

**Revisions
Design Standards
2002**

TABULATED CHANGES

The changes tabulated below principally address functional changes in the standard drawings (indexes) since publication of the 2000 English Roadway and Traffic Design Standards booklet. The items below are keyed to what is shown on the index sheets of this 2002 booklet. This approach is taken to diminish complexities that can arise when trying to compare line items of the two booklets and those of the multiple issues of special provisions and interim indexes that were produced to update the 2000 booklet.

Where a change has been applied to a feature that is common on more than one of the sheets within the same index, or within a series of indexes with a common function, the change will not be repeated in most cases; however, such sheets will indicate a 2002 revision date.

Index Number	Sheet Number	Description	Index Number	Sheet Number	Description
102	1 thru 3 of 3	Title revised.	400	29 of 32	Footnote regarding rail attachment revised.
	3 of 3	'JOINING TWO SILT FENCES' - detail added.	Cont.	30 of 32	Flare rate revised and standard guardrail panel downstream realigned. Restriction for limiting use to one-way and divided multilane facilities removed. 'SECTION BB' - Rail attachment notation revised. 'FLEAT-350 NOTES' - Note 4 revised.
104	1 & 2 of 2	Title revised.		32 of 32	New Sheet (SRT/HBA 6 Post System)
201	3 of 6	Table - 'Minimum Value For h', dimensions corrected to 3'-6" & 4'-0".	401	1 thru 9 of 9	Index removed. All former SCHEMES voided. For former SCHEME 1 replacement see Structures Index No. 780.
205	2 of 5	'MAXIMUM COVER HEIGHTS CONCRETE PIPE', Table 'ROUND PIPE INSTALLATIONS' - D-Load values revised.	415	1 of 4	'General Notes' - Note 5 revised. 'WALL UNIT' - 'SIDE VIEW' and 'PICTORIAL VIEW' - Double Drain Slots deleted.
216	1 thru 3 of 3	Revised to accommodate 'Multiple Port Flumes'.		3 of 4	'NOTES FOR TEMPORARY CONCRETE BARRIER WALL END SHIELDING' - Note 3 revised.
220	1 of 1	Table 'RECOMMENDED MAXIMUM PIPE SIZES' - Pipe size for 4'-0" wall changed from 36" to 30".	417	1 of 1	'NOTES FOR TEMPORARY CONCRETE BARRIER WALL END SHIELDING' - Note 1 revised.
221	1 of 1	Reference note at bottom of sheet - Pipe size for 4'-0" wall changed from 36" to 30".	435	2 of 6	Foundation redesigned.
230	1 of 1	Table 'RECOMMENDED MAXIMUM PIPE SIZES' - Pipe size for 3'-1" wall modified by notation.	440	1 thru 5 of 5	This index expanded to include low and high speed modules.
232	1 of 5	'INLETS' - 'TYPE C' - Pipe size for 3'-1" wall changed from 24" to 18"; 'TYPE E' - Pipe size 4'-6" wall changed from 42" to 36". 'GENERAL NOTES' - Notes 6 and 7 revised.	451	1 of 2	'GENERAL NOTES' - Note '5 (C) (c)', and Note '6 (E)' revised.
234	1 of 1	Table 'RECOMMENDED MAXIMUM PIPE SIZES' - Pipe size for 4'-1" wall changed from 36" to 30".	452	1 of 2	'GENERAL NOTES' - Note 4.D.(3) and notes 6 and 7 revised.
272	1 thru 4 of 6	Dimension "H" added.	453	1 of 1	'GENERAL NOTES' - Note 1 revised.
273	1 thru 4 of 6	Dimension "H" added.	500	1 of 2	Note 5 revised. 'FM 1T267' deleted and 'AASHTO T 267' replaced.
282	1 of 1	'YARD DRAINS', 'Notes' - Note 3 revised. 'YARD DRAIN ITEM INCLUDES:' - Items 1 and 3 revised to allow use of PVC.	501	6 of 8	Table 'TABLE OF WOVEN GEOGRID VALUES' - Tabulations expanded to include "Raugrid" values.
286	2 of 2	Coarse Aggregate notation - Stone size deleted.	505	1 of 3	Note 4 revised. 'FM 1T267' deleted and 'AASHTO T 267' replaced.
287	2 of 3	'METHOD OF PAYMENT', 'FOR REHABILITATION:' - Note 1, paragraph 1 - revised. 'REHABILITATION' sectional view - pavement type changed to 'Type SP (Traffic-C) Asphaltic Concrete'.	515	1 of 6	Table 'SUMMARY OF GEOMETRIC REQUIREMENTS FOR TURNOUTS', 'CONNECTION WIDTH W' - star super script an accompanying notation added.
	3 of 3	'TREATED PERMEABLE BASE SUBDRAINAGE', Both details, - Notations '3/4" Type S-III' changed to '1" Type SP'. 'METHOD OF PAYMENT', 'NEW CONSTRUCTION', Note 1, paragraph 1 - Text 'and barricades' deleted.	518	2 of 2	'LOCATION ALONG SHOULDER (FLEXIBLE PAVEMENT)' - Rumble strip moved four inches (4") closer to edge of travel lanes. Friction course width on shoulder reduced to eight inches (8"). 'GENERAL NOTES...' - Notes 1 and 4 revised.
302	1 of 1	'TYPE IV CONCRETE TRAFFIC SEPARATOR', 'OPTION II', and 'TYPE I CONCRETE TRAFFIC SEPARATOR', 'OPTION II' Payment for pavement notation revised.	520	1 of 1	Sheet title revised and Note 2 added.
304	1 of 5	'GENERAL NOTES', - Notes 3 and 5 revised.	520	1 of 1	New Index. Extracted from former 520.
	2 of 5	'PAVEMENT RELIEF AT LIP OF CURB' detail added.	560	1 of 5	'TYPICAL FLEXIBLE PAVEMENT REPLACEMENT AT RR CROSSINGS' - Notations 'Type S (500 lbs/Sy)' deleted and 'Type SP (Traffic) Asphaltic Concrete Pavt.' substituted.
400	1 of 32	'GENERAL NOTES' - Note 20 added.		4 of 5	'TYPE RS' - Notations 'Type S (500 lbs/Sy)' deleted and 'Type SP (Traffic) Asphaltic Concrete Pavt.' substituted. 'NOTES', - Note 7 deleted.
	4 thru 6 of 32	Footnotes 'Notes for details _ & _' - Text 'When divided roadways are designated evacuation routes, approach end anchorage assemblies should be used for trailing end anchorage.' - deleted.	600	1 thru 10 of 10	Sheets reformatted for grouping by subject. Transitions for freeway facilities transferred to New Index 642.
	16 of 32	'STEEL MODIFIED THRIE-BEAM OFFSET BLOCK', block dimensions modified. Table - 'PERMISSIBLE POST AND OFFSET BLOCK COMBINATIONS', references to Steel Modified Thrie-Beam offset block - 22" changed to 17". Note 1 revised. 'PEDESTRIAN SAFETY TREATMENTS' replaced 'SPECIAL SAFETY PIPE RAIL', 'NOTES' - Note 3 revised.		1 of 10	'CONTENTS', 'ABBREVIATIONS' and 'SYMBOLS' expanded.
	19 of 32	Notes describing component application on specific end anchorage assemblies deleted.		2 of 10	'Detour, Lane Shift and Diversion' - Revised heading 'TEMPORARY TRAFFIC CONTROL DEVICES' - New 'PEDESTRIANS AND BICYCLIST' - Expanded 'OVERHEAD WORK' - New 'OVERWEIGHT/OVERSIZE VEHICLES' - New 'LANE WIDTHS' - Modified
	23 of 32	'FRONT VIEW', soil plate sizes added.		3 of 10	'FLAGGER CONTROL' - Replaced 'FLAGGER OPERATIONS' and 'NIGHTIME FLAGGING'.
	24 of 32	Note 1 revised.		4 of 10	'SIGN PLACEMENT' - New 'WORK ZONE SIGN SUPPORTS' - Text added. 'SIGNING FOR DETOURS, LANE SHIFTS AND DIVERSIONS' - Revised heading.
	25 of 32	Extruder head modified.	600	5 of 10	'SIGNALS' - Revised
	26 of 32	'SLOTGUARD', Symbol footnote - Text 'With Plain Round Washer Under Nuts' deleted, i.e. no washer under nuts.	Cont.		
	28 of 32	Extruder head modified.			

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Index Number	Sheet Number	Description	Index Number	Sheet Number	Description
600 cont.	6 of 10	'DROPOFF CONDITION' - Note 1 revised. 'Shoulder Treatment' note 1 revised.	17346 Cont.	10 of 13	'PAVEMENT MARKING FOR PUBLIC SIDEWALK CURB RAMPS IN REST AREAS' - Parking space width changed to 12' and Isle width changed to 5'.
	7 of 10	'TEMPORARY CURB' notes - Note 4 revised. Flag 'NOTICE' added.		11 of 13 thru 13 of 13	New Sheets- Bicycle Markings.
	8 of 10	Notes - Note 9 added. 'CONES' - Footnote deleted. Advance warning arrow panel - 'Warning Mode' deleted.	17355	1 thru 14 of 14	Sheets renumbered 1-14
	9 of 10	'Note:' Note 1 added.		8 of 14	Signs FTP-63-67 added.
	10 of 10	'PLACEMENT OF PAINT OR TAPE PAVEMENT MARKINGS' - Detail added. Application and notes headings revised.		9 of 14	New Sheets - Signs FTP-68 thru 78.
605	1 of 1	'ROAD WORK 1500 FT' signs replace with 'ROAD WORK AHEAD'.		10 of 14	New Sheet - Signs FTP 79 & 80.
607	1 of 1	'ROAD WORK 1500 FT' signs replace with 'ROAD WORK AHEAD'.		12 of 14	Signs MOT-17, MOT-18 and MOT-19 added.
611	1 of 1	'REDUCED SPEED AHEAD WHEN FLASHING' and 'SPEED LIMIT XX WHEN FLASHING' signs deleted. Conditions for period of less than 60 minutes deleted.	17357	1 of 1	Reformatted.
614	1 of 2	'GENERAL NOTE' - Note 12 revised and Note 13 added.	17500	1 of 3	'NOTES:' - Note 2 added. 'METAL POLE WIRING DETAIL' - Ground rod lengths changed to 20' and resistance note deleted.
630	1 of 2	Sign legend group deleted and legends added to plan view. 'GENERAL NOTES' - Notes 5 and 6 added.	17501	1 of 1	Note 1 revised.
	2 of 2	Sign legends added to plan views; move signs to crossover ahead notation deleted and reference to GENERAL NOTE 6 substituted.	17502	2 of 4	'ALTERNATE POLE' information added.
642	1 of 1	New Index - 'TRANSITIONS FOR TEMPORARY CONCRETE BARRIER WALL ON FREEWAY FACILITIES'. Previously a part of Index 600.		3 of 4	'Sectional View' - Ground rod length notations changed to '20' and 'resistance note deleted.
650	2 of 2	'GENERAL NOTES' - Note No. 7 revised.	17504	1 of 1	'DETAIL A' - Ground rod length changed to '40'.
670	1 of 1	New Index.	17505	1 of 2	Ground rod length changed '20' and resistance note deleted.
9535	1 of 3	'TYPICAL ELEVATION' - Dimension '7'-0" (Min.)', revised to be 7'-0" (Min.) to edge of pavement. 'PARTIAL REAR ELEVATION' Sign thickness notation '0.125"' deleted and '1/8"' substituted. Table - 'SIZE OF WIND BEAMS' - 'Z3x2.69x2.33' deleted and 'Z3x2.69x3.38' substituted.	17515	1 thru 7 of 7	New Index
11860	1 of 3	Table 'Sign Identification Number', Number '88' - Notation 'See Note' added. 'Notes:' - Note 5 revised and 6 added.	17600	1 of 2	'CALL BOX DETAIL BEHIND GUARDRAIL' - 'PLAN VIEW' and 'SIDE VIEW' details revised.
	2 of 3	'GENERAL NOTE', 'SIGN PANEL', - thickness changed to 0.08 inches.	17723	1 thru 3 of 3	New Index.
11861	1 of 2	'NOTES', Note 4, line 2 - column wall thickness changed to 3/16".	17725	1 of 1	POLE TYPE VIII added.
	2 of 2	Table, 'Sign Identification Number', Number '88' - Notation 'See Note Index No. 11860' added.	17727	1 & 2 of 2	Vertical clearance to signal head notations revised.
11862	1 of 2	'NOTES', Note 4, line 2 - column wall thickness changed to 3/16".	17740	1 & 2 of 2	New Index.
	2 of 2	Table, 'Sign Identification Number', Number '88' - Notation 'See Note Index No. 11860' added.	17742	1 of 1	New Index.
11863	1 of 2	'NOTES', Note 4, line 2 - column size changed.	17744	1 thru 5 of 5	New Index.
	2 of 2	Table - 'Sign Identification Number', Number '88' - Notation 'See Note Index No. 11860' added.	17746	1 thru 4 of 4	New Index.
11864	1 of 2	'NOTES', Note 4, line 2 - column wall thickness changed to 3/16".	17748	1 of 1	New Index.
	2 of 2	Table - 'Sign Identification Number', Number '88' - Notation 'See Note Index No. 11860' added.	17764	1 of 1	Walk, Don't Walk displays changed to International Symbols.
11865	1 of 2	Table - 'Sign Identification Number', Number '88' - Notation 'See Note Index No. 11860' added.	17781	1 of 2	Reformatted; Splicing details deleted; General Notes No 6 revised and No 7 and No 8 added.
	2 of 2	'SIGN POST IN CONCRETE' detail added.	17784	1 & 2 of 2	FTP-49 sign changed to International Symbols.
13417	1 of 1	'ELEVATION', Sign thickness notation - Changed to 1/8" '.	17841	1 of 1	Ground rod length changed to 40' in Base Mounted Interconnect Junction Box Detail.
17344	1 thru 3 of 6	School Crosswalk Signs revised, all S2-1 Signs changed to SI-1 Signs with W16-7 Arrow Panel or W16-9P Ahead Panel.	17870	1 of 2	'SIGNAL CLEARANCE TABLE' - revised.
17345	3 of 4	'TYPICAL LANE DROP MARKING AT EXIT RAMPS' -detail added.	17900	3 of 9	Note at bottom left revised.
17346	2 of 13	Completely Revised.		4 of 9	Receptacle and Plug notations revised.
	4 of 13	Moved One Way signs to Median.		5 of 9	Title at top left revised, Bonding Agent replaces Epoxy in END VIEW Detail.
	5 of 13	Merge Signs (W4-2) deleted, W9-2 substituted.		7 of 9	'SOLAR POWER POLE', both details - 'Type N-III pole' modified for ground wire. Both details - Ground rod length changed to 40'.
	8 of 13	New Sheet.		8 of 9	Detail 'E' modified. Note in upper left corner deleted.
17346 Cont.	9 of 13	'DETAIL OF BIKE LANE MARKINGS'- Notations revised, pavement marking specification deleted and diamond marking removed.		9 of 9	Note in upper left corner deleted.