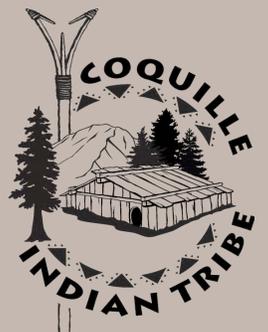


# EMPIRE COMPREHENSIVE PLAN

## Coquille Indian Tribe



FINAL  
JULY 2018



*This project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development (DLCD). This TGM grant is financed, in part, by deferral Fixing America's Surface Transportation Act (FAST Act), local government and the State of Oregon Funds. The contents of this document do not necessarily reflect views or policies of the State of Oregon.*

# ACKNOWLEDGEMENTS

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# TABLE OF CONTENTS

|  |    |
|--|----|
| INTRODUCTION.....                                  | 1  |
| Process  |    |
| Vision and Mission                                 |    |
| EXISTING AND PLANNED CONDITIONS.....               | 4  |
| Land Use   |    |
| Natural and Cultural Resources                     |    |
| Public Facilities and Services                     |    |
| Transportation                                     |    |
| LAND USE PLAN.....                                 | 12 |
| Land Use Designations                              |    |
| Utility Improvements                               |    |
| Public Facility Needs                              |    |
| Rough Order of Magnitude Concept Cost Estimates    |    |
| Development Feasibility                            |    |
| TRANSPORTATION PLAN.....                           | 21 |
| Roadways   |    |
| Public Transit                                     |    |
| IMPLEMENTATION AND FUNDING STRATEGIES.....         | 34 |
| Local, State, Land Use and Environmental Approvals |    |
| Description of Applied Zoning                      |    |
| Funding Strategy                                   |    |
| Phasing Criteria and Concepts                      |    |
| NEXT STEPS.....                                    | 53 |
| APPENDICES.....                                    | 58 |

# EXECUTIVE SUMMARY

Completing a Comprehensive Plan for the Coquille Indian Tribe’s (CIT) Empire property is listed as one of the Tribe’s priorities in the 2006-2010 CIT Strategic Plan. The Empire Comprehensive Plan designates land use zones that meet the needs of the Tribe and develops a transportation network that connects land uses to access roads outside of the properties and is supportive of people traveling on foot, by bicycle and on transit.

The CIT Empire property encompasses approximately 1,100 acres in Coos County, OR. In this Empire Plan, the North and South parcels are divided into six areas for planning purposes. As shown on page ii, the North Parcel is comprised of areas A and B where there is significant opportunity for development. The South Parcel includes areas C, D, E and F.

Area C is the Kilkich Community, which is mostly built out, though there are some opportunities to add dwelling units. Area D encompasses the Tarheel Lake Natural Area (TLNA). No development is planned for lands within the TLNA designation. Area D separates Area E into two sections, E-West and E-East. Both areas include land suitable for development. Steep slopes and the Tribe Cemetery limited the development potential of Area F. However, the northwest corner is adjacent to an existing residential community and is considered developable land.

A total of 282 acres of the Empire Parcels are identified as developable lands after removing environmental constraints. Proposed zone designations for the Empire Parcels are described in the table below and illustrated on page iii. A total of 179

**Table i. CIT Empire Parcels: Developable Acres**

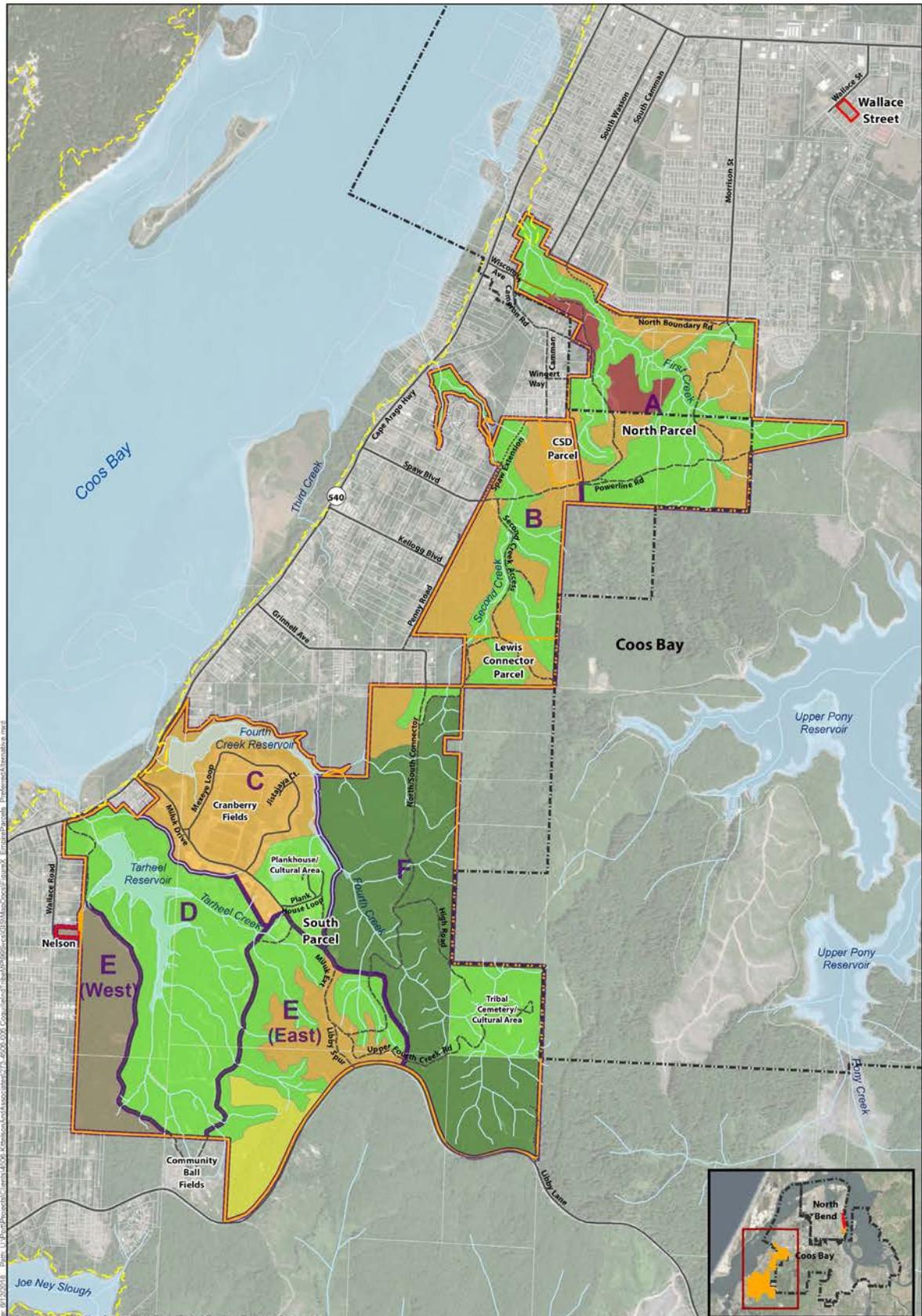
| Developable Acres       | A  | B  | C | D | E (East) | E (West) | F  | Total |
|-------------------------|----|----|---|---|----------|----------|----|-------|
| Employment              | 18 |    |   |   |          |          |    | 18    |
| Residential Multifamily | 59 | 72 |   |   | 35       |          | 13 | 178   |
| Rural Residential       |    |    |   |   | 30       |          |    | 30    |
| Agriculture             |    |    |   |   |          | 56       |    | 56    |
| Total                   | 77 | 72 |   |   | 65       | 56       | 13 | 282   |

buildable acres in portions of Area A, Area B, portions of Area E-East and Area F are zoned Residential Multifamily, which permits residential uses ranging from single family detached to apartments and condominiums. Area E-East also includes 30 developable acres with a new Residential Rural zone. Approximately 18 acres of land are dedicated to employment uses along on the eastern portion of Area A, south of First Creek, and another 56 acres in Area E-West are designated for Agriculture.

Access to development in the Empire North Parcel will be provided via Morrison Street and North Boundary Road. Additional areas for housing are located in the North Parcel east of Penny Road with anticipated access provided via extensions of Spaw Lane and Kellogg Lane. Residential development in the Empire South Parcel will be accessed primarily by Libby Spur via Libby Lane. Improving the Libby Spur to provide a connection from Libby Lane to Miluk Extension will create an opportunity for residential access and evacuation routing from the existing Killich residential area.



Figure i. CIT Empire Zone Designations



**Parametrix**  
 Data Source: Coquille Indian Tribe, US Bureau of Indian Affairs, Coos County, USGS (NHD)

**City Limit**  
 Parcel

**Tribal Land**  
 Fee  
 Trust

**Preferred Alternative**  
 Agriculture  
 Forest  
 Open Space  
 Residential Rural  
 Residential Multifamily  
 Employment Zone

**Planning Subareas:**  
 A. Wisconsin - First Creek  
 B. Kellogg - Second Creek  
 C. Killich - Lower Fourth Creek  
 D. Tarheel - Libby Lane  
 E. Upper Fourth Creek

**Roadway**  
 Paved  
 Dirt  
 Rock  
 Trail

**Stream**  
 Water Body  
 Distant Tsunami Evacuation Zone

**Empire Comprehensive Plan Land Use Designations**  
 Empire Parcels  
 Coquille Indian Tribe of Oregon



# INTRODUCTION

In the 2006-2010 Coquille Indian Tribe (CIT) Strategic Plan, the Tribal Council made it a priority to complete a Comprehensive Plan for the Tribe's Empire properties, an area of approximately 1,100 acres located in Coos County, OR. Currently, CIT does not have a detailed inventory of land resources or land use designations on the Empire properties. The Empire Comprehensive Plan (Empire Plan) includes a land use inventory used to identify opportunities and constraints related to housing, public access, public safety, multimodal transportation and circulation, and environmental resource protection. The Empire Plan designates land use zones that meet the needs of the Tribe and develops a transportation network that connects land uses to access roads outside of the properties and is supportive of people traveling on foot, by bicycle and on transit.

The Empire site consists of two parcels of CIT lands in the Coos Bay Area. Both parcels lie south of the City of Coos Bay between and east of Cape Arago Highway. The North Parcel encompasses much of First and Second Creeks running approximately from Marshall Avenue to the north to Grinnell Lane to the south. The South Parcel includes the Fourth Creek and Tarheel Reservoirs and the CIT Kilkich community and spans approximately from Grinnell Lane to the north to Libby Lane to

the south. This study also includes some mention of CIT-owned properties in North Bend along US 101 for the purpose of transportation interconnections.

## PROCESS

A variety of strategies were used to engage CIT members as well as service providers and adjacent communities. A Comprehensive Plan Work Team (CPWT) met four times over the course of the project to provide technical guidance and input throughout the planning process. The CPWT was comprised of state and local government and CIT representatives.

In the spring and summer of 2017, the Tribe and consultant team conducted a series of interviews with nine CIT stakeholder groups about community goals, values and options for Tribal properties. Stakeholder groups included:

- Strategic Planning Team
- Natural Resources Committee
- CEDCO
- CIT Health Advisory Board
- Kilkich Residents Association
- Elders Committee
- Coquille Indian Housing Authority Board
- Cultural Committee
- Tribal Council

In addition, a community questionnaire was distributed to all Tribal members to gather additional input on community goals, values and options for growth on the Empire Reservation. The survey was made available online and in hard copy. In addition, surveys were distributed at the Restoration Celebration in June 2017.

Interviews also were conducted with representatives from six local agencies to identify opportunities and challenges to future development. The agencies included the City of Coos Bay, City of North Bend, Charleston Sanitary District, Coos Bay-North Bend Water Board, Coos County and Coos County Area Transit.

Two public meetings for CIT members were held at key points in the process. The first public meeting was held on January 13, 2018 at the Mill Casino Hotel and RV Park in conjunction with the CIT Mid-Winter Gathering. Exhibits were available for viewing at the Information Fair and Open

House prior to the meeting. Meeting participants listened to a presentation and then discussed the proposed land use alternatives, priority roadways for future improvements and preferred designs for existing and future roads.

The second public meeting was held on Tuesday, April 10th at the Plankouse. Meeting participants listened to a presentation and discussed the preferred land use and transportation alternative as well as funding and phasing strategies to implement the preferred alternative.

Throughout the process, recommendations from the CPWT and public meetings were presented to the Tribal Council to consider. The Tribal Council met five times throughout the course of the project to provide guidance, review and comment on draft products and ultimately to approve the Comprehensive Plan.



# CIT VISION AND MISSION

The Coquille Indian Tribe 2014-2017 Strategic Plan served as a guiding document for the Empire Plan, including the Tribal Vision and Mission:

## VISION

The Coquille Tribe is a sovereign Nation whose binding thread is the Coquille people; where Tribal sovereignty, culture, social and economic welfare and common resources are protected and advanced.

## MISSION

Provide dynamic programs and services through sustainable economic development that promote and support Tribal members' equal access and opportunity for achieving their full potential.

In addition, the following criteria were used to develop and evaluate land use alternatives:

- **COST:** Costs are minimized without compromising quality, and reflect fiscal responsibility by accounting for the extension and upgrade of infrastructure.
- **LIKELIHOOD OF BEING FUNDED:** Viable funding sources are available and development is well supported by policy and planning to increase the likelihood of funding.
- **SAFETY:** Land use encourages community-oriented public safety services for CIT members by providing access for emergency vehicles, responding to elements of the Federal Emergency Management Agency or FEMA-approved Hazard Mitigation Plan and protecting property and cultural sites through design that encourages intergenerational learning. CIT cultural and natural resources are safe for members to access and use.
- **LAND USE:** Uses focus on meeting the needs of Tribal members, and upholding CIT values and promoting economic development that is sensitive to the natural and cultural significance of the site.
- **ENVIRONMENTAL EFFECTS:** Proposed land uses and zoning protect watersheds, nearby estuaries, wildlife habitats and the cultural significance of the CIT properties.
- **TRANSPORTATION IMPACTS:** Development avoids congestion and traffic impacts by addressing deficiencies and meeting state performance targets such as volume-to-capacity (V/C) and level of service (LOS) transportation impacts.
- **BICYCLE AND PEDESTRIAN CONNECTIVITY:** Land use promotes transportation options by enhancing bicycle and pedestrian connectivity for improved mobility and accessibility.

# EXISTING AND PLANNED CONDITIONS

## LAND USE

The Empire parcels are held by the Tribe in trust. All CIT lands on the Coos Bay Peninsula are illustrated in Figure 1. The CIT acquired the Empire Parcels in 1993. At the time, the acquisition consisted of two large non-contiguous but closely adjacent parcels: Empire North Parcel and South Parcel. The land was purchased in fee from a private timber company. The Tribe later took all of the property in trust, including two parcels in Empire that were most recently brought into trust – “CSD” on the north end and “Lewis Connector” on the south end. CIT lands held in trust are not zoned under Coos Bay, North Bend or Coos County land use regulations

The Empire properties are on the west side of the Coos Bay Peninsula. Most of the Empire property is within unincorporated Coos County, except for the area around First Creek and Wisconsin Avenue at the north end of the North Parcel that is within the City of Coos Bay. This Empire parcel currently totals approximately 1,076 acres.

The Kilkich Community on the South Parcel has 93 dwelling units, housing 227 people. Approximately 82 percent are members of the Coquille Indian Tribe. Of the 93 dwelling units, 71 are single family and 22 are multifamily. More than half the units

(53 percent) are rental housing. The Kilkich Community also is home to several Tribal service and office buildings situated along Miluk Drive, Mexeye Loop and around a commercial cranberry growing operation at the loop’s center (Figure 2).

To the southeast along Miluk Drive are public works buildings and outdoor materials/equipment storage. A community/cultural area is located nearby along Plankhouse Loop Road, featuring a large ceremonial plankhouse and canoe carving facility. The Tribal cemetery and columbarium lie further east on the property. The balance of the Empire parcels is forested.



Figure 1. Empire Comprehensive Plan

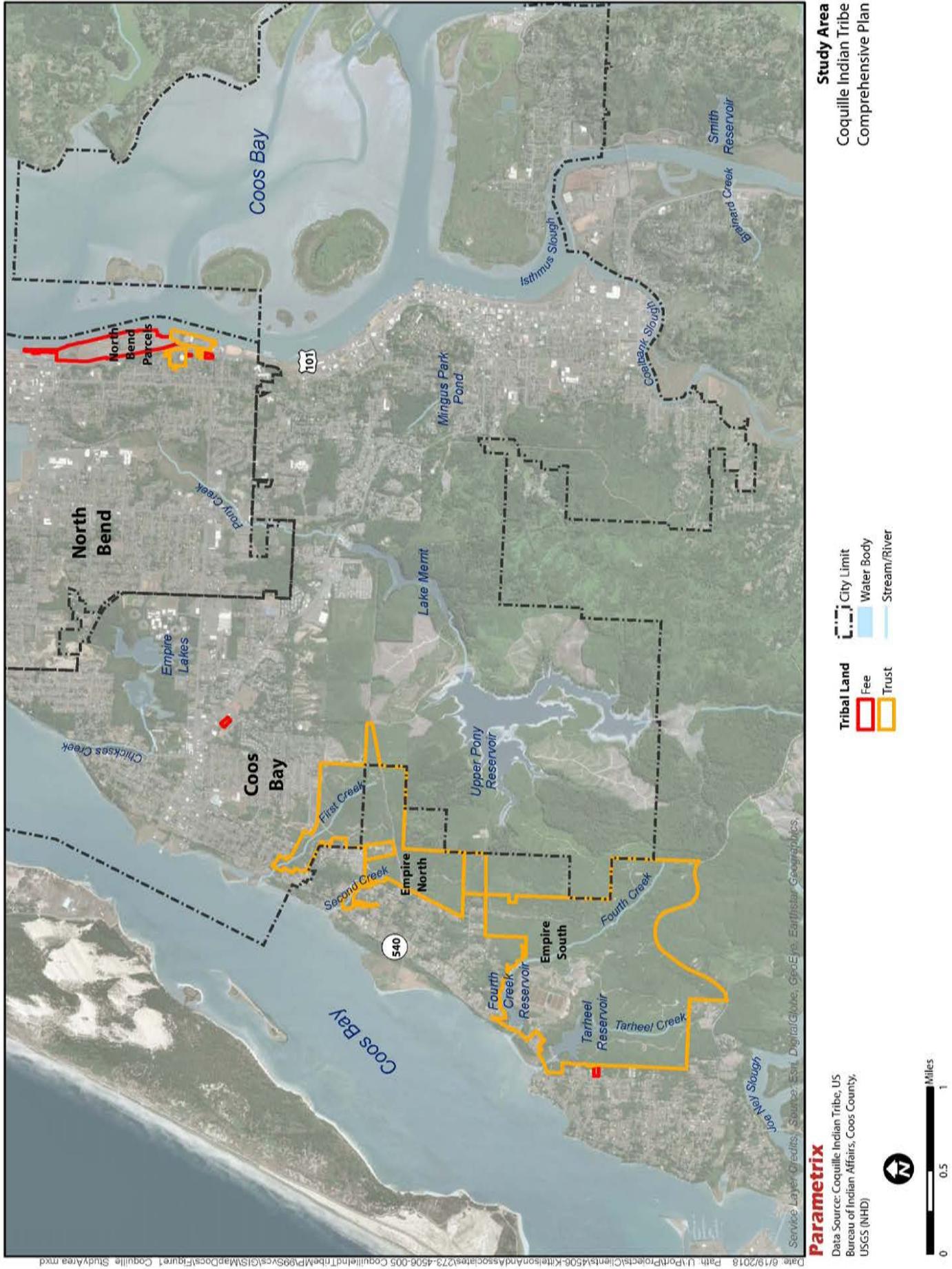


Figure 2. Kilkich Community



Date: 8/13/2017 Path: C:\M\Documents\Coquille\MapDocs\Figures\KilkichArea\_11x17.mxd

**Parametrix**  
 Data Source: Coquille Indian Tribe, US  
 Bureau of Indian Affairs, Coos County,  
 USGS (NHD)

- |             |                       |                 |                           |
|-------------|-----------------------|-----------------|---------------------------|
| Parcel      | BIA or Connector Road | Water Main Line | Riparian Corridor         |
| Tribal Land | Paved                 | Stream          | Tarheel Lake Natural Area |
| Trust       | Rock                  | Water Body      |                           |



Kilkich Area

Coquille Tribe of Oregon

## NATURAL AND CULTURAL RESOURCES

The CIT has produced a Hazard Mitigation Plan (2006) and an Empire Property Plan Environmental Assessment (1999) which include information on some natural or cultural resources. As most of the Empire Parcels were logged in advance of the transfer of this land to the Tribe in 1993, various land features, habitats, and species ranges have been significantly altered or lost. Prior development and resource extraction activities on both the Empire and North Bend Parcels have likely altered or eliminated what cultural or archeological resources may have once been present. Therefore, historic, cultural, and archeological resources were not formally inventoried as part of the Comprehensive Plan process. See Appendix A for a complete assessment of natural and cultural resources.

The Empire parcel topography and geology are illustrated in Figure 3. There are four primary streams draining Empire west into Coos Bay: First Creek, Second Creek, Fourth Creek and Tarheel Creek.

Third Creek has a very short reach that ends at the west boundary of the Empire Reservation near Grinnell Lane.

Slopes of 25% or greater are highlighted. No documentation was found that indicated recent or historic landslides in the Empire Area. DOGAMI records did however indicate a geologic fault line near Fourth Creek. Tribal members indicate that other creeks that drain into the Empire Parcels also run along fault lines.

Two tsunami zones are demarcated in the Empire area:

- Distant Tsunami: This line closely follows the immediate Coos Bay shoreline and generally applies to tsunamis generated by earthquakes far distant from the Oregon coastal marine waters.
- Local Tsunami: This evacuation line for a local event falls further upland than for the distant event, and would include something like a Cascadian Subduction earthquake, as well as lower magnitude earthquakes in Oregon marine waters. The lower (western) half of Kilkich Community falls within this local zone.





## PUBLIC FACILITIES AND SERVICES

Existing development within the Empire North and South Parcels that requires community-scale drinking water and sanitary sewer infrastructure is limited to the Kilkich Community and neighboring Tribal offices and facilities. Expanded development within Empire may require water supply, sanitary sewer, and other infrastructure upgrades and/or extensions. See Appendix A for a complete assessment of public facilities and services.

There is a tribal police station located in Kilkich Community and a judicial court at the administrative offices in North Bend. Fire protection/emergency medical service are provided by a non-tribal entity. There is a Tribal Health Center in Kilkich. More activity and more neighborhoods and streets within Empire may dictate an increase in policing, and an increasing resident population of tribal members may place more demands on health services.

School- residents of the Kilkich Community attend Coos Bay area schools. There

is a library, community center and general education and cultural facilities within the Kilkich Community. Tribal members have expressed a desire for new, consolidated, and/or expanded facilities accommodating these services. The southeast end of Area C includes a community Plankhouse and a canoe shed, which includes some tribal cultural offices, surrounded by a 26-acre community park. The Tribal cemetery and columbarium lie further east on the property.

## TRANSPORTATION

### Vehicular Facilities

The Empire Comprehensive Plan area is served by a roadway network with various roadway classifications per the Oregon Department of Transportation (ODOT) 2016 classifications maps and the cities of Coos Bay and North Bend's Transportation System Plan (TSP). The CIT's land holdings are primarily accessed from two major roadways – US 101 for the North Bend Parcels and Cape Arago Highway for the Empire Parcels.



Several west-to-east residential roadways provide access from the Cape Arago Highway to the edge of the CIT's Empire Parcels. These are Wisconsin Avenue, Dolezal Lane, Spaw Lane, Kellogg Lane, Grinnell Lane, and Tarheel Boulevard/Lane. Wallace Road runs along the eastern edge of Empire South.

Miluk Drive is the direct point of access from Cape Arago Highway to the CIT's Kilkich Community. Mexeye Loop provides internal circulation through residential areas, and Plank House Loop provides vehicular circulation through the nearby community park area.

### **Pedestrian Facilities**

The pedestrian system along Cape Arago Highway does not provide sidewalk facilities on either side of the corridor. Sidewalks are identified as a planned part of the City of Coos Bay Master Plan. Cape Arago Highway has a multi-use path along the east side of the corridor. However, the quality and consistency of the multi-use path is extremely poor.

Miluk Drive has sidewalks on both sides of the road east of Mexeye Loop and on the north side only west of Mexeye Loop; though it stops approximately 500 feet short of Cape Arago Highway. Mexeye Loop has sidewalks on one side of the road. Libby Lane has no sidewalks. All other roads within the Empire parcels are unimproved and do not currently have sidewalk facilities. There is a pedestrian crossing conflict point on Mexeye Loop at the CIT Community Center, also referred to as the "triangle area."

Future needs include upgrade of the multi-use path along Cape Arago Highway,

extension of the sidewalk on Miluk Drive to Cape Arago Highway, pedestrian facilities along all on-site roadways as they are improved, and a mixed-use path or protected shoulder along Libby Lane to connect the baseball field area to Wallace Road or Wilshire Lane.

### **Bicycle Facilities**

On-street bicycle lanes are not provided along Cape Arago Highway along the Empire Parcels. Sidewalks and bicycle lanes are present along Cape Arago Highway extending to the Coos Bay city limit boundary. A multi-use path is provided along the east side of Cape Arago Highway but the quality and consistency of the path is poor.

Neither Miluk Drive nor Mexeye Loop have bicycle facilities. The existing roadway traffic volumes and speeds are conducive to bicycles sharing the roadway with vehicles. Libby Lane has no shoulders for bicycles. All other roads within the Empire parcels are unimproved and do not currently have bicycle facilities.

Future needs include upgrade of the multi-use path along Cape Arago Highway, possible "sharrows" or protected area for bicycles on Miluk Drive to Cape Arago Highway, bicycle facilities as deemed appropriate along all on-site roadways as they are improved, and a mixed-use path or shoulders along Libby Lane to connect the baseball field area to Wallace Road or Wilshire Lane.

### **Public Transit Services**

Public transportation service in the vicinity of the Coquille Indian Tribe Empire Parcel is provided by Coos County Area Transit

(CCAT). CCAT is a governmental entity providing a combination service of fixed loop, intercity, dial-a-ride and paratransit. Demand response service is made possible through partnerships with city, county, state agencies, area employers, and transit users.

CCAT was recently awarded a grant applied for in partnership with the CIT. The grant will allow the CCAT to minimize travel times of the loops described below by reducing headways from approximately 90 minutes to 55 minutes in addition to expanding the operating hours of service.

CCAT's fixed loop service is designed for general public use but is also accessible by seniors and people with disabilities. CCAT operates two loop services throughout Coos Bay and North Bend – the East and West Loops. Both loops operate from approximately 7:30 AM to 5:30 PM, Monday through Friday. The East Loop runs along the eastern side of Coos Bay, providing service to the neighboring unincorporated communities of Bunker Hill and Eastside. The West Loop runs from Newmark Avenue to the north, to the

unincorporated community of Charleston to the south, providing service along Cape Arago Highway. Several of the stops along the West Loop are located adjacent to the Empire parcels and one is located at the Killkich Community Center.

The CCAT Intercity Connector offers buses that connect communities across the county. The intercity buses connect with regional transit partners such as the Pacific Crest Bus Lines and the Coastal Express for travel along the coast, as well as Greyhound and Amtrak.

CCAT also provides Dial-a-ride transportation services (curb to curb) for residents aged 62 and older and for those with a disability that prevents them from using the CCAT's fixed route service. The Dial-a-ride serves Coos Bay-North Bend, Myrtle Point, Coquille, and Bandon. Paratransit services are offered to residents with disabilities who reside within  $\frac{3}{4}$  of a mile from the existing fixed route in the Coos Bay/North Bend area.



# LAND USE PLAN

## LAND USE DESIGNATIONS

For the Empire Plan, the North and South parcels are divided into six areas based on topography, watersheds and associated wetlands or floodplains, and physical access points and routes. All areas are illustrated in Figure 4 and for the purposes of narrative identification and readability are numbered and named as follows:

- A. Wisconsin-First Creek
- B. Kellogg-Second Creek
- C. Kilkich-Lower Fourth Creek
- D. Tarheel Lake Natural Area
- E. Tarheel-Libby Lane
- F. Upper Fourth Creek

The North Parcel is comprised of areas A and B where there is significant opportunity for development. The South Parcel includes areas C, D, E and F. Area C is the Kilkich Community, which is mostly built out, though there is some opportunity to add dwelling units. Area D encompasses the Tarheel Lake Natural Area (TLNA). No development is planned for lands within the TLNA designation. Area D separates Area E into two sections, E-West and E-East. Both areas include land suitable for development. Steep slopes and the Tribe Cemetery limited the development potential of Area F. However, the northwest corner is adjacent to an existing residential community and is considered developable land.



## Developable Land

A total of 282 acres of the Empire Parcels are identified as developable lands after removing environmental constraints as shown in Table 1. Environmental constraints are characterized by stream riparian corridors, wetlands and areas with slopes greater than 15% and are designated as Open Space or Forest. Proposed zone designations for the Empire Parcels are illustrated in Figure 4. The majority of developable acres in the Empire Parcels are assigned residential land uses. Approximately 18 acres of land dedicated to employment uses along on the eastern portion of Area A, south of First Creek. That area is designated as Employment (formerly Light Industrial). The Employment zone currently allows almost any non-residential use except heavy industrial. Another 56 acres in Area E-West is designated for Agriculture. The Tribe could make additional land available for development if the cranberry bogs are repurposed.

The remaining 59 acres of developable land in Area A and 72 acres in Area B are designated Residential Multifamily (RM), which permits residential uses ranging from single family detached to apartments and condominiums. The 35 acres in E-East and 13 acres in Area F also are designated RM. Area E-East also includes 30 developable acres with a new Residential Rural zone to allow single family detached homes on large lots.

Net acreage is defined as the developable land minus a percentage dedicated to infrastructure improvements. For more intense use in the R-M zone, 25 percent of the developable area is deducted, with another two percent identified as lands for public parks. For the R-R zone, 20% is deducted as less infrastructure, including parks, is required. Net acreage for the Employment land incorporates a 20 percent deduction of the total area for infrastructure. The land in E-West designated for agricultural use is removed from these totals. The result is a total net area of 176 acres as shown in Table 2.

**Table 1. CIT Empire Parcels: Developable Acres**

| Developable Acres       | A  | B  | C | D | E (East) | E (West) | F  | Total |
|-------------------------|----|----|---|---|----------|----------|----|-------|
| Employment              | 18 |    |   |   |          |          |    | 18    |
| Residential Multifamily | 59 | 72 |   |   | 35       |          | 13 | 178   |
| Rural Residential       |    |    |   |   | 30       |          |    | 30    |
| Agriculture             |    |    |   |   |          | 56       |    | 56    |
| Total                   | 77 | 72 |   |   | 65       | 56       | 13 | 282   |

**Table 2. CIT Empire Parcels: Net Acres**

| Developable Acres       | A  | B  | C | D | E (East) | E (West) | F  | Total |
|-------------------------|----|----|---|---|----------|----------|----|-------|
| Employment              | 14 |    |   |   |          |          |    | 14    |
| Residential Multifamily | 46 | 56 |   |   | 27       |          | 10 | 139   |
| Rural Residential       |    |    |   |   | 23       |          |    | 24    |
| Total                   | 60 | 56 |   |   | 50       |          | 10 | 176   |

Figure 4. CIT Empire Zone Designations

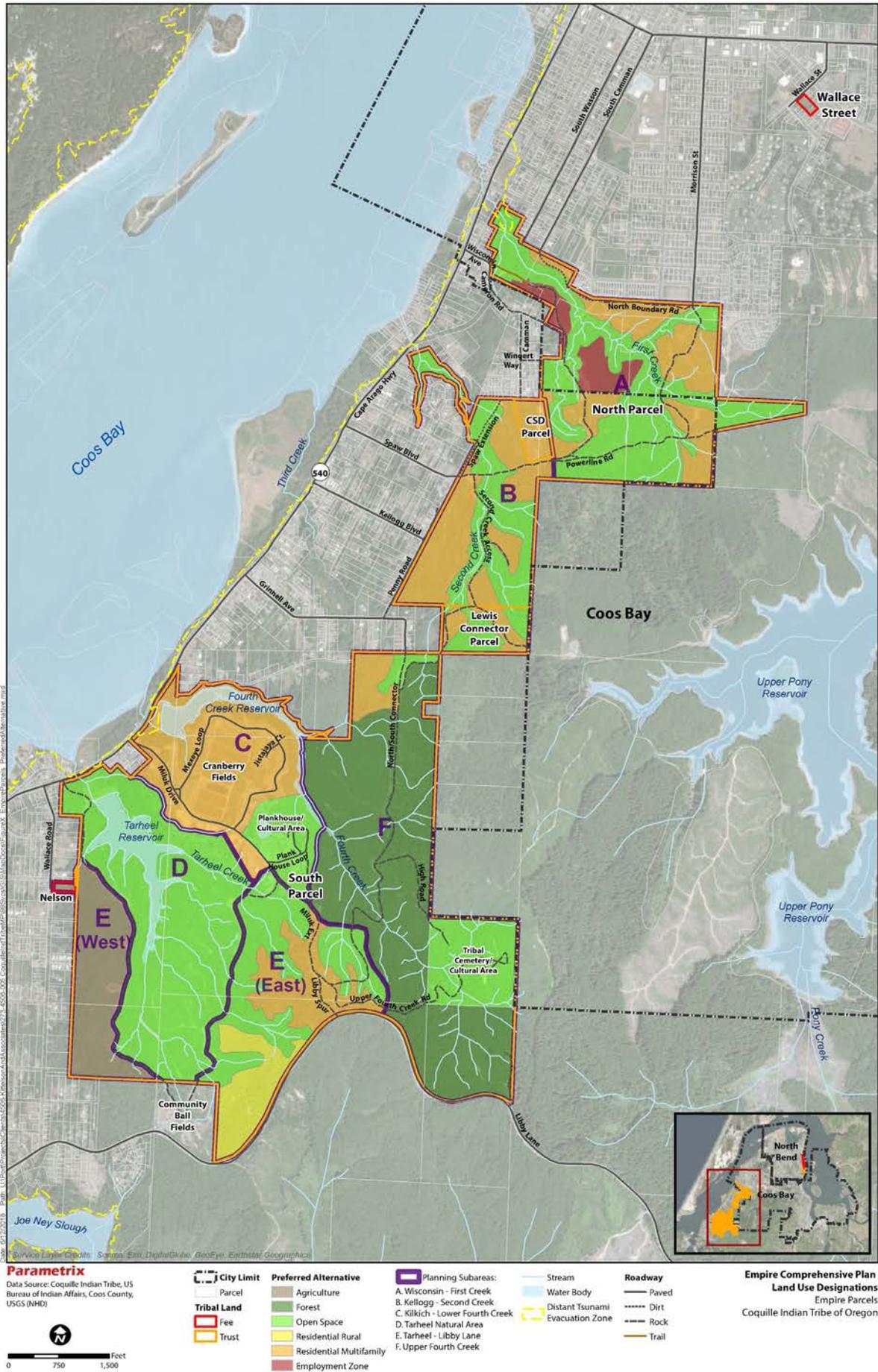


Table 3 shows approximately 14.4 of the 176 net acres are designated as Employment. A Floor Area Ratio (FAR) of .35, yields an estimated maximum buildable area of 219,542 square feet. Based on a projection of one employee per 750 square feet, the estimated employment opportunity is approximately 293 employees.

Of the 206 net acres zoned for residential use, 183 acres are zoned R-M. Since the R-M zone allows a range of housing types, from a regulatory standpoint, the area could yield anywhere from 978 single family units to 4,024 multifamily units. A total of 24 net acres are designated as R-R land, with the intent to develop large lots, yielding a range of 5 to 11 rural single family detached units. The

total development potential ranges from 1,286 to 5,318 residential units as shown in Table 4. The average household size in Coos Bay from 2012-2016 is 2.45 people. Based on the average population, the Empire Parcels have the potential to house between 2,445 and 10,060 people.

From a market perspective, even the low end of the potential unit count (978) is unlikely to occur on CIT lands in the foreseeable future. A more realistic assumption is that approximately 300 units may develop over a 10-year period. At this absorption rate, 978 units would take more than 30 years to develop with 100% of new construction happening on CIT land (1).

**Table 3. CIT Empire Parcels: Employment Projections**

| Gross Area (Acres) | Net Area (Acres) | Net Area (SF) | FAR | Max Buildable Area (SF) | Employees (1/750 SF) |
|--------------------|------------------|---------------|-----|-------------------------|----------------------|
| 18                 | 14.4             | 627,264       | .35 | 219,542                 | 293                  |

**Table 4. CIT Empire Parcels: Residential Density Projections**

| Net Acres |     | A     | B     | C | D | E (East) | E (West) | F   | Total |
|-----------|-----|-------|-------|---|---|----------|----------|-----|-------|
| R-M       | Min | 322   | 392   |   |   | 189      |          | 70  | 973   |
|           | Max | 1,334 | 1,624 |   |   | 783      |          | 290 | 4,031 |
| R-R       | Min |       |       |   |   | 5        |          |     | 5     |
|           | Max |       |       |   |   | 11       |          |     | 11    |
| Total     |     | 322   | 392   |   |   | 194      |          | 70  | 978   |
|           |     | 1,334 | 1,624 |   |   | 794      |          | 290 | 4,042 |

(1) The traffic study conducted for this Plan assumed a maximum of 1,588 units on Tribe land. Development of more than 1,588 units will require additional traffic forecasting.

## UTILITY IMPROVEMENTS

The following describes utility development requirements that can be discerned from application of the specific proposed land uses (2).

### Water

All four future development areas (A, B, E, F) can be served by the regional water board's supply and distribution system.

**Area A.** Water supply service into Area A could come through the City of Coos Bay neighborhoods to the north and east; and/or from unincorporated residential neighborhoods to the west and northwest between the Empire North Parcel west boundary, Cape Arago Highway, and First Creek.

Impacts on the utilities serving the Area A Employment zone will be dependent upon the actual uses proposed and developed in this area. Under the Tribe's Employment zone, a wide range of commercial and industrial uses are allowed. Commercial uses may be accommodated with utilities relatively near in sizing to residential areas, as could some light industrial uses. High water demand or power intensive uses may require larger capacity utilities, but such activities would be more likely in a general industrial type zone.

**Area B.** Water service into Area B may come through the unincorporated residential neighborhoods west of the Empire North Parcel between Second Creek and Grinnell Lane.

**Area E-West.** No development is proposed for this this area so no utilities are planned.

**Area E-East.** Tarheel-Libby Lane. Water service may come from the Kilkich Community (Area C) but given distances and intervening non-developable lands, service from Libby Lane is the preferred option. A prior study determined that a water supply pump station would be required to extend viable water service down Libby Lane. The cost of this pump station has been estimated by the CIT at anywhere from \$1 million to \$5 million.

**Area F.** Water service into Area F may come through the unincorporated residential neighborhood north of the Empire South Parcel and west of the Lewis Connector Parcel next to Grinnell Lane.



(2) Some local or lateral service utility lines, particularly those in the older neighborhoods, may require upgrades or replacement to be extended into the Empire Parcels. This can only be determined at the time of actual site-specific development proposals.

## Sewer

Future development areas can be served by the City of Coos Bay and Charleston Sanitary District's wastewater collection and treatment system. The new (2017) Coos Bay sewage treatment plant is located along Cape Arago Highway just outside of Area A and the Empire North Parcel near Wisconsin Avenue and First Creek.

**Area A.** Sewer service into Area A may come through the City of Coos Bay neighborhoods to the north and east; and/or from unincorporated residential neighborhoods to the west and northwest between the Empire North Parcel west boundary, Cape Arago Highway, and First Creek.

Impacts on the utilities serving Area A employment zone will be dependent upon the actual uses proposed and developed in this area. Under the Tribe's Employment zone, a wide range of commercial and industrial uses are allowed. Commercial uses may be accommodated with utilities relatively near in sizing to residential areas, as could some light industrial uses. High wastewater demand or power intensive uses may require larger capacity utilities, but such activities would be more likely in a general industrial type zone.

**Area B.** Sewer service into Area B may come through the unincorporated residential neighborhoods west of the Empire North Parcel between Second Creek and Grinnell Lane.

**Area E-West.** No development is proposed for this area so no utilities are planned.

**Area E-East.** Sewer service may come from Kilkich Community (Area C) but given distances and intervening non-developable lands, the slopes of which may dictate sewer pumping stations, service from Libby Lane is preferred.

**Area F.** Sewer service into Area F may come through the unincorporated residential neighborhood north of the Empire South Parcel and west of the Lewis Connector Parcel adjacent to Grinnell Lane.

## Stormwater

Most of the undeveloped land in the Empire North and South Parcels is forested, and surface water runs to and through the five drainages. First Creek captures Area A. Second Creek captures Area B. Third Creek drains a very small section of Area F. Fourth Creek captures most of runoff from the Kilkich Community and large sections of Areas E and F. Tarheel Creek drains two sections of Area E.

Conventional storm water management systems (e.g., curb and gutter, culverts) would be part of any residential, commercial or industrial development. However, given that the land use patterns suggested for the Empire Parcels already preserve all major stream and riparian corridors, the Tribe may wish to consider low impact surface water management techniques and systems, such as bio-swales.

## Natural Gas

The private natural gas utility serving the Coos Peninsula does not provide service anywhere within or near to the Empire Parcels.

## Electric Power

Pacific Power operates a transmission-scale electrical power line that enters the Empire parcels from the east along Powerline Road and terminates at a power substation on Spaw Lane near Penny Road, just outside of the west boundary of Empire. Electric power capacity is more than adequate for any residential development currently being considered for Empire North and South.

New local service connections would be driven by the actual location and size of any development. Service could be extended from the power substation or existing lines north and west of the Empire Parcels.

## PUBLIC FACILITY NEEDS

In general, the lower-density residential and employment zones designated in Areas A, B, E and F are too broad to specify the location, size, or number of needed new or expanded public facilities within the Empire Parcels. Kilkich Community is the location of all the tribal facilities on the west side of the Coos Peninsula, and the Community will be quickly and readily accessible from these areas via the improved road systems associated with new development.

Nonetheless, as Empire becomes home to more tribal members, or even members of the non-tribal public, and as employment opportunities expand, tribal services may have to expand correspondingly.

## ROUGH ORDER OF MAGNITUDE CONCEPT COST ESTIMATES

### Utility Cost Assumptions and Estimates

The system parameters necessary to make non-engineered plan-level estimates require site information that will only be defined at later stages of development in the Empire Parcels. Some of the utility system parameters and site information needed to produce accurate, plan-level cost estimates include:

- Configuration and location of the developable lands. For instance, in Area B the 72 acres of developable land are broken into five distinct parcels separated by Forest and Open Space designated areas.
- Capacity and location of existing “main line” transmission or production, such as water supply storage, sewer treatment plants and pump stations, power substations and transmission lines.
- Capacity and location (or absence) of interconnecting lines and facilities.
- Specific localized natural conditions such as topography, streams and other water bodies, and road alignments and widths.
- Site development plans and patterns defined at least at the conceptual level.

Not all this information is available at a comprehensive plan stage, and the estimates highlighted in Tables 5 below should be considered “rough order of magnitude.” Actual costs for comparable developments in Pacific Northwest coastal areas were reviewed to provide some rough order of magnitude utility costs associated with the build-out of the R-M,

R-R and E zones. Order of magnitude unit cost estimates were derived for water, sewer, stormwater, and electrical power. The dwelling unit projections for each area as described in Section II of this memo were used as the multiplier. Slightly higher demand is assumed from commercial and light industrial uses than for residential.

The development costs in Table 5 assume any existing lines or other utility infrastructure is adequate to serve the proposed development in Areas A, B, E and F. These estimates do not include:

- Design/engineering, including construction management and survey.
- Permitting and mitigation, although many permitting requirements may be limited or not applied based on the Tribe’s sovereign status.
- Costs associated with roadway development, including sidewalks.
- Grading - “developable areas” with slope between 10% and 15% may require extensive grading.
- Fees such as utility connection fees and system development charges as both the water and sewer districts charge such fees, and the Tribe would not be exempt.

Conceptual cost estimates do not include transportation and roadway development, including sidewalks. These are included in the subsequent Transportation Plan section.

## DEVELOPMENT FEASIBILITY

### Residential Development Opportunities

- Capture Rate. Potentially high capture rate of overall County market demand in Coos Bay/North Bend as the only “urban places” in the region.
- Development Activity. Recent upswing in local development activity, with new residential development primarily occurring near CIT land north of the Empire parcels.
- Population Growth. Increasing population growth projected through 2030.
- Housing Types. Residential, and single-family residential in particular, is the strongest of all land uses.
- Market Demand and Absorption Rate (4). Potentially promising rate of new housing unit absorption due to a shortage of buildable land in the region.

**Table 5. Conceptual Cost Estimates**

| Area       | Water       | Sewer       | Storm       | Electrical  | Pump Station | Total        |
|------------|-------------|-------------|-------------|-------------|--------------|--------------|
| A          | \$5,800,000 | \$7,200,000 | \$5,000,000 | \$6,700,000 | \$0          | \$24,700,000 |
| B          | \$5,200,000 | \$6,400,000 | \$4,500,000 | \$6,000,000 | \$0          | \$22,100,000 |
| E-East (3) | \$4,200,000 | \$5,200,000 | \$3,700,000 | \$4,900,000 | \$5,000,000  | \$23,000,000 |
| E-West     | \$4,000,000 | \$5,100,000 | \$3,500,000 | \$4,700,000 | \$0          | \$17,300,000 |
| F          | \$900,000   | \$1,100,000 | \$800,000   | \$1,000,000 |              | \$3,800,000  |

(3) The estimate for Area E (East) includes the \$5 million projected by the Tribe for a new water pump station along Libby Lane.

- Pent-up Demand. Potentially high rate of housing obsolescence (outdated housing stock) driving a pent-up demand for new housing, despite modest development activity.

- Limited Land/Building Availability. A shortage of industrial and employment land in the region, especially for large lots, may help mitigate other challenges associated with the site.
- Industry Growth. High growth of medical and services potentially indicative of demand for new office space; potential opportunities to partner with hospital.

### **Residential Development Barriers**

- Construction Costs. High construction costs for new development and low residential home values.
- Infrastructure Costs. High infrastructure costs for new development and low residential home values.
- Development Activity. A modest 10-year market demand based on population growth.
- Incomes and Wages. Low average area median incomes and wages in the region.
- Ownership Structure. Since the Tribe owns and will continue to own the land, the ownership structure for “for-sale” housing (ground-leased) would be complex and unusual.

### **Employment Development Barriers**

- Infrastructure Costs. Potentially high cost of infrastructure and lack of market demand for many industry sectors.
- Employment Growth. Stagnant historical employment growth.
- Site Conditions. Challenging site conditions include steep slopes, the presence of creeks and natural corridors, limited visibility, poor access and adjacent residential neighborhoods. CIT efforts to prepare the site for development, such as building infrastructure and excavation, can help mitigate some physical barriers.

### **Employment Development Opportunities**

- Capture Rate. High capture rate of market demand in the Coos Bay and North Bend area as the only “urban places” in the region.
- Pent-up Demand. Possible pent-up demand for storage units.
- Greenfield. Greenfield development allows for maximum flexibility for large user.

- Competition. Other areas and existing clusters have competitive advantage over CIT lands, such as existing infrastructure and industry, and higher visibility.
- Ownership Structure. Since the Tribe owns and will continue to own the land, the ownership structure could be complex and unusual.

(4) The rate at which homes are built in a specific real estate market.

# TRANSPORTATION PLAN

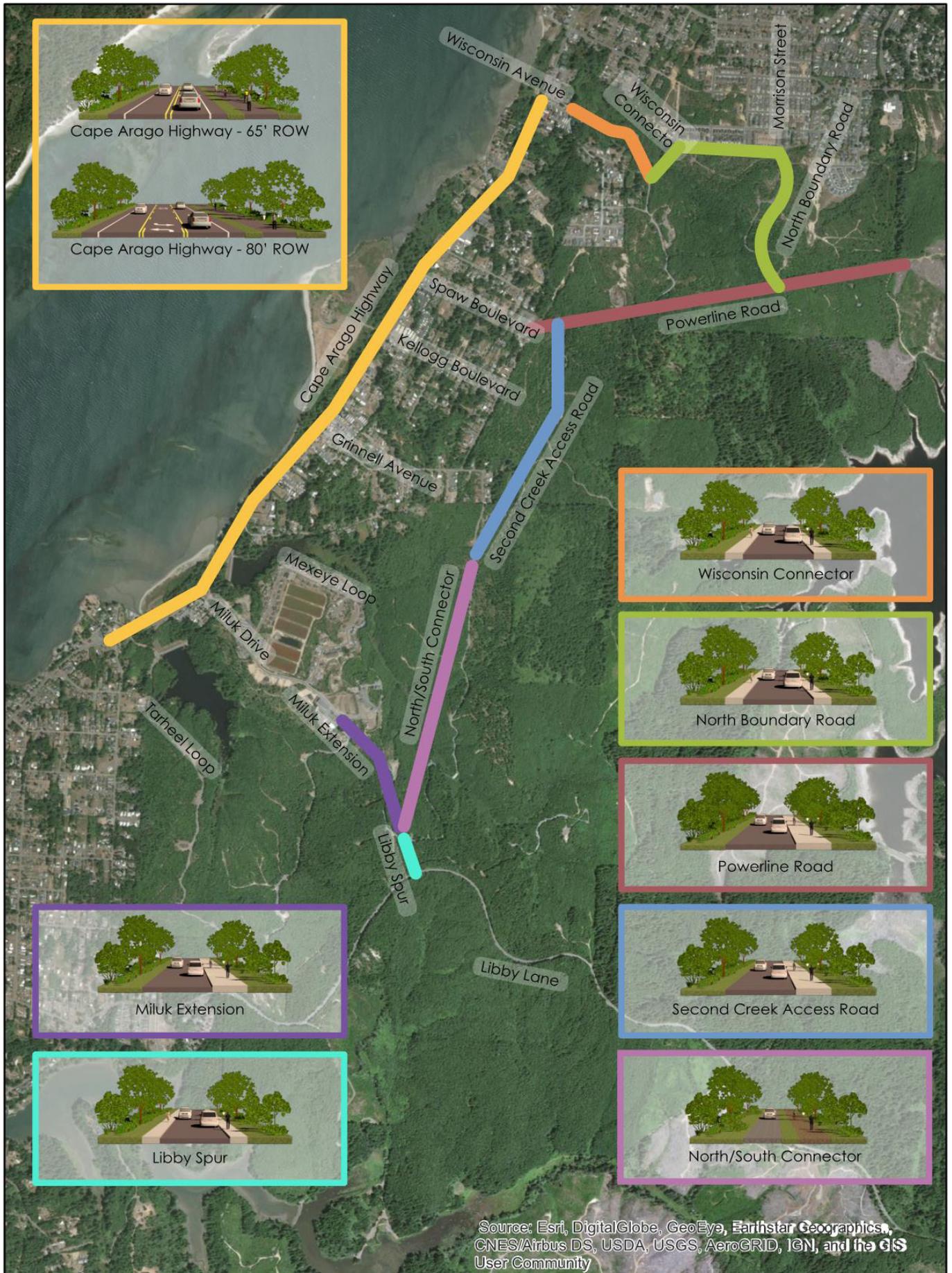
Most of the projected housing development is anticipated to occur in the Empire North Parcel with residential access provided via Morrison Street and North Boundary Road. Additional space for housing development in the North Parcel is designated east of Penny Road with anticipated access provided via extensions of Spaw Lane and Kellogg Lane.

The Empire South Parcel housing development is primarily anticipated to be accessed by Libby Spur via Libby Lane. Improving the Libby Spur to provide

a connection from Libby Lane to Miluk Extension will create an opportunity for residential access as well as evacuation routing from the existing Kilkich residential area. Figure 5 illustrates the key roadways discussed throughout the Empire Plan as well as key access points to connect future residential areas to existing external roadways.



Figure 5. CIT Empire Access and Circulation

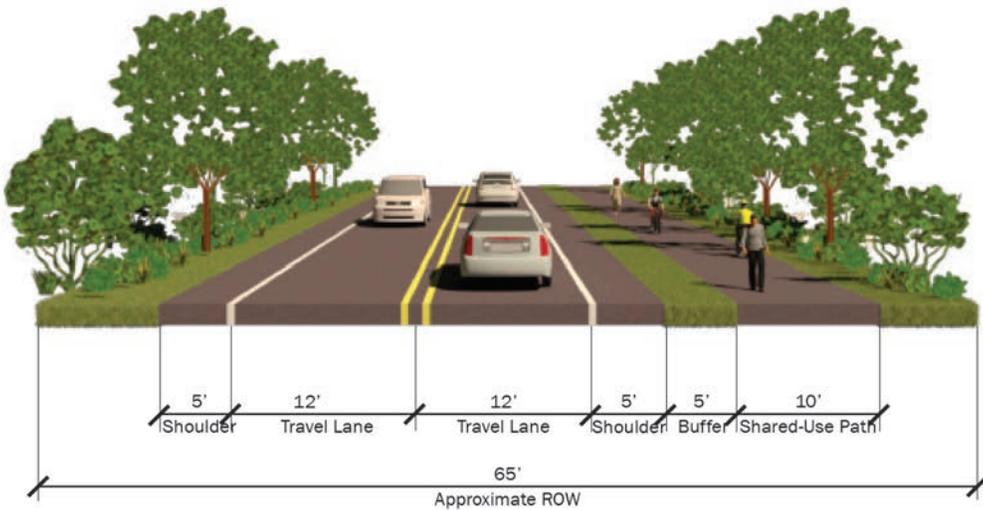


# CAPE ARAGO HIGHWAY

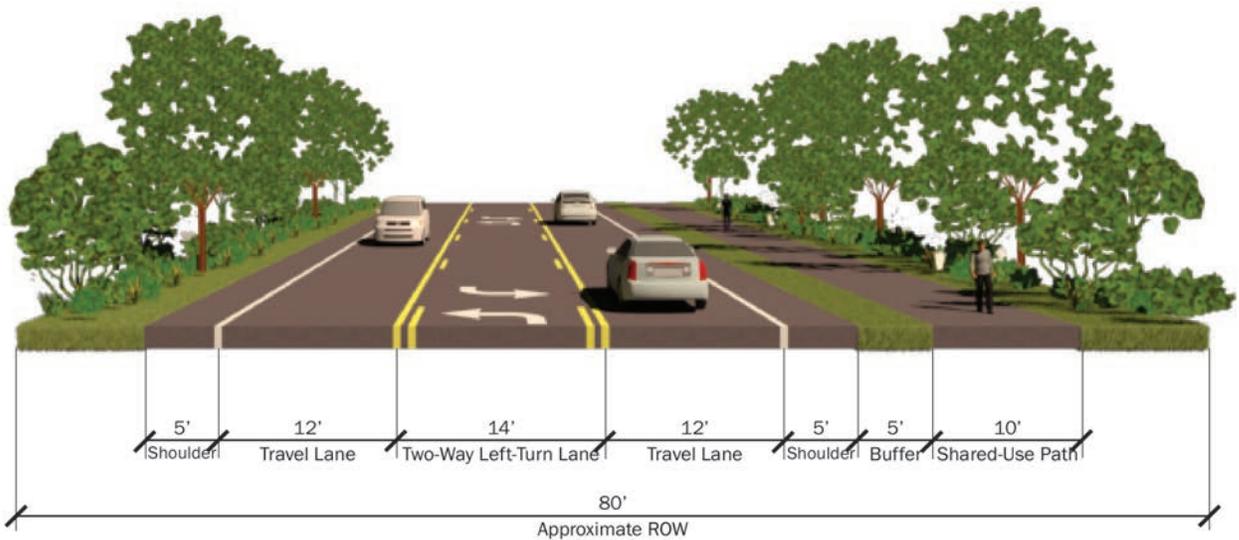
Right-of-way information for Cape Arago Highway was obtained from the National Tribal Transportation Program Facility Inventory (NTTFI) 2014 and through a review of county tax parcel datasets. An assessment of these resources indicates two distinct right-of-way widths along Cape Arago Highway within the project area.

Throughout most of the Cape Arago Highway corridor, an 80-foot right-of-way is provided; however, in several segments of the corridor, a 65-foot right-of-way is provided. Roadway segments with a 65-foot right-of-way are primarily located at the intersection of Pigeon Point Loop and south of Pigeon Point Loop along Cape Arago Highway.

**Figure 6. Cape Arago Highway 65' Cross Sections**



**Figure 7. Cape Arago Highway 80' Cross Sections**



(5) Environmental expansions, such as roadway widening and additions to impervious surface area within Oregon Department of Transportation (ODOT) right-of-way will likely require a stormwater runoff analysis to determine the appropriate type of mitigation needed. Environmental expansions and stormwater runoff analysis must be coordinated with ODOT.

Left-turn volume criteria is met at multiple intersections along Cape Arago Highway where access is provided to the CIT site. Two separate cross sections are identified for Cape Arago Highway depending upon whether a left-turn lane is provided or not. These are illustrated in Figure 6 and 7.

As shown in both Figure 6 and Figure 7, a 10-foot shared-use path is provided on the east side of the roadway with a five-foot landscape buffer. As described in the existing condition section, Cape Arago Highway currently has an intermittent shared-use path along the east side of the Cape Arago Highway for most of its length; however, it is in poor condition with frequent conflicts due to adjacent land use and access spacing. As a short-term improvement, the existing shared-use path could be improved with access control measures, construction of curbs, striping, and wayfinding signage. Medium-term improvements could include extended curb and gutter construction as well as sidewalks from Wisconsin Avenue to Spaw Lane to connect the existing Coos Bay infrastructure project to the proposed southbound transit stop at Spaw Lane. The ultimate plan is to provide a consistent and continuous 10-foot separated shared-use path with a five-foot landscape buffer as should in Figures 6 and Figure 7. Improvements listed in adopted plans may be eligible for future funding

Refinement of conceptual construction costs were produced based on the cross-section elements shown in Figures 6 and 7 for a segment length of 1000-feet. Cost estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking,

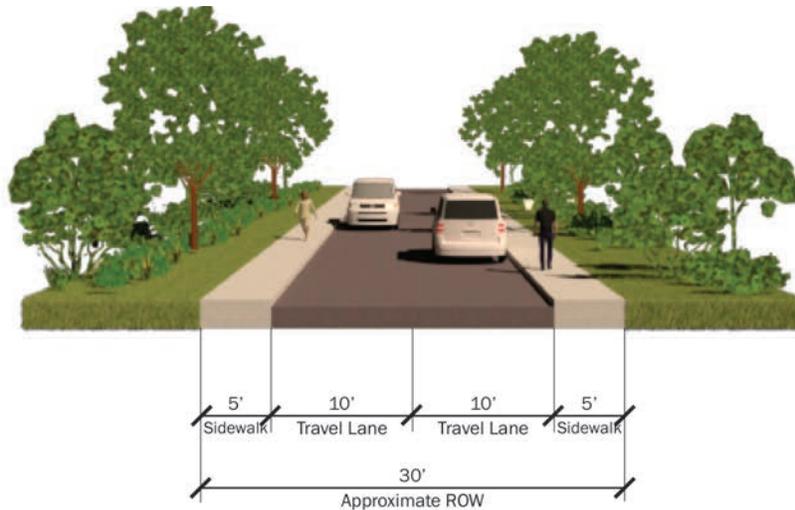
storm drainage systems, sidewalks, roadway widths. The cross section will cost approximately \$750 to construct per linear foot for the 65-foot right-of-way alternative, whereas the 80-foot right-of-way alternative including the center two way left-turn lane will cost approximately \$800 per linear foot.

## WISCONSIN CONNECTOR

The Wisconsin Connector stretches 0.2 miles from Wisconsin Avenue approximately 400-feet east of Cape Arago Highway (where Wisconsin Avenue turns into Cameron Road) to North Boundary Road just south of Marshall Avenue. The western half (0.1 miles) of this proposed connection is currently forested and would require full clearing, grubbing, excavation, and construction to provide a continuous connection to North Boundary Road. The Wisconsin Connector is an essential link in providing connectivity from Cape Arago Highway to serve future residential development in north portion of the CIT Empire Parcel.

The eastern half of the Wisconsin Connector that passes over First Creek has been cleared and is classified by the Bureau of Indian Affairs (BIA) as a rural local roadway with rolling terrain and a 30-foot right-of-way. Based on the anticipated functionality of the roadway providing connectivity to future residential areas as well as its existing alignment with North Boundary Road, it is recommended that the BIA designation be amended to reflect a rural minor collector roadway. The preferred cross section alternative for the Wisconsin Connector includes two five-foot concrete sidewalks and two 10-foot improved travel lanes (Figure 8).

**Figure 8. Wisconsin Connector 30'-row**



A refinement of conceptual construction costs is based on the cross-section elements and roadway length for the Wisconsin Connector. Cost estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking, storm drainage systems, sidewalks, roadway widths. The preferred cross section alternative will cost approximately \$800 thousand to construct for the full length of the Wisconsin Connector.

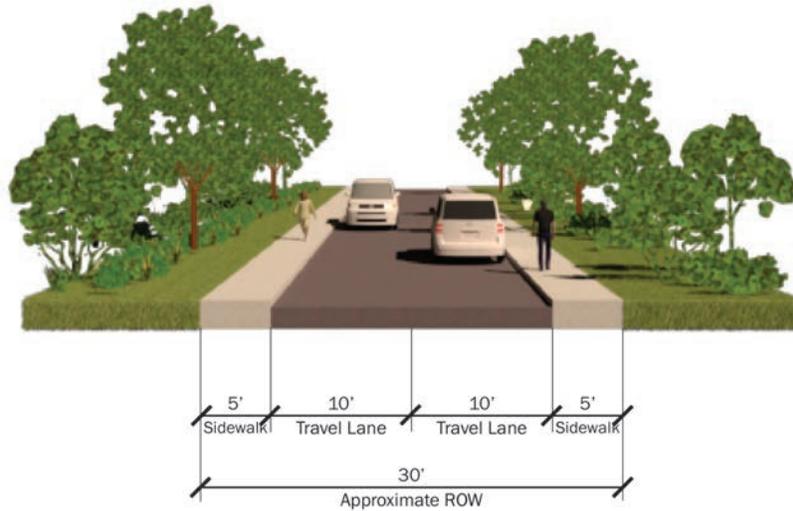
## **NORTH BOUNDARY ROAD**

North Boundary Road stretches 0.9 miles from the Wisconsin Connector eastbound towards the southern terminus of Morrison Street and southbound to Powerline Road within the North Parcel of the Empire parcels. The roadway is classified by the Bureau of Indian Affairs (BIA) as a rural local roadway with steep terrain and a gravel surface type. North Boundary Road is an essential link in providing connectivity and access to the proposed residential and industrial uses in the North Parcel with key connections to Marshall Avenue, Morrison Street, and Nautical Lane.

Based on information provided in the NTFI, a 30-foot right-of-way is available along the North Boundary Road. Based on the anticipated functionality of the roadway providing connectivity to future residential areas as well as its existing alignment with Morrison Street, it is recommended that the BIA designation be amended to reflect a rural minor collector roadway. The cross section for North Boundary includes two five-foot concrete sidewalks and two 10-foot improved travel lanes, illustrated in Figure 9.

A refinement of conceptual construction costs was produced based on the cross-section elements and roadway length for the North Boundary Road. Cost estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking, storm drainage systems, sidewalks, roadway widths. The cross section will cost approximately \$1.6 million to construct for the full length of the North Boundary Road (or \$350 per linear foot).

Figure 9. North Boundary Road 30'-row



## POWERLINE ROAD

Powerline Road is the primary east-west roadway in the North Parcel stretching approximately 0.8 miles between Spaw Lane and the eastern terminus of the CIT site. The roadway provides external connections to Spaw Lane and Wisconsin Extension as well as internal connections to North Boundary Road and Second Creek Access Road. The roadway is classified by the BIA as a rural local roadway with mountainous terrain and a gravel surface type.

Based on information provided in the NTTFI, a 30-foot right-of-way is available along Powerline Road. Due to its existing function

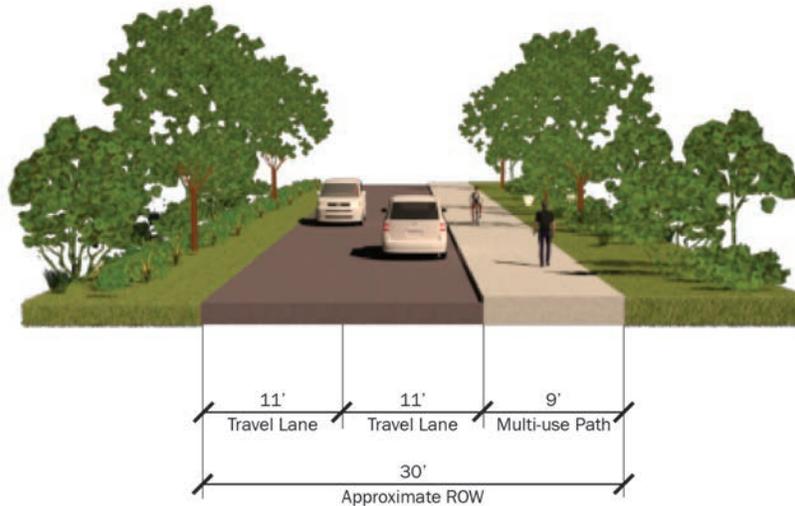


Powerline Road looking east

in providing east-west connectivity across the North Parcel as well as the proposed adjacent land-uses primarily consisting of open space, it is recommended that the BIA designation be amended to a rural major collector. The proposed design for Powerline Road includes two 11-foot travel lanes and a single nine-foot multi-use path, as shown in Figure 10. This Transportation Plan attempts to address longer distance connections through open space and rural land-uses within the North Parcel.

A refinement of conceptual construction costs was produced based on the cross-section elements and roadway length for the Powerline Road. Cost estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking, storm drainage systems, sidewalks, roadway widths. Generally speaking, the multi-use path alternative in comparison to sidewalks on both sides of the roadway is less expensive due to cost of curbing. The cross section will cost approximately \$1.4 million to construct for the full length of the Powerline Road (or \$350 per linear foot).

**Figure 10. Powerline Road 30'-row**



## SECOND CREEK ACCESS ROAD

Second Creek Access Road is an important north-south roadway connecting Powerline Road to the North/South Connector. Together, Second Creek Access Road and North/South Connector provide the primarily north-south connections between the North and South Parcels. The roadway is classified by the BIA as a rural local roadway with mountainous terrain and a gravel surface type.

Based on information provided in the NTFI, a 25-foot right-of-way is available along the 0.6 miles stretch of Second Creek Access Road. The proposed land-uses adjacent to Second Creek Access Road primarily consists of open space; however, a significant area of residential land-use is proposed to the west between Penny Road and Second Creek Access Road. To access residential land use, local connections may be provided as extensions of Spaw Lane, Kellogg Lane, and Second Creek Access.

Due to its anticipated function in providing north-south connectivity between the North and South Parcels as well

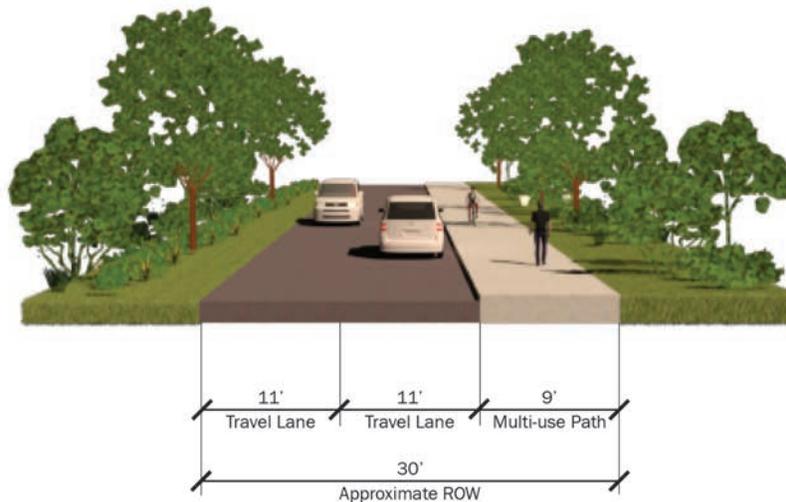


*Second Creek Access Road looking north*

as the proposed adjacent land-uses primarily consisting of open space, it is recommended that the BIA designation be amended to a rural major collector. It is recommended that the right-of-way of Second Creek Access Road be increased to 30-feet to accommodate a cross section treatment which can more safely accommodate all modes of transportation while providing increased connectivity, as shown in Figure 11.

A refinement of conceptual construction costs was produced based on the cross-section elements and roadway length

**Figure 11: Second Creek Access Road 30'-row**



for the Second Creek Access Road. Cost estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking, storm drainage systems, sidewalks, roadway widths. Generally speaking, the multi-use path alternative in comparison to sidewalks on both sides of the roadway is less expensive due to cost of curbing. The cross section will cost approximately \$1.1 million to construct for the full length of the Second Creek Access Road (or \$350 per linear foot).

## **NORTH/SOUTH CONNECTOR**

North/South Connector is the primary roadway connecting the north and south parcels of the CIT site. The roadway connects the extension of Grinnel Avenue and Second Creek Access Road from the north to Miluk Extension to the south. North/South Connector is approximately 1.2 miles in length with a 30-foot right-of-way and a gravel surface type. The adjacent proposed land-uses along the North/South Connector corridor primarily consists of forest with minor open space

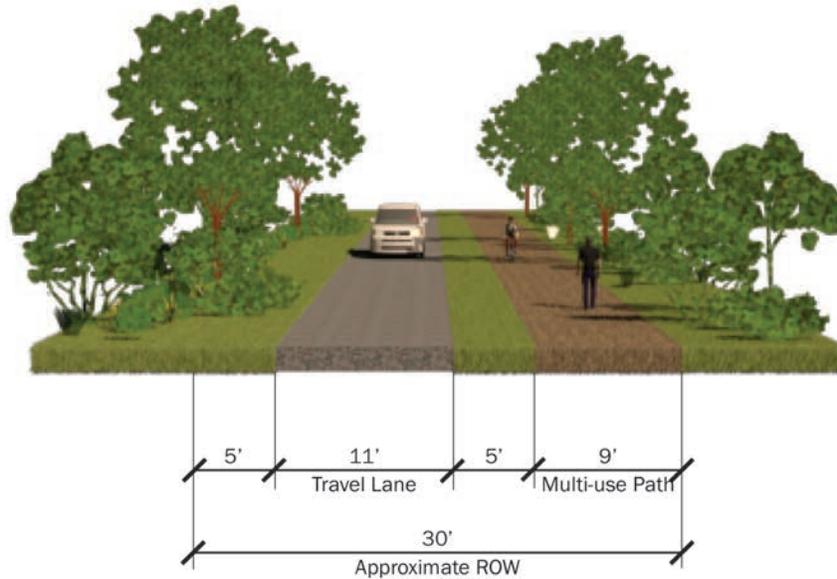
and residential land-use proposed towards the north of the roadway segment near Grinnell Lane.

Due to the rural nature of North/South Connector, the cross section recommends maintaining a gravel surface roadway with a single bi-directional travel lane and designated pull-off areas to allow vehicles to safely pass each other, as shown in Figure 12. To accommodate pedestrians, bicyclists, hikers, and other non-motorized users, the cross section for the North/South Connector also includes a nine-foot unimproved multi-use path parallel to the roadway.



*North/South Connector looking north*

Figure 12. North/South Connector 30'-row



A refinement of conceptual construction costs was produced based on the cross-section elements and roadway length for the North/South Connector. Cost estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking, storm drainage systems, sidewalks, roadway widths. The cross section will cost approximately \$440,000 to construct for the full length of the North/South Connector (or \$100 per linear foot).

## MILUK EXTENSION

Miluk Extension, as indicated by its name, serves as an extension of Miluk Drive and is the primary roadway in the South Parcel. The roadway stretches approximately 0.8 miles and provides an opportunity to connect to Libby Lane via Libby Spur. The roadway is classified by the BIA as a rural major collector with rolling terrain and a gravel surface type. Through the public involvement process, concern was

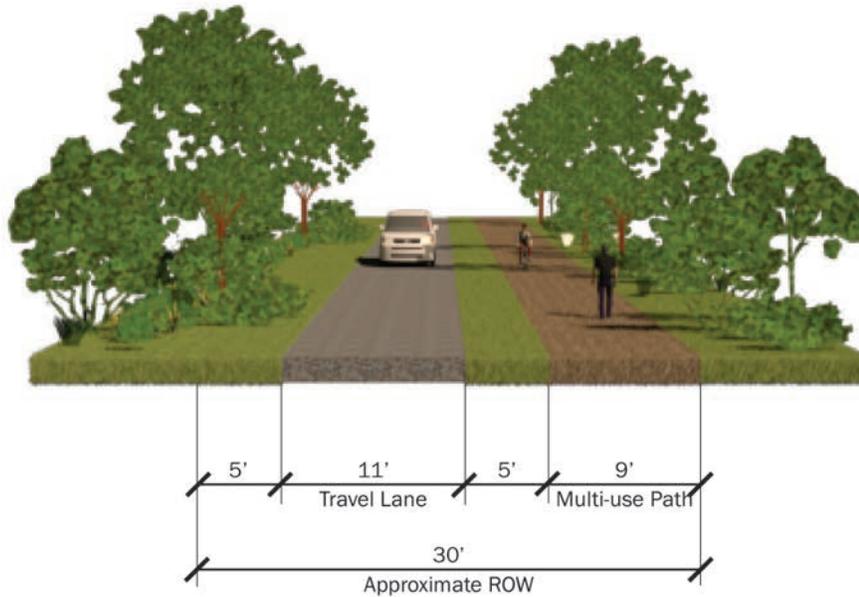
voiced regarding evacuation routing and emergency access to the Killich residential area. Miluk Extension via Libby Spur is recommended as the evacuation route out of the Killich residential area to points east.

Based on information provided in the NTTFI, a 30-foot right-of-way is available along Miluk Extension. The proposed land-



*Miluk Extension looking southeast*

**Figure 13. Miluk Extension 30'-row**



uses adjacent to Miluk Extension primarily consists of residential multifamily with an open space buffer area between the Kilkich residential area, as shown in Figure 13. The cross section includes two five-foot concrete sidewalks and two 10-foot improved travel lanes.

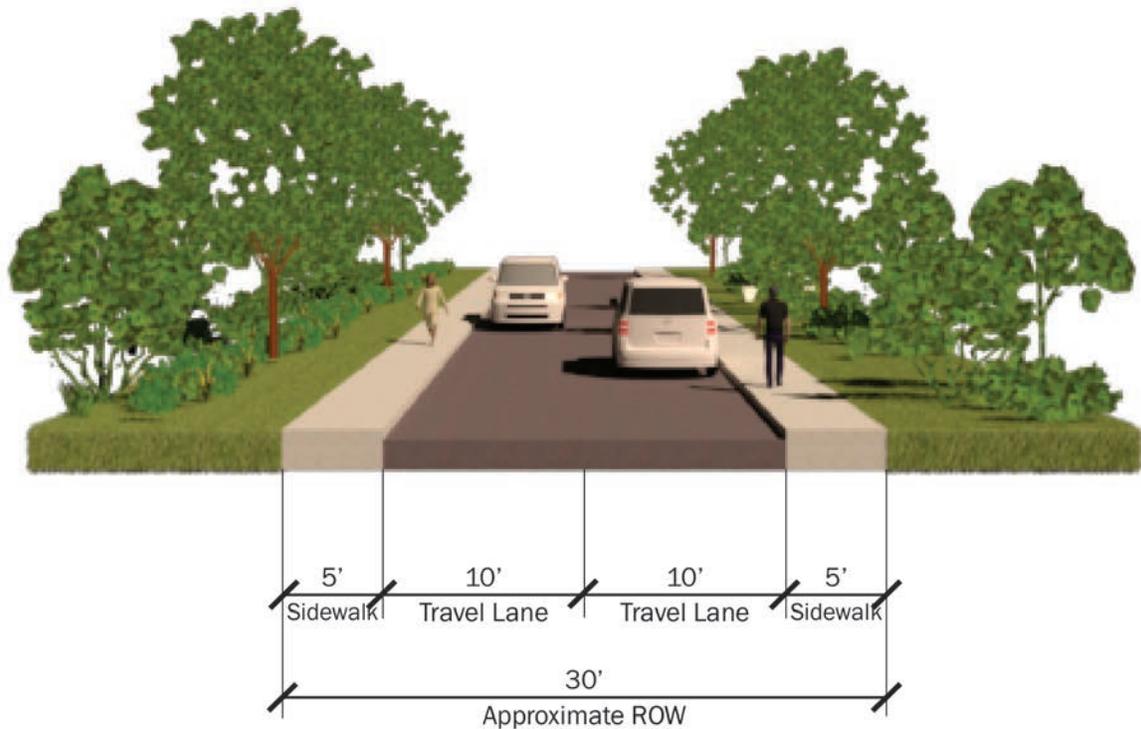
A refinement of conceptual construction costs was produced based on the cross-section elements and roadway length for the Miluk Extension. Cost estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking, storm drainage systems, sidewalks, roadway widths. Generally speaking, the multi-use path alternative in comparison to sidewalks on both sides of the roadway is less expensive due to cost of curbing. The cross section will cost approximately \$1.4 million to construct for the full length of the Miluk Extension (or \$350 per linear foot).

## **LIBBY SPUR**

Libby Spur is an essential link in providing external access from Miluk Extension to Libby Lane. The existing Libby Spur is forested prohibiting access and connectivity to Miluk Extension from Libby Lane for most of its length. As noted under the Miluk Extension description, Libby Spur is intended to serve as the primary connection to Libby Lane for residential and evacuation routing.

Based on information provided by the NTTFI, a 15-foot right-of-way is provided along its 0.1-mile length with rolling terrain and earth surface type. In order to provide connectivity, the segment of Libby Spur must be cleared, and improved to accommodate a continuous roadway segment. The proposed land-uses adjacent to Libby Spur primarily consist of residential multifamily. The cross section recommends that the right-of-way be increased to 30-feet to accommodate a cross section treatment

Figure 14. Libby Spur 30'-row



which can more safely accommodate all modes of transportation while providing increased connectivity, as shown in Figure 14.

A refinement of conceptual construction costs was produced based on the cross-section elements and roadway length for the Libby Spur. Cost estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking, storm drainage systems, sidewalks, roadway widths. The cross section will cost approximately \$230,000 to construct for the full length of the Libby Spur (or \$450 per linear foot).

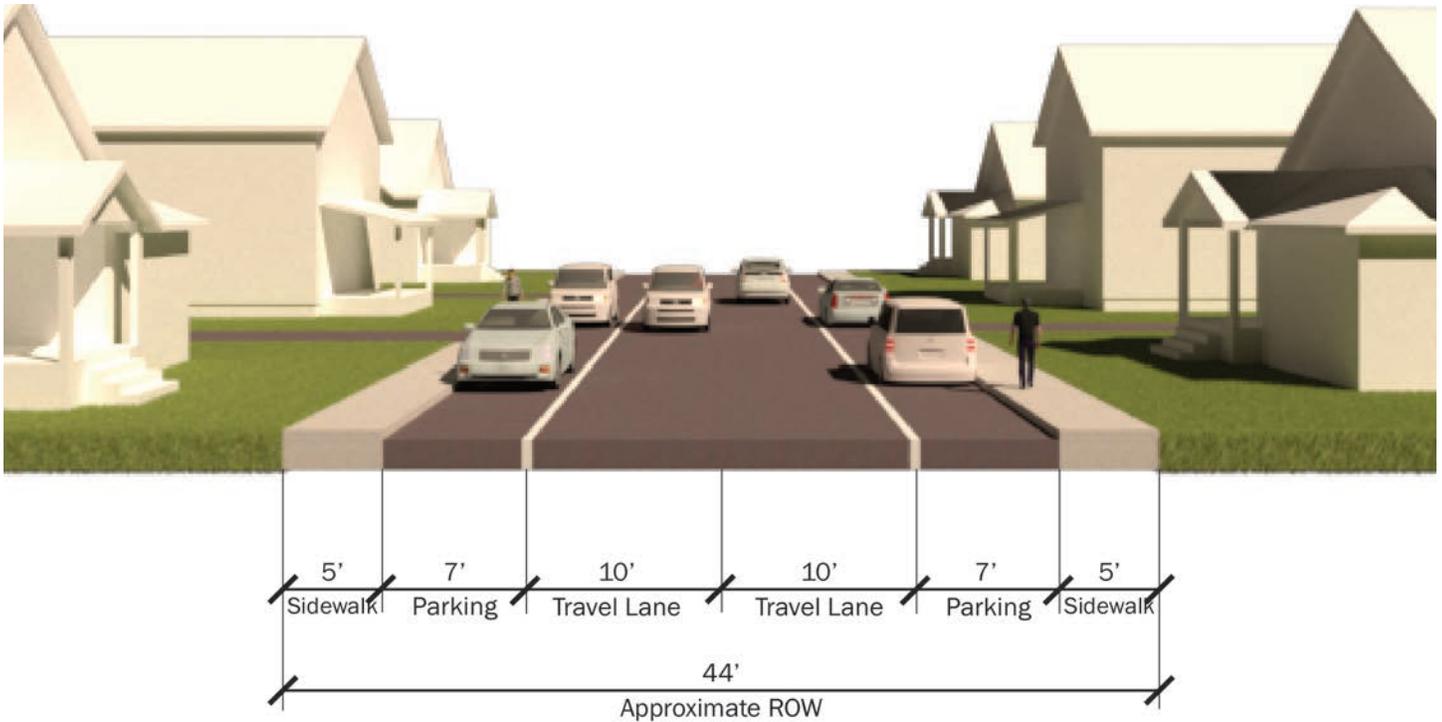
## RESIDENTIAL ROADWAYS

Details on residential roadways within the North and South Parcels are not identified within the Empire Plan. However, it is

assumed that residential roadways will be intermittently dispersed throughout designated residential multifamily areas to provide local access to residential homes. Through the public involvement process, Mexeye Loop was expressed as a preferred model to replicate in most residential areas with the ability to provide denser development where needed. On-street parking on both sides of the roadway was also expressed as a desired outcome for future residential roadways. The cross section is based on the Mexeye Loop cross section with the addition of on-street parking included on both sides, as shown in Figure 15.

Due to the uncertainty of the location and length of the internal residential streets, a refinement of conceptual construction costs was produced based on the cross-section elements shown in Figure 16 and a roadway length of 1000-feet. Cost

Figure 15. Residential 44'-row



estimates include an itemized breakdown of major earthwork, pavement structure, and other identifiable major components, signing, pavement marking, storm drainage systems, sidewalks, roadway widths. The cross section will cost approximately \$800,000 to construct per 1000-feet of residential roadway (or \$800 per linear foot).

Given the rural nature of the CIT site, it is worth noting that a smaller residential cross section width may be provided to efficiently accommodate residential needs by providing alternating on-street parking on both sides of the roadway and a shared single travel lane. This residential street type, commonly referred to as a “yield street” is appropriate for residential environments where drivers are expected to travel at low speeds. A yield street with parking on both sides functions most effectively at 24-28 feet, while a yield street with parking on only one side can be as narrow as 16-feet.

## PUBLIC TRANSIT

### Public Transit Needs

Through conversations with CCAT staff, it was noted that the Kilkich Community Center is only served by transit service traveling northbound along Cape Arago Highway due to the ease of the right-in, right-out maneuver on Cape Arago Highway. Stops are not permitted in the southbound direction due to the lack of a safe location for a bus stop on the west side of the highway near Miluk Drive. As a result, residents of the Kilkich area must ride the West Loop north to Newmark Avenue in order to turn around and travel southbound to Charleston or ride south to Charleston from Newmark Avenue to get to the Kilkich area.

## Public Transit Recommendations

There are several recommendations to better serve the transit needs for the residents of the Kilkich Community as well as future transit service in the Empire parcels:

- Option 1 - Provide southbound service into the Kilkich Community (instead of northbound service) requiring left-in, left-out turning movements into Miluk Drive and provide a northbound stop along Cape Arago Highway at Miluk Drive. This would provide northbound and southbound access to transit for the Kilkich Community and maintain only one trip into the Kilkich Community for CCAT, but result in a minor increase to headways resulting from left-turn movements and an additional highway stop. As part of this recommendation, the existing sidewalk gaps on the east side of Miluk Drive should be filled to provide a continuous pedestrian connection from the Kilkich Community to Cape Arago Highway.
- Option 2 - Construct a bus pull-out on the southbound side of Cape Arago Highway opposite Miluk Drive to allow for a designated space for buses to pull off and allow for transit users to safely board and alight transit vehicles. In order to safely cross Cape Arago Highway to the proposed bus stop location, an enhanced pedestrian crossing of Cape Arago Highway near Miluk Drive should be considered.

As internal collector roadways and land uses are developed within the Empire parcels, the feasibility of rerouting transit service from Cape Arago Highway through the Empire parcels between Miluk Drive and Spaw Lane should be evaluated.

# IMPLEMENTATION AND FUNDING STRATEGIES

## LOCAL, STATE, LAND USE AND ENVIRONMENTAL REGULATIONS

### Land Use

The entirety of the Empire North and South Parcels is held in trust. As a sovereign nation, the Coquille Indian Tribe has the right to plan and manage development on trust lands based on internal ordinance, rules, and plans.

For lands held in trust, local and state land use regulations do not apply. However, as about half of Area A is within the city limits of Coos Bay, and some existing Coos Bay utilities may be the best options for extending services into this area, early coordination with the City is advisable. The land uses suggested for Area A are however similar and compatible with those within the City to the immediate north and east this area, so no conflicts are anticipated in this regard.

Areas B, E and F may also be best served, including utilities and roadways, through existing unincorporated neighborhoods. Early coordination with Coos County and these neighborhoods is advised.

### Environmental

The Tribe's sovereign status also limits the range of environmental permitting and mitigation that can be required as an outcome of the application of the laws and regulations of other government entities. To the extent such regulations are applicable, two aspects of the Empire Parcels should limit impacts and simplify permitting:

- Nearly all of the 1,000+ acres in Empire were logged off in the 1970's as part of the land transfer between the prior owner and the Tribe. Thus, there is no old growth timber or associated species within the area.
- The Open Space and Forest zoning designation boundaries effectively exclude streams and associated riparian corridors, flood zones and

(6) Inclusion of an improvement in this plan does not represent a commitment by ODOT to fund, allow, or construct the project. Projects on the State Highway System that are contained in this document are not considered "planned" projects until they are programmed into the Statewide Transportation Improvement Program (STIP). As such, projects proposed that are located on a State Highway cannot be considered mitigated for future development or land use actions until they are programmed into an adopted STIP or ODOT provides a letter indicating that the project is "reasonably likely." Highway projects that are programmed to be constructed may have to be altered or cancelled at a later time to meet changing budgets or unanticipated conditions such as environmental constraints.

wetlands, open bodies of water, and slopes about 15% grade from any form of residential, commercial, or industrial development. This includes any such natural areas within Empire Plan areas otherwise designated for development. Therefore, environmental permitting requirements should be limited and very site specific.

## DESCRIPTION OF APPLIED ZONING

Implementation of the Empire Plan will include applying zoning regulations to designated land within the Empire parcels. Current zoning regulations are codified in Chapter 315, the Land Use and Zoning Ordinance of the Coquille Indian Tribal Code (CITC). Zoning changes are recommended to reflect the Tribe's vision for future development of the community.

A unique feature of the zoning approach is that the Tribe is both the regulator and the regulated, as the sole land owner of the property within the Empire parcels. Typically, zoning is developed by the regulating jurisdiction to guide development by individual property owners that complies with the broader community plan and limits impacts on other properties. Because the Tribe is regulating its own future actions, many of which will come to the Tribal Council for land use review, the zoning code serves the unique role of guiding development while maintaining future flexibility, and is less prescriptive than a standard zoning code. The following changes are recommended to frame general future land development direction within a flexible system rather than an overly deterministic, detailed set of regulations.

Recommended changes include:

### **Permitting large-lot residential uses in a new "Rural Residential" zone**

The developable portion of Area E-East is proposed for Rural Residential zoning. The new Rural Residential (R-R) zone would permit homes at an average density of 2-5 homes per acre on lots as large as 1 acre, permit more than one dwelling per lot, and allow for raising of livestock, with other conditional uses and dimensional standards similar to the existing Residential Zone R-1 standards.

Benefits to the R-R zone approach include creating a tailored set of regulations that accommodates rural residential-scale living and protects the area from more intense residential development. Concerns include limiting the future development potential of the land by imposing density limits, and complicating the zoning ordinance with an additional zone. From a resource management perspective, there may also be concern about promoting residential development at a relatively low density given the finite nature of land resources and costs for land development related to road and utility extensions.

An alternative approach would be to modify the existing Residential Zone R-1 provisions to accommodate these same uses. The R-1 zone permits single-family dwellings on 6,000-square-foot minimum lots with no maximum lot size or density standards, with limited agricultural uses. Because there is no maximum lot size or minimum density, larger lots such as envisioned for the R-R zone would not be precluded under R-1 zoning. Permitted uses in CITC 315.250 could explicitly permit more than one dwelling per lot,

and existing lot size standards are already written to require 6,000 square feet per dwelling rather than per lot which would effectively regulate the maximum number of dwellings permitted on a larger lot. “Raising of flowers, fruits and vegetables” as a permitted use in CIRC 315.250(1.) could also be expanded to include raising of livestock.

Benefits of modifying the R-1 zone include maintaining the simplicity of the existing zoning ordinance rather than creating a new, single-purpose zone, and providing greater flexibility for development within the R-1 zone at various lot sizes. Concerns around modifying the R-1 zone rather than applying a specific R-R zone include limited ability to maintain the rural character, and unintended effects in other R-1 areas. If there is a desire to limit the scale of development to no more than 2-5 dwellings per acre in these rural areas, then a modified R-1 proposal would not offer that security since it would allow development of up to 7.2 dwellings per acre on 6,000-square foot lots. Changes to the R-1 zone could also result in larger lot sizes and livestock uses in areas intended for more traditional urban residential scale and zoned R-1; at present the R-1 zone is not proposed anywhere else in the Empire parcels which would limit the potential spillover effect, but R-1 may be desired in the future and may be in use on other Tribal properties outside of Empire.

### **Expanding residential opportunities in the R-M zone**

Most of the developable land in the Empire parcels are proposed as Residential Multifamily (R-M), including portions of Areas A, B, E-West, E-East and F. R-M is the

most flexible residential zone in the zoning code, permitting single family, duplexes, multifamily, manufactured home parks, and row houses. To implement the Empire Plan concepts, the R-M zone should be expanded to include more “missing middle” housing types—housing types that are in the “middle” between single-family detached homes and apartment units—such as cottages, senior housing like assisted living, and accessory dwelling units (ADUs). Recommended changes:

- Expand list of permitted residential uses in CIRC 315.310 to include ADUs, cottages, and assisted living options, and add definitions of dwelling types to CIRC 315.020.
- Develop dimensional standards specific to each type of dwelling in CIRC 315.320-335, as appropriate. For example, review the row house dimensions to ensure they line up with building models, and introduce alternative dimensions for cottage housing projects.
- Develop ADU standards that support development. Common regulatory obstacles are requirements for owner occupancy of either the ADU or primary dwelling, off-street parking requirements for the ADU, requiring design compatibility between the ADU and primary dwelling, and restrictive minimum or limited site configurations for the ADU. Recommended regulations in CIRC 315.310 would permit attached or detached ADUs, up to 800 SF, no design standards specific to the ADU, compliance with the height and setback standards for the zone, no occupancy standards, and no or one off-street parking spaces required. ADUs would be allowed in addition to

a primary dwelling on a lot meeting the minimum size, exempt from density limits.

- Develop cottage housing standards that reflect the elements of cottage housing desired. The cluster of detached, traditional cottages with front porches around a common green with parking at the rear and sides of the projects is appealing, but rarely gets built because of relatively high construction costs, prescriptive design standards, and a lack of experienced developers and financing options. Given the generally flexible nature of the CIRC provisions, relatively small changes in CIRC 315.310 and related sections could open possibilities for cottage housing without regulating it as strictly as many traditional code. For example, a definition that states multiple attached or detached structures are permitted on a single lot, a minimum front porch requirement, dimensional standards along the lines of one dwelling unit per 2,000 square feet of lot area, an exemption from minimum lot frontage per dwelling, adjusted yard standards, minimum common open space requirements, and minimum parking requirements would address the key features of a cottage housing standard. One consideration with the cottage housing standards is that there is usually a trade-off between higher densities for smaller units with more common open space. However, there is not much of a density “bonus” available to give in the RM zone given the existing minimum lot sizes, so the restrictions on size and requirements for open space should be minimal to keep cottages a feasible development option.

### **Including supporting neighborhood commercial and social service uses in the R-M zone**

A limited range of nonresidential uses to support residential uses is desired under the R-M zone, to allow for limited neighborhood commercial in residential neighborhoods. Churches, governmental uses such as playgrounds, libraries, or museums, and schools are currently conditional uses in the RM zone. (CIRC 315.315.) Recommended changes would:

- Add retail sales and business and professional offices, which could include health services, as conditional uses in the RM zone. These new uses could either be allowed as permitted or conditional uses. Given the importance of compatibility in a residential neighborhood, a conditional use review is recommended for retail and office uses and retaining conditional use review for the public and cultural uses, but a potential concern is the additional review burden it would create.
- A size limit on nonresidential uses is also recommended as a conditional use review criterion in CIRC 315.690, limiting such uses to around 2,500 to 3,000 square feet.

### **Expanding the “Employment” zone**

A portion of Area A is proposed as Employment zone to facilitate a range of office, industrial and storage development. The current zoning code includes the “Light Industrial” zone which permits a range of light manufacturing, warehousing, and related industrial processing uses. (CIRC 315.365.) To implement the Empire Plan

concept for this area, recommended updates to the Light Industrial zone include:

- Rename the zone “Employment” rather than “Light Industrial.”
- Expand the permitted uses to include “business and professional offices,” and review whether any other conditional uses including government services and retail uses should be made permitted uses.

### **Accommodating recreational uses in Open Space and Forest zones**

The Open Space and Forest zones are proposed across the Empire parcels to preserve natural resources, including the economic viability of forest resources, and limit competing development. There is interest in permitting a limited range of recreational uses in these areas, particularly on Open Space-zoned lands in Area C and Forest-zoned lands in Area F in the vicinity of the Plankhouse. Recreational uses could include a range of picnicking, parks, and camping and other temporary lodging uses.

The current zoning ordinance permits “recreational opportunities appropriate in a forest environment” in the Forest zone, and “camping and picnicking” as well as hunting, hiking and recreational trails in the Open Space zone as permitted uses. (CITC 315.395, 315.400 respectively.) None of these terms are defined in the definitions section, or otherwise regulated.

Potential zoning code changes to accommodate the desire for recreational and temporary lodging within the Forest and Open Space zones could look to expanding allowed uses in the respective

zones and adding definitions that limit recreational development to a scale consistent with the resource uses. A primary consideration for the Tribe is the scale of desired development and tolerance of related site improvements within resource areas to minimize impacts, particularly related to temporary lodging which could range from basic campsites with no utility hook-ups to fully serviced cabins. Recommended code changes include:

- Develop definition of “camping” that matches the Tribe’s desired level of development. Camping could allow for temporary use of tent, travel trailer, yurt, and/or recreational vehicles, with or without utility hook-ups, with or without communal facilities such as a lodge, restrooms, play fields, picnic shelters, and similar.
- If additional lodging options are desired beyond those included under “camping,” develop terms and definition to cover proposed uses. Consider whether full utility services could or should be extended to serve such lodging, and the impact of development on the resource areas.
- Replace “recreational opportunities” as a permitted use in the Forest zone with more specific permitted uses, using the same terms as used in the Open Space zone. For example, permit hiking and trails as specific uses. Develop any additional terms needed to describe potential recreational uses.
- Review full list of recreational and camping/lodging uses, and determine which are compatible in each of the Forest and Open Space zones, and which should be permitted

or conditional uses. Generally, we recommend the more intensive uses be permitted in the Open Space zone with more limitations on uses in the Forest zone to preserve the resource viability. Camping, for example, could be a permitted use in the Open Space zone and a conditional use in the Forest zone.

Although the Tribe is not bound by Oregon land use laws, the statewide regulations for forest land could provide a model of how to balance recreational uses and forest practices. Private and public parks and campgrounds are conditional uses in forest zones to protect the resource base, and may be developed with sites for tent, travel trailer, yurt, camper cabins, or recreational vehicles, without individual hook-ups for utilities, where occupancy is limited to 30 days within a 6-month period. Sites may include supporting features such as shelters, recreational amenities, boating and swimming areas, a camp store, interpretative centers, and similar. (See OAR 660-034-0035 and ORS 215.459, e.g.) There are also limited lodging opportunities permitted in the forest zones for seasonal accommodations associated with hunting and fishing operations, which may serve as a template for seasonal accommodations sought by the Tribe.

Benefits of a more inclusive definition of “camping” and other recreational uses include greater flexibility for future development, but with potential concerns around higher costs for road and utility extensions and impacts to the forest and natural resource lands that may compromise their long-term viability for future generations.

## FUNDING STRATEGY

Funding strategies should explicitly identify the best opportunities for development in any given area and identify the tools and programs available to further such development. These tools and programs should help address any established feasibility gaps associated with such future development. However, in this case, many of the specifics about future development are unknown, including, most notably, the cost of constructing the infrastructure necessary to support any given number of housing units or employment uses. It is therefore important to instead address the realities of the market, establish general financial thresholds for land development, and generally discuss potential funding tools and sources that may help bridge future funding gaps.

### Overview

#### *Employment Zone*

Employment-based development is particularly challenging on CIT land and unlikely to happen in the short- to medium-term. To summarize the earlier section, there has been minimal new industrial development in Coos Bay in the last decade (7), and while there has been more office and commercial development, the area is unlikely to be an attractive location for office and/or retail or other commercial development. Challenges include slope, natural/stream corridors and creeks (and the higher associated cost of utilities and ROW), access, and low visibility. Nonetheless, it is reasonable to designate this as an

(7) While the lack of new industrial development may be due in part to the lack of buildable lands in the region, many other conditions exist which remain unattractive to industrial users.

“employment” area in order to keep the options and opportunity open for the future.

Given the many challenges associated with employment development, the best short-term strategy for the employment lands is to do nothing; designating the land for future employment is sufficient at this time. Given the lack of market demand and challenging site conditions, the Tribe should also maintain maximum flexibility in the zoning code to ensure future market conditions and demands can be accommodated. If further specificity is added to the code, there is a danger of being too specific, detailed, and prescriptive and constraining future options.

If or when demand for employment development is sufficient to warrant new construction, the New Markets Tax Credits (NMTC) Program, which provides tax credits to private investors looking to make investments in job creation or material improvements in low-income communities, and other programs can help bridge feasibility gaps. A description of some funding programs is provided in Appendix B.

Nonetheless, residential development should be considered the primary focus, rather than employment-based development.

### ***Residential Zone***

While residential development should be prioritized, implementation remains challenging as the cost of land development and housing development are relatively high (given high construction

costs and lack of existing infrastructure), and home values are lower in the area than other markets (e.g., Medford). As such, phasing will be critical to implementation (a detailed phasing plan will follow this section). The Tribe should also focus predominately on rental housing rather than “for-sale” housing since the land cannot be sold to potential homebuyers, resulting in a lower value housing product. Prospective tenants will most likely be more familiar with a rental product, which should increase the development’s marketability, even though rental single-family is often unusual (outside of private rentals).

The first step to getting new residential development on CIT lands is preparing the land. The market value of the land will greatly determine how much the Tribe and/or CEDCO can spend on infrastructure to prepare the land for new development. The following development scenario presents the likely conditions facing new development on CIT lands, especially in Area A.

### ***Model Housing Development Scenario***

While every parcel can be very different and present conditions which will drastically alter the cost of development, the following characteristics are likely true of the residential zones in Area A:

- Land lots valued at \$8 to \$10 per square foot (in keeping with comparable nearby lots).
- Average lot size would be approximately 4,000 square feet in size (\$40,000 at \$10 per square foot).

- Home values are likely to be valued at \$150 per square foot of living area but may rise to as much as \$200 per square foot, depending on market demand and the quality of the product.
- Density of dwelling units per developable acre ranges from six to 16, likely averaging around 12.
- New development would require no more than 80 percent of estimated land value, about \$32,200 for a 4,000-square-foot lot valued at \$10 per square foot, attributable to utilities and other lot preparation activities.

Under this scenario, feasibility of new development would depend on the total cost of soft costs, site preparation, and utilities totaling no more than \$32,000 per lot. Greater costs than this would significantly diminish feasibility unless additional sources of funding were found to make up the funding gap.

However, there are ways for the CIT to bridge funding gaps caused by higher construction costs and other factors. These include funding grant and loan programs from the state and federal government, including New Market Tax Credits, BIA funds, and Opportunity Zones (now being defined), as well as others that target certain market sectors, such as student or senior housing, and partnering with particular agencies, such as a low-income housing agency.

## **Funding Sources**

The scale and type of development varies drastically for each of the areas on CIT land. The southern section will remain exclusively for CIT members, in contrast that

of the northern section, which will consist predominantly of market-rate housing. Due to market demand, residential development in the northern parcel will also be significantly larger in scale and will no doubt require significant funding. For this, there are grants, government agency loans, loan guarantees, and other programs that could fund or support elements of the larger project(s). All grants or loans have similar issues limiting or challenging the effectiveness of this form of funding – availability, size of the grant or loan, matching requirements, and especially timing.

An extensive list of funding tools – including federal and state programs – exist not only for federally-recognized Tribes, but also for rural areas and small towns/cities for which the area mostly qualifies. These are often very competitive and require significant time and effort to obtain funding in the form of loans, grants, etc. While any combination of programs and grants are not likely to cover the total cost of building an entire subdivision, they may help bridge funding gaps.

A sampling of these programs and brief descriptions and links for each is provided as an appendix to this report.

## **Eligibility**

Federal grant and loan sources available to other units of governments almost always include tribal governments or tribal enterprises as grant eligible. There are also many grant and loan programs available exclusively to tribes. Some programs – the Indian Reservation Road Program under BIA for instance – offer tribes an annual entitlement.

## ***Housing Funding Opportunities***

As the land cannot be sold—resulting in added ownership complexities—most new housing units will be renter-occupied. Fortunately, many programs exist exclusively for rental housing as well as affordable housing.

- 1. Multifamily Housing Loan Guarantees and Direct Loans (USDA):** works with qualified private-sector lenders to provide financing to qualified borrowers to increase the supply of affordable rental housing for low- and moderate-income individuals and families in eligible rural areas and towns.
- 2. Title VI Tribal Housing Activities Loan Guarantee Program (HUD):** provides an additional source of financing to create new housing; rehabilitate housing; build infrastructure; construct community facilities; acquire land to be used for housing; prepare architectural and engineering plans; and fund financing costs.
- 3. Rural Rental Housing Guaranteed Loans (USDA):** provides loans for safe, well-built, affordable rental housing for low to moderate income individuals and families.

If not already doing so, the tribe should have a designated point-person to explore all available funding sources for new housing.

### ***Capital Funding Opportunities***

As CEDCO is not likely to have the capacity to pay for major infrastructure improvements, utilizing capital funding programs for specific infrastructure—roads, water and sewer, power, etc.—is arguably the best chance

the Tribe has to bridge any funding gaps. A significant amount of infrastructure will need to be built by the Tribe or CEDCO, and programs for infrastructure stand the best chance of securing grant or loan support.

It cannot be overstressed that infrastructure should be implemented on an opportunistic basis when funding becomes available. Combining available capital funding opportunities and a conservative phased approach to encourage efficient spending should help bridge funding gaps, to an extent.

Some examples of programs that apply to the CIT development are as follow. All possibilities should be carefully monitored to understand their current status and grant cycle as a given CIT project is defined and ready for implementation (8).

- 1. Indian Community Development Block Grants (US HUD):** can be applied to affordable housing (but primarily rehab, not new), basic utility infrastructure – sewer, water, road, and some community building, and some other facilities associated with economic development. Also has a loan guarantee program.
- 2. Rural Development Grants and Loans (USDA):** applied to housing, also some other capital development including community facilities and utilities.
- 3. Clean Water Indian Set-Aside Grants (US EPA):** funds wastewater infrastructure.
- 4. Indian Loan Guarantee Program (BIA):** provides a variety of support programs improving access to capital funding.

(8) GRANTS.GOV is the US Government clearinghouse for all federally sponsored grant and loan programs and should be periodically referenced.

**5. Clean Energy on Indian Lands (US DOE):** the US DOE Office of Indian Energy has a capital grant program that periodically awards funding for development of renewable energy systems.

## PHASING CRITERIA AND CONCEPTS

### Phasing Zones

For phasing concept purposes, suggested Empire developable “zones” are described below. Figure 16 illustrates the boundaries of these potential phasing zones within each area, as well as the lands within each phasing zone that are excluded from development due to steep topography, major stream and riparian corridors, and other significantly constraining physical features. These constrained areas are typically designated Open Space (OS) or Forest (F), although some minor streams and headwaters with no documented riparian vegetation are left in a developable designation.

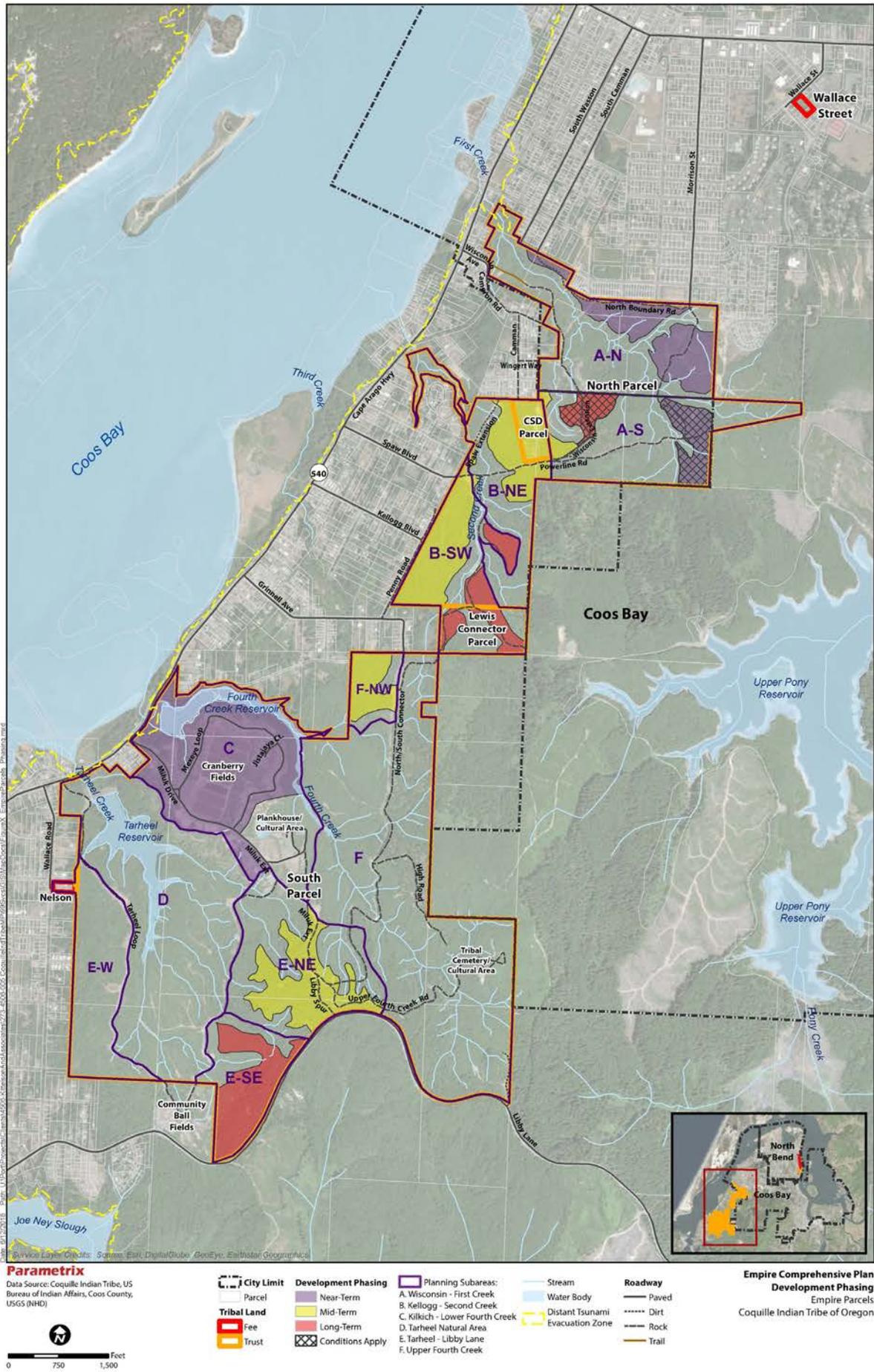
The CIT has indicated that, in general, those parcels considered for development in Empire North (Areas A and B) could be made available to non-Tribal individuals or entities, while parcels in Empire South (Areas C, E and F) should primarily be considered for use or occupation by CIT members (9).

Area A also includes two areas of land designated for future employment-generating land uses - commercial, office,

tribal services, possibly light industrial - along extensions of Wisconsin Avenue and/or Cameron Road. Kilkich Community (Area C) also holds potential for additional or redeveloped commercial, office, and tribal service facilities, particularly on the southeast side of Miluk Drive and the northwest side of Mexeye Loop. To provide maximum flexibility to the CIT, the Empire plan land use designation for Area C is uniformly Residential Multifamily (R-M) as existing commercial and public service facilities are mixed in with residential areas.

(9) Nothing in this phasing concepts analysis should be taken as a limitation to developing tribal-only housing or other tribal-only uses in any Empire development phase or time frame, or in any given area or zone, should development funding and other opportunities become available.

Figure 16. CIT Empire Parcels: Phasing Diagram



**Area A. Wisconsin-First Creek:** Area A divides for phasing purposes along the City of Coos Bay city limits which splits the area into North and South Zones, with the North Zone being within the City.

- In the North Zone, north of First Creek, a creek tributary splits this area into two developable units, both designated Residential Multifamily (R-M). The stream corridors could be bridged allowing a concurrent, unified development.
- The South Zone is outside of the city limits and otherwise greatly constrained by considerable topographic and stream/riparian corridor limitations.

*Steeper topography and the First Creek riparian corridor isolates otherwise developable lands on the east side of the South Zone. If “extraterritorial” service extensions from the City could be negotiated, First Creek could be bridged and this area developed as part of the North Zone. Topographic and stream corridor constraints reduce the developable area even more so on the west side of this zone. This being so, this second area is probably most feasible if phased concurrent with the Area B - Northeast Zone (see below).*

**Area B. Kellogg-Second Creek:** Area B is divided by the line of the Second Creek Access Road and two unnamed spur roads, as well as by Second Creek and abutting steep slopes. These factors suggest dividing Area B into Northeast, Southwest, and Lewis Connector Zones for phasing purposes. This Area B includes the two parcels in Empire that were most recently brought into trust – “CSD” on the north end and “Lewis Connector” on the south end.

- Northeast Zone includes the CSD Parcel. As noted above, development of the west side of Area A - South Zone is probably most feasible if undertaken concurrently this Area B zone.
- Southwest Zone runs along Penny Road on its west side. Two narrow, more isolated areas of developable land in this zone are however east of Second Creek and the Second Creek Access Roadway.
- Lewis Connector Zone could be developed concurrently with the Southwest Zone, but in general, the Lewis Connector Parcel and other lands east of Second Creek are more significantly constrained by topography and riparian corridors.

**Area C. Kilkich-Lower Fourth Creek:** Area C is the location of existing Kilkich Community residential/tribal facility development, as well as the Plankhouse Cultural Area and the CIT's commercial cranberry fields. Areas used for residential development and tribal facilities, excluding agricultural and recreational facilities and cultural facilities in the Plankhouse area, are considered as a single zone for phasing purposes.

Residential land still available for building in Area C is limited, but has the advantage of already being serviced by paved roadways and newer water and wastewater utilities. There also appears to be vacant lands in and around some of the existing Kilkich Community tribal facility sites that could be used for expansion or redevelopment.

**Area E. Tarheel-Libby Lane:** Area E was split into West and East areas at the Opportunities and Constraints stage of this planning effort to reflect the intervening Area D: Tarheel Natural Area. Area E-West is designated Agriculture and therefore excluded from development.

**Area F. Upper Fourth Creek.** Area F is primarily excluded from development and reserved for forestry or cultural purposes (Tribal Cemetery). The northwest corner of Area F – Northwest Zone is designated for residential development. This zone could be developed by connecting directly to existing private residential neighborhoods to the north and west around Grinnell Lane.

### Phasing Criteria

In referring to the findings and outcomes embedded in TM #3 and TM #4, several standards were used in arriving at phasing concepts and development priorities between or within the several Empire areas or zones that were determined to have future development potential. Phasing priorities exclude those portions of the “developable” areas or zones that are designated for Open Space, which includes riparian corridors, steep slope areas, parks, wetlands and other water features, and cultural areas, or Forest lands, limited to Area F.

As these phasing concepts are intended as guidance only, and the sovereign Coquille Indian Tribe can exercise unique authority and flexibility in managing the timing, pace, and sequence of development, the following criteria are applied in a simple

narrative manner (i.e. no rating numbers or levels). For roadways, water, and wastewater, the following service levels were considered for phasing purposes:

- Adequate services for the intended land use are in place.
- Upgraded services may be required, such as road paving or widening or replaced or larger diameter utility lines.
- New services may be required, such as totally rebuilt roads or completely new water/sewer line where none now exist.

Factors suggested in applying topographic and natural feature constraints to the phasing of these remaining developable parcels are:

- Location both relative to prior development and existing services, and with respect to being isolated from or contiguous to other developable parcels.
- Size larger is typically better.
- Configuration more uniform shapes are typically better.
- Connectivity can the intervening OS areas be “bridged” without significant harm to the resource? (10)

(10) All service level characterizations are based on input from the local utilities and brief field observations. No survey, testing, or engineering was conducted). The term “bridge” as used herein can be an actual bridge but also encompasses other solutions – elevated road beds, roads over culverts, etc.

## Relevant Empire Conditions

The relevant conditions that may have a material impact on development and development phasing are:

### *Topographic and Natural Features*

Within the entirety of Empire, most streams and associated riparian corridors, and all slopes over 15% grade, are uniformly excluded from development by the Empire Plan. These excluded lands are designated Open Space (OS). Therefore, in support of environmentally responsible development, many development impacts on these natural resources and features are simply avoided.

The impact of these exclusions on otherwise developable lands will however in some cases limit future development, and potentially increase development costs, by complicating roadway and service extensions, and/or diminishing the net yield of buildable lots where subdivision patterns are adjusted to “fit” around and between OS boundaries.

Different and potentially more costly solutions for “bridging” OS areas to connect development zones may also be required.

### **Roadways**

#### **Direct Connection to Cape Arago Highway**

Most vehicular access into Empire will originate directly from Cape Arago Highway via relatively short sections of local roadways that intersect with Cape Arago. The highway is deemed adequate for future Empire development access

purposes, although selected improvements upgrades, particularly to bicycle/ pedestrian facilities, would be desirable. Access to the south end of Empire from Cape Arago is via:

- Libby Lane which connects to Cape Arago Highway near the community of Charleston. This roadway is deemed adequate for future Empire access purposes.
- Wallace Road and Tarheel Loop also intersect with Cape Arago, but would require upgrades to be points of access to a developed Area E-West.
- Local roadways within Kilkich Community, which except for some unpaved sections leading into Area E-East, are also considered adequate.

#### **Collector-Type and Other Roadways External**

Existing local roadways that serve a collecting function, even if not formally designated as Collectors, and that could be extended into Empire, include the following. The characterizations as “adequate”, “needs upgrade”, or “new” are applicable to only existing roadway sections that are outside of Empire if used as an entry point to new Empire developments.

- North end of Empire through Coos Bay neighborhoods (South Camman and Morrison). These roadways are assumed as being adequate as currently built.
- Through older private residential neighborhoods at the southwest end of Empire (Wallace). These are assumed as needing upgrades.

- Through older private neighborhoods between Cape Arago Highway and the west side of Empire (Cameron, Spaw, Kellogg, Grinnell, and Penny). These are deemed as needing upgrades.

## **Internal**

Except for Kilkich Community, nearly all existing roadways within the boundary of Empire are gravel surface. To the extent these roadways are used in the future to access new Empire developments, conventional residential subdivision standards would indicate that collector-type roadways should be paved and otherwise upgraded.

Upgrades could therefore apply to all or portions of Wisconsin, Cameron, Morrison, North Boundary, Powerline, Spaw Extension, Second Creek Access, North-South Connector, Miluk Extension, Libby Spur, Upper Fourth Creek, and Tarheel Loop, plus two unnamed spur roads in Area B that access areas with some development potential. In addition, these roadways may require widening or even a complete rebuild and/or realignment based on final development patterns.

There are no built roadways traversing the Southeast Zone of Area E. The gravel Tarheel Loop Road does bound the east edge, and paved Libby Road the southeast edge.

## **Water Supply**

Regional water service main lines follow Cape Arago Highway, and connecting lines extend into the Kilkich Community development. Input from the regional

water provider indicates that main lines are all adequate for current demand and could serve any foreseeable future level of development within Empire.

The regional water provider also provides service to newer private residential neighborhoods in Coos Bay north and east of Area A – North Zone. These water supply services are deemed adequate for extension into Area A. Service is also provided to older unincorporated private residential neighborhoods on the west and south sides of Empire North. Based on the observed age and condition of these older neighborhoods, neighborhood water line upgrades are assumed to be probably necessary if extended into Empire in the future for development purposes (11).

## **Wastewater**

The new regional wastewater treatment plant is located on Wisconsin Avenue on the west edge of Area A - North Zone, providing adequate treatment capacity for any developments contemplated for Empire. Regional wastewater collection mains follow Cape Arago Highway, with connecting lines extending into the Kilkich Community development. Input from wastewater service providers indicates all collections mains are adequate for current demand, and could serve any foreseeable level of future development within Empire.

- The City of Coos Bay provides wastewater collection service to newer private residential neighborhoods north and east of Area A - North Zone. These services are deemed adequate for extension into Empire to serve future uses.

(11) A water pump station would be required to deliver adequate water pressure to Empire developments along Libby Lane (Area E-East)

- Wastewater collection service is provided by Charleston Sanitary to older unincorporated private residential neighborhoods on the west and south sides of Empire. Based on the observed age and condition of these older neighborhoods, neighborhood wastewater collection upgrades are assumed to be probably necessary if extended into Empire in the future for development purposes.

### **Other Utilities**

Power, natural gas, and storm water facility requirements are all essentially uniform between all areas and phasing zones, varied only in some cases by linear distance of any line extensions. Therefore, these utilities are not an appreciable factor in making phasing decisions.

- Power utility local line extensions will be required to any new development, but capacity is not an issue for Empire. There is a regional transmission-scale power substation on Spaw Lane just east of Empire Area B.
- Natural gas service is not available anywhere within Empire. See prior project reports for more information.
- Conventional or low impact storm water improvements will be dictated on a development by development basis.

### **Phasing Concepts**

The following suggestions for Empire development phasing are illustrated on Figure 16. This phasing hierarchy is conceptual only. Actual phasing will be most strongly influenced by the availability and timing of funding. Other factors such as changing CIT policies and priorities, and changing circumstances along the west side of the Coos Peninsula or in the greater Coos Bay region may influence phasing.

Internal to the Empire Parcels, the timing or extent of development in one area or zone may change the feasibility and/or preferences for other areas or zones. The CIT should revisit these phasing concepts every few years and make appropriate adjustments. Employment Zones and future employment uses in Areas A and C are not phased, and can be undertaken as opportunity, funding, and/or development partnerships dictate.

### **Nearest-term**

#### **Area A - North Zone**

- Areas north of First Creek abut existing newer development in City of Coos Bay. Roadways and utilities are therefore deemed adequate to carry added demand from any Empire residential development
- As this North Zone is within the Coos Bay city limits, City services can be extended without an extraterritorial agreement.
- A creek tributary splits this area into two developable units. This stream corridor could be bridged allowing a concurrent, unified development.

- Collector-type roadways with this Zone would have to be upgraded and new water and wastewater utilities extended

**Area C - Kilkich Community**

- Opportunity for in-fill residential development with all utilities in place and adequate to meet added demand.
- May require paving of the southeast end of Miluk Drive, particularly if access and utilities are extended from Kilkich Community to serve Area E-West – Northeast Zone.

**Nearest-Term with conditions**

**Area A - South Zone (Eastside of Zone only)**

- Requires utility extensions from City of Coos Bay. Area is presently outside of City limits. If utility extensions are not possible, this area drops to mid or even long-term phasing priority.

**Mid-Term**

**Area B - Northeast Zone (includes CSD Parcel)**

- Access would be via an isolated section of South Cammon Road through unincorporated neighborhoods. Roadway and utility upgrades could be required.
- Upgraded access and utilities could also come from Spaw Lane. Would cross Second Creek riparian corridor and connect to Powerline Road.
- Zone is otherwise somewhat isolated between First Creek and Second Creek riparian corridors.

- Only existing collector-type roadway within this zone is the gravel Powerline Road. Upgrade paving and rebuilding probably required

**Area B - Southwest Zone (west of Second Creek)**

- Access possible from Spaw Lane, Kellogg Blvd, and/or Grinnell Lane, all connecting to Penny Road.
- Roadway and utility upgrades probable, but the choice of three east-west access options may allow selection of the one with the best road and utility conditions.
- Whatever collector-type road option is selected, a new extension into this area would be required.
- No existing internal roadways except a very short section of Powerline Road and gravel surface north-south Second Creek Access.

**Area F - Northwest Zone**

- This is the only section of Area F designated for development, thus access from areas internal to Empire would be along gravel roadways within designated Forest lands.
- Access is however possible through unincorporated neighborhoods to the north and south via Grinnell Lane. This roadway would probably have to be upgraded.
- Utilities along Grinnell would also probably have to be upgraded.
- Slope and riparian corridors create the east and south edges of this zone.

## Area E-East – Northeast Zone

- The CIT views this zone as a prime location for expanding tribal-only housing opportunities outside of Kilkich Community.
- There may be some potential to access and serve this zone down Miluk Drive out of Kilkich Community. This would provide the most direct connections between these two tribal neighborhoods (and perhaps avoid need for a water pump station). Feasibility would have to be determined through engineering study.
- Otherwise, this zone’s frontage on Libby Lane is paved, but water service would require a pump station to create adequate pressure. If this zone is served from Libby Lane, phasing priority would probably drop to Long-term, absent any compelling policy or social purpose dictating that the CIT more immediately increase tribal housing stocks.
- Miluk Extension and Libby Spur would minimally have to be upgraded with paving, as would lower sections of Upper Fourth Creek Road. The east section of Tarheel Loop borders this zone but is totally within OS designated lands, so no upgrades are necessary.
- The shape and dimensions of developable land in this zone will have the practical impact of reducing the number of possible buildable lots.

## Long-term

### Combination of Area B - Southwest Zone (east of Second Creek) and Area B - Connector

- The three parcels are somewhat isolated from each other by Second Creek, topography, and the North parcel boundary configuration.
- Each has gravel roadway access that would have to be upgraded.
- Adequate roadway and utility services are essentially dependent on prior development of Area B - Southwest Zone (west of Second Creek).

### Area E-East - Southeast Zone

- This zone is designated for future rural residential use, which may help mitigate the need for a water supply pump station to achieve adequate water pressure.
- Nearby water and wastewater utilities would probably have to be upgraded.
- Access is from Libby road which is deemed adequate.
- There are no existing roadways within this zone, gravel or otherwise.
- The shape of this zone may reduce the number of buildable lots that are possible.
- Significant natural and recreation features are protected by the abutting Tarheel Natural Area. The area is also near the community ballfields complex. Proximity to the natural area and ballfields may be attractive for residential development.

## ***Long-term with Conditions***

### **Area A - South Zone (Westside of Zone only)**

- The topographic and riparian corridor constraints in this area simply make any development complex, even if combined.
- Sections could be elevated to Mid-term if combined with Area B - Northeast Zone, but in general topographic and riparian corridor constraints will always limit developability.
- Access and utilities are probably best coming from the north but would be greatly dependent on Employment Zone development and associated upgrades.

Given that the Empire Parcels are under CIT control, with all of the land being held in sovereign trust, the Tribe can exercise land use planning and decision-making in an independent manner that is not available to private developers or other governments. Subject to the availability of development funding, any practical limitations to access and utility service extensions (topography, regional capacity, etc.), and demand for certain land use types in the Coos Bay region, the CIT will have few external limitations as to when to proceed with development consistent with any of the areas or land uses suggested by this Empire Plan. The CIT is the land owner, ultimate land developer, and the land use authority (12).

Figures 17 and 18 in the following section illustrate how Area A – North Zone and Area E-East – Northeast and Southeast Zones might develop in the future. Per the direction of the Tribe, the site plans were created in a manner that promotes multimodal transportation options and provides access to and circulation among the sites without leaving Tribal lands.

(12) Empire parcels held in trust cannot have ownership transferred to private individuals or entities, thus constraining development feasibility and options in a manner not applicable to the private land development market.

# NEXT STEPS FOR DEVELOPMENT

The Empire Comprehensive Plan prepared for the CIT included two conceptual residential subdivision layouts for illustration purposes: one in Subarea A north of First Creek (North parcel) along the current limits of development within the City of Coos Bay, and a second in Subarea E-East (South parcel) flanked by the Miluk Extension and Libby Lane (Figure 17 and 18, respectively). The Comprehensive Plan suggests development north of First Creek as a near-term priority, and in terms of advancing these or similar concepts towards actual development, the CIT should undertake several initiatives:

## Land Use Designations

North of First Creek is within the City of Coos Bay, and although the CIT's sovereign authority supplants City zoning, discussions with the City about issues such as land use capacity, access, etc. would be in both parties' best interest, especially since the City will be asked to provide some services to this area. Area E is within unincorporated Coos County, but similar discussions to those with the City should be initiated with the County.

## Market and Financial Analysis

The CIT should undertake site-specific market analysis for the North and South parcel subdivisions. Because of differences between the two areas (in site attributes, grade, and likely demographic attributes of future residents), the market analysis should evaluate each area on its own. Key outcomes of the market analysis should be demographics of likely residents; recommended housing unit number, types, sizes, and attributes; absorption and capture rates; target rental rates (or sale prices if sales are an option); target lot values or ground lease rates in the event that CIT makes lots available to homebuilders. Once this market analysis is complete, CIT should build a development pro forma summarizing its estimated costs and revenues over 10 or more years. The market analysis will provide revenue information. Cost information (for design/engineering/soft costs, entitlement, grading, site prep, infrastructure and utilities, vertical home construction) can be generated based on the tasks below and/or inputs from various consultants. The financial analysis should indicate that revenues cover costs, with an adequate profit margin for CIT. The analysis should be

viewed as an iterative “living document,” and adjusted as new information is produced regarding development types, revenues, costs, timing, or other relevant information.

### **Utility Services**

Utility services were addressed in the Empire Comprehensive Plan with respect to the availability of services in the vicinity. Capacity was identified in the Comprehensive Plan on the basis of system capacity (e.g.: the new City of Coos Bay wastewater plant has sufficient capacity to accommodate planned Empire development; water supply extension into the South parcel area may require a pump station; there is no natural gas services anywhere near to Empire). An important early step is for the CIT to meet with key services providers (Charleston Sanitary, Pacific Power, City of Coos Bay, and Coos Bay-North Bend Water Board) to determine, based on the conceptual plans, the exact capacity of existing adjacent lines, standards for any probable utility upgrades or extensions, IGAs or similar agreements that might be needed for extensions, required permits, and applicable fees. The Tribe should consider enlisting the services of an independent engineer to help advise how to provides service to this area.

### **Roadway Improvements**

Analogous to the utility service discussions and outcomes, the CIT should meet with the City and County on probable street upgrades and access improvements including the possibility of enhancing

Morrison Street and Wisconsin Avenue in anticipation for future roadway connections to new site developments in Subarea A north of First Creek (North parcel).

### **Permitting**

In addition to municipal and utility service permitting, Federal and State environmental permits could be involved. Given CIT’s sovereign authority, there may be many permits that would not apply, but an initial determination based on discussions with possible permitting agencies would be valuable.

### **Subdivision Design**

Once basic capacity issues are determined, the CIT should assess if the information obtained changes the anticipated development scenario(s). Assuming the decision is made to proceed, the CIT should commission development of a detailed subdivision design consistent with the variety of physical, technical and regulatory constraints that may apply, as well as factors addressed in the Empire Comprehensive Plan such as density and housing type, preservation of stream and riparian corridors.

### **Survey**

Initial topographic and boundary survey work should be completed to facilitate preliminary site and subdivision design. Prepare final plat to create separate parcels that may be sold or maintained separately.

## Engineering

Preparation of an alternatives analysis, preliminary cost estimates, value engineering and then final engineering, and bid-ready construction documents.

## Project Funding

An overarching consideration is the availability of funding – both design/permitting and construction. It is suggested that design/engineering and perhaps permitting be funded separately from construction. The relative cost of design/engineering/permitting is low compared to construction, and having such work completed will put the CIT in a more competitive position in securing construction grants and loans, such as those described in the Empire Comprehensive Plan.

The CIT could partner with other tribal agencies, such as the Coquille Economic Development Commission (CEDCO) or private entities to develop Empire lands. These partnerships could be directly with the Tribe, although there are a variety of tribal-controlled or influenced legal entities that can be formed to protect tribal assets while leveraging devices like tax credits and bonding.

Figure 17. Preliminary Site Plan: Area A – Northeast Zone

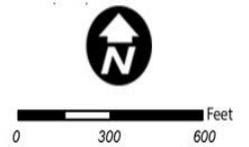
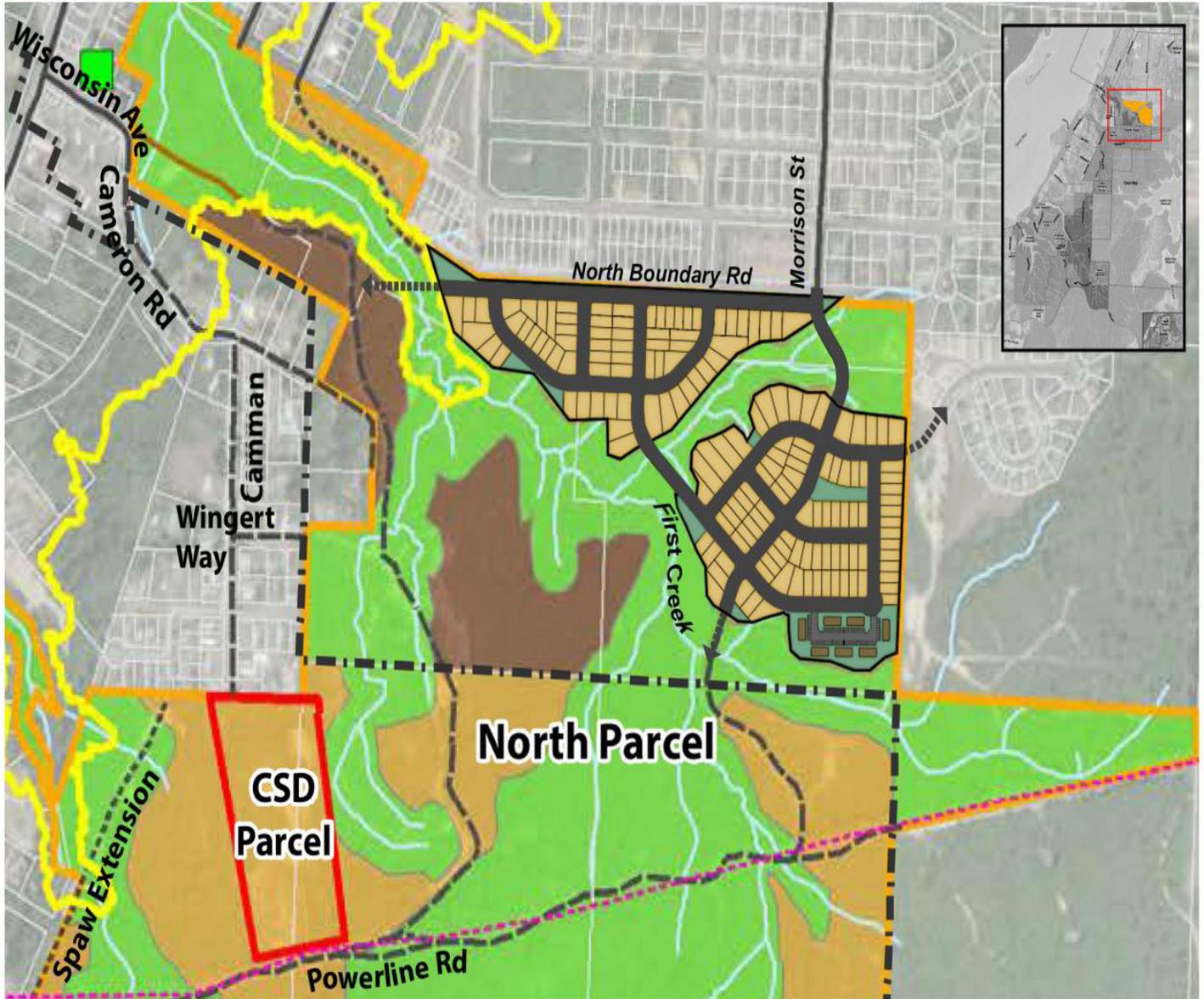
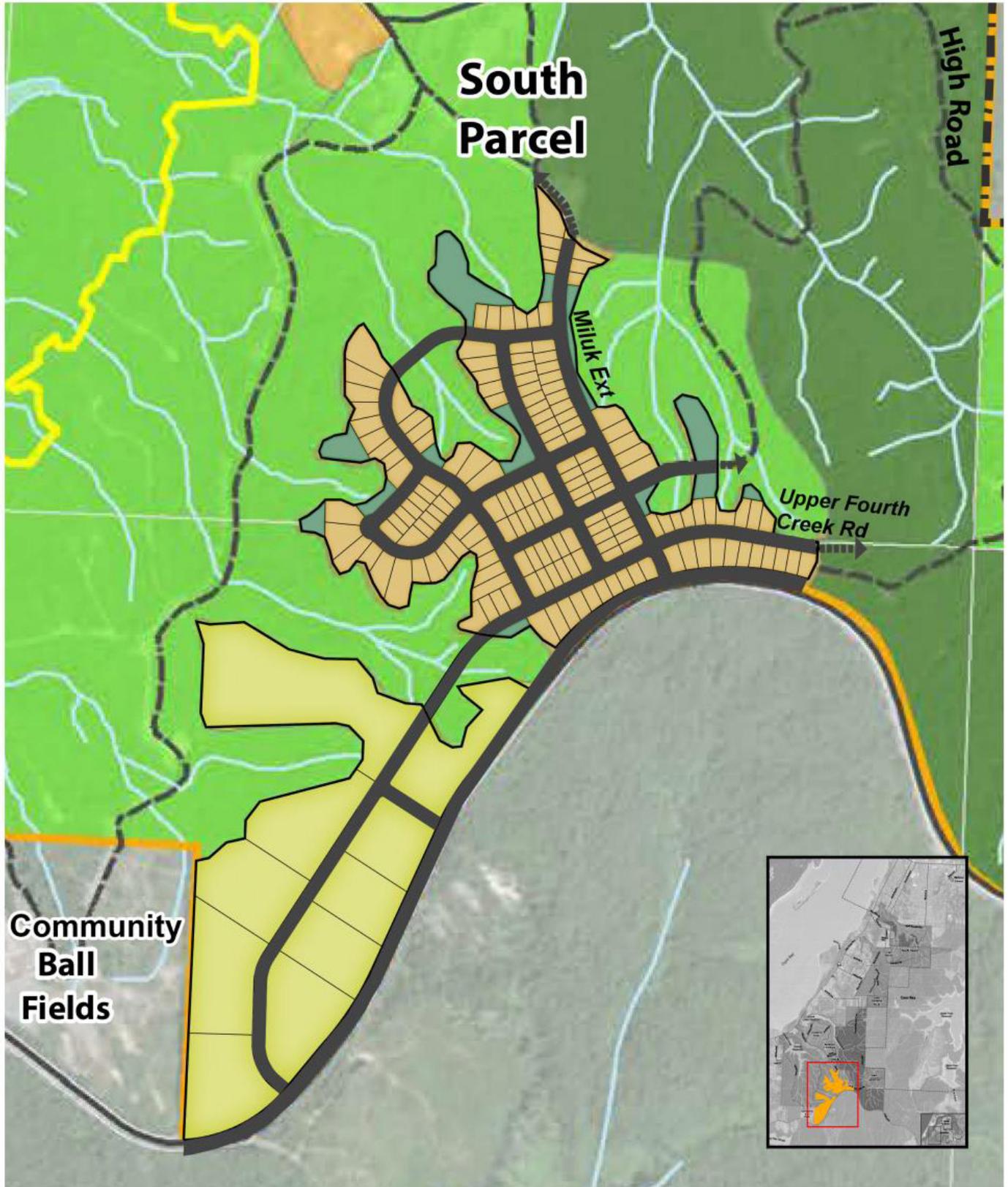


Figure 18. Preliminary Site Plan: Area E-East – Northeast and Southeast Zones



# APPENDICES

|                                      |    |
|--------------------------------------|----|
| EXISTING AND PLANNED CONDITIONS..... | A1 |
| FUNDING TOOLS.....                   | A2 |
| MAPS.....                            | A3 |