

Roadway Survey Field Sheet

TS Project # _____ Map _____ Grid _____ Start Time 7:45 # Of Days 3

Location: NE 76TH ST @ ST JOHNS RD Type Of Survey: Volume Speed Classification

City: VANCOUVER Start Date: 3/24/14 Counters: 8

Location ID: #20 End Date: 3/26/14 Tubes: 8

| SITE EVALUATION | | | POSTED SPEED | | DWELL TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|-----------------------------------------|-----------------------------|---------------------------------------|---------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--------------|---------------|--|--|--|------------|-----|-------|-------|-------|-------|------|----------------|-----|-----|-----|----|----|------------|-----|----|----|----|----|----------|-----|----|----|----|----|
| Vehicles Crossing Tube Perpendicular | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/> | ??? | <input type="checkbox"/> None | <input type="checkbox"/> 40 Mph | <table border="1"> <thead> <tr> <th>LOWEST SPEED</th> <th colspan="4">HIGHEST SPEED</th> <th>(TAD, TBD)</th> </tr> <tr> <th>MPH</th> <th>10-20</th> <th>15-30</th> <th>25-40</th> <th>35-45</th> <th>> 45</th> </tr> </thead> <tbody> <tr> <td>Standing Queue</td> <td>200</td> <td>130</td> <td>100</td> <td>80</td> <td>40</td> </tr> <tr> <td>5 - 10 MPH</td> <td>130</td> <td>90</td> <td>70</td> <td>60</td> <td>40</td> </tr> <tr> <td>> 10 MPH</td> <td>100</td> <td>80</td> <td>60</td> <td>40</td> <td>40</td> </tr> </tbody> </table> | | | | | LOWEST SPEED | HIGHEST SPEED | | | | (TAD, TBD) | MPH | 10-20 | 15-30 | 25-40 | 35-45 | > 45 | Standing Queue | 200 | 130 | 100 | 80 | 40 | 5 - 10 MPH | 130 | 90 | 70 | 60 | 40 | > 10 MPH | 100 | 80 | 60 | 40 | 40 |
| LOWEST SPEED | HIGHEST SPEED | | | | (TAD, TBD) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MPH | 10-20 | 15-30 | 25-40 | 35-45 | > 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standing Queue | 200 | 130 | 100 | 80 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 - 10 MPH | 130 | 90 | 70 | 60 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| > 10 MPH | 100 | 80 | 60 | 40 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Do You Anticipate Queing Across Tube | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> 25 Mph | <input checked="" type="checkbox"/> 45 Mph | Use 2 Counters if Traffic Conditions are different in each direction. DWELL (TAD, TBD) <u>40</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speed Greater Than 20 Miles / Hour | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> 30 Mph | <input type="checkbox"/> 50 Mph | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tube Crosses More Than 2 Lanes | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> 35 Mph | <input type="checkbox"/> 55 Mph | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPEED: High _____ Mph Low _____ Mph | | | <input type="checkbox"/> Other: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| AXLE STRIKE COUNT | SYSTEM DELAY LOGIC | SPEED Low vol | VEHICLE SPEED / CLASSIFICATION | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|--------------------------------|----------|----------|
| <u>G M D A B</u> | <u>D</u> | <u>G M B</u> | <u>M B</u> | <u>G</u> | <u>L</u> |
| | | | | | |
| <input type="checkbox"/> Tube equal length <input type="checkbox"/> Use proper spacing <input type="checkbox"/> One Lane only except Low Volume Speed Surveys ADT 2,000 | | | | | |

COUNTER / SET DOWN

Type: ME AMAX

No.: A53, A17, A2, C12

Box: A16, A27, A17, C16

Tube Length: 40'

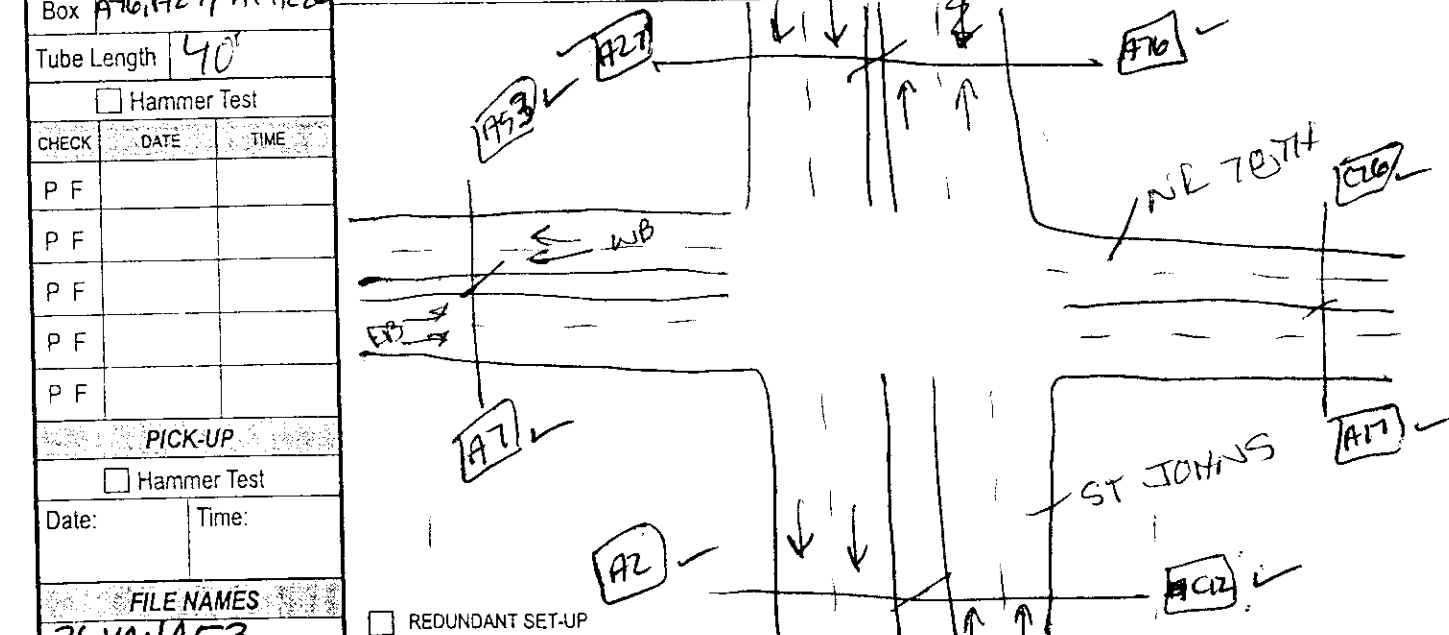
Hammer Test

DIRECTION: East Bound West Bound North Bound South Bound Approach

COMBINED: East / West North / South DRWY: Combined In-Bound Out-Bound

ROAD: Dry Wet Asphalt Concrete Broken Rutted Curved

NORTH
NORTH IS UP



PICK-UP

Hammer Test

Date: _____ Time: _____

FILE NAMES

26VANA53
26VANA02
26VANA07
26VANA17
26VANA76
26VANA27
26VANC12

Remarks: WEATHER: Sunny Overcast Rain Snow

Surveyed By: MS

TRAFFIC SMITHY
 1225 NW Murray Blvd. Suite 111
 Portland, OR 97229
 Phone: 503/641-6333 - Fax: 503/643-8866

TRAFFIC SMITHY, INC

1225 NW MURRAY BLVD

PORTLAND, OR 97209

Phone: 503-641-6333 Fax: 503-643-8866

Roadway: NE 78TH STREET

Location: WEST OF ST JOHNS ROAD

Date: 03/25/04

Day of Week: Thursday

WB Traffic

| TIME | :00 | :05 | :10 | :15 | :20 | :25 | :30 | :35 | :40 | :45 | :50 | :55 | Total |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 00:00 | 5 | 6 | 6 | 4 | 2 | 9 | 6 | 7 | 4 | 5 | 3 | 4 | 61 |
| 01:00 | 2 | 3 | 5 | 1 | 3 | 3 | 5 | 3 | 3 | 4 | 1 | 3 | 36 |
| 02:00 | 8 | 1 | 3 | 5 | 7 | 2 | 1 | 6 | 8 | 7 | 0 | 5 | 53 |
| 03:00 | 1 | 0 | 2 | 3 | 7 | 3 | 4 | 0 | 2 | 2 | 1 | 2 | 27 |
| 04:00 | 8 | 3 | 3 | 4 | 2 | 3 | 6 | 1 | 5 | 7 | 5 | 12 | 59 |
| 05:00 | 12 | 10 | 6 | 8 | 14 | 17 | 25 | 19 | 25 | 35 | 23 | 26 | 220 |
| 06:00 | 31 | 35 | 25 | 38 | 37 | 30 | 28 | 38 | 58 | 47 | 42 | 39 | 448 |
| 07:00 | 45 | 49 | 53 | 58 | 59 | 54 | 56 | 63 | 60 | 70 | 86 | 62 | 715 |
| 08:00 | 52 | 100 | 83 | 98 | 78 | 76 | 73 | 52 | 60 | 85 | 68 | 52 | 877 |
| 09:00 | 47 | 48 | 52 | 52 | 70 | 60 | 48 | 39 | 70 | 51 | 41 | 33 | 611 |
| 10:00 | 60 | 45 | 52 | 61 | 57 | 63 | 67 | 59 | 67 | 66 | 82 | 56 | 735 |
| 11:00 | 55 | 64 | 43 | 59 | 64 | 61 | 82 | 65 | 72 | 74 | 64 | 58 | 761 |
| 12:00 | 72 | 46 | 73 | 65 | 52 | 68 | 58 | 75 | 59 | 80 | 59 | 55 | 762 |
| 13:00 | 71 | 63 | 68 | 58 | 66 | 61 | 83 | 67 | 61 | 71 | 56 | 55 | 780 |
| 14:00 | 59 | 56 | 79 | 67 | 58 | 74 | 91 | 87 | 87 | 72 | 77 | 65 | 872 |
| 15:00 | 69 | 81 | 69 | 66 | 65 | 69 | 56 | 55 | 89 | 79 | 77 | 79 | 854 |
| 16:00 | 75 | 73 | 73 | 61 | 70 | 90 | 72 | 61 | 98 | 83 | 56 | 56 | 868 |
| 17:00 | 65 | 87 | 84 | 101 | 61 | 67 | 64 | 59 | 82 | 90 | 73 | 60 | 893 |
| 18:00 | 78 | 78 | 73 | 75 | 83 | 67 | 57 | 47 | 73 | 52 | 48 | 62 | 793 |
| 19:00 | 53 | 31 | 33 | 35 | 26 | 34 | 32 | 31 | 39 | 28 | 20 | 38 | 400 |
| 20:00 | 33 | 28 | 40 | 29 | 24 | 29 | 26 | 39 | 35 | 25 | 18 | 15 | 341 |
| 21:00 | 34 | 20 | 32 | 26 | 24 | 27 | 15 | 23 | 17 | 15 | 14 | 10 | 257 |
| 22:00 | 20 | 17 | 16 | 12 | 14 | 21 | 13 | 7 | 6 | 11 | 5 | 7 | 149 |
| 23:00 | 9 | 12 | 11 | 6 | 8 | 7 | 6 | 4 | 5 | 6 | 5 | 7 | 86 |

Daily Total: 11658

AM Peak Hour: 905 (07:50 - 08:50)

PM Peak Hour: 923 (16:20 - 17:20)

4th Highest Hour: 868 (16:00 - 17:00)

8th Highest Hour: 762 (12:00 - 13:00)

7.76% Of Daily Total

7.91% Of Daily Total

7.44% Of Daily Total

6.53% Of Daily Total

TRAFFIC SMITHY, INC

1225 NW MURRAY BLVD

PORTLAND, OR 97209

Phone: 503-641-6333 Fax: 503-643-8866

Roadway: NE 78TH STREET

Location: WEST OF ST JOHNS ROAD

Date: 03/25/04

Day of Week: Thursday

EB Traffic

| TIME | :00 | :05 | :10 | :15 | :20 | :25 | :30 | :35 | :40 | :45 | :50 | :55 | Total |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 00:00 | 11 | 4 | 6 | 6 | 2 | 7 | 1 | 7 | 1 | 2 | 3 | 3 | 53 |
| 01:00 | 2 | 0 | 3 | 3 | 2 | 4 | 4 | 4 | 3 | 5 | 3 | 1 | 34 |
| 02:00 | 6 | 6 | 3 | 5 | 0 | 2 | 4 | 2 | 2 | 2 | 5 | 0 | 37 |
| 03:00 | 0 | 4 | 5 | 1 | 1 | 2 | 3 | 6 | 3 | 1 | 0 | 1 | 27 |
| 04:00 | 2 | 3 | 5 | 6 | 2 | 4 | 1 | 1 | 4 | 8 | 6 | 3 | 45 |
| 05:00 | 9 | 3 | 2 | 9 | 12 | 9 | 7 | 15 | 16 | 17 | 10 | 21 | 130 |
| 06:00 | 25 | 22 | 23 | 24 | 33 | 34 | 27 | 48 | 59 | 49 | 42 | 46 | 432 |
| 07:00 | 31 | 64 | 54 | 60 | 42 | 49 | 55 | 63 | 65 | 64 | 63 | 59 | 669 |
| 08:00 | 50 | 46 | 67 | 60 | 62 | 63 | 67 | 60 | 61 | 58 | 45 | 46 | 685 |
| 09:00 | 46 | 40 | 55 | 45 | 46 | 47 | 45 | 40 | 52 | 54 | 45 | 52 | 567 |
| 10:00 | 49 | 73 | 71 | 52 | 35 | 49 | 55 | 51 | 41 | 52 | 67 | 54 | 649 |
| 11:00 | 64 | 62 | 54 | 59 | 70 | 63 | 56 | 56 | 57 | 47 | 57 | 67 | 712 |
| 12:00 | 59 | 66 | 86 | 65 | 95 | 82 | 63 | 79 | 60 | 67 | 65 | 54 | 841 |
| 13:00 | 58 | 57 | 55 | 69 | 71 | 54 | 68 | 64 | 69 | 69 | 66 | 58 | 758 |
| 14:00 | 53 | 65 | 62 | 71 | 87 | 104 | 74 | 84 | 82 | 79 | 87 | 86 | 934 |
| 15:00 | 91 | 121 | 84 | 91 | 75 | 84 | 78 | 95 | 75 | 87 | 86 | 73 | 1040 |
| 16:00 | 73 | 83 | 93 | 70 | 67 | 74 | 73 | 86 | 88 | 91 | 70 | 79 | 947 |
| 17:00 | 88 | 102 | 88 | 89 | 80 | 78 | 95 | 82 | 78 | 63 | 65 | 86 | 994 |
| 18:00 | 65 | 67 | 62 | 74 | 72 | 67 | 54 | 68 | 63 | 49 | 60 | 47 | 748 |
| 19:00 | 41 | 50 | 43 | 45 | 33 | 40 | 37 | 30 | 28 | 41 | 42 | 32 | 462 |
| 20:00 | 31 | 33 | 29 | 29 | 30 | 35 | 22 | 17 | 28 | 18 | 15 | 23 | 310 |
| 21:00 | 24 | 22 | 24 | 25 | 28 | 17 | 26 | 16 | 21 | 16 | 22 | 22 | 263 |
| 22:00 | 9 | 23 | 65 | 22 | 12 | 18 | 18 | 14 | 9 | 12 | 8 | 10 | 220 |
| 23:00 | 12 | 12 | 16 | 11 | 10 | 6 | 5 | 15 | 12 | 8 | 11 | 5 | 123 |

Daily Total: 11680

AM Peak Hour: 729 (07:35 - 08:35)

6.24% Of Daily Total

PM Peak Hour: 1070 (14:20 - 15:20)

9.16% Of Daily Total

4th Highest Hour: 934 (14:00 - 15:00)

7.99% Of Daily Total

8th Highest Hour: 712 (11:00 - 12:00)

6.09% Of Daily Total

TRAFFIC SMITHY, INC
 1225 NW MURRAY BLVD
 PORTLAND, OR 97209
 Phone: 503-641-6333 Fax: 503-643-8866

Roadway: ST JOHNS ROAD
 Location: NORTH OF NE 78TH STREET

Date: 03/25/04
 Day of Week: Thursday

NB Traffic

| TIME | :00 | :05 | :10 | :15 | :20 | :25 | :30 | :35 | :40 | :45 | :50 | :55 | Total |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 00:00 | 7 | 4 | 3 | 4 | 7 | 4 | 1 | 6 | 1 | 3 | 1 | 3 | 44 |
| 01:00 | 2 | 1 | 0 | 2 | 1 | 0 | 5 | 3 | 2 | 0 | 1 | 1 | 18 |
| 02:00 | 0 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 7 | 22 |
| 03:00 | 0 | 1 | 2 | 0 | 1 | 2 | 2 | 3 | 1 | 2 | 1 | 1 | 16 |
| 04:00 | 2 | 1 | 0 | 5 | 1 | 1 | 3 | 1 | 0 | 3 | 3 | 3 | 23 |
| 05:00 | 2 | 1 | 7 | 3 | 4 | 3 | 2 | 7 | 2 | 11 | 11 | 11 | 64 |
| 06:00 | 8 | 4 | 10 | 11 | 11 | 17 | 13 | 23 | 24 | 21 | 27 | 15 | 184 |
| 07:00 | 20 | 26 | 23 | 19 | 28 | 17 | 16 | 17 | 38 | 28 | 21 | 20 | 273 |
| 08:00 | 23 | 18 | 27 | 32 | 23 | 30 | 35 | 39 | 47 | 39 | 29 | 32 | 374 |
| 09:00 | 21 | 29 | 31 | 23 | 18 | 18 | 27 | 26 | 25 | 37 | 33 | 28 | 316 |
| 10:00 | 31 | 31 | 28 | 18 | 21 | 47 | 30 | 26 | 23 | 35 | 31 | 30 | 351 |
| 11:00 | 38 | 17 | 23 | 28 | 32 | 33 | 24 | 37 | 29 | 26 | 35 | 39 | 361 |
| 12:00 | 59 | 46 | 37 | 44 | 39 | 33 | 19 | 41 | 35 | 37 | 43 | 45 | 478 |
| 13:00 | 41 | 32 | 42 | 30 | 35 | 32 | 49 | 46 | 46 | 45 | 28 | 35 | 461 |
| 14:00 | 40 | 30 | 32 | 45 | 40 | 48 | 40 | 49 | 49 | 46 | 54 | 43 | 516 |
| 15:00 | 49 | 72 | 52 | 47 | 49 | 53 | 53 | 69 | 50 | 74 | 57 | 59 | 684 |
| 16:00 | 60 | 63 | 73 | 57 | 50 | 60 | 51 | 61 | 48 | 60 | 75 | 64 | 722 |
| 17:00 | 79 | 66 | 75 | 67 | 55 | 55 | 59 | 62 | 57 | 48 | 45 | 41 | 709 |
| 18:00 | 48 | 44 | 41 | 39 | 45 | 51 | 45 | 43 | 38 | 33 | 43 | 36 | 506 |
| 19:00 | 26 | 33 | 28 | 21 | 27 | 26 | 21 | 12 | 25 | 24 | 22 | 25 | 290 |
| 20:00 | 28 | 18 | 24 | 17 | 25 | 13 | 19 | 22 | 26 | 16 | 23 | 25 | 256 |
| 21:00 | 20 | 18 | 16 | 21 | 19 | 13 | 13 | 8 | 10 | 10 | 12 | 10 | 170 |
| 22:00 | 8 | 7 | 18 | 13 | 13 | 7 | 13 | 10 | 9 | 6 | 6 | 7 | 117 |
| 23:00 | 5 | 4 | 4 | 2 | 4 | 6 | 6 | 8 | 4 | 2 | 5 | 4 | 54 |

Daily Total: 7009

AM Peak Hour: 387 (08:15 - 09:15)

PM Peak Hour: 774 (16:45 - 17:45)

4th Highest Hour: 516 (14:00 - 15:00)

8th Highest Hour: 374 (08:00 - 09:00)

5.52% Of Daily Total

11.0% Of Daily Total

7.36% Of Daily Total

5.33% Of Daily Total

TRAFFIC SMITHY, INC

1225 NW MURRAY BLVD

PORTLAND, OR 97209

Phone: 503-641-6333 Fax: 503-643-8866

Roadway: ST JOHNS ROAD

Location: NORTH OF NE 78TH STREET

Date: 03/25/04

Day of Week: Thursday

SB Traffic

| TIME | :00 | :05 | :10 | :15 | :20 | :25 | :30 | :35 | :40 | :45 | :50 | :55 | Total |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 00:00 | 3 | 2 | 3 | 3 | 0 | 4 | 2 | 1 | 2 | 2 | 0 | 2 | 24 |
| 01:00 | 2 | 5 | 1 | 1 | 4 | 1 | 1 | 1 | 3 | 1 | 1 | 4 | 25 |
| 02:00 | 1 | 0 | 1 | 4 | 3 | 1 | 0 | 1 | 1 | 4 | 1 | 2 | 19 |
| 03:00 | 2 | 2 | 0 | 5 | 2 | 7 | 5 | 4 | 3 | 0 | 5 | 5 | 40 |
| 04:00 | 0 | 2 | 4 | 2 | 4 | 2 | 2 | 2 | 8 | 8 | 7 | 7 | 48 |
| 05:00 | 15 | 9 | 7 | 13 | 15 | 21 | 21 | 26 | 22 | 29 | 21 | 30 | 229 |
| 06:00 | 34 | 39 | 49 | 41 | 48 | 60 | 64 | 61 | 60 | 51 | 43 | 47 | 597 |
| 07:00 | 68 | 53 | 74 | 51 | 69 | 78 | 92 | 92 | 76 | 62 | 49 | 63 | 827 |
| 08:00 | 74 | 68 | 75 | 55 | 67 | 57 | 48 | 59 | 69 | 57 | 40 | 44 | 713 |
| 09:00 | 31 | 32 | 44 | 33 | 49 | 45 | 38 | 38 | 31 | 39 | 30 | 39 | 449 |
| 10:00 | 30 | 36 | 28 | 39 | 32 | 34 | 45 | 37 | 29 | 41 | 23 | 41 | 415 |
| 11:00 | 25 | 35 | 31 | 57 | 26 | 39 | 38 | 40 | 48 | 40 | 43 | 50 | 472 |
| 12:00 | 34 | 48 | 41 | 50 | 35 | 44 | 34 | 46 | 45 | 26 | 39 | 53 | 495 |
| 13:00 | 30 | 35 | 37 | 33 | 30 | 49 | 41 | 33 | 42 | 36 | 52 | 44 | 462 |
| 14:00 | 31 | 27 | 44 | 51 | 46 | 44 | 50 | 38 | 41 | 34 | 47 | 35 | 488 |
| 15:00 | 39 | 50 | 30 | 48 | 38 | 52 | 59 | 46 | 51 | 28 | 37 | 46 | 524 |
| 16:00 | 34 | 42 | 48 | 54 | 46 | 53 | 42 | 45 | 33 | 36 | 44 | 44 | 521 |
| 17:00 | 49 | 54 | 32 | 38 | 34 | 44 | 51 | 33 | 28 | 42 | 48 | 39 | 492 |
| 18:00 | 34 | 43 | 26 | 26 | 21 | 21 | 39 | 32 | 27 | 28 | 27 | 21 | 345 |
| 19:00 | 19 | 15 | 18 | 18 | 14 | 20 | 15 | 18 | 21 | 18 | 8 | 15 | 199 |
| 20:00 | 21 | 13 | 18 | 18 | 22 | 12 | 11 | 19 | 15 | 12 | 13 | 6 | 180 |
| 21:00 | 12 | 14 | 17 | 8 | 11 | 8 | 10 | 10 | 10 | 7 | 8 | 6 | 121 |
| 22:00 | 6 | 8 | 8 | 7 | 5 | 5 | 7 | 5 | 7 | 5 | 5 | 5 | 73 |
| 23:00 | 3 | 4 | 4 | 0 | 7 | 1 | 5 | 2 | 2 | 5 | 2 | 1 | 36 |

Daily Total: 7794

AM Peak Hour: 853 (07:20 - 08:20)

PM Peak Hour: 548 (16:10 - 17:10)

4th Highest Hour: 524 (15:00 - 16:00)

8th Highest Hour: 488 (14:00 - 15:00)

10.9% Of Daily Total

7.03% Of Daily Total

6.72% Of Daily Total

6.26% Of Daily Total

TRAFFIC SMITHY, INC

1225 NW MURRAY BLVD

PORTLAND, OR 97209

Phone: 503-641-6333 Fax: 503-643-8866

Roadway: ST JOHNS ROAD

Location: SOUTH OF NE 78TH STREET

Date: 03/25/04

Day of Week: Thursday

SB Traffic

| TIME | :00 | :05 | :10 | :15 | :20 | :25 | :30 | :35 | :40 | :45 | :50 | :55 | Total |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 00:00 | 4 | 5 | 5 | 4 | 2 | 4 | 5 | 2 | 3 | 1 | 2 | 2 | 39 |
| 01:00 | 3 | 4 | 0 | 4 | 1 | 1 | 3 | 0 | 3 | 3 | 0 | 1 | 23 |
| 02:00 | 0 | 1 | 1 | 0 | 0 | 2 | 3 | 1 | 3 | 2 | 2 | 2 | 17 |
| 03:00 | 1 | 2 | 3 | 1 | 0 | 5 | 9 | 6 | 7 | 0 | 2 | 3 | 39 |
| 04:00 | 3 | 4 | 2 | 0 | 2 | 1 | 4 | 4 | 4 | 4 | 10 | 4 | 42 |
| 05:00 | 3 | 11 | 9 | 7 | 9 | 13 | 14 | 15 | 25 | 21 | 30 | 28 | 185 |
| 06:00 | 22 | 30 | 34 | 38 | 47 | 41 | 42 | 75 | 52 | 71 | 84 | 37 | 573 |
| 07:00 | 46 | 47 | 62 | 51 | 68 | 49 | 63 | 77 | 101 | 94 | 99 | 63 | 820 |
| 08:00 | 64 | 56 | 49 | 67 | 53 | 56 | 53 | 49 | 48 | 58 | 52 | 63 | 668 |
| 09:00 | 41 | 38 | 44 | 40 | 47 | 45 | 34 | 57 | 27 | 50 | 31 | 25 | 479 |
| 10:00 | 26 | 41 | 50 | 48 | 23 | 37 | 29 | 41 | 48 | 31 | 34 | 33 | 441 |
| 11:00 | 38 | 33 | 46 | 53 | 45 | 47 | 32 | 36 | 56 | 40 | 46 | 54 | 526 |
| 12:00 | 48 | 40 | 42 | 50 | 42 | 68 | 46 | 50 | 46 | 60 | 49 | 31 | 572 |
| 13:00 | 36 | 59 | 35 | 50 | 42 | 41 | 41 | 32 | 41 | 39 | 44 | 39 | 499 |
| 14:00 | 55 | 43 | 42 | 33 | 44 | 65 | 64 | 43 | 58 | 49 | 37 | 49 | 582 |
| 15:00 | 54 | 41 | 46 | 56 | 55 | 49 | 43 | 57 | 61 | 59 | 48 | 52 | 621 |
| 16:00 | 50 | 58 | 45 | 50 | 47 | 43 | 54 | 41 | 46 | 55 | 36 | 50 | 575 |
| 17:00 | 46 | 53 | 51 | 67 | 45 | 38 | 49 | 45 | 44 | 37 | 29 | 32 | 536 |
| 18:00 | 59 | 49 | 34 | 38 | 52 | 32 | 16 | 22 | 30 | 36 | 28 | 27 | 423 |
| 19:00 | 32 | 24 | 21 | 17 | 18 | 26 | 23 | 23 | 19 | 21 | 25 | 20 | 269 |
| 20:00 | 17 | 18 | 12 | 25 | 20 | 15 | 25 | 19 | 15 | 23 | 16 | 12 | 217 |
| 21:00 | 25 | 10 | 14 | 23 | 23 | 14 | 11 | 15 | 8 | 13 | 8 | 13 | 177 |
| 22:00 | 5 | 10 | 10 | 15 | 7 | 7 | 4 | 8 | 5 | 5 | 7 | 2 | 85 |
| 23:00 | 3 | 5 | 5 | 6 | 3 | 4 | 7 | 2 | 6 | 2 | 5 | 3 | 51 |

Daily Total: 8459

AM Peak Hour: 850 (07:20 - 08:20)

PM Peak Hour: 634 (15:10 - 16:10)

4th Highest Hour: 582 (14:00 - 15:00)

8th Highest Hour: 536 (17:00 - 18:00)

10.0% Of Daily Total

7.49% Of Daily Total

6.88% Of Daily Total

6.33% Of Daily Total

TRAFFIC SMITHY, INC
 1225 NW MURRAY BLVD
 PORTLAND, OR 97209
 Phone: 503-641-6333 Fax: 503-643-8866

Roadway: ST JOHNS ROAD
 Location: SOUTH OF NE 78TH STREET

Date: 03/25/04
 Day of Week: Thursday

NB Traffic

| TIME | :00 | :05 | :10 | :15 | :20 | :25 | :30 | :35 | :40 | :45 | :50 | :55 | Total |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 00:00 | 7 | 3 | 4 | 5 | 4 | 2 | 5 | 3 | 3 | 4 | 4 | 1 | 45 |
| 01:00 | 4 | 1 | 1 | 3 | 2 | 6 | 2 | 2 | 1 | 1 | 1 | 0 | 24 |
| 02:00 | 3 | 1 | 1 | 4 | 1 | 4 | 1 | 1 | 4 | 4 | 7 | 1 | 32 |
| 03:00 | 0 | 2 | 2 | 2 | 0 | 3 | 0 | 1 | 0 | 7 | 2 | 1 | 20 |
| 04:00 | 0 | 1 | 1 | 1 | 2 | 1 | 4 | 1 | 1 | 1 | 3 | 2 | 18 |
| 05:00 | 3 | 4 | 7 | 3 | 3 | 6 | 7 | 12 | 12 | 6 | 13 | 10 | 86 |
| 06:00 | 4 | 6 | 17 | 12 | 20 | 31 | 27 | 24 | 31 | 36 | 32 | 21 | 261 |
| 07:00 | 25 | 24 | 29 | 40 | 22 | 19 | 22 | 44 | 30 | 36 | 39 | 21 | 351 |
| 08:00 | 36 | 28 | 35 | 48 | 44 | 55 | 42 | 55 | 53 | 47 | 42 | 37 | 522 |
| 09:00 | 44 | 37 | 38 | 32 | 31 | 41 | 31 | 39 | 39 | 27 | 34 | 22 | 415 |
| 10:00 | 40 | 34 | 26 | 32 | 36 | 47 | 35 | 35 | 46 | 43 | 38 | 47 | 459 |
| 11:00 | 37 | 37 | 35 | 33 | 31 | 50 | 39 | 42 | 39 | 45 | 37 | 66 | 491 |
| 12:00 | 52 | 44 | 53 | 30 | 43 | 31 | 33 | 47 | 44 | 50 | 51 | 32 | 510 |
| 13:00 | 42 | 54 | 42 | 36 | 46 | 48 | 52 | 38 | 41 | 39 | 41 | 39 | 518 |
| 14:00 | 36 | 54 | 48 | 55 | 35 | 56 | 62 | 60 | 43 | 57 | 47 | 58 | 611 |
| 15:00 | 57 | 53 | 65 | 56 | 70 | 55 | 73 | 79 | 71 | 68 | 50 | 54 | 751 |
| 16:00 | 78 | 91 | 65 | 61 | 45 | 57 | 66 | 65 | 74 | 67 | 74 | 84 | 827 |
| 17:00 | 68 | 86 | 61 | 69 | 65 | 62 | 65 | 60 | 47 | 65 | 42 | 66 | 756 |
| 18:00 | 52 | 55 | 51 | 42 | 46 | 42 | 43 | 35 | 22 | 43 | 38 | 43 | 512 |
| 19:00 | 29 | 19 | 25 | 26 | 24 | 20 | 16 | 32 | 25 | 18 | 22 | 21 | 277 |
| 20:00 | 14 | 28 | 33 | 23 | 25 | 21 | 21 | 28 | 25 | 18 | 24 | 17 | 277 |
| 21:00 | 22 | 17 | 12 | 16 | 9 | 18 | 9 | 14 | 5 | 14 | 7 | 8 | 151 |
| 22:00 | 12 | 6 | 6 | 11 | 7 | 9 | 10 | 5 | 2 | 6 | 6 | 6 | 86 |
| 23:00 | 6 | 6 | 4 | 1 | 6 | 5 | 2 | 3 | 6 | 3 | 11 | 3 | 56 |

Daily Total: 8056

AM Peak Hour: 542 (08:15 - 09:15)

PM Peak Hour: 841 (16:30 - 17:30)

4th Highest Hour: 611 (14:00 - 15:00)

8th Highest Hour: 510 (12:00 - 13:00)

6.72% Of Daily Total

10.4% Of Daily Total

7.58% Of Daily Total

6.33% Of Daily Total

TRAFFIC SMITHY, INC

1225 NW MURRAY BLVD

PORTLAND, OR 97209

Phone: 503-641-6333 Fax: 503-643-8866

Roadway: NE 78TH STREET
 Location: EAST OF ST JOHNS ROAD

Date: 03/25/04
 Day of Week: Thursday

WB Traffic

| TIME | :00 | :05 | :10 | :15 | :20 | :25 | :30 | :35 | :40 | :45 | :50 | :55 | Total |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 00:00 | 4 | 6 | 7 | 5 | 9 | 8 | 11 | 6 | 4 | 5 | 3 | 5 | 73 |
| 01:00 | 1 | 4 | 5 | 1 | 2 | 4 | 1 | 2 | 3 | 2 | 4 | 2 | 31 |
| 02:00 | 3 | 1 | 2 | 5 | 2 | 2 | 2 | 13 | 4 | 2 | 0 | 6 | 42 |
| 03:00 | 3 | 0 | 2 | 5 | 4 | 8 | 3 | 4 | 1 | 3 | 1 | 5 | 39 |
| 04:00 | 5 | 1 | 3 | 5 | 3 | 9 | 9 | 0 | 13 | 6 | 8 | 6 | 68 |
| 05:00 | 15 | 7 | 9 | 14 | 19 | 16 | 32 | 19 | 30 | 41 | 35 | 33 | 270 |
| 06:00 | 33 | 46 | 31 | 37 | 38 | 44 | 40 | 49 | 71 | 57 | 46 | 52 | 544 |
| 07:00 | 51 | 62 | 60 | 58 | 65 | 58 | 76 | 77 | 74 | 83 | 77 | 71 | 812 |
| 08:00 | 68 | 71 | 81 | 66 | 82 | 59 | 68 | 61 | 62 | 86 | 64 | 46 | 814 |
| 09:00 | 72 | 46 | 55 | 63 | 65 | 42 | 67 | 53 | 67 | 43 | 41 | 50 | 664 |
| 10:00 | 51 | 43 | 63 | 60 | 64 | 55 | 50 | 66 | 57 | 94 | 65 | 65 | 733 |
| 11:00 | 56 | 51 | 58 | 54 | 64 | 58 | 79 | 66 | 57 | 74 | 70 | 50 | 737 |
| 12:00 | 76 | 73 | 50 | 63 | 54 | 65 | 65 | 69 | 57 | 67 | 54 | 77 | 770 |
| 13:00 | 59 | 69 | 58 | 75 | 58 | 53 | 69 | 66 | 71 | 64 | 45 | 62 | 749 |
| 14:00 | 53 | 72 | 70 | 62 | 64 | 79 | 78 | 83 | 76 | 66 | 82 | 69 | 854 |
| 15:00 | 76 | 76 | 75 | 73 | 70 | 82 | 63 | 71 | 86 | 77 | 62 | 94 | 905 |
| 16:00 | 74 | 78 | 83 | 74 | 64 | 100 | 68 | 71 | 80 | 80 | 54 | 70 | 896 |
| 17:00 | 94 | 80 | 78 | 85 | 70 | 70 | 73 | 71 | 87 | 61 | 82 | 80 | 931 |
| 18:00 | 68 | 81 | 78 | 74 | 75 | 69 | 60 | 66 | 70 | 50 | 59 | 48 | 798 |
| 19:00 | 57 | 47 | 28 | 46 | 40 | 37 | 38 | 31 | 33 | 36 | 36 | 42 | 471 |
| 20:00 | 30 | 31 | 38 | 23 | 27 | 42 | 33 | 45 | 34 | 33 | 30 | 29 | 395 |
| 21:00 | 32 | 36 | 29 | 31 | 23 | 22 | 19 | 22 | 17 | 16 | 14 | 11 | 272 |
| 22:00 | 18 | 21 | 19 | 19 | 14 | 19 | 15 | 10 | 9 | 10 | 3 | 13 | 170 |
| 23:00 | 9 | 13 | 11 | 9 | 11 | 12 | 5 | 8 | 6 | 4 | 6 | 4 | 98 |

Daily Total: 12136

AM Peak Hour: 885 (07:30 - 08:30)

PM Peak Hour: 931 (15:35 - 16:35)

4th Highest Hour: 854 (14:00 - 15:00)

8th Highest Hour: 770 (12:00 - 13:00)

7.29% Of Daily Total

7.67% Of Daily Total

7.03% Of Daily Total

6.34% Of Daily Total

ROADWAY SURVEY FIELD SHEET

Project # _____ Map _____ Grid _____ Start Time **13:45** # Of Days _____

Location: **N.E. 78th St E of St. Johns Rd.**
E.R. TRAFFIC

Type of Survey: Volume Speed Classification

Start Date: **4/21/04** Counters: **1**

End Date: **4/23/04** Tubes: **1**

SMTWTFS
SMTWTFS

EVALUATION

Vehicles Crossing Tube Perpendicular: YES NO ???

Do You Anticipate Queuing Across Tube: YES NO ???

Speed Greater THAN 20 Miles / Hour: YES NO ???

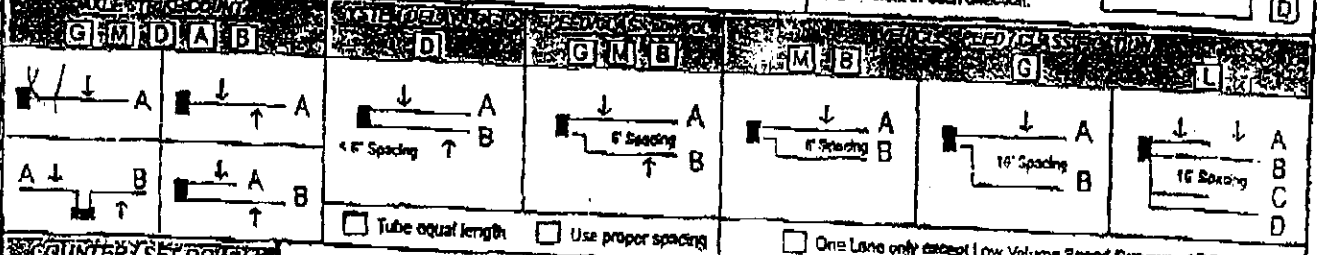
Tube Crosses No More Than 2 Lanes: YES NO ???

POSTED SPEED: None 25 Mph 30 Mph 35 Mph 40 Mph 45 Mph 50 Mph 55 Mph Other: _____

LOWEST SPEED (MPH):

| MPH | 10-20 | 25-30 | 35-40 | 45-50 | > 45 |
|----------------|-------|-------|-------|-------|------|
| Standing Queue | 200 | 130 | 100 | 80 | 40 |
| 5 - 10 MPH | 130 | 90 | 70 | 60 | 40 |
| > 10 MPH | 100 | 80 | 60 | 60 | 60 |

Use 2 Counters if Traffic Conditions are different in each direction.



COUNTER/SET DOWN

Type: **A/A/A**

No.: **A54**

Box: _____

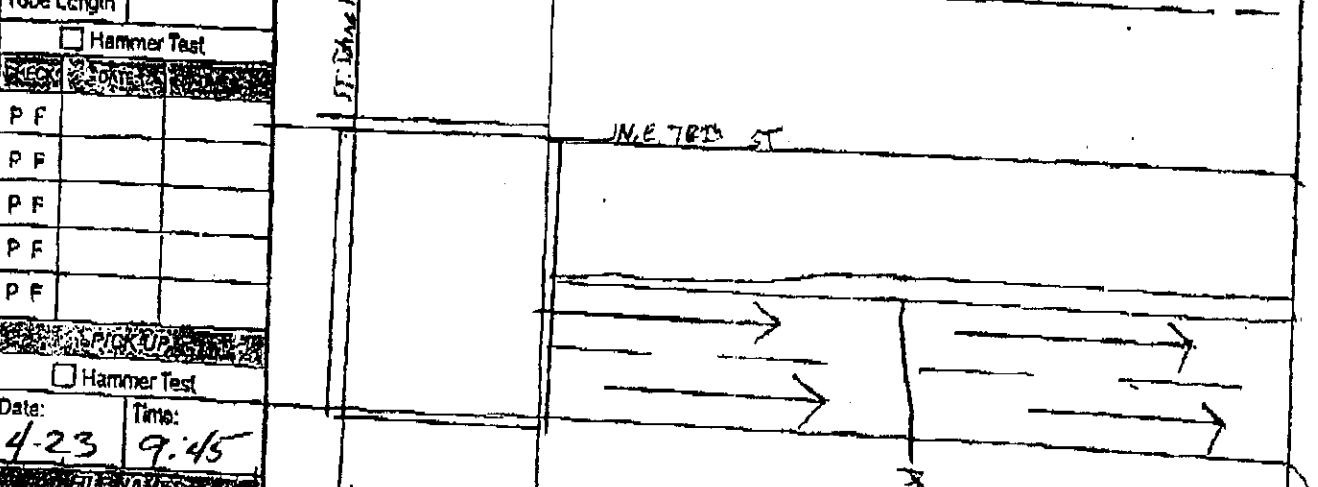
Tube Length: _____

Hammer Test

DIRECTION: East Bound West Bound North Bound South Bound Approach

COMBINED: East / West North / South

ROAD CONDITION: Dry Wet Asphalt Concrete Broken Rutted Curved



PICK UP

Hammer Test

Date: **4-23** Time: **9:45**

FILES NAMES

23-78A54

REDUNDANT SETUP

Remarks: **[A54] 44918**

WEATHER: Sunny Overcast Rain Snow

Looks like counter went bad at some point 929292

Surveyed By: **E.V.**

TRAFFIC SMITHY
 Traffic Survey And Data Collection
 1225 NW Murray Blvd, Suite 111
 Portland, OR 97229
 503/641-6323 - Fax: 503/641-8866

TRAFFIC SMITHY, INC
 626- 120TH AVENUE NE SUITE B102
 BELLEVUE, WA 98005
 PHONE- 425-688-7888 FAX- 425-688-7784

Roadway: NE 78TH STREET
 Location: EAST OF ST JOHNS ROAD

Date: 04/22/04
 Day of Week: Thursday

EB Traffic

| TIME | :00 | :05 | :10 | :15 | :20 | :25 | :30 | :35 | :40 | :45 | :50 | :55 | Total |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 00:00 | 6 | 7 | 5 | 5 | 8 | 6 | 5 | 5 | 5 | 2 | 6 | 3 | 63 |
| 01:00 | 6 | 3 | 3 | 4 | 5 | 5 | 1 | 3 | 4 | 2 | 1 | 4 | 41 |
| 02:00 | 7 | 4 | 5 | 2 | 1 | 1 | 4 | 3 | 2 | 1 | 1 | 1 | 32 |
| 03:00 | 2 | 3 | 0 | 2 | 0 | 6 | 2 | 5 | 2 | 6 | 1 | 4 | 33 |
| 04:00 | 1 | 7 | 3 | 5 | 2 | 1 | 4 | 3 | 6 | 7 | 7 | 14 | 60 |
| 05:00 | 5 | 9 | 8 | 7 | 11 | 19 | 13 | 17 | 19 | 26 | 26 | 15 | 175 |
| 06:00 | 19 | 19 | 37 | 25 | 22 | 31 | 37 | 56 | 52 | 64 | 64 | 51 | 477 |
| 07:00 | 52 | 48 | 61 | 71 | 69 | 75 | 56 | 61 | 89 | 66 | 84 | 60 | 792 |
| 08:00 | 74 | 53 | 77 | 56 | 68 | 79 | 69 | 89 | 66 | 56 | 76 | 72 | 835 |
| 09:00 | 67 | 54 | 65 | 50 | 49 | 62 | 45 | 46 | 63 | 63 | 55 | 59 | 678 |
| 10:00 | 47 | 62 | 48 | 54 | 50 | 57 | 62 | 60 | 64 | 59 | 58 | 68 | 689 |
| 11:00 | 67 | 47 | 51 | 50 | 61 | 77 | 69 | 59 | 60 | 67 | 47 | 60 | 715 |
| 12:00 | 68 | 74 | 60 | 76 | 58 | 39 | 66 | 67 | 56 | 69 | 64 | 70 | 767 |
| 13:00 | 76 | 65 | 64 | 74 | 65 | 71 | 49 | 60 | 71 | 63 | 60 | 68 | 786 |
| 14:00 | 66 | 59 | 75 | 64 | 50 | 86 | 82 | 79 | 85 | 71 | 84 | 71 | 872 |
| 15:00 | 78 | 94 | 111 | 76 | 87 | 97 | 85 | 93 | 88 | 90 | 95 | 62 | 1056 |
| 16:00 | 97 | 96 | 94 | 85 | 80 | 99 | 76 | 81 | 94 | 97 | 95 | 90 | 1084 |
| 17:00 | 90 | 90 | 94 | 98 | 106 | 88 | 110 | 82 | 80 | 99 | 66 | 85 | 1088 |
| 18:00 | 74 | 81 | 79 | 74 | 69 | 59 | 58 | 76 | 62 | 63 | 60 | 60 | 815 |
| 19:00 | 48 | 70 | 46 | 33 | 43 | 55 | 43 | 40 | 56 | 57 | 48 | 42 | 581 |
| 20:00 | 52 | 36 | 40 | 36 | 32 | 31 | 30 | 32 | 34 | 38 | 45 | 29 | 435 |
| 21:00 | 46 | 30 | 21 | 26 | 24 | 31 | 31 | 23 | 22 | 26 | 31 | 19 | 330 |
| 22:00 | 18 | 15 | 30 | 41 | 22 | 17 | 22 | 21 | 11 | 13 | 14 | 10 | 234 |
| 23:00 | 11 | 10 | 10 | 23 | 20 | 10 | 10 | 10 | 12 | 12 | 8 | 7 | 143 |

Daily Total: 12781

M Peak Hour: 864 (07:40 - 08:40)

M Peak Hour: 1134 (16:40 - 17:40)

th Highest Hour: 872 (14:00 - 15:00)

th Highest Hour: 786 (13:00 - 14:00)

6.76% Of Daily Total

8.87% Of Daily Total

6.82% Of Daily Total

6.14% Of Daily Total