


Memo

New Mexico Department of Transportation

SUBJECT: Infrastructure Design Directive
IDD-2009-06 (Formatting Guidelines (Plans))

DATE: 22-July-2009

TO: Office of Infrastructure Divisions
District Offices
Transportation Design Community

FROM: 
Tamara P. Haas, Acting Chief Engineer
Office of Infrastructure Divisions

FILE REFERENCE:
PSESHARE:Design Directives

In order to further improve project plan quality and standardize Department Plans, the attached Formatting Guidelines (Plans) have been reviewed and approved by committee and are hereby established as the standards to be followed in plan design and preparation for letting.

This new Design Directive is to be implemented effective immediately on all New Mexico Department Of Transportation projects.

In addition, the Plan Cover Sheets (Rev. 3/09) should also be utilized on all New Mexico Department of Transportation projects.

Plan Cover Sheet updated locations:

Central Region \\eabrc1\CADD\Bentley\Workspace\Standards\dgn\imperial

South Region \\eabrs1\CADD\Bentley\Workspace\Standards\dgn\imperial

North Region \\eabrn1\CADD\Bentley\Workspace\Standards\dgn\imperial

General Office staff is to utilize the \\aspn\pseshare drive to access the Directive. District and Regional Office staff can access the Directive utilizing the appropriate District drive as indicated below:

District 1	\\D1Blade3\D1Design
District 2	\\D2flsv01\public\psesection
District 3	\\D3-blade1\District 3\PS&E_Section
District 4	\\D4-blade2\designshared
District 5	\\d5-blade4\section_shares\d5design
District 6	\\d6flsv06\d6_users\pse_section

The Directive and Plan Cover Sheet locations will reside in the Department's external website. The web address is:

<http://www.nmshtd.state.nm.us>

Infrastructure Design Directive (IDD-2009-06)

22-July-2009

Page 2

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Infrastructure Design Directive (IDD-2009-06)

22-July-2009

Page 3

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Infrastructure Design Directive (IDD-2009-06)

22-July-2009

Page 4

METROPOLITAN/REGIONAL PLANNING

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**FORMATTING GUIDELINES (PLANS)
NEW MEXICO DEPARTMENT OF TRANSPORTATION**

SHT. 1-SERIES COVER SHEET

- Project Number, Control Number and County Designation
(Do not list alternate Control Numbers)
- Arrow to Project Termini (See Standard Arrows)
- Project Termini as shown on Construction Program Management (Termini should indicate limits of longest alternate)
- Engineer's stamp and signature (Lower right hand corner of sheet)
- State Seal (State and Federally funded projects) or
- Federal Seal and State Seal (Federally funded projects only)
- Utilize CADD Standard cover sheets

SHT. 1-SERIES VICINITY MAP SHEET

Vicinity Map:

- BOP (Project Number with station and corresponding mile post)
- EOP (Project Number with station and corresponding mile post)
- Units with station limits
- Major Structures (Station w / Description)
- Equations (Station Bk.=Station Ahd.)
- Townships and Ranges
- Section Numbers @ BOP and EOP

North Arrow - See Standard Arrows

Scales (Plan and Profile Sheets or Straight Line Diagrams, Vicinity Map Layout)

Shipping Points

Length of Project (In miles to 3 decimal places)

Block for Project Development Engineer and Designer / Contact person w / telephone numbers

District contacts w / telephone numbers

Intent of Project (Directly under Vicinity Map) – In Addition to basic intent statement, when applicable add: Bidding alternates have been established for this project

SHT. 1-SERIES INDEX OF SHEETS

Include all sheets in proper sequence. Sheet series must remain constant. If a series is not used, add "Not Used" in description column. Refer to CADD Standards for numbering scheme. Sub-Total Each Series of Sheets.

SHT. 1-SERIES INDEX OF SHEETS - STANDARD SERIAL DRAWINGS

Listing of required Standard Serial Drawings with Serial Number, Description and Dates

Sub-Total of Standard Serial Drawings utilized

Total Number of Sheets on Project

SHT.1-SERIES SUMMARY OF QUANTITIES

Provide Category Headings across top of sheet

Categories:

- Roadway
- Major Structures (Concrete Box Culverts or Bridges with a clear span greater than 20 feet)
- Construction Signing
- Permanent Signing
- Construction Engineering (Refer to Construction Engineering Listing)
- Signalization
- Lighting
- Landscaping
- Non-Participating Items
- ITS
- Detour
- Specify Alternates* when required

NOTE. Separate all applicable categories into units if project is in more than one county, if project has more than one funding type or if project is in Indian land.

*For HMA / PCCP Alternates: Alternate A shall be the HMA Alternate, Alternate B shall be the PCCP Alternate. For other types of Alternates: Alternate A is the preferred and is higher cost alternate.

SHT. 1-SERIES GENERAL NOTES

Applicable General Notes (See listing of commonly used General Notes)

List of Incidental Items:

- All Items Incidental to Construction or Incidental to Completion of Project only.
- Reference to General Notes or applicable sheets

NOTE: Do not list Incidentals specified in the most current edition of the New Mexico Department of Transportation Standard Specifications For Road And Bridge Construction, Special Provisions, Supplemental Specifications, Standard Serial Drawings or Incidental to Bid Items.

SHT.1-SERIES ENVIRONMENTAL COMMITMENT NOTES

As provided by the Environmental Section – w / Environmental Program Manager's Signature

SHT. 2-SERIES ALL SHEETS

All schedules should have consistent fonts from schedule to schedule and sheet to sheet. Titles should be larger than general schedule text. Each schedule should have Item Numbers, Item Description (matching Bid Item listing) as well as a remarks column.

SHT. 2-SERIES TYPICAL SECTIONS

Sheet 2-1 should always include:

- Length of Project Schedule (Upper left hand corner):
 - Roadway Station To Station
 - Equations
 - Major Structures Station to Station
 - Length in Feet (2 decimal places) and in Miles (3 decimal places)
 - List Detours, Ramps, Crossroads, Etc. in parenthesis (For Information Only)
- NOTE: If project has more than one unit, Length of Project shall reflect unit breaks.
- Design Speed and Traffic Volumes (Existing and Design Year)
- Existing Typical Sections (Existing details should be dashed line style)

Typical Sections:

- Lane, Shoulder and Taper Dimensions
- Cross Slopes
- Surfacing Depths (Number of lifts of HMA)
- Base Course
- Location of Tack Coat and Prime Coat
- Station to Station of Typical Section
- Location of Lane Stripes
- Rumble Strips
- Slope Selections (Slope Exceptions If Applicable)
- Centerline of Survey and / Or Construction W / Offsets
- Profile Grade Location

Shoulder Widening Sections - All requirements of Typical Sections apply

With the following additions:

- Identify Existing Pavement Rehabilitation (Process, Place & Compact Existing Pavement, In-Situ Cold Recycling, etc.)
- Depth of Rehabilitation

Shoulder Detail:

- Denote actual surfacing lifts and taper slopes
- Distressed Areas and Reconstruction Areas
- Earthwork required below Subgrade
- Station to Station at required locations

Surfacing Connection Details @ BOP (EOP)

Station to Station for transition section between Typical Sections

Super elevation Table:

- Station Transition and Super Elevation Rate

TURNOUTS:

- Typical Section for Paved / Base Course Turnouts w / dimensions, surfacing depths, 8:1 slopes

NOTE: Line Style for existing details shall be dashed.

Line Style for proposed details shall be solid.

SHT. 2-SERIES SURFACING SCHEDULE

Provide items in numerical order across the top of the sheet. Separate surfacing quantities for roadway, connections, etc.

Surfacing Types:

- Subgrade Preparation (width and square yards)
- Base Course (average width, depth cu.yds. and tons)*(See example)
- HMA (average width, depth cu.yds. and tons),
- Open-Graded Friction Course (Width, depth cu.yds. and tons),
- Bituminous Material (tons) and Hydrated Lime (tons) (show *for information only on complete items)
- Tack Coat (width per each application between lifts)
- Prime Coat (width and tons)
- In-Situ Recycling (width, depth, square yards, cu.yds. and tons), High Float Emulsion (tons) and Sealing Emulsion (tons)
- Portland Cement Concrete Pavement (width, depth and sq.yds.)
- Paving Fabric (width and sq.yds.) and Tack Coat (tons)

NOTE: If project requires more than one unit, separate quantities accordingly.

Estimated Surfacing Factors Schedule: (Based on Lab Recommendations)

- Surfacing Items (i.e. Base Course, HMA, Open Graded Friction Course, Etc.)
- Unit weights of surfacing materials shown above
- Asphalt Material type and content (by percentage)
- Hydrated Lime (by percentage)
- Application Rates and Conversion Factors for Tack Coat, Prime Coat, Etc. (Surfacing Factors as per Design Directive 12-11-2001, 4-2001-Design (Tack / Prime Cost Application Rates)

Note: Always show preferred alternate first.

SHT. 2-SERIES ESTIMATED STRUCTURES QUANTITIES SCHEDULE

Use reference designations for structure build notes. (i.e. SQ-1, SQ-2 etc.)

List notes by increasing stationing.

Inlet and Outlet Ditch Earthwork Quantities (Length x Width x Depth)

Items to be listed in numerical order across the top of the sheet

Concrete Box Culverts:

- List Excavation, Wire Fabric and Number of Stakes for Information of the Contractor Only

NOTE: If project requires more than one unit, Separate quantities accordingly.

SHT. 2-SERIES MISCELLANEOUS QUANTITIES AND DETAILS

Fencing (Barbed, Woven, Etc.):

- Station to Station
- Location
- Linear Feet (Include Equations When Applicable)
- Remarks (i.e. Jogs, Turnout Deductions, Etc.)

Gates:

- Station
- Location
- Quantity
- Remarks (i.e. @ R/W, @ Turnout Location, Etc.)

SHT. 2-SERIES MISCELLANEOUS QUANTITIES AND DETAILS (CONTINUED)

Metal Barrier:

- Station to Station
- Label Reference (i.e. MB-1, MB-2, etc)
- Location
- L₂ (Dimension from edge of driving lane to face of barrier)
- W-Beam Barrier
- Thrie Beam Barrier
- Metal Barrier Anchorage
- Remarks (i.e. High Fill, Bridge Location, Etc.)
- (Add Layout Details on Plan View)

Removal of Structures and Obstructions:

- Station to Station
- Location
- Quantity
- Description (Salvage materials note if applicable)
- Bridge Removals (Description of bridge with dimensions)
- Summary (Summarize All Removals by type and total quantities)

Removal of Surfacing:

- Station to Station
- Lin. Ft. (Include equations when applicable)
- Location
- Square Yards

Construction Engineering and Lump Sum Items: (Listed are most commonly used items)

- Base Course Testing By the Contractor
- HMA Sampling and Testing (Sections it applies to)
- SWPPP Management
- Vibration Monitoring
- Field Laboratory Type I & II
- Supplemental Field Laboratory
- Supplemental Hot-Mix Asphalt Field Laboratory
- Field Office
- Field Laboratory Testing Equipment
- Pre-Construction Utility Survey
- Construction Staking by the Contractor
- Post Construction Plans
- Contractor Process Quality Control
- Partnering Agreement
- Mobilization

Clearing and Grubbing (Include information by schedule or in remarks column)

Note: Specialty Lump Sum Items shall have an itemized schedule of components and their quantities and shall have an equivalent notice to contractors schedule prepared for the contract book. Notify PSE Section.

Linear Grading:

- Station to Station
- Location (Lt., Rt., Center)
- Linear Feet (2 decimal places)
- Miles (Show total to 3 decimal places and Use quantity to 1 Decimal Place)
- Remarks (width)

SHT. 2-SERIES MISCELLANEOUS QUANTITIES AND DETAILS (CONTINUED)**Obliterating Old Road:**

- Station to Station
- Location
- Linear Feet (To 2 decimal places)
- Miles (Show total to 3 decimal places and Use quantity to 1 Decimal Place)
- Remarks (Width)

Mail Box Installations:

- Single, Double or Multiple Installations
- Station
- Location
- Quantity
- Remarks

Earthwork Summary:

- Station to Station
- Location
- Excavation (Cu.Yds.)
- Embankment (Cu.Yds.)
- Shrink or Swell (Cu.Yds.), Show Percentage
- Borrow or Waste Quantities
- Balance (Embankment + Shrink – Excavation = Borrow or Waste)
- Remarks

Turnout Schedule:

- Station
- Reference designations (i.e. TO-1, TO-2, etc.)
- Location
- Radii
- Normal or Skewed
- Width
- Length of Turnout
- Remarks (Paved or Base Course)
- Add Note: See Sht. ___ for Pay Quantities

Traffic Marker Guides:

- Station to Station
- Location
- Spacing (1st, 2nd, 3rd)
- Type of Marker
- Quantity (In separate lines - Advance of Curve, Curve and Beyond Curve)
- Remarks

Traffic Marker Hazards:

- Station
- Location
- Type of Markers
- Quantity
- Remarks (At Structure Locations, Etc.)

Curb & Gutter (By Type):

- Station to Station (Include Equations When Applicable)
- Reference designations (i.e. CG-1, CG-2, etc.)
- Location
- Lin. Ft. (Measured Along the Face of the Curb at the Flowline of the Gutter)
- Remarks

SHT. 2-SERIES MISCELLANEOUS QUANTITIES AND DETAILS (CONTINUED)

Sidewalk:

- Station to Station
- Location
- Lin. Ft. (Include Equations When Applicable)
- Square Yards
- Remarks

Drive Pads:

- Station
- Location
- Length
- Square Yards
- Remarks (i.e. Width of Drivepad, Etc.)

NOTE. Concrete Laydown Curb to Be Used At Drive Pad Locations.

NOTE. If Project Requires More Than One Unit, Separate Quantities Accordingly.

NOTE. List Total Quantities To 2 Decimal Places And A Rounded Use Quantity To The Nearest Unit Unless Otherwise Designated.

SHT. 2-SERIES TEMPORARY EROSION AND SEDIMENT CONTROL PLAN (TESCP)

TESCP Schedule:

- Items to be listed in numerical order across the top of the sheet
- Station
- Location
- Description
- Quantities
- TESCP / NPDES Plan Details (For Environmentally Sensitive Projects)

SHT. 2-SERIES EROSION CONTROL PLAN

Erosion Control Plan:

- Contact Roadside Environment Design Unit for Erosion Control Plan Requirements

Typical Seeding Requirements

Temporary Soil Stabilant

- Compute Stabilant at 1.2% of Total Seeding

NOTE: List Total Quantities to 2 Decimal Places and Round Use Quantity to 1 Decimal Place.

NOTE: If Project Requires More Than One Unit, Separate Quantities Accordingly.

SHT. 2-SERIES MISCELLANEOUS AND SPECIAL DRAWINGS

Typical Details:

- Special Details or Drawings not covered in Standard Serial Drawings.

SHT. 3-0 SURVEY DATA SHEETS

Survey data sheet

List as Sheet 3-0 (If more than one sheet list additional sheets as 3-00, 3-000, etc)

SHT. 3-SERIES PLAN AND PROFILE SHEETS (PNPs)

Numbering for Alternates shall be shown as 3-1A (for Alt. A), 3-1B (for Alt. B), etc.

NOTE: All Text Shall Be Consistent In Font Size and Style. Existing information shall be in Block Style and Proposed information in Italics Style.

Plan:

- Existing Roadway W / Topography If Applicable
- BOP (EOP) Arrows W / Stationing (See Standard Arrows)
- Proposed Roadway (Driving Lanes) W / Dimensions
- Centerline of Survey & Construction Labeled
- Horizontal Curve Data (PC's, PI's, PT's and Curve Data - Degree of Curve and Delta To Be Shown In Degrees, Minutes and Seconds)
- Show Super elevation Runoff and Tangent Run out Lengths
- Bearings and Angle Points
- North Arrow
- Scale (First PNP only)
- This Project Begins In Section, Township, Range or Grant (First PNP only)
- This Project Ends In Section, Township, Range or Grant (Last PNP only)
- Utility Owners (First PNP only, List All Utility Owners)
- Curve Definition Note: All Curves on This Project Are Based On the Arc Definition. Radius of 1 -5729.578 (Sht. 3-1 only)
- R/W with Dimensions to Centerline of Survey (Construction) With TCP's and CMEs If Required (Shown At Beginning and End of Each Sheet and At Jogs)
- Equations
- Slope Limits
- Station Numbering (500 Ft. max. Intervals)
- Build note references (referencing schedules)
- Detour(s) W / Alignment

NOTE: Show all build notes by making reference to pertinent schedules, shown perpendicular to proposed centerline. Existing topography notes to be placed parallel to centerline of construction. Horizontal Alignment Shall Conform to Requirements Established by AASHTO In the most current edition of the Policy on Geometric Design of Highways and Streets.

Profile:

- Existing Ground line (Dashed Lines)
- BOP (EOP) Arrows W / Stationing
- Scales for Horizontal (Stationing) & Vertical (Elevation)
- Proposed Grade (To 2 Decimal Places) Insuring Minimum Cover at Structure Locations
- Proposed profile grade line work (Solid Lines)
- Vertical Curves (Include: PC, PI and PT Stations and Elevations, Length of Vertical Curve, MO, Stopping Sight Distances (SSDs) For Crest Vertical Curves, and K-Value in accordance with AASHTO)
- Equations (To Be Taken Into Account When Developing Vertical Alignment)
- Location of Structures with Centerline Flowline elevations and Structure Description (i.e. Sta. 456+98.76 - Build 2-36" Culvert Pipes)
- Existing Ground line Elevations w / Profile Grade Elevations below 100 Foot Intervals and at Pertinent plus Stations
- Detour Profile

SHT. 3-SERIES PLAN AND PROFILE SHEETS (PNPs) (CONT)

-Bench Marks And Reference Points

Example:

Brass Cap
75' Rt. Sta. 421+42.21
Elev. 3641.42

NOTE. Vertical Alignment Shall Conform To Requirements Established By AASHTO In The Most Current Edition Of The Policy On Geometric Design Of Highways And Streets.

SHT. 3-SERIES STRAIGHT LINE DIAGRAMS

NOTE: All Text Shall Be Consistent In Font Size and Style. Existing Notes shall be in Block Style and Proposed Notes in Italics.

Straight Line Diagrams:

- Centerline Of Construction (Survey)
- Station Numbers (500 Ft. max. Intervals)
- North Arrow
- Scale (On First Sheet Only)
- All Utility Owners (On First Sheet Only)
- Driving Lanes
- BOP (EOP) Arrows W / Stationing
- This Project Begins (Ends) In Section, Township, Range Or Grant (First And Last Sheet)
- Existing Topography Notes
- Horizontal Curve Data (PC's, PT's And Curve Data) Show As Tangent Sections, Do Not Show Curved Sections.
- Equations

NOTE: Show all build notes by making reference to pertinent schedules, shown perpendicular to proposed centerline.

Existing Topography Notes to Be Placed Parallel to Centerline Of Roadway.

SHT. 4-SERIES TURNOUT PROFILES

Turnout Sections Listed In Numerical Order from the Bottom of the Sheet Up

- Label Reference (i.e. TO-1, TO-2, etc)
- Label Station at Centerline of Turnout
- Label Existing Ground line Elevation and Roadway Elevation at Edge of Shoulder
- Label Centerline Of Driving Lane W / Proposed Roadway Template Section To The Right Or Left Depending On The Location Of The Turnout.
- Label Elevation Where Turnout Ends

Establish Vertical Alignment for Turnouts

- Label Grades
- Define Length of Vertical Curve and MO

Identify R/W and TCP's or CMEs If Applicable

If Structures Are Required Show Pipe and Define Flow line Turnout Build Notes

SAMPLE TURNOUT NOTES:

TO-3 STA. 90+25.25 BUILD 1-16' TURNOUT RT.
25' RADIUS LT. & RT.

TO-2 STA. 60+50.15 BUILD 1-16' TURNOUT LT., 25' RADIUS LT. & RT.
PAVE TO RW
BUILD 1-24"X26' CULVERT PIPE W/ CONCRETE
BLANKETS W/ SAFETY GRATES LT. AND RT.

TO-1 STA. 45+75.40 BUILD 1-16' TURNOUT LT., 25' RADIUS LT. & RT.
PAVE TO CATTLE GUARD
BUILD 16' CATTLE GUARD AT RW

Listed In Numerical Order from the Bottom of the Sheet Up

SHT. 5-SERIES BRIDGE PLANS (If Applicable)

Contact Bridge Design Engineer

SHT. 6-SERIES CONSTRUCTION TRAFFIC CONTROL MANAGEMENT PLANS

Suggested Sequence of Construction (detailed with sheet references) should be 2nd sheet of 6-series.

Detour Typical Section (Include Tack Coat, Prime Coat, Subgrade Preparation)

Detour Quantity Schedule

Summary of Items and quantities required

Special details

Insert Standard Serial Drawings (applicable sheets only)

Note: Changeable Message Boards – Add note below schedule to indicate if State or Contractor retains.

SHT. 7-SERIES PERMANENT SIGNING/STRIPING

Detailed Signing and Striping Plan sheets

Intersection Striping Details if required

Sign Face Detail Sheet

Permanent Signing Quantity Sheets

Permanent Signing Summary of Quantities

Retroreflectorized Painted Markings:

-Station to Station

-Define Striping i.e. Solid White, Solid Yellow, Dashed White and Dashed Yellow

-Linear Feet (Include Equations when applicable)

-Description (i.e. Shoulders Lt. & Rt., Center Line, No Passing Zones, Etc.)

Note: Specify Paint type - Acrylic (3 applications) or Hi-build (2 applications)

SHT. 8-SERIES LIGHTING
 Lighting Plans and details as per Traffic Design

SHT. 9-SERIES SIGNALIZATION
 Signalization Plans and details as per Traffic Design

SHT. 10-SERIES STRUCTURE PLACEMENT SECTIONS

Sequence of Construction on Complex Structures
 Scale (Use Same Scale Horizontally and Vertically)
 Listed In Numerical Order from the Bottom of the Sheet Upward

Normal Sections:

- Structure Section @ Desired location
- Station
- Label Reference (i.e. SQ-1, SQ-2 etc.)
- Template W / Dimensions Including Slopes (Label)
- Label Profile Grade
- End Sections or Blankets (Use Current Procedures)
- Inlets and Outlet Ditches (Length X Width X Depth)
- Centerline of Survey to Centerline of Construction offsets
- Metal Barrier If Required
- Right Of Way, TCP's & CMEs If Required
- Clear Zone
- Erosion Control Pads
- On Existing Structures Identify If Any Section of Pipe Is To Be Removed
- Label Flow line Of Structure at Centerline
- Build Notes (This Note to Be Duplicated On Estimated Structures Quantities Schedule and Plan and Profile Sheets or Straight Line Diagrams)
- Applicable Standard Drawings at Each Structure Section
- DA ACRES, HW FT, and Q100 CFS
- Serial Drawing List

Skewed Sections:

All Requirements Of Normal Sections Apply With The Following Adjustments:

- Template Dimensions and Slopes - Skewed Dimensions
- Show Profile Grade @ Edge of Shoulders at Skewed Station
- Offsets - Skewed Dimensions
- Right Of Way - Skewed Dimensions
- Clear Zone - Skewed Dimensions
- Build Notes - Show Skew and Direction of Skew (i.e. Rt. Fwd. Or Lt. Fwd.)

Super Elevated Sections:

All Requirements Of Normal Sections Apply (Skewed Section Requirements If Applicable) With The Following Adjustments:

- Apply SE Rate or Transition Rate to Template
- Label SE Rate or Transition Rate

SAMPLE STRUCTURE BUILD NOTES:

Note: Existing Notes shall be in Block Style and Proposed Notes in Italics.

NEW STRUCTURES:

- STA. 97+00.10 *BUILD 2-24"X84' CULVERT PIPES – NORMAL.
W / END SECTIONS LT. & RT
DA=XX ACRES, HW=x.x', Q100=xx CFS
SERIAL DRAWINGS: XXX-XX-X/X, XXX-XX-X/X,*
- STA. 70+00.50 *BUILD 1-72"X186' CULVERT PIPE @ 15° RT.FWD.
BUILD CONCRETE BLANKETS W / SAFETY GRATES LT. & RT.
BUILD EROSION CONTROL PAD, 10'X10'X1'
DA=XX ACRES, HW=x.x', Q100=xx CFS
SERIAL DRAWINGS: XXX-XX-X/X, XXX-XX-X/X,*
- STA. 59+56.10 *BUILD 1-71" SX47" RX94' CULVERT
PIPE ARCH-NORMAL
BUILD CONCRETE BLANKETS W / SAFETY GRATES LT. & RT.
DA=XX ACRES, HW=x.x', Q100=xx CFS
SERIAL DRAWINGS: XXX-XX-X/X, XXX-XX-X/X,*
- STA. 35+00.08 *LT. BUILD 1-24"X100' CULVERT PIPE-NORMAL
BUILD 1-MDI DROP INLET TYPE I -50' RT. H-4.75;
BUILD CONCRETE BLANKET LT.
DA=XX ACRES, HW=x.x', Q100=xx CFS
SERIAL DRAWINGS: XXX-XX-X/X, XXX-XX-X/X,*
- STA. 30+00 *BUILD 2-8'X6'X163' C.B.C.s @ 45° RT.FWD. DESIGN II
BUILD WINGWALLS LT. & RT.
DA=XX ACRES, HW=x.x', Q100=xx CFS
SERIAL DRAWINGS: XXX-XX-X/X, XXX-XX-X/X,*

EXISTING STRUCTURES WITH EXTENSIONS:

- STA. 28+35 *1-24"X100' C.M.C.-NORMAL IN PLACE
EXTEND LT. 20' AND RT. 10' WITH 1-24" CULVERT PIPE;
BUILD MODIFIED CONCRETE BLANKETS LT. & RT.
DA=24 ACRES, HW=2.5', Q100=269 CFS
SERIALS: XXX-XX-X/X, XXX-XX-X/X,*
- STA. 18+57.25 *2-8'X8'X50' C.B.C.s @ 30° RT.FWD. IN PLACE;
EXTEND RT. W / 2-8'X8'X17' C.B.C.s @ 30° RT. FWD.
DESIGN 1, TYPE I EXTENSION
BUILD WINGWALLS RT.
DA=95 ACRES, HW=8.0', Q100=465 CFS
SERIALS: XXX-XX-X/X, XXX-XX-X/X,*

List In Numerical Order from the Bottom of the Sheet Up

HORIZONTAL CURVE DATA EXAMPLES:

PI STA = 105+10.25
DEG. = 8°34'51.00"
Δ = 5°15'05.20"
R = 150.00'
T = 47.93'
L = 92.79'
SE = 2.8%
E_{max} = 6.0%

VERTICAL CURVE DATA EXAMPLES:

PI STA = 1355+50.00
VC Length = 650.0'
M.O. = 4.55'
K Value = 114'
SSD = 518'

Note: Existing Curve Data shall be in Block Style and Proposed shall be in Italics.

CROSS SECTIONS

(Cross Sections shall be forwarded to PM separately)

Stationing Shown From the Bottom of the Sheet Up

Groundline and Proposed Template:

- Proposed Template Dimensions W / Slopes as Per Slope Selections or Slope Exceptions
- Label And Identify Ramps, Frontage Roads, Etc.
- Offsets If Applicable
- Label Super Elevation Rates If Applicable (Transition Sections If Applicable)
- Earthwork Areas and Volumes (Cut Quantities on the Left, Fill Quantities on the Right), Modified Quantities (Shrink or Swell) Circled With Appropriate Volumes

NPDES / TESCM

NPDES / TESCM details shall be forwarded to PM separately if they were not included with the plans.

These format standards should be consistent throughout each Design Region and each District. These format standards shall also apply to "Book" projects in as much as possible.

Finally if these standards are followed consistently it is expected that not only will the reports become shorter but the review process will become more efficient indicating PROGRESS.