



Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Phillip Eng, Interim MassDOT Secretary
Jonathan L. Gulliver, Undersecretary and Highway Administrator



June 18, 2026

612190-134594

ADDENDUM NO. 1

To Prospective Bidders and Others on:

HOLDEN
Federal Aid Project No. HIP(NGB)-003S(963)X
Bridge Replacement, H-18-004, Salisbury Street over G&W Railroad

PROPOSALS TO BE OPENED AND READ: TUESDAY, JUNE 30, 2026 at 2:00 P.M.

Transmitting revisions to the Contract Documents as follows:

<u>QUESTIONS AND RESPONSES:</u>	1 page.
<u>DOCUMENT 00010:</u>	Revised page 2.
<u>DOCUMENT 00104:</u>	Revised page 3.
<u>DOCUMENT 00813:</u>	Deleted document in its entirety and inserted new document (4 pages).
<u>DOCUMENT A00801:</u>	Revised pages 132 through 148.
<u>DOCUMENT A00803:</u>	Inserted new document (4 pages).

Take note of the above, substitute the revised pages for the originals, delete the document as noted, insert the new documents in proper order and acknowledge Addendum No. 1 in your Expedite Proposal file before submitting your bid.

Very truly yours,

for
Eric M. Cardone, P.E.
Construction Contracts Engineer

EMC/kal
cc: Lawrence Cash, Project Manager

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HOLDEN
Federal Aid Project Number HIP(NGB)-003S(963)X
Bridge Replacement, H-18-004, Salisbury Street over G&W Railroad
(612190-134594)

QUESTIONS AND RESPONSES

ADDENDUM NO. 1, JUNE 18, 2026

Ocean State Signal, email dated June 11, 2026:

Question #1: Please provide plan sheets associated with Item 816.81.

Response #1: Refer to the new Document A00803. A Plan has been prepared along with a revised Special Provision. This item is included in the contract to account for the possibility that at Temporary Traffic Signal, when it is required by the Engineer, at the intersection of Main Street (Route 122A) at Bailey Road as shown in the Detour Plan and described in the notes on Sheets 21 and 22 of the plans.

John Roccio Corp, email dated June 16, 2026:

Question #2: Please clarify which work can be accomplished before the bridge shutdown. Can the micro piles be installed before the June 2027 shut down date?

Response #2: Construction sequencing for the project is the responsibility of the Contractor, to be developed in coordination with the Town, MassDOT, and the Railroad, which will need have to review and approve the Contractor's intent.

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① Addendum No. 1, June 18, 2026

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① Addendum No. 1, June 18, 2026

NOTICE TO CONTRACTORS (Continued)

PRICE ADJUSTMENTS

- ① This Contract contains price adjustments for hot mix asphalt and Portland cement mixtures, diesel fuel, and gasoline. For reference the base prices are as follows: liquid asphalt \$712.50 per ton, Portland cement \$452.13 per ton, diesel fuel \$4.497 per gallon, and gasoline \$3.752 per gallon, and Steel Base Price Index 362.0. MassDOT posts the **Price Adjustments** on their Highway Division's website at <https://www.mass.gov/massdot-contract-price-adjustments>

This Contract contains Price Adjustments for steel. See Document 00813 - PRICE ADJUSTMENT FOR STRUCTURAL STEEL AND REINFORCING STEEL for their application and base prices.

MassDOT projects are subject to the rules and regulations of the Architectural Access Board (521 CMR 1.00 et seq.)

Prospective bidders and interested parties can access this information and more via the internet at WWW.COMMBUYS.COM.

BY: Phillip Eng, Interim MassDOT Secretary
Jonathan L. Gulliver, Undersecretary and Highway Administrator
SATURDAY, MAY 30, 2026

DOCUMENT 00813

SPECIAL PROVISIONS

PRICE ADJUSTMENTS FOR STRUCTURAL STEEL AND REINFORCING STEEL

June 17, 2026

This special provision applies to all projects containing the use of structural steel and/or reinforcing steel as specified elsewhere in the Contract work. It applies to all structural steel and all reinforcing steel, as defined below, on the project. Compliance with this provision is mandatory, i.e., there are no “opt-in” or “opt-out” clauses. Price adjustments will be handled as described below and shall only apply to unfabricated reinforcing steel bars and unfabricated structural steel material, consisting of rolled shapes, plate steel, sheet piling, pipe piles, steel castings and steel forgings.

Price adjustments will be variances between Base Prices and Period Prices. Base Prices and Period Prices are defined below.

Price adjustments will only be made if the variances between Base Prices and Period Prices are 5% or more. A variance can result in the Period Price being either higher or lower than the Base Price. Once the 5% threshold has been achieved, the adjustment will apply to the full variance between the Base Price and the Period Price.

Price adjustments will be calculated by multiplying the number of pounds of unfabricated structural steel material or unfabricated reinforcing steel bars on a project by the index factor calculated as shown below under Example of a Period Price Calculation.

Price adjustments will not include guardrail panels or the costs of shop drawing preparation, handling, fabrication, coatings, transportation, storage, installation, profit, overhead, fuel costs, fuel surcharges, or other such charges not related to the cost of the unfabricated structural steel and unfabricated reinforcing steel.

The weight of steel subject to a price adjustment shall not exceed the final shipping weight of the fabricated part by more than 10%.

Base Prices and Period Prices are defined as follows:

Base Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are fixed prices determined by the Department and found in the table below. While it is the intention of the Department to make this table comprehensive, some of a project’s unfabricated structural steel and/or unfabricated reinforcing steel may be inadvertently omitted. Should this occur, the Contractor shall bring the omission to the Department’s attention so that a contract alteration may be processed that adds the missing steel to the table and its price adjustments to the Contract.

The Base Price Date is the month and year of the most recent finalized period price index at the time that MassDOT opened bids for the project. The Base Price Index for this contract is the Steel PPI listed in the Notice to Contractors.

Period Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are variable prices that have been calculated using the Period Price Date and an index of steel prices to adjust the Base Price.

The Period Price Date is the date the steel was delivered to the fabricator as evidenced by an official bill of lading submitted to the Department containing a description of the shipped materials, weights of the shipped materials and the date of shipment. This date is used to select the Period Price Index.

The index used for the calculation of Period Prices is the U.S. Department of Labor Bureau of Labor Statistics Producer Price Index (PPI) Series ID WPU101702 (Not Seasonally Adjusted, Group: Metals and Metal Products, Item: Semi-finished Steel Mill Products.) As this index is subject to revision for a period of up to four (4) months after its original publication, no price adjustments will be made until the index for the period is finalized, i.e., the index is no longer suffixed with a “(P)”.

Period Prices are determined as follows:

Period Price = Base Price X Index Factor

Index Factor = Period Price Index / Base Price Index

Example of a Period Price Calculation:

Calculate the Period Price for December 2009 using a Base Price from March 2009 of \$0.82/Pound for 1,000 Pounds of ASTM A709 (AASHTO M270) Grade A36 Structural Steel Plate.

The Period Price Date is December 2009. From the PPI website*, the Period Price Index = 218.0.

The Base Price Date is March 2009. From the PPI website*, the Base Price Index = 229.4.

Index Factor = Period Price Index / Base Price Index = 218.0 / 229.4 = 0.950

Period Price = Base Price X Index Factor = \$0.82/Pound X 0.950 = \$0.78/Pound

Since \$0.82 - \$0.78 = \$0.04 is less than 5% of \$0.82, no price adjustment is required.

If the \$0.04 difference shown above was greater than 5% of the Base Price, then the price adjustment would be 1,000 Pounds X \$0.04/Pound = \$40.00. Since the Period Price of \$0.78/Pound is less than the Base Price of \$0.82/Pound, indicating a drop in the price of steel between the bid and the delivery of material, a credit of \$40.00 would be owed to MassDOT. When the Period Price is higher than the Base Price, the price adjustment is owed to the Contractor.

* To access the PPI website and obtain a Base Price Index or a Period Price Index, go to

<http://data.bls.gov/cgi-bin/srgate>

End of example.

The Contractor will be paid for unfabricated structural steel and unfabricated reinforcing steel under the respective contract pay items for all components constructed of either structural steel or reinforced Portland cement concrete under their respective Contract Pay Items.

Price adjustments, as herein provided for, will be paid separately as follows:

Structural Steel

Pay Item Number 999.449 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.457 for negative (-) pay adjustments (credits to MassDOT Highway Division)

Reinforcing Steel

Pay Item Number 999.466 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.467 for negative (-) pay adjustments (credits to MassDOT Highway Division)

No price adjustment will be made for price changes after the Contract Completion Date, unless the MassDOT Highway Division has approved an extension of Contract Time for the Contract.

TABLE

Steel Type	Price per Pound	
1	ASTM A615/A615M Grade 60 (AASHTO M31 Grade 60 or 420) Reinforcing Steel	\$0.56
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	\$0.78
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	\$0.78
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	\$0.80
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	\$0.84
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	\$0.79
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	\$0.84
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	\$0.79
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	\$0.87
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	\$0.80
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	\$0.87
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	\$0.80
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	\$0.91
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	\$0.98
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	\$1.50
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	\$0.87
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	\$0.80
18	ASTM A276 Type 316 Stainless Steel	\$4.51
19	ASTM A240 Type 316 Stainless Steel	\$4.51
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	\$1.55
21	ASTM A53 Grade B Structural Steel Pipe	\$0.98
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	\$0.98
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	\$0.78
24	ASTM 252, Grade 2 Permanent Steel Casing	\$0.78
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	\$0.82
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	\$1.48
27	ASTM A572 / A572M, Grade 50 Sheetpiling	\$1.48
28	ASTM A36/36M, Grade 50	\$0.84
29	ASTM A570, Grade 50	\$0.82
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	\$0.84
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	\$0.98
32	AREA 140 LB Rail and Track Accessories	\$0.51

NOTE: Steel Castings are generally used only on moveable bridges. Cast iron frames, grates and pipe are not "steel" castings and will not be considered for price adjustments.

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ITEM 816.81

TEMPORARY TRAFFIC CONTROL SIGNAL
LOCATION NO. 1

LUMP SUM

The work under this item shall conform to the relevant provisions of Section 800 of the Standard Specification, the 11th Edition of the Manual on Uniform Traffic Control Devices (MUTCD), the Massachusetts Amendments; and the following technical provisions:

The work included under this item consists of furnishing all necessary labor, materials, and equipment required to install, complete in place and ready for operation, temporary traffic control signals and related work at the location shown on the sketches provided in the Document A00803.

Installation of the temporary traffic control signal should only be considered at the discretion of the Resident Engineer based on intersection operations.

Loc. No. 1: Main St (Route 122) at Bailey Rd.

SCOPE OF TEMPORARY TRAFFIC SIGNAL WORK

Work at the above location shall consist of constructing temporary traffic signal systems complete with temporary wooden span poles, portable traffic signal posts, camera detection systems that have stop line presence detection, vehicle signal heads, pedestrian signal heads, pedestrian push buttons, emergency preemption equipment, new signal controllers and cabinets, electrical cable, electrical service connection and all other equipment, materials and incidental costs necessary to construct, program, operate and maintain a complete and functioning temporary traffic control system to satisfaction of the Engineer and as specified and shown in the contract documents.

GENERAL REQUIREMENTS

Lists of the major temporary traffic signal items required are included on the traffic signal plans in the Appendix.

All temporary traffic signal equipment shall comply with the MassDOT Qualified Traffic Control Equipment (QTCE) Lists unless otherwise approved by the Engineer.

Temporary wooden span wire poles shall be in conformance with the relevant provisions of Subsection 820 of the standard specifications. The luminaire shall be installed on the bracket arms with the luminaire parallel to the roadway grade unless otherwise shown on the plans.

The Contractor shall make all necessary arrangements with the electric company for the service connections or for any main power cut off when necessary, and bear all charges incurred. No work shall be done on power poles without a representative of the serving utility company being present. The Contractor will be responsible for coordinating the serving utility company work.

ITEM 816.81 (Continued)

It is the intent of the Plans, Specifications and these Special Provisions to provide and maintain a complete traffic control signal system throughout the project. The contractor will own, operate and maintain this temporary signal during the entire construction period. Following the completion of construction, the temporary traffic signal equipment shall be removed and become the property of the contractor with the exception of the traffic signal controller and cabinet.

Signal indications shall be LED. Signal supports may be wooden.

This specification establishes the performance, test, and quality requirements for Temporary Traffic Control Signal System. The system will be tested and approved prior to use.

SUBMITTALS

Contractor to submit shop drawings for the temporary traffic signal components. The Contractor must obtain approval of the complete shop drawing submittal prior to closure of Salisbury Street unless closed by MassDOT due to bridge condition.

MATERIALS

All materials required for the Temporary Traffic Signal shall be procured prior to the closure of Salisbury Street unless closed by MassDOT due to its condition.

Poles

The material of the poles may either be wood or metal. Shortening as required shall be from the narrow end. The height of the wood poles shall be determined by the Contractor and shall be such a height that allows all traffic signal equipment/signs/tether wire to be at a minimum vertical clearance of no less than 17'-6" or greater than 19' above the pavement grade at the center of the roadway. Class 1 poles or better shall be used for traffic signal supports. Wooden poles shall be either Douglas Fir or Southern Yellow Pine.

CONSTRUCTION METHODS

Span wire poles shall be handled on loading, unloading, and erecting in such a manner that they will not be damaged. Any parts that are damaged due to the Contractor's operations shall be repaired or replaced at the Contractor's expense.

Span wire poles shall be placed in the ground a minimum of 12 feet after each pull is set in the ground, the pole shall be back filled with Backfill shall be free of rocks and debris and shall be placed in layers of no more than 6 inches before layer compaction. Each layer shall be moistened and thoroughly compacted.

ITEM 816.81 (Continued)

Span wire poles shall be raked sufficiently to be Plumb after all loads have been placed.

Span wire poles shall not obstruct a sidewalk, side path or crosswalk so that passage by physically challenged and/or visually disabled persons is not impaired.

VIDEO DETECTION

The Contractor shall supply and install a video detection system. The system shall provide full motion video output showing zones highlighted during detection for fine tuning. All hardware and software within the traffic signal cabinet shall be NEMA TS2 compliant.

The major components of the Video Detection System are further described as follows:

- A. Prior to installation of the Video Detection System a detailed site survey shall be conducted by a factory trained and certified representative. The site survey shall ensure that the design of the camera, camera location, camera optics, and video/data interconnect is appropriate for the application
- B. The supplier of the Video Detection System shall supervise the installation and testing of the Video Detection System and computer software. A factory-certified representative from the supplier shall be on site during installation.
- C. The Video Detection System shall provide one National Television Standards Committee (NTSC) color composite video output.
- D. The Video Detection System shall provide a minimum of 10 detection zones the system shall provide flexible, user configurable detection zone placement at any orientation within the field of view of the Video Detection System Camera. It shall be possible to overlap detection zones. It shall be possible to configure the video detection system to provide detection signals to the traffic signal controller which are comprised of Boolean combinations of detection zones.
- E. The Video Detection System shall provide failsafe operation whereby it places continuous vehicle calls to the traffic signal controller on all detection zones in the event it senses unacceptable video from the Video Detection System Camera.
- F. The Video Detection System shall include a configuring device and/or a Windows based computer software that provides for configuring the video detection system, viewing real time video, and updating the flash memory of the video protection system with updated application software.
- G. The Video Detection System shall provide count and presence detection performance with at least 96% accuracy under normal (day and night) conditions.

ITEM 816.81 (Continued)

- H. The Video Detection System shall utilize FLASH memory to store the resident application software.
- I. The Video Detection System shall be comprised of the Video Detection System Camera, Video Detection System Cable, and Video Detection System Hardware.
- J. Video Detection System Cameras.
 - 1. The Video Detection System Camera shall operate without degradation over a temperature range of -30 to 140 degrees Fahrenheit at a relative humidity of 10% to 90% condensing.
 - 2. The Video Detection System Camera shall be housed in a water resistant, dustproof NEMA-4 housing. The housing shall include a rear connector for connection of the Video Detection System Cable. The housing shall be field rotatable to allow for proper alignment between the camera and the traveled road surface.
 - 3. The Video Detection System Camera shall have a heater to prevent the formation of ice and condensation in the cold weather and allow the camera to operate correctly while exposed to precipitation and direct sunlight.
 - 4. The Video Detection System Camera shall have a sunshield to protect the lens from direct sunlight and direct precipitation exposure.
 - 5. The Video Detection System Camera shall provide useable video and resolvable features in the video image when those features have luminance levels as low as 0.1 lux at night and as high as 10,000 lux during the day. The Video Detection System Camera shall contain an automatic gain control (AGC) to provide a satisfactory image over the full range of light levels.
- K. Video Detection System Cable
 - 1. The Video Detection System Cable shall interconnect the Video Detection System Camera with the Video Detection System Hardware in the traffic signal control cabinet.
 - 2. The Video Detection System Cable shall meet the design requirements of the Video Detection System Camera manufacturer and shall be designed and manufactured specifically for the Video Detection System Camera supplied.
 - 3. The Video Detection System Cable shall be capable of withstanding the rigors or outdoor environments, including all combinations of precipitation, heat and cold from -30 to 165 degrees Fahrenheit, and direct exposure to sunlight without exhibiting any signs of deterioration over time.

ITEM 816.81 (Continued)

4. The Video Detection System Cable shall be installed with a suitable drip loop to prevent the entrance of water into the housing.

L. Video Detection System Hardware

1. The Video Detection System Hardware shall operate without degradation over a temperature range of -30 to 165 degrees Fahrenheit at a relative humidity of 10% to 90% condensing.
2. The Video Detection System Hardware shall include interface device(s) which shall be installed in the traffic control cabinet.
3. The interface device(s) shall be used to terminate the traffic controller cabinet end of the Video Detection System Cable.
 - i. The interface device(s) shall contain a transient suppression device for all signals transported on the Video Detection System Cable, including but not limited to video, data, and power.
 - a. The surge protector shall be electrically connected to the cabinet ground rod.
 - b. Surge protectors should have peak surge current protection of at least 10K amperes with a response time of less than 5 nanoseconds. The protector complies when a lab report from an independent test laboratory stating the product passes this specification is submitted with the shop drawings.
 - c. Units should be pre-approved or unconditionally warranted for at least 10 years and certified to comply with the product's published specifications by an independent laboratory.
 - ii. The interface device(s) shall contain a switch or shut off mechanism that shall allow the user to turn off AC service to all components of the Video Detection System.
 - iii. The interface device(s) shall contain a connector for interfacing to an included configuring device and/or a Windows based computer in the field for the purpose of configuring the Video Detection System, viewing real time video, and for updating the flash memory of the Video Detection System with an updated application software.
4. The Video Detection System Hardware shall include all necessary cables for interconnection to the traffic signal controller, AC power service, a modem for transport of NTSC video to the traffic operations center, and a configuring device and/or a Windows based computer in the field.

ITEM 816.81 (Continued)**SIGNAL TIMING**

Signal phasing and timing for the temporary traffic control signals shall match the signal phasing and timing provided in the Temporary Traffic Signal plans within the Appendix.

CONTROLLER AND CABINET

The work shall include furnishing and installing a new controller and a new cabinet as detailed on the Plans.

The controller shall be compatible with Advanced Traffic Controller (ATC) and NEMA standards.

The cabinet shall be made of aluminum and be mounted to the foundation/pole as show on the plans.

The cabinet shall be wired with a normally closed switch connected to a user defined input to the controller for remote monitoring of the control cabinet's door open status. The controller cabinet shall also be supplied with the Manual Police Button to manually control the operations of the traffic signal via the Police Access Door Panel.

SIGNAL HEADS

Signal heads attached to span wires shall be rigidly attached to the span wire. 5-inch black louvered back plates shall be provided on all signal heads as noted on the plans. All signal heads shall be equipped with 12-inch lights as noted on the Plans.

EMERGENCY VEHICLE PREEMPTION

Optically actuated emergency preemption equipment shall be installed for local control of the signals during the passing of appropriately equipped emergency vehicles through intersections. Temporary Traffic Signal Plans illustrate the proposed locations for the emergency preemption receivers and preempt control of the intersection.

The emergency vehicle preemption control system shall consist of a data-encoded phase selector to be installed within the traffic control cabinet. This unit will serve to validate, identify, classify, and record the signal from the optical detectors located on support structures at the intersection.

Upon receiving a valid signal from the detector the phase selector shall generate A preempt call to the controller initiating a preemption operation as shown on the plans.

The optical detectors shall be single input, single output units used to control one approach.

The Contractor shall install a confirmation strobe at the traffic signal location as shown on the plans.

ITEM 816.81 (Continued)

The Contractor shall verify the final location of all preemption receivers in the field to provide optimal operations.

The Contractor is required to supply material and labor, required or show, for the complete installation of optical preemption including optical detectors, cable, interfacing equipment to the local controller, making electrical connections and all required incidentals.

Prior to ordering, the Contractor shall coordinate with the Town of Holden to ensure that new preemption equipment is compatible with the Town's existing preemption equipment.

The installer shall install the equipment consistent with the preemption equipment, the manufacturers recommended installation procedures and electrical diagrams in a neat and workmanlike manner.

TEMPORARY SIGNAL MAINTENANCE

After the Contractor has finished installing the controller and all other associated signal equipment and after the Contractor has set the signal equipment to operate as specified in the Contract Documents, the maintenance of the temporary signal shall begin and continue for the duration of the construction contract. During this time, the Contractor, under the direction of the Engineer, will make necessary adjustments in tests to ensure safe and efficient operation of the equipment.

In the event of failure during this period, the Contractor shall repair or replace the malfunctioning parts or equipment, or faulty workmanship, regardless of the cause, within 24 hours after having been notified. Failures caused by defective equipment, materials or faulty workmanship shall be corrected to the satisfaction of the Engineer.

The Contractor shall provide the Engineer with the name and telephone number of the person to be notified in the event of failures or malfunctions during the test period.

The cost of the electric energy and telephone charges consumed by the operation of the temporary traffic signal shall be borne by the Contractor. This Item also includes the removal of the temporary traffic signal system and restoration of the site.

BASIS OF PAYMENT

Item 816.81 will be paid at the Contract Lump Sum price, which price shall include all labor, materials, including temporary wooden span poles, vehicle signal heads, pedestrian signal heads, pedestrian push buttons, emergency preemption equipment, new signal controllers and cabinets, electrical cable, conduit, pull boxes, electrical service connection, traffic signal controller and cabinet testing and retesting necessary or incidental to the installation, operation, maintenance and, subsequently, removing and disposing of a temporary signalized traffic control system. The Contractor is responsible and restoring the existing property to its original condition.

ITEM 816.81 (Continued)

The Lump Sum Payments will be made based upon the following allocations:

- 10 percent of the Lump Sum to be made upon approval of the Shop Drawings for a completed installation.
- Materials on hand will be paid upon procurement of materials and receipts of purchase provided to the Engineer.
- 25 percent of the Lump Sum to be upon installation of the Temporary Traffic Signal and made fully functional as approved by the Engineer.
- The remaining portion of Lump Sum to be paid upon removal of the Temporary Traffic Signal and restoration of the existing property to its original condition.

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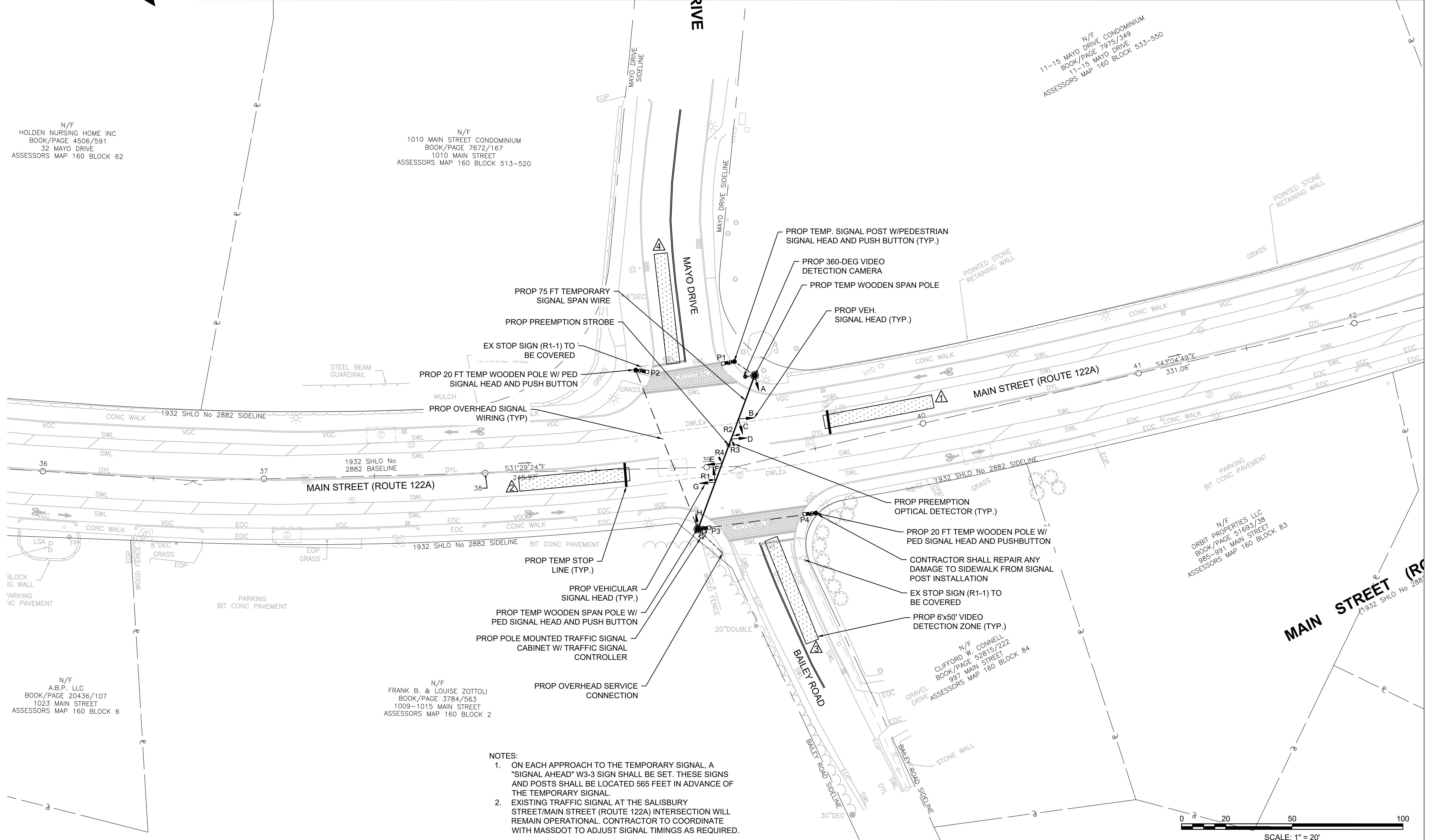
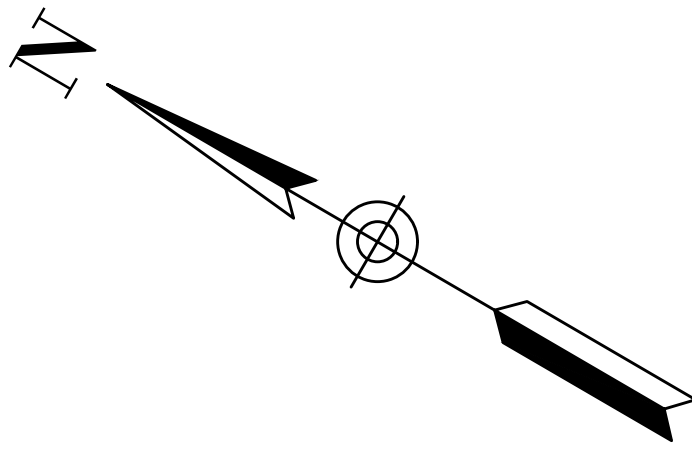
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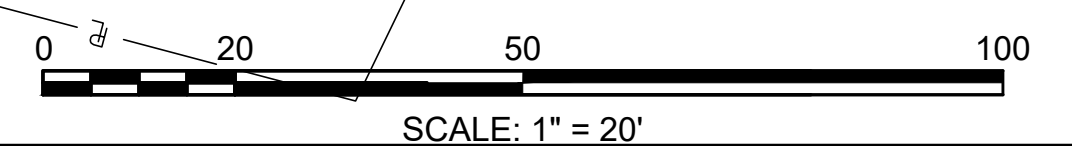
HOLDEN
SALISBURY STREET OVER THE P&W RAILROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	--	--
PROJECT FILE NO. 612190			

TEMPORARY TRAFFIC SIGNAL PLANS
SHEET 01 OF 02
MAIN STREET - BAILEY ROAD



- NOTES:
- ON EACH APPROACH TO THE TEMPORARY SIGNAL, A "SIGNAL AHEAD" W3-3 SIGN SHALL BE SET. THESE SIGNS AND POSTS SHALL BE LOCATED 565 FEET IN ADVANCE OF THE TEMPORARY SIGNAL.
 - EXISTING TRAFFIC SIGNAL AT THE SALISBURY STREET/MAIN STREET (ROUTE 122A) INTERSECTION WILL REMAIN OPERATIONAL. CONTRACTOR TO COORDINATE WITH MASSDOT TO ADJUST SIGNAL TIMINGS AS REQUIRED.



612190_H01(TEMP SIGNAL PLANS).DWG Plotted on 17-Jun-2026 10:59 AM

**HOLDEN
SALISBURY STREET OVER THE P&W RAILROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	--	--
PROJECT FILE NO. 612190			

**TEMPORARY TRAFFIC SIGNAL DATA
SHEET 02 OF 02
MAIN STREET - BAILEY ROAD**

		Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	Ø 9 (PED)																				
SEQUENCE AND TIMING FOR FULL ACTUATED CONTROL (ISOLATED)																														
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	FLASH OPER.
BAILEY ROAD	EB	A,C				R	R	R				G	Y	R	R	R	R	R	R	R				R	R	R	R	R	R	FR
MAYO DRIVE	WB	H,F				R	R	R				R	R	R	R	R	R	R	R	R				G	Y	R	R	R	R	FR
MAIN STREET (ROUTE 122A)	NB	D				G	Y	R				R	R	R	GL	YL	R	R	R	R				R	R	R	R	R	R	FY
MAIN STREET (ROUTE 122A)	NB	B				G	Y	R				R	R	R	R	R	R	R	R	R				R	R	R	R	R	R	FY
MAIN STREET (ROUTE 122A)	SB	E,G				R	R	R				R	R	R	R	R	R	R	R	R				R	R	R	R	R	R	FY
PEDESTRIAN	ALL	P1-P4					DW	DW	DW				DW	DW	DW									DW	DW	DW	W	FDW	DW	OUT
TIMING IN SECONDS																														
MINIMUM GREEN (INITIAL)						10						6			6			10						6						
PASSAGE TIME (VEHICLE)						2						2			2			2						2						
MAXIMUM 1						61						17			10			45					17							
MAXIMUM 2																														
YELLOW CLEARANCE							3.5						3.5		3.0			3.5						3.5						
RED CLEARANCE								2.0						2.0			2.0									2.0				
WALK (W)																											7			
PEDESTRIAN CLEARANCE																											7	4		
RECALL							SOFT					OFF		OFF		OFF		SOFT					OFF			OFF				
MEMORY							NON-LOCK					NON-LOCK		NON-LOCK		NON-LOCK		NON-LOCK					NON-LOCK			LOCK				

NOTE:
1. FLASHING OPERATION PER MUTCD.
* UPON PEDESTRIAN PUSHBUTTON ACTUATION ONLY

PAY ITEM	QUANTITY	ITEM
816.81	1	NEMA TS2 TYPE 1 TRAFFIC SIGNAL CONTROLLER (FULL INPUT AND OUTPUT SUPPRESSION PACKAGE) IN A M-SIZE CABINET MOUNTED ON WOODEN POLE
	1	TEMPORARY WOOD POLE SPAN WIRE ASSEMBLY (2 WOODEN SPAN POLE) WITH TETHER WIRE
	1	TEMPORARY TRAFFIC SIGNAL POLE
	2	20 FT TEMPORARY WOODEN TRAFFIC SIGNAL POLE
	7	SIGNAL HEAD, 3-SECTION
	1	SIGNAL HEAD, 5-SECTION DOGHOUSE
	4	PEDESTRIAN SIGNAL HEAD
	4	APS PUSHBUTTON
	1	360 DEG VIDEO DETECTION CAMERA WITH MOUNTING HARDWARE
	1	VIDEO PROCESSOR FOR 360 DEG CAMERA
	4	EMERGENCY PREEMPTION OPTICAL DETECTOR
1	EMERGENCY PREEMPTION PHASE SELECTOR (2-CHANNEL) & RACK	
1	EMERGENCY PREEMPTION STROBE (WHITE LENS)	
		Plus all necessary duct, cable, labor, miscellaneous material and equipment to complete the installation.

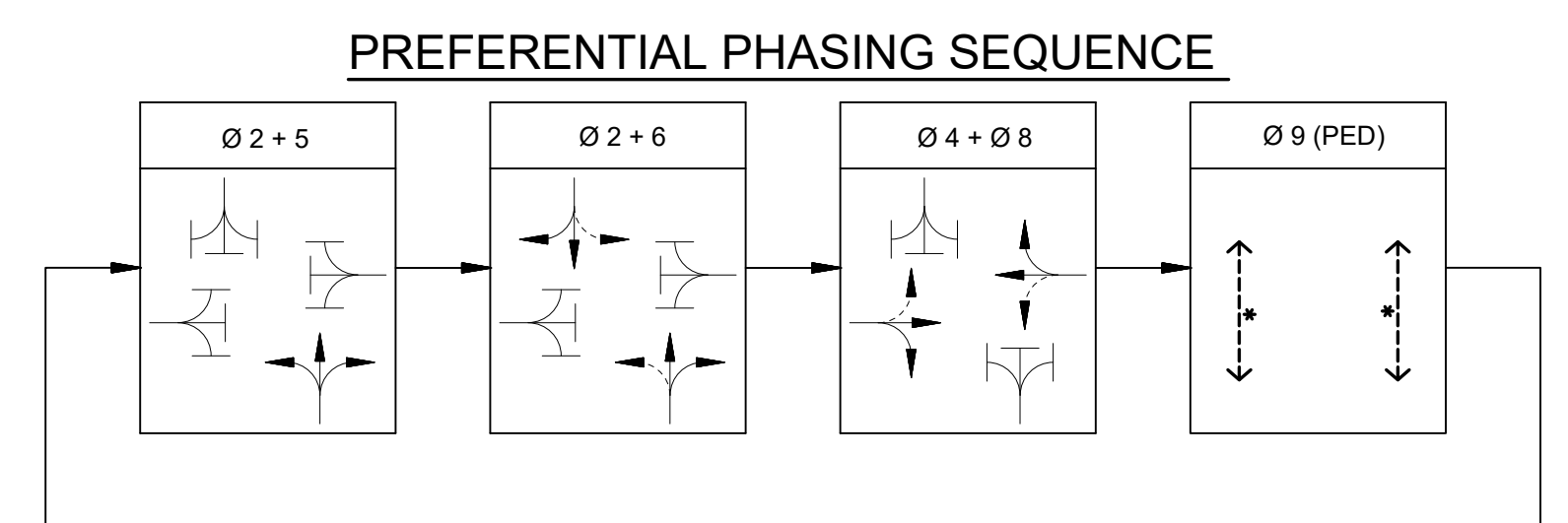
ZONE	DIRECTION	DELAY/EXTEND	Ø CALL	Ø EXTEND	DETECTION ZONE DIMENSIONS
1	NB	0/0	Ø 2 & Ø 5	Ø 2 & Ø 5	6' x 50'
2	SB	0/0	Ø 6	Ø 6	6' x 50'
3	EB	0/0	Ø 4	Ø 4	6' x 50'
4	WB	0/0	Ø 8	Ø 8	6' x 50'

EMERGENCY VEHICLE PREEMPTION

DETECTOR	APPROACH	PREEMPTION PHASE	NEXT PHASE CALLED
R1	SOUTHBOUND	4	2+6
R2	NORTHBOUND	8	2+6
R3	EASTBOUND	2+5	2+6
R4	WESTBOUND	6	2+6

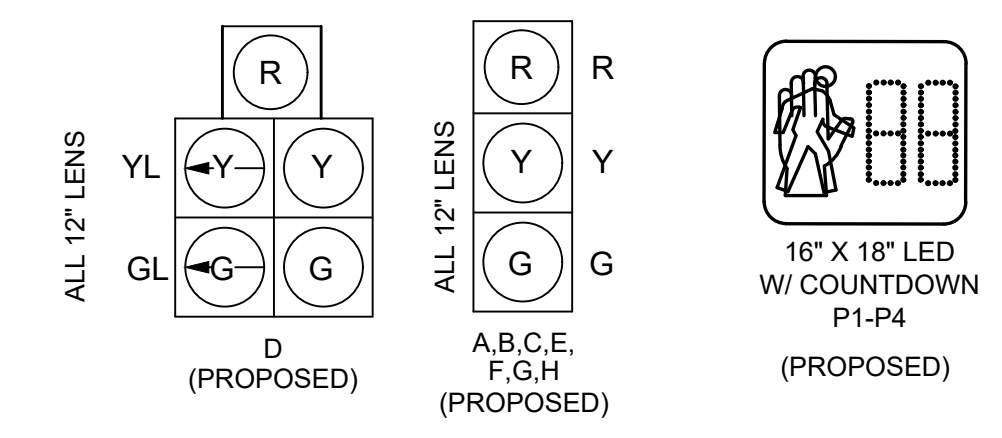
EMERGENCY VEHICLE PREEMPTION OPERATION:

- 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.
- PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
- 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 FROM 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.
- PREEMPTION MINIMUM GREENS SHALL BE TEN SECONDS.
- NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
- ACTUAL TIMMING FOR PREEMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY THE TOWN PRIOR TO OPERATION.



NOTE:
1. ANY PHASE OR PHASE COMBINATION NOT CALLED SHALL BE SKIPPED.
* UPON PEDESTRIAN PUSHBUTTON ACTUATION ONLY.

SIGNAL IDENTIFICATION



NOTES:
1. ALL SIGNALS SHALL HAVE CUT AWAY VISORS.
2. ALL SIGNALS SHALL HAVE 12" LED WITH 5" FLAT BACKPLATES WITH 3" YELLOW RETROREFLECTIVE BORDERS

Phase	Movement	Posted or 85th Speed (mph)	Speed Adjustment (if required) (mph)	Speed Used for Yellow Calc	Speed Used for Red Calc	Yellow v (ft/sec)	Red v (ft/sec)	g	W	YELLOW TIME (sec)	RED TIME (sec)
2	NB Main St	35	0	35	35	51.5	51.5	0.000	83	3.6	2.0
4	EB Bailey Rd	30	0	30	30	44.1	44.1	0.000	70	3.2	2.0
5	NB L Main St Left	20	0	20	20	29.4	29.4	0.000	71	3.0	2.1
6	SB Main St	35	0	35	35	51.5	51.5	0.000	88	3.6	2.0
8	WB Mayo Dr	30	0	30	30	44.1	44.1	0.000	70	3.2	2.0