DRAFTING GUIDELINES FOR CONSULTANTS

All submissions should be made in accordance with the consultant engineer's manual.

Preliminary Design Requirements

1. **All new plans for locations on State Highways to be English scale**, 1 in. = 40 ft. including traffic signal plans by developers. The exception is when a minor revision is being made to a metric scale plan.

2. All required dimensioning on intersectional plans, to locate signal appurtenances, pavement markings and signing shall be in feet and inches. If pavement markings and signing are extensive then a separate 2 ft. x 3 ft. plan should be provided. If a separate signing and marking plan is provided then the necessary dimensions should be shown on that plan only. However, the pavement markings and any appropriate regulatory signing required for signal operation are still required on the signal plan. The signal plan must also have a sign legend (sign number and description) for the required signing. If a regulatory sign is span or mast arm mounted, that must also be noted in the sign legend. For example - "span mount 31-0823 (NTOR)".

   Note - if the signal plan is 40-scale then the pavement marking plan will be 40-scale also.

3. Movement diagrams are to be shown on all signal plans, refer to the section on phasing for a sample.

4. Sequence and timing are to be shown on all signal plans.

5. Show all traffic signal appurtenances, such as controllers, detectors, pedestals, poles and signal heads, including dimensions for all ties. All appurtenances are to be tied down to fixed objects. (Do not show conduit, handholes or wiring requirements at this time).

6. Indicate type of coordination, if required.

7. Right-of-Way must be shown.

8. The signal layout is to be void of any extraneous information which includes overhead and underground utilities, trees, shrubs manholes (unless used for service), gas gates, water gates fences, buildings, etc. Base lines are to be shown on new construction projects and all foundations and detectors are to be tied down to stations where applicable.

9. Traffic volume diagram, if required, to be provided on bottom right side of 2 ft. x 3 ft. plan under construction notes.

10. Traffic control plans including traffic signal appurtenances, as described in Preliminary Design, may be forwarded to the Division of Traffic Engineering for review after the geometry has been finalized. The final geometry should reflect existing conditions as found in the field. New construction should reflect the final proposed geometry. Existing geometry is not to be shown with proposed geometry on signal plans.

11. North arrow to be shown on plan (for location refer to Page 67).

Semifinal Design Requirements

1. Incorporate prior comments or explain why comments were not incorporated.

2. Submit completed electrical design (on signal plan). Completed electrical design should include all conduits, handholes and wiring necessary for complete operation. An enlargement may be used to clarify an area and to prevent the plan from getting cluttered. All interconnection requirements should also be noted. If interconnect is required, an index plan with all pertinent information may be required when the information cannot be shown conclusively on the signal plan.

3. Include on the signal plan any additional dimensions for ties required for electrical appurtenances.

4. Try not to clutter up plans with repetitious notes. Add all pertinent construction notes on the right side of the 2 ft. x 3 ft. sheet under the heading "CONSTRUCTION NOTES." Use standard Division of Traffic Engineering notes where applicable.

Final Design Requirements

1. Incorporate prior comments or explain why comments were not incorporated.

2. Submit **one** traffic control signal plan drafted in the appropriate scale on mylar, in accordance with this Traffic Control Signal Design Manual and **eight prints**. The plan is to be sealed by a Professional Engineer, licensed in Connecticut. (A sealed print is acceptable). The plan should show and include all necessary dimensions. For CADD generated plans see page 105.

3. For **DOT projects** submit one traffic control signal plan drafted in the appropriate scale on mylar, in accordance with this Manual of Traffic Control Signal Design and one 2 ft. x 3 ft. mylar reproduction of the original supplied traffic control signal layout sheet, to be used as the contract drawing.

4. The following items must be shown on the final traffic control signal plan:

   Location of Traffic Signal Equipment

   Phasing Diagrams

   Special Notes

   All pertinent signing

   Pavement Markings

   Electrical design and notes including coordination and interconnect information

   Right-of-way including easement areas for signal appurtenances located on private property.

   Utility poles, catch basins, handholes, hydrants, sidewalks, sidewalk ramps, driveways, guide rail, etc.

   Sequence and timing

   Signal faces

   Construction notes and details

   A traffic volume diagram, if required, shown on the extreme right side of the sheet, under the construction notes

5. Submit one ORIGINAL 2 ft. x 3 ft. pavement marking & signing plan and eight prints, if required.

6. For DOT projects, submit one ORIGINAL 2 ft. x 3 ft. pavement marking & signing plan and submit one reproducible 2 ft. x 3 ft. pavement marking & signing plan, if required.

7. Submit one reproducible 2 ft. x 3 ft. interconnect index plan, if required.

Electronic Requirements

All previously described drafting guidelines for consultants also apply to CADD generated signal plans, as well as the following items:

1. The Division of Traffic Engineering will supply the consultant with disks containing appropriate cell libraries, blank signal layout, detailed estimate sheets and standard detail sheets.

2. The supplied disks will be in microstation format. It will be the responsibility of the consultant to make the necessary DXF file conversion if their CADD is not compatible with microstation.

3. Final Submission Requirements:

   A. Contract signal plans : One mylar original and one mylar copy of each signal plan for the contract.

   B. Major traffic generator: One mylar original of each signal plan.

   C. For both DOT project contracts and major traffic generators, the consultant is required to submit disk(s) for all CADD generated signal plans and signing and marking plans if they exist. The submitted disk(s) have the following requirements:

      1) All disks must be in Microstation 3D format.

      2) It is the consultant's responsibility to convert via DXF file to microstation format. Any disk(s) submitted in any format other than microstation <u>will not be accepted.</u>

      3) All disks submitted by consultant must be complete and accurate and totally reflect the original, final submission, signal mylar. Any variations or omissions in the file will necessitate the return of the disk(s) to the consultant for correction and resubmission.

      4) All designs to be in conformance with "ConnDOT DESIGN CRITERIA - CADD / GRAPHICS / GIS STANDARDS" available from Graphic Systems, (860) 594-3225.

A diskette containing the Division of Traffic's CADD cell library containing the standard signal format, correct levels, line weights, etc., are available from the Division's CADD Liaison Unit at (860) 594 - 2797.

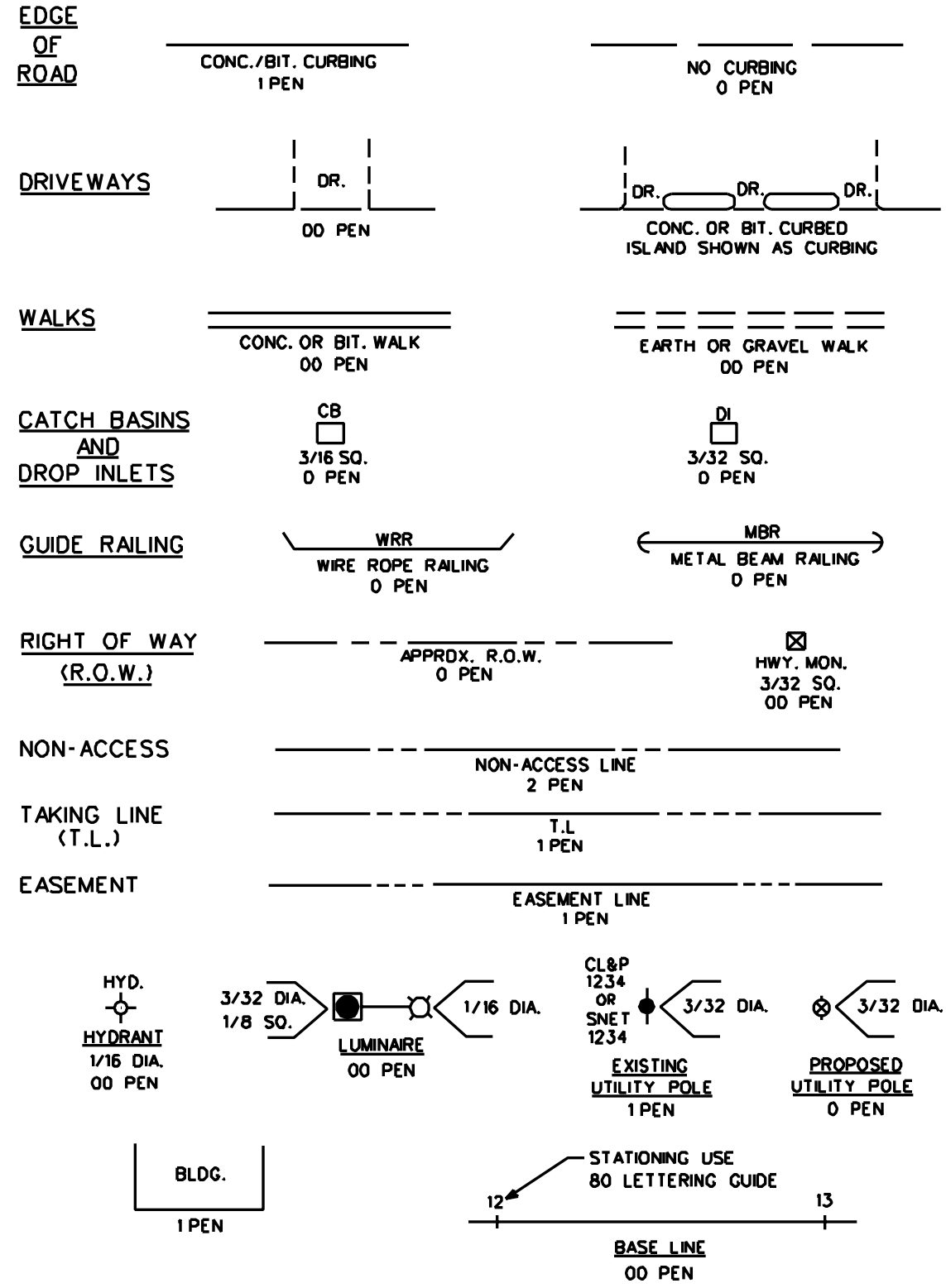
MANUAL

DRAFTING

GUIDELINES

SCALE: NONE
DRAFT21.DGN (A)

STANDARD CONVENTIONS



PAVEMENT MARKINGS

CENTERLINE

00 PEN

LANE LINE

X DIMENSION LANE LINE
IF LENGTH IS OTHER THAN 15 m.(50')
IF 15 m (50') (STANDARD) OMIT DIMENSION

SOLID AND SKIP LINES
1 PEN

3.0 m (10') 9.0 m (30')

OMIT DIMENSIONS ON PLAN (SHOWN FOR DRAWING PURPOSES ONLY)

STOP BAR

4 PEN

PAVEMENT EDGE LINE
(PAINTED)

1 PEN

DIRECTIONAL ARROWS

OMIT DIMENSIONS ON PLAN (SHOWN FOR DRAWING PURPOSES ONLY)

3.6 m (12') 3.0 m (10') 2.4 m (8')

2ND TRIANGLE ON TEMPLATE # 411

ARROW HEADS
1 PEN

PAINTED ISLAND

PAINTED ISLAND

R R

DIMENSION
00 PEN

80 LETTERING GUIDE

ONE WAY ARROW ON TEMPLATE #411

CROSSWALKS

ON SIGNAL PLANS
00 PEN

SAMPLE NOTES (METRIC)

(S) BAR TYPE CROSSWALK (0.4 - 0.4 X 2.4 MIN) - STATE MAINTAINED

(T) BAR TYPE CROSSWALK (0.4 - 0.4 X 2.4 MIN) - TOWN MAINTAINED

SAMPLE NOTES (ENGLISH)

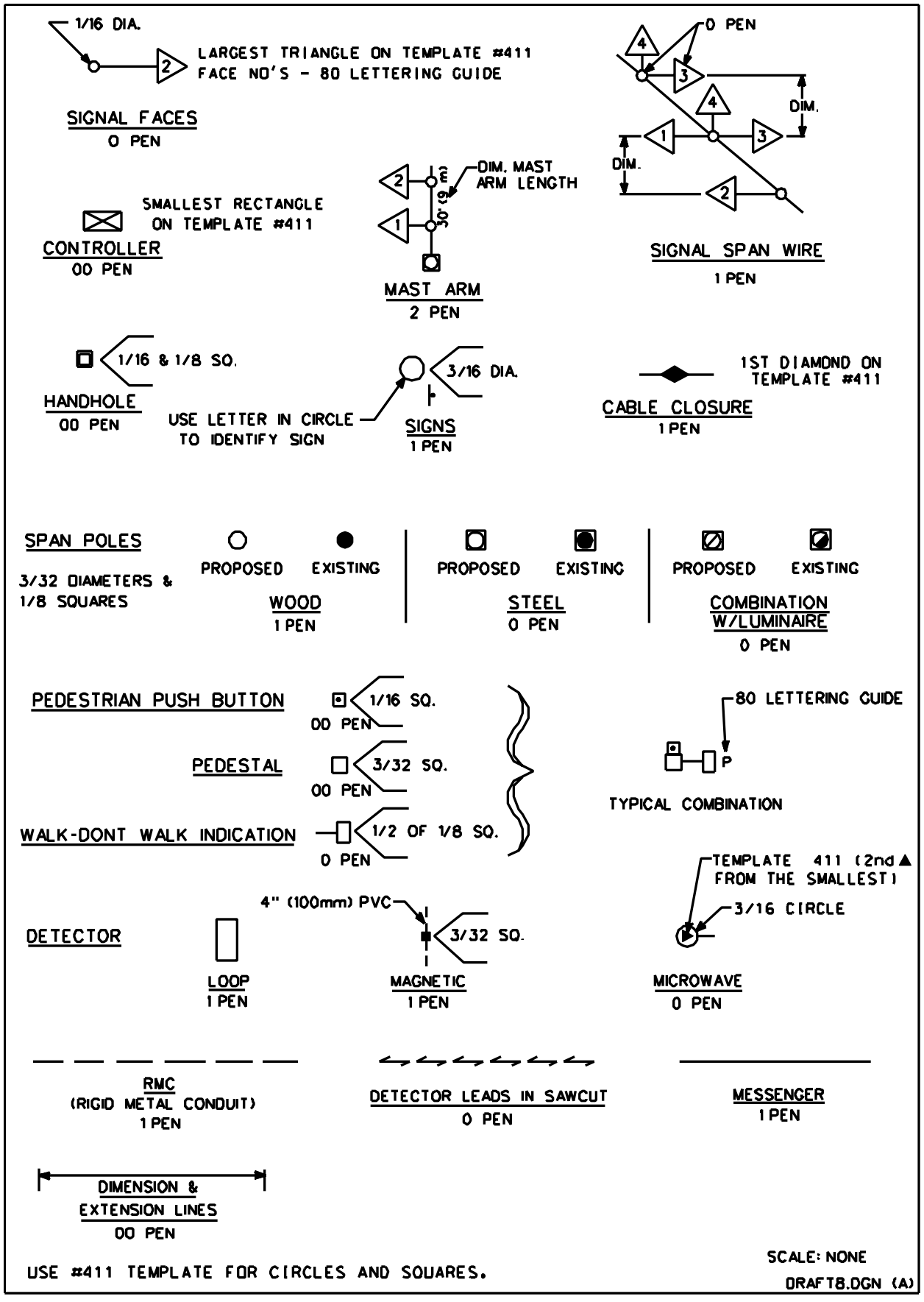
(S) BAR TYPE CROSSWALK (16" - 16" X 8' MIN) - STATE MAINTAINED

(T) BAR TYPE CROSSWALK (16" - 16" X 8' MIN) - TOWN MAINTAINED

USE #411 TEMPLATE FOR CIRCLES AND SQUARES.

SCALE: NONE

DRAFT7.DGN (A)


1/16 DIA.
LARGEST TRIANGLE ON TEMPLATE #411
FACE NO'S - 80 LETTERING GUIDE
SIGNAL FACES
0 PEN
SMALLEST RECTANGLE ON TEMPLATE #411
CONTROLLER
00 PEN
DIM. MAST ARM LENGTH
MAST ARM
2 PEN
0 PEN
DIM.
SIGNAL SPAN WIRE
1 PEN
1/16 & 1/8 SQ.
HANDHOLE
00 PEN
USE LETTER IN CIRCLE TO IDENTIFY SIGN
3/16 DIA.
SIGNS
1 PEN
1ST DIAMOND ON TEMPLATE #411
CABLE CLOSURE
1 PEN
SPAN POLES
3/32 DIAMETERS & 1/8 SQUARES
PROPOSED
EXISTING
WOOD
1 PEN
PROPOSED
EXISTING
STEEL
0 PEN
PROPOSED
EXISTING
COMBINATION W/LUMINAIRE
0 PEN
PEDESTRIAN PUSH BUTTON
1/16 SQ.
00 PEN
PEDESTAL
3/32 SQ.
00 PEN
WALK-DONT WALK INDICATION
1/2 OF 1/8 SQ.
0 PEN
80 LETTERING GUIDE
P
TYPICAL COMBINATION
DETECTOR
4" (100mm) PVC
3/32 SQ.
LOOP
1 PEN
MAGNETIC
1 PEN
TEMPLATE 411 (2nd ▲ FROM THE SMALLEST)
3/16 CIRCLE
MICROWAVE
0 PEN
RMC
(RIGID METAL CONDUIT)
1 PEN
DETECTOR LEADS IN SAWCUT
0 PEN
MESSENGER
1 PEN
DIMENSION & EXTENSION LINES
00 PEN
USE #411 TEMPLATE FOR CIRCLES AND SQUARES.
SCALE: NONE
DRAFT8.DGN (A)

PROCEDURE FOR NOTING DETECTORS, SIGN LEGEND, NOTES AND DIMENSIONING APPURTENANCES

NOTES

STATE TO MAINTAIN ALL PAVEMENT MARKINGS ON ROUTE 3 AND STOP BAR ON WEST MAIN ST.

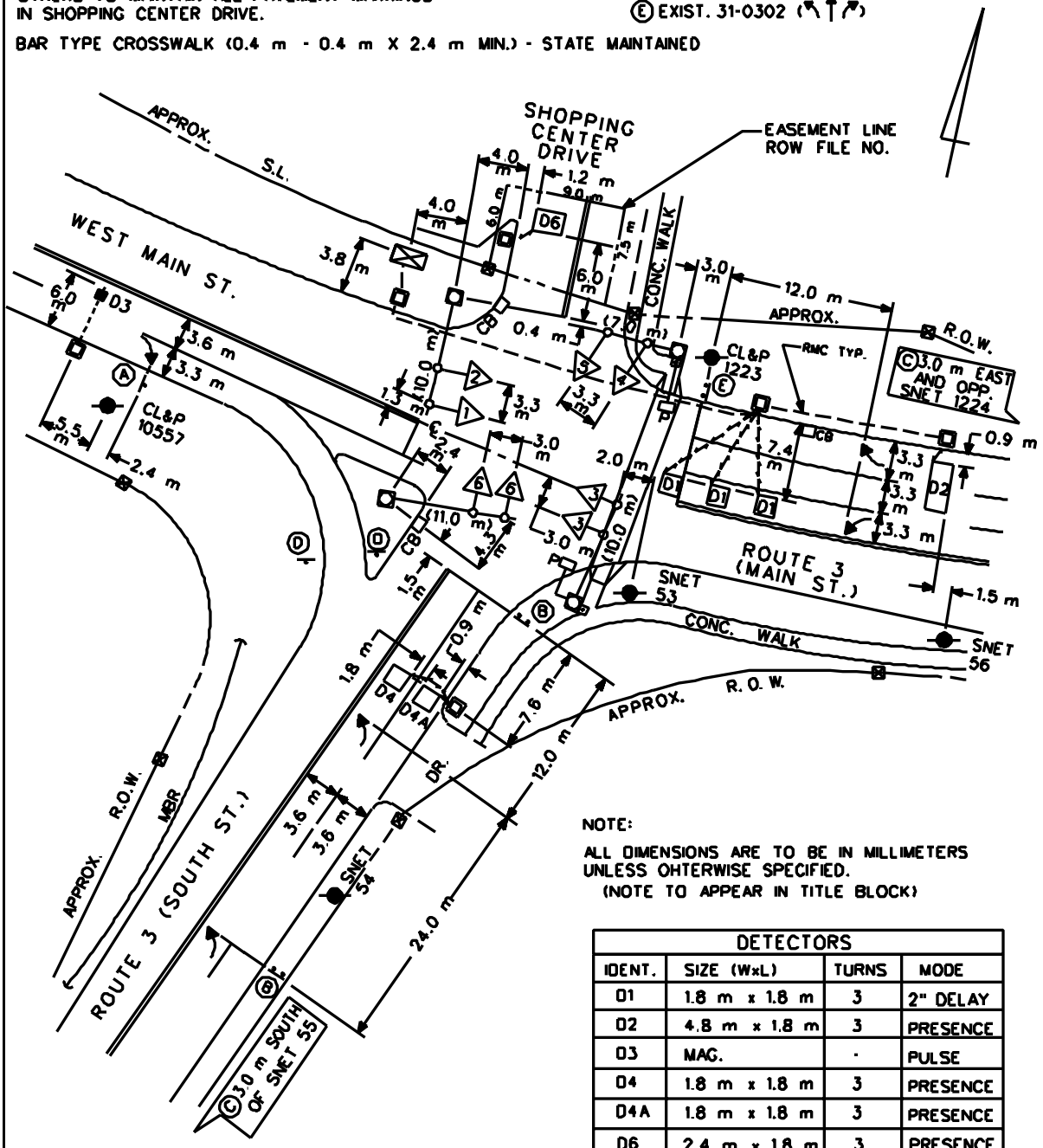
TOWN TO MAINTAIN ALL OTHER PAVEMENT MARKINGS ON WEST MAIN ST.

OTHERS TO MAINTAIN ALL PAVEMENT MARKINGS IN SHOPPING CENTER DRIVE.

BAR TYPE CROSSWALK (0.4 m - 0.4 m X 2.4 m MIN.) - STATE MAINTAINED

SIGN LEGEND

- (A) ERECT 31-0118Z (RT. LA. MUST TN. RT.)
- (B) ERECT 31-0282 (↖ ↑ ↗)
- (C) EXIST. 41-0836 (SIG. AH.)
- (D) ERECT 31-0523 (YIELD)
- (E) EXIST. 31-0302 (↖ ↑ ↗)



NOTE:

ALL DIMENSIONS ARE TO BE IN MILLIMETERS UNLESS OHTERWISE SPECIFIED.
(NOTE TO APPEAR IN TITLE BLOCK)

DETECTORS			
IDENT.	SIZE (WxL)	TURNS	MODE
D1	1.8 m x 1.8 m	3	2" DELAY
D2	4.8 m x 1.8 m	3	PRESENCE
D3	MAG.	-	PULSE
D4	1.8 m x 1.8 m	3	PRESENCE
D4A	1.8 m x 1.8 m	3	PRESENCE
D6	2.4 m x 1.8 m	3	PRESENCE

METRIC DIMENSIONS - FOR ENGLISH DIMENSIONS SEE PAGE 110 OF THE MANUAL.
USE #411 TEMPLATE FOR CIRCLES AND SQUARES.

SCALE: NONE
DRAFT20.DGN (B)

LETTERING GUIDE SIZES
TO BE USED ON SIGNAL PLANS

NOTE:
FREE HAND AND TYPED LETTERING. PRESSURE SENSITIVE GRAPHIC AIDS NOT ACCEPTABLE.*** INCLUDE ALL AFFECTED ROADWAYS. DRIVES AND OTHER APPURTANANCES CONSIDERED NECESSARY FOR THE TRAFFIC SIGNAL INSTALLATION.

<table>
<tr><th colspan="2">80 LETTERING GUIDE</th></tr>
<tr><td>POLE CO. & NO.
C.B. & D.I.
DRIVES
DIMENSIONS
W.R.R. & M.B.R.
SIDEWALKS
HYD.
PAVEMENT EDGE LINE
EDGE OF CONC.
EDGE OF TRAVELWAY
APPROX. R.O.W.</td><td>BLDGS.
PROPERTY OF
℄
SIGNS
OFFICE RECORDS
INITIALS & DATES
NOTES
ELECTRICAL
SIGNAL FACES
DETECTORS
STATIONS (WHEN BASE LINE SHOWN)</td></tr>
<tr><td>100 LETTERING GUIDE</td><td>120 LETTERING GUIDE</td></tr>
<tr><td rowspan="2">STREET NAMES
ROUTE NUMBERS
TITLE BLOCK
SEQUENCE & TIMING</td><td>CONSTRUCTION NOTES</td></tr>
<tr><td>140 LETTERING GUIDE</td></tr>
<tr><td></td><td>INTERSECTION NO'S.</td></tr>
</table>

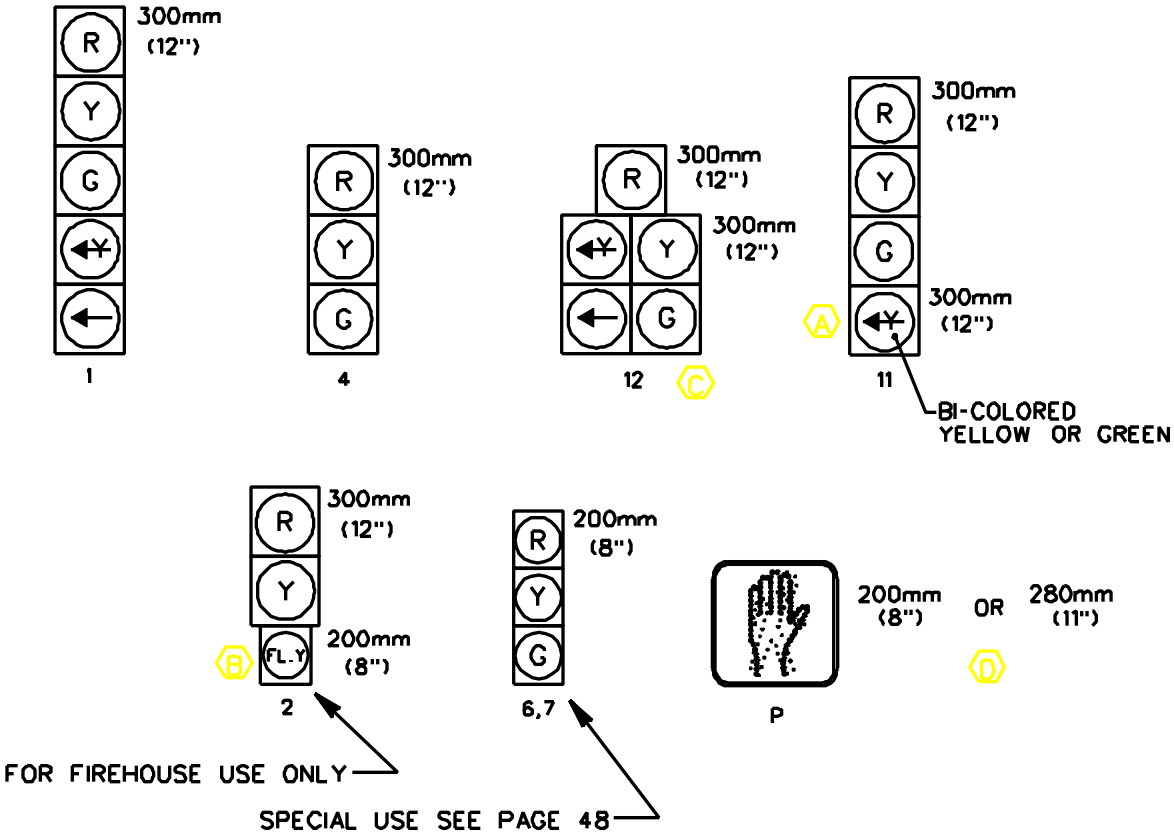
FOR MANUAL DRAFTING:
USE HEX ⬡ FOR NOTES (3rd FROM LARGEST)
USE CIRCLE ○ FOR SIGNS (3/16 DIA. HOLE)

*** TYPED LETTERING. PRESURE SENSITIVE GRAPHIC AIDS ALLOWED UNDER CONSTRUCTION NOTES ONLY.

SCALE: NONE
DRAFT9.DGN (A)

TRAFFIC SIGNAL FACES

SHOW APPROPRIATE FACES ON SIGNAL PLAN



SIGNAL FACES

USE APPROPRIATE DIMENSIONS TO MATCH SCALE OF SIGNAL PLAN, METRIC OR IMPERIAL.

200mm (8") LENS - 5/16" SQUARE, 1/4" CIRCLE

300mm (12") LENS - 3/8" SQUARE, 5/16" CIRCLE

ARROWS - TEMPLATE #411 (2nd ▲ FROM THE SMALLEST)

HOUSING - 1 PEN

COLORS (R,Y,G) - 0 PEN, 120 LETTERING GUIDE

(A) BI - COLORED ARROW (LABEL AS SUCH)

(B) 00 PEN 80 LETTERING GUIDE FOR FL.Y

(C) TYPICAL "DOGHOUSE" CONFIGURATION

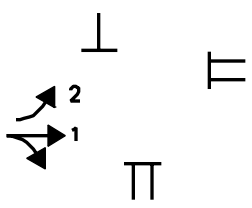
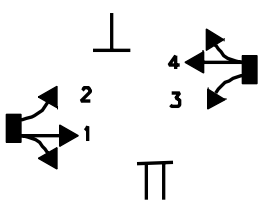
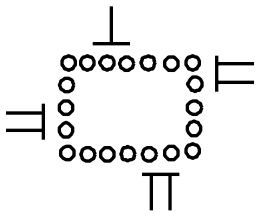
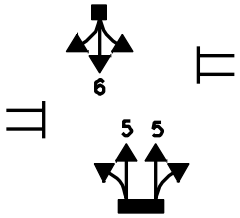
(D) DIMENSIONS REPRESENT PEDESTRIAN SYMBOL SIZE

USE #411 TEMPLATE FOR CIRCLES AND SQUARES.

SCALE: NONE
DRAFT10.DGN (A)

MOVEMENT DIAGRAMS

(APPLY ON ALL SIGNAL PLANS)

MOVEMENT DIAGRAM			
PHASE 1	PHASE 2	PHASE 3	PHASE 4
			

0 PEN

FACE NO.'S - 80 LETTERING GUIDE

ALL DETECTORS FILLED IN (SHOW ONLY WITH ASSOCIATED PHASE.)

WALK SYMBOLS (oooo) USE 1/16" DIA CIRCLE 00 PEN

USE #411 TEMPLATE FOR CIRCLES AND SQUARES.

SCALE: NONE
DRAFT11.DGN (A)

TRAFFIC CONTROL SIGNAL PLAN

OFFICE RECORD

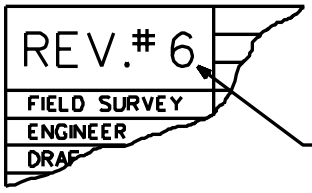
OFFICE RECORD	
JOB #	SM #
SIGNAL IN OPERATION	

NEW SIGNAL

OFFICE RECORD	
REVISION # 6	
JOB #	SM #
SIGNAL REVISED	
(DESCRIPTION OF REVISION)	

SIGNAL REVISION
ON
NEW PLAN

(REVISION NUMBERS TO BE ADDED WHEN SIGNAL REVISED DATE IS ADDED- OTHERWISE LEAVE BLANK)



ADD REV. # IN TITLE BLOCK
USE 140 LETTERING GUIDE ON MANUAL DRAFTED PLANS

OFFICE RECORD	
JOB # 76-8905-03	SM # 12345
SIGNAL IN OPERATION	
REVISION # 1	
JOB #	SM #
TRAFFIC DESIGN	ELECT. DESIGN
SIGNAL REVISED	
(DESCRIPTION OF REVISION)	

SIGNAL REVISED
ON
EXISTING PLAN

USE #411 TEMPLATE FOR CIRCLES AND SQUARES.

SCALE: NONE
DRAFT12.DGN (A)

LEGEND USED ON SIGNAL PLANS

LEGEND			
R	RED		PROPOSED CONTROLLER
Y	YELLOW		EXISTING CONTROLLER
G	GREEN		PROPOSED HANDHOLE
R	RED ARROW		EXISTING HANDHOLE
Y	YELLOW ARROW	---	PROPOSED (R.M.C.) RIGID METAL CONDUIT
	GREEN ARROW	-•-•-	EXISTING (R.M.C.) RIGID METAL CONDUIT
WØ	WALK/ FL. D.W.		CABLE CLOSURE
D.W.	DON'T WALK		DET. LEADS IN SAW CUT
FL.	FLASHING		AUXILIARY TERMINATION CABINET
	PROPOSED WOOD SPAN POLE		AUXILIARY EQUIPMENT CABINET
	EXISTING WOOD SPAN POLE		AUDIBLE PEDESTRIAN SIGNAL
	PROPOSED STEEL SPAN POLE		
	EXISTING STEEL SPAN POLE		
	PROPOSED UTILITY POLE		
	EXISTING UTILITY POLE		
	PEDESTAL MOUNTING		
	PEDESTRIAN PUSH BUTTON & SIGN		
	TRAFFIC SIGNAL FACE		
	PEDESTRIAN SIGNAL FACE		
	LOOP DETECTOR		
	MAGNETIC DETECTOR		
SD	SYSTEM DETECTOR		
	OPTICAL DETECTOR		

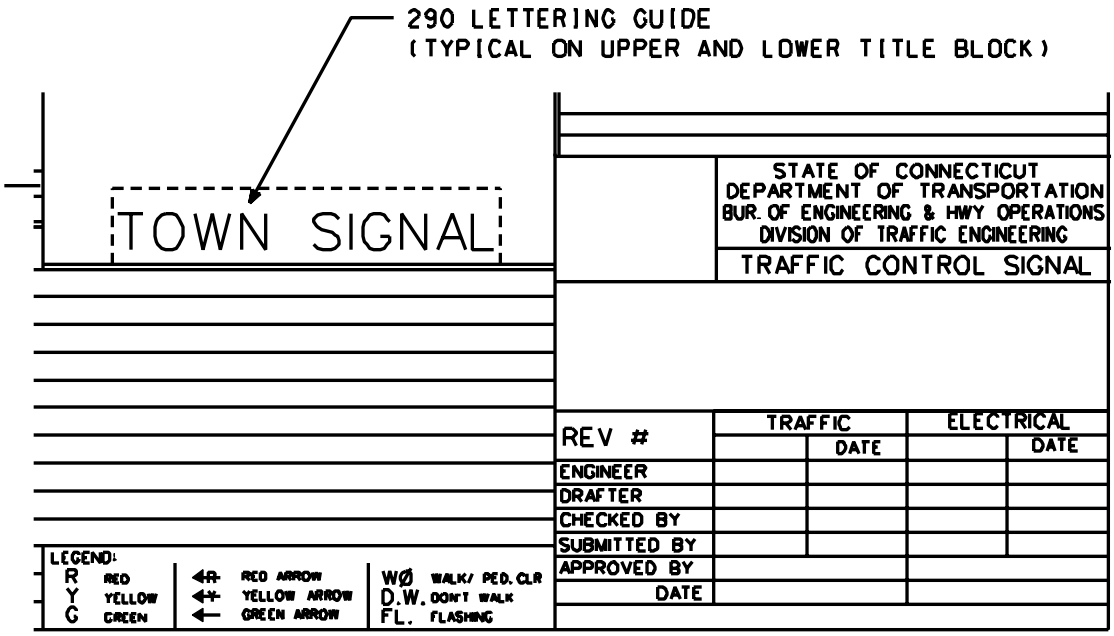
OPTIONAL LEGEND TO BE INCLUDED WHEN APPLICABLE:

- PROPOSED STEEL COMBINATION SPAN POLE
- EXISTING STEEL COMBINATION SPAN POLE
- MICROWAVE DETECTOR
- PROPOSED LUMINAIRE

USE #411 TEMPLATE FOR CIRCLES AND SQUARES.

SCALE: NONE
DRAFT13.DGN (A)

SIGNAL PLANS DESIGNATED AS TOWN SIGNALS



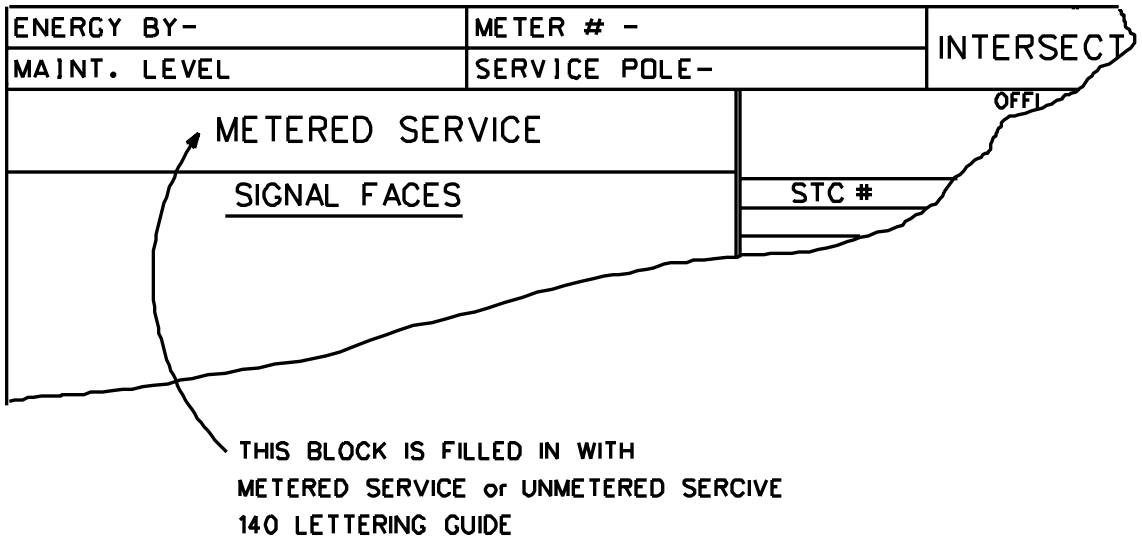
USE #411 TEMPLATE FOR CIRCLES AND SQUARES.

SCALE: NONE
DRAFT14.DGN (A)

ENERGY BLOCK

for

METERED or UNMETERED SERVICE



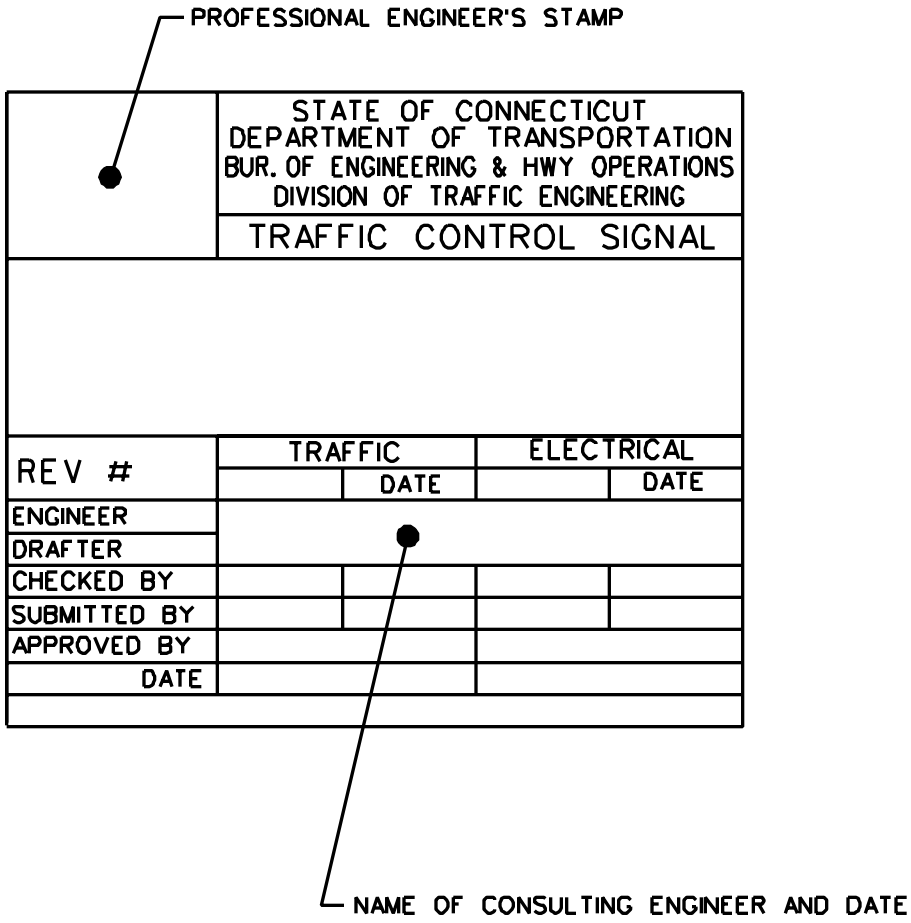
USE #411 TEMPLATE FOR CIRCLES AND SQUARES.

SCALE: NONE
DRAFT15.DGN (A)

REVISED TITLE BLOCK

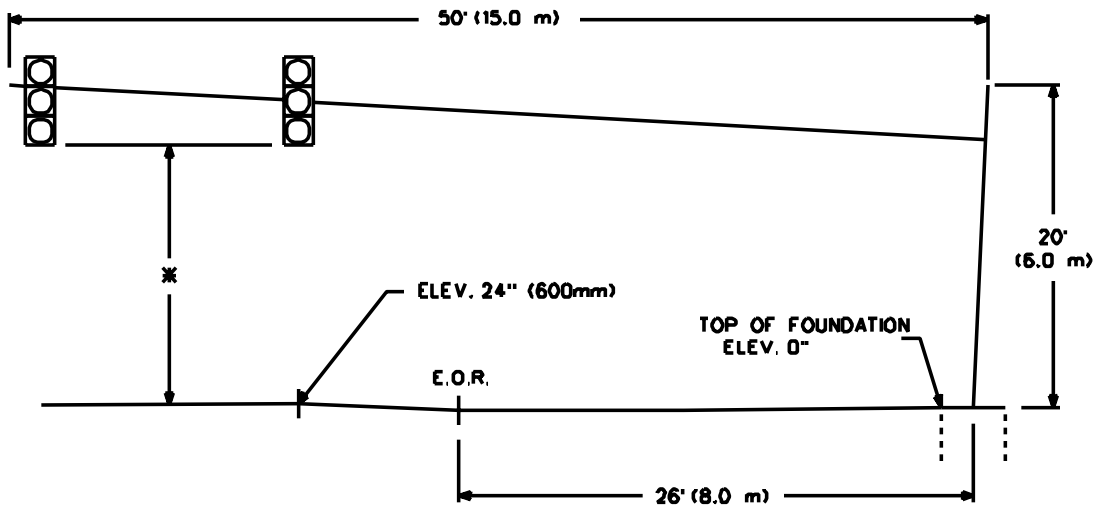
FOR

CONSULTING ENGINEERS

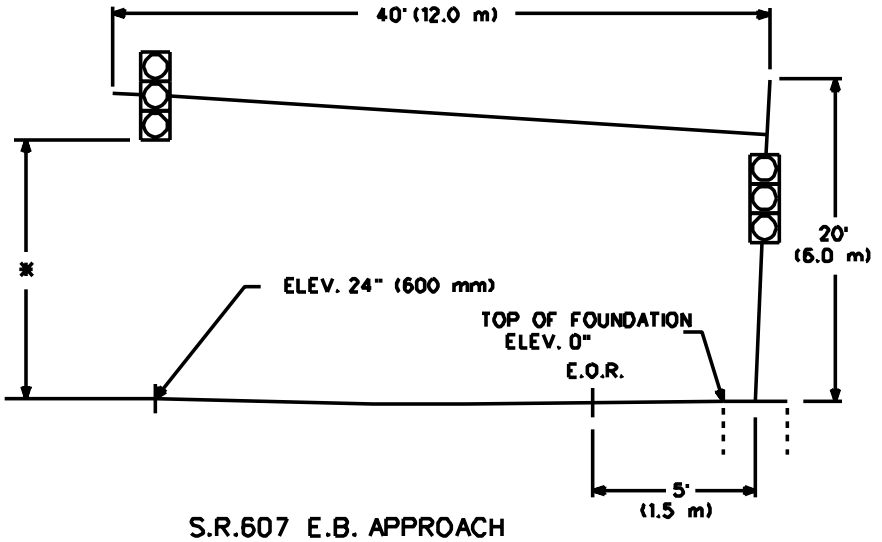


SCALE: NONE
DRAFT16.DGN (A)

TYPICAL MAST ARM DETAIL



S.R.607 W.B. APPROACH
50' (15.0 m) MAST ARM DETAIL
NO SCALE



S.R.607 E.B. APPROACH
40' (12.0 m) MAST ARM DETAIL
NO SCALE

* DISTANCE BETWEEN ROAD AND SIGNAL HEAD SHALL BE 16' (4.9 m) TO 18' (5.5 m).

CROSS SECTION IS IN LINE WITH MAST ARM.

CONTRACTOR TO VERIFY MAST ARM INFORMATION PRIOR TO ORDERING MAST ARMS, PER SPECIAL PROVISIONS.

ALL MAST ARM MOUNTED TRAFFIC SIGNALS AND SIGNS ARE FIXED MOUNTED TO THE ARM BY USE OF ADJUSTABLE BRACKETS.

MAST ARM LENGTH SHOULD BE MEASURED FROM BACK OF FOUNDATION.

DRAFT17.DGN (A) SCALE: NONE

PROJ # XXX-XXX	INT # XXX-XXX

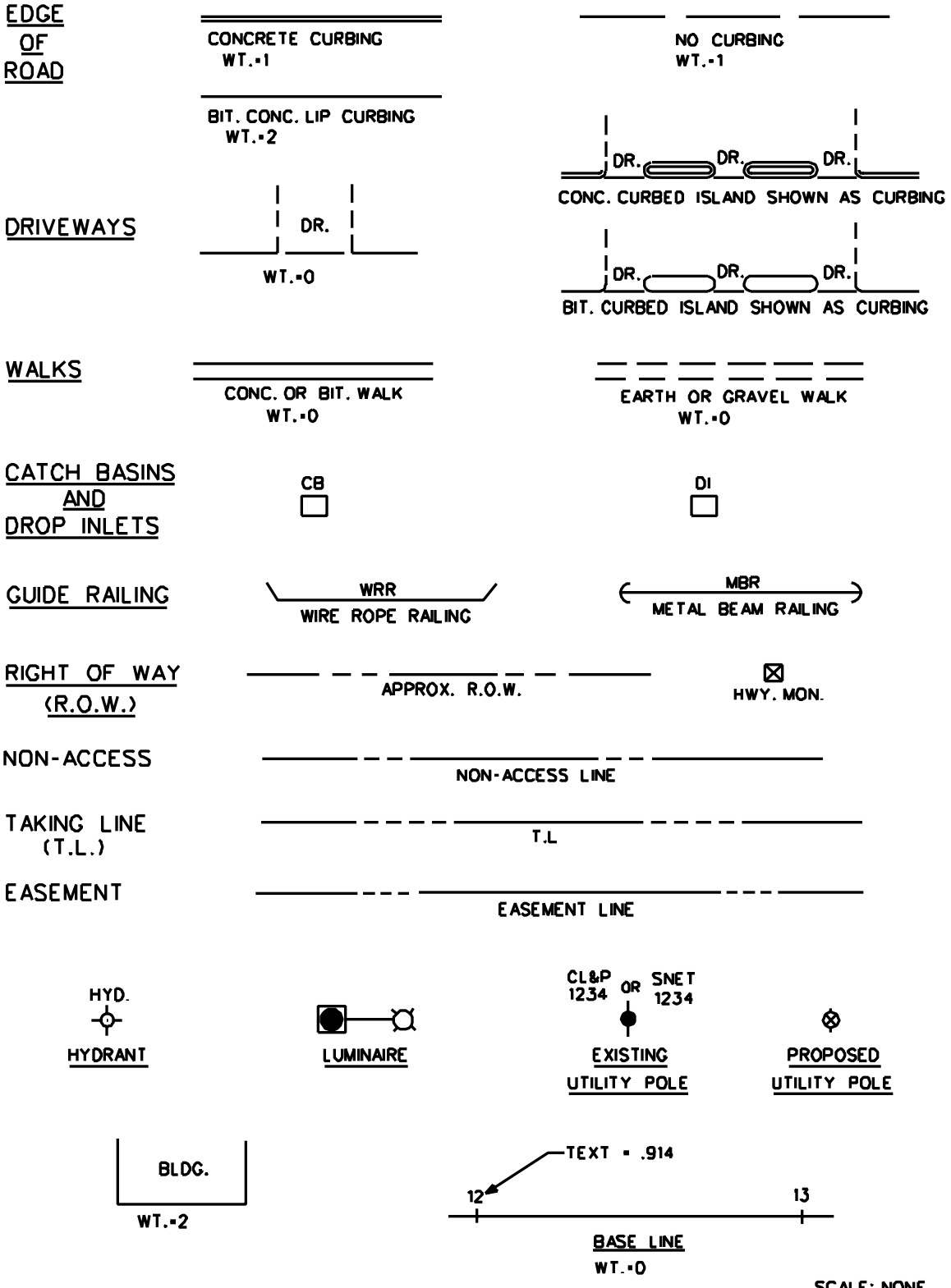
C.A.D.D.

DRAFTING

GUIDELINES

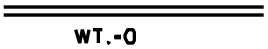
DRAFT21.DGN (8)

STANDARD CONVENTIONS



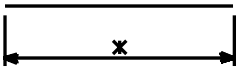
PAVEMENT MARKINGS

CENTERLINE



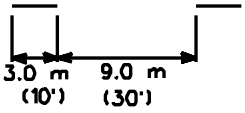
WT.-0

LANE LINE



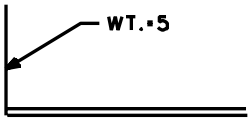
X DIMENSION LANE LINE
IF LENGTH IS OTHER THAN 15 m.(50')
IF 15 m (50') (STANDARD) OMIT DIMENSION

SOLID AND SKIP LINES
WT.-2



OMIT DIMENSIONS ON PLAN
(SHOWN FOR DRAWING
PURPOSES ONLY)

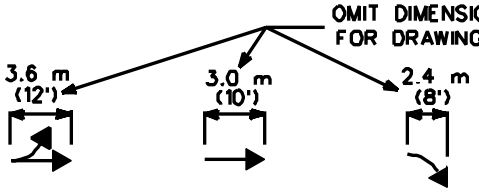
STOP BAR



PAVEMENT EDGE LINE
(PAINTED)

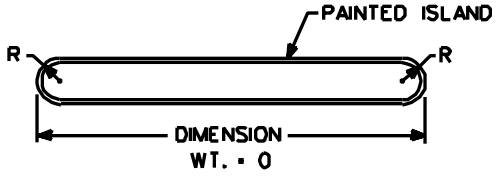
WT.-2

DIRECTIONAL ARROWS



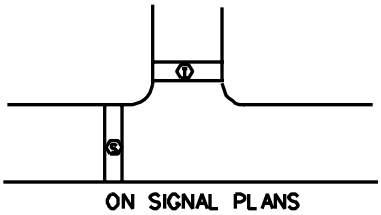
ARROW HEADS
WT.-1

PAINTED ISLAND



ARROW ON TEMPLATE #411

CROSSWALKS



ON SIGNAL PLANS
WT.-0

SAMPLE NOTES (METRIC)

Ⓢ BAR TYPE CROSSWALK (0.4 - 0.4 X 2.4 MIN) - STATE MAINTAINED

Ⓣ BAR TYPE CROSSWALK (0.4 - 0.4 X 2.4 MIN) - TOWN MAINTAINED

SAMPLE NOTES (ENGLISH)

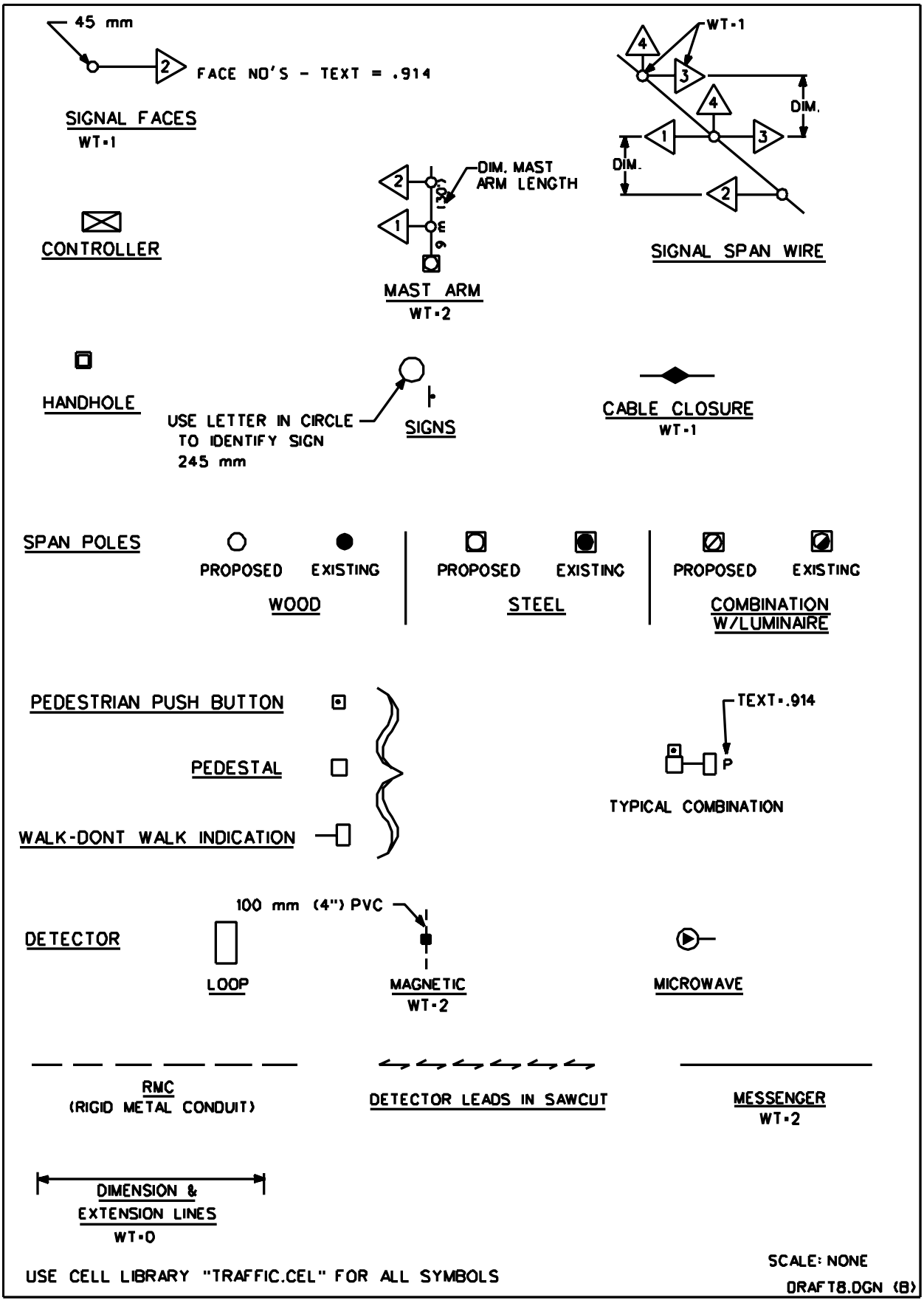
Ⓢ BAR TYPE CROSSWALK (16" - 16" X 8' MIN) - STATE MAINTAINED

Ⓣ BAR TYPE CROSSWALK (16" - 16" X 8' MIN) - TOWN MAINTAINED

USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

SCALE: NONE

DRAFT7.DGN (B)


45 mm
2
FACE NO'S - TEXT = .914
SIGNAL FACES
WT-1
WT-1
4
3
4
DIM.
1
3
DIM.
2
SIGNAL SPAN WIRE
DIM. MAST ARM LENGTH
2
1
CONTROLLER
MAST ARM
WT-2
HANDHOLE
USE LETTER IN CIRCLE TO IDENTIFY SIGN
245 mm
SIGNS
CABLE CLOSURE
WT-1
SPAN POLES
PROPOSED
EXISTING
WOOD
PROPOSED
EXISTING
STEEL
PROPOSED
EXISTING
COMBINATION W/LUMINAIRE
PEDESTRIAN PUSH BUTTON
PEDESTAL
WALK-DONT WALK INDICATION
TEXT=.914
P
TYPICAL COMBINATION
DETECTOR
100 mm (4") PVC
LOOP
MAGNETIC
WT-2
MICROWAVE
RMC
(RIGID METAL CONDUIT)
DETECTOR LEADS IN SAWCUT
MESSENGER
WT-2
DIMENSION & EXTENSION LINES
WT-0
USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS
SCALE: NONE
DRAFT8.DGN (8)

PROCEDURE FOR NOTING DETECTORS, SIGN LEGEND, NOTES AND DIMENSIONING APPURTENANCES

NOTES

STATE TO MAINTAIN ALL PAVEMENT MARKINGS ON ROUTE 3 AND STOP BAR ON WEST MAIN ST.

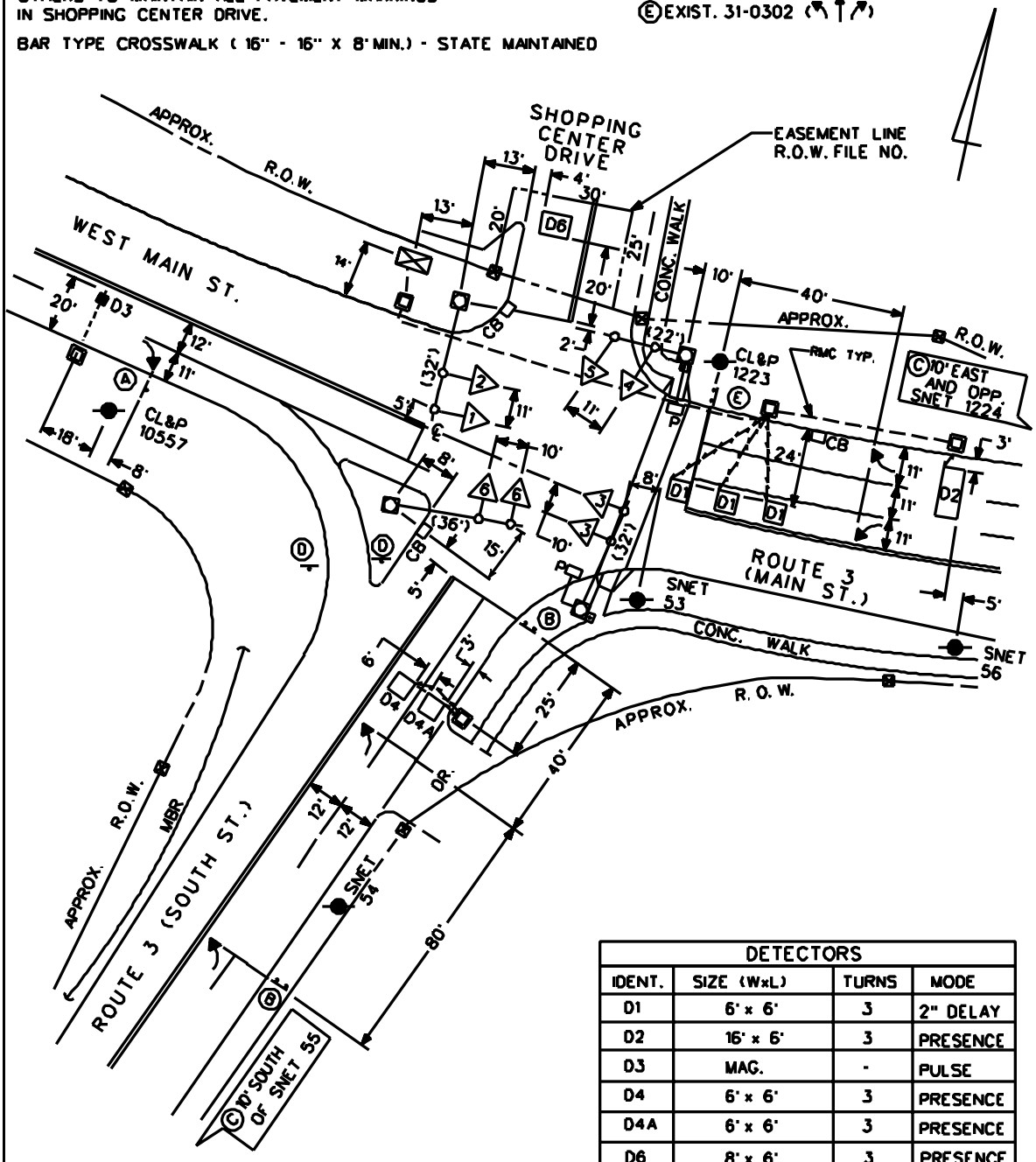
TOWN TO MAINTAIN ALL OTHER PAVEMENT MARKINGS ON WEST MAIN ST.

OTHERS TO MAINTAIN ALL PAVEMENT MARKINGS IN SHOPPING CENTER DRIVE.

BAR TYPE CROSSWALK (16" - 16" X 8' MIN.) - STATE MAINTAINED

SIGN LEGEND

- (A) ERECT 31-0118Z (RT. LA. MUST TN. RT.)
- (B) ERECT 31-0282 (↖ ↑ ↗)
- (C) EXIST. 41-0836 (SIG. AH.)
- (D) ERECT 31-0523 (YIELD)
- (E) EXIST. 31-0302 (↖ ↑ ↗)



DETECTORS			
IDENT.	SIZE (WxL)	TURNS	MODE
D1	6' x 6'	3	2" DELAY
D2	16' x 6'	3	PRESENCE
D3	MAG.	-	PULSE
D4	6' x 6'	3	PRESENCE
D4A	6' x 6'	3	PRESENCE
D6	8' x 6'	3	PRESENCE

ENGLISH DIMENSIONS - FOR METRIC DIMENSIONS SEE PAGE 124 OF THE MANUAL.
USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

SCALE: NONE
DRAFT20.DGN (A)

CADD TEXT SIZES
TO BE USED ON SIGNAL PLANS

NOTE:
FREE HAND AND TYPED LETTERING. PRESSURE SENSITIVE GRAPHIC AIDS NOT ACCEPTABLE.*** INCLUDE ALL AFFECTED ROADWAYS. DRIVES AND OTHER APPURTANANCES CONSIDERED NECESSARY FOR THE TRAFFIC SIGNAL INSTALLATION.

<table>
<tr><th colspan="2">TEXT SIZE = .914 (3)</th></tr>
<tr><td>POLE CO. & NO.
C.B. & D.I.
DRIVES
DIMENSIONS
W.R.R. & M.B.R.
SIDEWALKS
HYD.
PAVEMENT EDGE LINE
EDGE OF CONC.
EDGE OF TRAVELWAY
APPROX. R.O.W.</td><td>BLDGS.
PROPERTY OF
℄
SIGNS
OFFICE RECORDS
INITIALS & DATES
NOTES
ELECTRICAL
SIGNAL FACES
DETECTORS
STATIONS (WHEN BASE LINE SHOWN)</td></tr>
<tr><th>TEXT SIZE - 1.219 (4)</th><th>TEXT SIZE - 1.524 (5)</th></tr>
<tr><td>STREET NAMES
ROUTE NUMBERS
TITLE BLOCK
SEQUENCE & TIMING</td><td>CONSTRUCTION NOTES
INTERSECTION NO'S.</td></tr>
</table>

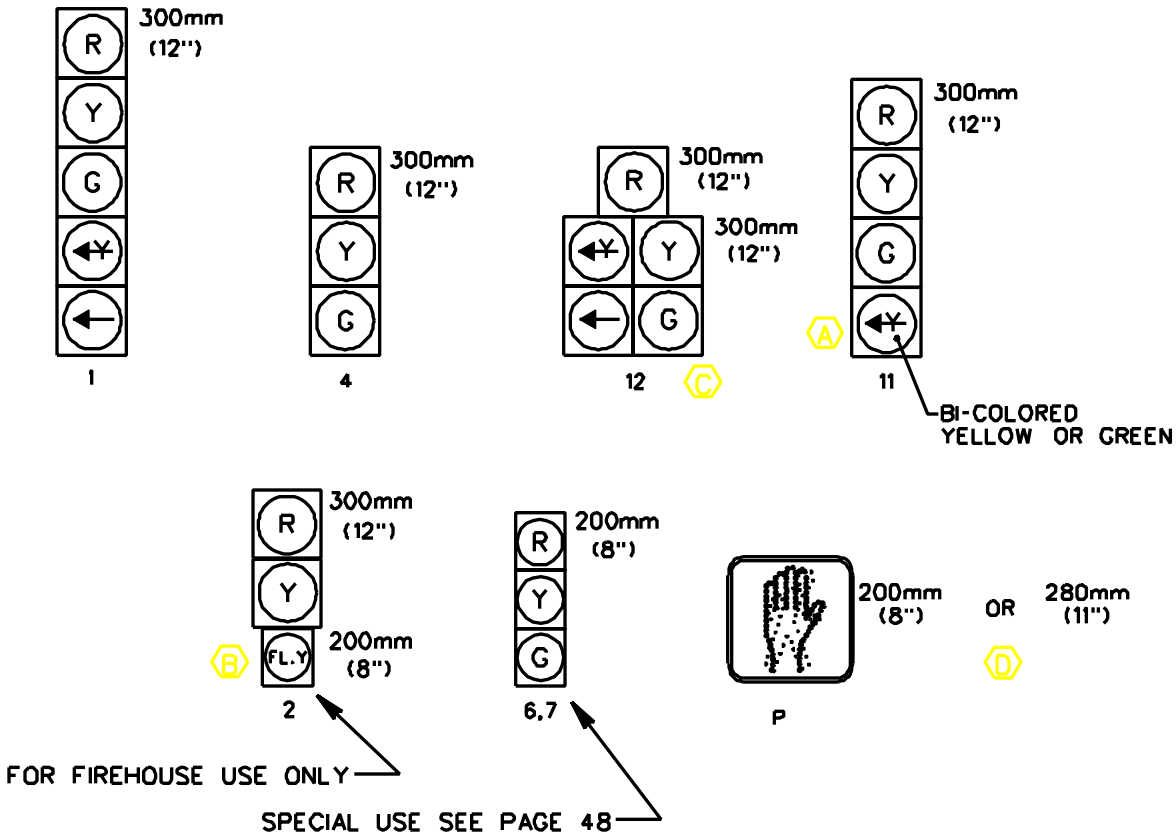
*** TYPED LETTERING. PRESURE SENSITIVE GRAPHIC AIDS ALLOWED UNDER CONSTRUCTION NOTES ONLY.

SCALE: NONE

DRAFT9.DGN (B)

TRAFFIC SIGNAL FACES

SHOW APPROPRIATE FACES ON SIGNAL PLAN



SIGNAL FACES

USE APPROPRIATE DIMENSIONS TO MATCH SCALE OF SIGNAL PLAN, METRIC OR IMPERIAL.

HOUSING, ARROWS -WT=2

COLORS (R,Y,G) - TEXT=4)

(A) BI - COLORED ARROW (LABEL AS SUCH)

(B) TEXT=3 FOR FL.Y

(C) TYPICAL "DOGHOUSE" CONFIGURATION

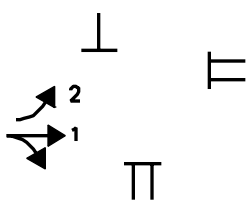
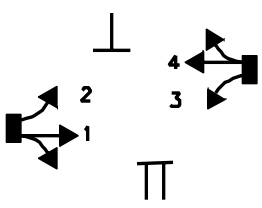
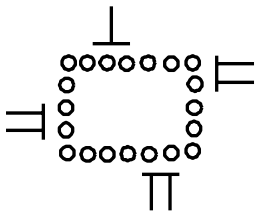
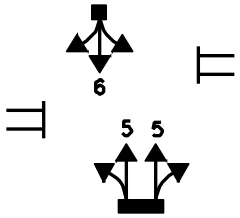
(D) DIMENSIONS REPRESENT PEDESTRIAN SYMBOL SIZE

USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

SCALE: NONE
DRAFT10.DGN (B)

MOVEMENT DIAGRAMS

(APPLY ON ALL SIGNAL PLANS)

MOVEMENT DIAGRAM			
PHASE 1	PHASE 2	PHASE 3	PHASE 4
			

EVERYTHING WT-1 UNLESS OTHERWISE SPECIFIED

FACE NO.'S - TEXT-3

ALL DETECTORS FILLED IN (SHOW ONLY WITH ASSOCIATED PHASE.)

WALK SYMBOLS (oooo) USE 1/16" DIA CIRCLE 00 PEN

USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

SCALE: NONE

DRAFT11.DGN (B)

TRAFFIC CONTROL SIGNAL PLAN

OFFICE RECORD

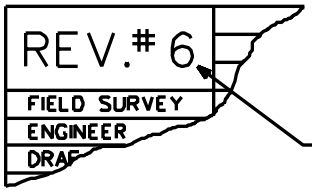
OFFICE RECORD	
JOB #	SM #
SIGNAL IN OPERATION	

NEW SIGNAL

OFFICE RECORD	
REVISION # 6	
JOB #	SM #
SIGNAL REVISED	
(DESCRIPTION OF REVISION)	

SIGNAL REVISION
ON
NEW PLAN

(REVISION NUMBERS TO BE ADDED WHEN SIGNAL REVISED DATE IS ADDED- OTHERWISE LEAVE BLANK)



ADD REV. # IN TITLE BLOCK. USE EDIT FIELD

OFFICE RECORD	
JOB # 76-8905-03	SM # 12345
SIGNAL IN OPERATION	
REVISION # 1	
JOB #	SM #
TRAFFIC DESIGN	ELECT. DESIGN
SIGNAL REVISED	
(DESCRIPTION OF REVISION)	

SIGNAL REVISED
ON
EXISTING PLAN

USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

SCALE: NONE
DRAFT12.DGN (B)

LEGEND USED ON SIGNAL PLANS

LEGEND			
R	RED		PROPOSED CONTROLLER
Y	YELLOW		EXISTING CONTROLLER
G	GREEN		PROPOSED HANDHOLE
	RED ARROW		EXISTING HANDHOLE
	YELLOW ARROW		PROPOSED (R.M.C.) RIGID METAL CONDUIT
	GREEN ARROW		EXISTING (R.M.C.) RIGID METAL CONDUIT
WØ	WALK/ FL. D.W.		CABLE CLOSURE
D.W.	DON'T WALK		DET. LEADS IN SAW CUT
FL.	FLASHING		AUXILIARY TERMINATION CABINET
	PROPOSED WOOD SPAN POLE		AUXILIARY EQUIPMENT CABINET
	EXISTING WOOD SPAN POLE		AUDIBLE PEDESTRIAN SIGNAL
	PROPOSED STEEL SPAN POLE		
	EXISTING STEEL SPAN POLE		
	PROPOSED UTILITY POLE		
	EXISTING UTILITY POLE		
	PEDESTAL MOUNTING		
	PEDESTRIAN PUSH BUTTON & SIGN		
	TRAFFIC SIGNAL FACE		
	PEDESTRIAN SIGNAL FACE		
	LOOP DETECTOR		
	MAGNETIC DETECTOR		
SD	SYSTEM DETECTOR		
	OPTICAL DETECTOR		

OPTIONAL LEGEND TO BE INCLUDED WHEN APPLICABLE:

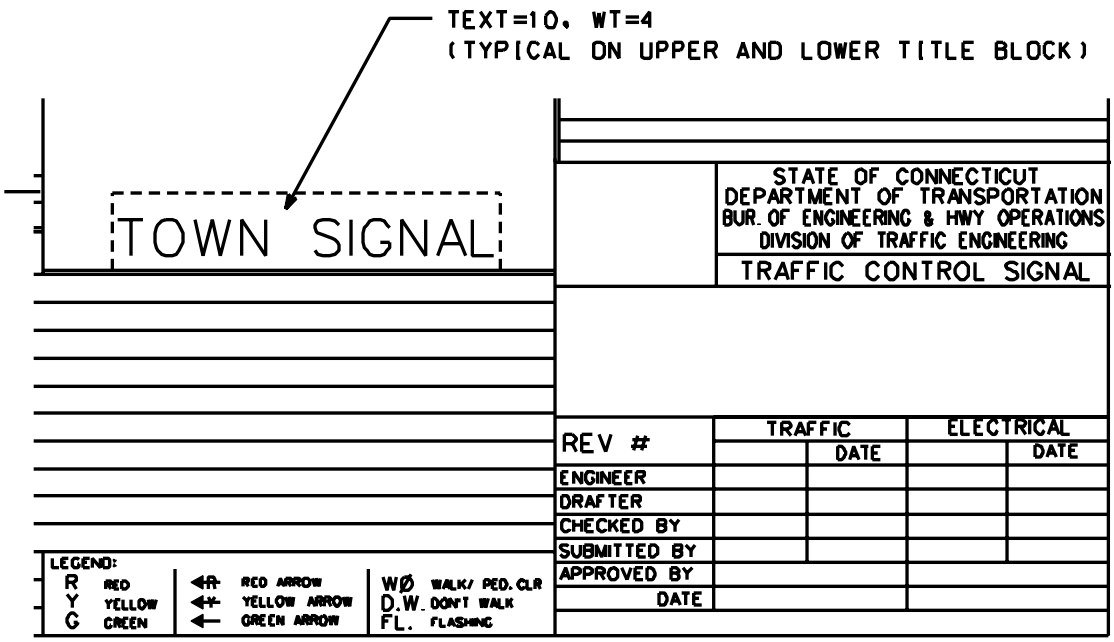
- PROPOSED STEEL COMBINATION SPAN POLE
- EXISTING STEEL COMBINATION SPAN POLE
- MICROWAVE DETECTOR
- PROPOSED LUMINAIRE

USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

SCALE: NONE

DRAFT13.DGN (B)

SIGNAL PLANS DESIGNATED AS TOWN SIGNALS



USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

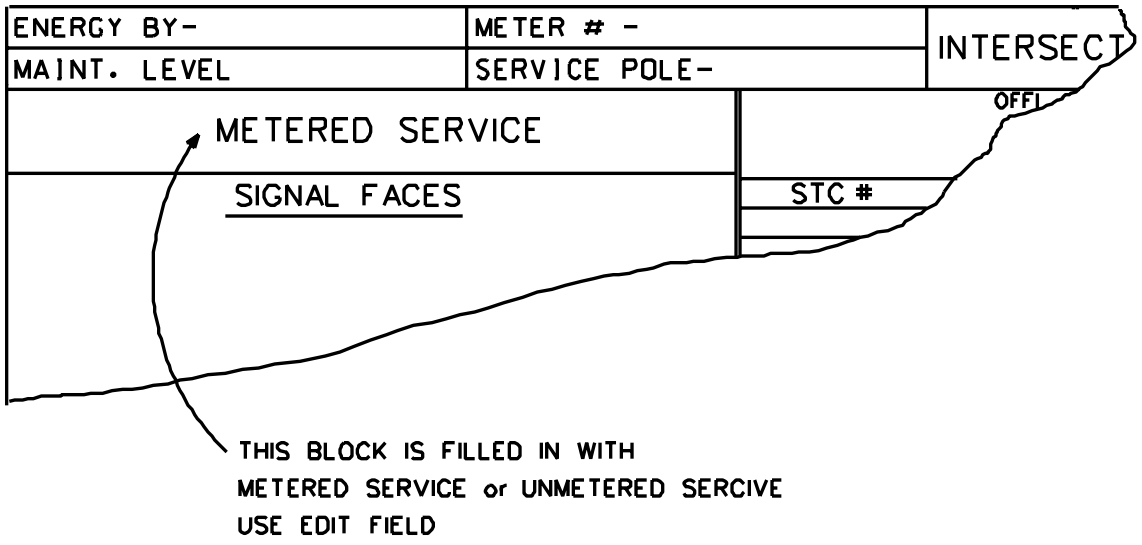
SCALE: NONE

DRAFT14.DGN (B)

ENERGY BLOCK

for

METERED or UNMETERED SERVICE



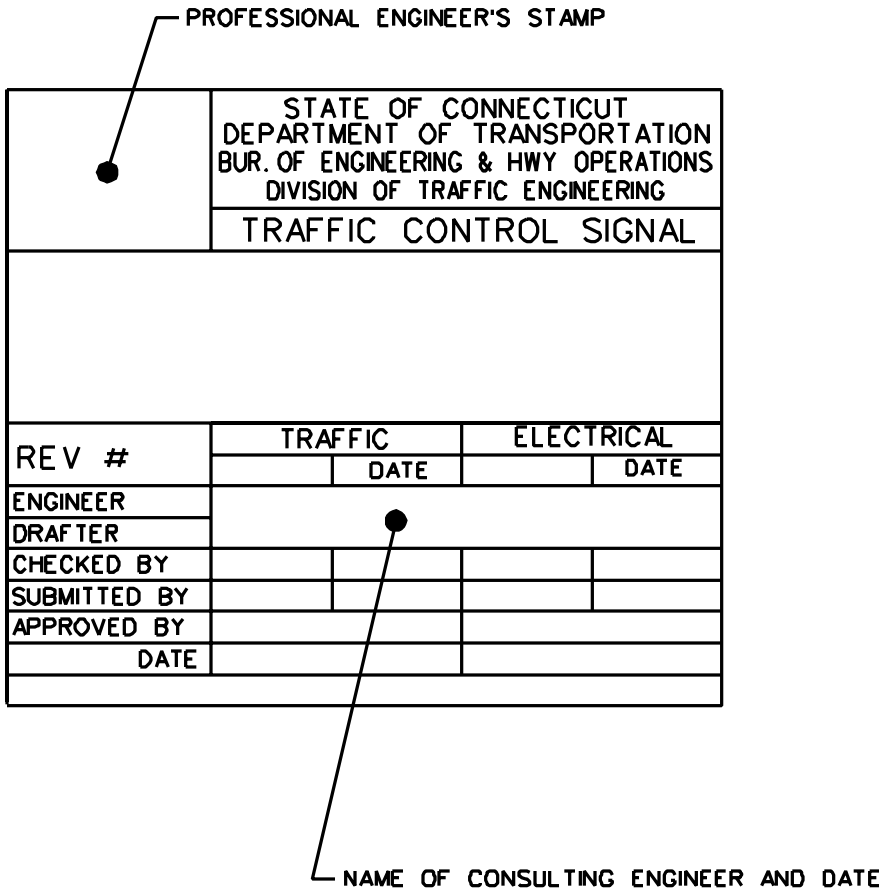
USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

SCALE: NONE
DRAFT15.DGN (B)

REVISED TITLE BLOCK

FOR

CONSULTING ENGINEERS

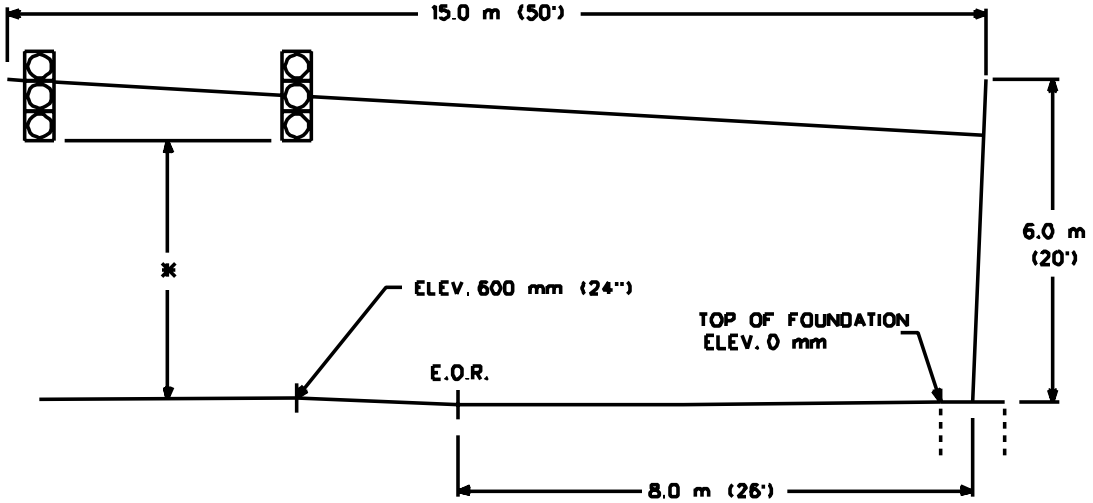


USE CELL LIBRARY "TRAFFIC.CEL" FOR ALL SYMBOLS

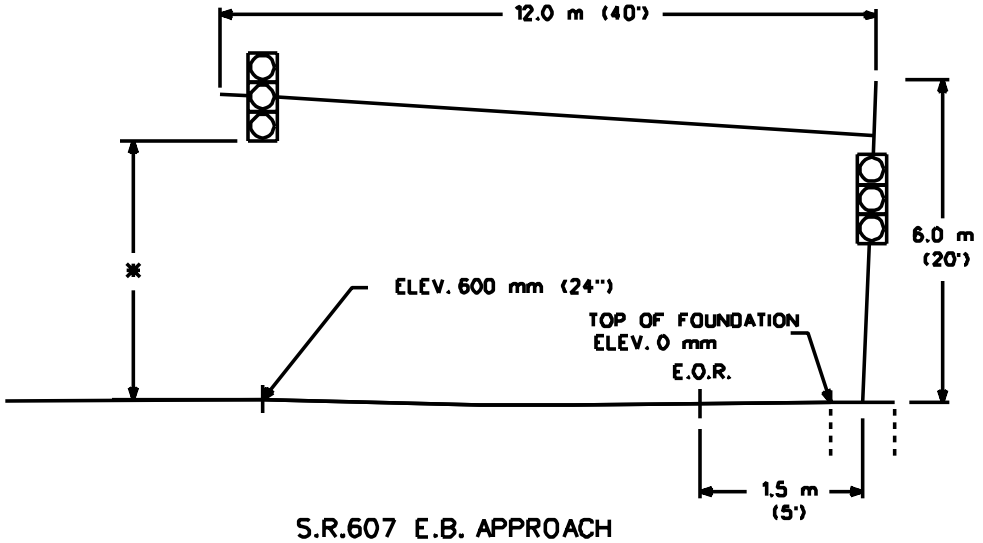
SCALE: NONE

DRAFT16.DGN (8)

TYPICAL MAST ARM DETAIL



S.R.607 W.B. APPROACH
15.0 MAST ARM DETAIL
NO SCALE



S.R.607 E.B. APPROACH
12.0 m (40') MAST ARM DETAIL
NO SCALE

* DISTANCE BETWEEN ROAD AND SIGNAL HEAD SHALL BE 4.9 m (16') TO 5.5 m (18').

CROSS SECTION IS IN LINE WITH MAST ARM.

CONTRACTOR TO VERIFY MAST ARM INFORMATION PRIOR TO ORDERING MAST ARMS, PER SPECIAL PROVISIONS.

ALL MAST ARM MOUNTED TRAFFIC SIGNALS AND SIGNS ARE FIXED MOUNTED TO THE ARM BY USE OF ADJUSTABLE BRACKETS.

MAST ARM LENGTH SHOULD BE MEASURED FROM BACK OF FOUNDATION.

DRAFT17.DGN (A) SCALE: NONE

PROJ # XXX-XXX	INT # XXX-XXX

Dimensional Guide for Lane Widths, Shoulder Widths and Loop Detectors

Shoulder Widths	
FEET	METERS
1	0.3
2	0.6
3	0.9
4	1.2
5	1.5
6	1.8
7	2.1
8	2.4

Lane Widths	
FEET	METERS
9	2.7
10	3.0
11	3.3
12	3.6
13	3.9
14	4.2
15	4.5
16	4.9

Loop Detectors	
FEET	METERS
6 X 6	1.8 X 1.8
6 X 7	1.8 X 2.1
6 X 8	1.8 X 2.4
6 X 9	1.8 X 2.7
6 X 10	1.8 X 3.0
6 X 11	1.8 X 3.3
6 X 12	1.8 X 3.6
6 X 13	1.8 X 3.9

Loop Detectors	
FEET	METERS
6 X 14	1.8 X 4.2
6 X 15	1.8 X 4.5
6 X 16	1.8 X 4.8
6 X 17	1.8 X 5.2
6 X 18	1.8 X 5.5
6 X 19	1.8 X 5.8
6 X 20	1.8 X 6.1