

# **PERMANENT SIGN ITEMS**

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## OVERVIEW

Permanent Sign Items have different documentation requirements for each unit of measure (UOM). All Permanent Sign Items must be counted, measured and calculated, or based on plan. Documentation examples for a few selected sign items are illustrated in this chapter. Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format should be followed. If there are items which cannot be documented according to the following examples, contact the Construction Admin Services Section for assistance.

When material samples are taken for the Materials Division labs, refer to the [AWP Sample Records](#) document for details.

## INSPECTOR'S RESPONSIBILITIES – SIGN ITEMS

- Use the Agreement Estimate Report as a reference to ensure that items and quantities are paid in the correct category (AEB).
- Use the Sign Summary Lists (Figure 20-1) the Sign Locations (Figure 20-2), located in the Contract plans to, help identify items, quantities, descriptions and locations.

SIGN SUMMARY															STATE	PROJECT NO.	COUNTY	SHEET NO.			
															NEVADA	NHP-080-3(065)	HUMBOLDT	TS 52			
															**POST LENGTHS & TYPE ARE FOR INFORMATIONAL ESTIMATING PURPOSE ONLY. SEE GENERAL NOTES.						
Remarks	Stack Length (ft)	Length (ft)		Post **	Type and Size (in)	Mounting (ft)	Slope	Curb & Offset	Panel Size (in. x in.)	Panel Area (sq. ft.)	New Bid Item Number	Sign No.	Panel Size (in. x in.)	Panel Area (sq. ft.)	Removal Bid Item Number	Sign Message	Sign Station	Location	Sign Number		
		Inner	Outer																# of Posts	w	h
	12' 2"		1	3' RND SNGL POST	7' 8" : 1			36 x 36	9.00	627 0160	RS-1	36 x 36	9.00	627 0240	DO NOT ENTER						
MOUNT BACK TO BACK MOUNT BACK TO BACK								36 x 12	3.00	627 0160	RS-1R	36 x 12	3.00	627 0240	ONE WAY (ENCLOSED IN RIGHT ARROW)	"R3C" 23 + 70	LT	130	130R		
	12' 2"		1	3' RND SNGL POST	7' 8" : 1			36 x 36	9.00	627 0160	RS-1	36 x 36	9.00	627 0240	DO NOT ENTER						
	12' 1"		1	2.5' SQ 12 GA POST	7' 8" : 1			36 x 36	7.48	627 0160	R1-1	36 x 36	7.48	627 0240	STOP	"R3C" 23 + 85	LT	131	131R		
	11'		1	2.5' SQ 12 GA POST	7' 8" : 1			12 x 18	1.50	627 0160	M1-8	12 x 18	1.50	627 0240	BICYCLE ROUTE MARKER	"R3C" 24 + 85	LT	132	132R		
	11' 1"		1	2.5' SQ 12 GA POST	7' 8" : 1			12 x 6	0.50	627 0160	M6-1	12 x 6	0.50	627 0240	HORIZONTAL ARROW						
	11' 1"		1	2.5' SQ 12 GA POST	7' 8" : 1			36 x 24	6.00	627 0160	RS-1A	36 x 24	6.00	627 0240	WRONG WAY	"R3C" 28 + 10	RT	133	133R		

Figure 20-1: Sign Summary List

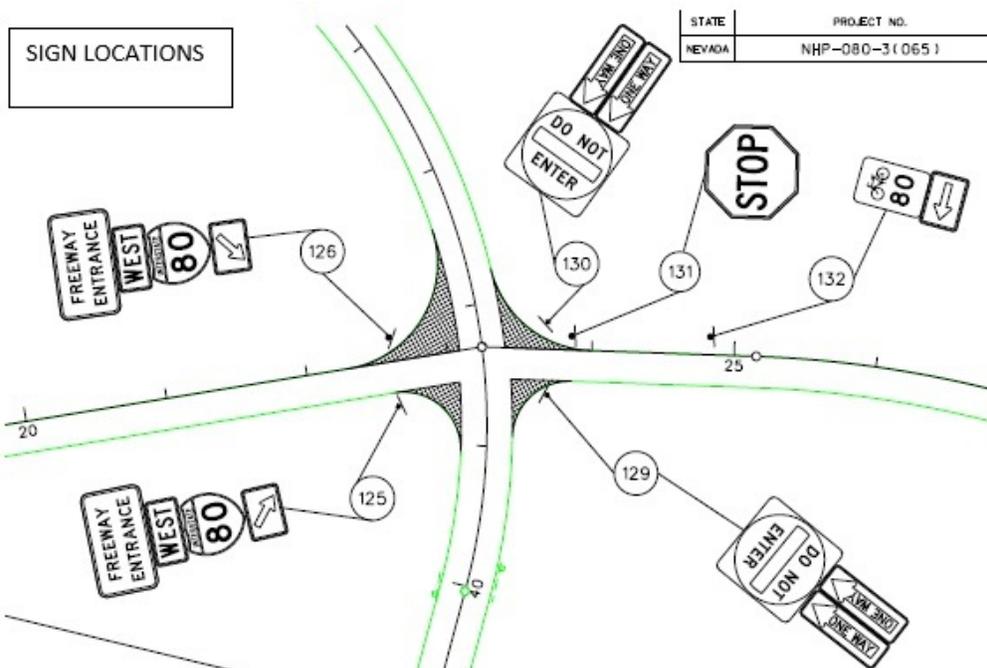


Figure 20-2: Sign Locations

- Review the following for accuracy:
  - Special Provisions
  - Supplemental Notices
  - Change Orders

**Note:** When any changes are made to an item, reference the Change Order number in the DWR item posting remarks.

- Turn in ALL sign item calculation sheets to the Office Engineer.

## DAILY WORK REPORT (DWR) – MOBILE INSPECTOR

1. Create a DWR in Mobile Inspector daily to document the activity being monitored. Refer to the [Mobile Inspector User Guide](#) for details on using this application.
  - Report Details – daily activities
  - Item Postings – item(s) and quantity(s)
  - Equipment – type, number and hours used
  - Personnel – title and hours
2. Record the following required information in the Report Details window (Figure 20-3):
  - **Date:**
  - **Weather:**
  - **Low Temp and High Temp:**
  - **Attachments:** (N/A) Send ALL photos via email.
  - **Remarks:** Select the appropriate Remark Type. Verify with the Resident Engineer on what information is required.

Figure 20-3: DWR Report Detail Window

3. Record the following required information in the New Item Postings window:
  - **Item:** Select the appropriate Project/Catg., if item is in more than one Project/Catg. – Refer to the AEB report.
  - **Contractor:** ALWAYS the Prime Contractor (Subs are not allowed).
  - **Qty:** Based on plan, measurements and calculations
  - **Material Set:** Select appropriate value (if applicable)
  - **Location:** Line Designation
  - **Station From/To:** Refer to Contract plans.
  - **Offset Type:** Enter the LT, RT, or CL.

- **Offset Dist.:** Enter if known.
- **Comments:** Must show calculations when appropriate, refer to Calculation Sheet when appropriate (refer to Appendix B, Calculation Formulas, in this Manual for a Calculation Sheet example), other information relevant to item posting, and explanations when Attention Flag is checked.
- **Attention Flag:** Use to bring attention to Resident Engineer and Office Engineer for overruns and plan errors. Must enter Attention Comments.

NOTES for Permanent Sign item postings:

- If an each item has a specific location/station callout in the plans, then a separate posting will be done. It should NOT be grouped in a posting.
- If each items do NOT have a location/station callout but are grouped in a table or structure list, then they can be combined in one posting.
- If the message, panel size, sign number and the SQFT match the Sign Summary Sheets in the Contract plans, enter the New/Removal Sign Number in the Posting Location.
- If the message, panel size, sign number and the SQFT DOES NOT match the Sign Summary Sheets in the Contract plans, document an explanation of the changes in the Remarks box.
- Refer to Figure 20-4 through Figure 20-8 for examples of sign item postings with different UOM.

**New Item Posting**

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**Item:** PERMANENT OVERHEA... ▾

**Contractor:** SIERRA NEVADA CONS... ▾

**Qty:** 1.00 EACH

**Authorized:** 2.000 EACH

**Total Posted:** 0.000 EACH

**Location:** "LSE" 420 + 19

**Station From:**   +  

**Offset Type:** RT

**Offset Dist:**  

**Station To:**   +  

**Offset Type:**  

**Offset Dist:**  

**Measured:**  

**Comments:**

3999 remaining

NOTES for Sign EACH (Figure 20-4):

- Payment for EACH items will be based on field count.
- Location: Enter the Sign Station
- Offset Type: Enter the LT, RT, or CL.
- Offset Dist: Enter if known
- Sig. Fig. = .01

Figure 20-4: DWR Item Posting – Sign EACH

**New Item Posting**

Item: PERMANENT SIGNS (GR... ▾)

Contractor: SIERRA NEVADA CONS... ▾

Qty: 7.46 SQFT  
 Authorized: 98.240 SQFT  
 Total Posted: 0.000 SQFT

Location: New Sign #131

Station From: [ ] + [ ]

Offset Type: [ ]

Offset Dist: [ ]

Station To: [ ] + [ ]

Offset Type: [ ]

Offset Dist: [ ]

Measured:

Comments: [ ]

3986 remaining

Figure 20-5: DWR Item Posting - Sign SQFT

NOTES for Sign SQFT (Figure 20-5):

- Payment for SQFT item will be based on plan quantity.
- Location: Enter the Sign Number
- Sig. Fig. = .01

**New Item Posting**

Item: PERMANENT SIGNS, RE... ▾

Contractor: SIERRA NEVADA CONS... ▾

Qty: 7.46 SQFT  
 Authorized: 65.120 SQFT  
 Total Posted: 0.000 SQFT

Location: Removal Sign #131R

Station From: [ ] + [ ]

Offset Type: [ ]

Offset Dist: [ ]

Station To: [ ] + [ ]

Offset Type: [ ]

Offset Dist: [ ]

Measured:

Comments: [ ]

3981 remaining

Figure 20-6: DWR Item Posting – Sign (Remove or Reset) SQFT

NOTES for Sign (Remove or Reset) SQFT (Figure 20-6):

- Payment for SQFT item will be based on plan quantity.
- Location: Enter the Sign Number
- Sig. Fig. = .01

**New Item Posting**

**Item:** PERMANENT SIGNS (GR...)

**Contractor:** SIERRA NEVADA CONS...

**Qty:** 12.00 SQFT  
 Authorized: 87.250 SQFT  
 Total Posted: 0.000 SQFT

**Location:** "R3C" 23+70

**Station From:** [ ] + [ ]

**Offset Type:** LT

**Offset Dist:** [ ]

**Station To:** [ ] + [ ]

**Offset Type:** [ ]

**Offset Dist:** [ ]

**Measured:** [ ]

**Comments:**  
 New Sign #131  
 Sign No. R6-R Panel Size 36x12/144=3.00 SQFT.  
 One Way (Enclosed in Right Arrow).  
 Sign No. R5-1 Panel Size 36x36/144=9.00 SQFT.  
 Do Not Enter.  
 3.00 + 9.00 = 12.00 SQFT  
 Sign No. R6-1L was never installed.  
 Message: One Way (Enclosed in Left Arrow)

3730 remaining

Figure 20-7: DWR Item Posting - Sign SQFT

NOTES for Sign (Remove or Reset) SQFT (Figure 20-7):

- Payment for SQFT item will be based on field measurements and calculations if different than plan.
- Calculation for SQFT = L x W / 144 (converting inches to feet).
- Location: Enter the Sign Station
- Offset Type: Enter the LT, RT, or CL.
- Offset Dist: Enter if known
- Sig. Fig. = .01
- Enter the Sign Number, panel size, SQFT and message in Comments.

**New Item Posting**

**Item:** PERMANENT SIGNS (GR...)

**Contractor:** SIERRA NEVADA CONS...

**Qty:** 119.00 SQFT  
 Authorized: 254.210 SQFT  
 Total Posted: 0.000 SQFT

**Location:** "LNE" 318 + 50

**Station From:** [ ] + [ ]

**Offset Type:** RT

**Offset Dist:** [ ]

**Station To:** [ ] + [ ]

**Offset Type:** [ ]

**Offset Dist:** [ ]

**Measured:** [ ]

**Comments:**  
 Sign # = Special per CO # 3  
 Panel Size 204 x 84  
 204 X 84 / 144 = 119.00 SQFT.  
 Message: Red Rock Canyon, Death Valley Next Right

3862 remaining

Figure 20-8: DWR Item Posting – Sign (Remove or Reset) SQFT

NOTES for Sign (Remove or Reset) SQFT (Figure 20-8):

- Payment for SQFT item will be based on field measurements and calculations if different than plan.
- Calculation for SQFT = L x W / 144 (converting inches to feet).
- Location: Enter the Sign Station
- Offset Type: Enter the LT, RT, or CL.
- Offset Dist: Enter if known
- Sig. Fig. = .01
- Enter the Sign Number, panel size, SQFT and message in Comments.

4. Record the following required information in the New Equipment window (Figure 20-9 and Figure 20-10):

- **Contractor:** Actual contractor performing the work (include subs).
- **Type:** Select from the Equipment list
- **Used:** How many of each type.

- **Hours Used:** Total hours in use.
- **Comments:** Details of the type of equipment (e.g., diesel, HP, model, make). Include equipment attachment information if applicable.

New Equipment	
<b>Contractor:</b>	LAS VEGAS PAVING C... ▾
<b>Type:</b>	LOADER / BACKHOE /... ▾
<b>Used:</b>	<input type="text" value="1"/>
<b>On Site:</b>	<input type="text"/>
<b>Hours Used:</b>	<input type="text" value="8"/>
<b>Hours Idle:</b>	<input type="text"/>
<b>Comments:</b>	<div style="border: 1px solid black; padding: 5px;">           Bobcat 256C, Skid Steer, Diesel, 82HP, 1350lbs with an Auger Loader, attachment, 15C w/12" bit         </div>
506 remaining	
<input checked="" type="checkbox"/> <input type="checkbox"/>	

Figure 20-9: DWR Equipment Entry

Add Equipment
<b>Contractor:</b> LAS VEGAS PAVING CORPORATION
<b>Type:</b> LOADER / BACKHOE / WHEEL LOADER / SKID STEER
<b>Used:</b> 1
<b>Hours Used:</b> 8.000
<b>Comments:</b> Bobcat 256C, Skid Steer, Diesel, 82HP, 1350lbs with an Auger Loader, attachment, 15C w/12" bit
<input type="checkbox"/> <input type="checkbox"/>

Figure 20-10: DWR Equipment List

- Record the following required information in the New Personnel window (Figure 20-11 and Figure 20-12):
  - **Contractor:** Actual contractor performing the work (include subs).
  - **Type:** Select from the Personnel list.
  - **Number:** How many of each title.
  - **Total Hours:** Total hours worked.
  - **Comments:** Details of personnel type (e.g., foreman w/name, laborer, truck driver).

**New Personnel**

**Contractor:** LAS VEGAS PAVING C... ▾

**Personnel:** LABORER FOREMAN ▾

**Employee:** N/A

**Decision Class:** Select ▾

**Number:** 1

**Total Hours:** 8

**Comments:**

Foreman - Cody Bellinger

3975 remaining

✓
✗

**Figure 20-11: DWR Personnel Entry**

Add Personnel	
<b>Contractor:</b> LAS VEGAS PAVING CORPORATION <b>Description:</b> LABORER <b>Number:</b> 3 <b>Total Hours:</b> 8.000	
<b>Contractor:</b> LAS VEGAS PAVING CORPORATION <b>Description:</b> OPERATING ENGINEER <b>Number:</b> 2 <b>Total Hours:</b> 8.000	
<b>Contractor:</b> LAS VEGAS PAVING CORPORATION <b>Description:</b> LABORER FOREMAN <b>Number:</b> 1 <b>Total Hours:</b> 8.000 <b>Comments:</b> Foreman - Cody Bellinger	

**Figure 20-12: DWR Personnel List**

6. Complete a final review of the DWR, lock the report, and Sync Data.

**Note:** When a Mobile Inspector DWR is completed, locked and Synd Data is completed, the information is uploaded into an AWP DWR, where it is reviewed and Approved for processing progress payments.

## DAILY WORK REPORT (DWR) – AWP EDITS

The Officer Engineer reviews each Inspector's DWRs for required entries and accuracy. If edits are needed on a DWR, the Inspector who created it may be required to log into the AWP program on a computer (not the iPad) and complete the edits. Refer to Chapter 5, Daily Work Reports, Section, Editing a Mobile Inspector DWR, in the [AWP User Guide With Materials](#) for details.

## OFFICE ENGINEER'S RESPONSIBILITIES – SIGN ITEMS

- Collect all Material Certifications. Scan and save them to the Contract Files\Materials\03 Cert & Test Reports\3.# directory. Each Material Certification must have the contract ID, bid item and represented quantity entered. Hand-written entries are acceptable for the contract ID, bid item and quantity.
  - Name the scanned certificate file(s) with the contract ID, Material Code Name and description, load number (if applicable) - CERT (e.g., 03904 M6270001 Permanent Signs - CERT.pdf) The Material Code Name and description is found in the NDOT Power BI, AWP Reports, Certification Tracking report.
- Create an AWP Materials Cert Sample Record for each Material Certification received. Refer to the [AWP Cert Sample Record Creation](#) document and Chapter 24, Progress Payments, in this Manual for details.
- Save Permanent Sign Items photos in the appropriate Contract Files\Contract\03 Multimedia\3.# Photos directory.
- Review Permanent Sign Items calculation sheets for accuracy and save electronically in the appropriate Contract Files\Contract\07 Estimates\7.# Calc Sheets directory using this naming convention: DWR YYYY-MM-DD Inspectors Initials, (e.g. DWR 2016-03-19 KMM).
- Distribute executed copies of Change Orders to Inspectors.

## DAILY WORK REPORT (DWR) – AWP

When a Mobile Inspector DWR is locked by an Inspector, the information is uploaded into an AWP DWR. Refer to Chapter 5, Daily Work Reports, in the [AWP User Guide With Materials](#) for details.

- Verify the following:
  - Information in the Remarks
  - Information in the Contractor On Site tab
  - Information in the Contractor Equipment tab
  - Information in the Contractor Personnel tab
  - Items are paid correctly according to the contract documents (e.g., plans, supplemental notices, Change Orders).
  - Item quantities
  - Quantities in postings are documented to the correct Significant Figure (.01)
  - Material Set is correct.
  - Stations and Line Designations in the Locations
  - Calculations are correct.
  - Comments reference calculation sheets, if applicable.

**Note:** Length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the Inspector before assuming the calculations are incorrect.

- Approve the DWR if everything is correct.
- If there are edits required, the Office Engineer may complete them and add a DWR Note with their name, date, and details of the correction. The DWR can then be Approved.
- If there are edits which need to be completed by the Inspector who created the DWR, the Inspector will be required to log into the AWP program on a computer (not the iPad) to complete the edits.
- Review the edited DWR and Approve.