TRANSMITTAL LETTER

Change # 5
Pub No. 111
DATE August 3, 1977

SUBJECT:
Traffic Standards - Signing - TC-7700 Series

INFORMATION AND SPECIAL INSTRUCTIONS:

Attached is a revised issue of PennDOT construction standards TC-7702A sheets 1 thru 9 dated August 1, 1977.

Direct any questions concerning revised standards to Mr. J. R. Doughty, P.E., Director, Bureau of Traffic Engineering, Pennsylvania Department of Transportation, Room 1014, Transportation and Safety Building, Harrisburg, Pennsylvania 17120, telephone (717)787-3620.

CANCEL AND DESTROY THE FOLLOWING:

TC-7702A, Type I sheets 1 thru 4 dated July 26, 1976
TC-7702A, Type II sheets 1 thru 5 dated July 26, 1976

REQUEST ADDITIONAL COPIES FROM:
Publications Management
Bureau of Office Services
Room 710
Transportation & Safety bldg.
Harrisburg, Pennsylvania 17120

APPROVED FOR ISSUANCE BY:

[Signature]
J. R. Doughty, P.E.
Director
Bureau of Traffic Engineering
NOTES

1. THE PROPER BRACKET NUMBER (STAMPED ON THE BRACKET) MUST BE USED FOR EACH POST AS INDICATED.

2. BREAKAWAY COUPLINGS SHALL BE BOLTED TO UPPER PORTION OF SIGN POST BEFORE PLACING AND CONNECTING POST TO FOOTING.

3. FOOTING SELECTION TABLE

- THE ENVELOPE OF FOOTINGS IS BASED ON FIGURE 1.6.2.1(c)
- THE ASBPTO SPECIFICATIONS ASSUME THE POOL IS CAPABLE OF DEVELOPING A SOIL PRESSURE OF 2,000 SPF IN UNDISTURBED OR ADEQUATELY COMPACTED CONDITION
- ENTER TABLE WITH REQUIRED FOOT SIZE AND FIND REQUIRED FOOTING VALUES AS SHOWN IN DETAIL 'A'.

FOOTING SELECTION TABLE FOR BREAKAWAY SIGNS

<table>
<thead>
<tr>
<th>POST SIZE</th>
<th>DIAMETER</th>
<th>DEPTH</th>
<th>HEIGHT</th>
<th>REINFORCEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>1.0</td>
<td>5.00</td>
<td>6.00</td>
<td>-</td>
</tr>
<tr>
<td>M</td>
<td>2.5</td>
<td>8.00</td>
<td>6.00</td>
<td>-</td>
</tr>
<tr>
<td>N</td>
<td>3.0</td>
<td>6.75</td>
<td>6.00</td>
<td>-</td>
</tr>
<tr>
<td>W</td>
<td>5.0</td>
<td>8.00</td>
<td>6.00</td>
<td>-</td>
</tr>
<tr>
<td>W.1</td>
<td>5.0</td>
<td>8.00</td>
<td>6.00</td>
<td>-</td>
</tr>
</tbody>
</table>

FOOTING DETAILS

BREAK-AWAY ASSEMBLY

POST MOUNTED SIGNS - TYPE I

POST BASE DETAILS
BREAK-AWAY COUPLING

BRACKET

CENTERLINE OF HOLES

STAINLESS STEEL NUTS TO BE PRESSED INTO BRACKET

ANCHOR PLATE

ANCHOR BOLT

COUPLING BOLT

BREAK-AWAY COUPLING DETAILS

POST MOUNTED SIGNS - TYPE I

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC ENGINEERING

DATE

RECOMMENDED BY: DEPUTY DIRECTOR, TRAFFIC ENGINEERING

TYPICAL DRAWING

POST MOUNTED SIGNS - TYPE I

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC ENGINEERING

POST MOUNTED SIGNS - TYPE I

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POST MOUNTED SIGNS - TYPE I

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BUREAU OF TRAFFIC ENGINEERING

BRACKET NUMBER SELECTION TABLE

POST SIZE   NO. 1   2"   NO. 2   2-1/2"   NO. 3   3"   NO. 4   3-1/2"   NO. 5   4"   NO. 6   4-1/2"   NO. 7   5"   NO. 8   5-1/2"   NO. 9   6"   NO. 10   6-1/2"

IN. X "    12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00   12.00

IN. X "    15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00   15.00

IN. X "    18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00   18.00

IN. X "    21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00   21.00

IN. X "    24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00   24.00

IN. X "    27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00   27.00

IN. X "    30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00   30.00

IN. X "    33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00   33.00

IN. X "    36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00   36.00

IN. X "    39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00   39.00

IN. X "    42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00   42.00

IN. X "    45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00   45.00

IN. X "    48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00   48.00
LOAD CONCENTRATING WASHER AND BASE TYPE SELECTION CHART

GENERAL NOTES FOR SELECTION OF
SIGN SUPPORT COMPONENTS BY
TABLE AND CHART

I. LOAD CONCENTRATING WASHER AND BASE
TYPE SELECTION CHART

1. DETERMINE VALUE OF "L" (FOOTING CHART)
2. KNOW DETERMINED VALUE OF "L", ENTER LOAD CONCENTRATING WASHER AND
BASE TYPE SELECTION CHART FROM LEFT SIDE AND CONTINUE ACROSS TO
INTERSECTION WITH PREVIOUSLY
SELECTED BASE TYPE AND
SELECTED WASHER TYPE,
AND READ RECOMMENDED
WASHER NUMBER. DROP POINTS OF
LOADS FROM CLIPS FOR REQUIRED
L.C. WASHER NUMBER.

EXAMPLE:
ASSUME "L" WITH A VALUE OF 11 3/4 FEET AND
TAB FOR REQUIRED WASHER NUMBER.

II. FOOTING SELECTION TABLE

1. THE SELECTION OF FOOTINGS IS BASED ON VALUE "L" OF
THE LOAD SELECTION CHART. THE FOOTING IS RECOMMENDED
FOR A DESIGN LOAD OF 2,000 LBS AND AN
UNEQUIPPED OR MODERATELY EQUIPPED CONDITION.
2. ENTER TABLE FOR PREVIOUSLY SELECTED WASHER TYPE AND
THE RECOMMENDED FOOTING AS SHOWN IN SKETCH "A".

FOOTING SELECTION TABLE FOR
BREAKAWAY SIGNS

<table>
<thead>
<tr>
<th>WASHER TYPE</th>
<th>FOOTING TYPE</th>
<th>LOAD SELECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.0</td>
<td>4.0</td>
</tr>
<tr>
<td>2</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>3</td>
<td>2.0</td>
<td>6.0</td>
</tr>
<tr>
<td>4</td>
<td>3.0</td>
<td>7.0</td>
</tr>
<tr>
<td>5</td>
<td>3.0</td>
<td>8.0</td>
</tr>
<tr>
<td>6</td>
<td>3.0</td>
<td>9.0</td>
</tr>
</tbody>
</table>

FOOTING DETAILS

Commonwealth of Pennsylvania
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC ENGINEERING

POST MOUNTED SIGNS-TYPE II
WASHER, BASE, A

FOOTING SELECTION TABLES

[Diagram of footing selection and load concentrating washer and base type selection chart]
### POST SELECTION TABLE FOR BREAKAWAY SIGNS

<table>
<thead>
<tr>
<th>Height in Feet</th>
<th>Width in Feet</th>
<th>Type</th>
<th>Post Material</th>
<th>Post Size</th>
<th>Post Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>4'</td>
<td>6'</td>
<td>1</td>
<td>Steel</td>
<td>3x12</td>
<td>90 lbs</td>
</tr>
<tr>
<td>6'</td>
<td>8'</td>
<td>2</td>
<td>Steel</td>
<td>4x16</td>
<td>120 lbs</td>
</tr>
<tr>
<td>8'</td>
<td>10'</td>
<td>3</td>
<td>Steel</td>
<td>5x20</td>
<td>150 lbs</td>
</tr>
</tbody>
</table>

**General Notes for Selection of Sign Support Post by Table**

1. Determine required values of "W" and "L" max as indicated in sketch "A" or "B".
3. Maximum distance between top of footing and bottom of required sign.
4. Enter table with maximum value of L and required values of W, H. and "L" max for selection of tube size for all posts in the table. The first number indicates the depth of the post followed by the symbol and weight in lbs. for post.
5. For sign size between those values of W, H, and L max in the table, use next nearest post value.
6. In the determination of post weights for a sign on a two or three-post system, the shortest post shall not be less than 2'6" and the longest post shall not be less than 4'0" when measured from the top of the footing to the bottom of the sign panel.
7. All post sizes upright lettering and left of dividing line are A-36 steel.

### COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

BUREAU OF TRAFFIC ENGINEERING

### POST MOUNTED SIGNS - TYPE II

POST SELECTION TABLES

<table>
<thead>
<tr>
<th>Height in Feet</th>
<th>Width in Feet</th>
<th>Type</th>
<th>Post Material</th>
<th>Post Size</th>
<th>Post Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>4'</td>
<td>6'</td>
<td>1</td>
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<td>3x12</td>
<td>90 lbs</td>
</tr>
<tr>
<td>6'</td>
<td>8'</td>
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<td>Steel</td>
<td>4x16</td>
<td>120 lbs</td>
</tr>
<tr>
<td>8'</td>
<td>10'</td>
<td>3</td>
<td>Steel</td>
<td>5x20</td>
<td>150 lbs</td>
</tr>
</tbody>
</table>