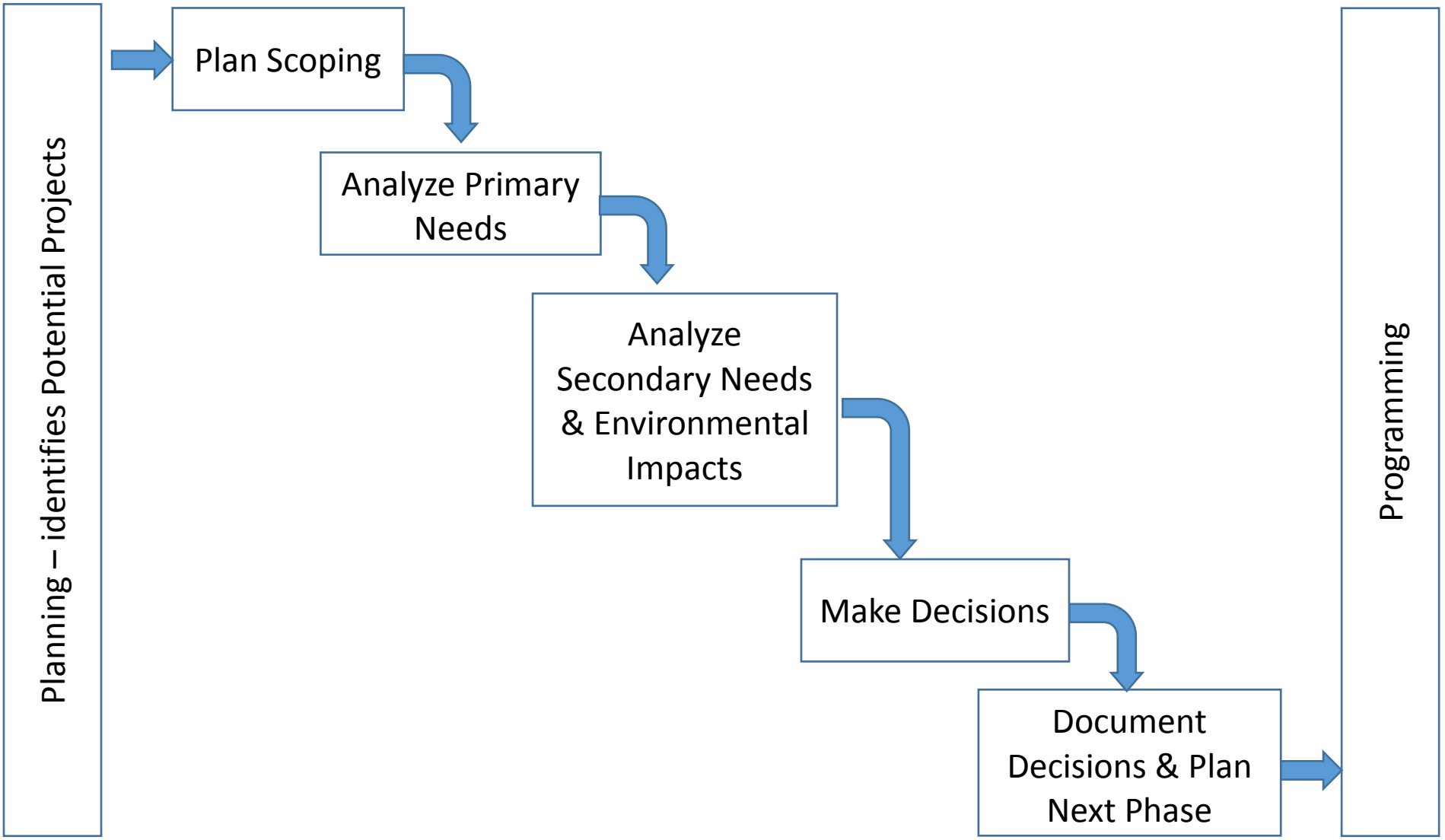
MnDOT Scoping Process



Scoping Guidance

Overview: A well-defined project scope is critical to lock in a budget and plan resources to deliver the project. Each project is unique and requires thoughtful planning and execution of scoping.

Plan Scoping

- Be sure to fully understand why the project was planned for scoping. How does the outcomes of this project fit in with MnSHIP goals, performance targets, and the rest of the program.
- Understand MnDOT expectations for decisions to be made during scoping (see Appendix A).
- Begin scoping early enough to satisfy all scoping decision requirements (see guidance in Appendix B).
- Identify apparent problems to be solved, users, context, existing and proposed plans, potential environmental resources and issues in the area, and environmentally prudent and friendly options to help solve the problems.
    - Ensure the life expectancy of other highway infrastructure is commensurate with the purpose and need of the project (ie: if the primary purpose of the project is pavement and the fix is a medium mill and overlay with a 12 year expected life, check that other infrastructure doesn't have a shorter life expectancy – do all of the culverts have 12 years left in their life or can the bridges go 12 years before rehab, etc.)
- Identify and analyze stakeholders (internal and external to MnDOT) that will help define needs, develop alternatives, identify impacts, and make decisions. (Consider **CAMP**, see Public Engagement, Complete Streets, and Tribal Consultation Policies).
- Determine how those stakeholders will be engaged (e.g. scoping worksheets, Early Notification Memo, public meetings, agency meetings); record in a **Public Engagement Plan.**
- Document scoping plan along with preliminary need and purpose in the **project charter**.
- Prepare a role loaded **scoping schedule** to identify time frames and resource demands on multi-disciplinary team.

Analyze Primary Needs

- Gather data and review potential primary needs, such as:
    - Pavement Condition – ride data, field review, and cores
    - Bridge Condition – existing data and field review
    - Safety – multi-modal crash data and geometric concerns
        - Refer to safety improvement identified in District Safety Plans
    - Operations – congestion, modeling
    - Complete Streets multimodal barriers, pedestrian, bike, and transit facilities and demand
    - Drainage – existing data, known concerns, field review
    - Engage stakeholders (more guidance should be forthcoming from the public involvement section of MnDOT)
        - Gather public needs and concerns
        - Gather local government and tribal needs and concerns
- Determine
    - Purpose and Need
    - Alternative(s) to carry forward
    - Project Design Life
    - Can/should performance based practical design be considered for this project

Analyze Secondary Needs and Environmental Impacts

- Gather data and review potential secondary needs (i.e. improvements that are needed, but do not drive the project)
    - Use **scoping worksheets** that are appropriate for the project
    - Coordinate with local governments and agencies
- Determine (at a high, decision making level) Environmental Impacts:
    - Use **Early Notification Memo** if appropriate at this stage
    - Determine need for right of way
    - Consider traffic impacts and mitigation
- Refine and compare alternatives
- Prepare EIS or EA if applicable (see **HPDP**) up to point of selecting preferred alternative
- Other infrastructure whether inplace or proposed (ie: retaining walls, noise walls, overhead signs, etc)
- Existing R/W determination

Make Scoping Decisions

- Invite the appropriate people to scoping decision meetings (e.g. ADE, Functional Group leads (including ADA, Bridge, Bike & Ped, etc. as needed), Maintenance)
- Provide information to decision team members ahead of the meetings
- Resolve scoping questions to fulfill scoping decision requirements and identify risks and action items for anything that is not resolvable in the meeting
- Keep good notes documenting why and why not things are included in scope

Document Decisions and Plan Project Development Phase

- Prepare the **Scoping Report** with documentation of what is in the scope and what was considered, but will not be in the scope
- Distribute the decision document to all functional/support areas for final review of decisions
- Obtain District management approval of the Scoping Report
- Save the approved Scoping Report in sharepoint
- Identify scope risk items and management strategies in the **risk register**
- Prepare a **Total Project Cost Estimate**
- Identify project delivery work that will be necessary to develop construction plans and obtain RW
    - Prepare the **Early Notification Memo** (if not already done)
    - Update the **Public Engagement Plan** & create the **Project Management Plan**
    - a **Work Breakdown Structure** is a marvelous tool
- Prepare a **role loaded schedule** for project delivery
- Identify risks to schedule and cost, plan responses; update the **risk register.**
- Develop a risk based project **budget**
- Baseline the project
- Prepare Complete Streets Project Report

Scope Changes

- Prepare an Amended Scoping Report when:
    - Work on specific assets is added or eliminated

    - The planned work on an asset is modified such that it requires budget or schedule (i.e. added or eliminated project delivery work) changes or rework (e.g. new limits, changed NEPA document)
- Obtain District management approval of the Amended Scoping Report
- Save the approved Amended Scoping Report to sharepoint and distribute to Project Team

Appendix A. Scoping Decision Requirements (i.e. things that need to be resolved during scoping)

- Problem, Goal, Constraint definitions (Purpose and Need)
- Public Engagement planned and underway
- Alternatives Analysis (including environmental) & Preferred Alternative Recommended
- Construction Scope Items that Should be Resolved before Programming – level of detail should be sufficient to specify whether work on each asset is included in the scope or not and what new assets will be added
    - Geometric Changes (alignment, profile, turn lanes, etc.)
    - Intersection Control Changes (signal, roundabout, RCUT)
    - Pavement Fix (preliminary)
    - Bridge
        - Bridge Work Type
        - Accelerated Bridge Construction
    - Sidewalk, Trail, Transit Work
        - Ped Ramps
        - Segments
        - APS
        - Pullouts
        - Shelters
    - Roadside Infrastructure
        - Access changes
        - Guardrail
        - Signing
        - Lighting
        - Fencing
        - Noise walls
    - Drainage Improvements, preliminary
        - Culvert repairs
        - Storm sewer repairs
        - Stormwater treatment requirements
    - Snow Trap Mitigation
    - Local infrastructure needs (utilities, other streets)
    - Railroad related work
        - Bridge design/portals, project constructability with RR operations, RR utility impacts, temp construction crossings, flagging requirements, and shoo-fly or track realignments, etc.
    - Traffic Control and Detour, preliminary
    - Right of Way Acquisition
    - Items considered but rejected
- Risks identified and management strategies determined
- Total Project Cost Estimate (TPCE) – follows completion of scope
- Project Budget – follows completion of TPCE
- Baselined Schedule that accounts for project delivery requirements – follows completion of scope
- Project Management Plan

Appendix B. Guidance for Project Scale

Most MnDOT projects can be separated into four main categories:

- *Major Construction* – Projects that add capacity or involve major new construction on new alignment. Examples include new construction, auxiliary lane additions, or converting a signalized intersection to an interchange.
- *Reconstruction* – Projects that involve reconstruction on the same alignment and may add capacity to the system. Examples include bridge widening with redeck or replacement and auxiliary lane additions.
- *Preservation* – Projects that maintain the existing infrastructure; invoke a wide range of effort depending on rural vs. urban, life span of the fix, and other infrastructure needs. Examples include bituminous mill & overlay, concrete pavement rehabilitation, turn lane additions, bridge deck overlays, or simple bridge redecks.
- *Roadside Infrastructure* – Projects that have little impact to traffic during construction. Examples include guardrail upgrades, ditch or pond cleaning, sign or lighting replacement, multi-use trails, traffic management systems, noise walls, or landscaping.

Typical efforts for the project types are:

	Major Construction	**Reconstruction**	**Preservation**	**Roadside Infrastructure**
Years before Letting to Start Scoping	6 – 10	6 – 7	6 (BARC projects may be scoped as little as a year before letting)	1 – 6
Public Engagement	Full plan with ongoing engagement	Full plan with periodic to ongoing engagement	Basic plan with as needed engagement	Information provided to public as needed
Purpose	Multiple primary needs; multiple secondary needs	Limited primary needs; multiple secondary needs	Limited primary needs; some secondary needs	Limited primary needs; limited secondary needs
Alternatives Analysis	Multiple, formal alternatives analyzed through process of technical and environmental studies and public input	Multiple, formal alternatives analyzed through process of technical and environmental studies and public input	Limited alternatives with technical and environmental information considered in scoping meeting.	Limited alternatives with analysis for fatal flaws
NEPA Document	EA or EIS	Categorical Exclusion	Categorical Exclusion	Categorical Exclusion or ENM Summary
Geometric Layout	Always Needed	Usually Needed	Sometimes Needed	Not Needed

In addition to the broad categories noted above, use the findings from work performed during Plan Scoping (including an internal and external stakeholder analysis) to determine the exact timing needed for complete Scoping.