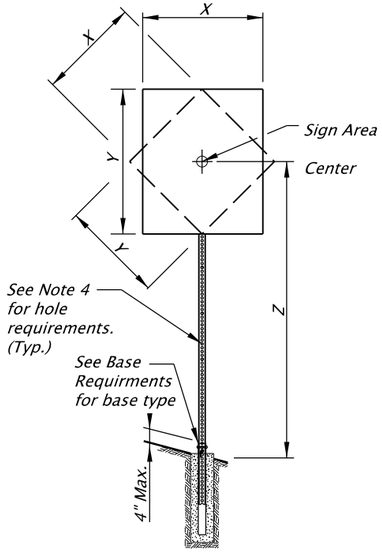
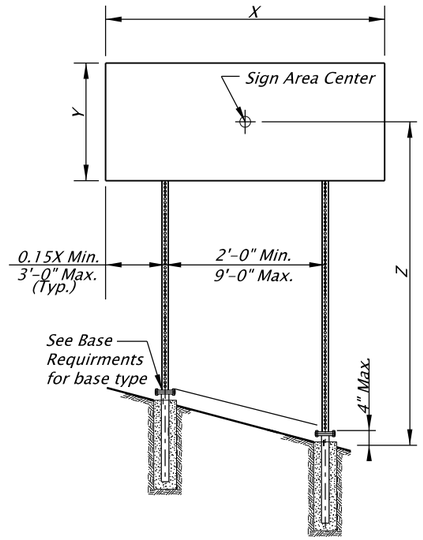
10-JUL-2020

TM681.dgn



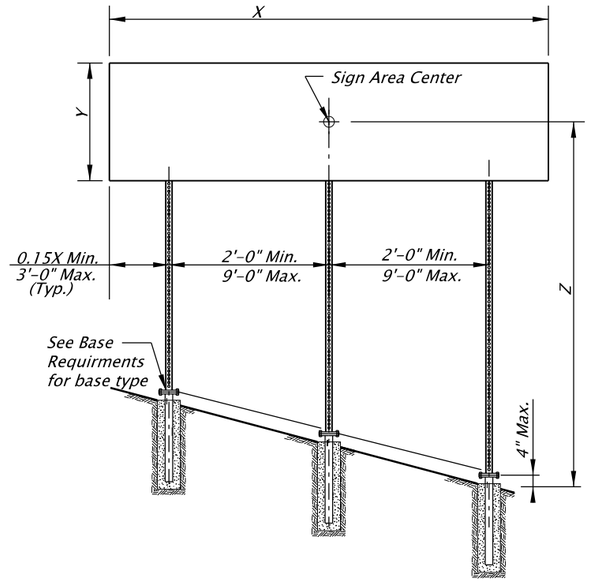

## SINGLE POST ELEVATION

*No scale*




## TWO POST ELEVATION

*No scale*




## THREE POST ELEVATION

*No scale*

## GENERAL NOTES:

1. Perforated Steel Square Supports are designed in accordance with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals 4th Edition, 2001, 2002, 2003, and 2006 interim revisions.
2. The design basic wind speed (3 second gust) shall be according to the wind map shown on TM671.
3. Material grade for base hardware connection shall be according to the manufacturer's recommendation and based on crash testing.
4. Use $^{7}/_{16}$" diameter holes at 1" spacing on each of the 4 sides.
5. Steel post shall have a minimum yield stress of 50 ksi.
6. Steel shall be galvanized according to ASTM A653 with coating designation G90.
7. General design parameters are Kz = 0.87, Cd (sign) = 1.20, and G = 1.14.
8. Permanent signing uses an Ir = 0.71 for a recurrence interval of 10 years.
9. Temporary signing uses an Ir = 0.45 for a recurrence interval of 1.5 years.
10. The sign width to sign height or sign height to sign width ratio shall not exceed 5.0.
11. For horizontal and vertical clearances of permanent signs refer to TM200 and of temporary signs refer to TM822.
12. Posts protected by barrier or guardrail do not require slip bases.

| ( X * Y * Z ) in ft³ - Maximum | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3 Second Gust Wind Speed (TM671) | | | | | | | | | |
| | 85 MPH | | | 95 MPH | | | 105 or 110 MPH | | |
| | Number of Posts | | | Number of Posts | | | Number of Posts | | |
| Square Tube Size | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| 2"-12 ga. | 79 | 158 | 237 | 63 | 126 | 189 | 57 | 114 | 171 |
| 2½"-12 ga. | 136 | 272 | 408 | 109 | 218 | 327 | 98 | 196 | 294 |
| 2½"-10 ga. | 165 | 330 | 495 | 132 | 264 | 396 | 119 | 238 | 357 |
| 2¼" & 2½"-12 ga.* | 231 | 462 | 693 | 185 | 370 | 555 | 167 | 334 | 501 |

## PERMANENT PERFORATED STEEL SQUARE TUBE TABLE

| ( X * Y * Z ) in ft³ - Maximum | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3 Second Gust Wind Speed (TM671) | | | | | | | | | |
| | 85 MPH | | | 95 MPH | | | 105 or 110 MPH | | |
| | Number of Posts | | | Number of Posts | | | Number of Posts | | |
| Square Tube Size | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| 2"-12 ga. | 125 | 250 | 375 | 100 | 200 | 300 | 90 | 180 | 270 |
| 2½"-12 ga. | 215 | 430 | 645 | 172 | 344 | 516 | 155 | 310 | 465 |
| 2½"-10 ga. | 261 | 522 | 783 | 209 | 418 | 627 | 189 | 378 | 567 |
| 2¼" & 2½"-12 ga.* | 364 | 728 | 1092 | 292 | 584 | 876 | 263 | 526 | 789 |

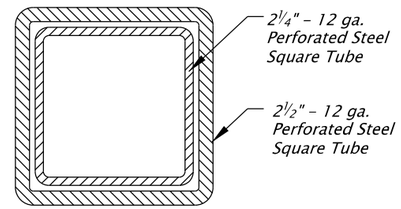
## TEMPORARY PERFORATED STEEL SQUARE TUBE TABLE

* - See 2¼" & 2½" - 12 ga. detail.

| | Number of Posts | | |
|---|---|---|---|
| Square Tube Size | 1 | 2 | 3 |
| 2"-12 ga. | Anchor | Anchor | N/A |
| 2½"-12 ga. | Anchor | Slip | Slip |
| 2½"-10 ga. | Slip | Slip | Slip |
| 2¼" & 2½"-12 ga.* | Slip | Slip | Slip |

1. Anchor - See Drawing TM687 for PSST anchor foundation details.
2. Slip - See Drawing TM688 for PSST slip base foundation details.
3. N/A - Do not use this option.

## BASE REQUIREMENTS




2¼" - 12 ga. PSST to extend entire length inside of the 2½" - 12 ga. PSST.

## 2¼" & 2½" - 12 GA. DETAIL

*No scale*

Accompanied by dwgs. TM200, TM671, TM687, TM688, TM689, TM822

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.*

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

# PERFORATED STEEL SQUARE TUBE (PSST) SIGN SUPPORT INSTALLATION

2021

| DATE | REVISION DESCRIPTION |
|---|---|
| | |
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| | |
| | |

CALC. BOOK NO. 5752 | SDR DATE 10-JUL-2017 | **TM681**

Effective Date: June 1, 2023 - November 30, 2023