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TRANSMITTAL & REPORT MEMORANDUM

DATE: March 15, 2022

TO: Sedro-Woolley Planning Commission

REGARDING Proposed amendments to the Design Review Standards and Guidelines Manual to address development and building modifications in the Central Business District.

FROM:

Nicole McGowan, Assistant Planner

The following amendments are proposed by the Planning Department and submitted to the Planning Commission for consideration. This report serves as the staff report for the proposed amendments and was submitted in accordance with Chapter 2.90 SWMC.

FINDINGS OF FACT

PROPOSAL

Proposed are amendments to the Sedro-Woolley Design Standards and Guidelines Manual, Chapter 3 – Additional Standards for the Central Business District and Chapter 11 – Definitions. These amendments are proposed in an effort to address the concern that the current Design Standards for the Central Business District (CBD) do not adequately ensure that development and modifications to existing buildings will occur in a way that is consistent with the City's vision for its downtown.

BACKGROUND

At its February 10, 2021 meeting, City Council expressed concern about recent modifications to a building in the CBD. The City Council was specifically concerned that the nature of the modifications to the building were not addressed in the Design Standards and Guidelines manual (Design Standards). City Council requested that the Planning Commission (PC) review the current Design Standards for the CBD and identify areas of

improvement to ensure that development and modifications to existing buildings are consistent with the City's vision for its downtown.

Staff introduced the issue to the PC at its April 20, 2021 meeting. It was discussed that Chapter 2 – Standards and Guidelines for All Development and Chapter 3 – Additional Standards for the Central Business District of the Design Standards had not been significantly updated since they were originally adopted in 2004 and that this would be an opportunity to thoroughly review and update the CBD Design Standards to ensure they provide the detail necessary to guide the type of development the community expects in the City's historic downtown.

The PC reviewed the City's existing Design Standards, as well as several drafts of proposed changes to Chapter 3 – Additional Standards for the Central Business District of the Design Standards and Chapter 11 – Definitions at their May 18, 2021, July 20, 2021 and February 15, 2022 meetings. The Planning Commission is holding a public hearing on the most recent draft (Attachment 1) at today's meeting.

ANALYSIS

The intent of the recommended amendments is to update the existing Design Standards to create clearer, more enforceable regulations for new development and modifications to existing buildings within the CBD that fit with the city's vision for the downtown area.

The proposed amendments are supported by and implement the Land Use Element and Economic Development Element of the Sedro-Woolley Comprehensive Plan:

Land Use Element - Design Guidelines: The City's adopted Comprehensive Plan calls for design guidelines to help maintain the city's small town atmosphere as it grows. Design guidelines are in place downtown and need to be fully implemented to achieve the desired early 19th-century look. This update proposes changes to the Design Standards and guidelines that provide clear guidance for development and modifications to existing buildings within the CBD to achieve this goal. The proposed amendments are supported by the following goals and policies in the Land Use Element of the Comprehensive Plan.

Goal LU5: To preserve community character.
Policy LU5.8: Encourage high standards of appearance in all residential areas and in other high visibility areas.
Goal LU7: To preserve Sedro-Woolley's unique history and small-town character; and
Policy LU7.5: Create and adopt a neighborhood plan for the central business district (CBD). Adopt design standards to preserve the "small town" character of the retail area.

Land Use Element - Vision Statement: The "centralized" nature of town, revolving around the CBD, helps keep the tight-knit structure of the community. The downtown area's pedestrian-oriented scale promotes a "homey" feeling where residents and visitors alike feel important and welcome. Creating a clear set of standards and guidelines for design of

development and modification to existing buildings within the CBD ensures that the downtown area can maintain that important pedestrian orientation and provide a safe, vibrant, and economically viable community for all to enjoy. The proposed amendments are supported by the following language in the Vision Statement in the Land Use Element of the Comprehensive Plan.

Goal LU5: To preserve community character.
Policy LU5.3: Seek and support developments that further the community character of Sedro-Woolley.
Policy LU5.8: Encourage high standards of appearance in all residential areas and in other high visibility areas.

Land Use Element - Central Business District: Downtown is also the City's link to its past. Its built form speaks of the old Sedro-Woolley and its rich tradition of providing services to people from near and far in the Skagit Valley. Historic buildings are preserved and renovated and new buildings visually blend with the older structures. Carefully planned design and atmosphere encourages patrons to park their cars and walk the street-scape to experience the unique characteristics downtown Sedro-Woolley has to offer. The proposed amendments are supported by the following goals and policies in the Land Use Element of the Comprehensive Plan.

Goal LU7: To preserve Sedro-Woolley's unique history and small-town character; and
Policy LU7.5: Create and adopt a neighborhood plan for the central business district (CBD). Adopt design standards to preserve the "small town" character of the retail area.

Economic Development Element - Central Business District Designation: The historic downtown is an active commercial district serving many of the commercial and retail needs of the City's residents, but also maintains an early 1900's architecture that makes the downtown area a significant destination for visitors and tourists. Creating a welcoming and aesthetically pleasing atmosphere for visitors and tourists to come do business will help ensure economic stability and growth. The proposed amendments are supported by the following goals and policies in the Economic Development Element of the Comprehensive Plan.

Goal E2: To increase economic opportunities.
Policy E2.2: Identify facilities which may be used for small businesses. Assist efforts to reuse older buildings, redevelop vacant property, and revitalize the existing central business district (CBD).
Goal E3: To realize Sedro-Woolley's image as the "Gateway to the North Cascades."

PROPOSAL REVIEW PROCESS

1. Proposal introduced to Planning Commission at April 20, 2021 Planning Commission meeting.

2. Planning Commission reviewed the proposed amendments to the Design Standards at the May 18, July 20, 2021, and February 15, 2022 Planning Commission meetings.
3. Public Notice of the March 15, 2022 Planning Commission Hearing was published in the Skagit Valley Herald on March 4, 2022.
4. In accordance with State Growth Management Act (GMA), a proposed draft of the amendments was submitted to the Washington State Department of Commerce (COMM) for a 60-day review on February 9, 2022. The COMM review period ends April 10, 2022.
5. State Environmental Policy Act (SEPA) review was conducted and a determination of non-significance (DNS) was issued by the lead agency on April 16, 2021.

RECOMMENDATION:

Staff recommends that the Planning Commission:

- review the proposed amendments to Chapter 3 – Additional Standards for the Central Business District and Chapter 11 - Definitions of the Design Standards and Guidelines Manual;
- hold a public hearing and discuss the amendments; and
- make a motion to recommend that the City Council approve the proposed amendments to Chapter 3 – Additional Standards for the Central Business District and Chapter 11 - Definitions of the Design Standards and Guidelines Manual

ATTACHMENTS:

1. Proposed Amendments to Chapter 3 and Chapter 11 of the Design Standards and Guidelines Manual
2. Notice of March 15, 2022 Public Hearing.

3. Additional Standards for the Central Business District

BUILDING DESIGN

GENERAL STOREFRONT PROFILE

Intent

To encourage and implement architectural design that is varied, aesthetically pleasing, functional and fits within local and regional vernacular, encouraging building that matches regional historic themes; to avoid large blank homogenous spaces, overbearing and out of scale forms and materials. All street-facing facades of the first story of buildings within the downtown core are intended to have the appearance of, and be recognizable as, a commercial storefront. These standards work from and in addition to the existing Sedro-Woolley Design Standards and Guidelines. The Pplanning Ddirector may make minor modifications and interpretations to design standards on a case--by--case basis.

Generally speaking, a style known as "Art Nouveau" emerged in the last decade of the nineteenth and first decade of the twentieth centuries. It was the dominant influence in painting, sculpture, architecture and what is known as "the applied" or "decorative arts". This new style was characterized by lack of straight lines and an emphasis on fluid movement within compositions. Architecturally, it can be seen most prominently in cornices, crown moldings, arched windows, belt courses, medallions, letter styles and sign shapes. Utilitarian construction of earlier years was replaced with an emphasis on craftsmanship. This

Examples of remnant dentil detailing (left) and crown molding (right) in Sedro-Woolley's CBD.

overall stylistic evidence was most manifested in larger cities, (Chicago, San Francisco and Seattle are examples) but much of it filtered through to small towns like Sedro-Woolley. Remnants of beautiful crown moldings and dentil detailing are most of what remains of the original work. Efforts need to be made to uncover and restore as much as possible of what actually existed. In some cases, this original work will be readily apparent – in others it has been destroyed. In some more current buildings, it never existed at all. Each situation will have to be evaluated on its own and changes carefully considered not only for their own value, but for the influence they will have on surrounding properties.

Historically, s~~S~~torefront architecture in the Northwest ranged from simple, wooden false fronts to sophisticated masonry facades. In every town, there is a combination of styles and interpretations resulting in an interesting collection of stylistic variations. This variety – where wood front stood next to brick, two-story next to single-story~~,~~ and simple next to ornate – is particularly characteristic of this era. Any old photos of town scenes show this to be very apparent.

Building facades were consistently given ornamental detailing. Aside from signage, this most often found expression in building crowns, dentil work, cast masonry, ornamental brick and ornamental sheet metal. Some of these additions can vary so widely as to be difficult to define. Care should be taken to encourage the use of such elements while, at the same time, ensuring that they are well-integrated and not disproportionate or overdone.

~~This characteristic is especially important and guidance should be given to maintain that visual variety. Some ways to assure variety are:~~

1. ~~Provide for breaks in color between buildings. Painted surfaces and brick or masonry should have substantial color variation. Awning fabric is available in a number of colors and patterns.~~
2. ~~Building facades should vary in height, shape, and ornamental detailing.~~
3. ~~Glass shapes and sized should change from one front to the next adjoining front, doors and entries included.~~
4. ~~Signage colors, shapes, letter styles, and details should vary.~~

Also immediately apparent from this period is the tall finishes on ground level façades. Tall windows and doors, carefully modulated and articulated with respect to adjacent architecture, work to create a focal point that compliments the building front as well as introduce much needed natural light into interiors. Transom windows above a bank of first--level windows were often seen. These have been largely

Examples of historic Art Nouveau style architecture in downtown Sedro-Woolley displaying tall, decorative fronts.

covered in more recent years as ceilings have become lower over time. By uncovering these windows and refitting them with glass, much can be added that speaks of early architecture (as an alternative, awnings can be used to cover transom window areas).

-Special decorative attention at entries is a significant aspect of architecture seen in the Art Nouveau era. The "tall" front" look is especially evident here. Tall ground level fronts were very common in early 20th century architecture. To some extent, they have survived to contemporary times though substantial differences~~t~~ in their materials and presentation. The old facades started at ground level with a short 2'-3' wainscoting of masonry on wood which is often divided and paneled. Above this wall is multi-paned glass frequently tall and narrow with vertical orientation. Recessed entries are the rule, with~~and~~ doors flanked by tall, narrow windows and a transom window at the top. Above the first bank of windows is a bank of shorter 3'-4' transom windows. As mentioned earlier, these allowed the~~a~~ maximum amount of natural light into the corresponding tall interior spaces. The natural light was frequently controlled with a retractable type awning at the transom window level. Continuing up from the transom window level is the false front –typically ½ to ¾ the height of everything below that level. Alternatively, in a 2 or 3 story building~~,~~ are symmetrically arranged rows of double hung windows. In either false front or multi-story buildings, the top of the wall is finished with decorative rows of brick work, dentil detailing~~,~~ and a crown molding.

A false front disguises the rest of this single-story building, creating a more impressive, eye-catching façade.

"False fronts" are a historically characteristic way of giving a single-~~-~~story building a more impressive façade. ~~False~~ These fronts were most typically wood frame or masonry with decorative panels and detailing. They gave the illusion of a much larger building with a distinctive face without involving the whole building. Wood buildings normally had a gable roof with the characteristic triangular gable end. False fronts on this type of building would disguise the triangle with a rectangular façade. These accommodated sidewalk/window coverings and~~,~~ signage~~,~~ and integrated well with adjoining buildings. Masonry fronts were not typical of single-~~-~~story buildings; however, some stores had extremely high interior spaces that extended above the transom windows and from the outside looked much taller than a one story building. Some of these, after having ceilings lowered, have the appearance of a false front building. ~~These fronts were typically made of wood or masonry. They allow a building to have a more distinctive face without involving the whole building.~~ Decorative detailing is also commonly apparent on buildings of this era. Intricate sheet metal work often topped building fronts with impressive crown molding. ~~Fronts also often displayed dentil detailing of cast masonry, or brick, or combinations of masonry, metal, and wood~~. It was the exceptional building that did not have substantial superficial detailing.

~~Generally speaking, a style known as "Art Nouveau" emerged in the last decade of the nineteenth and first decade of the twentieth centuries. It was the dominant influence in painting. Sculpture, architecture, and what is known as "the applied" or "decorative arts". This new style was characterized by lack of straight lines and an emphasis on fluid movement within compositions. Architecturally it can be seen most prominently in cornices, crown moldings, arched windows, letter styles, and sign shapes. Utilitarian construction of earlier years was replaced with an emphasis on craftsmanship. This overall stylistic evidence was most manifested in larger cities, (Chicago, San Francisco, Seattle) but much of it filtered through to small towns such as Sedro-Woolley. Remnants of beautiful crown moldings and dentil work are most of what remains of the original work. Efforts need to be made to uncover and restore as much as possible of what actually existed. In some cases this original work will be readily apparent, in others it has been destroyed. In some more current buildings it never existed at all. Each situation will have to be evaluated on its own and changes carefully considered not only for their own value, but for the influence they will have on surrounding properties.~~

Standards:

Required:

1. Brick shall be the dominant material featured at the pedestrian level on street-facing facades. In multi-story buildings, 50% or more of the front façade on the 1st and 2nd floors shall incorporate brick. If a step-back is included on the 2nd floor, the usage of brick may be reduced to no less than 30%.
2. Frontages shall mimic the historic look of wood or masonry. Other materials may be used to achieve this look, however they must be of an acceptable quality.
3. Building fronts shall incorporate no more than 3 colors; one base color, one trim color and one accent color. Consult with city staff on appropriate façade colors.
4. When present and intact, historic character and character-defining elements of the storefront shall be preserved.
5. Blank spaces on walls shall not exceed 20 feet horizontally or 15 feet vertically.
6. New construction shall architecturally respect the modulation and articulation of adjacent buildings.
7. Buildings in the downtown core (the area bordered by the tracks to the west, Puget Street to the east, the tracks to the north, and Warner Street to the south AND property fronting on Metcalf Street, West Ferry Street, West State Street and property abutting the tracks between Rita Street and Walley Street (south of State Street)) shall have traditional commercial flat roofs with parapets or, roofs with a pitch low enough to be obscured by a parapet. Roofs shall include a parapet on all sides visible from a street with a cornice or similar architectural feature. Shed roofs may be used for subordinate roof forms, such as porches, canopies, or upper floor projections.
8. Buildings over two stories in any part of the CBD but outside of the downtown core shall have traditional commercial flat roofs with parapets, low-pitch roofs that are obscured by a parapet or may have a shed roof with a minimum of a three-foot eve on the street facing side. All roofs except shed roofs described above shall include a parapet on all sides visible from a street with a cornice or similar architectural feature.

Shed roofs may be used for subordinate roof forms, such as porches, canopies, or upper floor projections.

9. Buildings of two stories or less in the CBD but outside the downtown core may have traditional commercial flat roofs with parapets, roofs with a pitch low enough to be obscured by a parapet, shed roofs with at least a two-foot eve OR gabled or hipped roofs having slopes between 4:12 and 12:12 with a minimum of a two-foot eve. Flat roofs shall include a parapet on all sides visible from a street with a cornice or similar architectural feature. Shed roofs may be used for subordinate roof forms, such as porches, canopies, or upper floor projections.
10. Ground floor, street-~~-~~facing facades of commercial and mixed-use buildings shall incorporate at least five of the following elements listed in A-J:
    - A) Lighting or hanging baskets supported by ornamental brackets;
    - B) Medallions;
    - C) Belt courses;
    - D) Plinths for columns;
    - E) Kickplates for storefront window;
    - F) Projecting sills;
    - G) Tilework;
    - H) Pedestrian scale sign(s) or sign(s) painted on windows;
    - I) Planter box;
    - ~~1.~~J) An element not listed here that meets the intent.

    In addition, as part of requirements, applicants shall include one or more of the following elements listed in K-P:
    - K) Masonry skirting/base/wainscoting or similar, no less than 36" above grade at building; min height does not apply under fenestrations; finished concrete may be considered.
    - L) Large format doors and windows with transom windows above;
    - M) Large operable windows and/or doors that create dynamic, usable space/interface of public and private space for dining, seating, retail or similar;
    - N) Post and lintel detailing/articulation; corbeling, dentils or similar;
    - O) Decorative trim, moldings, bands, arches, balustrades, base moldings or similar architectural features;
    - P) Notable building articulation and/or modulation vertically or horizontally or similar architectural feature(s) that meet the intent of this section.~~;~~

Guidelines:

Encouraged:

1. Intricate sheet metal should be used to enhance frontages and match the historic style.
2. Dentil detailing of cast masonry, brick or a combination of masonry, metal~~,~~ and wood.
3. "False fronts" or "tall fronts"
4. Provide for breaks in color between buildings. Painted surfaces and brick or masonry should have substantial color variation. Awning fabric is also available in a number of colors and patterns.
5. Building facades should vary in height, shape~~,~~ and ornamental detailing.

6. Glass shapes and sizes should change from one front to the next, including adjoining front doors and entries.
7. Signage colors, shapes, letter styles and details should vary.

~~Generally speaking, a style known as "Art Nouveau" emerged in the last decade of the nineteenth and first decade of the twentieth centuries. It was the dominant influence in painting. Sculpture, architecture, and what is known as "the applied" or "decorative arts". This new style was characterized by lack of straight lines and an emphasis on fluid movement within compositions. Architecturally it can be seen most prominently in cornices, crown moldings, arched windows, letter styles, and sign shapes. Utilitarian construction of earlier years was replaced with an emphasis on craftsmanship. This overall stylistic evidence was most manifested in larger cities, (Chicago, San Francisco, Seattle) but much of it filtered through to small towns such as Sedro-Woolley. Remnants of beautiful crown moldings and dentil work are most of what remains of the original work. Efforts need to be made to uncover and restore as much as possible of what actually existed. In some cases this original work will be readily apparent, in others it has been destroyed. In some more current buildings it never existed at all. Each situation will have to be evaluated on its own and changes carefully considered not only for their own value, but for the influence they will have on surrounding properties.~~

~~BUILDING FACADES AND FALSE FRONTS~~

~~"Tall Fronts"~~

~~Tall ground level fronts were very common in early 20th century architecture. To some extent they have survived to contemporary times though substantial different in their materials and presentation. The old facades started at ground level with a short 2'-3' wainscoting of masonry on wood which is often divided and paneled. Above this wall is multi-paned glass frequently tall and narrow with vertical orientation. Recessed entries are the rule and doors flanked by tall narrow windows and a transom window at the top. Above the first bank of windows is a bank of shorter 3'-4' transom windows. As mentioned earlier, these allowed a maximum amount of natural light into the corresponding tall interior spaces. The natural light was frequently controlled with a retractable type awning at the transom window level. Continuing up from the transom window level is the false front typically ½ to ¾ the height of everything below that level. Alternatively, in a 2 or 3 story building, are symmetrically arranged rows of double hung windows. In either false front or multi-story buildings the top of the wall is finished with decorative rows of brick work, dentil detailing, and a crown molding.~~

~~"False Fronts"~~

~~False fronts were most typically wood frame or masonry with decorative panels and detailing. They gave the illusion of a much larger building. Wood buildings normally had a~~

~~gable roof with the characteristic triangular gable end. False fronts on this type of building would disguise the triangle with a rectangular façade. These accommodated sidewalk/window coverings, signage, and integrated well with adjoining buildings. Masonry fronts were not typical of single story buildings; however, some stores had extremely high interior spaces that extended above the transom windows and from the outside looked much taller than a one story building. Some of these, after having ceilings lowered, have the appearance of a false front building.~~

AWNINGS, CANOPIES AND MARQUEES

Awnings (*see top left*) are wholly supported by the building to which they are attached and comprised of a lightweight frame structure with a covering.

Marquees (*see bottom left*) are permanent roofed structures, fully supported by the building to which they are attached.

Canopies are a mix of the two, utilizing both a permanent, rigid structure and a covering. These can be either structurally independent or supported on one end by the building.

Intent

To encourage and implement an attractive and functional pedestrian environment. Awnings, canopies and marquees provide a visually pleasing way to protect the streetscape from weather and sun. These features, when thoughtfully designed, add a welcoming touch to building facades in the downtown area.

Historically, a~~A~~wnings were generally a retractable ~~-~~ type utilizing cotton canvas stretched over a metal ribbed frame. The whole was mounted at the level of the transom windows and either mechanically or manually collapsible against the building to allow sunlight to penetrate the interior space and to protect clientele from inclement weather. In more recent years, it is more common to see fixed awnings as the framing is generally more durable and effective in preventing wear and tear. ~~These were mounted at the level of the transom windows. They also had the added benefit of providing rain protection to clientele.~~ Canopies and marquees are more recently used variations of the fixed awning that are structurally sound in design and provide similar protection and aesthetic character to building fronts.

~~Permanent awnings constructed of wood or metal and that meet all other design review standards are encouraged. If a fabric awning is desired, there are three reasons that a fixed frame acrylic type is recommended over a retractable type:~~

1. ~~Durability and maintenance – modern acrylic fabrics are available to replace the cotton type. They are more colorfast, resistant to ultraviolet breakdown and being synthetic will not mildew or rot. They can easily be pressure washed.~~
2. ~~Tidiness – fixed frame type awnings allow the fabric to be stretched tight over the ribs. This provides a watertight covering that will not collect extra dirt or refuse in sags or folds. Fabric stretched tight will not be continuously pulled over metal parts by the wind that will wear out corners and seams.~~
3. ~~Cost – fixed frame awnings cost about ½ of the price of retractable ones.~~

~~Awnings should be angular as opposed to round in keeping with traditional rather than current popular styles. Fabric should be solid color or striped acrylic type. Glossy vinyl or translucent back lighted type should be specifically disallowed.~~

~~Projection from the building should not be less that 5' or greater than 75% of the width of the sidewalk. A vertical valance of not more than 20" should be standard with the addition of decorative trim encouraged. Signage should be limited to ½ of the area of the vertical portion.~~

Standards:

Required:

1. ~~Awning~~ Ssize and scale of awnings, canopies and marquees shall relate to that of the building architecture and features.
2. Awnings may be fixed or retractable. Should a retractable awning be used, it shall be well-constructed so as not to pose a safety hazard within the public Right-of-Way. ~~Glossy vinyl or translucent back lighted type shall be specifically disallowed.~~
3. Projection from the building shall not be less than 5' or greater than 75% of the width of the sidewalk.
4. Glossy vinyl or translucent back--lighted type shall be specifically disallowed.

Guidelines:

Encouraged:

1. Awnings should be angular as opposed to round in keeping with traditional styles.
2. Permanent marquees constructed of glass, wood or metal and that meet all other design review standards are encouraged.
3. Fabric covers should be solid color or striped acrylic and compatible with other colors used on the building front.
4. A vertical valance of not more than 20" should be standard with the addition of decorative trim encouraged. Signage should be limited to ½ of the area of the vertical portion.

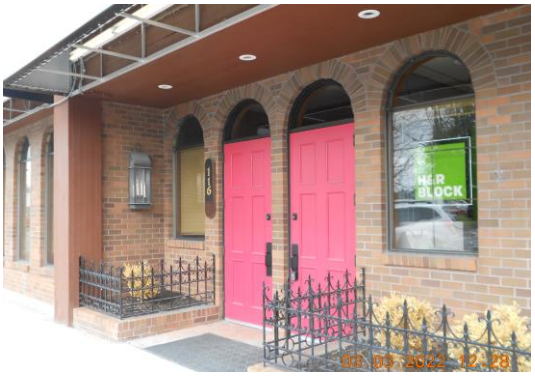
DOORS AND WINDOWS

Intent

To encourage attractive and functional building entrances and frontages that provide a welcoming environment on the street level while matching the existing character of the Central Business District. Doorways~~, as mentioned earlier~~ are typically recessed from the plane of windows at the front. This affords weather protection, facilitates window displays~~,~~ and provides a visual break to the front. Doors are a focal point and a compliment to any business front. They were generally made of varnished hardwood with large glass panels. Hardware was characteristically brass or black iron, large and ornate. Craftsmanship had a showplace in beautiful entry doors. Typically, finely detailed woodwork bordered the glass which was often beveled at the perimeter, and carried a name hand-lettered in gold leaf. Doors were massive by today's standards; 7 ½' – 8' tall and 38" – 46" in width. Generally, they were flanked by tall windows and an opening transom window above that featured the same detailing.

Windows were expansive, but generally of smaller panes. Large areas of glass are the hallmark of contemporary architecture and need to be visually interrupted. Glass that starts at ground level or close to it is also a feature of modern architecture that destroys the effect we are trying to achieve. Metal frame or metal clad wood frame windows are popular for maintenance but need not sacrifice traditional styling for efficiency. All types of window styles are available today in energy and maintenance~~-~~-efficient material. Of course, the person wanting to restore their~~his~~ building close to the original, will opt for wood sash and trim with heavy wood mullions. ~~Total compliance may not be practical in all cases, but a minimum of 50% of exterior glass surfaces be multi-pane or gridded is recommended to achieve that effect.~~

Transom windows so typical of early architecture are a feature that should be encouraged in remodeling. They are almost universally consistent in their appearance on Metcalf Street, but have been covered in almost every case. ~~These windows that complete the "tall front" feeling should be enhanced not covered. If they cannot function as originally planned because of interior remodeling, then they can be opaque from the inside or covered with an awing similar to the old style.~~



This building features an inviting, decorative entryway, recessed from the front plane. The arched transom windows and brightly colored doors act as focal points, drawing attention at the pedestrian scale.

Standards:

Required:

1. All street-facing storefront facades shall consist of no less than 65% glass display windows between 2 and 8 feet off the ground with trim unless an alternative proposal is provided accomplishing the same intent with compatible architectural treatments that provide sufficient visual interest at the pedestrian scale.

2. A minimum of 50% of exterior glass surfaces must be multi-pane or gridded. False muntins or simulated divided lites between window panes shall be prohibited.
3. Storefront facades shall consist of no less than 65% glass display windows with trim unless an alternative proposal is provided accomplishing the same intent with compatible architectural treatments.
4. Wood is the preferred material for doors. Bronze, brass~~,~~ and painted metal is acceptable. Bright finish stainless steel or aluminum, fiberglass and plastic shall not be used.
5. Hardware shall mimic~~be~~ traditional and historic ~~in~~ character, to the extent allowed under the applicable building code.
6. Door glazing shall be a minimum of 65% with transom glazing wherever possible.
7. Garage doors and other doors not intended for use on the pedestrian scale are specifically prohibited unless enough decorative treatment is incorporated to allow an exception.
8. Window and door modulation and articulation shall be incorporated in a way that is compatible with existing modulation and articulation of adjacent buildings.

Guidelines:

Encouraged:

1. Windows that complete the "tall front" feeling should be enhanced, not covered. If they cannot function as originally planned because of interior remodeling, then they can be opaque from the inside or covered with an awning similar to the old style.
2. Buildings with a commercial ground floor are encouraged to use larger plate glass between 2 and 8 feet off the ground at the storefront and smaller gridded or multi-pane windows for all additional stories.
3. Upper-~~-~~story windows with vertical emphasis are encouraged. Typically, upper-~~-~~story windows are twice as tall as they are wide. These proportions are within a limited range; therefore, upper-~~-~~story windows in new construction~~,~~ should relate to the window proportions seen historically.
4. Transom windows are encouraged.
5. Decorative molding, framing, glazing and other designs are encouraged.

~~1.~~6. Decorative wrought iron detailing is encouraged.

SIGN DESIGN

GENERAL CBD SIGNAGE

Intent

To create community identity and secure the vitality of businesses in the downtown area as part of a carefully designed, pedestrian-oriented streetscape. Signage is the single element most responsible for conveying the type of design "message" that is communicated to the

public. As bright, attention-getting communication devices, sSigns, by their nature, make strong first impressions. They are bright attention getting communication devices.

Variety is absolutely essential and expression of a store's identity is completely individualized and subjective. However, Tthere are certain parameters however that, if followed with care, will result in a more pleasing expression to the public. Considering how important the signs are in establishing a solid, long–lasting first impression, deliberate and purposeful review of each applicantion is very important. Poorly coordinated signage is the one single element that can destroy and overwhelm all of our other efforts combined. On the other hand, it can be the very best supportive element to the theme we are trying to encourage.

As mentioned in the basic profile, the Art Nouveau influence was the strongest force behind painting, sculpture, architecture, and applied decorative arts. Signage was particularly influenced as a decorative form of self–expression. In fact, many in the sign trades recognize signage from 1900-1930 as the classic period in American style, where beautiful letter forms and decorative expression meet with the best craftsmanship and techniques. Businesses will find a wide variety within this designation. Basically, there are several types: awning, canopy or marquee lettering, carved wood, window (gold leaf and paint), painted wood, cut out or cast individual letters, wall signs painted directly on buildings, and some very early types of neon and electric signs.

Standards:

Required:

1. Square footage, height and setback restrictions of signs shall comply with the City of Sedro-Woolley Municipal Code.
2. Digital signs are not permitted in the CBD except in the following locations:
    A) On Eastern Street between the railroad to the north and State Street to the south;
    B) On Murdock Street between the railroad to the north and State Street to the south;
    C) On Puget Street between Pacific Street to the north and State Street to the south;
    D) On State Street; and
    E) On Ferry Street between State Route 20 to the west and Eastern Street to the east.
3. Animated, rotating, changing message signs and signs that combine a white background with internal illumination are specifically prohibited. Exposed neon illumination or shielded external illumination are accepted alternatives.

Guidelines:

Encouraged:

The following guidelines will allow free expression within certain parameters that will serve us best in Sedro-Woolley. Note: information contained in the following table is encouraged, but not required. All signs shall have 2 or 3 of the following elements commensurate with Art Nouveau styling:

1. Letter style should be complimentary to Art Nouveau; Classic Roman and derivatives or Calligraphic styles. Avoid Sans Serif, Contemporary and any decorative styles that fight with the theme (such as computer styles or Old English). In cases where a corporate logo and/or representative letter style is used, criteria 2 and 3 below should be followed so signage can be integrated with the total theme.
2. Signs should have an outside shape that is characteristically decorative, or if rectangular or square, include panels, borders and decorative detailing that are distinctly complimentary to the 1920's architectural style.
3. Signs should be made with materials and techniques that are similar in appearance to those used in signage during 1900-1930. All free standing and projecting signs should have a base support of pose cover that is decorative as well as functional and made of materials that are as relative to the coloration and detailing of the exterior walls of the buildings they serve as possible.

~~1. Letter style shall be complimentary to Art Nouveau; Classic Roman and derivatives or Calligraphic styles. Avoid Sans Serif, Contemporary, and any decorative styles that fight with the theme (such as computer styles or Old English). If a corporate logo and/or representative letter style is to be used then the second two criteria must be followed closely so that their signage can be integrated with the total theme.~~
~~2. Signs shall have an outside shape that is characteristically decorative, or if rectangular or square, panels, borders and decorative detailing that are distinctly complimentary to the 1920's architectural style.~~
~~3. Signs shall be made with materials and techniques that are similar in appearance to those used in signage in the early part of the century, 1900-1930. All free standing and projecting signs shall have a base support of pose cover that is decorative as well as functional and made of materials that are as relative to the exterior walls of the buildings they serve as possible (coloration and detailing).~~

~~Square footage, height, and setback restrictions shall comply with the City of Sedro-Woolley Municipal Code. Flashing, animated, rotating, changing message signs and signs that combine a white background with internal illumination are specifically prohibited. Exposed neon illumination or shielded external illumination are accepted alternatives.~~

~~Drawings must be submitted for approval. They need to be in color, and detail size, materials, have specific accurate letter style, and decorative detailing and placement on building indicated. Structural and installation details per current code.~~

~~DECORATIVE DETAILING FOR SIGNS~~

~~Building facades were consistently given ornamental detailing. This most often found expression (aside from signage) in building crowns, dentil work, cast masonry, ornamental~~

~~brick, and ornamental sheet metal. Some of these additions can vary so widely as to be difficult to define. Care should be taken to encourage the use of such elements while at the same time insuring that they are well integrated and not disproportionate or overdone. Simple drawings should be submitted for approval, detailing materials, relative size to building, color and placement.~~

SIGN LIGHTING

Intent

~~Exterior lighting can serve t~~To highlight signs as well as entrances and ground floor details and to ~~accentuate the architecture as well as~~ provid~~e~~ing interesting visual breaks and detail in the streetscape. ~~Exposed lighting fixtures should be decorative; ranging from European traditional to early American to Early 20th century~~. Decorative exposed lighting fixtures ranging from European traditional to early American to early 20th century all serve to compliment the pedestrian environment. Carriage lamps with decorative bases and arms and fluid graceful goosenecks with floral motifs are most associated with this period. ~~White or clear bulbs are appropriate, while colored light should be disallowed.~~

Decorative pedestrian-scale lighting lines the streetscape in Sedro-Woolley's CBD.

Indirect lighting can be used to flood exterior walls and fronts to dramatically accent architecture. ~~Fixtures should be carefully shielded from view.~~ Lighting hidden under soffit or behind canopies and awnings can provide excellent wall lighting and adequate security lighting. Free-~~-~~standing light fixtures can be a great source of lighting at building entries. ~~These should be characteristically styled with the height not to exceed building height.~~

Streetscape lighting can work to bring attention to exterior details such as this beautiful mural.

Standards:

Required:

1. White or clear bulbs are appropriate. Colored light is prohibited.
2. The height of free standing light fixtures shall not exceed building height.
3. Fixtures shall be carefully shielded from view.

Guidelines:

Encouraged:

1. Exposed lighting fixtures should be decorative; ranging from European traditional to early American to Early 20th century.

11. Definitions

Art or Water Feature - An historical, symbolic~~,~~ or abstract sculpture or other form that may also incorporate water, ~~which~~ addings~~s~~ dimension to a public space.

Artful - A one-of-a-kind design that reflects the skills and talent of an artist, graphic designer~~,~~ or other design professional.

Articulation - An architectural term for when formal elements of architectural design (such as windows, for example) are styled in a way that create emphasis on those particular elements. *See right.*

Awning - A light-weight, framed projection placed on a building façade – typically over entryways or windows – with an attached cover that is supported entirely by the building. Awnings may be fixed or retractable-type.

Belt course - A horizontal band of masonry across the exterior of a building that stands out visually. *See right.*

Bollard - A short post generally used in a series to define an area or block access by vehicles.

Canopy - A permanent structure of rigid construction placed on a building façade – typically over entryways or windows – with an attached cover. Canopies may be structurally independent with support columns anchored to the ground or supported by the building on one end.

Clerestory - A continuous band of windows located just below the ceiling of a generally tall and important space.

Cornice - The molded and projecting horizontal piece at the crown of a building. *See right.*

Courtyard - An open space enclosed partly or wholly by a building.

Dentil work - A series of closely spaced, rectangular blocks that form a molding typically projecting below the cornice along the roofline of a building.

Downtown core - the area bordered by the tracks to the west, Puget Street to the east, the tracks to the north, and Warner Street to the south AND property fronting on Metcalf Street, West Ferry Street, West State Street and property abutting the tracks between Rita Street and Walley Street (south of State Street).

Façade - The front of a building, or any face that is given special architectural treatment.

Forecourt - An open court in front of a building.

Green - An open grassy space between buildings.

Historic Building ~~–~~ – A building c~~C~~onstructed prior to 1920.

Low Impact Development (LID) - LID techniques, such as:

1) Pervious paving, including but not limited to permeable concrete or unit pavers, porous asphalt, "grasscrete~~,~~" and ecoblock;
2) Bio-retention swales, cells or rain gardens;
3) Amending disturbed or compacted soils with compost to an increased depth (min. 12" depth) and adding composted mulch as top dressing; and
4) Rainwater cisterns, with use of rainwater to irrigate landscaping.

Use of LID techniques shall be guided by engineering analyses that include an in-depth site analysis using hydrology models~~,~~ including infiltrative capacity of underlying soils, distance to groundwater, slope, natural drainage patterns~~,~~ and other drainage, environmental~~,~~ and public health considerations.

Marquee - A permanent roofed structure placed on a building façade – typically over an entryway – that is fully supported by the building and often incorporates lighting.

Medallion – A round or oval ornament placed on a façade of a building that contains a sculptural or pictorial decoration.

Mixed Use - Any development that contains at least two different land use categories (e.g. residential and retail).

Modulation - An architectural term for step-backs and forward projections of sections of a building front at specific intervals of structure width and depth. Modulation is used as a means of creating visual breaks on continuous exterior walls. *See right.*

~~M~~ullion - A slender, vertical member that forms a division between units of a window, door~~,~~ or screen or is used decoratively. *See right.*

Muntin - A bar or rigid supporting strip between adjacent panes of glass. *See right.*

Parapet - A l~~L~~ow wall along the edge of a roof.

Plaza - An open area usually located near urban buildings and often featuring walkways, trees and shrubs, places to sit~~,~~ and sometimes shops.

Plinth - A b~~B~~ase wall piece, such as a square block or base course. *See right.*

Portico - A c~~C~~olonnaded porch entrance or covered walkway supported by evenly-spaced columns.

Public Space - Any of a variety of spaces that are accessible and usable by the general public, such as a plaza, green, courtyard, forecourt, sitting area, widened sidewalk, stormwater rain garden~~,~~ and art or water feature.

Site Furnishings, Permanent - Seating, benches, trash receptacles, bollards, planters, drinking fountains, low-scale lighting and other such non-movable, year-round elements oriented to pedestrians. Tables and chairs that are moved in and out of establishments at night are not considered permanent site furnishings.

Sitting Area - An open area filled with low walls, benches~~,~~ and/or tables and chairs.

Stormwater Rain Garden - Landscaped areas that are designed as stormwater management facilities. These landscaped areas are made up of a specialized mix of plants that can tolerate seasonal wet and dry conditions~~,~~ and soils that can rapidly absorb and store runoff. These facilities utilize complex relationships between plants and soils to filter pollutants, reduce runoff volume and rate of discharge~~,~~ and promote groundwater recharge through infiltration. These areas are constructed with a specialized soil and plant mix that is attractive and has low maintenance requirements. Because of their flexibility in size, shape~~,~~ and appearance, they can be installed on almost any type of land use~~,~~ in a variety of conditions.

Transom window – A window installed directly above a door or larger window to let in extra light and to serve a decorative purpose. Traditionally, transom windows are able to be opened for air flow.

"Vision" glass ~~–~~ – An architectural term for clear glass.

Wainscoting - Paneling provided at the lower portion of a wall for the purposes of protection and/or architectural detailing. *See right.*

Widened Sidewalk - Space created adjacent to the public sidewalk in which pedestrians may easily linger.

NOTICE OF PUBLIC HEARING

CITY OF SEDRO-WOOLLEY

Amendments to Development Regulations

Hybrid Meeting

City of Sedro-Woolley Council Chamber and Virtually via Zoom Webinar

The City of Sedro-Woolley Planning Commission will hold a public hearing on **March 15, 2022 at 6:30 PM** in the Sedro-Woolley Council Chamber and virtually via Zoom Webinar, to hear testimony regarding following proposed amendments to the City Development Regulations:

1. Proposed amendments to Chapter 3 – Additional Standards for the Central Business District and Chapter 11 – Definitions of the City of Sedro-Woolley Design Standards and Guidelines Manual;

Interested parties can comment on the proposed changes in writing or at the hearing. Written comments will be read into the public record and **must be received by 4:00PM March 15, 2022** to be considered at this public hearing. Send written comments to: City of Sedro-Woolley Planning Department, ATTN: Assistant Planner, 325 Metcalf Street, Sedro-Woolley, Washington, 98284, or by email to nmcgowan@sedro-woolley.gov.

Please go to the Planning Commission Meetings page on the Sedro-Woolley website (https://www.ci.sedro-woolley.wa.us/) to find the meeting materials and a link to join the webinar.

Published in the Skagit Valley Herald: March 4, 2022

City of Sedro-Woolley
City Council Agenda Item

Date: March 15, 2022

Subject: File #CPA-1-22 - 2022 Chapter 3 Transportation Element Update

Agenda Item – First Reading

FROM: Mark A. Freiberger, PE, Director of Public Works

ISSUE:

Shall the Planning Commission recommend the 2022 Chapter 3 Transportation Element Update to Council?

BACKGROUND / SUMMARY INFORMATION:

Chapter 3 Transportation Element of the Comprehensive Plan was extensively updated in 2016. Revisions were made in 2018 to update the Project List and the Transportation Impact Fee sections of the Transportation Element.

The proposed 2022 revisions to the Transportation Element are as follows:

1. Page 3-9 Policy T7.2 ant T7.3 are revised to clarify **Level of Service (LOS)** for minor arterials. See attached memorandum "Transportation LOS Policy Update" dated 2/24/2022 from Transportation Solutions Inc. (TSI) for the background for this revision.
    a. Pages 3-12 and 3-13 – minor arterial descriptions are updated to reflect the LOS clarification noted in bullet 1.
    b. Appendix A 2015 Intersection LOS Summary is updated to reflect the LOS clarification noted in bullet 1.
2. Page 3-13 Major Collectors description, page 3-45 Project List, and associated Figures 1 thru 9 are revised to reflect deletion of the **Hodgin Road Arterial Extension Project**.
3. Minor revisions to update text are noted on pages 3-8, 3-9, 3-12

At today's meeting, the Planning Commission will make its first review of the proposed Transportation Element updates. The Planning Commission will hold a public hearing on the proposed updates at its next meeting (April 19, 2022).

DISCUSSION

Bullet 1 LOS Discussion. Policy's T7.2 and T7.3 are currently in conflict in Chapter 3, with T7.2 noting that LOS D is the standard for minor arterials and T7.3 noting LOS C. The TSI memo notes that WSDOT has set LOS D for SR 9 (classified as a minor arterial) and SR 20 (classified as Other Principal Arterial west of Township and Minor Arterial east of Township) within the City. As a result the City has adopted LOS D for the state routes.

Staff recommends updating the Transportation Element to clarify LOS D for minor arterials. This includes Cook Road, F&S Grade Road, the State Street/Township Street Corridor, Ferry Street and Edward R Murrow Street. This will give Staff more flexibility in managing the transportation improvements for the City.

A comparison of sister agencies reveals that Mount Vernon, Oak Harbor, Skagit County, Whatcom County, Granite Falls, Sultan and Marysville all classify minor arterials as LOS D.

Bullet 2 Hodgin Discussion. Project C15 Hodgin Road Arterial Extension is shown in the 20 year in year 2036 at a cost of $2.26 million. Hodgin prior to the 2016 Comp Plan update was envisioned as extending north of Cook Road to Jones Road. The city owns a 200' strip of property on the west side of Brickyard Creek and bounding the SWSD property. See the attached map for the proposed alignment of this project.

Staff has had concerns about the viability of the proposed Hodgin extension project since the present Director's arrival in 2007. As a result, this project has had a low priority and is presently scheduled in the 20 year TIP for year 2036. The major issues of concern are as follows:

1. The required crossing of Brickyard Creek at an angle and the connected environmental issues.
2. The presence of protected farmland west of Brickyard Creek.
3. The presence of protected recreation facilities (SWHS Baseball Fields) north of the planned route.
4. Aligning existing Hodgin with the City property will require a double curve in the route over a short distance.
5. The removal of extension of this route north of Cook Rd to Jones Rd from the Transportation Plan with the 2016 Comp Plan Update due to opposition from the owners of protected farm land north of Cook Road.

Of particular concern with the development in this area is possible relief of peak hour traffic from the Cook/Trail intersection. At the city's request, TSI has reviewed the impact of eliminating the Hodgin route from the transportation plan, and specifically on the function of the Cook/Trail intersection. Their findings are contained in the 1/10/2021 Transportation Concurrency Memorandum. TSI concluded:

1. Traffic projections for the Hodgin route would not significantly improve LOS of the Cook/Trail intersection.
2. Construction of the planned Cook/Trail intersection improvements should be prioritized.

3. Completion of the intersection improvements would result in an acceptable LOS beyond the twenty year planning period without Hodgin.

In addition to TSI's comments, as the project is scheduled at 2036 or beyond, it simply would not have any useful impact on system operation during the critical time between 2022 and 2026.

Given the difficulties of acquiring right of way, environmental concerns, lack of options to extend the route north of Cook, and the expected cost, and the low priority of the Hodgin extension, Staff recommends deletion of the Hodgin Rd Arterial from the Project List, and concentrating on the already planned Jones/John Liner/Trail Road Corridor improvements, including upgrade of the Cook/Trail Intersection to a roundabout as planned for 2026.

FISCAL IMPACT, IF APPROPRIATE:

No impacts are anticipated related to the proposed Chapter 3 Transportation Element revisions.

ATTACHMENTS:

1. SW Comp Plan Ch 3 Transportation Plan Update 3-2022 TRACKED CHANGES
2. Transportation LOS Policy Update dated 2/24/2022 as prepared by TSI.
3. Figure 9 Impact Fee Eligible Projects
4. Aerial Map of the Hodgin Road vicinity

Chapter 3

TRANSPORTATION ELEMENT

3.04

INTRODUCTION

Introduction

The City of Sedro-Woolley is a small urban area in Skagit County. It is located approximately twelve (12) miles northeast of Mount Vernon, the county seat and largest city in Skagit County. The ~~city~~ City and its UGA had an estimated population of twelve thousand five~~-~~ hundred and fourteen (12,514) in 2015. This is an increase of seven hundred thirty-four (734) people since 2005, or a six (6) percent increase.

In 2003, the City completed an update to its Transportation Element. The City followed this with an update to its Transportation Plan in 2005. As part of the 2016 Comprehensive Plan Update, the City has again updated the Transportation Plan to ensure that it is consistent with the City's required update of its Land Use Element as required by the State Growth Management Act (GMA). In addition, the City wanted to review and update its transportation financing program and revisit its transportation impact fee program. The Transportation Plan update also was needed to reflect annexations and growth within the adjacent Urban Growth Area (UGA).

The update of the transportation plan included development of a new travel demand forecasting model to be consistent with the regional Skagit Council of Governments' (SCOG) model which was also updated in 2016. This will provide the City with a model, travel forecasts, and transportation plan that is consistent with regional growth assumptions.

Purpose

The transportation plan provides a link between the City's land use element and the transportation facilities and services needed to support the growth over the next twenty (20) years. The transportation plan update focuses on safety, capacity, and operational improvements on state highways and arterials serving the city. The plan incorporates pedestrian, bicycle, transit, and transportation demand management programs to meet the overall transportation needs of the community.

The Transportation Element is a key component to the City's Comprehensive Plan. It provides the City with a guide for transportation system improvements to meet existing and future travel needs. It also integrates the City's transportation improvements with those of Skagit County and the Washington State Department of Transportation (WSDOT).

Growth Management Act

The Transportation Element was prepared per the requirements of the state Growth Management Act (GMA). The GMA requires that the Transportation Element be consistent with other elements of its Comprehensive Plan, including the Land Use and Capital Facilities elements. If the capital facilities needed to support the forecasted land use at the adopted level of service standards cannot be financed with projected revenues, then the GMA requires a reassessment of one or more of these elements to bring them into balance.

The GMA requires the following topics be addressed in the transportation plan:

- Land use assumptions used in estimating travel demand
- An inventory of existing transportation facilities and services
- Level of service standards to gauge the performance of the system
- Identification of actions and requirements needed to bring existing facilities and services up to standard
- Forecasts of future traffic based on the land use plan
- Identification of improvements and programs needed to address current and future transportation system deficiencies, including Transportation Demand Management strategies

- A realistic multi-year financing plan that is balanced with the adopted level of service standards and the land use element
- An explanation of intergovernmental coordination and regional consistency.

In 1998, the Washington State Legislature amended the GMA in House Bill (HB) 1487. This amendment focused on transportation and growth management planning~~,~~ and revised several sections of the GMA (RCW 36.70A). In general, the amendments are related to the requirements for local comprehensive plan transportation plans, the countywide planning process for identification and siting of essential public facilities, plan consistency, and the adoption of deadlines established to meet the new requirements. With the revisions, local transportation plans must also now include the following:

- State-owned transportation facilities in the transportation inventory
- The level of service (LOS) for state-owned transportation facilities
- Identification and assessment of GMA concurrency and the applicability to highways of statewide significance
- An estimate of the impacts to state-owned transportation facilities resulting from local land use assumptions

(Ord. 1554-06 § 3 (Exh. A)(part))

The Sedro-Woolley transportation plan meets these GMA requirements for local comprehensive plans.

Plan Organization

The transportation plan was developed in a series of tasks to meet the requirements of GMA. The plan is organized as follows:

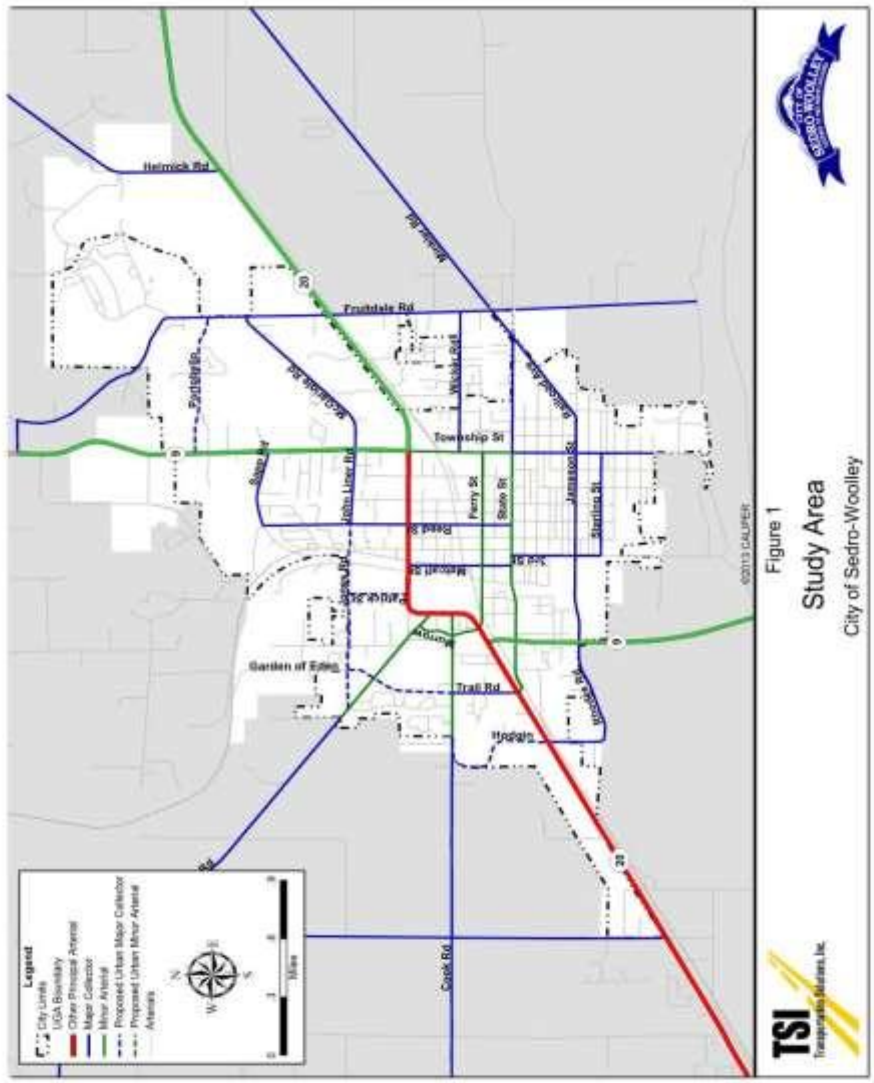
- Goals and Policies
- Transportation System Inventory
- Existing Traffic Conditions
- Travel Forecasting
- Future System Needs
- Transportation Financing Plan
- Consistency with Other Agencies

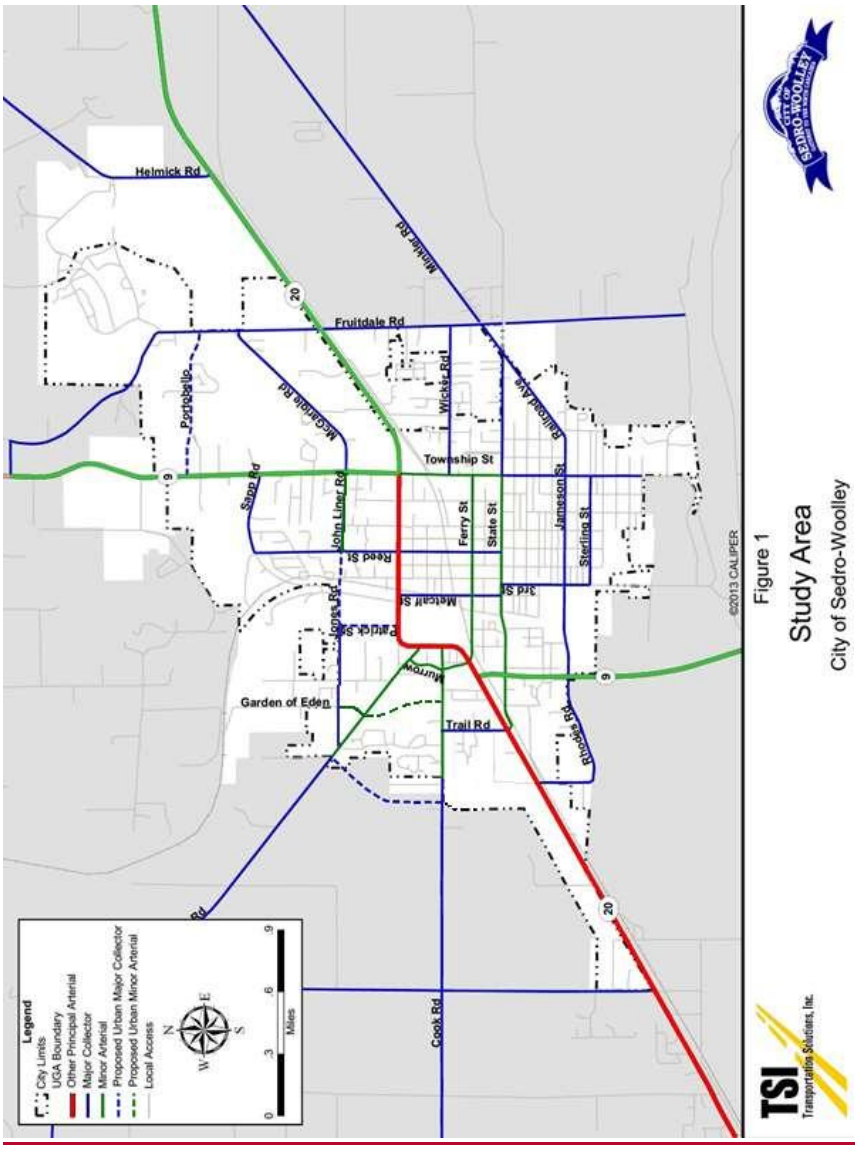
Study Area

The study area for the plan includes the city limits and adjacent unincorporated urban growth area (UGA). The UGA has been defined by the City in conjunction with Skagit County. Figure 1 shows the study area for the 2016 transportation plan.

As noted above, the transportation plan was developed based on a new travel demand model that is consistent with the regional Skagit Council of Governments' (SCOG) model. Since the citywide travel model is based on the SCOG regional model, the City's model also incorporates travel demands from throughout Skagit County.

Figure 1
Study Area (Map revised)


Helmick Rd
Fruitdale Rd
Township St
Trail Rd
Cook Rd
Garden of Eden
Legend
Figure 1
Study Area
City of Sedro-Woolley
TSI


Helmick Rd
Fruitdale Rd
Wickstrom Rd
Township St
Ferry St
State St
Jameson St
Sterling St
Reed St
3rd St
Garden of Eden
Trail Rd
Cook Rd
Legend
City Limits
UGA Boundary
Other Principal Arterial
Major Collector
Minor Arterial
Proposed Urban Major Collector
Proposed Urban Minor Arterial
Local Access
Miles
©2013 CALIPER
Figure 1
Study Area
City of Sedro-Woolley
TSI
Transportation Solutions, Inc.

(Map deleted)

3.08

GOALS AND POLICIES

The following goals and policies are intended to guide implementation of the City of Sedro-Woolley's transportation system. These goals and policies provide a framework for decision making related to transportation improvements and projects. They also guide requirements related to transportation improvements needed to support development projects.

Goal T1: To provide safe, passable streets within the City of Sedro-Woolley.

Policy T1.1: Identify and improve substandard roads based upon a priority system which accounts for both traffic demand and surrounding land uses.

Policy T1.2: Adopt design standards to which all new streets must be constructed. Adopt design standards for neighborhood streets that support pedestrian safety and reflect the volume of traffic at build-out.

Policy T1.3: Consider non-motorized and rail modes in the design of transportation projects.

Policy T1.4: Improve arterial and collector streets identified as deficient in level of service to the adopted design standard, consistent with the transportation element of the comprehensive plan.

Policy T1.5: Encourage and solicit public participation in transportation related decisions to help ensure that planning and implementation have public support.

Goal T2: To provide an efficient street network that emphasizes circulation and accident prevention.

Policy T2.1: Establish a hierarchy of streets composed of other arterials, minor arterials, major collectors, and local access streets.

Policy T2.2: Improve arterials and collector streets identified as deficient to the design standard, consistent with the transportation element of the comprehensive plan.

Policy T2.3: Support access management strategies for other and minor arterials and major collectors to reduce congestion and increase safety.

Policy T2.4: Manage residential street connections, curb-cuts and on- and off-street parking areas for minor arterials and major collectors.

Policy T2.5: Develop and improve a system of arterials and collectors that support local travel patterns without relying on SR 20.

Policy T2.6: Work with Skagit County to preserve the right-of-way for a potential future arterial between Cook Road and F&S Grade Road serving the area west of the city's existing urban growth area.

Goal T3: To benefit social wellbeing and economic development through street design.

Policy T3.1: Use clearly marked sidewalks in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) to delineate pedestrian and auto traffic in areas where potential hazards exist~~,~~ or can be expected from development consistent with proposed land use.

Policy T3.2: Ensure that street size is sufficient (and not excessive) to support proposed land use density.

Policy T3.3: Provide clearly marked bicycle travel corridors in accordance with the adopted non-motorized plan included in the Transportation Element.

Policy T3.4: Provide street lights in areas of high evening-hour pedestrian use.

Policy T3.5: Provide crosswalks in accordance with the MUTCD and the Americans with Disabilities Act (ADA), which are clearly marked, to both driver and pedestrian. Additional measures, such as overhead signage, may be included, as appropriate.

Policy T3.6: Provide sufficient, accessible off-street parking for commercial and industrial developments and community facilities.

Policy T3.7: Provide accessible on-street parking for residential development. Provide off-street parking for multi-family residential development consistent with proposed density.

Policy T3.8: Consider the needs of future transit service when improving other arterials, minor arterials, and major collectors.

Policy T3.9: Recognize the pedestrian as a principal user of the central business district (CBD). Continue to encourage retail development and redevelopment in the CBD that appeals primarily to the pedestrian.

Policy T3.10: Improve streets to provide safe and efficient travel of emergency vehicles to and from the fire department, police department and United General Hospital. Separate emergency vehicle loading areas from normal traffic routes to ensure emergency access and prevent congestion.

Policy T3.11: Improve streets that benefit travel of buses to and from schools. Separate bus loading areas from normal traffic routes to minimize the potential for auto-pedestrian hazards or conflicts.

Goal T4: To encourage alternate modes of transportation in accordance with the principals outlined in the City's adopted Complete Streets Resolution 952-17 and SWMC Chapter 15.40.030.

Policy T4.1: Establish a committee to review alternate transportation options and propose alternatives appropriate to Sedro-Woolley's anticipated population growth and density. Options to evaluate include trails, rails, transit, walking, etc.

Policy T4.2: Develop a system of regional and local-oriented multi-purpose trails, which provide designated routes for bicyclists, walkers, joggers, and tourists. Design the system for use as both a commuting and recreation option. Private property owners must be compensated as needed, unless arrangements are made for a dedication of right-of-way in lieu of a park fee.

Policy T4.3: Encourage the use of commuting alternatives to the single-occupancy automobile. Alternatives include, but are not limited to walking, carpooling, bicycling and mass transportation.

Policy T4.4: Coordinate with local community groups to provide alternative transportation education and programming to community residents.

Policy T4.5: Provide bicycle storage facilities at community facilities and in commercial retail areas.

Policy T4.6: Design street traffic systems to promote alternative transportation options.

Policy T4.7: Preserve the BNSF~~urlington Northern and Santa Fe~~ Rail~~road~~way right-of-way as a multi-modal transportation corridor between Sedro-Woolley and upriver communities. Encourage uses that provide alternatives to the automobile including rail trolley and non-motorized uses. Private property owners must be compensated as needed, unless arrangements are made for a dedication of right-of-way in lieu of a park fee.

Policy T4.8: Continue existing program to construct missing sidewalk links, repair existing sidewalks, and other improvements to support pedestrian transportation.

Policy T4.9: Encourage pedestrian and bicycle connections between adjacent developments even if

constraints prevent connections for motorized vehicles.

Goal T5: To promote the community's vision among regional transportation agencies.

Policy T5.1: Coordinate with the Washington State Department of Transportation to provide public input on any current or future plans concerning State Route 20 or State Route 9. Provide public input to the development of these plans.

Policy T5.2: Coordinate with Skagit County to provide public input on any current or future plans concerning county roads within the urban growth area (UGA) and roads connecting Sedro-Woolley to Interstate 5.

Policy T5.3: Coordinate the Comprehensive Plan Transportation Element with WSDOT as required by RCW 36.70A.106.

Policy T5.4: Coordinate with the BNSF Railway~~urlington Northern and Sante Fe Railroad~~ to provide public input on future plans for the railroad right-of-way within the urban growth area. Private property owners must be compensated as needed, unless arrangements are made for a dedication of right-of-way in lieu of a park fee.

Policy T5.5: Encourage the return of the Sedro-Woolley ~~-~~to ~~-~~Concrete rail corridor to active rail use to promote revitalization of the City and east Skagit County.

Goal T6: To fund and implement transportation improvements that serve the City.

Policy T6.1: Partner with WSDOT, Skagit County, and SCOG to fund regional improvement projects that serve the City.

Policy T6.2: Ensure that growth mitigates its impacts through transportation impact fees, SEPA mitigation, concurrency, and development regulations.

Policy T6.3: Continue to work with Skagit County to mitigate traffic impacts of developments within the urban growth area consistent with the City's transportation element and mitigation requirements.

Policy T6.4: Develop the annual Six-Year Transportation Improvement Program (TIP) so it is financially feasible, leverages available ~~city~~ City funding, and is consistent with the comprehensive plan.

Policy T6.5: Level of service and safety deficiencies in areas of high population density and traffic volume pose the most immediate needs, and should be improved first.

Policy T6.6: Support residential street improvements through use of local improvement districts or other similar mechanisms.

Goal T7: To provide an adequate transportation system current with the traffic-related impacts of new development.

Policy T7.1: Maintain the adopted Level of Service (LOS) standard for all roadways classified as arterials ~~or~~, collectors, or state highways.

Policy T7.2: Maintain ~~the~~ a minimum level of service standard of LOS D for ~~SR 20, SR 9, principal and~~ and minor arterials within the City and UGA, including SR 9 and SR 20 ~~as LOS D~~.

Policy T7.3: Maintain ~~the~~ a minimum level of service standard of LOS C for ~~other and minor arterials and~~ collector roadways~~s~~ within the City and UGA ~~as LOS C~~.

Policy T7.4: Maintain the adopted Transportation Concurrency Management program to ensure adequate transportation facilities are available concurrent with development, as required by the Growth Management Act.

(Ord. 1554-06 § 3 (Exh. A)(part))

3.12

EXISTING TRANSPORTATION SYSTEM INVENTORY

Roadway Network

State System

State Route 20 links the City to I-5 and Burlington to the west and the Cascade Mountains to the east. Within the City, it is a two- to three-lane principal arterial with a 35 mph posted speed limit. Outside the City, to the west and to the east, the posted speed limits are 50 mph and 55 mph, respectively. State maintained traffic signals control SR 20 intersections with Collins Road, Rhodes Road/Hodgin Street, State Street/Trail Road, SR 9, Ferry Street, and SR 9/Township Street. SR 20 is classified by WSDOT as a Highway of Statewide Significance (HSS). SR 20 is also classified by WSDOT as a Freight Route from the west city limits to SR 9 south.

State Route 9 links Sedro-Woolley with Mount Vernon to the south and with Whatcom County to the north. Within the City, SR 9 is two- to three-lane secondary arterial with state--maintained traffic signals controlling intersections with State Street, SR 20 (near Ferry Street intersection), and SR 20/Township Street. South of SR 20 the posted speed limit is 40 mph. The speed limit is posted at 35 mph north of the City. SR 9 is designated a non-HSS route. SR9 south of SR20 is a limited access – modified control route. SR 9 south of SR20 is classified by WSDOT as a Freight Route from the south city limits to its intersection with SR 20.

Skagit County Roads

County major and minor collector roads serve as key elements in the county transportation system. These roads link together state routes or connect the state route system to Sedro-Woolley, to other major centers, and to recreational destinations. For example, Cook Road is a two lane east-west road located in western Sedro-Woolley. It provides direct access to I-5 to the west and functions as a major freight route. Cook Road terminates in Sedro-Woolley at State Route 20. Skagit County roads have been identified and analyzed in the Transportation Element of the 2016 Skagit County Comprehensive Plan Update, with which the City's Transportation Element update maintains consistency.

City Street Network

The City street network provides for the general movement of people and goods within Sedro-Woolley. It also serves other travel modes, including bicycles, pedestrians, and transit.

Functional Classification

Roadway functional classification provides for a hierarchy of roadways. These classifications also act as a guide for future development of the overall street system. The purpose of the functional classification plan is to provide a hierarchy of arterial and local streets. Arterial streets serve higher traffic volumes and may have few access points. Local streets provide neighborhood circulation and access to individual parcels. Collector streets link arterials and local streets and may provide access to individual parcels. A well-connected system of streets enhances overall mobility and facilitates greater opportunities for pedestrian and bicycle travel.

According to Sedro-Woolley Municipal Code 15.40.040, all public streets are classified into four types: other principal arterials, minor arterials, major collectors, and local access streets. Table 1 includes a description of each functional classification. Each public street in the City is assigned one of the four classifications, as shown in Table 1, which are consistent with the Federal Highway Administration (FHWA) Federal Functional Classification system. Planned functional classifications are also identified in Table 1.

Table 1. Street Functional Classification System

Functional Classification	Description
Other Principal Arterial	Provide connectivity between different areas of a region. High mobility w/ partial access control
Minor Arterial	Provide connectivity between different areas of a region. Moderate mobility w/partial access control.
Major Collector	Collect traffic from local streets and other collectors. Connect neighborhoods to each other and to arterials.
Local Access	Provide direct access to properties in residential, commercial or industrial areas.

Principal Arterials

State Route 20 is part of the state highway system but is classified an Other Principal Arterial through the City of Sedro-Woolley. SR 20 links the City to I-5 and Burlington to the west and the Cascade Mountains to the east. Within the City, it is a two- to three-lane Other Principal Arterial with a 35~~–~~mph posted speed limit. Outside the City to the west the route is classified as Other Principal Arterial with a posted speed limit of fifty (50) mph and to the east the route is classified as a Minor Arterial with a posted speed limit of fifty-five (55) mph. State maintained traffic signals control SR 20 intersections with Collins Road, Rhodes Road, State Street/Trail Road, SR 9, Ferry Street, and SR 9/Township Street. SR 20 is classified as a Highway of Statewide Significance (HSS). SR 20 is classified as a Freight Route from the west city limits to its intersection with SR 9 south.

Minor Arterials

State Route 9 is part of the state highway system and is classified a Minor Arterial through the City. SR 9 links Sedro-Woolley with Mount Vernon to the south and with Whatcom County to the north. Within the City, SR 9 is two- to three-lane Minor Arterial with state~~–~~maintained traffic signals controlling intersections with State Street, SR 20 (near Ferry Street intersection), and SR 20/Township Street. South of SR 20 the posted speed limit is 40 mph. The route is classified as Major Collector north and south of the city limits with a posted speed limit of 50 mph. SR 9 is not classified as a Highway of Statewide Significance. SR 9 south of SR 20 is designated by WSDOT as limited access, modified control. SR 9 south is classified as a Freight Route from the south city limits to its intersection with SR 20.

Cook Road is a ~~Major Collector outside of the city limits and a~~ Minor Arterial within the city providing a direct east-west connection to I-5. Within the City, it has three lanes and a speed limit of thirty-five (35) mph. Outside of the City it becomes a two-lane road with a fifty (50) mph speed limit.

F&S Grade Road is a narrow two-lane Major Collector outside of the city limits and a Minor Arterial within the ~~city~~City, providing access to rural areas northwest of the City. The speed limit is twenty-five (25) mph within the City and thirty-five (35) mph in the ~~county~~County.

The **State Street/Township Street** corridor loops from SR 20 and SR 9 on the west side of Sedro-Woolley back to SR 20 and SR 9 on the east side of the City. This arterial loop provides access and circulation within the City's central business district as well as other central neighborhoods. The roads have two travel lanes with twenty-five (25) mph speed limits. All-way stop controlled intersections with flashing red signals are located at Metcalf Street, Puget Avenue, and the State Street/Township Street intersection. A flashing red-amber beacon is located at the Third Street intersection (a minor-approach stop-controlled T-intersection).

Ferry Street is an east-west two-lane Minor Arterial which begins at Cook Road and connects to Township Street. Ferry Street provides access to the central business district. The speed limit is twenty-five (25) mph with flashing all-way stop signals located at Metcalf Street and Puget Avenue.

Edward R. Murrow Street is a two-lane Minor Arterial w~~ith~~hich runs north-south from Cook Road to F&S Grade Road.

Major Collectors

The **John Liner Road/McGarigle Road** corridor provides east-west access parallel to SR 20 in the north part of Sedro-Woolley. The roadways are narrow two-lane Major Collectors with twenty-five (25) mph speed limits. Jones Road and John Liner Road are currently separated by the existing railroad line. The City's Transportation Improvement Program (TIP) identifies a series of projects which include a railroad undercrossing and upgrade of Jones Road to F&S Grade Road to extend this major collector system across the City and tie to the proposed Trail Road collector system.

North Fruitdale Road north of SR20 is a narrow two-lane Major Collector with a thirty-five (35) mph speed limit. North Fruitdale provides access to the former Northern State~~s~~ campus, now being redeveloped as the Center for Innovation and Technology in the Pacific Northwest. North Fruitdale continues as a major collector in Skagit County~~,~~ and connects to SR 9 north of the city limits via Kalloch Road.

Fruitdale Road south of SR20 is a narrow two-lane major collector with a thirty-five (35) mph speed limit. This county road provides north-south access to the southeast part of the City and UGA parallel to the Township Street corridor.

Rhodes Road, Jameson Street, and **Railroad Avenue** form an east-west Major Collector corridor in the southern part of the City. The collectors include two travel lanes with a twenty-five (25) mph speed limit. They connect SR 20 on the west side of the City to SR 20 on the east side of the city via Fruitdale Road, and also connect to SR20 east of the city via Minkler Road in the county.

In the west part of the City, **Trail Road** provides access from SR 20 to Cook Road. The City's Transportation Improvement Program (TIP) identifies a project which will extend the corridor north to connect with F&S Grade Road and Jones Road as part of the major collector system.

The following collector arterials have two lanes and a twenty-five (25) mph speed limit: **Metcalf Street, Reed Street, Sapp Road, State Street** (east of Township Street), **Sterling Street, Third Street, and Wicker Road**.

~~A new major collector route is planned extending **Hodgin Street** north to Cook Road that will support commercial development in the west part of the City.~~

Local Access Streets

Roadways not mentioned above are considered local access streets. Within the City, the legal speed limit is twenty-five (25) mph unless otherwise posted. In the county, the legal speed limit is thirty-five (35) mph unless otherwise posted. Generally, local streets are two-lane roadways providing direct access to adjacent properties.

Public Transit Services

Sedro-Woolley transit and public transportation facilities are operated by Skagit Transit and include bus transit, carpooling and vanpooling, dial-a-ride service, and park-and-ride lots. As of January 2016, two transit routes provide weekday service within the Sedro-Woolley area. Skagit Transit also offers limited weekday and weekend service in the City through its dial-a-ride program. Additionally, Skagit Transit offers services to encourage carpooling and vanpooling, including three park-and-ride lots within or near the City.

Fixed-Route Bus Service

Skagit Transit operates four bus routes through Sedro-Woolley: Route 300, Route 305, Route 717, and Route 750. The Sedro-Woolley Park and Ride serves as the City's transit hub and is served by each of the four bus routes. Transit service characteristics are described below.

Route 300 provides service along SR 20 between the Chuckanut Park & Ride in Burlington and the Cascades Job Corps Center in Sedro-Woolley. The route operates weekdays from 6:20 AM to 8:50 PM and weekends from 8:15 AM to 6:00 PM, with a 60-minute headway. Route 300 serves points of interest throughout the City with stops at United General

Hospital, Sedro-Woolley Park & Ride, Sedro-Woolley High School, and Cascade Job Corps.

Route 305 provides service along SR 9 from Skagit Valley College in Mount Vernon to Sedro-Woolley Park & Ride. Route 305 operates on a 60-minute headway weekdays from 7:40 AM to 6:00 PM and weekends from 8:10 AM to 5:40 PM. Exact departure times vary by direction of travel.

Route 717 provides Skagit River communities (Sedro-Woolley, Lyman, Hamilton, Concrete, and Cape Horn) access to the transfer point at Sedro-Woolley Park & Ride and offers limited service to the Skagit Valley College area of Mount Vernon. Route 717 offers one westbound express trip between Cape Horn and Skagit Station on weekday mornings, and two eastbound express trips departing Sedro-Woolley Park & Ride for Cape Horn on weekday mornings at 5:00 AM and 6:25 AM. Thereafter, weekday service operates with 3-hour headways until 7:00 PM. The route also operates on Saturdays with trips departing Sedro-Woolley Park & Ride at 8:00 AM and 3:00 PM.

Route 750 is a Friday-only route which offers one morning and one afternoon trip along SR 20 between Sedro-Woolley Park & Ride and Marblemount Caboose, with stops at Concrete City Hall and Rockport Store. Route 750 departs Sedro-Woolley Park & Ride at 8:10 AM and 2:00 PM on Fridays.

Park and Ride Lots

Three transit Park & Ride lots are located in and around Sedro-Woolley. The SR 9/State Street Park & Ride located on the southwest corner accommodates 20 vehicles. South of the City and the Skagit River, the SR 9 and South Skagit Highway Park & Ride accommodates 52 vehicles. Given the lot locations relative to bus routes, these park-and-ride lots provide services for vanpool and carpool patrons more than bus patrons. A third lot, the Sedro-Woolley Park & Ride is located at the southeast corner of the Cook Road / Ferry Street roundabout. The Sedro-Woolley Park & Ride accommodates 32 vehicles and also serves as a transfer point for the four bus routes (300, 305, 717, and 750) which serve the City.

Vanpooling/Carpooling

To reduce the traffic volumes on Skagit County roadways, Skagit Transit offers tools to encourage carpooling and vanpooling. Carpooling and vanpooling arrangements vary in cost and complexity depending on the number of persons involved. More information can be found on Skagit Transit's website (http://www.skagittransit.org).

Paratransit

Skagit Transit Paratransit serves persons throughout Skagit County, including the City of Sedro-Woolley, who have disabilities or conditions which prevent them from using normal fixed-route bus service. Paratransit operates from 6:00 AM to 9:00 PM on the weekdays and 8:00 AM to 6:00 PM on weekends. More information can be found on Skagit Transit's website (http://www.skagittransit.org).

Freight and Rail Services

The arterial roadway system and the BNSF Railway (formerly Burlington Northern and Santa Fe Railway) provide for the movement of freight and goods through the City. Given its location along two state highways, Sedro-Woolley experiences a large amount of truck freight traffic. There are three regional freight corridors (SR 20, SR 9, and Cook Road) that lead into and out of the City. These roadway facilities, along with the BNSF branch line and other designated truck routes, serve both local and regional freight operations within the City.

Truck Routes

The City has adopted a formal truck route plan in an effort to manage truck traffic within its city limits. City Municipal Code 10.20.030 designates the following roadways as truck routes within the City.

- SR 20 and SR 9
- Edward R. Murrow Street
- West State Street and State Street
- Township Street, Third Street, and River Road
- West Jameson Street and Jameson Street (Batey Road to Third Street)
- West Ferry Street and Ferry Street

- East Jones Road and West Jones Road
- F&S Grade (West Jones Road to Borseth Road)
- Cook Road
- Sapp Road (south of East Jones Road)
- Metcalf Street (north of Ferry Street)
- Puget Avenue
- Garden of Eden Road (F & S Grade Road to East Jones Road)

In Washington State, the highway and roadway system is rated according to the amount of freight and goods that are carried by truck on the system. The Washington State Freight and Goods Transportation System (FGTS) is a ranking of roads in Washington State by annual gross freight tonnage carried. The FGTS classification system is as follows:

- T-1: Over 10 million tons per year
- T-2: Between 4 and 10 million tons per year
- T-3: Between 300,000 and 4 million tons per year
- T-4: Between 100,000 and 300,000 tons per year
- T-5: At least 20,000 tons carried in a 60-day period and less than 100,000 tons per year

The FGTS system is affected by changes in the economy, international trade, and the transportation industry such as changes in truck travel patterns, cargoes and tonnages. Revisions to the FGTS routes and tonnage classifications are developed by the agency having jurisdiction over the roadway segment. The following freight routes are designated within the Sedro-Woolley planning area:

a. Cook Road is designated a T-2 facility carrying 3,872,000 tons annually;
b. Designated T-4 routes, carrying between 100,000 and 300,000 tons annually, include:
    a. F & S Grade Road from city limits to SR 20
    b. Ferry Street from SR 20 to Township Street
    c. Jameson Street from SR 9 to Township Street
    d. Metcalf Street from SR 20 to W State Street
    e. Reed Avenue from State Street to SR 20
    f. State Street from SR 20 to east city limits
    g. Township Street from SR 20 to south city limits
    h. Edward R. Murrow Street from Cook Road to F&S Grade Road
c. Third Street from State Street to Jameson Street is designated the T-5 route carrying approximately 53,000 tons annually.

Most of the designated freight routes through the City meet WSDOT T-4 designation. The major exception is Cook Road, with a T-2 classification. Most trucks heading to and from the west use Cook Road to bypass the congestion along SR 20 through the City of Burlington. In addition, the Cook Road corridor provides a direct link to I-

Rail System

The railroad system within the City of Sedro-Woolley is operated by BNSF Railway. While the rail lines form a three-legged intersection within the City, only the west and north lines are typically used. The south spur is used primarily for storage purposes. These west and north lines are part of a BNSF branch line from Burlington to Sumas at the US-Canadian border. Rail traffic is typically three freight trains per day, seven days a week. The daily train schedule is not fixed, but trains typically operate within the City from 5:00 PM to 8:00 PM and 12:00 AM to 4:00 AM. A Rail Crossing Study completed by the Skagit Council of Governments in 2015 estimates that the rail crossings in the City will increase by 2040 to from 3 to 4 trains per day to 6 to 7 trains per day and gate down times will at SR 9 and at Ferry increase at crossings from 21 minutes to 64 minutes. BNSF and WSDOT are planning for crossing upgrades in 2017 at all the City crossings.

Nonmotorized Transportation Facilities

The City adopted a Complete Streets policy in 2010 (with a major update in 2016) that promotes alternative methods of transportation that lessen the need for motorized trips within the city, thereby reducing

congestion and pollution, and promoting healthy alternatives to vehicular use. The Complete Streets concept includes consideration of pedestrian and bicycle facilities for all new street projects.~~.~~ The City's roadways act as the primary facilities to accommodate pedestrians and bicyclists. Many of these roadways have sidewalks to accommodate pedestrians and the City has designated some roadways as formal bicycle routes. Along with a system of regional trails, these facilities are used to promote non-motorized travel within the City.

Pedestrian Facilities

At this time, Sedro-Woolley's pedestrian system consists of sidewalks adjacent to streets and shared use paths adjacent to certain arterials and collectors, including the north side of SR20 from Hodgin Street to SR9 North, the north side of McGarigle from SR9 North to Fruitdale, and the west side of Fruitdale from SR20 to McGarigle. The highest concentration of available sidewalks is in the central business district and surrounding neighborhoods. These areas originally encompassed the urban area of the City when it was first incorporated. New developments in the northern part of the City also have sidewalks. Figure 2 shows locations along the arterial roadway system where sidewalks currently exist.

As development occurs within the City, property owners are required to dedicate right-of-way and construct sidewalks as part of frontage improvements or new roadways. Most of the roadways outside the central core of the City were built when the area was unincorporated Skagit County and were designed to rural arterial standards. No sidewalks exist on the rural roadways outside the City.

The City has an active ADA inventory and upgrade program to assess and repair portions of the sidewalk system that do not meet ADA accessibility standards.

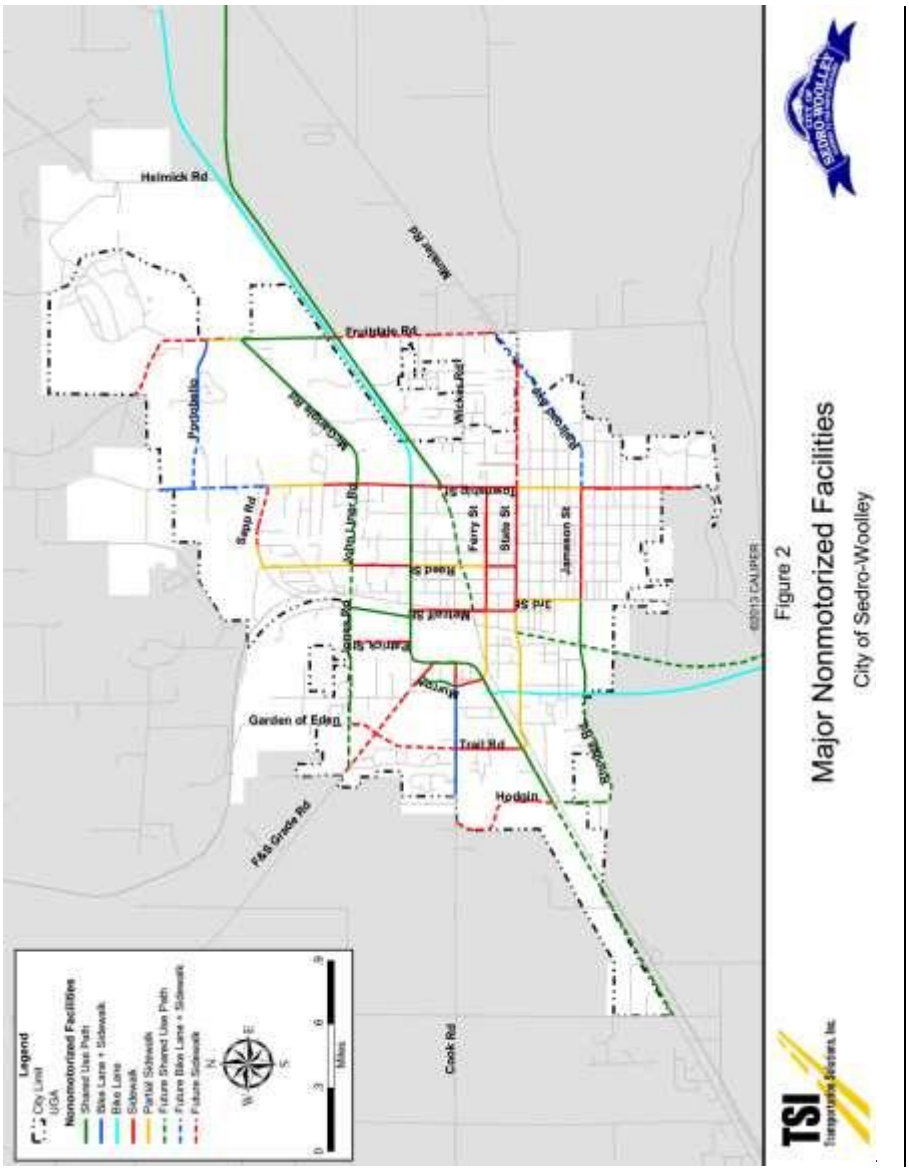
Bicycle Facilities

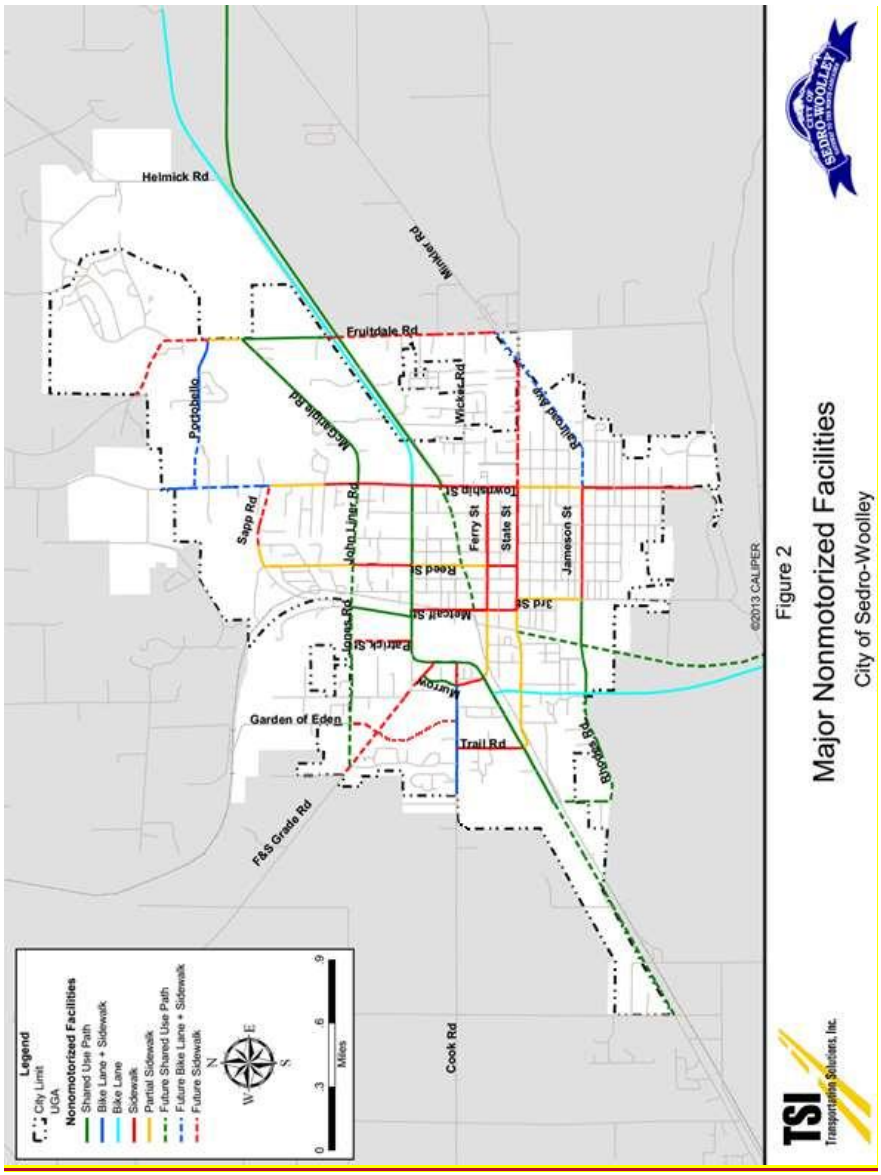
The City roadway design standards identify that new arterials will include separate bicycle facilities, as sidewalks are not a substitute for on-street bicycle facilities. For the most part, bicyclists currently share the road with motorized traffic or use paved roadway shoulders, where available. Formal bike lanes are present on both sides of Cook Road within the city limits, as shown in Figure 2. In addition, the City has included shared use paths adjacent to certain arterials, including the north side of SR20 from SR9 South to SR9 North, the north side of McGarigle from SR9 North to Fruitdale, and the west side of Fruitdale from SR20 to McGarigle. Additional shared use paths are planned on the north side of SR20 west of SR9 South and east of SR9 North, and on the north side of John Liner Road and the south side of Jones Road.

Three regional bicycle routes intersect within the City of Sedro-Woolley. These routes are identified in the Skagit County Parks and Recreation Plan and provide non-motorized connectivity to the west and south of the City. These regional bicycle routes are primarily recreational in nature but are identified here:

- **US Bike Route 10, the Cascades to Coast Trail** follows SR 20 within Sedro-Woolley. The city's shared use path along the north side of SR 20 allows bicyclists to remain separated from automobile traffic for most of the width of the city.
- **Cascade Trail** is a 23 mile long rails-to-trails conservancy project which follows the SR 20 corridor from Concrete through Sedro-Woolley. It is currently paved from its terminus east of Township Street to Fruitdale Road and unpaved east of Fruitdale Road.
- **Centennial Trail** is a regional bike connection which runs north-south from Snohomish County through Skagit and Whatcom Counties. The route follows SR 9 but currently requires cyclists to operate on-street through Sedro-Woolley. The route follows future US Bike Route 87 within the city.

Figure 2
Nonmotorized Facilities


Helmick Rd
Erwintale Rd
Portobello
Sapp Rd
John Liner Rd
Ferry St
State St
Jameson St
3rd St
Garden of Eden
Trail Rd
Hodgin
F&S Grade Rd
Cook Rd
Legend
City Limit
UGA
Nonmotorized Facilities
Shared Use Path
Bike Lane + Sidewalk
Bike Lane
Sidewalk
Partial Sidewalk
Future Shared Use Path
Future Bike Lane + Sidewalk
Future Sidewalk
Miles
©2013 DAUPER
Figure 2
Major Nonmotorized Facilities
City of Sedro-Woolley
TSI


Helmick Rd
Eruitdale Rd
Portobello
McGoldrick Rd
Sapp Rd
John Liner Rd
Reed St
Ferry St
State St
Jameson St
3rd St
Metcalf St
Patrick St
Jones Rd
Garden of Eden
Trail Rd
F&S Grade Rd
Cook Rd
Wickes Rd
Railroad Ave
Bayside Rd
Legend
City Limit
UGA
Nonmotorized Facilities
Shared Use Path
Bike Lane + Sidewalk
Bike Lane
Sidewalk
Partial Sidewalk
Future Shared Use Path
Future Bike Lane + Sidewalk
Future Sidewalk
Miles
©2013 CALIPER
Figure 2
Major Nonmotorized Facilities
City of Sedro-Woolley
TSI
Transportation Solutions, Inc.

3.16

EXISTING TRAFFIC CONDITIONS

Traffic Volumes

Daily and PM peak hour traffic volumes were obtained from Skagit County, WSDOT, and recent counts. Daily traffic counts were collected in January 2015 and PM peak hour intersection turning movement counts for most arterial intersections were collected in April 2015.

Seasonal Traffic

Traffic on state highways in Sedro-Woolley can vary significantly throughout the year because of the annual winter closure of SR 20. SR 20, or the North Cascades Highway, is closed every winter forcing SR 20 traffic to shift to the US 2 corridor to the south.

The traffic count data collected for this transportation element were collected or adjusted in such a way as to account for the SR 20 winter closure. Turning movement counts were collected after the April 3 opening of SR 20 while daily traffic counts were compared against seasonally-adjusted WSDOT counts collected in and near the Sedro-Woolley study area.

Daily Traffic Volumes

Figure 3 summarizes the daily traffic volumes on state highways and arterials in and around the city. West of the city, SR 20 carries 16,900 vehicles per day (vpd). This volume increases to 19,000 vpd north of its intersection with Cook Road. East of the city, traffic volumes on SR 20 decrease to less than 9,000 vpd. SR 9 south of the city serves approximately 11,000 vehicles daily. At the north city limits, volumes on SR 9 decrease to 5,400 vpd. Cook Road carries 12,900 vpd at the west edge of Sedro-Woolley.

Traffic volumes entering/exiting the city to/from the south or west (SR 9, SR 20, Cook Road and F&S Grade Road) total an estimated 42,000 vpd. This compares to 16,100 vpd entering/exiting the city to/from the east and north.

The volumes indicate several things important in developing the transportation plan. First, the major travel patterns are oriented to/from the west to access I-5, Mount Vernon, Burlington or other regional destinations. Second, the travel patterns show a significant proportion of through traffic on the state highways. The volume of traffic on SR 20, SR 9, and Cook Road in the west part of the city indicates that drivers are using several, limited routes to connect between Sedro-Woolley and areas to the west/southwest.

PM Peak Hour Volumes

Figure 4 shows the existing two-way traffic volumes during the PM peak hour. The PM peak hour is defined as the highest four consecutive fifteen-minute volume intervals during the PM peak period of travel (typically between 4:00 PM and 6:00 PM). This represents the one-hour period when traffic volumes on local roadways are typically at their peak, and generally corresponds to the period of rush hour traffic with commuters returning home from work.

The PM peak hour volumes have consistent patterns with the daily volumes described above. The state highways have the highest traffic volumes with two-way volumes during the PM peak hour ranging from 690 vehicles per hour (vph) on SR 9 north of John Liner Road to approximately 1,700 vph on SR 20 north of Cook Road. City arterials in the central business district generally serve between 200 and 400 vehicles during the PM peak hour, with the exception of State Street which serves just under 1,000 vph in the downtown area.

Figure 3
2015 Daily Traffic Volumes

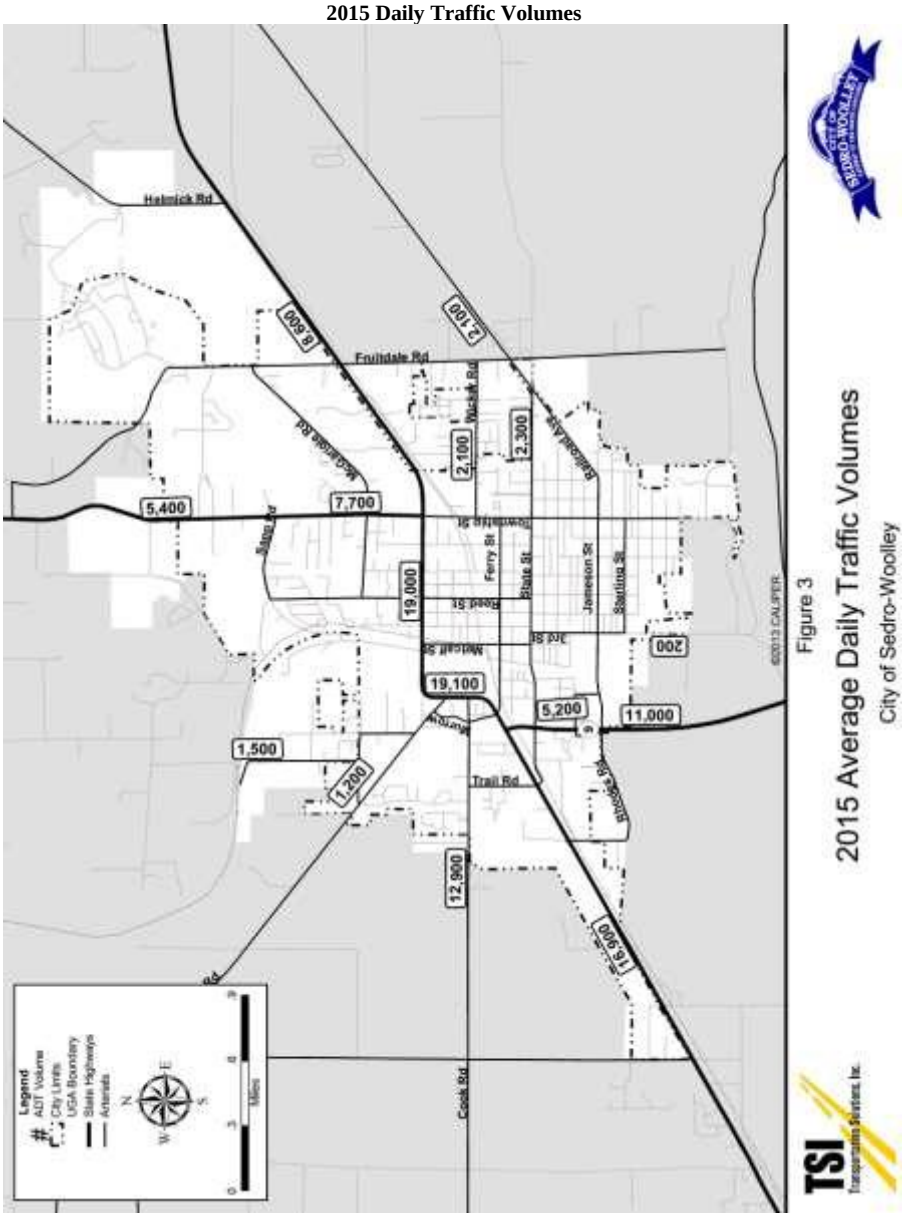
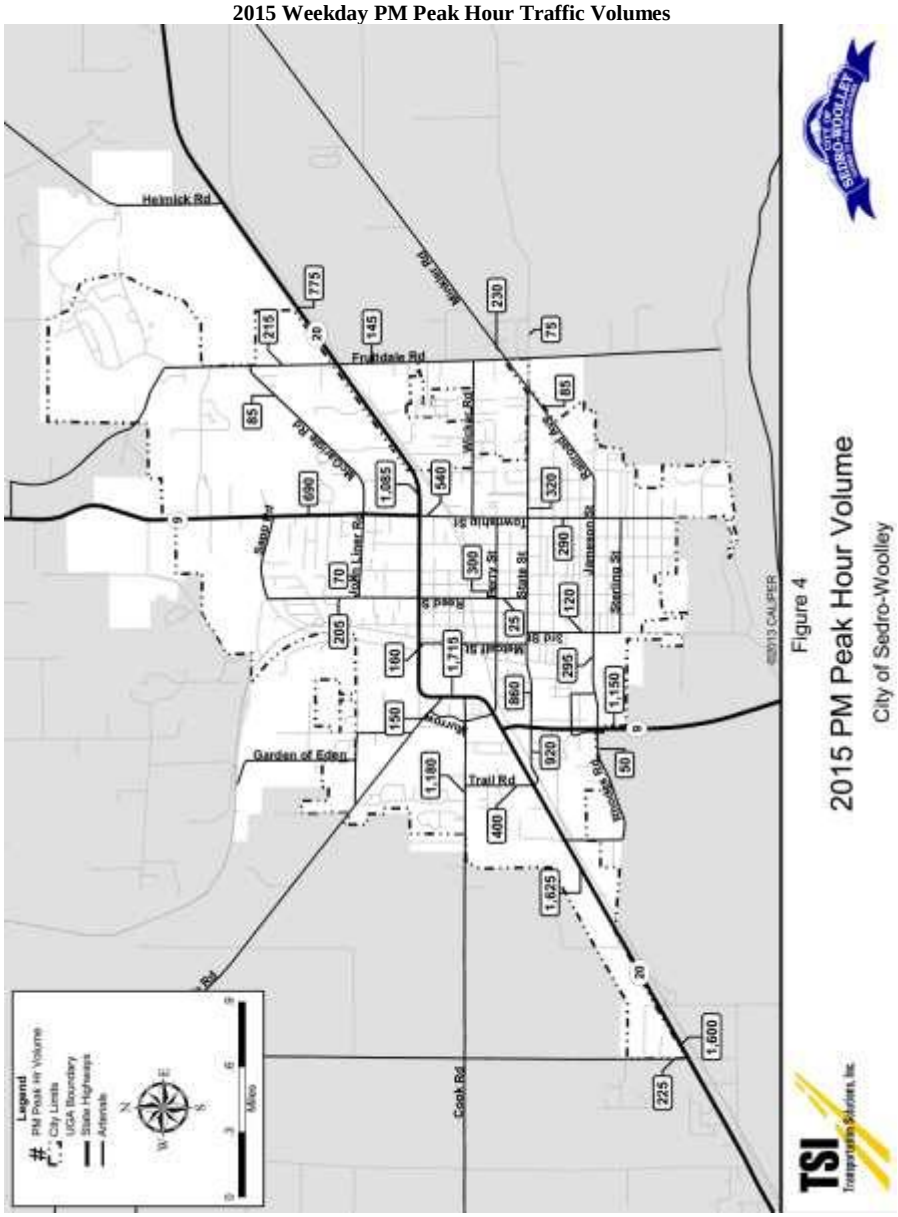


Figure 4
2015 Weekday PM Peak Hour Traffic Volumes



Vehicle Classification Counts

Daily vehicle classification counts were collected in early 2015 along arterial streets that provide regional access to Sedro-Woolley. Vehicles are generally classified into two groups; passenger cars/SUVs and heavy vehicles. Heavy vehicles represent vehicles with more than four tires and include RVs, delivery trucks, and semi-trucks. On a daily basis, the percentage of heavy vehicles range between 2 and 14 percent on arterials such as SR 20, SR 9, and Cook Road.

Classification counts along Cook Road west of the city limits indicate 10 percent of the traffic is heavy vehicles. This is slightly greater than the 7 percent heavy vehicle share on SR 20 at the west city limits. East of the city limits along SR 20, 9 percent of daily traffic consists of heavy vehicles. Heavy vehicles on SR 9 north and south of the city limits represent 13 and 7 percent of daily traffic, respectively.

Level of Service Definition

Level of service (LOS) is a qualitative description of the operating performance of an element of transportation infrastructure such as a roadway or an intersection. LOS is typically expressed as a letter score from LOS A, representing free flow conditions with minimal delays, to LOS F, representing breakdown flow with high delays. The street and intersection LOS methodologies used in this Transportation Element are described below.

Segment Level of Service

Table 2 describes a system of street capacity standards which incorporate planning-level vehicle capacity estimates with consideration for the impact of non-motorized facilities on vehicle capacity. These standards can be applied to calculate capacity for every arterial street in Sedro-Woolley.

These street capacity standards use a base peak hour capacity which is based on Highway Capacity Manual (HCM) and similar methodologies used throughout the region. Base capacity is adjusted based on facility attributes including left-turn lanes, access restrictions, bike lanes, sidewalks, and on-street parking.

Left-turn lanes are estimated to add the capacity equivalent of one half through lane by removing major approach left-turn delay. Similarly, segments with limited access (e.g. physical or natural barriers) experience an increase of the equivalent of 70 percent of one through lane. Capacity reductions for lack of non-motorized facilities are based on the principle that HCM capacity calculations assume fully-built urban street sections. Streets without sidewalk or bike lanes will force nonmotorized users into vehicle lanes, reducing vehicle capacity. Exceptions to these nonmotorized reductions can be made for freeways and state highways which are designed to emphasize vehicle mobility over nonmotorized traffic. The presence of on-street parking is also expected to reduce capacity slightly.

Table 2. Sedro-Woolley Street Capacity Standards

Functional Classification	Base Peak Hour Capacity (veh/hr/lane)	Capacity Adjustment				
		Left-Turn Lane (vph)	Access-Restricted Segment (vph)	No Bike Lane	No Sidewalk	On-Street Parking
Other Principal Arterial	900	450	540	-90	-180	-45
Minor Arterial	800	400	480	-40	-80	-40
Major Collector	600	300	360	-30	-60	-30

Street segment LOS is based on the ratio of traffic volume to roadway capacity and can be described as a roadway's ability to serve all users. Sedro-Woolley Municipal Code (SWMC) 15.56.020 defines LOS thresholds which are consistent with the planning-level LOS thresholds defined in Highway Capacity Manual 1994 (HCM1994). These thresholds and definitions, shown in Table 3, have been modified to fit the multimodal capacity approach described above.

Intersection Level of Service

Intersection LOS is based on the average delay experienced by a vehicle traveling through an intersection. Delay at a signalized intersection can be caused by waiting for the signal or waiting for the queue ahead to clear the signal. Delay at unsignalized intersections is caused by waiting for a gap in traffic or waiting for a queue to clear the intersection.

For the purposes of this analysis and to maintain consistency with WSDOT policy, roundabouts were analyzed using HCM2000 gap acceptance parameters and HCM2000 signalized LOS thresholds.

Delay is defined differently for signalized and all-way stop controlled intersections than for two-way stop controlled (i.e. stop control on minor approach) intersections. For signalized and all-way stop controlled intersections, level of service thresholds are based upon average control delay for all vehicles using the intersection. For two-way stop controlled intersections, delay is reported for the movement with the worst (highest) delay. Table 4 identifies LOS delay thresholds for signalized and unsignalized intersections.

Table 3. Street Segment LOS Characteristics

LOS	Volume / Capacity	Description
A	≤ 0.60	Facility accommodates all modes of transportation. Vehicles experience free flow, with low volumes and high speeds
B	0.61 – 0.70	Stable flow, with traffic conditions beginning to restrict operating speeds. Drivers still have reasonable maneuverability between multiple lanes. All modes are accommodated
C	0.71 – 0.80	Fairly stable flow, but higher volumes more closely constrict speeds and maneuverability.
D	0.81 – 0.90	Approaching unstable flow, with tolerable operating speeds and limited maneuverability. Facilities without nonmotorized facilities and heavy pedestrian/bike volume may experience unstable flow.
E	0.91 – 1.00	Nonmotorized users in travel lanes will conflict with heavy vehicle volume and cause breakdowns in flow. Vehicles experience unstable flow with reduced operating speeds.
F	> 1.00	Facility is unable to accommodate all modes. Vehicles experience forced flow, operating under stop-and-go conditions

Table 4. Intersection Level of Service Thresholds

LOS	Signalized Delay (sec/veh)	Unsignalized Delay (sec/veh)
A	≤10	≤10
B	>10 – 20	>10 – 15
C	>20 – 35	>15 – 25
D	>35 – 55	>25 – 35
E	>55 – 80	>35 – 50
F	>80	>50

Level of Service Standards

As required under GMA, the City has adopted level of service (LOS) standards for its street system. The City's adopted LOS standards are set based on roadway functional classification. The LOS standards are:

- Other Principal Arterials LOS D
- Minor Arterials LOS C
- Major Collectors LOS C

Minimum LOS for State facilities are set by the Washington State Department of Transportation (WSDOT). SR 20 is designated by WSDOT as a Highway of Statewide Significance (HSS) and is assigned minimum intersection LOS D. This is consistent with the City's LOS D standard for Other Principal Arterial. Since SR 20 is an HSS, the City may, is not required to apply concurrency to developments impacting the route. The City may, additionally require developments to mitigate their traffic impacts on the highway through SEPA or transportation impact fees.

SR 9 is classified by the City as a minor arterial both north and south or SR 20. This results in a LOS C standard, which is more stringent than the state and SCOG standard of LOS D for SR 9 in Skagit County. In order to be consistent with WSDOT and SCOG, this 2016 Transportation Element adopts LOS D for SR 9 within the city.

The City's LOS C standard for other secondary and major collectors reflect the City's desire to minimize peak hour congestion and reduce the potential for cut-through traffic on neighborhood and local access streets.

Analysis Methodology

Traffic operations were evaluated based on the LOS methodologies of the Highway Capacity Manual (HCM) (Transportation Research Board, 2010). The HCM is a nationally recognized, locally accepted method of measuring traffic flow and congestion.

Traffic volumes used for the operations analysis reflect spring 2015 conditions during the PM peak hour of travel.

Level of Service Results

Intersection levels of service (LOS) analyses were conducted for arterial segments and intersections within the study area. No street segments currently fail the recommended minimum segment LOS standards. Table 5 summarizes the LOS results and intersection or worst movement delay at the study intersections for 2015. The two-way stop controlled intersection at SR 9 and W Nelson currently operates below the City's minimum LOS standards. This was resolved with completion in 2016 of the Jameson Arterial Extension to SR9 Project.

See Appendices A and B for Existing Segment and Intersection LOS Summaries respectively.

Based on HCM methodology, the PM peak hour traffic operations for all signalized intersections are within the City's standard at LOS D or better.

Table 5. Existing Intersection Level of Service Deficiencies as of 2015

Intersection	Control Type[1]	Delay[2] (s/veh)	LOS
SR 9 / Nelson St	TWSC	52.9	F

[1]TWSC = Two-Way Stop Control; AWSC = All-Way Stop Control; RAB = Roundabout; Signal = Signalized

[2]Average control delay for all movements. For TWSC, delay is reported for the movement with the worst (highest) delay.

Necessary Improvements

The City's 2016-2036 project list included one improvement project, identified in Table 6, which will mitigate the existing LOS deficiencies.

The Jameson Street Arterial Extension project (completed in 2016) includes a new intersection at SR 9 and Jameson Street with roundabout control, which will relieve minor street delay at the Nelson Street intersection. The project also includes reclassification of Nelson Street and Batey Road from minor arterials to local access roads.

Total estimated cost of improvements necessary to bring failing intersection up to current LOS standards is $3,020,000.

Traffic Safety

Within Sedro-Woolley, traffic safety analysis was generally limited to state highways where traffic volumes are the highest and records are the most accessible. One local collector, West State Street, which acts as a connector between SR20 and SR9, was also analyzed. Conversations with police department and school district personnel confirm that safety issues are primarily limited to these state routes. Historical accident data along both SR 20 and SR 9 were provided by WSDOT for the three-year period from 2012 to 2014 (the most recent data available as of April 2016). Analysis and statistics were summarized by accidents related to fatalities, intersections, roadway segments, and pedestrians or bicycles.

Fatalities

During the three year study period, no fatal accident occurred in the study area. This is an improvement from 2005.

Table 6. Projects Necessary to Bring Existing Facilities up to LOS Standards as of 2015

Project ID	Location	From / To	Description	Estimated Cost ($$$)
C14	Jameson St	SR 9 / Batey Rd	Arterial extension w/new roundabout	3,020
			Total Estimated Cost	**3,020**

Intersection Safety Analysis

Typically, any intersection with an accident rate greater than one accident per million entering vehicles (acc/MEV) should be monitored to determine if improvements could be made to increase safety.

WSDOT has identified an Intersection Analysis Location (IAL) at SR9/State Street (0.50 acc/MEV) with the IAL based on 2010 data. WSDOT has not identified any IALs on SR 20 based on 2010 data. There are however several SR 20 intersections with intersection accident rates approaching or exceeding the 1.0 acc/MEV recommended action level. These

include SR20/W State Street at 1.61 accidents per MEV, with 48% of the collisions rear-end; SR20/SR9 North/Township Street at 1.11 accidents per MEV, with seventy (70%) of the accidents rear-end; SR20/SR9 South at 0.91 acc/MEV with ninety (90) percent rear-end; and SR20/Rhodes Road at 0.65 ac/MEV with 83% rear-end. The SR20/Township intersection is included in the Collision Analysis Location/Collision Analysis Corridor (CAL/CAC) discussed below.

The main cause for a rear-end collision is traffic congestion (vehicles following too closely), and in the case of the Rhodes and W State intersections, related to speed due to the transition from 50 mph to 35 mph at MP 64.39. The SR20/SR9/Township signalized intersection experiences long queues on both routes due to congestion. One improvement from 2005 is the Metcalf intersection, formerly a high accident) location (HAL under the old methodology, which had no accidents in the 2013-2015 period. The improvement is likely due to the recent projects completed in this vicinity that improve sight distance and added center turn lanes.

Roadway Safety Analysis

The average accident rates were analyzed for both the SR 20 and SR 9 corridors to identify highway segments with potential safety problems. The results of the highway segment analysis are summarized in Table 7. The highway segments listed in Table 7 vary in length and traffic volume. To provide meaningful comparison, accidents along highway segments are typically analyzed in terms of accidents per million vehicle miles (acc/mvm) traveled. No universally accepted guidelines exist for identifying hazards based on accident rates for highway segments alone; however, WSDOT publishes average accident rates by roadway classification. Table 8 lists the average accident rates for highway segments based on functional classification.

Table 7. 2013 – 2015 Accident History for State Highway Segments

Segment	Average Accidents per Year	Average Daily Vehicles[1]	Accidents per MVM[2]	State Average Rate[3]	Accident Type (Majority)
SR 20 West (MP 63.06 Collins Road to MP 65.06 Cook Road Roundabout)	46.0	16,400	5.78	2.08 R 2.54 U	Rear-End
SR 20 Central (East of MP 65.05 Cook Road Roundabout to MP 66.08 SR9 North/Township St)	23.7	20,100	3.16	2.54	Rear-End
SR 20 East (East of MP 66.08 SR9/Township Street to MP 66.89 Fruitdale Road)	2.7	11,700	0.77	2.13 R 3.38 U	Rear-End
SR 9 South (MP 55.45 City limits to MP 55.89 south of SR 20)	5.7	8,100	4.36	3.38	Rear-End
SR 9 North (North of SR 20 to City Limits)	5.0	8,100	1.41	3.38	Rear-End
West State Street, SR 20 to SR 9	3.3	9,600	3.28	NA	Rear-End

Source: WSDOT Crash Data (2013-2015), summarized by City. [1]Based on 2015 WSDOT TRIPS System Annual Traffic Report
[2]Accidents per million vehicle miles based on WSDOT Crash Data 2013-2015, calculated by City using the FHWA "Roadway Departure Safety: A Manual for Local Rural Road Owners" Crash Rate Calculations.
[3]Washington state average accidents per MVM based on roadway classifications (R for Rural, U for Urban) based on the 2006 Washington State Collision Data Summary Highways only, pg. 16.

Table 8. Average Accident Rates by Roadway Functional Classification

Functional Classification	WSDOT Rural Arterial (Accidents/MVM)1	WSDOT Urban Arterial (Accidents/MVM)1
Principal Arterial	1.13	2.54
Minor Arterial	1.47	3.38
Major Collector	1.55	1.01

Source: 2006 Washington State Collision Data Summary Highways Only (latest available)
[1]Annual accidents per million vehicle miles

The WSDOT Functional Classification Map classifies SR 20 as an urban other principal arterial from the west city limits to Township Street/SR 9, and as urban minor arterial to the east city limits. West of the city limits, SR 20 is classified as urban other principal arterial, and east of the city limits as rural minor arterial. SR 9 is classified as an urban minor arterial within the City of Sedro Woolley. SR 9 south and north of the city limits is classified as rural minor arterial. The historical accident data and existing highway classifications obtained from the WSDOT indicate that the accident rates for two SR 20 segments and the SR 9 segment south of SR 20 are above the average accident rate for a similar state facility. The accident rate for SR 20 segment west of Cook Road has increased 74% since 2005 and remains well above the state average. The SR 20 Central segment accident rate has decreased 28% since 2005, although it remains above the statewide average. The accident rate for the SR 9 segment south of SR20 has increased 18% from 2005 and remains above the state average. The accident rate for the SR9 segment north of SR20 has decreased 3% since 2005, and remains below the state average.

Within Sedro-Woolley, WSDOT has identified two Collision Analysis Corridors/Collision Analysis Locations (2015 CACs/CACs) along SR 20. SR 9 is

not currently listed as a CAC, but has one Intersection Analysis Location. WSDOT identifies state highway CALs/CACs that meet certain criteria to identify potentially unsafe accident locations. The first CAL/CAC is along SR 20 from milepost 61.16 to milepost 63.62, generally from the east city limits of Burlington to Holtcamp Road, and actually west of the city limits but partially in the Urban Growth Area. The second CAL/CAC is along SR 20 from milepost 65.39 to 65.63, generally between Patrick Street and Puget Street intersections. These SR20 corridors correspond to the accident rates noted in Table 7.

In addition to the state routes, local collectors with significant volumes of traffic were analyzed. West State Street from SR20 to SR9 is a local collector connecting the two state routes and the Downton commercial core. This route was found to have a 3.28 acc/MVM rate with 70% rear-end crashes on the segment from SR20 to SR9, and 2.45 acc/MVM on the segment between SR9 and Eastern. While standards given in Table 8 are limited to highways, these results indicate that attention is warranted on this route. West State Street has the highest accident rate in the city. Other routes slightly lower rates are Ferry from Eastern to Township, and Metcalf from State to SR 20. All other city collectors have moderate to low accident rates.

Pedestrian/Bicycle Safety

No section of the SR 20 or SR 9 corridor is currently listed as a High Pedestrian Accident Location (PAL) by WSDOT. Between 2013 and 2015, there were no accidents along the SR 9 corridor involving bicyclists or pedestrians.

Four accidents along SR 20 involved pedestrians or bicycles between 2013-2015. Three of the four involved a pedestrian, and the remaining one involved a pedicyclist. The pedestrian accidents occurred at the Murdock, Reed and Township intersections, only one of which (Township) includes an actual pedestrian crossing. The pedicyclist accident occurred at Ferry Street. Pedestrian and bicycle related accidents on the state routes have decreased by 50% since 2005, attributable to the addition of south side sidewalks and north side shared use path improvements on SR20 from SR 9 South to SR 9 North/Township completed in 2012, and sidewalks and bicycle lane additions on SR 9/Township from SR 20 to Lucas Drive also completed in 2013.

(Ord. 1554-06 § 3 (Exh. A)(part))

3.20

TRAVEL DEMAND FORECASTING

To provide a framework for future transportation system needs, this Transportation Element must consider the transportation needs of future growth. The GMA requires that the transportation planning horizon be at least ten years in the future. The City of Sedro-Woolley selected a 2036 horizon year. Year 2036 is consistent with the forecast year used in the Growth Management Steering Committee residential and commercial/industrial land use allocations. It also provides a longer range look at the transportation system than City's annual six-year Transportation Improvement Program (TIP).

This section will describe the inputs, assumptions, and methodologies used to develop the Sedro-Woolley citywide transportation planning model, which was used to generate a long-range (2036) citywide travel demand forecast. This demand (i.e. traffic volume) forecast provided the technical basis for the LOS forecast and the state, county, and local transportation system improvement needs identified later in this Transportation Element.

Land Use

The existing and forecasted locations, quantities, and types of land use throughout the City and UGA form the backbone of the citywide planning model. In order to satisfy the GMA requirement for the Transportation Element to maintain internal consistency with the assumptions used throughout the Comprehensive Plan, the land use data described below is based on the population and growth targets described in the Land Use Element. These targets are themselves consistent with land use forecasts developed by Skagit Council of Governments (SCOG), BERK Consulting, E.D. Hovee & Company, and the City.

Existing Land Use

For the purposes of transportation planning, land use can be stratified into two categories: households and employment. Residential land use forecasts are often expressed in terms of population, however for travel demand modeling it is helpful to convert population into trip-generating households.

Existing citywide population and household estimates are summarized in Table 9 and are consistent with the Land Use Element in this Comprehensive Plan.

Forecasted Land Use Growth

The modeled land use forecasts include total population growth of 4,615 and employment growth of 2,473, as summarized in Table 9. These forecasts include SCOG growth allocations in addition to the anticipated redevelopment of the Northern State Campus.

Modeled growth allocations are classified by five employment sectors:

- Retail
- Services
- Government/Education
- Industrial
- Resources

To maintain consistency with the SCOG regional planning model and allow greater modeling flexibility, growth allocations were further divided into the 8 employment sectors identified in Table 10.

Table 9. Existing Citywide Land Use Totals

Planning Year	Population	Households	Employment
Existing (2015)	12,514	4,832	4,752
Planning Horizon (2036)	17,129	6,620	7,225
2015-2036 Growth[1]	4,615	1,788	2,473

Table 10. Sedro-Woolley 2036 Employment Growth Forecast

NAICS Code	Employment Sector	Code	Employees[1]	Percent
44, 45	Retail	RETAIL	46	1.9%
51-56, 61, 71, 72, 81	Finance, Insurance, Real Estate, and Services	FIRES	416	16.8%
Public sector, excluding education	Government	GOV	283	11.4%
61	Education	EDU	318	12.9%
22, 42, 48, 49	Wholesale Trade, Transportation, and Utilities	WTU	184	7.4%
31-33	Manufacturing	MANU	930	37.6%
11, 21, 23	Construction and Resources	CONRES	0	0.0%
62	Health	HEALTH	296	12.0%
	Total		2,473	100.0%

Source: SCOG 2014, TSI 2015
Note: Employment growth shares by sector may vary without significantly impacting PM peak hour trip generation. The shares identified above create trip generation totals which may be representative of multiple job growth scenarios.

Land Use Growth Location

The geographic units or Transportation Analysis Zones (TAZs) used to geographically represent land use in and around Sedro-Woolley were consistent with the SCOG regional planning model TAZ structure. A total of 60 internal TAZs were used to represent the City and UGA, as shown in Figure 5. Refinements were made to TAZ loading points in order to improve model accuracy at the local level.

Residential land use was represented in the traffic model in terms of occupied households while employment was modeled using the categories defined in Table 10. The existing household and employment totals described above were verified using GIS land use data provided by SCOG.

Citywide household and employment growth forecasts were initially distributed to the modeled TAZs by aggregating the parcel-level results of the Sedro-Woolley Buildable Land & Land Capacity Analysis Report and subsequently updated with UGA and zoning changes as of January 2016.

The transportation model used a household cross-classification scheme which represents households by number of occupants and number of vehicles, based on SCOG's analysis of 2010 census household data. To prepare the total household growth forecast for input to the model, TAZ-based total household growth was distributed proportionately to the existing (SCOG) cross-classification shares.

In order to maintain consistency with the Sedro-Woolley Buildable Land & Land Capacity Analysis Report, employment growth associated with the development of the Center for Innovation and Technology at the former Northern State Hospital campus was considered separately from the SCOG allocation.

The citywide planning model assumed that the development of the former Northern State Hospital campus would follow the "Moderate Intensity Site Development" scenario described in the *Northern State Planned Action Environmental Impact Statement (EIS)* (July 2015), as shown in Table 11.

Figure 5
Transportation Analysis Zone Structure

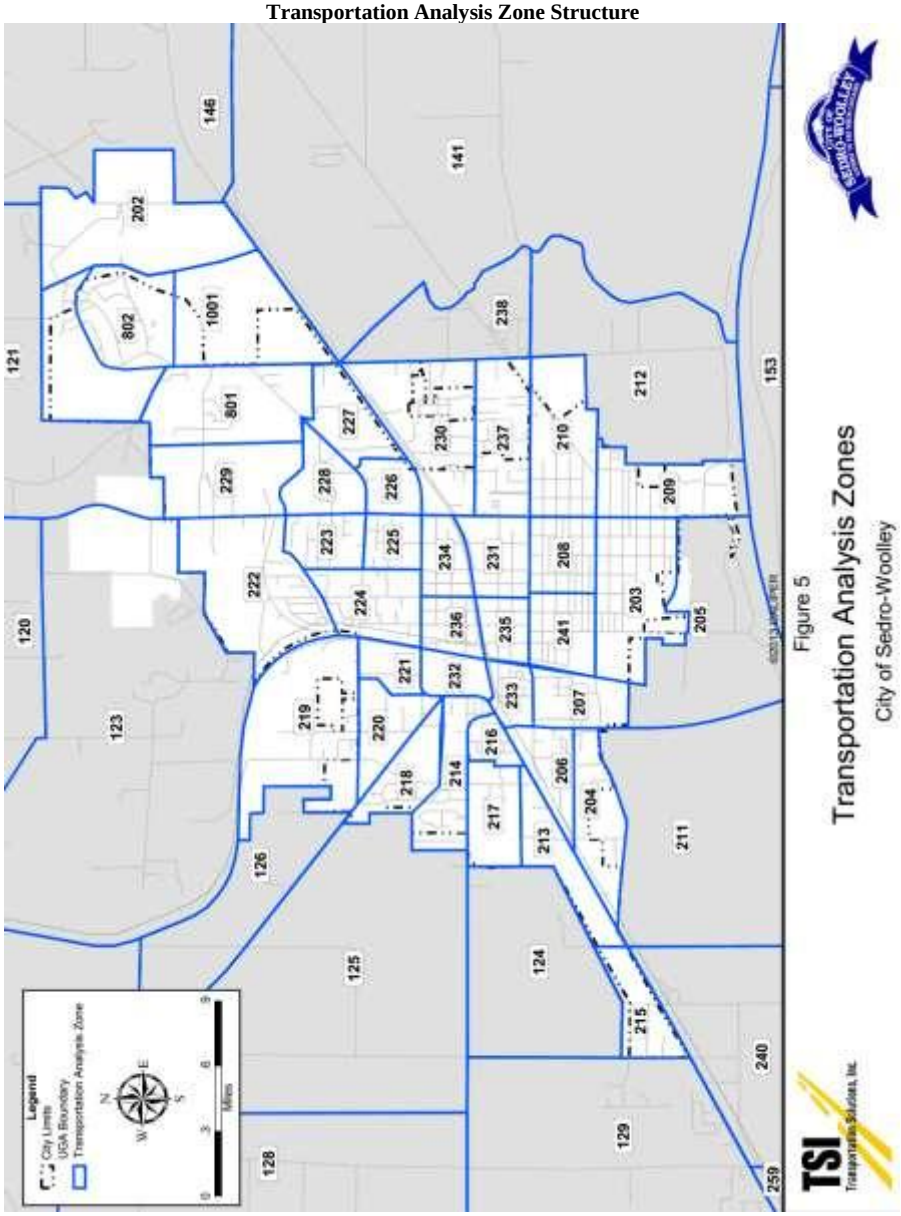


Table 11. Northern State Land Use Growth Forecast[1]

Proposed Use	Size	Variable	Trip Rate	Total Trips	Capture Rate[2]	New Trips[3]		
						In	Out	Total
Industrial Park	324.3	1,000 SF	0.85	276	19%	47	177	224
Workforce Housing	30	Units	0.58	17	40%	7	3	10
Hotel	40	Rooms	0.6	24	20%	10	9	19
Extended Stay	150	Rooms	0.4	60	50%	14	16	30
Museum	12	1,000 SF	0.18	2	0%	0	2	2
School	425	Students	0.12	51	20%	26	15	41
PM Peak Hour Trips				**430**	**104**	**104**	**222**	**326**

1. Source: Northern State Campus EIS (TSI 2015)
2. Capture Rate and Shared Trips represent internal-capture (See ITE Trip Generation Handbook, Second Edition)
3. New Trips are the trips generated external to the site; these trips impact the local roadways

Travel Forecasting Model

The Sedro-Woolley planning model was developed in PTV Visum 14 software and was based on the SCOG regional travel demand model with local refinements in the Sedro-Woolley study area. Travel demand was modeled in terms of weekday PM peak hour vehicle trips.

The base year model was calibrated to fit turning movement counts collected at 45 arterial intersections throughout the City in April 2015.

Street Network

The roadway network contained in the SCOG model included most arterial streets within the City and UGA as well as most arterial roadways within Skagit County. This network was expanded to complete the arterial street network and also include all local streets within the City and UGA.

Link and node capacity standards and volume-delay functions were held consistent with the SCOG regional model.

Transportation Analysis Zones

The function of a Transportation Analysis Zone (TAZ) in a travel demand model is to generate vehicle trips to and from the roadway network. In general, internal TAZs are specific geographic areas that are associated with specific land use data. The land use data associated with a TAZ determines the number of trips that the TAZ produces to or attracts from the other TAZs in the model. The citywide model included 67 zones, of which 60 were internal to the Sedro-Woolley area. Figure 5 displays TAZ structure in the study area.

The model included 7 external zones surrounding the City and UGA. External zones are designed to incorporate trips that are generated to and/or from points outside the network. Although these are labeled zones, they actually represent links to regions outside the model and do not represent a defined area. These zones do not reflect any land use assumptions; only vehicle trips. Trips to and from each external zone are determined from actual traffic counts and future trips are based on historical growth records. These external zones play a two-part role in a model: (1) only a certain portion of the trips in an external zone interact with TAZ's within the model, and (2) the remainder of the trips in any external zone interact with other external zones outlying the study area. These trips are called through trips since they have neither an origin nor destination within the study area yet they pass through the study area, impacting the network.

Trip Generation

Trips were generated by land uses and are assigned a trip type. In general, three basic trip types were represented in the travel demand model:

- Home-Based Work (HBW): Trips with one end at the traveler's home and the other end at the traveler's place of employment
- Home-Based Other (HBO): Trips with one end at the traveler's home and the other end at somewhere other than the traveler's place of employment, e.g. shopping trips
- Non-Home-Based (NHB): Trips without an end at the traveler's home

Trip generation rates used in the citywide model were based on SCOG and Institute of Transportation Engineers (ITE) trip generation rates and represent PM peak hour vehicle trips. Table 12 summarizes the modeled trip generation rates.

Residential land use was modeled in household units and cross-classified for trip generation purposes. The household cross-classification scheme followed the format HH(a)_(b), where (a) represents the number of people in the household and (b) represents the number of workers in the household. Employment categories are described in Table 10.

Trip generation for external TAZs was based on current and historical traffic volumes which were provided by SCOG and WSDOT.

Table 12. Trip Generation Rates

Land Use Code[1]	Units	Total	Origins			Destinations		
			HBW	HBO	NHB	HBW	HBO	NHB
HH1_0	Households	0.24	0.0000	0.0870	0.0242	0.0000	0.1063	0.0242
HH1_1	Households	0.32	0.0268	0.0502	0.0367	0.1072	0.0614	0.0367
HH2_0	Households	0.37	0.0000	0.1340	0.0372	0.0000	0.1637	0.0372
HH2_1	Households	0.49	0.0248	0.1271	0.0528	0.0990	0.1554	0.0528
HH2_2	Households	0.75	0.0632	0.1184	0.0865	0.2526	0.1447	0.0865
HH3_0	Households	0.51	0.0000	0.1826	0.0507	0.0000	0.2231	0.0507
HH3_1	Households	0.67	0.0225	0.1868	0.0710	0.0900	0.2283	0.0710
HH3_2	Households	1.02	0.0668	0.2028	0.1147	0.2754	0.2479	0.1147
HH3_3	Households	1.44	0.1210	0.2268	0.1656	0.4838	0.2772	0.1656
HH4_0	Households	0.78	0.0000	0.2805	0.0779	0.0000	0.3428	0.0779
HH4_1	Households	1.03	0.0259	0.3078	0.1075	0.1037	0.3761	0.1075

HH4_2	Households	1.57	0.0793	0.3753	0.1716	0.3173	0.4588	0.1716
HH4_3	Households	2.21	0.1673	0.3933	0.2511	0.6690	0.4807	0.2511
RETAIL	Employees	1.80	0.2304	0.4158	0.3780	0.0576	0.3402	0.3780
FIRES	Employees	0.70	0.1680	0.1579	0.1015	0.0420	0.1292	0.1015
GOV	Employees	0.70	0.2352	0.1386	0.0770	0.0588	0.1134	0.0770
EDU	Employees	1.56	0.6240	0.4118	0.0156	0.1560	0.3370	0.0156
WTCU	Employees	0.59	0.3634	0.0097	0.0590	0.0909	0.0080	0.0590
MANU	Employees	0.37	0.1243	0.0122	0.0962	0.0311	0.0100	0.0962
RESOURCE	Employees	0.35	0.2240	0.0000	0.0350	0.0560	0.0000	0.0350
HEALTH	Employees	1.06	0.2544	0.2390	0.1537	0.0636	0.1956	0.1537

[1]Household cross-classification scheme follows the format HH(a)_(b), where (a) represents the number of people in the household and (b) represents the number of workers in the household. Employment land uses are described in Table 10

Trip Distribution

Trips were distributed between TAZs using a gravity model, which is based on the theory that the attraction between two bodies is directly proportional to the bodies' masses and inversely proportional to the distance between the bodies. For the purposes of transportation modeling, a TAZ's "mass" is represented by the number of trips generated at (produced by or attracted to) the TAZ while the distance factor is represented by route travel time.

The gravity model calculates the attractiveness between TAZs using the following utility function:

$$f(U) = a * (U^b) * (e^{cU})$$

In the utility function, U is defined as travel time between two zones. The parameters a, b, and c are calibration factors which influence the weight of travel time in the gravity model. The gravity parameters used in the Sedro-Woolley model are shown in Table 13 and are based on the values used in the SCOG regional model as well as guidance from *NCHRP Report 716* (TRB 2012).

Table 13. Trip Distribution Model Parameters

Trip Purpose	Model Parameter		
	a	b	c
Home-Based Work (HBW)	100	-0.02	-0.125
Home-Based Other (HBO)	100	-0.90	-0.10
Non-Home Based (NHB)	100	-0.30	-0.10

Traffic Assignment

Trips were assigned from origin to destination via the street network using an equilibrium assignment process which calculates the shortest travel time route, iteratively updating travel time to reflect demand-induced congestion. The equilibrium assignment process updated and re-assigned trips until the model reached an equilibrium condition.

Model Calibration

The base year model was calibrated using guidance from FHWA's *Travel Model Validation and Reasonableness Checking Manual Second Edition* (FHWA 2010). Modeled link volumes were measured against observed link volumes based on 2015 PM peak hour intersection counts. Once the model had been calibrated to an acceptable level through network and demand refinements, Visum's origin-destination correction procedure (TFlowFuzzy) was applied to finalize the calibration result.

Forecasting Future Travel Demand

An initial traffic forecast scenario assumed that the existing street network will be maintained as-is with no capacity improvements in the next 20

years. This "do nothing" scenario was used to identify intersections and segments which are forecasted to operate below minimum LOS standards by 2036. After identifying forecasted deficiencies, a list of necessary growth-related improvements was developed and applied incrementally to a "growth-related improvement" model scenario. In this way improvements were evaluated not only for their direct effect on the improved segment or intersection but also for any indirect impacts on the surrounding street network, including any potential redistribution of demand as drivers utilize new shortest path options.

3.24

FUTURE TRAFFIC CONDITIONS

The Transportation Element provides a long-range strategy for the City of Sedro-Woolley to address current and forecast transportation issues and identified needs, implement transportation goals and policies, and realize the intent of the community's vision. The plan is based upon an analysis of the existing transportation system, forecasts of future travel demands, the anticipated availability of resources, and the desire of the City of Sedro-Woolley to create an efficient transportation system that puts a priority on community livability. The plan builds upon the City's policies and standards and seeks to give specific shape to the City's transportation goals and vision.

Roadway Standards

The Sedro-Woolley Public Works Construction Standards, with which all new development must comply, are defined in SWMC 15.40. The standards include items such as right-of-way needs, pavement width, and type and width of pedestrian and bicycle facilities. The standards are intended to support the City's goals in providing adequate facilities to meet the mobility and safety needs of the community. The standards are intended to assist design professionals and developers for all new and reconstructed roadways and right-of-way facilities, both public and private, within the city.

These standards have been used as one criteria for evaluation of roadway system needs. Many existing roadways are not constructed to these standards. Roadways in the UGA are typically rural in nature with few urban features.

Forecasted Level of Service Deficiencies

An initial 20-year forecast was performed assuming no network improvements citywide. Forecasted volumes are shown in Figure 6. The travel forecast identified segment LOS deficiencies on SR 20 from Collins Road to State Street. See Table 14. See Appendix D for the complete results.

Arterial intersection LOS deficiencies were identified at four locations throughout the City. Three of these locations are along state highways SR 9 and SR 20. See Table 15. See Appendix C for the complete results.

Table 14. 2036 Segment Level of Service Deficiencies - Without Improvement

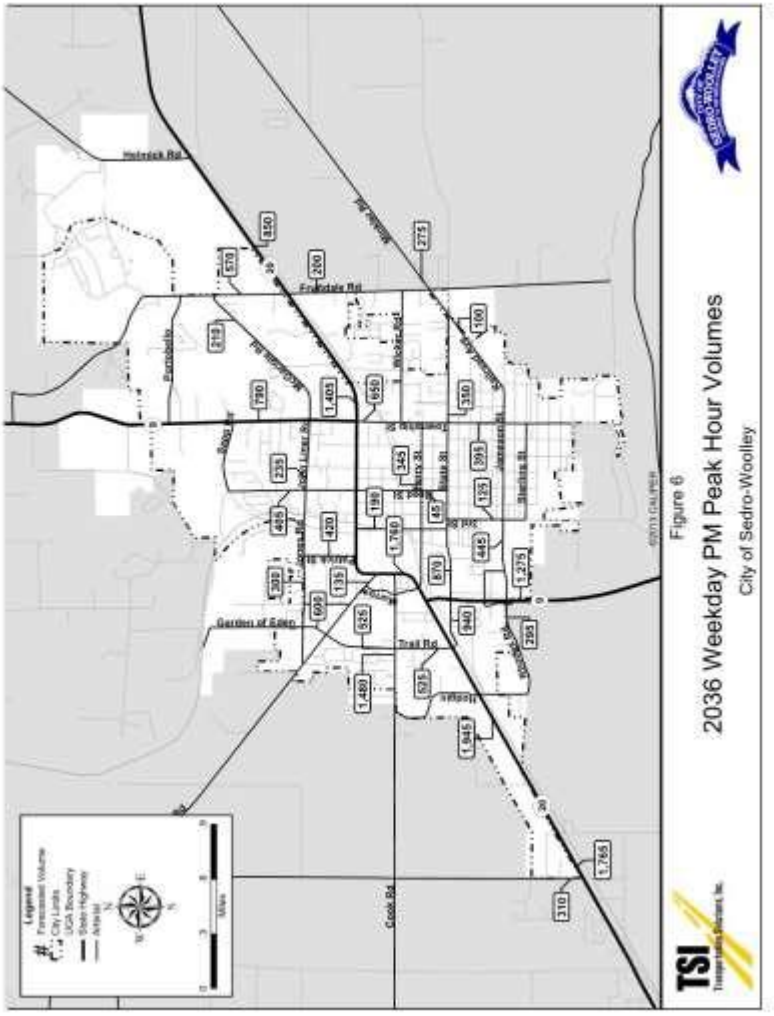
Segment ID	Name	Cross Street A	Cross Street B	Functional Classification	V/C	LOS
2001	SR 20	Collins Rd	Rhodes Rd	Other Principal Arterial	0.95	E
2002	SR 20	Rhodes Rd	W State St	Other Principal Arterial	0.92	E

Table 15. 2036 Intersection Level of Service Deficiencies - Without Improvement

Intersection	Control Type[1]	2036 Delay[2] (s/veh)	2036 LOS
Township St (SR 9) / McGarigle/John Liner Rd	TWSC	46.2	E
SR 20 / Reed Street	TWSC	94.6	F
Cook Rd / Trail Rd	TWSC	29.8	D
SR 9 / Nelson Street	TWSC	>180	F

[1]TWSC = Two-Way Stop Control; AWSC = All-Way Stop Control; RAB = Roundabout; Signal = Signalized
[2]Average control delay for all movements. For TWSC, delay is reported for the movement with the worst (highest) delay.

Figure 6
2036 Weekday PM Peak Hour Volumes



(Map revised)

(Map deleted)

Transportation Improvement Projects

Based on the evaluation of existing and forecasted traffic volumes, traffic operations, safety, and connectivity, a recommended list of transportation improvement projects and programs was defined as shown in Table 16. The recommended improvement projects were organized into two categories:

- State Highway Improvements (S)
- Arterial Improvements (C)

Table 15 provides a brief description of each project including the roadway or intersection project limits, and a planning level description of the scope

of work that is needed. A map identification number is also provided for referencing between Table 16 and Figures 7 and 8, which show the locations of state highway improvements and arterial improvements, respectively. Projects which are necessary to maintain City and state concurrency standards are identified as eligible for transportation impact fee (TIF) calculation.

The project list identifies several arterial extension and reclassification projects (including Jameson Street (completed 2016), Fruitdale Road, Patrick Street, Jones Road, and Portobello Avenue) which will improve network connectivity and support economic future growth in underdeveloped areas.

These projects effectively provide roadway capacity where little or none currently exists. They may also have the secondary benefit of relieving congestion on other elements of the transportation network. The Jones Road extension, for example, will provide an alternate east-west route through the City and relieve congestion on SR 20. Similarly, the Jameson Street arterial extension project is forecasted to mitigate the intersection LOS deficiency at SR 9 and Nelson Street immediately to the north.

The citywide LOS forecast identifies a number of LOS failures which are mitigated by projects beyond the 6-year TIP horizon. These include intersection LOS failures at Township Street (SR 9) & McGarigle/John Liner Road and Cook Road & Trail Road and segment LOS deficiencies on SR 20 at the western city limits. Cost estimates for these projects have been developed based on unit costs for similar projects in the TIP and throughout the region.

The street extension and intersection improvement projects identified in the project list will result in some redistribution of travel demand. These changes are forecasted to cause the intersection of SR 20 and Central Avenue to fall below minimum concurrency LOS standard by 2036 without mitigation, e.g. right-in-right-out access during PM peak hour.

Table 16. Sedro-Woolley Transportation Improvement Projects and Programs – ~~2017~~ 2022 Update

ID	Project Name	From/To	Est.Cost ($$$)	Est.Cost ($$$)	Description	TIF Eligible
Six-Year Transportation Improvement Projects – 2018-2023						
			2016-2021	**2018-2023**		
C14	Jameson Arterial Extension	SR 9 / Batey Rd	3,020	0	New Arterial Segment. Completed 2016	Y
C27	Jameson Sidewalks	Tennis Crt / 3rd Ave	130	0	Shared use path. Completed 2016 with C14.	Y
S14A	SR20/Cascade Trail West Extension Ph 1A	Trail Road / SR 9 South	575	0	Shared use path. Completed 2016.	Y
S14B	SR20/Cascade Trail West Extension Ph 1B	Hodgin Rd / Trail Rd	288	0	S Shared use path. Completed 2016.	Y
C25	Ferry Street Overlay	SR20 / Metcalf	330	0	Grind & Overlay. Completed 2016	N

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ID	Project Name	From/To	Est.Cost ($$$)	Est.Cost ($$$)	Description	TIF Eligible
C6C	South Township St Overlay	Waldron / SR 20	60	0	Grind & Ovrelay. Completed 2016	N
C22	Fruitdale Rd Arterial Improvements	McGarigle / North City Limit	2,320	2,320	Reconstruct to minor collector standards incl. roundabout at Northern State Rd and sidewalks	Y
C23	Fruitdale Road Sidewalk	McGarigle / Portobello	216	216	Construct sidewalks on east side of street.	Y
S6 A-B	SR 20 East Lane Widening & Safety Improvements	SR 9 / Fruitdale Rd	960	887	Improve and widen to 3 lanes incl shared use path on north side	Y
C32	2018 Sidewalk and ADA Ramp Upgrade Project	Various Locations	0	276	Reconstruct Sidewalks and ADA Ramps as needed.	N
C31	State Street Overlay	Rita to 4th; SR 20 to Maple	0	419	Grind & Overlay.	N
C1B	Jones/John Liner RR Undercrossing	Sapp Rd / Reed St	7,700	7,700	New BNSF undercrossing and new arterial from E Jones Rd to John Liner Rd	Y
C26	Trail Rd Overlay	SR 20 / Cook Rd	225	279	Grind & overlay	N
C1C	John Liner Bike/Ped Impr	Reed St / SR 9	555	583	Shared use path.	Y
C19	Patrick St Arterial Extension	Michael St/E Jones St	2,100	2,100	New major collector w/sidewalks	Y
C24	Cook Rd Overlay	West City Limit / Crossroads	300	377	Grind & overlay	N
S16	SR 20 & SR 9 (Township) Intersection Impr.		1,000	828	Channelization and signalization improvements.	Y
S2	SR20 & Reed St Intersection Improvements		50	50	RIRO access restriction	Y
C28	North Reed St Overlay Project 1	SR 20 / John Liner Rd	130	329	Grind & overlay	N
C3	Cook Rd / Trail Rd Intersection Improvements		1,000	1,000	Intersection improvements	Y
C33A	Jameson St Overlay Proejct 1	800' E of Batey to 5th Street	0	311	Grind & overlay	N

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ID	Project Name	From/To	Est.Cost ($$$)	Est.Cost ($$$)	Description	TIF Eligible
C1A	Jones Rd Improvements	F&S Grade Rd / Sapp Rd	3,200	3,200	Reconstruct to major collector section including sidewalk & shared use path	Y
S18	SR 9 / W State Street Intersection Improvements		250	,250	Add a dedicated right turn lane to the west leg.	Y
S14C	SR 20 / Cascade Trail West Extension Ph 2A	Holtcamp Rd / Hodgin Rd	600	841	Shared use path	Y
C18	Portobello Street Arterial Extension	Township / Cascadia	1,700	1,700	New major collector connecting Fruitdale w/ SR 9	Y
C33B	Jameson Street Overlay Project 2	5th Street to Township St	0	321	Grind & overlay	N
	Six-Year TIP 2018-2023 Subtotal		**26,079**	**23,987**		
Year Seven to Twenty -Transportation Improvement Projects – 2024-2037						
			2022-2036	**2024-2037**		
C9A	Trail Rd Arterial Extension	Cook Rd / F&S Grade	4,000	4,000	Construct new major collector	Y
C9B	Trail Rd – Garden of Eden Rd Extension	F&S Grade / Jones Rd	850	850	Construct new major collector	Y
C34	Sapp Road Overlay	Reed to SR 9	0	227	Grind & overlay	N
S17	Township St (SR 9) & John Liner/McGarigle Rd Intersection Improvements		1,000	1,000	Intersection improvements	Y
S13C	SR9N Ped/Bike Safety Improvements	Park Cottage / N City Limits	434	434	Bike lane & sidewalk improvements	Y
C35	West State Street Overlay	SR 20 to SR 9	0	259	Grind & overlay	N
C1D	John Liner Rd Arterial Improvements	Reed St / Township St	1,600	1,600	Reconstruct to arterial section	Y
C36	North Reed Street Overlay Project 2	John Liner Rd / Sapp Rd	0	400	Grind & overlay	N
C7A	Jameson St Arterial Improvements	600’ e/o Batey to Railroad St	3,600	3,600	Widen to major collector standards standards w/3 lanes, bike lane, sidewalk	Y
C7B	Jameson / 11th St Intersection Improvements		70	70	Change access to RIRO	Y
C37	Annual Overlay Project	TBD	0	400	Grind & Overlay	N

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ID	Project Name	From/To	Est.Cost ($$$)	Est.Cost ($$$)	Description	TIF Eligible
S15B	SR 20 West Lane Widening & Safety Improvements	Holtcamp Rd / Hodgin St	0	600	Improve and widen to 3 lanes	Y
C7C	Railroad St / Jameson Intersection Improvements		750	750	Intersection improvements to include new roundabout	Y
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	~~N~~
C38	Cook Road Arterial Extension	SR 20 to Metcalf St	0	825	New major collector	Y
S15A	SR 20 West Lane Widening & Safety Improvements	Hospital Dr to Holtcamp Rd	0	325	Improve and widen to 3 lanes	Y
C7D	Railroad St Arterial Improvements	Jameson St / Fruitdale Rd	2,880	2,880	Reconstruct to arterial standards incl. 3 lanes, bike lanes, sidewalks	Y
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	N
C4	Reed St Arterial Improvements	Ferry St / SR20	1,440	1,440	Reconstruct to arterial standards	~~N~~
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	N
C2	F&S Grade Rd Arterial Improvements	SR20 MP 65.16 / Jones Rd	2,960	2,960	Reconstruct to arterial standards	Y
S20	SR 20 / Central Ave Intersection Improvements		150	150	Intersection improvements or RIRO	~~Y~~
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	N
S14D	SR20/Cascade Trail West Extension Ph.2B	Collins Rd/Holtcamp Rd	620	620	Shared use path	Y
S8F	SR 20 Stormwater System Upgrade	Holtcamp Rd / Hodgin Rd	300	300	Stormwater conveyance system upgrade	N
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	N
C8	State St Sidewalks	Haines / E City Limits	540	540	Pedestrian improvements	N
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	N
C10	Township / Ferry St Intersection Improvements		50	50	All-way stop control	N

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ID	Project Name	From/To	Est.Cost ($$$)	Est.Cost ($$$)	Description	TIF Eligible
C13	Rhodes Rd Arterial Improvements	SR 9 / SR 20	3,200	3,200	Reconstruct to arterial standards incl. bike lanes, sidewalks	Y
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	N
~~C15~~	~~Hodgin Rd Arterial Ext.~~	~~SR 20 / Cook~~	~~2,225~~	~~2,225~~	~~New collector arterial~~	
NEW	Annual Overlay Project	TBD	0	400	Grind & Ovrelay	N
C20	4th St Arterial Improvements	Alexander / State	1,300	1,300	Reconstruct to arterial standards to replace 3rd St as N-S arterial	N
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	N
S9	SR9/N Township St Arterial Improvements	SR 20 / City limits	100	100	Planning phase – reconstruct to arterial standards incl. 3 lanes, bike lanes, sidewalk	Y
C6B	S Township St Arterial Improvements	Dunlop / Sterling St	1,040	1,040	Reconstruct to major collector standards	N
C21	Garden of Eden Rd Arterial Improvements	F&S Grade / Jones	1,040	1,040	Reconstruct to major collector standards	Y
C29	Centennial Trail South		500	500	Improve and extend trail	N
C30	Cascade Trail East Extension	Metcalf / 400' e/o Township St	100	100	Shared use path	N
S13D	SR9 / Centennial Trail Ped/Bike Safety Improvements	Summer Meadows Pl / North City Limits	1,700	1,700	Construct bicycle lane and sidewalk improvements including pedestrian crossing bridge at Brickyard Creek	Y
NEW	Annual Overlay Project	TBD	0	400	Grind & Overlay	N
Subtotal Year 2024-2037 TIP Cost			**30,224~~32,449~~**	**37,260~~39,485~~**		
Total Year 2018-2037 TIP Cost			**56,933~~59,158~~**	**61,247~~63,472~~**		

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Mitigated segment and intersection levels of service for otherwise-deficient network elements are shown in Tables 17 and 18. See Appendix C-E for complete results.

Segment LOS deficiencies along SR 20 on the west side of the City are mitigated by the extension of the Cascade Trail which will remove nonmotorized users from the street, effectively increasing capacity.

LOS failures at unsignalized intersections along SR 9, SR 20, and Cook Road are mitigated through intersection capacity improvements including roundabouts or peak hour turn restrictions.

Table 17. 2036 Segment Level of Service Deficiencies - With Improvement

Segment ID	Name	Cross Street A	Cross Street B	2036 No Improvement		2036 With Improvement	
				V/C	LOS	V/C	LOS
2001	SR 20	Collins Rd	Rhodes Rd	0.95	E	0.89	D
2002	SR 20	Rhodes Rd	W State St	0.92	E	0.83	D

Table 18. 2036 Intersection Level of Service Deficiencies - With Improvement

Intersection	2036 No Improvement			2036 With Improvement		
	Control Type[1]	Delay[2] (s/veh)	LOS	Control Type	Delay (s/veh)	LOS
Township St (SR 9) / McGarigle/John Liner Rd	TWSC	46.2	E	RAB	8.1	A
SR 20 / Central Ave	TWSC	40.4	E[3]	TWSC w/RIRO	19.1	C
SR 20 / Reed Street	TWSC	94.6	F	TWSC w/ RIRO	19.7	C
Cook Rd / Trail Rd	TWSC	36.9	E	RAB	9.4	A
SR 9 / Nelson Street	TWSC	>180	F	TWSC	18.1	C

[1]TWSC = Two-Way Stop Control; AWSC = All-Way Stop Control; RAB = Roundabout; Signal = Signalized; RIRO = Right-in right-out
[2]Average control delay for all movements. For TWSC, delay is reported for the movement with the worst (highest) delay.
[3]Level of service deficiency will occur as a result of traffic reassignment after construction of other capacity improvements.

Figure 7
State Highway Improvement Projects

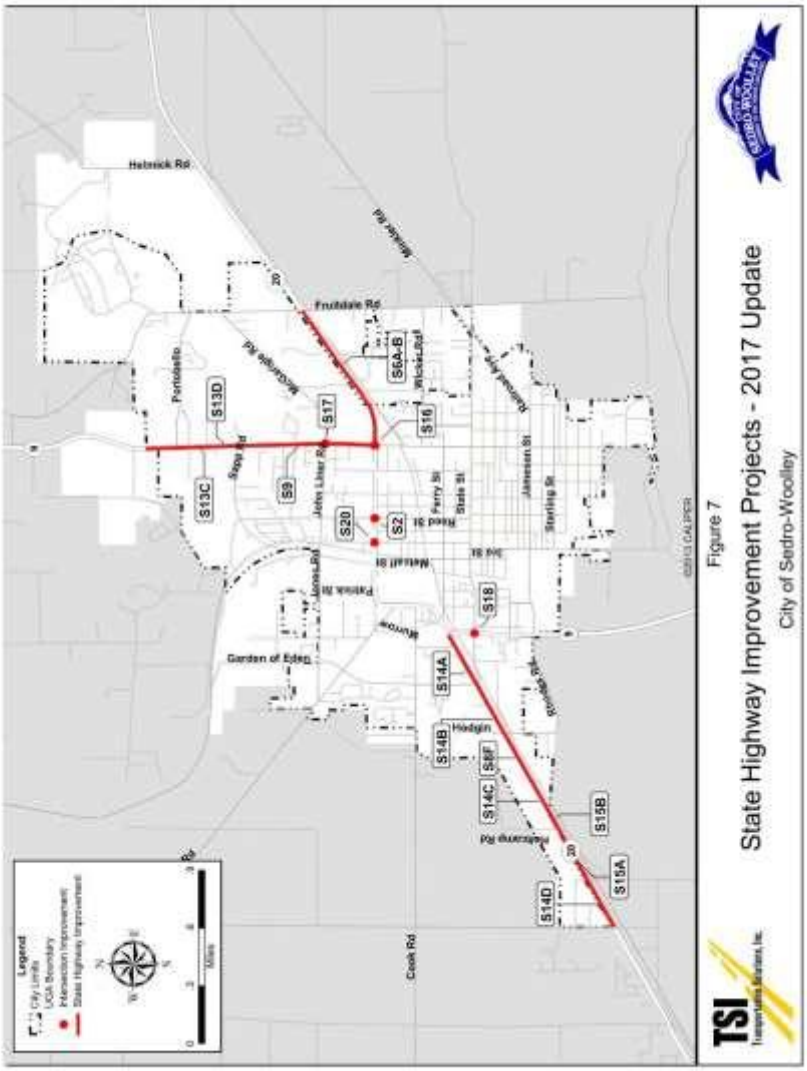


Figure 8
Arterial Improvement Projects

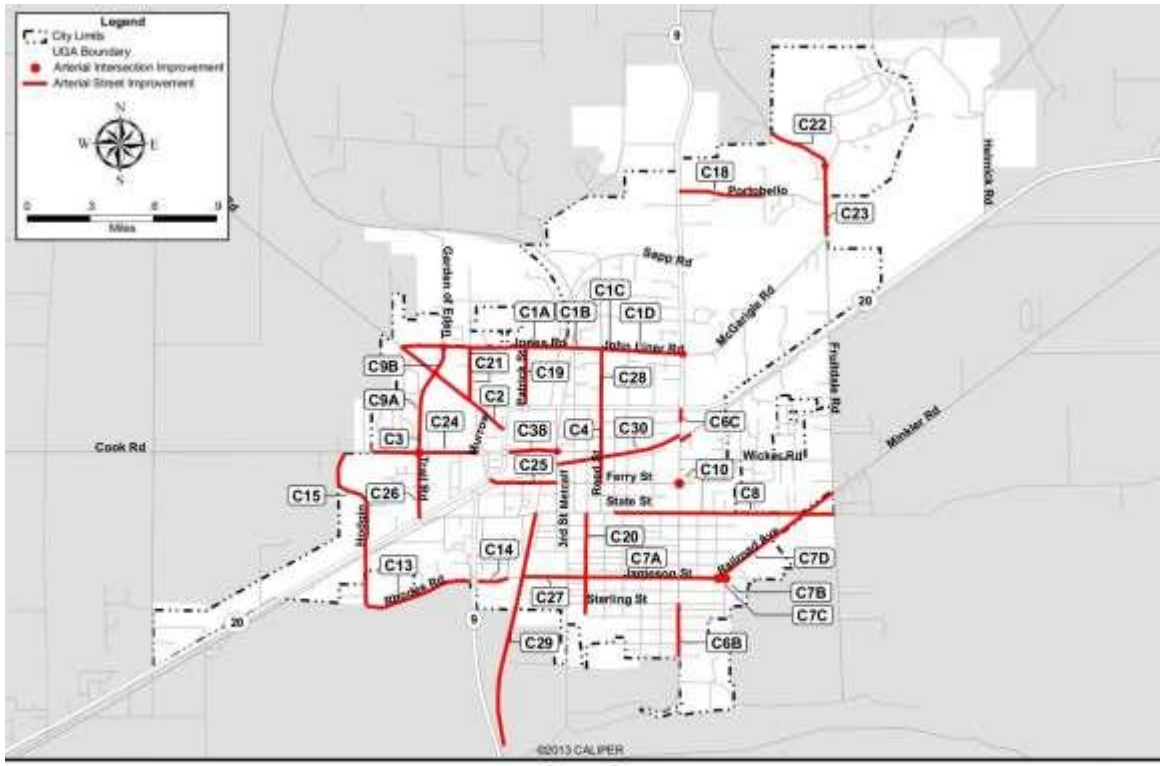


Figure 8

Arterial Improvement Projects - 2017 Update

City of Sedro-Woolley

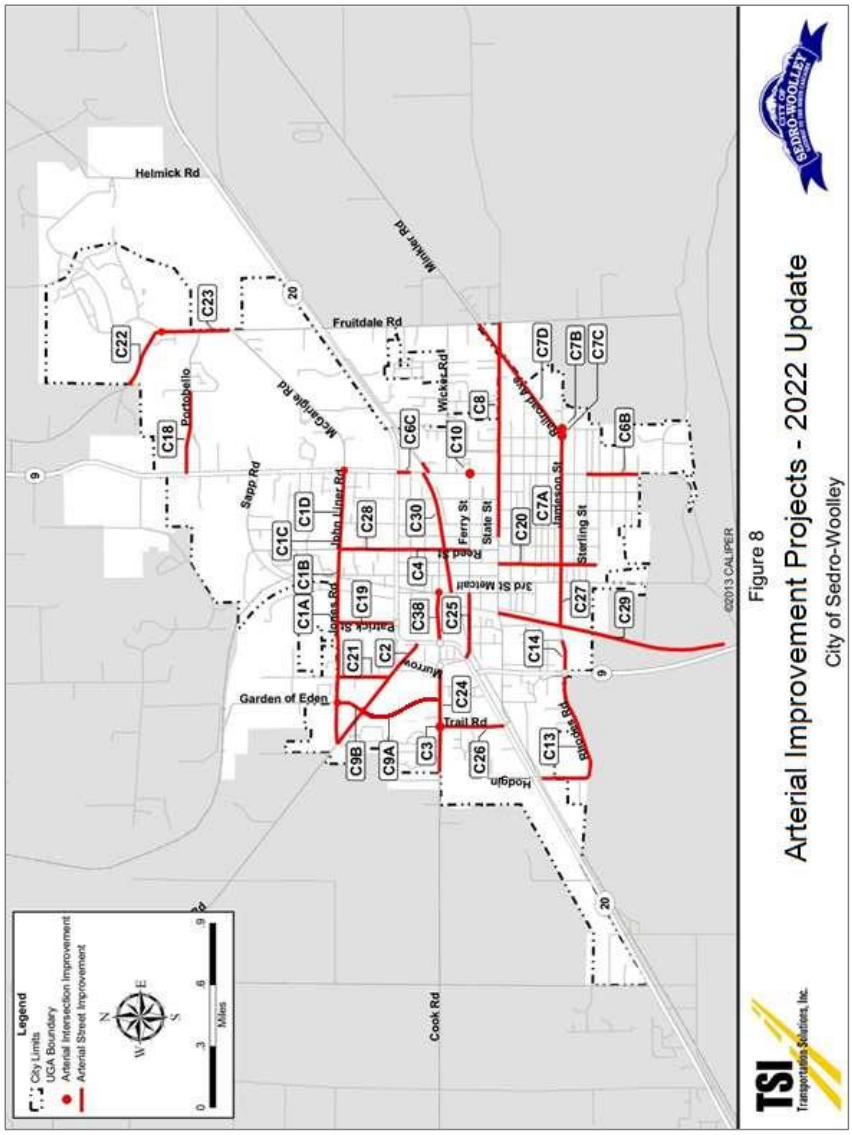


Table 19. Citywide Transportation Programs

ID	Program	Est. Cost, 2016-2036 ($$$)	Description
CW1	Sidewalk Improvement Program & ADA Transition Program	607	Includes ADA upgrades.
CW2	Street Overlay, Chip Seal & Crack Seal Program	1,701	Arterial and Local Access street preservation projects. May act as match funds for the Table 16 Annual Overlay projects
CW3	Maintenance & Operations	17,713	O&M costs including Labor and Administration, less Sidewalk and Overlay costs above.
Total Estimated Citywide Program Costs		**20,021**	

Citywide Transportation Programs

In addition to specific capital improvement projects shown on Table 16 and discussed above, the plan includes Citywide Transportation Programs to address maintenance and operations, and miscellaneous improvement needs. To maximize the use and efficiency of the existing and future transportation infrastructure, the City will continue to apply a systematic maintenance and overlay program. The program will be used to address pavement condition, street signing and markings, illumination, and traffic controls.

The plan also includes programs to address spot safety and operations issues on the state highways and other city arterials. These are needed to address issues that may arise prior to implementation of specific capital projects identified in the plan. This allows the City Engineer to better address specific needs over the life of the plan.

Public Transit Plan and Transportation Demand Management Program

In order to provide a comprehensive transportation system, the City of Sedro-Woolley recognizes the importance of other modes of travel, such as public transit and transportation demand management (TDM) programs. In general, these programs build on regional programs with some refinements to reflect the specific needs of the City.

Transit Plan

Transit service in the Sedro-Woolley area is provided by Skagit Transit. The Sedro-Woolley transportation plan has been coordinated with Skagit Transit's 2015-2020 Transit Development Plan (TDP), which provides a framework to guide Skagit Transit's service delivery through 2020. Transit service in Sedro-Woolley is focused on the SR 20 corridor which connects Sedro-Woolley and communities to the east and west. SR 20 also connects Sedro-Woolley to the rest of the region via I-5. As the population increases in and around Sedro-Woolley, increasing commuter traffic will increase the need for alternatives to the single occupancy vehicle. Transit service to Sedro-Woolley's three park & ride lots will become increasingly important in providing commuters convenient access to transit and ridesharing alternatives.

Investments in transit service and capital facilities will be needed to accommodate the future demands of a growing population in the Sedro-Woolley area. The City encourages Skagit Transit to consider increasing service frequency of the City's existing transit routes as growth occurs. Increased service will make transit a more convenient and attractive alternative to driving alone. In addition, the Sedro-Woolley transportation plan recommends the following transit improvements.

- **Regional Routes –** Continue to create and enhance linkages to regional destinations. Improve connections to regional hubs, such as to the Skagit Station transportation hub in Mount Vernon as well as the Washington State Department of Transportation (WSDOT) Ferry Terminal in Anacortes. Changes to future routes should be consistent with the needs of the Sedro-Woolley community and should be based on a collaborative route planning process involving the citizens of Sedro-Woolley.

- **Transit Center –** Consider developing a Sedro-Woolley Transit Center in the downtown area. Development of a transit center would provide an opportunity to consolidate the three existing park & ride lots into one central and convenient location.

- **Carpooling and Vanpooling** – Provide incentives to encourage carpooling and vanpooling by Sedro-Woolley commuters.

- **Transit Accessibility –** Improve access to transit for all users in compliance with the Americans with Disabilities Act (ADA) by evaluating accessibility to public transportation from future developments.

The City will continue to coordinate with Skagit Transit in the development of a convenient, integrated, and efficient transit system that supports future growth in the City.

Transportation Demand Management Strategies

In addition to improving the transit system, reducing travel demand by supporting transportation demand management (TDM) programs is an effective component in the City's comprehensive transportation system. TDM programs consist of measures for reducing peak hour single occupancy vehicle travel that are largely focused on major employers. Coordination with regional agencies, such as Skagit County, Skagit Transit, and the Skagit Council of Governments (SCOG), will improve the effectiveness of the City's TDM program in providing commuting alternatives to the citizens of Sedro-Woolley.

Sedro-Woolley will experience more urban levels of development as a result of future growth in employment and households within the city. TDM programs provide effective strategies for reducing single occupancy vehicles during the commute hours in areas that are higher in density and more urban in character. TDM programs can also provide effective alternatives for smaller developing communities such as Sedro-Woolley. Potential TDM strategies for Sedro-Woolley need to be regionally coordinated. The following strategies should be considered:

- **Encouraging car and van pools.** Employer incentives for commuters to carpool and vanpool can be in the form a financial incentive or as simple as reserved car and vanpool parking closest to the building.

- **Encouraging transit fare subsidies.** Employer subsidies for transit passes provide an incentive for those who are able to commute by transit the incentive to do so.

- **Encouraging bicycle lockers/showers at work sites.** Bicycle lockers and shower facilities at work sites provide the means for workers to commute by bicycle.

- **Encouraging telecommuting.** The use of telecommunications technology can allow some employees to work from home. This reduces the need for travel to/from a work site for some work days.

- **Encouraging flexible work schedules.** Flexible work hour schedules allow employees to adjust start/end times to accommodate carpools, vanpools, or transit options. Alternative work schedules may be used to reduce

the number of days an employee commutes during peak travel periods. These programs help reduce the need for adding capacity to highways and arterials, and reduce the levels of peak hour congestion.

- **Encouraging guaranteed ride home programs.** Many commuters who have children or have unpredictable schedules rely on their cars. This employer incentive provides the option of a guaranteed ride home in case of an emergency or unexpected schedule change.

Pedestrian and Bicycle Plan

The projects presented in Table 16 include pedestrian and bicycle facilities as part of the identified roadway improvements. Pedestrian and bicycle facilities promote mobility without the aid of motorized vehicles. A well-established system encourages healthy recreational activities, reduces vehicle demand on city roadways, and enhances safety within the community. The proposed facilities are needed to supplement the existing facilities and provide a more comprehensive system of facilities to accommodate non-motorized transportation in the city and UGA.

Existing and planned nonmotorized facilities are shown in Figure 2.

Pedestrian Routes

Sidewalks, walkways, and trails are integral parts of the pedestrian system. The City desires to have sidewalks on both sides of the streets, unless special circumstances prevent it or topography or environmental impacts make it cost prohibitive. Sidewalks should especially be located along streets providing access to the CBD, schools, parks, public buildings, and transit routes.

The major pedestrian system includes providing sidewalks along all arterial streets. Much of the system will be constructed concurrent with future developments adjacent to the arterials or local streets and as part of the future roadway improvement projects. The Nonmotorized Improvement Program is identified as an annual program that will be used to construct key missing links. It will also fund repairs of existing sidewalks and other pedestrian improvements such as crosswalks, ADA ramps, or signing.

Along with the system of planned and existing sidewalks, The City will continue to develop the portions of the regional Cascade and Centennial "rail" trails which run through the City, providing nonmotorized connectivity with other cities and recreational destinations throughout the region.

Bicycle Routes

The bicycle route plan provides a system of roadways and trails to connect residential areas of the city with schools, parks, and employment centers. The bicycle routes and trails also serve recreational bike travel. The Sedro-Woolley bicycle plan is comprised of bicycle routes along arterials and local streets in the city. Bicycle routes are streets that are signed for bicycle travel and will occasionally have separate bicycle lanes or wide, paved shoulders to promote the safe and efficient movement of bicyclists. The City has identified that all arterials shown as bicycle routes should accommodate use by bicycles, including possible striped bicycle lanes. However, it is recognized that many of the bicycle routes in the city will require bicyclists to share the roadway with motorized traffic.

The major improvements for bicycle travel will be the completion of the trail projects discussed as part of the pedestrian system plan. Other significant improvements will be part of the arterial roadway projects. The Trail Road extension will provide a bicycle connection between SR 20 and F&S Grade Road. This new route also provides a connection to the regional Bayview to Sedro-Woolley bicycle route that follows an old railroad right-of-way along F&S Grade Road. Trail Road will also link up with bicycle improvements along Jones

Road and John Liner Road. These roadway projects will provide important linkages for bicyclists heading to/from the northern residential areas of the city and UGA. Together with the system of new trails, the existing and proposed bicycle routes will help complete a bicycle system throughout the city, with important connections to the regional system.

(Ord. 1554-06 § 3 (Exh. A)(part))

3.28

TRANSPORTATION FINANCING PLAN

Financing Program

The State of Washington's Growth Management Act (GMA) requires that a jurisdiction's transportation plan contain a funding analysis of the transportation projects it recommends. The analysis should cover funding needs, funding resources, and it should include a multi-year financing plan. The purpose of this requirement is to ensure that each jurisdiction's transportation plan is affordable and achievable. If a funding analysis reveals that a plan is not affordable or achievable, the plan must discuss how additional funds will be raised, or how land use assumptions will be reassessed. Alternatively, the City can adjust its level of service (LOS) standards.

The transportation financing program becomes a subset of the City's Capital Facilities Plan (CFP) Element. The GMA requires the CFP Element to include at least a six-year plan that finances capital facilities and identifies the sources of public money for the projects.

A comprehensive list of transportation improvement projects was developed based on the citywide travel demand forecast and Sedro-Woolley's LOS standards. Planning level cost estimates were prepared for each project and program. Analysis of the City's capability to fund the projects was also conducted. This included review of existing and projected revenues and potential grants or other agency funding. In addition, the Plan provides a strategy for adjusting the funding program over time if revenues fall short of expectations.

Project Cost Summary

Table 16 summarizes Sedro-Woolley's planned arterial and state highway improvements through 2036. Planning level cost estimates are included for each project. The cost estimates were derived based upon average unit costs calculated by the City of Sedro-Woolley and similar projects in the region. The project costs assume that right-of-way will be needed for some projects to match the City street design standards. Costs are expressed in constant 2017 dollars. Projects are listed in order of priority for the short-term (2018-2023) and long-range (2024-2037) planning horizons. Projects which are necessary to maintain City and state concurrency standards are identified as eligible for transportation impact fee (TIF) funding.

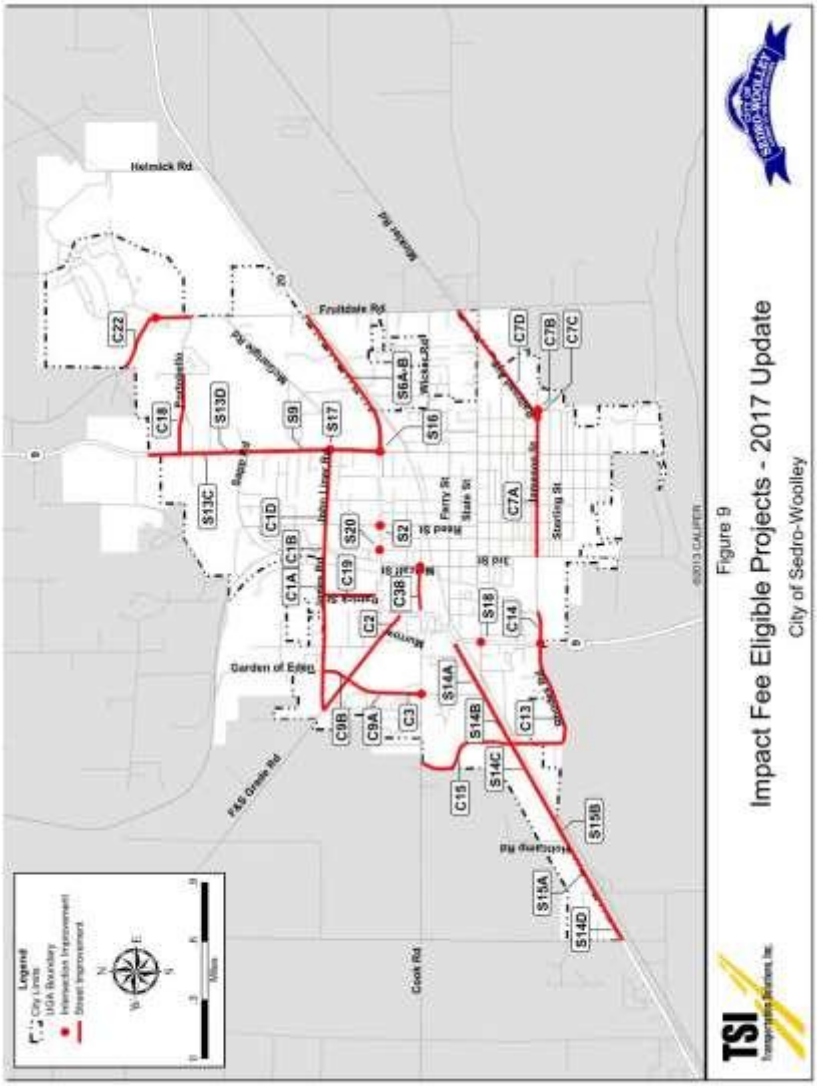
Approximately $63.5 million (in 2017 dollars) will be needed to fully fund the City's transportation improvement project needs through 2037. Over 80 percent of the costs will be needed for capital improvements to upgrade the City arterial system. An average of $3.2 million per year (in 2017 dollars) would be required to fully fund the Plan by 2037.

The project is the phased reconstruction and extension of Jones Road and John Liner Road, which includes a new railroad undercrossing. Total cost for this multi-phase project is estimated at $21.45 million, which represents 38 percent of forecasted 20-year arterial improvement costs.

Table 19 summarizes ongoing citywide programs which provide funding for system maintenance, operations, and nonmotorized/ADA improvements. These programs rely on local operating funds and their costs are generally excluded from the transportation capital improvement costs described above, although these funds may be used as local match for grant funded maintenance projects under the TIB Arterial Preservation Program. This plan estimates a total 20-year cost of $20.8 million for the identified citywide transportation programs.

Figure 9 shows transportation projects which are eligible for inclusion in the City's Transportation Impact Fee (TIF) program. These improvements have been identified, using the citywide planning model, as necessary to support growth, both in the City and by regionally generated traffic.

Figure 9
Transportation Impact Fee Eligible Improvement Projects



Revenue Sources

Federal Revenue Sources

The Fixing America's Surface Transportation (FAST) Act (P.L. 114-04) was signed into law by President Obama on December 4, 2015, and covers the five-year period from October 1, 2015 through September 30, 2020. The FAST Act supersedes the previous transportation authorization bill, MAP-21. The FAST Act funds surface transportation programs at $305 billion for federal fiscal years (FFY) 2016 through 2020.

The FAST Act maintains much of the policy and programmatic framework established by MAP-21. It includes increased funding for the performance-based Surface Transportation Block Grant Program (STBGP) and makes an additional $116.4 billion available to locally-owned infrastructure.

The state can expect to receive almost $3.6 billion in Federal Highway Administration funds via the FAST Act, starting with $687 million in 2016 and growing to $750 million by 2020.

In October 2012, Governor Christine Gregoire convened a Steering Committee to recommend how to distribute the highway funds between the State and local governments. The Committee agreed to maintain an overall split of 66/34 (66% State / 34% Local), which is still in effect.

Other Existing Transportation Revenue Services

The City utilizes a number of fees and tax revenues to construct and maintain transportation facilities. Summaries of these sources are shown in Tables 20, 21, and 22.

Funding options include the use of existing revenue sources such as motor vehicle fuel taxes, real estate excise taxes, and other City revenues, grant programs, and developer contributions (through frontage improvements, environmental mitigation, and transportation impact fees).

Nonmotorized Revenue Sources

Safe Routes to School

Washington State offers competitive grants to local jurisdictions through the federal Safe Routes to School program. The programs aim to increase the ability of young students to walk and bike to school on their own by providing non-motorized infrastructure between schools and residential areas and on the streets fronting schools. A call for funding requests is made during the biennium state budget cycles.

By partnering with Sedro-Woolley School District, the City can identify neighborhoods and streets most in need of non-motorized infrastructure and develop stronger grant applications.

Other Nonmotorized Funding Sources

Washington State and the federal government offer a number of competitive grant funding sources for non-motorized infrastructure, including trails, sidewalks, crossing improvements, and transit station amenities.

- Washington State Recreation and Conservation Office: http://www.rco.wa.gov/grants/index.shtml
- United States Department of Transportation TIGER Discretionary Grants: http://www.transportation.gov/tiger
- Federal Transportation Administration Bicycle Funding Opportunities: http://www.fta.dot.gov/13747_14400.html
- Federal Highway Administration Transportation Alternatives Program: http://www.fhwa.dot.gov/environment/transportation_alternatives/
- Federal Highway Administration Recreational Trails Program: http://www.fhwa.dot.gov/environment/recreational_trails/

Table 20. Possible Transportation Revenue Sources

Street & Arterial Street Funds	The Street Fund (Account 103) receives revenues from state distributions of motor vehicle fuel taxes, allocated based on the number of residents within corporate limits. These state distributions are not sufficient to maintain city streets. The City's general fund provides subsidies in order for the street fund to operate. The arterial street fund (Account 104) receives revenues from GMA Transportation Impact Fees, grants, and developer agreements.
General Fund	The City has supplemented the Street Fund with General Fund money in previous years. General Fund revenue has many sources, including motor vehicle fuel taxes, property taxes, business taxes, and local retail sales and use tax. The majority of the existing tax revenue sources will be used for maintenance, or to provide the matching funds for grants or to complete a portion of the roadway widening projects not covered by other agencies or traffic impact fees.
Transportation Impact Fee Program	In 2013 the City updated its transportation impact fee, a financing tool which allows the collection of revenue to offset the traffic impacts of new development. The impact fee rate is based the net new PM peak hour trips generated by a development and varies by district from $587 to $3,635 per PM peak hour vehicle trip. The Impact Fee program was updated by Ordinance 1852-16 adopted July 13, 2016 following adoption of the 2016 Chapter 3 Transportation Element update. The Transportation Impact Fee program will be updated again after adoption of the 2017 Transportation Element., and annually thereafter following yearly TIP adoption Table 16 and Figure 9 show impact fee eligible projects.
Transportation Benefit District (TBD)	The City implemented a TBD in 2014. The TBD is funded by a $20 per vehicle tab fee, generating an estimated $200,000 per year as of 2017.
Transportation Improvement Account (TIA)	The Transportation Improvement Board (TIB) is a Washington State Department of Transportation (WSDOT) organization used to distribute funds for road projects. The TIA funds are from a 1.3-cent motor vehicle fuel tax and are used for achieving a balanced transportation system. Multi-agency projects are a requirement.
Urban Arterial Trust Account (UATA)	The TIB administers this program which is funded by a 1.74-cent motor vehicle fuel tax. The program funds projects which reduce congestion and improve safety, geometrics and structural concerns.
FAST Act	Fixing America's Surface Transportation (FAST) Act funds are federal funds to allow road improvements. These are programmed through metropolitan planning organizations including Skagit Council of Governments. These funds are managed by WSDOT.
Grant Funding	Numerous infrastructure and transportation grants from local, State, Federal, and private sources may be identified to assist with the funding of the Sedro-Woolley transportation improvements.

Revenue Forecast

A description of available transportation capital improvement funding sources and projected average yearly revenue is listed in Table 21. Approximately ~~84~~ 83 percent of funding for the City's Transportation Capital Facilities Plan will come from Intergovernmental Revenue. Transportation Impact Fees, Transportation Benefit District, developer mitigation fees and other miscellaneous revenue are expected to fund approximately ~~16~~ 17 percent. The City may consider implementing new revenue sources if deemed appropriate and necessary in the future. This strategy ensures that the City can accomplish the transportation plan and use the available funding options efficiently.

This revenue forecast was prepared by projecting historic trends from the City's financial records. It was then adjusted based on a projected growth of 1% to 3% per year, depending on other known factors that could influence the specific category of revenue.

Local funding sources including the City share of the motor vehicle fuel tax (MVFT), property taxes, sales and use taxes, real estate excise taxes, and other general fund contributions, as shown in Table 22, are anticipated to be used to sustain citywide safety, maintenance, operations, and pedestrian/ADA improvement programs.

Table 21. Transportation Improvement Revenue Forecast 2018 to 2037

Funding Source	Description	2018-2037 Revenue Forecast		
		Estimated Annual Revenue	Total Forecasted Revenue	%
Transportation Impact Fees	Per SWMC 15.060, estimated $75,000/year	$75,000	$1,500,000	2.4%
Transportation Benefit District	Funds generated from a $20/vehicle car tab fee, estimated $200,000/year.	$200,000	$4,000,000	6.~~3~~5%
Other Developer Mitigation	Including SEPA mitigation and development agreements	$250,600	$5,012,000	~~7.9~~8.2 %
Intergovernmental Revenue/Grants	Includes federal and state grants as well as cost sharing agreements with WSDOT and Skagit County	$2,~~648~~536,~~08~~00	$5~~20~~,~~960~~735,000	8~~3~~2.4~~8~~ %
Other - New debt, new funding sources	Bonds, Low Interest Loans	$0	$0	0%
Total Revenue		**$3,~~173~~062,~~64~~00**	**$6~~31~~,~~472~~247,000**	**100%**

Table 22. Revenue for Citywide Transportation Programs

Funding Source	2015 Budget	Estimated Revenue[1], 2016-2036
Real and Personal Property Taxes	$214,000	$5,200,000
Sales & Use Tax	$165,000	$4,009,000
Motor Vehicle Fuel Taxes (MVFT)	$293,000	$7,119,000
Real Estate Excise Tax	$86,000	$2,090,000
Total Revenue	$758,000	$18,418,000

[1]Twenty-year estimate assumes 2% growth per year

Summary of Financing Strategy

Based on the revenues and costs listed above, the proposed arterial transportation improvements are affordable within the City's expected transportation revenues. Table 23 summarizes forecasted costs and revenues for transportation improvement projects identified in this study.

The proposed Transportation Capital Facilities Plan, including both short and long range improvement lists for the period 2018 to 2037, is estimated to cost $6~~3~~1,247~~472~~,000. Proposed improvements and expected revenues are therefore balanced as shown in Table 23.

The proposed financial strategy relies upon an aggressive assumption for state and federal grants and an assumption that additional city debt will not be necessary to balance the plan financially. If state and federal grant availability decrease over the planning period, the City may need to seek other funding sources including new debt sources.

Local revenues for citywide transportation programs are projected to fall short of expected expenses by an estimated $1.6 million over the 20-year life of the Transportation Plan, or approximately $80,000 per year. This will be addressed in the City budget process on an annual basis.

Reassessment Strategy

The financing strategy identifies a balance between revenues and expenditures over the life of the Transportation Element. However, the City is committed to reassessing their transportation needs and funding sources each year as part of their annual Six-Year Transportation Improvement Program (TIP). This allows the City to match the financing program with the shorter-term improvement projects and funding. The Transportation Element also includes goals and policies to periodically review land use growth, adopted level of service standards, and funding sources to ensure they support one another and meet concurrency requirements.

Table 23. Financing Strategy Summary

Revenue/Cost Category	Total (2016-2036)	Percent
Estimated Revenues (2018-2037)		
Transportation Impact Fees	$1,500,000	2.4%
Transportation Benefit District	$4,000,000	6.~~3~~5%
Other Developer Mitigation	$5,012,000	~~7.9~~8.2%
Grants/Intergovernmental Funding	$5~~2~~0,~~960~~735,000	8~~3~~2.~~4~~8%
New Debt Sources	$0	0.0%
Total Revenue	**$6~~3~~1,~~472~~247,000**	**100.0%**
Estimated Improvement Costs (2018-2037)		
State Highway Improvements	$8,085,000	1~~3~~2.~~7~~2%
Arterial Improvements	$5~~5~~3,~~587~~362,000	8~~7~~6.~~3~~8%
Total Costs	**$6~~3~~1,~~472~~247,000**	**100.0%**

In order to successfully implement the City's Transportation Plan, the City will apply the following principles in its funding program:

- As part of the development of the annual Six-Year Transportation Improvement Program, the City will balance improvement costs with available revenues;
- Review project design standards to determine whether costs could be reduced through reasonable changes in scope or deviations from design standards;
- Work with SCOG and Skagit County to develop multi-agency grant applications for projects that serve growth in the City and its UGA;
- Review transportation impact fee revenues each year to determine whether the impact fees should be increased to account for project cost increases;
- If the actions above are not sufficient, consider changes in the level of service standards and/or possibly limit the rate of growth in the City or UGA.

Project Priorities and Timing

The City of Sedro-Woolley will use the annual update of the Six-Year Transportation Improvement Program (TIP) to re-evaluate priorities and timing of projects. Throughout the planning period, projects will be completed and priorities will be revised. This will be accomplished by annually reviewing traffic growth and the location and intensity of land use growth in the City and the UGA. The City will then be able to direct funding to areas that are most impacted by growth or to arterials that may fall below the City's level of service (LOS) standards. The development of the TIP will be an ongoing process over the life of the Plan and will be reviewed and amended annually.

Concurrency Management / Development Review

Concurrency refers to the ongoing process of coordinating infrastructure needs with community development. This concept was formalized in the GMA to ensure that adequate public facilities are provided in concert with population and employment growth. For transportation facilities, the GMA requirement is fulfilled if the City's LOS

standards are met concurrent with the additional travel demand generated by each succeeding development action. GMA defines concurrency as having projects or strategies in place within six years of the development impact.

Concurrency determinations for the roadway network are closely linked with the City's development review process. As required by GMA, the City has adopted a Concurrency Management program for transportation. (SWMC 15.56)

The City also reviews new developments under SEPA. As part of the SEPA review potential impacts to the transportation network are identified and mitigation may be required. The City also has adopted development regulations and street standards that are applied to developments.

(Ord. 1554-06 § 3 (Exh. A)(part))

3.32

INTERGOVERNMENTAL COORDINATION

Implementation actions for transportation projects involve several agencies, each with different responsibilities and controls. A major focus of the GMA is to establish coordination among the responsible agencies and to increase the effectiveness of intergovernmental planning. This transportation element took into account planned improvements and policies of various state, regional, and local agencies, including Washington State Department of Transportation (WSDOT), Skagit Council of Governments (SCOG), Skagit County, Skagit Transit, and the City of Mount Vernon. Overall, the Sedro-Woolley transportation element is consistent and supportive of these other transportation plans and policies.

The following summarizes the consistency of the Sedro-Woolley transportation plan with the state, regional, and county plans.

Washington State Department of Transportation (WSDOT)

As required by GMA, the Sedro-Woolley transportation plan fully addresses the state highway system serving the City.

The State has adopted level of service (LOS) standards for Highways of Statewide Significance (HSS), establishing LOS D as the standard for HSS facilities in urban areas and LOS C for HSS facilities in rural areas. The City's standard of LOS D for SR 20 within the City is consistent with the State standard for HSS facilities in urban areas. SR 9 is a non-HSS state highway, and the state and region have established LOS D as the standard for this route. The City's revised standard of LOS D for SR 9 within the city is consistent with the State's and regions LOS D standard for SR 9.

The Transportation Element describes an update to the City's Street Functional Classification System which is consistent with WSDOT policy.

Skagit Council of Governments (SCOG)

The projects, programs, and policies of the Sedro-Woolley transportation plan support the goals and policies of the Skagit 2040 Regional Transportation Plan (Skagit 2040). The Sedro-Woolley plan was developed with opportunities for public input and was coordinated with other agencies. The plan also identifies improvements and policies to improve travel safety for all modes and connectivity of travel modes.

The Sedro-Woolley transportation plan coordinates transportation and land use planning and identifies programs and policies to enhance use of other transportation modes, as identified in the regional plan.

The Sedro-Woolley transportation plan was prepared using a travel forecasting model developed from and coordinated with the SCOG regional model. Outside of the city limits and its UGA, the city model is based on land use and transportation system assumptions from the regional model. Within the city, the Sedro-Woolley model is based on updated land use data (consistent with the Sedro-Woolley Land Use element) and a refined transportation analysis zone and network structure. This data are available to SCOG as it prepares its regional travel forecasts and transportation plans.

The City provided a copy of this Transportation Element ~~f~~to SCOG for review and certification by SCOG to ensure its conformity with the Skagit 2040 plan and to the requirements of the Growth Management Act. SCOG certified the City's 2016 Comprehensive Plan under Resolution 2016-05. Comments received from SCOG too late to be included in the 2016 update ~~are~~ were incorporated in the 2017 update to the Transportation Element.

Skagit County

Skagit County transportation and capital improvement plans were reviewed as part of the Sedro-Woolley transportation element update.

The City will continue to coordinate with Skagit County to address the needs of travel across jurisdiction limits, including developing joint regulations for developments within the unincorporated UGA to ensure that the future transportation system can adequately support the growth projections. Application of street standards, impact fees and other development regulations are being addressed.

Roadway improvement projects which were included in the Skagit County's Six-Year Transportation Improvement Plan (2016-2021) were reviewed and incorporated, as appropriate, into the City's plan. The most significant improvement project in the County's TIP involving the City is the Fruitdale/Kalloch Road project, which will widen and reconstruct Fruitdale Road and Kalloch Road.

The City provided this Transportation Element to Skagit County for review and comment. No comments were received from the County.

The City plan also supports and incorporates connections to the regional trail system. These include developing trails along the railroad rights-of-way. The City coordinates with Skagit County Parks on improvements to the Centennial and Cascade Trails. The city is also in a partnership with Skagit County and the Port of Skagit for infrastructure and trail improvements to serve the former Northern States Gateway Center site, now known as the SWIFT Center.

Skagit Transit

The Sedro-Woolley transportation plan acknowledges the need for coordination between the City and Skagit Transit to identify transit service improvements and strategies for serving growth in Sedro-Woolley, considering land uses, densities, cost of service, and revenues. The City has also identified policies to provide adequate streets and non-motorized facilities to support transit service.

Other Jurisdictions

The City has coordinated with the City of Burlington on its Cascade Trail extension projects.

APPENDIX A. 2015 INTERSECTION LOS SUMMARY

Intersection	Control Type	Street A Functional Classification	Street B Functional Classification	LOS Standard	Delay (s/veh)	LOS	LOS Pass/Fail
Fruitdale Rd / Northern St Rd	TWSC	Collector Arterial	Local Access	C	9.0	A	PASS
Fruitdale Rd / Portobello Ave	TWSC	Minor Arterial	Local Access	~~C~~D	9.1	A	PASS
Fruitdale Rd / McGarigle Rd	TWSC	Collector Arterial	Collector Arterial	C	9.9	A	PASS
McGarigle Rd / Carter St	TWSC	Minor Arterial	Local Access	~~C~~D	9.7	A	PASS
Township (SR 9) / McGarigle Rd / John Liner Rd	TWSC	Minor Arterial	Collector Arterial	~~C~~D	26.4	D	~~FAIL~~PASS
SR 9 / Kalloch Rd	TWSC	Minor Arterial	Local Access	~~C~~D	11.6	B	PASS
Fruitdale Rd / Kalloch Rd	TWSC	Local Access	Local Access	C	8.7	A	PASS
SR 20 / Helmick Rd	TWSC	Minor Arterial	Collector Arterial	~~C~~D	10.2	B	PASS
SR 20 / Fruitdale Rd	Signal	Minor Arterial	Collector Arterial	~~C~~D	8.9	A	PASS
SR 20 / SR 9 (Township St)	Signal	Principal Arterial	Minor Arterial	D	30.6	C	PASS
SR 20 / Ball St	TWSC	Principal Arterial	Local Access	D	20.8	C	PASS
SR 20 / Central Ave	TWSC	Principal Arterial	Local Access	D	21.4	C	PASS
SR 20 / Reed St	TWSC	Principal Arterial	Collector Arterial	D	21.1	C	PASS
SR 20 / Murdock St	TWSC	Principal Arterial	Local Access	D	23.0	C	PASS
SR 20 / Metcalf St	TWSC	Principal Arterial	Collector Arterial	D	24.1	C	PASS
SR 20 / Patrick St	RAB	Principal Arterial	Local Access	D	22.6	C	PASS
SR 20 / F&S Grade Rd	TWSC	Principal Arterial	Minor Arterial	D	15.6	C	PASS
SR 20 / Cook Rd	RAB	Principal Arterial	Minor Arterial	D	18.3	B	PASS
Cook Rd / W Ferry St / Edward R. Murrow	RAB	Minor Arterial	Collector Arterial	~~C~~D	9.4	A	PASS
SR 20 / W Ferry St	Signal	Principal Arterial	Minor Arterial	D	16.5	B	PASS
SR 20 / SR 9 (west)	Signal	Principal Arterial	Minor Arterial	D	15.0	B	PASS
SR 20 / State St / Trail Rd	Signal	Principal Arterial	Minor Arterial	D	19.1	B	PASS
SR 20 / Collins Rd	Signal	Principal Arterial	Local Access	D	9.1	A	PASS
SR 20 / Rhodes Rd	Signal	Principal Arterial	Local Access	D	8.4	A	PASS
Cook Rd / Trail Rd	TWSC	Minor Arterial	Collector Arterial	~~C~~D	21.4	C	PASS
John Liner Rd / Reed St	TWSC	Collector Arterial	Collector Arterial	C	9.5	A	PASS
SR 9 / W State St	Signal	Minor Arterial	Minor Arterial	~~C~~D	20.5	C	PASS
SR 9 / Nelson St	TWSC	Minor Arterial	Collector Arterial	~~C~~D	102.3	F	FAIL
Ferry St / Metcalf St	AWSC	Minor Arterial	Collector Arterial	~~C~~D	10.9	B	PASS
W State St / Metcalf St	AWSC	Minor Arterial	Collector Arterial	~~C~~D	13.5	B	PASS
Jameson St / Third St	AWSC	Collector Arterial	Collector Arterial	C	8.2	A	PASS
Ferry St / Reed Ave	TWSC	Minor Arterial	Collector Arterial	~~C~~D	11.3	B	PASS

Intersection	Control Type	Street A Functional Classification	Street B Functional Classification	LOS Standard	Delay (s/veh)	LOS	LOS Pass/Fail
W State St / Reed Ave	TWSC	Minor Arterial	Collector Arterial	~~C~~D	10.2	B	PASS
Ferry St / Township St	TWSC	Minor Arterial	Minor Arterial	~~C~~D	14.7	B	PASS
W State St / Township St	AWSC	Minor Arterial	Minor Arterial	~~C~~D	12.0	B	PASS
Jameson St / Township St	TWSC	Collector Arterial	Collector Arterial	C	11.7	B	PASS
W State St / Railroad St	AWSC	Collector Arterial	Collector Arterial	C	7.3	A	PASS
Railroad St / Fruitdale Rd	TWSC	Collector Arterial	Collector Arterial	C	11.0	B	PASS
W State St / Fruitdale Rd	TWSC	Collector Arterial	Collector Arterial	C	10.8	B	PASS

APPENDIX B. 2015 STREET SEGMENT LOS SUMMARY

Segment ID	Name	Cross Street A	Cross Street B	Roadway Classi-fication	Volume	Capacity	V/C	LOS	LOS Pass/Fail
2001	SR 20	Collins Rd	Rhodes Rd	Principal Arterial	1621	1980	0.82	D	PASS
2002	SR 20	Rhodes Rd	W State St	Principal Arterial	1577	1980	0.80	C	PASS
2003	SR 20	State St	SR 9	Principal Arterial	952	1980	0.48	A	PASS
2004	SR 20	SR 9	W Ferry St	Principal Arterial	1233	2160	0.57	A	PASS
2005	SR 20	W Ferry St	Cook Rd	Principal Arterial	973	2250	0.43	A	PASS
2006	SR 20	Cook Rd	F&S Grade Rd	Principal Arterial	1707	2340	0.73	C	PASS
2007	SR 20	F&S Grade Rd	Patrick St	Principal Arterial	1772	2340	0.76	C	PASS
2008	SR 20	Patrick St	Metcalf St	Principal Arterial	1757	2340	0.75	C	PASS
2009	SR 20	Metcalf St	Reed St	Principal Arterial	1802	2250	0.80	D	PASS
2010	SR 20	Reed St	Township St	Principal Arterial	1648	2250	0.73	C	PASS
3001	SR 20	Township St	Fruitdale Rd	Minor Arterial	1091	1920	0.57	A	PASS
3002	SR 20	Fruitdale Rd	Helmick Rd	Minor Arterial	773	2000	0.39	A	PASS
3003	SR 9	City Limit	W Nelson St	Minor Arterial	1153	1520	0.76	C	PASS
3004	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3005	SR 9	W Nelson St	W State St	Minor Arterial	1122	1920	0.58	A	PASS
3006	SR 9	W State St	SR 20	Minor Arterial	477	1920	0.25	A	PASS
3007	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3008	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3009	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3010	Cook Rd	City Limit	Trail Rd	Minor Arterial	1176	2000	0.59	A	PASS
3011	Cook Rd	Trail Rd	Ferry St / Murrow St	Minor Arterial	1102	2000	0.55	A	PASS
3012	Cook Rd	Ferry St	SR 20	Minor Arterial	824	1960	0.42	A	PASS
3013	F&S Grade Rd	City Limit	Murrow St	Minor Arterial	138	1480	0.09	A	PASS
3014	F&S Grade Rd	Murrow St	SR 20	Minor Arterial	155	1560	0.10	A	PASS
3015	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3016	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3017	Ferry St	SR 20	Metcalf St	Minor Arterial	605	1440	0.42	A	PASS
3018	Ferry St	Metcalf St	Reed St	Minor Arterial	417	1520	0.27	A	PASS

Segment ID	Name	Cross Street A	Cross Street B	Roadway Classi-fication	Volume	Capacity	V/C	LOS	LOS Pass/Fail
3019	Ferry St	Reed St	Township St	Minor Arterial	296	1520	0.19	A	PASS
3020	State St	SR 20	SR 9	Minor Arterial	918	1960	0.47	A	PASS
3021	State St	SR 9	Metcalf St	Minor Arterial	864	1520	0.57	A	PASS
3022	State St	Metcalf St	3rd St	Minor Arterial	701	1520	0.46	A	PASS
3023	State St	3rd St	Reed St	Minor Arterial	690	1520	0.45	A	PASS
3024	State St	Reed St	Township St	Minor Arterial	679	1520	0.45	A	PASS
3025	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3026	Township St	State St	Ferry St	Minor Arterial	494	1520	0.33	A	PASS
3027	Township St	Ferry St	Wicker Rd	Minor Arterial	574	1520	0.38	A	PASS
3028	Township St	Wicker Rd	SR 20	Minor Arterial	549	1560	0.35	A	PASS
3029	Township St (SR 9)	SR 20	McGarigle/John Liner Rd	Minor Arterial	810	1600	0.51	A	PASS
3030	Township St (SR 9)	McGarigle/John Liner	Sapp Rd	Minor Arterial	691	1560	0.44	A	PASS
3031	Township St (SR 9)	Sapp Rd	Bassett Rd	Minor Arterial	539	1480	0.36	A	PASS
3032	Township St (SR 9)	Bassett Rd	Kalloch	Minor Arterial	459	1480	0.31	A	PASS
3033	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3034	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4001	3rd St	Sterling St	Jameson St	Collector Arterial	205	1110	0.18	A	PASS
4002	3rd St	Jameson St	State St	Collector Arterial	118	1140	0.10	A	PASS
4003	Batey Rd	W Nelson St	Jameson St	Collector Arterial	262	1110	0.24	A	PASS
4004	Fruitdale Rd	River Rd	Hoehn Rd	Collector Arterial	38	1110	0.03	A	PASS
4005	Fruitdale Rd	Hoehn Rd	Minkler Rd	Collector Arterial	45	1110	0.04	A	PASS
4006	Fruitdale Rd	Minkler Rd	Wicker Rd	Collector Arterial	148	1110	0.13	A	PASS
4007	Fruitdale Rd	Wicker Rd	SR 20	Collector Arterial	143	1110	0.13	A	PASS
4008	Fruitdale Rd	SR 20	McGarigle Rd	Collector Arterial	206	1200	0.17	A	PASS
4009	Fruitdale Rd	McGarigle Rd	Thompson Dr	Collector Arterial	216	1110	0.19	A	PASS
4010	Fruitdale Rd	Thompson Dr	Kalloch	Collector Arterial	13	1110	0.01	A	PASS
4011	Jameson St	Batey Rd	3rd St	Collector Arterial	297	1080	0.28	A	PASS

Segment ID	Name	Cross Street A	Cross Street B	Roadway Classi-fication	Volume	Capacity	V/C	LOS	LOS Pass/Fail
4012	Jameson St	3rd St	6th St	Collector Arterial	154	1140	0.14	A	PASS
4013	Jameson St	6th St	Township St	Collector Arterial	120	1140	0.11	A	PASS
4014	Jameson St	Township St	Railroad Ave	Collector Arterial	84	1080	0.08	A	PASS
4015	John Liner Rd	Reed St	Township St (SR 9)	Collector Arterial	67	1110	0.06	A	PASS
4016	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4017	McGarigle Rd	Township St (SR 9)	Fruitdale Rd	Collector Arterial	203	1200	0.17	A	PASS
4018	Metcalf St	State St	Ferry St	Collector Arterial	267	1140	0.23	A	PASS
4019	Metcalf St	Ferry St	SR 20	Collector Arterial	249	1140	0.22	A	PASS
4020	Minkler Rd	State St	Fruitdale Rd	Collector Arterial	139	1110	0.13	A	PASS
4021	Nelson St	SR 9	Batey Rd	Collector Arterial	308	1110	0.28	A	PASS
4022	Railroad Ave	Jameson St	State St	Collector Arterial	215	1110	0.19	A	PASS
4023	Reed St	State St	Ferry St	Collector Arterial	18	1140	0.02	A	PASS
4024	Reed St	Ferry St	SR 20	Collector Arterial	23	1170	0.02	A	PASS
4025	Reed St	SR 20	John Liner Rd	Collector Arterial	230	1170	0.20	A	PASS
4026	Reed St	John Liner Rd	Sapp Rd	Collector Arterial	203	1170	0.17	A	PASS
4027	Rhodes Rd	SR 20	SR 9	Collector Arterial	55	1110	0.05	A	PASS
4028	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4029	Sapp Rd	Reed St	Township Rd (SR 9)	Collector Arterial	103	1110	0.09	A	PASS
4030	State St	Township St	Railroad Ave	Collector Arterial	214	1110	0.19	A	PASS
4031	Sterling St	3rd St	6th St	Collector Arterial	98	1110	0.09	A	PASS
4032	Sterling St	6th St	Township St	Collector Arterial	42	1110	0.04	A	PASS
4033	Township St	River Rd	Sterling St	Collector Arterial	227	1170	0.19	A	PASS
4034	Township St	Sterling St	Jameson St	Collector Arterial	265	1170	0.23	A	PASS
4035	Township St	Jameson St	State St	Collector Arterial	289	1170	0.25	A	PASS
4036	Trail Road	SR 20	Cook Rd	Collector Arterial	402	1470	0.27	A	PASS
4037	Wicker Rd	Township St	Fruitdale Rd	Collector Arterial	317	1110	0.29	A	PASS
4038	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
5001	Jones Rd	F&S Grade Rd	Garden of Eden Rd	Local Access	154	800	0.19	A	PASS

Segment ID	Name	Cross Street A	Cross Street B	Roadway Classi-fication	Volume	Capacity	V/C	LOS	LOS Pass/Fail
5002	Jones Rd	Garden of Eden Rd	Sapp Rd	Local Access	35	800	0.04	A	PASS
5003	Garden of Eden Rd	F&S Grade Rd	Jones Rd	Local Access	134	800	0.17	A	PASS
5004	Garden of Eden Rd	Jones Rd	Kiens Ln (Pvt)	Local Access	213	800	0.27	A	PASS
5005	[reserved]			~~Local Access~~	~~#N/A~~	~~800~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
5006	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
5007	Bassett Rd	Eikleberry Ct (Pvt)	SR 9	Local Access	22	800	0.03	A	PASS
5008	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
5009	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
5010	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
5011	[reserved]				~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~

APPENDIX C. 2036 INTERSECTION LEVEL OF SERVICE

Node ID	Intersection	2036 w/o Improvement		2036 w/Improvement	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS
208	Township (SR 9) / McGarigle Rd / John Liner Rd	46.2	E	8.1	A
209	SR 9 / Kalloch Rd	12.0	B	11.4	B
210	Fruitdale Rd / Kalloch Rd	9.5	A	9.4	A
211	SR 20 / Helmick Rd	10.3	B	10.3	B
212	SR 20 / Fruitdale Rd	15.4	B	15.5	B
213	SR 20 / SR 9 (Township St)	48.3	D	38.2	D
214	SR 20 / Ball St	26.3	D	26.8	D
215	SR 20 / Central Ave	27.4	D	19.1	C
216	SR 20 / Reed St	94.6	F	19.7	C
217	SR 20 / Murdock St	27.0	D	27.2	D
218	SR 20 / Metcalf St	27.8	D	25.5	D
219	SR 20 / Patrick St	17.2	B	41.9	D
220	SR 20 / F&S Grade Rd	18.1	C	20.1	C
221	SR 20 / Cook Rd	24.9	C	32.4	C
222	Cook Rd / W Ferry St / Edward R. Murrow	10.8	B	10.9	B
223	SR 20 / W Ferry St	18.7	B	17.3	B
224	SR 20 / SR 9 (west)	15.7	B	18.0	B
225	SR 20 / State St / Trail Rd	22.7	C	21.7	C
301	SR 20 / Collins Rd	9.6	A	10.4	B
302	SR 20 / Rhodes Rd	8.7	A	11.5	B
303	Cook Rd / Trail Rd	29.8	D	9.4	A
304	John Liner Rd / Reed St	10.0	B	18.7	C
305	SR 9 / W State St	21.9	C	21.0	C
306	SR 9 / Nelson St	264.3	F	18.1	C
307	Ferry St / Metcalf St	13.4	B	11.6	B
308	W State St / Metcalf St	17.5	C	14.0	B
309	Jameson St / Third St	8.4	A	9.0	A
310	Ferry St / Reed Ave	12.1	B	11.6	B
311	W State St / Reed Ave	10.4	B	12.7	B
312	Ferry St / Township St	19.6	C	18.5	C
313	W State St / Township St	14.0	B	13.7	B
314	Jameson St / Township St	12.7	B	13.9	B
315	W State St / Railroad St	7.4	A	7.5	A
316	Railroad St / Fruitdale Rd	11.9	B	11.8	B
317	W State St / Fruitdale Rd	10.8	B	10.8	B
7099	SR 9 / Jameson	-	-	8.7	A
7095	Patrick St / Jones Rd	-	-	11.2	B
2177	SR 9 / Portobello	-	-	14.0	B

APPENDIX D. 2036 STREET SEGMENT LEVEL OF SERVICE – WITHOUT IMPROVEMENT

Segment ID	Name	Cross Street A	Cross Street B	Volume	Capacity	V/C	LOS
2001	SR 20	Collins Rd	Rhodes Rd	1888	1980	0.95	E
2002	SR 20	Rhodes Rd	W State St	1814	1980	0.92	E
2003	SR 20	State St	SR 9	1118	1980	0.56	A
2004	SR 20	SR 9	W Ferry St	1472	2160	0.68	B
2005	SR 20	W Ferry St	Cook Rd	1077	2250	0.48	A
2006	SR 20	Cook Rd	F&S Grade Rd	1845	2340	0.79	C
2007	SR 20	F&S Grade Rd	Patrick St	1915	2340	0.82	D
2008	SR 20	Patrick St	Metcalf St	1894	2340	0.81	D
2009	SR 20	Metcalf St	Reed St	1960	2250	0.87	D
2010	SR 20	Reed St	Township St	1785	2250	0.79	C
3001	SR 20	Township St	Fruitdale Rd	1435	1920	0.75	C
3002	SR 20	Fruitdale Rd	Helmick Rd	802	2000	0.40	A
3005	SR 9	W Nelson St	W State St	1192	1920	0.62	B
3006	SR 9	W State St	SR 20	515	1920	0.27	A
3007	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3008	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3009	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3010	Cook Rd	City Limit	Trail Rd	1263	2000	0.63	B
3011	Cook Rd	Trail Rd	Ferry St / Murrow St	1160	2000	0.58	A
3012	Cook Rd	Ferry St	SR 20	857	1960	0.44	A
3013	F&S Grade Rd	City Limit	Murrow St	160	1480	0.11	A
3014	F&S Grade Rd	Murrow St	SR 20	251	1560	0.16	A
3015	[reserved]			~~#N/A~~	~~-120~~	~~#N/A~~	~~#N/A~~
3016	[reserved]			~~#N/A~~	~~-120~~	~~#N/A~~	~~#N/A~~
3017	Ferry St	SR 20	Metcalf St	710	1440	0.49	A
3018	Ferry St	Metcalf St	Reed St	471	1520	0.31	A
3019	Ferry St	Reed St	Township St	355	1520	0.23	A
3020	State St	SR 20	SR 9	967	1960	0.49	A
3021	State St	SR 9	Metcalf St	915	1520	0.60	B
3022	State St	Metcalf St	3rd St	731	1520	0.48	A

Segment ID	Name	Cross Street A	Cross Street B	Volume	Capacity	V/C	LOS
3023	State St	3rd St	Reed St	711	1520	0.47	A
3024	State St	Reed St	Township St	705	1520	0.46	A
3025	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3026	Township St	State St	Ferry St	595	1520	0.39	A
3027	Township St	Ferry St	Wicker Rd	727	1520	0.48	A
3028	Township St	Wicker Rd	SR 20	692	1560	0.44	A
3029	Township St (SR 9)	SR 20	McGarigle/John Liner Rd	937	1600	0.59	A
3030	Township St (SR 9)	McGarigle/John Liner	Sapp Rd	870	1560	0.56	A
3031	Township St (SR 9)	Sapp Rd	Bassett Rd	685	1480	0.46	A
3032	Township St (SR 9)	Bassett Rd	Kalloch	513	1480	0.35	A
3033	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3034	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4001	3rd St	Sterling St	Jameson St	221	1110	0.20	A
4002	3rd St	Jameson St	State St	119	1140	0.10	A
4003	Batey Rd	W Nelson St	Jameson St	300	1110	0.27	A
4004	Fruitdale Rd	River Rd	Hoehn Rd	38	1110	0.03	A
4005	Fruitdale Rd	Hoehn Rd	Minkler Rd	45	1110	0.04	A
4006	Fruitdale Rd	Minkler Rd	Wicker Rd	187	1110	0.17	A
4007	Fruitdale Rd	Wicker Rd	SR 20	170	1110	0.15	A
4008	Fruitdale Rd	SR 20	McGarigle Rd	509	1200	0.42	A
4009	Fruitdale Rd	McGarigle Rd	Thompson Dr	487	1110	0.44	A
4010	Fruitdale Rd	Thompson Dr	Kalloch	130	1110	0.12	A
4011	Jameson St	Batey Rd	3rd St	335	1080	0.31	A
4012	Jameson St	3rd St	6th St	176	1140	0.15	A
4013	Jameson St	6th St	Township St	157	1140	0.14	A
4014	Jameson St	Township St	Railroad Ave	110	1080	0.10	A
4015	John Liner Rd	Reed St	Township St (SR 9)	77	1110	0.07	A
4016	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4017	McGarigle Rd	Township St (SR 9)	Fruitdale Rd	237	1200	0.20	A

Segment ID	Name	Cross Street A	Cross Street B	Volume	Capacity	V/C	LOS
4018	Metcalf St	State St	Ferry St	293	1140	0.26	A
4019	Metcalf St	Ferry St	SR 20	330	1140	0.29	A
4020	Minkler Rd	State St	Fruitdale Rd	193	1110	0.17	A
4021	Nelson St	SR 9	Batey Rd	370	1110	0.33	A
4022	Railroad Ave	Jameson St	State St	254	1110	0.23	A
4023	Reed St	State St	Ferry St	20	1140	0.02	A
4024	Reed St	Ferry St	SR 20	26	1170	0.02	A
4025	Reed St	SR 20	John Liner Rd	317	1170	0.27	A
4026	Reed St	John Liner Rd	Sapp Rd	269	1170	0.23	A
4027	Rhodes Rd	SR 20	SR 9	125	1110	0.11	A
4028	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4029	Sapp Rd	Reed St	Township Rd (SR 9)	221	1110	0.20	A
4030	State St	Township St	Railroad Ave	229	1110	0.21	A
4031	Sterling St	3rd St	6th St	115	1110	0.10	A
4032	Sterling St	6th St	Township St	53	1110	0.05	A
4033	Township St	River Rd	Sterling St	241	1170	0.21	A
4034	Township St	Sterling St	Jameson St	292	1170	0.25	A
4035	Township St	Jameson St	State St	321	1170	0.27	A
4036	Trail Road	SR 20	Cook Rd	499	1470	0.34	A
4037	Wicker Rd	Township St	Fruitdale Rd	358	1110	0.32	A
4038	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4039	Jones Rd	F&S Grade Rd	Garden of Eden Rd	357	800	0.45	A
4040	Jones Rd	Garden of Eden Rd	Sapp Rd	110	800	0.14	A
4041	Garden of Eden Rd	F&S Grade Rd	Jones Rd	303	800	0.38	A
4042	Garden of Eden Rd	Jones Rd	Kiens Ln (Pvt)	487	800	0.61	B
4044	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4045	Bassett Rd	Eikleberry Ct (Pvt)	SR 9	93	800	0.12	A

APPENDIX E. 2036 STREET SEGMENT LOS - WITH IMPROVEMENT

Segment ID	Name	Cross Street A	Cross Street B	Volume	Capacity	V/C	LOS
2001	SR 20	Collins Rd	Rhodes Rd	1920	2160	0.89	D
2002	SR 20	Rhodes Rd	W State St	1801	2160	0.83	D
2003	SR 20	State St	SR 9	1092	1980	0.55	A
2004	SR 20	SR 9	W Ferry St	1512	2160	0.70	C
2005	SR 20	W Ferry St	Cook Rd	1176	2250	0.52	A
2006	SR 20	Cook Rd	F&S Grade Rd	1920	2340	0.82	D
2007	SR 20	F&S Grade Rd	Patrick St	1949	2340	0.83	D
2008	SR 20	Patrick St	Metcalf St	1784	2340	0.76	C
2009	SR 20	Metcalf St	Reed St	1853	2250	0.82	D
2010	SR 20	Reed St	Township St	1802	2250	0.80	D
3001	SR 20	Township St	Fruitdale Rd	1429	1920	0.74	C
3002	SR 20	Fruitdale Rd	Helmick Rd	825	2000	0.41	A
3005	SR 9	W Nelson St	W State St	1212	1920	0.63	B
3006	SR 9	W State St	SR 20	558	1920	0.29	A
3007	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3008	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3009	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3010	Cook Rd	City Limit	Trail Rd	1459	2000	0.73	C
3011	Cook Rd	Trail Rd	Ferry St / Murrow St	1149	2000	0.57	A
3012	Cook Rd	Ferry St	SR 20	835	1960	0.43	A
3013	F&S Grade Rd	City Limit	Murrow St	172	1480	0.12	A
3014	F&S Grade Rd	Murrow St	SR 20	112	1560	0.07	A
3015	[reserved]			~~#N/A~~	~~120~~	~~#N/A~~	~~#N/A~~
3016	[reserved]			~~#N/A~~	~~120~~	~~#N/A~~	~~#N/A~~
3017	Ferry St	SR 20	Metcalf St	624	1440	0.43	A
3018	Ferry St	Metcalf St	Reed St	458	1520	0.30	A
3019	Ferry St	Reed St	Township St	331	1520	0.22	A
3020	State St	SR 20	SR 9	930	1960	0.47	A

Segment ID	Name	Cross Street A	Cross Street B	Volume	Capacity	V/C	LOS
3021	State St	SR 9	Metcalf St	852	1520	0.56	A
3022	State St	Metcalf St	3rd St	694	1520	0.46	A
3023	State St	3rd St	Reed St	690	1520	0.45	A
3024	State St	Reed St	Township St	691	1520	0.45	A
3025	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3026	Township St	State St	Ferry St	578	1520	0.38	A
3027	Township St	Ferry St	Wicker Rd	700	1520	0.46	A
3028	Township St	Wicker Rd	SR 20	621	1560	0.40	A
3029	Township St (SR 9)	SR 20	McGarigle/John Liner Rd	831	1600	0.52	A
3030	Township St (SR 9)	McGarigle/John Liner	Sapp Rd	820	1560	0.53	A
3031	Township St (SR 9)	Sapp Rd	Bassett Rd	673	1480	0.45	A
3032	Township St (SR 9)	Bassett Rd	Kalloch	462	1480	0.31	A
3033	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
3034	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4001	3rd St	Sterling St	Jameson St	219	1110	0.20	A
4002	3rd St	Jameson St	State St	121	1140	0.11	A
4003	Batey Rd	W Nelson St	Jameson St	35	1110	0.03	A
4004	Fruitdale Rd	River Rd	Hoehn Rd	38	1110	0.03	A
4005	Fruitdale Rd	Hoehn Rd	Minkler Rd	46	1110	0.04	A
4006	Fruitdale Rd	Minkler Rd	Wicker Rd	178	1110	0.16	A
4007	Fruitdale Rd	Wicker Rd	SR 20	172	1110	0.15	A
4008	Fruitdale Rd	SR 20	McGarigle Rd	560	1200	0.47	A
4009	Fruitdale Rd	McGarigle Rd	Thompson Dr	518	1110	0.47	A
4010	Fruitdale Rd	Thompson Dr	Kalloch	76	1110	0.07	A
4011	Jameson St	Batey Rd	3rd St	354	1080	0.33	A
4012	Jameson St	3rd St	6th St	198	1140	0.17	A

Segment ID	Name	Cross Street A	Cross Street B	Volume	Capacity	V/C	LOS
4013	Jameson St	6th St	Township St	151	1140	0.13	A
4014	Jameson St	Township St	Railroad Ave	97	1080	0.09	A
4015	John Liner Rd	Reed St	Township St (SR 9)	284	1110	0.26	A
4016	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4017	McGarigle Rd	Township St (SR 9)	Fruitdale Rd	220	1200	0.18	A
4018	Metcalf St	State St	Ferry St	281	1140	0.25	A
4019	Metcalf St	Ferry St	SR 20	294	1140	0.26	A
4020	Minkler Rd	State St	Fruitdale Rd	167	1110	0.15	A
4021	Nelson St	SR 9	Batey Rd	107	1110	0.10	A
4022	Railroad Ave	Jameson St	State St	217	1110	0.20	A
4023	Reed St	State St	Ferry St	30	1140	0.03	A
4024	Reed St	Ferry St	SR 20	36	1170	0.03	A
4025	Reed St	SR 20	John Liner Rd	123	1170	0.11	A
4026	Reed St	John Liner Rd	Sapp Rd	288	1170	0.25	A
4027	Rhodes Rd	SR 20	SR 9	206	1110	0.19	A
4028	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4029	Sapp Rd	Reed St	Township Rd (SR 9)	174	1110	0.16	A
4030	State St	Township St	Railroad Ave	240	1110	0.22	A
4031	Sterling St	3rd St	6th St	112	1110	0.10	A
4032	Sterling St	6th St	Township St	53	1110	0.05	A
4033	Township St	River Rd	Sterling St	241	1170	0.21	A
4034	Township St	Sterling St	Jameson St	292	1170	0.25	A
4035	Township St	Jameson St	State St	326	1170	0.28	A
4036	Trail Road	SR 20	Cook Rd	521	1470	0.35	A
4037	Wicker Rd	Township St	Fruitdale Rd	353	1110	0.32	A
4038	[reserved]			#N/A	#N/A	#N/A	#N/A
4039	Jones Rd	F&S Grade Rd	Garden of Eden Rd	105	1110	0.09	A
4040	Jones Rd	Garden of Eden Rd	Sapp Rd	156	1110	0.14	A

Segment ID	Name	Cross Street A	Cross Street B	Volume	Capacity	V/C	LOS
4041	Garden of Eden Rd	F&S Grade Rd	Jones Rd	64	800	0.08	A
4042	Garden of Eden Rd	Jones Rd	Kiens Ln (Pvt)	535	800	0.67	B
4044	[reserved]			~~#N/A~~	~~#N/A~~	~~#N/A~~	~~#N/A~~
4045	Bassett Rd	Eikleberry Ct (Pvt)	SR 9	77	800	0.10	A

Transportation Solutions
INNOVATIVE | PRACTICAL | EQUITABLE

February 22, 2022

TO: Mark A. Freiberger, PE, Director of Public Works
City of Sedro-Woolley

FROM: Andrew L. Bratlien, PE

SUBJECT: Minor Arterial Level of Service Policy Revision

This memorandum documents a recommended revision to the Sedro-Woolley transportation Level of Service (LOS) policy for minor arterial streets.

LEVEL OF SERVICE DEFINITION

Level of service (LOS) is a qualitative description of the operating performance of an element of transportation infrastructure such as a roadway or an intersection. LOS is typically expressed as a letter score from LOS A, representing free flow conditions with minimal delays, to LOS F, representing breakdown flow with high delays.

Intersection LOS is based on the average delay experienced by a vehicle traveling through an intersection. Delay at a signalized intersection can be caused by waiting for the signal or waiting for the queue ahead to clear the signal. Delay at roundabouts and stop-controlled intersections is caused by waiting for a gap in traffic or waiting for a queue to clear the intersection or roundabout.

Delay is defined differently for signalized and all-way stop controlled intersections than for two-way stop controlled (i.e. stop control on minor approach) intersections. For signalized and all-way stop controlled intersections, level of service thresholds are based upon average control delay for all vehicles (on all approach legs) entering the intersection. For minor-approach-only stop controlled intersections, delay is reported for the movement with the worst (highest) delay. **Table 1** shows the amount of delay used to determine LOS for signalized and unsignalized intersections.

Roadway segment LOS is defined based on the ratio of traffic volume to segment capacity, known as the volume-to-capacity ratio or v/c ratio. LOS thresholds for road segments are summarized in **Table 1**.

EXISTING LEVEL OF SERVICE POLICY

The May 2018 update of the Sedro-Woolley Transportation Element includes the following policies:

> *Policy T7.2: Maintain the level of service for SR 20, SR 9, and minor arterials within the City and UGA as LOS D.*
>
> *Policy T7.3: Maintain the level of service for other and minor arterials and collectors within the City and UGA as LOS C.*

The adopted policies identify minor arterials as having both LOS C and LOS D standards.

Table 1. Level of Service Thresholds

LOS	Intersection Delay (sec/veh)		Segment v/c[1]	Generalized Description
	Signal/ Roundabout	Stop Control		
A	≤10	≤10	0-0.60	Free flow
B	>10 – 20	>10 – 15	0.61-0.70	Stable flow (slight delays)
C	>20 – 35	>15 – 25	0.71-0.80	Stable flow (acceptable delays)
D	>35 – 55	>25 – 35	0.81-0.90	Approaching unstable flow (tolerable delay; occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	>35 – 50	0.91-1.00	Unstable flow (intolerable delay)
F	>80	>50	>1.00	Forced flow (jammed)

[1]Segment volume-to-capacity ratio

TRANSPORTATION CONCURRENCY MANAGEMENT

Transportation Solutions developed citywide "state of the system" transportation concurrency analyses in the years 2020 and 2021. These analyses are summarized in technical memorandums "Citywide Transportation Concurrency Review," dated January 7, 2020, and "2021 Transportation Concurrency System Update," dated January 10, 2022. In each transportation concurrency analysis, the more stringent of the two minor arterial LOS policies was applied, resulting in the application of an LOS C standard for minor arterial roadways.

The 2021 analysis indicated that the intersection of Cook Rd (a minor arterial) & Trail Rd will operate at LOS D upon buildout of permitted development, and between LOS E and F after buildout of other major anticipated development in the vicinity of Cook Rd & Trail Rd. The study concluded that Cook Rd & Trail Rd would reach LOS-deficient status at LOS D with pipeline (permitted) development.

MINOR ARTERIAL ROADWAYS IN SEDRO-WOOLLEY

The following streets within the City of Sedro-Woolley are classified minor arterial roadways:

- **State Route 9** is part of the state highway system and is classified a minor arterial through the City. SR 9 links Sedro-Woolley with Mount Vernon to the south and with Whatcom County to the north. Within the City, SR 9 is two- to three-lane minor arterial with WSDOT-maintained traffic signals controlling intersections with State Street, SR 20 (near Ferry Street intersection), and SR 20/Township Street. South of SR 20 the posted speed limit is 40 mph. The route is classified as major collector north and south of the city limits with a posted speed limit of 50 mph. SR 9 is not classified as a Highway of Statewide Significance. SR 9 south of SR 20 is designated by WSDOT as limited access, modified control. SR 9 south is classified as a Freight Route from the south city limits to its intersection with SR 20.
- **Cook Road** is a major collector outside of the city limits and a minor arterial within the city providing a direct east-west connection to I-5. Within the City, it has three lanes and a speed limit of thirty-five (35) mph.

- **F&S Grade Road** is a narrow two-lane major collector outside of the city limits and a minor arterial within the City, providing access to rural areas northwest of the City. The speed limit is twenty-five (25) mph within the City and thirty-five (35) mph in the County.
- The **State Street/Township Street** corridor loops from SR 20 and SR 9 on the west side of Sedro-Woolley back to SR 20 and SR 9 on the east side of the City. This arterial loop provides access and circulation within the City's central business district as well as other central neighborhoods. The roads have two travel lanes with twenty-five (25) mph speed limits. All-way stop controlled intersections with flashing red signals are located at Metcalf Street, Puget Avenue, and the State Street/Township Street intersection. A flashing red-amber beacon is located at the Third Street intersection (a minor-approach stop-controlled T-intersection).
- **Ferry Street** is an east-west two-lane minor arterial which begins at Cook Road and connects to Township Street. Ferry Street provides access to the central business district. The speed limit is twenty-five (25) mph with flashing all-way stop signals located at Metcalf Street and Puget Avenue.
- **Edward R. Murrow Street** is a two-lane minor arterial which runs north-south from Cook Road to F&S Grade Road.

LEVEL OF SERVICE POLICIES IN SURROUNDING AREA

Existing transportation LOS policies for agencies near Sedro-Woolley are summarized in **Table 2**. In general, policies allow lower LOS on routes with higher functional classification. This can reflect a policy decision that higher levels of congestion are acceptable on high-volume corridors. Conversely, drivers tend to expect less congestion on lower classification, lower volume streets.

Table 2. Existing Transportation LOS Policies

Agency	Minimum LOS Standard		
	Principal Arterial	Minor Arterial	Major Collector
City of Sedro-Woolley	LOS D	LOS C/D	LOS C
City of Burlington	LOS C/D[1]	LOS C	LOS C
City of Mount Vernon	LOS D	LOS D	LOS C
City of Anacortes	LOS D	LOS C	LOS C
City of Oak Harbor	LOS D/E[2]	LOS D	LOS D
Skagit County	LOS D	LOS D	LOS D

[1] LOS C for all functionally classified intersections except along the Burlington Boulevard corridor, which has minimum LOS D.
[2] LOS D for all functionally classified intersections except SR 20, which has minimum LOS E.

Minimum LOS standards for State facilities are set by the Washington State Department of Transportation (WSDOT). SR 20 is functionally classified a principal arterial from the western city limit to Township Street. East of Township Street, SR 20 becomes a minor arterial. WSDOT has adopted an LOS D standard for SR 20 through Sedro-Woolley. SR 9 is functionally classified a minor arterial through the City of Sedro Woolley. WSDOT has adopted an LOS D standard for SR 9.

FINDINGS

Current Transportation Element Level of Service policy is unclear, identifying both an LOS C and LOS D standards for minor arterial roadways. Recent analyses have applied the more stringent minimum LOS C standard to minor arterials, including the intersection of Cook Rd & Trail Rd which is anticipated to reach LOS D with the buildout of permitted development.

WSDOT has adopted minimum LOS D standard for SR 20 and SR 9 through Sedro-Woolley. SR 20 is classified a minor arterial to the east of Township St and SR 9 is classified a minor arterial for its full length through Sedro-Woolley.

The cities of Mount Vernon and Oak Harbor, as well as Skagit County, have adopted an LOS D standard for minor arterials. In general, cities in Skagit County and Island County have adopted lower minimum LOS standards for streets with higher functional classification.

RECOMMENDATION

It is recommended that the Transportation Element be amended as indicated below to adopt an LOS D standard for minor arterial roadways:

Original policies:

> *Policy T7.2: Maintain the level of service for SR 20, SR 9, and minor arterials within the City and UGA as LOS D.*
>
> *Policy T7.3: Maintain the level of service for other and minor arterials and collectors within the City and UGA as LOS C.*

Revised policies:

> *Policy T7.2: Maintain a minimum level of service standard of LOS D for principal and minor arterials within the City and UGA, including SR 9 and SR 20.*
>
> *Policy T7.3: Maintain a minimum level of service standard of LOS C for collector roadways within the City and UGA.*

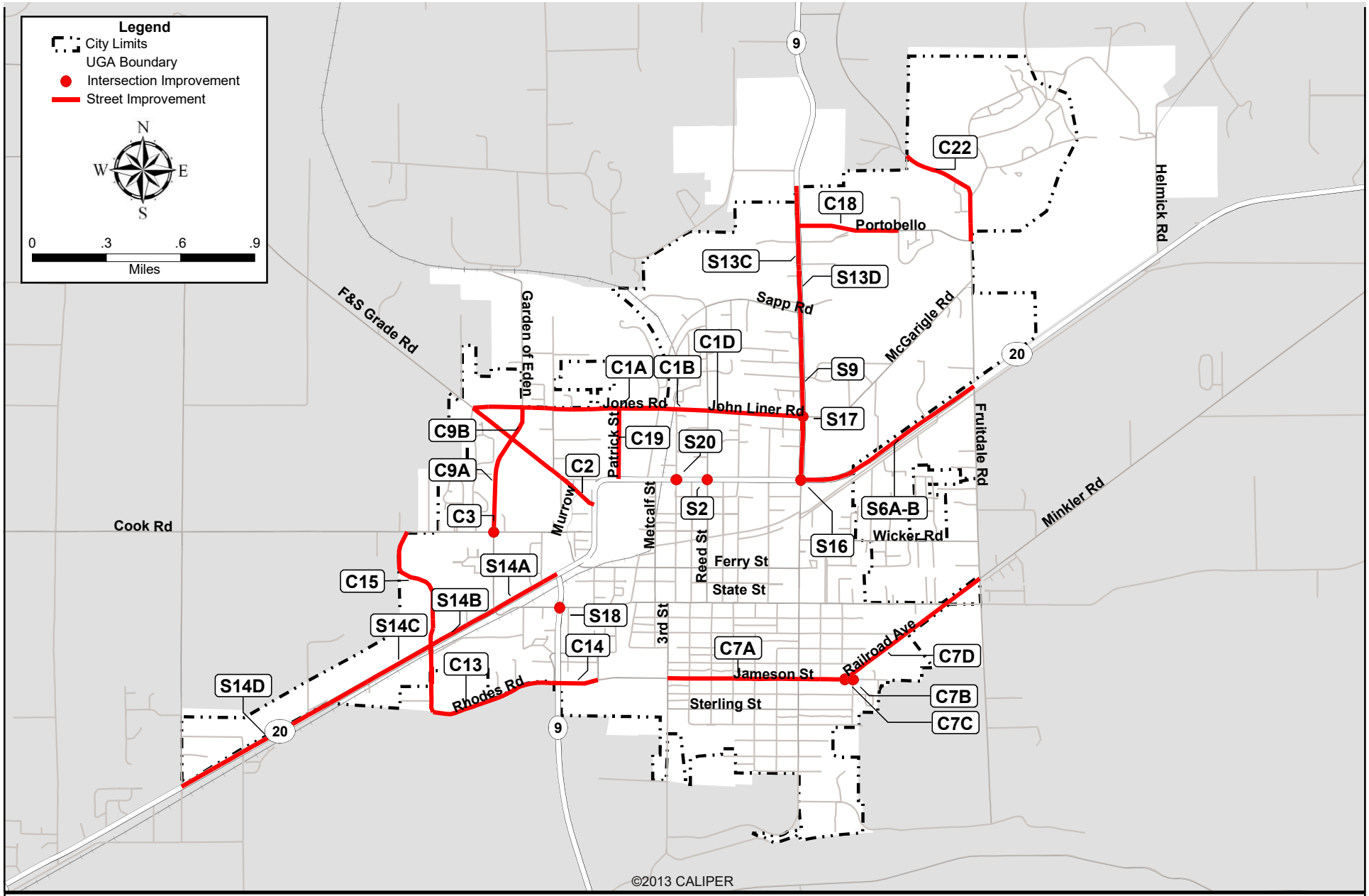


Figure 9

Impact Fee Eligible Projects - Corrected 4/20/2017

City of Sedro-Woolley

TSI Transportation Solutions, Inc.

CITY OF SEDRO-WOOLLEY GATEWAY TO THE NORTH CASCADES

HODGIN ROAD ARTERIAL EXTENSION

Planning Department
Sedro-Woolley Municipal Building
325 Metcalf Street
Sedro-Woolley, WA 98284
Phone (360) 855-0771
Fax (360) 855-0733

MEMO:

To: Sedro-Woolley Planning Commission

From: John Coleman, AICP
Planning Director

Date: March 15, 2022

Subject: CPA-2-22 – Capital Facilities Element and Municipal Code updates to incorporate a New Sedro-Woolley School District Capital Facilities Plan and updated school impact fees – 2022 Docket

ISSUE

The Sedro-Woolley School District No. 101 Board of Directors passed a new Capital Facilities Plan (CFP) on November 8, 2022. The 2022 CFP is the Sedro-Woolley School District's (District) guiding document for how the District plans to accommodate future capital facilities needs as infrastructure ages, technology advances and student enrollment grows. The CFP also specifies the amount of school impact fees that the city collects on behalf of the District. In order for the city to start collecting the updated the school impact fees, the new CFP must be incorporated in the Sedro-Woolley Capital Facilities Element by reference and Chapter 15.64 SWMC must be updated. The incorporation of the CFP must happen as part of the annual Comprehensive Plan updates. The District has requested to have the city adopt the 2022 CFP into the City of Sedro-Woolley Capital Facilities Element (Exhibit 1).

BACKGROUND

The District's 2022 CFP explains how the proposed school impact fees are calculated and demonstrates the necessity for the fees. The purpose of this proposed update is to adopt the District's 2022 CFP into the city's Capital Facilities Element and make associated changes to Sedro-Woolley Municipal Code (SWMC) that will enact the updated school impact fees. No changes to the District's CFP or proposed school impact fee amounts may be recommended during this review process.

The District's previous CFP was adopted by the District in 2014. That 2014 CFP, and thus the school impact fees that the city currently collects on behalf of the Sedro-Woolley School District, were adopted by the city in April 2016 (Ordinances 1845-16 and 1846-16) and went into effect in May of 2016. The fees adopted under those ordinances – and still in effect today – are $1,678 per single family home and $847 per unit in a structure with more than one unit. Per the District's request, the city is proposing to update Appendix E of the Capital Facilities Element with the updated 2022 District CFP (Exhibit B).

In addition to the CFP adopted by reference as Appendix E to the Capital Facilities Element, the Element also has a short section (7.12) that discusses schools:

> The City of Sedro-Woolley does not own or operate school facilities. However, public facilities and services such as schools are vital to protect and enhance community and

environmental quality. Deficiencies in school facilities might not raise severe obstacles to any single new development, but over time could cause deterioration of community quality. The City of Sedro-Woolley is ultimately responsible for assuring that adequate facilities and services, such as schools and school facilities, are available or can be made available to support planned growth. This responsibility is carried out by working with the Sedro-Woolley School District No. 1 (District) to identify needs for facilities and services based on the planned amount and location of growth. The mechanism for identifying needs is through the District capital facilities plan, which is adopted as a supplement of the Sedro-Woolley Comprehensive Plan.

The provision of an adequate supply of kindergarten through twelfth grade (K-12) public schools and K12 public school facilities is essential to avoid overcrowding and to enhance the educational opportunities for our children.

A. Identifying Needs for Facilities and Services The Growth Management Act requires the District to prepare a capital facility plan which includes an inventory of existing capital facilities owned by public entities, a forecast of the future needs for capital facilities, including the proposed locations and capacities of expanded or new facilities, and a six-year plan that will finance the expanded or new facilities. Furthermore, Chapter 15.64 SWMC requires that, as a condition of collecting school impact fees, the Sedro-Woolley School District prepare a six-year capital facility plan that describes the District's capacity needs for the six-year period of the plan and proposes funding to meet those needs.

B. Capital Facility Planning. The District's six-year capital facility plan should be consistent with the Growth Management Act, City of Sedro-Woolley Comprehensive Plan, and the Sedro-Woolley Municipal Code. The full Sedro-Woolley School District Capital Facilities Plan is included in Appendix E of the Capital Facilities Element of the Sedro-Woolley Comprehensive Plan.

Section 7.12 does not need to be amended in order for the city to adopt the new CFP or amended school impact fees. Aside from replacing the existing CFP in Appendix E with the new CFP, no other amendments to the Capital Facilities Element are anticipated.

In order to fully implement the fee updates, Chapter 15.64 SWMC will also need to be updated. SWMC 15.64.040 – Assessment of impact fees – specifies that school impact fees are to be paid on all new residential units. That section refers to Appendix A of 15.64 SWMC where the current school impact fees are codified. Appendix A currently reads as follows.

Appendix A—Schedule of School Impact Fees
A. Single-Family Units. One thousand six hundred seventy-eight dollars per single-family residential unit or mobile or manufactured home (whether on a single lot, condominium unit or mobile park).
B. Multifamily Units. Eight hundred forty-seven dollars per residential unit in a multifamily structure.
Note: Detached, single housing units shall be considered single-family residential units, without regard to the form of ownership, including condominium ownership.

As shown in Appendix A are $1,678 per single family home and $847 per unit in a structure with more than one unit

When adopted by the city, the new school impact fee amounts at $4,461 for single-family residences and $2,888 for multi-family units.

This is the first review of the CFP update. A public hearing for the CFP adoption into the Capital Facilities Element will be scheduled for the next Planning Commission Meeting. The Planning Commission is not going to make any recommendations at this meeting.

EXHIBITS
Exhibit A – Request from School District
Exhibit B – 2022 School CFP

RECOMMENDATIONS

Be prepared to discuss the District's CFP and school impact fees. The Planning Commission will hold a public hearing on the proposed amendments to the Capital Facilities Element and Chapter 15.64 SWMC at the April 18, 2022 PC meeting.

Exhibit A

Sedro-Woolley School District Request to adopt the 2022 Capital Facilities Plan

Every student graduates with the knowledge and skills for future learning and success

Sedro-Woolley School District No. 101

801 Trail Rd, Sedro-Woolley, WA 98284~360-855-3500~Fax 360-855-3574

November 9, 2021

John Coleman, AICP
Planning Director/Building Official
325 Metcalf Street
Sedro-Woolley WA 98284

RE: Sedro-Woolley School District Adopted 2022 Capital Facilities Plan

Dear Mr. Coleman:

Enclosed please find the Sedro-Woolley School District's 2022 Capital Facilities Plan, adopted by our Board of Directors on November 8, 2021. The 2022 CFP includes current planning in our District as well as updated school impact fees. Please commence the process for updating your jurisdiction's Comprehensive Plan to adopt the 2022 CFP by reference and update accordingly the school impact fees assessed by you on behalf of the District. Please let me know any additional information that you require from the District for this purpose.

We appreciate your attention to this matter. I can be reached at 360-855-3575 with any questions.

Sincerely,

Brett Greenwood
Executive Director of Business, Operations and Technology

Enclosure

Exhibit B

2022 Capital Facilities Plan adopted by the Sedro-Woolley School District

Sedro-Woolley
School District #101

Capital Facilities Plan
2022

Sedro-Woolley School District
801 Trail Road
Sedro-Woolley, WA 98284
(360) 855-3500

Adopted November 8, 2021
by the Board of Directors

TABLE OF CONTENTS

I. INTRODUCTION

The purpose of this Capital Facilities Plan is to provide a verifiable estimate of the present and future construction and capital facilities needs for the Sedro-Woolley School District No. 101 ("District"), and the basis for requesting the imposition of school impact fees by Skagit County, the City of Sedro-Woolley, a small portion of the City of Mount Vernon, and the towns of Lyman and Hamilton. This Capital Facilities Plan contains all elements required under Washington's Growth Management Act (the "GMA").

Documenting the statutory and District requirements are essential for the planning of capital facility improvements, expansions, and new construction. Such criteria can provide information needed in making major decisions. The information can be used to accomplish the following:

1. Demonstrate the need for capital facilities and the costs required to administer, plan, and construct them in the most cost effective manner;

2. Identify the annual budget necessary for District operations;

3. Identify available sources of revenue; and

4. Demonstrate the District's financial position in order to obtain better ratings on bond issues.

State law requires school districts to document their long-range construction and modernization needs within strict guidelines for State assistance in funding capital improvements. Moreover, the GMA requires counties of a certain size and the cities in these counties to prepare comprehensive plans. Such jurisdictions are required to develop a capital facilities plan as a component of these comprehensive plans. While the GMA does not specifically require school districts to adopt capital facilities plans, a district must prepare a capital facilities plan that is adopted as part of a city's or county's comprehensive plan in order to be eligible to receive school impact fees under the GMA. This Capital Facilities Plan will be used to coordinate the District's long-range facility needs with the comprehensive planning process under the GMA for the City of Sedro-Woolley, the City of Mount Vernon, the Town of Lyman, the Town of Hamilton, and Skagit County.

It is expected that this Capital Facilities Plan will be amended on a regular basis to take into account changes in the capital needs of the District and changing enrollment projections. The fee schedules will also be adjusted accordingly.

The District's October 1, 2020, permanent capacity was 3,160, and the head count (HC) enrollment on October 1, 2020, was 4,170. This figure is down from enrollment of 4,431 on October 2019 – prior to the global pandemic. The District anticipates, post-pandemic, a return to the pre-2020 enrollment trends, with actual October 2021 enrollment showing the expected upward trend. Using this assumption, enrollment projections indicate that there will be 4,806 students enrolled in the District in the 2026-27 school year (see Section IV.A).

II. STANDARD OF SERVICE

The District uses the following ratios of teachers-to-students to meet their education objectives for program planning:

Elementary K-3	17
Elementary 4-6	27
Middle School (grades 7th - 8th)	27
High School (grades 9th - 12th)	27

These ratios are used for determining educational program capacity in existing schools and for the planning of new school facilities. Future updates to this CFP will include any changes resulting from implementation of reduced class size requirements.

At the elementary level, the educational program capacity can generally be determined by taking the number of elementary classrooms available District-wide for regular education program use and applying the teacher-to-student ratio (17 for K-3 and 27 for 4-6) for a total count of elementary student capacity. The educational program capacity takes into consideration full-day kindergarten and reduced K-3 class size requirement.

At the middle school level, different variables are considered in order to calculate the practical capacity of the facility. These factors include the following: students move between classes four periods per day, teachers use their classes one period per day as teacher preparation time, and six core subjects are required each semester, including math, language arts, reading, science/health, social studies, and physical education.

The facility capacity for the high school takes into consideration that both teachers and students move between classes and that the course structure for the high school students has many variables. Required course work must be completed prior to graduation, but there is a great deal of flexibility as to when classes may be taken. The base requirements are as follows:

Credits	**Subject**
0	Cumulating Project
4	English
3	Mathematics
3	Social Studies
3	Science
1	Occupational Education
2	Physical Education
1	Health
1	Fine Arts
1	Communications
1	Digitools
11	Electives
31	**Total**

Space needs in all school buildings, particularly at the middle and high school levels, include libraries, gymnasiums, areas for special programs and classes, teacher planning space, and other core facilities.

III. INVENTORY OF EXISTING FACILITIES

The District currently has permanent capacity for 3,160 students. Additional capacity is available in portable facilities that are designated for regular classroom use.

Instructional Facilities

Facility	Square Footage	Location	Total Classrooms[1]	Regular Classrooms[2]	Student Capacity[3]
Sedro-Woolley High School	187,612 sq. ft	1235 Third Street Sedro-Woolley, WA 98284	52(2)	43(2)	1,161(54)
Cascade Middle School	113,697 sq. ft.	201 North Township Sedro-Woolley, WA 98284	34	26	702
Central Elementary	44,100 sq. ft.	601 Talcott Sedro-Woolley, WA 98284	19(7)	13(7)	221(159)
Evergreen Elementary	58,110 sq. ft.	1111 McGarigile Road Sedro-Woolley, WA 98284	26(8)	17(6)	289(126)
Mary Purcell Elementary	40,450 sq. ft.	700 Bennett Sedro-Woolley, WA 98284	15(12)	12(12)	204(244)
Clear Lake Elementary	31,510 sq. ft.	2167 Lake Avenue Clear Lake, WA 98235	9(7)	7(7)	119(147)
Big Lake Elementary	20,780 sq. ft.	1676 Highway 9 Mount Vernon, WA 98273	8(8)	7(8)	119(168)
Samish Elementary	23,775 sq. ft.	2195 Highway 9 Sedro-Woolley, WA 98284	11	9	162
Lyman Elementary	19,219 sq. ft.	Lyman Avenue Lyman, WA 98263	8(2)	6(2)	102(42)
State Street High School	7,000 sq. ft.	800 State Street Sedro-Woolley, WA 98284	4(2)	3(2)	81(54)
TOTAL	**546,253 sq. ft**.				**3,160(994)**

[1] Portable facilities indicated in parenthesis.

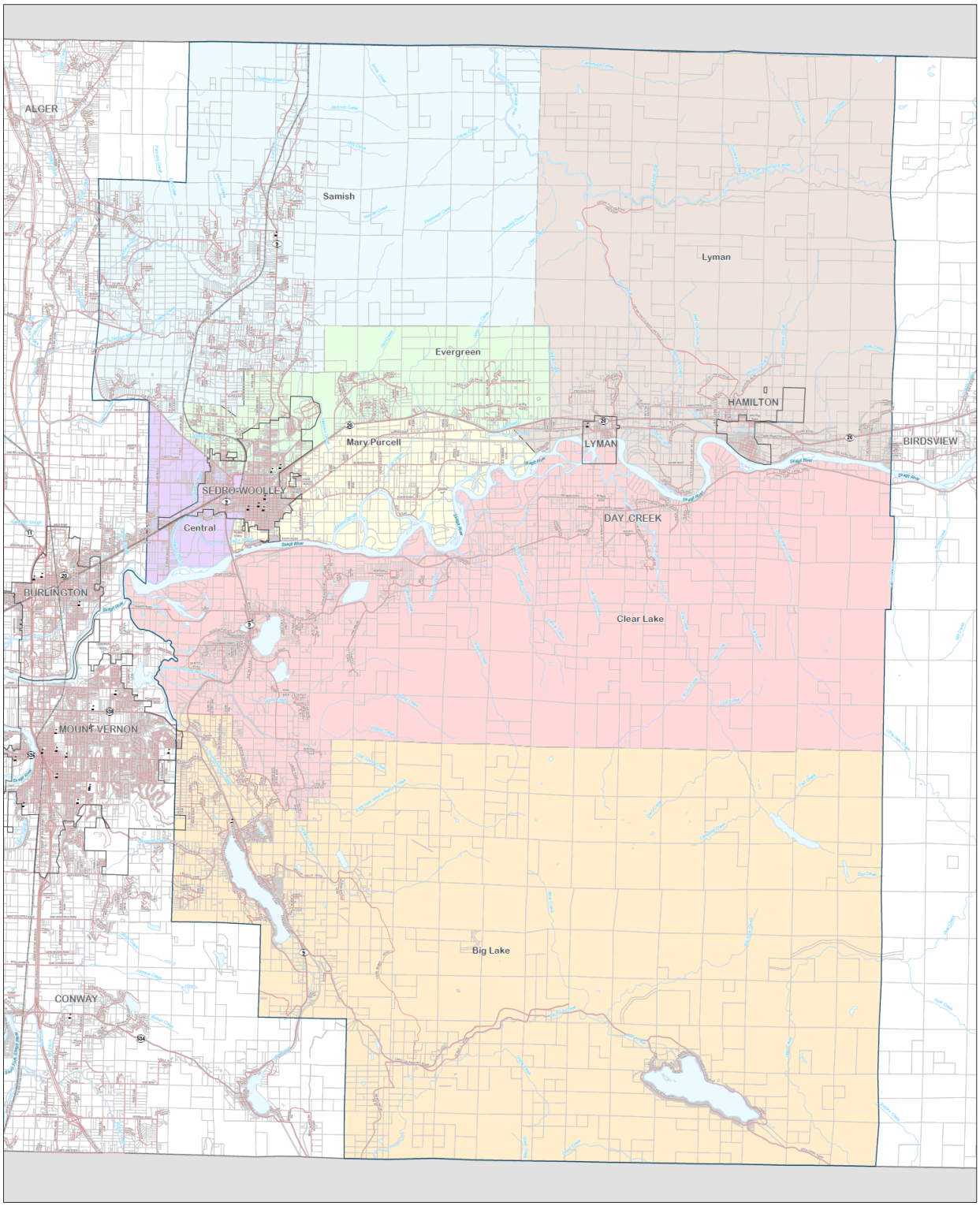
[2] Classrooms available for general education program and not including special education classrooms and special program spaces. Portable capacity included in parenthesis.

[3] Capacity calculations are based on District Standards as identified in Section II above. Portable capacity included in parenthesis.

Administrative Facilities

Sedro-Woolley School Administrative Office	801 Trail Road Sedro-Woolley, WA 98284
Sedro-Woolley School District Office	2079 Cook Road Sedro-Woolley, WA 98284
Support Services Building	317 Yellow Lane Sedro-Woolley, WA 98284

Map of the District



IV. CAPITAL FACILITIES NEEDS

A. Enrollment Projections

The need for new school facilities is directly related to population and other demographic trends such as birth rate, housing, and employment trends. These demographic trends are an important tool in predicting the educational service needs of this community, and the location, size, and capacity of new school facilities.

Demographic information gathered by Skagit County in the GMA planning process indicates that population in the County is expected to increase in the future by approximately 35,751 new residents across the County by 2036, including 4,555 new residents in the Sedro-Woolley urban growth area. *Source:* Skagit County Growth Management Act Steering Committee 2014 adopted population target (2016 Skagit County Comprehensive Plan). In 2017, Skagit County adopted the *Skagit Population, Employment, and Housing Growth Monitoring Program: 2017 Baseline Growth Monitoring Report* to establish a baseline for analyzing trends. The most recent published Growth Monitoring Report, from 2019, identifies that population growth rates are higher than forecasted since the 2017 baseline and the majority of new housing growth is trending towards multi-family residential development. The two-year change for the Sedro-Woolley urban growth area showed an increase of 766 residents, with a 3.1% annual growth rate, and a projected continuing upward growth trends through 2036. Additional school facilities will be needed to serve this increase in population.

The District's enrollment projections were prepared by an independent demographer (Teater-Crocker, Inc.). The demographer reviewed District-specific historical enrollment data, births and births forecasts, projected changes in the Skagit County population, and trends and forecasts of the county K-12 population within the District. Using this data, the demographer prepared four different forecasts of future enrollment. The District is using the "Cohort Survival Model (Linear K)" projection for purposes of projecting student enrollment through 2026. *See Appendix A.* The Cohort Survival Model (Linear K) projection identifies the linear trend for enrollment based on historical data (including historical kindergarten enrollments). The global pandemic occurred subsequent to the demographer's final report and District enrollment declined by 261 students between October 2019 and October 2020. The District anticipates much of this decline was a combination of deferred kindergarten enrollment and families opting for alternative learning during remote instruction. With the return to in-person learning, the District expects enrollment to stabilize and return to 2019-levels. As such, this update continues to use the 2019 Teater-Crocker projections. Actual October 2021 headcount enrollment is at 4,289 students across the District, supporting a gradual upward trend despite continuing effects of the pandemic. The District will continue to closely monitor actual enrollment and development within the District. Future updates to the Capital Facilities Plan will include updated enrollment data.

Summary - District Enrollment Projections: 2019-2027

Year	2019/2020[4]	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Increase 2019-2027
Projections	4,431/4,170	4,732	4,810	4,853	4,882	4,911	4,940	11.49%

The enrollment data in Appendix A projects that, over the next six years, the District's enrollment is expected to increase at a healthy rate at all grade levels over the six year planning period. Section B below identifies the forecast of future need as compared to existing school capacity.

[4] Actual October 1, 2019 and 2020 enrollment (Source: OSPI).

B. Forecast of Future Need and School Capacity Summary

Based upon the District's enrollment forecast, standard of service, current inventory and capacity, and future planned classroom spaces, the District's capacity summary over the six year planning horizon is as follows:

ELEMENTARY SCHOOL FACILITIES	Actual Oct. 2020	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Permanent Capacity	1,297	1,297	1,297	1,297	1,297	1,297	1,797
Portables*	940	940	940	940	940	940	940
Capacity Additions						500	
Enhanced Capacity (Perm + Portables)	2,237	2,237	2,237	2,237	2,237	2,737	2,737
Projected Enrollment	2,202	2,485	2,520	2,501	2,513	2,525	2,537
Permanent Capacity Surplus/(Deficit)	-905	-1188	-1223	-1204	-1216	-1228	-740
Enhanced Capacity Surplus/(Deficit)*	35	-248	-283	-264	-276	212	200

New Elementary School - 2025

MIDDLE SCHOOL FACILITIES	Actual Oct. 2020	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Permanent Capacity	702	702	702	702	702	702	702
Portables							
Capacity Additions							
Enhanced Capacity (Perm + Portables)	702	702	702	702	702	702	702
Projected Enrollment	689	765	739	755	780	805	830
Permanent Capacity Surplus/(Deficit)	13	-63	-37	-53	-78	-103	-128
Enhanced Capacity Surplus/(Deficit)	13	-63	-37	-53	-78	-103	-128

HIGH SCHOOL FACILITIES	Actual Oct. 2020	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Permanent Capacity	1,161	1,161	1,161	1,161	1,161	1,161	1,161
Portables	54	54	54	54	54	54	54
Capacity Additions							
Enhanced Capacity (Perm + Portables)	1,215	1,215	1,215	1,215	1,215	1,215	1,215
Projected Enrollment	1,279	1,482	1,551	1,597	1,589	1,581	1,573
Permanent Capacity Surplus/(Deficit)	-118	-321	-390	-436	-428	-420	-412
Enhanced Capacity Surplus/(Deficit)	-64	-267	-336	-382	-374	-366	-358

*Table does not include planned portable additions/relocations over the six year period.

C. Planned Improvements

The following is a brief outline of the District's plans to accommodate projected student enrollment through the 2026-27 school year based on the enrollment projections in Appendix A and the forecast of future need in the tables in Section IV(B) above. To the extent these improvements address *growth related* capacity needs, their costs can be partially financed with impact fees.

School Projects: Including School Replacements, Additions and Renovations

- Subject to available funding, add portables at various school facilities.
- Subject to voter approval of a capital bond, construct a new 500 student elementary school. The District will need to acquire approximately 20 acres of real property for the siting of the new elementary school.

V. FINANCING PLAN

The District's Board of Directors voted in October 2017 to send a $79.5 million bond proposal to the voters for consideration in February 2018 to replace and add capacity at Evergreen Elementary School and address issues at various school buildings. The February 2018 bond did not receive the required votes for approval by the District's voters. The District again asked the voters in November 2018 to approve a $44.5 million bond to address the needs at Evergreen Elementary School but that bond also failed to gain approval. Following a review of capacity needs, the District currently plans, subject to Board action, to request voter approval in 2024 of a bond proposal for construction of a new elementary school.

In general, the funding sources for the District's capital facilities needs include:

1. General obligation bonds;
2. GMA impact fees and mitigation payments; and
3. State funding assistance on eligible projects.

Improvements Adding Capacity to Serve New Growth (Costs in Millions)**

Project	2021	2022	2023	2024	2025	2026	Total Cost	Bonds/ Local Funds	Projected State Match	Impact Fees
Elementary										
New Elementary School^^				$25	$20	$10	$55M	X	X	X
Site Acquisition^				$10			$10M	X		X
Middle School										
N/A										
High School										
N/A										
District-wide										
Portables (various facilities – timing TBD)							$1M	X		X

^Estimated land costs
^^Estimated total project costs; impact fee formula uses construction costs only.

Other Improvements (Costs in Millions)

Project	2021	2022	2023	2024	2025	2026	Total Cost	Bonds/ Levies	Projected State Match	Impact Fees
Elementary										
N/A										
Middle										
N/A										
High School										
N/A										
District-wide										
N/A										

VI. IMPACT FEES

New developments built within the District will generate additional students, who will create the need for new school facilities. The District, with the help of a consultant, developed student generation rates for single family and multi-family dwelling units. The student generation rates measure the number of students, on average, residing in recently constructed housing units within the District. *See Appendix B.* The consultant provided student generation rates for the school years 2019-20 and 2020-21 to evaluate the impacts, if any, of the pandemic on student enrollment trends. Because the different years did not yield significantly different results, the District is using the most current data for purposes of this Capital Facilities Plan update.

The impact fee formula takes into account the cost of the capital improvements identified in this Capital Facilities Plan that are necessary as a result of new growth. It calculates the fiscal impact of each single-family or multi-family development in the District based on the District's student generation rates. The formula also takes into account the taxes that will be paid by these developments and the funds that could be provided at the local and state levels for the capital improvements. *See Appendix C.*

School impact fees are authorized by the GMA, but must be adopted by the Skagit County Board of Commissioners for the District in order to apply to that portion of the District located in unincorporated Skagit County. The fees must be separately adopted by the Sedro-Woolley City Council, the Mount Vernon City Council, the Hamilton Town Council, and the Lyman Town Council in order to apply to developments located with those jurisdictions.

The District's impact fee formula includes the construction costs of the planned new elementary school project.

2021 SCHOOL IMPACT FEE SCHEDULE

Impact Fee per Single Family Dwelling Unit:	$ 4,461
Impact Fee per Multi-Family Dwelling Unit:	$ 2,888

APPENDIX A
ENROLLMENT DATA

SEDRO-WOOLLEY SCHOOL DISTRICT
SUMMARY OF GRADE LEVEL SPAN MODELS – 10 YEARS

Elementary	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25-26	26-27	27-28	28-29
History										
% Change	2,532	2,594	2,658	2,724	2,791	2,860	2,928	2,997	3,066	3,135
Regression	2,547	2,606	2,666	2,725	2,785	2,844	2,904	2,963	3,023	3,082
Cohort (Linear K)	2,483	2,491	2,485	2,520	2,501	2,513	2,525	2,537	2,549	2,561
Cohort (Natality K)	2,473	2,471	2,471	2,489	2,448	2,433	2,418	2,403	2,387	2,372
Student per Housing Unit	2,493	2,515	2,537	2,558	2,580	2,602	2,624	2,646	2,668	2,690
Lower Estimate	2,322	2,353	2,377	2,410	2,413	2,425	2,438	2,451	2,464	2,477
Best Estimate	2,449	2,482	2,513	2,554	2,576	2,609	2,641	2,674	2,706	2,738
Higher Estimate	2,577	2,612	2,649	2,698	2,740	2,792	2,844	2,896	2,948	3,000

Middle										
History										
% Change	723	739	755	771	788	805	821	838	855	872
Regression	678	691	703	716	729	741	754	767	779	792
Cohort (Linear K)	730	746	765	739	755	780	805	830	855	880
Cohort (Natality K)	730	746	765	739	755	780	805	830	855	880
Student per Housing Unit	712	719	725	732	738	744	751	757	764	770
Lower Estimate	643	653	664	655	665	679	693	707	722	736
Best Estimate	772	788	805	807	823	843	862	881	900	920
Higher Estimate	901	923	946	959	982	1,006	1,030	1,055	1,079	1,104

High										
History										
% Change	1,306	1,283	1,260	1,237	1,214	1,193	1,171	1,149	1,127	1,105
Regression	1,221	1,188	1,155	1,122	1,090	1,057	1,024	991	958	925
Cohort (Linear K)	1,318	1,395	1,482	1,551	1,597	1,589	1,581	1,573	1,565	1,557
Cohort (Natality K)	1,318	1,395	1,482	1,551	1,597	1,589	1,581	1,573	1,565	1,557
Student per Housing Unit	1,291	1,307	1,323	1,339	1,354	1,370	1,386	1,402	1,418	1,434
Lower Estimate	1,236	1,207	1,172	1,138	1,107	1,079	1,052	1,025	998	971
Best Estimate	1,279	1,292	1,309	1,319	1,322	1,307	1,291	1,276	1,261	1,246
Higher Estimate	1,321	1,378	1,445	1,499	1,537	1,534	1,530	1,527	1,524	1,521

Source: Teater-Crocker, 2019

APPENDIX B
STUDENT GENERATION RATES

BERK

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MEMORANDUM

DATE: May 30, 2021

TO: Brett Greenwood, Executive Director of Operations, Sedro-Woolley School District

FROM: Kevin Gifford, Senior Associate, BERK Consulting

RE: Sedro-Woolley School Distinct Findings for Student Generation Rates

Introduction

This memorandum contains findings for the Sedro-Woolley School District's 2021 student generation rates (SGR). Student generation rates provide an estimate of the number of students associated with a given level of residential growth. BERK was contracted to provide analysis of student enrollment and district housing data to determine SGR's for the past two school years, 2019-2020 and 2020-2021.

Analysis Methodology

To calculate the SGR's, BERK used current student address data provided by the District[1] and current land use and property records available from the Skagit County Assessor. BERK geocoded student addresses using GIS software and matched address points to County property records; each matched address was classified as single-family or multifamily, based on County property records. For purposes of this analysis, housing types were classified as follows:

- Single Family:
  - Detached single-family houses,
  - Attached townhomes;
  - Agricultural properties with an associated residence; and
  - Mobile homes.
- Multifamily:
  - Duplexes, triplexes, and four-plexes;
  - Apartments; and
  - Condominiums.

In general, SGR's are calculated by dividing the number of students enrolled and living within the District by the number of housing units located in the District. Typically, only housing units constructed recently (within the last 5-10 years) are included in order to more closely reflect recent development trends in the area. For purposes of this analysis, SGR by grade level was calculated based on:

[1] Some provided student addresses either could not be accurately geolocated or corresponded to parcels with no verifiable residential uses present. Addresses corresponding to temporary lodgings (hotels, motels, etc.) were also excluded, as were properties where the year of building construction could not be verified.

1. Housing units inside the District boundaries and constructed within the last 5 years (2015-2020 for the 2019-2020 school year and 2016-2021 for the 2020-2021 school year); and
2. The number of enrolled students currently living at those addresses.

Housing units constructed and associated student population are presented in Exhibit 1.

Exhibit 1. District Housing Units and Student Population

Housing Units and Student Population	2015-2020	2016-2021
Housing Units Constructed		
Single Family	470	376
Multifamily	44	44
Total	**514**	**420**
Students Living in Units Constructed		
Single Family	174	127
Multifamily	8	9
Total	**182**	**136**

Sources: Sedro-Woolley School District, 2021; Skagit County Assessor, 2021.

Findings for Student Generation Rates

Exhibit 2 and Exhibit 3 show the results of the SGR analysis by grade band and grade level for both the 2019-2020 and 2020-2021 school years. Empty cells indicate grade levels where no students enrolled for the associated school year lived in housing units constructed within the previous 5-year period. This is more common for multifamily units due to the relatively small amount of multifamily housing constructed in the district since 2015.

By expanding the date range beyond the previous five years, it is possible to capture a larger number of students and housing units, thereby achieving greater coverage for multifamily units. However, as more older housing units are included, the results are less representative of current development trends.

Exhibit 2. Sedro-Woolley School District Student Generation Rates by Grade Band

Sedro-Woolley School District Student Generation Rates by Grade Level				
	2019-2020 School Year		2020-2021 School Year	
Grade	**Single Family**	**Multifamily**	**Single Family**	**Multifamily**
K-6	0.215	0.114	0.215	0.136
7-8	0.066	0.023	0.053	0.023
9-12	0.089	0.045	0.069	0.045
Total (All Grades)	**0.370**	**0.182**	**0.338**	**0.205**

Exhibit 3. Sedro-Woolley School District Student Generation Rates by Grade Level

Sedro-Woolley School District Student Generation Rates by Grade Level				
	2019-2020 School Year		2020-2021 School Year	
Grade	Single Family	Multifamily	Single Family	Multifamily
P1	0.002	-	-	-
P2	0.002	-	0.003	-
P3	0.004	-	0.003	-
P4	0.004	-	-	-
Kindergarten	0.004	-	0.024	-
Grade 1	0.043	0.023	0.037	0.023
Grade 2	0.023	-	0.021	-
Grade 3	0.034	0.045	0.035	0.068
Grade 4	0.036	0.023	0.029	0.023
Grade 5	0.030	0.023	0.027	0.023
Grade 6	0.032	-	0.037	-
Grade 7	0.045	-	0.040	-
Grade 8	0.021	0.023	0.013	0.023
Grade 9	0.026	-	0.024	-
Grade 10	0.026	0.023	0.016	0.023
Grade 11	0.019	0.023	0.016	0.023
Grade 12	0.019	-	0.013	-
Total (All Grades)	**0.370**	**0.182**	**0.338**	**0.205**

Note: Empty cells (-) reflect grade levels that did not have any enrolled students living in housing units constructed during the study period for that school year.
Sources: Sedro-Woolley School District, 2021; Skagit County Assessor, 2021.

APPENDIX C
SCHOOL IMPACT FEE CALCULATIONS

Sedro-Woolley School District

2021

School Site Acquisition Cost:

((AcresxCost per Acre)/Facility Capacity)xStudent Factor

	Facility Acreage	Cost/ Acre	Facility Capacity	Student Factor SFR	Student Factor MFR	Cost/ SFR	Cost/ MFR
Elementary	0.00	$ -	500	0.215	0.136	$0	$0
Junior	0.00	$ -	735	0.053	0.023	$0	$0
High	0.00	$0	1,400	0.069	0.045	$0	$0
						$0	$0

School Construction Cost:

((Facility Cost/Facility Capacity)xStudent Factor)x(Permanent/Total Sq Ft)

	%Perm/ Total Sq.Ft.	Facility Cost	Facility Capacity	Student Factor SFR	Student Factor MFR	Cost/ SFR	Cost/ MFR
Elementary	92.70%	$ 42,000,000	500	0.215	0.136	$16,742	$10,590
Junior	92.70%	$ -	735	0.053	0.023	$0	$0
High	92.70%	$ -	168	0.069	0.045	$0	$0
						$16,742	$10,590

Temporary Facility Cost:

((Facility Cost/Facility Capacity)xStudent Factor)x(Temporary/Total Square Feet)

	%Temp/ Total Sq.Ft.	Facility Cost	Facility Size	Student Factor SFR	Student Factor MFR	Cost/ SFR	Cost/ MFR
Elementary	7.30%		21	0.215	0.136	$0	$0
Junior	7.30%	$ -	25	0.053	0.023	$0	$0
High	7.30%	$ -	25	0.069	0.045	$0	$0
					TOTAL	$0	$0

State Funding Assistance Credit:

CCA x OSPI Square Footage x Funding Assistance % x Student Factor

	Current CCA	OSPI Square Footage	District Funding %	Student Factor SFR	Student Factor MFR	Cost/ SFR	Cost/ MFR
Elementary	$ 238.22	90	63.98%	0.215	0.136	$2,949	$1,866
Junior	$ 238.22	117	0.00%	0.053	0.023	$0	$0
High	$ 238.22	130	0.00%	0.069	0.045	$0	$0
					TOTAL	$2,949	$1,866

Tax Payment Credit:	SFR	MFR
Average Assessed Value	$353,208	$160,067
Capital Bond Interest Rate	2.44%	2.44%
Net Present Value of Average Dwelling	$3,100,905	$1,405,270
Years Amortized	10	10
Property Tax Levy Rate	$0.3374	$0.3374
Present Value of Revenue Stream	$1,046	$474

Fee Summary:	Single Family	Multi-Family
Site Acquisition Costs	$0	$0
Permanent Facility Cost	$16,742	$10,590
Temporary Facility Cost	$0	$0
State Funding Credit	($2,949)	($1,866)
Tax Payment Credit	($1,046)	($474)
FEE (AS CALCULATED)	$12,746	$8,250
FEE (Adjusted 65%)	**$4,461**	**$2,888**