

FILE NAME : G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNALS\TEMPORARY\MCKEE ROAD\KL_FHR_SIG_TEMP - MCKEE RD NOTES.DWG PLOT BY : JARED BALTES PLOT DATE : 12/16/2019 11:19 AM

FISH HATCHERY ROAD &
MCKEE ROAD (CTH PD) - STAGE D

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)		
EXIST.	NEW	ITEM
--	9	CLASS 4 WOOD POLES (EA)
--	750	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
--	10	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
--	13	TEMPORARY SIGNAL HEADS 12" (EA)
--	8	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
--	12	TEMPORARY SIGNAL BASES (EA)
--	1	NON-INTRUSIVE DETECTION SYSTEM (EA)
--	1	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
--	1	TEMPORARY CONTROL CABINET AND BASE (EA)

FISH HATCHERY ROAD &
MCKEE ROAD (CTH PD) - STAGE E

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)			
EXIST.	NEW	REMOVE	ITEM
9	--	--	CLASS 4 WOOD POLES (EA)
750	--	--	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
10	--	--	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
13	1	--	TEMPORARY SIGNAL HEADS 12" (EA)
8	--	3	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
12	1	2	TEMPORARY SIGNAL BASES (EA)
1	--	--	NON-INTRUSIVE DETECTION SYSTEM (EA)
1	--	--	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
1	--	--	TEMPORARY CONTROL CABINET AND BASE (EA)

FISH HATCHERY ROAD &
MCKEE ROAD (CTH PD) - STAGE F

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)			
EXIST.	NEW	REMOVE	ITEM
9	--	--	CLASS 4 WOOD POLES (EA)
750	--	--	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
10	--	--	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
14	2	5	TEMPORARY SIGNAL HEADS 12" (EA)
5	1	2	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
11	3	7	TEMPORARY SIGNAL BASES (EA)
1	--	--	NON-INTRUSIVE DETECTION SYSTEM (EA)
1	--	--	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
1	--	--	TEMPORARY CONTROL CABINET AND BASE (EA)

FISH HATCHERY ROAD &
MCKEE ROAD (CTH PD) - STAGE F1

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)			
EXIST.	NEW	REMOVE	ITEM
9	--	--	CLASS 4 WOOD POLES (EA)
750	--	--	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
10	--	--	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
11	4	2	TEMPORARY SIGNAL HEADS 12" (EA)
4	--	1	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
7	2	3	TEMPORARY SIGNAL BASES (EA)
1	--	--	NON-INTRUSIVE DETECTION SYSTEM (EA)
1	--	--	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
1	--	--	TEMPORARY CONTROL CABINET AND BASE (EA)

FISH HATCHERY ROAD &
MCKEE ROAD (CTH PD) - STAGE G

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)			
EXIST.	NEW	REMOVE	ITEM
9	--	--	CLASS 4 WOOD POLES (EA)
750	--	--	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
10	--	--	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
13	6	2	TEMPORARY SIGNAL HEADS 12" (EA)
3	5	--	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
6	9	3	TEMPORARY SIGNAL BASES (EA)
1	--	--	NON-INTRUSIVE DETECTION SYSTEM (EA)
1	--	--	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
1	--	--	TEMPORARY CONTROL CABINET AND BASE (EA)

GENERAL NOTES - ALL STAGES

- FINAL LOCATIONS OF WOOD POLES, SIGNAL HEADS, AND TEMPORARY CABINET SHALL BE AS DIRECTED BY THE ENGINEER. USE CAUTION WHEN LOCATING WOOD POLES WITH THE STAKING INFORMATION SHOW.
- BAGGED SIGNAL HEADS ARE SHOWN FOR INFORMATION ONLY AND SHALL BE CONSIDERED OPTIONAL WHEN SHOWN. ONLY HEADS SHOWN UNBAGGED ARE REQUIRED TO BE INSTALLED IN THE SPECIFIED LOCATIONS.
- COORDINATE PLACEMENT OF PEDESTRIAN PUSH BUTTONS TO BE ACCESSIBLE ACCORDING TO ADA REQUIREMENTS DURING ALL STAGES.
- GUYING OF POLES IS REQUIRED AS SHOWN IN THE STANDARD DETAIL DRAWINGS AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. MULTIPLE ADJUSTMENTS MAY BE REQUIRED AND ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
- NEAR RIGHT SIGNAL HEADS SHALL BE MOUNTED BETWEEN THE SPAN AND TETHER WIRES UNLESS SHOWN ON TEMPORARY SIGNAL BASES.
- ADJUST POSITION OF DETECTION ZONES AS REQUIRED TO MATCH BOTH ON AND OFF PEAK LANE CONFIGURATIONS AND OTHER WORK ZONE LANE ADJUSTMENTS.
- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- USE CAUTION IN ALL STAGES TO ENSURE THAT NO SIGNAL EQUIPMENT SHOWN AS UNBAGGED IS OBSCURED FROM VIEW BY OTHER TEMPORARY SIGNAL EQUIPMENT AS WELL AS ANY OTHER OBSTRUCTION.
- ENSURE TRAFFIC SIGNAL MOUNTING BRACKETS ALLOW FOR REQUIRED ROTATION AND AS SHOWN IN THE PLANS.
- THE LOCATIONS OF WP6, WP7, WP8, AND WP9 SHALL BE FIELD LOCATED AS DETERMINED BY THE ENGINEER TO PROVIDE ROADWAY LIGHTING.
- TEMPORARY WOOD POST ARE INCLUDED WITH THIS CONTRACT FOR TEMPORARY RELOCATION OF BLUETOOTH SENSORS. REFER TO THE SPECIAL PROVISIONS FOR MORE INFORMATION.
- REFER TO SPECIAL PROVISIONS FOR TEMPORARY STREET LIGHTING REQUIREMENTS.
- ROUTE OVERHEAD CABLING FOR TEMPORARY LIGHTING UNDER THE PEDESTRIAN BRIDGE IN A MANNER COMPLIANT WITH ALL APPLICABLE CODE REQUIREMENTS AND AS APPROVED BY THE ENGINEER.

FISH HATCHERY ROAD &
MCKEE ROAD (CTH PD) - UNDISTRIBUTED

UNDISTRIBUTED ITEMS SUMMARY		
QUANTITY	DESCRIPTION	UNIT
2	TEMPORARY WOOD POST	EA



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & MCKEE RD (CTH PD)
GENERAL NOTES

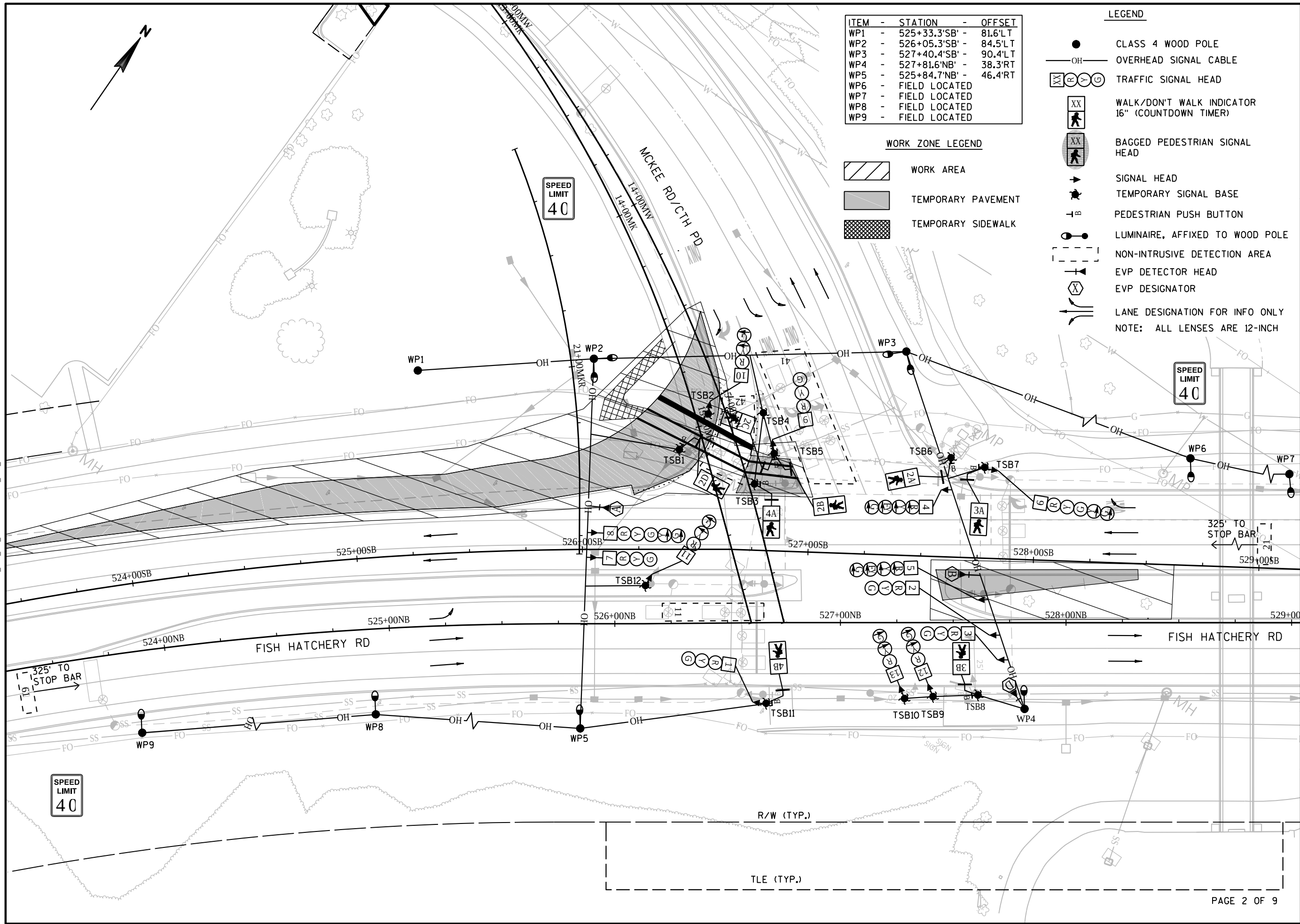
Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions: 12-16-2019

SHEET NO.

1 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMPORARY\MCKEE ROAD\KL_FHR_SIG_TEMP - MCKEE RD - STG_D.DWG PLOT BY: JARED BALTES PLOT DATE: 10/28/2019 3:41 PM



ITEM	-	STATION	-	OFFSET
WP1	-	525+33.3'SB'	-	81.6'LT
WP2	-	526+05.3'SB'	-	84.5'LT
WP3	-	527+40.4'SB'	-	90.4'LT
WP4	-	527+81.6'NB'	-	38.3'RT
WP5	-	525+84.7'NB'	-	46.4'RT
WP6	-	FIELD LOCATED		
WP7	-	FIELD LOCATED		
WP8	-	FIELD LOCATED		
WP9	-	FIELD LOCATED		

WORK ZONE LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY SIDEWALK

LEGEND

- CLASS 4 WOOD POLE
- OVERHEAD SIGNAL CABLE
- TRAFFIC SIGNAL HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- BAGGED PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- PEDESTRIAN PUSH BUTTON
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY
- NOTE: ALL LENSES ARE 12-INCH



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TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & MCKEE RD (CTH PD)
STAGE D

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

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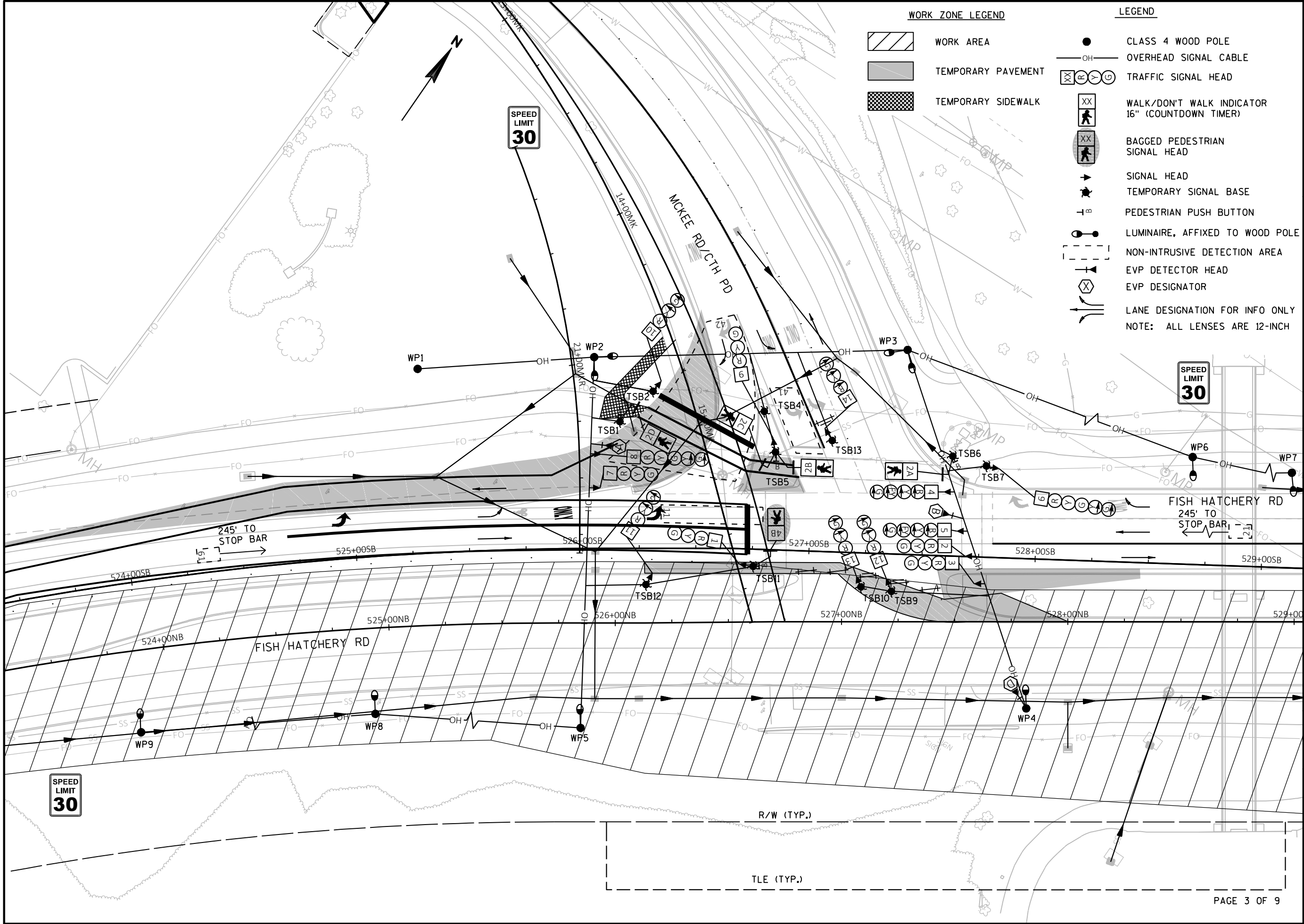
SHEET NO.

2 OF 26

FILE NAME : G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNALS\TEMPORARY\MCKEE ROAD\KL_FHR_SIG_TEMP - MCKEE RD_STG EDWG PLOT DATE : 12/16/2019 11:28 AM PLOT BY : JARED BALTES

APPROVED FOR CONSTRUCTION

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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & MCKEE RD (CTH PD)
STAGE E

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions: 12-16-2019

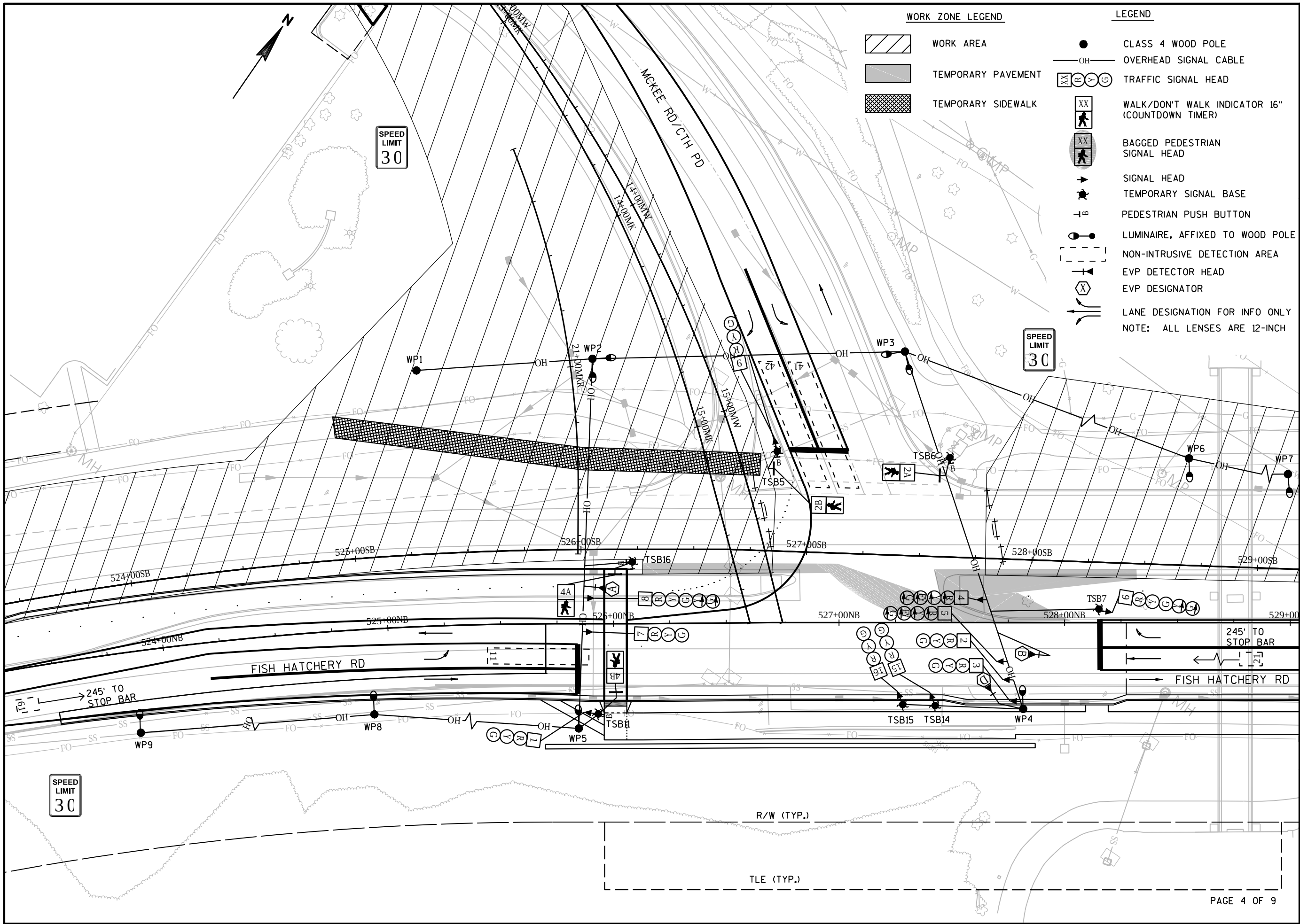
SHEET NO.

3 OF 26

FILE NAME : G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMPORARY\MCKEE ROAD\KL_FHR_SIG_TEMP - MCKEE RD_STG_F.DWG PLOT DATE : 10/28/2019 3:42 PM PLOT BY : JARED BAILES

APPROVED FOR CONSTRUCTION

12/16/2019



WORK ZONE LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY SIDEWALK

LEGEND

- CLASS 4 WOOD POLE
- OVERHEAD SIGNAL CABLE
- TRAFFIC SIGNAL HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- BAGGED PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- PEDESTRIAN PUSH BUTTON
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY
- NOTE: ALL LENSES ARE 12-INCH



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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & MCKEE RD (CTH PD)
STAGE F

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
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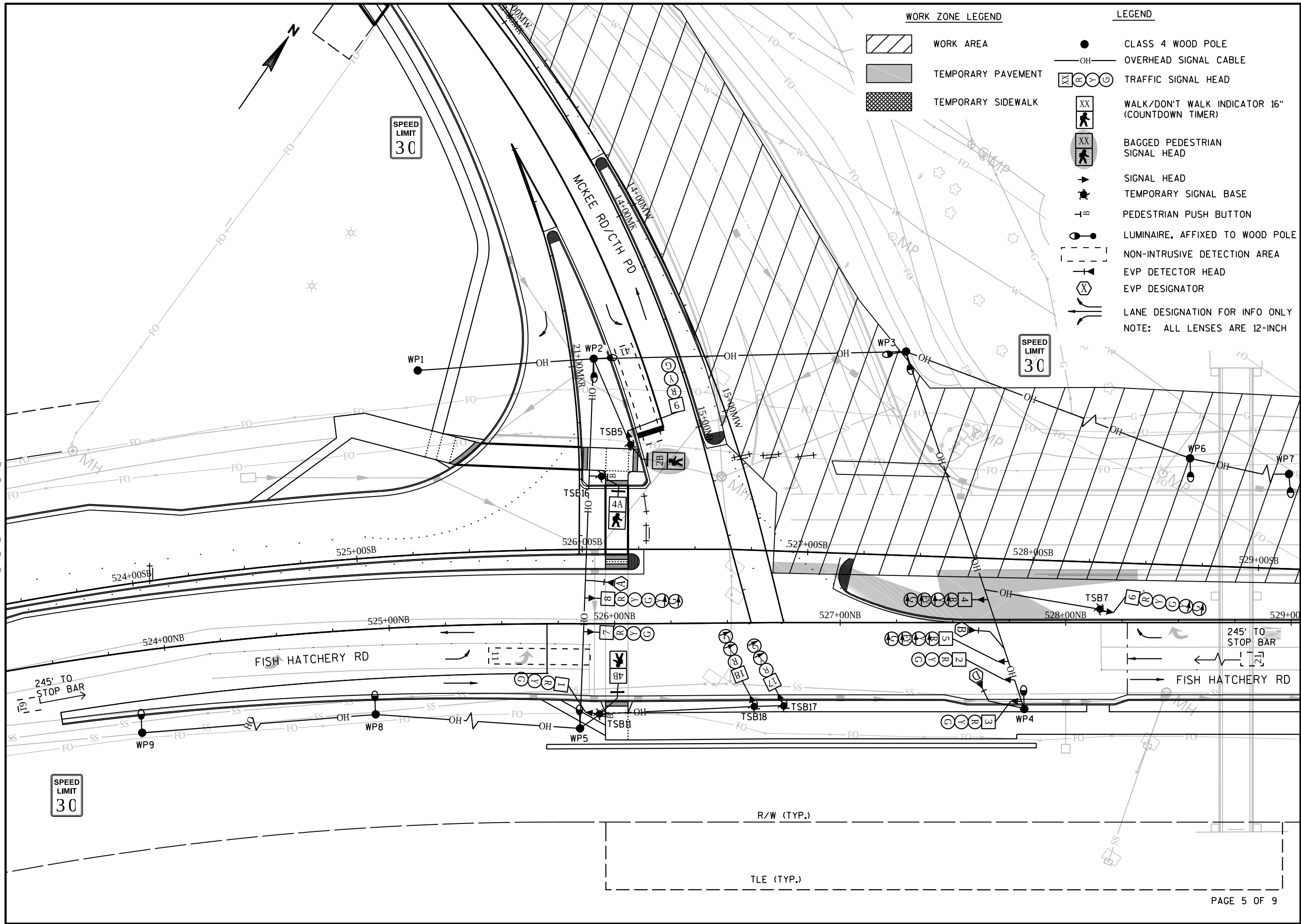
SHEET NO.

4 OF 26

FILE NAME : G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMPORARY\MCKEE ROAD\KL_PHR_SIG_TEMP - MCKEE RD_STG_F1.DWG PLOT DATE : 10/28/2019 3:44 PM PLOT BY : JARED BAITES

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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN

FISH HATCHERY RD & MCKEE RD (CTH PD)

STAGE F1

Project No: 19-3488
Date: OCT 2019
Designed By: KCV
Drafted By: JMB
Checked By: MJR

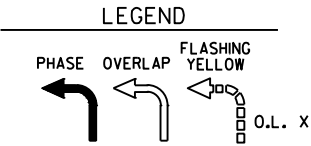
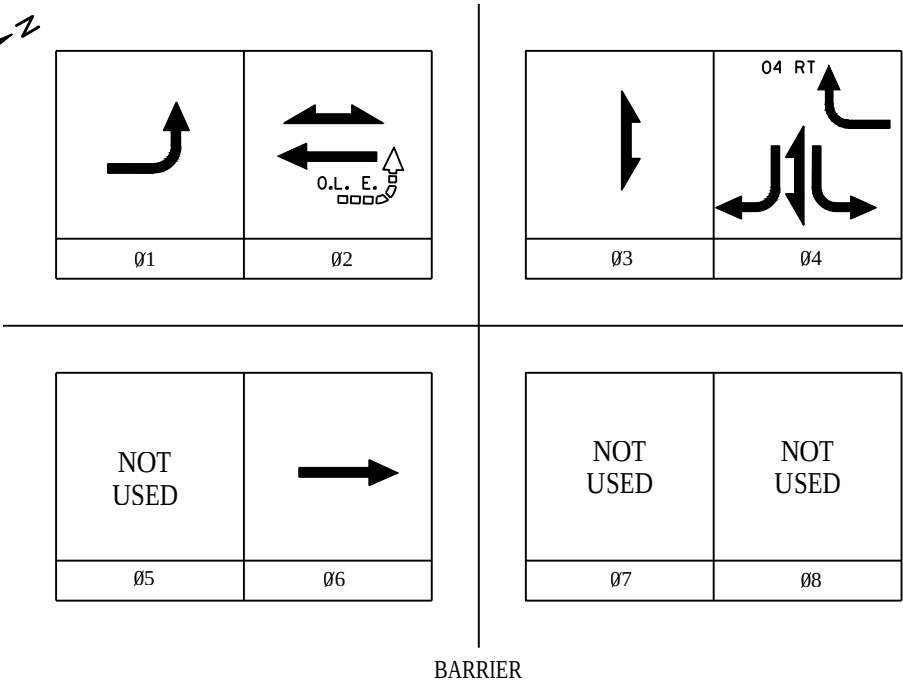
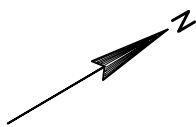
Revisions:

SHEET NO.

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	HEAD NUMBERS	FLIGHT
ø1	4,5	R
ø2	6-8	R
ø3		
ø4	9-14,17,18	R
ø5		
ø6	1-3	R
ø7		
ø8		
ø2 PED	2A,2B,2C,2D	-
ø3 PED	3A,3B	-
ø4 PED	4A,4B	
ø8 PED		
O.L.A		
O.L.B		
O.L.C		
O.L.D		
O.L.E	4,5	ø2
O.L.F		
O.L.G		
O.L.H		

O.L. ASSIGNMENTS



PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				X
4				X
5				
6	X	2	MIN	X
7				
8				

- GENERAL NOTES:
- THIS SEQUENCE OF OPERATIONS SHALL NOT BE USED TO OPERATE THE TEMPORARY SIGNAL DURING STAGE C, OR AT ANY TIME PHASE 4 VEHICULAR INDICATIONS CONFLICT WITH THE CROSSWALK OF THE SOUTH APPROACH TO THE INTERSECTION.
 - PHASE 3 SHALL BE OMITTED WHEN NO PEDESTRIAN CROSSING IS PROVIDED ON THE NORTH LEG.
 - PHASE 4 PEDESTRIAN INDICATIONS SHALL BE OMITTED DURING STAGE E AS SHOWN IN THE TRAFFIC CONTROL PLANS.

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2	NB
4	EVP	B	1+6	SB
5	EVP	D	4	EB
6	NOT USED	-	-	-
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

- EVP NOTES:
- AFTER PREEMPTION SEQUENCE A OR B, CONTROLLER SHALL RETURN TO PHASES 2+6. AFTER PREEMPTION SEQUENCE D, CONTROLLER SHALL RETURN TO PHASE 4.
 - FLASHING LEFT ARROW OVERLAPS SHALL BE OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	42	61			
PHASE CALLED	1	2	4	4	6			
PHASE EXTENDED	1	2	4	4	6			
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								



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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
 FISH HATCHERY RD & MCKEE RD (CTH PD)
 SEQUENCE OF OPERATIONS - STAGE D, STAGE E, & STAGE F1

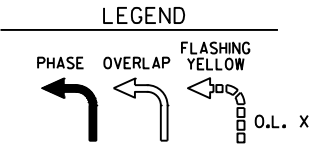
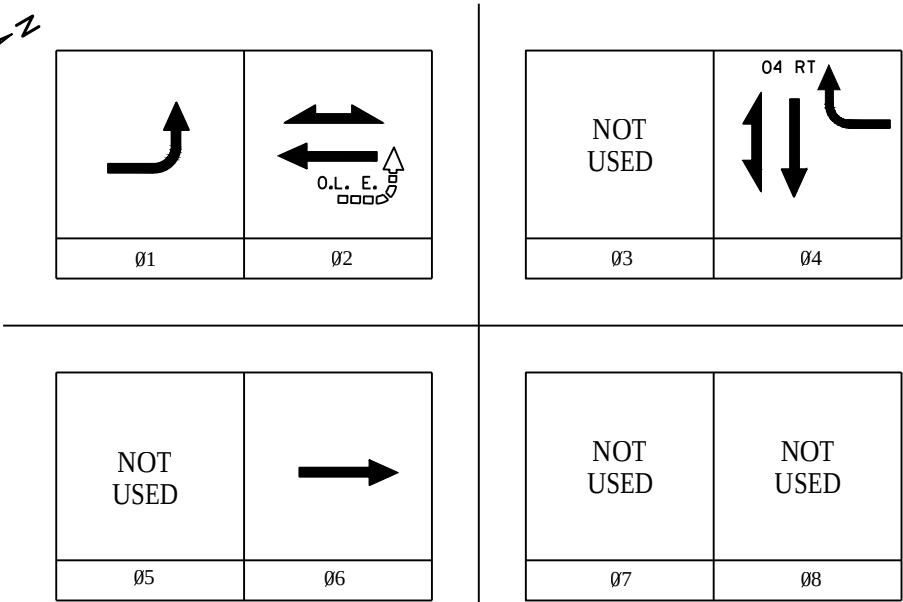
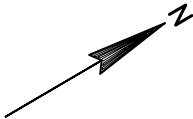
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 Designed By: KCW
 Drafted By: JMB
 Checked By: MJR

Revisions:

SHEET NO.

	HEAD NUMBERS	FLIGHT
ø1	4,5	R
ø2	6-8	R
ø3		
ø4	9,15,16	R
ø5		
ø6	1-3	R
ø7		
ø8		
ø2 PED	2A,2B	-
ø3 PED		
ø4 PED	4A,4B	-
ø8 PED		
O.L.A		
O.L.B		
O.L.C		
O.L.D		
O.L.E	4,5	ø2
O.L.F		
O.L.G		
O.L.H		

O.L. ASSIGNMENTS		



CONTROLLER LOGIC				
PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4				X
5				
6	X	2	MIN	X
7				
8				

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2	NB
4	EVP	B	1+6	SB
5	EVP	D	4	EB
6	NOT USED	-	-	-
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

- EVP NOTES:
- AFTER PREEMPTION SEQUENCE A OR B, CONTROLLER SHALL RETURN TO PHASES 2+6. AFTER PREEMPTION SEQUENCE D, CONTROLLER SHALL RETURN TO PHASE 4.
 - FLASHING LEFT ARROW OVERLAPS SHALL BE OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	42	61			
PHASE CALLED	1	2	4	4	6			
PHASE EXTENDED	1	2	4	4	6			
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								



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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & MCKEE RD (CTH PD)
SEQUENCE OF OPERATIONS - STAGE F

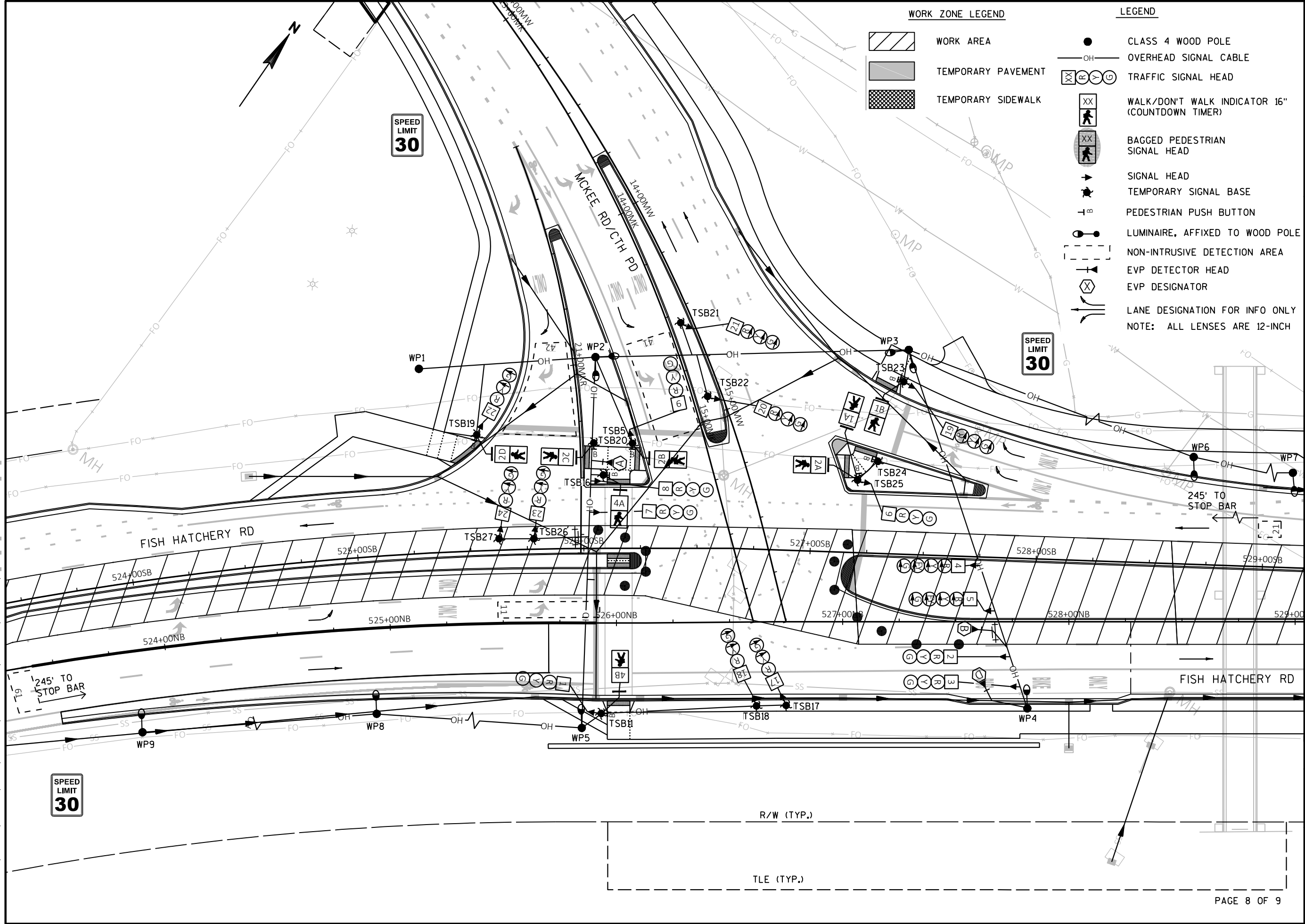
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Checked By: MJR

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7 OF 26

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WORK ZONE LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY SIDEWALK

LEGEND

- CLASS 4 WOOD POLE
- OVERHEAD SIGNAL CABLE
- TRAFFIC SIGNAL HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- BAGGED PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- PEDESTRIAN PUSH BUTTON
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY
- NOTE: ALL LENSES ARE 12-INCH



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FISH HATCHERY RD & MCKEE RD (CTH PD)
STAGE G

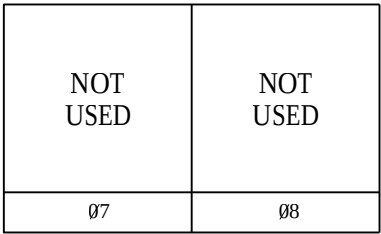
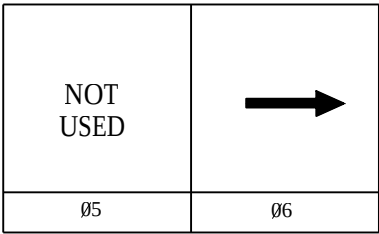
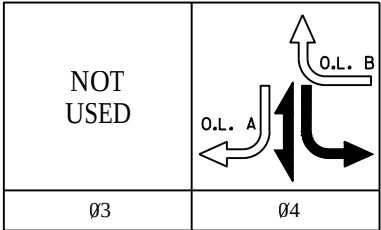
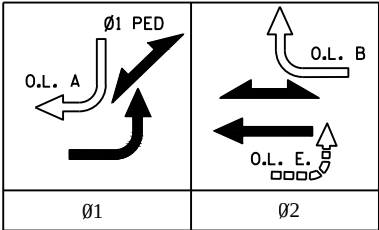
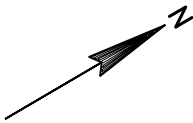
Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions: 12-16-2019

SHEET NO.

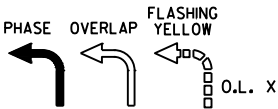
8 OF 26

	HEAD NUMBERS	FLIGHT
ø1	4,5	R
ø2	6-8	R
ø3		
ø4	9,17,18	R
ø5		
ø6	1-3	R
ø7		
ø8		
ø1 PED	1A,1B	-
ø2 PED	2A,2B,2C,2D	-
ø4 PED	4A,4B	-
ø8 PED		
O.L.A	22-24	R
O.L.B	19-21	R
O.L.C		
O.L.D		
O.L.E	4,5	
O.L.F		
O.L.G		
O.L.H		



BARRIER

LEGEND



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4				X
5				
6	X	2	MIN	X
7				
8				

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2	NB
4	EVP	B	1+6	SB
5	EVP	D	4	EB
6	NOT USED	-	-	-
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

EVP NOTES:

- AFTER PREEMPTION SEQUENCE A OR B, CONTROLLER SHALL RETURN TO PHASES 2+6. AFTER PREEMPTION SEQUENCE D, CONTROLLER SHALL RETURN TO PHASE 4.
- FLASHING LEFT ARROW OVERLAPS SHALL BE OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF REMOTE COMMUNICATION

NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT

NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT

NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING

BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	42	61			
PHASE CALLED	1	2	4	4	6			
PHASE EXTENDED	1	2	4	4	6			
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								



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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & MCKEE RD (CTH PD)
SEQUENCE OF OPERATIONS - STAGE G

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JED
Checked By: MJR

Revisions:

SHEET NO.

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ITEM	STATION	OFFSET
WP1	547+28.0'SB'	68.6'LT
WP2	548+41.2'SB'	66.3'LT
WP3	548+17.0'NB'	56.3'RT
WP4	547+23.1'NB'	53.5'RT
WP5	FIELD LOCATED	
WP6	FIELD LOCATED	
WP7	FIELD LOCATED	
WP8	FIELD LOCATED	

- 

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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & CADDIS BEND
STAGE E - G

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions: 12-16-2019

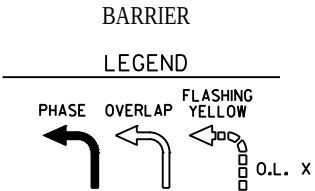
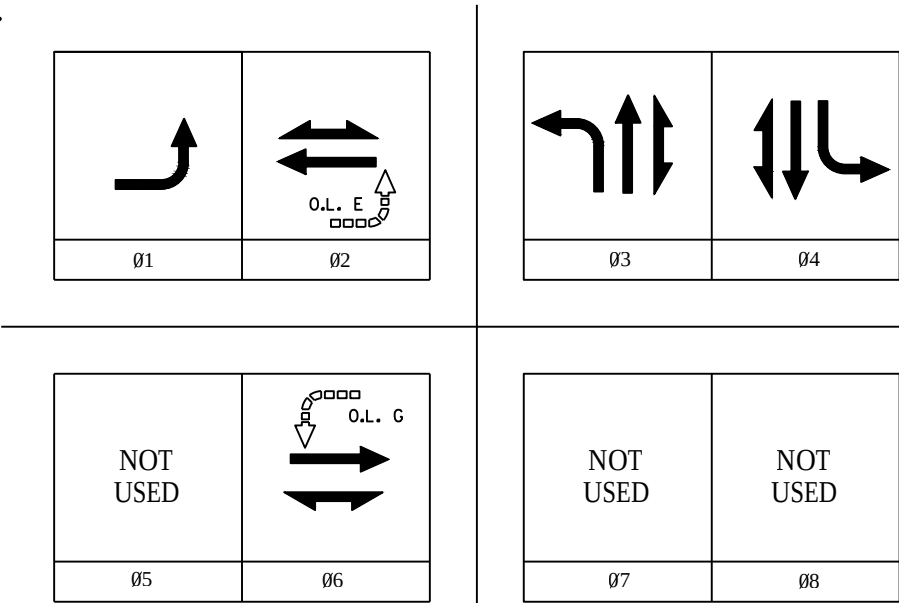
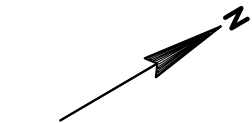
SHEET NO.

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PAGE 1 OF 2

351 of 1103

	HEAD NUMBERS	FLASH
Ø1	4-6	R
Ø2	7-9	R
Ø3	17-20	R/R
Ø4	13-16	R/R
Ø5		
Ø6	1-3	R
Ø7		
Ø8		
Ø2 PED	2A,2B	
Ø3 PED	3A,3B	
Ø4 PED	4A,4B	
Ø6 PED		
Ø8 PED		
O.L.A		
O.L.B		
O.L.C		
O.L.D		
O.L.E	4-6	-
O.L.F		
O.L.G	10-12	R
O.L.H		



PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				X
4				X
5				
6	X	2	MIN	X
7				
8				

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2+5	NB
4	EVP	B	1+6	SB
5	EVP	D	3	WB
6	NOT USED	-	-	-
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

- EVP NOTES:
- AFTER PREEMPTION SEQUENCE A OR B, CONTROLLER SHALL RETURN TO PHASES 2+6. AFTER PREEMPTION SEQUENCE D, CONTROLLER SHALL RETURN TO PHASE 4.
 - FLASHING LEFT ARROW OVERLAPS SHALL BE OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	31	32	41	51	61	
PHASE CALLED	1	2	3	3	4	6	6	
PHASE EXTENDED	1	2	3	3	4	6	6	
DISCONNECT TIME								
CALLING DELAY			2	15	2			
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								



CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & CADDIS BEND
SEQUENCE OF OPERATIONS

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions:

SHEET NO.

11 OF 26

FILE NAME : G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNALS\TEMP-HIGH RIDGE TRAIL\KL_FHR_SIG_TEMP-HIGH RIDGE TRAIL.DWG PLOT DATE : 12/16/2019 9:55 AM PLOT BY : JOSH WILBER

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)		
EXIST.	NEW	ITEM
--	8	CLASS 4 WOOD POLES (EA)
--	460	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
--	10	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
--	18	TEMPORARY SIGNAL HEADS 12" (EA)
--	8	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
--	8	TEMPORARY SIGNAL BASES (EA)
--	1	NON-INTRUSIVE DETECTION SYSTEM (EA)
--	1	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
--	1	TEMPORARY CONTROL CABINET AND BASE (EA)

ITEM	-	STATION	-	OFFSET
WP1	-	555+88.2'SB'	-	67.4'LT
WP2	-	556+73.2'SB'	-	67.7'LT
WP3	-	556+66.1'NB'	-	54.3'RT
WP4	-	555+81.1'NB'	-	54.6'RT
WP5	-	FIELD LOCATED		
WP6	-	FIELD LOCATED		
WP7	-	FIELD LOCATED		
WP8	-	FIELD LOCATED		

LEGEND

OH

XX

⊙

⊙

TRAFFIC SIGNAL HEAD

XX

⊙

WALK/DON'T WALK INDICATOR 16"
(COUNTDOWN TIMER)

→

SIGNAL HEAD

⬢

TEMPORARY SIGNAL BASE

⬢

PEDESTRIAN PUSH BUTTON

⬢

LUMINAIRE, AFFIXED TO WOOD POLE

⬢

NON-INTRUSIVE DETECTION AREA

⬢

EVP DETECTOR HEAD

⬢

EVP DESIGNATOR

⬢

LANE DESIGNATION FOR INFO ONLY

⬢

NOTE: ALL LENSES ARE 12-INCH



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & HIGH RIDGE TRAIL
STAGE E - G

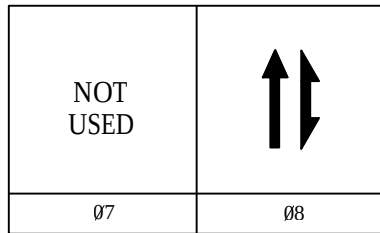
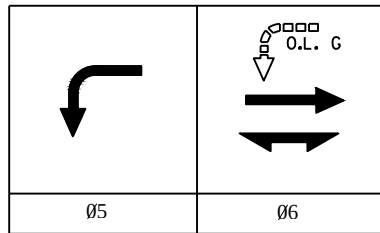
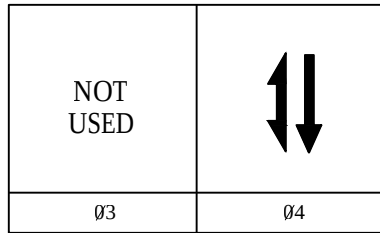
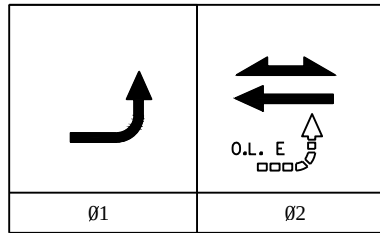
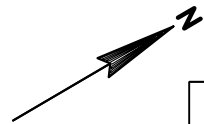
Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions: 12-16-2019

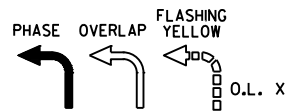
SHEET NO.

12 OF 26

O.L. ASSIGNMENTS



LEGEND



PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4		8		X
5				X
6	X	2	MIN	X
7				
8		4		X

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2+5	NB
4	EVP	B	1+6	SB
5	NOT USED	-	-	-
6	EVP	D	4+8	WB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

1. AFTER PREEMPTION SEQUENCE A OR B,
CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE C OR D,
CONTROLLER SHALL RETURN TO PHASES 4+8.
2. FLASHING LEFT ARROW OVERLAPS SHALL BE
OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	51	61	81		
PHASE CALLED	1	2	4	5	6	8		
PHASE EXTENDED	1	2	4	5	6	8		
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

[illegible]

LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

[illegible]

LOOP FUNCTION



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TEMPORARY TRAFFIC SIGNAL PLAN FISH HATCHERY RD & HIGH RIDGE TRAIL SEQUENCE OF OPERATIONS

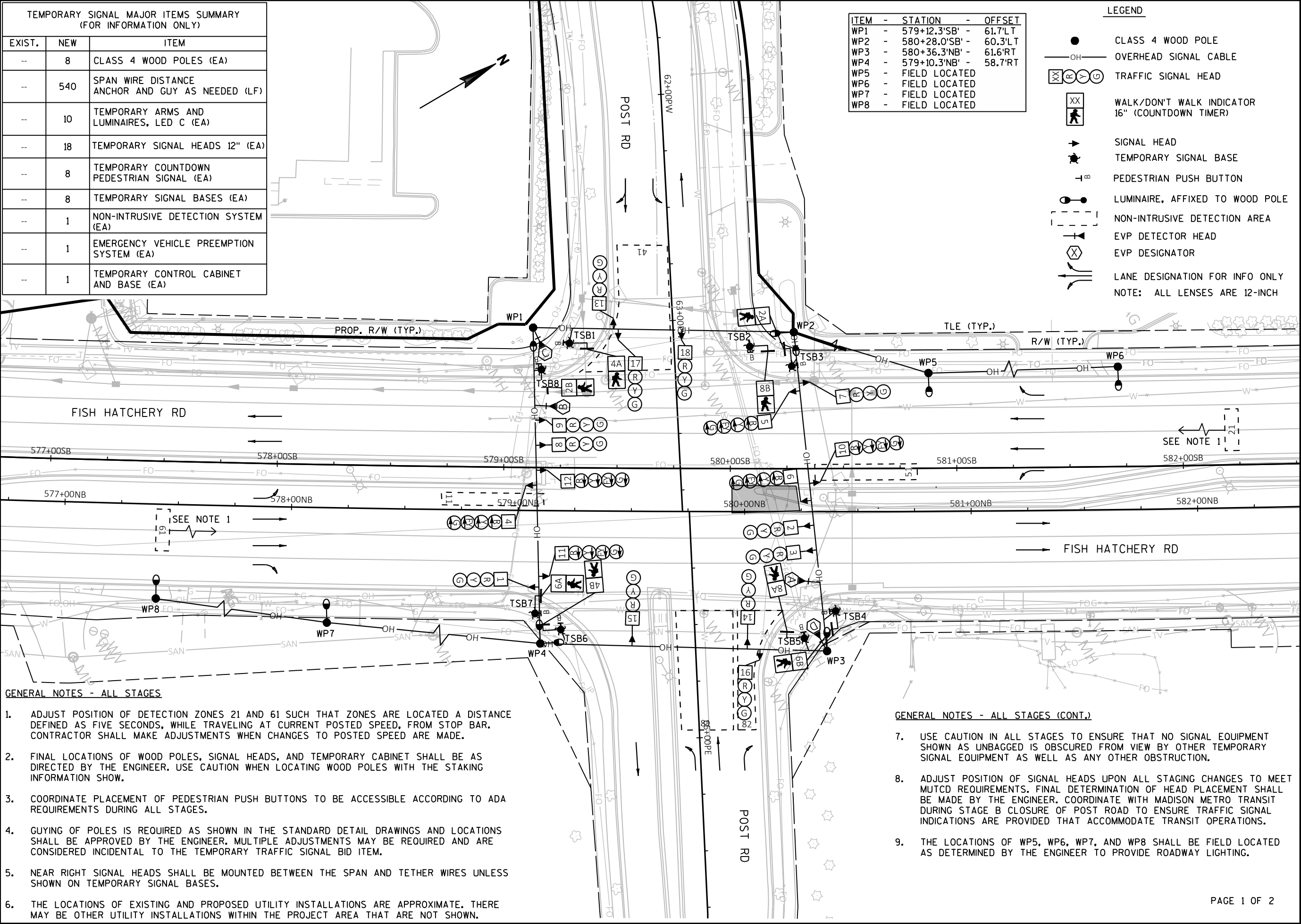
Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions:

SHEET NO.

13 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNALS\TEMPORARY\POST ROAD\KL_FHR_SIG_TEMP-POST RD_STG_A.DWG PLOT BY: JOSH WILBER PLOT DATE: 12/16/2019 9:58 AM



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & POST RD
STAGE A - D

Project No: 19-3488
Date: OCT 2019
Designed By: KCVW
Drafted By: JMB
Checked By: MJR

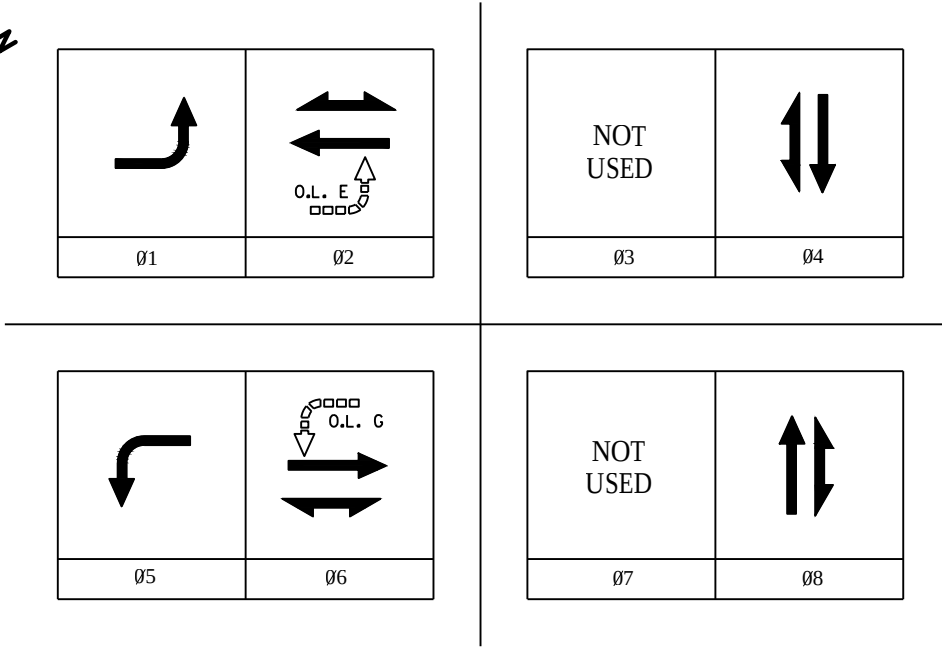
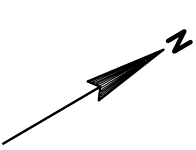
Revisions: 12-16-2019

SHEET NO.

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	HEAD NUMBERS	FLASH
φ1	4-6	R
φ2	7-9	R
φ3		-
φ4	13-15	R
φ5	10-12	R
φ6	1-3	R
φ7		-
φ8	16-18	R
φ2 PED	2A,2B	
φ4 PED	4A,4B	
φ6 PED	6A,6B	
φ8 PED	8A,8B	

O.L. ASSIGNMENTS			
O.L.A			
O.L.B			
O.L.C			
O.L.D			
O.L.E	4-6	-	φ2
O.L.F			
O.L.G	10-12	-	φ6
O.L.H			



CONTROLLER LOGIC				
PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4		8		X
5				X
6	X	2	MIN	X
7				
8		4		X

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2+5	NB
4	EVP	B	1+6	SB
5	EVP	C	4	EB
6	EVP	D	8	WB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

- EVP NOTES:
- AFTER PREEMPTION SEQUENCE A OR B, CONTROLLER SHALL RETURN TO PHASES 2+6. AFTER PREEMPTION SEQUENCE C OR D, CONTROLLER SHALL RETURN TO PHASES 4+8.
 - FLASHING LEFT ARROW OVERLAPS SHALL BE OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	51	61	81	82	
PHASE CALLED	1	2	4	5	6	8	8	
PHASE EXTENDED	1	2	4	5	6	8	8	
DISCONNECT TIME								
CALLING DELAY			2				10	
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								



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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & POST RD
SEQUENCE OF OPERATIONS

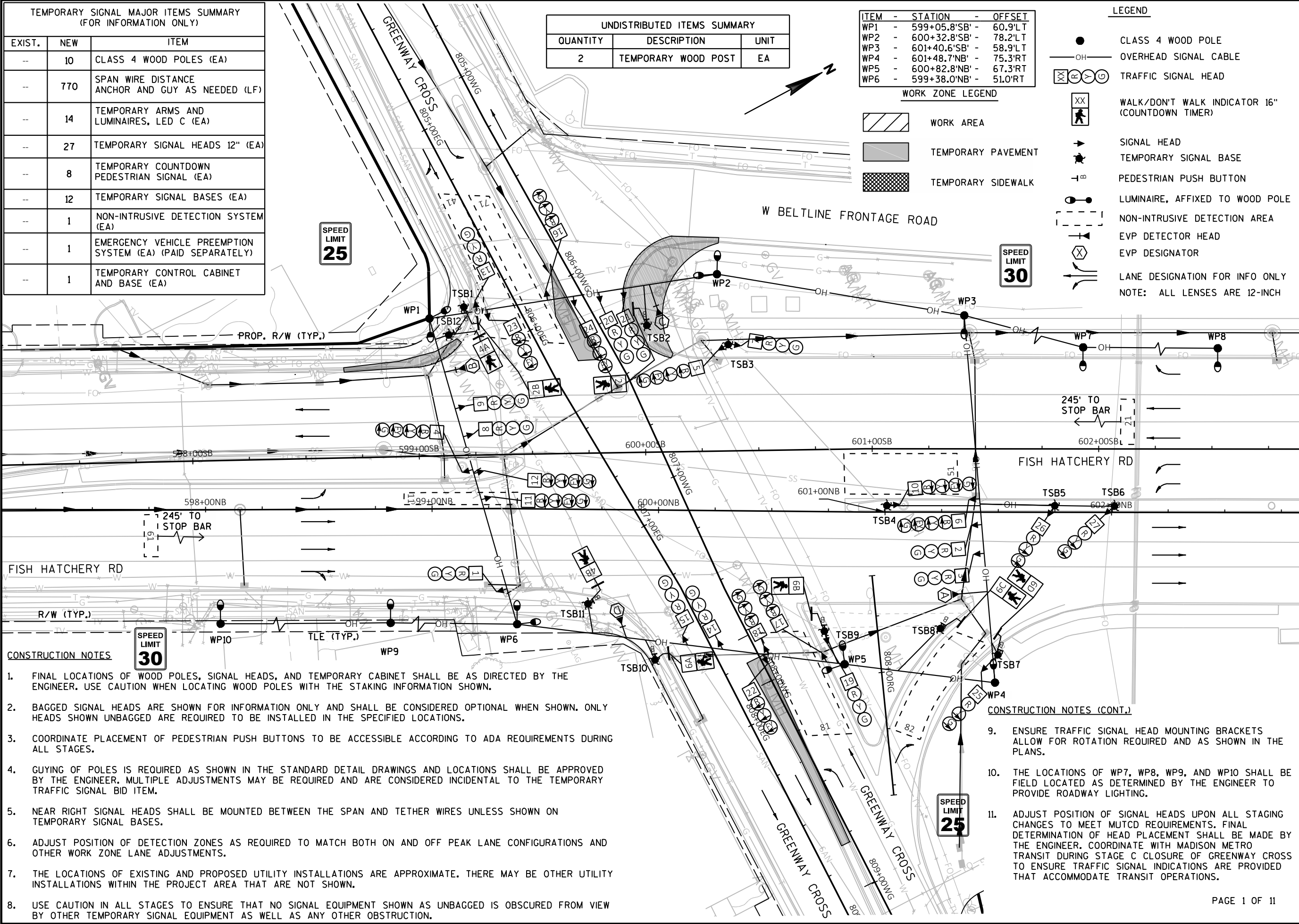
Project No: 19-3488
Date: 10-28-2019
Designed By: KCW
Drafted By: JED
Checked By: MJR

Revisions:

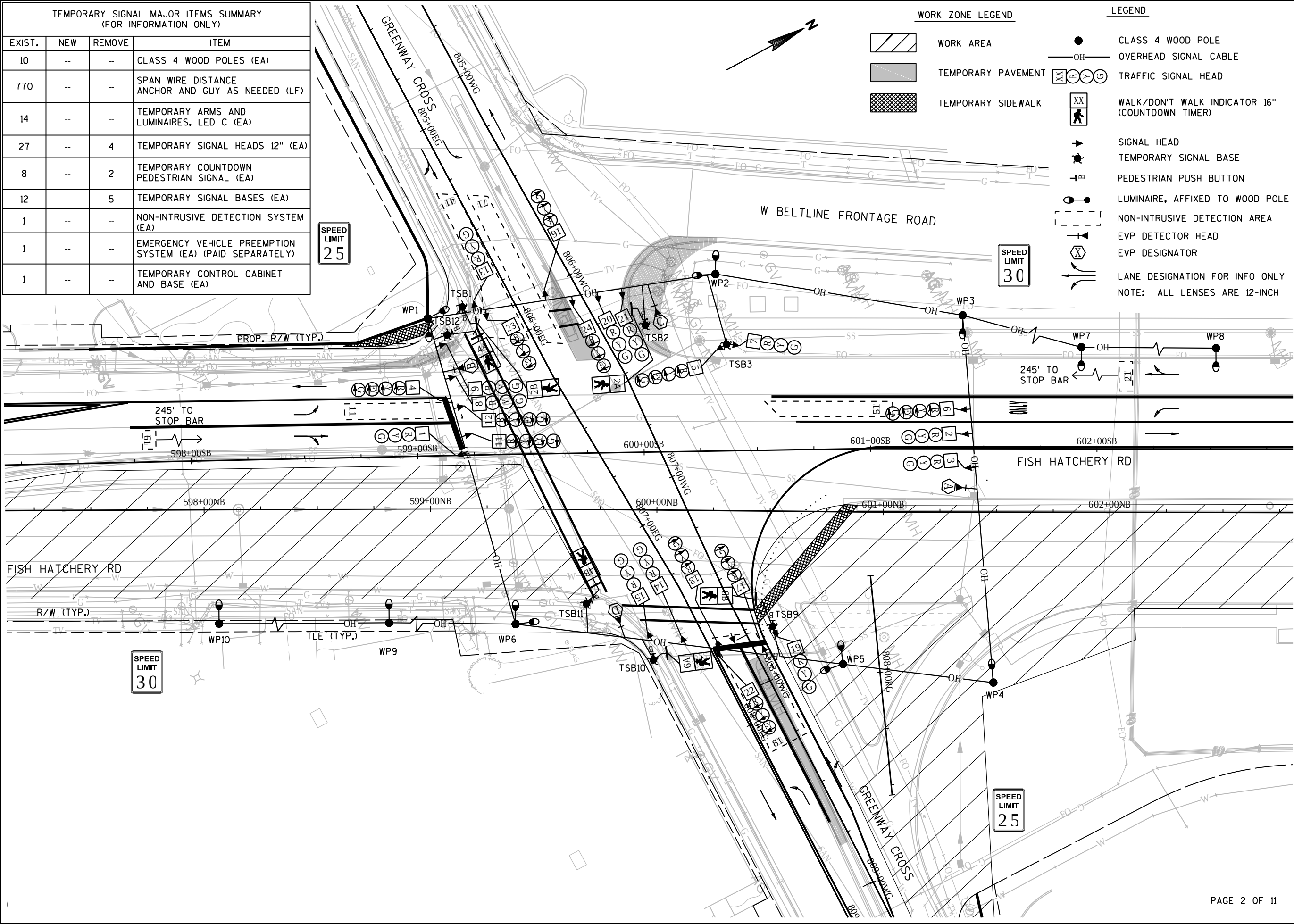
SHEET NO.

15 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNALS\TEMPORARY\GREENWAY CROSS\KL_FHR_SIG_TEMP - GREENWAY CROSS_STG_A.DWG PLOT DATE: 12/16/2019 10:14 AM PLOT BY: JOSH WILBER



FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMP\GREENWAY CROSS\K_L_FHR_SIG_TEMP - GREENWAY CROSS_STG_BDWG PLOT BY: JARED BAILES PLOT DATE: 10/28/2019 3:49 PM



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
STAGE B

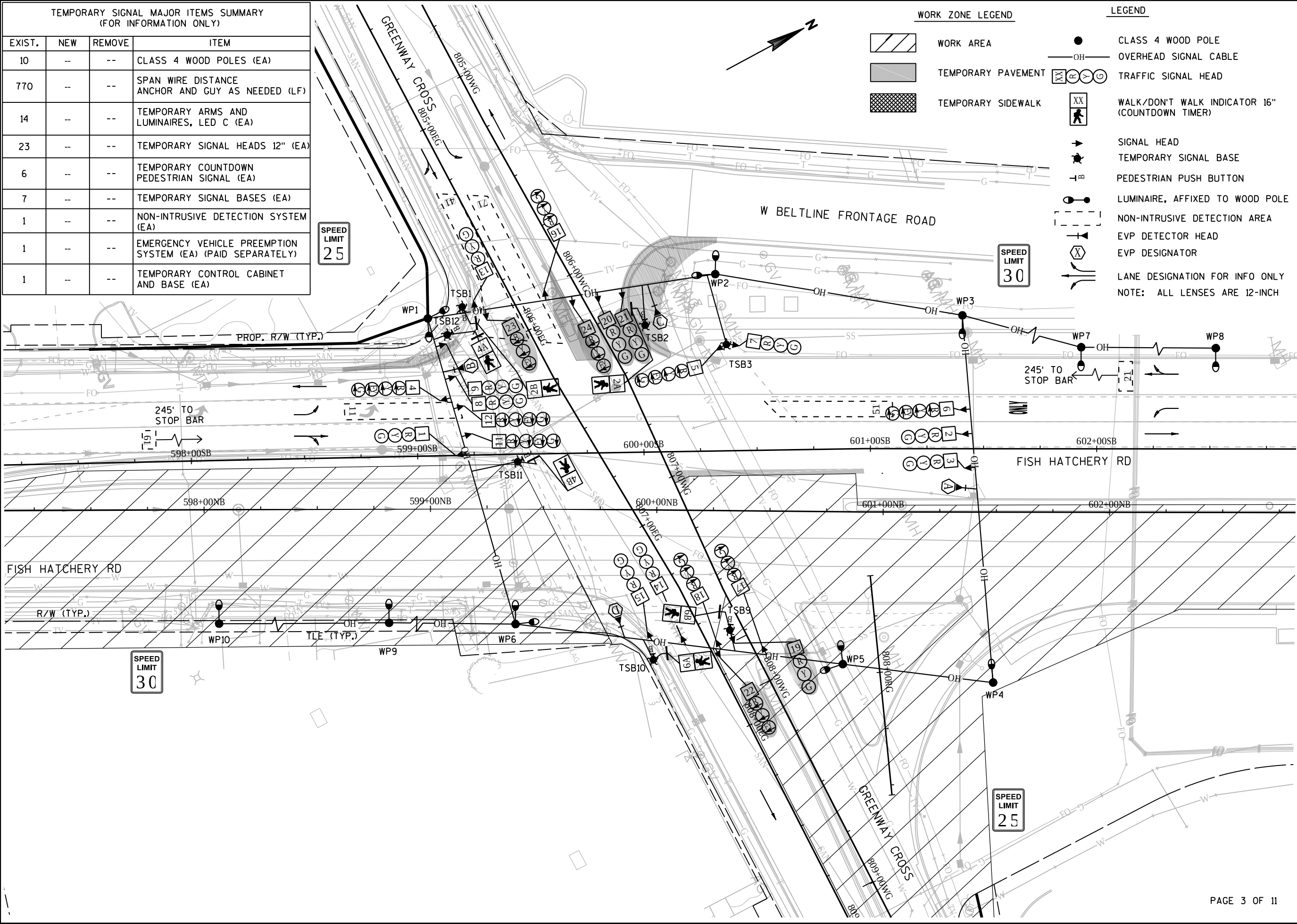
Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions:

SHEET NO.

17 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMP\GREENWAY CROSS\KL_FHR_SIG_TEMP - GREENWAY CROSS_STG_B1.DWG PLOT BY: JARED BAITES PLOT DATE: 10/28/2019 3:50 PM



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
STAGE B1

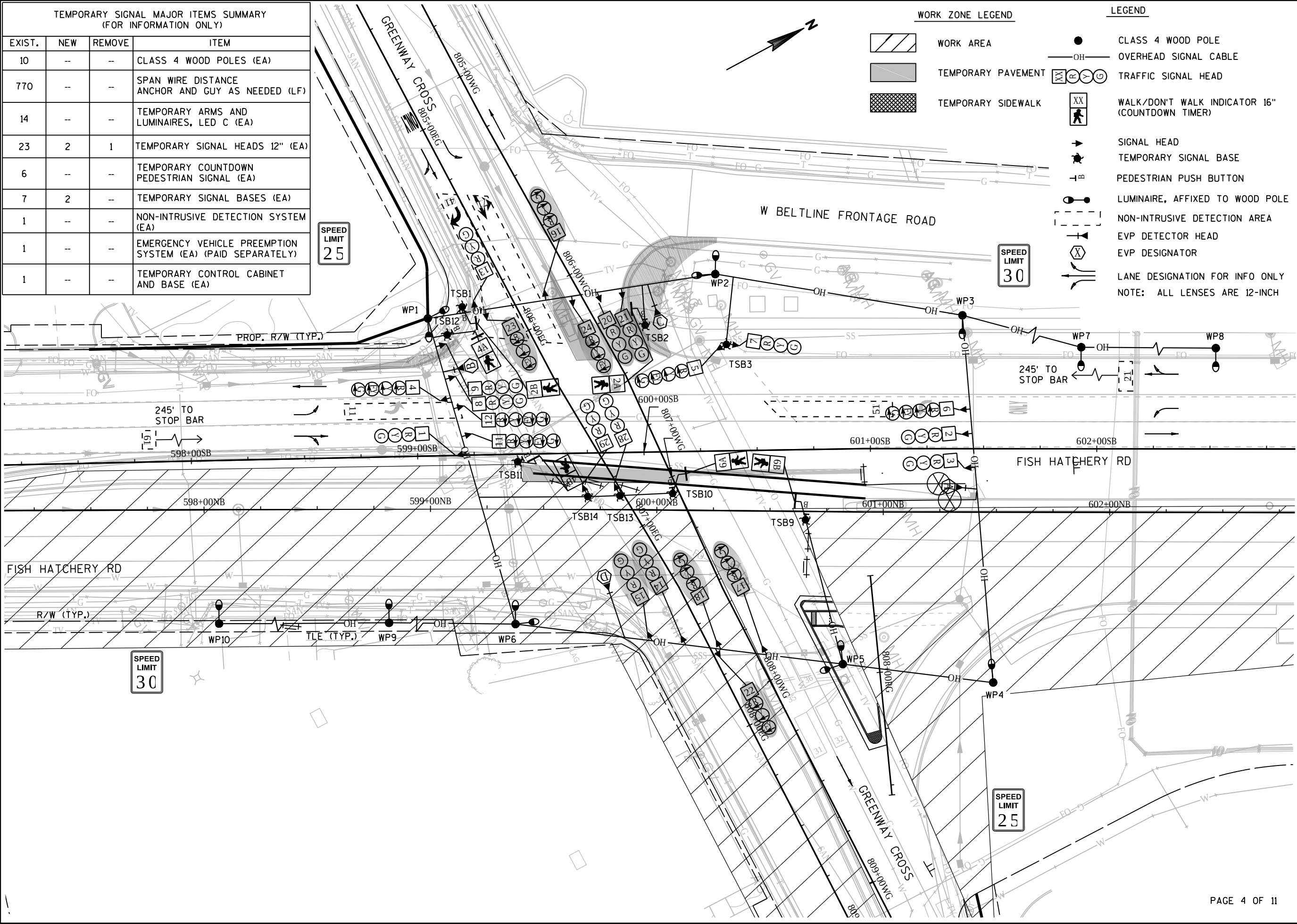
Project No: 19-3488
Date: OCT 2019
Designed By: KCVW
Drafted By: JMB
Checked By: MJR

Revisions:

SHEET NO.

18 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMP\GREENWAY CROSS\KL_FHR_SIG_TEMP - GREENWAY CROSS_STG_B2.DWG PLOT BY: JARED BAILES PLOT DATE: 10/28/2019 3:51 PM



TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)			
EXIST.	NEW	REMOVE	ITEM
10	--	--	CLASS 4 WOOD POLES (EA)
770	--	--	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
14	--	--	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
23	2	1	TEMPORARY SIGNAL HEADS 12" (EA)
6	--	--	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
7	2	--	TEMPORARY SIGNAL BASES (EA)
1	--	--	NON-INTRUSIVE DETECTION SYSTEM (EA)
1	--	--	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
1	--	--	TEMPORARY CONTROL CABINET AND BASE (EA)

WORK ZONE LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY SIDEWALK

LEGEND

- CLASS 4 WOOD POLE
- OVERHEAD SIGNAL CABLE
- TRAFFIC SIGNAL HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- PEDESTRIAN PUSH BUTTON
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY
- NOTE: ALL LENSES ARE 12-INCH



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
STAGE B2

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

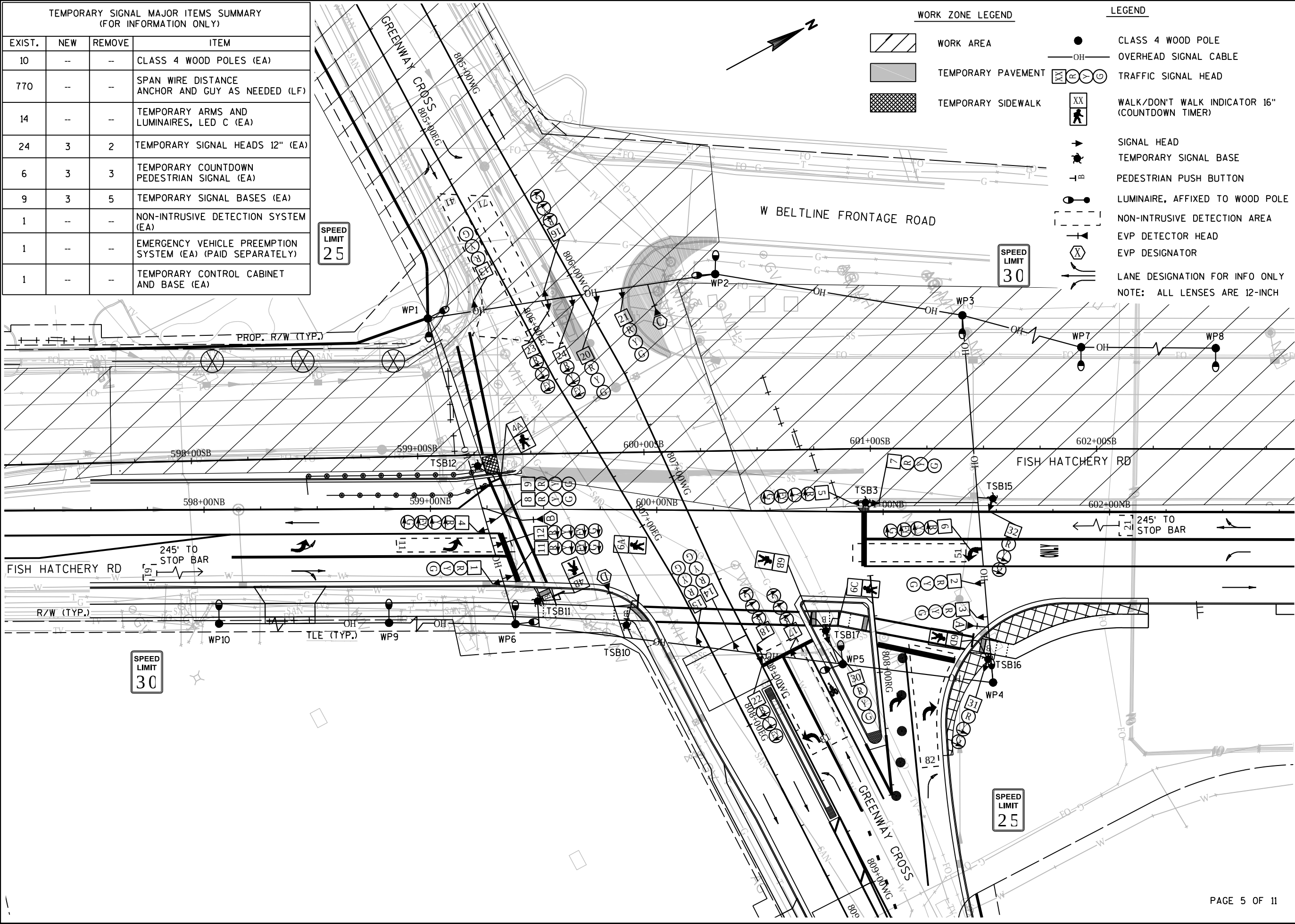
Revisions:

SHEET NO.

19 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMP\GREENWAY CROSS\STG_CD.WG
PLOT BY: JARED BAILES
PLOT DATE: 10/28/2019 3:52 PM

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)			
EXIST.	NEW	REMOVE	ITEM
10	--	--	CLASS 4 WOOD POLES (EA)
770	--	--	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
14	--	--	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
24	3	2	TEMPORARY SIGNAL HEADS 12" (EA)
6	3	3	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
9	3	5	TEMPORARY SIGNAL BASES (EA)
1	--	--	NON-INTRUSIVE DETECTION SYSTEM (EA)
1	--	--	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
1	--	--	TEMPORARY CONTROL CABINET AND BASE (EA)



WORK ZONE LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY SIDEWALK

LEGEND

- CLASS 4 WOOD POLE
- OVERHEAD SIGNAL CABLE
- TRAFFIC SIGNAL HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- PEDESTRIAN PUSH BUTTON
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY
- NOTE: ALL LENSES ARE 12-INCH



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
STAGE C

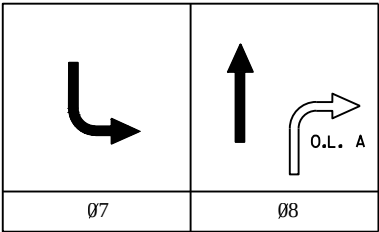
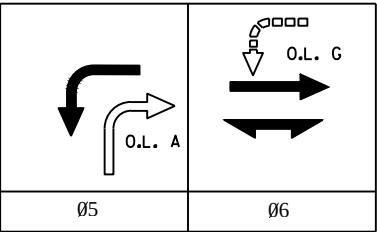
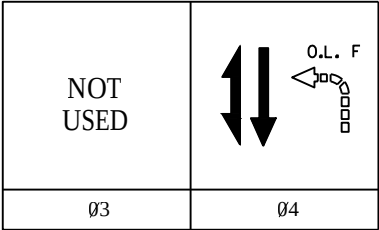
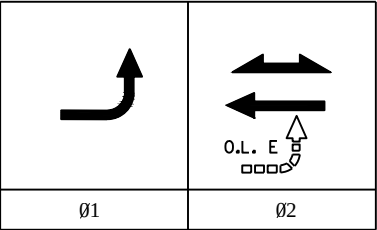
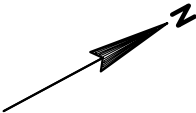
Project No: 19-3488
Date: OCT 2019
Designed By: KCVW
Drafted By: JMB
Checked By: MJR

Revisions:

SHEET NO.

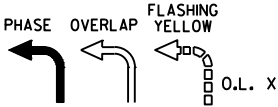
20 OF 26

	HEAD NUMBERS	FLASH
Ø1	4-6	R
Ø2	7-9	R
Ø3		-
Ø4	13-15,28,29	R
Ø5	10-12	R
Ø6	1-3	R
Ø7	16-18	R
Ø8	19-21,30	R
Ø2 PED	2A,2B	-
Ø4 PED	4A,4B	-
Ø6 PED	6A,6B,6C,6D	-



BARRIER

LEGEND



			O.L. ASSIGNMENTS
Ø8 PED			
O.L.A	25-27,31,32	R	
O.L.B			
O.L.C			
O.L.D			
O.L.E	4-6	-	Ø2
O.L.F	22-24	R	Ø4
O.L.G	10-12	-	Ø6
O.L.H			

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	51	61	71	81	82
PHASE CALLED	1	2	4	5	6	7	8	8
PHASE EXTENDED	1	2	4	5	6	7	8	8
DISCONNECT TIME								
CALLING DELAY	3			3			3	10
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4		8		X
5				X
6	X	2	MIN	X
7				X
8		4		X

GENERAL NOTES:

- O.L.A SHALL BE OMITTED DURING STAGE B.
- O.L.G SHALL BE OMITTED DURING PRE-STAGE OR WHENEVER TWO SOUTHBOUND LEFT TURN LANES ARE IN OPERATION.

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2+5	NB
4	EVP	B	1+6	SB
5	EVP	C	4+8	EB
6	EVP	D	4+7	WB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

EVP NOTES:

- AFTER PREEMPTION SEQUENCE A OR B, CONTROLLER SHALL RETURN TO PHASES 2+6. AFTER PREEMPTION SEQUENCE C OR D, CONTROLLER SHALL RETURN TO PHASE 4+8.
- FLASHING LEFT ARROW OVERLAPS SHALL BE OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
SEQUENCE OF OPERATIONS (STG A TO STG C)

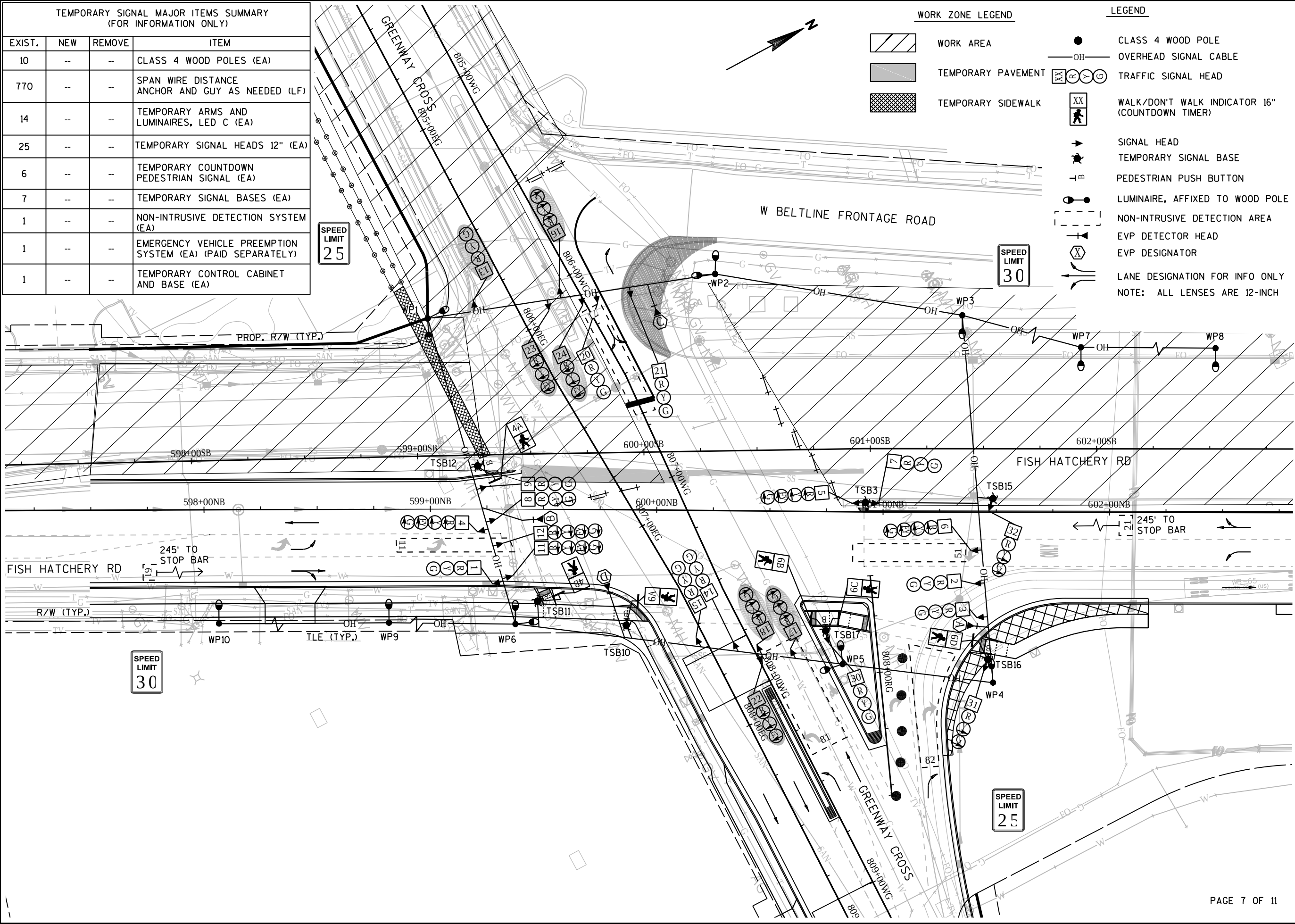
Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions:

SHEET NO.

21 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMP\GREENWAY CROSS\STG_C3.DWG PLOT DATE: 10/28/2019 3:53 PM PLOT BY: JARED BAITES



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
STAGE C3

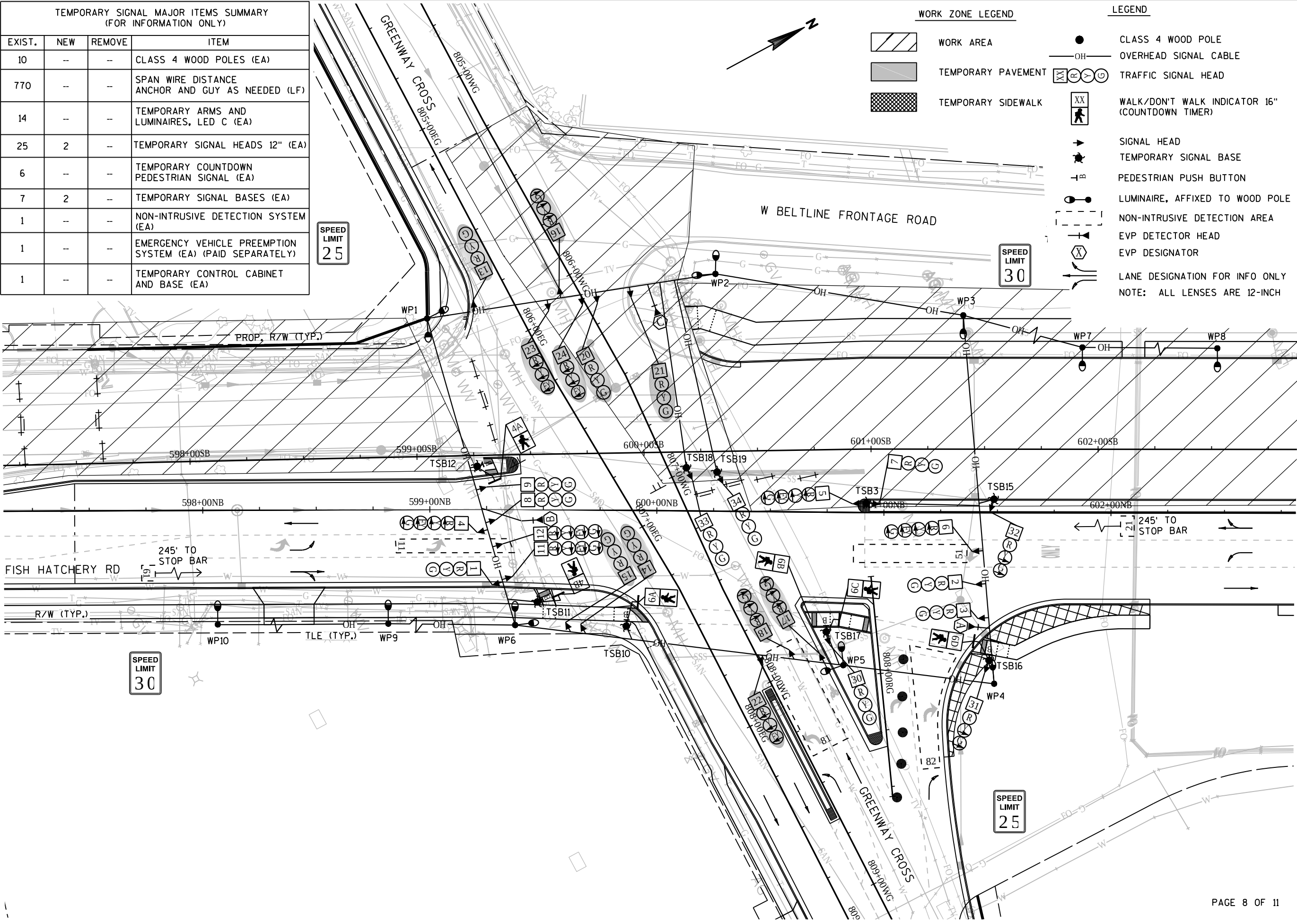
Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions:

SHEET NO.

22 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMP\GREENWAY CROSS\K4.DWG PLOT DATE: 10/28/2019 3:54 PM PLOT BY: JARED BAILES



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
STAGE C4

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

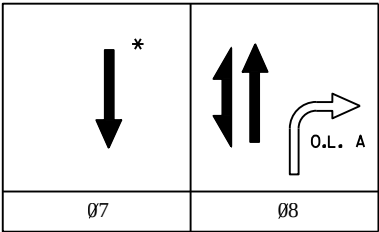
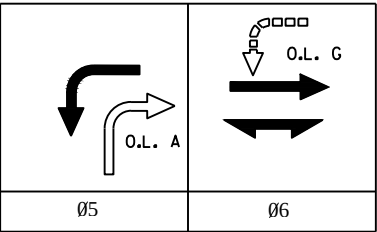
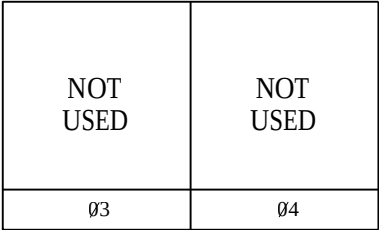
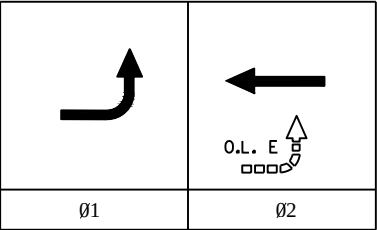
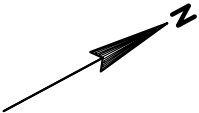
Revisions:

SHEET NO.

23 OF 26

	HEAD NUMBERS	FLASH
Ø1	4-6	R
Ø2	7-9	R
Ø3		-
Ø4	13-15	R
Ø5	11,12	R
Ø6	1-3	R
Ø7		-
Ø8	20,21,30,33,34	R
Ø2 PED		-
Ø4 PED		-
Ø6 PED	6A,6B,6C,6D	-

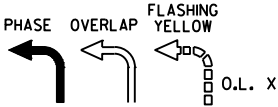
O.L. ASSIGNMENTS		
Ø8 PED	4A,4B	
O.L.A	31,32	R
O.L.B		
O.L.C		
O.L.D		
O.L.E	4-6	- Ø2
O.L.F		
O.L.G	10-12	- Ø6
O.L.H		



*STAGE 7 OMITTED DURING STAGE C4

BARRIER

LEGEND



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4				
5				X
6	X	2	MIN	X
7				X
8				X

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2+5	NB
4	EVP	B	1+6	SB
5	EVP	C	7	EB
6	EVP	D	8	WB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

EVP NOTES:

- AFTER PREEMPTION SEQUENCE A OR B, CONTROLLER SHALL RETURN TO PHASES 2+6. AFTER PREEMPTION SEQUENCE C OR D, CONTROLLER SHALL RETURN TO PHASE 8.
- FLASHING LEFT ARROW OVERLAPS SHALL BE OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF REMOTE COMMUNICATION

NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT

NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT

NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING

BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21		51	61	71	81	82
PHASE CALLED	1	2		5	6	7	8	8
PHASE EXTENDED	1	2		5	6	7	8	8
DISCONNECT TIME								
CALLING DELAY	3			3		10	3	10
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								



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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
SEQUENCE OF OPERATIONS (STG C3 AND STG C4)

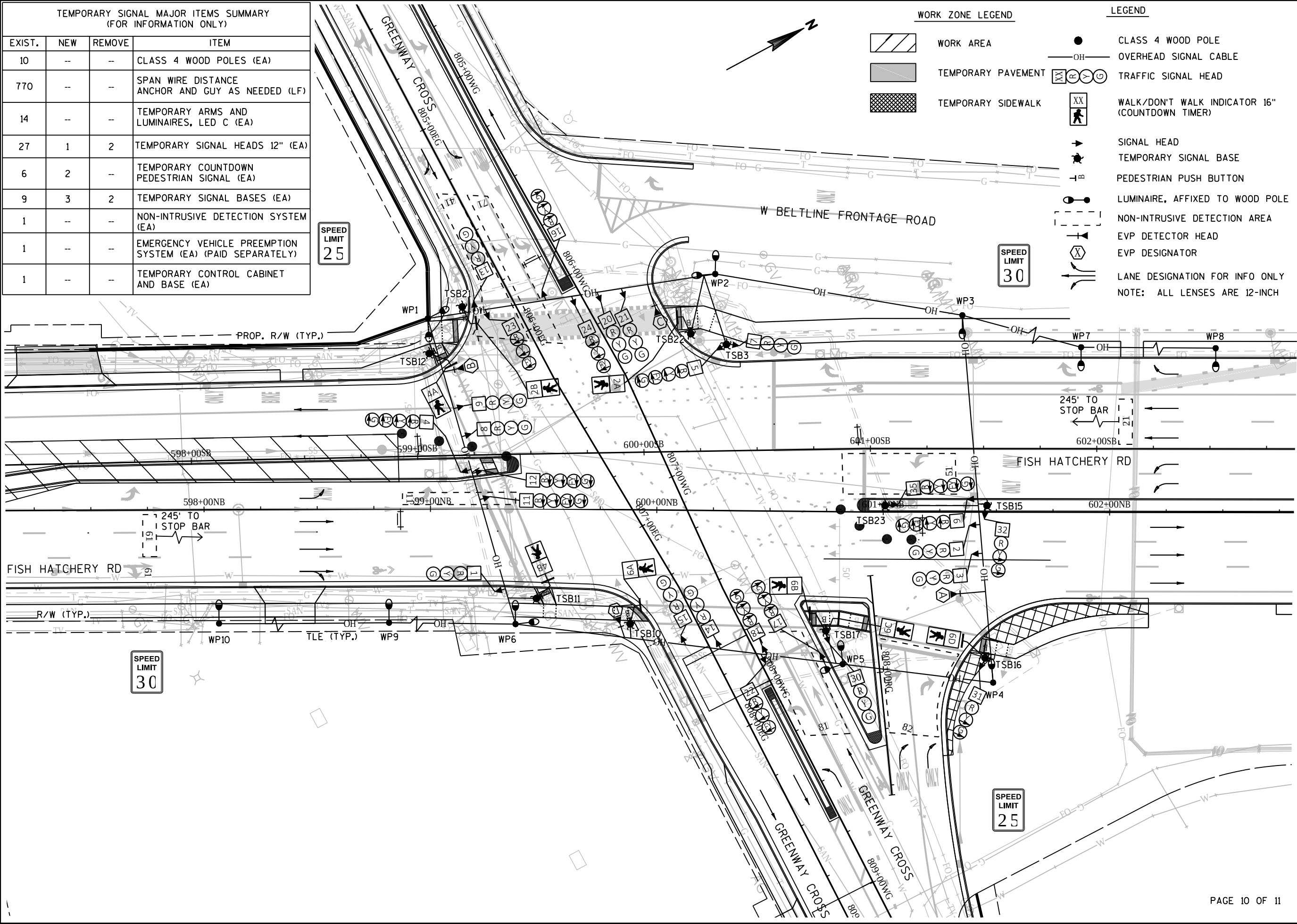
Project No: 19-3488
Date: 10-28-2019
Designed By: KCW
Drafted By: ACL
Checked By: MJR

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24 OF 26

FILE NAME: G:\FITCHBURG\18013-000\CIVIL\3D\SHEETS\PLAN\TRAFFIC SIGNAL\TEMP\GREENWAY CROSS\STG_D.DWG PLOT BY: JARED BAILES PLOT DATE: 10/28/2019 3:55 PM



TEMPORARY SIGNAL MAJOR ITEMS SUMMARY (FOR INFORMATION ONLY)			
EXIST.	NEW	REMOVE	ITEM
10	--	--	CLASS 4 WOOD POLES (EA)
770	--	--	SPAN WIRE DISTANCE ANCHOR AND GUY AS NEEDED (LF)
14	--	--	TEMPORARY ARMS AND LUMINAIRES, LED C (EA)
27	1	2	TEMPORARY SIGNAL HEADS 12" (EA)
6	2	--	TEMPORARY COUNTDOWN PEDESTRIAN SIGNAL (EA)
9	3	2	TEMPORARY SIGNAL BASES (EA)
1	--	--	NON-INTRUSIVE DETECTION SYSTEM (EA)
1	--	--	EMERGENCY VEHICLE PREEMPTION SYSTEM (EA) (PAID SEPARATELY)
1	--	--	TEMPORARY CONTROL CABINET AND BASE (EA)

WORK ZONE LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY SIDEWALK

LEGEND

- CLASS 4 WOOD POLE
- OVERHEAD SIGNAL CABLE
- TRAFFIC SIGNAL HEAD
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- PEDESTRIAN PUSH BUTTON
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY
- NOTE: ALL LENSES ARE 12-INCH



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CITY OF FITCHBURG
TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
STAGE D

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

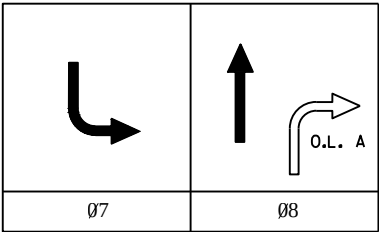
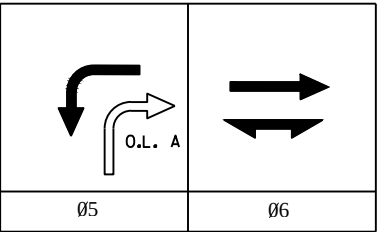
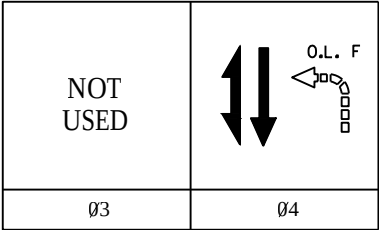
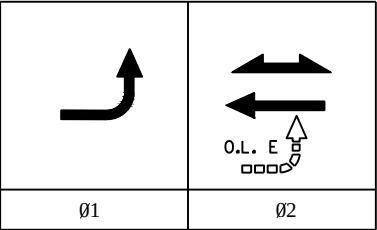
Revisions:

SHEET NO.

25 OF 26

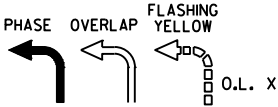
	HEAD NUMBERS	FLASH
Ø1	4-6	R
Ø2	7-9	R
Ø3		-
Ø4	13-15	R
Ø5	11,12,35	R
Ø6	1-3	R
Ø7	16-18	R
Ø8	20,21,30	R
Ø2 PED	2A,2B	-
Ø4 PED	4A,4B	-
Ø6 PED	6A,6B,6C,6D	-
Ø8 PED		

O.L. ASSIGNMENTS		
O.L.A	31,32	R
O.L.B		
O.L.C		
O.L.D		
O.L.E	4-6	- Ø2
O.L.F	22-24	R Ø4
O.L.G		
O.L.H		



BARRIER

LEGEND



PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4		8		X
5				X
6	X	2	MIN	X
7				X
8		4		X

CONTROLLER LOGIC

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	DIRECTION OF TRAVEL
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	2+5	NB
4	EVP	B	1+6	SB
5	EVP	C	4+7	EB
6	EVP	D	4+8	WB
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE A OR B, CONTROLLER SHALL RETURN TO PHASES 2+6. AFTER PREEMPTION SEQUENCE C OR D, CONTROLLER SHALL RETURN TO PHASE 4+8.
2. FLASHING LEFT ARROW OVERLAPS SHALL BE OMITTED DURING ALL PREEMPTION SEQUENCES.

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	41	51	61	71	81	82
PHASE CALLED	1	2	4	5	6	7	8	8
PHASE EXTENDED	1	2	4	5	6	7	8	8
DISCONNECT TIME								
CALLING DELAY							3	
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								



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CITY OF FITCHBURG

TEMPORARY TRAFFIC SIGNAL PLAN
FISH HATCHERY RD & GREENWAY CROSS
SEQUENCE OF OPERATIONS STG D

Project No: 19-3488
Date: OCT 2019
Designed By: KCW
Drafted By: JMB
Checked By: MJR

Revisions:

SHEET NO.

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