Street	Broadway St → Campbell St	2.23 (B)	2.42 (B)	2.37 (B)	2.36 (B)
	Campbell St → H St	2.25 (B)	2.45 (B)	2.4 (B)	2.39 (B)
	H St → Pocahontas/Hughes Lane	2.8 (C)	2.83 (C)	2.8 (C)	2.87 (C)

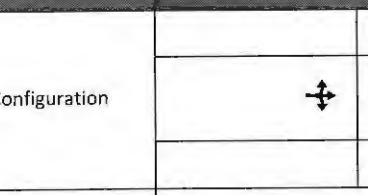
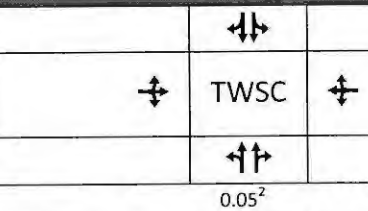
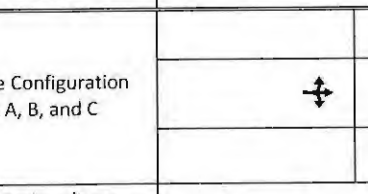
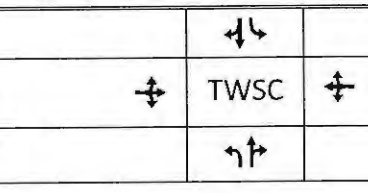
In addition to the modal segment analysis, an intersection-level operations analysis was performed at select study intersections along Broadway Street and 10th Street to better understand the impacts of removing one of the two existing through lanes in each direction. Given that each of the road diet options would have similar intersection impacts, no attempt was made to distinguish the operational impacts between each individual road diet option. This analysis is summarized in Tables 11 and 12 below. As shown in the tables, all of the intersections are forecast to continue to operate at acceptable V/C ratios with minimal degradation.

Table 11 Preliminary Traffic Operations Analysis for Select Study Intersections Impacted by a Potential Road Diet along Broadway Street

Lane Configuration/Traffic Operations Results	Broadway/4th Street Intersection	Broadway/2nd Street Intersection
Existing Lane Configuration		
Existing V/C Ratio	0.22	0.27
Future 2033 V/C Ratio	0.24	0.30
Mobility Standard Met?[1]	Yes	Yes
Road Diet Lane Configuration under Options A, B, and C		
Road Diet V/C Ratio w/Future Volumes	0.36	0.42
Mobility Target Met?[1]	Yes	Yes

[1]The mobility target for intersections along Broadway Avenue is 0.90

Table 12 Preliminary Traffic Operations Analysis for Select Study Intersections Impacted by a Potential Road Diet along 10th Street

Lane Configuration/Traffic Operations Results	10th Street/Campbell Street Intersection	10th Street/D Street Intersection
Existing Lane Configuration		
Existing V/C Ratio	0.34	0.05[2]
Future 2033 V/C Ratio	0.46	0.28[2]
Mobility Standard Met?[1]	Yes	Yes
Road Diet Lane Configuration under Options A, B, and C		
Road Diet V/C Ratio w/Future Volumes	0.47	0.31[2]
Mobility Target Met?[1]	Yes	Yes

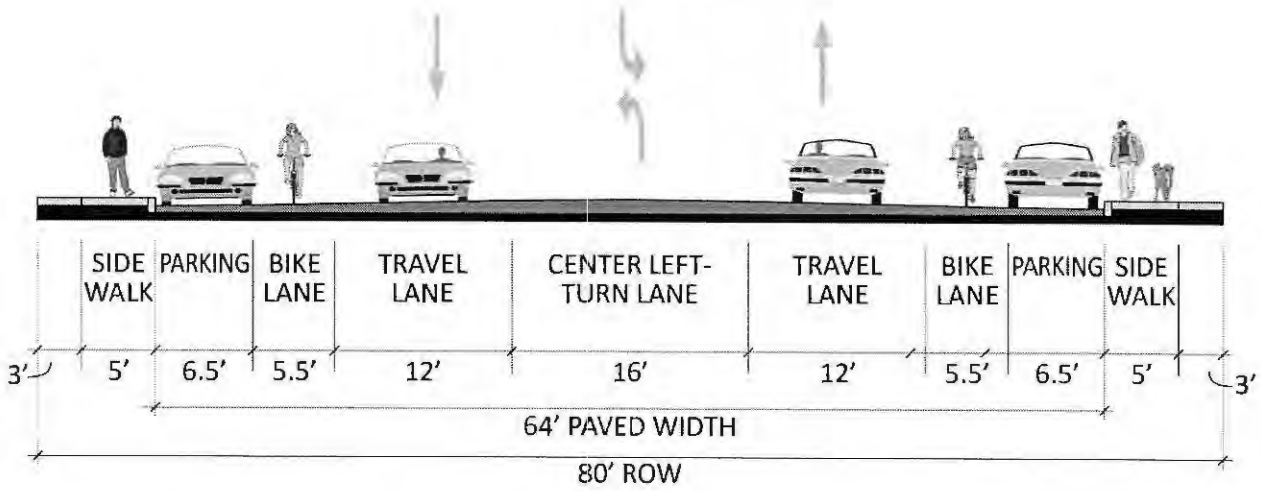
[1]The mobility target for intersections along 10th Street is 0.90
[2]V/C ratio is the volume-to-capacity ratio for the critical movement at the intersection

OR 86 CAMPBELL STREET STRIPING MODIFICATION

The existing cross section of Campbell Street between Resort Street and Birch Street is illustrated in Exhibit 5 below. As shown, the existing 64 foot curbed section consists of relatively narrow 6.5-foot on-street parking areas, 5.5 foot bike lanes, 12-foot travel lanes, and a 16-foot center-turn lane. As noted from field observations and feedback from Baker City residences, the narrow on-street parking area creates situations where parked vehicles overlap into the bike lanes, thereby making the bike lanes uncomfortable for bicyclists. This creates safety concerns for bicyclists and has been seen as a limiting factor in the use of the Campbell Street corridor for east-west bicycle travel.

Exhibit 5 - Existing Campbell Street Cross Section

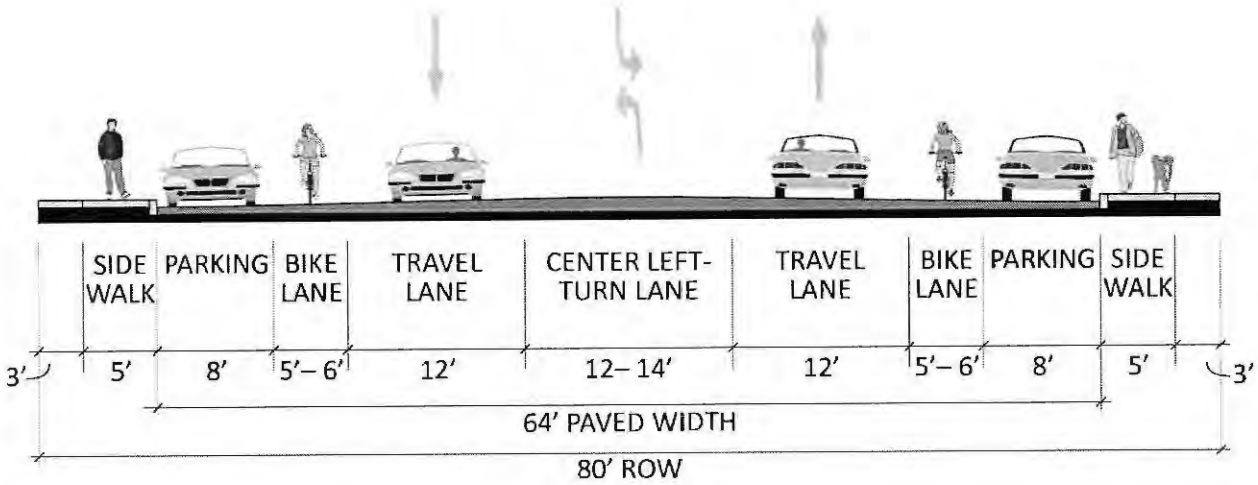
Campbell Street (Existing Conditions)



To mitigate this concern, it has been proposed that this segment of Campbell Street be re-striped to provide for a wider on-street parking area. This proposed re-striping is illustrated in Exhibit 6. As shown, the existing 16-foot wide center-turn lane would be reduced to 14-feet, the existing 5.5-foot bike lane would be reduced to 5-feet, and the existing 6.5-foot on-street parking area would be increased to 8-feet. This striping modification would then provide ample on-street parking width and a bike lane environment free of parked vehicle overlap.

Exhibit 6 - Proposed Campbell Street Restriping

Campbell Street (Proposed Re-Striping)



To better understand the implications of such a change, there are several physical obstacles and pinch points that would need to be addressed if the striping modification were to take place.

- There is an existing Rectangular Rapid Flashing Beacon located at milepost 0.32. A reduction in the center-turn lane width would reduce the existing 2-foot shy distance between the travel lanes and the associated median refuge islands to 1-foot.
- There is an existing raised c-channel median near the intersection of Cedar Street (milepost 0.63) that is designed to limit left-turn movements to/from the adjacent Ash Street intersection. A reduction in the center-turn lane width would require the raised c-channel median to be removed and redesigned.
- There is an existing raised median island between Pine Street and Birch Street that is designed to limit left-turn movements to/from the south leg of Birch Street. A reduction in the center-turn lane width would require portions of the raised median to be modified.

SPECIAL TRANSPORTATION AREA AND URBAN BUSINESS AREA DESIGNATIONS

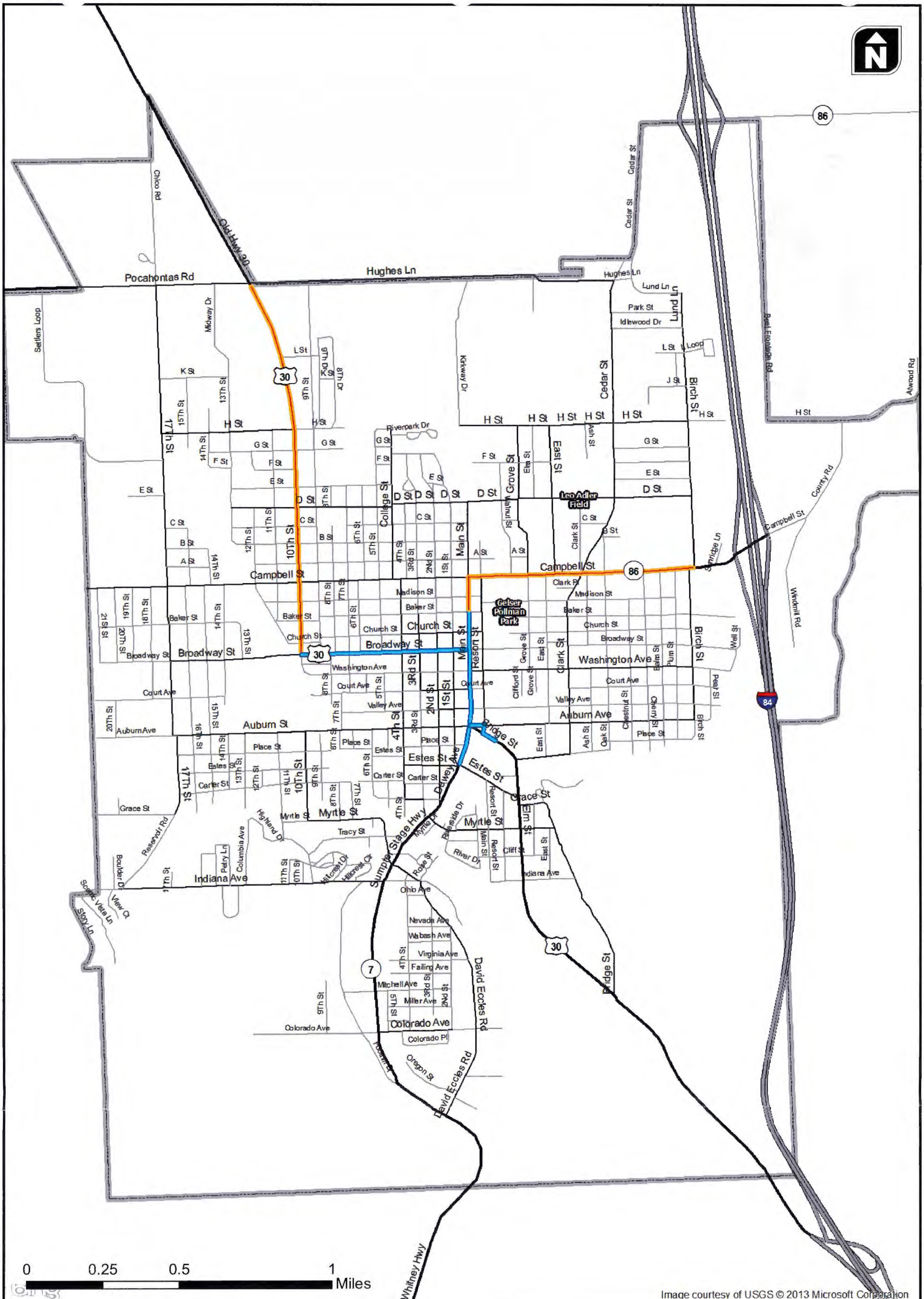
This section documents general information on Special Transportation Areas (STAs) and Urban Business Area (UBAs) as well as ideas for how Baker City can use STAs and UBAs to achieve its goals of continuing to develop a transportation system that is inviting to pedestrian, bicyclists, and transit. Baker City currently has no STA or UBA designations on any of the state highway segments through the city. However, ODOT and the City have begun initial discussions on the potential designation of STAs and UBAs within the City. Figure 4 illustrates these potential locations. The evaluation of these designations as part of a TSP update is typically a first step in moving towards the adoption and official recognition of these designations. As such, this section provides background information on STAs and UBAs and addresses whether the five identified segments should be considered further for designation.

BACKGROUND

The 1999 Oregon Highway Plan (OHP) established long-range policies and investment strategies for the State Highway System. Within the OHP, highway mobility standards are included as a policy. The highway mobility standards are established to maintain acceptable and reliable levels of mobility on the state highway system. Per the OHP, these standards shall be used for:

- Identifying state highway mobility performance expectations for planning and plan implementation;
- Evaluating the impacts on state highways of amendments to transportation plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-060); and
- Guiding operations decisions such as managing access and traffic control systems to maintain acceptable highway performance.

In establishing the mobility standards, the Oregon Department of Transportation (ODOT) and the Oregon Transportation Commission (OTC) identified that these mobility standards could have the unintended effect of discouraging development in downtowns and encouraging development in urban fringe areas. This could occur where highways in downtowns and central business districts are near capacity. With this in mind, alternate mobility standards can be developed and adopted for metropolitan areas, Special Transportation Areas (STAs), Urban Business Areas (UBAs), and constrained areas. The remainder of this section addresses the STAs and UBAs.



Special Transportation Area (STA)
Urban Business Area (UBA)
Baker City UGB

Proposed UBA and STA Designations

Figure 4

H:\projfile\12196 - Baker City TSP Update\gis\12196_UBA-STA.mxd

Special Transportation Areas (STAs)

STAs are highway locations where alternate mobility and access management standards can be considered. An STA is a designated district of compact development located on a state highway within an urban growth boundary in which the need for appropriate local access outweighs the considerations of highway mobility. The exception is on designated Oregon Highway Plan Freight Routes, where through highway mobility has greater importance. None of the identified Baker City segments are designated Freight Routes by ODOT.

STAs look like traditional "Main Streets" with development generally located near the back of sidewalk on both sides of the state highway. The primary objective of an STA is to provide access to and circulation amongst community activities, businesses and residences and to accommodate pedestrian, bicycle and transit movement along and across the highway. Direct street connections and shared on-street parking are encouraged. Local auto, pedestrian, bicycle and transit movements to the area are generally as important as the through movement of traffic. Traffic speeds are slow, generally 25 miles per hour or lower.

Mobility and Access Management Standards

US 30 is a District Highway while OR 7 is a District Highway and Regional Highway in the OHP. The standard for mobility is lowest for District and Regional Highways in STAs. In STAs, in particular, higher levels of congestion are permitted to accommodate compact, pedestrian-oriented development. Mobility standards can range from 0.70 to 0.95 for a STA. In addition to the mobility standards, an STA has access management standards for District, Regional, and Statewide Highways.

The minimum access management spacing for public roadway approaches is the existing city block spacing or the city block spacing as identified in the local comprehensive plan. Public road connections are preferred over private driveways and in STAs, driveways are discouraged. However, where driveways are allowed and where land use patterns permit, the minimum access management spacing for driveways is 175 feet or mid-block if the current city block is less than 350 feet.

Currently the mobility standards on all potential STA designated highway segments within Baker City are 0.90. The STA designation could increase the mobility standard on some segments to 0.95. As illustrated in the future conditions analysis, none of the study intersections are forecast to exceed the current 0.90 mobility standard through 2033. However, several intersections are forecast to operate near 0.90. As such, an STA designation may provide additional long-term operational performance for accommodating growth.

Planning and Development Guidance for STAs

STAs should be planned and developed to reflect the following kinds of characteristics:

- Buildings are spaced close together and located adjacent to the street

- Sidewalks with ample width are located adjacent to the highway and the buildings
- People who arrive by car or transit find it convenient to walk from place to place
- On-street parking, structured parking, or shared, general purpose parking lots are located behind or to the side of buildings
- Streets are designed with a pedestrian orientation for the ease of crossing by pedestrians
- Public road connections correspond to the existing city block pattern; private driveways directly accessing the highway are discouraged
- Adjacent land uses provide for compact, mixed-use development with buildings oriented to the street
- A well-developed parallel and interconnected street network facilitates local automobile, bicycle, transit and pedestrian circulation except where topography severely constrains the potential for street connections
- Speeds typically do not exceed 25 miles per hour
- Plans and provisions are made for infill and redevelopment
- Provisions are made for well-developed transit stops including van/bus stops, bicycle and pedestrian facilities, and including street amenities that support these modes

In addition to the above characteristics for developing an STA, an agency should apply the following strategies outlined in Table 13 to meet the objectives of the land use and transportation policy and support the development of an STA.

Table 13 Elements of Strategies for Development of STAs

Land Use	Traffic Management
• Adjacent land uses that provide for compact, mixed-use development. "Compact" means that buildings are spaced closely together, parking is shared and sidewalks bind the street to the building. Mixed-use development includes a mixture of community places and uses. • Infill and redevelopment. • Design and orientation of buildings that accommodate pedestrian and bicycle circulation, as well as automobile use. • An adopted management plan as part of the comprehensive plan that shows the area as a compact district with development requirements that address local auto trips, street connectivity, shared parking, design and layout of buildings, parking and sidewalks that encourage a pedestrian-oriented environment.	• A well-developed parallel and interconnected local roadway network. • A parking strategy that favors shared general purpose parking, preferably on-street parking and shared parking lots. • Streets designed for ease of crossing by pedestrians.
Alternative Modes	**Access Management**
• Well-developed transit, bicycle and pedestrian facilities, including street amenities that support these modes.	• Public road connections that correspond to the existing city block. • Private driveways discouraged.

STA Opportunities for Baker City

As was mentioned earlier, Baker City has different sections of OR 7 and US 30 that have been identified for potential STA consideration. These locations include:

- OR 86
  - Main Street from Broadway Street to Baker Street (milepost 0.00 – 0.13)
- OR 7
  - Main Street/Dewey Avenue from Estes Avenue to Auburn Avenue (milepost 50.83 – 50.96)
- US 30
  - Broadway Street from 10th Street to Main Street (milepost 51.23 – 51.79)
  - Main Street from Broadway Street to Auburn Avenue (milepost 51.79 – 52.04)
  - Auburn Street/Elm Street from Main Street to Powder River (milepost 52.04 – 52.13)

All of these segments either traverse Downtown Baker City or serve predominately commercial corridors that lead into Downtown Baker City. In this environment, speeds are either 25 mph (along the Main Street segments) or 30 mph (along the Broadway Street segment), buildings are spaced close together, development is more compact, and streets are designed to a higher level of pedestrian accommodation. With several study intersections approaching the 0.90 mobility standard by the year 2033, these segments have many characteristics that make it a potential STA candidate.

Urban Business Areas (UBAs)

UBAs are special overlay designations that can be applied to highways where existing commercial development exists and it has been determined that vehicular circulation and accessibility are important to ensure continued redevelopment and reinvestment. An important distinction however is that UBAs strive to encourage development that relies upon common accesses and some compatibility with bicycle and pedestrians.

Planning and Development Guidance for UBAs.

UBAs should be planned to reflect the following kinds of characteristics:

- Consolidation of vehicular access for new development and redevelopment;
- Crossover access between adjacent properties;

- Businesses and buildings set back from the highway and separated by parking lots;
- Visible access from the highway directly to parking and drive-through facilities;
- Limited or no on-street parking;
- Bicycle lanes, sidewalks, crosswalks, or other bicycle/pedestrian accommodations to address safe and accessible pedestrian movement along, across and within the commercial areas;
- Stop signs, traffic signals, medians and intersections designed to serve as pedestrian refuges;
- Provision for good traffic progression;
- Auto accessibility important to economic vitality of the area;
- Vehicular accessibility as important as pedestrian, bicycle and transit accessibility;
- Efficient parallel local street system where arterials and collectors connect to the state highway;
- Speeds that are generally 35 mph or less;
- Businesses and buildings clustered in centers or nodes for new development and potential redevelopment.

UBA Opportunities for Baker City

- OR 86
    - Campbell St/Main St from Birch Street to Baker Street (milepost 0.12 – 0.98)
- US 30
    - 10th Street from Hughes Lane to Broadway Street (milepost 49.97 – 51.79)

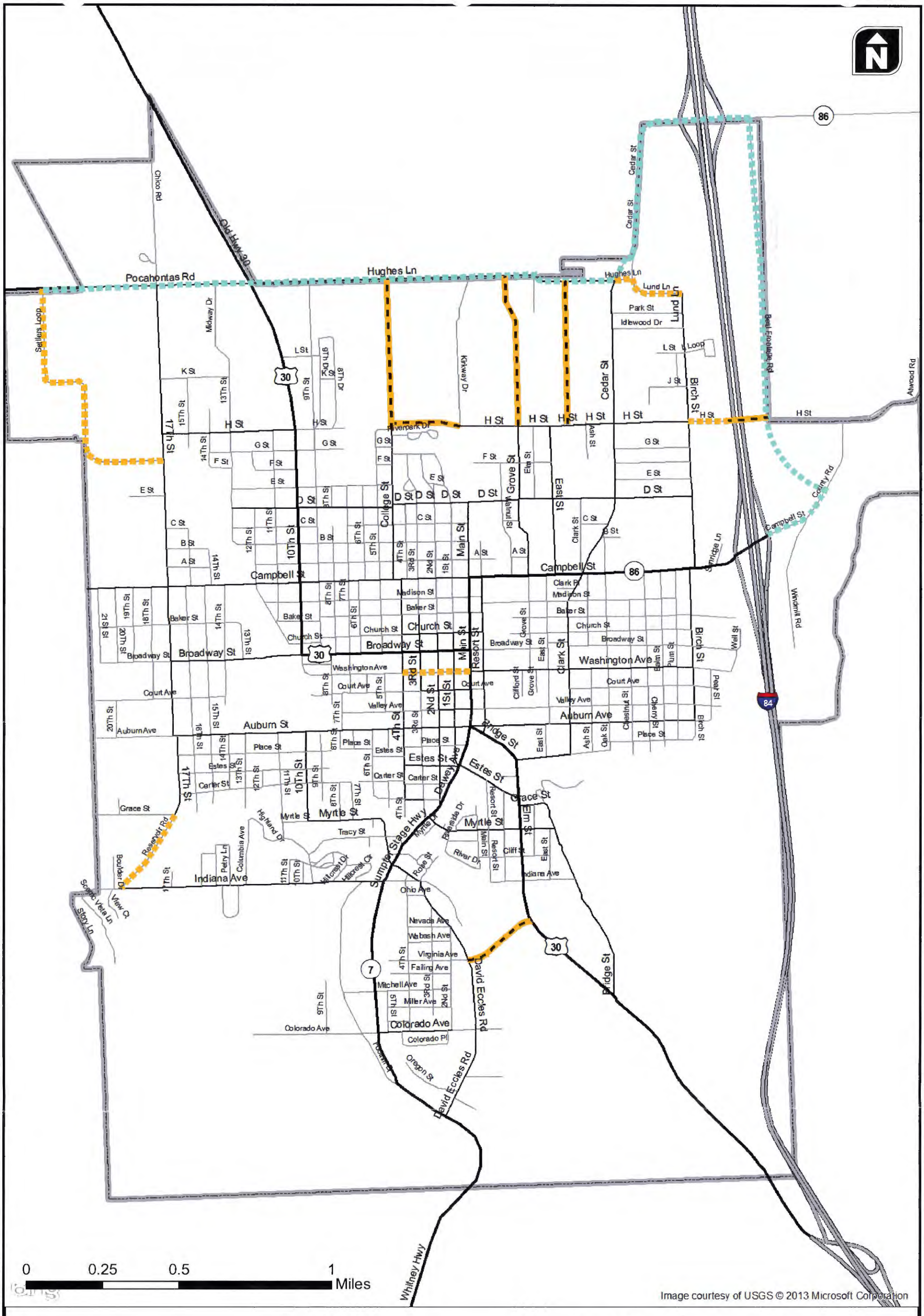
POTENTIAL FUNCTIONAL CLASSIFICATION PLAN REVISIONS

Baker City classifies roadways as Arterials, Collectors, and Local streets. The vast majority of Baker City's functional classification designations are proposed to be maintained as part of this update. However, it was observed that some streets are missing formal classification designations or are functioning at levels that suggest new designations are needed. Table 14 and Figure 5 summarizes the proposed functional classification revisions.

Table 14 Potential Revisions in Functional Classification

Roadway	1996 TSP Classification	Proposed Change	Justification/Considerations
Lund Lane	Not identified	Formally classify as a Collector	• Would provide a logical formal connection between the Cedar Street and Birch Street collector corridors. • Likely already functioning as a de facto collector street.
Cedar Street (north of Hughes Lane to Exit 302 interchange)	Not classified	Formally classify as an Arterial	• Cedar Street is the only connection to the north interchange and it is not formally classified. • Future development around the Exit 302 interchange will increase traffic volumes to levels appropriate for arterial status.
Hughes Lane (US 30 to Cedar Street)	Collector	Reclassify to an Arterial	• Increasing industrial development in the northwest part of the City will necessitate enhanced accessibility to/from the I-84 corridor. Hughes Lane is the most direct route.
Pocahontas Road (US 30 to west city limits)	Collector	Reclassify to an Arterial	• Increasing industrial development in the northwest part of the City will necessitate enhanced accessibility to/from the I-84 corridor. Pocahontas Road/Hughes Lane is the most direct route.
Best Frontage Road	Not classified	Formally classify to an Arterial	• Would better facilitate new development and access between the Exit 302 and 304 interchanges.
Campbell Street (east of I-84)	Not classified	Formally classify to an Arterial	• Campbell Street east of I-84 is not currently classified.
Settlers Loop/23rd Street	Not identified	Formally classify to a Collector	• The new industrial loop roadway is not currently classified. This roadway is intended to function like a collector roadway.
Reservoir Road	Not classified	Formally classify to a Collector	• Reservoir Road currently functions like a collector roadway linking Indiana Avenue to Auburn Street.
Washington St (Main to 4th)	Not classified	Formally classify to a Collector	• Would continue Washington Avenue as a collector west of Main Street.
College Street (Riverpark Drive to Hughes Lane)	-	New future Collector	• [1]
H Street (Kirkway Drive to College Street)	-	New future Collector	• [1]
Grove Street (H Street to Hughes Lane)	-	New future Collector	• [1]
Clark Street (H Street to Hughes Lane)	-	New future Collector	• [1]
Southeast Connector (David Eccles Road to US 30)	-	New future Collector	• [1]

[1]Proposed future roadway. Please see Alternative Concept Section 3 for more details



Proposed Functional Classification

- Arterial Upgrade
- Collector Upgrade
- Future Collector

Proposed Functional Classification Plan

Figure **5**

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POTENTIAL ROADWAY CROSS SECTION STANDARD REVISIONS

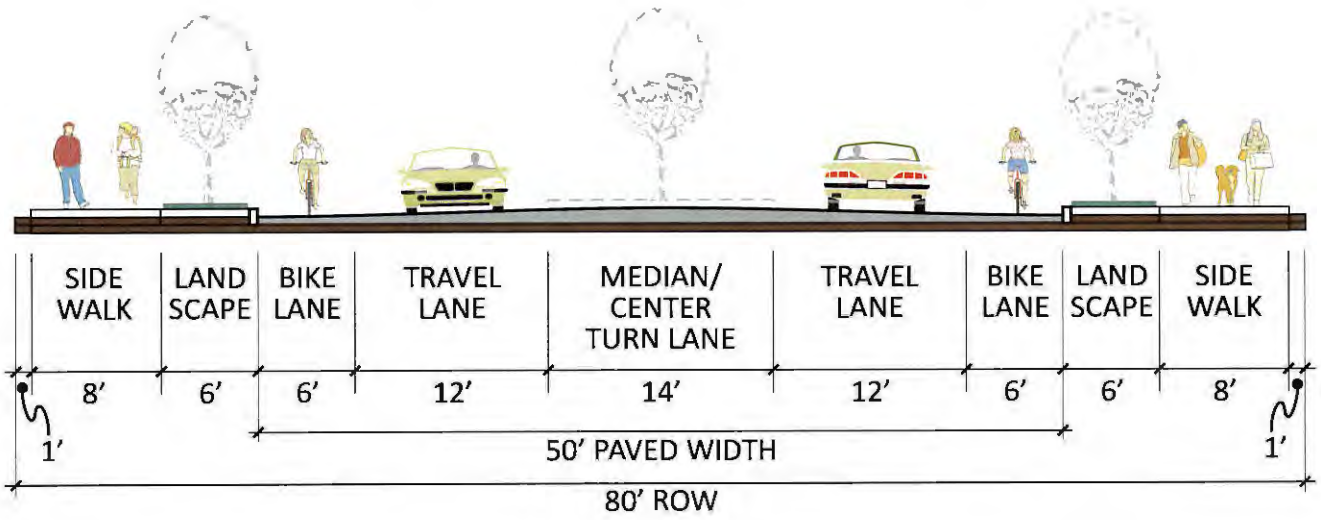
A review of the 1996 TSP indicates that the roadway cross section drawings are not entirely consistent with the *Article 3 – Community Design Standards* of the City Development Code. These inconsistencies are primarily due to adopted changes in the street standards that have occurred since the 1996 TSP. In addition, previous discussions with City staff revealed a desire to incorporate a new cross section drawing that could be applied to unpaved local residential streets. Therefore, to counter the noted inconsistencies and to provide a discussion forum for a new unpaved local street standard, new cross section drawings were created as shown in Figures 6 through 9.

In most cases, these new cross section drawings mimic the street standards as currently found in *Article 3 – Community Design Standards* of the City Development Code. However, the following changes have been made:

- The "Urban Arterial Street" drawing found in in *Article 3 – Community Design Standards* has been renamed "Urban Arterial Street (50' Paving with No Parking).
- A new "Urban Arterial Street (with Parking on Both Sides)" has been created.
- A new "Commercial Street (36' Paving with No Parking)" has been created.
- A new "Commercial Street (50' Paving – Parking Both Sides)" has been created.
- A new "Downtown Commercial Street (Angled Parking One Side)" has been created.
- The "Downtown Commercial Street" drawing found in *Article 3 – Community Design Standards* has been renamed to "Downtown Commercial Street (Parallel Parking Both Sides)". In addition, the paved width has been modified to correctly dimension the overall paved width from 48' to 52'.
- The "Major Collector Street" has been revised to correctly show the paved width from 48' to 52 feet and an 80' right-of-way.
- A new drawing has been created that provides a local street option that can be applied for improvements to existing unpaved residential streets.
- A new drawing has been created that shows a new roadway cross section for Auburn/17th Street Pathway Option.

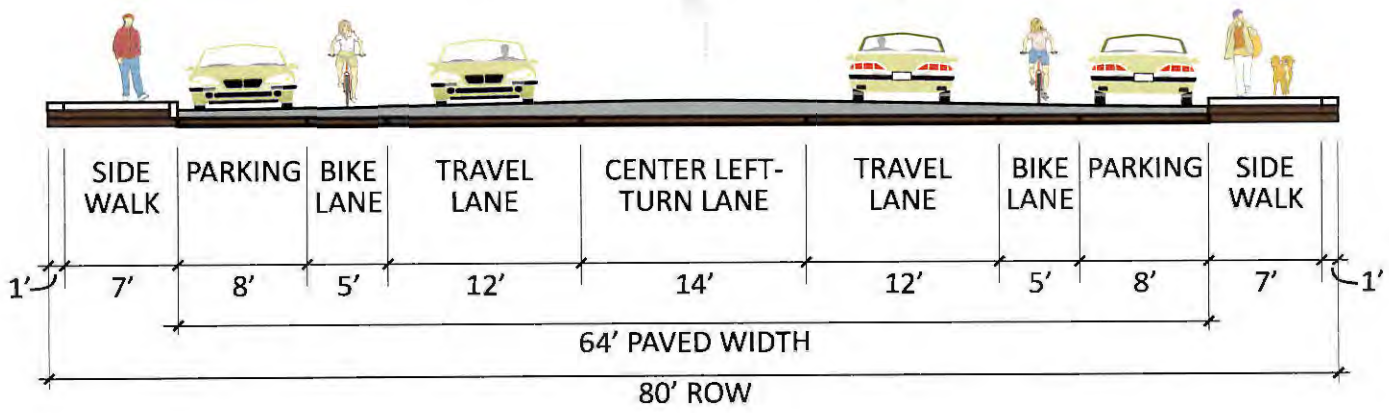
* REVISED

Urban Arterial Street (50' Paving with No Parking)



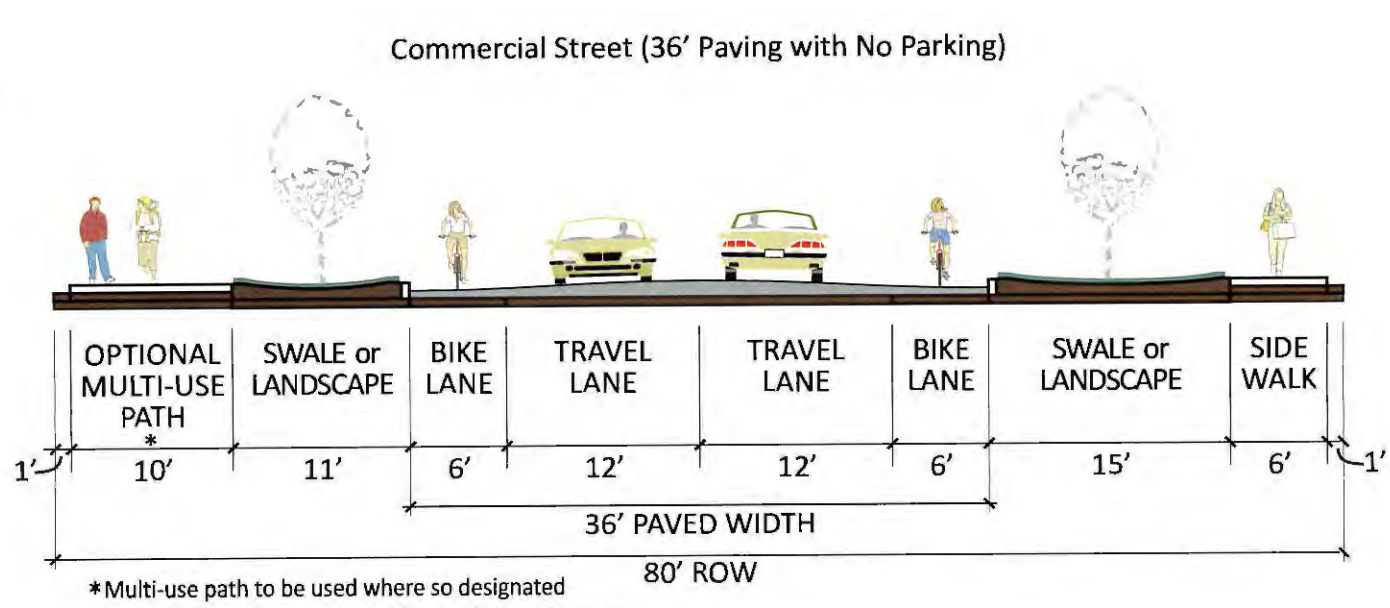
Urban Arterial Street (with Parking on Both Sides)

* NEW



Commercial Street (36' Paving with No Parking)

* NEW



*Multi-use path to be used where so designated in the TSP or where approved for use by City Engineer. When no multi-use path is used, provide 6' sidewalk on both sides.

Trees to be provided per city code and location specific

Proposed Roadway Cross Sections

Figure 6

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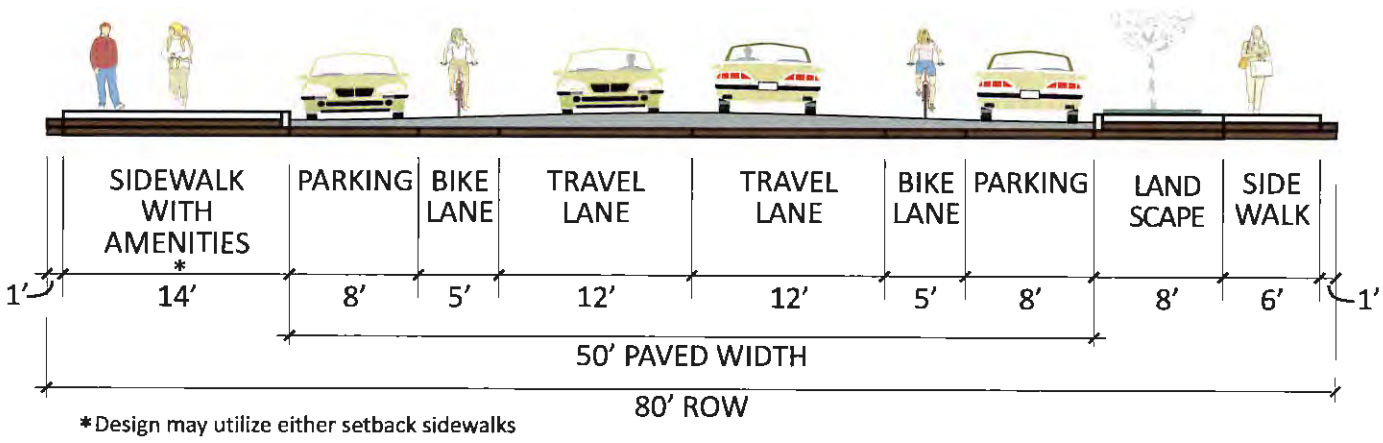
* NEW

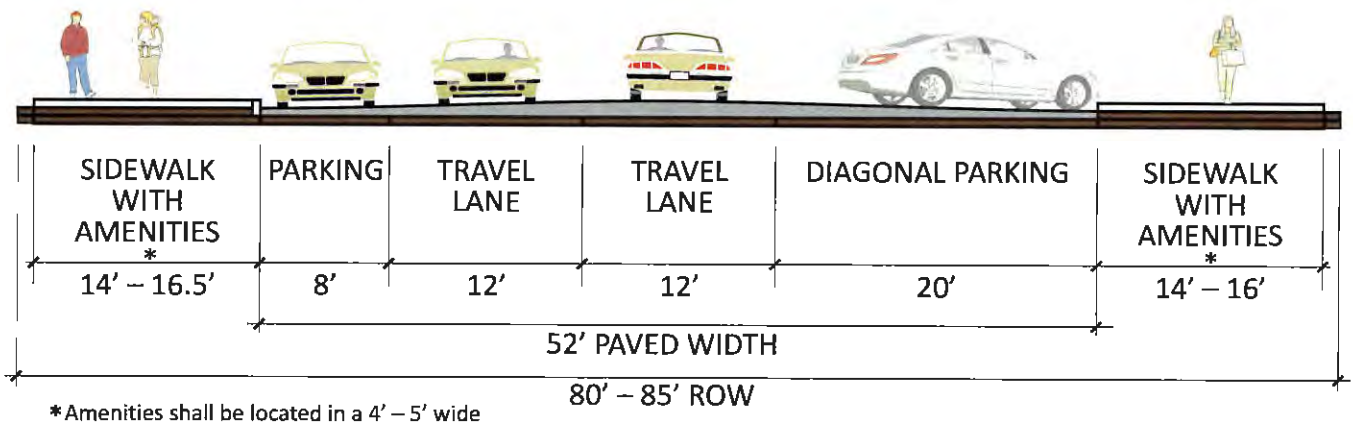
Commercial Street (50' Paving – Parking Both Sides)



*Design may utilize either setback sidewalks with a landscape strip or a continuous 14' sidewalk with a 4' – 5" wide strip for amenities (lighting, trees, benches, etc.) adjacent to curb.

* NEW

Downtown Commercial Street (Angled Parking One Side)



*Amenities shall be located in a 4' – 5' wide strip adjacent to the curb (Lighting, trees, benches, etc.)

* REVISED

Downtown Commercial Street (Parallel Parking Both Sides)

*Amenities shall be located in a 4' – 5' wide strip adjacent to the curb (i.e. Lighting, trees, benches, etc.)

Trees to be provided per city code and location specific

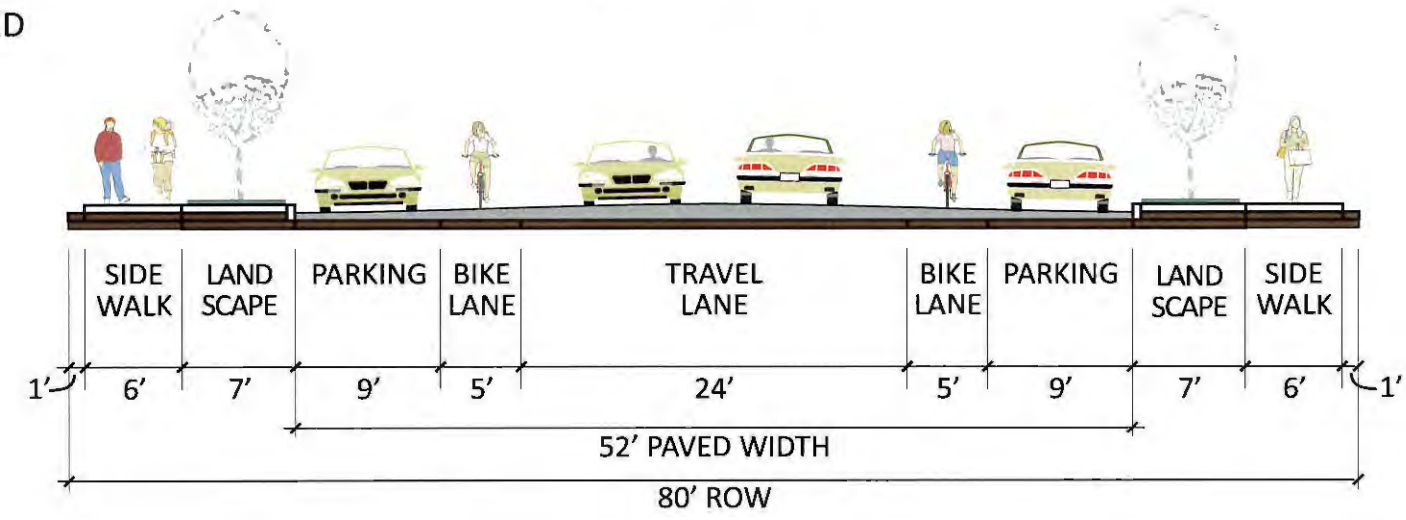
Proposed Roadway Cross Sections

BAKER CITY OREGON EST. 1874

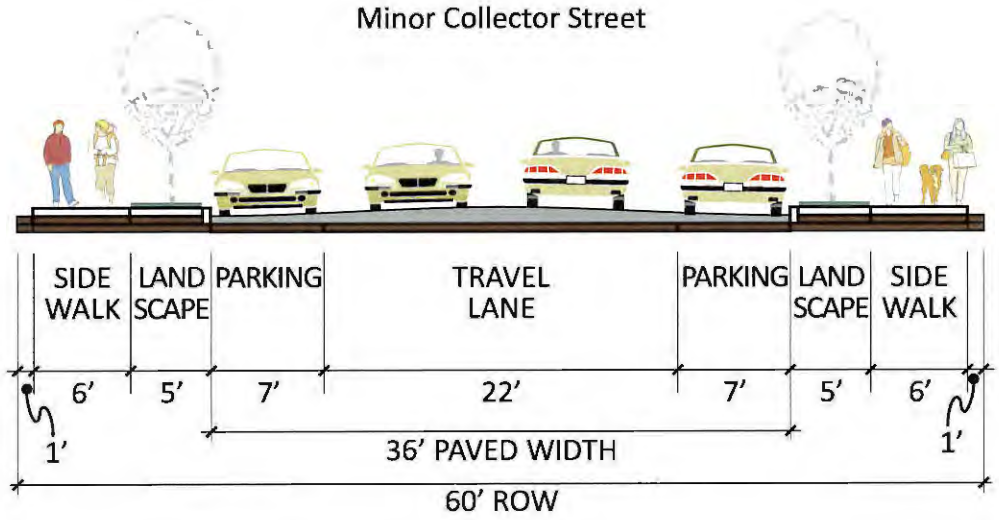
Figure 7

Major Collector Street

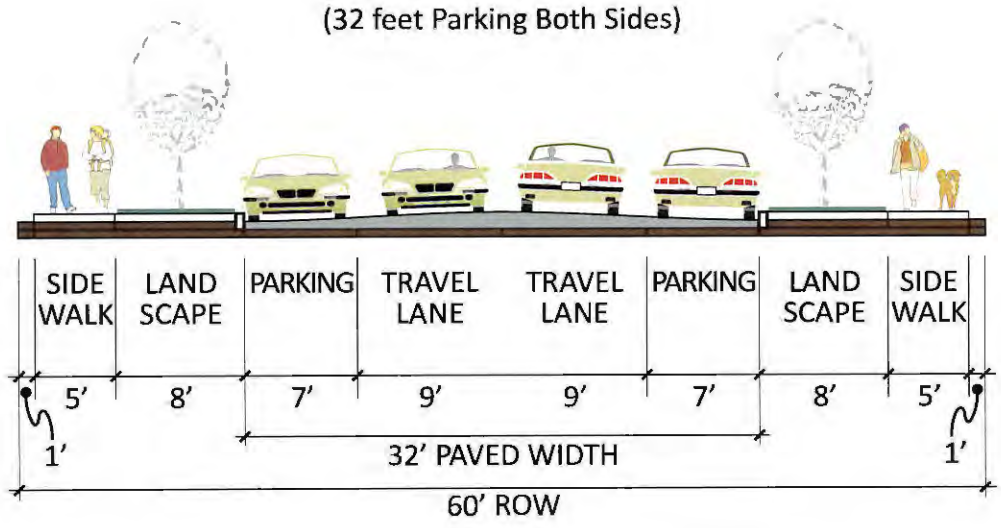
*REVISED



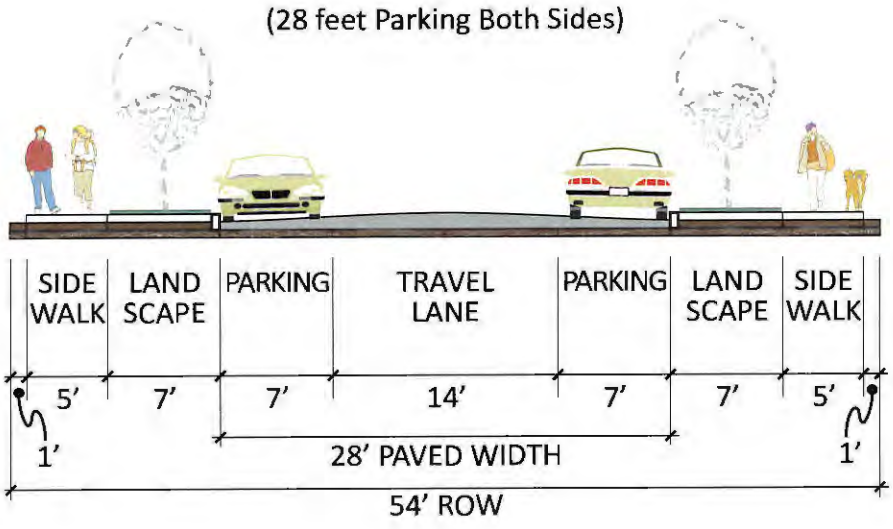
Minor Collector Street



Local Residential Street
(32 feet Parking Both Sides)



Local Residential Street
(28 feet Parking Both Sides)

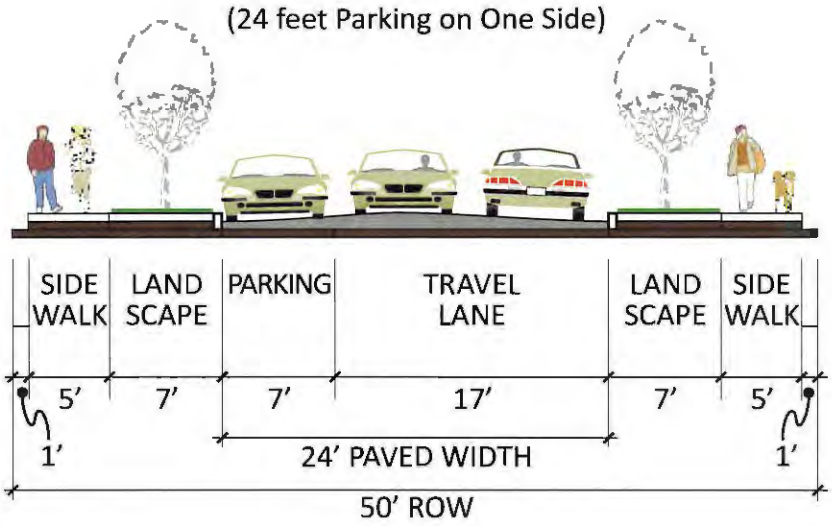


Trees to be provided per city code and location specific

Proposed Roadway Cross Sections

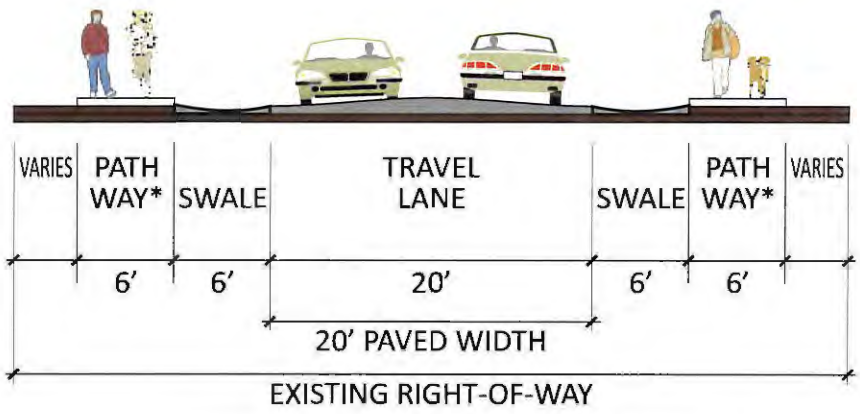
Figure 8

Local Residential Street
(24 feet Parking on One Side)



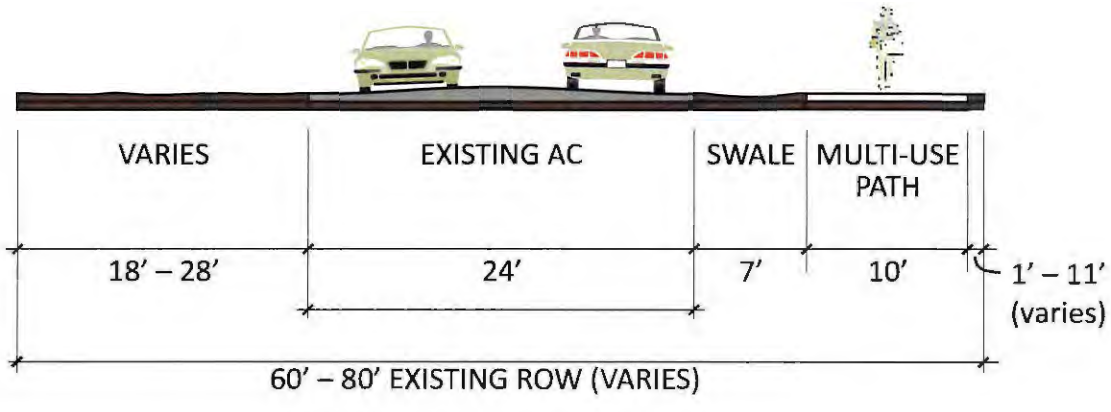
Local Residential Street
(20 feet No Parking Allowed)

Improvement Option
for
Existing Unpaved Local Residential Streets



★ Pathway may be constructed on one side or both sides of street.
Pathway shall be hard surface (concrete, asphalt or equivalent).

Auburn/17th Street Pathway Option



Trees to be provided per city code and location specific

Proposed Roadway Cross Sections

Figure 9

ALTERNATIVE CONCEPTS - 1996 TSP ROADWAY PROJECTS

The 1996 TSP identified a number of roadway improvement projects for implementation in Baker City. This section revisits those improvement projects that have not yet been implemented and reviews them for potential continued inclusion in this TSP update.

STREET SYSTEM PLAN

Several of the new roadway facilities recommended in the 1996 TSP have been completed or are in various stages of completion, while others have not been implemented. The following list identifies those projects that have not yet been implemented and reviews them for continued inclusion in the TSP update.

- Bulb-outs and/or center medians in Campbell Street:
  - The new pedestrian crossing installed at the Leo Adler Pathway has alleviated much of the need for other improvements. Additionally, the bulb-outs and medians would create conflicts for snow plowing. This project is recommended to be removed as a future alternative.
- H Street Connection between Stub east of Powder River and Stub near 8th St:
  - Due to more recent development associated with the high school athletic fields and sports complex, the extension of H Street no longer appears feasible without significant private property impacts. In an effort to improve the street grid system for future development, this project should be modified to connect the H Street stub east of the Powder River to College Street. This connection will improve access to the high school from the vacant buildable lots east of the Powder River.
- H St Connection over I-84 between Best Frontage Road and Stub west of I-84:
  - This project still appears feasible and likely should remain in the TSP update.
- Main Street extension north of D Street to Hughes Lane and to Exit 302
  - Recent development projects north of D Street appear to limit the extension of Main Street to Hughes Lane on a continuous alignment. Other segments of this alignment are currently outside of the City's UGB. Alternative north/south connectors should be identified between D Street and Hughes Lane.
- Southeast connector between OR 7 and US 30 in the South East quadrant
  - This project would connect OR 7 and US 30 in the southeast part of the City. Although it would require substantial right-of-way acquisition, a new bridge across the Powder River, and an at-grade railroad crossing, the connection would provide

a valuable east-west connector between the two highways. It is recommended that this project remain in the TSP update alternatives.

ALTERNATIVE CONCEPTS – NEW INTERSECTION AND ROADWAY IMPROVEMENTS

The new intersection and roadway improvements section outlines those transportation improvement concepts that have been identified to mitigate deficiencies noted in the future "No-Build" traffic operations analysis. This section also identifies improvement concepts that would address existing geometric deficiencies or enhance circulation through the year 2033. Figure 10 identifies these projects while the sections below describe the potential improvements.

INTERSECTION CAPACITY IMPROVEMENTS

The following section details the study intersections that are approaching or exceeding the performance standard and identifies several improvement strategies for each.

Exit 302 Interchange Ramp Intersections

Both of the Exit 302 interchange ramp terminals (identified as Projects #1 and 2 on Figure 10) are forecast to exceed the ODOT performance mobility targets and operate above capacity. These operations are a result of increased commercial and industrial activity anticipated within the interchange area over the next 20-years.

Potential Mitigation Options

Using the ODOT TPAU Preliminary Signal Warrant Analysis, it was determined that both ramp terminals would warrant signalization within the 20-year horizon year of the TSP. Using optimized cycle lengths and splits based on the projected turn movement volumes, signalization was determined to mitigate the over capacity conditions[3]. The analysis shows that signalization will improve intersection operations to a v/c ratio of 0.85 at the northbound ramp intersection, and a v/c ratio of 0.68 at the southbound ramp intersection.

In addition to the signalization analysis, preliminary roundabout analyses were conducted using calculations from NCHRP Report 572. Single-lane roundabouts were analyzed using the projected

[3] Meeting preliminary signal warrants does not guarantee that a signal shall be installed. Before a signal can be installed a field warrant analysis is conducted by the Region. If warrants are met, the State Traffic Engineer will make the final decision on the installation of a signal.

volumes at each intersection at Exit 302. The analysis determined that single-lane roundabouts are projected to operate acceptably from all approaches during the PM peak hour.

Exit 304 Interchange Ramp Intersections

Similar to the Exit 302 interchange, both unsignalized intersections at the Exit 304 interchange (identified as Projects #3 and 4) are forecast to exceed the ODOT performance standards. The stop controlled approaches both exceed capacity in the future conditions due to anticipated growth in Baker City and the likelihood of additional highway-oriented commercial development east of I-84.

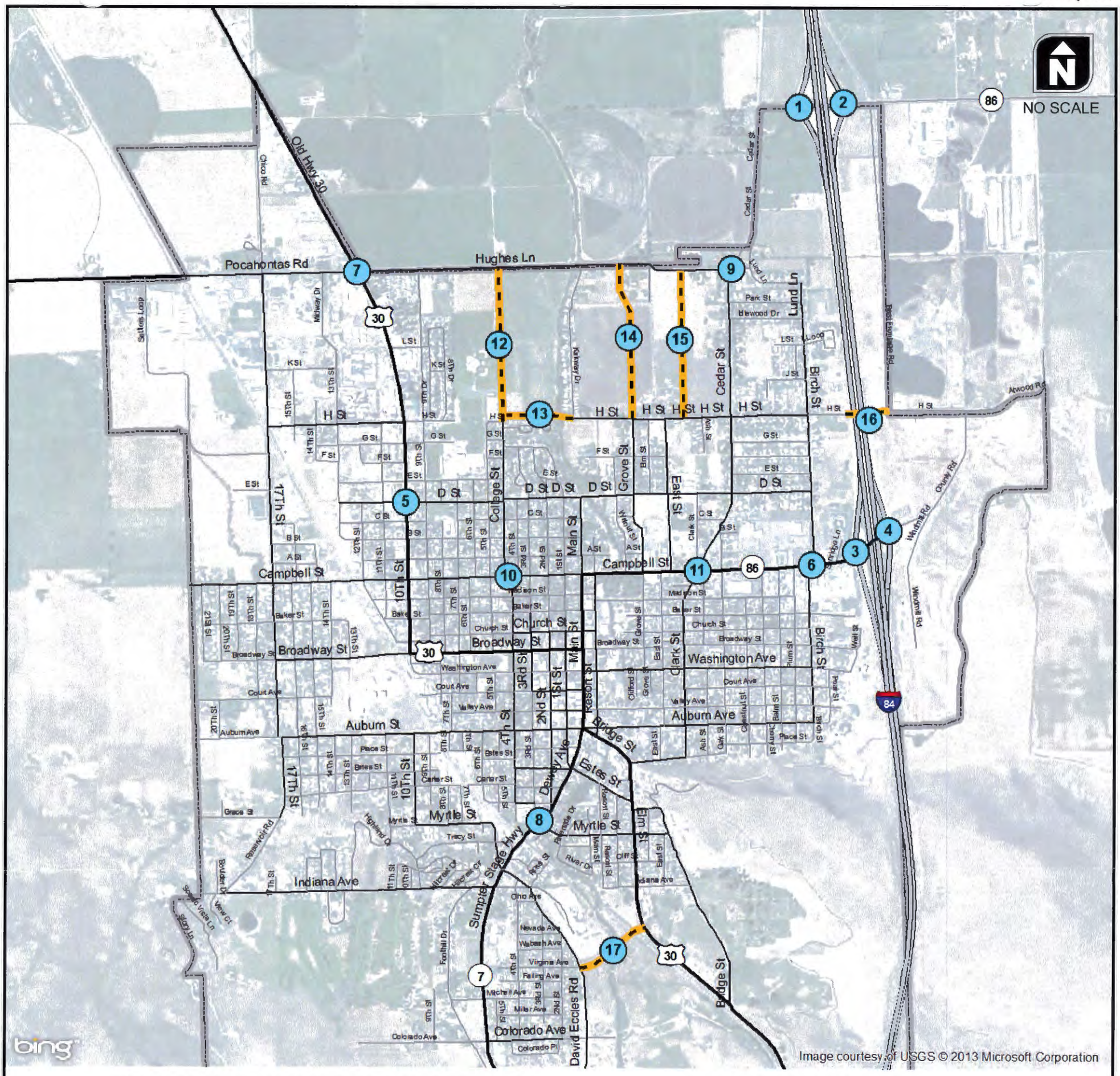
Potential Mitigation Options

Using the ODOT TPAU Preliminary Signal Warrant Analysis, it was determined that both ramp terminals would warrant signalization within the 20-year horizon year of the TSP. Using optimized cycle lengths and splits based on the projected turn movement volumes, signalization was determined to mitigate the over capacity conditions. The analysis shows that signalization will improve intersection operations to a v/c ratio of 0.64 at the northbound ramp intersection, and a v/c ratio of 0.43 at the southbound ramp intersection.

In addition to the signalization analysis, preliminary roundabout analyses were conducted using calculations from NCHRP Report 572. Single-lane roundabouts were analyzed using the projected volumes at each intersection at Exit 304. The analysis determined that single-lane roundabouts are projected to operate acceptably from all approaches during the PM peak hour.

US 30 (10th Street)/D Street

Improvement project #5 involves the US 30 (10th Street)/C and D Street intersections. The existing C Street intersection currently has a half signal that acts as a pedestrian crossing signal across 10th Street. Based on shifting travel patterns and the closure of North Baker Elementary School, the pedestrian crossing signal receives limited use. As part of future 10th Street corridor improvements, this half signal would likely be removed. If warranted by future long-term traffic volumes, pedestrian movements could be accommodated via a future traffic signal at the adjacent US 30/D Street intersection.



INTERSECTION / GEOMETRIC IMPROVEMENTS

1. SB I-84 Ramp & OR 86
2. NB I-84 Ramp & OR 86
3. SB I-84 Ramp & Campbell Street
4. NB I-84 Ramp & Campbell Street
5. US 30/10th Street & D Street
6. Birch Street & Campbell Street
7. US 30/10th Street & Pocahontas/Hughes Lane
8. Dewey Avenue & Myrtle Street
9. Cedar Street & Hughes Lane
10. 4th Street/College Street & Campbell Street
11. Cedar Street & Campbell Street

ROADWAY EXTENSIONS

12. College Street Extension
13. H Street Extension
14. Grove Street Extension
15. Clark Street Extension
16. H Street Overpass
17. Southeast Connector

Future Intersection Improvements and Roadway Connections

(#) Intersection/Roadway Improvements

Future Collector

Figure 10

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INTERSECTION GEOMETRIC IMPROVEMENTS

Campbell Street/Birch Street

Improvement project #6 involves the Campbell Street/Birch Street intersection. The north and south approaches of Birch Street to Campbell Street are currently offset. In an attempt to mitigate the offsetting conditions, concrete separators were installed along Campbell Street to better channelize traffic flows and prevent left-in and left-out movements on the north Birch Street approach. While effective, the left-turn channelization separator does not extend completely past the north Birch Street approach. The limited length of the separator has the unintended consequences of allowing vehicles to sneak into the Campbell Street left-turn lane by traveling a short distance in the opposite direction of Campbell Street. Mitigating this situation is best approached with a long-term project solution.

In the long-term, it is recognized that Birch Street will continue to be a natural north-south collector that parallels the I-84 corridor. From a bicycle and pedestrian standpoint, it would be logical north south corridor that would directly connect the emerging residential neighborhoods along the north end of Birch Street to community amenities such as the skate park and swim center. As such, it would be a long-term benefit to Baker City if the north and south approaches were aligned to form one single intersection. To accomplish such an alignment, either the north or south legs of Birch Street would need to be realigned. If the north leg were realigned, this would have property impacts to the existing McDonalds restaurant. If the south leg were realigned, this would have property impacts to the existing El Dorado Inn. Under either realignment scenario, potential future signalization of the intersection would need to be considered.

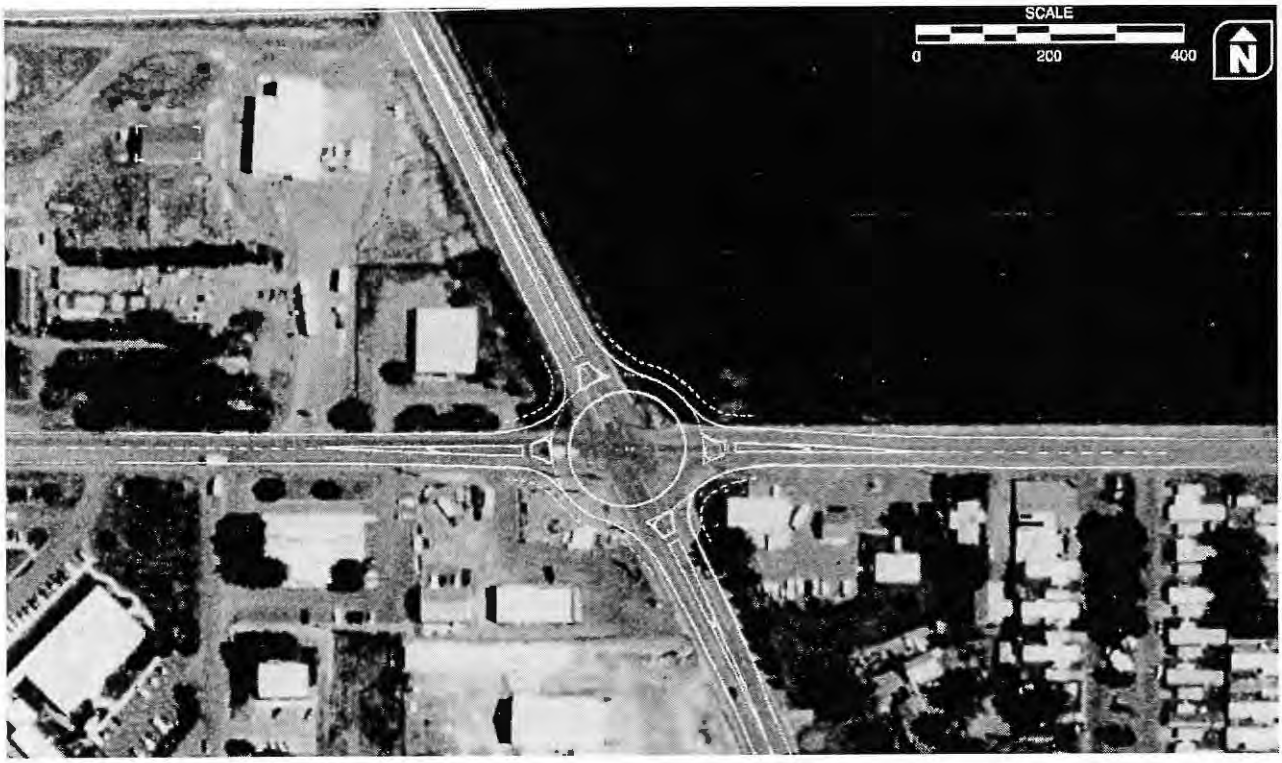
US 30 (10th Street)/Pocahontas Road/Hughes Lane Improvement

Improvement project #7 involves the existing 10th Street/Pocahontas Road/Hughes Lane intersection. This intersection is unsignalized and the east-west Hughes Lane/Pocahontas Road approaches intersect 10th Street at a skewed angle which has been noted to have turning radius limitations for large trucks. This geometric limitation plus the potential for increasing near- and long-term traffic volumes placed added focus on the intersection as part of the TSP update.

An existing and long-term operations analysis determined that the intersection is not forecast to exceed the ODOT performance target through the year 2033. While the analysis shows that the intersection is not forecast to exceed the performance target, the stop controlled westbound approach is forecast to operate at a v/c ratio of 0.86, which is nearing the v/c ratio threshold of 0.90. These operational findings plus the previously noted geometric deficiencies suggest that the intersection should be closely monitored to determine if geometric improvements and future traffic control devices are warranted.

As part of the alternatives analysis, both signalization and roundabout alternatives were investigated to determine their appropriateness if long-term traffic volumes warranted traffic control. While a traffic signal could most likely be installed with limited impacts (assuming the intersection eventually meets signalization warrants), a roundabout would have a larger footprint. To better understand this impact, a preliminary roundabout layout was prepared as shown in Exhibit 7. As shown in the exhibit, a 180-foot inscribed circle diameter roundabout could be developed at the intersection. However, additional right-of-way would likely be needed in all four quadrants of the intersection with substantial impacts to the southwest quadrant of the intersection.

Exhibit 7 - Preliminary Roundabout Sketch at US 30/Hughes Lane/Pocahontas Road



In addition, if signal warrants are not met, a secondary alternative would be to realign the east and west legs of the intersection to intersect US 30 at right angles. This would eliminate the skew that currently exists which promotes greater safety benefits.

OR 7 (Dewey Lane)/Myrtle Street Intersection

Improvement project #8 involves the OR 7 (Dewey Lane)/Myrtle Street intersection. This intersection is located at the top of the grade separated undercrossing of the railroad tracks. Due to the grade separation and retaining wall, Myrtle Street vehicles approaching OR 7 have limited intersection sight distance when looking south for northbound OR 7 vehicles coming up the underpass ramp.

To address this safety condition, a potential mitigation would be to cut off the Myrtle Street connection to US 7 using a mountable (for emergency vehicle access only) curb.

Cedar Street/Hughes Lane

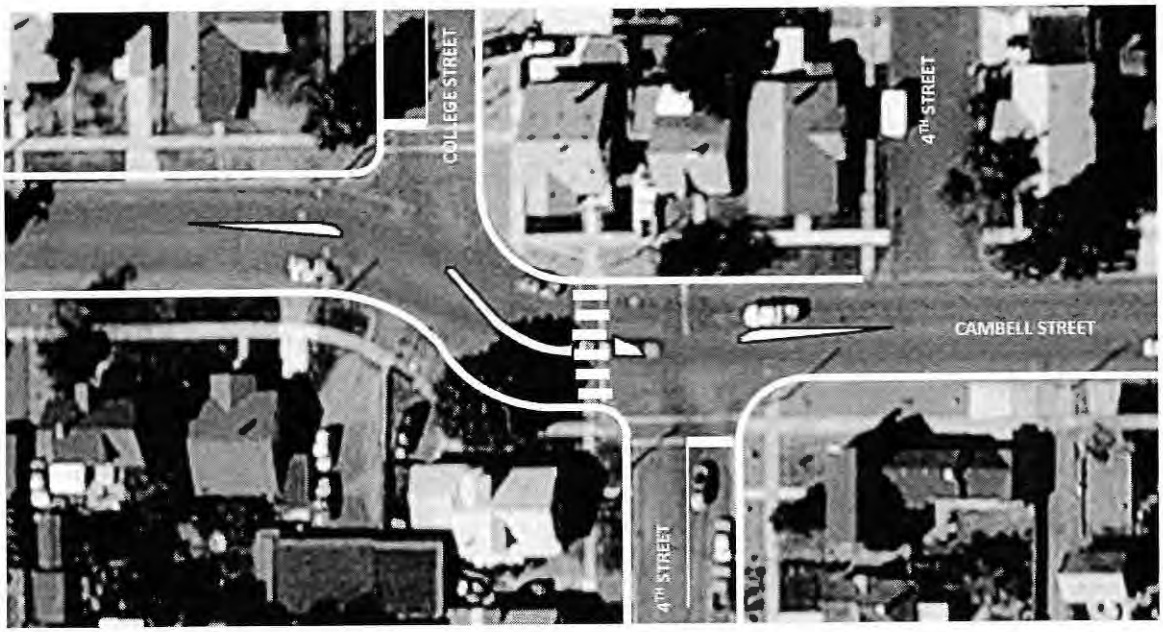
Improvement project #9 involves the Cedar Street/Hughes Lane intersection. This intersection was addressed in the 2005 Interchange Area Management Plan for Interchange 302. The proposed improvement is detailed under Option 4 and Option 6. Option 4 realigns the north leg of Cedar Street to continue directly north, eliminating the current skew and provide a larger curve to the east towards the interchange that is AASHTO compliant for a 55-mph roadway. Option 6 addresses intersection configurations that include a four-way stop with turn lanes, a roundabout, and realigning Hughes lane north of existing properties. It is suggested that these findings carry forward in the TSP.

College Street/Campbell Street/4th Street Intersection

Improvement project #10 involves the College Street/Campbell Street/4th Street intersection. The existing College Street/Campbell Street/4th Street intersection operates like an all-way stop-controlled intersection with the College Street and 4th Street approaches are offset from one another. In between this offset, Campbell Street has a chicane curve which realigns the west leg of Campbell Street approximately 30 feet further to the north than the east leg. Additionally, 4th Street serves as a pedestrian north-south route to and from Baker High School (to the north of the intersection). This odd configuration most notably limits sight distance

The improvement (shown in Exhibit 8) to this intersection involves introducing a raised median along Campbell Street between 4th Street and College Street approaches to provide positive channelization for vehicles. This addition will help guide pedestrians traveling north/south across Campbell Street but will likely require removing on-street parking along Campbell Street between 4th Street and College Street.

Exhibit 8 – Preliminary College Street/Campbell Street 4th Street Improvement Sketch



It is also recommended that Campbell Street be uncontrolled, leaving stop control only at College Street and 4th Street. The transformation from an all-way stop-controlled intersection to a two-way stop-controlled intersection will promote better mobility along Campbell Street, but the positive channelization provided by the median should reduce speed sufficiently to allow appropriate gaps for both minor street approaches and pedestrians.

Cedar Street/B Street/Oak Street Intersection

Improvement project #11 involves the Cedar Street/Oak Street/B Street intersection. At the existing Cedar Street/Oak Street/B Street intersection, the Cedar Street is skewed whereas Oak Street and B Street intersect at the same location due north and due west, respectively. This current configuration results in poor intersection sight distance for drivers on the east leg of B Street looking for southbound vehicles on Cedar Street, and for drivers on the south leg of Oak Street looking for northbound vehicles on Cedar Street.

The improvement proposed involves realigning B Street to eliminate the skew with Cedar Street and continuing B Street to intersect with Clark Street. Direct access from Oak Street to Cedar Street will be removed, and the leg will be redesigned as a cul-de-sac. To provide access lost for homes on Oak Street, a connector will begin at the Albertson's driveway (south of B Street) and continue to form a T intersection with Cedar Street. The preliminary concept is shown in Exhibit 8.

Exhibit 9 - Preliminary Cedar Street/B Street Realignment Sketch

ROADWAY EXTENSION PROJECTS

College Street Extension

Improvement project #12 involves the extension of College Street from its present terminus at Riverpark Drive to Hughes Lane. This extension is also shown as a proposed Collector facility on Figure 5. Such an extension would provide a continuous north-south collector facility between Campbell Street to the south and Hughes Lane to the north. In addition, the extension would help facilitate access to/from potential future residential development north and west of the high school/sports complex. In order for this project to occur, the historic Catholic Cemetery would need to be considered and an alignment chosen that best minimizes potential impacts.

H Street Extension

Improvement project #13 involves the extension of H Street from its present terminus at Kirkway Drive to College Street. This extension is also shown as a proposed Collector facility on Figure 5. Such an extension would enhance east-west connectivity in the north part of the City and provide better access between the high school/sports complex and potential residential development north of H Street and west of Cedar Street. In order for this project to occur, a new bridge over the Powder River

would need to be constructed and an alignment chosen that best minimizes potential impacts to the historic Catholic Cemetery.

Grove Street Extension

Improvement project #14 involves the extension of Grove Street from its present terminus at H Street to Hughes Lane. This extension is also shown as a proposed Collector facility on Figure 5. This extension would provide a continuous north-south collector roadway that would serve potential future residential development north of H Street and west of Cedar Street.

Clark Street Extension

Improvement project #15 involves the development of a new collector facility (referred to as Clark Street for the purposes of this discussion) between H Street and Hughes Lane. This extension is also shown as a proposed Collector facility on Figure 5. This new collector roadway would serve potential future residential development north of H Street and west of Cedar Street.

H Street Overpass

Improvement project #16 involves the easterly extension of H Street via a new I-84 overpass. This project remains from the 1996 TSP.

Southeast Connector

Improvement project #17 involves a new collector roadway that would connect David Eccles Road to US 30. This project remains from the 1996 TSP.

TRANIST PROJECTS

Expansion of the current Trolley system involves adding stop location with bus shelters for transit users. These locations include the following:

- Main Street & Court Plaza
- Broadway Street & 17th Street
- Campbell Street & Cherry Street
- 10th Street & E Street
- Additional stop in South Baker

Section 4
Funding Assumptions and Financially Constrained Plan

FUNDING ASSUMPTIONS AND FINANCIALLY CONSTRAINTED PLAN

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING
101 S Capitol Boulevard, Suite 301, Boise, ID 83702 P 208.338.2683 F 208.338.2685

TECHNICAL MEMORANDUM #4

Baker City TSP Update

Funding Assumptions and Preferred Financially Constrained Plan

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Date: February 28, 2013 Project #: 12196.0

To: Michelle Owen, City of Baker City
Cheryl Jarvis-Smith, Oregon Department of Transportation

From: Matt Hughart, AICP; and Jon Crisafi (KAI)
Matt Berkow (Alta Planning + Design)
Andy Lindsey, Anderson-Perry & Associates, Inc.

cc: TAC and CAC Committees

INTRODUCTION

This memorandum outlines the preferred transportation projects and their respective cost estimates that are intended to appear in the Draft Baker City TSP Update. It should be noted that specific formatting and the use of supplementary pictures will be addressed at the Draft Plan stage of development; therefore, this memorandum generally contains only draft plan text and figures.

Project Management Team (PMT) and Technical Advisory Committee (TAC) members reviewing this memorandum should provide comments to address the following questions:

- Are there projects that are shown in the preferred plan that should not be included?
- Are there projects that are not shown in the preferred plan, but should be included?
- Are there projects that are shown in the financially constrained plan that should not be included? Are there projects that are not shown in the financially constrained plan, but should be included?
- Are there modifications that should be made to the projects included in the preferred plan or financially constrained plan?

Background

The purpose of this memorandum is to present the Draft Preferred and Financially Constrained Plans for the Baker City TSP Update. Previous technical memorandums documented existing and future transportation system conditions as well as alternatives for improving Baker City's multi-modal network. The multi-modal transportation alternatives were documented in Technical Memorandum #3.

The PMT, TAC, and general public provided comments and input regarding the alternative projects through the alternatives analysis. The input obtained through that process informed the draft preferred and financially constrained plan content.

Planning level cost estimates were developed for each of the projects based on average 2013 construction costs. The 2013 cost estimates along with priorities (e.g., near- and longer-term) for the projects were used to construct the financially constrained plan. The preliminary priorities assigned to each program, study and/or project were identified based on need and the consultant team's evaluation of needs provided to date in the project. The financially constrained plan includes as many of the near-term priority programs, studies, and projects as feasible without exceeding the forecasted 20-year transportation funding levels for the City.

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ACTIVE TRANSPORTATION PLAN

The active transportation plan presents those projects focused on facilitating pedestrian and bicycle travel.

Preferred Active Transportation Projects

Tables 1 and 2 summarize the preferred pedestrian and bicycle projects, respectively. Figures 1 and 2 illustrate the location of the pedestrian and bicycle projects, respectively. The projects were identified based on input received through the Alternatives Analysis process and input from the PMT, TAC, and general public and were prioritized based on their proximity to schools, the underlying roadway's functional classification, and overall benefit to the transportation network.

Table 1 Baker City Preferred Pedestrian Projects

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[1]
(P1) 11th Street/ Hillcrest Drive/ 9th Street	Sidewalk infill and wayfinding from Indiana Avenue to Auburn Avenue	Gap in existing pedestrian network	Near-term	$342,000
(P2) 4th Street	Sidewalk infill and wayfinding from Colorado Avenue to Ohio Avenue, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term/ Development Driven	$113,000
(P3) Tracy Street & 5th Street	Sidewalk infill and wayfinding from 9th to OR 7, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$290,000
(P4) 5th Street	Add sidewalks from C Street to E Street and from F Street to Sports Complex	Improving pedestrian network	Near-term	$98,000
(P5) Auburn Avenue	Add sidewalks from Main Street to Birch Street; opportunities for crossing improvements should be examined at Resort Street and Main Street	Gap in existing pedestrian network	Near-term	$288,000
(P6) Baker Street	Sidewalk infill and wayfinding from Birch Street to Swim Center/Skate Park	Gap in existing pedestrian network	Near-term	$25,000
(P7) Birch Street	Sidewalk infill and wayfinding from Auburn Avenue to Campbell Street, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$218,000
(P8) Broadway Street	Sidewalk infill and wayfinding from 21st Street to 10th Street; opportunities for crossing improvements should be examined at 10th Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$477,000
(P9) Broadway Street	Add sidewalks from Clark Street to Oak Street	Improving pedestrian network	Near-term/ Development Driven	$31,000
	Neighborhood Route from Grove Street to Resort Street	Improving pedestrian network	Near-term	$1,000
(P10) Campbell Street	Sidewalk infill and wayfinding from 21st Street to 10th Street	Gap in existing pedestrian network	Near-term	$354,000
(P11) Cliff Street	Add sidewalks from Main Street to East Street	Improving pedestrian network	Near-term	$100,000
(P12) E Street	Sidewalk infill and wayfinding from 11th Street to College, Neighborhood Route	Improving pedestrian network, gap in existing	Near-term	$176,000

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[1]
		pedestrian network		
(P13) H Street (east)	Sidewalk infill and wayfinding from Cedar Street to Birch Street, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$125,000
(P14) Indiana Avenue	Sidewalk infill and wayfinding from E Fairway to 9th Street, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	Near-term	$83,000
(P15) Madison Street	Sidewalk infill and from Plum Street to Cherry Street and from Oak Street to Ash Street	Improving pedestrian network, gap in existing pedestrian network	Development Driven	$114,000
	Neighborhood Route from 10th Street to Birch Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$9,000
(P16) Oak Street	Add sidewalks from Church Street to Auburn Avenue	Improving pedestrian network	Near-term/ Development Driven	$78,000
(P17) Washington Street	Sidewalk infill from Cherry Street to Birch Street	Improving pedestrian network, gap in existing pedestrian network	Development Driven	$54,000
	Neighborhood route from 7th Street to Birch Street; opportunities for crossing improvements should be examined at Main Street	Improving pedestrian network, gap in existing pedestrian network	Near-term	$8,000
(P18) D Street	Add sidewalks from Cedar Street to Birch Street	Improving pedestrian network	Near-term	$114,000
(P19) D Street	Add sidewalks from 1st Street to 12th Street	Improving pedestrian network	Near-term	$327,000
(P20) Clark Street	Sidewalk infill and wayfinding from Washington Avenue to Broadway Street and Madison Street to Campbell Street	Improving pedestrian network, gap in existing pedestrian network	Development Driven	$147,000
	Neighborhood route from Campbell Street to Auburn Avenue	Improving pedestrian network, gap in existing pedestrian network	Near term	$6,000
(P21) Midway Drive & 13th Street	Sidewalk infill and wayfinding on 13th Street and Midway from H Street to Hughes Lane	Gap in existing pedestrian network	Near-term	$369,000
(P22) 11th Street	Neighborhood route from H Street to Campbell Street	Gap in existing pedestrian network	Long-term	$4,000
(P23) 2nd Street	Neighborhood route from David Eccles Road to Colorado Avenue	Gap in existing pedestrian network	Long-term	$3,000
(P24) 7th Street	Neighborhood route from E Street to Broadway Street	Gap in existing pedestrian network	Long-term	$5,000
(P25) Auburn Avenue	Add wayfinding signage from Resort Street to Railroad Crossing; opportunities for crossing improvements should be examined at 4th Street	Improving pedestrian network navigation	Long-term	$19,000
(P26) Birch Street/Lund Lane	Neighborhood route from Campbell Street to Cedar Street, Fill in paving gaps	Gap in existing pedestrian network	Long-term	$406,000
(P27) College Street	Neighborhood route from H Street to Campbell Street	Gap in existing pedestrian network	Long-term	$4,000
(P28) Grove Street	Neighborhood route from D Street to Washington Street; opportunities for crossing improvements should be examined at Campbell Street	Gap in existing pedestrian network	Long-term	$7,000
(P29) H Street (east)	Neighborhood route from Kirkway Drive to Cedar Street	Gap in existing pedestrian network	Long-term	$196,000

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[1]
(P30) Indiana Avenue (east)	Neighborhood route from Resort Street to Bridge Street; opportunities for crossing improvements should be examined at Elm Street and Bridge Street	Gap in existing pedestrian network	Long-term	$2,000
(P31) David Eccles Road/Rose Street/Orchard Street	Neighborhood route along Rose Street (from David Eccles Road to Orchard Street) and along Orchard Street (from Rose Street to OR 7); pedestrian overpass	Gap in existing pedestrian network	Long-term	$19,000
(P32) 15th Street	Sidewalk infill and wayfinding from Auburn Street to Campbell Street	Improving pedestrian network, gap in existing pedestrian network	Long-term	$374,000
(P33) 4th Street	Proposed neighborhood route from Campbell Street to Grace Street	Gap in existing pedestrian network	Long-term	$6,000
(P34) H Street (west)	Add sidewalks from 17th Street to 8th Street; opportunities for crossing improvements should be examined at 10th Street	Improving pedestrian network, gap in existing pedestrian network	Long-term	$408,000
(P35) 9th Street	Sidewalk infill and wayfinding from E Street to Hughes Lane	Gap in existing pedestrian network	Long-term	$780,000
(P36) 4th Street	Add sidewalks from A Street to D Street	Improving pedestrian network	Long-term	$95,000
(P37) Ash Street	Add sidewalks from Madison Street to Campbell Street	Improving pedestrian network	Long-term	$28,000
(P38) East Street	Add sidewalks from Campbell Street to D Street	Improving pedestrian network	Long-term	$171,000
(P39) Myrtle Street	Add sidewalks from US 30 to Bridge Street	Improving pedestrian network	Long-term	$57,000
(P40) Virginia Avenue	Sidewalk infill and wayfinding from 4th Street to David Eccles Road	Gap in existing pedestrian network	Long-term	$171,000
(P41) Cedar Street	Add sidewalks from Campbell Street to Hughes Lane; opportunities for crossing improvements should be examined at D Street and H Street	Improving pedestrian network	Long-term	$754,000
(P42) 9th Street	Add sidewalks from D Street to E Street	Improving pedestrian network	Long-term	$6,000
(P43) C Street	Add sidewalks from 12th Street to 10th Street	Improving pedestrian network	Long-term	$71,000
Sub-Totals				
Near-Term Priority (0-5 Years)				$3,327,000
Longer-Term Priority (5-20 Years)				$3,586,000
Development Driven				$315,000
Total				$7,228,000

Notes:
[1]Planning level cost estimates are for construction and engineering.
[2]Refers to projects that prioritized exclusively as "Development Driven"

Table 2 Baker City Preferred Bicycle Projects

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[2]
Bicycle Projects				
(B1) Cedar Street	Add bike lanes from Campbell Street to Hughes Lane	Gap in existing bicycle network	Near-term	$35,000
(B2) 10th Street (US 30) - Road Diet Option B	See Table 4 Project R8 for further information			See Project R8
(B3) Broadway Street (US 30) - Road Diet Option B	See Table 4 Project R9 for further information			See Project R9
(B4) D Street	Add bike lanes from 10th Street to Cedar Street	Gap in existing bicycle network	Near-term	$57,000
(B6) Campbell Street (OR 86)	See Table 4 Project R10 for further information			See Project R10
Shared Use Path Projects				
(S1) Leo Adler Pathway Extension	Add shared use path from Bridge Street to David Eccles Road	Promote recreational and non-motorized travel	Near-term	$627,000
(S2) Pocahontas/ Hughes	Add shared use path from Settlers Loop to Cedar Street	Promote recreational and non-motorized travel	Long-term	$1,169,000
(S3) Auburn	Add shared use path from 17th Street to Railroad tracks	Promote recreational and non-motorized travel	Near-term	$309,000
(S4) 17th Ave Trail	Add shared use path from Indiana Avenue to Pocahontas Road	Promote recreational and non-motorized travel	Near-term	$1,294,000
(S5) Hospital Connector	Add shared use path from 17th Street to Midway Drive	Promote recreational and non-motorized travel	Long-term	$116,000
(S6) Sports Complex Connector	Add shared use path from H Street to Sports Complex	Promote recreational and non-motorized travel	Long-term	$168,000
(S7) Unknown trail	Add shared use path from Pocahontas Road to 17th Street	Promote recreational and non-motorized travel	Long-term	$746,000
(S8) Cemetery Connector	Add shared use path from Bridge Street to Proposed Smith Ditch Trail	Promote recreational and non-motorized travel	Long-term	$60,000
(S9) David Eccles Rd	Add shared use path from 2nd Street to OR 7	Promote recreational and non-motorized travel	Long-term	$378,000
(S10) Golf Course Trail	Add shared use path from Indiana Avenue to OR 7	Promote recreational and non-motorized travel	Long-term	$691,000
(S11) Smith Ditch	Add shared use path from Cherry Street to OR 7	Promote recreational and non-motorized travel	Long-term	$2,089,000
(S12) Indiana Avenue	Add shared use path from 17th Street to OR 7	Promote recreational and non-motorized travel	Near-term	$259,000
Sub-Totals				
Near-Term Priority (0-5 Years)				$3,491,000
Longer-Term Priority (5-20 Years)				$4,660,000
Total				$8,151,000

Notes:
[1]Planning level cost estimates are for construction and engineering. Cost estimates assume striping and signing changes occur within the existing pavement width (i.e., no additional construction or road expansion is required.

Sidewalk infill is proposed on the Neighborhood Routes as well as on higher volume streets and school walking routes. Proposed pedestrian projects in this plan provide access to destinations such as local parks, schools, and shopping areas. Where sidewalk infill is not proposed there is either sidewalk already existing or the low motor vehicle volumes and speeds support walking on the street.

Proposed Neighborhood Route (Wayfinding Only)
Proposed Neighborhood Route (Sidewalk Infill and Wayfinding)
Proposed Sidewalk
Proposed Shared Use Path
Existing Shared Use Path
Crossing Improvement (pedestrian focus)
Urban Growth Boundary

Proposed Pedestrian Projects

Figure 1

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The bicycle network consists of Bike Lanes and Neighborhood Routes. Formal bike facilities are not recommended on Neighborhood Routes because low traffic volumes and speeds support bicycling without separate facilities.

0 0.25 0.5 1 Miles

Proposed Neighborhood Route
Proposed Bike Lane
Proposed Shared Use Path
Crossing Improvement (bicyclist focus)
Existing Bike Lane
Existing Shared Use Path
Urban Growth Boundary

Proposed Bike Projects

Figure 2

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INTERSECTION AND ROADWAY PLAN

The intersection and roadway plan presents projects related to intersection improvements, modifying existing roadway cross-sections or streetscapes, extending existing roadways, constructing new roadways, and access management. Projects within the intersection and roadway plan influence travel by auto and freight and many also facilitate pedestrian and bicycle travel. For example, the intersection and roadway plan includes the 10th Street Road Diet which reallocates existing right-of-way by removing one auto-lane in each direction and replacing them with a center turn lane and bicycle lanes.

Preferred Updated Functional Classification

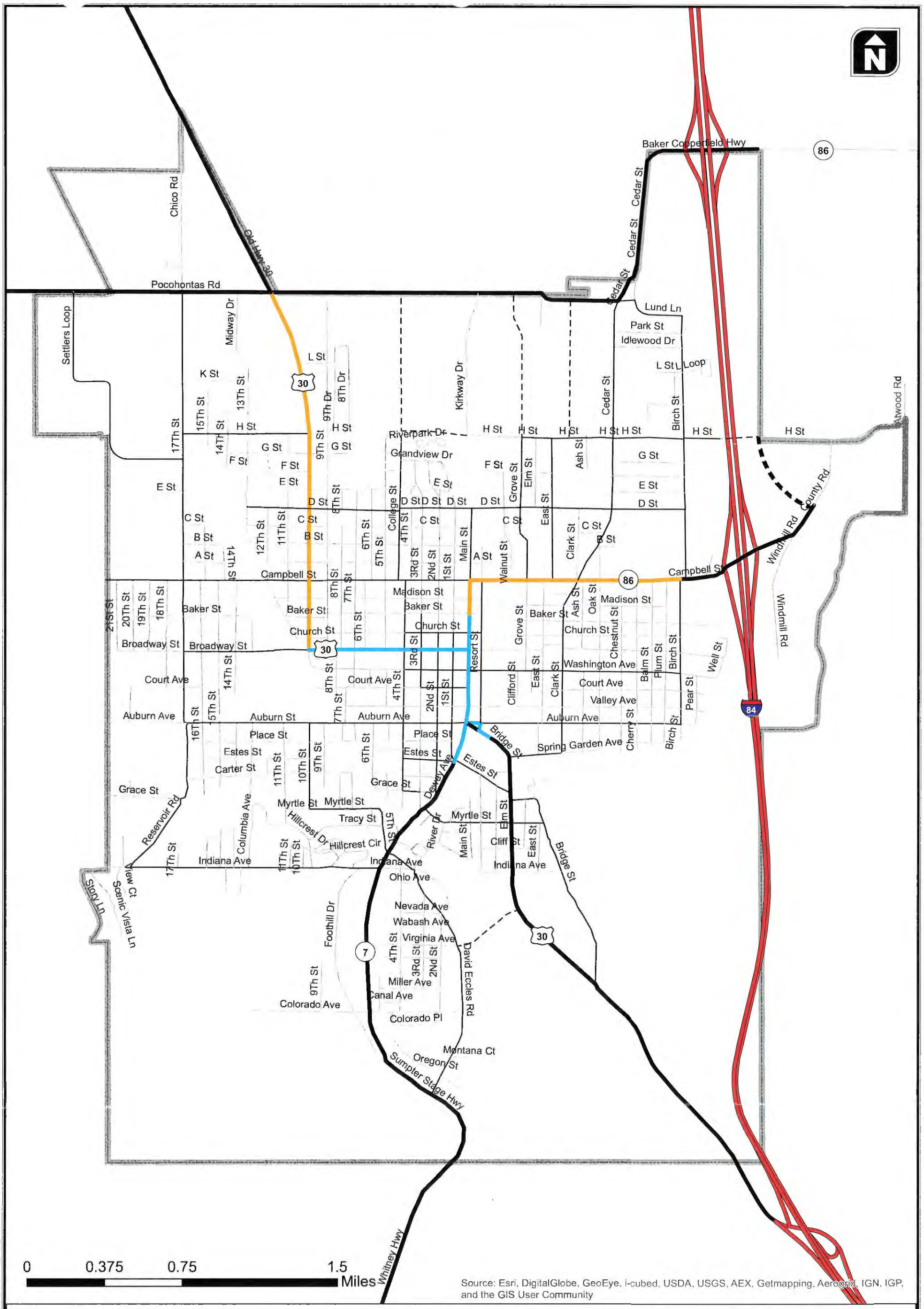
The Updated Functional Classification and Street Network map for Baker City is shown in Figure 3. To arrive at the updated street functional classifications, the previously adopted 1996 street functional classifications were reviewed and compared to forecasted 2033 daily traffic volumes, network connectivity, desired roadway function in the future, and potential future development. This review and recommendations are documented in the alternatives analysis and Table 3 below.

Table 3 Revisions to the Baker City Functional Classification Plan

Roadway	1996 TSP Classification	Proposed Change	Justification/Considerations
Lund Lane	Not identified	Formally classify as a Collector	• Would provide a logical formal connection between the Cedar Street and Birch Street collector corridors. • Likely already functioning as a de facto collector street.
Cedar Street (north of Hughes Lane to Exit 302 interchange)	Not classified	Formally classify as an Arterial	• Cedar Street is the only connection to the north interchange and it is not formally classified. • Future development around the Exit 302 interchange will increase traffic volumes to levels appropriate for arterial status.
Hughes Lane (US 30 to Cedar Street)	Collector	Reclassify to an Arterial	• Increasing industrial development in the northwest part of the City will necessitate enhanced accessibility to/from the I-84 corridor. Hughes Lane is the most direct route.
Pocahontas Road (US 30 to west city limits)	Collector	Reclassify to an Arterial	• Increasing industrial development in the northwest part of the City will necessitate enhanced accessibility to/from the I-84 corridor. Pocahontas Road/Hughes Lane is the most direct route.
Best Frontage Road	Not classified	Formally classify to an Arterial	• Would better facilitate new development and access between the Exit 302 and 304 interchanges.
Campbell Street (east of I-84)	Not classified	Formally classify to an Arterial	• Campbell Street east of I-84 is not currently classified.
Settlers Loop/23rd Street	Not identified	Formally classify to a Collector	• The new industrial loop roadway is not currently classified. This roadway is intended to function like a collector roadway.
Reservoir Road	Not classified	Formally classify to a Collector	• Reservoir Road currently functions like a collector roadway linking Indiana Avenue to Auburn Street.
Washington St (Main to 4th)	Not classified	Formally classify to a Collector	• Would continue Washington Avenue as a collector west of Main Street.

Roadway	1996 TSP Classification	Proposed Change	Justification/Considerations
College Street (Riverpark Drive to Hughes Lane)	-	New future Collector	• [1]
H Street (Kirkway Drive to College Street)	-	New future Collector	• [1]
Grove Street (H Street to Hughes Lane)	-	New future Collector	• [1]
Clark Street (H Street to Hughes Lane)	-	New future Collector	• [1]
Southeast Connector (David Eccles Road to US 30)	-	New future Collector	• [1]

[1]Proposed future roadway.



Interstate
Arterial
Future Arterial
Special Transportation Area (Arterial)
Urban Business Area (Arterial)
Collector
Future Collector
Local

Preferred Functional Classification and Planned Street Network

BAKER CITY OREGON
EST. 1874

Figure 3

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Preferred Roadway Cross Section Standard Revisions

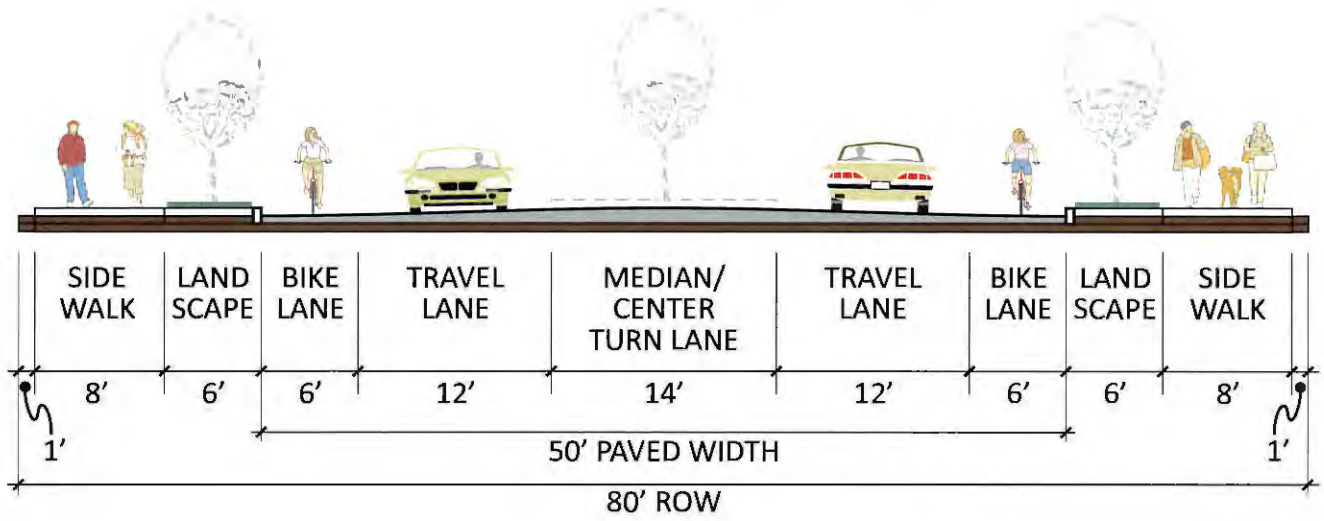
A review of the 1996 TSP indicates that the roadway cross section drawings are not entirely consistent with the Article 3 – Community Design Standards of the City Development Code. These inconsistencies are primarily due to adopted changes in the street standards that have occurred since the 1996 TSP. In addition, previous discussions with City staff revealed a desire to incorporate a new cross section drawing that could be applied to unpaved local residential streets. Therefore, to counter the noted inconsistencies and to provide a discussion forum for a new unpaved local street standard, new cross section drawings were created as shown in Figures 4 through 7.

In most cases, these new cross section drawings mimic the street standards as currently found in Article 3 – Community Design Standards of the City Development Code. However, the following changes have been made to reflect the preferred TSP projects identified in this memorandum:

- The "Urban Arterial Street" drawing found in in Article 3 – Community Design Standards has been renamed "Urban Arterial Street (50' Paving with No Parking).
- A new "Urban Arterial Street (with Parking on Both Sides)" has been created.
- A new "Commercial Street (36' Paving with No Parking)" has been created.
- A new "Commercial Street (50' Paving – Parking Both Sides)" has been created.
- A new "Downtown Commercial Street (Angled Parking One Side)" has been created.
- The "Downtown Commercial Street" drawing found in Article 3 – Community Design Standards has been renamed to "Downtown Commercial Street (Parallel Parking Both Sides)". In addition, the paved width has been modified to correctly dimension the overall paved width from 48' to 52'.
- The "Major Collector Street" has been revised to correctly show the paved width from 48' to 52 feet and an 80' right-of-way.
- A new drawing has been created that provides a local street option that can be applied for improvements to existing unpaved residential streets.
- A new drawing has been created that shows a new roadway cross section for Auburn/17th Street Pathway Option.

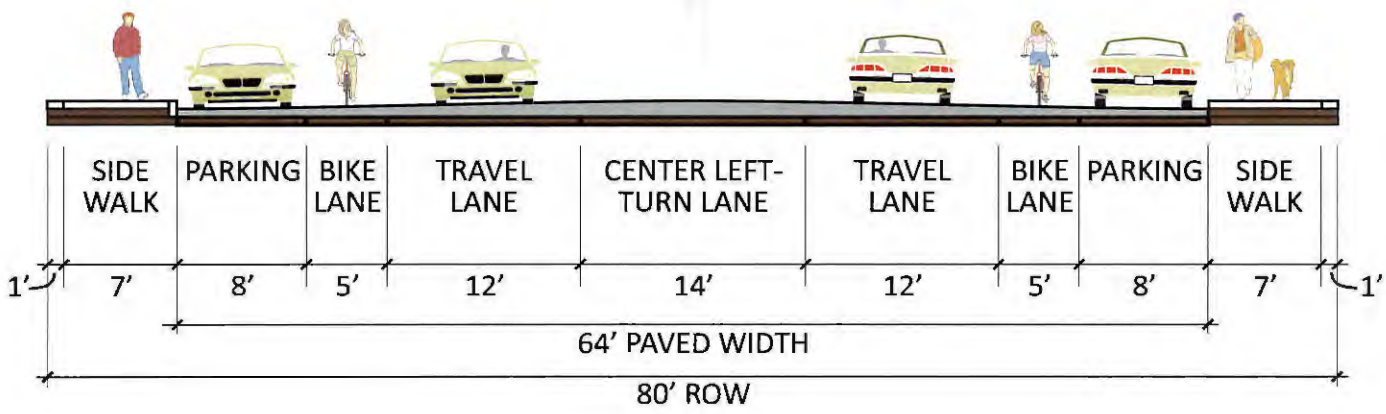
* REVISED

Urban Arterial Street (50' Paving with No Parking)



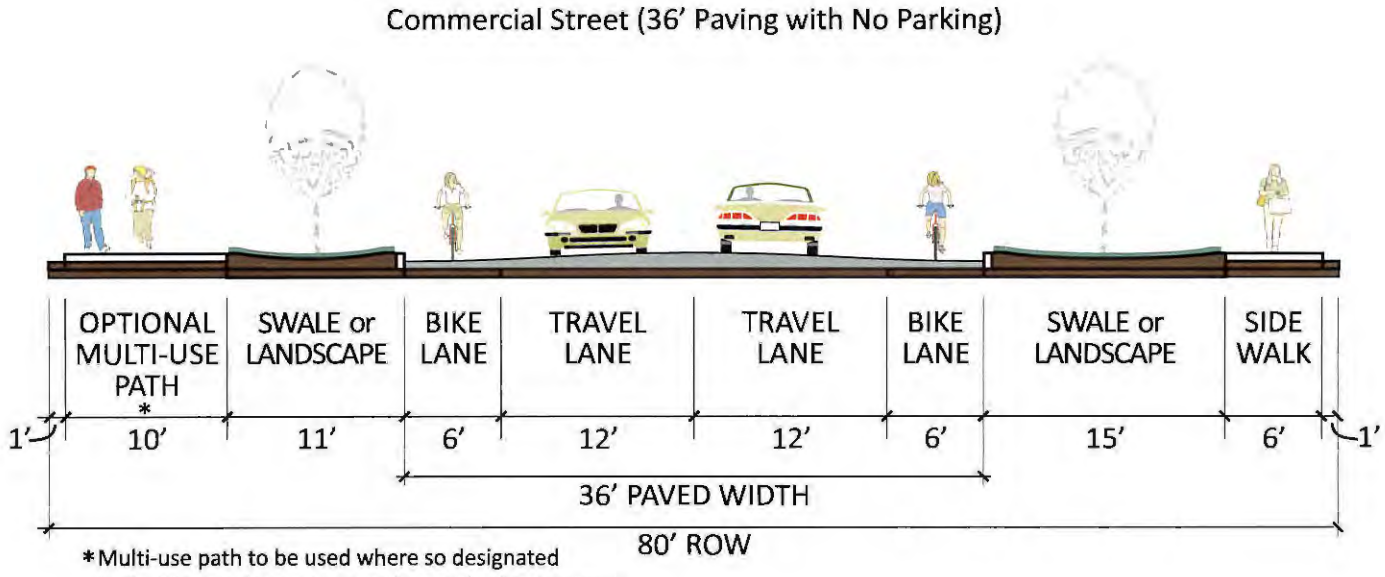
Urban Arterial Street (with Parking on Both Sides)

* NEW



Commercial Street (36' Paving with No Parking)

* NEW



*Multi-use path to be used where so designated in the TSP or where approved for use by City Engineer. When no multi-use path is used, provide 6' sidewalk on both sides.

Trees to be provided per city code and location specific

Proposed Roadway Cross Sections

BAKER CITY OREGON EST. 1874

Figure 4

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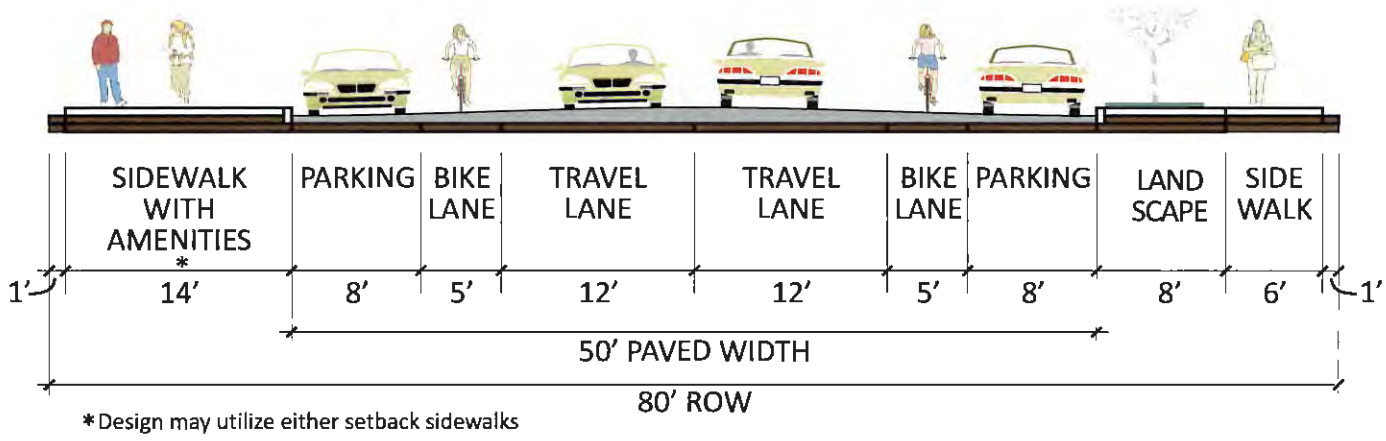
* NEW

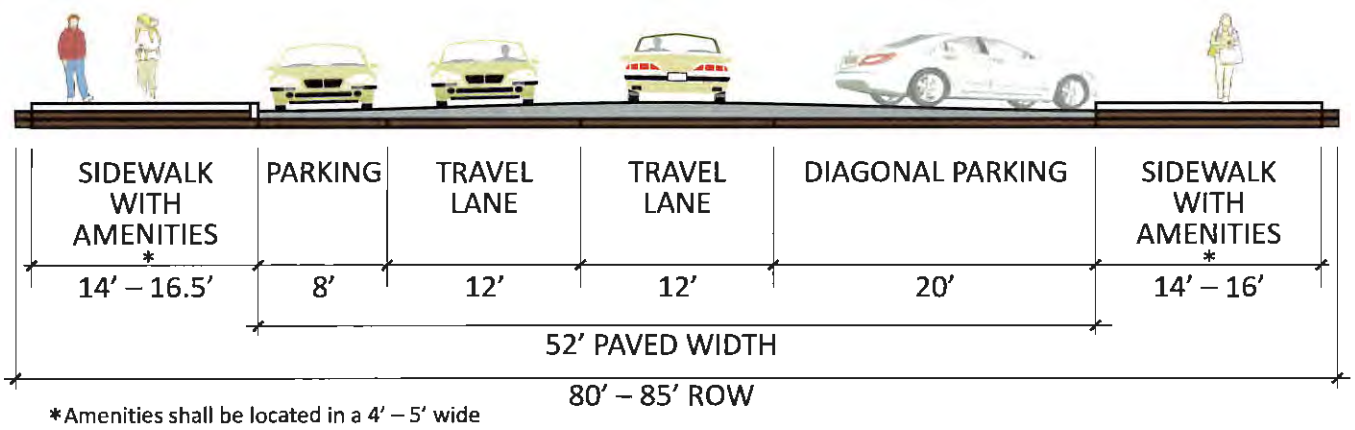
Commercial Street (50' Paving – Parking Both Sides)



*Design may utilize either setback sidewalks with a landscape strip or a continuous 14' sidewalk with a 4' – 5" wide strip for amenities (lighting, trees, benches, etc.) adjacent to curb.

* NEW

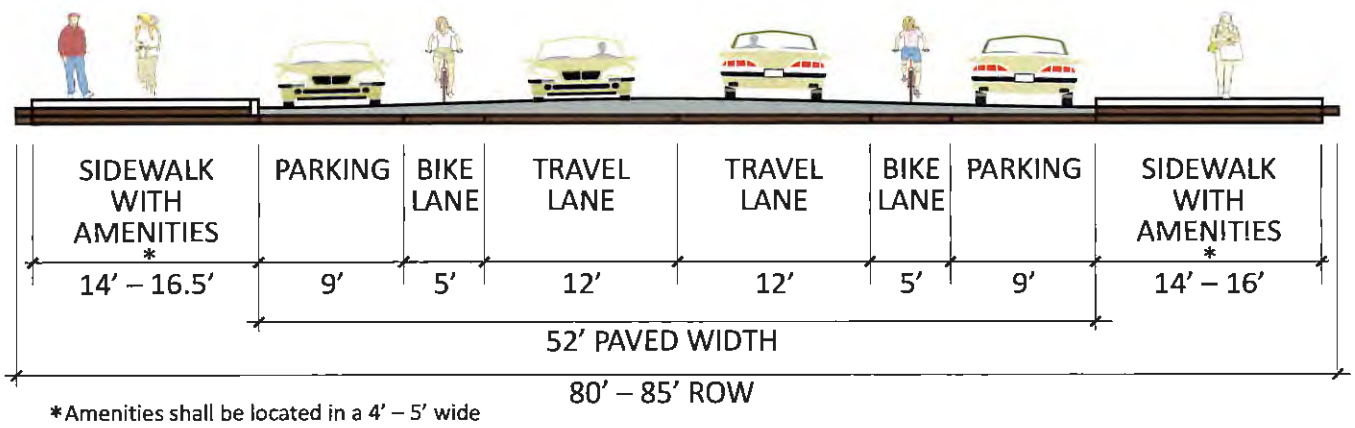
Downtown Commercial Street (Angled Parking One Side)



*Amenities shall be located in a 4' – 5' wide strip adjacent to the curb (Lighting, trees, benches, etc.)

* REVISED

Downtown Commercial Street (Parallel Parking Both Sides)



*Amenities shall be located in a 4' – 5' wide strip adjacent to the curb (i.e. Lighting, trees, benches, etc.)

Trees to be provided per city code and location specific

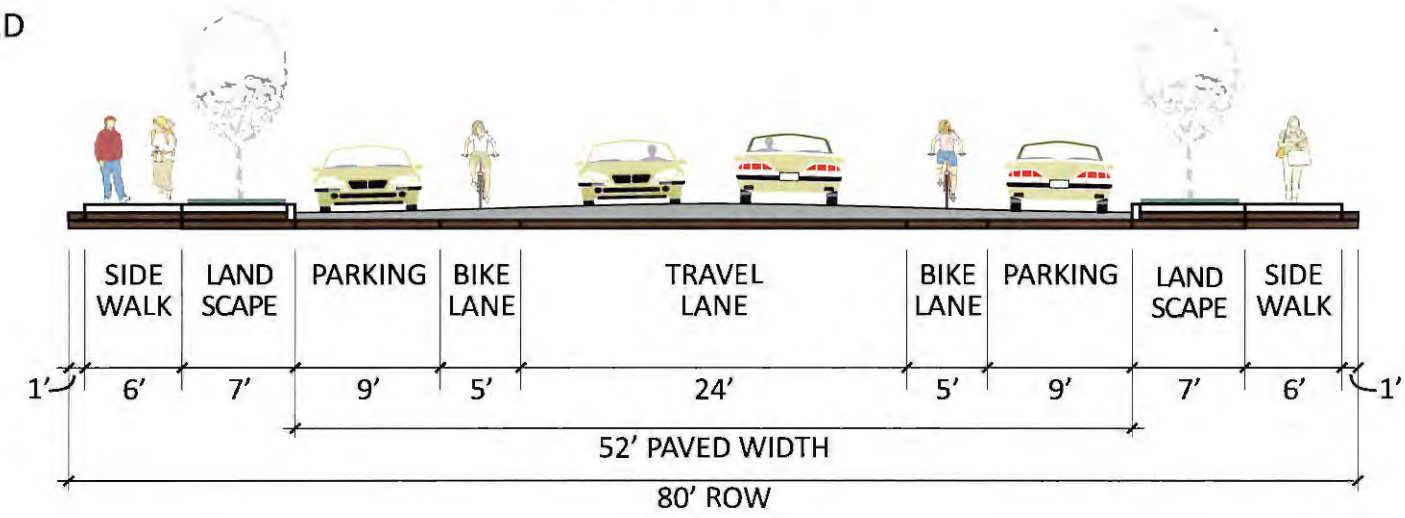
Proposed Roadway Cross Sections

BAKER CITY OREGON EST. 1874

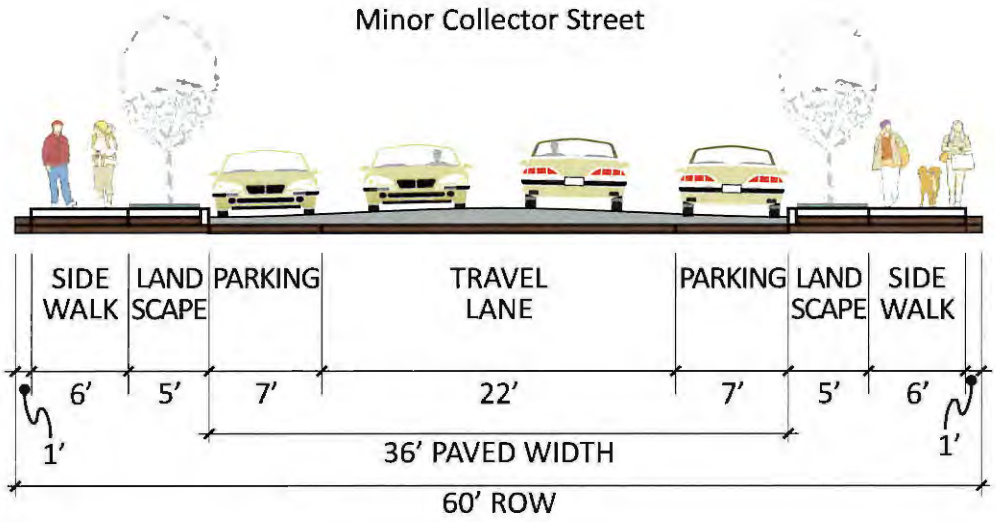
Figure 5

Major Collector Street

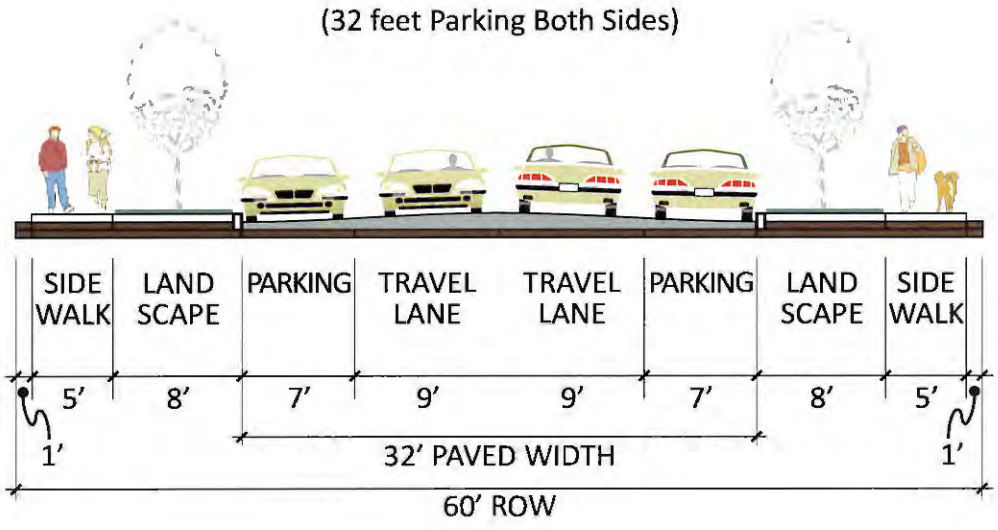
*REVISED



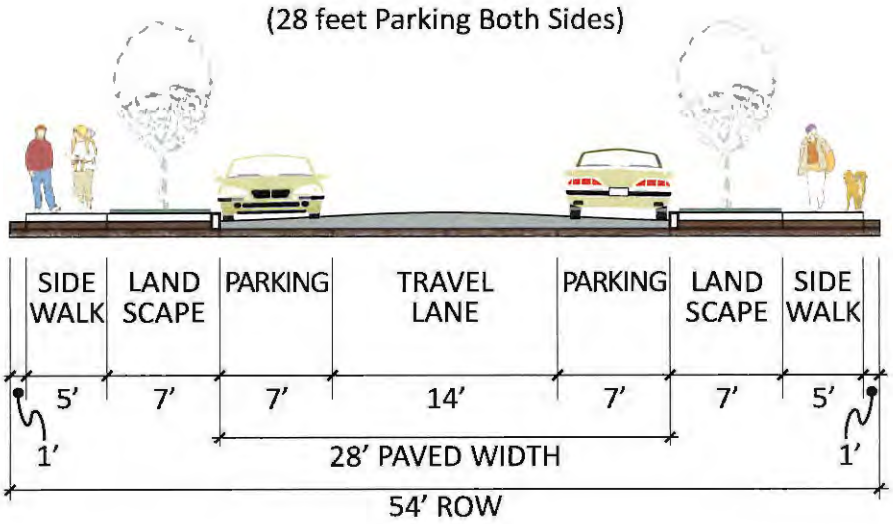
Minor Collector Street



Local Residential Street
(32 feet Parking Both Sides)



Local Residential Street
(28 feet Parking Both Sides)

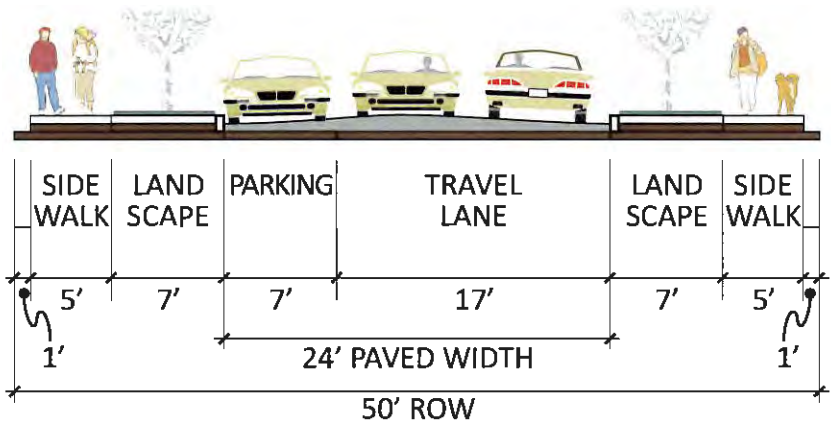


Trees to be provided per city code and location specific

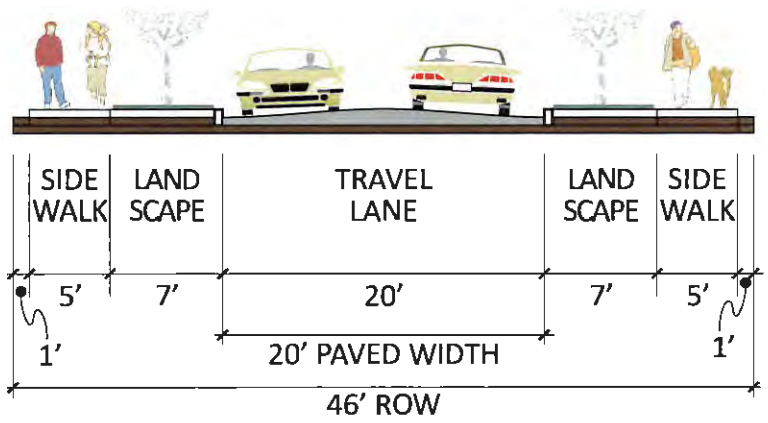
Proposed Roadway Cross Sections

Figure 6

Local Residential Street
(24 feet Parking on One Side)

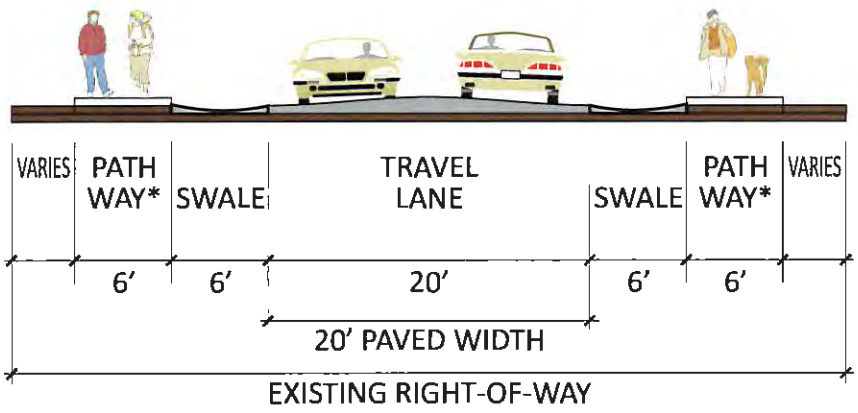


Local Residential Street
(20 feet No Parking Allowed)



Improvement Option
for
Existing Unpaved Local Residential Streets

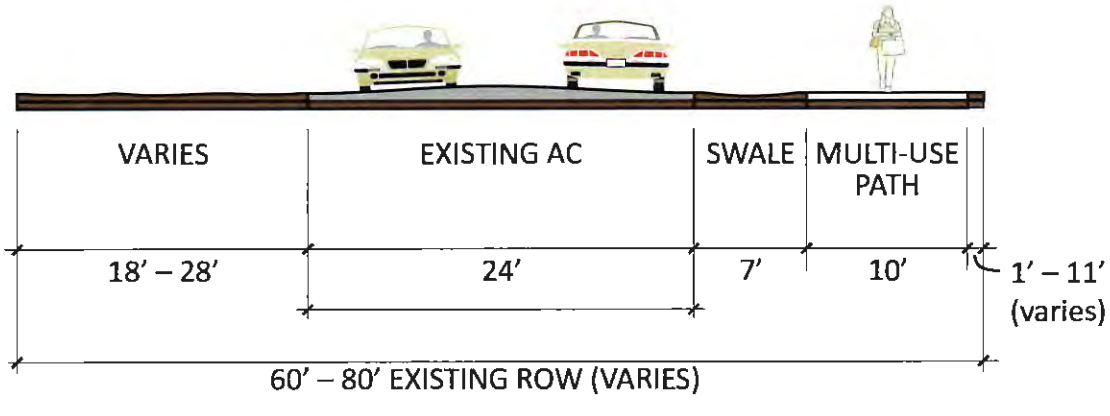
* NEW



* Pathway may be constructed on one side or both sides of street.
Pathway shall be hard surface (concrete, asphalt or equivalent).

Multi-Use Path Street Option

* NEW



Trees to be provided per city code and location specific

Proposed Roadway Cross Sections

BAKER CITY OREGON EST. 1874

Figure 7

Preferred Roadway Extensions, New Roadways, and Intersection Projects

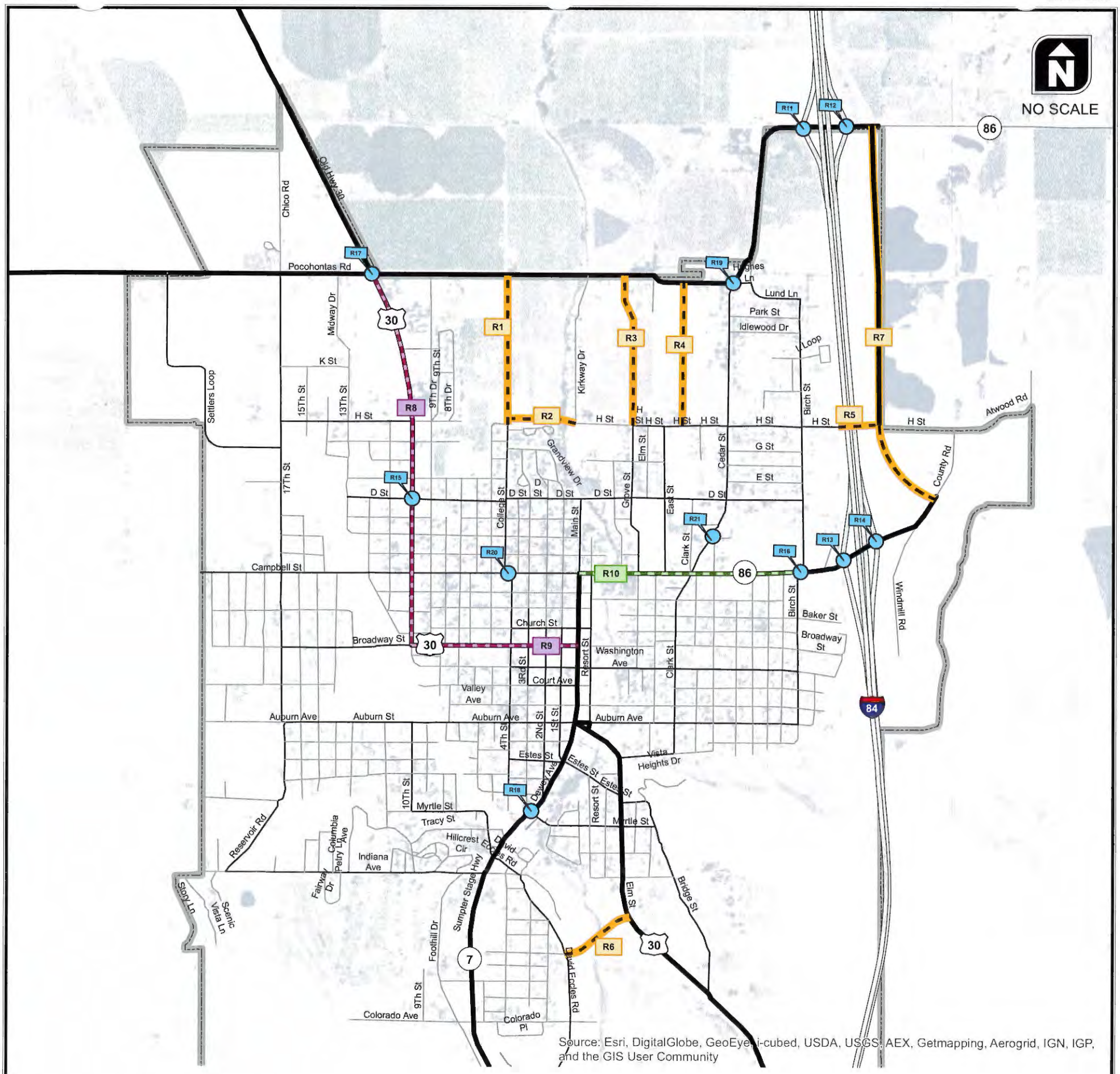
Table 4 summarizes the preferred planned roadway extensions, new roadways, and intersection projects. Figure 8 illustrates the locations of these projects.

Table 4 Preferred Roadway Extensions, New Roadways and Intersection Projects

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[2]
Planned Roadway Extensions				
(R1) College Street Extension	Extend College Street from H Street to Hughes Lane	Facilitate north-south mobility and connectivity for future growth north of the recreation complex	Development Driven	$2,367,000
(R2) H Street Extension	Extend H Street from Kirkway Drive to College Street	Facilitate east-west mobility and connectivity between the east and west sides of the Powder River	Longer-Term	$3,812,000
(R3) Grove Street Extension	Extend Grove Street from H Street to Hughes Lane	Facilitate north-south mobility, growth, connectivity, and access for future development north of H Street	Development Driven	$2,455,000
(R4) Clark Street Extension	Extend Clark Street from H Street to Hughes Lane	Facilitate north-south mobility, growth, connectivity, and access for future development north of H Street	Development Driven	$2,274,000
(R5) H Street Overpass	Extend H Street over I-84 from H Street stub to Best Frontage Road	Facilitate east-west mobility and connectivity between the east and west sides of I-84	Longer-Term	$17,350,000
(R6) Southeast Connector	Construct new roadway connecting David Eccles Road (near Virginia Avenue) to US 30	Facilitate growth, mobility and connectivity in the southeast part of the city	Longer-Term	$4,305,000
(R7) Best Frontage Road Reconstruction/Extension	Extend Best Frontage Road from H Street to Campbell Street	Accommodate growth and facilitate better roadway connectivity on the east side of I-84.	Near-Term	$1,500,000
Planned Roadway Diets				
(R8) 10th Street Road Diet	Implement road diet on 10th Street between Pocahontas/Hughes Lane and Broadway Street to a two-lane roadway with a two-way center turn lane and bicycle lanes in both directions	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	Near-Term	$135,000
(R9) Broadway Street Road Diet	Implement road diet on Broadway Street between 10th Street and Main Street to a two-lane roadway with a two-way center turn lane and bicycle lanes in both directions	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	Near-Term	$68,000
Planned Roadway Modifications				
(R10) Campbell Street Modification	Modify the cross-section of Campbell Street from Main Street to Birch Street to provide full 8'-wide parking lanes by reducing the total wider of the two-way center turn lane.	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	Near-Term	$105,000
Planned Intersection Improvements				
(R11) SB I-84 Ramp & OR 86 Intersection Improvements	Install traffic signal or single-lane roundabout[1]	Accommodate growth and improve long-term traffic operations	Long-Term or Development Driven	$350,000 (traffic signal)

(Project #) Name	Description	Reason for the Project	Priority (Timeline)	Cost[2]
(R12) NB I-84 Ramp & OR 86 Intersection Improvements	Install traffic signal or single-lane roundabout[1]	Accommodate growth and improve long-term traffic operations	Long-Term or Development Driven	$350,000 (traffic signal)
(R13) SB I-84 Ramp & Campbell Street Intersection Improvements	Install traffic signal or single-lane roundabout[1]	Accommodate growth and improve long-term traffic operations	Long-Term or Development Driven	$350,000 (traffic signal)
(R14) NB I-84 Ramp & Campbell Street Intersection Improvements	Install traffic signal or single-lane roundabout[1]	Accommodate growth and improve long-term traffic operations	Long-Term or Development Driven	$350,000 (traffic signal)
(R15) US30/10th Street & D Street Intersection Improvements	Install traffic signal and remove half signal at C Street intersection	Improve long-term traffic operations	Near-Term	$533,000
(R16) Birch Street & Campbell Street Intersection Improvements	Remove concrete separator for the eastbound left-turn lane to allow south to north vehicles the ability to access the left-turn pocket	Discourage illegal left-turn maneuvers for south to north vehicles crossing Campbell Street	Near-Term	$5,000
	Realign north and south legs of Birch Street to eliminate the existing offset and add signalization when warranted	Improve long-term safety and operations	Long-Term or Development Driven	$4,451,000
(R17) US 30/10th Street & Pocahontas/Hughes Lane Intersection Improvements	Install traffic signal, single-lane roundabout[1], or realign Pocahontas Road and Hughes Lane approaches to eliminate skew	Improve safety and operations	Long-Term or Development Driven	$2,082,000
(R18) Dewey Avenue & Myrtle Intersection Improvements	Restrict movements to/from Myrtle Street and install a mountable curb for emergency vehicle use	Improve safety	Near-Term	$12,000
(R19) Cedar Street & Hughes Lane Intersection Improvements	Realign intersection as per suggestions in the 2005 Interchange Area Management Plan for Interchange 302	Accommodate growth and improve safety and operations	Long-Term	$4,723,000
(R20) 4th Street/College Street & Campbell Street Intersection Improvements	Install a pedestrian refuge island and crosswalk signage along Campbell Street between 4th Street and College Street approaches	Improve pedestrian safety	Near-Term	$12,000
(R21) Cedar Street & Campbell Street Intersection Improvements	Cul-de-sac Oak Street at Cedar Street, realign B Street to eliminate skew at Cedar Street, and extend B street to Clark Street	Improve operations, improve safety	Development Driven	$760,000
Sub-Totals				
Near-Term Priority (0-5 Years)				$2,370,000
Long-Term Priority (5-20 Years)				$38,123,000
Development Driven				$7,856,000
Total				$48,349,000

Notes:
[1]Initial roundabout operations analysis and high-level feasibility assessment were performed to confirm a roundabout appears physically and operationally feasible. A more detailed preliminary roundabout design and study should be conducted before activities such as right-of-way acquisition and/or developing detailed design plans.
[2]Cost estimates are for engineering and construction costs. They do not include right-of-way. They are rounded to the nearest thousand dollars.



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Planned Roadway Extensions

- R1 College Street Extension
- R2 H Street Extension
- R3 Grove Street Extension
- R4 Clark Street Extension
- R5 H Street Overpass
- R6 Southeast Connector
- R7 Best Frontage Road Extension

Planned Roadway Diets

- R8 10th Street Road Diet
- R9 Broadway Street Road Diet

Planned Roadway Modifications

- R10 Campbell Street Modification

Planned Intersection Improvements

- R11 SB I-84 Ramp & OR 86
- R12 NB I-84 Ramp & OR 86
- R13 SB I-84 Ramp & Campbell Street
- R14 NB I-84 Ramp & Campbell Street
- R15 US 30/10th Street & D Street
- R16 Birch Street & Campbell Street
- R17 US 30/10th Street & Pocahontas/Hughes Lane
- R18 Dewey Avenue & Myrtle Street
- R19 Cedar Street & Hughes Lane
- R20 4th Street/College Street & Campbell Street
- R21 Cedar Street & B Street

IMPROVEMENT TYPE
- Planned Intersection Project
- Road Diet
- Roadway Modification
- Roadway Extension

Future Intersection Improvements and Roadway Connections

Figure 8

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Preferred Traffic Calming

As determined by an engineering study, traffic calming elements will be applied to existing roadways and integrated into transportation improvement projects. Outside of the projects already identified in the tables above, specific traffic calming measures have not been identified for every roadway or intersection given that many of these locations will need detailed engineering studies to identify the appropriate traffic calming treatment. For planning purposes, following traffic calming elements are the City's preferred traffic calming tools to be considered. The measures below can be modified as needed on a case-by-case installation such that they will not prohibit or degrade the City's ability to conduct winter maintenance activities such as snow removal.

Raised Median Islands

Raised median islands provide a protected area in the middle of a crosswalk for pedestrians to stop while crossing the street. The raised median island allows pedestrians to complete a two-stage crossing if needed. The ODOT Traffic Manual states that for state highways a raised median, in combination with a marked crosswalk is desired when average daily traffic (ADT) volumes are greater than 10,000.

Advantages of raised medians include:

- Improves visibility of crossing to approaching motorists;
- Helps slow vehicle speeds by providing a sense of a narrower roadway to motorists;
- Provides a protected place for pedestrians to wait for a gap in traffic;
- Requires shorter gap in traffic for pedestrians to cross the street; and
- Effective for creating a gateway or entry type treatment into an area of high pedestrian activity.

Challenges to implementing raised medians include:

- Raised median must be able to provide at least six-feet of space to accommodate wheel chairs and not streets have sufficient right-of-way; and
- Places a physical barrier in the street and therefore requires distinctive visible attributes such as landscaping and signs.

Raised Crosswalk

A raised crosswalk is raised higher than the surface of the street to give motorists and pedestrians a better view of the crossing area. A raised crosswalk is similar to a speed table marked and signed for pedestrian crossing.

Advantages of a raised crosswalk include:

- Provides better view of pedestrians for motorists;
- Slows vehicle travel speeds; and
- Applicable on arterial and collector streets

Challenges to implementing raised crosswalks include:

- Can be difficult for large trucks, snow plows, and buses to navigate; and
- Requires adequate signing on the approach to inform motorists of raised roadway.

Rectangular Rapid Flashing Beacon

Rectangular Rapid Flashing Beacons, or RRFBs, are user-actuated amber lights that have an irregular flash pattern similar to emergency flashers on police vehicles. These supplemental warning lights are used at unsignalized intersections or mid-block crosswalks to improve safety for pedestrians using a crosswalk.

Advantages of using rectangular rapid flashing beacons include:

- Typically increases yielding behavior of motorists;
- May be used at unsignalized intersections and mid-block crossing locations;
- May be installed on two-lane or multilane roadways;
- Low cost alternatives to traffic signals and hybrid signals.

Challenges to implementing rectangular rapid flashing beacons include:

- Flashing beacons do not force motorists to yield;
- Pedestrians may not activate flashing lights.

Pedestrian Hybrid Signal

The pedestrian hybrid signal is a pedestrian-actuated hybrid signal that stops traffic on the mainline to provide a protected crossing for pedestrians at an unsignalized location. Warrants for the installation of pedestrian-actuated hybrid signal are based on the number of pedestrian crossings per hour (PPH), vehicles per hour on the roadway, and the length of the crosswalk. Thresholds are available for two types of roadways: locations where prevailing speeds are above 35 mph and locations where prevailing speeds are below 35 mph.

Advantages of implementing pedestrian hybrid signals include:

- Produce a high rate of motorists yielding to pedestrians; and
- Drivers experience less delay at hybrid signals compared to other signalized intersections.

Challenges to implementing pedestrian hybrid signals include:

- Expensive compared to other crossing treatments; and
- Requires pedestrian activation.

Planting Strips

Planting strips narrow the width of streets by moving curbs away from sidewalks to create space for native street trees and ground cover and/or decorative rock.

Advantages for planting strips include:

- Narrow the roadway and adding planting strips by moving existing curbs into the street will create a buffer between roadways and sidewalks while still retaining enough roadway width for traffic and all existing on-street parking; and
- Storm water can be readily integrated into the design and construction of planting strips through green street treatments.

Challenges associated with implementing planting strips include:

- Construction costs particularly for retrofits can be relatively high, because it may require modifications to the existing drainage system.
- Maintenance responsibility is typically turned over to the adjacent property owner(s).
- In residential areas, the choice of landscaping and the quality of its maintenance varies in quality from home owner to home owner.
- Opportunities to implement this treatment are constrained by the location, design of existing storm drains, and location of low elevations where storm water can collect.

Preferred Transit Plan

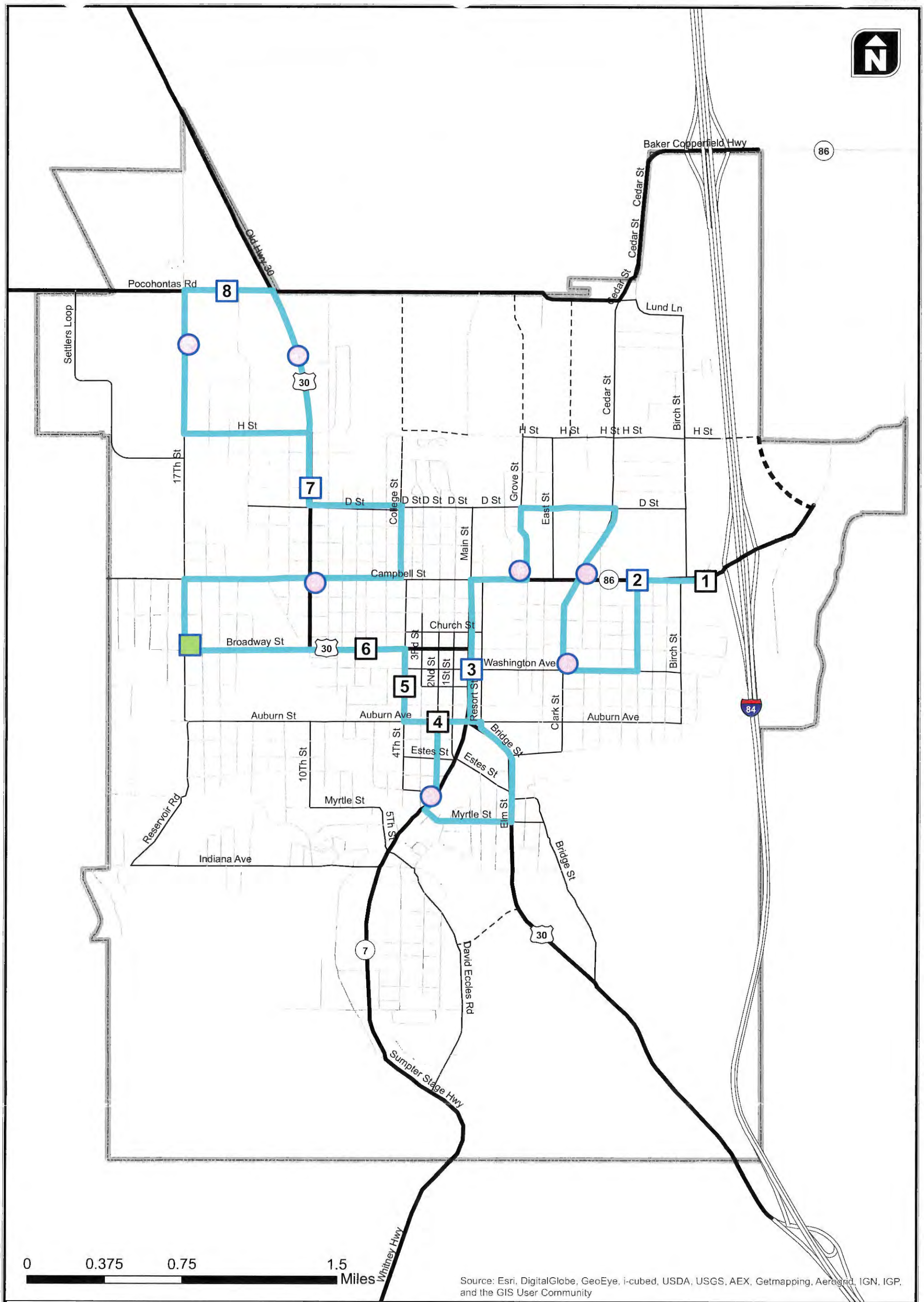
The transit plan presents policies and programs focused on improving transit service within Baker City.

Potential Transit Enhancement Policies

Because Baker City does not own and operate the Baker City Trolley service, they have limited say in how to plan for future expansion or improvements in service. However, the following transit enhancement policies would help Baker City indirectly improve access to transit and encourage the development of physical elements or attributes which would make transit more accessible to all citizens of Baker City.

- Upgrade Sidewalk Facilities – *As project opportunities arise through Capital Improvement Program (CIP) investments or development, upgrade sidewalk facilities to ADA compliance on streets where transit service is provided and/or planned.* The identified pedestrian improvement projects would ensure that all transit route roadways would have sidewalk facilities in either the near- or long-term planning horizon.
- Provide Street Lighting - *As project opportunities arise through CIP investments or development, install and/or improve street lighting at transit stops and along streets leading to transit stops.*
- Increase and Improve Pedestrian Crossing Opportunities - *As project opportunities arise through CIP investments or development; improve pedestrian crossing opportunities across major roadways to facilitate access to transit stops.*
- Monitor and Improve Transit Stop Amenities - As opportunities arise, work with Northeast Oregon Public Transportation to upgrade transit stop amenities based on ridership thresholds. Potential ridership thresholds and amenities include:
    - Level 1 (stops with 0 to 19 riders/day) - Bus stop sign with route information and attached bench
    - Level 2 (stops with 20 to 49 riders/day) - Level 1 amenities plus separate bench and ADA landing pad
    - Level 3 (stops with 50 or more riders/day) - Level 2 amenities plus covered shelter

Figure 9 illustrates the existing Baker City Trolley routes in Baker City. Identified near- and long-term transit stop amenities are provided along the existing transit route based on upcoming improvements and the identification of potential long-term needs.



Existing Stop

Near-Term - Proposed Shelter

Existing Stop - Proposed Shelter

Long-Term - Proposed Shelter

Existing Transit Line

Trolley Service Ammenities

BAKER CITY OREGON EST. 1874

Figure 9

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FUTURE TRANSPORTATION FUNDING

Financing the entire list of identified transportation improvements is unlikely in today's constrained financial environment. However, there are a variety of options available to fund transportation improvements within Baker City. This section identifies funding sources that have contributed to projects within Baker City over the past five years and forecasts potential future revenue the City may generate. Because the existing funding sources will not meet the projected transportation needs, potential additional funding sources are also highlighted.

Historical Transportation Funding

Key funding sources that have contributed to transportation projects within the city over the past five years are summarized below.

Revenue Sources

Table 5 displays the total revenue by source used to fund transportation projects within the city over the past ten years.

Table 5 Baker City Revenue Source History

Revenue Source	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Avg.
Taxes	$376,713	$397,889	$412,003	$427,673	$448,796	$470,639	$485,411	$512,656	$518,629	$450,045
Inter-Gov. Sources	$687,151	$804,014	$709,956	$568,699	$789,701	$834,790	$492,420	$546,794	$591,012	$669,393
Other[1]	$16,236	$4,016	$14,027	$28,376	$40,592	$51,863	$63,786	$69,547	$69,790	$39,804
Total Revenue	$1,080,100	$1,205,919	$1,135,986	$1,024,748	$1,279,089	$1,357,292	$1,041,617	$1,128,997	$1,179,431	$1,159,242

[1]Other revenue sources generally include miscellaneous revenue, service charges, and interest

Based on the information shown in Table 6, Baker City has generated an average of approximately $1,160,000 per year in total revenue for transportation related projects. Also shown, the largest revenue sources for the city have traditionally been the motor vehicle tax and intergovernmental sources.

Expenditure History

Table 6 displays the total expenditures on transportation related projects within Baker City over the last nine years.

Table 6 Expenditure History

Expenditure	2003	2004	2005	2006	2007	2008	2009	2010	2011	Avg.
Maintenance	$432,122	$406,767	$381,629	$413,572	$437,478	$443,475	$446,527	$484,565	$430,566	$430,745
Storm Water	$30,678	$18,308	$32,542	$31,471	$35,128	$84,066	$79,250	$72,735	$43,574	$47,528
Preventative	$357,957	$328,006	$336,963	$262,231	$392,859	$384,014	$366,314	$403,075	$426,222	$361,960
Street Lighting	$70,839	$67,634	$70,957	$63,436	$55,519	$61,656	$66,023	$59,947	$62,134	$64,238
Snow and Ice Control	$17,925	$71,274	$18,415	$46,127	$16,424	$95,782	$76,630	$41,677	$52,180	$48,493
Street Construction	$98,595	$95,174	$20,504	$24,082	$8,090	$5,502	$14,878	$4,848	$5,911	$30,843
Total Overhead	**$1,008,116**	**$987,163**	**$861,010**	**$840,919**	**$945,498**	**$1,074,495**	**$1,049,622**	**$1,066,847**	**$1,020,587**	**$983,806**
Capital Projects	**$838,752**	**$358,490**	**$66,722**	**$27,003**	**$245,705**	**$313,223**	**$494,412**	**$30,323**	**$0**	**$263,848**
Total Expenditures	**$1,846,868**	**$1,345,653**	**$927,732**	**$867,922**	**$1,191,203**	**$1,387,718**	**$1,544,034**	**$1,097,170**	**$1,020,587**	**$1,247,654**

Based on the information shown in Table 6, Baker City has spent an average of $263,848 per year on capital improvement projects (or approximately 21 percent of available resources) and $983,806 on maintenance/overhead (or approximately 79 percent of available resources). The information shown in Tables 5 and 6 were used to project the availability of future funding for transportation improvement projects as described below.

Projected Transportation Funding

Table 7 provides a summary of the potential future project funding (in year 2012 dollars) over the next five, ten, and twenty years based on an assumed average funding level of approximately $1,160,000 per year.

Table 7 Future Transportation Funding Projections

Revenue Source	Average Annual	5-Year Forecast	10-Year Forecast	20-Year Forecast
Total Revenue	$1,160,000	$5,800,000	$11,600,000	$23,200,000
Revenue for Capital Improvements (21%)	$243,600	$1,218,000	$2,436,000	$4,872,000
Revenue for Operations and Maintenance (79%)	$916,400	$4,582,000	$9,164,000	$18,328,000

As shown in Table 7, it is anticipated that approximately $23.2 million will be available for transportation project funding over the next 20 years using historical funding trends. Under this methodology, approximately $4.9 million of the $23.2 million can reasonably be assumed to be

available for funding the transportation plan while the remaining $18.3 million will be needed for operations and maintenance.

Table 8 Estimated Transportation Improvement Costs

Type	Near-Term	Longer-Term	Development Driven	Total
Roadway	$2,370,000	$38,123,000	$7,856,000	$48,349,000
Bicycle	$3,491,000	$4,401,000	-	$7,892,000
Pedestrian	$3,636,000	$3,760,000	$285,000	$7,681,000
Total	$9,497,000	$46,284,000	$8,141,000	$63,922,000
			Available	$4,872,000
			Funding Shortfall	$59,050,000

Based on the estimated projected funding available and the estimated costs of the transportation improvement projects included in this memorandum, Baker City will need to identify additional funding sources to pay for transportation improvements over the next 20 years.

Potential Funding Sources

The remainder of this section provides an overview of funding and financing options that are potentially available for Baker City. For each of the funding options listed below, there is a brief description and a short discussion. No effort has been made to screen funding options according to their political or legal feasibility. The funding environment is dynamic so the list shown should not be considered exhaustive.

Federal Resources

Federal Highway Trust Fund (HTF)

Description: Highway Trust Fund (HTF) revenues consist primarily of taxes on the sale of fuel as well as a number of other smaller transportation related taxes. The federal legislation that appropriates the HTF is the Moving Ahead for Progress in the 21st Century (MAP 21) which was authorized in October 2012. Funds to local agencies within the State of Oregon are primarily allocated by the Oregon Department of Transportation (ODOT) unless dedicated to a local agency.

Potential: The potential for Baker City to take advantage of this funding source will be to lobby to get local highway projects included on the next ODOT STIP and applying for funds dedicated to specific types of projects such as bicycle and pedestrian projects.

Community Development Block Grants (CDBG)

Description: Community Development Block Grants (CDBG) are offered through the Federal Department of Housing and Urban Development. To receive CDBG funds, cities must compete for grants based upon a formula that includes factors such as rural/urban status, demographics, local funding match, and potential benefits to low-to-moderate income residents, including new job creation. CDBG funds can also be used for emerging public work needs.

Potential: In small rural communities this program has limited application but may be a source of street funds for roads serving new developments supporting job creation or multifamily housing. CDBG funding requests should be coordinated through Baker County.

State Funding Options

State Motor Vehicle Tax Fund

The State of Oregon currently collects the following fuel and vehicles fees for the State Motor Vehicle Fund:

- State Gas Tax $0.30 per gallon
- Regular Vehicle Registration Fees (for renewals)
  - Light Trailer $86.00 two-year fee
  - Low-Speed Vehicle $86.00 two-year fee
  - Motorcycles/Mopeds $48.00 two-year fee
  - Passenger Vehicles $86.00 two-year fee
  - Snowmobiles $10.00 two-year fee

In addition, a weight-mile tax is assessed on freight carriers to reflect their use of state highways. The revenue from the fund is used by ODOT and distributed to cities and counties throughout the state with each city's distribution based on a city's share of statewide population, and the county distribution based on a county's share of statewide vehicle registration.

Existing Application: ODOT Region 5, Baker County, and Baker City each receive funds from the state Motor Vehicle Fund. ODOT uses their allocation from the State Motor Vehicle Fund for maintenance and capital purposes. Baker County and Baker City typically use their funding allocation for street maintenance; however it could be used for other types of projects such as pedestrian and bicycle projects.

The state currently distributes approximately 16 percent of the State Motor Vehicle Fund to cities and 24 percent to counties based on a per capita rate (cities) and vehicle registration (counties). The remaining amount in the State Motor Vehicle Fund is used to maintain and enhance the state highway system. The state operates a grant program available to cities for bicycle-related transportation system improvements and one percent of the fuel tax returned to cities and counties is designated for bike paths and lanes.

Potential: With an increase in population, number of registered vehicles, and fuel sales, the total revenue from the State Motor Vehicle Fund will rise, but if the fees (tax per gallon) remain at current levels, there will be a reduction in buying power due to inflation. The gas tax will however continue to be a source of funds for Baker City through ODOT for highway and pedestrian and bicycle projects.

Statewide Transportation Improvement Program (STIP)

Description: The Statewide Transportation Improvement Program (STIP) is Oregon's 4-year capital improvement program for major state and regional transportation facilities. This scheduling and funding document is updated every two years. Projects included on the STIP are allocated into the five different ODOT regions. The current 2012-2015 STIP contains a number of roadway projects located throughout Region 5, several of which are located in Baker County. The majority of these projects rely upon federal funds.

Potential: The next STIP (2015-2018) is currently in the development process and is expected to be organized into two different categories that focus on projects that will fix/preserve the existing transportation network and enhance/improve the transportation network. Several projects within Baker County could be included on this list.

Oregon Bicycle and Pedestrian Program

Description: The Oregon Pedestrian and Bicycle Program awards grants to local governments for bicycle and pedestrian improvements within the rights-of-way of streets, roads, and highways. Grants generally range between $80,000 and $500,000 and examples of eligible uses include pedestrian islands, bike lane striping, and crosswalks.

Oregon Parks and Recreation Funds

Description: Recreational Trails Grants are national grants administered by the Oregon Parks and Recreation Department (OPRD) for recreational trail-related projects, such as hiking, running, bicycling, off-road motorcycling and all-terrain vehicle riding.

Existing Application: OPRD distributes more than $4 million annually to Oregon communities for outdoor recreation project, and has awarded more than $40 million in grants across the state since 1999. Grants can be awarded to non-profits, cities, counties, and state and federal agencies.

Local Funding Options

The following local funding programs are commonly used by cities in the funding of transportation improvements.

General Obligation Bonds (G.O. Bonds)

Description: Bonds are often sold by a municipal government to fund transportation (or other types) of improvements, and are repaid with property tax revenue generated by that local government. Under Oregon Measure 50, voters must approve G.O. Bond sales with at least a 50 percent voter turnout.

Existing Application: Cities all over the state use this method to finance the construction of transportation improvements. For smaller jurisdictions, the cost of issuing bonds vs. the amount that they can reasonably issue creates a problem. Underwriting costs can become a high percentage of the total cost for smaller issues. According to a representative of the League of Oregon Cities, the state is considering developing a "Bond Pool" for smaller jurisdictions. By pooling together several small bond issues, they will be able to achieve an economy of scale and lower costs.

Potential: Within the limitations outlined above, G.O. bonding can be a viable alternative for funding transportation improvements when focused on specific projects.

System Development Charges

Description: ORS 223.297 to 223.314 authorizes local governments to impose system development charges (SDCs) for capital projects related to transportation. SDCs are fees imposed on new development projects and are intended to cover a share of costs needed to support growth on the transportation network. SDSs may only be used for capital improvements.

Potential: Baker City does not currently impose transportation SDCs. However, given the ability to use these fees for capital improvement projects, transportation SDCs should e explored.

Local Street Utility/User Fee

Description: This maintenance fee is premised on viewing public streets as utilities used by citizens and businesses similar to a public water or sewer system. Fees are typically assessed by usage (e.g., average number of vehicle trips per property).

Existing Application: Many Oregon cities assess street user fees through a monthly fee charged to local dwelling units and businesses. The assessment formulas range from a flat rate per dwelling unit and per business to fees tied to trip rates calculated for each property individually based on the Institute of Transportation Engineers Trip Generation. The revenues generated by these fees can be

used for operations and maintenance and can be used to secure bond debt that would be used to fund capital projects.

Potential: In Baker City, a $5.00 monthly fee charged to the estimated 4,212 households would generate approximately $252,720 per year in revenue from residential uses alone. The ability to use these fees for capital projects, including pedestrian and bicycle projects should be explored.

Local Improvement District (LID)

Description: Under a local improvement district (LID), a street or other transportation improvement is built and the adjacent properties that benefit are assessed a fee to pay for the improvement.

Existing Application: LID programs have wide application for funding new or reconstructed streets, sidewalks, water/sewer or other public works projects. The LID method is used primarily for local or collector roads, though arterials have been built using LID funds in certain jurisdictions.

Potential: LIDs continue to offer a good mechanism for funding projects such as new sidewalks and street surface upgrades. Baker City may be able to fund the cost of sidewalks on collector streets to provide a connected pedestrian system for current and future residents in the previously developed areas of the city lacking sidewalks.

Urban Renewal District

Description: An Urban Renewal District is an area that is designated by a community as a "blighted area" to assist in revitalization. Funding for the revitalization is provided by urban renewal taxes that are generated by the increase in total assessed values in the district from the time it was first established.

Existing Application: Urban Renewal Districts have been formed in over 50 cities in Oregon, generally focused on revitalizing downtowns.

Potential: Urban Renewal dollars can be used to fund infrastructure projects such as roadway, sidewalk, or transit improvements. Because funding relies on taxes from future increases in property value, Baker City may seek to create a District where such improvements will likely result in such an increase.

Developer Dedications of Right-of-Way and Local Street Improvements

Description: New local streets required to serve new development areas are provided at the developer's expense in accordance with the tentative and final plan approvals granted by the City Council.

Existing Application: Current City ordinance requires local streets and utilities to be provided in accordance with the adopted Land Use Plan, and the zoning ordinance and subdivision ordinance.

This includes dedication of street/utility right-of-way and construction of streets, pedestrian/bicycle facilities, and utilities to City design standards.

Potential: Private developer street dedications are an excellent means of funding new local street/utility extensions, and are most effective if guided by a local roadway network plan. This funding mechanism could apply to all new local street extensions in Baker City within the 20-year planning period.

FINANCIALLY CONSTRAINTED PLAN

Given the anticipated funding available shown in Table 8, as many of the near-term priority projects were identified that could potentially be funded with the City's anticipated $4,870,000 in funds for capital improvements. This list includes projects under the sole jurisdiction of Baker City as well as projects that would require the City's financial participation in joint projects with ODOT and Baker County. The City will coordinate with other agencies to leverage funding opportunities and therefore the projects in the "Financially Constrained Project List" should be looked at as an illustration of the City's current funding priorities but one that will change over time.

Table 9 presents a list of programs, studies, and projects organized by modal plan that can be considered reasonably likely to have funding over the next 20 years at the current time. As noted in the Preferred Plan Summary section, all Preferred Plan policies presented above will be carried through to the Draft TSP pending revisions based on comments received from PMT, TAC, and general public. An overview of what is included in Financially Constrained Plan is below.

Table 9 Financially Constrained Programs, Studies and Project List

(Project #) Name	Description	Reason for the Project	Cost
Pedestrian and Bicycle Plan Programs and Projects			
(P1) 11th Street/Hillcrest Driver/9th Street	Sidewalk infill and wayfinding from Indiana Avenue to Auburn Avenue	Gap in existing pedestrian network	$342,000
(P3) Tracy Street & 5th Street	Sidewalk infill and wayfinding from 9th to OR 7, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	$290,000
(P4) 5th Street	Add sidewalks from C Street to E Street and from G Street to Grandview Drive	Improving pedestrian network	$98,000
(P5) Auburn Avenue	Add sidewalks from Main Street to Birch Street	Gap in existing pedestrian network	$288,000
(P6) Baker Street	Sidewalk infill and wayfinding from Birch Street to Swim Center/Skate Park	Gap in existing pedestrian network	$4,000
(P7) Birch Street	Sidewalk infill and wayfinding from Auburn Avenue to Campbell Street, Neighborhood Route	Improving pedestrian network, gap in existing pedestrian network	$218,000
(P15) Madison Street	Neighborhood Route from 10th Street to Birch Street	Improving pedestrian network, gap in existing pedestrian network	$9,000
(P17) Washington Street	Neighborhood route from 7th Street to Birch Street	Improving pedestrian network, gap in existing pedestrian network	$8,000
(P27) College Street	Neighborhood route from H Street to Campbell Street	Gap in existing pedestrian network	$4,000
(P33) 4th Street	Proposed neighborhood route from Campbell Street to Grace Street	Gap in existing pedestrian network	$6,000
(S3) Auburn	Add shared use path from 17th Street to Railroad tracks	Promote recreational and non-motorized travel	$309,000
(S4) 17th Ave Trail	Add shared use path from Indiana Avenue to Pocahontas Road	Promote recreational and non-motorized travel	$1,294,000
(S12) Indiana Avenue	Add shared use path from 17th Street to OR 7	Promote recreational and non-motorized travel	$259,000

(Project #) Name	Description	Reason for the Project	Cost
Intersection and Roadway Projects			
(R7) Best Frontage Road Reconstruction/Extension	Extend Best Frontage Road from H Street to Campbell Street	Accommodate growth and facilitate better roadway connectivity on the east side of I-5.	$1,500,000
(R8) 10th Street Road Diet	Implement road diet on 10th Street between Pocahontas/Hughes Lane and Broadway Street to a two-lane roadway with a two-way center turn lane and bicycle lanes in both directions	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	$135,000
(R9) Broadway Street Road Diet	Implement road diet on Broadway Street between 10th Street and Main Street to a two-lane roadway with a two-way center turn lane and bicycle lanes in both directions	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	$68,000
(R10) Campbell Street Modification	Modify the cross-section of Campbell Street from Main Street to Birch Street to provide full 8'-wide parking lanes by reducing the total wider of the two-way center turn lane.	Reallocate roadway for improved multi-modal use and increase safety for pedestrians and bicyclists	$105,000
(R16) Birch Street & Campbell Street Intersection Improvements	Remove concrete separator for the eastbound left-turn lane to allow south to north vehicles the ability to access the left-turn pocket	Discourage illegal left-turn maneuvers for south to north vehicles crossing Campbell Street	$5,000
(R18) Dewey Avenue & Myrtle Intersection Improvements	Restrict movements to/from Myrtle Street and install a mountable curb for emergency vehicle use	Improve safety	$12,000
(R20) 4th Street/College Street & Campbell Street Intersection Improvements	Install a pedestrian refuge island and crosswalk signage along Campbell Street between 4th Street and College Street approaches	Improve pedestrian safety	$12,000
Total			**$4,966,000**

Section 5
Public Involvement

PUBLIC INVOLVEMENT

BAKER CITY-COUNTY PLANNING DEPARTMENT

1995 Third Street, Suite 131
Baker City, OR 97814
Phone: (541) 523-8219
Fax: (541) 523-5925

PUBLIC INVOLVEMENT REPORT FOR THE BAKER CITY TRANSPORTATION SYSTEM PLAN (TSP) UPDATE AS OF JUNE 5, 2013

CITIZEN INVOLVEMENT PROGRAM: A citizen involvement program (CIP) is a set of policies that explain how citizens are to participate in the local planning process. Part of the CIP for Baker City is located in the Comprehensive Plan under the chapter called "Public Involvement and Procedures for Planning". A copy of this chapter is provided below:

PUBLIC INVOLVEMENT AND PROCEDURES FOR PLANNING

GOAL:

To provide for public involvement at all stages of planning decisions and to establish procedures for changing the plan and making related policies.

FINDINGS:

In order for planning to be fair and effective, there must be clear procedures for making decisions. These should include provisions for making day-to-day decisions that implement the plan and means of involving the public in planning decisions of the city. In so doing, planning should be flexible enough to respond to changes in public opinion and unforeseen circumstances, yet avoiding decisions made to satisfy special interests. Planning should be a thoughtful, reasoned process based on the best data available, attempting to avoid hastily made judgments in heated political atmospheres. Planning must be in the interests of the entire community and conducted in a fair and open manner.

This section of the plan establishes policies that will guide the processes by which planning decisions are made and assures that participation of all interested parties.

POLICIES:

1. *The City will make all reasonable efforts to publicize planning issues and meetings where these issues will be discussed and decided upon.*
2. *Persons or firms making proposals or applications for land use decisions that may have an affect on neighbors or the general public will be expected to provide descriptive materials and information adequate for the determination being made.*
3. *The Planning Commission will continue to undertake efforts to involve and inform the public of planning issues.*
4. *In instances where public hearings are required, relative to this plan, the Planning Commission and City Council will follow procedures established in the city's zoning ordinance.*
   These bodies are responsible for considering the affects of a decision on the entire community and should not be swayed unduly by the number of persons testifying for or against a particular course of action.
5. *Planning decisions generally, and amendments to this plan particularly, will be consistent with the state planning goals.*
6. *Planning related decisions of the City will be in accord with the policies of the Comprehensive Plan.*
7. *The City will maintain and regularly update information and maps used as a basis for making planning decisions.*

8. *The Comprehensive Plan will be thoroughly reviewed and necessary alterations made every three years. The staff will prepare an initial review for presentation to the Planning Commission, which will conduct at least one public hearing and make its recommendations to the City Council.*
9. *Changes to the Comprehensive Plan may be made at any time. Proposals for change may be initiated by the City Council, Planning Commission, City staff or citizens. Once a proposal is made, the following procedures will be followed:*
    a) *It must be demonstrated that the following conditions exist, when applicable:*
        i) *There is a mistake or omission in the plan;*
        ii) *There is not an adequate amount of land designated as suitable for specific uses by the Plan;*
        iii) *If a particular area is proposed for a change in designation, it must be demonstrated that the proposed use is more suitable in the area than the existing use;*
        iv) *It must be demonstrated that public facilities will be used efficiently and that no unnecessary tax burden will fall upon the general public or nearby landowners;*
        v) *The effects on the area surrounding a proposed change will not be reasonably harmful or incompatible; and*
        vi) *The proposed policy or land use change is consistent with the state planning goals.*
    b) *The City will attempt to gain media coverage of the issues and public notice of the proposed change will be advertised.*
    c) *Affected public agencies will be informed and asked for a response to the proposed change.*
    d) *The proposed change will be submitted to the LCDC for comment (if required by state law).*
    e) *Recommendations will be forwarded by the Planning Commission to the City Council where changes will be considered according to ordinance adoption procedures.*
    f) *Any measures necessary to implement the change will be initiated as soon as practicable.*
10. *Amendments to the Comprehensive Plan which involve an exception to the statewide goals shall comply with all requirements of ORS 197.732.*

IMPLEMENTATION:

1. *The City staff will keep the news media informed of planning issues and decisions being considered by the City, and whenever a public hearing is required notice will be published in a newspaper of general circulation.*
2. *The City staff will prepare in writing findings and their evaluation for new planning directions and proposed policy changes. The staff will also be responsible for gathering additional information that cannot be provided by the proponent of a change and which is necessary for making decisions regarding a proposal.*
3. *The zoning ordinance will contain a section regarding hearing procedures to be used by the Planning Commission and City Council when considering planning related decisions.*
4. *Subsequent to the adoption of the comprehensive plan, policies and ordinances necessary to implement the plan will be adopted as soon as practicable, aiming for the time frames indicated within individual implementation items.*
5. *The Planning Commission will annually review the effectiveness of formal and informal procedures for public involvement and make suggestions to the City Council for improvements.*

Another part of the CIP was adopted in 1976 by Resolutions 2393 and 2404 which established the CIP for use in creating and updating a comprehensive plan for the City of Baker. Some of the Items adopted in 1976 have become out-dated, and the CIP should be amended to reflect current practices, such as use of the internet and implementation of Measure 56 which involves individual written notice mailed to all citizens. However, for the TSP Update project, the City and Planning Commission did follow the established procedures as set forth in the Comprehensive Plan, as well as the intent of the out-dated CIP procedures.

COMMITTEE FOR CITIZEN INVOLVEMENT: Statewide Planning Goal 1 requires each city to maintain a Committee for Citizen Involvement (CCI) per ORS 197.160(b). For the TSP Update project, a Technical Advisory Committee was established on July 10, 2012. The appointed members provide a representative from each of the city's precincts which satisfies the intent of Item 1 in the CIP. Please note that the number of precincts over the years has reduced from 12 to 5. Public Works Director Michelle Owen met with numerous civic groups to discuss the TSP Update project. All of the TSP Update project information has been available on the City's website since the project began and is routinely updated. The library provides free computer access to the internet. Specific details of the process used for awareness and involvement of the TSP Update project are provided on the following pages of this report.

OVERVIEW OF PUBLIC OUTREACH EVENTS:

Date	Type of Event	Description
03/23/2011	City Council Meeting Resolution No. 3654	Supported grant to update TSP along with (7) letters of support from agencies & organizations
07/10/2012	City Council Meeting	Members appointed to the Technical Advisory Committee (TAC)
07/11/2012	Stakeholders Meetings	Project kick off, discussed objectives and issues to address
07/12/2012	Technical Advisory Committee (TAC) Meeting #1	Project kick off, discussed objectives and issues to address
07/12/2012	Public Bicycle Tour	A bike field tour to highlight existing conditions and popular destinations
10/01/2012	TAC Meeting #2	Review & discuss Technical Memorandum (Tech Memo) #1: Existing Conditions
10/01/2012	Youth Workshop – 5th Graders at South Baker Elementary	Met with students to solicit input on youth issues, needs, concerns and potential solutions
10/02/2012	Youth Workshops – (3) High School Government Classes	Met with students to solicit input on youth issues, needs, concerns and potential solutions
12/19/2012	TAC Meeting #3	Review & discuss Tech Memo #2: Future Conditions and System Alternatives
12/19/2012	Community Open House #1	Review & discuss alternatives and seek input for preferred options
03/06/2013	TAC Meeting #4	Review & discuss Tech Memo's #3: Alternatives Analysis & #4: Funding Assumptions & Preferred Financially Constrained Plan
03/06/2013	Stakeholders Meetings	Review & discuss proposed projects and issues
03/06/2013	Community Open House #2	Review & discuss proposed projects and issues
04/16/2013	Joint City Council & Planning Commission Work Session #1	Review & discuss draft TSP and procedures
04/17/2013	Joint City Council & Planning Commission Work Session #2	Review & discuss changes based on feedback received
05/29/2013	Community Open House #3	Review & discuss draft TSP projects
05/29/2013	Planning Commission Public Hearing #1	Heard public testimony regarding process and specific projects
06/05/2013	Community Open House #4	Review & discuss draft TSP projects
06/05/2013	Planning Commission Public Hearing #2	Heard public testimony & decided to recommend approval with a few changes
06/11/2013	City Council Public Hearing & 1st & 2nd reading of Ord. 3323	

06/25/2013	City Council adoption of Ordinance No. 3323	

SUMMARY OF MEDIA COVERAGE*:

Date	Source	Description
06/18/2012	Baker City Herald	Front page article: "City ponders street plan"
07/11/2012	Baker City Herald	Editorial: "City needs your ideas on streets"
07/13/2012	Baker City Herald	Front page article: "Pedaling problems"
12/24/2012	Baker City Herald	Article: "Transportation planning continues"
12/27/2012	Record Courier	Front page article: "Baker City Looks Toward Future Transportation Needs" with map of proposed pathways
01/10/2013	Record Courier	Article: "Baker City Transportation System Plan Seeks Input"
02/27/2013	Baker City Herald	Front page article: "From 4 lanes to 3?"
03/06/2013	Baker City Herald	Front page article: "City wants street ideas"
03/11/2013	Baker City Herald	Article: "Still time to express opinions about city's Transportation System Plan"
03/11/2013	Baker City Herald	Letter to the Editor: "Don't change Broadway and Tenth Streets" by Judy Stultz
03/15/2013	Baker City Herald	Results from website survey: "Do you like the proposal to possibly change 10th and Broadway streets from 4 lanes to 3?" NO – 173 (91.5%) YES – 16 (8.5%)
03/15/2013	Baker City Herald	Letter to the Editor: "A bicyclist who likes streets the way they are" by Gary Dielman
03/15/2013	Baker City Herald	Letter to the Editor: "Mirror could be simple solution for Dewey-Myrtle" by Carol Martin
03/28/2013	Record Courier	Article: "March City Planning Meeting Canceled" announces upcoming April work sessions
04/05/2013	Baker City Herald	Legal Notices: "NOTICE OF CITY WORK SESSIONS"
04/12/2013	Baker City Herald	Front page article: "City officials to discuss transportation plan"
04/15/2013	Baker City Herald	Local Briefing section: "City officials to discuss transportation plan"
05/09/2013	Record Courier	Front page article: "Possible Changes to Traffic on 10th Street and Broadway"
05/15/2013	Baker City Herald	Legal Notices: "NOTICE OF BAKER CITY PLANNING COMMISSION HEARINGS"
05/24/2013	Baker City Herald	Front page briefing: "Open house on transportation plan May 29"
05/24/2013	Elkhorn Media Group Stations: 104.7 & 99.9	Radio announcement: "Baker City hosting community open house on TSP"
05/30/2013	Elkhorn Media Group Stations: 104.7 & 99.9	Facebook question of the day: "What are some new ways that cities can better inform the public that haven't been tried yet?" (online video of meetings suggested)
05/30/2013	Elkhorn Media Group Stations: 104.7 & 99.9	Radio announcement: "Baker Transportation System Plan decision postponed"
05/30/2013	Elkhorn Media Group Stations: 104.7 & 99.9	Radio announcement: "Baker City citizen asks for more involvement in planning"
05/31/2013	Baker City Herald	Front page article: "Street plan raises fears"
05/31/2013	Elkhorn Media Group Stations: 104.7 & 99.9	Radio announcement: "Baker City Transportation System Plan available online"

06/03/2013	Baker City Herald	Front page briefing: "City seeks ideas about street plan"
06/05/2013	Baker City Herald	Editorial: "Scrutiny of city's street plan"
06/06/2013	Elkhorn Media Group Stations: 104.7 & 99.9	Radio announcement: "Baker City Planning Commission passes TSP to Council"

*Please note – there were several previous radio announcements throughout the TSP project; however, only the most recent stories were copied for the record. Expired stories are deleted after the first of each month.

LEGISLATIVE ACTION – NOTIFICATION REQUIREMENTS:

Date	Type	Description
04/24/2013	DLCD Notice	Notice of proposed amendments sent to DLCD 35-days before first public hearing
05/09/2013	Individual Notice	Written notice of proposed amendments sent to all property owners within City Limits and Urban Growth Boundary at least 20-days, but not more than 40 days, before first public hearing
05/15/2013	Newspaper Notice	Public notice of hearing published at least 10-days prior to Planning Commission hearing

ADDITIONAL PUBLICITY EFFORTS:

On-going communication was conducted through the following venues:

- City of Baker City Weekly Updates – Invitations to all events and project status updates were reported in these weekly newsletters that are emailed to approximately 320 subscribers every Friday afternoon.
- City of Baker City Website – Invitations to events were routinely posted on the Latest News announcements on the home page: www.bakercity.com
- City of Baker City TSP Project Website – Summary of current information and progress of the project was kept up to date at: www.bakercity.com/government/plans-a-projects/246
- Consultant Website for Baker City TSP Project – Documents produced by the consultant available to download at: http://sites.kittelson.com/Baker City TSP/Downloads
- Consultant Interactive Website – Map-based webpage allows for users to provide feedback electronically at: http://maps.kittelson.com/bakercityTSP

An invitation to the Community Open House & Public Hearing on June 5, 2013, along with two maps showing a majority of the proposed projects, was posted at the following locations on May 30, 2013:

1. Courthouse (Planning Department & Public Notice board)
2. City Hall (Public Works)
3. Post Office
4. DMV
5. Library
6. Health Department
7. Senior Center
8. Salvation Army
9. Veterans Advocates Center
10. Basché Sage Mall
11. YMCA
12. Elkhorn Athletic Club
13. Albertsons

14. Safeway
15. Dollar Tree
16. Banner Bank
17. Community Bank
18. Old West Credit Union
19. Sterling Bank (each entrance)
20. US Bank

FEEDBACK FROM CITIZENS:

The Baker City Transportation System Plan Update benefited from the public involvement process facilitating the identification of transportation system deficiencies as well as potential solutions. The concerns of all participants involved were considered in the decision making process. Along with the meeting notes from public outreach events, a copy of the written comments received are included with this report. Here is a summary of the major comments received and the impact, if any, on the recommended amendments:

Lack of Citizen Participation. There were a few comments regarding a need to better inform citizens of the TSP Update project, encourage more involvement, and gather additional input. The Planning Commission decided to hold an additional Open House and Public Hearing in order to give the public further opportunity to review and provide comments. Flyers and maps were posted in various locations in an effort to expand notification of the event.

Southeast Connector (R6). Concerns were brought forward about the specific design details and location for this project. This project was identified in the previous TSP as a potential future roadway, and is proposed to provide a connection from Old Hwy 30 to David Eccles Road, creating a "short-cut" for traffic traveling on Hwy 7 and Interstate-84. It was explained that this project will be very complex to build due to the proximity of the railroad adjacent to Old Hwy 30 and the river, and is only a conceptual project at this time.

"Road Diet" for Broadway & 10th Streets (R11 & R12). There were many comments opposing the proposed project to change the configuration of these streets from 4 lanes to 3. Therefore, the proposed "Road Diet" projects were removed and replaced with "Refinement Study" projects for conducting a more thorough investigation of potential reallocation of space and providing an opportunity for more public involvement. It was suggested to remove these study projects entirely because the public's majority opinion has been made clear that the current lane configuration should remain as-is. However, there are other improvements desired for these streets, such as sidewalks, that would benefit from a "Refinement Study" to determine right-of-way, space, and utility conflicts before committing to a large investment.

Downtown (R13). There were a few comments regarding adequate parking and the use of bicycles downtown. A "Refinement Study" project is proposed to evaluate and prioritize goals for the primary downtown streets.

Campbell Street Bike Lanes (R14). There were many comments about people not feeling comfortable using these bike lanes due to the nature of cycling so close to high-volume and high-speed traffic. A project is proposed to perform a study and modify the lane striping to provide adequate width for parking and bike lanes. Suggestions for buffered bike lanes and possible cycle tracks will be investigated further.

Birch & Campbell Street Intersection (R20). There were several comments regarding the existing lane configuration transition, and concrete barriers at this offset intersection. A near-term

project is proposed to remove the concrete lane separator for the eastbound left-turn lane.

Roundabout for Hughes/Pocahontas & 10th Street Intersection (R21). There were several comments opposing a roundabout for this intersection, but also acknowledged that improvements were needed. A "Refinement Study" project has been recommended conduct a more detailed investigation of potential improvement options.

Dewey & Myrtle Street Intersection (R22). There were several comments regarding needed improvements for site distance for this intersection. The initial project proposed to close the Myrtle Street connection to all traffic except for emergency vehicles. Subsequent suggestions were made to keep the connection open with a project to coordinate with adjacent property owners to make necessary improvements.

Cedar, Oak & B Street (R25). Concerns were brought forward about the impact of extending the shopping center access road across the middle of the "triangle" property. The property owner recently rezoned that property and has plans for a retail development. It was suggested to re-design the proposed project to lessen the impact to the property owner.

Golf Course Trail (M10). Concerns were brought forward about the hazard of stray golf balls potentially hitting users of the trail. For this project to be feasible, a perimeter fence of golf netting will be needed along the trail where adjacent to the golf course.

Smith Ditch Trail (M11). Concerns were brought forward about the danger of tunnels/siphons, the potential for increased litter and debris being thrown into the ditch, and blockages/erosion that could lead to flooding. For this project to be feasible, it is likely that the ditch will need to be piped.

Sidewalks for 15th Street (P32). Concerns were brought forward about why 15th Street had been chosen for sidewalk infill rather than the adjacent streets. The Head Start program is located on 16th Street, the Community College is located on 14th Street, and a pathway is already proposed for 17th Street. It was explained that 15th Street had been chosen because it was the easternmost street in that area that made a complete north-south connection from Auburn Avenue to Campbell Street.

Sidewalks for 9th Street (P35). Concerns were brought forward about the narrow width and under-developed condition of a portion of 9th Street. Prior to adding sidewalks, the roadway would have to be improved or modified to one-way travel for the safety of users. It was suggested to change the limits of the sidewalk project to not extend north of 'H' Street.

Michelle Owen

From: Dave Davis [dave@davispc.com]
ent: Monday, December 24, 2012 11:42 AM
ſo: mowen@bakercity.com
Subject: new pathways

Michelle,
Two items of concern. I see where the new pathway might go through the City golf course along the outside edge of the course and or into Ellingson's property? If it is on Rob's property, what does Rob think of this? If it is on the golf course property, I see a safety hazard with golfers hitting into pedestrians, don't you? Especially with my swing. The favorite place my ball likes to go is right along the edge of hole No. 15 or... out of bounds!

Also the section that follows Smith Ditch. This also appears to go through private property just north of Indiana and the cemetery. Can the city just create right of ways through private property? I think the main property owners around there are Ron Davis, Mardelle Ebel and/or Rocky Brown. I like the idea of the pathway and am all for it but when it comes to this section, I would just stay on Bridge Street onto Indiana. It's much less "hilly" too.

Let me know your thoughts and...Good luck with all that :-)

Regards,

Dave Davis
www . davispc . com
541-523-0270

Michelle Owen

From: Barbara Johnson [babslizzie@gmail.com]
Sent: Tuesday, January 08, 2013 10:44 AM
To: Michelle Owen
Subject: Re: Transportation System Plan Comments

Hi Michelle What about
painting parking spaces on Main Street, is that part of the planning? I hear about that a lot.
Sent from my iPad

On Jan 7, 2013, at 10:39 AM, "Michelle Owen" <mowen@bakercity.com> wrote:

> Hello TSP Stakeholders,
>
> The TSP process is in full swing and the comment period on the recent Open House is still open. I've included a link below to a website with an interactive map which allows online comments to be received. Please take a moment **this week** to share any comments either via the link or via an email back to me. Much of the discussion thus far has focused on bike/ped path alternatives and overall connectivity within the community. Please share your ideas or concerns. Public Input is key to a successful project. Thank you for your help.
>
> http://map.project.kittelson.com/bakercityTSP

Michelle Owen
Director of Public Works
City of Baker City
541-524-2031
541-519-0180 (cell)

Michelle Owen

From: Matt Berkow [mattberkow@altaplanning.com]
ent: Monday, January 21, 2013 12:08 PM
To: mowen@bakercity.com
Cc: Matt Hughart
Subject: Open house comment for your consideration

Hi Michelle.

I wanted to pass on this comment from the open house regarding increased traffic on Oak. I believe you are aware of this issue. As Matt discussed during our visit, TSPs don't generally prescribe specific stop signs. He discussed instead that the TSP include acceptable traffic calming measures that the city can implement where it sees fit. To that end, I wanted you to be aware of this citizen comment.

- Oak Street near Brooklyn Elementary School. The new signal at Cedar/Campbell/Clark causes people to divert onto Oak to bypass the signal. From Campbell to Broadway, there are no stop signs on Oak. Increased traffic and high speeds. Also school pick up is now on Broadway so these folks also then proceed to Oak. They would like a stop sign at Baker. Larry Hill 541 523 2619. Bill Smith 2326 Oak – 541 523 2106.

Thanks Michelle.
--
Matthew Berkow
Senior Planner, Alta Planning + Design
711 SE Grand Avenue
Portland, Oregon 97214
(503) 230-9862
www.altaplanning.com

Creating active communities where bicycling and walking are safe, healthy, fun, and normal daily activities

Michelle Owen

From: Kim Luckini [luckini2k@gmail.com]
Sent: Tuesday, February 19, 2013 12:42 PM
To: mowen@bakercity.com
Subject: lamp extension project

dear michelle,
my wife and I are both runners and cyclists and were thrilled to hear that baker is planning on expanding their trails network in town.
we spend time in baker each year and are moving there in 2016 permanently. As for recommendations on expansion we have been using an informal route from the north end of the parkway west to 17th st. over to auburn and back to bridge st. I know others use this route also as we see them running it.
If nothing else these roads are in desperate need of sidewalks, especially the auburn and 17th st. corridors.
as for design, the existing lamp trail is already showing signs of wear, as even a small tree can uplift through asphalt. One look at the trail out along the powder river near phillips res. should be a convincing selling point to use concrete sidewalks instead of asphalt. as much as runners prefer asphalt to concrete for it's softness, the durability of concrete would provide safe walking access for decades to come with very little or no maintenance.

thank you for your time
kevin luckini

Re: Transportation Plan Comments
Jenny Long to: Jim Horan 02/25/2013 08:18 AM
Bcc: Holly Kerns, Mark Bennett

Thank you very much Mr. Horan.
Hope you have a great day!
Sincerely,

Jenny Long, P.E.
Planner

Baker City-County Planning Department
1995 Third Street
Baker City, Oregon 97814
Phone: (541) 523-8219
Fax: (541) 523-5925

Jim Horan Jenny, I just wanted to share a thought on the tra... 02/25/2013 07:39:56 AM

From: Jim Horan <jim.b.horan@gmail.com>
To: jlong@bakercounty.org
Date: 02/25/2013 07:39 AM
Subject: Transportation Plan Comments

Jenny,

I just wanted to share a thought on the transportation plan. I love the ideas your working on and would stress the importance of walk-ability to young families. We live up by the golf course and would love to see some more designated walking lanes or sidewalks that make it easier and safer to access the leo adler trail and other areas of town. We love the small town feel of Baker and would really love to be able to walk or bike anywhere in town safely when weather permits.

Thank you for all the hard work your doing on this project.

Yours truly,

Jim Horan

914 Petry Ln. Baker City

COMMENT CARD

TRANSPORTATION SYSTEM PLAN

Please fill out this form (optional) and use the front & back sides for your comments.

Name: CHRIS KNOLL

Address: 2380 16TH ST. BAKER CITY

Phone: (541) 519-0992

Email: knollch@slhs.org

Thank you for taking an interest and helping shape the future of our community.

Comments: WITH THE YMCA MOVING OUT TO THE OLD WILSON'S MARKET, ~~ARE~~ IS THERE GOING TO BE ANY CHANGES TO 17TH STREET? I WOULD SUGGEST SIDEWALKS AND BIKE LANES ON 17TH ST.

THANK YOU FOR INCREASING SPEED TO 35 FROM CAMPBELL TO POCAHONTAS!!!
ooo

CK

COMMENT CARD

TRANSPORTATION SYSTEM PLAN

Please fill out this form (optional) and use the front & back sides for your comments.

Name: Jason Yencopal

Address: 1995 Myrtle St.

Phone:

Email: jyencopal@bakercountry.org

Thank you for taking an interest and helping shape the future of our community.

Comments: I would like to see more options for the Myrtle St./Dewey intersection versus closing it. Myrtle St. is a collector for the neighborhood in our area. It is also heavily used during the Little League season and for those accessing the dump as a through street from Dewey to Highway 30. I have accessed my residence from different routes using Estes and Bridge Street/Highway 30 and these routes do not seem as easy to use with what feels like a narrow street (Estes) and then through long residential blocks and the unmarked intersections with some visual impairments at these intersections. I am not a traffic engineer so suggesting options is difficult but some type of right turn lane option could work with some ~~covered~~ road stripping and then no parking on both sides of the road for a short section but

COMMENT CARD

TRANSPORTATION SYSTEM PLAN

Please fill out this form (optional) and use the front & back sides for your comments.

Name: Blake Marlia

Address: 3645 Cedar St.

Phone: 541-523-8888

Email: marliab@msn.com

Thank you for taking an interest and helping shape the future of our community.

Comments:

I would like to see a speed adjustment to Cedar St. between H St and Hughes Ln. to 25 MPH.

Michelle Owen

From: Joe Kresse [kressej@gmail.com]
Sent: Friday, March 08, 2013 9:32 AM
To: mowen@bakercity.com
Subject: Please include bicycles in the Transportaion Plan

Michelle-

I am a founder of the Grande Tour Scenic Bikeway that is in Baker and Union counties. With the growth of tourism and cycling in northeast Oregon, we encourage road and highway management to include cycling in their plans. Baker City has a great bike path in town that links to the new scenic bikeway. We are also working to add another bikeway to the area.

We appreciate the help with signage and hope we can count on your continued support of the growing cycling movement in our area.

Joe & Jan Kresse

La Grande, OR

Michelle Owen

From: Emelie McNett [Emelie@psmt.biz]
Sent: Friday, March 08, 2013 9:49 AM
To: mowen@bakercity.com
Subject: Bike/pedestrian transportation plans in Baker City

I just wanted to write to thank you for the proposed increase in bike and multiple use paths/lanes in Baker City. I am a La Grande resident, but frequently cycle to Baker during the summer months. Since cycling is growing exponentially as a recreation, it behooves Baker City to commence the proposed project. I believe it will increase tourist revenue to promote cycling.

As an aside, I am planning a ladies' bike trip in July to commence in La Grande, riding through Haines, Baker City, Unity Lake, Prairie City, Monument, Ritter Hot Springs and back to Baker City. It would be wonderful to brag to my 12 "guest" cyclists of the plans Baker City has for cycling. Most are from out of the area, Bend, Sisters, Seattle and beyond. I look forward to showing them the beauty and hospitality that exists in NE Oregon.

Emelie McNett
206 478 9598

Michelle Owen

From: Kate Dimon [dir@historicbakercity.com]
Sent: Friday, March 08, 2013 5:07 PM
To: 'Michelle Owen'
Cc: Mike Kee
Subject: Broadway

Due to a million different meetings I was unable to attend the town hall... However, due to my working on expansion of the historic district up Broadway to 6th. Having 3 lanes would certainly enhance the opportunity.. my two cents.

Kate Dimon
Director, Historic Baker City, LLC
1901 Main street
Baker City, OR 97814
541-403-1834

Michelle Owen

From: Gary Dielman [cheznous@eoni.com]
Sent: Tuesday, March 12, 2013 8:12 AM
To: Michelle Owen
Subject: Broadway and Tenth streets

Michelle,

I agree with Judy Stultz's letter in Monday's Herald. Leave Broadway and Tenth streets four lane.

Bicycle lanes are not needed. This is not a metropolis requiring special accommodations for bicycles. If fact, biking on Baker's side streets, which have virtually no traffic, is much safer than joining cars on Broadway and Tenth.

As the letter writer points out, cars have to cross bike lanes to turn right. Portland's experiences with cars striking bicyclists while turning right should warn us against creating more opportunities for dangerous turns.

I ride my bicycle a lot in good weather, which is only about half the year. I have no trouble getting around town safely.
Why spend money to change what ain't broke?

One more point. Visitors to Baker City love our wide streets. Bicycle lanes and angle parking--proposed for Main and Resort streets--are no improvement over the visionary planning of our town's founding fathers.

Gary Dielman

Michelle Owen

From: DENZIL ROBBINS [DENZIL@ROBBINSFARMEQ.COM]
Sent: Tuesday, March 12, 2013 12:28 PM
To: mowen@bakercity.com
Subject: Transportation Plan

Michelle,
You asked so I'm giving you my thoughts.
If Tenth Street is going to mirror east Campbell St. I feel it is going to hinder traffic flow. I avoid Campbell as much as possible due to the lack of intermittent traffic flow and trying to turn left onto Campbell from a side street. The Cedar St stop light doesn't change on a regular basis to interupt Campbell traffic unless some one is at the light from a side street. There needs to be another light at the town center intersection to make it safer and to interupt the flow for the side street traffic flow. It also throws all the traffic flow in one into 1 lane which bunches up the traffic and again makes it hard to enter from a side street.
I hear talk about a roundabout at the 10th, Pocahontas intersection. Too much long truck traffic and wide farm equipment for that style of intersection. Some trucks can be 100 feet long and farm equipment 16 plus ft wide. This is also suppose to be the truck route and you don't find roundabouts on truck routes. To make fewer lanes slows down traffic behind our slow moving farm equipment and again puts all traffic into 1 lane which bunches up cars and you see people passing in the center turn lane to get around slower traffic. I see that happen all the time on Pocahontas road. People do not know how to properly use the center turn lane or they get in the center turn lane and go 2 blocks in it before they turn. I witnessed it a couple days ago on Pocahontas. Someone went from 10th to the hospital emergency exit then turned left all while being in the center turn lane.
Yes, something needs to be done at this intersection. Stop light? Round off the corners with a turn lane? Trucks have to use wrong lanes to make the corners since they are so long and cars don't leave room for them to turn.
Where do you put all the snow. With the fancy islands that are on Campbell, they are run over because trucks can not make the turns and it makes snow removal difficult. Go to Bend and view their roundabouts that have short truck traffic and the roundabouts are damaged from trucks or even pickups w/ trailers as they cannot make the turns. A pickup w/ a trailer will have to use the other roundabout lane to get the trailer around the circle. Not very safe.
This is a heavy industrial use area, be careful not to make it where people try to avoid our business area.
I don't normally write a book, but I felt the need.
Share this with Mike Kee, we had the opportunity to share thoughts the other day on another matter and I enjoyed the time he spent with me. Call if you want to visit more about this matter as I do not enjoy going to meetings, more I don't have time.

Thanks
Denzil Robbins, President
Robbins Farm Equipment
3850 10TH Street
Baker City, OR 97814
Tel (541) 523-6377 Cell (541) 519-6681
FAX (541) 523-9737
1-800-743-5924
Denzil@robbinsfarmeq.com
www.robbinsfarmeq.com

Michelle Owen

From: Clair Button [cfbutton@gmail.com]
Sent: Thursday, March 21, 2013 4:15 PM
To: Michelle Owen
Subject: Re:

Isn't it amazing how when we take the time to think through things, we quite often come out the same door.
Thanks,
Clair

On Thu, Mar 21, 2013 at 3:24 PM, Michelle Owen <mowen@bakercity.com> wrote:

Thank you Clair. I visited with the consultants earlier this week and asked them to add a trail project down Indiana because that is what is needed. Certainly I'd like to route folks off of the busy route onto Tracy whenever possible, but we are lazy creatures by nature and like to take the most direct route when we can-that route is straight down Indiana.

Thanks again for the input.

Michelle

From: Clair Button [mailto:cfbutton@gmail.com]
Sent: Thursday, March 21, 2013 2:33 PM
To: Michelle Owen
Subject: Re:

Michelle

I intended to give you some input at the latest session, but did not do so.
I think we should very carefully consider having a least a narrow sidewalk down Indiana to Dewey because in the winter time, Tracy street is quite often (and long) iced in, shaded, and has way too much area where nobody would clear a sidewalk path.

We have walked it often, and I would hardly consider it without yak-trak cleats on my boots.

Given that the purpose is to provide a safe walkway to school, Tracy street will be unavailable to kids half the winter, while the north side of Indiana gets enough sun to clear a path within a day or two of a snowfall. the south side would be sketchy because of the concrete barriers.

On Mon, Feb 25, 2013 at 2:55 PM, Michelle Owen <mowen@bakercity.com> wrote:

Dear TSP Stakeholders,

Attached you will find an invitation to the 2nd Baker City's Transportation System Plan Open House. Hope to see you there on March 6, 2013 from 5pm-7pm at City Hall. Your input is valued.

Michelle Owen

Director of Public Works

City of Baker City

541-524-2031

541-519-0180 (cell)

ELLINGSON
LUMBER CO.

P.O. BOX 866
BAKER CITY, OREGON 97814
PHONE: 541-523-4404 - FAX: 541-523-7669

April 1, 2013

Ms. Michelle Owen
Public Works Director
City of Baker
PO Box 650
Baker City, OR 97814

Re: Changing from 4 lanes to 3 on 10th and Broadway Streets

Dear Michelle:

The Ellingson companies are adamantly opposed to reducing the travel lanes on 10th and Broadway streets from four to three. I was here when they made the major improvement to Campbell Street from Main Street to the freeway and converted it from an old two lane street to four travel lanes. What an improvement! Subsequent to that Oregon Department of Transportation, in their infinite wisdom, made the decision to "improve" it from four lanes to three and add the bike lanes which are rarely used due to the increased traffic. In addition, I understand the State has deemed that we should allocate certain streets to a Bicycle Scenic Byway and modify them accordingly, supposedly without conferring with the city. How unfortunate it is that they can do that.

I am forever complimented by visitors about the wonderful wide streets that we have here and the ease of travel that they provide. As I remember the cost for this modification was in the neighborhood of $200,000. I have no idea how much of that is city funding but whatever it is could be spent better elsewhere.

As an aside, I have been doing an unofficial survey of bicyclists in Baker City and I invite you to do the same. My observations indicate that 10% of the riders actually observe the rules of the road. The remaining 90% run stop signs, make U turns wherever they please, ride the wrong way on the street, ride on the sidewalks and ride at night with no lights, reflective clothing or markers. The attitude seems to be that if you ride a bicycle the usual traffic laws do not apply. Interestingly enough, some feel that we still need to make special allowances for this group.

Yours very truly,

Robert P. Ellingson III
General Manager

cc: Richard Langrell, Mayor

May 29, 2013

Christopher Christie
1985 15th Street
Baker City, OR 97814
refugee2000@gmail.com
541-523-2376

Baker City Planning Commission
1995 Third St
Baker City, OR 97814

RE: Public Hearing Testimony: Draft Update to the Transportation System Plan (TSP) 05/29/13

Dear Mr. Chairman and Members of the Commission:

While I believe the Draft TPS is a very good effort, I am here tonight speaking against it, as it is currently written. I speak for myself although I am aware of the opinions of a dozen neighbors who share my sentiments. My home has been on 15th Street since the summer of 2004, and during my time here I have experienced several detrimental changes in the way ordinances affecting private property and its use are written, interpreted, or implemented. Some of these ordinances have been imposed by people who know doubt meant well, but who do not share the economic, social or other values and interests related to land and land use that are shared by myself and most of my neighbors. Overly burdensome property maintenance and burning ordinances are two that come easily to mind, as well as a bombshell or two contained in the new Development Code.

I have two problems with this otherwise decent plan:

1) I did not know about the plan or that sidewalks were planned for 15th Street until I followed up on a recent notice that did not mention the sidewalks, and my neighbors did not know that sidewalks were planned for 15th Street until I mentioned it to them. That is because Baker City does not really comply with Goal one for statewide planning, which is good communication of planning issues through a functional citizen involvement program.
2) My neighbors and I do not want sidewalks because they are not needed and some of us simply can't afford them. The burden for sidewalks should fall on all citizens because all properties and the pedestrians served by them benefit somewhat equally from a sidewalk system. In some cases, including mine, there is no perceived benefit to the property owner because they are getting along fine as things currently are.

In more detail, I oppose the plan for the following reasons:

It is not consistent with Statewide Planning Goal 1 CITIZEN INVOLVEMENT, i.e., OAR 660-015-0000(1) which is "**To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.**" The goal, as

well as ORS 197.160 (b) includes a requirement for "an officially recognized committee for citizen involvement (CCI) broadly representative of geographic areas and interests related to land use and land-use decisions." Goal 1 also requires, that the CCI "involve a cross-section of affected citizens in all phases of the planning process." There are many other requirements to ensure public involvement and understanding as well, including the establishment of "Mechanisms . . . which provide for effective communication between citizens and elected and appointed officials," with effective being the key word. The Goal also requires the establishment of an actual citizen involvement program. I believe that Baker City has clearly not complied with many of the requirements of Goal 1.

Baker City chose to assign the responsibility for the committee for citizen involvement to the Planning Commission, and to also use a Technical Advisory Committee and group of so-called "Stakeholders" to fulfill the citizen involvement requirements.

Both Goal I and the Oregon Revised Statute require that committees flowing from a "program for citizen involvement," including the CCI, be "broadly representative of geographic areas and of interests relating to land uses and land use decisions." None of the committees, including the Planning Commission itself, comply with that requirement.

The Planning Commission, which is also the CCI, essentially comes from two geographic areas out of at least five or six in the city. One group of three Commissioners all live up on the hill in the high rent district of the South West area which looks down on the city. Two of those members are actually neighbors. They can not be said to share the economic, social and land use interests of a majority of the people in the areas near 15th Street or much of the rest of the city, and in fact, the low areas on the West side are not represented on the Planning Commission at all.

Three of the other four Commissioners live within a few blocks of each other in South Central Baker City, and the other lives about a mile to the North East in a very nice home worth many times that of his neighbors.

The Planning Commission, which is assigned the responsibility of the committee for citizen involvement, cannot be said to be "representative of geographic areas and interests related to land use and land-use decisions" in the City of Baker City.

The same can be said to the "Stakeolder" group and the Technical Advisory Committee if they are if fact included as an attempt to provide committee involvement that is "broadly representative of geographic areas and interests related to land use and land-use decisions" for the Citizens of Baker City.

I was told by the Planning Department that the PUBLIC INVOLVEMENT AND PROCEDURES FOR PLANNING section of the Comprehensive plan is supposed to be Baker City's citizen involvement program. The fact is that there really isn't any serious and effective citizen involvement program. That is why almost no one I spoke with on 15th Street knew that the plan called for sidewalks on their street.

The public involvement portion of the Baker City Comprehensive plan simply states:

1. The City will make all reasonable efforts to publicize planning issues and meetings where these issues will be discussed and decided upon.

Page 4 of the Baker City Comprehensive plan also states:

9 b) The City will attempt to gain media coverage of the issues and public notice of the proposed change will be advertised.

While the citizen involvement Goal requires involvement to include "a cross-section of affected citizens in all phases of the planning process" and asks that "Newsletters, mailings, posters, mail-back questionnaires, and other available media . . . be used in the citizen involvement program" to help establish "effective" communication, we get "reasonable efforts to publicize . . . issues and meetings" and "The City will attempt to gain media coverage. . . ."

I believe the efforts to communicate the specifics of the plan that are relevant to each affected homeowner have failed. The only written communication from the Planning Department to individual property owners, during what apparently has been a months long process, went out a few weeks ago, and it did not specify how the owner was going to be affected or how they might be financially threatened by the plan. Everyone I've spoken with did not realize they were facing potential financial risk. The Herald delivers to around 1900 homes and businesses. This would be about 41% coverage if all of the deliveries were to homes but less if one included the approximately 1,197 businesses. Of course, a percentage of these deliveries are going to renters, and etc, so actual coverage of property owners is difficult to gauge. In any event it is not likely over 50%. Many of these subscribers do not always read the paper or a particular article, as was the case for a neighbor in the next block. The radio ads are similar as many don't listen to the station that the city uses. About the only nearly sure-fire way to get someone's attention is a notice with a specific attention notice on the outside and specific information showing the nature of the potential threat to the homeowner. The suggested questionnaire with a map showing where particular projects were being planned would have shown a true desire to communicate the potential affects of the draft plan.

Of the twelve people in my neighborhood I spoke with in the last few days, only two had the slightest notion that a new TSP revision was in the works, and none, I repeat, none, knew that sidewalks were planned for 15th Street. In addition, none of them thought sidewalks were necessary. Several thought it was a foolish use of money because there are few pedestrians on 15th Street, and that the needs, if any, are on 16th and 14th Streets. Those I spoke with think our limited funds should go to the many other expensive higher priority infrastructure projects facing Baker City.

The existence of Head Start Baker school and the old Churchill School building in the 1900 block of 16th, and Blue Mountain Community College at the corner of 14th and Baker Streets were also discussed by neighbors and we wondered why the streets adjacent to these destinations were not slated for sidewalk development or ADA compliance.

It is puzzling that the plan chose 15th Street instead of 14th and 16th with their schools and institutional buildings, given that Table 7, on p. 40 of Volume 2, which lists "Potential Improvement to Bicycle and Pedestrian Conditions" states that the plan should "Prioritize sidewalk improvements along a network of routes that provide access to schools...." Hmmm, sounds like 16th or 14th might need for schools if the path on17th isn't judged adequate.

It doesn't appear that the planners have any objective data in the form of actual pedestrian counts for 15th Street. I can testify as one who spends a lot of time in front of a computer looking out the front window that it is usually between 3 and 10, with 6 being the most frequently observed number. More people walk up 15th to Court, then over to14th, and up to Broadway. ODOT may have traffic counts, but they too are low, especially compared to 17th or 16th near the Head Start program.

The plan also states in Volume 2, that "On roadways with low traffic volumes (i.e., less than 3,000 vehicles per day), roadway shoulders can be adequate for pedestrian travel. These roadways . . . should have shoulders wide enough so that both pedestrians and bicyclists can use them, usually six feet or greater. (p. 24, Baker City Transportation System Plan Volume II – Appendices)

The draft states "...many roadways in the outer portions of Baker City lack sidewalks. Many of these streets are wide and have light traffic, making them comfortable for walking and bicycling." (p. 28, Baker City Transportation System Plan Volume II – Appendices)

The Baker City Comprehensive Plan also says on p. 26:
Transportation Goal Finding 10
10. Sidewalks are now found in nearly all areas of town with streets developed to primary standard. In other areas, existence of sidewalks is spotty, but less critical due to the nature of the development and, in general, the volume of foot traffic.

The above three statements from the two different planning documents are good descriptions of 15th Street. The shoulders are adequate for the few pedestrians to get off the road if they choose and the traffic is light. There is no need for unaffordable sidewalks on 15th Street, and the paths planned along Auburn and up 17th would serve as adequate neighborhood connectors. Removing some of these unnecessary sidewalk plans would put fewer people at financial risk and make it more likely that funds can be found to complete the projects that are actually needed. The prevailing attitude in my neighborhood is that if it ain't broke, don't spend large sums of money or saddle people with unnecessary debt to "fix it."

I hope the Commission will both reconsider the plan and comply with the intent of Statewide Planning Goal 1, for true communication and citizen involvement.

Thanks for listening,

Christopher L. Christie

Christopher Christie

open House #3 City Hall 3/29 7:00 P.M.

GREG BROWN
950 PARK ST. (541) 519-4581

THERE IS NO PROBLEM W/ THE DESIGN & PURPOSE OF BROADWAY & 10TH ST.'S THERE SHOULD BE NO CHANGES.

Had to leave hearing
This is his testimony to
the TSP hearing 5/29/03

To: Planning Department

After receiving your notice it makes me wonder just what could possibly promoting your thoughts. Traffic has been moving very smoothly on Broadway and tenth for years now you feel it needs to be made a major bottleneck like Campbell. When there is a large event in town traffic backs up to tenth and the freeway . Any person that feels traffic will move more freely on two lanes with a turn lane than it does with four has forgotten basic math. Have ridden bicycles all over town until the last two years and have not had a problem except on Campbell. Who wants to ride right next to 30 mph traffic, especially with little kids. Whenever a family with little kids are riding I pull into the turn lane to keep away from the unstable little guys.
Personal opinion- leave the traffic alone. You are short of money and facing a massive increase in PERS so why spend a short fortune making a mess of two streets.

Kenneth Donicht
1905 2nd St
Baker City, Or 97814

Kenneth Donicht
28 May 2013

Comments Box

Please be as specific as possible

1. *
2. Note
3. Category
4.
5.
6

Your Information

This information is optional and will not be displayed

1. Name
2. Email
3. Phone
4. Address
5. City
6. State
7. Zipcode

Create Comment

Baker City Transportation System Plan

An update to the City's Transportation System Plan is being prepared by Baker City with support from Kittelson & Associates, Inc., ALTA Planning, and ODOT.

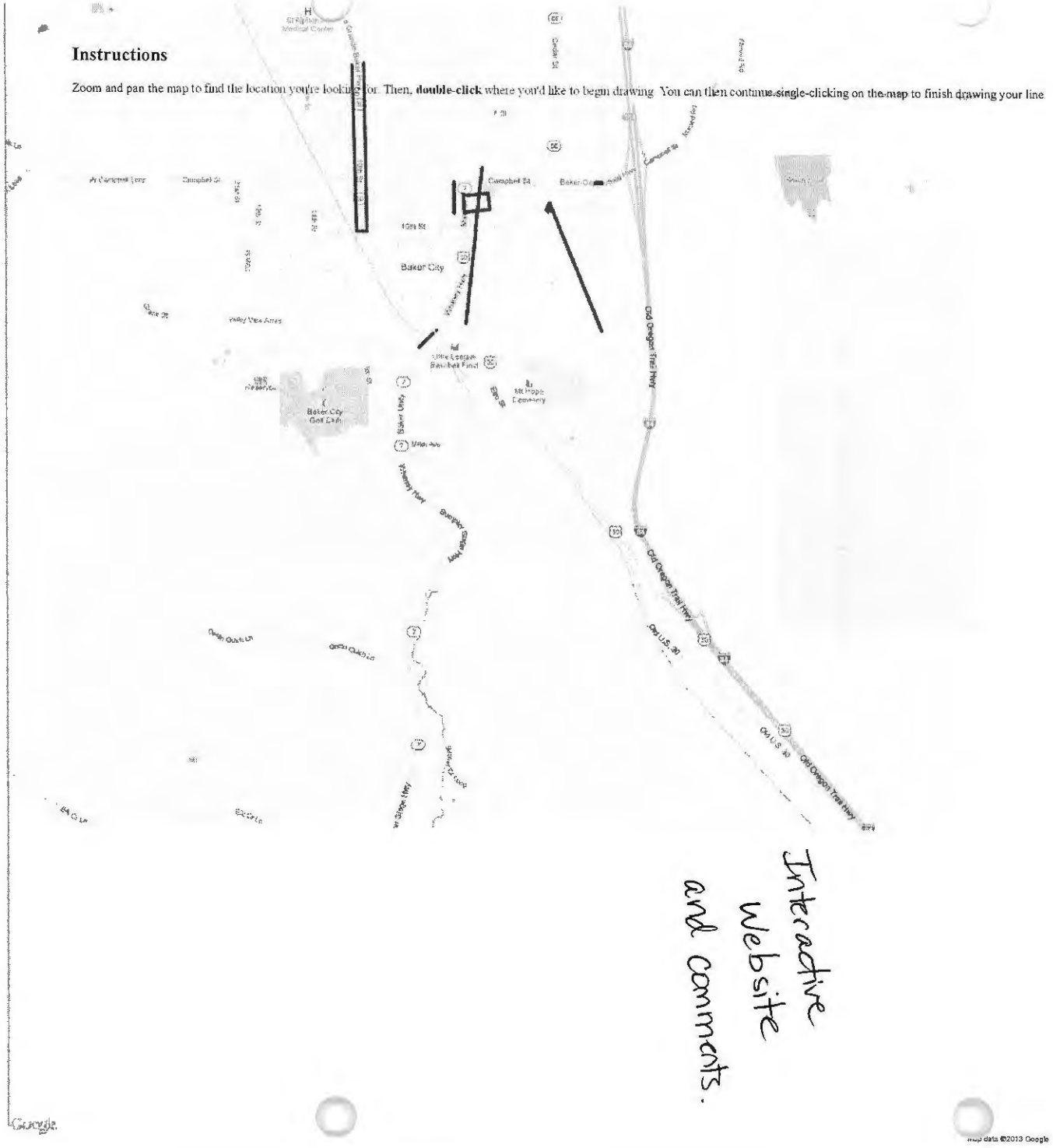
Public involvement is a key component of this plan. If you live, work or travel in the area, please use the map at right to tell us about your experience with the existing roadway, walking, bicycling, and transit systems. Simply double-click on locations of interest and then add your comments.

Feedback we are looking for generally relates to your experience when traveling and how we can improve the roadway, bike, pedestrian, and transit network. For example, if you have suggestions for where to provide new walking routes or which intersections need safety improvements, please note those

View a list of existing comments >>

Instructions

Zoom and pan the map to find the location you're looking for. Then, **double-click** where you'd like to begin drawing. You can then continue single-clicking on the map to finish drawing your line.



Interactive Website and comments.

Kittelson Maps

Log in

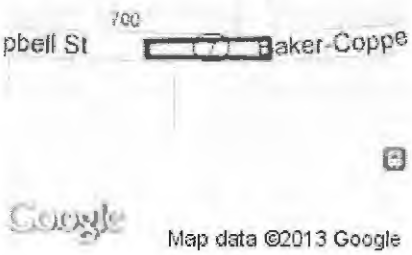
Comments for "Baker City Transportation System Plan"

← Back to the map

1. 

Added March 16 2013

North/South traffic on 1st through 4th street should be discouraged between Campbell and Broadway with "no through traffic" signs or stop signs at intersections with Madison or Baker. "no heavy or through trucks" signs should be posted at Broadway and Campbell entries to 1st through 4th.

2. 

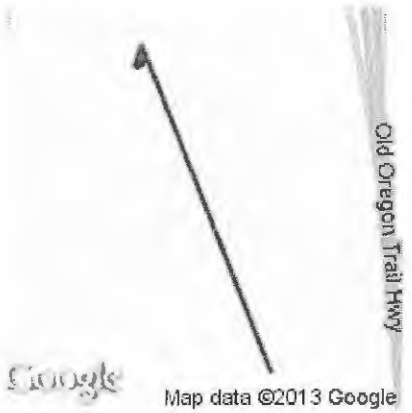
Added March 16 2013

The traffic control curbing that creates a right turn lane going west on Csmbell and left turn lane going east on Cambell is a poor design and should be torn out and not replaced. Left turn from Birch onto Cambell should not be restricted.

3. 

Added January 14 2013

When coming out from the underpass on a bicycle it is difficult to maneuver with traffic. There is a section where one must either travel on the sidewalk or compete with the traffic on the street in order to get to the main street area or the Leo Addler bike path. There are bike paths on both sides of this section but nothing for this area.

4. 

Added January 12 2013

There needs to be a stop sign on Oak Street to slow the traffic down between Campbell Street and Broadway Street. (north & south) This is a residential area and school zone. Drivers turn off of Campbell Street and are going pretty fast by the time they hit Baker and Church Streets before starting to slow down for the stop sign at Broadway Street. Putting a stop sign on Oak Street would stop this.

5. 

Added January 10 2013

Tenth Street should be reconfigured for a North-South lane and center turn lane.

6. 

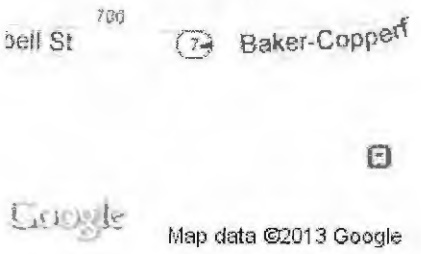
Added January 08 2013

Crossing Main Street at Madison has no crosswalk. This can make it difficult to get to library on foot when coming from the residential streets west of Main Street. I notice cars aren't sure where to stop for pedestrians, or if they should stop at all.

7. 

Added December 21 2012

Extend the Leo Adler pathway to the Little League Baseball Field and create a network of trail systems

8. 

Added December 21 2012

Improved channelization needed to eliminate short-circuiting of the restricted left turn from south Birch to north Birch.

9.

Added December 21 2012

The vision clearance at this intersection is terrible. Can the frontage road be closed, and the retaining wall/fence be relocated on an angle to provide a better view of oncoming traffic?

June 5, 2013

Baker City Planning

Second session to recieve property owners concerns and questions

Hello,

My name is Judy Head, I live at 905 Elm Street. Have called this home since 1948. Returning in 2001 to live full time.

I am here today as the result of an letter recieved on May 14, 2013. Public Notice on: TRANSPORTATION SYSTEM PLAN (TSP) UPDATE

Public Notices were in the paper that read like all citizens were invited to a pool party and they were to bring their own towels, the TSP appeared to be just a routine city business item that would not affect me. we need good city side walks and good streets to travel on.

I was shocked when I read:

"the city planning commission will meet to consider adoption amendments to the Transportation System Plan (TSP) which includes incorporating relevant policies, maps and standards into the

the Comprehensive Plan and the Development Code. The city has determined that adoption of this ordinance may affect the permissible uses, andchange the value, of your property and other properties located in the City Limits and Urban Growth Boundary."

So much for the friendly pool party....

The following morning I head to Jenny Longs office to seek information. Jenny answere all my questions, showed me maps, and the proposed changes to property near and around my property. The Connector Road of State Hwy 7 to Federal Hwy 30.

Knowing that this will cross Powder River and the Rail Road track I knew this was going to be taller than a 12 foot

ladder. I wanted to know what this structure was going to look like. When I asked to see what it would look like I was given the map where it showed some one drew a line from Virgina street in south Baker across to the motels drive way, which is a block from my home,

How big is this structure going to be I asked again? Jenny replied she could not produce a drawing. Its is imaginary I asked? Why? The reply was shocking, "it does not exist"

How much room will this take up? How many homes on Virginia and David Eccles Road in south Baker will be removed because of this connector road. How many trucks will be using this, and why is it important?

I also asked who chaired the citizen involvement advisory committee to the planning commission. She could not give me any citizen names, only staff or city officials. No citizens seemed to have been involved in this process.

IE: If you aren on the clock as a city official, or employee you are not considered an average Joe citizen. Or consultant, paid by the city you are not considered an

average Joe citizen

My recommendation is:

1.

This connector road should not be approved due to lack of sufficient facts and poor planning. It is poor planning when the staff assisting the planning commission does not provide some concrete information with cost factors prior to this meeting.

2.

A citizen advisory commission to the city council and city planning commission be put in place before this matter proceeds further. With out it, the city in my opinion is not up holding the intent and law of SB 100's first Goal... Citizen Involvement. Citizen involvement is being involved at the staff meetings/gatherings concerning the TSP which were held before this meeting tonight or on May 29th

3.

Concerning Bike lanes

Since the State is still dealing with this my recommendation is to table this or any idea of additional bike lanes until we learn more from other cities dealing with the same issue. It would be poor planning to jump out on something that is so controversial, and seems not to be working very well.

I recommend: that at all existing bike lanes in Baker have a stop sign painted at the intersection instructing the cyclist to stop before proceeding into the flow of traffic.

4.

On the proposed 15.4 pathways that are up for adoption and,recommendation for adoption to the TSP

No pathway should be built or extended with out the consent and approaval of 100% of all property owners along the proposed pathway. No pathway should be developed until a property owner willingly agrees to the proposed pathway through or on their property

Conclusion:

When I asked how one could go before the people and ask for thier approval when it is an idea "thin air", as in the connector road, the response to me was:.... we need flexibility! Not a good enough reason to approve or adopt this plan

Shame on the planning Dept.

Rock Garden Greenhouse
Mark and Dona Servid
14138 Hunt Mountain Lane
Baker City, Or 97814
541 523 4015
Also at
Oak and Cedar Street
Baker City, Oregon

To the Baker City - County Planning Department:

We are owner-operators of Rock Garden Greenhouse. Our growing facility is on Hunt Mountain Lane. We also operate a retail outlet in the little triangle between Oak and Cedar Street in Baker City where we moved after Maverik Gas Station bought the property that we were previously renting on Campbell Street. We have been providing Baker City and the surrounding areas from Pendleton all the way into Boise, Idaho with locally grown plants for 25 years. In 2012 we asked this committee to change the zoning on the property at Oak and Cedar from residential to commercial with the idea of putting in a permanent retail outlet. That zoning was approved, and we have been working with the city to meet requirements for that project.

The new Transportation Plan will make it impossible for us to do business at Oak and Cedar Street. The extra space for the bike lane, a cul-de-sac on Oak street and a new street that cuts across the middle of our property will essentially destroy what little property we have and our business there. We are not objecting to sidewalks and landscaping and bike paths and we have been working with architect, Larry Abell, to make our proposed building comply with city requirements. We are asking when you implement the new future transportation plan, that you look for alternatives where there is undue hardship on an established business. We would like to keep serving the people of Baker City with home grown products.

Thank you,

Dona H. Servid

Dona Servid

RESOLUTION No. 3654

RESOLUTION SUPPORTING THE TRANSPORTATION GROWTH MANAGEMENT TRANSPORTATION SYSTEM PLAN GRANT.

WHEREAS, Oregon's Transportation and Growth Management program is accepting applications for the TGM Grant for 2011; and

WHEREAS, Oregon's Transportation and Growth Management program is offering financial assistance to cities such as Baker City for Transportation System Plan updates, and

WHEREAS, the City of Baker City's Transportation System Plan (TSP) was last updated in 1996 and the City of Baker City desires to participate in this grant program to the greatest extent possible as a means of providing a needed update to the City's TSP, and

WHEREAS, the applicant hereby certifies that the City of Baker will commit the required match for the grant by cash or in-kind contributions,

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Baker City, Oregon, that the Council shows support for updating the transportation system plan with assistance from the Transportation Growth Management Program of the State of Oregon.

PASSED by the City Council and signed by the Mayor of the City of Baker City, Oregon this 23rd day of March, 2011.

Mayor

ATTEST:

City Recorder

Fred Warner Jr
Commission Chair
fwarner@bakercounty.org

Tim L. Kerns
Commissioner
tkerns@bakercounty.org

Carl E. Stiff, M.D.
Commissioner
cstiff@bakercounty.org

March 18, 2011

Cindy Lesmeister
Transportation & Growth Management Program
ODOT Mill Creek Building
555 13th Street NE, Suite 2
Salem, Or 97301

RE: Baker City Transportation system Plan Update

Dear Ms. Lesmeister:

As the Chairman of the Baker County Board of Commissioners, I would like to express my support for Baker City's Transportation and Growth Management (TGM) Program Grant application to update the Transportation System Plan (TSP).

This project is important to Baker County specifically because Baker City's street system is a direct connection to the Baker County road system and it is essential that we have an efficient system which flows with the needs of our citizens.

Transportation improvements are an integral part of enhancing our community. Baker City's Transportation System Plan is twenty years old and is in need of updating. Many of the streets on their improvement cycle have been completed and the community needs to develop and/or revisit their future needs based on present day information. There is a great need to update their TSP to address priorities and financing strategies to meet the requirements of Americans with Disabilities Act and the Safe Routes to Schools program.

It is imperative that they have an updated TSP which addresses safe, efficient, multi-model transportation facilities and services which can be completed with future revenues.

I am grateful for the opportunity that ODOT is providing with this grant, and I again strongly recommend the awarding of this grant to the City of Baker City. If I may be of further assistance, please contact me at 541-523-8200

Sincerely,

Fred Warner Jr.

Fred Warner, Jr., Chairman
Baker County Board of Commissioners

Baker School District 5J

"Students, Staff and Community Exceeding the Challenges of Tomorrow Through Quality Education Today."

Education – Exceeding the Challenge

March 17, 2011

Cindy Lesmeister
Transportation and Growth Management Program
ODOT Mill Creek Building
555 13th Street NE, Suite 2
Salem, OR 97301

Re: Baker City Transportation System Plan Update

Dear Ms. Lesmeister:

As Superintendent of Baker School District, I am pleased to support of Baker City's Transportation Growth Management (TGM) grant application to update the Transportation System Plan (TSP).

While I believe the grant request addresses several key aspects to updating the TSP, it is imperative that there is development of a strategic plan for providing a safe and convenient network of pedestrian and bicycle facilities around schools. There are numerous locations around Baker 5J schools and community that are deficient of sidewalks for pedestrians, creating potential hazard zones.

The Safe Routes to Schools infrastructure plan is positive, powerful and necessary, particularly for our elementary schools.

Transportation needs are an integral part of enhancing any community. This is most certainly true if the plan supports the broader holistic concepts of wellness and safety. The pedestrian and bicycling aspects of the TSP are certainly representative of this.

It is important that ODOT is supportive of projects of this nature through the grant process. Given our common fiscal challenges, it is critical that partnerships be developed to meet the needs of families in communities. I recommend without reservation your support of this grant to Baker City.

Please feel free to contact me if I may be of assistance at (541) 524-2262.

Sincerely,

(Electronic Submission, hard copy in the mail)

Walt Wegener
Superintendent, Baker 5J SD

BAKER HIGH SCHOOL

2500 E. Street Baker City, Oregon 97814
(541) 524-2600 Fax (541) 524-2699 Attendance Office (541) 524-2607

Mr. Jerry Peacock
Principal

Ms. Gundula O'Neal
Assistant Principal

March 17, 2011

Cindy Lesmeister
Transportation and Growth Management Program
ODOT Mill Creek Building
555 13th Street NE, Suite 2
Salem, OR 97301

Re: Baker City Transportation System Plan Update

Dear Ms. Lesmeister:

As principal of Baker High School, I would like to express my support of Baker City's Transportation Growth Management (TGM) grant application to update the Transportation System Plan (TSP).

While I believe the grant request addresses several key aspects to updating the TSP, I am especially intrigued by the development of a strategic plan for providing a safe and convenient network of pedestrian and bicycle facilities around schools. There are numerous locations around the Baker High School community that are deficient of sidewalks for pedestrians, creating a potential safety issue with people versus traffic.

I likewise see the Safe Routes to Schools infrastructure plan as positive, particularly for our elementary schools.

Transportation needs are an integral part of enhancing any community especially if the plan is in support of more holistic concepts such as wellness and safety. The pedestrian and bicycling aspects of the plan are certainly representative of this.

I am very appreciative of the fact that ODOT is supportive of projects of this nature through the grant process. In these difficult economic times, it is critical that partnerships be developed to meet the needs of communities and its citizens. I strongly recommend your support of this grant to Baker City.

Please feel free to contact me if I may be of assistance at (541) 524-2600.

Sincerely,

Jerry E. Peacock, Principal
Baker High School

Baker ♥ Bikes
2023 1/2 Main Street #3
Baker City, OR 97814

March 21, 2011

Cindy Lesmeister
Transportation & Growth Management Program
ODOT Mill Creek Building
555 13th Street NE, Suite 2
Salem, OR 97301

Re: Baker City Transportation System Plan Update

Dear Ms. Lesmeister:

As the Vice President of Baker Loves Bikes (BLB), I would like to express my support for Baker City's Transportation and Growth Management (TGM) Program Grant application to update the Transportation System Plan (TSP).

This project is important to BLB specifically because we strive to have safe transportation options for all Baker County Residents, young or old.

Transportation improvements are an integral part of enhancing our community. Whether it's for automobiles, cyclist, or pedestrians.

I am grateful for the opportunity that ODOT is providing with this grant, and I again strongly recommend the awarding of this grant to the City of Baker City. If I may be of any other assistance, please contact me at 541-523-5265 or e-mail dogbri@q.com.

Sincerely,

Brian Vegter
Vice President of Baker Loves Bikes

Baker ♥ Bikes

"To educate and support greater access and safe opportunities for all cyclists in Baker County, Oregon."

March 17, 2011

Cindy Lesmeister
Transportation & Growth Management Program
ODOT Mill Creek Building
555 13th Street NE, Suite 2
Salem, OR 97301

Re: Baker City Transportation System Plan Update

Dear Ms. Lesmeister:

As President of the Board of Directors and Program Director for Historic Baker City, Inc., we would like to express our support for Baker City's Transportation and Growth Management (TGM) Program Grant application to update the Transportation System Plan (TSP).

Specifically, this project is important to our community because an updated TSP plan for Baker City will address the needs and priorities of Baker City's street system, as well as bicycle, pedestrian, and Safe Routes to School transportation needs.

Transportation improvements are an integral part of enhancing our community and planning for our future. As Baker City's Oregon Main Street Program, Historic Baker City, Inc. is focused on creating a livable and vital historic commercial district. We are in full support of Baker City's efforts to update current transportation systems to insure safe movements for pedestrians, bicycles, and vehicular traffic.

We are pleased Baker City has this ODOT TGM grant opportunity; we strongly recommend the awarding of this grant to the City of Baker City. If we may be of any other assistance, please call 541 523 5442.

Sincerely,

Julie Zaccone

Julie Zaccone, Board President
Historic Baker City, Inc.
Baker City Main Street Program

A Mehaffy

Ann Mehaffy, Program Director
Historic Baker City, Inc.

Visit Baker

Baker County Chamber of Commerce & Visitors Bureau

March 30, 2011

Cindy Lesmeister
Transportation & Growth Management Program
ODOT Mill Creek Building
555 13th Street NE, Suite 2
Salem, OR 97301

Re: Baker City Transportation System Plan Update

Dear Ms. Lesmeister:

As the Executive Director of Baker County Chamber of Commerce, I would like to express my support for Baker City's Transportation and Growth Management (TGM) Program Grant application to update the Transportation System Plan (TSP).

This project is important to Baker City specifically as a means of economic development.

Transportation improvements are an integral part of enhancing our community, allowing traffic to our businesses, and encouraging growth.

I am grateful for the opportunity that ODOT is providing with this grant, and I again strongly recommend the awarding of this grant to the City of Baker City. If I may be of any other assistance, please feel free to contact me.

Sincerely,

Debi Bainter
Executive Director

FOR YOUTH DEVELOPMENT
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

April 1, 2011

Cindy Lesmeister
Transportation & Growth Management Program
ODOT Mill Creek Building
555 13th Street NE, Suite 2
Salem, OR 97301

Re: Baker City Transportation System Plan Update

Dear Ms. Lesmeister:

As the Aquatics & Youth Program Director of The Family YMCA of Baker County, I would like to express my support for Baker City's Transportation and Growth Management (TGM) Program Grant application to update the Transportation System Plan (TSP).

This project is important to the YMCA specifically because it has enabled our youth day camp programs to have adequate transportation throughout the summer traveling from our day camp and lunch sites to our pool facility, approximately one mile across town.

Transportation improvements are an integral part of enhancing our community. Within a smaller community it is often difficult to find ways to safely travel from one part of town to another, therefore improving the availability for safe transport of our children is vital to YMCA programming as well as the overall safety of individuals within our community.

I am grateful for the opportunity that ODOT is providing with this grant, and I again strongly recommend the awarding of this grant to the City of Baker City. If I may be of any other assistance, please contact me at (541)523-YMCA.

Sincerely,

Laurie Wittich

Laurie Wittich
Aquatics & Youth Program Director
Family YMCA of Baker County
580 Baker Street
Baker City, OR 97814
(541)523-YMCA

CITY OF BAKER CITY

Meeting Date: July 10, 2012	Type of Action Requested:
Agenda Item: 10b	_____ Resolution No. _____
Agenda Title: Technical Advisory	_____ Ordinance No. _____
Committee Appointments	___X___ Formal Action/Motion _____
	_____Other

Action Statement

The Council appoints Boards and Commission members along with other committee members needed.

Background

The City of Baker City received a Transportation Growth Management grant which provides funding for an update to our 1996 Transportation System Plan (TSP). The City will be working with ODOT staff as well as our local representative from the Department of Land Conservation and Development (DLCD). As we begin the process the initial step is to appoint members to the Technical Advisory Committee (TAC). These individuals should be willing volunteers with an interest in our transportation system. They should also have experience with planning, transportation and our community.

There will be a larger group of stakeholders that will be involved throughout the project. This includes the School District, County Commission, Community Connections, local service clubs, press and utilities.

The grant requires that in addition to members of the community, representation from the Planning Commission, the Public Works Advisory Committee and a City Councilor would also be needed along with Public Works and Planning staff members.

The TSP update will take over a year to complete and will result in an update to not only the Plan, but also the corresponding development code sections. The Plan will get an overall update to include future projects with an emphasis on developing the bike/ped elements of our transportation system. All street standards will also be reviewed and potentially recommended for changes.

The kickoff meetings for this project are scheduled for July 11th for stakeholder meetings (3:30 pm Council Chambers), the first TAC meeting 8am on July 12th, a bicycle tour of Baker City July 12th at 10am departing from City Hall. The consultant selected for this project is Kittleson & Associates and they will be in town for these two days in an effort to learn as much as they can about Baker City and the transportation needs.

Analysis (Include impacts on City resources and community)

Several citizens have already contacted staff and requested to be involved.
Alan Blair-Chairman, Baker City Planning Commission
Ken Rockwell-Baker City Planning Commission
Debi Bainter-Baker County Chamber of Commerce/bicycling advocate
Kate Dimon-Director, Historic Baker City, Inc.
Jan Morrison-Cooperman-interested citizen
Ty Duby-interested citizen

In addition a City Councilor is needed to serve on this committee.

Several ODOT staff as well as City Planner Jenny Long and myself will also participate in the TAC.

Alternatives

Appoint the volunteers that have asked to participate.
Do not appoint some or all.
Appoint additional volunteers as needed.

Recommendation

Is this recommendation supported by an advisory committee? Check those that apply:

- ☐ Airport Commission
- ☐ Golf Board
- ☐ Historic District Design Review Committee
- ☐ Planning Commission
- ☐ Public Works Advisory Committee
- ☐ Transient Lodging Tax Committee
- ☐ Tree Board
- X Other –Grant requirements
- ☐ Not Applicable
- ☐ No.

Suggested Motion

Move to appoint the candidates to the Transportation System Plan Technical Advisory Committee.

Prepared by: Michelle Owen, Director of Public Works

Please join us

Transportation System Plan

Stakeholder Kick Off Meeting

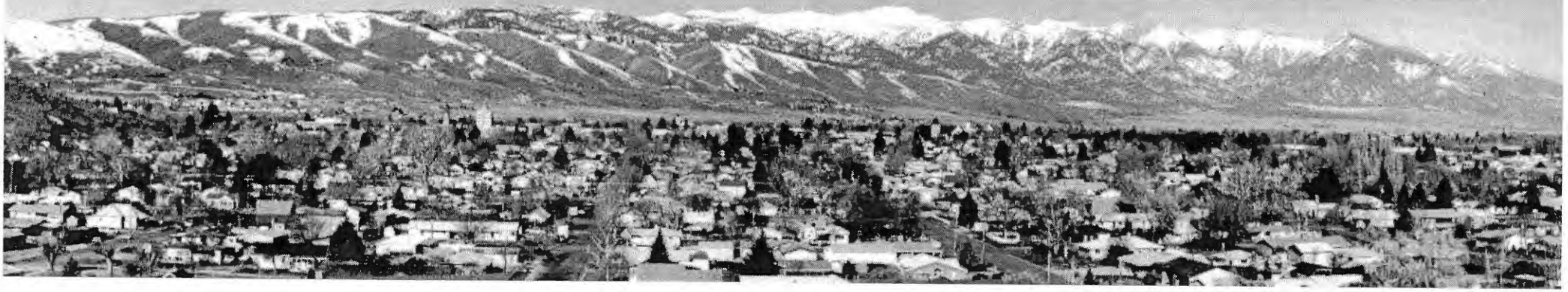
on July 11, 2012 at 3:30 p.m. in the Baker City Hall, Council Chambers at 1655 First Street, Baker City.

AND

For a bicycle tour of Baker City on July 12, 2012 at 10 a.m. meeting at the Baker City Hall

Your participation is very important! Thank you for your community involvement!

For more information please contact Michelle Owen at (541) 524-2031 or mowen@bakercity.com



Meeting Agenda

Baker City TSP Update

Stakeholders Meeting #1

Wednesday, July 11, 2012

Baker City Hall

The primary purpose of this meeting is for the project team to gather feedback from area stakeholders. You have been identified as one of these stakeholders because of your interest in and familiarity with transportation in Baker City. During this meeting we will want to learn:

- What are the pressing issues you see facing the existing transportations system in Baker City?
- What constraints will make it difficult to address these issues?
- What are potential solutions you see to these issues?

The following is a brief agenda for this meeting:

1. Introductions/Meeting Purpose
2. Project Overview
3. Stakeholder Issues/Constraints/Solutions Discussion
4. Other Questions/Open Discussion
5. Next Steps

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

July 11, 2012 – Baker City TSP
(Stakeholder Meeting #1a)

TEAM MEMBERS PRESENT:	Matt Hughart, Kittelson & Associates, Inc. Nick Foster, Kittelson & Associates, Inc. Matt Berkow, Alta Planning + Design, Inc. Michelle Owen, Baker City Jenny Long, Baker County Cheryl Jarvis-Smith, ODOT Jeff Wise, ODOT Gary Van Patten, Baker City Don Fine, ODOT Andy Lindsey, Anderson-Perry & Associates, Inc. Robin Philips, ODOT Swede Hays, ODOT
FROM:	Matt Hughart (KAI)
DATE:	July 13, 2012

Stakeholder Meeting #1b was held on July 11, 2012 in Baker City. The purpose of the meeting was to kick off the Baker City Transportation System Plan (TSP) project, introduce the project team, discuss project objectives, and give the stakeholders a chance to talk about the different transportation issues they would like to see addressed in the TSP update.

Meeting Purpose & Introductions

- The project team was introduced.
- General meeting purpose was discussed, along with general information regarding the project team, study timeline, and future project meetings.

Following the meeting purpose and introductions, each stakeholder was given the chance to discuss his/her perspective on the Baker City transportation system. These comments are outlined below.

Don Fine

- Myrtle Street sight distance issue at OR 7.

- 10th Street could use sidewalks (Broadway to Hughes Lane). Could get a curb-tight sidewalk, but a separated strip would be more comfortable for pedestrians. Sidewalks could significantly improve 10th from an economic standpoint. Could it be re-striped from four lanes to three lanes?
- 10th/C half signal – ODOT wants to remove the half signal. Could potentially move signal to D Street if warranted.
- Hughes/Pocahontas/US 30 – skewed intersection, turning radius issues. Could be fixed with re-striping or a different intersection configuration.
- Hughes/Cedar – IAMP has already looked at a number of fixes here. The TSP should be consistent.
- Leo Alder Pathway at Campbell – ODOT has funding for installing a Rectangular Rapid Flashing Beacon. Will be installed this summer.
- Signal system upgrade – ODOT wants to connect all signals on State system with 2070 controllers. Funding is not yet available for Baker City.

Cheryl Jarvis-Smith

- TSP should look at ways to extend the Leo Adler pathway south of US 30/Bridge Street.
- Discussion about IAMP coordination.

Jeff Wise

- Look at opportunities to connect OR 7 with US 30 on the south part of town.

Robin Philips

- Look at park-n-ride locations that would encourage more ridesharing.
- Support trolley and fixed route connections.
- ODOT transit has funding to add five shelters at existing bus stops.

Swede Hays

- Pedestrian facilities are important at railroad crossings.
- All existing railroad crossing are skewed, making them more difficult to retrofit sidewalks into the crossings.
- Grade separated (underpass) railroad crossings at Campbell and Auburn are possible as the rail line is slightly elevated.
- A railroad sidewalk crossing at Broadway is possible, but only if you stay on the north side.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

July 11, 2012 – Baker City TSP
(Stakeholder Meeting #1b)

TEAM MEMBERS PRESENT:

Matt Hughart, Kittelson & Associates, Inc.
Nick Foster, Kittelson & Associates, Inc.
Matt Berkow, Alta Planning + Design, Inc.
Andy Lindsey, Anderson-Perry & Associates, Inc.
Alan Blair, Baker City Planning Commission
Michelle Owen, Baker City
Dennis Hackney, ODOT
Cheryl Jarvis-Smith, ODOT
Jenny Long, Baker County
Mark Bennett, Baker County Planning Director
Fred Warner, Jr, Baker County Commissioner
Mike Kee, Baker City
Walt Wegener, Baker City School Superintendent
Gary Van Patten, Baker City
Debbie Bainter, Baker County Chamber of Commerce and Visitors Bureau
Laurie Wittich, YMCA
Kate Dimon, Historic Baker City

FROM: Matt Hughart (KAI)

DATE: July 13, 2012

Stakeholder Meeting #1b was held on July 11, 2012 in Baker City. The purpose of the meeting was to kick off the Baker City Transportation System Plan (TSP) project, introduce the project team, discuss project objectives, and give the stakeholders a chance to talk about the different transportation issues they would like to see addressed in the TSP update.

Meeting Purpose & Introductions

- The project team was introduced.
- General meeting purpose was discussed, along with general information regarding the project team, study timeline, and future project meetings.

Following the meeting purpose and introductions, each stakeholder was given the chance to discuss his/her perspective on the Baker City transportation system. These comments are outlined below.

Alan Blair

- Sidewalk connectivity is bad in some places
- Baker City should develop a network that encourages bicyclists to travel parallel to high volume streets such as Campbell.
- Cul-de-sacs are not a good thing, especially from an emergency services perspective.
- There is a lot of traffic on Hughes lane – does it need to be wider or improved?

Dennis Hackney

- The ODOT (state) system should be integrated with the local transportation network. ODOT is committed to making the integration work.
- Budget at ODOT is tight/constrained, so be realistic with projects. Make them fiscally constrained.

Mark Bennett

- Would like to see north-south connectivity between D Street and Hughes Lane.
- Improve connection from industrial park to I-84 (Hughes Lane).
- At-grade rail crossings are a safety issue.
- No rail, air, or convenient intercity bus service to Baker City. This has an isolation effect for the city.

Fred Warner

- Look at connections to County roads in UGB areas.
- The County will be involved to help ensure compatibility between City and County TSPs.

Mike Kee

- Train whistles are an issue - grade separation of certain crossings would help reduce whistle noise.
- Lack of a formal safe routes to school element in the plan limits the City's ability to get funding for some bike/ped projects.
- Street standards – they need to be revisited to add flexibility.
- There are still a lot of unpaved roads in the City. Prioritizing these roads for paving should be looked at in the TSP.

Walt Wegener

- Have recently closed some schools so people have to take different routes. The TSP should look at bike/ped connections to school bus stops.
- The City/school district should elicit help from local transit to get kids to/from destinations after school and during the summer.

Gary Van Patten

- Revisit street classifications.
- Sidewalk connectivity in some areas is poor and these gaps can't realistically be closed. The TSP plan should look at priority bike/ped routes so funding sources can be pooled to address systems of gaps.
- ADA guidelines – do our current design standards meet ADA concerns?

Debi Bainter

- Snow berms block sidewalks.
- Visitor center needs a way to receive timelier road closure information from ODOT.
- Brooklyn Elementary – 90% of parents drive too fast, don't stop at intersections, and the adjacent streets lack sidewalks.
- Trees and buses obstruct views at some intersections. Large vehicles park near intersections, limiting sight distance.
- Campbell Street bike lanes are bad going east because cars tend to park in the lanes.
- Campbell/Sunridge – difficult to cross from bike and vehicle perspective.
- Chamber should have better connectivity to adjacent businesses.
- Need to better coordinate traffic control for community events.

Laurie Wittich

- Campbell/Birch Street configuration does not allow north/south movements across Campbell, making it difficult to access to the YMCA.
- Safe transportation options for kids between community activity centers should be a priority for the city.
- Kids can ride community connections unattended during the school year, but not during the summer. This limits mobility for kids in the summer, particularly if they are trying to reach different activity centers.

Kate Dimon

- Can the Broadway sidewalks be expanded/widened near the middle school?
- Wider bicycles/tricycles – are they permitted to ride in bike lanes?
- Unmarked/uncontrolled intersections are a problem.
- Front-end angle parking is tough for bicyclists.
- Can motorized wheel chairs be better accommodated?

Jenny Long

- B/Oak/Cedar is a skewed/goofy intersection.
- Settlers Slough – can be an alternative to the Chevron easement for bike/ped path.

- Drop off locations at older schools need to be improved as many are on-street.

Miscellaneous Discussion Items

- Unmarked/uncontrolled intersections are tough to cross and dangerous.
- Possible extension of Leo Adler pathway south from Bridge should be looked at.
- Need to look at signal timing at Cedar/Clark/Campbell intersection.
- Examine signal timing at Campbell/Main.
- Sight distance at Myrtle/OR 7 is severely limited. The "No left-turn" sign does not adequately restrict this dangerous movement.
- A shuttle to the Boise Airport would be beneficial.
- Economic development needs to be considered in the TSP.
- Multi-modal access to employment areas and hospital should be improved.
- Better coordination and guidance for off-street parking for events in downtown would be beneficial.
- Baker City needs more bike parking.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

July 12, 2012 – Baker City TSP
(TAC Meeting #1)

TEAM MEMBERS PRESENT:	Matt Hughart, Kittelson & Associates, Inc. Nick Foster, Kittelson & Associates, Inc. Matt Berkow, Alta Planning + Design, Inc. Drew Meisel, Alta Planning + Design, Inc. Michelle Owen, Baker City Jenny Long, Baker County Cheryl Jarvis-Smith, ODOT Jeff Wise, ODOT Gary Van Patten, Baker City Don Fine, ODOT Andy Lindsey, Anderson-Perry & Associates, Inc. Alan Blair, Baker City Planning Commission Debi Bainter, Baker County Chamber of Commerce and Visitors Bureau Dennis Hackney, ODOT
FROM:	Matt Hughart & Nick Foster (KAI)
DATE:	July 16, 2012

TAC Meeting #1 was held on July 12, 2012 in Baker City. The purpose of the meeting was to kick off the Baker City Transportation System Plan (TSP) project, introduce the project team, discuss project objectives, and give the TAC members a chance to talk about the different transportation issues they would like to see addressed in the TSP update. Most TAC members attended one of the previous day's stakeholder meetings, so the meeting served as a continuation of those meetings and included follow-up discussion of some topics addressed the day before.

Meeting Purpose & Introductions

Following the introduction, attendees that had not discussed their issues the day before were given the chance to discuss his/her perspective on the Baker City transportation system. General discussions on certain topics then followed. These comments are outlined below.

Michelle Owen

- The Myrtle Street/OR 7 intersection is an issue, but is not the highest priority for the city.
- 10th Street only severs motor vehicles well.

- Indiana from the Golf Course to OR 7 does not have good pedestrian or bicycle facilities.
    - Tracy Street might be an alternate route

Gary Van Patten

- Interested in reexamining the current street classifications
    - Is it determined only on ADT?
        - No, it can be based on other factors or modes, too
        - An option could be a layered streets network that defines priority routes by mode (i.e. Auburn/17th is a route where trucks would be a priority and it may not be the best bike route and all state routes need to accommodate trucks)
            - Matt will send a sample of what this looks like
- ADA requirements should be acknowledged
    - Current TSP has only one downtown standard

Jenny Long

- City would like to look at roadside swales so they don't have to do storm drainage
- Would like to set up LIDs to allow roads to be built in two stages (1st – basic road, 2nd – curb, gutter, and sidewalk once the storm drainage is in place)
    - A storm water management plan is in to DEQ for review right now

Alan Blair

- Truck traffic has changed
    - Most truck traffic is oriented to the northwest corner of the City and this is where future industrial development is expected
    - East-west improvements between this area and I-84 are needed

Angle Parking

- City Council wants to keep on-street angle parking
    - Current TSP discourages it
- City needs better guidelines for its implementation
- The City has looked at certain downtown streets and has found that code compliant angle parking would not add much parking capacity, except possibly on Resort Street
- The community is split on the issue of angle vs. parallel parking and the TSP should reflect this
- The TSP could include a discussion of advantages and disadvantages of angle parking and examples of how it has been successfully implemented in other communities
- The type of on-street parking provided should be looked at on a case-by-case basis

- The City does not own sites that could be used for off-street parking, but is currently looking with some businesses at an available property
- A detailed look at parking in the downtown area is best left for a specific Downtown plan
    - The TSP can provide guidance, but will have street-level specific recommendations for the type of parking provided

Future Growth

- Growth in Baker City has been up and down over the last several decades – do we expect it to grow in the next 20 years, or remain relatively steady?
- The Community Vision document has some insights into this
    - There is space for residential growth in the southwest part of the city
    - UGB has expanded east along Campbell
- There are a lot of mining claims in the area – will these ever become active operations?
- The City will probably grow, but it will be modest at best
- The grid system is good and future roads are platted for expansion
- Past plans have used different growth scenarios
- City is prepared for growth, but could use access management guidelines

Bike/Ped Connectivity

- Drew Meisel from Alta Planning spent the previous day bicycling around Baker City and provided his thoughts based on that experience
    - Connectivity of streets and sidewalks is generally good
    - Many busy streets have parallel routes
        - Some of these are already getting some use
        - Crossing treatments would be needed at major road intersections on these routes
    - Driver yielding behavior is good at the LAMP crossing of Campbell Street
    - "D" Street would be a good east-west connection
    - Hughes Ln – Cedar St – LAMP would create a good loop, though Hughes needs some improvement
    - Madison and Washington would also be good east-west routes
    - There were a lot of people out biking and walking yesterday
    - Uncontrolled intersections are awkward because of sight lines

Other General Discussion

- The TSP should focus on the benefits to kids and of calmer traffic when describing potential bike routes

- If stop signs are moved to provide priority for bicyclists, then you have to slow and/or divert traffic, which can become expensive
- Curb extensions are possible, but need to keep in mind plowing, sweeping, and drainage issues
- West side of town has a lot of ditches, can paths go along them?
- City will provide a map of collector nodes for school buses

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

July 12, 2012 – Baker City TSP
(Bicycle Tour)

TEAM MEMBERS PRESENT:	Matt Hughart, Kittelson & Associates, Inc. Nick Foster, Kittelson & Associates, Inc. Matt Berkow, Alta Planning + Design, Inc. Drew Meisel, Alta Planning + Design, Inc. Michelle Owen, Baker City Jenny Long, Baker County Cheryl Jarvis-Smith, ODOT Gary Van Patten, Baker City Jason Yencopal, Baker County Jake Jones Tanya Dias Other members of the general public
FROM:	Matt Berkow (Alta Planning + Design)
DATE:	July 16, 2012

PMT Meeting #2 (Bicycle Tour) was held on July 12, 2012 in Baker City. The purpose of the meeting was to experience bicycling and walking conditions in the City. The City staff led tour highlighted some of the existing bicycle facilities and popular bicycle/pedestrian destinations. These tour destinations are outlined below along with a description of their key transportation characteristics.

1st Street

- Riding adjacent to angled parking is uncomfortable for bicyclists of all skill levels. The angled parking on 1st causes bicyclists to be less visible to motorists backing out of parking stalls.
- Removing angled parking in the community has been met with resistance, but there may be an opportunity to pilot back-in angle parking on a designated bike route such as Resort St.

Broadway and Ash Street Intersection

- This intersection is one of the main entry points to Brooklyn Primary School. As such, the intersection could benefit from increased design emphasis on ADA, walking and biking.

Geiser Pollman Park Entrance

- One of the main park entrances on Madison Street is also where pedestrians and bicyclists following the Leo Adler Pathway enter/exit. Currently, there is no wayfinding signage indicating how best to continue along the designated path alignment. Signage should direct people to the best route to access the existing crossing of Campbell (near the library).

Leo Adler Pathway/Campbell Street Crossing

- There is an existing median refuge island with trail crossing signage across Campbell Street. Motor yield behavior has been identified as a problem and this location will soon be equipped with a Rectangular Rapid Flash Beacon (RRFB) to better facilitate safe and comfortable crossings.
- Construction of the RRFB is scheduled for this summer.

Leo Adler Pathway

- The shared use path is very popular strollers, joggers, bicyclists, dog walkers and others in the community. However, the path is too narrow to comfortably accommodate the wide range of activities, which sometimes leads to negative interactions between users. Pavement markings, signage demonstrating proper trail etiquette and a public education campaign may be potential low cost solutions.
- Better wayfinding signage on the trail would also enhance the overall trail experience by helping to direct people to key destinations near the path.
- A curb cut should be added at the end Kirkway Drive to facilitate access from the Kirkway neighborhood to get onto the trail.
- Some bike tour participants felt that the bollards at the path entrances could use some additional reflectivity treatment.

Baker High School Sports Complex

- The sports complex is a popular destination, and one that is easily accessed via the Leo Adler Pathway. There are no existing signs at the Sports Complex to direct people to the path.
- Bike parking at the sports complex may be insufficient to meet existing demand and is located too far away from the path.

10th Street/Hwy 30

- There are no existing bicycle facilities on 10th Street, although a project to add bike lanes is included in Baker City's current TSP. Relatively high traffic volumes and speeds create

uncomfortable bicycling conditions. 10th could be considered for a road diet which would provide the necessary right-of-way to provide dedicated bicycle facilities while maintaining on street parking. This would also increase the ease of pedestrian crossings. Alternatively, a parallel route on 9th or 7th could be identified for bicycle travel.

Campbell Street

- This street is one of the main east/west traffic arteries in the city. There are no existing bike facilities West of Main Street. Traffic volumes and speeds are uncomfortable for most bicyclists. An alternate parallel route, one block south on Madison Street, could accommodate bicyclists without any decrease in connectivity.

Campbell Street/College Street Intersection

- Traffic at this intersection is controlled by a 4-way stop sign. The intersection is offset and uncharacteristically wide, which may be awkward or uncomfortable for some bicycle users.

4th Street/Broadway Intersection

- This signalized intersection has a push button for pedestrians to actuate the signal head, but no existing detection for bicyclists.

Accessing Mountain Bike Trails

- There was a suggestion of developing a path to allow users to access the hundreds of miles of mountain bike trails located outside of the city. This could be near Reservoir Road. Cyclists currently take Hwy 7 to Elk Creek to access mountain bike trails. A path would allow residents and visitors to access these trails without having to ride six miles on the highway Baker City could become a basecamp for residents and visitors to access other areas.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

October 1, 2012 – Baker City TSP
(TAC Meeting #2)

TEAM MEMBERS PRESENT:	Matt Hughart, Kittelson & Associates, Inc. Jon Crisafi, Kittelson & Associates, Inc. Matt Berkow, Alta Planning + Design, Inc. (via conference call) Michelle Owen, Baker City Jenny Long, Baker County Cheryl Jarvis-Smith, ODOT Gary Van Patten, Public Works Baker City Jeff Wise, ODOT Don Fine, ODOT Betty Palmer, Elementary Schools Ken Rockwell, Baker City Planning Commission Alan Blair, Baker City Planning Commission Heidi Dalton, YMCA
FROM:	Matt Hughart & Jon Crisafi (KAI)
DATE:	October 2, 2012

TAC Meeting #2 was held on October 1, 2012 in Baker City. The purpose of the meeting was to review the Existing Conditions memorandum.

Existing Conditions Feedback

The following outlines comments received on each section of the draft Existing Conditions Report for the Baker City TSP Update.

- Existing Functional Classification
  - OR 7 is designated from Broadway through Austin junction
  - Map updates to be expected from Jenny Long and Baker City
  - Cedar St is not designated as OR 86 – correct designation to be shown on the maps and addressed in report edits
    - 2nd St in southern Baker to be renamed
    - 5th St footnote for collector designation between appropriate blocks

        - City/County jurisdiction footnote for Pocahontas/Hughes

- Traffic Analysis
    - Concern over the accuracy of seasonal adjustments for basing system wide decisions
    - Concerns over using only 16 study intersection to define the whole system analysis
    - Daily traffic volumes
        - Adding in volumes for Cedar St – using historical data
        - Resort will funnel more traffic back north to Campbell; may be reasons for imbalances between northbound and southbound on Main St
    - Page 10, highlight that no intersections fail to meet standards/capacities (bold, italics)
    - Question regarding the effect of growth, how do intersections get affected 10, 20 years into the future; e.g. if a new subdivision is built.
- Crash Analysis
    - Add year to the title of the Figure 5 to note crash analysis period
    - Question – can the crashes not on the study segments be incorporated into the analysis?
    - Noted that many intersections on Campbell St near the park.
        - Vehicles who stop for pedestrians are getting rear-ended
        - Don – rectangular flashing pedestrian beacon planned for this crossing
    - Question – does the west side of the state (Oregon) get a different average crash rate because of increase hazardous weather (winter)?
    - Compare crash analysis for Campbell St before/after D Street "punch-through" (2009)
- Existing Bicycle Conditions
    - Bicycle/ped pathway to the YMCA on Hughes and 17th Street
        - YMCA moving from downtown; providing a bike route "will be critical"; 2400 members (approximately 600-700 visits per day)
        - After school activities to resume at YMCA once the move to new location is complete
    - 17th Street carries "quite a bit of traffic"
    - Address bike parking at schools?
        - None was observed to have covered parking
        - Alta – Matt could add some language to the recommendations

  - Bicycle parking requirement (pg 19) – correct to zoning requirements exist (Sec 3.3.400) for new development

- Existing Pedestrian Conditions
  - Figure "7" – correct to Figure "8"
  - 10th Street (N. of H St) – extend sidewalks; rejected from ODOT
  - Sidewalk Grants Program - worded appropriately in report
  - Question – Can crosswalks be designated/striped at locations where there are no sidewalks, but a lot of pedestrian crossings?
    - Reasonable if there is crossing demand in addition for sidewalks added as well
  - Trail references in report should be adjusted to refer to future trail conditions map (separate submission from Existing Conditions)
  - Path missing on D Street from Powder River (east) must be identified as an existing conditions
- Schools
  - North Baker School – now a charter school; non-active public school
    - Not reviewed by Alta, could get information via aerial photos/street view
    - YMCA activities, ball fields, park activities
- Public Transportation
  - Note that there are no formal park-and-ride locations
- Truck Freight route
  - Marry the designations between City and State and Table 1 (pg 3)
  - Many freight routes are not used by heavy truck traffic often
  - Revisit designations in next tasks
- Funding/Financing
- Next Steps
  - Community Open House (11/27)

End - 7:03PM

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING
101 S Capitol Boulevard, Suite 301, Boise, ID 83702 208.338.2683 208.338.2685

MEMORANDUM

Date: September 28, 2012 Project #: 12196

To: City of Baker City

Baker City, OR 97814

From: Matt Hughart, AICP; Jon Crisafi (KAI)
Project: Baker City TSP Update
Subject: Youth Workshop Agenda

The Youth Workshops are intended to allow students as young as elementary school to high school to provide input related to their interaction with the pedestrian and bicycle facilities in Baker City. This memo is intended to provide goals and suggested guidance for how the workshops will be conducted.

Elementary School Students

- We envision a brief introduction where Matt and Michelle will address the class as a whole and explain the project and what we will be doing with them today.
- We would like to break the students up into groups of 5-6.
    - Groups will be led by the teacher, Michelle, Matt, Jenny, Jon, and Cheryl.
    - Each leader should lead his/her group in a discussion for students to engage about getting around Baker City. Some useful questions for this exercise are listed below:
        - *What types of places do you go?*
        - *How do you usually get there?*
        - *Do you ever walk or bike to places (i.e. if they say they usually get driven)?*
        - *What are places that you go when you walk?*
        - *What are places that you go when you bike?*
    - The group leader should note on the map the feedback from each group of students.
- Some tips for getting guiding a productive discussion are suggested below:

- Ask one question at a time and prompt the kids with examples so they know the kind of info you are looking for.
- The facilitator can ask kids to say a place that they walk. If someone says the skate park, the facilitator can ask who else walks to the skate park. Then the facilitator should mark this information on the map.
- It will probably be difficult for these kids to identify their routes. It's possible the facilitator could lead a discussion to identify general (i.e., non-location specific) hazards to walking and biking in Baker City.

High School Students

- A similar introduction will be given by Matt and Michelle addressing the class and explaining the project.
- These students will need less guidance and can break into small groups of say 5-6 people.
  - Each group should be given a map and provide markings to identify things like:
    - *Where do they live?*
    - *Where do they go?*
    - *How do they get there?*
  - Again, biking and walking routes may not be the same so try and identify each accordingly.
- Facilitate a discussion about bicycle and pedestrian hazards. Some common hazards include:
    - Busy streets that are difficult to cross;
    - No sidewalks available along a street;
    - No bike lanes present along a street;
    - High vehicle speeds near bicyclists and/or pedestrians.
  - These can be both site specific hazards and more general hazards to walking and biking in Baker City.
- The group leader should note on the map the feedback from each group of students.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

October 1-2, 2012 – Baker City TSP
(Youth Workshops)

TEAM MEMBERS PRESENT:	Matt Hughart, Kittelson & Associates, Inc. Jon Crisafi, Kittelson & Associates, Inc. Michelle Owen, Baker City Jenny Long, Baker County Cheryl Jarvis-Smith, ODOT
FROM:	Matt Hughart & Jon Crisafi (KAI)
DATE:	October 2, 2012

The Youth Workshops were held at South Baker Elementary School (on October 1, 2012) and at Baker High School (on October 2, 2012) in Baker City. The purpose of these workshops was to obtain feedback for existing conditions of transportation facilities from elementary and high school aged students. These workshops provide younger residents of Baker City a chance to talk about the different transportation issues they experience day to day and suggest improvements they would like to see in their community. The comments are outlined below.

South Baker Elementary School

- Students from South Baker Elementary School were shown maps of Baker City and asked questions regarding their interaction with the transportation system. The following locations were found to be popular destinations among the students:
    - Boys' Jungle (at D Street and the pathway)
    - South Baker Elementary School
    - Kennedy's Shop
    - Dollar Tree
    - Sports Complex
    - Sam-O Swim Center
    - Sam-O Skate Park
    - Brooklyn Elementary School
    - Dairy Queen

  - McDonald's

- Students were also able to identify several problematic locations and issues they experience day-to-day in the transportation network, including:
  - Pedestrian crossings along Campbell Street are difficult
  - Pedestrian crossings along Broadway Street are difficult
  - Pedestrian routes to Baker High School are difficult
  - Limited signage makes wayfinding difficult for pedestrians
  - No connector between Sam-O Swim Center/Skate Park and the nearby McDonald's
  - Poor pavement conditions on streets west of the railroad tracks
  - Sidewalks are cracked at various locations
- Furthermore, the students suggested several improvements to the transportation network they would like to see, including:
  - Extending Court Avenue to add a connection through Central Park
  - Add horse trails and horse staging areas (stables)
  - Improve paths and access to the Powder River
    - Baker City has plans to provide water access near Wade Williams Field
  - Build public plazas for kids/families downtown and on Broadway Street
  - Add bike lanes downtown
  - Plant more trees along sidewalks to provide shade
  - Dredge the Powder River deeper at certain locations to expand boating and rafting opportunities
  - Add colored sidewalks around downtown (like in Bend, OR)
  - Sheltered bike parking at South Baker Elementary School
  - Permit golf carts and ATVs to drive on main roads

Baker High School

- Students from Baker High School were given maps of Baker City and asked questions regarding their interaction with the transportation system and to mark up the maps with their comments. The following locations were found to be popular destinations among the students:
  - Sports Complex
  - Baker High School
  - Downtown
- Students were also able to identify several problematic locations and issues they experience day-to-day in the transportation network, including:

- Diagonal street parking hinders intersection sight distance
- No crosswalks on 10th St north of E St
- E St and 10th – In And Out Burger blocks northbound approach on 10th St
- Bad sidewalks on Campbell St
- Very dark on Leo Adler
- Poor sight distance at Clark/Madison
- Elm St needs better pedestrian environment
- Cars do not stop on Spring Garden Ave
- Traffic on Campbell St is too steady – too few acceptable gaps for minor street approaches
- Cars are too fast around the corners of College St and H St
- Turning left out of Subway on Campbell St
- Do not move YMCA to Pocahontas Rd location – keep it centralized
- Campbell St between Main St and Resort St – difficulty with conflicting turn movements
- Sight distance issues at unsignalized intersection along Baker St and Church St in east part of city
- Difficult turn from Elm St on to Estes St
- 4th and Auburn sight distance issue for SB 4th St approach looking west on Auburn
- Sight distance issues due to underpass, (vertical curve sight distance)

- Furthermore, the students suggested several improvements to the transportation network they would like to see, including:
  - Sidewalk needs:
    - Fill in gaps on D Street
    - Fill in gaps on 10th Street
    - Campbell west of 10th Street
    - 17th Street from Campbell to Pocahontas
    - Cedar St from Hughes Ln to D St
    - Repair on Resort St
    - Build from High School to Sports Complex
  - Fixed offsetting Campbell/College/4th Street intersection
  - Sharrows (Main Street through downtown)
  - More pronounced bus/trolley stops

- River access near Wade Williams Field
- Improve crossing on Campbell St at Birch St
- Speed limit signs on Auburn Ave
- Pave gravel streets/roads
- Remove skateboards bicycle prohibition on Main St sidewalks
- Move half signal at C St to E St
- Gateway treatment at I-84 Interchange on Campbell St
- Lighting on Leo Adler Pathway and path to Swim Center
- Connect 10th St north and south segments
- Tree trimming is needed to improve visibility of stop signs in residential areas
- Extend pathway south of Bridge St
- Connect Sports Complex to Hughes Ln
- Repave Resort St
- Improve pedestrian crossing on Broadway St near Dairy Queen
- Paved connection between Lund Ln and Hughes Ln
- Switch stop control from Washington St to 1st St
- Madison at East St, needs a two-way stop on East St
- Improve river access on the pathway south of D St
- Crosswalk at C St/B St along Cedar St
- More trees along the pathway from Sports Complex to Hughes Ln
- Post bus schedules at stops
- Sidewalks needed on all local streets near high school
- Bring back passenger rail
- More stop signs on uncontrolled local streets
    - Oak St (Campbell to Auburn)
    - 15th Street

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

December 19, 2012 – Baker City TSP
(TAC Meeting #3)

TEAM MEMBERS PRESENT:
Matt Hughart, Kittelson & Associates, Inc.
Jon Crisafi, Kittelson & Associates, Inc.
Matt Berkow, Alta Planning + Design, Inc.
Dennis Hackney, ODOT
Jeff Wise, ODOT
Cheryl Jarvis-Smith, ODOT
Michelle Owen, Baker City
Jenny Long, Baker County
Andy Lindsey, Anderson Perry
Gary Van Patten, Public Works Baker City
Doug Schwin, Baker City
Debi Bainter, Chamber of Commerce
Dennis Dorrah, Baker City
Ken Rockwell, Baker City Planning Commission
Mary Jo Carpenter, Community Connection/Public Transit
Grant Young, DLCD

FROM: Matt Hughart & Jon Crisafi (KAI)

DATE: December 20, 2012

TAC Meeting #2 was held on December 19, 2012 in Baker City. The purpose of the meeting was to review the Future Conditions and Alternatives Analysis memorandum.

Future Conditions Analysis (Tech Memo #2)

- Crash data question – is there any way to address transportation safety concerns for locations off the arterials that do not have crash histories associated with them?
    - E.g. Anecdotal safety issues citizens observe.
- LOS F question – certain intersections meet ODOT mobility targets in terms of v/c, but still have side street movements that have delay resulting in LOS F.
    - Concern regarding traffic rerouting through the network near schools.

Alternatives Analysis (Tech Memo #3)

- Bike/Ped Projects

- City needs bike/ped rules and guidelines but also wants some flexibility. Don't want to have the perception of favoring one developer over the other.
- Revisit Dewey for marked crossings near school and Wade Williams
- Look at Oregon 30/Hughes/Pocahontas intersection for pedestrian crossings as it relates to the transit stop. There are mobile homes and seniors living near there and transit wants to provide service but there is no way to get a stop in with these difficult conditions. The transit agency would also like to be sure some of their planned improvements to benefit transit are included in TSP.
- Accessing Safe Routes to Schools funds is identified as a potential citywide programmatic improvement in the memo, but there are other specific issues near schools
  - Ash Street north/south - sidewalks are intermittent and people drive very fast; notably Washington and Church intersections
  - Clark has been identified as a pedestrian route in map; people mostly walk on Church, Ash, and Oak
- Traffic calming – identifying low cost, short-term projects
- Rather than identify specific locations for traffic calming, the TSP could identify a toolkit of approved traffic calming measures (i.e. speed humps, stop signs, etc.) that the city can implement where it deems appropriate.
- YMCA is officially relocating
  - LAMP should be extending to new site

US 30 Road Diet

- Option A
  - High costs from changing curb-to-curb width.
- Option B
  - Concerns brought from experience with Campbell Street's road diet
    - Safety – accidents moved from main corridor to local residential streets
    - TWLTL – "may work well in the cities, but maybe not so much in Baker City"
    - After road diet, Campbell Street volumes dropped approximately 8%
  - Maintaining on-street parking should be a priority since many local businesses do not have parking lots available.
- Option C
  - Revise to maintain existing paved width (60') rather than the proposed (58')
    - Suggestion: Add 1' bike lane buffer on both sides
- Are two-way bike lanes ever used?

- Not often, only under specific circumstances and usually for short distances (e.g. offset T-intersections)

- MMLOS Results for road diet
  - Adding bike lanes doesn't always increase the 'grade' for bicyclist level of service; the LOS methodology is still a work in progress – future iterations will likely improve the way the methodology deals with this particular situation.
- Establish bike routes on lower traffic roads (suggested: Auburn and 17th)
  - Providing facilities on lower traffic roads as well as higher order streets provides cyclists of different abilities with choices.
  - Out of towners tend to bike on the main roads. For example, 10th is part of an Oregon Scenic bikeways route.
- Does ODOT have volume thresholds for requiring bike lanes?
  - No – but speed thresholds are established
- Establishment of bicycle boulevards have demonstrated success in the Portland area
  - Could begin with pilot projects to guage public reaction and use of bicycle boulevards or other bicycle-related projects

UBA/STA Designations

- TSP Update is an opportunistic time to establish UBA and STA routes
- Downside of UBA or STA designations?
  - None have been identified for the areas of interest (US 30, OR 7, OR 86)
- Would diagonal on-street parking be permitted with UBA or STA designation?
  - ODOT is open to discussion; has approved diagonal on-street parking in past projects for UBA/STA areas

Functional Classification Revision

- Pocahontas Road (i.e. west of US 30) should be designated as arterial along with Hughes Lane?
  - To revisit
- Revisit Lund Lane connection for Cedar Street and Birch Street collector designation

Cross Sectional Standards

- Keep all established collectors and only add additional local street cross sections?
  - No – provide ranges of widths within all classifications to allow for flexibility
- Establish a cross section for pathways/multi-use pathways

Intersection Alternatives

- Roundabout at Pocahontas/Hughes and 10th Street
  - Reduce inscribed circle to accommodate existing property owners

        - Would need to coordinate with freight interests

- Median at Birch and Campbell
    - Suggested short-term solution would pose a similar problem to the Pizza Hut on the north side of Campbell
        - Possibly eliminate the "bulb" portion of the median
        - Only extend the south median curbing to prevent NB Birch Street motorists from trying to "cross" Campbell and continue NB
    - A similar situation exists at Clark Street (i.e. drivers exiting driveways onto Campbell and trying to quickly turn left/right)
    - Pedestrian concerns – no existing connectivity, and the offset of Birch currently poses a problem

Please join us

Transportation System Plan

COMMUNITY OPEN HOUSE

December 19, 2012

from 5:00 to 7:00 p.m.

in the Baker City Hall, Council Chambers at 1655 First Street, Baker City.

Your participation is very important! Thank you for your community involvement!

For more information please contact Michelle Owen at (541) 524-2031 or mowen@bakercity.com

BAKER CITY
TRANSPORTATION SYSTEM PLAN UPDATE

Public Open House #1
December 19, 2012
Sign-in Sheet

Name Rocky Noble
Address 1385 D St Baker City, OR 97814
Email rnoble59@q.com

Name Betty Palmer
Address 42250 Washington Gulch
Email bpalmer@bakerk12.or.us

Name TERRI HARSH
Address 1915 16TH ST
Email THARSH@BAKERCITYHERALD.COM

Name
Address
Email

Name
Address
Email

Name
Address
Email

Name
Address
Email

Name
Address
Email

BAKER CITY
TRANSPORTATION SYSTEM PLAN UPDATE

Public Open House #1
December 19, 2012
Sign-in Sheet

Name Bill Smith
Address 2326 OAK, BC
Email

Name Larry & Lorrie Hill
Address 805 Baker BC
Email

Name Dean B Vonk
Address 905 Park St.
Email

Name
Address
Email

Name
Address
Email

Name
Address
Email

Name
Address
Email

Name
Address
Email

Name
Address
Email

BAKER CITY
TRANSPORTATION SYSTEM PLAN UPDATE

Public Open House #1
December 19, 2012
Comment Form

Name Dennis Darrah
Address 1549 Campbell
Email

1. No to 2 lanes w/ turn on Broadway and 10th Street
   a) Leaves less breaks in traffic for those entering – difficult for left turns onto – off of side streets.
   b) Forces traffic onto residential side streets
   c) Bike lanes could be on side parallel streets as alternate bike route – bikers can still use streets (10th/Broadway) w/out bike lanes.
   d) Leaving as is provides safer access, less traffic in adjoining neighborhoods which is safer for bikes, pedestrians, and children.

2. No to removing street parking – We need to help our job providing businesses rather than take away income.

3. UBA & STA designations deserve further considerations.

BAKER CITY
TRANSPORTATION SYSTEM PLAN UPDATE

Public Open House #1
December 19, 2012
Comment Form

Name Dennis J. Dorrah

Address 1549 Camp Bell

Email

4. Re Cross Sections - Flexibility is the key here - do not lock us into a fixed (or two or three) scenario. Flexibility

5. Over all Flexibility - approval of planning commision / council for changes rather than set scenarios.

6. Bikes are wonderful. I love bikes, I do not believe however that bikes should be granted more importance than moving traffic (auto) from one place to another efficiently.

7. Re 6% bikes to work in Baker City. Take a look - half of bikers ~~[illegible]~~ riding to work do not have drivers licenses because of DUI's or other infractions that caused their license to be suspended.

BAKER CITY
TRANSPORTATION SYSTEM PLAN UPDATE

Public Open House #1
December 19, 2012
Comment Form

Name Larry Hill and Bill Smith.

Address

Email

- Concerned about speeding on the corner of Oak St. and Baker St. (North/South on Oak St from Campbell to Washington)

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

March 6, 2013 – Baker City TSP Update
(TAC Meeting #4)

TEAM MEMBERS PRESENT:	Matt Hughart, Kittelson & Associates, Inc. Jon Crisafi, Kittelson & Associates, Inc. Don Fine, ODOT Dennis Hackney, ODOT Cheryl Jarvis-Smith, ODOT Michelle Owen, Baker City Jenny Long, Baker County Andy Lindsey, Anderson Perry Debi Bainter, Chamber of Commerce Ken Rockwell, Baker City Planning Commission
FROM:	Matt Hughart & Jon Crisafi (KAI)
DATE:	May 17, 2013

TAC Meeting #4 was held on March 6, 2013 in Baker City. The purpose of the meeting was to review the Funding Assumptions and Preferred Financially Constrained Plan memorandum.

Begin Time: 2:15PM

Funding Assumptions and Preferred Financially Constrained Plan (Tech Memo #4)

Active Transportation Plan

Pedestrian Projects

- *Ken* – really like the south of the city path proposals; around Smith Ditch
- *Michelle* – West Campbell loop was brought up as something to look into during youth workshops
- *Debi* – Will Auburn "narrow" with the inclusion of sidewalks
    - *Matt* – Sidewalks are intended to be built from the existing curb face, so no narrowing
- *Michelle* – City council will get behind sidewalk infill
- *Jenny* – Indiana connection between Reservoir and 17th should be removed; sidewalks currently exist here

- *Cheryl* – Consider West Baker street path to county line
    - Consider regional connections with trails to enhance the attractiveness of the trail system overall

Bike Projects

- *Jenny* – Can OR Scenic Bikeway be rerouted? Notably off of Campbell to more favorable routes?
    - *Debi* – The Scenic bikeway routing planners are willing and excited to work with Baker to facilitate the project

Road Diets

- *Michelle* – previous meetings; individuals not involved in TAC have the impression that the road diets are already decided on; "being crammed down their throats"
- *Jenny* – 10th Street road diet needs to be an engine for developing the land use there – developing the "retro street"
    - *Debi* – historical photos available on Baker Library website
- *Ken* – supportive of road diets, but must consider snow removal implications
- *Michelle* – happy with the press regarding road diet; likely to spur discussion
- *Jenny* – the road diet issue maybe more stemmed in poor communication
    - Should be sold as a safety project, not just accommodating bikes
- *Debi* – Were businesses along 10th Street contacted as stakeholders
    - *Michelle* – few if any, none showed to stakeholder meetings
- *Matt* – Sell road diet as pilot/test/temporary change
    - *Don* – would need to be included in the language of the TSP as a pilot/test/temporary project
    - Project is relatively cheap and reversible; "It's only paint"
- *Michelle* – will need to fix Campbell Street through diet modification
- *Debi* – road diet will be necessary for business growth
    - Small business seminar that was held traveled Baker to promote local business; the Trolley had to travel too fast on US 30 to make all desired stops
- *Cheryl* – does not like RFBs; does not fit in with the historic context of the town
    - *Michelle* – were concerns of that, worries that RFBs would become commonplace in Baker City; the LAMP crossing is a unique situation therefore required a unique active crossing fixture
- *Dennis* – sun set problems difficult traveling west on Campbell Street during the evening; RFB is helpful with that situation
-

Intersection and Roadway Plan

Preferred Updated Functional Classification

- *Ken* – proposed FC looks good and addresses mistakes made in the previous 1996 TSP; notably planned future collectors

Preferred Roadway Extensions, New Roadways, and Intersection Projects

- *Ken* - Should add in a proposed E-W collector
- *Matt* – development along Cedar and Kirkway has prevented these proposed E-W collectors
- *Don* – could potentially take a structure that needs to be redeveloped or willing to be sold by home owner
- *Cheryl* – the dashed lines are good for planning purposes; E-W route necessary between Hughes and D Street
    - *Jenny* – might considering making the dashes more spaced out to give the impression of a very conceptual plan
- **Birch/Campbell Intersection**
    - *Debi* – The El Dorado hotel has a pool and owned by the same people as the Roadway Inn – may allow customers to use pool
        - The whole intersection doesn't work for trucks very well
        - Chamber of Commerce has a 5000 SF building planned for an "Adventure Center"
    - *Matt* – could potentially treat intersection into near- and long-term fixes
        - Near-term includes adjusting median/lane configuration
        - Long-term includes eventual realignment of Birch if either the McDonalds or El Dorado redevelops
    - *Don* – crossing could warrant an RFB considering proximity to Swim Center/Skatepark
- **Myrtel/Dewey**
    - *Jenny* – remove the frontage road, vacate to sidewalk? Expand the "front" yard
        - Taper retaining wall back to allow for increased intersection sight distance
        - Should not be closed off – Estes would not be able to accommodate the added traffic
        - Consider restricting one-way in or out
- *Ken* – Columbia Avenue has an issue with excessive grade – to be addressed in TSP?
    - *Matt* – no, at the design level, little TSP can do.
- *Jenny* - Unpaved cross section doesn't show unpaved parking – should be updated

Intersection and Roadway Plan

- Best Frontage is funded by the County
- Near-term routes should be any YMCA related routes

End Time: 4:15PM

Meeting Agenda

Baker City TSP Update

Stakeholders Meeting #2

Wednesday, March 6, 2013

Baker City Hall

The primary purpose of this meeting is for the project team to gather feedback on the list of transportation projects identified for possible inclusion in the Baker City Transportation System Plan. You have been identified as one of these stakeholders because of your interest in and familiarity with transportation in Baker City. During this meeting we will want to learn:

The following is a brief agenda for this meeting:

1. Introductions/Meeting Purpose
2. Project History/Overview
3. Review Bicycle/Pedestrian/Roadway/Transit Projects
4. Stakeholder Issues/Constraints/Solutions Discussion
5. Other Questions/Open Discussion
6. Next Steps

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

March 6, 2013 – Baker City TSP Update
(Stakeholder Meeting #2)

TEAM MEMBERS PRESENT:	Matt Hughart, Kittelson & Associates, Inc. Jon Crisafi, Kittelson & Associates, Inc. Andy Lindsey, Anderson-Perry & Associates, Inc. Don Fine, ODOT Robin Phillips, ODOT PTD Holly Kerns, Baker City Planning Michelle Owen, Baker City Dennis Hackney, ODOT Cheryl Jarvis-Smith, ODOT Sheila Lyons, ODOT Peter Schuytema, ODOT Gary Obery, ODOT Jenny Long, Baker County Terry Schumacher, PWAC Walt Wegener, Baker City School Superintendent Ken Helgerson, Baker County Jeff Smith, Baker County Rob Ellingson, Planning Commission
FROM:	Matt Hughart & Jon Crisafi (KAI)
DATE:	May 17, 2013

Stakeholder Meeting #2 was held on March 6, 2013 in Baker City. The purpose of the meeting was to reintroduce the Baker City Transportation System Plan (TSP) project, the project team, review the project listings in the Funding Assumptions and Preferred Financially Constrained Plan (Tech Memo #4), and give the stakeholders a chance to talk about the different transportation issues they would like to see addressed in the TSP update.

Begin Time: 12:15PM

Meeting Purpose & Introductions

Review Bicycle/Pedestrian/Roadway/Transit Projects

Pedestrian

- *Robin* – Baker transit spends about $500k annually

- Baker City is the primary origin/destination
- Rural transit funding could be used as an engine to driver certain sidewalk projects

- *Jenny* – Where in TM#4 do the green lines (shared-use paths) correspond in the table?
  - –Table 2 – second portion of table
  - Shared use path between Reservoir Road and 17th Street is unnecessary – sidewalk currently exists there
- *Terry* – Shared-use path (S11) seems to be routed through private property and up severe grades
  - Should look for a more "modest" solution than a full shared path cross section
- *Cheryl* – Does Baker County have any input on the pedestrian and bike projects?
- *Ken* – Baker County TSP is outdated and in need of updating
  - US30/Hughes/Pocahontas is primary concern, particularly pedestrians crossing US30
  - Pedestrian bridge should be expanded along Hughes (over Powder River)
  - *Cheryl* – is there adequate ROW for expansion?
  - *Ken* – there should be
- *Terry* – The most dangerous intersection in Baker is Resort/Washington
  - Mini-roundabouts might be useful for truck mobility at downtown intersections
- *Rob* – Once Resort is completed, won't there be an increase in traffic?
  - *Michelle* – yes, that is expected
- *Ken* – Baker County's main concern is the work on Best Frontage Road; slated to be completed in 2014 (~$3.5 million)
  - *Michelle* – should consider adding shared-use path along Best Frontage

Bicycle

- *Michelle* – D Street is a primary route for cyclists
- *Terry* – D Street needs appropriate striping along sidewalk to encourage cyclists to use the path, not the road
- *Jenny* – Better education for cyclists to use multi-use paths
- *Ken* – State Scenic Bikeway was required to be signed by Baker County
  - Extents: Pocahontas – 10th – Campbell (to freeway)
- *Cheryl* – Considered options for cycle track?
  - *Sheila* – Examples of cycle track are shown in Eugene and Bend
  - *Peter* – Hughes could be considered for cycle tracks

Road Diets

- *Don* – ODOT wanted to consider possible road diet on Main Street
- *Sheila* – Also attempt to identify bike boulevards if possible

- *Terry* – Campbell Street bike lanes are not popular or used
  - Supportive of bike lanes on 10th and Broadway if properly done
- *Jenny* – Public relations with road diet must be tactfully done
  - Need to show benefits at each intersection along proposed routes
- *Terry* – Campbell Street road diet would benefit from no on-street parking and wider lanes
- *Ken* – A lot of public opinion is "if it's not broke, don't fix it"
- *Terry* – Cedar Street would benefit from bike lanes, and other non-vehicle heavy roads
- *Gary* – Perception tends to shift before and after road diet implementation, typically,
  - Before – 70% against, 30% in favor
  - After – 70% in favor, 30% against
- *Sheila* – Long form census reveals in Oregon (statewide) that a relatively large percentage walk for their daily commute
- *Robin* – Walking is popular in Baker City
- *Terry* – Sidewalks are difficult to use along Campbell Street – narrow and full of utility poles
- *Cheryl* – ODOT is pushing the road diet because of the likelihood for getting construction dollars for the project in addition to safety/operational benefits
- *Don* – Acknowledged higher safety benefits from road diets
  - 10th Street/Broadway Street have equal or higher segment crash rates than state average for similar facilities
  - Transition of 10th Street could serve as a great "gateway" to Baker City from the north

Intersections

- *Jenny* – Dewey/Myrtle intersection is highly used during Little League
  - Should consider other options
    - Tapered retaining wall could improve intersection sight distance
    - Would have to adjust entry/exit on the frontage road

End Time: 2:00PM

Please join us

Your participation is very important.
Thank you for your community involvement!

Transportation System Plan
COMMUNITY OPEN HOUSE
March 6, 2013
from 5:00 to 7:00 p.m.

in the Baker City Hall, Council Chambers at 1655 First Street, Baker City.

The purpose of the open house is to give the general public an opportunity to review the transportation projects identified which will form the basis of the Transportation System Plan (TSP). Interactive maps and feedback forms will also be provided so citizens can provide comments and submit ideas on how to improve the roadway, pedestrian, bicycle, and transit network in Baker City over the next 20 years.

For more information visit mtp://shes.kittelson.com/Baker_City_TSP
or contact Michelle Owen at (541) 524-2031 or mowen@bakercity.com

BAKER CITY
TRANSPORTATION SYSTEM PLAN UPDATE

Public Open House #2
March 6, 20123
Sign-in Sheet

Name Bob Savage
Address [illegible]
Email [illegible]

Name Amy Newell
Address 43926 Spring Creek Loop
Email libertyjustice4all@yahoo.com

Name Vern Hull
Address 3665 8th St.
Email vhhull@[illegible].com

Name Kata Bulinski
Address 3555 Indiana Avenue [illegible]
Email kata.bulinski@gmail.com

Name [illegible]
Address [illegible] ST
Email [illegible]

Name Jim & Mary Ann Ingram
Address [illegible]
Email [illegible]

Name [illegible]ENCE [illegible]
Address 3105 INDIANA AVE B.C
Email [illegible]@[illegible].COM

Name
Address
Email

BAKER CITY
TRANSPORTATION SYSTEM PLAN UPDATE

Public Open House #2
March 6, 2012
Sign-in Sheet

Name Denny Jacobs
Address 3010 Cantel Baker City, OR 97814
Email DennyJacobs@hotmail.com

Name
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KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING
101 S Capitol Boulevard, Suite 301, Boise, ID 83702 P 208.338.2683 F 208.338.2685

PUBLIC INVOLEMENT MEMORANDUM

Baker City TSP Update

Public Open House #2 Feedback

Date: March 20, 2013 Project #: 12196.3

To: Michelle Own, City of Baker City

From: Matt Hughart, AICP; and Jon Crisafi (KAI)
Matt Berkow and Drew Meisel (Alta Planning + Design)

INTRODUCTION

On March 6, 2013 a second Public Open House was held at Baker City Hall between 5:00 p.m. and 7:00 p.m. The intention of the Public Open House was to get feedback from Baker City citizens regarding the findings and recommendations from DRAFT Technical Memorandum #4 - Preferred and Financially Constrained Plan. Citizens were able to provide comments through sticky notes and attached them to boards displaying the figures from Technical Memorandum #4 as well as supplemental concepts for transportation projects. This memorandum details these comments.

Comments were provided for proposed pedestrian projects, future intersection improvements and roadway connections.

PROPOSED PEDESTRIAN PROJECTS

The following comments were received regarding the proposed pedestrian projects.

- Comments offered suggestions to include:
  - *"...a walkway around the skate park"*
  - *"pedestrian crossing at Cherry Street/Baker Tower Square"*
  - *"pedestrian crossing near Plum Street (near Subway)"*
  - *"safety for pedestrians; crosswalk here needs to be painted!"* – regarding proposed Smith Ditch Trail crossing US 30 near the Bridge Street intersection
- Comments addressed general concerns for:
  - The intersection at Campbell Street/Birch Street has *"truck and vehicle issues..."*
  - Implementing *"possible traffic calming plans including Main Street."*

FUTURE INTERSECTION IMPROVEMENTS AND ROADWAY CONNECTIONS

The following comments were received regarding the future intersection improvements and roadway connections. Most comments related to the proposed road diets on US 30 along Broadway Street and 10th Street as well as the Campbell Street modification.

- General comments include:
  - *"Everything you are doing is helping driving and [pedestrians improve safety on] streets and sidewalks."*
  - *[The] H Street improvement is a must; will help traffic..."*
- Regarding road diets, comments included:
  - *"I think it's more convenient to have [four] lanes to get to businesses [and] to go around those turning [vehicles slowing down in the through lane]"*
  - *"How does 10th Street/Broadway Street intersection work with a road diet?"*
  - *"Keep [four] lanes and put a multi-use path on both sides"*
  - *"Where will you put the snow?"*
  - *"Sign plan for 10th and Broadway encourages [large] neon ('50's era') signs which are NON pedestrian in scale – totally at odds [with] safe pedestrian/bicycle travel – CONFLICT~"*
- Regarding the modification to Campbell Street, comments included:
  - *"[Three] lane option (like Campbell [Street]) bike lane sandwiched between curbside parking and traffic lane is far more hazardous for cyclists. I prefer multi-use pedestrian and cycle lane."*
  - *"Centerlane on Campbell is too wide."*

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

April 16, 2013 – Baker City TSP
(PC/CC Work Session Part 1)

TEAM MEMBERS PRESENT: Matt Hughart, Kittelson & Associates, Inc.

FROM: Matt Hughart (KAI)

DATE: April 18, 2013

The Planning Commission/City Council Work Session (Part 1) was held on April 16, 2013 in Baker City. Planning Commission members in attendance included Alan Blair, Wayne Wall, Rob Ellington, Myrna Neumann, and Gail VanSickel. City Council members in attendance included Roger Coles, Dennis Dorrah, Clair Button, Mike Downing, Barbara Johnson, and Mayor Richard Langrell. City/County staff in attendance included Michelle Owen, Doug Schwin, Jenny Long, Holly Kerns, Mike Kee, and Becky Fitzpatrick. Grant Young from DLCD was also in attendance.

General Comments

- Figure 2-1
  - Add to the figure legend a description for the hollow arrows and the "P" vs. "S" vs. "B"
- Figure 2-2
  - Cedar Street already has bike lanes. How does this relate to the project description?
    - The project is to upgrade Cedar Street to include full width bicycle lanes. The project description will be refined to clarify that further.
  - Why is the plan trying to integrate bike lanes into the most heavily traffic corridors in the City?
    - The plan is trying to develop a network of corridors that can be used by bicyclists of all skill levels. This includes the designation of Neighborhood Routes that are suitable for all ages and skill levels as well as formal bicycle lanes on arterials that can provide regional connectivity.
- 10th Street and Broadway Street

- Traffic volume analysis shows that both Broadway and 10th Streets could be revised from four travel lanes to two travel lanes with a center turn lane. Revisions such as this have been found to improve the overall safety of the travel corridor. They can also lead to economic redevelopment and better accommodate different modes of traffic such as bicycle lanes.
- Based on the mixed feedback received to date, the Draft TSP has included a "refinement study" for Broadway and 10th. This refinement plan would give the City and ODOT and chance to more fully study, review additional alternatives, and educate the public on the merits of such an effort.

- Main Street
  - There should be a Main Street refinement plan included in the TSP.
  - This refinement plan would study potential refinements to travel lanes, on-street parking, pedestrian accommodations, and crossing treatments.
- Campbell Street
  - The Draft TSP recognizes that the existing Campbell Street corridor needs to be revised to provide a wider on-street parking area and a wider bicycle lane.
  - Signal timing at the Campbell/Cedar/Clark intersection is less than ideal for creating gaps in the east-west travel stream.
  - Campbell Street seems to have lots of skateboarders.
  - Can Campbell Street be revised back to a four-lane cross section?
    - Likely not.
  - The Draft TSP should include a refinement study element to look at the signal timing and median placement along Campbell Street.
  - Trucks appear to be using the Birch Street corridor as an alternative to Campbell Street.
    - Some of this may be a signing problem as there is no signing that specifically directs trucks back to Campbell Street after they exit the truck wash.
- Dewey/Myrtle Intersection
  - Intersection has sight distance limitations due to underpass and retaining walls.
  - City has been presented with some additional improvement scenarios. The Draft TSP may consider revising the project description to make it more less specific about what the actual fix might be. This will give the City and ODOT more flexibility to find lower cost and less impactive solutions.
- Comprehensive Plan/Development Code Revisions
  - Scot Siegel gave an overview of the code changes. It was stressed that the code modifications follow the recommendations of the TSP and that any future revisions to the Draft TSP would be followed with applicable code revisions.

BAKER CITY COUNCIL/PLANNING COMMISSION
SPECIAL MEETING
Tuesday, April 16, 2013

#1) Call to Order

The meeting was called to order at 7:00 p.m. by Mayor Richard Langrell in Baker City Hall Council Chambers.

#2) Roll Call

Roll call was answered by Mayor Richard Langrell and Councilors Dennis Dorrah, Barbara Johnson, Clair Button, Roger Coles and Mike Downing. Councilor Kim Mosier and Planning Commissioners Tim Collins and Ken Rockwell were absent. Planning Commissioner Rob Ellingson and City Manager Mike Kee arrived late. Also present were City Recorder Becky Fitzpatrick, Public Works Director Michelle Owen, City Engineer Doug Schwin and City/County Planners Jenny Long and Holly Kerns. Also in attendance was Grant Young from the Department of Land Conservation and Development (DLCD).

Matt Hughart from Kittelson & Associates and Scott Siegel from Siegel Planning Services, LLC introduced themselves.

#3) Draft Baker City Transportation System Plan (TSP) Presentation

a. **TSP Overview**
b. **Development Code and Comprehensive Plan Amendments**

Next on the agenda was a presentation of the draft updates for the TSP, Development Code and Comprehensive Plans.

Mr. Hughart explained that they wanted to give the City Council and the Planning Commission an opportunity to see the work that had been accomplished over the prior year. He noted that this was the time to clear up any misunderstandings and to hear testimony.

Mr. Hughart commented that the project was required to be submitted to the DLCD for review by the end of the following week.

Mr. Hughart began his presentation explaining that there were six sections laid out:

1. Introduction
2. Bicycle and pedestrian elements
3. Roadway plans
4. Transit
5. Others-water, light rail, rail, air
6. Funding

Next Mr. Hughart began an overview of the draft plan. He brought the group's attention to figure 2-1 which identified the pedestrian improvements. As he continued the overview, Ms.

VanSickel asked for clarification of the letters "P" and "S." Mr. Hughart explained that "P" stood for pedestrian and "S" stood for shared-use paths.

Mr. Hughart then proceeded to figure 2.2 which showed bicycle improvement projects. There was discussion regarding bicycle lanes on Tenth Street and Broadway. Mr. Hughart commented that most roadways fall into the category where bicycle lanes are not required, but added that bicycle lanes were important for busy streets.

The group continued this line of discussion, often referring to Campbell Street. Mr. Blair commented that cars and bicycles did not mix well. After further discussion, Mr. Young explained that Oregon law determines that there must be ways for all types of transportation. It was noted that not all citizens drive cars and this plan should accommodate all forms of transportation.

In a discussion regarding Tenth Street and Broadway, Mr. Ellingson commented that he did not like the idea of three lanes on Tenth Street. He noted that bicyclists did not follow the rules.

There was a brief discussion regarding truck routes.

Mayor Langrell commented that he used Campbell Street every day and did not encounter many bicycles but did see many skateboarders.

Mr. Button commented that Campbell Street traffic was not any slower than it was prior to being modified. He noted that bicycle lanes were needed for safety.

Mr. Hughart explained that the proposed change to three lanes on Tenth Street and Broadway was not just about bicycles. He noted that the volume of traffic did not require so many lanes. Mr. Hughart indicated that it was about safety and reduction of car accidents. Ms. Long commented that there was concern about making left turns on Tenth Street and noted that the people she talked to from that area realize it would be good to have a turn lane.

Mr. Coles commented that there was a bicycle problem on Main Street, as well. Ms. Long responded that they were looking at a Transportation and Growth Management (TGM) grant for a Main Street-Downtown refinement plan.

In response to a question from Mr. Ellingson, Mr. Hughart

indicated that ODOT worked with communities on highways that run through cities.

In a discussion regarding the intersection of Dewey and Myrtle Streets, Ms. VanSickel, who lives in that area, commented that she had seen a motion-sensor light at a similar intersection in another community. In further discussion regarding that area, Ms. Owen commented that there were options such as flaring out the retaining wall.

The discussion returned to Campbell Street and the concrete barrier by McDonald's. In a discussion regarding the traffic light on Cedar Street, Ms. Owen commented that the signal timing needed to be revisited.

The group discussed eventually changing the driveways at Safeway/Rite Aid to a shared driveway in the middle of the block to reduce conflicts at the intersections. The group agreed that there needed to be further studies on Campbell Street when the money becomes available.

Mr. Siegel commented that the Development Code follows the Comprehensive Plan, not the other way around. He noted that the language flows from the Transportation Plan. Mr. Siegel stated that most of the changes in the Development Code were housekeeping issues needed to keep things consistent with the Transportation Plan. He stressed the importance in making the language clear enough for developers and others to know what to do.

Mr. Siegel commented that whoever put the Development Code together did a very good job. He continued to review the Development Code and proposed changes and clarifications. Mr. Siegel indicated that the Comprehensive Plan is more general than the Development Code, which is more detailed.

Mr. Siegel explained that some streets that are highways could be designated as special transportation areas, which would allow some flexibility for parking options.

There was a discussion regarding Auburn Avenue sidewalks. Ms. Long explained that when there is development along that stretch of Auburn, sidewalks will be required. Mr. Schwin noted that there should be some thought about whether curbs should be required if sidewalks are required.

Mr. Young noted that there are different types of industrial

zones. Mr. Siegel commented that the City could give the ability to the Planning Commission to make those determinations.

Mr. Hughart continued his presentation of the TSP, bringing the attention of the group to the maps. He noted that there would always be roadways that would never likely be paved, but drainage would need to be addressed.

Mr. Dorrah noted concern about the bicycle lanes shown on the map of Tenth Street and Broadway. Mr. Hughart stated that he would remove those lanes from the map.

Mr. Hughart commented that this was the City's plan and he was present to work with this group.

In a brief discussion regarding the following evening, Ms. Long explained that it would be a regular Planning meeting and there would be more discussion on the TSP. Ms. Owen added that Mr. Hughart would be present at that meeting.

#4) Adjourn

With no further business to discuss the meeting was ADJOURNED at 9:30 p.m.

SIGNED:_____
Mayor

ATTEST:_____
City Recorder

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MEETING SUMMARY

April 17, 2013 – Baker City TSP
(PC/CC Work Session Part 2)

TEAM MEMBERS PRESENT: Matt Hughart, Kittelson & Associates, Inc.

FROM: Matt Hughart (KAI)

DATE: April 18, 2013

The Planning Commission/City Council Work Session (Part 2) was a regularly scheduled Planning Commission hearing and was held on April 17, 2013 in Baker City. Planning Commission members in attendance included Alan Blair, Wayne Wall, and Rob Ellington. City/County staff in attendance included Michelle Owen, Doug Schwin, Jenny Long and Holly Kearns.

General

- There were too few Planning Commission members in attendance to have a quorum, however the meeting continued informally.
- Jenny Long gave an overview of the City staff work session that occurred earlier in the day. The work session gave staff an opportunity to discuss potential changes to the Draft TSP that came about during the April 16th Planning Commission/City Council Work Session (Part 1).
    - City staff have decided to simplify the number of cross sections that will be included in the TSP. The cross section changes were briefly described.
    - Additional clarification will be provided that clears up some draft language regarding half-street improvements.
    - The Dewey/Myrtle improvement project description will be revised to provide more flexibility and allow City/ODOT staff to continue to investigate additional improvements beyond just the retaining wall improvement. Other potential solutions may include on-street parking restrictions and flashing indicator lights.
    - City staff talked with ODOT regarding the Campbell Street/Cedar Street traffic signal. ODOT indicated that the signal could be revised, but that it would involve some hardware upgrades.

- Best Frontage Road will be revised from an Arterial to a Collector. The Collector designation is more in line with what will actually be built when the project is completed.
- City staff will investigate adding some truck routing signage that will help encourage trucks to continue to use Campbell Street.

Baker City Planning Commission
Work Session
April 17, 2013
7:00 p.m.

MINUTES

The work session was called to order at 7:00 p.m. by Chairman Alan Blair. Commission members present included: Alan Blair, Rob Ellingson, and Wayne Wall. Commission members Tim Collins, Myrna Neumann, Ken Rockwell and Gail VanSickel were absent.

Staff: Jenny Long, Holly Kerns, Michelle Owen, Doug Schwin
City Manager: Mike Kee
DLCD: Grant Young
Consultant: Matt Hughart (KAI)

There was not a quorum of Planning Commission members present to conduct official business. There was no approval of meeting minutes or election of officers. The members present participated in a work session with staff to discuss the Transportation System Plan.

Planning Commission/City Council Work Session (Part 2): Continued Discussion of TSP Update

Planner Jenny Long gave a brief overview of the City staff work that occurred earlier in the day. The work session gave staff an opportunity to discuss potential changes to the Draft TSP that were brought up during the April 16th Planning Commission/City Council Work Session (Part 1). She informed the Planning Commission that staff had decided to simplify the number of cross sections that will be included in the TSP. She described the proposed changes.

Ms. Long described staff proposed changes to Campbell Street. There was discussion of the proposed changes. There was discussion of Campbell Street's bike and center lane proposed changes. Ms. Long said that staff proposed wider sidewalks in the C-C Zone and landscape strips in the G-C zone. There was discussion of sidewalks and landscape strips.

The staff proposed TSP simplifications were discussed. Commissioner Wall asked about diagonal parking. There was discussion of downtown parking. Ms. Long informed the commissioners of proposed gravel road changes.

Chairman Blair asked about a possible provision for development to use gravel streets. Staff discussed the topics of road improvement requirements and private streets with the commissioners.

Ms. Long summarized proposed TSP clarifications for half streets. There was discussion of remaining half streets within the city.

Staff discussed the Dewey/Myrtle improvement project revisions to provide more flexibility and allow City/ODOT staff to continue to investigate additional improvements beyond just the retaining wall improvements. On-street parking restrictions and flashing indicator lights were discussed.

Staff discussed Campbell Street and Cedar Street traffic signals. Best Frontage Road was proposed to be improved and re-designated from an Arterial to a Collector. Guard rails were suggested near the ponds.

Staff proposed adding signage to route trucks from Plum to Campbell Street. The topic of freight truck traffic was discussed. Commissioner Wall described past street uses.

Ms. Long described proposed sidewalk requirements and variance process to allow for modified street sections.

Mr. Hughart informed the commission members of the process for submitting the proposed TSP.

Mr. Young suggested allowing for Planning Director discretion in selecting cross-sections instead of relying on a variance process to do something different. Staff discussed possible diagonal parking requests. Chair Blair suggested how the Planning Commission would interact with relying on Planning Director discretion.

Development and public access was discussed between staff and the Planning Commission.

Ms. Kerns stated the next Planning Commission meeting would take place on May 15th 2013.

With no further items to discuss, the work session ended at 8:07 p.m.

BAKER CITY

On the Historic Oregon Trail. Established 1874

TRANSPORTATION SYSTEM PLAN - OPEN HOUSE

Tuesday, 28 May 2013 17:27

0 Comments

BAKER CITY, OREGON – May 2013. The City of Baker City will host a community open house on May 29th as part of the City's efforts to update its Transportation System Plan (TSP). The open house will be held at the Baker City Hall, Council Chambers from 5:00 p.m. to 6:30 p.m.

The purpose of the open house is to give the general public an opportunity to review the DRAFT Transportation System Plan and the DRAFT Comprehensive Plan/Development Code changes. The plan will guide transportation infrastructure decision making for the City over the next 20 years. Specific elements of the plan include Active Transportation (Bicycle and Pedestrian), Intersection and Roadway Plan, Transit Plan, and Funding/Implementation Plan.

For more information on the May 29th open house or the Transportation System Plan Update, visit the project website at:

http://sites.kittelson.com/Baker_City_TSP

or contact Michelle Owen, Director of Public Works at 524-2031 or at mowen@bakercity.com.

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- Water Depar

BAKER CITY
TRANSPORTATION SYSTEM PLAN UPDATE

Public Open House #3
May 29, 2013
Sign-in Sheet

Name Ron Davis
Address 1500 Vista Heights Dr Baker City
Email 480-275-0388

Name Chris + Carrie Folkman
Address 2845 Hughes Lane
Email mtviewrv@oregontrail.net

Name Danny Evans
Address 1911-15th St Baker City
Email

Name Sandi Fuller
Address 2433 4th
Email b-sandif@marvin.com

Name Judy Head
Address 905 Elm street, 97814
Email grizgripper@aol.com

Name Jim & Mary Ann Ingram
Address 46770 Hwy 30 Haines, OR 97833
Email ingramranches@yahoo.com

Name
Address
Email

Name
Address
Email

BAKER CITY PLANNING COMMISSION

Date: May 29, 2013

Planning Commission Case CPA-13-132

A request by the City of Baker City to adopt amendments to the Transportation System Plan and incorporating relevant policies, maps, and standards into the Comprehensive Plan and Development Code.

Please sign if you wish to speak and/or receive a copy of the Notice of Decision.

Name	Address	City	State	Zip
Ron Davis	1500 Vista Heights	Baker City	Pmn Post	
Duane Pat Carrayton	1420 17th St	BAKER City	DOUM	
JUDY HEAD	905 QM	97814	OR	CIC
CHRISTOPHER CHRISTIE	1985 15TH ST. BC 97814	BC	OR	97814 CIC
Tamora Pierce	3910 Broadway	Baker	OR	97814 SIDE
Bill Harvey	3370 10th ST	Baker	Or	97814 STRIPES

BAKER CITY PLANNING COMMISSION

Date: May 29, 2013

Planning Commission Case CPA-13-132

A request by the City of Baker City to adopt amendments to the Transportation System Plan and incorporating relevant policies, maps, and standards into the Comprehensive Plan and Development Code.

Please sign if you wish to speak and/or receive a copy of the Notice of Decision.

Name	Address	City	State	Zip
Carmen Ott	914 Washington	BC	TRUCKS	97814
Mike Lantz	3110 Broadway St	BC	LA OR	97814

Baker City Planning Commission
Regular Meeting
May 29, 2013
7:00 p.m.

MINUTES

The meeting was called to order at 7:00 p.m. by Chairman Alan Blair. Commission members present included: Alan Blair, Tim Collins, Ken Rockwell, Rob Ellingson, and Wayne Wall. Commission members Myrna Neumann and Gail VanSickel were absent.

Staff present: Jenny Long, Laurie Hoopes, Holly Kerns, Kevin Berryman, Michelle Owen, Doug Schwin, and Mike Kee

Public Hearing - Planning Commission Case No. CUP-13-131: A Conditional Use request to establish a house of worship (church) in an existing structure located in the General Commercial (C-G) Zone.

Planner Hoopes gave a brief overview of the case.

Commissioner Collins asked for information on the easement. Ms. Hoopes described the easement. There was discussion of the property line adjustment for parking purposes. Collins suggested the applicant give testimony.

Scott Knox, 2145 21st Street, Baker City, OR 97814
Mr. Knox said that the lot line adjustment and easements would be a matter for the property owner. Chair Blair informed the applicant that parking cannot be on another owner's property. Mr. Knox said that all code would be met. Commissioner Collins stated that parking is based on the meeting space and would need to be worked out with the seller. Blair described historic access on the land. Collins explained prescriptive easements.

Commissioner Rockwell asked how large the congregation is. There was discussion of parking needs. Mr. Knox explained that parking is adequate for the needs. Commissioner Wall asked for the size of the congregation. Mr. Knox replied that his congregation includes approximately 100 members. Wall asked if the parking area would be adequate in five years. Mr. Knox said that if the congregation grew, more parking would be needed.

Commissioner Wall asked how nearby trains would affect the church. Mr. Knox believed railroad traffic would not have an adverse affect. Commissioner Collins suggested that the applicant be told that he would need legal access. There was discussion of the driveway easement, setbacks, and parking space requirements.

The applicant was dismissed. There was no other testimony.

Chair Blair closed the public hearing at 7:28 p.m.

Commissioner Collins asked for clarification for how parking was determined. Ms. Long stated the requirement is one parking space per 75 sq. ft. of assembly area. Collins said that he feels that it seems like less parking than needed. He asked if there had been any complaints about the current

church location. Ms. Hoopes stated that there have been no complaints. Collins said he would not approve of any renting of parking property.

Commissioner Ellingson discussed parking overflow on the property.

Chair Blair suggested that conditions be made for parking. Commissioner Rockwell agreed that conditions be added for parking. Commissioner Collins asked where the business known as Sorbenots would access parking. There was discussion of parking on the property and the usage within the zone. Collins suggested that parking be on property owned by the church with exception of the drive aisle. There was discussion of the drive aisle. Collins restated that the parking property should be owned by the church.

Commissioner Blair said that permanent easement should be included in the conditions. There was discussion of parking in the area. Commissioner Ellingson stated that the church should own the parking property and work with the owner to meet parking requirements. Commissioner Collins discussed general parking issues. There was discussion of property leasing and on/offsite parking.

There was discussion of access to the property through railroad property and alternate access from Church Street.

Commissioner Rockwell moved to approve Planning Commission Case No. CPA-13-131 based on findings of fact and conclusions set forth in the staff report and subject to the conditions of approval as adopted herein and amended to include access and parking spaces in condition number three. Motion seconded by Commissioner Ellingson. Motion carried unanimously.

Chair Blair stated that parking is an important topic for the Planning Commission.

Public Hearing – Planning Commission Case No. CPA-13-132: A request by the City of Baker City to adopt amendments to the Transportation System Plan and incorporating relevant policies, maps, and standards into the Comprehensive Plan and Development Code.

There was discussion of legislative hearing protocol.

Planner Long gave a brief summary and introduced the consultant Matt Hughart who gave an overview of the proposed Transportation System update.

Ms. Long submitted additional written testimony. Consultant Scot Siegel gave an explanation for the process of adopting the updated transportation plan and its incorporation.

Chair Blair stated that public testimony would now be accepted. He asked that they try to keep their comments to about 5 minutes.

Ron Davis, 1500 Vista Heights, Baker City, OR 97814
Mr. Davis said that he does not have issues with the motorized portion of the plan, but is in protest of the Smith Ditch Trail that would run through his property.

Chair Blair explained that the proposed TSP is a 20 year plan. Mr. Davis asked if the materials were available in the newspaper. Blair said the materials were available to all at any time. There was discussion of tax payer and property owner rights.

Duane Crampton, 1420 17th Street, Baker City, OR 97814
Mr. Crampton gave testimony opposing to the Smith Ditch Trail project in the proposed TSP. He explained the dangers of public access to the Smith Ditch.

Judy Head, 905 Elm Street, Baker City, OR 97814
Ms. Head explained her history in the city. She referenced Senate Bill 100 and stated that the TSP citizen involvement process has been inadequate and possibly illegal without a citizens' advisory committee. She cited sidewalks and discussed the bike paths as examples. She read a portion of Senate Bill 100.

Christopher Christie, 1985 15th Street, Baker City, OR 97814
Mr. Christie expressed disappointment with citizen involvement and read a prepared statement opposing to various aspects of the TSP. He gave testimony opposing to the proposed sidewalks on 15th street. He stated that he believes that the cost of sidewalks should be paid for by all tax payers.

The commission advised Mr. Christie to summarize his prepared statement. Mr. Christie stated that the Planning Commission is not broadly representative of the area. He stated that the public notice should have included maps and been mailed out a year in advance.

Commissioner Collins asked how the sidewalk plan has been funded. Mr. Hughart described the possible funding sources. Collins asked why 15th Street was chosen for sidewalks. Hughart said that area is underdeveloped and in need of a pedestrian element.

Tamera Pierce, 3910 Broadway, Baker City, OR 97814
Ms. Pierce said that in her area there is very little foot traffic and she is concerned by the amount of trees that would be lost if sidewalks were installed. She also gave her concerns for the safety of sidewalks along the ditch.

Chair Blair explained that the TSP plan is a 20 year plan and no projects will be constructed without a process with public input.

Bill Harvey, 3370 10th Street, Baker City, OR 97814
Mr. Harvey thanked the commission. He discussed the long process he was involved in for the County TSP as a Baker County Planning Commissioner. He stated his opposition to any change of 10th Street and explained how changes would congest traffic. He asked that the commission defend the citizens. He asked that the process slow down.

Commissioner Collins stated that the proposed 10th Street restriping has been removed from the TSP. There was discussion of how the state highway affects 10th Street.

There was discussion of notification and the time frame for the TSP.

Carmen Ott, 914 Washington Avenue, Baker City, OR 97814
Ms. Ott explained why she believes the local newspaper is not an adequate method of notification. She stated that she believes that Campbell Street is too slow. She detailed how her property has been adversely affected by semi-truck traffic. She stated that the island near the McDonalds Restaurant creates more issues. She expressed concern for school children coming and going from Brooklyn Elementary School.

Chair Blair asked if an alteration is planned for the island. Michelle Owen stated there is a plan to alter the island.

Alice Lentz, 3110 Grove Street, Baker City, OR 97814
Ms. Lentz expressed agreement with previous testimony and stated that she was not aware of the open house. She said she is concerned about the lack of crosswalks near the DHS building on 10th Street.

There was discussion of near and long term projects and development driven plans.

Ms. Lentz gave further concerns of the lack of sidewalks for schools. Commissioner Collins stated that all school sidewalk improvements are near term projects.

Mr. Christie briefly interrupted proceedings in protest of his allotted time to speak.

Chair Blair asked for additional comments. Ms. Head submitted a letter by Greg Brown. Planner Long read the letter.

Mr. Christie was given additional time to speak. He expressed his concerns for the process and potential funding of TSP projects. Commissioner Collins clarified that there would be opportunity to protest TSP projects in the future.

Chair Blair closed the public hearing at 9:17 p.m.

Commissioner Collins asked why the Smith Ditch project is in the TSP. Ms. Owen stated that the Smith Ditch could be piped and explained the process that lead the city to conceptualize the Smith Ditch pathway proposal.

Mr. Christie stated that he believes citizen involvement and the notifications were inadequate.

Chair Blair said that there are too many maps to mail to every person in the city. There was discussion of holding another open house and continuing the meeting.

Commissioner Ellingson moved to continue the meeting to June 5, 2013, starting with an Open House at 6:00 p.m. and followed by a hearing to accept additional testimony at 7:00 p.m. Commissioner Collins seconded the motion. Motion carried.

With no further items to discuss, the meeting was ADJOURNED at 9:40 p.m.

NOTICE:

Your participation is very important.
Thank you for your community involvement!

The purpose of the open house is to give the general public an opportunity to review the transportation projects identified which will form the basis of the Transportation System Plan (TSP). Interactive maps and feedback forms will also be provided so citizens can provide comments and submit ideas on how to improve the roadway, pedestrian, bicycle, and transit network in Baker City over the next 20 years.

For more information visit www.bakercity.com/government/plans-a-projects/246 or contact Jenny Long at (541) 523-8219 or jlong@bakercounty.org

Transportation System Plan Update
COMMUNITY OPEN HOUSE
at 6:00 p.m.
& PUBLIC HEARING
at 7:00 p.m.
Wednesday, June 5, 2013
in the Council Chambers of Baker City Hall at 1655 First Street, Baker City.

Transportation System Plan OPEN HOUSE

Date: June 5, 2013

Name	Address	City	State	Zip
[illegible]	2450 14th	Baker City	OR	[illegible]
JUDY HEAD	905 ELM Street	Bkr City	OR.	97814
John Chakarun	1600 VISTA HTS DR	Bkr City	OR	97814
Brenda Paul	889 Elm St.	Baker City	OR	97814
Ron Davis	1500 Vista Heights	Baker City	OR	97814
Jason Yencopal	1495 Myrtle St.	Baker City	OR	97814
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mardelle Abell	1802 Kobler Ln	BC		97814
Pat Thayer	1515 CLARK	BC		
MARK & Dana SERVID	1413 E Hunt Meth Ch 2201 Oak at Cedar	BC	OR	97814

Transportation System Plan OPEN HOUSE

Date: June 5, 2013

Name	Address	City	State	Zip
[illegible]	18012 [illegible]	[illegible] City	OR	[illegible]

BAKER CITY PLANNING COMMISSION

Date: June 5, 2013

Planning Commission Case CPA-13-132

A request by the City of Baker City to adopt amendments to the Transportation System Plan and incorporating relevant policies, maps, and standards into the Comprehensive Plan and Development Code.

Please sign if you wish to speak and/or receive a copy of the Notice of Decision.

Name	Address	City	State	Zip
[illegible]	1501 [illegible]	[illegible] DITCH	[illegible]	[illegible]
Ron Davis	1500 Vista [illegible]	[illegible] DITCH	[illegible]	[illegible]
[illegible]	1500 [illegible]	[illegible] DITCH	[illegible]	[illegible]
Judy Head	905 Elm St.	BC CIC	OR	97814
[illegible]	889 Elm St	[illegible] CUT OFF	partially	[illegible]
BLUE HAWK	9TH ST. / TO 3RD STREET SD			

BAKER CITY PLANNING COMMISSION

Date: June 5, 2013

Planning Commission Case CPA-13-132

A request by the City of Baker City to adopt amendments to the Transportation System Plan and incorporating relevant policies, maps, and standards into the Comprehensive Plan and Development Code.

Please sign if you wish to speak and/or receive a copy of the Notice of Decision.

Name	Address	City	State	Zip
Mark & Dona Sorvig Rock Garden Greenhouse	1413 & Almost Mt Home 2601 Oak & Cedar	Baker City	OR B ST	97814
John Chakerian	1600 Virta Hts Dr	Baker City	DITCH OR	97814
Pat Guyman	1515 Clark St	"	"	

Section 6 Policy and Code Amendments

POLICY AND CODE AMENDMENTS

BAKER CITY TRANSPORTATION SYSTEM PLAN UPDATE
COMPREHENSIVE PLAN AMENDMENTS
COUNCIL PRELIMINARY ADOPTION, JUNE 11, 2013

The draft comprehensive plan and development code amendments follow the format of Baker City's existing plan and code. Regular typeface indicates current plan and code language, and amendments are indicated by strikeout (deleted) and underlined (added) text.

BAKER CITY COMPREHENSIVE PLAN - TRANSPORTATION[1]

GOAL:

To provide a safe, efficient and convenient transportation system realizing maximum mobility for the community's citizens.

FINDINGS:

1. The City has developed a Public Facility Plan in conformance with rule requirements for Statewide Planning Goal 11, which includes planning requirements for transportation. ~~Aspects of the City's Transportation System Plan address Public Facility Plan requirements. Steps have been taken to coordinate the two plans.~~
2. The City has more than 86 miles of street right-of-way within its corporate limits. ~~This represents slightly more than 30% of all developed land area in the city, which is about average in the state.~~
3. Streets, roads, and highways lend themselves to classification by their level of use. For purposes of this plan, designated state highways carrying through-city traffic and serving also as principal cross-town routes for local transportation are classified as ~~major a~~Arterials. Traffic collectors, bridging residential areas with ~~major a~~Arterials, are termed ~~minor arterials~~ Collectors. This designation is also applied to a number of streets which serve the primary purpose of providing access to business and industry. The remaining streets are principally for access to the abutting properties and are termed Local streets.
4. The following public and freight transportation is presently available:
   a) **AIR:** Charter, air ambulance and limited freight service can be available at the Baker Municipal Airport (located approximately three miles north of the city).
   b) **BUS:** Interstate bus service is provided by Greyhound Lines on a regular schedule. ~~The city/county sponsored senior citizens bus provides transportation between outlying communities and Baker City, as well as in town.~~
   c) **RAIL:** Union Pacific handles freight (in carload lots).
   d) **TAXI:** Baker Cab, franchised by the city, is available for local point-to-point transportation.
   ~~e) **TRUCKING:** Though more than a half dozen trucking firms provide Baker City with both local and interstate transport, service has deteriorated in recent years.~~
   e) **LOCAL BUS TRANSIT:** Northeast Oregon Public Transit operates Baker City Trolley, providing a single, two-way route from the east side of Baker to the west six days per week, and linking to ~~Neotransit~~ NEOtransit services in La Grande, Halfway, and Wallowa County. There is also demand-responsive and ADA para-transit service available to residents and others in Baker City.

[1]The proposed amendments are based on the City of Baker City Comprehensive Plan, adopted by Ordinance 2780, December 26, 1978, and as amended, most recently through Ordinance No. 3311, March 13, 2012.

5. Many older streets in town are in need of patching and resurfacing. In addition, a few will require base or curb construction.

6. There are some ~~13.34~~ 9.64 miles of unpaved, but open, streets.

7. The City presently has ~~57.26~~ 60.61 miles of paved streets, ~~9.96~~ 9.64 miles of gravel streets, and ~~11.98~~ 11.47 miles of platted but unopened streets. Of the ~~57.26~~ 60.61 paved miles, ~~54.45~~ 38.96 miles were determined in ~~2000~~ 2013 to be in very good or good condition. ~~In order to maintain this percentage, a comprehensive maintenance program has been developed. The City will develop a funding program for the needed maintenance. Community Development Block Grant funds from HUD will also be used to improve some streets in targeted neighborhoods.~~

8. Key transportation needs include: ~~Transportation related construction needs include:~~

   ~~a) From Campbell Street, a northerly extension of Birch Street, along Plum Street, to Park Street or possibly to an easterly extension of Hughes Lane.~~

   ~~b) A more direct street pattern requiring a new right-of-way for 'turning the corner' on Indiana Avenue and Reservoir Road.~~

   ~~c) Continuation of the I-84 east side Frontage Road to a connection with Campbell Street.~~

   ~~d) 'D' Street bridge over the Powder River.~~

   ~~e) Northerly extension of East Street from 'D' Street to Hughes Lane.~~

   ~~f) Easterly extension of Colorado Avenue to Highway 30 with requisite railroad crossing.~~

   ~~g) Hughes Lane widening.~~

   ~~h) Downtown parking facilities.~~

   ~~i) A through north-south route from the central area of the city to Hughes Lane. Suggested routing at this time is north on Grove Street, then west on 'H' Street, then north on Kirk Way.~~

   a) Sidewalk infill along key east-west and north-south roadways.

   b) Formal designation of Neighborhood Routes along key east-west and north-south roadways.

   c) Expansion of the multi-use pathway network.

   d) Refinements to the overall roadway functional classification system including Special Transportation Area (STA) and Urban Business Area (UBA) overlay designations to key segments of the state highway network.

   e) Expansion of the existing roadway grid to serve potential future development.

   f) Enhancements to major intersections and roadway segments to accommodate future growth or address safety concerns.

9. At the airport, the main runway, 13-31 ~~12-30~~, was totally reconstructed during 1983-84 and received an overlay in 2002. Runway 17-35 received an overlay in 1991 and was sealed in 2004. ~~16-34, was overlaid in 1992.~~ The Airport Master Plan, updated in 2010, provides that Runway 17-35 ~~16-34~~ will be maintained to a lesser level of readiness than the main runway, 13-31. ~~12-30~~.

10. Sidewalks are now found in nearly all areas of town with streets developed to primary standard. In other areas, existence of sidewalks is spotty. Although some areas are ~~but~~ less critical due to the nature of ~~the~~ existing and planned development or ~~and, in general,~~ the volume of foot traffic, other areas would benefit from sidewalk infill projects. Sidewalk infill is proposed on designated

neighborhood routes as well as on higher volume streets and school walking routes; such projects provide important access to destinations such as local parks, schools, and shopping areas. Where sidewalk infill is not proposed, there is either a sidewalk already existing or low motor vehicle volumes and speeds support walking on the street.

11. Baker City has a well-connected network of neighborhood streets that are comfortable for walking and bicycling. The TSP identifies a network of "Neighborhood Routes" to improve access to destinations throughout the city, including transit services. Implementation of this network includes:

    a) Sidewalk installation along pedestrian network gaps;

    b) Crossing enhancements where neighborhood routes cross major streets;

    c) Wayfinding such as signs and/or pavement markings to identify neighborhood routes and direct pedestrians and bicyclists to key destinations; and

    d) Low traffic volumes and speeds, which support bicycling without separate bicycle lanes.

~~Three bike lanes have been constructed and designated within the city. These are along Cedar Street, from Hughes Lane to Campbell, along Highway 7, from the underpass to Indiana Avenue, and along Campbell Street from Main Street to Birch Street. In addition the City has constructed a separate multi-use pathway from Geiser Pollman Park to Hughes Lane along the Powder River with a spur off to Baker Sports Complex. Current plans are to extend the path to Wade Williams Field.~~

~~12. The City has adopted a truck route ordinance that prohibits truck traffic and truck parking on certain streets within the city.~~

12~~13~~. The City has developed a prioritized list of planned roadway extensions, roadway modifications, and intersection improvements as part of its Transportation System Plan.

POLICIES:

1. The City will take steps to assure that the Transportation System Plan and Public Facility Plan are coordinated, particularly with regard to recommended capital improvements.
2. The City shall determine street status designation on a continuing basis.
3. Street construction standards, signaling, signing, and all services (for example, sweeping and snow removal) shall correspond with these designations and be appropriate to the particular street's design and use.
4. The City shall designate truck routes and enforce their use where necessary and desirable.
5. The City will strive to facilitate variety and adequacy of the transportation services available to the community.
6. The City shall repair, construct new, and generally upgrade its streets to the greatest extent possible recognizing monetary constraints.
7. Airport facilities shall be maintained at a level which is adequate for the safety of its use and protects the capital investment in existing improvements. In addition, the City shall prohibit

structures either within city limits or the Urban Growth Boundary that impact on the airport conical surface.

8. Sidewalks shall be provided ~~encouraged~~ in new subdivisions and pursuant to Development Code requirements ~~where development occurs in areas designated for sidewalk infill projects, appropriate areas~~ for reasons of safety, ease of pedestrian movement, and as a buffer between street and privately-owned land uses. The City may accept interim improvements, and may pursue grants for infill sidewalk projects that cannot otherwise be provided through development exactions.

9. Bike lanes shall be provided ~~paths may be~~ as designated by the ~~Bike~~ Bicycle Network ~~Projects~~ Plan, ~~and/or constructed wherever possible~~ to make bicycling safe, enjoyable and an efficient alternative to local motorized transport. Potential recreational use shall be considered as well, particularly in designating routes inappropriate for motor vehicle traffic.

10. Multi-use paths are appropriate in the general locations shown on the Pedestrian and Bicycle Network Plans. Where there is property owner support for creating multi-use paths, the City will work cooperatively with property owners and pursue grants to develop multi-use paths. The City may also adopt incentives for pathway development, for example, through transportation system development charge credits and/or adjustments to open space and/or standard subdivision improvement requirements (These options would require amending the Development Code.)

11.~~10.~~ Any proposed public right-of-way extension, opening, addition, widening, or improvement, closure or vacation must be formally approved and accepted by the City pursuant to Development Code provisions and the 2013 Baker City Transportation System Plan, and any amendments thereto. Also, any private use of any public right-of-way must receive prior approval. The City may, at its discretion, require certain improvements be made or make other stipulations as a condition to the city's acceptance of any street or alley use. This is done specifically for reasons of the City's liability in public right-of-way, maintenance obligation, police patrol, fire access and responsibility generally for the public peace, safety and welfare.

12. ~~11.~~ The City of Baker City will address access concerns in the development of new streets and the management of the existing ones. In addressing these concerns, the City shall coordinate with ODOT and avoid conflicts with State Highway Access Management Rules, and: ~~make use of the material contained in the Oregon Department of Transportation publication entitled "Access Management Guidelines".~~

a) Support the ODOT Special Transportation Area (STA) designation of the state highway segments outlined in Table 1. The STA designation would acknowledge Baker's historic development pattern, including the presence of on-street parking; and

b) Support the ODOT Urban Business Area (UBA) designation of the state highway segments outlined in Table 1. The UBA designation would acknowledge the unique access characteristics and potentially streamline the permit process for uses in these areas.

Table 1: Recommended Special Transportation Area (STA) and Urban Business Area (UBA) Designations

Roadway	*From (milepost)*	*To (milepost)*
STA Designation for US 30 (La Grande-Baker Highway)		
Broadway Street	10th Street (51.23)	Main Street (51.79)
Main Street	Broadway Street (51.79)	Auburn Avenue (52.04)
Auburn Avenue/Elm Street	Main Street (52.04)	Powder River Bridge (52.13)
UBA Designation for US 30 (La Grande-Baker Highway)		
10th Street	Hughes Lane (49.97)	Broadway Street (51.79)
STA Designation for OR 86 (Baker-Copperfield Highway)		
Main Street	Broadway Street (0.00)	Baker Street (0.13)
UBA Designation for OR 86 (Baker-Copperfield Highway)		
Main Street	Baker Street (0.12)	Campbell Street (0.24)
Campbell Street	Main Street (0.12)	Birch Street (0.98)
STA Designation for OR 7 (Whitney Highway)		
Main Street/Dewey Avenue	Estes Avenue (50.83)	Auburn Avenue (50.96)

13. ~~12.~~ The City shall continue to encourage the provision of bus service for senior citizens and otherwise transportation disadvantaged persons, in coordination with transit and social service providers. ~~bearing in mind the limited funds available to the City for provision of social services.~~

IMPLEMENTATION:

1. Figure 3-1 identifies significant transportation routes within the city, and classifies them as Arterials and Collectors ~~major or minor arterials~~ (as defined in the Findings section, Item 3). Planned and possible future extensions of ~~minor arterials~~ Arterials and Collectors needing additional right-of-way are also noted. (None of these classifications considers the present condition of any street other than the fact of its being open or not.) These designations will be reviewed at a minimum of once yearly by the City staff who will recommend needed changes or adjustments.

2. The City's Public Works Department shall review annually and recommend needed changes or adjustments in the previously adopted street standards that pertain to construction, signaling, signing, and all street related services.

~~3. The City staff shall study the effect of the truck route ordinance within the city, and within two years in adoption of this ordinance, submit a report to the council as to its findings including the desirability of amending the present routes.~~

3.~~4.~~ The City shall make effective use of all available resources in order to retain all transportation service presently available and to re-acquire, if possible, commuter airline service. The City shall also be receptive to new alternatives that appear in the best interests of the community's residents.

4.~~5.~~ The City shall~~, through its 10-year street program, beginning in 1978,~~ implement its highest priority transportation projects. ~~pave and overlay as many miles of street as possible.~~ The Public Works Department ~~Advisory Committee~~ shall, pursuant to available funding, schedule projects ~~for two years~~ in advance~~, and propose a tentative scheduling for an additional three years,~~ in order to provide sufficient lead time in planning and coordinating all necessary elements. Criteria for project selection shall include the following:

   a) Implementation of plan goals and policies with specific reference to map of planned transportation network.

   b) Present and anticipated public need, use (traffic counts, if available), density of development in area to be served.

   c) Condition of existing streets.

   d) Public demand, petition by owners, number of owners, and length of time request on file.

   e) Relationship to other planned or anticipated improvements or development either public of private.

   f) Use classification, traffic flow and safety.

   g) Relationship to existing paved streets (logical extension or isolated improvements?).

   h) Engineering considerations:

      i) General feasibility.

      ii) Right-of-way (possible acquisition required?);

      iii) Cost of construction with respect to area conditions such as soils, slope, groundwater, or ditches.

      iv) Size of project as relates to time and cost;

      v) Capability of other utilities to keep pace with construction;

vi) Special problems or conditions;

vii) Annual 'balance' of type and size of projects.

5.~~6.~~ The City shall integrate street extension and bridge proposals, and the street construction program, as part of the general Capital Improvement Program.

6. The City shall integrate pedestrian and bicycle improvements with its Capital Improvement Program

7. The City has adopted an Airport Master Plan. The city shall continue to coordinate efforts to obtain federal financing which will make the capital improvements program set forth in said Master Plan possible.

8. The City shall take any and all lawful actions as it sees fit to continually insure that any use of or action affecting a public right-of-way will follow established city ordinances and policies and is in the public interest.

9. The City through its Development Code shall ensure the provision of adequate multi-modal transportation facilities needed to serve development.

The following Development Code amendments are recommended to implement the TSP update. Changes are indicated with ~~strikeouts~~ for text deletions and underlines for additions. The comment boxes, which provide background on the changes, will be removed from the enacted code amendments. For brevity, where changes are limited only the affected code sections are provided; where no changes are proposed, omitted sections, or breaks in the text, are indicated by ellipses (***).

Table 2.2.110 Land Uses Allowed in Residential Districts (R-LD, R-MD, R-HD)

Transportation Facilities (operation, maintenance, preservation, and construction), in accordance with the Baker City Transportation System Plan	P	P	P

2.3.180 Commercial Districts – Pedestrian Amenities

A. Purpose and Applicability. Section 2.3.180 provides standards for pedestrian amenities when pedestrian amenities are required as part of new developments and major remodels in the Central-Commercial and Commercial-General Districts, and when pedestrian amenities are provided to meet the requirements of other code sections. Pedestrian amenities serve as informal gathering places for socializing, resting, and enjoyment along street frontages and contribute to a walkable district.

B. Standards. New developments and major remodels in the Central-Commercial and Commercial-General Districts and other developments subject to the provisions of this section shall provide one or more of the "pedestrian amenities" listed below, and as generally illustrated in Figure 2.3.180.B. Pedestrian amenities may be provided within a street furnishing zone, building frontage zone, or plaza, or within the pedestrian through zone, as shown in Figure 2.3.180.B. Use of the public right-of-way requires approval by the roadway authority. Within the furnishing zone a 2' setback clearance for car doors shall be maintained.

1. A plaza, courtyard, square or extra-wide sidewalk next to the building entrance (minimum width of 6 feet);
2. Sitting space (*i.e.*, dining area, benches, garden wall or ledges between the building entrance and sidewalk) with a minimum of 16 inches in height and 30 inches in width;
3. Building canopy, awning, pergola, or similar weather protection (minimum projection of 4 feet over a sidewalk or other pedestrian space). Awning heights shall be no less 7'6";
4. Public art that incorporates seating (*e.g.*, fountain, sculpture);
5. Bus waiting shelter with schedule information and seating, per the standards of the transit service provider.

Chapter 3.1 – Access and Circulation

3.1.200 Vehicular Access and Circulation

***

F. Corner and Intersection Separation; Access Spacing; Backing onto Public Streets. New and modified accesses shall conform to the following standards:

1. Except as provided under subsection 5, below, the following minimum distances shall be maintained between access points or approaches, where distance is measured from the edge of one approach to the edge of another: ~~distance from a street intersection to a driveway or other street access shall meet the following minimum spacing requirements for the street's classification in the City's Transportation System Plan~~:

   a. On an arterial street: 300-500 feet based on speed limit or posted speed, as applicable, except as otherwise required by ODOT for a state highway, pursuant to Oregon Administrative Rules (OAR) 734-051; and

   b. On a collector street: 100 feet; and

   c. On a local street, see subsection 6, below.

2. New property access on state highways shall conform to the State highway access spacing requirements in OAR 734-051.

~~2~~ 3. New property access on Collector and Arterial streets other than state highways shall not be permitted within fifty (50) feet of an intersection, unless no other reasonable access to the property is available or could be developed and a modification in the site design of the property cannot remedy the situation. The measurement shall be taken from the curb edge, or if no curb exists, from the theoretical curb location based on the planned roadway section for the given street. Where no other alternatives exist, the City may, at its discretion, allow construction of an access connection at a point less than 50 feet from an intersection, provided the access is as far away from the intersection as possible. In such cases, the City may impose turning restrictions and other traffic management techniques (i.e., right in/out, right in only, or right out only).~~;~~

~~3~~ 4. Access to and from off-street parking areas shall generally not permit backing onto a public street, except for single-family dwellings and duplexes. Where no other alternative exists the City, at its discretion, may allow backing onto a public street from perpendicular or angle parking spacing with the employment of a variety of transportation engineering or transportation planning techniques designed to mitigate or reduce to a reasonable level the safety hazard. Required features may include one-way streets with curb bulb-outs, curvilinear design, and modification of sidewalk locations.

5. The City may reduce required separation distance of access points as established in the Baker City Transportation System Plan (TSP) where they prove impractical due to lot dimensions, existing development, other physical features, or conflicting code requirements, provided all of the following requirements are met:

   a. Joint-use driveways and cross-access easements are provided, where practical, in accordance with subsection 3.1.200H;

   b. The site plan incorporates a unified access and circulation system in accordance with this Section; and

c. The property owner(s) enter in a written agreement with the City that pre-existing connections on the site will be closed and eliminated in conjunction with construction of each side of the joint-use driveway. Said written agreement can take the form of a condition of approval for a subdivision, partition, development review, site plan review, or recorded with the deed.

6. While the Baker City TSP does not restrict private driveway access on urban local streets, residential projects under review will be encouraged to combine driveway access through joint-use driveways or to access parking off of established alleys where conditions are practical.

***

G. Site Circulation. New developments shall be required to provide a circulation system that accommodates expected traffic on the site and does not conflict with traffic on adjacent roads. Pedestrian and, as applicable, bicycle way connections on the site, including connections through large sites, and connections between sites (as applicable) and adjacent sidewalks, must conform to the provisions in Section 3.1.300.

***

3.1.300 Pedestrian Access and Circulation

A. Site Layout and Design. To ensure safe, direct, and convenient pedestrian circulation, all ~~residential and commercial~~ developments shall provide a continuous pedestrian system. Pedestrian circulation will also be evaluated and provided for in industrial developments, as reviewed in the site plan review process. However, industrial developments shall not be required to provide sidewalks along public roads unless a determination is made by the Planning Director that such pedestrian access is justified for connectivity associated with adjacent residential or commercial land uses, ~~or due to likely pedestrian needs associated with industrial development~~ or where a pedestrian project has been identified pursuant to the Transportation System Plan. The pedestrian system shall be based on the standards in subsections 1-4, below:

1. **Continuous Walkway System.** The pedestrian walkway system shall extend throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent trails, public parks, and open space areas to the greatest extent practicable. The developer may also be required to connect or stub walkway(s) to adjacent streets and to private property with a previously reserved public access easement for this purpose, in accordance with the provisions of Section 3.1.200, Vehicular Access and Circulation, and Section 3.4.100, Transportation Standards.

2. **Safe, Direct, and Convenient.** Walkways and, where applicable, multi-use paths within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent parking areas, recreational areas/playgrounds, schools, streets, transit facilities, and other public ways based on the following definitions:

   a. **Reasonably direct.** A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.

b. **Safe and convenient.** A route that is reasonably free from hazards and provides a reasonably smooth and consistent surface and direct route of travel between destinations. The Planning Director or other city decision body may require landscape buffering between walkways and adjacent parking lots or driveways to mitigate safety concerns. ~~Routes that are reasonably free from hazards and provide a reasonably direct route of travel between destinations.~~

c. **"Primary entrance" for commercial, industrial, mixed use, public, and institutional buildings** is the main public entrance to the building. In the case where no public entrance exists, street connections shall be provided to the main employee entrance.

d. **"Primary entrance" for residential buildings** is the front door (i.e., facing the street). For multifamily buildings in which each unit does not have its own exterior entrance, the "primary entrance" may be a lobby, courtyard, or breezeway, which serves as a common entrance for more than one dwelling.

***

C. **Multi-use pathways.** Multi-use paths, where provided pursuant to the Transportation System Plan, shall conform to the standards in Section 3.4.100.F and be constructed of asphalt, concrete, or other all-weather surface as approved by the Public Works Director.

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Chapter 3.3 Community Design Standards – Bicycle Parking

3.3.400 Bicycle Parking Requirements

All uses that are subject to Site Design Review shall provide bicycle parking, in conformance with the standards in Table 3.3.400, and subsections A-H, below.

A. Minimum Required Bicycle Parking Spaces. Uses shall provide long- and short-term bicycle parking spaces, as designated in Table 3.3.400. Where two options are provided (*e.g.*, 2 spaces, or 1 per 8 bedrooms), the option resulting in more bicycle parking is used.

Use Categories	Specific Uses	~~Short-term~~ Bicycle Parking Spaces ~~(near building entry)~~
***		
Institutional Categories		
Schools	Grades 1-~~9~~8	~~2~~ one (1) short-term space per classroom, plus one (1) long-term space per classroom
	Grades ~~10~~9-12	One (1) short-term space per classroom, plus one (1) long-term space per classroom ~~4 per school~~, or per CUP review
Colleges ***	Excluding dormitories (see Group Living, above)	2 per classroom

B. Exemptions. This Section does not apply to single-family and two-family housing (attached, detached, or manufactured housing), home occupations, agriculture and livestock uses.

C. Location and Design. Short-term ~~B~~bicycle parking should, where possible, be no farther from the main building entrance than the distance to the closest vehicle space, or 50 feet, whichever is less. Long-term (*i.e.*, covered) bicycle parking, where required, should be incorporated ~~whenever possible~~ into a building's design. Short-term bicycle parking, when allowed within a public right-of-way, should be coordinated with the design of street furniture, as applicable.

D. Visibility and Security. Bicycle parking for customers and visitors of a use shall, where possible, be visible from street sidewalks or building entrances, so that it provides sufficient security from theft and damage;

E. Options for Storage. Long-term bicycle parking requirements for multiple family uses and employee parking can be met by providing a bicycle storage room, bicycle lockers, racks, or other secure storage space inside or outside of the building. Long-term bicycle parking requirements for other uses can be met by locating parking in a covered area, such as under a canopy, eave, or stairway, or within a building or storage locker;

F. Lighting. For security, bicycle parking shall be at least as well lit as vehicle parking..

G. Reserved Areas. Areas set aside for bicycle parking shall be clearly marked and reserved for bicycle parking only.

H. Hazards. Bicycle parking shall not impede or create a hazard to pedestrians. Parking areas shall be located so as to not conflict with vision clearance standards (Chapter 3.1, Access and Circulation).

***

Chapter 3.4 Public Facilities

3.4.100 Transportation Standards

A. Development Standards. The following standards shall be met for all new uses and developments:

1. All new lots created, consolidated, or modified through a land division, partition, lot line adjustment, lot consolidation, or street vacation must have frontage or approved access to a public street.

2. Streets within or adjacent to a development shall be improved in accordance with the Transportation System Plan and the provisions of this Chapter.

3. Development of new streets, street extensions, and modifications to existing streets, ~~and additional street width or improvements planned as a portion of an existing street,~~ shall be improved in accordance with this Section, and public streets shall be dedicated to the applicable road authority;

4. Bike lanes shall be provided pursuant to the Bike Projects Plan and the standards of this Chapter;

5. Sidewalks are required for all new development, except where specifically exempt by other provisions of this Code;

6. Where the TSP designates a multi-use path, the City may allow construction of a multi-use path in lieu of a standard sidewalk improvement. This option applies only in locations where providing both a multi-use path and a standard sidewalk would be redundant.

7. Where it is impractical for a developer or builder to provide a required sidewalk improvement at the time of development or construction, as applicable, the City decision body may require the dedication of rights-of-way or easements for future improvements, construction of interim improvements, and/or a property owner agreement to not remonstrate against the formation of a local improvement district created to complete such improvements in the future.

8. ~~4.~~ New streets, ~~and~~ drives, and multi-use paths shall be paved with asphalt, concrete, or other all-weather surface approved by the Public Works Director, pursuant to this Chapter.

***

F. Minimum Rights-of-Way and Street Sections. Except as provided by subsections (1) and (2), below, street ~~Street~~ rights-of-way and improvements shall be the widths in Table 3.4.100, as generally depicted in Figures 3-2 through 3-4. The basic public local residential street section shall be 28' with parking on both sides as shown in Table 3.4.100 for streets with an anticipated traffic demand of 500 ADT or less, and 32' with parking on both sides as shown in Table 3.4.100F when the anticipated traffic demand will be greater than 500 ADT.~~;~~

1. The Baker City Public Works Director shall have the discretion to approve alternative sections to those ~~as~~ shown in Table 3.4.100 and Figures 3-2 through 3-4, based on the factors listed in subsections a-g, below. In addition, with the Public Works Director's concurrence, the Planning Commission shall have the discretion to approve alternative sections to those shown in Table 3.4.100 and Figures 3-2 through 3-4, as may be proposed under a Master Planned Development. ~~based upon the following considerations~~:

   a.~~1.~~ Anticipated traffic generation and/or factors of limited access;

   b.~~2.~~ On-street parking needs;

   c.~~3.~~ Requirements for the placement of utilities. Preliminary engineering for utilities on narrow streets or those with significant variance in curve radii may be required;

   d.~~4.~~ Protection of significant environmental resources or reduction of potential impacts;

   e.~~5.~~ Advancement of urban or neighborhood design objectives, including but not limited to traffic calming, and general pedestrian safety and comfort;

   f.~~6.~~ Access needs for emergency vehicles; and

   g.~~7.~~ Other engineering or urban design factors as may be relevant.

2. Half-Street Improvements. With the Public Works Director's concurrence, the Planning Commission shall have the discretion to approve a half-street dedication and street frontage improvement where the developer does not own or control both sides of the subject right-of-way and where the new development will generate less than 300 Average Daily Trips (ADT).

I. Future Street Plan and Extension of Streets.

1. A future street plan shall be filed by the applicant in conjunction with an application for a subdivision in order to facilitate orderly development of the street system, consistent with the road network identified in the Transportation System Plan (TSP). The plan shall show the pattern of existing and proposed future streets from the boundaries of the proposed land division and shall include other divisible parcels within 400 feet surrounding and adjacent to the proposed land division, such that the proposed development will not restrict the future extension of key streets identified by the TSP. The street plan is not binding; rather it is intended to show potential future street extensions with future development

2. Streets shall be extended to the boundary lines of the parcel or tract to be developed when the City determines that the extension is necessary to give street access to, or permit a satisfactory future division of, adjoining land, consistent with the TSP and the standards of this Code. The point where the streets temporarily end shall conform to a-c, below:

   a. These extended streets or street stubs to adjoining properties are not considered to be cul-de-sacs since they are intended to continue as through streets when the adjoining property is developed.

   b. A barricade (e.g., fence, bollards, boulders or similar vehicle barrier) shall be constructed at the end of the street by the subdivider and shall not be removed until authorized by the City or other applicable agency with jurisdiction over the street. The cost of the barricade shall be included in the street construction cost.

   c. Temporary street ends shall provide turnarounds constructed to Uniform Fire Code standards for streets over 150 feet in length. See also, Section 3.1.200.

   d. A "No Through Street" sign shall be required.

Table 3.4.100F Street Standards from the adopted Transportation System Plan

Street Type	Ave. Daily Trips (ADT)	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area				Curb	Planting Strips, ~~or Tree Wells~~, or Swales	Side-Walks	~~Alleys~~	Multi-Use Paths~~-ways~~
				Motor Vehicle Travel Lanes	*Median/ Center Turn Lane*	*Bike Lanes*	*On-Street Parking*					
Arterials	8,000-30,000 ADT											
~~2 Lane Boulevard~~ Urban Arterial Street (50' Paving with No Parking)		80'	~~36'~~50' w/14' raised median	2 at 12'	~~Optional~~ 14'	2 at 6'	none	6"	6'~~-10'~~	8'		
Urban Arterial Street (with Parking on Both Sides)		80'	64' w/14' raised median	2 at 12'	12-14'	2 at 5'-6'	8' parallel (both sides)	6"	None	7'		
Commercial Street (36' Paving with No Parking)		80'	36'	2 at 12'	None	2 at 6'	None	6"	11'-15'	6'		10' Optional
Commercial Street (50' Paving – Parking Both Sides)[1]		80'	50'	2 at 12'	None	2 at 5'	8' parallel (both sides)	6"	8' with 6' sidewalk or none with 14' sidewalk	6' or 14'		
~~Downtown Commercial~~		~~74'~~	~~48'~~	~~11'~~	~~None~~		~~8' bays~~		~~6'-10'~~	~~6'~~		
Collectors												
Major Collector Street ~~Parking Both Sides~~	Greater than 1,~~200~~ 500 ADT	80' ~~72'~~	52' ~~48'~~	24' ~~2 at 11'~~	None	2 at 5'	9' parallel (both sides) ~~bays~~	6"	7' ~~5'~~	6' ~~5'-6'~~		
Minor Collector Street ~~Parking Both Sides~~	1,~~200~~000 to 1,~~000~~500 ADT	60'	36'	22' ~~2 at 11'~~	None	None	7' parallel (both sides) ~~bays~~	6"	5'	6' ~~5'-6'~~		
Local Industrial[2]		60'	24'	24'	None	None	None	-	None	None		
Local Streets Residential	Less than 1,000 ADT											

Street Type	Ave. Daily Trips (ADT)	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area				Curb	Planting Strips, ~~or Tree Wells, or~~ Swales	Side-Walks	~~Alleys~~	Multi-Use Paths~~-ways~~
				Motor Vehicle Travel Lanes	*Median/ Center Turn Lane*	*Bike Lanes*	*On-Street Parking*					
Local Residential Street (32' Parking Both Sides)	500 to 1,000 ADT	60'	32'	2 at 9'	None	None	7' parallel (both sides)	6"	8'	5'		
Local Residential Street (28' Parking Both Sides) ~~Parking Both Sides~~	<500 ADT	54'	28'	14' ~~2 at 7'~~	None	None	7' parallel (both sides)	6"	7'	5'		
Improvement Option for Existing Unpaved Local Residential Street	<250* ADT	Existing Right-of-Way	-	20'	None	None	None	-	6' minimum swale	-		6'
Multi-Use Path Street Option		Existing Right-of-Way	-	24'	None	None	None	-	7'	-		10'

[1] Design may utilize either setback sidewalks with a landscape strip or a continuous 14' sidewalk with a 4'-5' wide strip for amenities (lighting, trees, benches, etc.) adjacent to the curb. The Central Commercial Zone will have 14' sidewalks with amenities and the General Commercial Zone shall have the landscape strip and sidewalks.
[2] Section to be used only for industrial streets that are not designated as Collectors or Arterials

The City of Baker City in adopting the proposed amendments to its comprehensive plan and development code must make findings that the amendments are consistent with the State Transportation Planning Rule (TPR). In general, Baker's Development Code[2] is already well organized and covers nearly all of the topics required by the TPR. The following "findings" (in regular typeface below) highlight areas where the Code is being clarified or updated to implement new Transportation System Plan provisions. The *italicized text* is from the TPR.

660-012-0045

Implementation of the Transportation System Plan

(1) Each local government shall amend its land use regulations to implement the TSP.

Finding: Baker City most recently updated its land use regulations (Development Code) in 2009, pursuant to the 1997 TSP and OAR 660 Division 12 (TPR). The Development Code is now being amended for consistency with the updated TSP and recent amendments to the TPR.

(a) The following transportation facilities, services and improvements need not be subject to land use regulations except as necessary to implement the TSP and, under ordinary circumstances do not have a significant impact on land use:

(A) Operation, maintenance, and repair of existing transportation facilities identified in the TSP, such as road, bicycle, pedestrian, port, airport and rail facilities, and major regional pipelines and terminals;

(B) Dedication of right-of-way, authorization of construction and the construction of facilities and improvements, where the improvements are consistent with clear and objective dimensional standards;

(C) Uses permitted outright under ORS 215.213(1)(m) through (p) and 215.283(1)(k) through (n), consistent with the provisions of 660-012-0065; and

(D) Changes in the frequency of transit, rail and airport services.

Finding: Article 2 of the Baker City Development Code (Tables 2.2.110 and 2.3.110) set forth allowed uses. Transportation Facilities are a Permitted Outright use in all zones. The requirements of subsection (1)(a) are met.

(b) To the extent, if any, that a transportation facility, service or improvement concerns the application of a comprehensive plan provision or land use regulation, it may be allowed without further land use review if it is permitted outright or if it is subject to standards that do not require interpretation or the exercise of factual, policy or legal judgment;

Finding: Transportation Facilities are a Permitted Outright use in all Baker City zones. Subsection (1)(b) is met.

(c) In the event that a transportation facility, service or improvement is determined to have a significant impact on land use or to concern the application of a comprehensive plan or land use regulation and to be subject to standards that require interpretation or the exercise of factual, policy or legal judgment, the local government shall provide a review and approval process that is consistent with 660-012-0050. To facilitate implementation of the TSP, each local government shall amend its

[2]Baker City Development Code, Ordinance No. 3296, on October 21, 2009.

land use regulations to provide for consolidated review of land use decisions required to permit a transportation project.

Finding: Subsection (1)(C) applies during project development only. The transportation improvements recommended by the draft TSP, upon adoption into the TSP and Comprehensive Plan, would be permitted outright under Article 2 (Tables 2.2.110 and 2.3.11) of the Baker City Development Code. Subsection (1)(C) is met.

(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions. Such regulations shall include:

(a) Access control measures, for example, driveway and public road spacing, median control and signal spacing standards, which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities;

Finding: Baker City's land use and subdivision regulations are contained in the Baker City Development Code. Section 3.1.200.F of the Development Code contains access control measures, Sections 3.4.100.H and 3.4.100.R contain median control provisions, and Section 3.4.100.J contains public road spacing standards. The city's existing access control measures are consistent with the TSP current functional classifications.

Although the city's transportation functional classifications are proposed to change, the proposed changes (e.g., adding new alternate street and pathway sections) do not necessitate revisions to the city's access control, public road spacing, or median control standards. Proposed revisions to the above code sections are limited to clarifications and maintaining internal code consistency. Subsection (2)(a) is met.

(b) Standards to protect future operation of roads, transitways and major transit corridors;

Finding: Sections 3.4.010 and 3.4.100 of the Baker City Development Code protect future roadway operations. Specifically, subsection 3.4.100.D provides authority to exact public facility improvements through conditions of approval when needed to serve development, and Subsection 3.4.100.A sets forth transportation standards and requires guarantees for improvements exacted through the development permit process. Section 3.4.100 references the functional classifications and street sections contained in the Transportation System Plan. Detailed transportation improvement standards follow in subsections 3.4.100.C through 3.4.100.Z.

As the city's transportation functional classifications are proposed to change through the TSP update, the above Development Code sections are also being amended for consistency with the TSP. In particular, the revised code contains the new and modified street and pathway cross-sections proposed with the TSP. City staff has also noted the need for new or amended standards to protect future operations of roads and pathways, as follows:

- Clarify the street surface requirements (asphalt, concrete or other city-approved all-weather surface)
- Provide options for the timing of sidewalk construction where it is not practical to require a developer to construct a sidewalk concurrent with development.
- Provide standards for improving multi-use paths, per the TSP update.
- Provide standards for half-street improvements.
- Provide standards for unpaved local streets (e.g., standard for gravel surface).

(c) Measures to protect public use airports by controlling land uses within airport noise corridors and imaginary surfaces, and by limiting physical hazards to air navigation;

Finding: Sections 4.1.400 (Quasi-Judicial Procedure) and 4.1.500 (Legislative Procedure) provide for airport notification of proposed zone changes that might affect airport operations, which would include notice of any changes to permitted land uses. The City is not proposing to change the list of allowed uses adjacent to the airport. Subsection (2)(c) is met.

(d) A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;

Finding: Sections 4.1.300 (Administrative Review), 4.1.400 (Quasi-Judicial Procedure) and 4.1.500 (Legislative Procedure) contain procedures for coordinated review of land use decisions affecting transportation facilities. Where a change of use or development is proposed that could significantly affect an existing access, highway approach or other transportation facility, the City in consultation with another roadway authority, such as ODOT or Baker County, as applicable, may require an applicant to provide a traffic impact study, ensuring coordinated review. (Development Code Section 3.1.200.D Access and Circulation; Section 4.2.500.B Site Design Review; Section 4.3.130.B Land Divisions; and Section 4.1.900 Traffic Impact Studies). Subsection (2)(d) is met. These code sections are functioning correctly and no amendments are proposed. Subsection (2)(d) is met.

(e) A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;

Finding: Development Code Article 4 authorizes the City to conditionally approve development applications in order to minimize impacts and protect transportation facilities, corridors and sites, including conditional use permits, site design reviews, land divisions, variances, and other land use applications. In addition, Subsection 3.4.100.D provides authority to exact public facility improvements through conditions of approval when needed to serve development, and Subsection 3.4.100.A sets forth transportation standards and requires guarantees for improvements exacted through the development permit process. While these code sections are functioning well, the proposed amendments are intended to clarify the City's standards and ensure that new development contains adequate transportation facilities. Subsection (2)(e) is met.

(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of:

(A) Land use applications that require public hearings;

(B) Subdivision and partition applications;

(C) Other applications which affect private access to roads; and

(D) Other applications within airport noise corridors and imaginary surfaces which affect airport operations; and

Finding: Development Code Sections 4.1.300 (Administrative Review), 4.1.400 (Quasi-Judicial Procedure) and 4.1.500 (Legislative Procedure) require notification of affected agencies and service providers, as applicable, including ODOT and Baker County, for the above types of applications. These code sections are functioning correctly and no amendments are proposed. Subsection (2)(f)(D) is met.

(g) Regulations assuring that amendments to land use designations, densities, and design standards are consistent with the functions, capacities and performance standards of facilities identified in the TSP.

Finding: Development Code Section 4.7.600 Transportation Planning Rule Compliance contains standards and approval criteria for actions significantly affecting a transportation facility, pursuant to the TPR. This code section is functioning correctly and no amendment is proposed. Subsection (2)(g) is met.

(3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth below. The purposes of this section are to provide for safe and convenient pedestrian, bicycle and vehicular circulation consistent with access management standards and the function of affected streets, to ensure that new development provides on-site streets and accessways that provide reasonably direct routes for pedestrian and bicycle travel in areas where pedestrian and bicycle travel is likely if connections are provided, and which avoids wherever possible levels of automobile traffic which might interfere with or discourage pedestrian or bicycle travel.

(a) Bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots;

Finding: Development Code Section 3.3.400 contains requirements for bicycle parking. While subsection (3)(a) is met, the proposed amendments include clarifying the standards regarding long-term bicycle parking, particularly for schools. This change is based on the TSP section on Active Transportation, which recommends an improved network of neighborhood routes (e.g., including access to schools), bikeways, and multi-use paths. While the presence of bicycle parking by itself may not increase bicycle ridership, it is one part of the non-motorized transportation system.

(b) On-site facilities shall be provided which accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multi-family developments, planned developments, shopping centers, and commercial districts to adjacent residential areas and transit stops, and to neighborhood activity centers within one-half mile of the development. Single-family residential developments shall generally include streets and accessways. Pedestrian circulation through parking lots should generally be provided in the form of accessways.

(A) "Neighborhood activity centers" includes, but is not limited to, existing or planned schools, parks, shopping areas, transit stops or employment centers;

(B) Bikeways shall be required along arterials and major collectors. Sidewalks shall be required along arterials, collectors and most local streets in urban areas, except that sidewalks are not required along controlled access roadways, such as freeways;

(C) Cul-de-sacs and other dead-end streets may be used as part of a development plan, consistent with the purposes set forth in this section;

(D) Local governments shall establish their own standards or criteria for providing streets and accessways consistent with the purposes of this section. Such measures may include but are not limited to: standards for spacing of streets or accessways; and standards for excessive out-of-direction travel;

(E) Streets and accessways need not be required where one or more of the following conditions exist:

(i) Physical or topographic conditions make a street or accessway connection impracticable. Such conditions include but are not limited to freeways, railroads, steep slopes, wetlands or other bodies of water where a connection could not reasonably be provided;

(ii) Buildings or other existing development on adjacent lands physically preclude a connection now or in the future considering the potential for redevelopment; or

(iii) Where streets or accessways would violate provisions of leases, easements, covenants, restrictions or other agreements existing as of May 1, 1995, which preclude a required street or accessway connection.

Finding: Development Code Section 3.1.300 Pedestrian Access and Circulation and Section 3.4.100, particularly subsections 3.4.100.G Transportation Standards and 3.4.100.I Future Street Plans, in concert with the TSP, contain requirements for interconnected streets, continuous walkways, multi-use paths, bikeways, and accessways that are safe, direct and convenient for users. Subsection (3)(b) is currently met, updates to Section 3.1.300 will incorporate the proposed multi-use path standards into the Code. Section 3.4.100 is also being updated to incorporate the new TSP street and pathway sections into the Code. Subsection (3)(b) is met.

(c) Where off-site road improvements are otherwise required as a condition of development approval, they shall include facilities accommodating convenient pedestrian and bicycle travel, including bicycle ways along arterials and major collectors;

Finding: The proposed amendments to Development Code Section 3.4.100 Transportation Standards, in concert with the TSP, provides for pedestrian and bicycle facilities where off-site road improvements are required. See also, the above recommendation regarding codification of the new street and pathway sections proposed in the TSP. Subsection (3)(c) is met.

(d) For purposes of subsection (b) "safe and convenient" means bicycle and pedestrian routes, facilities and improvements which:

(A) Are reasonably free from hazards, particularly types or levels of automobile traffic which would interfere with or discourage pedestrian or cycle travel for short trips;

(B) Provide a reasonably direct route of travel between destinations such as between a transit stop and a store; and

(C) Meet travel needs of cyclists and pedestrians considering destination and length of trip; and considering that the optimum trip length of pedestrians is generally 1/4 to 1/2 mile.

Finding: The definitions contained in Section 3.1.300.A, pertaining to "safe and convenient" pedestrian facilities, are generally consistent with the intent of the TPR but do not match those contained in subsection (3)(d). The current city definition, for example, addresses only pedestrian facilities, not those for bicyclists. Section 3.1.300 is being amended for consistency with the above definition of "safe and convenient." The proposed text is from the Oregon Model Code. Subsection (3)(d)(C) is met.

(e) Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.

Finding: Development Code Section 3.1.300.A pertaining to "connections within development" is consistent with subsection (3)(e), as it requires pedestrian walkways be provided within all developments, while providing flexibility within industrial developments. City standards require walkways connecting primary building entrances to public ways and providing connections within developments containing multiple buildings. Subsection (3)(e) is met.

(4) To support transit in urban areas containing a population greater than 25,000, where the area is already served by a public transit system or where a determination has been made that a public transit

system is feasible, local governments shall adopt land use and subdivision regulations as provided in (a)-(g)...

Finding: Subsection (4) does not apply.

660-012-0060

Plan and Land Use Regulation Amendments

This section of the TPR applies to amendments to an acknowledged comprehensive plan or land use regulation (including zoning map changes) that would significantly affect an existing or planned transportation facility. The proposed updates to the City's Transportation System Plan include changes to the functional classification system and land use regulations (transportation standards), though the changes are intended to have positive, not negative, affects, through transportation operational efficiency and safety improvements. Subsection 660-012-0060 is met.

Section 7
TPR Compliance

TPR COMPLIANCE

TPR Requirements	Baker City TSP Compliance
660-012-0015 Preparation and Coordination of TSPs	
(3) Cities and counties shall prepare, adopt and amend local TSPs for lands within their planning jurisdiction in compliance with this division:	
(a) Local TSPs shall establish a system of transportation facilities and services adequate to meet identified local transportation needs and shall be consistent with regional TSPs and adopted elements of the state TSP;	*The Baker City TSP has been developed to meet the local transportation needs. It has been developed and compared for consistency with the Baker County TSP and adopted elements of the state transportation plan.*
(5) The preparation of TSPs shall be coordinated with affected state and federal agencies, local governments, special districts, and private providers of transportation services.	*The Baker City TSP was guided by a Project Management Team (PMT), Technical Advisory Committee (TAC), project stakeholders. Members of these committees included Baker City, ODOT, Baker County, NEOTransit, and various representatives of organizations around Baker City.*
(6) Mass transit, transportation, airport and port districts shall participate in the development of TSPs for those transportation facilities and services they provide. These districts shall prepare and adopt plans for transportation facilities and services they provide. Such plans shall be consistent with and adequate to carry out relevant portions of applicable regional and local TSPs. Cooperative agreements executed under ORS 197.185(2) shall include the requirement that mass transit, transportation, airport and port districts adopt a plan consistent with the requirements of this section.	*NEOTransit participated throughout the project as a member of the TAC.*
660-012-0020 Elements of Transportation System Plans	
(2) The TSP shall include the following elements: (a) A determination of transportation needs as provided in OAR 660-012-0030; (b) A road plan for a system of arterials and collectors and standards for the layout of local streets and other important non-collector street connections. Functional classifications of roads in regional and local TSP's shall be consistent with functional classifications of roads in state and regional TSP's and shall provide for continuity between adjacent jurisdictions. The standards for the layout of local streets shall provide for safe and convenient bike and pedestrian circulation necessary to carry out OAR 660-012-0045(3)(b). New connections to arterials and state highways shall be consistent with designated access management categories. The intent of this requirement is to provide guidance on the spacing of future extensions and connections along existing and future streets which are needed to provide reasonably direct routes for bicycle and pedestrian travel. The standards for the layout of local streets shall address: (A) Extensions of existing streets; (B) Connections to existing or planned streets, including arterials and collectors; and (C) Connections to neighborhood destinations.	*The Future Conditions and System Alternatives Technical Memorandum in Volume II identified the existing and future conditions needs.* *The Intersection and Roadway Plan in Volume I identifies a refined functional classification plan that addresses the extensions of existing streets, connections to existing and planned streets (for arterials and collectors), and connections to destinations.*
(c) A public transportation plan which: (A) Describes public transportation services for the transportation disadvantaged and identifies service inadequacies;	*The Existing Conditions Technical Memorandum in Volume II includes the existing public transportation services and identifies service areas. It also describes intercity bus service and the location of stops.* *The Transit Plan in Volume I identifies future transit improvements as identified by NEOTransit and identified Baker City policies that will*

TPR Requirements	Baker City TSP Compliance
(B) Describes intercity bus and passenger rail service and identifies the location of terminals; (C) For areas within an urban growth boundary which have public transit service, identifies existing and planned transit trunk routes, exclusive transit ways, terminals and major transfer stations, major transit stops, and park-and-ride stations. Designation of stop or station locations may allow for minor adjustments in the location of stops to provide for efficient transit or traffic operation or to provide convenient pedestrian access to adjacent or nearby uses. (D) For areas within an urban area containing a population greater than 25,000 persons, not currently served by transit, evaluates the feasibility of developing a public transit system at buildout. Where a transit system is determined to be feasible, the plan shall meet the requirements of paragraph (2)(c)(C) of this rule.	*support continued transit service and improvements throughout Baker City.*
(d) A bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the planning area. The network and list of facility improvements shall be consistent with the requirements of ORS 366.514;	*The Active Transportation Plan in Volume I identifies improvements for bicycle, pedestrian, and multi-use paths throughout Baker City.*
(e) An air, rail, water and pipeline transportation plan which identifies where public use airports, mainline and branchline railroads and railroad facilities, port facilities, and major regional pipelines and terminals are located or planned within the planning area. For airports, the planning area shall include all areas within airport imaginary surfaces and other areas covered by state or federal regulations;	*The Other Modes Plan in Volume I includes air, rail, water, and pipeline plans.*
(f) For areas within an urban area containing a population greater than 25,000 persons a plan for transportation system management and demand management; (g) A parking plan in MPO areas as provided in OAR 660-012-0045(5)(c);	*Baker City is not required to address section (f) and (g)*
(h) Policies and land use regulations for implementing the TSP as provided in OAR 660-012-0045;	*Policy and Code Amendment section in Volume II identifies the policy and code modifications needed to support adoption and implementation of the TSP.*
(i) For areas within an urban growth boundary containing a population greater than 2500 persons, a transportation financing program as provided in OAR 660-012-0040.	*The Funding and Implementotion Plan in Volume I includes funding alternatives, improvement costs, and funding sources.*
(3) Each element identified in subsections (2)(b)-(d) of this rule shall contain: (a) An inventory and general assessment of existing and committed transportation facilities and services by function, type, capacity and condition: (A) The transportation capacity analysis shall include information on: (i) The capacities of existing and committed facilities; (ii) The degree to which those capacities have been reached or surpassed on existing facilities; and (iii) The assumptions upon which these capacities are based.	*The Existing Conditions Technical Memorandum in Volume II includes an assessment of existing transportation facilities by function, type, capacity and condition.* *The Future Conditions and System Alternatives Technical Memorandum in Volume II includes an assessment of committed transportation facilities through the 20-year planning horizon.*

TPR Requirements	*Baker City TSP Compliance*
(B) For state and regional facilities, the transportation capacity analysis shall be consistent with standards of facility performance considered acceptable by the affected state or regional transportation agency; (C) The transportation facility condition analysis shall describe the general physical and operational condition of each transportation facility (e.g., very good, good, fair, poor, very poor).	
(b) A system of planned transportation facilities, services and major improvements. The system shall include a description of the type or functional classification of planned facilities and services and their planned capacities and performance standards;	*The Future Conditians and System Alternatives Technical Memorandum in Volume II includes an assessment of planned transportotion facilities through the 20-year planning horizon.*
660-012-0025 Complying with the Goals in Preparing Transportation System Plans; Refinement Plans	
(1) Except as provided in section (3) of this rule, adoption of a TSP shall constitute the land use decision regarding the need for transportation facilities, services and major improvements and their function, mode, and general location.	*The Baker City Transportation Plan (upon formol odoption) will serve as the guiding document for all major transportation improvement projects over the next 20 years.*
(2) Findings of compliance with applicable statewide planning goals and acknowledged comprehensive plan policies and land use regulations shall be developed in conjunction with the adoption of the TSP.	*The TPR Compliance section in Volume II identifies findings of compliance.*
660-012-0030 Determination of Transportation Needs	
(1) The TSP shall identify transportation needs relevant to the planning area and the scale of the transportation network being planned including: (a) State, regional, and local transportation needs; (b) Needs of the transportation disadvantaged; (c) Needs for movement of goods and services to support industrial and commercial development planned for pursuant to OAR 660-009 and Goal 9 (Economic Development).	*The Future Conditians and System Alternatives Technicol Memorandum and Alternatives Analysis Technical Memorandum in Volume II identifies the state, regional, local needs as well as the transportation disadvantaged and freight needs.*
(3) Within urban growth boundaries, the determination of local and regional transportation needs shall be based upon: (a) Population and employment forecasts and distributions that are consistent with the acknowledged comprehensive plan, including those policies that implement Goal 14. Forecasts and distributions shall be for 20 years and, if desired, for longer periods; and (b) Measures adopted pursuant to OAR 660-012-0045 to encourage reduced reliance on the automobile.	*The Future Conditians and System Alternatives Technicol Memorandum in Volume II is consistent with the acknowledged comprehensive plan and is based on 20-year forecasts.* *The Active Transportation Plan identifies sidewalk, bicycle lane, and multi-use path projects that will increase connectivity and help reduce reliance an motorized forms of transportatian.*
660-012-0035 Evaluation and Selection of Transportation System Alternatives	
(1) The TSP shall be based upon evaluation of potential impacts of system alternatives that can reasonably be expected to meet the identified transportation needs in a safe manner and at a reasonable cost with available technology. The following shall be evaluated as components of system alternatives:	*The TSP modal plans have been developed based on identified operotional, safety, and system completeness needs.*
(a) Improvements to existing facilities or services;	*Transportation improvements to existing facilities were considered in the plan development process. Where operational and safety issues were cited, these impravements were identified as near-term priority improvements.*
(b) New facilities and services, including different modes or combinations of modes that could reasonably meet identified	*New facility improvements were identified for roadways, intersections, sidewalks, bicycle lanes, and multi-use poths.*

TPR Requirements	Baker City TSP Compliance
transportation needs;	
(c) Transportation system management measures;	*The Alternatives Analysis Technical Memorandum in Volume II identifies projects that will allow Baker City and ODOT to better manage and accommodate multi-modal uses on existing facilities through travel lond reollocations*
(d) Demand management measures; and	*??*
(e) A no-build system alternative required by the National Environmental Policy Act of 1969 or other laws.	*The Future Conditions and System Alternotives Technicol Memorandum in Volume II identify the "no-build" analyses.*
(3) The following standards shall be used to evaluate and select alternatives:	
(a) The transportation system shall support urban and rural development by providing types and levels of transportation facilities and services appropriate to serve the land uses identified in the acknowledged comprehensive plan;	*The Future Conditions and System Alternatives Technicol Memorandum in Volume II identify the land uses and volume projections used in the forecast analysis.*
(c) The transportation system shall minimize adverse economic, social, environmental and energy consequences;	*To the extent possible, economic, social, and environmental impacts were considered in the evaluation of transportotion projects.*
(d) The transportation system shall minimize conflicts and facilitate connections between modes of transportation; and	*The Alternatives Analysis Technical Memorandum in Volume II identifies the need to facilitate improved long-term multi-modal connectians throughout Baker City.*
(e) The transportation system shall avoid principal reliance on any one mode of transportation by increasing transportation choices to reduce principal reliance on the automobile. In MPO areas this shall be accomplished by selecting transportation alternatives which meet the requirements in section (4) of this rule.	*The TSP has given equol weight to all modes of tronsportatian including walking, bicycling, automabiles, ond tronsit. The main focus of the bicycling and wolking sections (Active Tronsportotion Plan) was to identify projects thot would increase the potential for people of oll ages to access destinotians without reliance upon the automobile.*
660-012-0040 Transportation Financing Program	
(1) For areas within an urban growth boundary containing a population greater than 2,500 persons, the TSP shall include a transportation financing program.	*Full documentatian of the transportotion finoncing section is provided in Volume II, Section 4 of the TSP.*
(2) A transportation financing program shall include the items listed in (a)-(d):	
(a) A list of planned transportation facilities and major improvements;	*Planned tronsportation facilities and major improvements are identified for all modes in Volume I, Section 2 (Active Tronsportation Plon), Section 3 (Intersectian and Roadway Plan), Section 4 (Tronsit Plan), and Section 5 (Other Modes).*
(b) A general estimate of the timing for planned transportation facilities and major improvements;	*Project tobles have been produced for each of different modes. Within the tables, a near- ond long-term timing estimote hos been identified for eoch project.*
(c) A determination of rough cost estimates for the transportation facilities and major improvements identified in the TSP; and	*Project tobles have been produced for eoch of different modes. Within the tables, planning level cost estimates have been identified for each project.*
(3) The determination of rough cost estimates is intended to provide an estimate of the fiscal requirements to support the land uses in the acknowledged comprehensive plan and allow jurisdictions to assess the adequacy of existing and possible alternative funding mechanisms. In addition to including rough cost estimates for each transportation facility and major improvement, the transportation financing plan shall include a discussion of the facility provider's existing funding mechanisms and the ability of these and possible new mechanisms to fund the development of each transportation facility and major improvement. These funding mechanisms may also be described in terms of general guidelines or local policies.	*The funding section identifies a plonning level cost estimate for each identified project. In addition, alternative funding mechanisms have been identified ond assessed as port of Funding Assumptions ond Financially Constroined Plan Technicol Memorandum.*
(5) The transportation financing program shall provide for phasing of major improvements to encourage infill and redevelopment of urban lands prior to facilities and improvements which would cause premature development of urbanizable lands or conversion of rural lands to urban uses.	*The Active Transportation Plan and Streets/Intersections Plan includes the identification of near- and long-term phasing.*

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