

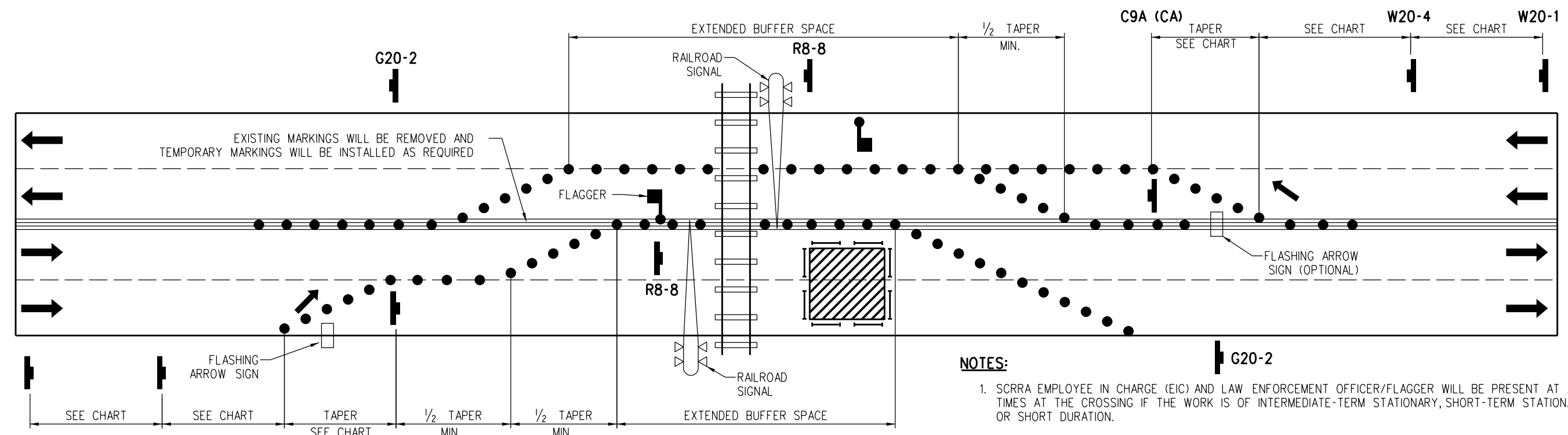
**LEGEND:**

|  |  |                             |
|--|--|-----------------------------|
|  |  | SIGN                        |
|  |  | CONE OR PORTABLE DELINEATOR |
|  |  | FLASHING ARROW SIGN         |
|  |  | FLAGGER                     |
|  |  | DIRECTION OF TRAFFIC        |
|  |  | WORK SPACE                  |
|  |  | TYPE III BARRICADE          |
|  |  | <b>NOTE:</b>                |

FOR ADDITIONAL NOTES AND CHART SEE SHEET ES4301-02.

- NOTES:**
- SCRRRA EMPLOYEE IN CHARGE (EIC) AND LAW ENFORCEMENT OFFICER/FLAGGER WILL BE PRESENT AT ALL TIMES AT THE CROSSING IF THE WORK IS OF INTERMEDIATE-TERM STATIONARY, SHORT-TERM STATIONARY, OR SHORT DURATION.
  - THE HIGHWAY-RAIL CROSSING WILL BE CLSD TO ROAD USERS IF THE WORK IS OF LONG-TERM STATIONARY DURATION.

**WORK WITHIN RAILROAD RIGHT-OF-WAY  
TYPICAL APPLICATION**



- NOTES:**
- SCRRRA EMPLOYEE IN CHARGE (EIC) AND LAW ENFORCEMENT OFFICER/FLAGGER WILL BE PRESENT AT ALL TIMES AT THE CROSSING IF THE WORK IS OF INTERMEDIATE-TERM STATIONARY, SHORT-TERM STATIONARY, OR SHORT DURATION.
  - A LAW ENFORCEMENT OFFICER/FLAGGER WILL BE PRESENT AT ALL TIMES AT THE CROSSING AND THE RAILROAD CROSSING WARNING SIGNALS WILL BE RELOCATED OR INSTALLED TO PREVENT VEHICLES FROM STOPPING ON THE TRACK IF THE WORK IS OF LONG-TERM STATIONARY DURATION.

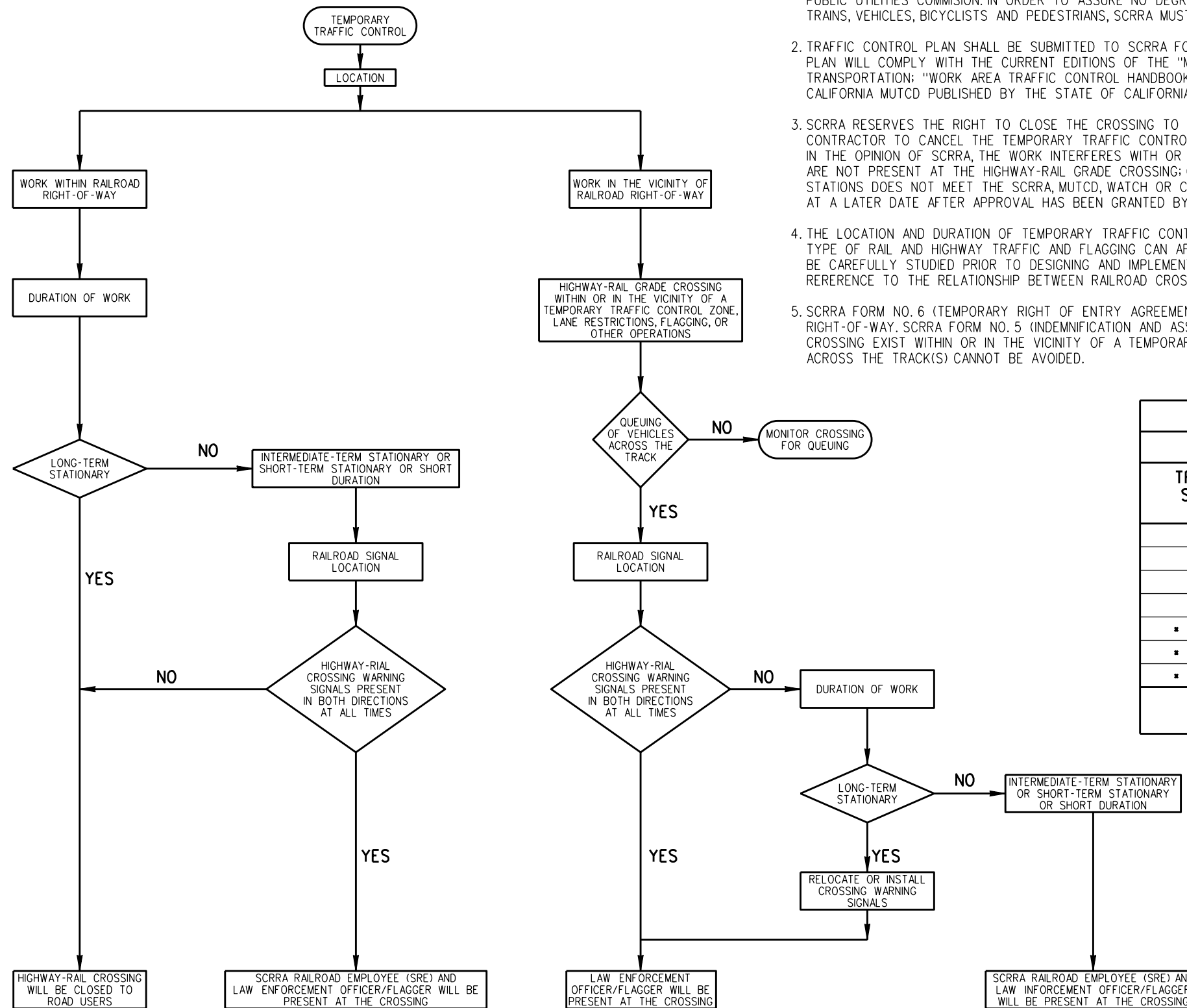
**WORK IN THE VICINITY OF  
RAILROAD RIGHT-OF-WAY  
TYPICAL APPLICATION**

|           |  |                  |   |   |   |                         |
|-----------|--|------------------|---|---|---|-------------------------|
|           | DRAWN BY: A. CARLOS                        | DATE: 03/31/2011 | SCRRRA ENGINEERING STANDARDS ARE INTENDED FOR SCRRRA APPROVED USES ONLY. FOR NON-SCRRRA APPROVED USES, SCRRRA SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF THE DATA OR INFORMATION CONTAINED HEREIN. THE SELECTION AND USE OF THESE STANDARDS IS THE SOLE RESPONSIBILITY OF THE USER AND SHOULD NOT BE USED WITHOUT CONSULTING A REGISTERED PROFESSIONAL ENGINEER. ALL WARRANTIES AND REPRESENTATIONS OF ANY KIND ARE DISCLAIMED. ANYONE MAKING USE OF THIS INFORMATION AGREES THAT IT ASSUMES ALL LIABILITY ARISING FROM SUCH USE. NO PART OF THESE STANDARDS SHOULD BE REPRODUCED OR DISTRIBUTED IN ANY FORM OR BY ANY MEANS WITHOUT THE PRIOR WRITTEN PERMISSION OF SCRRRA. ALL RIGHTS RESERVED. |   | ENGINEERING STANDARDS                                   | STANDARD<br>4301        |
|           | <br>ASSISTANT DIRECTOR: STANDARDS & DESIGN |                  |   | SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY     | TEMPORARY TRAFFIC CONTROL<br>AT OR NEAR GRADE CROSSINGS | SCALE:<br>NTS           |
| REV. DATE | DESCRIPTION                                | DES.             | ENG.  | ONE GATEWAY PLAZA, 12TH FLOOR, L. A., CA. 90012 | REVISION SHEET<br>- 1 OF 2                              | CADD FILE:<br>ES4301-01 |

**FLOW CHART**

**NOTES:**

1. TEMPORARY TRAFFIC CONTROL PLANNING AND DESIGN SHALL BE COORDINATED WITH THE SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (SCRRA) SINCE PUBLIC AGENCIES AND SCRRA ARE OBLIGATED TO COORDINATE ALL INSTALLATION, OPERATION, MAINTENANCE USE AND PROTECTION OF GRADE CROSSINGS ACTIVITIES UNDER THE CALIFORNIA PUBLIC UTILITIES COMMISSION. IN ORDER TO ASSURE NO DEGRADATION OF THE SAFE OPERATION OF GRADE CROSSINGS AND TO PROVIDE SAFE AND EFFICIENT MOVEMENTS OF TRAINS, VEHICLES, BICYCLISTS AND PEDESTRIANS, SCRRA MUST APPROVE ANY AND ALL TEMPORARY TRAFFIC CONTROL PLANS AND DEVICES.
2. TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO SCRRA FOR ALL ACTIVITIES LOCATED WITHIN OR IN THE VICINITY OF HIGHWAY-RAIL GRADE CROSSINGS. TRAFFIC CONTROL PLAN WILL COMPLY WITH THE CURRENT EDITIONS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION; "WORK AREA TRAFFIC CONTROL HANDBOOK" (WATCH) PUBLISHED BY SOUTHERN CALIFORNIA CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AND CALIFORNIA MUTCD PUBLISHED BY THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS).
3. SCRRA RESERVES THE RIGHT TO CLOSE THE CROSSING TO VEHICLE TRAFFIC, REVOKE THE TEMPORARY RIGHT OF ENTRY AGREEMENT OR ASK THE PUBLIC AGENCY OR THE CONTRACTOR TO CANCEL THE TEMPORARY TRAFFIC CONTROL IF, THE PUBLIC AGENCY OR CONTRACTOR ACTIVITY DOES NOT MEET CALIFORNIA MUTCD SECTION 6G REQUIREMENTS; IN THE OPINION OF SCRRA, THE WORK INTERFERES WITH OR ENDANGERS THE MOVEMENT OF ROAD USERS AND TRAIN TRAFFIC; LAW ENFORCEMENT OFFICER(S) OR FLAGGER(S) ARE NOT PRESENT AT THE HIGHWAY-RAIL GRADE CROSSING; OR THE FLAGGER QUALIFICATIONS, CLOTHING, HAND-SIGNAL DEVICES, FLAGGER PROCEDURES AND FLAGGER STATIONS DOES NOT MEET THE SCRRA, MUTCD, WATCH OR CALTRANS REQUIREMENTS. THE TRAFFIC CONTROL WILL BE TERMINATED INSTANTLY AND WORK WILL BE RESUMED AT A LATER DATE AFTER APPROVAL HAS BEEN GRANTED BY SCRRA.
4. THE LOCATION AND DURATION OF TEMPORARY TRAFFIC CONTROL, PROTECTION OR LACK OF PROTECTION BY RAILROAD CROSSING WARNING SYSTEM IN BOTH DIRECTIONS, TYPE OF RAIL AND HIGHWAY TRAFFIC AND FLAGGING CAN AFFECT THE DESIGN AND SELECTION OF TEMPORARY TRAFFIC CONTROL PLAN. THESE VARIABLE FACTORS SHOULD BE CAREFULLY STUDIED PRIOR TO DESIGNING AND IMPLEMENTING TEMPORARY TRAFFIC CONTROL ZONES. REFER TO THE ACCOMPANIED FLOW CHART THAT PROVIDES A QUICK REFERENCE TO THE RELATIONSHIP BETWEEN RAILROAD CROSSING CONDITIONS AND TRAFFIC CONTROL REQUIREMENTS.
5. SCRRA FORM NO. 6 (TEMPORARY RIGHT OF ENTRY AGREEMENT) WILL BE EXECUTED AND SUBMITTED WHEN THE CONSTRUCTION ACTIVITY IS LOCATED WITHIN THE RAILROAD RIGHT-OF-WAY. SCRRA FORM NO. 5 (INDEMNIFICATION AND ASSUMPTION OF LIABILITY AGREEMENT) WILL BE EXECUTED AND SUBMITTED WHEN HIGHWAY-RAIL GRADE CROSSING EXIST WITHIN OR IN THE VICINITY OF A TEMPORARY TRAFFIC CONTROL ZONE, LANE RESTRICTIONS, FLAGGING OR OTHER OPERATIONS AND QUEUING OF VEHICLES ACROSS THE TRACK(S) CANNOT BE AVOIDED.



| CHART   |                          |                    |         |                              |                                   |
|---|--------------------------|--------------------|---------|------------------------------|-----------------------------------|
| MINIMUM RECOMMENDED DELINEATOR AND SIGN PLACEMENT |                          |                    |         |                              |                                   |
| TRAFFIC ** SPEED                                  | TAPER LENGTH (EACH LANE) | DELINEATOR SPACING |         | SIGN SPACING (BETWEEN SIGNS) | BUFFER SPACE (OR FLAGGER STATION) |
|   |                          | TAPER              | TANGENT |                              |                                   |
| 25 MPH  | 150 Ft                   | 25 Ft              | 50 Ft   | 150 Ft                       | 55 Ft                             |
| 30 MPH  | 200 Ft                   | 30 Ft              | 60 Ft   | 200 Ft                       | 85 Ft                             |
| 35 MPH  | 250 Ft                   | 35 Ft              | 70 Ft   | 250 Ft                       | 120 Ft                            |
| 40 MPH  | 350 Ft                   | 40 Ft              | 80 Ft   | 350 Ft                       | 170 Ft                            |
| ▪ 45 MPH  | 550 Ft                   | 45 Ft              | 90 Ft   | 550 Ft                       | 220 Ft                            |
| ▪ 50 MPH  | 600 Ft                   | 50 Ft              | 100 Ft  | 600 Ft                       | 280 Ft                            |
| ▪ 55 MPH  | 1000 Ft                  | 50 Ft              | 100 Ft  | 1000 Ft                      | 335 Ft                            |

**NOTES:** \* REFER TO SECTION 8 OF WATCH MANUAL FOR HIGH SPEED SITUATIONS. DISTANCES SHOWN IN PARENTHESIS ARE APPROXIMATE. \*\* 85TH PERCENTILE SPEED OR AS DIRECTED BY THE ENGINEER.

|   |      |   |   |   |  |                       |                       |
|---|------|---|---|---|--|-----------------------|-----------------------|
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| Narek D. Pape<br>ASSISTANT DIRECTOR: STANDARDS & DESIGN |      | William Davan<br>DIRECTOR OF ENGINEERING AND CONSTRUCTION |   | TEMPORARY TRAFFIC CONTROL<br>AT OR NEAR GRADE CROSSINGS |  | SCALE: NTS            | REVISION SHEET 2 OF 2 |
| REV.  | DATE | DESCRIPTION   | DES.  | ENG.  |  |                       | ES4301-02             |