

# Dickinson Comprehensive Plan and Master Transportation Plan

**Note: Bold grey highlighted font indicates potential non-eligible subtask**

## Work Plan and Approach

### Task 1 | Project Management

Project Manager Wade Kline, PTP will oversee development of the Dickinson Transportation Master Plan and Comprehensive Plan (TMPCP) update, including monthly invoicing and project status reports. Invoicing and status reports will be developed to match formats provided by Dickinson. Milestones for the projects are outlined within the Project Schedule.

- 1.1. Invoicing and project status reports – monthly invoices and progress reports.
- 1.2. Project Management Team meetings – Biweekly check in calls via Teams.
- 1.3. Study Review Committee meetings – Nine (9) total SRC meetings, as a mix of virtual and in person meetings, SRC to be appointed/outlined by the City of Dickinson to serve in an advisory capacity on the development of the planning process.

### Task 2 | Data Collection, Existing Conditions, and Systems Planning Consistency Review

KLJ will complete a series of existing conditions analyses and data review to support the overall planning process.

- 2.1. Data and document collection and review – KLJ will request and gather all pertinent project data and planning documents from the City, County, State and other relevant stakeholder agencies. As a baseline, this will include, but is not limited to GIS data relating to the Dickinson TMPCP, plans, maps, the existing Transportation Master Plan and Comprehensive Plan, ordinance updates, building and development documentation, previous projects completed, and current city/county/state identified projects and existing recommendations. KLJ will also obtain relevant demographic and economic data from available sources and develop current population estimates. KLJ will work with the City of Dickinson and NDDOT to define the study area. Several baseline maps will be developed (eg., population density, the transportation network, and utility infrastructure).

- 2.2. **Document parcel development status – KLJ will work with the City of Dickinson and Stark County to create a parcel database and document the development status of each parcel. This will allow creation of an existing land use map and other maps pertaining to growth and development patterns.**

- 2.3. **Create existing housing profile – Our team will examine the tax database and additional city sources to create a GIS database of residential buildings by type. We will work with City staff to document housing characteristics and recent residential development patterns and factors.**

#### 2.4. **Water / Sewer Infrastructure**

- 2.4.1. **Water distribution system - Determine existing demands based on average day, peak month, peak day usage. Determine remaining planning level capacities. Results of the analysis provide mapping of existing distribution components, including water mains by size and type, pressure zones, fire flows and pressures, and lead service line locations.**

- 2.4.2. **Collection System - Collect planned/calculated demands from existing documents. Assess development since 2012. Calculate existing planning level flows. Compare existing planning level flows to the most recent lift station/sewer shed capacities to determine remaining capacity. Outputs include maps and**

**other graphic documentation regarding existing pump stations, sewer shed boundaries, trunk line size and other significant elements of the collection system.**

- 2.5. Compile GIS transportation system database – KLJ will compile a GIS database of the existing transportation network (all modes) and develop a transportation system profile of the existing transportation network and related features which will include:
  - Summary of Existing Traffic Data
  - Pavement Conditions (desktop, if available)
  - Five Year Analysis / Summary of High Crash Locations
  - Summary of Existing/Available Freight, Truck, Rail, and Air Systems for the Study Area
  - Summary of Bicycle and Pedestrian Systems in the Study
  - Summary of Public Transportation Systems
  - Existing Functional Class of Study Area Roadways
  
- 2.6. Prepare Consistency and Relevancy Report – We will review and summarize existing planning documents into a short consistency and relevancy report. Summarized documents will include, but may not be limited to:
  - Existing Transportation Master Plan
  - Existing Comprehensive Plan
  - East Dickinson/West Dickinson Plans
  - City of Dickinson Capital Improvement Plan (CIP) Prioritization Summary
  - Renaissance Zone Plan
  - Stark County Comprehensive Plan Update (upon availability)
  - Statewide Transportation Improvement Program (STIP)
  - NDDOT’s Statewide Plan Transportation Connection
  
- 2.9. Existing Conditions Report - The first deliverable of the Dickinson MTCP update will be the Dickinson 2050 – Existing Conditions Report. The Existing Conditions Report will provide a concise and visually-appealing summary of existing conditions and identify issues and opportunities within the study area. The report will cover all elements of the Dickinson TMPCP and summarize relevant data sets needed to support the update.

### Task 3 | Public Engagement

- 3.1. Develop public engagement plan – Our team will prepare a public engagement plan that includes project branding, key messages, public engagement goals, activities, deliverables, and deadlines for KLJ team and City of Dickinson to utilize throughout the project. The plan will include the development of a broad set of stakeholder groups, including those typically underrepresented in the planning process. The plan is updated as needed throughout the planning process to respond to changing conditions.
  
- 3.2. Website/Social Media – Our team will build a project specific website, with a customized URL, to support the development of the TMPCP update. The website will be updated throughout the project and serve as a portal for project materials, videos, and any potential surveys/interactive maps. Additionally, we will strategically utilize Social Media by developing graphics and content for use on the city’s social media channels for each phase of public engagement. This will include content for targeted paid ads on Facebook. Our team will also produce up to four (4) short videos at to be used at critical points in the plan development process for use on the project website and social media.

- 3.3. Public Input Meetings- Our team will coordinate and facilitate public input meetings during three phases of the project. Three phases of public input meetings are anticipated, with each phase being discussed and coordinated with the City of Dickinson. Each phase includes an extensive online outreach effort through social and digital media coordinated directly with the City of Dickinson. More specific details for each phase are outlined within the Task 3.1 Public Engagement Plan developed at the onset of the project.
- Phase 1- Two Listening Sessions will be used to collect feedback on transportation and mobility needs, as well as values, issues and opportunities. This consists of day long series of interactive meetings and community engagement activities.
  - Phase 2- An Open House/drop-in sessions will be used to share and obtain feedback on draft alternatives and solutions regarding both transportation projects/concepts and the emerging future land use and comprehensive planning elements.
  - Phase 3- An Open House will be used to present the draft TMPCP for review and comment.
- 3.4. Planning Commission Meetings – Our team will attend up to three (3) Planning Commission meetings to support development of the plan. Content and format of these meetings will be coordinated directly with the City. This includes support for any formal hearings required for plan approval and adoption.
- 3.5. Board of Commissioner Meetings – Our team will attend up to three (3) City Commission meetings to support development of the plan. Content and format of these meetings will be coordinated directly with the City. This includes support for any formal hearings required for plan approval and adoption.
- 3.6. NDDOT Management Presentation – Prior to presenting the final draft plan to the public in Phase 3, we will coordinate a management presentation with NDDOT which will include key City staff. Key concepts, projects and recommendations are discussed and presented to NDDOT Management.
- 3.7. Focus Group meetings – Our team will work with the City to identify a broad set of stakeholders to provide input during the planning process, this will include typically hard to reach, underserved and “slice of life” residents of the Dickinson community. Our team will coordinate and facilitate three (3) stakeholder meetings over a day period in cooperation with staff from the City of Dickinson to gain more focused insights during the development of the TMPCP. Focus groups are envisioned to occur early in the process to assist with gathering sentiment and ideas from the community. Our team will work with the City of Dickinson to determine the specific content and format for these meetings.
- 3.8. Survey/Interactive Issues Map – Our team will develop one (1) online survey plus interactive project issues map to support inputs into the development of the TMPCP. This will be developed during Phase 1 of the public engagement process and will be a way to engage the community in identification of a broad range of issues and needs facing the City of Dickinson. This will run concurrently with Phase 1 Listening Sessions and Focus Groups.
- 3.9. Pop-up Events – Our team will provide representation at up to four (4) community events to engage with the public and distribute information on input opportunities for both the TMP and the CP. Material including handouts, questionnaires, etc will be created to distribute to the public. We anticipate City of Dickinson staff to drop in on other community events/meetings throughout the planning process to share information and gather input into the planning process.

## Task 4 – Vision, Goals, and Objectives

The KLJ-Apex team will work with all relevant agencies and stakeholders to develop a project vision, goals, and objectives. This will stem from a cooperatively developed understanding of the issues and opportunities pertaining to the TMPCP.

- 4.1 Status and consistency analyses. Evaluation of the status of current plan goals, objectives, policies, and implementation will be the first step in this process. Then, we will consider their consistency with values, issues and opportunities identified during the current planning process.
- 4.2 Draft vision, goals, and initial objectives. Our team will work with the SRC to develop a vision statement and updated/ new goals and objectives to guide development of the TMPCP.

## Task 5 | Future Growth Projections and Future Land Use Plan

Task 5 includes two key inputs into the overall development of the updated TMPCP for Dickinson: the future growth projection for the study area and a future land use plan to the year 2050. These key inputs into development of the Dickinson TMPCP are essential to for the future travel demand projections discussed in Task 6. Task 5 will include:

- 5.1 Develop growth projections – Our team will evaluate demographic and employment baseline statistics, migration and employment patterns, and other identified growth factors. This evaluation allows us to develop population, households, and employment growth projections for the traffic model.
- 5.2 Create developable land map including infill opportunities / Identify development constraints
- 5.3 Using the AARP livability index as a starting point and building on the City Planner’s ethnographic snowball research efforts, we will identify opportunities to enhance quality of life and enhance economic development for the City
- 5.4 Identify infrastructure requirements for development
- 5.5 Develop and evaluate alternative growth scenarios / Coordinate evaluation of future growth alternatives in extraterritorial area / Develop future land use categories, descriptions, and benchmarks / Create future land use map / Develop future land use plan
- 5.6 Evaluate current development policies and practices and prepare recommendations to support the efficient investment of public resources, including the development of a well-planned transportation system**
- 5.7 Develop strategies and policies to manage future growth boundaries and annexation with the County / Develop strategies and policies to manage development process which is supportive of the overall long range transportation needs of the community**
- 5.8 Prepare Summary Report Future Growth and Land Use Projections to the year 2050

## Task 6 | Travel Demand Projections

Based on inputs from earlier growth projections KLJ will develop a blended approach of both micro and macro level travel forecasting to develop existing and forecasted travel demand for the Dickinson TMP.

- 6.1 StreetLight Data / Origin-Destination Analysis – KLJ will purchase StreetLight data for the study area to validate existing conditions and quantify existing traffic volumes for the Dickinson study area to calibrate existing counts to 2023 conditions. This data will be split between US Census Block groups and roadway links to help

link demographic trends to the transportation network. KLJ will also evaluate origin-destination (O/D) patterns to assist in analysis of existing and projected travel conditions of existing block groups. StreetLight data will provide the existing directional distributions of future development using ITE Trip Generation and distribute trips through the network based on existing O/D pairings.

- 6.2 Travel Forecasting – KLJ will use PTV Vistro for factoring in existing volumes (Average Daily Traffic [ADT]), Institute of Transportation Engineers (ITE) Trip Generation based on both existing and new future land uses, and provide future traffic operations analysis following Highway Capacity Manual (HCM) guidelines for arterial and collector roadways throughout the Dickinson study area. Once the base Vistro model is created, we will use the updated FLU Map and growth projections to populate the Vistro model and develop an existing and projected (no build 2045) conditions utilizing the Vistro scenario manager.
- 6.3 Alternatives Analysis – KLJ will use a two-step process of analysis based on projected 2045 conditions for the Dickinson TMPCP.
- Step 1: Area-Wide Analysis – The first step in the alternatives analysis involves evaluation of a series of area-wide issues/corridors. The alternatives analysis evaluates a collection of individual projects representing a system of generally coordinated improvements designed to be constructed over time. We will evaluate the cost-effectiveness of a series of system connectivity and corridor-level transportation options and alternatives and will use travel forecasting outputs and planning level cost estimates to understand when transportation investments should be programmed.
  - Step 2: Corridor Level Analysis – Step two includes evaluating corridor level needs based on outputs of the area-wide model. Model outputs will be used to understand and evaluate future transportation investment needs along a series of critical major corridors. Corridor level analysis drives development of a list of needed improvements to achieve improved safety, LOS, and “right-sizing” of capacity for major transportation corridors, as well as for all existing and future “non-corridor” roads. Based on existing and projected intersection LOS, we propose a series of intersection level recommendations for consideration in a future project list.

## Task 7 | Transportation Master Plan (TMP)

The Dickinson TMP will include a series of key deliverables, inclusive of the following key inputs.

- 7.1 Transportation Projects – The Transportation Projects subtask establishes a prioritized list of constrained projects based on initial financial assessment of both local, state and Federal funds available to study area, and will also include technically justifiable (but illustrative) projects which fall outside future revenue projections. This is the final list of transportation projects that are reasonably expected to be built over the life of the plan. KLJ will develop two bands of projects: 1) Short/Mid-Range: Year 1 to 10; and 2) Mid/Long-Range: Year 11 to 20+.
- 7.2 Multi-modal Systems Framework – KLJ will develop multimodal transportation network recommendations to support mobility for all users. This will include a “network” level set of recommendations (map) of proposed on road or shared use facilities for the study area. KLJ will develop a set of recommendations that illustrate the overlap of infrastructure needs of Dickinson Public Transit with existing and planned City roadway facilities.
- 7.3 Transportation Development Guidelines and Policies – This subtask will provide the needed footings to assure implementation of the Dickinson TMP. The Development Guidelines and Policies ensure existing policies and practices support the long-range transportation strategy and vision agreed to through the planning process. Key components include:

7.3.1 Future Functional Class Map: A final approved future functional class map that reflects the technical and public process which is in alignment with the Urban Service Boundary set forth in the Comprehensive Plan; this will be coordinated with existing Federal functional class designations agreed to between the City and NDDOT.

7.3.2 Access Management: Prepare a set of access management recommendations to address existing conditions and support long range planning and programming for the City.

7.3.3 Corridor Preservation: Develop a corridor preservation program as an outgrowth of the future functional class map to establish standards and polices needed in the areas of right-of-way (ROW) and access management to preserve existing and future corridors to meet projected system demands.

7.3.4 Policy Recommendations: Develop and update a strategic set of policy points, many of which are derived from previous planning efforts or city-wide plans and strategies. These updated policy recommendations more specifically support decision-making tools and strategies to preserve and enhance the transportation systems in Dickinson, including review and evaluation of the traffic impact statement (TIS) and other concurrency tools used by Dickinson.

## **Task 8 | Future Infrastructure Plan**

**The objective of this task is to review the proposed expansions versus remaining capacities of the water distribution/wastewater collection systems and to provide a 20-year planning level capital improvements plan for the water distribution system, sanitary sewer collection system and the stormwater infrastructure in the City of Dickinson. The planning will be completed within the framework of the existing masterplans (Collection System Master Plan and Water Utility Master Plan and Stormwater Master Plan).**

### **8.1 Water Distribution**

**8.1.1 Project Future Flows**

**8.1.2 Compare Future Flows to existing capacities and summarize remaining capacities/deficiencies.**

**8.1.3 Development of proposed planning level expansions to the water distribution/wastewater collection systems will be within the framework of the existing masterplans (Collection System Master Plan and Water Utility Master Plan).**

**8.1.4 Prepare map(s) of current and future collection/conveyance system**

**8.1.5 Prepare a schedule for future planning level improvements**

**8.1.6 Prepare cost estimates for future planning level improvements**

**8.1.7 Develop a comprehensive Capital Improvements Plan (CIP)**

**8.1.8 Develop a summary report of the collection/conveyance system**

### **8.2 Sewer Systems**

**8.2.1 Project Future Flows**

**8.2.2 Compare Future Flows to existing capacities**

**8.2.3 Develop proposed expansions**

**8.2.4 Maps of current/future system**

**8.2.5 Schedule of improvements**

**8.2.6 Cost estimating**

**8.2.7 Summary Report**

**8.2.8 Review and incorporate 2016 Stormwater Masterplan Improvements into plan based on projections**

## Task 9 | Future Housing Plan

Develop a housing strategy that responds to the vision and goals developed in Task 4, builds on the existing conditions analysis and plans and studies review completed in Task 2, and correlates with the FLU Plan developed in Task 5. We will evaluate information from the 2020 decennial census, the recently completed North Dakota Statewide Housing Needs Assessment, any relevant local housing market studies, platting and permitting records, and other available records from the City of Dickinson and Stark County. The focus of this effort will be on documenting current housing supply and establishing strategies and updating policies to support appropriate housing development.

- 9.1 Evaluate relevant existing housing data and analysis / High level assessment of housing stock age, condition, and relationship to amenities / Identify future housing needs
- 9.2 Compile summary of key housing issues / Compile summary of relevant best practices for attainable housing
- 9.3 Collaborate with Dickinson staff to prepare a housing plan with policies and strategies for implementation