**Common Issues on Local Program Plans**

**It is recommended that designers for Local Program projects download the Roadway Design Checklists as guidance to develop sheets and content. They can be found under the Reference Documents section located** [**here**](https://www.tn.gov/content/tn/tdot/roadway-design/design-standards/design-guidelines.html)**.**

**Also, for examples of TDOT Project plan sets, refer to the** [**Construction E-plans Room**](https://www.tn.gov/tdot/tdot-construction-division/bid-lettings/e-plans-room.html) **website.  Once here, check for a set of plans in the current letting and download the project PDF.  By following TDOT formatting, it helps to ensure quality plans and allows for quick plans review turnaround.**

**Title Sheets**

* Project description on title sheet does not match what we have in our system.
* Traffic data and Design Speed are missing.
* Bike speed and facility capacity are not shown for shared-use paths.
* Traffic is not for current year.
* For projects not let by TDOT, Local officials should have their signature on title sheet and not TDOT officials.
* Special Notes (Design Guidelines Chapter 1-204.02) are missing or “Commissioner” is left in the first Special Note. It needs to be replaced with the city or a local official’s title.
* Locally Let and/or Locally Managed note is left off for projects that are not let by TDOT.
* Survey date is missing.
* “No ROW Acquisition” note is missing (if applicable).
* For projects not let by TDOT, cannot include TDOT at the top of the title sheet or above the sheet title blocks on subsequent sheets.
* Begin/End Project flags are missing and/or do not include the station and North/East coordinates given to 4 decimal places.

**Index**

* Sheet titles in the index do not match the sheet titles in the lower right corner of each sheet.
* Sheets are shown in the index but are not included in the plans.
* Detail sheets should be near the front of the plans. See Design Guidelines Section 4-133.00 for sheet sequence guidance.

**Notes – General, Special, and EPSC**

* Notes are not up to date. Templates for Local Programs notes are not being used. Navigate to the Roadway Design page>Design Standards>Roadway Design Documents>Roadway Design 2nd Sheets>Local Program.
* If a reference is made to TDOT, then it should be changed to the local government entity or another appropriate person, unless the project is being let by TDOT.
* Not following the blue instructional text in the template regarding the EPSC General Notes.
* Font is too small because all notes are placed on one sheet instead of using additional sheets.
* Not including Standard Drawings or item numbers that are listed in the notes.

**Standard Drawings**

* A list of standard drawings used on the project is not provided. For current TDOT standard drawings, revision dates, and heading categories, please download the latest Standard Roadway Drawings template on the TDOT website. Navigate to the Roadway Design page, then go to Design Standards> Roadway Design Documents>Roadway Design 2nd Sheets.
* TDOT Standards are not used, especially curb ramps.
* Necessary drawings are omitted from the plans, especially MM-BPR-1 and MM-TS-2.
* Revision dates are wrong.
* Not including item numbers or additional standards that should be included as stated on standard drawings being used. EPSC drawing omissions are the most common.
* Standard Traffic Operations Drawings are being included under the Standard Roadway Drawings instead of being shown under a separate main heading.

**Estimated Quantities**

* Item numbers shown in notes are not shown in the Estimated Quantities block.
* Wrong item number description or the description and/or unit has been modified. Descriptions and units must match what is on the TDOT website.
* Special details show item numbers, but those are omitted from the Estimated Quantities block.
* Pavement schedule item numbers are omitted from the Estimated Quantities block.
* See Design Guidelines Section 4-209.00 for required footnotes for all EPSC items.
* Pipe items are missing a footnote stating that bedding material is included in the cost of the pipe per Design Guidelines Section 4-204.00
* Footnotes are not included to explain what is included in the item or where this item is being used.
* Lump sum erosion control is being used and is no longer valid. The standard drawings have item numbers for which erosion control devices shall be paid for.
* Item number 209-05 Sediment Removal is omitted when EPSC items are used.
* Footnote in Design Guidelines Section 4-716.25 is not included for all Specialty Striping items.
* Item numbers can only be used once for a project and cannot be used in both the Roadway Quantities and other quantities. Footnote if there are multiple places the item number is used and clarification is needed.
* Invalid item numbers are being used. If an equivalent item number cannot be found, an item number with a description that can be edited must be used (920-10.01 through 920-20.92). Ensure the correct item number is chosen based on the desired unit of measurement.
* Topsoil is being omitted when seed or sod is used. See Standard Spec 203.06 for topsoil requirements.
* Item numbers with open descriptions are not being filled in. This is needed to provide descriptive information to the contractor.
* Footnotes should be added for all installation and removal Lump Sum item numbers to break down what is included.
* Truncated domes should be estimated based on actual full width of ramp.
* Item numbers are omitted when existing features are being removed.

**Typical Sections/Special Details**

* Typical sections are omitted from plans – especially sidewalks and shared-use paths. These are necessary to know what is being done on the project.
* Typical section will label a dimension as “varies”. It should state the range of dimensions instead.
* Special details are unreadable on a half size plan set.
* Show and label all proposed pavement layers on typical sections.
* Pavement schedule is missing the range of application rates for prime and tack coat, as specified in Design Guidelines Sections 4-402.00 and 4-403.00, respectively.
* Sidewalk/shared-use path widths are missing.
* Sidewalk/shared-use path cross slope is missing or incorrect. TDOT standard is 1.5% to allow for construction tolerances (2% absolute maximum per PROWAG doesn’t allow for tolerances).
* TDOT standard drawings must be referenced under each typical section or detail.
* If TDOT driveway standards are not used, provide a driveway detail and label with 1.5% maximum cross slope.
* For projects that are in the preliminary phase, the new RD11 series drawings are required.

**EPSC Plans**

* EPSC Plans are not included.
* EPSC measures are shown outside ROW or easement areas.
* Recommend including an Erosion Control legend with standard drawings shown for each device.
* Recommend including an Erosion Control tabulation block. Item numbers and quantities must match what is shown in the Estimated Quantities block. Also recommend including footnotes.

**Traffic Control**

* Temporary Traffic Control (TTC) plans are not included. TTC plans must be developed as part of the design process.  It cannot be a note that says it will be developed by the contractor.  See the Work Zone manual guide for additional information or guidance.  This is a requirement of the FHWA Work Zone Safety and Mobility Rule and applies to any agency involved in Federal Aid project development.  Depending on the scope of the project, the traffic control plan may only require references to TDOT standard drawings, MUTCD, notes, etc.
* Transportation Management Plans (TMP’s) are now required for all projects. See FHWA website or contact Jason Quicksall with the Roadway Design Division.
* Traffic Control should be phased. Make sure all sidewalks are not closed at the same time so pedestrians can use one side or the other, or can be directed into road if properly barricaded. Make sure to check MUTCD.
* If a sidewalk will be closed, ensure that a work zone pedestrian control plan is developed.  It does not have to be a separate sheet, but must include TDOT standard drawing T-WZ-55, any additional standard drawings that might be required due to a lane closure, the appropriate item numbers, and notes.
* Pavement Edge Drop Off notes are omitted or not updated.
* Recommend including Traffic Control tabulation block and Construction Signs tabulation block. Item numbers and quantities must match what is shown in the Estimated Quantities block. Also recommend including footnotes.
* Item 712-01 is strictly for the management of traffic control. See TDOT Specification Book section 712.10. Provide item numbers for products associated with traffic control, such as drums, warning lights, etc. Include all construction signs in 712-06.
* Certain work such as sidewalk projects and concrete turn islands do not have TTC that shows the project’s impact.
  + Sidewalk projects many times don’t include closures of the adjacent lane of traffic, even though that is typical for that type of work, even when the work is 5-10ft off the edge of road.
  + Turn lanes should have specific TTC laid out to show how traffic is to be routed during work. Usually this involves closing an area larger than the proposed island as well as the turning lane. Plans should take into account changes in the ability of trucks to navigate the intersection without the turn lane.

**Non-Motorized Concerns**

* Each curb ramp is not labeled with the applicable standard drawing on the proposed layout sheets.
* Curb ramps must be aligned within the crosswalk.
* All references to Handicap Ramps/ADA Ramp should be labeled as Curb Ramp.
* Curve warning signs are missing for curves less than 60’ minimum radius. Bicycle Facilities must be in conformance with AASHTO’s “Guide for the Development of Bicycle Facilities”, 2012 Fourth Edition.
* Clear zone is not provided. A 2’ wide clear zone with maximum 6:1 fill slope on each side of the paved surface shall be provided (see Figure 5-1, AASHTO’s “Guide for the Development of Bicycle Facilities”, 2012 Fourth Edition). Sections on a structure may reduce the lateral offset to 1’ (see Standard Drawing MM-TS-3).
* Scoring is not allowed. Per MM-CR-2, a coarse broom finish is to be used for the flares.
* Truncated dome color must be yellow.
* Truncated domes will be needed at all commercial driveways with stop or yield control or that function as a road.
* Truncated domes should extend the entire width of the ramp.
* For shared use-path crossings or blended transitions, truncated dome and lowered area for curb ramp should extend the entire width of crosswalk.
* Ensure the 4x4 maneuvering area is located at the toe of ramp and is entirely within crosswalk.
* If tying into existing sidewalk in the middle of the project, existing sidewalk needs to be labeled as "Existing Compliant Sidewalk". If not ADA compliant, then it must be updated.
* If you touch the intersection, you are responsible for all corners. If some of the corners are compliant, then the existing curb ramps must be shown on the plans and it must be stated they are fully compliant. Otherwise, they will need to be replaced.
* TDOT does not allow the use of brick pavers (or truncated dome pavers) due to the increased rolling resistance they produce for wheelchairs and walkers, as well as their tendency to sink or shift over time. PROWAG Advisory R302.7.1 states that pedestrian access routes must be generally planar, smooth, and provide easy rollability.
* TDOT does not allow the entire crosswalk to be stamped. It creates an uncomfortable path for people in wheelchairs. The edges can be stamped, but a 5-foot smooth surface must be provided in the middle. The white boundary lines must remain.
* If you are unable to follow TDOT standards, then you must fill out a Design Waiver form and submit it to Ali Hangul for approval. The form can be accessed on the Roadway Design webpage under Design Standards>Roadway Design Documents>Roadway Design Forms and Letters>Requests. See also TDOT Design Guidelines Chapter 2-201.00
* If pedestrian facilities exist at opposite sides of any intersection, including “T” intersections that have uncontrolled crossings, they require ADA curb ramps. All intersections are legal crosswalks where pedestrian facilities exist, even if they are unmarked or uncontrolled, and require access.
* Ramps should be installed for each direction of travel at each corner. Most intersections with sidewalks at each corner should have 8 total ramps. Corners with single ramps intended to serve two crossings need to be justified.

**Plan and Profile Sheets**

* Begin/End flags are missing from layout sheets.
* Project flags do not show the station and North/East Coordinates given to 4 decimal places.
* Road Names along the centerline are not labeled.
* Station and corresponding sheet number are omitted for matchlines.
* Tract numbers are not labeled for all tracts on property map/present layout.
* Existing ROW bearings and lengths are omitted when there is proposed ROW.
* Proposed ROW bearings, distances, stations, and offsets are omitted from the present layout sheets (or ROW detail sheets).
* The datum adjustment factor note (see Design Guidelines Chapter 1-202.05) is missing or not filled in. The factor should be supplied with the survey.
* Begin and End stations are not labeled for bridges.
* Begin and End stations and anchor types are not labeled for guardrail. If tying into existing guardrail, tie-in stations and offsets also need to be labeled.
* Begin and End stations and offsets are not labeled for retaining walls.
* Begin and End stations for pedestrian safety rail are not labeled.
* Drainage easements are not labeled with stations, offsets, bearings, and distances.
* Sidewalk/shared-use path widths are not labeled.
* ROW Acquisition Table & total disturbed area table are omitted. See TDOT Design Guidelines Sections 3-300.01 and 2-320.00, Figure 2-25.
* Disturbed area must be stated in the Special Notes if there is no Acquisition Table.
* If no ROW is being acquired on the project, the Acquisition Table can be omitted and a note placed on the title sheet stating “No ROW Acquisition”. All property owners’ names and tract numbers must be shown on the present layout sheets.
* If no ROW is being taken from a tract, line it out in the ROW Acquisition Table and on the property map/present layout sheets.
* For federally funded projects, proprietary items are shown in the plans that do not have signed approvals from the Traffic Operations Division.
* If multiple manufacturers are listed for a proprietary product, 3 equal suppliers must be given. If 3 cannot be found, a minimum of 2 is required with the phrase “or equal”. If only 1 brand is preferred, approval must be obtained.
* Driveways are not labeled with the applicable standard drawing. RP-D-15 is preferred when a grass strip is used.
* 4’ minimum distance between the stop line and the crosswalk is not labeled.
* Crosswalk width and T-M-4 reference is omitted.
* Driveway width, side drain length and size, and limit of construction station are recommended to be shown on the proposed layout sheets and the private drive profiles.
* Profiles are omitted for a shared use path that is not along the roadway. Standard grade is 4.5% to allow for construction tolerances (5% absolute maximum per PROWAG doesn’t allow for tolerances).
* Existing and proposed grades are not labeled on Profile sheets.
* On Profile sheets, proposed pipes, culverts, and storm sewer features are not labeled with length, type, size, and grade. Structures are not labeled with structure code, type, and grate/inlet/outlet elevations on Profile sheets.
* Proposed bridge linework with Begin/End stations and hydraulic data are not shown on Profile sheets.
* Special Ditches are not shown on Profile sheets.
* We recommend showing earthwork balances, existing overhead and underground utilities, and superelevation rate diagrams on Profile sheets.