REVISION DATE 040816

26-JAN-2017 11:01

Sample Plan

TRAFFIC MANAGEMENT SYSTEM PLANS --------- NARRATIVE

References:

Design Scene: Chapter 16 - Traffic

Miscellaneous:

http://lhub.metro/design/technicalguidance.html RTMC-Design Coordination

General Information:

During the roadway plan development, designers must be aware of the need for a Traffic Management System (TMS) Plan. This Plan contains items such as ramp meters, loop detectors, overhead cameras, etc. These items are used to maintain an efficient and safe flow of traffic along our urban freeways.

To develop the Traffic Management System Plan, coordination meetings between Design, Construction and Freeway Operations Engineering Services (System Design Engineer) are recommended throughout the duration of the project. The number and extent of these meetings will depend on the complexity, length, and duration of the project. In rare cases, the Traffic Management System Plan may be a separate plan and not included in the Grading Plan. If this is the case, conduit locations should be coordinated with the grading plan.

The Designer will need to provide construction sheets or general layout sheets (hard copy or electronic copy) to Freeway Operations Unit for them to use as a base map to draft their Traffic Management System Plan. The Designer should also request survey information (.flp files) for TMS.

Freeway Operations Engineering Services will develop their plans based on past experiences and new and developing technologies.

Traffic Management System plan sheets to be inserted into the final plan should include a list of construction pay items and quantities so the designer can include these items in the Estimated Quantities tabulation. Pay item numbers should not be included in this list, however the Freeway Operations designer should provide pay items numbers to the designer separately from the plan sheets to facilitate adding them to the Estimated Quantities tabulation.

The Designer should also add any Freeway Operations Standard Plates onto the list of project specific Standard Plates or make a reference to them.

The Traffic Management System Plan sheets should also be included in the plan as shown on the Title Sheet's Index. Page numbers for the Traffic Management System Plan sheets will be numbered SZ1 to SZ*.

Sample Plan

TRAFFIC MANAGEMENT SYSTEM PLANS --------- CHECKLIST

____ 1. Stationing shown

____ 2. Roadways Labeled

____ 3. North Arrow

____ 4. Bypasses shown and labeled, if applicable

____ 5. Traffic Management Systems shown

____ 6. Staged construction shown, if applicable

____ 7. Legend

____ 8. Items correspond with those shown in TRNSPORT

____ 9. Utilities and Drainage Structures shown in potential conflict areas
Coordinate with the Landscaping Plans, if applicable

____ 10. Tab Letter and Sheet Numbers

____ 11. Bar Scale

____ 12. Cross references to other sheets (as applicable)

____ 13. Freeway Operations Engineer's signature

LEGEND OF SYMBOLS	
	CABLE TRAY
	CONDUIT - F&I
	CONDUIT - INPLACE
	DETECTOR (SPECIFY) - (SPECIFY)
	DIRECT BURIED COMMUNICATION CABLE - F&I
	DIRECT BURIED COMMUNICATION CABLE - INPLACE
	DIRECT BURIED POWER CABLE - F&I
	DIRECT BURIED POWER CABLE - INPLACE
	FLASHER - F&I
	FLASHER - INPLACE
	FLASHING BEACON - F&I
	FOUNDATION F&I, GATE ARM - F&I
	FOUNDATION INPLACE, GATE ARM - F&I
	GATE ARM - INPLACE
	GUARDRAIL END TREATMENT (SPECIFY) - (SPECIFY)
	GUARDRAIL (PLATE BEAM) - (SPECIFY)
	HANDHOLE - F&I
	HANDHOLE - INPLACE
	JUNCTION BOX OR CONDULET - F&I
	JUNCTION BOX OR CONDULET - INPLACE
	LANE ARROW
	OVERHEAD SIGN - F&I
	OVERHEAD SIGN - INPLACE
	PAD (SPECIFY) - F&I
	PAD (SPECIFY) - INPLACE
	PEDESTAL - F&I
	PEDESTAL - INPLACE
	RAMP CONTROL SIGNAL (DESIGN ONE-WAY) - F&I
	RAMP CONTROL SIGNAL (DESIGN TWO-WAY) - F&I
	RAMP CONTROL SIGNAL (DESIGN ONE-WAY) - INPLACE
	RAMP CONTROL SIGNAL (DESIGN TWO-WAY) - INPLACE

LEGEND OF SYMBOLS	
	SHELTER (TMS) - F&I
	SHELTER (TMS) - INPLACE
	SIGN (TYPE A OR D) - (SPECIFY)
	SIGN (TYPE C) - (SPECIFY)
	SIGN (TYPE CMS) - (SPECIFY)
	SIGNAL FACE - F&I
	SIGNAL FACE - INPLACE
S	SPLICE CABINET (SPECIFY) - (SPECIFY)
FO	SPLICE VAULT (FIBER OPTIC) - (SPECIFY)
TV	TELEVISION CAMERA (CCTV) - (SPECIFY)
	WOOD POLE - F&I
	WOOD POLE - INPLACE
	WOOD POLE F&I, SERVICE INSTALLATION - F&I
	WOOD POLE INPLACE, SERVICE INSTALLATION - F&I
	WOOD POLE INPLACE, SERVICE INSTALLATION - INPLACE

TABULATION OF QUANTITIES

SZ

ITEM	UNIT	S.P. 0000-00 (T.H. 77 AT) T.H. 13) QUANTITIES	S.P. 0000-00 (T.H. 77 AT) CO. RD. 30) QUANTITIES
REMOVE SIGNAL FOUNDATION	EACH	2	2
REMOVE HANDHOLE	EACH	2	2
SALVAGE SERVICE EQUIPMENT	EACH	1	0
SALVAGE RAMP CONTROL SIGNAL	EACH	2	2
SERVICE FOUNDATION	EACH	1	0
RAMP CONTROL SIGNAL FOUNDATION	EACH	2	2
HANDHOLE TYPE-PVC CONCRETE COVER	EACH	2	2
HANDHOLE TYPE-PVC METAL COVER	EACH	1	1
2" NON-METALLIC CONDUIT	LIN FT	75	160
2" PUSHED CONDUIT	LIN FT	45	0
LEAD-IN CABLE 2 CONDUCTOR NO. 14	LIN FT	580	495
POWER CABLE 1 CONDUCTOR NO. 4	LIN FT	1380	0
6 X 6 LOOP DETECTOR DESIGN NMC	EACH	3	3
INSTALL SERVICE EQUIPTMENT	EACH	1	0
INSTALL RAMP CONTROL SIGNAL	EACH	2	2

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

PLATE NO.	DESCRIPTION
8111 E	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8112 I	PEDESTAL FOUNDATION
8122 F	PEDESTAL AND PEDESTAL BASE

SAMPLE PLAN

I HEREBY CERTIFY THAT SHEETS SZ1 THROUGH SZ2 OF THIS PLAN WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Rushford Andwait

RUSHFORD ANDWAIT

DATE 2/01/14 LIC. NO. 00000

DESIGNER T. CAMERA

REV. NO.	DATE: / /
REV. NO.	DATE: / /

SHEET 1 OF 2

TMS COMPONENTS & TABULATED QUANTITIES

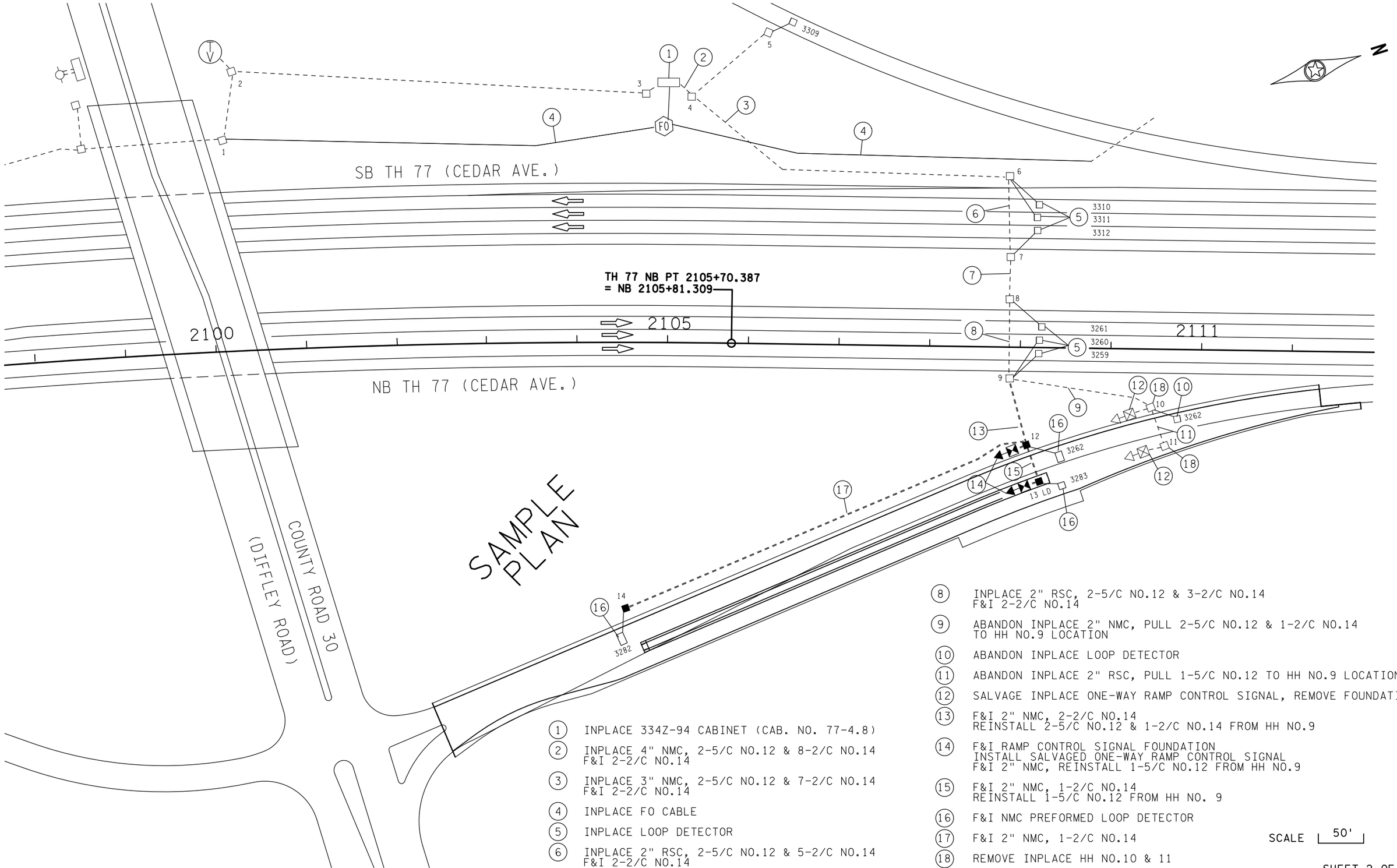
STATE PROJ. NO.0000-00 (T.H. 00) SHEET NO. SZ1 OF SZ2 SHEETS

REVISION DATE040816

spitmc2

26-JAN-2017 11:01

Projects/DM_ROS/Non_Project/Design/SamplePlan/English/tmc.dgn



1. INPLACE 334Z-94 CABINET (CAB. NO. 77-4.8)
2. INPLACE 4" NMC, 2-5/C NO.12 & 8-2/C NO.14 F&I 2-2/C NO.14
3. INPLACE 3" NMC, 2-5/C NO.12 & 7-2/C NO.14 F&I 2-2/C NO.14
4. INPLACE FO CABLE
5. INPLACE LOOP DETECTOR
6. INPLACE 2" RSC, 2-5/C NO.12 & 5-2/C NO.14 F&I 2-2/C NO.14
7. INPLACE 2" RSC, 2-5/C NO.12 & 4-2/C NO.14 F&I 2-2/C NO.14
8. INPLACE 2" RSC, 2-5/C NO.12 & 3-2/C NO.14 F&I 2-2/C NO.14
9. ABANDON INPLACE 2" NMC, PULL 2-5/C NO.12 & 1-2/C NO.14 TO HH NO.9 LOCATION
10. ABANDON INPLACE LOOP DETECTOR
11. ABANDON INPLACE 2" RSC, PULL 1-5/C NO.12 TO HH NO.9 LOCATION
12. SALVAGE INPLACE ONE-WAY RAMP CONTROL SIGNAL, REMOVE FOUNDATION
13. F&I 2" NMC, 2-2/C NO.14 REINSTALL 2-5/C NO.12 & 1-2/C NO.14 FROM HH NO.9
14. F&I RAMP CONTROL SIGNAL FOUNDATION INSTALL SALVAGED ONE-WAY RAMP CONTROL SIGNAL F&I 2" NMC, REINSTALL 1-5/C NO.12 FROM HH NO.9
15. F&I 2" NMC, 1-2/C NO.14 REINSTALL 1-5/C NO.12 FROM HH NO. 9
16. F&I NMC PREFORMED LOOP DETECTOR
17. F&I 2" NMC, 1-2/C NO.14
18. REMOVE INPLACE HH NO.10 & 11

SCALE 50'

SHEET 2 OF 2

TMS AT TH 77 AND CO. RD. 30 (DIFFLEY RD.)

REV. NO.	DATE: / /
REV. NO.	DATE: / /

CERTIFIED BY Rushford Andwait LIC.NO. 00000 FEB 1 1914
LICENSED PROFESSIONAL ENGINEER

STATE PROJ. NO.0000-00 (T.H. 00) SHEET NO. SZ2 OF SZ2 SHEETS