

Design Standards Letter

Letter Number: P-1999-03

Letter Date: 07/02/1999

Effective Date: 10/01/1999

Section/Plan No.: P203.20E, P203.40F, P604.05C, P604.27E, P606.23D, P606.41A, P609.70C, P614.10S, P614.11A, P616.10W, P620.00A, P902.15G, P902.21C, P902.50I, P903.01E, P203.21F, 502.00R, P502.05C, P504.00D, P606.00AH, P606.22, P617.00AB, P901.00T, P901.01Y, P901.02A, P901.30C, P902.00H, P902.30L, P902.70G, P903.05F, P903.06F, P903.07F, P903.08E, P903.10W, P903.12R, P903.60V, PM203.20E, PM203.40F, PM604.05C, PM604.27E, PM606.23D, PM606.41A, PM614.10S, PM616.10W, PM620.00A, PM626.00, PM731.10N, PM902.15G, PM902.21C, PM902.50I, PM903.01E, PM203.21, PM502.05C, PM504.00D, PM606.00AH, PM606.22P, PM617.00AB, PM901.00T, PM901.01Y, PM901.2A, PM901.30C, PM902.00H, PM902.30L, PM902.70G, PM903.05F, PM903.06F, PM903.07F, PM903.08E, PM903.10W, PM903.12R, PM903.60V

Subject: Errata Corrections and Revised Standard Plans (English and metric)

Body

The following is a listing of errata corrections as well as revised English and metric standard plans with a brief description of each. These changes are effective with the October, 1999 bid opening.

ENGLISH ERRATA CORRECTIONS

203.20E SUPERELEVATION SPIRALS AND WIDENING (UNDIVIDED HIGHWAYS)

Expressed superelevation value, "e", as a percentage in order to more closely comply with the AASHTO Green Book.

203.40F TYPICAL DETAILS - RAMPS FOR INTERCHANGES (OTHER THAN 6:1 FORESLOPE)

Changed end of return taper to correctly depict 2' width.

604.05C PIPE CULVERT HEADWALLS - TYPE S

Changed details of plan and section views to correctly coincide with one another. Correctly depicted end of concrete pipe.

604.27E DROP INLET - TYPE S

Sheet 3 of 3

Removed simultaneous English and metric units from median relief on grade detail.
Corrected median widths in section B-B.

606.23D BRIDGE ANCHOR SECTION (THREE BEAM RAIL ON BRIDGE)

Removed simultaneous English and metric units from transition section detail

606.41A GUARD CABLE - THREE STRAND

Sheet 2 of 4

Added note requiring transition from median to roadside cable in 16:1 lateral taper area.
Changed "slotted rail terminal" reference to "S-R-T 350" following FHWA approval to use the product exclusively. Changed "median bridge pier protection plan" to "median obstacle protection plan". Added 9' minimum cable offset dimension in median obstacle protection plan. Added lateral offset dimension to anchor block.

Sheet 3 of 4

Added note requiring breakaway anchor post to be removed for guard cable to guardrail transition application.

609.70C ROCK LINING FOR CULVERT OUTLETS

Changed units in second column of table from "inches" to "feet".

614.10S CURBS, INLETS, GRATES AND BEARING PLATES

Changed metric units to English for end bar in plan view of bearing plate.

614.11A CURVED VANE GRATE AND FRAME

Corrected weight of 2' by 2' grate to 200 lb.

616.10W TRAFFIC CONTROL DEVICES

Sheet 4 of 4

Corrected misspelling of "fluorescent".

620.00A PAVEMENT MARKING

Corrected yellow line symbol in legend box.

902.15G POWER SUPPLY ASSEMBLY

Sheet 1 of 2

Edited list of materials to correctly cross reference all items in drawing.

902.21C TELEPHONE INTERCONNECT

Removed simultaneous English and metric dimensions from aerial telephone connection detail.

902.50I DETECTORS

Corrected repetition of the word "loop" in conduit slot detail note.

903.01E SPECIAL SIGNING CHARACTERS

Corrected conflicting English and metric dimensions for ampersand.

REVISED ENGLISH STANDARD PLANS

203.21F SUPERELEVATION SPIRALS AND WIDENING (DIVIDED HIGHWAY)

Revised formula for computing tangent runout and expressed superelevation value, "e", as a percentage in order to more closely comply with the AASHTO Green Book.

502.00R CONCRETE PAVEMENT AND BASE APPURTENANCES

Eliminated compacted aggregate sill for expansion joints. Clarified doweling for paved median.

502.05C CONCRETE PAVEMENT AND BASE APPURTENANCES, 15' JOINT SPACING

Sheet 2 of 2

Eliminated compacted aggregate sill for expansion joints. Clarified doweling for paved median.

504.00D CONCRETE APPROACH PAVEMENT

Sheet 1 of 2

Replaced 'M' joint at centerline of multilane pavement with 'K' or 'L' joint.

606.00AH GUARDRAIL

Sheet 3 of 8

Required 50' minimum length allowance for end terminal to ensure necessary grading and pipe length for any system used. Corrected post spacing for type E guardrail. Required factory formed radii at end terminals.

606.22P BRIDGE ANCHOR SECTION (SAFETY BARRIER CURB ON BRIDGE)

Sheet 1 of 2

Disallowed steel blocks for rail in transition section. Corrected steel post designations. Removed extraneous lines from various barrier views.

617.00AB CONCRETE TRAFFIC BARRIER

Sheet 1 of 3

Lowered minimum depth of abutting resurface for omission of dowels to 1 - 3/4".

Sheet 3 of 3

Corrected barrier painting pay items in painting detail notes.

901.00T POLES FOUNDATIONS AND APPURTENANCES FOR 30' MOUNTING HEIGHT

Sheet 2 of 2

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

901.01Y POLES FOUNDATIONS AND APPURTENANCES FOR 45' MOUNTING HEIGHT

Sheet 2 of 3

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

Sheet 3 of 3

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

901.02A CABLE, CONDUIT AND TRENCHING

Added detail for conduit under pavement.

901.30C BASE MOUNTED CONTROL STATION 240V OR 480V - 4 CIRCUIT

Required drip shield as part of controller cabinet hardware. Changed details of controller cabinet to more closely represent the product.

902.00H SIGNAL HEADS - LENSES - MOUNTING

Replaced text type pedestrian signal head with symbolic type. Added detail for adjustable louver.

902.30L POST BASES

Sheet 1 of 2

Formerly sheet 1 of 1. Added separate detail for Type A modified base. Changed depiction of reinforcing steel in bases to more closely represent actual placement. Removed simultaneous English and metric units from Type B base detail. Required all anchor bolts to be fully galvanized. Revised "post bases" table.

Sheet 2 of 2

New sheet created to avoid crowding original drawing.

902.70G SPAN WIRE DETAILS

Sheet 1 of 2

Corrected notes for consistent use of the word "pole".

Sheet 2 of 2

Corrected notes for consistent use of the word "pole". Required all anchor bolts to be fully galvanized.

903.05F TUBULAR SUPPORT STEEL - TYPE S, ONE TUBE (SPAN)

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

903.06F TUBULAR SUPPORT STEEL - TYPE S, TWO TUBE (SPAN)

Corrected table dimensions for minimum length of tubular beams. Removed partial galvanization references and required all anchor bolts to be fully galvanized.

903.07F TUBULAR SUPPORT STEEL - TYPE C (CANTILEVER)

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

903.08E TUBULAR SUPPORT STEEL - TYPE B (BUTTERFLY)

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

903.10W OVERHEAD SIGN TRUSSES - ALUMINUM

Sheet 4 of 6

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

903.12R OVERHEAD SIGN TRUSSES - BUTTERFLY & CANTILEVER - STRUCTURAL STEEL

Sheet 3 of 5

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

903.60V OVERHEAD SIGN TRUSSES - STRUCTURAL STEEL

Sheet 3 of 5

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

METRIC ERRATA CORRECTIONS

M203.20E SUPERELEVATION SPIRALS AND WIDENING (UNDIVIDED HIGHWAYS)

Expressed superelevation value, "e", as a percentage in order to more closely comply with the AASHTO Green Book.

M203.40F TYPICAL DETAILS - RAMPS FOR INTERCHANGES (OTHER THAN 1:6 FORESLOPE)

Changed end of return taper to correctly depict 600 mm width.

M604.05C PIPE CULVERT HEADWALLS - TYPE S

Changed details of plan and section views to correctly coincide with one another. Correctly depicted end of concrete pipe.

M604.27E DROP INLET - TYPE S

Sheet 3 of 3

Removed simultaneous English and metric units from median relief on grade detail. Corrected median widths in section B-B.

M606.23D BRIDGE ANCHOR SECTION (THREE BEAM RAIL ON BRIDGE)

Removed simultaneous English and metric units from transition section detail

M606.41A GUARD CABLE - THREE STRAND

Sheet 2 of 4

Added note requiring transition from median to roadside cable in 16:1 lateral taper area.

Changed "slotted rail terminal" reference to " S-R-T 350" following FHWA approval to use the product exclusively. Changed "median bridge pier protection plan" to "median obstacle protection plan". Added 2.7 m minimum cable offset dimension in median obstacle protection plan. Added lateral offset dimension to anchor block.

Sheet 3 of 4

Added note requiring breakaway anchor post to be removed for guard cable to guardrail transition application.

M614.10S CURBS, INLETS, GRATES AND BEARING PLATES

Changed English units to metric for end bar in plan view of bearing plate.

M616.10W TRAFFIC CONTROL DEVICES

Sheet 4 of 4

Corrected misspelling of "fluorescent".

M620.00A PAVEMENT MARKING

Corrected yellow line symbol in legend box. Corrected dimensions on pedestrian crosswalk detail.

M626.00 RUMBLE STRIPS

Corrected longitudinal dimension of concrete shoulder rumble strip.

M731.10N PRECAST DROP INLETS

Sheet 4 of 4

Corrected median widths in section F-F.

M902.15G POWER SUPPLY ASSEMBLY

Sheet 1 of 2

Edited list of materials to correctly cross reference all items in drawing.

M902.21C TELEPHONE INTERCONNECT

Removed simultaneous English and metric dimensions from aerial telephone connection detail.

M902.50I DETECTORS

Corrected repetition of the word "loop" in conduit slot detail note.

M903.01E SPECIAL SIGNING CHARACTERS

Corrected conflicting English and metric dimensions for ampersand.

REVISED METRIC STANDARD PLANS

M203.21F SUPERELEVATION SPIRALS AND WIDENING (DIVIDED HIGHWAY)

Revised formula for computing tangent runout and expressed superelevation value, "e", as a percentage in order to more closely comply with the AASHTO Green Book.

M502.05C CONCRETE PAVEMENT AND BASE APPURTENANCES, 4.5 m JOINT SPACING

Sheet 2 of 2

Eliminated compacted aggregate sill for expansion joints. Clarified doweling for paved median.

M504.00D CONCRETE APPROACH PAVEMENT

Sheet 1 of 2

Replaced 'M' joint at centerline of multilane pavement with 'K' or 'L' joint.

M606.00AH GUARDRAIL

Sheet 3 of 8

Required 15 m minimum length allowance for end terminal to ensure necessary grading and pipe length for any system used. Corrected post spacing for type E guardrail. Required factory formed radii at end terminals.

M606.22P BRIDGE ANCHOR SECTION (SAFETY BARRIER CURB ON BRIDGE)

Sheet 1 of 2

Disallowed steel blocks for rail in transition section. Corrected steel post designations. Removed extraneous lines from various barrier views.

M617.00AB CONCRETE TRAFFIC BARRIER

Sheet 1 of 3

Lowered minimum depth of abutting resurface for omission of dowels to 44 mm.

Sheet 3 of 3

Corrected barrier painting pay items in painting detail notes.

M901.00T POLES FOUNDATIONS AND APPURTENANCES FOR 9 m MOUNTING HEIGHT

Sheet 2 of 2

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

M901.01Y POLES FOUNDATIONS AND APPURTENANCES FOR 13.5 m MOUNTING HEIGHT

Sheet 2 of 3

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

Sheet 3 of 3

Removed partial galvanization references and required all anchor bolts to be fully galvanized. Corrected units of steel pile foundation pile lengths to meters.

M901.02A CABLE, CONDUIT AND TRENCHING

Added detail for conduit under pavement.

M901.30C BASE MOUNTED CONTROL STATION 240V OR 480V - 4 CIRCUIT

Required drip shield as part of controller cabinet hardware. Changed details of controller cabinet to more closely represent the product.

M902.00H SIGNAL HEADS - LENSES - MOUNTING

Replaced text type pedestrian signal head with symbolic type. Added detail for adjustable louver.

M902.30L POST BASES

Sheet 1 of 2

Formerly sheet 1 of 1. Added separate detail for Type A modified base. Changed depiction of reinforcing steel in bases to more closely represent actual placement. Removed simultaneous English and metric units from Type B base detail. Required all anchor bolts to be fully galvanized. Revised "post bases" table. Corrected dimensions in "base embedment in solid rock" table.

Sheet 2 of 2

New sheet created to avoid crowding original drawing.

M902.70G SPAN WIRE DETAILS

Sheet 1 of 2

Corrected dimension for clearance between curb face or edge of shoulder to pole face. Corrected notes for consistent use of the word "pole".

Sheet 2 of 2

Corrected notes for consistent use of the word "pole". Required all anchor bolts to be fully galvanized.

M903.05F TUBULAR SUPPORT STEEL - TYPE S, ONE TUBE (SPAN)

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

M903.06F TUBULAR SUPPORT STEEL - TYPE S, TWO TUBE (SPAN)

Corrected table dimensions for minimum length of tubular beams. Removed partial galvanization references and required all anchor bolts to be fully galvanized.

M903.07F TUBULAR SUPPORT STEEL - TYPE C (CANTILEVER)

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

M903.08E TUBULAR SUPPORT STEEL - TYPE B (BUTTERFLY)

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

M903.10W OVERHEAD SIGN TRUSSES - ALUMINUM

Sheet 4 of 6

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

**M903.12R OVERHEAD SIGN TRUSSES - BUTTERFLY & CANTILEVER -
STRUCTURAL STEEL**

Sheet 3 of 5

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

M903.60V OVERHEAD SIGN TRUSSES - STRUCTURAL STEEL

Sheet 3 of 5

Removed partial galvanization references and required all anchor bolts to be fully galvanized.

by/jj

Attachments