



Sign Specs 2000

User's Guide



Ad - Ready Support

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Introduction

Welcome to the Sign Specifications and Cost Estimate (Sign Specs) Program. This program is an Excel 2000 based application, customized using VBA (Visual Basic for Applications) and ADO (ActiveX Data Objects).

Sign Specs was developed relying on experienced user input from participants statewide. The main development concerns were to provide users with a program that easy to use and flexible enough to cover the diverse needs of all Regions statewide.

Installing the Application From the Internet

1. Click on the "Setup.exe" This will initiate the installation process to your PC.
2. A folder will be created on your PC named, C:/Wsdot Install.
3. To run the application, go to:
Wsdot Install/Sign Spec/WSDOT/Sign Spec/SIGNSPEC2000.xla.
Double click on the file SIGNSPEC2000.xla. Follow the instructions as outlined in the Sign Specs Users Guide to begin a New Sign Specs workbook. *(To preserve the integrity of the Macros, Do Not modify SignSpec workbooks outside of the Sign Specs application)*

IMPORTANT INFORMATION

This Application performs best in the Windows 2000/Excel 2000 environment. Attempting to run the application with versions of Excel less than 9.x , or with operating systems other than Windows NT or preferably Windows 2000 will incur errors within the operating macros. Should you experience errors within the Windows 2000/Excel 2000 environment, check that the Microsoft Service Release 1.0 (*SR 1) has been installed on your PC. *This may be obtained free of charge at www.microsoft.com.

The "CUT" command, although available should not be used at any time.

If the Sign Specs toolbar is not visible, From the drop down menus select "VIEW", "TOOLBARS", "SIGNSPECIFICATIONS 2000".

Getting Started

Setting up your Sign Specification pages

Sign Specs 2000 allows for flexibility in developing the Sign Specifications Pages. The Sign Pages may be set up to accommodate the different sign types individually (this is the default setting), or in combination.

By default there may be up to 10 pages of each the Installation, Relocation and Removal sheets.

When the Combo setting is selected, all Sign Page types are combined on 1 Combo Page. When using this setting you are limited to eight or less per each sign type. (see "Setting Pages" for further information)

The number or type of pages may be set before you begin entering data, or you may let the Sign Specs program create new pages automatically as you add Signs.

Creating a new project

Launch the Sign Specs application (SIGNSPEC2000.xla). This will bring up the application template, macros and data links used in creating Sign Specs.

To begin, create a new workbook file by clicking on the **New Project** button located on the SIGNSPEC 2000 command bar, or select New Project from the

SIGNS pull-down menu. This will create a blank template containing:

- 1 Project Info tab.
- 1 INS Page tab
(Sign Installation sheet).
- 1 REL Page tab
(Sign Relocation sheet).
- 1 REM Page tab
(Sign Removal sheet).
- 1 Other tab
- 1 Costs tab
- 1 Cost Estimate tab

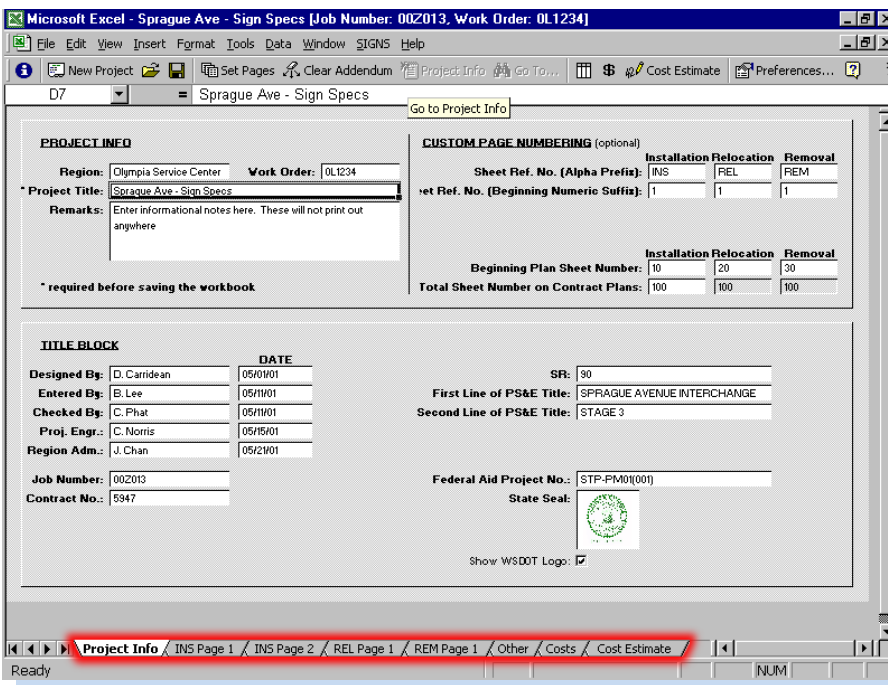





Figure 1

NOTE:

All Existing SignSpecs2000 job files must be opened from within the SignSpecs2000 application using the "Open Project" icon, or the "file" "open" menu selections. If job files are opened and revised outside the SignSpecs2000 application, these files will not have access to the application macros resulting in incompatibility for further revisions within the SignSpecs2000 application.

Once a project has been created, or an existing project is opened, all icons on the SignSpecs 2000 command bar are activated. Due to the number of Icons not all will be displayed. To view these Icons, click the extension list pull down menu on the far right of the Command Bar.

SignSpecs 2000 Command Bar Icons:

	About Program -	This displays a dialog box showing basic Information about the program.
 New Project	New Project -	Opens a blank Sign Specs template.
	Open Project -	Opens an existing project.
	Save File -	Save current project to the default file location. (The default file location for SignSpecs 2000 project files is the last folder that any SignSpecs2000 Project file was saved to).
	Print -	Prints Project elements.
 Set Pages	Set Pages -	Provides a dialog box where you may set the number of pages (10 max) for each page type.
 Clear Addendum	Clear Addendum -	Clears Addendum shading from All pages in the project workbook.
 Project Info	Project Info -	Opens the Project Info tab.
 Go To...	Go to -	Displays a dialog box that allows you to select a Sign within each set of INS, REM and REL pages, then transports you to the cell that contains that sign.
 Preferences...	Preferences -	Displays a dialog box that allows for the selection of zoom to view the Project info and Page tabs at. Also allows for the activation of the autosave feature.
 Cost Estimate	Cost Estimate -	Opens the Cost Estimate Tab
	Costs -	Opens the Costs Tab
	Other -	Opens the Other Tab



Help -

Link to the Internet on-line users guide.



Exit -


Closes the SignSpecs 2000 Application.

Project Info Tab

The Project Info tab is where the basic information for the project is entered. This will include such items as the Project Title, Federal & WSDOT Identification numbers and Design Office contacts.

This tab is also used to setup the page numbering for the INS, REM and REL Pages, and insert the Project Engineer's seal when needed.

The screenshot shows the 'Project Info' tab in Microsoft Excel. The window title is 'Microsoft Excel - Sprague Ave - Sign Specs [Job Number: 00Z013, Work Order: 0L1234]'. The menu bar includes File, Edit, View, Insert, Format, Tools, Data, Window, SIGNS, and Help. The toolbar contains icons for New Project, Set Pages, Clear Addendum, Project Info, Go To..., Cost Estimate, and Preferences. The main area is divided into several sections:

- PROJECT INFO:**
 - Region: Olympia Service Center
 - Work Order: 0L1234
 - Project Title: Sprague Ave - Sign Specs
 - Remarks: Enter informational notes here. These will not print out anywhere.
- CUSTOM PAGE NUMBERING (optional):**
 - Sheet Ref. No. (Alpha Prefix): Installation (INS), Relocation (REL), Removal (REM)
 - Sheet Ref. No. (Beginning Numeric Suffix): Installation (1), Relocation (1), Removal (1)
 - Beginning Plan Sheet Number: Installation (10), Relocation (20), Removal (30)
 - Total Sheet Number on Contract Plans: Installation (100), Relocation (100), Removal (100)
- TITLE BLOCK:**
 - Designed By: D. Carridean, DATE: 05/01/01
 - Entered By: B. Lee, DATE: 05/11/01
 - Checked By: C. Phat, DATE: 05/11/01
 - Proj. Engr.: C. Norris, DATE: 05/15/01
 - Region Adm.: J. Chan, DATE: 05/21/01
 - Job Number: 00Z013
 - Contract No.: 5947
 - SR: 90
 - First Line of PS&E Title: SPRAGUE AVENUE INTERCHANGE
 - Second Line of PS&E Title: STAGE 3
 - Federal Aid Project No.: STP-PM01(001)
 - State Seal: 
 - Show WSDOT Logo:

The status bar at the bottom shows 'Ready' and 'CAPS NUM'.

Figure 2

Project Info tab fields

Region: Click in this field to activate the Region pull-down menu and select the appropriate region. Once a region has been selected this region will become the default for all subsequent Sign Specs 2000 projects created.

Work Order: Enter the work order number for the project in this field. (e.g. 0L1234, XL5678).

Project Title: The text entered in this field becomes the first part of the file name. *(This is not the project title that appears on the plans sheets.)*

Remarks: Enter any informational notes, such as County or Mile Post data.

Custom Page Numbering

Sheet Ref. No. (Alpha prefix): Separate fields are provided for each of the different types of Sign Pages. In these fields enter the Alpha designation for each (e.g. SS, SREL etc.)

Sheet Ref. No. (Beginning Numeric Suffix): Separate fields are provided for each of the different types of Sign Pages. In these fields enter the beginning numeric suffix for each series of INS, REL and REM Pages.

Beginning Plan Sheet Number: Separate fields are provided for each of the different types of Sign Pages. In these fields enter the numeric character for the first number in the contract plans where each series of the Sign Pages will begin.

Total Sheet Number on Contract Plans: In this field enter the number that represents the sheet count for the entire set of contract plans.

Title Block

There are several sections to the title block, the first set of fields are:

Designed By:
Entered By:
Checked By:
Proj. Engr:
Region Admin:

These fields provide an area to enter all necessary Region Design contacts. These names will be displayed in the title block, on all Sign Pages in the fields located in the far left side of the page.

Job Number: This field is for the project PS&E Number (Supplied by your Regional Headquarters Design Office) Information entered here will be displayed directly to the right of the Revision area in the title block on all pages.

Contract Number: This field is for the project Contract Number (assigned when a project is placed on Advertisement). Information entered here will be displayed directly below the PS&E number in the title block on all pages.

SR:**First Line of PS&E Title:****Second Line of PS&E Title:**

Enter each line of the project title in the corresponding fields. (see example figure 2). Text entered in these fields will be displayed in the Title area of the title block on all pages.

Federal Aid Project Number: This field provides a area to enter the Federal Aid number. A Federal Aid number applies only to those projects that have federal funding included in the project. Text entered in this field will be displayed on all pages directly to the right of the Job Number in the title block.

State Seal: This field enables the placement of the Project Engineer's stamp on the Sign Spec Pages. To place the Project Engineer's seal in this field, copy the graphic (.bmp, .gif, .jpg, .tif etc.) to the clipboard, right click anywhere on the Project Info tab, from the mouse menu select " Paste State Seal". The Project Engineer's seal will pasted into the field and displayed on all Sign Spec pages. (See appendix A to see how to set up a folder with P.E. stamps in your Clipart file)

Show WSDOT Logo: Click off the check mark to hide the WSDOT logo on all Sign Spec Pages.

Sign Spec Pages

Sign SpecsS2000 creates all new projects to contain a Project Info tab, INS Page 1, REL Page , REM Page 1, an Other tab, a Costs tab and a Cost Estimate tab. The INS, REL and REM pages are complete plan sheets, each containing 30 rows per page for entering sign data. New pages will automatically be added if signs are inserted into a page that would cause it to exceed the limit of 30 signs per page.

By Default the INS, REL and REM pages are separate, however for small projects containing eight or less signs per page type, the Set Pages option may be used to create a Combo page.

Setting Pages

Each of the Sign Spec pages; INS, REL and REM are complete Plan sheets, each containing 30 rows for the entry of sign data. New pages will automatically be created when rows for sign data are inserted that exceed the 30 signs per page limit.

You may manually increase or decrease the number in the INS, REL and REM Pages at any time by clicking on the Set Pages icon. This will bring up the Set Pages dialog box, in which the spinners may be used to set the number of pages wide and tall for each. Once a page has been created, whether automatically by the insertion of new sign entries, or manually using the Set Pages command, the page will remain as part of the project until it is manually deleted, even if it contains no sign data.

As you increase or decrease the number of pages using the spinners, the number of signs the new settings will accommodate is displayed in the text directly below the spinners.

Each workbook may contain up to 34 separate pages, [1] Project Info page, [10] INS Pages, [10] REL Pages, [10] REM Pages, [1] Other tab, [1] Cost tab and [1] Cost Estimate tab.

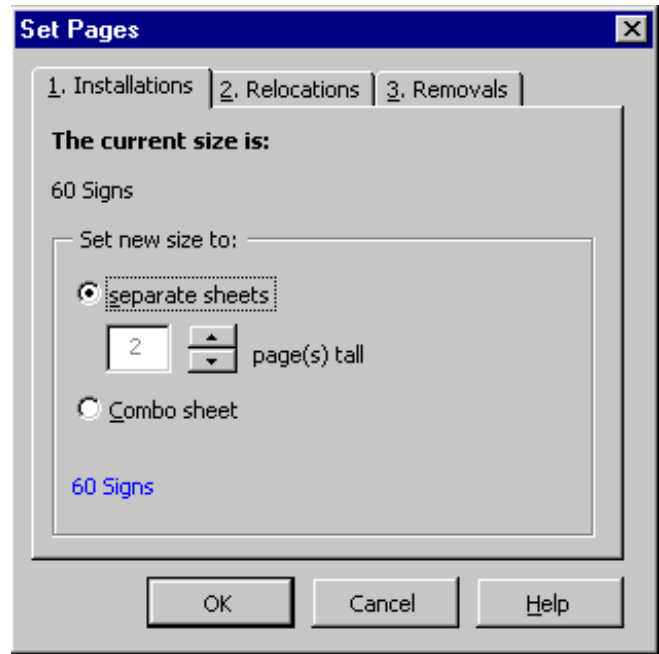


Figure 3

Deleting Pages

When deleting extraneous pages from the project file, use the Set Pages feature to reduce the number of Pages Tall.

The Set Pages feature only provides for the removal of pages from the end of a set. To remove pages from the middle of a set, you must right mouse click on each sign to be deleted, and select "Delete Sign".

Combo Sheet

For Small projects containing 8 or less signs per page type, the Set Pages command may be used to select " Combo Sheet" . (shown in figure 3)
By selecting the Combo Sheet you are telling the Sign Specs application to copy the data from the first 8 rows of INS Page 1, REL Page1 and REM page 1, and paste this data under like headings on a single Combo Sheet page. Any signs beyond the first eight for each sign type and construction notes that exist on any of the pages, will not be copied over.

The Set Pages command may also be used to switch from a Combo Sheet to Separate Sheets (shown in figure 3). All sign data from the Combo sheet will be broken out by type and placed on in the appropriate INS Page, REL Page or REM Page. Construction notes will not be copied over.

Entering Sign Specification Data

Each of the Sign Spec Specification pages; INS, REL and REM contain 30 rows per page for entering sign data.

If it is necessary to insert a sign between existing signs, Select the sign directly below where the new sign is to be placed, perform a right mouse click, and select "Insert Sign" from the right mouse menu. A blank row is inserted in which to enter the sign data.

NOTE: If the sign spec page is full when a new row is inserted, all signs below the insertion point will be moved down. Signs will be moved from the bottom of the full page to the top of the next page. If no pages exist for signs to be moved to, a new page will automatically be created to accomodated the signs.

Sign Installation , Relocation & Removal Pages

Sign Specification information for INS (installation), REL (relocation) and REM (removal) data is entered on the INS, REL and REM Pages.

ON each page type, enter the appropriate data in each of the required fields as necessary. Do not enter extraneous punctuation (e.g. - - -), or place text in numeric fields, doing so will cause errors in calculating the Cost Estimate.

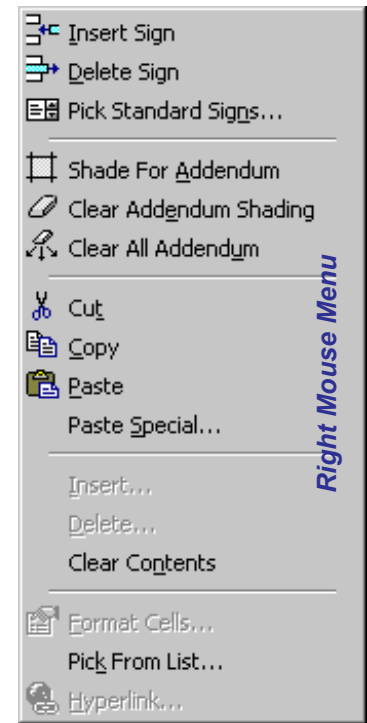


Figure 4

Data fields on the INS, REL and REM Pages:

GRP- Enter the number that corresponds to the group of work in which the sign installation is taking place.

SIGN NO. - Enter the number that refers to this sign as shown on the signing plan (e.g. 1, R-3, 2...).

SIGN CODE & SIGN DESCRIPTION - Enter the appropriate code and description for each sign type. These may typed manually, or imported into the sign spec sheet. To import signs into a page right mouse click on the row where the new sign(s) is to be placed, select "Pick Standard Signs" (figure 4).

From the Pick Standard Signs selection window, select the sign or signs that are to be imported; Click OK. All selected signs will be imported into the sheet and placed in order by Sign Code.

STA. LOC. (or MP) - Enter the Station Location on alignment and the offset direction that describes where each sign is to be placed.

EXISTING STA. LOC. (or MP) - *This field is unique to the REL page.*

Enter the sign location on alignment and the offset direction that describes where each sign currently exists.

NEW STA. LOC. (or MP) - *This field is unique to the REL page.*

Enter the sign location on alignment and the offset direction that describes the new location of each sign.

SIGN SIZE - Enter the X (width) and Y (height) dimensions of the sign. Default dimension indicators are set to display inches. To change this to feet, enter the foot (') symbol after the dimension.

SHEETING TYPE - Select a sheeting type from the in cell pull down menu.

LETTER SIZE OR CODE - Select a Code from the in cell pull down menu.

To reference a specific plan sheet, enter select SEE REMARKS from the menu and enter the plan reference in the REMARKS column.

POST MATERIAL - Select a post material from the in cell pull down menu. If the post material needed is not available for selection, it may be added for use in this project by modifying the Costs Tab. Please refer to the Costs Tab section for more information.

POST SIZE - Select a post size from the in cell pull down menu. The selection menu displayed will be determined by the post material entered in the preceding cell.

If the Post Size needed is not available for selection, it may be added for use in this project by modifying the Costs Tab. Please refer to the Cost Tab section for more information.

Post size should be selected after a Post Material is entered; if a post material has not been entered, no menu will be available for Post Sizes. Although data may be manually entered in this field, if no post material exists to associate with the post size, it will not be calculated in the Cost Estimate.

OF POSTS - *This field is unique to the Removal Page*

Enter the number of posts that are included in the removal of each sign.

Other Tab

The Other tab provides a place to enter those items of permanent signing that are part of the sign estimate, but are not entered in the INS, REL or REM pages, nor included in the EBASE project estimate.

The items entered on the Other tab will be used by the Cost Estimate tab when calculating the Sign Cost Estimate, unless otherwise specified by the user.

Fields on the Other tab

Grp: Enter the Group of work that the item is to be associated with.

Description: Enter item description (e.g. Sign Cleaning, Band-It)

Unit Cost: Enter the cost per Each

Qty: Enter the quantity of this item to be used in the project.

Total Cost: This will be calculated automatically using the figures provided in the Unit Cost and Qty fields.

Total cost for all items entered on the Other tab is displayed above the Total Cost column in a field labeled "Other Total"

Inserting and Deleting Rows

Should more rows be needed in which to list items, or a new item must be inserted between existing items use the Insert Row command. To use the Insert Row command, select the row directly below where the new item is to be inserted; Click the right mouse button to display the mouse menu and select, Insert Row.

Item rows may be deleted by right clicking on the item to be deleted and selecting, Delete Row. (see figure 7)

				Other Total:
				\$ 1,310.00
Grp	Description	Unit Cost	Qty	Total Cost
1	Sign Refacing	\$ 100.00	5	\$ 500.00
1	Band-it	\$ 20.00	6	\$ 120.00
				\$ -
1	Message Revision	\$ 50.00	1	\$ 50.00
1	Sign Cleaning	\$ 20.00	2	\$ 40.00
1	Foundation SI	\$ 150.00	4	\$ 600.00
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Figure 7

Costs Tab

The Costs tab contains all of the selections that are used in the pull-down menus on the sign specification pages, and the costs associated with those selections. This tab also includes the cost in dollars per square foot for Installation, Relocation and Removal of signs.

All dollar figures contained within this tab, are used in conjunction with the data entered in the sign specifications pages by the Cost Estimate tab to create the Sign Estimate.

Each Region has a Sign Specs Administrator who will modify and keep current the cost data in the Costs tab to reflect actual costs in their Region. When a new sign specs project is created and saved the Costs template is copied into the project. The user may then use the Material/Size selections and the costs associated with those selections as they appear on the Costs tab, or they may modify the existing selections, and even add Material/Size and Cost selections to the Costs tab that will then be made available in the pull-down selection menus on the sign spec pages.

Adding Special Material, Size and Cost Selections

Special post material, sizes and cost data may be added to the Cost tab. To add special selections, go to the POST Costs section on the Costs tab; click in the cell directly below where the new selection is to be inserted; click the right-mouse button to display the right mouse menu and select "Insert Row". A blank row is inserted, fill in the new material, size and cost selection data as shown in figure 8.

Once the new data has been entered, it is available for selection in the INS, REL and REM pages. (see figure 9)

To apply the new or revised post material/size data to signs entered on the sign specifications pages prior to entry of special cost data, delete the POST MATERIAL entered for the sign and reselect it from the in cell menu. This activates the revised POST SIZE menu to include all changes made on the Costs tab.

To modify the cost of an existing Sign or Post, simply select the figure to be changed, and type the new cost in the field.

Changes made to the Costs tab become available as menu selections in the Sign Installation, Relocation and Removal Pages

POST Costs					
Type	Material	Size	Installation	Relocation	Removal
A	WOOD	4x4	\$ 48.00	\$ 60.50	\$ 12.50
B	WOOD	4x6	\$ 70.00	\$ 82.50	\$ 12.50
C	WOOD	4x8	\$ 85.00	\$ 97.50	\$ 12.50
D	WOOD	6x6	\$ 100.00	\$ 112.50	\$ 12.50
E	WOOD	6x8	\$ 150.00	\$ 162.50	\$ 12.50
F	WOOD	6x10	\$ 200.00	\$ 212.50	\$ 12.50
G	WOOD	8x10	\$ 250.00	\$ 262.50	\$ 12.50
H	WOOD	8x12	\$ 320.00	\$ 332.50	\$ 12.50

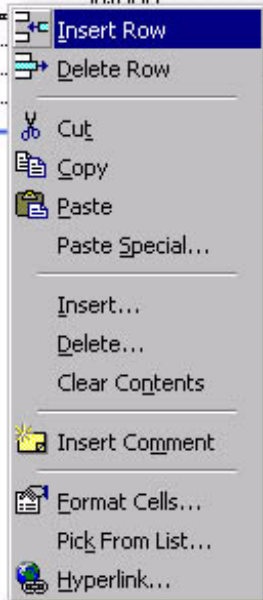


Figure 8

LETTER SIZE OR CODE	POST MATERIAL	POST SIZE	H1
	WOOD	4x6	18'
	WOOD	4x6	18'
CODE D			
CODE D	WOOD	4x8	17'
		4x8	
CODE B	STEEL	6x6	17'
SEE REMARKS	WOOD	6x8	
		6x10	18'
		8x10	
		8x12	
		TYPE L	
		TYPE M	

Figure 9

Guidelines on Estimating Cost

When estimating the Cost for signing many factors must be taken into consideration. First what category; Installation; Relocation or Removal, next how will the sign be mounted, the type of posts it will be mounted to, and finally will there be any Other costs associated with the sign?

Included here are some basic things to take into consideration when estimating costs for signs.

Single Post Sign (or no post)

New Installations:

The estimated cost (\$/S.F.) that the Contractor is likely to bid (including all additives) to fabricate, provide, and install a sign on a single post, a light standard, a luminaire pole, a signal pole, a span wire, a mast arm, a utility pole or on a concrete barrier mounted post.

Removal:

The estimated cost (\$/S.F.) that the Contractor is likely to bid for removal of the sign from a single post, a light standard, a luminaire pole, a signal pole, a span wire, a mast arm, a utility pole or on a concrete barrier mounted post.

Relocation:

The estimated cost (\$/S.F.) that the Contractor is likely to bid for removal of the sign from a single post, a light standard, a luminaire pole, a signal pole, a span wire, a mast arm, a utility pole or on a concrete barrier mounted post.

Include in the (\$/S.F.) all costs for the contractor to re-install the sign at its new location.

Multi-Post Sign

New Installations:

The estimated cost (\$/S.F.) that the Contractor is likely to bid (including all additives) to fabricate, provide, and install a sign on multiple posts.

Removal:

The estimated cost (\$/S.F.) that the Contractor is likely to bid for removal of the sign from a multi-post installation.

Relocation:

The estimated cost (\$/S.F.) that the Contractor is likely to bid for removal of the sign from a multi-post installation.

Include in the (\$/S.F.) all costs for the contractor to re-install the sign at its new location.

Overhead Sign**New Installation:**

The estimated cost (\$/S.F.) that the Contractor is likely to bid (including all additives) to fabricate, provide, and install a sign on a sign overhead; including a sign bridge, a cantilever sign structure or a bridge mounted sign.

Removal:

The estimated cost (\$/S.F.) that the Contractor is likely to bid for removal of an overhead sign from a sign bridge, a cantilever sign structure or a bridge mounted sign.

Relocation:

The estimated cost (\$/S.F.) that the Contractor is likely to bid for removal of an overhead sign from a sign bridge, a cantilever sign structure or a bridge mounted sign.

Include in the (\$/S.F.) all costs for the Contractor to re-install the sign at its new location.

Sign Bridges, Cantilever Sign Structures, Bridge Mounted Sign Structures**New Installations:**

New installations of these structures are separate bid items and should not be included in the Lump Sum estimate for Permanent Signing.

Removal:

Removal of these items should be included in the Lump Sum estimate for Permanent Signing.

In the Posts Cost area on the Costs Tab, for removal of each of these items, include the estimated cost (\$) that the Contractor is likely to bid for removal of these items.

Relocation:

Relocation of these items should be included in the Lump Sum estimate for Permanent Signing.

In the Posts Cost area on the Costs Tab, for removal of each of these items, include the estimated cost (\$) that the Contractor is likely to bid for relocation of these items.

Posts (Wood or Steel)

New Installations:

Total estimates cost (\$) that the Contractor is likely to bid (including additives) to fabricate, provide and install the post of the type specified.

Removal:

Total estimates cost (\$) that the Contractor is likely to bid for removal of a post of the type specified.

Include all costs for backfilling holes, removing concrete and removal of barrier mounter posts and brackets.

Relocation:

Total estimates cost (\$) that the Contractor is likely to bid for removal of a post of the type specified.

Include all costs for backfilling holes, removing concrete, and the removal of barrier mounter posts and brackets.

Also include all costs for the Contractor to fabricate, provide and install new posts of the type specified (if applicable).

Include all all costs for backfilling, concrete foundations, and fabrication of brackets for barrier mounted posts.

Other Items to include in the estimate for Permanent Signing

- Re-facing of Signs
- Band-its
- Sign Message Revisions
- Sign Cleaning
- Sign Lighting

Cost Estimate Tab

The Cost Estimate tab uses the information entered in the sign specification Installation (INS), Relocation (REL), Removal (REM) Pages and the Other tab combined with the dollar (\$) figures entered in the Costs tab to calculate the Cost Estimate for Sign Specifications.

Displaying the Cost Estimate

To display the Cost Estimate, right-mouse click anywhere on the screen and select "Refresh Cost Estimate". This will bring up the Refresh Cost Estimate window. (see figure 10)

From this window select the sign specification types are to be included in this estimate (i.e. Installation, Other etc.); Also select whether or not to include the group sub totals.

Once the Cost Estimate is displayed, it must be refreshed each time further revisions are made to the INS, REL and Rem Pages. Refreshing the Cost Estimate will import the new revisions and recalculate the Cost Estimate.

The screenshot shows the 'COST ESTIMATE - Signs Specifications' worksheet in Microsoft Excel. A context menu is open over the worksheet, with 'Refresh Cost Estimate...' selected. A red hand icon points to this option. The 'Refresh Cost Estimate' dialog box is also open, showing options to include various sign specification types and group subtotals.

Refresh Cost Estimate Dialog Box Options:

- Include what:
 - 1. Installation Specifications
 - 2. Relocation Specifications
 - 3. Removal Specifications
 - 4. Other Sheet
- Include Group Subtotals

Worksheet Data (Summary Table):

GRP	TYPE	TOTAL COST	SIGN SQFT	SIGN UNIT	POST UNIT
1	INS	262.00	16	\$ 12.00	\$ 70.00
1	INS	262.00	16	\$ 12.00	\$ 70.00
1	INS	1,680.00	140	\$ 12.00	#N/A
1	Total	2,204.00	172		
2	INS	1,680.00	140	\$ 12.00	#N/A
2	INS	118.00	4	\$ 12.00	\$ 70.00
2	INS	108.00	3	\$ 12.00	#N/A
2	Total	1,906.00	153		
3	INS	2,954.00	81	\$ 14.00	\$ 310.00
3	INS	628.00	44	\$ 12.00	\$ 100.00
3	Total	3,582.00	125		
Grand Total		7,692.00	450		

Figure 10

When "Include Group Subtotals" is not selected, the Cost Estimate will be sorted first by Sign Spec Type, then group. The Cost Estimate will display neither group totals nor a grand total. This is the default setting for the Cost Estimate. (figure 11)

GRP	TYPE	SIGN NO.	SIGN CODE	QTY	TOTAL COST	SIGN SQFT
1	INS	1	W12		\$ 262.00	16
1	INS	2	W4-		\$ 262.00	16
1	INS	3	E6-		\$ 1,680.00	140
2	INS	4	E6-		\$ 1,680.00	140
2	INS	5	M3-		\$ 118.00	4
2	INS	6	M1-		\$ 108.00	9
3	INS	7	M1-01		\$ 2,954.00	81
3	INS	8	D1-5		\$ 628.00	44
1	REL	RL-1	LG-1		\$ 520.00	#N/A
1	REL	RL-2	R2-		\$ 60.00	#N/A
1	REL	RL-3	M1-		\$ 60.00	#N/A
2	REL	RL-4	R1-		\$ 60.00	#N/A
2	REL	RL-5	R1-		\$ 142.50	#N/A
3	REL	RL-6	R1-10P		\$ 120.50	#N/A
3	REL	RL-7	W14-		\$ 142.50	#N/A
3	REL	RL-8	D1-8		\$ 60.00	#N/A

Figure 11

When the Group sub total option is selected, the Cost Estimate will first be sorted by Group, then by sign specification type. The Cost Estimate will also include a sub total for each Group and Grand Total line at the bottom, displaying the Grand Total for all selected sign types

GRP	TYPE	SIGN NO.	SIGN CODE	QTY	TOTAL COST	SIGN SQFT
1	REL	RL-3	M1-	0	\$ 60.00	#N/A
1 Total					\$ 2,844.00	#N/A
2	INS	4	E6-	0	\$ 1,680.00	14
2	INS	5	M3-1	1	\$ 118.00	4
2	INS	6	M1-	0	\$ 108.00	9
2	REL	RL-4	R1-1	0	\$ 60.00	#N/A
2	REL	RL-5	R1-1	1	\$ 142.50	#N/A
2 Total					\$ 2,108.50	#N/A
3	INS	7	M1-701M	2	\$ 2,954.00	8
3	INS	8	D1-50	1	\$ 628.00	4
3	REL	RL-6	R1-10P	1	\$ 120.50	#N/A
3	REL	RL-7	W14-7	1	\$ 142.50	#N/A
3	REL	RL-8	D1-80	0	\$ 60.00	#N/A
3 Total					\$ 3,905.00	#N/A
Grand Total					\$ 8,857.50	#N/A

Figure 12

in the estimate. (see figure 12)

Another feature that becomes available when the group sub totals are included, is the "1" & "2" button at the top left corner of the Cost Estimate. (see figure 12a) Button "1" will roll up all the sign specification cost data, and display only the sub total for each group and the grand total for all groups. Button "2" will restore the Cost Estimate.

COST ESTIMATE - Sign Specifications

Work Order: 0L1234
State Route: 90 & 260
Project Title: Sprague Ave - Sign Specs
Region: Olympia Service Center
Entered By: B. Lee

GRP	TYPE	SIGN NO.	SIGN CODE	QTY	TOTAL COST	SIGN SQFT
1 Total						
2 Total						
3 Total						
Grand Total						

Figure 12a

Printing

Sign Specification Pages may be printed on any size paper, but must be printed on 11" x 17" for inclusion in the plans.

To print the INS, REL,REM, Other, Cost and Cost Estimate Pages click on the printer icon. The Print Project dialog box will be displayed, place a check mark next to the items to be printed. (Figure 13)

For Installation, Relocation and Removal pages a "Select" button is available. The default print setting will print all Installation, Relocation and Removal Pages in the project when checked. The "Select" button allows you to specify which of those pages to print. (Figure 14)

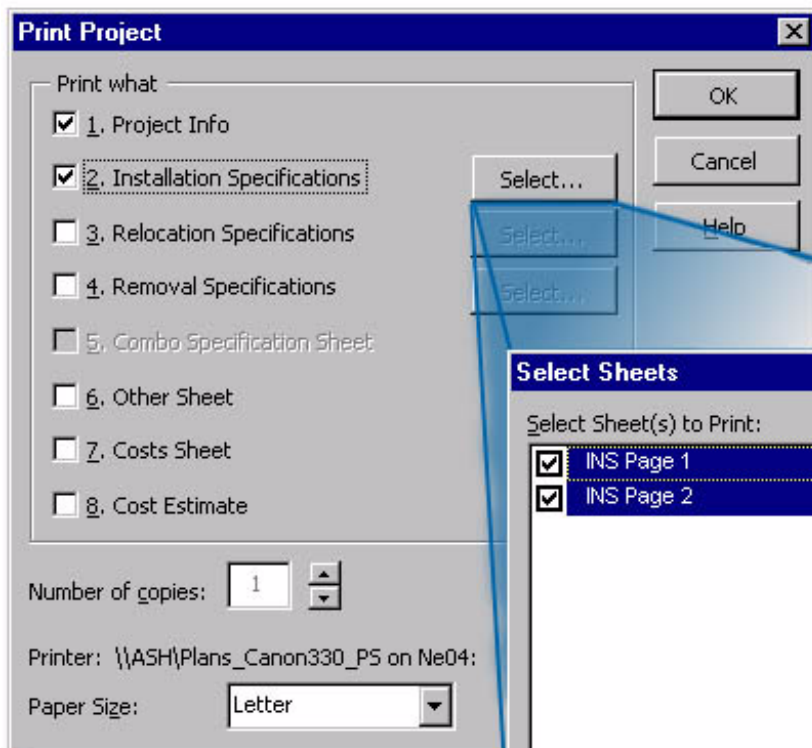


Figure 13

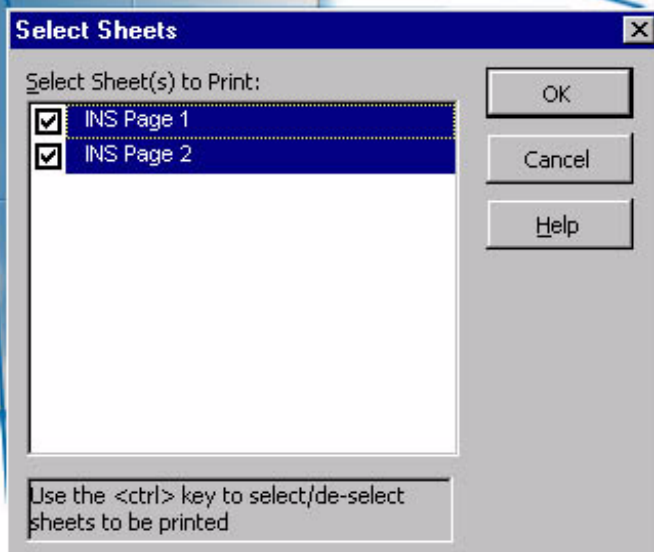


Figure 14

SignSpecs2000 will use the printer you have set as default for you computer unless otherwise specified. To change the printer that SignSpecs2000 uses, click the Setup button in the Print Project dialog box, (Figure 15) this will activate the Printer Setup dialog box. (Figure 16) Click on the printer to be used and click OK. Should special settings be necessary, (i.e. special paper tray, etc.) click the Setup button in the Printer Setup dialog box. This button activates the Advanced Page Setup where special settings are allowed. (Figure 17)

Printer Setup

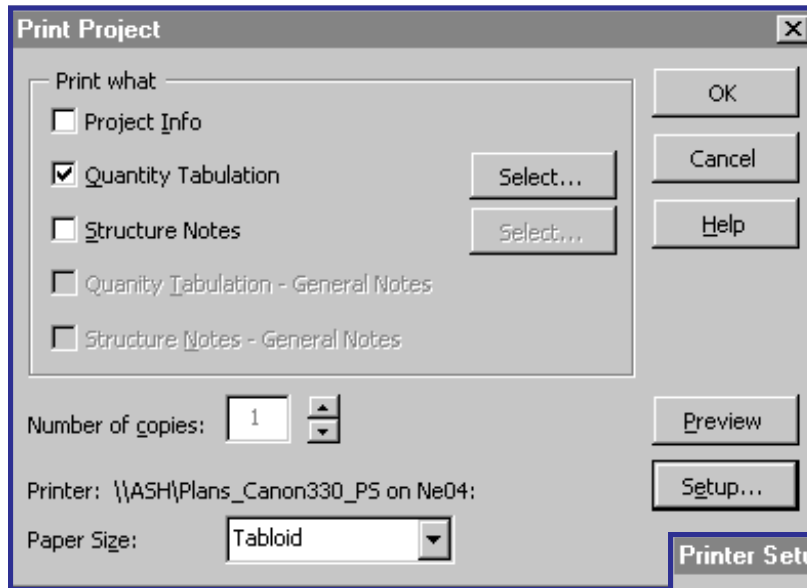


Figure 16

Printer Setup Dialog box

Allows you to specify printers for SignSpecs2000 to use.

Print Project Dialog box

- Allows you to specify what objects to print.
- Preview Pages before they are printed.
- Indicate how many copies to print.
- Specify paper size for print output.

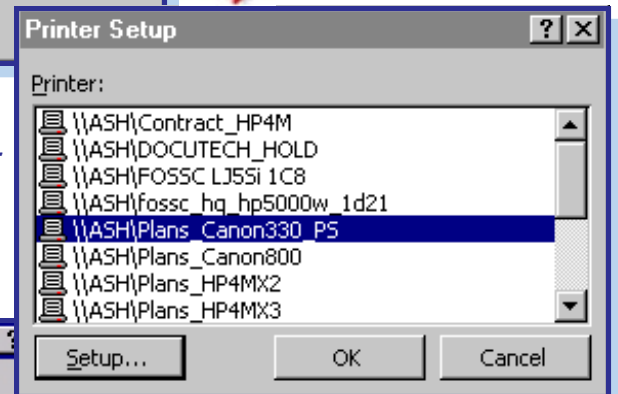
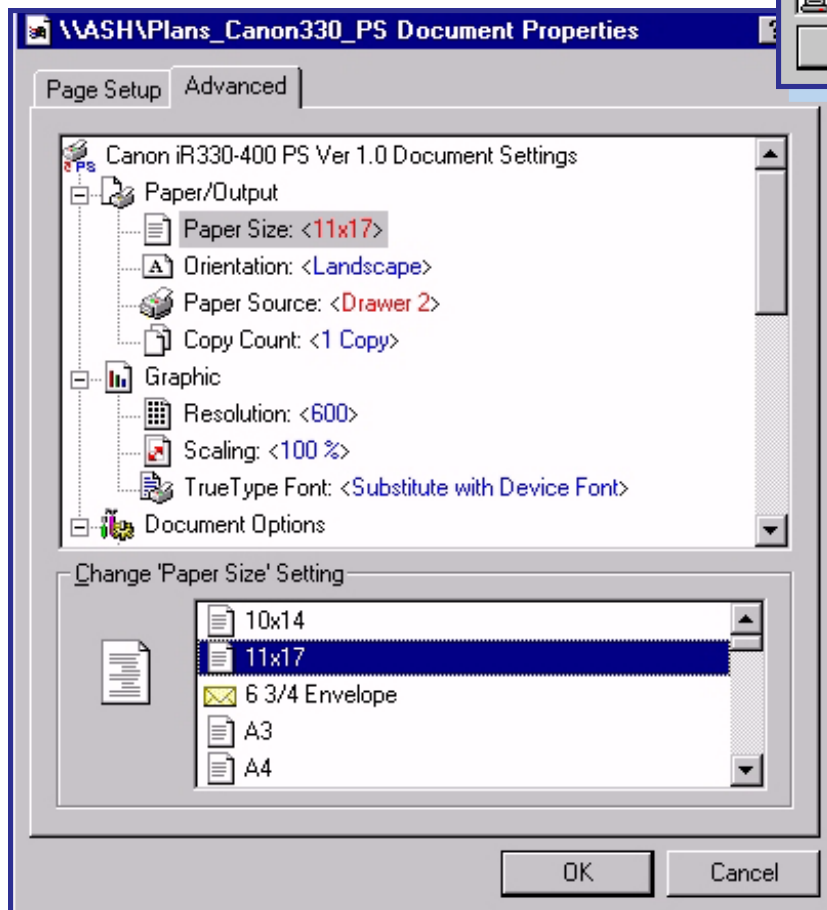


Figure 17



Advanced Page Setup Dialog box

Allows you to use advanced print settings such as paper tray selection and print resolution. (Available features will vary depending on printer make & model)

Figure 18

Addendum Shading

Changes to the Sign Specification pages during the advertisement period will necessitate an addendum to be issued for those pages. All revisions made for addendums will be shaded.

Adding Addendum Shading

To shade INS, REL and REM Pages for addendum revisions, select the sign to be shaded, right-click on the selection, and from the mouse menu select "Shade for Addendum". For non-contiguous selections hold the CNTL key down while selecting. (figure 18)

Removing Addendum Shading

There are 3 levels of addendum shading removal:

- Selection
- Page
- Project

To remove addendum shading from a selection, right click in the selection; then from the mouse menu select "Clear Addendum Shading"

To remove addendum shading from a page, right click anywhere on the page, then from the mouse menu select "Clear All Addendum."

To remove addendum shading and revision information from the entire project, click the "Clear Addendum" button on the SignSpec2000 menu bar.(figure 18)

Any addendum related revisions made to Sign Specification pages must be noted in the Revision area of the Title Block. Text entered here is automatically shaded by the SignSpec2000 program (figure 19)

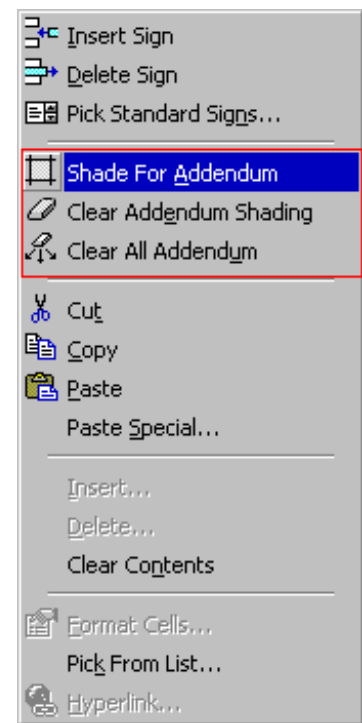


Figure 18

			REGION NO.	STATE
			10	WASH
			JOB NUMBER	
01/10/01	Rev. Signs 1, 15, 16 and 21	TWHP	00Y003	
			CONTRACT NO.	
DATE	REVISION	BY	5977	

Saving files

To save a Sign Specs 2000 file, click the Save File Icon. For New files the file name will automatically default to the Project Title as entered on the Project Info tab

The Sign Specs 2000 program will create the file name based on three fields.

Project Title
Work Order
Job Number

The file name will always be composed first of the text entered in the **Project Title field** + the text in the **Work Order field**, provided there is no text in the Job Number field.

Should the Job Number field contain text, then the file name will be the **Project Title + Job number**.

This Automatic naming function only occurs the first time a new project file is saved. Once the file has been named, the name will remain static even if the data in the Project Title field is changed.

When you are saving a file you may interrupt the automatic naming function by entering a different file name in the "Save As" dialog box when it is displayed.

By default Sign Specs 2000 saves new, or revised project files to the last folder a Sign Specs 2000 project file was saved. To save to a different folder, Select FILE, SAVE AS and select the path to the new folder.

APPENDIX A

Project Engineer Stamps in Clip Art

Before you begin place all the Project Engineer Stamp Image files together in a folder that you can easily browse to and find.

Open Excel (or any Microsoft Office app.).

If the Drawing toolbar is not currently open, click on VIEW, select TOOLBARS and click on DRAWING to activate the toolbar. Once the toolbar is active click the Insert Clip Art icon, this will display the Insert Clip Art dialog box. Click on “New Category”, when the new category dialog box pops up type “P.E. Stamps” for the new category name and click Ok. A new category icon called P.E. Stamps will be added to the insert clip art box. Scroll down until you see this new icon, double click on the icon to open the category. It should say “There were no clips found matching your request”. We will now add the Project Engineer Stamps to this category.

Click on “Import Clips” browse to the folder in which you place all the image files of the Project Engineer Stamps, Select all the image files in the folder (Hold the Shift key down while clicking on the file names to make multiple selections). Click Import.

Click Ok for each image as they are imported into the Clipart category.
Close Clipart.

To Use the Clipart for the P.E. Stamps you imported, Have your drawing toolbar available while you are working in the Sign Specs 2000 program, Click in the “Insert Clip Art” icon, Scroll down to the PE Stamp category that you previously created and click on it to display all the P. E. stamps in the category. Right click on the P.E. Stamp that you need and select COPY, Close the Clip art categories box and return to the Project Info tab, right click anywhere on the Project Info tab and select “Paste State Seal” from the mouse menu.

APPENDIX B

Sheeting Sign Type Area Type*

All red background signs (Stop, Wrong Way, etc.)	All	III & IV
Regulatory Signs	Rural	II
	Urban	III & IV
Warning Signs	Rural	II
	Urban	III & IV
Route Markers (M Series Signs)	All	II
General Information (I series)	All	II
Milepost Markers	All	II
Guide Signs (Backgrounds)		
Ground Mounted	All	II
Overhead(Lighted)	All	I
Overhead(Not lighted)	All	III & IV
Letters, Border, Symbols	All	III & IV
Blue, Brown Background Signs	All	II
Orange (Construction Signs)	All	I & II

*Sheeting types as designated in ASTM Specification D 4956.

APPENDIX C

Signs - Alphabetic List

Abrupt Lane Edge	W21-801
Added lane Symbol left	W4-3L
Added lane Symbol Right	W4-3R
Adopt-A-Highway	16-901
Advance Destination*	D1-401
Advance Destination W/Route Marker*	D1-501
Advance Guide Sign*	E1-1
Advance Pedestrian Crossing	W11-2
Advance Turn Arrow 90 Degrees	M5-1
Advance Turn Arrow 90 Degrees	M5-1B
Advance Turn Arrow 45 Degrees	M5-2
Advance Turn Arrow 45 Degrees	M5-2B
Airport (Symbol)	I5-5
All Trucks Commercial Vehicles Next Right	R13-1
All Trucks Stop Before Moving Onto Bridge	R12-1001
All Way	R1-4
Alternate Plaque	M4-1
Approach Directional Sign - 1 Destination*	D1-901
Approach Directional Sign - 2 Destinations*	D1-801
Approved Snow Traction Advised (Plaque)	R16-2016
Approved Snow Traction Required (Plaque)	R16-2014
Arrow (315 Degrees)	W2-401
Arrow (360 Degrees) Only	R3-501
Automobile Litter only	16-801
Axle Weight Limit _____ Tons	R12-2
Back Eq. Plaque	D10-401
Beach	D7-1402
Be A Good Citizen Don't Litter	16-501
Begin (Bicycle Route)	M4-1101
Begin Check Mile _____	I30-301A
Beginning Of Project	P-1
Begin Right Turn Lane - Yield To Bikes	R4-4
Be Prepared To Stop	W20-7B
Bicycle Crossing	W11-1
Bicycle Lanes Ahead	R3-16
Bicycles Must Exit	R5-601

Bicycles Use Caution Plaque W10-101P	
Bicycle Directional Arrow 90 Degrees	M7-1
Bicycle Directional Arrow 360 Degrees	M7-2
Bicycle Dir. Arrow 2 heads 45 Degrees/225 Degrees	M7-3
Bicycle Directional Arrow 45 Degrees	M7-4
Bicycle Dir. Arrow 2 Heads 90 Degrees/270 Degrees	M7-5
Bicycle Dir. Arrow 2 Heads 360/90 Degrees ____	M7-6
Bicycle Dir. Arrow 2 heads 360/45 Degrees ____	M7-7
Bike Route	D11-1
Bike Symbol ____ (Bicycle Route Marker)	M1-8
Bike Symbol (Interstate Bike Route Marker)	M1-9
Bike (Symbol) Use Pedestrian Signal	R9-5
Bikeway Narrows	W5-4
Bike (Symbol) Yield To Peds	R9-6
Blasting Zone Ahead	W22-1
Bridge Number	I7-301
Bridge Out ____ Miles Ahead Local Traffic Only	R11-3A
Bridge Painting Ahead	W21-1001
Bridge Work Ahead	W21-901
Buckle Up	R16-901
Bump	W8-1
____ Busses And Carpools Only ____	R3-11
Buses & ____ Person Carpools ____ Arrow 180 ____	R3-14
Buses Only Right Lane	R3-2001
Business	M4-3
Bus Station	I5-6
By-Pass	M4-2
Carpool Info ____	D12-201
Carpool Info ____	D12-202
Cattle Crossing	W11-4
Caution-No Warning Signs	I7-7
Cemetery Entrance	W11-1301
Center lane (Two WY. Left Turn) Only (Post Mounted)	R3-9B
Chain Enforcement Ends Here	R16-301
Chain-Off Parking Only	R16-701
Chain-Up Parking Only	R16-601
Chevron Alignment Sign	W1-8
City Entrance Sign*	I2-301
City Interchange Sequence*	E8-2
City Next ____ Exits*	E9-1
Clean Water Arrow Directional.....	I8-704
Clean Water - Use For Filling Domestic Tanks	I8-706
Commercial Vehicles Excluded	R5-4

Commercial Vehicle Use Prohibited	I8-704
Compact Cars Only	R5-1301
Congestion Ahead	W14-2203
Congested Area	W14-2202
County Entrance Sign*	I2-201
Cross On Green Light Only	R10-1
Cross Only At Crosswalks	R9-2
Cross Road Symbol	W2-1
Cross On Walk Signal Only	R10-2
Cross On Walk Signal Only With Man Symbol	R10-2A
Crossroad Name Sign*	D3-201
Crossroad Name Sign*	D3-301
Crossroad Name Sign W/Chevron*	D3-302
Crossroad Railroad Sign	W10-2
Crosswalk (Overhead)	W11A-301
Crosswalk (Arrow _____ Degrees)	W11A-401
Curve Left	W1-2L
Curve Right	W1-2R
2 Curve Right Arrows	W1-4BR
3 Curve Right Arrows	W1-4CR
Daylight Hours Only	I8-701
Dead End	W14-1
Dead End With Arrow	W14-1P
Deer Crossing	W11-3
180 Degree Curve Left	W1-901L
180 Degree Curve Right	W1-901R
Delay Of 5 Vehicles Illegal Must Use Turnouts	I8-201
Deposit Litter _____ Mile(s)	I6-101
1 Destination W/Arrow*	D1-101
2 Destinations W/Arrows*	D1-201
3 Destinations W/Arrows*	D1-301
Detour	M4-8
Detour Ahead	W20-2
Detour (Arrow _____) Left/Right	M4-10
Detour (Arrow _____ Degrees) Left/Right	M4-9
Diagrammatic*	E1-4
Dip	W8-2
Directional Arrow 90 Degrees	M6-1
Directional Arrow 90 Degrees	M6-1B
Directional Arrow 45 Degrees	M6-2
Directional Arrow 45 Degrees	M6-2B
Directional Arrow 360 Degrees	M6-3

Directional Arrow 360 Degrees	M6-3B
Directional Arrow 2 Heads 90 Degrees/270 Degrees	M6-4
Directional Arrow 2 Heads 90 Degrees/270 Degrees	M6-4B
Directional Arrow 2 Heads 45 Degrees/225 Degrees	M6-5
Directional Arrow 2 Heads 45 Degrees/225 Degrees	M6-5B
Directional Arrow 2 Heads 360 Degrees/90 Degrees	M6-6
Directional Arrow 2 Heads 360 Degrees/90 Degrees	M6-6B
Directional Arrow 2 Heads 360 Degrees/45 Degrees	M6-7
Directional Arrow 2 Heads 360 Degrees/45 Degrees	M6-7B
Directional W/Route Marker*	D1-701
Divided Highway	R6-3
Divided Highway	R6-3A
Divided Highway	W6-1
Divided Highway Ends	W6-2
Do Not Block Intersection	R10-7
Do Not Drive On Shoulder	R11-501
Do Not Enter	R5-1
Do Not Pass	R4-1
Do Not Roll Rocks Endangers People Below	R18-201
Do Not Stop On Tracks	R8-8
Double Arrow	W12-1
Double Exit Or Next Right Second Left*	E3-101
Draw Bridge	W14-1001
Draw Bridge Ahead	W14-1002
Dump Station Instructions	I8-708
East	M3-2
East	M3-2B
Emergency Call Box	D8-101
Emergency Parking Only	R8-4
Emergency Restrictions	R12-502
Emerg. Restrictions ____ Miles Ahead On Hwy ____	R12-503
Emergency Stopping Only	R8-7
End	M4-6
End	M4-12
End (Bicycle Route)	M4-1201
End Lane Closure	G20-601
End Road Work	G20-2A
Emergency Signal	W10-701
Emergency Signal Ahead	W3-401
End Blasting Zone	W22-3
End Check Mile _____	I30-301
End Project	P-2
End Of Road marker (Refl)	W16-101
End Of Road Marker (Non-Refl)	W16-102

End School Zone	S5-2
End Shoulder Driving	I8-601
Entering Fire District No. _____	I8-804
Entering Limited Access Area	I2-601
Equestrian Crossing	W11-7
Except All-Wheel Drive With Approved Traction Tires	R16-202
Exception Plaque*	R8-3AP
Exempt	R15-3
Exempt Plaque	W10-101
Exit (Arrow _____ Degrees)	E5-1
Exit Direction*	E6-101
Exit Gore Sign with Exit Number And Arrow*	E5-1A
Exit _____ MPH	W13-2
Exit Only Guide Sign W/Arrow*	E4-501
Exit Only Panels	E11-1
Exit Panel*	E1-5
Farm Machinery	W11-5
Ferry (Car /Boarding Symbol)	I5-801
Ferry Symbol	I5-801A
Fire Hydrant Marker	I7-401
Fire Station	W11-8
Fire Station Ahead	W15-201
Flagger's Paddle	W21-1201
Flagger (Symbol)	W20-7A
Flying Rock	W21-1601
Food (Freeway Double Exit)*	LG-M4
Food - Gas - Lodging Next Right*	D9-103
Food Next Exit (Freeway)*	LG-M3
Food - Phone - Gas - Lodging, Etc.*	D9-101
Food - Phone - Gas - Lodging Next Right*	D9-102
Forest Fire Prevention Symbol	I1-201
For ____ Mi.	W13-401
For Project Information	G24-501
Free Coffee	D13-1
Freeway Entrance	E12-201
Freeway Ends ____ Mile	W6-401
Fresh Oil/Tar	W21-2
Gas, Food, Lodging Next Right/Left (Conventional Roads)*	LG-C1
Gas, Food, Lodging (Ramps)*	LG-R1
Gas (Freeway Double Exits)*	LG-M2
Gas Next Right (Freeway)*	LG-M1
____ % Grade	W7-3
____ % Grade _____ Miles	W7-3B

Grated Bridge Deck	W8-2101
Grooved Pavement	W8-2001
Handicapped Crossing	W11-9
Handle And Staff For Flag Paddle	W21-1202
HC Prohibited Symbol	R14-3
HC Symbol	R14-2
Heritage Marker _____ Mile	I5-103
Heritage Marker W/Arrow	I5-104
Highway Entrance	E12-101
Hill	W7-101
Hill (Bicycle Symbol)	W7-5
Hill Symbol	W7-1
Hitchhiking Permitted	I7-901
Hospital	W15-301
Impact Attenuator Marking	W12-501
Impact Attenuator Marking	W12-502
In Memory Of _____	I20-203
Interchange Sequence Sign*	E8-1
Interstate _____	M1-1
Interstate Business Loop	M1-2
Interstate Business Spur _____	M1-3
JCT	M2-1
Junction _____	M2-2
Keep Left/Right (Ped & Bike Symbols)*	R9-7
Keep Left Symbol	R4-8
Keep Off Median	R11-1
Keep Off Wet Paint	R17-101
Keep Right 30 Degree Arrow	R4-7B
Keep Right Except To Pass	R4-301
Keep Right Horizontal Arrow	R4-7A
Keep Right Symbol	R4-7
Lane Ends Merge Left	W9-2L
Lane Ends Merge Right	W9-2R
Large Arrow	W1-6
Large Arrow (2-Heads)	W1-7
Lateral Clearance Marker (Left)	W12-401L
Lateral Clearance Marker (Right)	W12-401R
Leaving Limited Access Area	I2-701
Leaving Range Area	I2-501
(Left Arrow) Only (Left Right Arrows)	R3-802
(Left Arrow) Only (Left Straight Arrows)	R3-8
(Left Arrow) Only (Straight Arrow) Only	R3-801
Left Lane Ends	W9-1L

Left Lane Must Turn Left	R3-7L
Left On Green Arrow Only	R10-5
Left Only Arrow	R3-5
Left Turn	W1-1L
Left Turns Ahead	W2-601
Left Turn Must Yield	R10-1201
Left Turn Signal	R10-10L
Lewis-Clark Trail Marker	R3-6
Lights?	I4-301
Litter Symbol Sign	I6-201
Livestock Inspec. Required Stop At Weigh Station	R13-401
Lodging (Freeway Double Exit)*	LG-M6
Lodging Next Exit (Freeway)*	LG-M5
Loose Gravel	W8-7
Low Clearance Symbol _____ Ft _____ Inch	W12-2
Low Clearance _____ Ft _____ Inch	W12-301
Low Clearance Marker LT./RT.	W12-302
Low Flying Aircraft	W14-701
Low Shoulder	W8-9
Merging From Left	W4-1L
Merging From Right	W4-1R
Mile _____	I30-401
_____ Mile	D5-602
Mile _____ (Single Faced)	D10-1
Mile _____ (Back To Back)	D10-101
Mile _____ (Single Faced)	D10-2
Mile _____ (Back To Back)	D10-201
Mile _____ (Single Faced)	D10-3
Mile _____ (Back To Back)	D10-301
_____ Miles	W13-501
Mileage Sign*	E7-1
Military Rd Closed XX Miles Ahead Local Traff. Only	R11-3 MOD
Minimum Speed _____	R2-4
Mountain pass Ahead Drive Carefully	W14-1601
Motorcycles Only	R5-1201
Mowing Test Area	I8-801
_____ MPH	W13-1
_____ MPH	R2-501
Multi-Lane Destination W/Arrow*	D1-601
Multi-Lane Destination W/Arrows*	D1-602
Multi-Lane Destination W/Arrows*	D1-603
Narrow Bridge	W5-2
Narrow Bridge Symbol	W5-2A

___ National Forest (Forest Service Route Marker)	M1-7
New Signal Ahead	W20-902
Next Exit _____ Miles	E2-1
Next Exit _____ Miles	E2-1A
Next _____ Miles	W7-3A
Next _____ Miles	I7-702
Next Rest Area _____ Miles	D5-102
Next Right Guide Sign*	E4-301
Next Services _____ Miles	D9-1601
Night _____	R2-3
No Bicycles Symbol	R5-6
No Camping	D7-2202
No Center Stripe	W8-12
No Dumping Allowed	R18-301
No Fishing From Bridge	R18-101
No Hitchhiking	R9-4
No Hitchhiking Symbol	R9-4A
No Left Turn Symbol	R3-2
No Motor Vehicles	R5-3
No Outlet	W14-2
No Outlet With Arrow	W14-2P
No Parking	R8-3
No Parking Anytime	R7-101
No Parking Anytime	R7-1
No Parking Anytime (Double Headed Arrow)	R7-102
No Parking Beyond This Point	R8-301
No Parking Bike Lane	R7-9
No Parking Bike Lane (Symbol)	R7-9A
No Parking Bus Stop	R7-701
No parking Bus Stop (Arrow)	R7-107
No Parking Bus Stop _____ Arrow	R7-7
No Parking Bus Stop Symbol With Transit Logo	R7-107A
No parking Except On Shoulder	R8-2
No Parking Except Sundays And Holidays (Arrow)*	R7-3
No Parking Except Sundays	R7-301
No Parking Loading Zone	R7-601
No Parking Loading Zone (Double Arrow)	R7-6
No Parking On Pavement	R8-1
No Parking (Symbol)	R8-3A
No Parking Symbol (Time) To (Time)	R7-2A
No Parking (Time) To (Time)	R7-202
No Parking XXXX To XXXX*	R7-2
No Passing On Bridge	R4-901

No Passing Zone	W14-3
No Pedestrian Crossing	R9-3
No Pedestrian Crossing Symbol	R9-3A
No Right Turn Symbol	R3-1
North	M3-1
North	M3-1B
No Shoulder	W8-1801
No Standing Anytime _____ Arrow	R7-4
No Stopping Except On Shoulder	R8-6
No Stopping On Pavement	R8-5
No Stopping Or Standing Arrow	R7-401 W/Arrow
No Stopping Or Standing _____	R7-402 No Arrow
Notice - Parking/Commuters Only	I8-703
No Trespassing	R17-2
No Trucks Over _____ LBS. Empty Weight	R12-3
No Trucks Symbol	R5-2
No Turn On Red	R10-11A
No Turn On Red	R10-11B
No Turns	R3-3
No U-Turn	R3-4
One Hour Parking (Time) To (Time)*	R7-5
One Lane Road Ahead	W20-4
One Lane Bridge	W5-3
One Truck At A Time On Bridge	R12-1101
One Vehicle In Median At A Time	R10-701
One Way (Left)	R6-1L
One Way (Left)	R6-2L
One Way (Right)	R6-1R
One Way (Right)	R6-2R
Open Closed Panel	D8-202
Parallel Parking Only	R7-10802
Park & Ride*	D4-2
Park & Ride _____*	D4-301
Park And Ride Next Right*	E13-1
Park And Ride W/Exit Number	E13-2
(Parking) 15 Minute Parking*	R7-10801
(Parking) 48 Hours Maximum Parking	R8-1201
Passing lane _____ Miles	R4-601
Pass With Care	R4-2
Pavement Ends	W8-3
Pavement Ends (Symbol)	W8-3A
Pavement Ruts	W8-2201
Pavement Width Transition Left	W4-2L

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