# TOWN OF SHARON ENGINEERING DEPARTMENT

## NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS

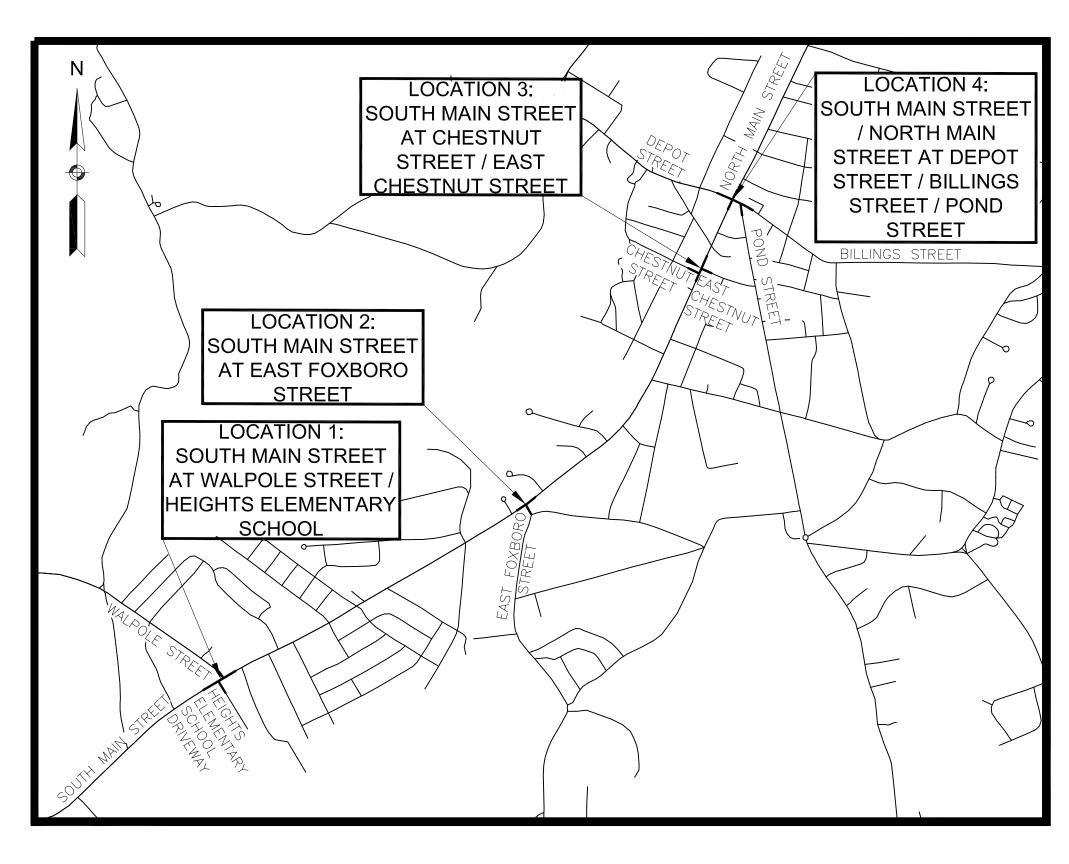
SHARON
NORFOLK COUNTY

#### **INDEX**

TEMPORARY TRAFFIC CONTROL PLANS

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11	TRAFFIC SIGN SUMMARY

12-14



0 400 800 1200 1600

SCALE: 1" = 400'

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.





PREPARED FOR
TOWN OF
SHARON
ENGINEERING
DEPARTMENT
SHARON, MA



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMEN AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A

NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS, SHARON, MA

lo.	Submittal / Revision	App'd.	Ву	Date

signed By: AR	Drawn By: AR	Checked By: JM
sue Date:	Contract No:	Scale:
1/04/2023	ı	

Drawing No.:
TITLE SHEET & INDEX
1 OF 14

GENERAL S		
EXISTING	PROPOSED	DESCRIPTION
□ JB	JB	JERSEY BARRIER
⊞ ⊕ ⊕ CB	⊞ СВ	CATCH BASIN
		CATCH BASIN CURB INLET
	<b>⊚</b> FP	FLAG POLE
G GP	G GP	GAS PUMP
□ MB	□ MB	MAIL BOX
		POST SQUARE
⊕ WELL	O WELL	POST CIRCULAR WELL
- EHH	- EHH	ELECTRIC HANDHOLE
0	0	FENCE GATE POST
o GG	o GG	GAS GATE
⊕ BHL #	◆ BHL#	BORING HOLE
→ MW #	→ MW#	MONITORING WELL
TP #	■ TP#	TEST PIT
Ŷ.	φ Φ	HYDRANT
· · · · · · · · · · · · · · · · · · ·	*	COUNTY BOUND
0 <b>A</b>		GPS POINT
©	©	CABLE MANHOLE
0	0	DRAINAGE MANHOLE
E	Ē	ELECTRIC MANHOLE
G	0	GAS MANHOLE
M	<b>W</b>	MISC MANHOLE
<u>(S)</u>	<u> </u>	SEWER MANHOLE
T (w)	(T)	TELEPHONE MANHOLE WATER MANHOLE
 ■ MHB	■ MHB	MASSACHUSETTS HIGHWAY BOUND
- MON	- WITE	MONUMENT
□ SB		STONE BOUND
■ TB		TOWN OR CITY BOUND
Δ		TRAVERSE OR TRIANGULATION STATION
→ TPL or GUY	→ TPL or GUY	TROLLEY POLE OR GUY POLE
o HTP		TRANSMISSION POLE
-b- UFB	-∳- UFB	UTILITY POLE W/ FIREBOX
	-∲ UPDL	UTILITY POLE WITH DOUBLE LIGHT  UTILITY POLE W / 1 LIGHT
_\$_ ULT -0- UPL	-&- ULT >- UPL	UTILITY POLE W/ 1 LIGHT
0	OI L	BUSH
•SIZE & TYPE		TREE
0		STUMP
<u> 4</u>		SWAMP / MARSH
• WG	• WG	WATER GATE
• PM	• PM	PARKING METER  OVERHEAD CABLE/WIRE
		= CURBING
	-	- CONTOURS (ON-THE-GROUND SURVEY DATA)
<u></u>	-	CONTOURS (PHOTOGRAMMETRIC DATA)
		- UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		- UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		- UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
	-	- UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		<ul> <li>UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)</li> <li>UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)</li> </ul>
00000000000		BALANCED STONE WALL
	1 1 1	GUARD RAIL - STEEL POSTS
0 0 0 0		- GUARD RAIL - WOOD POSTS
- I I I I	<del>-I I I I</del>	GUARD RAIL - DOUBLE FACE - STEEL POSTS
0 0 0	B B B B	- GUARD RAIL - DOUBLE FACE - WOOD POSTS
x	x	CHAIN LINK OR METAL FENCE
		- WOOD FENCE
		HAY BALES/SILT FENCE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		- LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
	-	BANK OF RIVER OR STREAM
	-	BORDER OF WETLAND
	-	100 FT WETLAND BUFFER
	-	200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		- COUNTY LAYOUT - RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		DDODEDTY LINE OD ADDDOVIMATE DDODEDTY LINE

PROPERTY LINE OR APPROXIMATE PROPERTY LINE

	TRAFFIC SY	MBOLS								
	EXISTING	PROPOSED	DESCRIPTION							
	<b>Ø</b> 1	<b>Ø</b> 1	CONTROLLER PHASE ACTUATED							
	0	000	TRAFFIC SIGNAL HEAD (SIZE AS NOTED)							
			WIRE LOOP DETECTOR							
		Ħ	VIDEO DETECTION CAMERA							
	D	▶8	MICROWAVE DETECTOR							
		•	SINGLE POINT VIDEO DETECTION CAMERA							
	$\oplus$	•	PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN)							
	*	<b>*</b>	EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT							
	-	-	VEHICULAR SIGNAL HEAD							
	-	-	VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED							
	-	4	FLASHING BEACON							
	□		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)							
	⊠ RRSG	<b>⊠</b> RRSG	RAILROAD SIGNAL							
		•	SIGNAL POST AND BASE							
	—0		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)							
			HIGH MAST POLE OR TOWER							
		0	SIGN AND POST							
	00	00	SIGN AND POST (2 POSTS)							
		** 20' ●	MAST ARM WITH LUMINAIRE							
		_	OPTICAL PRE-EMPTION DETECTOR							
		$\bowtie$	CONTROL CABINET, GROUND MOUNTED							
		Å	CONTROL CABINET, POLE MOUNTED							
		<b>[</b> ••]	FLASHING BEACON CONTROL AND METER PEDESTAL							
		×	LOAD CENTER ASSEMBLY							
			PULL BOX 12"x12" (OR AS NOTED)							
			ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)							
			TRAFFIC SIGNAL CONDUIT							
- 1										

XISTING	PROPOSED	DESCRIPTION
$\Diamond$	<b>←</b> ∫	PAVEMENT ARROW - WHITE
OWLY	ONLY	LEGEND "ONLY" - WHITE
	SL	STOP LINE
	cw	CROSSWALK
	SWL	SOLID WHITE LINE
	SYL	SOLID YELLOW LINE
	BWL	BROKEN WHITE LINE
	BYL	BROKEN YELLOW LINE
	<u>DWL</u>	DOTTED WHITE LINE
	<u>DYL</u>	DOTTED YELLOW LINE
	DWLEx	DOTTED WHITE LINE EXTENSION
	DYLEx	DOTTED YELLOW LINE EXTENSION
	DBWL	DOUBLE WHITE LINE
	DBYL	DOUBLE YELLOW LINE

#### PAVEMENT NOTES

#### PROPOSED PAVEMENT MILL & OVERLAY

- 1.75" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
- 1.75" PAVEMENT STANDARD MILLING

ASPHALT EMULSION FOR TACK COAT @ 0.07-0.09 GAL/SY OVER EXISTING PAVEMENT OR MILLED SURFACE

#### **ABBREVIATIONS**

BIT.

GENERAL ANNUAL AVERAGE DAILY TRAFFIC AADT

ABAN ABANDON ADJ ADJUST APPROX. APPROXIMATE A.C.

ASPHALT CONCRETE ACCM PIPE ASPHALT COATED CORRUGATED METAL PIPE

BITUMINOUS

**BOTTOM OF CURB** BOUND

BD. BASELINE BLDG BUILDING BM **BENCHMARK** ВО BY OTHERS BOTTOM OF SLOPE

BOS BR. BRIDGE CB CATCH BASIN CBCI CATCH BASIN WITH CURB INLET CC CEMENT CONCRETE

CCM CEMENT CONCRETE MASONRY CEM CEMENT CI **CURB INLET** CIP CAST IRON PIPE

CLF CHAIN LINK FENCE CL CENTERLINE CMP CORRUGATED METAL PIPE CSP CORRUGATED STEEL PIPE CO. COUNTY CONC CONCRETE

CONT CONTINUOUS CONST CONSTRUCTION CR GR **CROWN GRADE** DHV DESIGN HOURLY VOLUME DI DROP INLET

DIA DIAMETER DIP DUCTILE IRON PIPE DW STEADY DON'T WALK - PORTLAND ORANGE DWY DRIVEWAY

ELEV (or EL.) ELEVATION EMB **EMBANKMENT** EOP **EDGE OF PAVEMENT** EXIST (or EX) EXISTING EXC **EXCAVATION** F&C FRAME AND COVER F&G FRAME AND GRATE **FOUNDATION FLDSTN** FIELDSTONE

GAR GARAGE GD **GROUND** GG **GAS GATE** GI **GUTTER INLET** GIP GALVANIZED IRON PIPE GRAN GRANITE

**GRAV** GRAVEL GRD GUARD **HDW** HEADWALL HMA HOT MIX ASPHALT HOR HORIZONTAL HYD HYDRANT INV INVERT JCT JUNCTION LENGTH OF CURVE LEACH BASIN LIGHT POLE LEFT MAX MAXIMUM MB **MAILBOX** 

MANHOLE MHB MASSACHUSETTS HIGHWAY BOUND MIN MINIMUM NIC NOT IN CONTRACT NO. NUMBER PC POINT OF CURVATURE PCC POINT OF COMPOUND CURVATURE PCR PEDESTRIAN CURB RAMP P.G.L. PROFILE GRADE LINE POINT OF INTERSECTION

POC POINT ON CURVE POT POINT ON TANGENT PRC POINT OF REVERSE CURVATURE PROJ PROJECT PROP PROPOSED PSB

PΙ

PT

PVC

PVI

PLANTABLE SOIL BORROW POINT OF TANGENCY POINT OF VERTICAL CURVATURE POINT OF VERTICAL INTERSECTION

PVT POINT OF VERTICAL TANGENCY **PVMT** PAVEMENT

ABBREVIATIONS (cont.)

ROAD

**ROADWAY** 

REMOVE

RAILROAD

RIGHT

RETAINING WALL

RIGHT OF WAY

STONE BOUND

SEWER MANHOLE

STOPPING SIGHT DISTANCE

STATE HIGHWAY LAYOUT LINE

TANGENT DISTANCE OF CURVE/TRUCK %

SHOULDER

STREET

STATION

SIDEWALK

**TANGENT** 

TYPICAL

VARIES

VERTICAL

**TEMPORARY** 

TOP OF CURB

TOP OF SLOPE

UTILITY POLE

WATER GATE

CROSS SECTION

CABINET

OVERLAP

**PULL BOX** 

**PEDESTRIAN** 

PAN, TILT, ZOOM

TRAFFIC SIGNAL

STEADY CIRCULAR RED

STEADY RED LEFT ARROW

TRAFFIC SIGNAL CONDUIT

STEADY WALKING PERSON

STEADY CIRCULAR YELLOW

STEADY YELLOW LEFT ARROW

STEADY RED RIGHT ARROW

VERTICAL CURVE

WHEEL CHAIR RAMP

WROUGHT IRON PIPE

WATER METER/WATER MAIN

TRAFFIC SIGNAL ABBREVIATIONS

STEADY UPRAISED HAND

FLASHING UPRAISED HAND

FLASHING CIRCULAR RED

FLASHING RED LEFT ARROW

FLASHING RED RIGHT ARROW

FLASHING CIRCULAR YELLOW

STEADY CIRCULAR GREEN

STEADY GREEN LEFT ARROW

STEADY GREEN RIGHT ARROW

STEADY GREEN SLASH LEFT ARROW

STEADY GREEN SLASH RIGHT ARROW

STEADY GREEN VERTICAL ARROW

FLASHING YELLOW LEFT ARROW

FLASHING YELLOW RIGHT ARROW

CLOSED CIRCUIT VIDEO EQUIPMENT

REMOVE AND RESET

REMOVE AND STACK

RETAIN

PAVED WATER WAY

RADIUS OF CURVATURE

REMOVE AND DISPOSE

REINFORCED CONCRETE PIPE

GENERAL

PWW

R&D

RD

RDWY

REM

RET

ROW

R&S

RT

SB

SHLD

SMH

ST

STA

SSD

SHLO

TAN

TEMP

TC

TOS

TYP

UP

VAR

**VERT** 

WCR

WG

WIP

WM

CAB

CCVE

DW

FR

FRL

FY

FYL

GR

GSL

GV

OL

FDW

X-SECT

VC

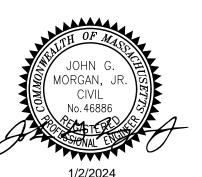
SW

**RET WALL** 



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SPECIFIC DESCRIPTION OF THE ALTERATION.

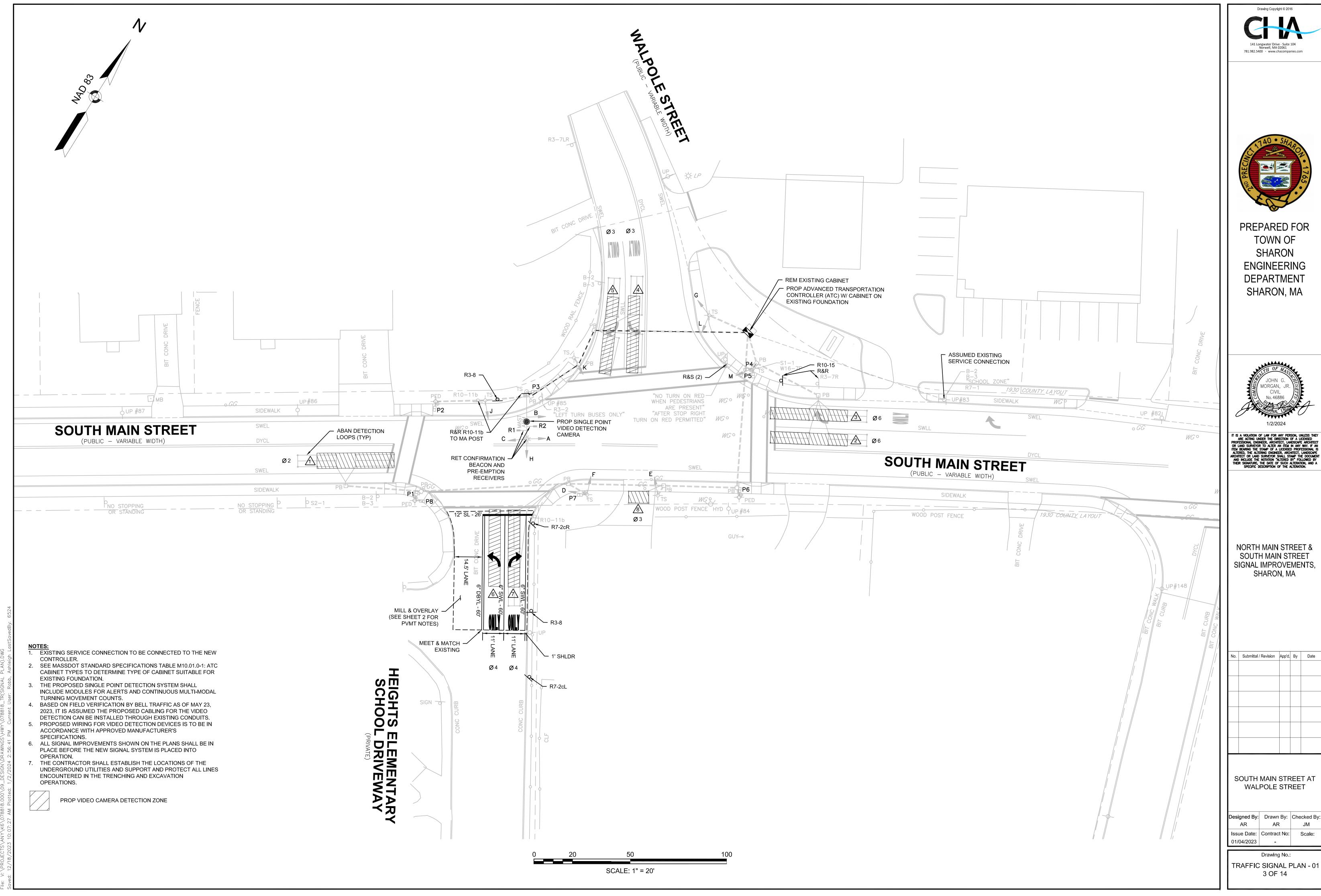
NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS, SHARON, MA

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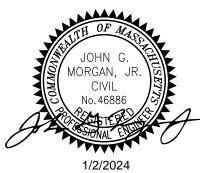
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— — — EASEMENT



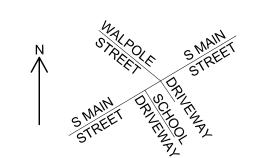






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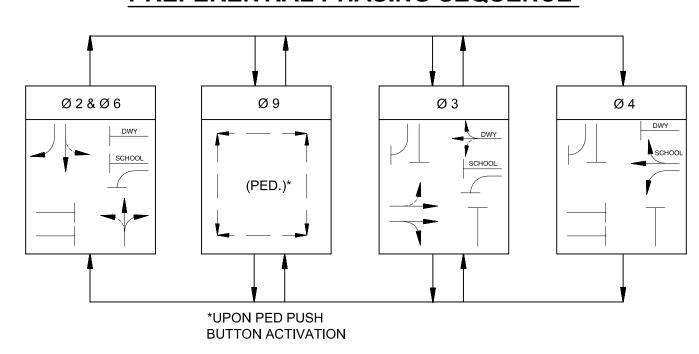
PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9
	DWY SCHOOL	SCHOOL	SCHOOL		SCHOOL SCHOOL			(PED.)

STREET	DIRECTION	HOUSINGS	1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLAS OPEF
SOUTH MAIN STREET	NB	C,D,M				G	,	Y	R	R	R	R	R	R	R				R	R	R							R	R	R	FY
SOUTH MAIN STREET	SB	A,B				R	ı	R	R	R	R	R	R	R	R				G	Υ	R							R	R	R	FY
WALPOLE STREET	EB	E,F,G				R	ı	R	R	G	Υ	R	R	R	R				R	R	R							R	R	R	FR
HEIGHTS ELEMENTARY SCHOOL	WB	H,J				R	ı	R	R	R	R	R	G	Υ	R				R	R	R							R	R	R	FR
DRIVEWAY	WB	K,L				R	i	R	R	G	Υ	R	R	R	R				R	R	R							R	R	R	FR
PEDESTRIAN	ALL	P1-P8				DW	D	w	DW	DW	DW	DW	DW	DW	DW				DW	DW	DW							W	FDW	DW	OUT
											TIM	ING IN	SECON	NDS																	
MINIMUM GREEN (INITIAL)						10				8			8						10												
PASSAGE TIME (VEHICLE)						4				3			3						4												
MAXIMUM 1						52.5				17			10						52.5												
MAXIMUM 2						29.5				12			8						29.5												
YELLOW CLEARANCE							4	0			3.5			3.5						4.0											C≺
RED CLEARANCE									2.5			2.5			2.5						2.5										NEN :
PEDESTRIAN CLEARANCE																												7	13	4	MERGENCY
																															Ш
RECALL				1	1		M	11N			OFF	1		NON	E		1	1		MIN				1			1		OFF	1	
MEMORY						1	NON-	-LOC	(	N	ON-LC	ICK	N	ON-LO	CK				N	ON-LC	)CK								LOCK		

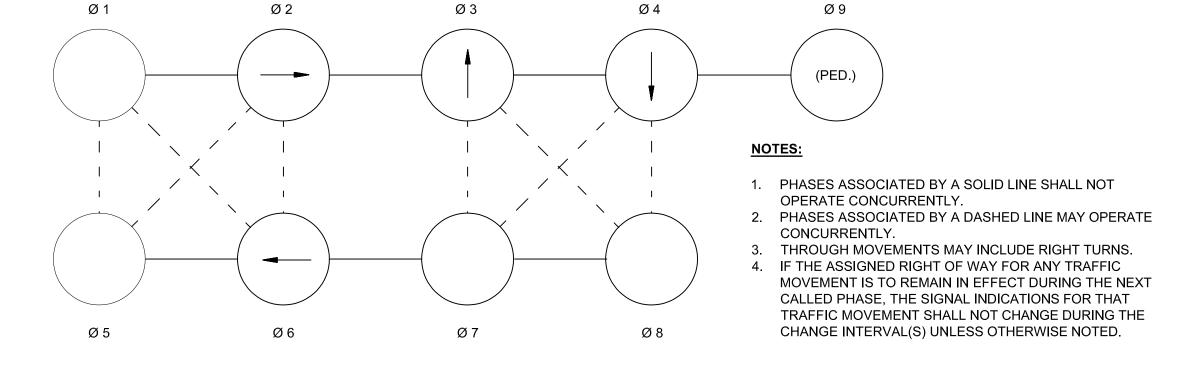
#### NOTES:

MAXIMUM 1 = WEEKDAY EVENING PEAK HOUR (2 - 6 PM)
 MAXIMUM 2 = ALL OTHER TIMES

#### PREFERENTIAL PHASING SEQUENCE



#### **NEMA DUAL RING PHASING NOTES:**



## FIRE PREEMPTION SCHEDULE

APPROACH		PREEMPTION PHASE	NEXT PHASE CALLED
NORTHBOUND	R1	2	2+6
SOUTHBOUND	R2	6	2+6

#### **EMERGENCY VEHICLE PREEMPTION OPERATION:**

- 1. EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
- 2. PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
- 3. IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAT TO BE SERVICED) AND ADVANCE TO AND/OR HOLD IN EMERGENCY VEHICLE PREEMPTION PHASE UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PREEMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
- 4. PREEMPTION MINIMUM GREENS SHALL BE TEN SECONDS.

  5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THA
- 5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
- 6. STROBE SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

		MAJOR ITEMS REQUIRED
PAY ITEM	QUANTITY	ITEM
	1	ADVANCED TRANSPORTATION CONTROLLER (ATC) W/CABINET
	1	SINGLE POINT VIDEO DETECTION CAMERA
816.01	1	EMERGENCY PRE-EMPTION PHASE SELECTOR
610.01	1	FIELD MONITORING UNIT (FMU) W/ 4GE LTE MODEM
	215	SIGNAL CABLE
		Plus all necessary duct, cable, labor, miscellaneous
		material and equipment to complete the installation.

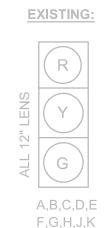
#### **DETECTION ZONE DATA**

DETECTOR NUMBER	DETECTION ZONE SIZE	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
$\triangle$	8'X40'	2	2	В	-	-
<u>^</u>	6'X40'	6	6	В	-	-
<u> </u>	6'X40'	6	6	В	-	-
4	6'X40'	3	3	В	1	-
<u>\$</u>	6'X40'	3	3	В	ı	-
	6'X40'	4	4	В	ı	-
$\triangle$	6'X40'	4	4	В	-	-
<u> </u>	6'X10'	3	3	В	-	-

#### SIGNAL IDENTIFICATION

16" L.E.D

ALL



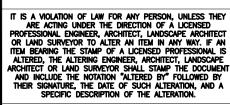
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ENGINEERING
DEPARTMENT
SHARON, MA





NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS, SHARON, MA

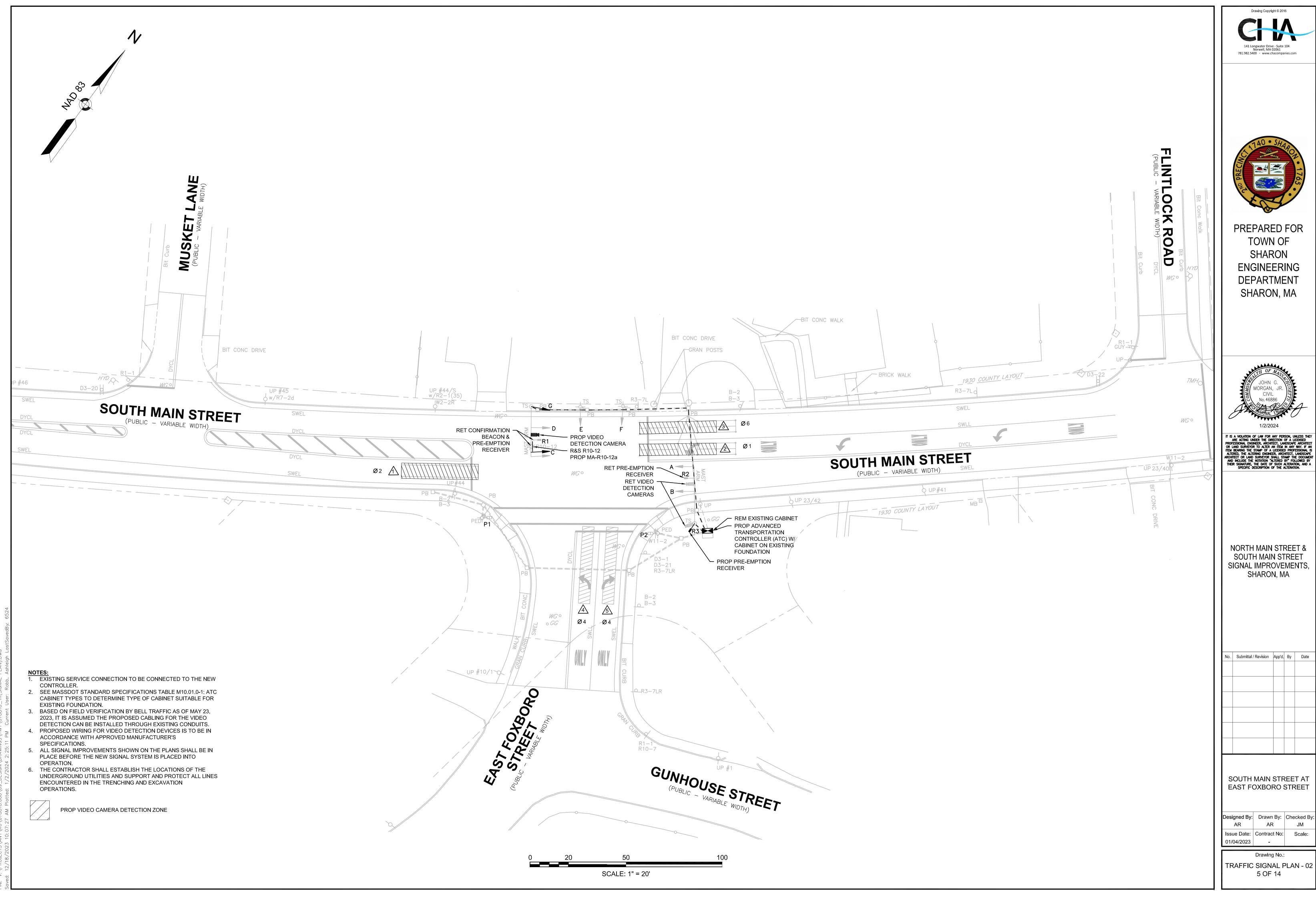
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SOUTH MAIN STREET AT WALPOLE STREET

Designed By: Drawn By: Checked By:
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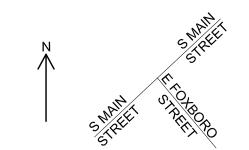
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01/04/2023 -

Drawing No.:
TRAFFIC SIGNAL DATA - 01
4 OF 14



Submittal / Revision	App'd.	Ву	Date

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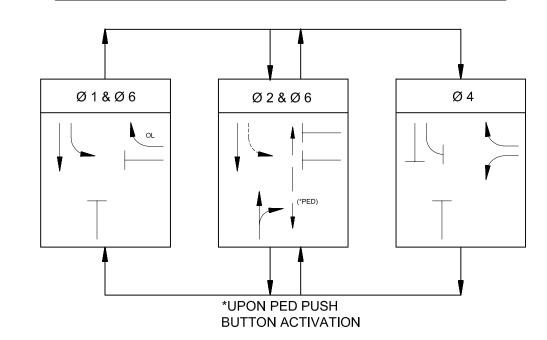
PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9
OL								
T	(PED)		T					

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26 2	FLASH OPER
SOUTH MAIN STREET	NB	A,B	R	R	R	G	Υ	R				R	R	R				R	R	R									FY
SOUTH MAIN STREET	SB	С	GLA	YLA	RLA	RLA	RLA	RLA				RLA	RLA	RLA				FYLA	YLA	RLA									FY
SOUTH MAIN STREET	SB	D,G	R	R	R	R	R	R				R	R	R				G	Υ	R									FY
EAST FOXBORO STREET	WB	E	R	R	R	R	R	R				G	Υ	R				R	R	R									FR
EAST FOXBORO STREET	WB	F	R/GRA	R/YRA	R	R	R	R				G/GRA	Y/YRA	R				R	R	R									FR
PEDESTRIAN	NB/SB	P1,P2	DW	DW	DW	W	FDW	DW				DW	DW	DW				W	FDW	DW									OUT
				•						TIMI	NG IN	SECON	NDS				•			•	•			•					
MINIMUM GREEN (INITIAL)			5			10						8						10											
PASSAGE TIME (VEHICLE)			2			4						2						4											
MAXIMUM 1			5			36						15						45											
MAXIMUM 2			-			-						-						-											
YELLOW CLEARANCE				3.0			4.0						3.0						4.0										<u></u>
RED CLEARANCE					*1.0			1.0						2.0						1.0									Z Z
PEDESTRIAN CLEARANCE						7	21	1																					EMERGENCY
RECALL				NON	E		MIN						NON	E					MIN										
MEMORY			N	ON-LO	CK	N	ON-LO	CK				N	ON-LO	CK				N	ON-LO	CK									

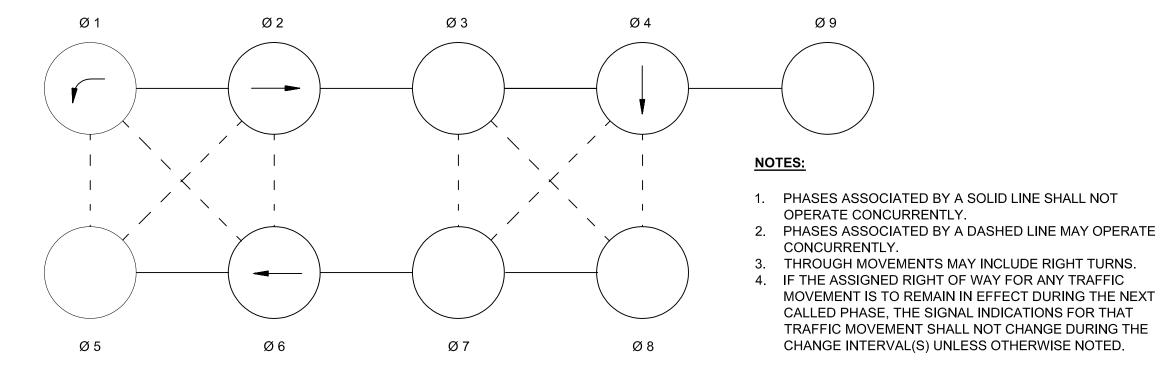
- NOTES:

  1. MAXIMUM 1 = NORMAL OPERATION
- 2. MAXIMUM 2 = NOT USED 3. \*FYLA IF FOLLOWED BY PHASES 2 & 6.

#### PREFERENTIAL PHASING SEQUENCE



#### **NEMA DUAL RING PHASING NOTES:**



OPERATE CONCURRENTLY.

MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE

CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

CONCURRENTLY.

Ø 9

#### FIRE PREEMPTION SCHEDULE

APPROACH		PREEMPTION PHASE	NEXT PHASE CALLED
NORTHBOUND	R2	2	2+6
SOUTHBOUND	R1	6	2+6
WESTBOUND	R3	4	1+6

#### **EMERGENCY VEHICLE PREEMPTION OPERATION:**

- 1. EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
- 2. PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
- 3. IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAT TO BE SERVICED) AND ADVANCE TO AND/OR HOLD IN EMERGENCY VEHICLE PREEMPTION PHASE UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PREEMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
- 4. PREEMPTION MINIMUM GREENS SHALL BE TEN SECONDS.
- 5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
- 6. STROBE SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

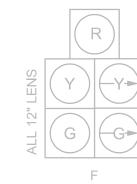
#### MAJOR ITEMS REQUIRED PAY ITEM QUANTITY ITEM ADVANCED TRANSPORTATION CONTROLLER (ATC) W/CABINET 1-WAY 3 SECTION SIGNAL HOUSING (12" LED) W/ BACKPLATES 1-WAY 4 SECTION SIGNAL HOUSING (12" LED) W/ BACKPLATES VIDEO DETECTION CAMERA 816.02 EMERGENCY PRE-EMPTION PHASE SELECTOR EMERGENCY PRE-EMPTION RECEIVER FIELD MONITORING UNIT (FMU) W/ 4G LTE MODEM 700 SIGNAL CABLE Plus all necessary duct, cable, labor, miscellaneous material and equipment to complete the installation.

#### **DETECTION ZONE DATA**

DETECTOR NUMBER	DETECTION ZONE SIZE	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
$\triangle$	8'X40'	2	2	В	-	-
<u>^</u>	6'X40'	1	1	В	-	-
<u> </u>	6'X40'	6	6	В	-	-
4	6'X40'	4	4	В	-	-
<u>\$</u>	6'X40'	4	4	В	5	-

#### SIGNAL IDENTIFICATION

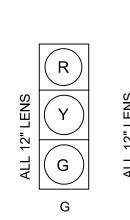






#### PROPOSED:

A,B,D,E,

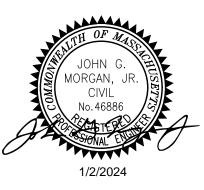


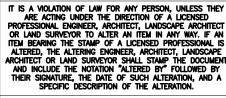
- 1. ALL PROPOSED SIGNALS SHALL HAVE CUT AWAY VISORS.
- 2. PROPOSED SIGNALS SHALL HAVE 12" LED WITH 5" NON-LOUVERED BACK PLATES AND 3" REFLECTORIZED BORDER.





PREPARED FOR TOWN OF SHARON **ENGINEERING** DEPARTMENT SHARON, MA





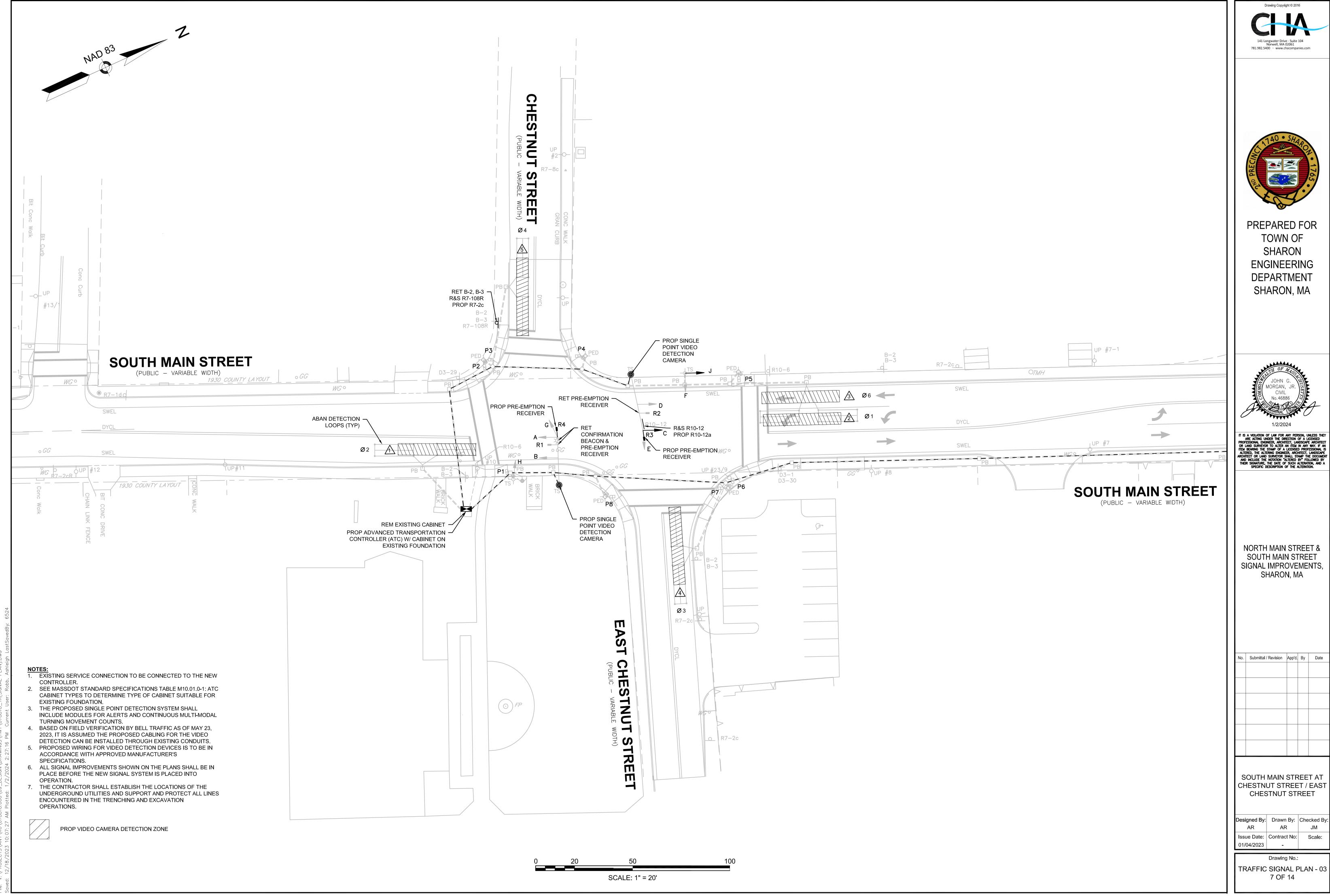
NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS, SHARON, MA

No.	Submittal / Revision	App'd.	Ву	Date

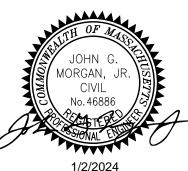
SOUTH MAIN STREET AT EAST FOXBORO STREET

Designed By: Drawn By: Checked By: AR Issue Date: | Contract No: | Scale: 01/04/2023

Drawing No.: TRAFFIC SIGNAL DATA - 02 6 OF 14



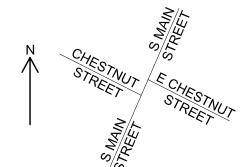




Submittal / Revision	App'd.	Ву	Date

SOUTH MAIN STREET AT

Designed By: Drawn By: Checked By: Issue Date: | Contract No: | Scale:



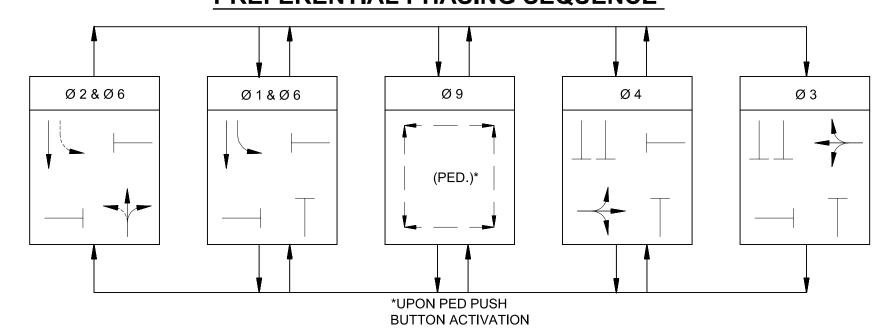
PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9
	<b>A</b>	,			'			PED.)
-		-			-			•

	3/6				ı			<u> </u>					<b>1</b>																	
SEQUENCE AND TIMING FOR	R COORDINATED CONTRO	L																												
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	2	1 22	23	24	25	26	27	FL/OP
SOUTH MAIN STREET	NB	A,B	R	R	R	G	Υ	R	R	R	R	R	R	R				R	R	R							R	R	R	F
SOUTH MAIN STREET	SB	С	GLA	YLA	RLA	RLA	RLA	RLA	RLA	RLA	RLA	RLA	RLA	RLA				FYLA	YLA	RLA							RLA	RLA	RLA	F
SOUTH MAIN STREET	SB	D,J	R	R	R	R	R	R	R	R	R	R	R	R				G	Υ	R							R	R	R	F
EAST CHESTNUT STREET	WB	E,F	R	R	R	R	R	R	G	Υ	R	R	R	R				R	R	R							R	R	R	F
CHESTNUT STREET	EB	G,H	R	R	R	R	R	R	R	R	R	G	Υ	R				R	R	R							R	R	R	F
PEDESTRIAN	ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				DW	DW	DW							W	FDW	DW	Ol
											lnio Ini	0500	ND0																	
AMANDALINA ODEENI (INIITIALI)						10				I IIVII	ING IN		NDS					10												
MINIMUM GREEN (INITIAL)			8			10			8			8						10												
PASSAGE TIME (VEHICLE)			3			4			2			2						4												-
MAXIMUM 1			8			39			8.5			8.5						52												
MAXIMUM 2			8	0.0		29	4.0		8.5	0.5		8.5	0.5					42	4.0											_
YELLOW CLEARANCE				3.0	0.0		4.0			3.5	-		3.5						4.0											ERGENCY
RED CLEARANCE					2.0			2.0			2.0			2.0						2.0							_			 GE
PEDESTRIAN CLEARANCE																											7	13	4	EME
RECALL				NON	E		MIN			NON	ΙE		NON	E					MIN									OFF		
MEMORY			N	ON-LO	CK	N	ION-LO	CK	N	ON-LO	CK	N	ION-LO	CK				N	ON-LC	CK								LOCK		
COORDINATION DATA	1					1			1						1									i						
TIMING PLAN	CYCLE LENGTH	OFFSET	;	SECON	IDS		SECON	IDS		SECON	NDS		SECON	IDS				,	SECO	NDS								SECON	IDS	
1. AM/PM	110 SECONDS	94		13			45			14			14						58									24		
AM/PM (NO PED CALL)	110 SECONDS	94		13			69			14			14						82									0		

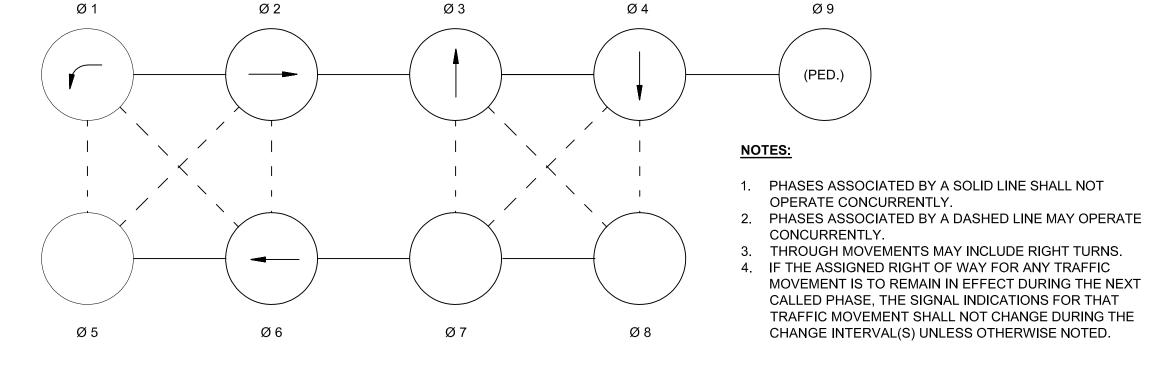
NO	<u> 163.</u>							
1.	OFFSET	REFERENCE	S MASTER	<b>INTERSEC</b>	TION PHA	SE 2 & 6	START	OF GR

- 2. INTERSECTION OF SOUTH MAIN STREET / NORTH MAIN STREET AND DEPOT STREET / BILLINGS STREET TO BE MASTER INTERSECTION.
- 3. MAXIMUM 1 = COORDINATED WEEKDAY MORNING AND EVENING PEAK HOUR (6:30 10 AM, 3 6:30 PM)
  4. MAXIMUM 2 = FREE UNCOORDINATED ALL OTHER TIMES

#### PREFERENTIAL PHASING SEQUENCE



#### **NEMA DUAL RING PHASING NOTES:**



#### FIRE PREEMPTION SCHEDULE

APPROACH		PREEMPTION PHASE	NEXT PHASE CALLED
NORTHBOUND	R1	2	2+6
SOUTHBOUND	R2	6	2+6
WESTBOUND	R3	3	2+6
EASTBOUND	R4	4	3

#### EMERGENCY VEHICLE PREEMPTION OPERATION:

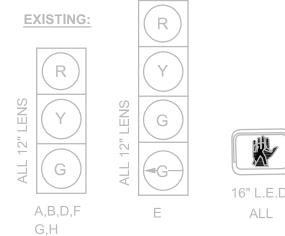
- 1. EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
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- 6. EMERGENCY VEHICLE PREEMPTION SHALL OVERRIDE COORDINATION.
- 7. STROBE SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

		MAJOR ITEMS REQUIRED
PAY ITEM	QUANTITY	ITEM
	1	ADVANCED TRANSPORTATION CONTROLLER (ATC) W/CABINET
	1	1-WAY 3 SECTION SIGNAL HOUSING (12" LED) W/ BACKPLATES
	1	1-WAY 4 SECTION SIGNAL HOUSING (12" LED) W/ BACKPLATES
	2	SINGLE POINT VIDEO DETECTION CAMERAS
816.03	1	EMERGENCY PRE-EMPTION PHASE SELECTOR
	2	EMERGENCY PRE-EMPTION RECEIVERS
	1	FIELD MONITORING UNIT (FMU) W/ 4GE LTE MODEM
	1000	SIGNAL CABLE
		Plus all necessary duct, cable, labor, miscellaneous
		material and equipment to complete the installation.

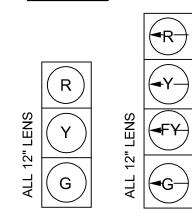
#### **DETECTION ZONE DATA**

DETECTOR NUMBER	DETECTION ZONE SIZE	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
$\triangle$	6'X40'	2	2	В	-	-
<u>^</u>	6'X40'	1	1	В	-	-
<u> </u>	6'X40'	6	6	В	-	1
4	6'X40'	3	3	В	-	-
<u></u>	6'X40'	4	4	В	-	-

#### SIGNAL IDENTIFICATION



#### PROPOSED:



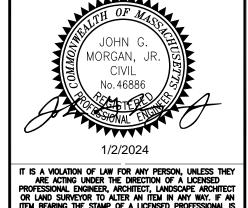
#### NOTES:

 ALL SIGNALS SHALL HAVE CUT AWAY VISORS.
 ALL EXISTING SIGNAL HEADS WITH BACK PLATES SHALL BE RETROFITTED WITH 3" REFLECTORIZED BORDER.





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DEPARTMENT
SHARON, MA



NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS, SHARON, MA

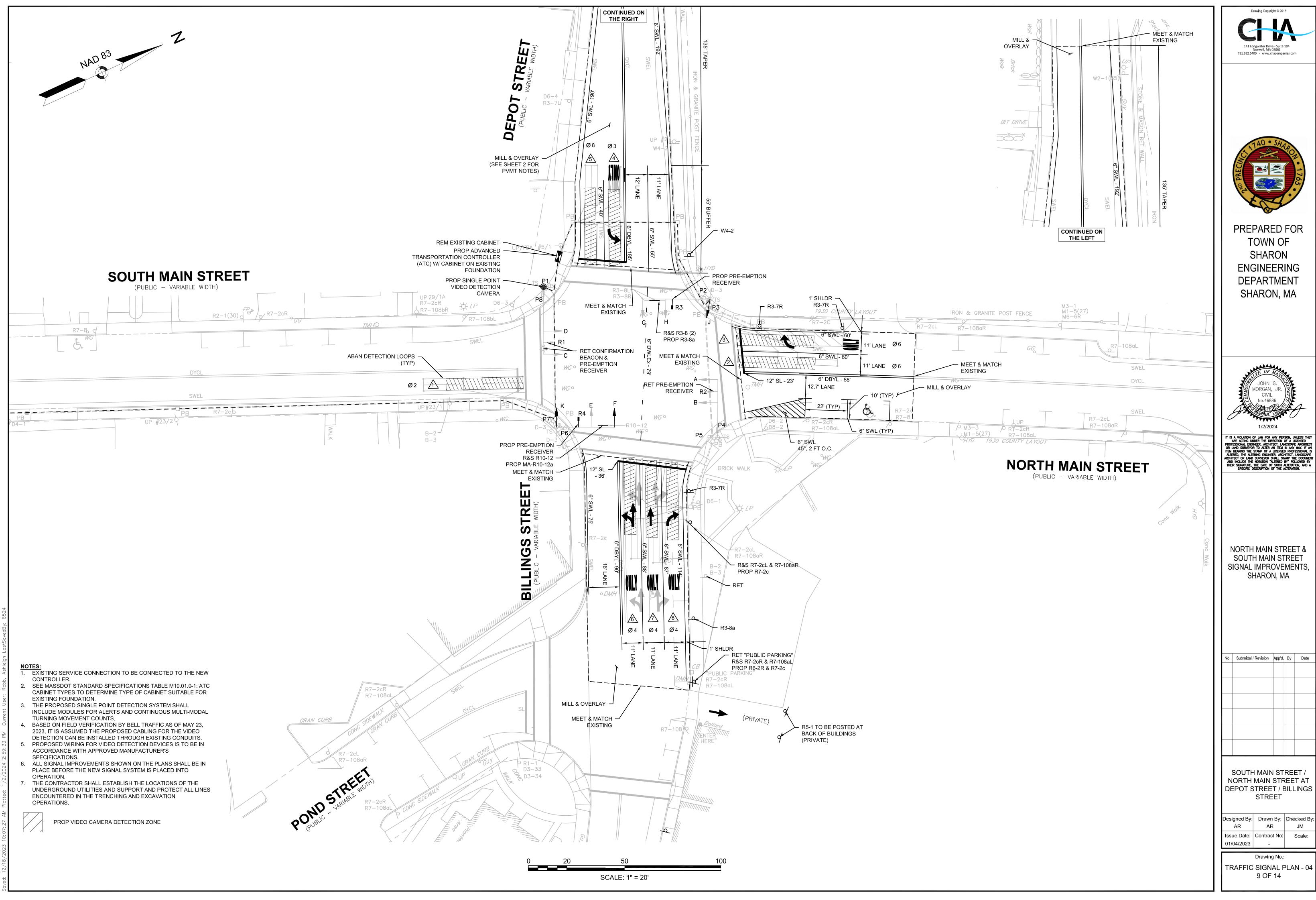
Submittal / Revision	App a.	Ву	Date

SOUTH MAIN STREET AT CHESTNUT STREET / EAST CHESTNUT STREET

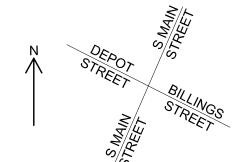
Designed By: Drawn By: Checked By: AR JM

Issue Date: Contract No: Scale: 01/04/2023 -

Drawing No.:
TRAFFIC SIGNAL DATA - 03
8 OF 14







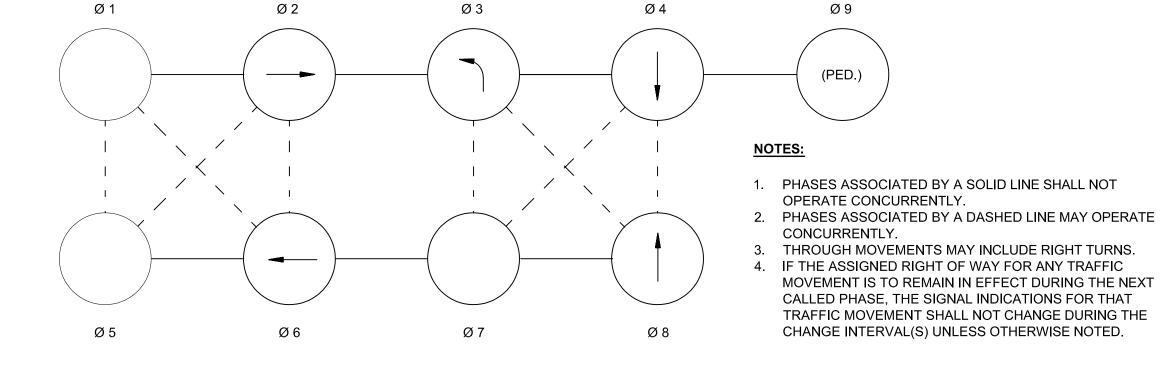
PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9
								(PED.)

8/18								<u> </u>																	1					
SEQUENCE AND TIMING FOR COOF	RDINATED CONTRO	L																												
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLASI OPER
SOUTH MAIN STREET	NB	A,B				G	Υ	R	R	R	R	R	R	R				R	R	R				R	R	R	R	R	R	FY
SOUTH MAIN STREET	SB	C,D				R	R	R	R	R	R	R	R	R				G	Υ	R				R	R	R	R	R	R	FY
DEPOT STREET	EB	F				RLA	RLA	RLA	GLA	YLA	RLA	RLA	RLA	RLA				RLA	RLA	RLA				FYLA	YLA	RLA	RLA	RLA	RLA	FR
DEPOT STREET	EB	E,K				R	R	R	R	R	R	R	R	R				R	R	R				G	Υ	R	R	R	R	FR
BILLINGS STREET	WB	G,H,J				R	R	R	R	R	R	G	Y	R				R	R	R				R	R	R	R	R	R	FR
PEDESTRIAN	ALL	P1-P8				DW	DW	DW	DW	DW	DW	DW	DW	DW				DW	DW	DW				DW	DW	DW	W	FDW	DW	OUT
										TIMI	ING IN	SECO	NDS																	
MINIMUM GREEN (INITIAL)						10			8			10						10						10						
PASSAGE TIME (VEHICLE)						3			3			3						3						3						
MAXIMUM 1						43.5			8.5			17.5						43.5						31.5						
MAXIMUM 2						35.5			8.5			15.5						35.5						29.5						
YELLOW CLEARANCE							3.5			3.5			3.5						3.5						3.5					C≺
RED CLEARANCE								2.0			2.0			2.0						2.0						2.0				ERGENCY
PEDESTRIAN CLEARANCE																											7	13	4	EMER
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RECALL				ı	·		MIN	1		NON	E		NON	E		1			MIN	1		1	1		NON	E		OFF	1	
MEMORY						N	ON-LO	CK	N	ON-LO	CK		NON-LO	CK				N	ON-LO	CK				N	ION-LO	CK		LOCK	(	1
COORDINATION DATA																												-		
TIMING PLAN CYCL	E LENGTH	OFFSET				;	SECON	NDS	5	SECON	IDS		SECON	IDS				5	SECON	IDS					SECON	IDS	٤	SECON	IDS	
1. AM/PM 110 S	SECONDS	0					49			14			23						49						37			24		
AM/PM (NO PED CALL) 110 S	SECONDS	0					61			14			35						61						49			0		

- INTERSECTION OF SOUTH MAIN STREET / NORTH MAIN STREET AND DEPOT STREET / BILLINGS STREET TO BE MASTER INTERSECTION.
- MAXIMUM 1 = COORDINATED WEEKDAY MORNING AND EVENING PEAK HOUR (6 10 AM, 3 7 PM) 3. MAXIMUM 2 = FREE UNCOORDINATED ALL OTHER TIMES

## PREFERENTIAL PHASING SEQUENCE Ø2&Ø6 Ø3&Ø8 Ø 9 Ø4&Ø8 (PED.)\* \*UPON PED PUSH **BUTTON ACTIVATION**

#### **NEMA DUAL RING PHASING NOTES:**



#### FIRE PREEMPTION SCHEDULE

APPROACH		PREEMPTION PHASE	NEXT PHASE CALLED
NORTHBOUND	R2	2	2+6
SOUTHBOUND	R1	6	2+6
WESTBOUND	R3	4	4+8
EASTBOUND	R4	8	4+8

#### **EMERGENCY VEHICLE PREEMPTION OPERATION:**

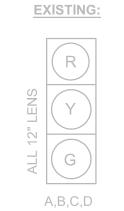
- 1. EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH. 2. PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE
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		MAJOR ITEMS REQUIRED								
PAY ITEM	QUANTITY	ITEM								
	1	ADVANCED TRANSPORTATION CONTROLLER (ATC) W/CABINET								
	2	1-WAY 3 SECTION SIGNAL HOUSING (12" LED) W/ BACKPLATES								
	1	1-WAY 4 SECTION SIGNAL HOUSING (12" LED) W/ BACKPLATES								
	1	SINGLE POINT VIDEO DETECTION CAMERAS								
816.04	1	EMERGENCY PRE-EMPTION PHASE SELECTOR								
010.04	2	EMERGENCY PRE-EMPTION RECEIVERS								
	1	FIELD MONITORING UNIT (FMU) W/ 4GE LTE MODEM								
	850	SIGNAL CABLE								
	1275	COMMUNICATIONS CABLE (BETWEEN TS CONTROLLERS AT DEPOT /								
		BILLINGS AND CHESTNUT / EAST CHESTNUT)								
		Plus all necessary duct, cable, labor, miscellaneous								
		material and equipment to complete the installation.								

#### **DETECTION ZONE DATA**

DETECTOR NUMBER	DETECTION ZONE SIZE	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
$\triangle$	6'X40'	2	2	В	-	-
<u>^</u> 2	6'X40'	6	6	В	-	-
<u> </u>	6'X40'	6	6	В	5	-
4	6'X40'	3	3	В	•	-
<u>\$</u>	6'X40'	8	8	В	1	-
<u> </u>	6'X40'	4	4	В	-	-
$\triangle$	6'X40'	4	4	В	-	-
<u> </u>	6'X40'	4	4	В	5	-

#### SIGNAL IDENTIFICATION

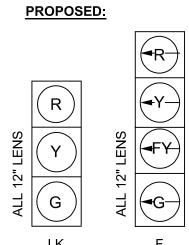


### NOTES:

16" L.E.D

1. ALL SIGNALS SHALL HAVE CUT AWAY VISORS. 2. ALL EXISTING SIGNAL HEADS WITH BACK PLATES SHALL BE RETROFITTED WITH 3" REFLECTORIZED BORDER.

#### E,G,H

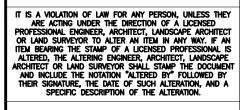






PREPARED FOR **TOWN OF** SHARON **ENGINEERING** DEPARTMENT SHARON, MA





NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS, SHARON, MA

No.	Submittal / Revision	App'd.	Ву	Date

SOUTH MAIN STREET / NORTH MAIN STREET AT DEPOT STREET / BILLINGS STREET

Designed By: Drawn By: Checked By: AR Issue Date: | Contract No: | Scale: 01/04/2023

Drawing No.: TRAFFIC SIGNAL DATA - 04 10 OF 14

## TRAFFIC SIGN SUMMARY

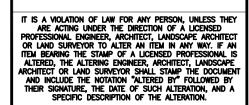
IDENTIFI-	SIZE O	F SIGN		TEXT DIN	MENSIONS (INCHES)	NUMBER OF		COLOR		POST SIZE AND	UNIT	AREA IN
CATION NUMBER	WIDTH	HEIGHT	TEXT	LETTER HEIGHT	VERTICAL ARROW SPACING RTE. MKR.	SIGNS REQUIRED	BACK- GROUND	LEGEND	BORDER	NUMBER REQUIRED	AREA (S.F.)	SQUARE FEET
R3-7R	30"	30"	RIGHT LANE MUST TURN RIGHT	TRAFFIC C	MANUAL ON UNIFORM ONTROL DEVICES FOR TS AND HIGHWAYS	3	WHITE	BLACK	BLACK	P-5 (3- REQ'D)	6.25	18.75
R3-8	30"	30"	ONLY ONLY			2	WHITE	BLACK	BLACK	P-5 (2- REQ'D)	6.25	12.50
R3-8a	42"	30"	T ONLY			2	WHITE	BLACK	BLACK	P-5 (1- REQ'D) MOUNT 1 ON MA	8.75	17.50
R5-1	30"	30"	DO NOT ENTER			2	WHITE	RED	BLACK	P-5 (2- REQ'D)	6.25	12.50
R6-2R	24"	30"	ONE WAY			1	WHITE	BLACK	BLACK	MOUNT ON EXISTING SIGN POST	5.00	5.00
R7-2c	12"	18"				3	WHITE	RED	RED	MOUNT ON EXISTING SIGN POST	1.50	4.50
R7-2cL	12"	18"				1	WHITE	RED	RED	P-5 (1- REQ'D)	1.50	1.50
R7-2cR	12"	18"		V		1	WHITE	RED	RED	P-5 (1- REQ'D)	1.50	1.50
/A-R10-12a	30"	36"	LEFT TURN YIELD ON FLASHING	SEE MASS	SDOT STANDARD SIGN BOOK	3	WHITE	BLACK	BLACK	MOUNT 3 ON M.A.	7.50	22.50
R10-15	30"	30"	TURNING VEHICLES TO TO	TRAFFIC CO	MANUAL ON UNIFORM ONTROL DEVICES FOR IS AND HIGHWAYS	1	TOP:FLUOR- ESCENT YELLOW/ GREEN BOTTOM: WHITE	BLACK	BLACK	MOUNT ON EXISTING SIGN POST	6.25	6.25
W4-2	36"	36"		V		1	YELLOW	BLACK	BLACK	P-5 (1- REQ'D)	9.00	9.00





PREPARED FOR
TOWN OF
SHARON
ENGINEERING
DEPARTMENT
SHARON, MA





NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS, SHARON, MA

No.	Submittal / Revision	App'd.	Ву	Date

signed By:	Drawn By:	Checked By:
AR	AR	JM
sue Date:	Contract No:	Scale:
1/04/2023	ı	

Drawing No.:
TRAFFIC SIGN SUMMARY
11 OF 14

## TEMPORARY TRAFFIC SIGN SUMMARY

		F SIGN		TEXT DIMENSIONS (INCHES)				NUMBER OF	COLOR			NUMBER OF	UNIT	AREA IN		
CATION NUMBER	WIDTH	HEIGHT	TEXT		TER GHT	VERT SPA	TCAL		ROW MKR.	SIGNS REQUIRED	BACK- GROUND	LEGEND	BORDER	POSTS REQUIRED	AREA (S.F.)	SQUARE FEET
W1-4L	36"	36"		TRA	FFIC (	9 MANUAL ON UNIFORM CONTROL DEVICES FOR ETS AND HIGHWAYS			1	FLUORE- SCENT ORANGE	BLACK	BLACK	1	9.00	9.00	
W1-4R	36"	36"								1	FLUORE- SCENT ORANGE	BLACK	BLACK	1	9.00	9.00
W5-1	36"	36"	ROAD							4	FLUORE- SCENT ORANGE	BLACK	BLACK	4	9.00	36.00
W8-1	36"	36"	BUMP							2	FLUORE- SCENT ORANGE	BLACK	BLACK	2	9.00	18.00
W11-2	30"	30"								4	FLUORE- SCENT YELLOW- GREEN	BLACK	BLACK	4	6.25	25.00
W16-7pL	24"	12"								4	FLUORE- SCENT YELLOW- GREEN	BLACK	BLACK	MOUNT W/ W11-2	2.00	8.00
W20-1	36"	36"	ROAD WORK AHEAD							4	FLUORE- SCENT ORANGE	BLACK	BLACK	4	9.00	36.00
W20-4	36"	36"	ONE LANE ROAD AHEAD	1			1	1		4	FLUORE- SCENT ORANGE	BLACK	BLACK	4	9.00	36.00
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	SEE MASSDOT STANDARD SIGN BOOK				4	FLUORE- SCENT ORANGE	BLACK	BLACK	4	9.00	36.00		
MA-R2-10a	48"	36"	WORK ZONE SPEEDING FINES DOUBLED	SEE MASSDOT STANDARD SIGN BOOK				4	FLUORE- SCENT ORANGE/ WHITE	BLACK	BLACK	8	12.00	48.00		
MA-R2-10e	36"	48"	END ROAD WORK DOUBLE FINES END	SEE MASSDOT STANDARD SIGN BOOK				4	FLUORE- SCENT ORANGE/ WHITE	BLACK	BLACK	8	12.00	48.00		
R4-7	24"	30"		SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS				4	WHITE	BLACK	BLACK	1	5.00	20.00		
R4-11	30"	30"	MAY USE FULL LANE							1	WHITE	BLACK	BLACK	1	6.25	6.25
R9-11aL	24"	12"	SIDEWALK CLOSED CROSS HERE							1	WHITE	BLACK	BLACK	1	2.00	2.00
R9-11aR	24"	12"	SIDEWALK CLOSED  CROSS HERE	1			1	1		1	WHITE	BLACK	BLACK	1	2.00	2.00

#### **GENERAL NOTES**

- 1. ALL CONSTRUCTION SIGNING, DRUMS, BARRICADES AND OTHER DEVICES SHALL CONFORM WITH PART 6
  OF THE LATEST EDITION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
- 2. ALL DRUMS SHALL BE SET @ 25' O.C. MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE RESIDENT
- 3. ALL DRUMS SHALL BE APPROPRIATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORK HOURS, TO MAINTAIN SUCH ACCESS.
- 4. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS EXISTING PAVEMENT EXCAVATION. TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- 5. THE CONTRACTOR SHALL NOTIFY THE TOWN OF SHARON POLICE, FIRE, AND HIGHWAY DEPARTMENT AT LEAST 48 HOURS IN ADVANCE OF LANE CLOSURES.
- 6. GRADE SEPARATIONS IN EXCESS OF 2 INCHES DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS AND TEMPORARY RAMPING AS REQUIRED BY THE RESIDENT ENGINEER.
- 7. EXCAVATION EDGES IN EXCESS OF 4 INCHES DEEP SHALL BE PROTECTED DURING NON-WORKING HOURS BY BACKFILLING WITH A WEDGE OF GRAVEL OR SOIL COMPACTED TO A 4:1 SLOPE.
- 8. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED DURING CONSTRUCTION.
- 9. NONESSENTIAL TEMPORARY CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
- 10. SUPPORTS FOR ALL TRAFFIC MANAGEMENT SIGNS SHALL BE ANY TEMPORARY OR PERMANENT SIGN SUPPORT APPROVED BY THE ENGINEER.
- 10. LOCATIONS OF SIGNS SHOWN ARE APPROXIMATE ONLY, DISTANCES MAY BE ADJUSTED IN THE FIELD FOR IMPROVED VISIBILITY.
- 11. TRAFFIC SIGNALS SHALL REMAIN IN OPERATION WHILE UNDER CONSTRUCTION. ANY TEMPORARY REVISIONS TO THE SIGNALS SHALL BE APPROVED THROUGH THE ENGINEER.
- 12. ALL SIGNAL IMPROVEMENTS SHOWN ON THE PLANS SHALL BE IN PLACE BEFORE THE NEW SIGNAL IS PLACED INTO OPERATION.
- 13. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF MUTCD AND ALL APPLICABLE MASS. ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS W/ DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS.
- 14. CONTRACTOR SHALL MAINTAIN ADA-COMPLIANT PEDESTRIAN ACCESS AT ALL TIMES, SPECIFICALLY INCLUDING PEDESTRIAN GUIDANCE SYSTEMS AT WORK ZONES. ACCESS SHALL BE MAINTAINED ALONG ALL SIDEWALKS AND CROSSWALKS, TO ALL ABUTTERS, AND TO ALL MBTA BUS STOPS. ANY PEDESTRIAN DETOURS SHALL INCLUDE A FULLY ADA-COMPLIANT PEDESTRIAN DETOUR ROUTE WITH PROPER BARRICADES, RAILINGS, RAMPS, AND SIGNAGE.
- 15. THE FIRST TEN (10) DRUMS IN A MERGE OR SHIFT SHALL BE EQUIPPED WITH SEQUENTIAL FLASHING LIGHTS IF USED DURING NIGHT TIME OPERATIONS.





PREPARED FOR TOWN OF SHARON ENGINEERING DEPARTMENT SHARON, MA



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMEN AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

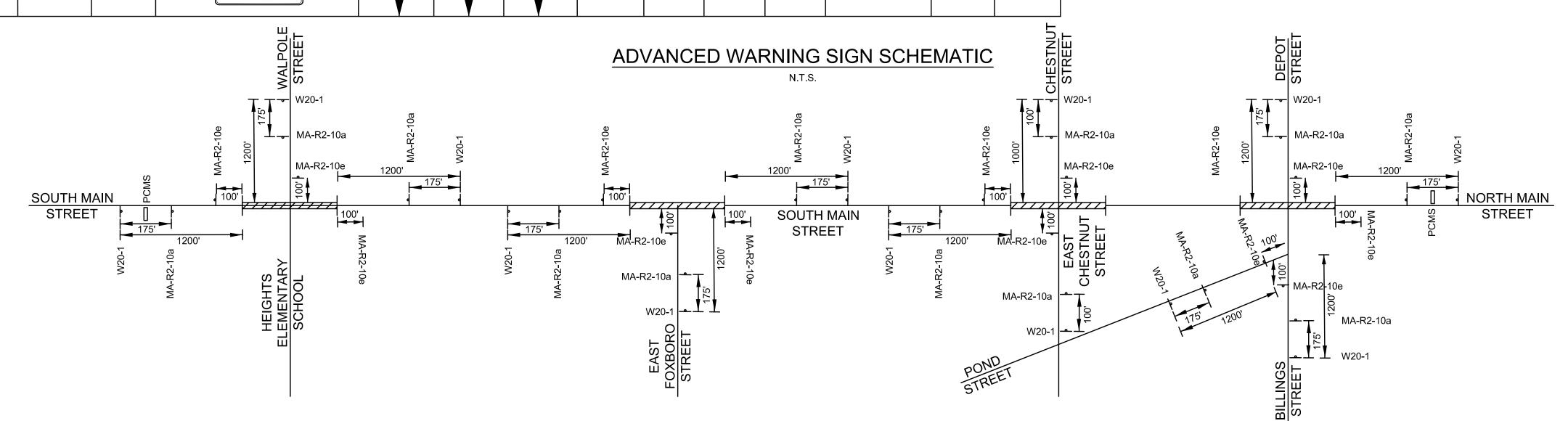
NORTH MAIN STREET & SOUTH MAIN STREET SIGNAL IMPROVEMENTS, SHARON, MA

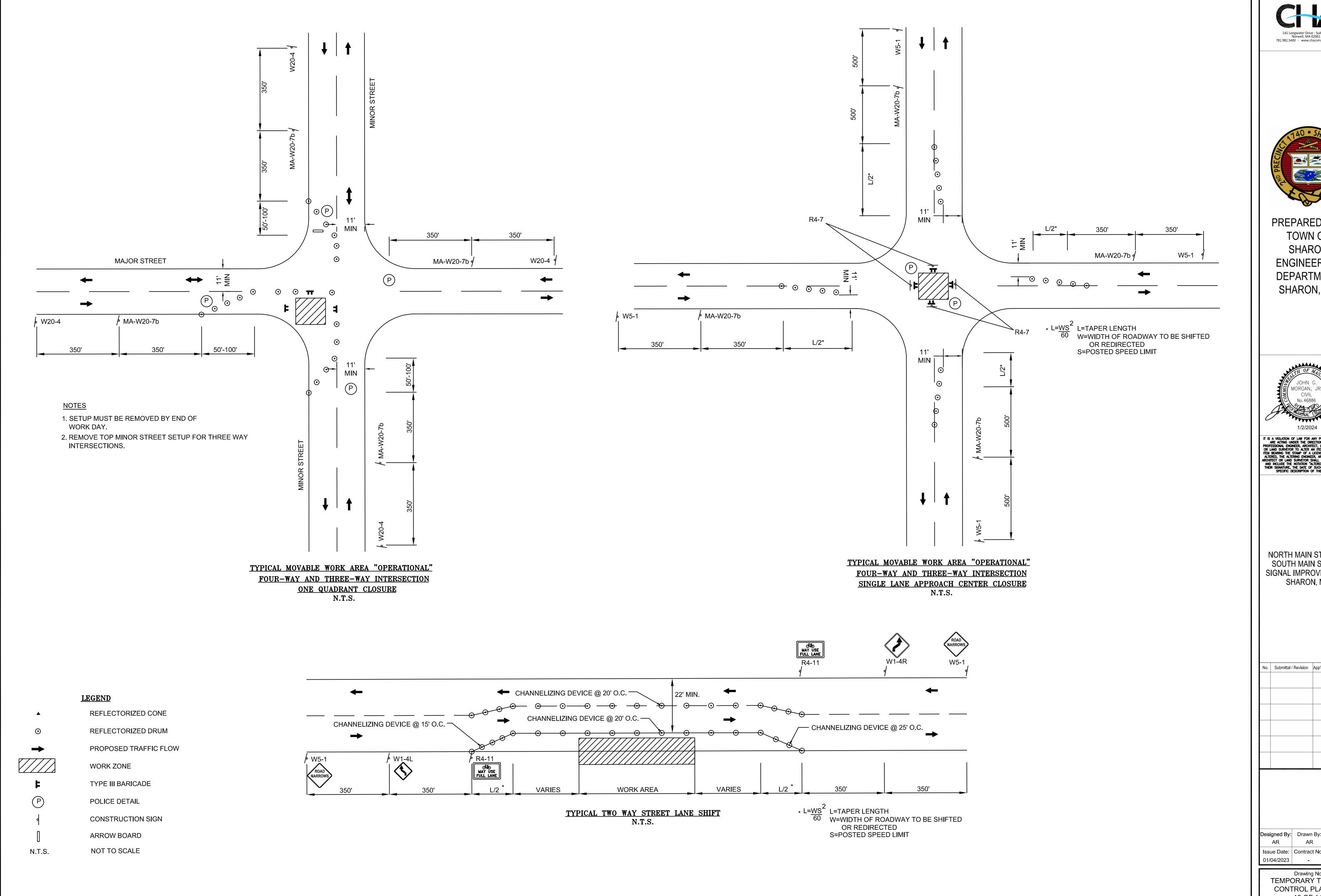
No.	Submittal / Revision	App'd.	Ву	Date	

Designed By: Drawn By: Checked AR AR JM

Issue Date: Contract No: Scale 01/04/2023 -

Drawing No.: TEMPORARY TRAFFIC CONTROL PLAN - 01 12 OF 14

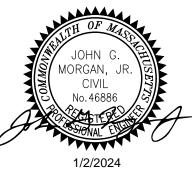




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Drawing No.:
TEMPORARY TRAFFIC CONTROL PLAN - 02 13 OF 14

W8-3 OR

W8-24

OR

W8-15

1. DETAIL I IS CONSIDERED AN EXAMPLE OF A SHORT TERM CLOSURE AND PEDESTRIAN ASSISTANCE (PERSONEL) TO NAVIGATE AROUND THE CLOSURE/WORK AREA COULD BE CONSIDERED AS AN OPTION IN PLACE OF PROVIDING ADA/AAB DEVICES. DETAIL II IS CONSIDERED AN EXAMPLE OF A LONG TERM CLOSURE THAT WOULD REQUIRE ADDITIONAL ADA/AAB COMPLIANT DEVICES. IF A SIDEWALK CLOSURE OR RESTRICTION LASTS FOR MORE THAN ONE (1) WORK SHIFT THEN ADA/AAB COMPLIANCE SHALL BE FOLLOWED.

2. WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TTC ZONE. TEMPORARY FACILITIES SHALL BE PROVIDED AND THEY SHALL BE DETECTABLE AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING

PEDESTRIAN FACILITY. 3. A PEDESTRIAN CHANNELIZING DEVICE THAT IS DETECTABLE BY A PERSON WITH A VISUAL DISABILITY TRAVELING WITH THE AID OF A LONG CANE SHALL BE PLACED ACROSS THE FULL WIDTH OF THE CLOSED SIDEWALK.

4. WHEN USED, TEMPORARY RAMPS SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT (SEE FIGURES PED-1 & PED-2).

5. THE ALTERNATE PATHWAY SHOULD HAVE A SMOOTH CONTINUOUS HARD SURFACE FOR THE ENTIRE LENGTH OF THE TEMPORARY PEDESTRIAN FACILITY

6. THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THE SIDEWALK EXEEDS 200 FEET THEN A 5 FOOT BE 5 FOOT PASSING ZONE SHALL BE PROVIDED.

7. THE PROTECTIVE REQUIREMENTS OF A TTC WORK ZONE MAY HAVE AN IMPACT IN DETERMINING THE NEED FOR TEMPORARY TRAFFIC BARRIERS AND THEIR USE IN PROVIDING PEDESTRIAN DELINEATION SHOULD BE BASED ON ENGINEERING JUDGMENT

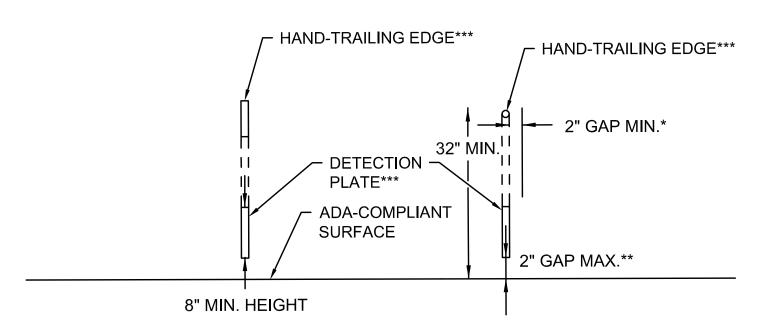
8. CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN; VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE. THESE DETAILS ARE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DETERMINED BY

THE ENGINEER. 9. AUDIBLE INFORMATION DEVICES SHOULD BE CONSIDERED WHERE MIDBLOCK CLOSINGS AND CHANGED CROSSWALK AREAS CAUSE INADEQUATE COMMUNICATION TO BE PROVIDED TO

PEDESTRIANS WHO HAVE VISUAL DISABILITIES. 10. EXISTING AUDIBLE DEVICES NO LONGER APPLICABLE DUE TO CONSTRUCTION SHALL BE DISABLED.

#### AUDIBLE DEVICES

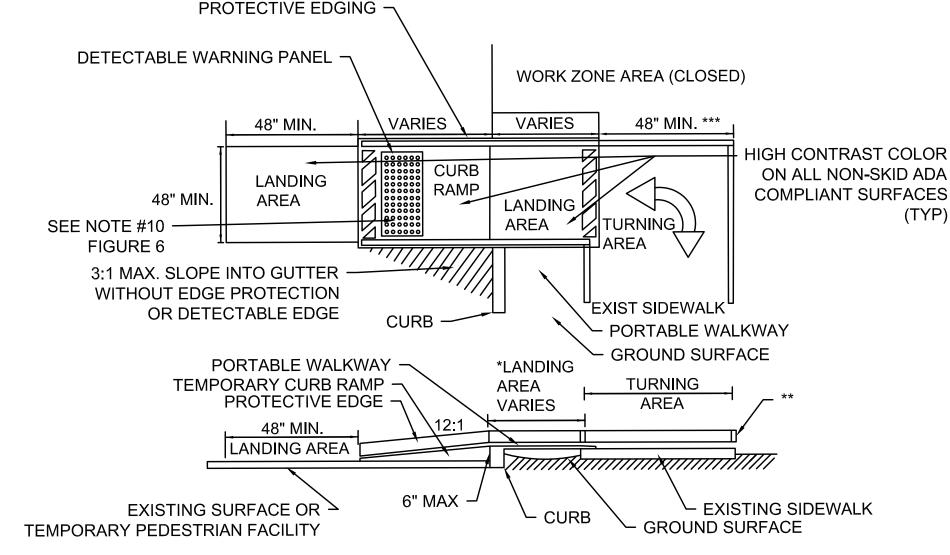
FOR LONG TERM SIDEWALK CLOSURES (AT A MINIMUM OVERNIGHT) A FORM OF SPEECH MESSAGING FOR PEDESTRIANS WITH VISUAL DISABILITIES SHALL BE PROVIDED. AUDIBLE INFORMATION DEVICES SUCH AS DETECTABLE BARRIERS OR BARRICADES AND OTHER PASSIVE PEDESTRIAN ACTIVATION (MOTION ACTIVATED) DEVICES SHOULD BE CONSIDERED FOR THESE CASES. THESE AUDIBLE DEVICES CAN BE MOUNTABLE OR STAND ALONE.



- **CROSS SECTION VIEW**
- THERE SHALL BE A 2" GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT. \*\* A MAXIMUM 2" GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE
- MAY BE USED TO PROVIDE DRAINAGE.
- \*\*\* THE HAND-TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF THE PATH SUCH THAT A PEDESTRIAN USER WITH A LONG CANE CAN FOLLOW IT.

#### PEDESTRIAN CHANNELIZING DEVICE

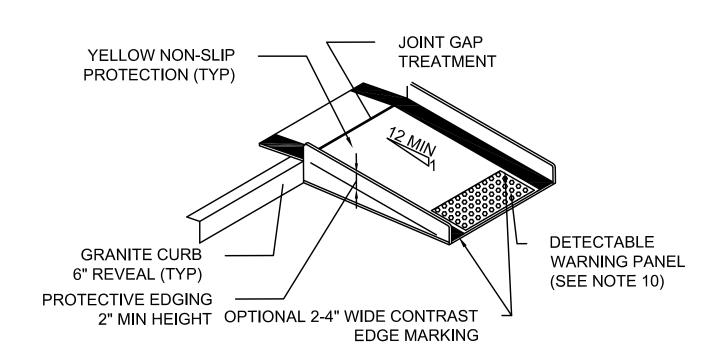
ALL PEDESTRIAN DETOURS OR BYPASSES SHALL INCLUDE ADA COMPLIANT ROUTE WITH PROPER BARRICADES RAILING, RAMPS REFLECTORIZED LIMIT OF EXCAVATION PAVEMENT → ' DIRECTION OF TRAFFIC → → TEMPORARY BIT. CONC. PAVEMENYT TRAVEL WAY GRAVEL BORROW/ SUBBASE DEPTH > 4" **WORK AREA** \* - INCREASE SLOPE RATIO FOR HIGHER SPEEDS LATERAL DROP-OFF DETAIL LONGITUGINAL DROP-OFF DETAIL N.T.S.



- LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES
- DETECTABLE EDGE REMOVED IF A CONTINUOUS SIDEWALK.
- \*\*\* 60" IF AN OBSTRUCTION IS AT BACK OF SIDEWALK.

## TEMPORARY CURB RAMP

N.T.S.

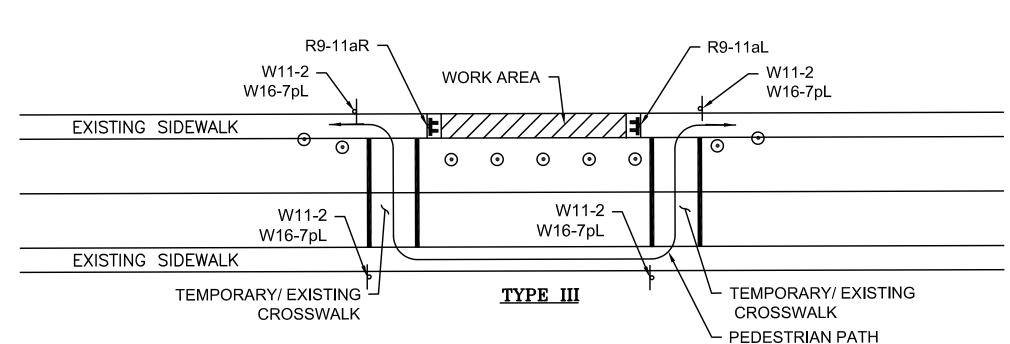


#### TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

N.T.S.

1. CURB RAMPS SHALL BE 60" MIN. WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.

- 2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 3. PROTECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES
- 4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
- 5. CURB RAMP AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- 6. CLEAR SPACE 48"x48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- 7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
- 8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5" WIDE.
- 9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5". LATERAL EDGES SHALL BE VERTICAL UP TO 0.25" HIGH, AND BEVELED AT 1:2 BETWEEN
- 0.25" AND 0.5" HEIGHT.
- 10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PANEL MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

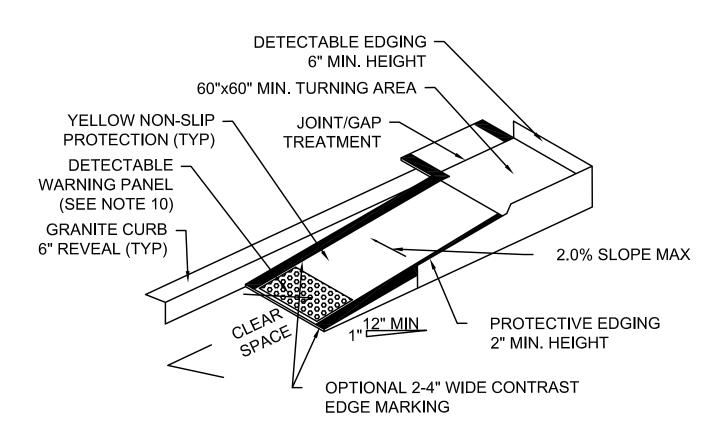


ADA COMPLIANT ACCESS SHALL BE MAINTAINED AT ALL TIMES,

INCLUDING PEDESTRIAN GUIDANCE SYSTEMS AT WORK ZONES.

- 1. CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS
- 2. TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHOULD BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.
- TEMPORARY CURB RAMPS WILL BE REQUIRED AT ALL TEMPORARY CROSSWALK LOCATIONS. 3. THE TEMPORARY SIDEWALK SHALL BE A MINIMUM OF 4 FEET WIDE. IF THE WALKWAY EXCEEDS 200 FEET
- THEN A 5 FOOT BY 5 FOOT PASSING ZONE SHALL BE PROVIDED.

#### TYPICAL SIDEWALK CLOSURE



TEMPORARY CURB RAMP-PARALLEL TO CURB N.T.S.

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01/04/2023

Drawing No.: **TEMPORARY TRAFFIC** CONTROL PLAN - 03 14 OF 14

MORGAN, NORTH MAIN STREET &

SOUTH MAIN STREET

SIGNAL IMPROVEMENTS,

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