

# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



## LEWISTON ANDROSCOGGIN COUNTY ROUTE 126 (SABATTUS STREET) **AC-STP-1900(700)E** PROJECT LENGTH : 8 SIGNALS

PLAN LEGEND	
Existing	Proposed
Controller with Cabinet	
Vehicular Head	
Video Detection Camera	
Junction Box	
Mast Arm with Steel Pole	
Wood Pole	
Pedestal Post and Foundation	
Span wire or Mast Arm Mounted Sign	
Pedestrian Signal Head with Push Button and Informational Sign	
Flashing Beacon	
Detectable Warning Field	
Existing Aerial Copper Interconnect Cable	
Existing Underground Copper Interconnect Cable	
Proposed Underground Conduit	
Proposed Curbing	

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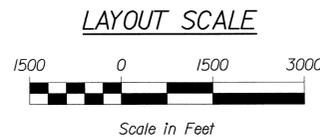
\* Each traffic signal plan contains a design, phasing and timing plan sheet with a supplemental major equipment, emergency preemption, overhead signs, and interconnect detail sheet.

\*\* Intersections not in project, but provided for informational purposes.



KEY:  
 Project Intersection Number

TRAFFIC DATA	SABATTUS ST W/O EAST AVE	SABATTUS ST W/O OLD GREENE RD
Current (2011) AADT	10,500	19,400
Future (2030) AADT	11,600	21,500
DHV - % of AADT	9%	10%
Design Hour Volume	950	2,050
% Heavy Trucks (AADT)	n/a	n/a
% Heavy Trucks (DHV)	n/a	n/a
Directional Distribution (DHV)	n/a	n/a
18 kip Equivalent P 2.0	n/a	n/a
18 kip Equivalent P 2.5	n/a	n/a
Design Speed (mph)	30	30
Functional Class:	Principal Urban Arterial	Principal Urban Arterial



**Vanasse Hangen Brustlin, Inc.**

<b>PROJECT LOCATION:</b>	In the City of Lewiston along a portion of Route 126 (Sabattus Street) from Campus Avenue, Lafayette Street, & Sylvan Street to Old Greene Road & Randall Road and East Avenue from Sabattus Street to Russell Street
<b>PROGRAM AREA:</b>	Highway Safety and Spot Improvements
<b>OUTLINE OF WORK:</b>	Traffic Signal Interconnection, Modernization, and other incidental work

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
		1/3/13
COMMISSIONER:		1/3/13
CHIEF ENGINEER:		1/3/13

STATE OF MAINE Professional Engineer Chester Baby 9374 11/19/12		
SIGNATURE	P.E. NUMBER	DATE
	9374	11/19/12

PROJECT INFORMATION	TRAFFIC
PROGRAM	B. KEEZER
PROJECT MANAGER	M. GRAHAM
DESIGNER	VHB
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

LEWISTON ROUTE 126 (SABATTUS STREET)
TITLE SHEET

SHEET NUMBER
1
OF 36

WIN 19007.00 AC-STP-1900(700)E

GENERAL NOTES:

- The Contractor shall meet all utility requirements for new service connections.
- All splices will be made in the cabinets meeting MaineDOT specifications.
- For pole mounted signal heads, the bottom of the housing shall be mounted at least 8 feet but not more than 19 feet above the sidewalk, or if there is no sidewalk, above the pavement grade at the high point of the road.
- Two copies of as-built plans, shall be left in each of the controller cabinets.
- The Contractor is responsible for finding exact locations of existing utilities prior to construction. The Contractor shall contact Dig-Safe and appropriate authorities prior to any subsurface activities.
- Traffic signal work shall be completed in a manner and order that will cause the minimum disruption to traffic.
- The Engineer, MaineDOT, and City of Lewiston shall have the right and authority to determine the acceptability of work and materials in progress or completed and shall have the right to reject any work or materials which do not conform, in its sole opinion, to the plans or specifications.
- All signing, signal and striping materials and placement shall conform to the MaineDOT standard specifications, supplemental specifications and standard details and with the Federal Highway Administration "Manual on Uniform Traffic Control Devices" (MUTCD) dated 2009, as amended.
- Acrylic latex color finish green (Item 658.20) shall be placed on all paved islands where curb ramp work is proposed.
- Any relocations or adjustments of existing utility facilities will be made by the respective utilities in coordination with the work of the Contractor.
- Contractor shall be responsible for obtaining any necessary street/sidewalk occupancy or opening permits.
- All existing driveway accesses shall be maintained at all times.
- The Contractor shall provide the Engineer, MaineDOT, and the City of Lewiston with a schedule of work and work zone control plans at least two weeks prior to the commencement of work.
- All material schedules shown on the plans are for general information only. The Contractor shall prepare his own material schedules based upon his plan review. All schedules shall be verified in the field by the Contractor prior to ordering materials or performing work.
- All non-paved areas disturbed during construction shall be loamed and seeded, unless otherwise directed by the owner. All paved areas disturbed during construction shall be repaired by the Contractor in accordance with the City Technical Manual. Costs for repair of disturbed areas shall be incidental to other contract items.
- All existing striping that conflicts with the proposed shall be removed in accordance with section 627.08 of the MaineDOT Standard Specification, Item 627.18 and 627.75.
- Equipment

Contractor Furnished Equipment - The traffic signal controllers and various other equipment items shown on the plans shall be furnished and installed by the Contractor. The traffic signal controllers supplied under this contract shall be Noztec NEMA TS-2 and shall have the capability of supporting NTCIP protocols. Traffic signal controllers shall support direct Ethernet communications from the proposed in-cabinet fiber optic switch (see special provision) to the controller's Ethernet port. The equipment supplied and installed shall be capable of supporting all of the system functionality currently in place.

The system shall employ an IP-based communications network to and from the ATRC central system control computer. The equipment supplied and installed shall be capable of upload to and download from each of the system's traffic signal controller databases, remotely access local intersection reports, remotely access processed vehicle detector data, and provide real time intersection status to support graphical local and system maps.

The Contractor shall be solely responsible for providing the project with working and fully configured controllers for each intersection, complete modification of the existing central system, and installation of the central and local intersection communications interface. The Contractor is further responsible for any local wiring at the ATRC's system computer location, system Start-up and System Loading, Acceptance Testing, and System Maintenance.

The Contractor shall be solely responsible for furnishing and installing all other equipment to include control cabinets, pedestrian signals, pedestrian pushbuttons and signs, fiber interconnect and connections, field wiring, and all other equipment necessary to provide complete and operational traffic signal systems. The Contractor shall be aware of and conform to all details for the material specifications in Special Provision 718.

18. Foundations  
 Foundations for pedestrian pushbuttons on proposed TS posts are conceptually located to avoid underground conflicts with information that was provided by utilities during design; however the contractor may relocate TS posts as needed and upon consultation with and approval from the resident engineer to avoid unanticipated utility conflicts as long as the final location meets the guidelines in Section 4E.08 of the 2009 MUTCD.

When new conduit is extended or installed into new or existing most arm signal foundations, Contractor shall break into existing foundation to expose the existing conduit bend. New conduit shall be attached to existing conduit bend. Junction boxes (not shown on the plans but budgeted in the project with 4 unanticipated extras) may be used at the discretion of the Contractor and if approved by the resident engineer to complete proposed connections to the existing underground conduit system.

In lieu of installing new controller cabinet foundations with new, extended or modified conduit connections to the existing signal system, the Contractor may at his discretion and upon approval by the Engineer form and pour a new controller cabinet foundation suitable to accommodate a P-type cabinet around any existing controller foundation. If this option is chosen, the Contractor must meet the following conditions:  
 1. Minimum 6-inches on the vertical faces and 4-inches of new concrete on top above the old concrete. This may mean chipping down a few of inches of old concrete.  
 2. Existing anchor bolts must be cut below the new finished top surface.  
 3. New anchor bolts shall be drilled into the new concrete foundation.  
 4. Strengthen the new concrete jacket with adequate reinforcement, following standard details for new concrete installation.  
 5. Meet American with Disabilities Act (ADA) requirements.

19. Video Detection Installation - At locations where video detection cameras are proposed to be installed on most arms, an initial six-foot vertical pipe extension shall be installed on the most arm with the video detector mounted on top of the extension pipe. Where most arms are not provided the Contractor shall obtain permission to mount cameras on existing structures such as wood poles. The Engineer reserves the right to direct the Contractor to field adjust the video detector mounting height for local conditions identified during or after installation. No additional cost will be allowed for field adjusting the pipe extensions or rewiring as necessary. This work will be incidental to the Video Detection System items.

20. Start-Up and System Loading  
 The system supplier shall initiate complete system operation from the controller and system timing schedules shown on the plans or data supplied by the Engineer and shall initiate stopline detectors logging operation at the direction of the Engineer. After the supplier has initiated system operation and detector logging, the system shall be run for a continuous 7-day initial operational testing period. If any major functions of the system fail to operate during this testing period, as determined by the Engineer, the supplier shall correct or repair the system and the continuous 7-day testing period shall be restarted. At the completion of a successful 7-day testing period, the supplier shall advise the Engineer that the system is ready for the Start-up Phase. Within 7 days of completion of the initial testing period the supplier's engineer will begin loading the system for full coordinated operations. After coordination has been initiated and run for approximately two weeks, the Engineer shall evaluate system operation and make adjustments as necessary. The Supplier's engineer does not need to be on-site during this period, but must be available by telephone or by demand on-site as needed. Any major system malfunctions encountered during this testing period shall be corrected by the supplier, and the test restarted. During this period the Engineer may make modifications to the system timing parameters, but this will not cause restarting of the testing period. At the completion of the coordination testing period the system will be deemed ready for final Acceptance Testing as described below. Testing of controllers per section 718.07 is not required.

21. Acceptance Testing  
 Upon completion of the 14-day coordination testing period, the Engineer shall evaluate system operation. It is expected that the complete system shall operate fully functional at the City of Lewiston and the remote locations for a period of 30 consecutive days without malfunction. Minor malfunctions of inoperability not the fault of the Contractor, as judged by the Engineer, are not included in the 30-day period. If the system fails to operate as intended or the supplier's claims, the malfunction shall be corrected by the Contractor at its cost and a new 30-day testing period shall begin. This process shall continue until a completely operable system is demonstrated for a consecutive 30-day period.

Acceptance testing must demonstrate to the Engineer's reasonable satisfaction that the hardware and licensed software function in accordance with the specifications, requirements, through-puts, functionalities, performance criteria or other benefits stated in documentation, promotional materials, proposals, and/or demonstrations given to MaineDOT and the City of Lewiston.

22. Training  
 The Contractor shall provide a 1-day (6 hour minimum) hands-on system training, which shall cover the general operations and maintenance using new software applications installed on the ATMS server. In addition, the training shall highlight modifications that were made to the Streetwise ATMS software for the addition of the Sabattus Street project intersections. The training shall be designed for the primary local jurisdiction personnel and supplemental personnel who will use and monitor the system. The contractor should budget for up to 8 attendees.

23. System Maintenance  
 The system must come with a minimum five (5) year software maintenance agreement to become effective when the proposed system has been accepted, in writing, by MaineDOT and the City of Lewiston.

Software updates shall be provided free of charge for five (5) years from date of system acceptance. Software corrections or required modifications for proper system operation per these specifications shall be furnished to MaineDOT and the City of Lewiston at no additional cost during the warranty period.

Hardware equipment shall be warranted for three (3) years, effective when the installed and functional system has been accepted, in writing, by MaineDOT and the City of Lewiston.

Third party hardware and software licenses and warranties shall be passed to MaineDOT and the City of Lewiston.

24. The Contractor shall replace any existing local intersection wire loop detectors that are not functioning at any signalized intersection in the project prior to System Start-up and Loading (not shown on the plans but budgeted in the project with 2 unanticipated extras). The Contractor shall also re-inspect each signalized intersection during the Acceptance Testing period and replace each non-functioning loop detector and certify that all loop detectors are functioning properly before final acceptance is granted. The Contractor shall notify and receive authorization from the Engineer before replacing any malfunctioning loop detector.

25. As payment for work on this project, the Contractor shall submit a lump sum bid per intersection and in addition a lump sum bid for video detection. See Special Provision 643 for additional information.

26. Salvage Rights: The City of Lewiston shall have first rights to all equipment removed or replaced by the project (contact: Ryan Barnes 207-513-3003). The Contractor shall carefully remove and store all equipment claimed by the City of Lewiston at a central location on site for retrieval by the City. The storage area shall be secure and all control equipment removed that has computer chip technology shall be stored in an interior heated environment.

Any equipment not claimed by the City of Lewiston for salvage shall be removed from the site by the Contractor and disposed of in a manner acceptable to the Engineer.

27. The Contractor shall be responsible for submitting RED-LINE AS-BUILT drawings of the final work to the Engineer. Those drawings shall be on a clean set of plans showing all changes or modifications to the Bid Plans.

28. The Contractor will be responsible for the relocation of power meters if required. This work will be incidental to item 643.71 as applicable to the location of the work.

29. The Contractor shall perform the work in a manner that will require the least amount of downtime to the traffic signal operations. Any police detail required (as deemed necessary by the Resident Engineer) will be paid for by the Contractor.

30. The Maine Department of Environmental Protection (MDEP) has reported spills and releases involving petroleum products adjacent to the project. Based on the scope of work presented, installation of pedestrian crossing poles, available data suggests that this contamination may only be adjacent to the immediate areas of any excavation proposed by the Maine Department of Transportation (MDOT). However, in light of MDEP's findings, the Contractor shall employ appropriate health and safety measures to protect its workers against hazards associated with working near petroleum-impacted soils. Furthermore, the Contractor shall remain alert for any additional evidence of contamination. If the Contractor encounters evidence of soil or groundwater contamination, the Contractor shall secure the excavation, stop work in the contaminated area, and immediately notify the Resident. The Resident shall contact the Hydrogeologist in MDOT's Environmental Office at 207-624-3100 and the Maine Department of Environmental Protection at 800-482-0777. Work may only continue with authorization from the Resident.

31. The Contractor is directed to project Special Provision 718 for additional information related to the following:

- 718.12 Traffic signal control system
- 718.13 Emergency vehicle preemption system
- 718.14 Single mode fiber optic cable
- 718.15 Fiber optic splice enclosure
- 718.16 Twelve (12) position fiber optic patch panel
- 718.17 Ethernet switch with fiber optic interfaces
- 718.18 Messenger wire
- 718.19 Pedestrian Crossing System

Special provision 718 expands upon the information found in these general notes. As such, the more restrictive language between these general notes and special provision 718 shall govern the work to be performed under this project.

32. The intersection base plans shown on Sheets 4-18 and Sheets 29-36 were digitized by VHB based on aerial photography provided by ATRC. Supplemental information was obtained by VHB from field reviews and inventory conducted February 2, 2012 and checked by Maine Traffic Resources February 10, 2012.

DAILY AND WEEKLY COORDINATION SCHEDULE  
 DROPS 20, 22, 49-60

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

NOTE: DROP 11 (SABATTUS STREET AT MAIN STREET) IS COORDINATED WITH THE EXISTING MAIN STREET SUBSYSTEM AND RUNS PLAN 3 ONLY FROM 6 AM TO 6:30 PM MONDAY THROUGH FRIDAY AND 10 AM TO 2 PM SATURDAY AND SUNDAY.

PROGRAM PERIODS OF OPERATION  
 DROPS 20, 22, 49-60

	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
	AM												PM												AM
SUNDAY																									FR
MONDAY			FR												3										FR
TUESDAY			FR												3										FR
WEDNESDAY			FR												3										FR
THURSDAY			FR												3										FR
FRIDAY			FR												3										FR
SATURDAY																									FR

FR - FREE

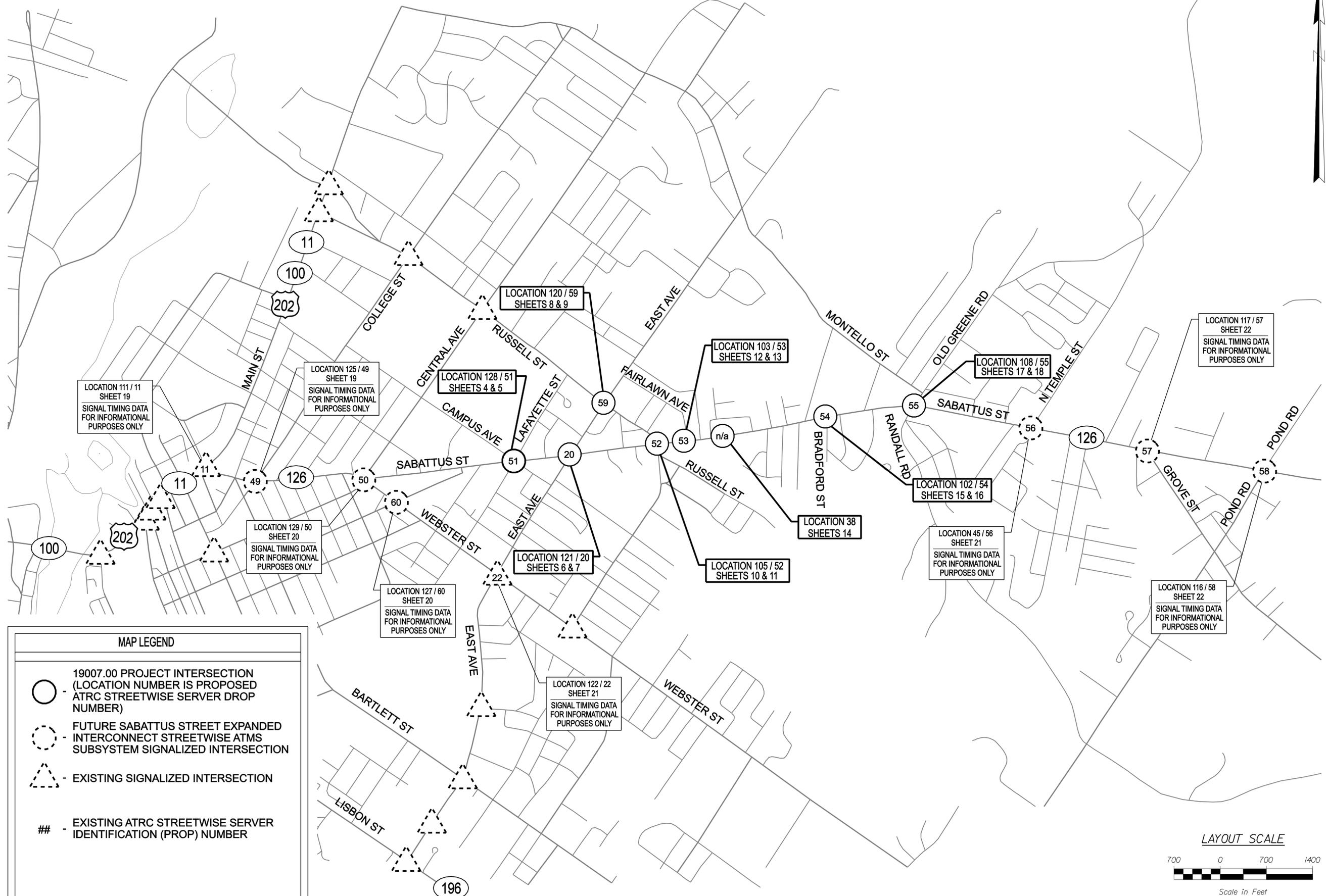
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	AC-STP-1900(700)E	WIN 19007.00
ROUTE 126 / SABATTUS ST	GENERAL NOTES	
SHEET NUMBER		
2		
OF 36		

Date: 4/10/2013

Username: J. ROBERT

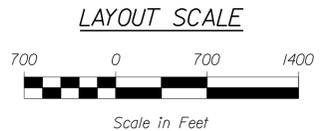
Division:

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**MAP LEGEND**

- 19007.00 PROJECT INTERSECTION (LOCATION NUMBER IS PROPOSED ATRC STREETWISE SERVER DROP NUMBER)
- FUTURE SABATTUS STREET EXPANDED INTERCONNECT STREETWISE ATMS SUBSYSTEM SIGNALIZED INTERSECTION
- EXISTING SIGNALIZED INTERSECTION
- ##** - EXISTING ATRC STREETWISE SERVER IDENTIFICATION (PROP) NUMBER



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	BY	DATE
DESIGN/DETAILED	M. GRAHAM	J. ROBERT	10-2012
CHECKED/REVIEWED	C. BOBAY	M. SIEMEN	11-2012
DESIGN/2-DETAILED/3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
		SIGNATURE	
		P.E. NUMBER	
		DATE	

ROUTE 126 / SABATTUS ST  
OVERALL MAP

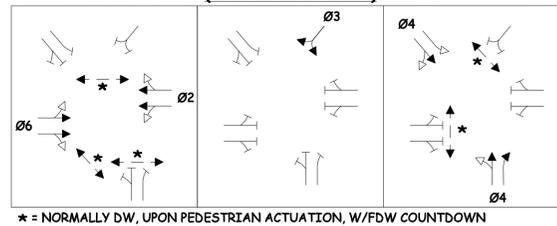
SHEET NUMBER  
**3**  
OF 36

**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK ITEMS 643.71	QUANTITY
FURNISH AND INSTALL NEW NAZTEC NEMA TS2, TYPE 1 ETHERNET EQUIPPED CONTROLLER	1
FURNISH AND INSTALL NEW ETHERNET EQUIPPED ENHANCED CONFLICT MONITOR/MALFUNCTION MANAGEMENT UNIT (MMU)	1
FURNISH AND INSTALL ONE-WAY, 16 X 18 INCH LED POST MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	4
FURNISH AND INTALL ONE-WAY, 16 X 18 INCH LED BRACKET MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	6
FURNISH AND INSTALL ADA COMPLIANT ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSH BUTTON WITH R10-3e INFORMATIONAL SIGN	10
FURNISH AND INSTALL ENVIRONMENTALLY HARDENED FIBER ETHERNET SWITCH (SEE SHEET 5)	1
FURNISH AND INSTALL DUAL USE SPLICE ENCLOSURE AND 12-POSITION PATCH PANEL (SEE SHEET 5)	1
FURNISH AND INSTALL SPAN WIRE AND BRACKET MOUNTED SIGNS (SEE SHEET 5)	17
IMPLEMENT LOCAL AND SYSTEM TIMING	-

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

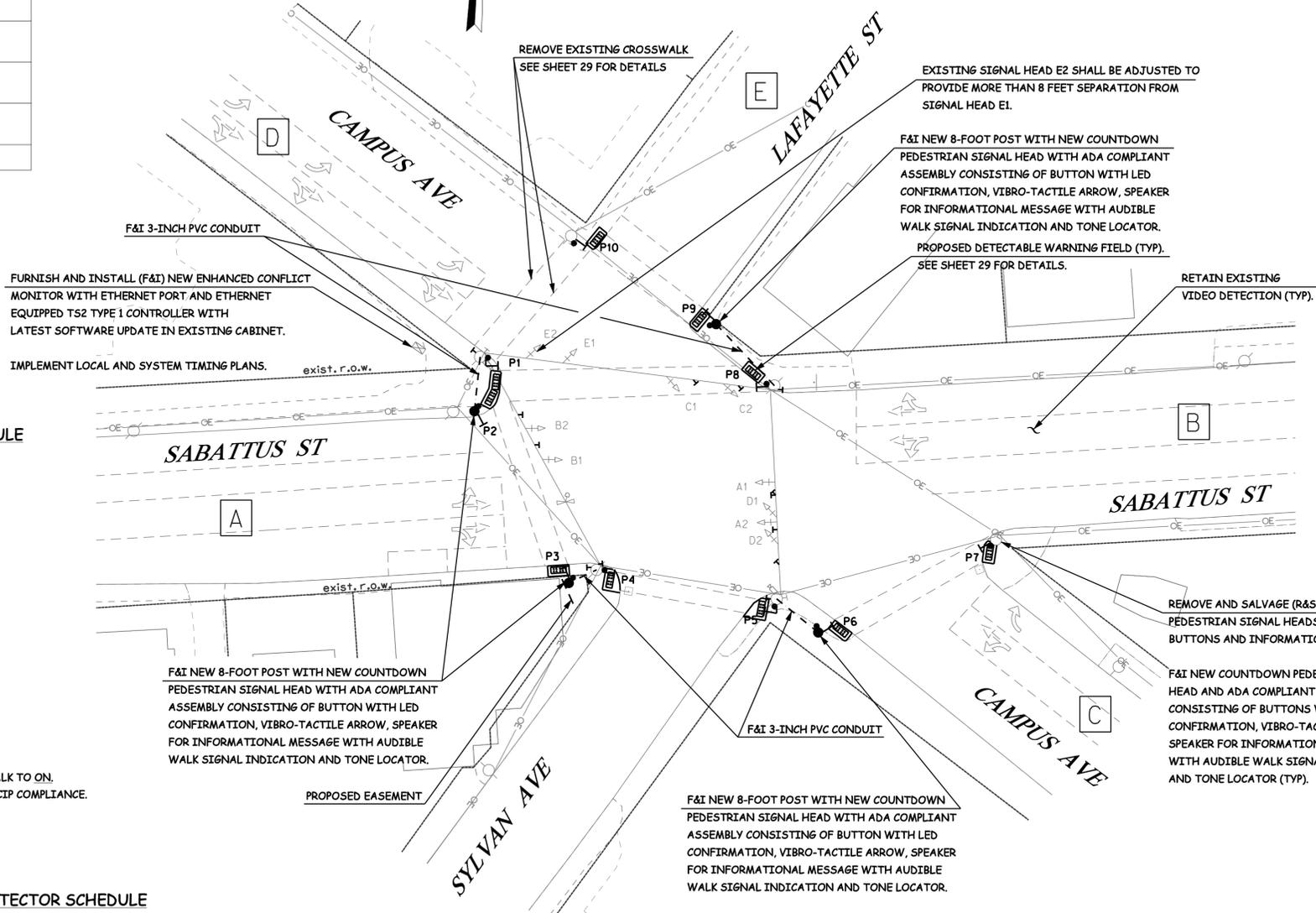
**EXISTING PHASING SEQUENCE (TO BE RETAINED)**



\* = NORMALLY DW. UPON PEDESTRIAN ACTUATION, W/FDW COUNTDOWN

**SIGNAL HEAD DATA**

EXISTING	PROPOSED
A1,A2,B1,B2,C1,C2, D1,D2,E1,E2	P1-P10
12" LED LENS WITH 5" BACKPLATES	16" X 18" PEDESTRIAN SIGNAL



**COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE**

ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	52	69	10
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	0	0	0
SPLIT TIME Ø2	56	48	43
SPLIT TIME Ø3	21	19	17
SPLIT TIME Ø4	33	33	30
SPLIT TIME Ø5	0	0	0
SPLIT TIME Ø6	56	48	43
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	54	52	47

**COORDINATION NOTES:**

- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY.
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.
- PHASE 8 IS A DUMMY PHASE TO BE SET WITH SPLIT TIMES FOR NTCIP COMPLIANCE.

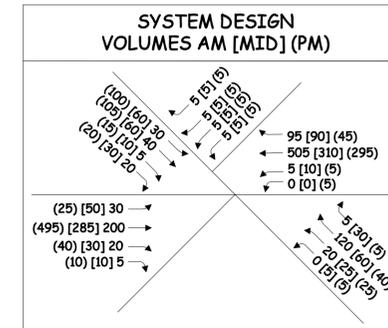
**DETECTOR SCHEDULE**

	DETECTOR				DETECTOR CARD IN VEHICLE DETECTION RACK				
	PLAN ID	STREET	DIRECTION	LANE	Ø	TYPE	SLOT NO	DETECTOR NO	CHANNEL
CAMERA V1									
CAMERA V2									
CAMERA V3									

**DETECTOR NOTES:**

CONTRACTOR SHALL COMPLETE THE DETECTOR SCHEDULE FOR RECORD OF DETECTION PROGRAMMING INTO THE TRAFFIC SIGNAL CONTROLLER.

**INTERSECTION:**  
SABATTUS STREET / CAMPUS AVENUE  
**SIGNAL GROUP:**  
1  
**LOCATION / PROPOSED DROP:**  
128 / 51



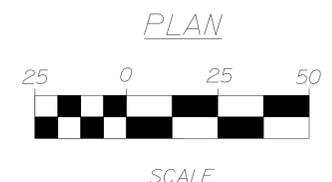
**SIGNAL TIMING SCHEDULE**

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL		10	5	5		10			
PASSAGE TIME		3	3	3		3			
MAXIMUM 1		40	10	30		40			
MAXIMUM 2		80	15	30		80			
YELLOW		4.0	4.0	4.0		4.0			
ALL RED		3.0	3.0	3.0		3.0			
PEDESTRIAN WALK		7		7		7			
PEDESTRIAN CLEARANCE		19		13		11			
RECALL		S	O	O		S			
DETECTOR OPERATION		PR	PR	PR		PR			
PREEMPTION PRIORITY		2				1			
FLASH		Y	R	R		Y			
DUAL ENTRY		ON	OFF	ON		ON			

NOTES: S = SOFT RECALL  
O = RECALL OFF  
PR = PRESENCE  
MAX2 = UNDER COORDINATION  
Y = YELLOW  
R = RED  
D = DARK

**DAILY AND WEEKLY COORDINATION SCHEDULE**

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEIZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-DETAILED	C. BOGAY	
DESIGN-DETAILED	M. SIEMEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ROUTE 126 / SABATTUS ST  
CAMPUS AVE  
TRAFFIC SIGNAL PLAN

SHEET NUMBER  
**4**  
OF 36

**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
FURNISH AND INSTALL (3-INCH) NON-METALLIC CONDUIT (ITEM 626.22)	70 LF
FURNISH AND INSTALL 18-INCH FOUNDATION (ITEM 626.31)	4
FURNISH AND INSTALL POLE RISER (ITEM 643.90)	4
FURNISH AND INSTALL APPROXIMATELY 1,200 LINEAR FEET OF 12-STRAND FIBER OPTIC INTERCONNECT CABLE TO LOCATION 121/20 FROM CONTROLLER CABINET (ITEM 643.90)	1
MEDIA CONVERTER OR COMMUNICATION BOARD UPGRADE (ITEM 643.90)	1
FURNISH AND INSTALL (8-FOOT) PEDESTAL POLE (ITEM 643.92)	4

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

**PROPOSED SPAN WIRE MOUNTED SIGNS**

R3-6L  
30" x 36"  
3 - PROPOSED

R3-6R  
30" x 36"  
3 - PROPOSED

R10-15R  
30" x 36"  
3 - PROPOSED

R3-5R  
30" x 36"  
1 - PROPOSED

R3-5L  
30" x 36"  
1 - PROPOSED

R10-3eL  
9" x 15"  
4 - PROPOSED

R10-3eR  
9" x 15"  
6 - PROPOSED

**Campus Ave**

D3-1f  
12" x 54"  
2 - PROPOSED

**Sylvan Ave**

D3-1g  
12" x 54"  
2 - PROPOSED

**ONE WAY**

R6-1L  
36" x 12"  
1 - PROPOSED

**ONE WAY**

R6-1R  
36" x 12"  
1 - PROPOSED

**EXISTING POST MOUNTED SIGNS**

**NO TURN ON RED**

R10-11a  
2 - RETAINED

**P**

R8-3  
1 - RETAINED

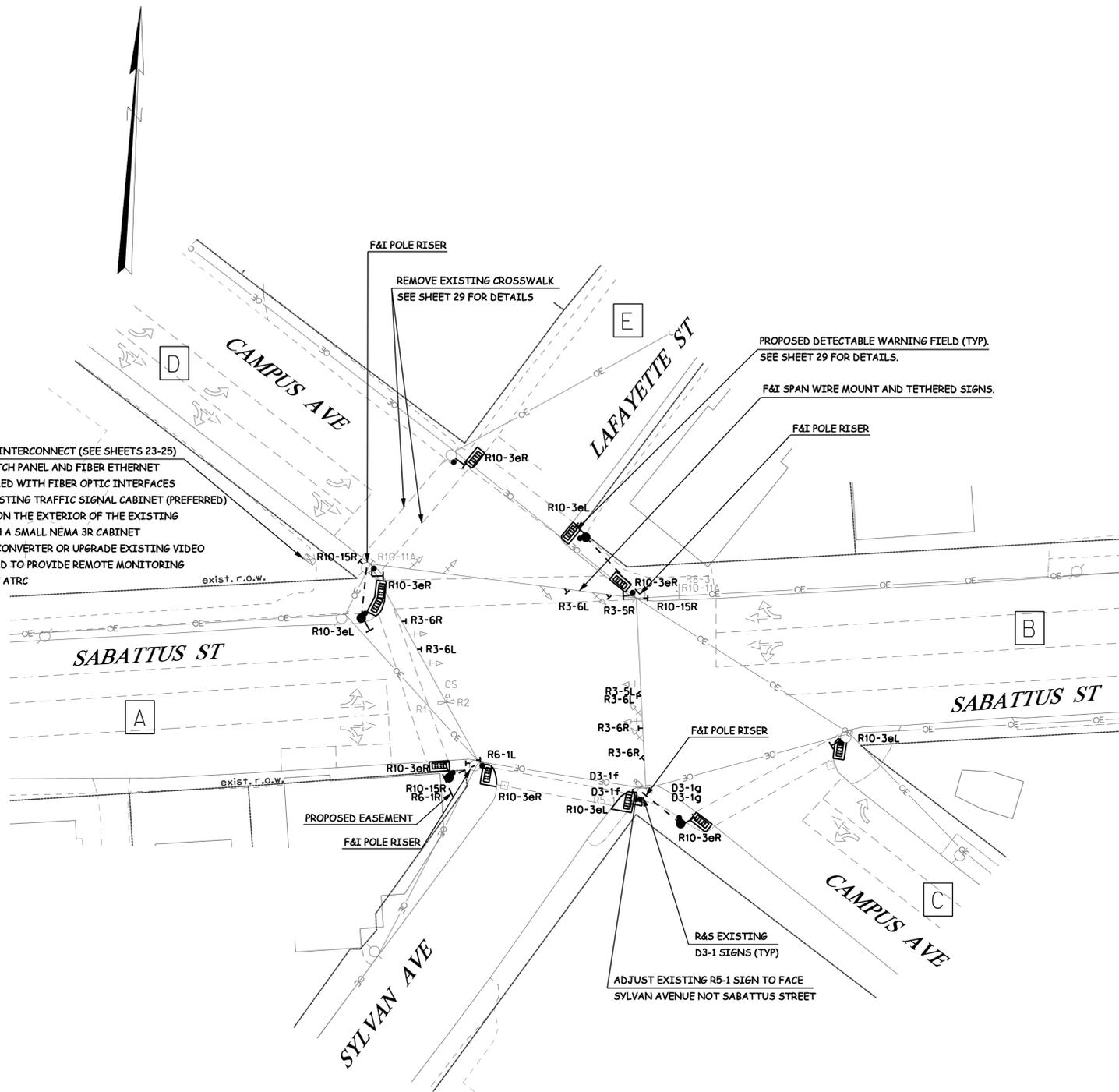
**DO NOT ENTER**

R5-1  
1 - RETAINED

**CAMPUS AVE**

**SYLVAN AVE**

F&I FIBER OPTIC INTERCONNECT (SEE SHEETS 23-25) TO PROPOSED PATCH PANEL AND FIBER ETHERNET SWITCH INSTALLED WITH FIBER OPTIC INTERFACES WITHIN THE EXISTING TRAFFIC SIGNAL CABINET (PREFERRED) OR OPTIONALLY ON THE EXTERIOR OF THE EXISTING CABINET WITHIN A SMALL NEMA 3R CABINET. INSTALL MEDIA CONVERTER OR UPGRADE EXISTING VIDEO DETECTION BOARD TO PROVIDE REMOTE MONITORING CAPABILITIES AT ATRC.



**INTERSECTION:**  
SABATTUS STREET / CAMPUS AVENUE

**SIGNAL GROUP:**  
1

**LOCATION / PROPOSED DROP:**  
128 / 51

**EMERGENCY VEHICLE PRE-EMPTION OPERATION**

ID	PREEMPT ASSIGNMENT	ACTIVE PHASE
R1	3	Ø6
R2	4	Ø2

**EMERGENCY VEHICLE PRE-EMPTION NOTES:**

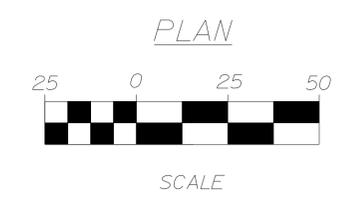
- PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1 = HIGHEST, 2 = LOWEST)
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (4.0 SECONDS YELLOW AND 3.0 SECONDS ALL RED) AND SERVICE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PRE-EMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.
- MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
- EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.
- CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-DETAILED	C. BOBAY	
DESIGN-DETAILED	M. SIENEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ROUTE 126 / SABATTUS ST  
CAMPUS AVE  
TRAFFIC SIGNAL PLAN

SHEET NUMBER  
**5**  
OF 36



Date: 3/26/2013

Username: J. ROBERT

Division:

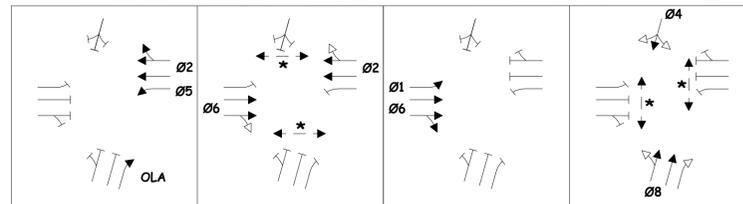
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**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK ITEMS 643.71	QUANTITY
FURNISH AND INSTALL NEW NAZTEC NEMA TS2, TYPE 1 ETHERNET EQUIPPED CONTROLLER	1
FURNISH AND INSTALL NEW ETHERNET EQUIPPED ENHANCED CONFLICT MONITOR/MALFUNCTION MANAGEMENT UNIT (MMU)	1
FURNISH AND INSTALL ONE-WAY, 16 X 18 INCH LED POST MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	1
FURNISH AND INSTALL ONE-WAY, 16 X 18 INCH LED BRACKET MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	7
FURNISH AND INSTALL ADA COMPLIANT ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSH BUTTON WITH R10-3e INFORMATIONAL SIGN	8
FURNISH AND INSTALL ENVIRONMENTALLY HARDENED FIBER ETHERNET SWITCH (SEE SHEET 7)	1
FURNISH AND INSTALL DUAL USE SPLICE ENCLOSURE AND 12-POSITION PATCH PANEL (SEE SHEET 7)	1
FURNISH AND INSTALL MAST ARM AND BRACKET MOUNTED SIGNS (SEE SHEET 7)	14
IMPLEMENT LOCAL AND SYSTEM TIMING	-

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

**PROPOSED PHASING SEQUENCE**



\* = NORMALLY DW, UPON PEDESTRIAN ACTUATION, W/FDW COUNTDOWN Ø5 LEADS & Ø1 LAGS (PROPOSED AS A REVERSE OF EXISTING CONDITIONS)

F&I ADA COMPLIANT ASSEMBLY CONSISTING OF BUTTON WITH LED CONFIRMATION, VIBRO-TACTILE ARROW, SPEAKER FOR INFORMATIONAL MESSAGE WITH AUDIBLE WALK SIGNAL INDICATION AND TONE LOCATOR FOR EAST AVENUE CROSSING ON EXISTING UTILITY POLE.

**SIGNAL HEAD DATA**

EXISTING			PROPOSED
A1,B1	A2,A3,B2,B3, C1,D1,D2	C2	P1-P8
12" LED LENS	12" LED LENS	12" LED LENS	16" X 18" PEDESTRIAN SIGNAL
WITH 5" BACKPLATES			

**SIGNAL TIMING SCHEDULE**

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	5	10		5	5	10		5	
PASSAGE TIME	3	3		3	3	3		3	
MAXIMUM 1	10	40		30	25	40		30	
MAXIMUM 2	15	80		40	30	65		40	
YELLOW	3.0	3.0		3.0	3.0	3.0		3.0	
ALL RED	3.0	3.0		3.0	3.0	3.0		3.0	
PEDESTRIAN WALK	7	7		7	7	7		7	
PEDESTRIAN CLEARANCE	18	23		18	23	18		23	
RECALL	O	S		O	O	S		O	
DETECTOR OPERATION	PR	PR		PR	PR	PR		PR	
PREEMPTION PRIORITY	1	2		4	2	1		3	
FLASH	R	Y		R	R	Y		R	
DUAL ENTRY	OFF	ON		OFF	OFF	ON		ON	

NOTES: S = SOFT RECALL Y = YELLOW  
O = RECALL OFF R = RED  
PR = PRESENCE D = DARK  
MAX2 = UNDER COORDINATION

**DAILY AND WEEKLY COORDINATION SCHEDULE**

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

**COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE**

ALL ENTRIES IN SECONDS

CYCLE LENGTH	PLAN			COORDINATION MODE SET TO FIXED FORCE-OFF
	PLAN 1	PLAN 2	PLAN 3	
OFFSET (END GRN)	39	46	0	
COORDINATED Ø	2	2	2	
SPLIT TIME Ø1	16	16	16	
SPLIT TIME Ø2	48	41	33	
SPLIT TIME Ø3	0	0	0	
SPLIT TIME Ø4	46	43	41	
SPLIT TIME Ø5	33	23	16	
SPLIT TIME Ø6	31	34	33	
SPLIT TIME Ø7	0	0	0	
SPLIT TIME Ø8	46	43	41	

**COORDINATION NOTES:**

- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY.
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.

**DETECTOR SCHEDULE**

DETECTOR	DETECTOR CARD IN VEHICLE DETECTION RACK								
	PLAN ID	STREET	DIRECTION	LANE	Ø	TYPE	SLOT NO	DETECTOR NO	CHANNEL
CAMERA V1	1	SABATTUS ST	EASTBOUND	LEFT	1	TRAFICAM	-	1/1	1
	2	SABATTUS ST	EASTBOUND	THRU/THRU-RIGHT	6	TRAFICAM	-	1/2	2
	3	SABATTUS ST	WESTBOUND	MEDIAN SIDE (SYSTEM)	C	TRAFICAM	-	1/3	3
	4	SABATTUS ST	WESTBOUND	CURB SIDE (SYSTEM)	C	TRAFICAM	-	1/4	4
	5	SABATTUS ST	WESTBOUND	LEFT	5	TRAFICAM	-	2/1	1
CAMERA V2	6	SABATTUS ST	WESTBOUND	THRU/THRU-RIGHT	2	TRAFICAM	-	2/2	2
	7	SABATTUS ST	EASTBOUND	MEDIAN (SYSTEM)	C	TRAFICAM	-	2/3	3
	8	SABATTUS ST	EASTBOUND	CURB (SYSTEM)	C	TRAFICAM	-	2/4	4
CAMERA V3	9	EAST AVENUE	NORTHBOUND	LEFT-THRU	8	TRAFICAM	-	3/1	1
	10	EAST AVENUE	NORTHBOUND	THRU	8	TRAFICAM	-	3/2	2
	11	EAST AVENUE	NORTHBOUND	RIGHT	8	TRAFICAM	-	3/3	3
	12	EAST AVENUE	SOUTHBOUND	THRU (SYSTEM)	C	TRAFICAM	-	3/4	4
CAMERA V4	13	EAST AVENUE	SOUTHBOUND	LEFT-THRU-RIGHT	4	TRAFICAM	-	4/1	1
	14	EAST AVENUE	NORTHBOUND	MEDIAN SIDE (SYSTEM)	C	TRAFICAM	-	4/2	2
	15	EAST AVENUE	NORTHBOUND	CURB SIDE (SYSTEM)	C	TRAFICAM	-	4/3	3
	(16)	SPARE							

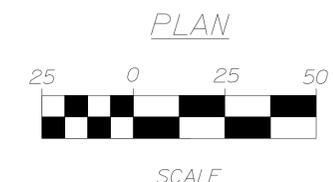
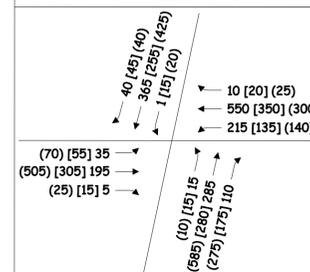
**DETECTOR NOTES:**

c = COUNTING LOOP  
ALL DETECTION SHOULD BE INITIALLY SET TO NON-LOCKING OPERATIONS

INTERSECTION:  
SABATTUS STREET / EAST AVE

SIGNAL GROUP:  
1  
LOCATION / EXISTING DROP:  
121 / 20

**SYSTEM DESIGN VOLUMES AM [MID] (PM)**



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEIZER	DATE	10-2012
DESIGN-DETAILED	M. GRAHAM	BY	J. ROBERT
CHECKED-REVIEWED	C. BOGAY	DATE	11-2012
DESIGN-DETAILED	M. SIEMEN	SIGNATURE	
DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		DATE	
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ROUTE 126 / SABATTUS ST  
EAST AVE  
TRAFFIC SIGNAL PLAN

SHEET NUMBER

6

OF 36

Date: 3/26/2013

Username: J. ROBERT

Division:

Filename: ... \s\planset\006\_5216400SG02.dgn

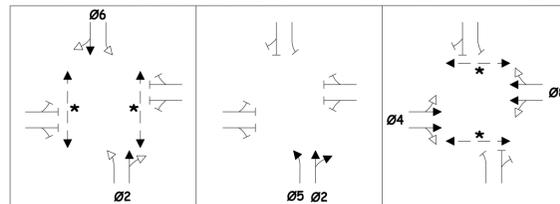


**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK ITEMS 643.71	QUANTITY	EQUIPMENT AND WORK ITEMS 643.71	QUANTITY
FURNISH AND INSTALL NEW NAZTEC NEMA TS2, TYPE 1 ETHERNET EQUIPPED CONTROLLER IN NEW P-TYPE BASE MOUNTED NEMA TS2, TYPE 1 MAINDOT SPEC CABINET COMPLETE WITH ALL ANCILLARY EQUIPMENT AND WIRING	1	FURNISH AND INSTALL PREEMPTION CONFIRMATION RED STROBE WITH CABLE	1
FURNISH AND INSTALL NEW ETHERNET EQUIPPED ENHANCED CONFLICT MONITOR/MALFUNCTION MANAGEMENT UNIT (MMU)	1	FURNISH AND INSTALL SPAN WIRE AND TETHER WIRE	490 LF
FURNISH AND INSTALL ONE-WAY, 3-SECTION, 12-INCH TRAFFIC SIGNAL HEADS WITH VISORS AND 5" BACKPLATES MOUNTED ON SPAN WIRES	7	FURNISH AND INSTALL SPAN WIRE AND BRACKET MOUNTED SIGNS (SEE SHEET 9)	13
FURNISH AND INSTALL ONE-WAY, 5-SECTION, 12-INCH TRAFFIC SIGNAL HEADS WITH VISORS AND 5" BACKPLATES MOUNTED ON SPAN WIRES	1	FURNISH AND INSTALL NEW SIGNAL CABLE	-
FURNISH AND INTALL ONE-WAY, 16 X 18 INCH LED BRACKET MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	8	IMPLEMENT LOCAL AND SYSTEM TIMING	-
FURNISH AND INSTALL ADA COMPLIANT ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSH BUTTON WITH R10-3e INFORMATIONAL SIGN	8		
FURNISH AND INSTALL ENVIRONMENTALLY HARDENED FIBER ETHERNET SWITCH (SEE SHEET 9)	2		
FURNISH AND INSTALL DUAL USE SPLICE ENCLOSURE AND 12-POSITION PATCH PANEL (SEE SHEET 9)	2		
FURNISH AND INSTALL 4-CHANNEL PREEMPTION PHASE SELECTOR WITH SYSTEM CHASSIS	1		
FURNISH AND INSTALL LIGHT-BASED PREEMPTION RECEIVERS WITH DETECTOR CABLE	4		

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

**PROPOSED PHASING SEQUENCE**



**SIGNAL HEAD DATA**

PROPOSED		
A1	A2,B1,B2,C1,C2,D1,D2	P1-P8
12" LED LENS	12" LED LENS	16" X 18" PEDESTRIAN SIGNAL
WITH 5" BACKPLATE		

**SIGNAL TIMING SCHEDULE**

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	10	5	5	10	5				
PASSAGE TIME	3.0	3.0	3.0	3.0	3.0				
MAXIMUM 1	40	30	25	40	30				
MAXIMUM 2	70	40	45	25	40				
YELLOW	3.0	3.0	3.0	3.0	3.0				
ALL RED	3.0	2.0	2.5	3.0	2.0				
PEDESTRIAN WALK	7	7		7	7				
PEDESTRIAN CLEARANCE	14	10		11	9				
RECALL	S	O	O	S	O				
DETECTOR OPERATION	PR	PR	PR	PR	PR				
PREEMPTION PRIORITY	2	4	2	1	3				
FLASH	R	R	R	R	R				
DUAL ENTRY	ON	ON	OFF	ON	ON				

NOTES: S = SOFT RECALL Y = YELLOW  
O = RECALL OFF R = RED  
PR = PRESENCE D = DARK  
MAX2 = UNDER COORDINATION

**DAILY AND WEEKLY COORDINATION SCHEDULE**

	MON-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

**COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE**

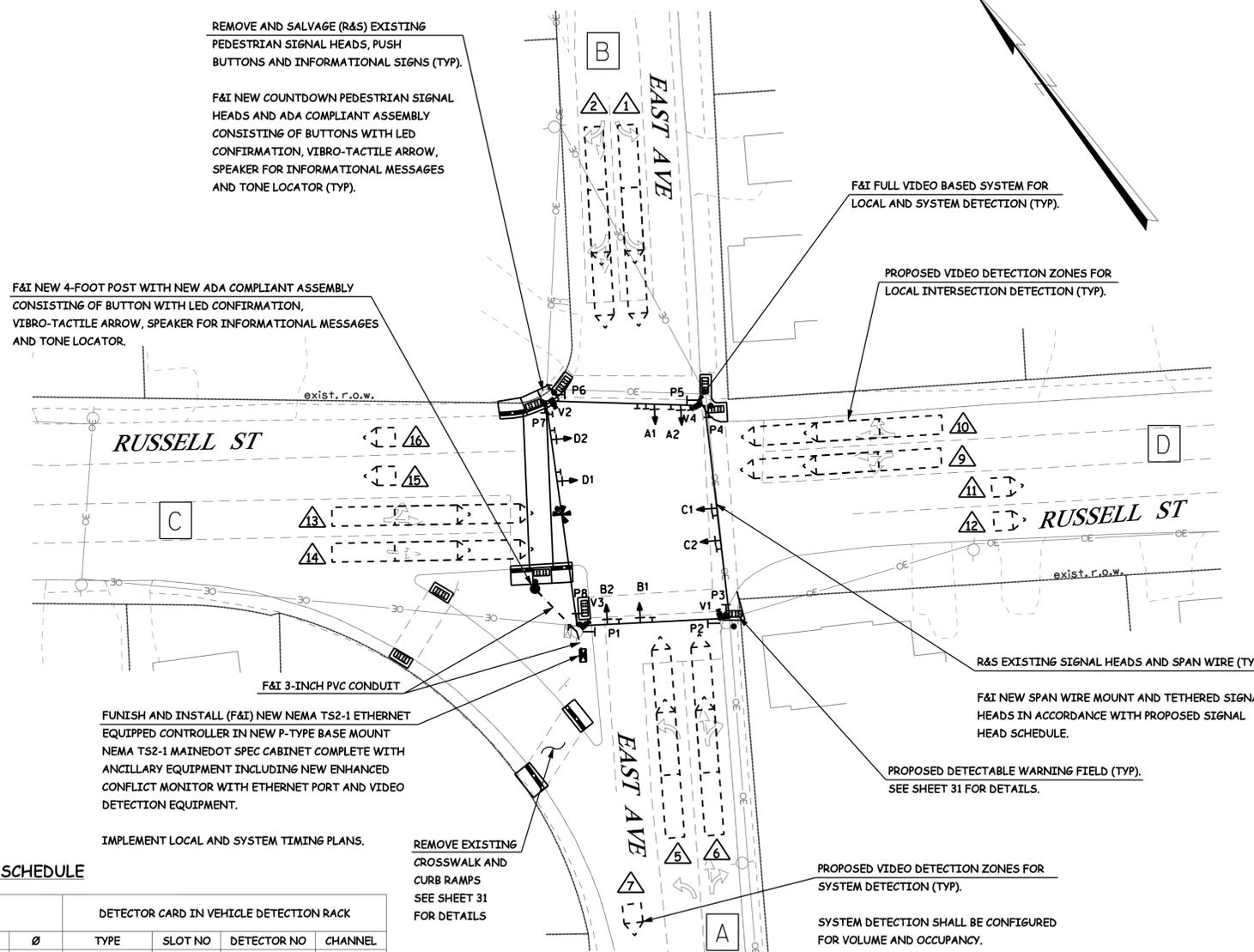
CYCLE LENGTH	ALL ENTRIES IN SECONDS		
	PLAN 1	PLAN 2	PLAN 3
110	100	90	
OFFSET (END GRN)	1	4	60
COORDINATED Ø	5	5	5
SPLIT TIME Ø1	0	0	0
SPLIT TIME Ø2	56	55	45
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	54	45	45
SPLIT TIME Ø5	28	26	21
SPLIT TIME Ø6	28	29	24
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	54	45	45

COORDINATION NOTES:  
1. OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.  
2. COORDINATION TO OPERATE BY TIME-OF-DAY.  
3. TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.

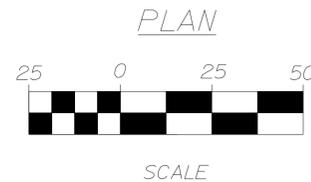
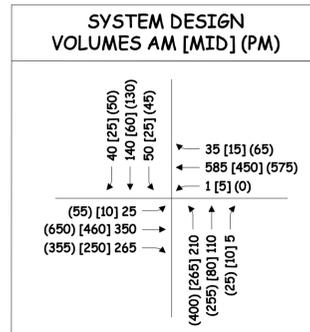
**DETECTOR SCHEDULE**

CAMERA	DETECTOR				DETECTOR CARD IN VEHICLE DETECTION RACK				
	PLAN ID	STREET	DIRECTION	LANE	Ø	TYPE	SLOT NO	DETECTOR NO	CHANNEL
V1	1	EAST AVENUE	SOUTHBOUND	LEFT	6	TRAFICAM	-	1/1	1
	2	EAST AVENUE	SOUTHBOUND	THRU-RIGHT	6	TRAFICAM	-	1/2	2
	(3)	SPARE							
	(4)	SPARE							
V2	5	EAST AVENUE	NORTHBOUND	LEFT	5	TRAFICAM	-	2/1	1
	6	EAST AVENUE	NORTHBOUND	THRU-RIGHT	2	TRAFICAM	-	2/2	2
	7	EAST AVENUE	SOUTHBOUND	THROUGH (SYSTEM)	C	TRAFICAM	-	2/3	3
	(8)	SPARE							
V3	9	RUSSELL ST	WESTBOUND	LEFT-THRU	8	TRAFICAM	-	3/1	1
	10	RUSSELL ST	WESTBOUND	THRU-RIGHT	8	TRAFICAM	-	3/2	2
	11	RUSSELL ST	EASTBOUND	MEDIAN SIDE (SYSTEM)	C	TRAFICAM	-	3/3	3
	12	RUSSELL ST	EASTBOUND	CURB SIDE (SYSTEM)	C	TRAFICAM	-	3/4	4
V4	13	RUSSELL ST	EASTBOUND	LEFT-THRU	4	TRAFICAM	-	4/1	1
	14	RUSSELL ST	EASTBOUND	THRU	4	TRAFICAM	-	4/2	2
	15	RUSSELL ST	WESTBOUND	MEDIAN SIDE (SYSTEM)	C	TRAFICAM	-	4/3	3
	16	RUSSELL ST	WESTBOUND	CURB SIDE (SYSTEM)	C	TRAFICAM	-	4/4	4

DETECTOR NOTES:  
c = COUNTING LOOP  
ALL DETECTION SHOULD BE INITIALLY SET TO NON-LOCKING OPERATIONS



INTERSECTION:  
RUSSELL STREET / EAST AVENUE  
SIGNAL GROUP:  
1  
LOCATION / PROPOSED DROP:  
120 / 59



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEIZER	DATE	BY	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012	J. ROBERT			
CHECKED-REVIEWED	C. BOBAY	11-2012	M. SIEMEN			
DESIGN-2-DETAILED						
DESIGN-3-DETAILED						
REVISIONS 1						
REVISIONS 2						
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						

ROUTE 126 / SABATTUS ST  
EAST AVE  
TRAFFIC SIGNAL PLAN

SHEET NUMBER  
8  
OF 36

Date: 3/26/2013

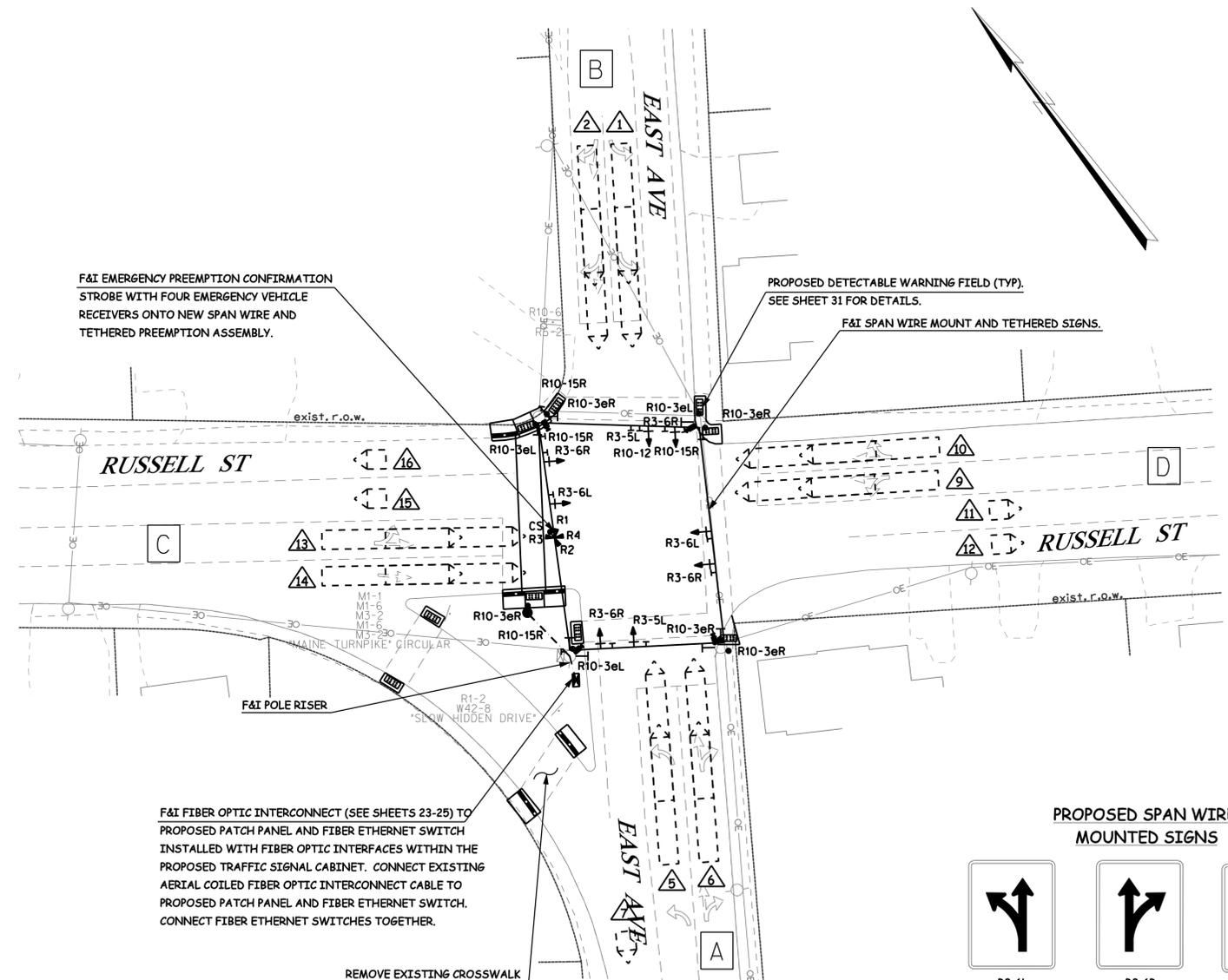
Username: J. ROBERT

Division: ... \s\planset\008\_5216400SG03.dgn

**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
FURNISH AND INSTALL (3-INCH) NON-METALLIC CONDUIT (ITEM 626.22)	30 LF
FURNISH AND INSTALL 18-INCH FOUNDATION (ITEM 626.31)	1
FURNISH AND INSTALL CONTROLLER CABINET FOUNDATION (ITEM 626.35)	1
FURNISH AND INSTALL 4-CHANNEL DATA AND PRESENCE VIDEO DETECTOR UNIT (ITEM 643.83)	1
FURNISH AND INSTALL VIDEO COMMUNICATIONS BOARD (ITEM 643.83)	1
FURNISH AND INSTALL VIDEO DETECTION CAMERA (ITEM 643.83)	4
FURNISH AND INSTALL FIBER OPTIC SPLICE ENCLOSURE (ITEM 643.90)	1
FURNISH AND INSTALL POLE RISER (ITEM 643.90)	1
FURNISH AND INSTALL APPROXIMATELY 1,300 LINEAR FEET OF 12-STRAND FIBER OPTIC INTERCONNECT CABLE TO LOCATION 105/52 FROM CONTROLLER CABINET (ITEM 643.90)	1
FURNISH AND INSTALL (4-FOOT) PEDESTAL POLE (ITEM 643.92)	1

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.



**PROPOSED EMERGENCY VEHICLE PRE-EMPTION OPERATION**

ID	PREEMPT ASSIGNMENT	ACTIVE PHASE
R1	3	Ø6
R2	4	Ø2 & Ø5
R3	5	Ø8
R4	6	Ø4

**EMERGENCY VEHICLE PRE-EMPTION NOTES:**

- PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1 = HIGHEST, 4 = LOWEST)
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (3.0 SECONDS YELLOW AND 3.0 SECONDS ALL RED) AND SERVICE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PRE-EMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.
- MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
- EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.
- CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

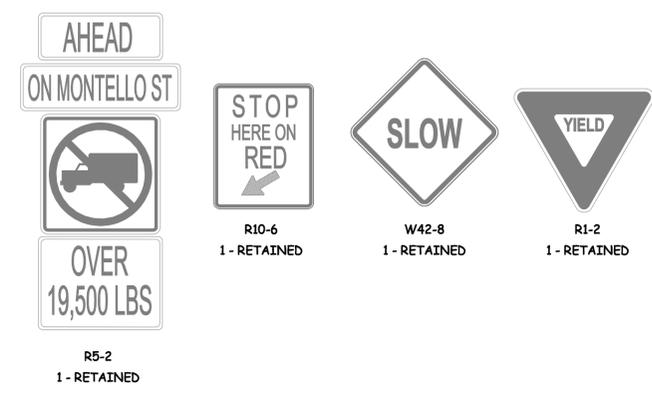
Date: 3/26/2013

Username: J. ROBERT

Division:

Filename: ... \planset\009\_5216400SC03A.dgn

**EXISTING POST MOUNTED SIGNS**

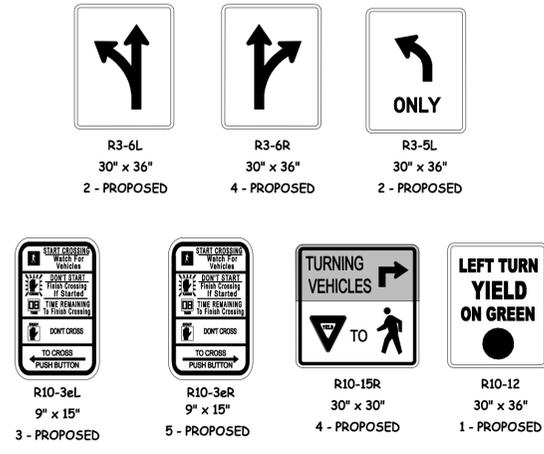


F&I FIBER OPTIC INTERCONNECT (SEE SHEETS 23-25) TO PROPOSED PATCH PANEL AND FIBER ETHERNET SWITCH INSTALLED WITH FIBER OPTIC INTERFACES WITHIN THE PROPOSED TRAFFIC SIGNAL CABINET. CONNECT EXISTING AERIAL COILED FIBER OPTIC INTERCONNECT CABLE TO PROPOSED PATCH PANEL AND FIBER ETHERNET SWITCH. CONNECT FIBER ETHERNET SWITCHES TOGETHER.

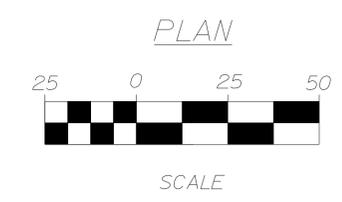
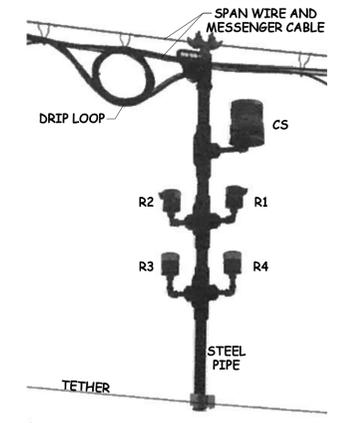
REMOVE EXISTING CROSSWALK AND CURB RAMPS SEE SHEET 31 FOR DETAILS

**INTERSECTION:**  
RUSSELL STREET / EAST AVENUE  
**SIGNAL GROUP:**  
1  
**LOCATION / PROPOSED DROP:**  
120 / 59

**PROPOSED SPAN WIRE MOUNTED SIGNS**



**PROPOSED PREEMPTION ASSEMBLY DETAIL**



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	AC-STP-1900(700)E WIN 19007.00
ROUTE 126 / SABATTUS ST EAST AVE	TRAFFIC SIGNAL PLAN
SHEET NUMBER <b>9</b>	OF 36

**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK ITEMS 643.71	QUANTITY
FURNISH AND INSTALL NEW NAZTEC NEMA TS2, TYPE 1 ETHERNET EQUIPPED CONTROLLER	1
FURNISH AND INSTALL NEW ETHERNET EQUIPPED ENHANCED CONFLICT MONITOR/MALFUNCTION MANAGEMENT UNIT (MMU)	1
FURNISH AND INSTALL ONE-WAY, 16 X 18 INCH LED POST MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	4
FURNISH AND INTALL ONE-WAY, 16 X 18 INCH LED BRACKET MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	4
FURNISH AND INSTALL ADA COMPLIANT ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSH BUTTON WITH R10-3e INFORMATIONAL SIGN	8
FURNISH AND INSTALL ENVIRONMENTALLY HARDENED FIBER ETHERNET SWITCH (SEE SHEET 11)	1
FURNISH AND INSTALL DUAL USE SPLICE ENCLOSURE AND 12-POSITION PATCH PANEL (SEE SHEET 11)	1
FURNISH AND INSTALL MAST ARM AND POST MOUNTED SIGNS (SEE SHEET 11)	12
IMPLEMENT LOCAL AND SYSTEM TIMING	-

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

**COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE**

ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	101	6	52
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	16	16	13
SPLIT TIME Ø2	34	28	27
SPLIT TIME Ø3	30	29	29
SPLIT TIME Ø4	30	27	21
SPLIT TIME Ø5	0	0	0
SPLIT TIME Ø6	50	44	40
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	60	56	50

**COORDINATION NOTES:**

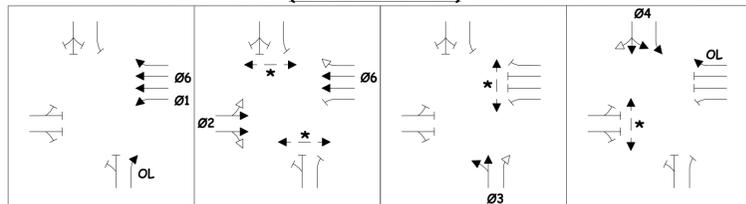
- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY.
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.
- PHASE 8 IS A DUMMY PHASE TO BE SET WITH SPLIT TIMES FOR NTCIP COMPLIANCE.

**DETECTOR SCHEDULE**

DETECTOR				AMPLIFIER				INDUCTANCE		CONTINUITY		RESISTANCE LOOP TO GROUND	
STREET	DIRECTION	LANE	Ø	TYPE	SLOT NO.	DETECTOR NO.	CHANNEL	PRIOR	PRESENT	PRIOR	PRESENT	PRIOR	PRESENT

DETECTOR NOTES:  
CONTRACTOR SHALL COMPLETE THE DETECTOR SCHEDULE FOR RECORD OF DETECTION PROGRAMMING INTO THE TRAFFIC SIGNAL CONTROLLER.

**EXISTING PHASING SEQUENCE (TO BE RETAINED)**



**SIGNAL HEAD DATA**

EXISTING				PROPOSED
B1,D1,D4	C1,D2	A1,A2,B2,B3,D3	B4,C2	P1-P8
12" LED LENS	12" LED LENS	12" LED LENS	12" LED LENS	16' X 18' PEDESTRIAN SIGNAL
WITH 5" BACKPLATES				

F&I NEW 8-FOOT POST WITH NEW COUNTDOWN PEDESTRIAN SIGNAL HEAD WITH ADA COMPLIANT ASSEMBLY CONSISTING OF BUTTON WITH LED CONFIRMATION, VIBRO-TACTILE ARROW, SPEAKER FOR INFORMATIONAL MESSAGE WITH AUDIBLE WALK SIGNAL INDICATION AND TONE LOCATOR. PROPOSED DETECTABLE WARNING FIELD (TYP). SEE SHEET 32 FOR DETAILS.

REMOVE AND SALVAGE (R&S) EXISTING PEDESTRIAN SIGNAL HEADS, PUSH BUTTONS AND INFORMATIONAL SIGNS (TYP).

F&I NEW COUNTDOWN PEDESTRIAN SIGNAL HEAD AND ADA COMPLIANT ASSEMBLY CONSISTING OF BUTTON WITH LED CONFIRMATION, VIBRO-TACTILE ARROW, SPEAKER FOR INFORMATIONAL MESSAGE WITH AUDIBLE WALK SIGNAL INDICATION AND TONE LOCATOR (TYP).

F&I FULL VIDEO BASED SYSTEM FOR SUPPLEMENTAL LOCAL VEHICLE DETECTION TO BE TRANSITIONED FROM WIRE LOOP DETECTION IN THE FUTURE WITH ANY LOOP FAILURE AND IMMEDIATE SYSTEM DETECTION.

F&I NEW 8-FOOT POST WITH NEW COUNTDOWN PEDESTRIAN SIGNAL HEAD WITH ADA COMPLIANT ASSEMBLY CONSISTING OF BUTTON WITH LED CONFIRMATION, VIBRO-TACTILE ARROW, SPEAKER FOR INFORMATIONAL MESSAGE WITH AUDIBLE WALK SIGNAL INDICATION AND TONE LOCATOR.

FURNISH AND INSTALL (F&I) NEW ENHANCED CONFLICT MONITOR WITH ETHERNET PORT AND ETHERNET EQUIPPED TS2 TYPE 1 CONTROLLER WITH LATEST SOFTWARE UPDATE IN EXISTING CABINET.

IMPLEMENT LOCAL AND SYSTEM TIMING PLANS.

F&I 3-INCH PVC CONDUIT

F&I NEW 8-FOOT POST WITH NEW COUNTDOWN PEDESTRIAN SIGNAL HEAD WITH ADA COMPLIANT ASSEMBLY CONSISTING OF BUTTON WITH LED CONFIRMATION, VIBRO-TACTILE ARROW, SPEAKER FOR INFORMATIONAL MESSAGE WITH AUDIBLE WALK SIGNAL INDICATION AND TONE LOCATOR.

PROPOSED VIDEO DETECTION ZONES FOR SUPPLEMENTAL LOCAL INTERSECTION DETECTION (TYP) (SEE SHEET 11 FOR DETECTOR SCHEDULE)

PROPOSED VIDEO DETECTION ZONES FOR SYSTEM DETECTION (TYP)

SYSTEM DETECTION SHALL BE CONFIGURED FOR VOLUME AND OCCUPANCY (SEE SHEET 11 FOR DETECTOR SCHEDULE)

RETAIN EXISTING WIRE LOOP DETECTION FOR ALL 4 APPROACHES (TYP)

F&I 3-INCH PVC CONDUIT

F&I NEW 4-FOOT POST WITH ADA COMPLIANT ASSEMBLY CONSISTING OF BUTTON WITH LED CONFIRMATION, VIBRO-TACTILE ARROW, SPEAKER FOR INFORMATIONAL MESSAGE WITH AUDIBLE WALK SIGNAL INDICATION AND TONE LOCATOR.

F&I NEW 8-FOOT POST WITH NEW COUNTDOWN PEDESTRIAN SIGNAL HEAD WITH ADA COMPLIANT ASSEMBLY CONSISTING OF BUTTON WITH LED CONFIRMATION, VIBRO-TACTILE ARROW, SPEAKER FOR INFORMATIONAL MESSAGE WITH AUDIBLE WALK SIGNAL INDICATION AND TONE LOCATOR.

**SIGNAL TIMING SCHEDULE**

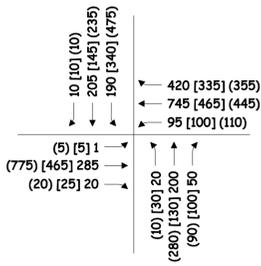
ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	5	10	5	5	10				
PASSAGE TIME	3.0	3.0	3.0	3.0	3.0				
MAXIMUM 1	10	40	25	25	40				
MAXIMUM 2	12	60	15	25	80				
YELLOW	3.0	3.0	3.0	3.0	3.0				
ALL RED	2.5	3.0	3.0	3.0	3.0				
PEDESTRIAN WALK	4	4	4	4	4				
PEDESTRIAN CLEARANCE	17	19	11	17					
RECALL	O	S	O	O	S				
DETECTOR OPERATION	PR	PR	PR	PR	PR				
PREEMPTION PRIORITY	2	1	3	4	2				
FLASH	R	Y	R	R	Y				
DUAL ENTRY	OFF	ON	OFF	OFF	ON				

NOTES: S = SOFT RECALL Y = YELLOW  
O = RECALL OFF R = RED  
PR = PRESENCE D = DARK  
MAX2 = UNDER COORDINATION

**DAILY AND WEEKLY COORDINATION SCHEDULE**

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

**SYSTEM DESIGN VOLUMES AM [MID] (PM)**



INTERSECTION:  
SABATTUS STREET / RUSSELL STREET  
SIGNAL GROUP:  
1  
LOCATION / PROPOSED DROP:  
105 / 52



SCALE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEIZER	DATE	10-2012
DESIGN-DETAILED	M. GRAHAM	BY	J. ROBERT
CHECKED-REVIEWED	C. BOBAY	DATE	11-2012
DESIGN-DETAILED	M. SIEMEN	SIGNATURE	
DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		DATE	
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ROUTE 126 / SABATTUS ST  
RUSSELL STREET  
TRAFFIC SIGNAL PLAN

SHEET NUMBER

10

OF 36

LIST OF MAJOR ITEMS

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
FURNISH AND INSTALL (3-INCH) NON-METALLIC CONDUIT (ITEM 626.22)	70 LF
FURNISH AND INSTALL 18-INCH FOUNDATION (ITEM 626.31)	5
FURNISH AND INSTALL 4-CHANNEL DATA AND PRESENCE VIDEO DETECTOR UNIT (ITEM 643.83)	1
FURNISH AND INSTALL VIDEO COMMUNICATIONS BOARD (ITEM 643.83)	1
FURNISH AND INSTALL VIDEO DETECTION CAMERA (ITEM 643.83)	4
FURNISH AND INSTALL APPROXIMATELY 800 LINEAR FEET OF 12-STRAND FIBER OPTIC INTERCONNECT CABLE TO LOCATION 103/53 FROM CONTROLLER CABINET (ITEM 643.90)	1
FURNISH AND INSTALL (4-FOOT) PEDESTAL POLE (ITEM 643.92)	1
FURNISH AND INSTALL (8-FOOT) PEDESTAL POLE (ITEM 643.92)	4

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

PROPOSED MAST ARM MOUNTED SIGNS

**R3-6L**  
30" x 36"  
2 - PROPOSED

**R3-6R**  
30" x 36"  
1 - PROPOSED

**R3-5a**  
30" x 36"  
2 - PROPOSED

**R3-5R**  
30" x 36"  
2 - PROPOSED

**R3-5L**  
30" x 36"  
1 - PROPOSED

**R10-15R**  
30" x 36"  
4 - PROPOSED

**R10-3eL**  
9" x 15"  
4 - PROPOSED

**R10-3eR**  
9" x 15"  
4 - PROPOSED

EXISTING POST AND MAST ARM MOUNTED SIGNS

**R5-2**  
2 - RETAINED

**W1-8**  
2 - RETAINED

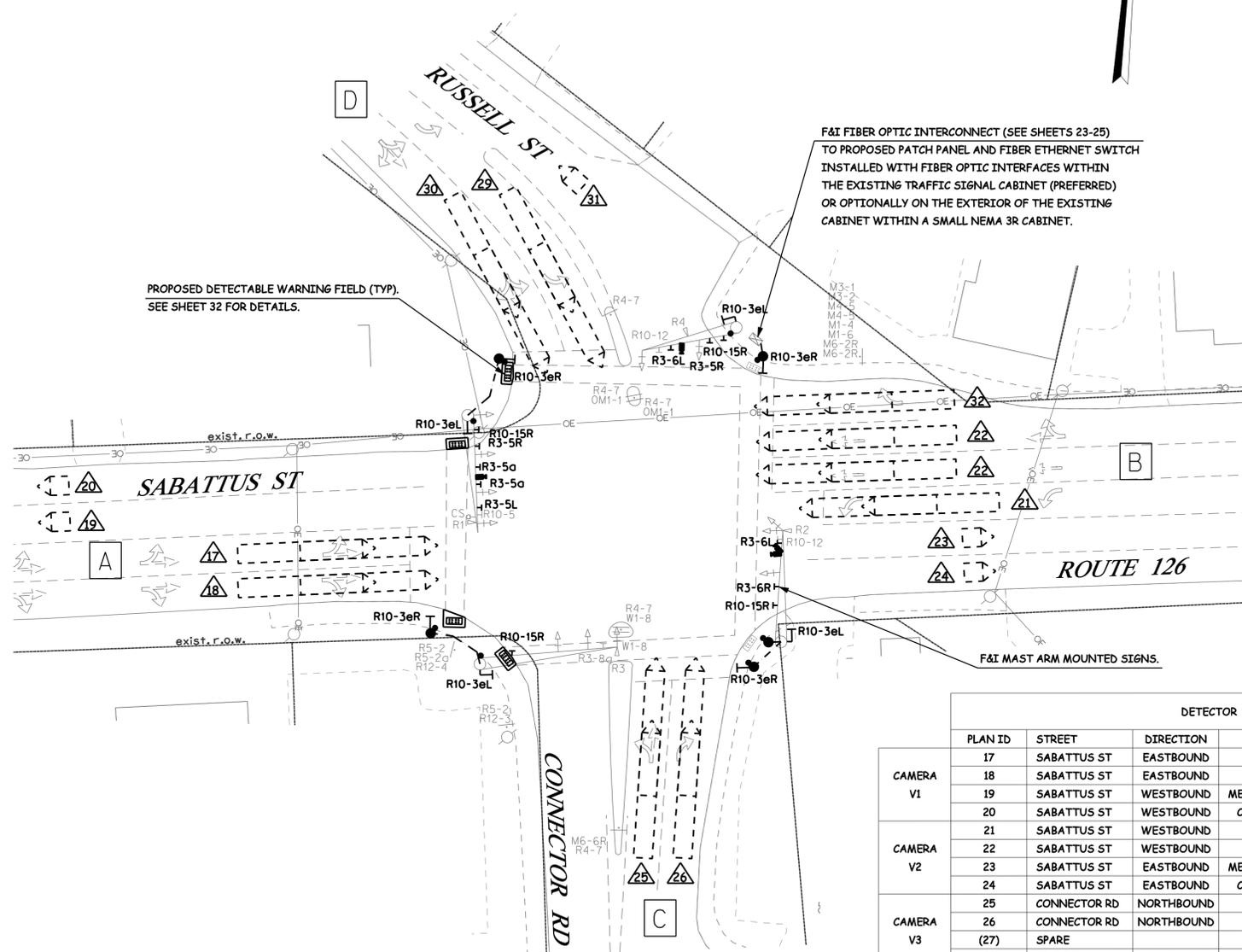
**R4-7**  
5 - RETAINED

**OM1-1**  
2 - RETAINED

**R10-5**  
1 - RETAINED

**R10-12**  
2 - RETAINED

**R3-8a**  
1 - RETAINED



F&I FIBER OPTIC INTERCONNECT (SEE SHEETS 23-25)  
TO PROPOSED PATCH PANEL AND FIBER ETHERNET SWITCH  
INSTALLED WITH FIBER OPTIC INTERFACES WITHIN  
THE EXISTING TRAFFIC SIGNAL CABINET (PREFERRED)  
OR OPTIONALLY ON THE EXTERIOR OF THE EXISTING  
CABINET WITHIN A SMALL NEMA 3R CABINET.

PROPOSED DETECTABLE WARNING FIELD (TYP.)  
SEE SHEET 32 FOR DETAILS.

EMERGENCY VEHICLE PRE-EMPTION OPERATION

ID	PREEMPT ASSIGNMENT	ACTIVE PHASE
R1	3	Ø2
R2	4	Ø1 & Ø6
R3	5	Ø3
R4	6	Ø4

EMERGENCY VEHICLE PRE-EMPTION NOTES:

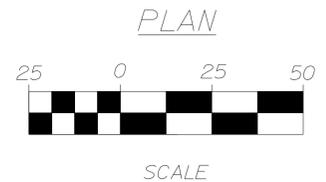
- PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1 = HIGHEST, 4 = LOWEST)
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (3.0 SECONDS YELLOW AND 3.0 SECONDS ALL RED) AND SERVICE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PRE-EMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.
- MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
- EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.
- CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

DETECTOR SCHEDULE

CAMERA	DETECTOR				DETECTOR CARD IN VEHICLE DETECTION RACK				
	PLAN ID	STREET	DIRECTION	LANE	Ø	TYPE	SLOT NO	DETECTOR NO	CHANNEL
CAMERA V1	17	SABATTUS ST	EASTBOUND	LEFT-THRU	2	TRAFICAM	-	1/1	1
	18	SABATTUS ST	EASTBOUND	THRU-RIGHT	2	TRAFICAM	-	1/2	2
	19	SABATTUS ST	WESTBOUND	MEDIAN SIDE (SYSTEM)	C	TRAFICAM	-	1/3	3
	20	SABATTUS ST	WESTBOUND	CURB SIDE (SYSTEM)	C	TRAFICAM	-	1/4	4
CAMERA V2	21	SABATTUS ST	WESTBOUND	LEFT	1	TRAFICAM	-	2/1	1
	22	SABATTUS ST	WESTBOUND	THROUGH	6	TRAFICAM	-	2/2	2
	23	SABATTUS ST	EASTBOUND	MEDIAN SIDE (SYSTEM)	C	TRAFICAM	-	2/3	3
	24	SABATTUS ST	EASTBOUND	CURB SIDE (SYSTEM)	C	TRAFICAM	-	2/4	4
CAMERA V3	25	CONNECTOR RD	NORTHBOUND	LEFT-THRU	3	TRAFICAM	-	3/1	1
	26	CONNECTOR RD	NORTHBOUND	RIGHT	3	TRAFICAM	-	3/2	2
	(27) (28)	SPARE							
CAMERA V4	29	RUSSELL ST	SOUTHBOUND	LEFT	4	TRAFICAM	-	4/1	1
	30	RUSSELL ST	SOUTHBOUND	LEFT-THRU-RIGHT	4	TRAFICAM	-	4/2	2
	31	RUSSELL ST	NORTHBOUND	SYSTEM	C	TRAFICAM	-	4/3	3
	32	SABATTUS ST	WESTBOUND	RIGHT	6D	TRAFICAM	-	4/4	4

DETECTOR NOTES:  
C = COUNTING LOOP  
ALL DETECTION SHOULD BE INITIALLY SET TO NON-LOCKING OPERATIONS

INTERSECTION:  
SABATTUS STREET / RUSSELL STREET  
SIGNAL GROUP:  
1  
LOCATION / PROPOSED DROP:  
105 / 52



Date: 3/26/2013

Username: J. ROBERT

Division:

Filename: ... \planset\011\_521640SC04.dgn

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012	J. ROBERT	11-2012			
CHECKED-REVIEWED	C. BOBAY		M. SIEMEN				
DESIGN-2-DETAILED							
DESIGN-3-DETAILED							
REVISIONS 1							
REVISIONS 2							
REVISIONS 3							
REVISIONS 4							
FIELD CHANGES							

ROUTE 126 / SABATTUS ST  
RUSSELL STREET  
TRAFFIC SIGNAL PLAN

SHEET NUMBER  
11  
OF 36



LIST OF MAJOR ITEMS

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS) (ITEM 403.209)	0.6 TONS
FURNISH AND INSTALL (3-INCH) NON-METALLIC CONDUIT (ITEM 626.22)	10-LF
FURNISH AND INSTALL 18-INCH FOUNDATION (ITEM 626.31)	1
FURNISH AND INSTALL APPROXIMATELY 2,500 LINEAR FEET OF 12-STRAND FIBER OPTIC INTERCONNECT CABLE TO LOCATION 102/54 FROM CONTROLLER CABINET (ITEM 643.90)	1
FURNISH AND INSTALL (4-FOOT) PEDESTAL POLE (ITEM 643.92)	1

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

PROPOSED SPAN WIRE MOUNTED SIGNS

**R3-6L**  
30" x 36"  
1 - PROPOSED

**R3-6R**  
30" x 36"  
2 - PROPOSED

**R3-5a**  
30" x 36"  
2 - PROPOSED

**R3-5R**  
30" x 36"  
1 - PROPOSED

**R3-5L**  
30" x 36"  
3 - PROPOSED

**R10-15R**  
30" x 30"  
2 - PROPOSED

**R10-3eL**  
9" x 15"  
2 - PROPOSED

**R10-3eR**  
9" x 15"  
2 - PROPOSED

**Sabattus St**  
D3-1a  
24" x 96"  
2 - PROPOSED

**Fairlawn Ave**  
D3-1c  
24" x 108"  
2 - PROPOSED

**R10-5**  
2 - RETAINED

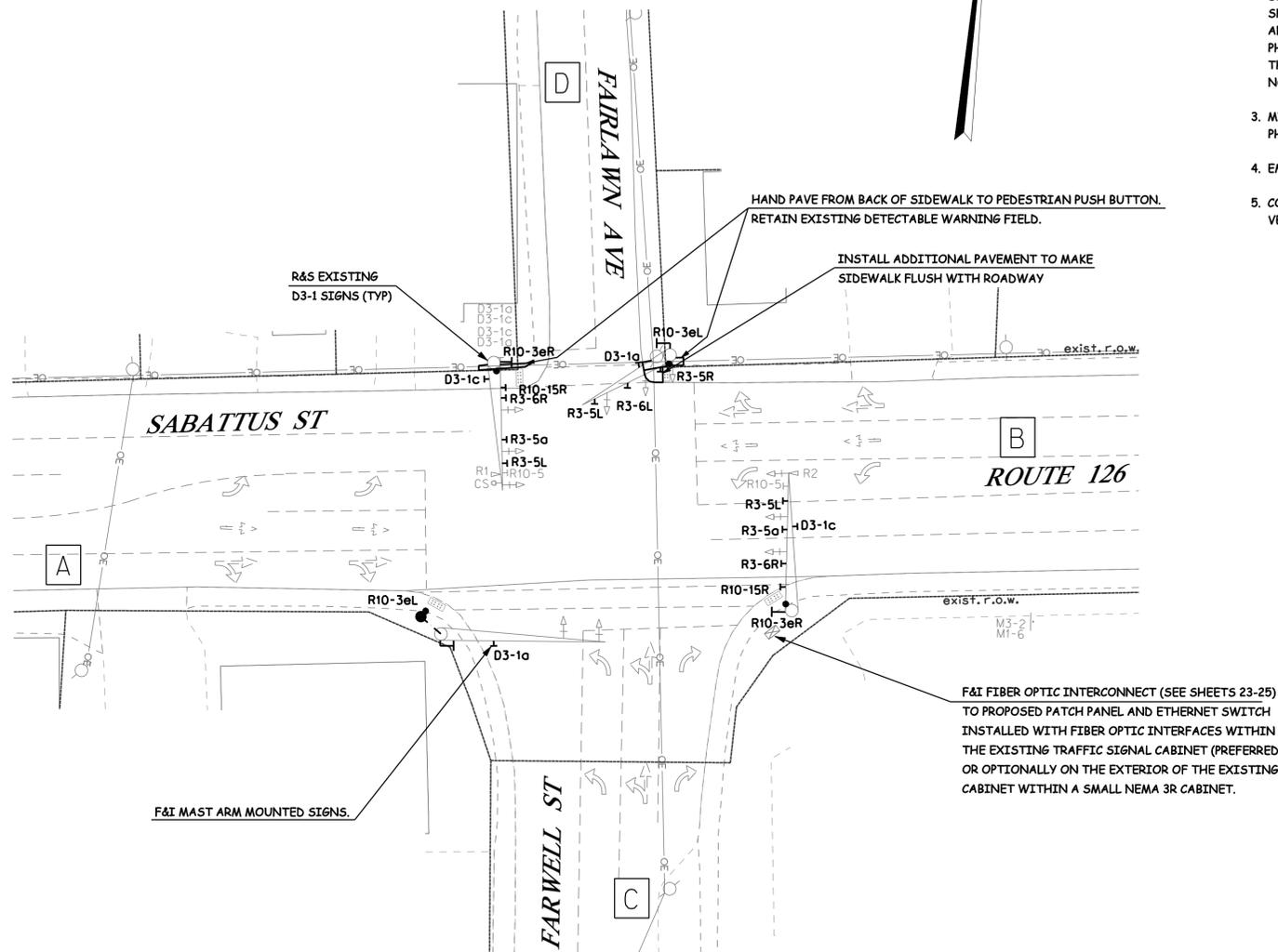
EXISTING POST AND MAST ARM MOUNTED SIGNS

**M3-2**  
M1-5  
1 - RETAINED

**D3-1a**  
2 - REMOVED

**D3-1c**  
2 - REMOVED

**R10-5**  
2 - RETAINED



INTERSECTION:  
SABATTUS STREET / FAIRLAWN AVENUE  
SIGNAL GROUP:  
1  
LOCATION / PROPOSED DROP:  
103 / 53

EMERGENCY VEHICLE PRE-EMPTION OPERATION

ID	PREEMPT ASSIGNMENT	ACTIVE PHASE
R1	3	Ø2 & Ø5
R2	4	Ø1 & Ø6

EMERGENCY VEHICLE PRE-EMPTION NOTES:

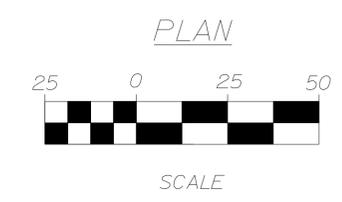
- PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1 = HIGHEST, 2 = LOWEST)
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (3.0 SECONDS YELLOW AND 2.5 SECONDS ALL RED) AND SERVICE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PRE-EMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.
- MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
- EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.
- CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE
M. GRAHAM	J. ROBERT	10-2012
C. BOBAY	M. SIEMEN	11-2012
DESIGN-DETAILED	SIGNATURE	
DESIGN-REVIEWED		
DESIGN-DETAILED2		
DESIGN-DETAILED3		
REVISIONS 1	P.E. NUMBER	
REVISIONS 2		
REVISIONS 3		
REVISIONS 4	DATE	
FIELD CHANGES		

ROUTE 126 / SABATTUS ST  
FAIRLAWN AVE  
TRAFFIC SIGNAL PLAN

SHEET NUMBER  
13  
OF 36



Date: 3/26/2013

Username: J. ROBERT

Division:

Filename: ... \planset\013\_52164005C05A.dgn

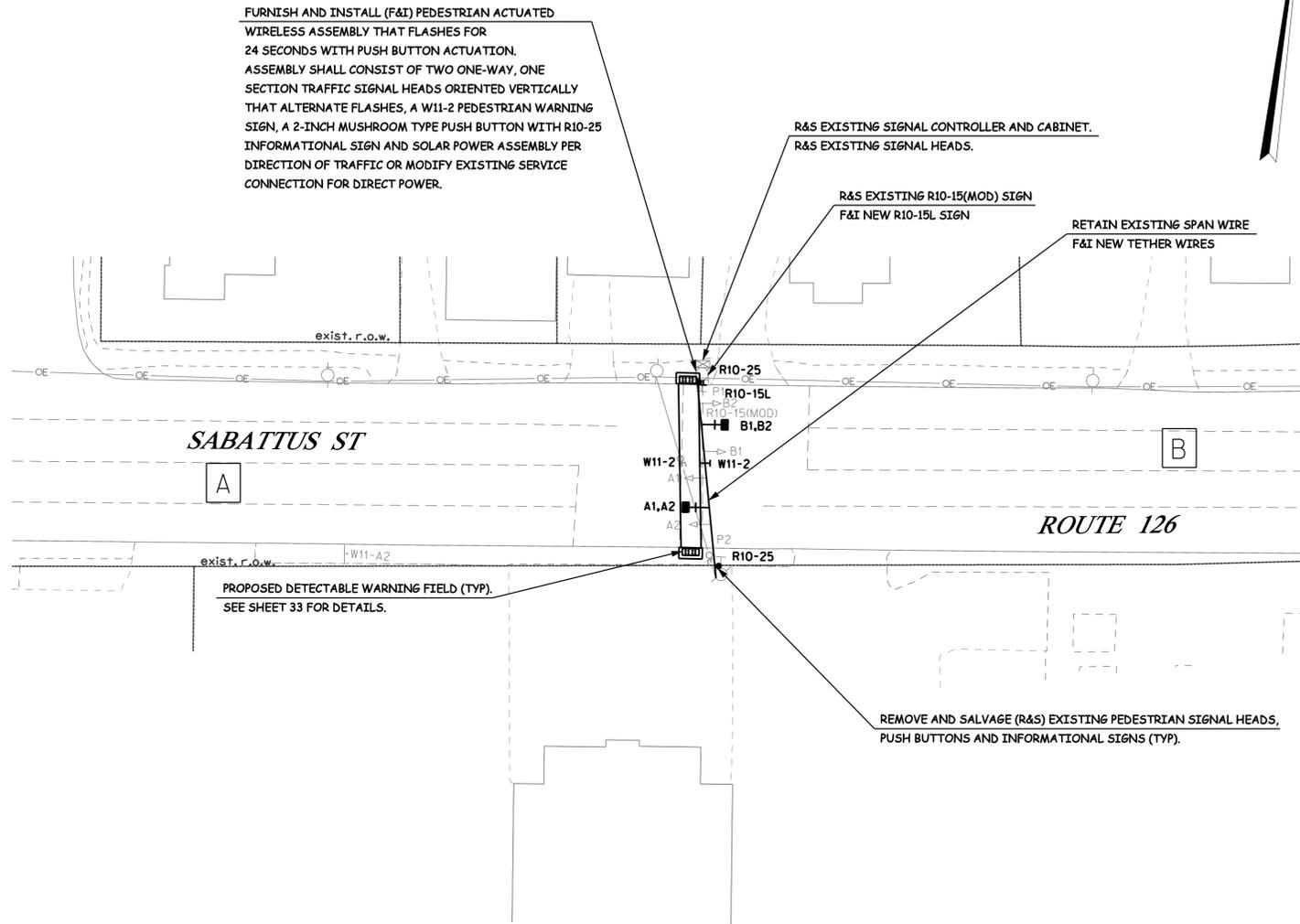
**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK ITEMS 643.60	QUANTITY
FURNISH AND INSTALL SPAN WIRE AND BRACKET MOUNTED SIGNS	3
FURNISH AND INSTALL SOLAR POWERED FLASHING WIRELESS BASED ASSEMBLY	2
FURNISH AND INSTALL ADA COMPLIANT 2-INCH MUSHROOM TYPE PEDESTRIAN PUSH BUTTONS WITH R10-25 INFORMATIONAL SIGNS	2
FURNISH AND INSTALL TETHER WIRE	115 LF

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

**SIGNAL HEAD DATA**

PROPOSED
A1,A2,B1,B2
12' LED LENS



**EXISTING SIGNS**



R10-15(MOD)  
1 - REMOVED

**PROPOSED SIGNS**



R10-15L  
30" x 30"  
1 - PROPOSED



W11-2  
48" x 48"  
2 - PROPOSED



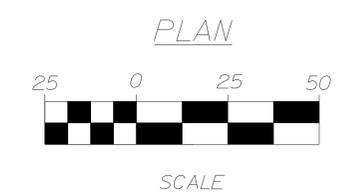
R10-25L  
9" x 12"  
1 - PROPOSED



R10-25R  
9" x 12"  
1 - PROPOSED

SYSTEM DESIGN VOLUMES AM [MID] (PM)	
← 1250 [840] (850)	→ (1350) [870] 515

INTERSECTION:  
SABATTUS STREET /  
HOLY FAMILY  
SIGNAL GROUP:  
1  
LOCATION:  
38



Date: 3/26/2013

Username: J. ROBERT

Division:

Filename: ... \s\planset\014\_52164005G06.dgn

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	BY	DATE
DESIGN-DETAILED	M. GRAHAM	J. ROBERT	10-2012
CHECKED-REVIEWED	C. BOBAY	M. SIEMEN	11-2012
DESIGN-DETAILED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ROUTE 126 / SABATTUS ST  
HOLY FAMILY PEDESTRIAN CROSSING  
TRAFFIC SIGNAL PLAN

SHEET NUMBER  
**14**  
OF 36

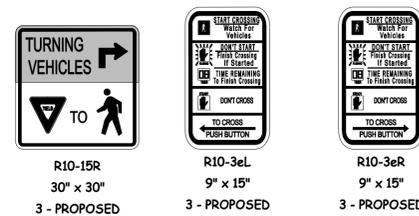
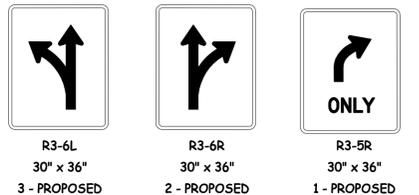


**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
FURNISH AND INSTALL (3-INCH) NON-METALLIC CONDUIT (ITEM 626.22)	50 LF
FURNISH AND INSTALL 18-INCH FOUNDATION (ITEM 626.31)	3
FURNISH AND INSTALL POLE RISER (ITEM 643.90)	3
FURNISH AND INSTALL APPROXIMATELY 1,710 LINEAR FEET OF 12-STRAND FIBER OPTIC INTERCONNECT CABLE TO LOCATION 108/55 FROM CONTROLLER CABINET (ITEM 643.90)	1
FURNISH AND INSTALL (8-FOOT) PEDESTAL POLE (ITEM 643.92)	3

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

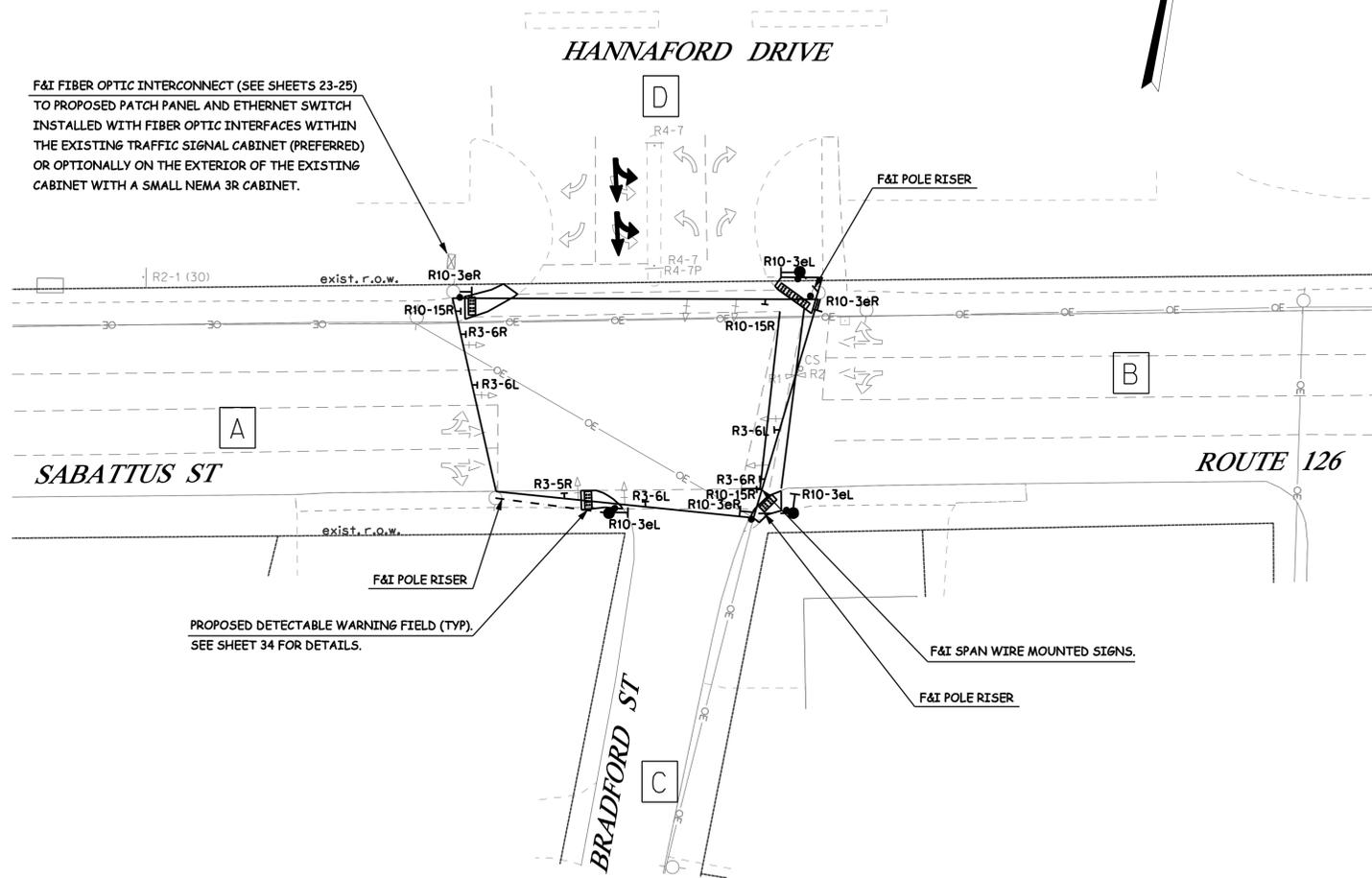
**PROPOSED SPAN WIRE MOUNTED SIGNS**



**EXISTING POST MOUNTED SIGNS**



F&I FIBER OPTIC INTERCONNECT (SEE SHEETS 23-25) TO PROPOSED PATCH PANEL AND ETHERNET SWITCH INSTALLED WITH FIBER OPTIC INTERFACES WITHIN THE EXISTING TRAFFIC SIGNAL CABINET (PREFERRED) OR OPTIONALLY ON THE EXTERIOR OF THE EXISTING CABINET WITH A SMALL NEMA 3R CABINET.



PROPOSED DETECTABLE WARNING FIELD (TYP). SEE SHEET 34 FOR DETAILS.

INTERSECTION:  
SABATTUS STREET / BRADFORD STREET  
SIGNAL GROUP:  
1  
LOCATION / PROPOSED DROP:  
102 / 54

**EMERGENCY VEHICLE PRE-EMPTION OPERATION**

ID	PREEMPT ASSIGNMENT	ACTIVE PHASE
R1	3	Ø2
R2	4	Ø1

**EMERGENCY VEHICLE PRE-EMPTION NOTES:**

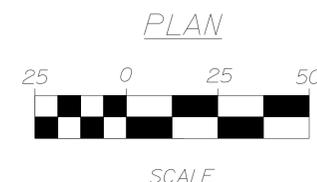
- PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1 = HIGHEST, 2 = LOWEST)
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (3.0 SECONDS YELLOW AND 2.5 SECONDS ALL RED) AND SERVICE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PRE-EMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.
- MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
- EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.
- CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012	J. ROBERT	11-2012			
CHECKED-REVIEWED	C. BOBAY		M. SIENEN				
DESIGN-DETAILED							
DESIGN-DETAILED							
REVISIONS							
REVISIONS							
REVISIONS							
REVISIONS							
FIELD CHANGES							

ROUTE 126 / SABATTUS ST  
BRADFORD STREET  
TRAFFIC SIGNAL PLAN

SHEET NUMBER  
16  
OF 36



Date: 3/26/2013

Username: J. ROBERT

Division:

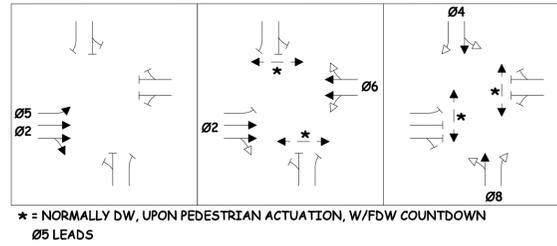
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**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK ITEMS 643.71	QUANTITY	EQUIPMENT AND WORK ITEMS 643.71	QUANTITY
FURNISH AND INSTALL NEW NAZTEC NEMA TS2, TYPE 1 ETHERNET EQUIPPED CONTROLLER IN NEW P-TYPE BASE MOUNTED NEMA TS2, TYPE 1 MAINEDOT SPEC CABINET COMPLETE WITH ALL ANCILLARY EQUIPMENT AND WIRING	1	FURNISH AND INSTALL LIGHT-BASED PREEMPTION RECEIVERS WITH DETECTOR CABLE	2
FURNISH AND INSTALL NEW ETHERNET EQUIPPED ENHANCED CONFLICT MONITOR/MALFUNCTION MANAGEMENT UNIT (MMU)	1	FURNISH AND INSTALL PREEMPTION CONFIRMATION RED STROBE WITH CABLE	1
FURNISH AND INSTALL ONE-WAY, 3-SECTION, 12-INCH TRAFFIC SIGNAL HEADS WITH VISORS AND 5" BACKPLATES MOUNTED ON SPAN WIRES	7	FURNISH AND INSTALL SPAN WIRE AND POST MOUNTED SIGNS (SEE SHEET 18)	16
FURNISH AND INSTALL ONE-WAY, 5-SECTION, 12-INCH TRAFFIC SIGNAL HEADS WITH VISORS AND 5" BACKPLATES MOUNTED ON SPAN WIRES	1	FURNISH AND INSTALL SPAN WIRE AND TETHER WIRE	815 LF
FURNISH AND INSTALL ONE-WAY, 16 X 18 INCH LED POST MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	4	FURNISH AND INSTALL NEW SIGNAL CABLE	-
FURNISH AND INSTALL ONE-WAY, 16 X 18 INCH LED BRACKET MOUNTED COUNTDOWN PEDESTRIAN SIGNAL HEAD	4	IMPLEMENT LOCAL AND SYSTEM TIMING	-
FURNISH AND INSTALL ADA COMPLIANT ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSH BUTTON WITH R10-3e INFORMATIONAL SIGN	8		
FURNISH AND INSTALL ENVIRONMENTALLY HARDENED FIBER ETHERNET SWITCH (SEE SHEET 18)	1		
FURNISH AND INSTALL DUAL USE SPLICE ENCLOSURE AND 12-POSITION PATCH PANEL (SEE SHEET 18)	1		
FURNISH AND INSTALL 4-CHANNEL PREEMPTION PHASE SELECTOR WITH SYSTEM CHASSIS	1		

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

**PROPOSED PHASING SEQUENCE**



**SIGNAL HEAD DATA**

PROPOSED		
A1	A2,B1,B2, C1,C2,D1,D2	P1-P8
12" LED LENS	12" LED LENS	16" X 18" PEDESTRIAN SIGNAL
WITH 5" BACKPLATE		

**SIGNAL TIMING SCHEDULE**

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL		10		5	5	10		5	
PASSAGE TIME		4.5		3.0	2.0	4.5		3.0	
MAXIMUM 1		40		30	15	40		30	
MAXIMUM 2		50		40	20	50		40	
YELLOW		3.0		3.0	3.0	3.0		3.0	
ALL RED		3.0		3.0	3.5	3.0		3.0	
PEDESTRIAN WALK		7		7		7		7	
PEDESTRIAN CLEARANCE		18		22		18		22	
RECALL		S		O	O	S		O	
DETECTOR OPERATION		PR		PR	PR	PR		PR	
PREEMPTION PRIORITY		1			1	2			
FLASH		Y		R	R	Y		R	
DUAL ENTRY		ON		OFF	OFF	ON		OFF	

NOTES: S = SOFT RECALL Y = YELLOW  
 O = RECALL OFF R = RED  
 PR = PRESENCE D = DARK  
 MAX2 = UNDER COORDINATION

**DAILY AND WEEKLY COORDINATION SCHEDULE**

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

**COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE**

ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	11	15	51
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	0	0	0
SPLIT TIME Ø2	69	62	52
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	41	38	38
SPLIT TIME Ø5	16	18	16
SPLIT TIME Ø6	53	44	36
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	41	38	38

**COORDINATION NOTES:**

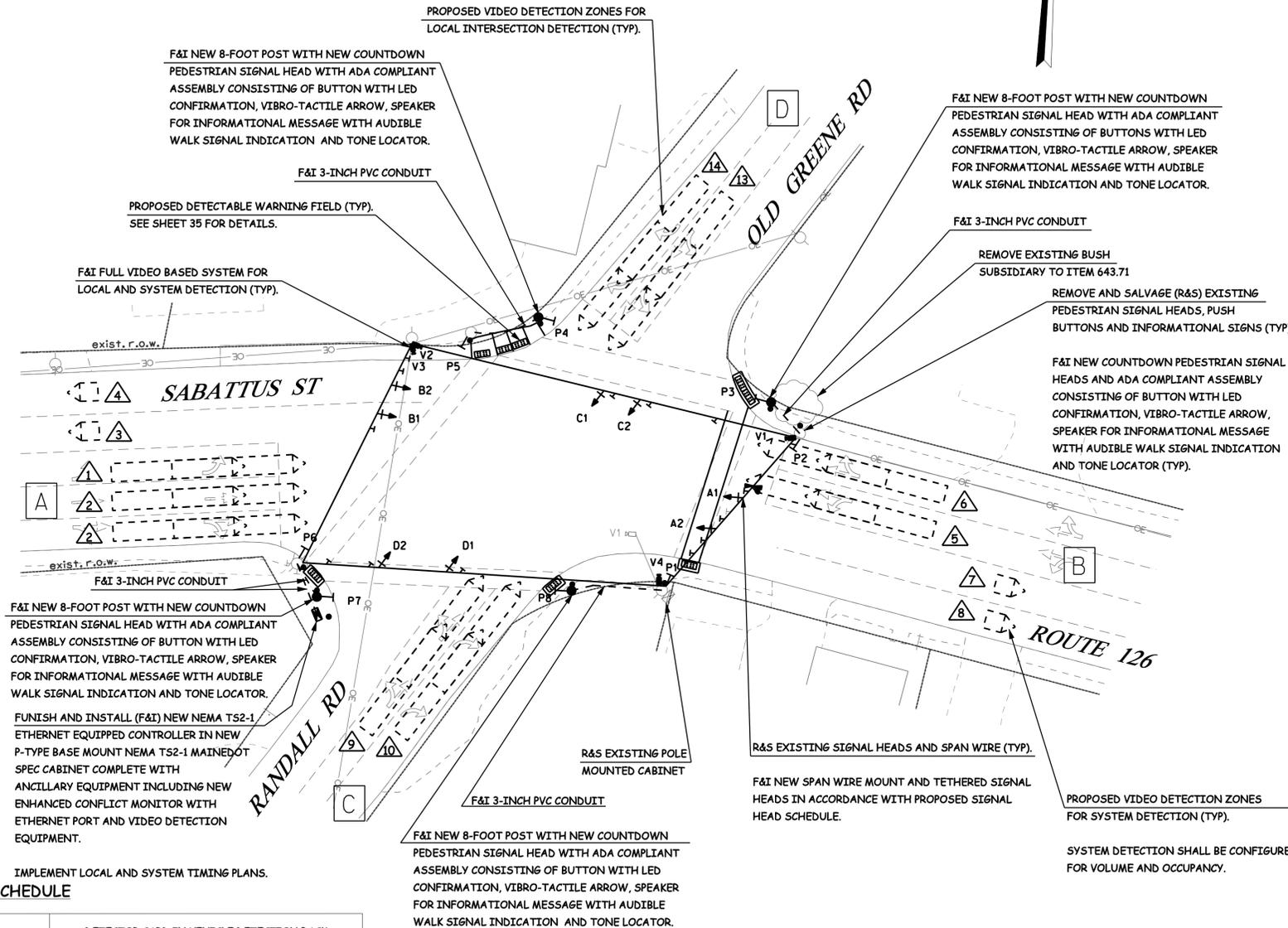
- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY.
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.

**DETECTOR SCHEDULE**

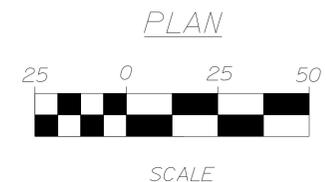
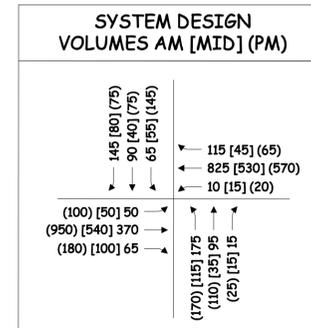
	DETECTOR				DETECTOR CARD IN VEHICLE DETECTION RACK				
	PLAN ID	STREET	DIRECTION	LANE	Ø	TYPE	SLOT NO	DETECTOR NO	CHANNEL
CAMERA V1	1	SABATTUS ST	EASTBOUND	LEFT	5	TRAFICAM	-	1/1	1
	2	SABATTUS ST	EASTBOUND	THRU/ THRU-RIGHT	2	TRAFICAM	-	1/2	2
	3	SABATTUS ST	WESTBOUND	MEDIAN SIDE (SYSTEM)	C	TRAFICAM	-	1/3	3
	4	SABATTUS ST	WESTBOUND	CURB SIDE (SYSTEM)	C	TRAFICAM	-	1/4	4
CAMERA V2	5	SABATTUS ST	WESTBOUND	LEFT-THRU	6	TRAFICAM	-	2/1	1
	6	SABATTUS ST	WESTBOUND	THRU-RIGHT	6	TRAFICAM	-	2/2	2
	7	SABATTUS ST	EASTBOUND	MEDIAN SIDE (SYSTEM)	C	TRAFICAM	-	2/3	3
	8	SABATTUS ST	EASTBOUND	CURB SIDE (SYSTEM)	C	TRAFICAM	-	2/4	4
CAMERA V3	9	RANDALL RD	NORTHBOUND	LEFT-THRU	8	TRAFICAM	-	3/1	1
	10	RANDALL RD	NORTHBOUND	RIGHT	8	TRAFICAM	-	3/2	2
CAMERA V4	(11)	SPARE							
	(12)	SPARE							
	13	OLD GREENE RD	SOUTHBOUND	LEFT-THRU	4	TRAFICAM	-	4/1	1
	14	OLD GREENE RD	SOUTHBOUND	RIGHT	4	TRAFICAM	-	4/2	2
	(15)	SPARE							
	(16)	SPARE							

**DETECTOR NOTES:**

C = COUNTING LOOP  
 ALL DETECTION SHOULD BE INITIALLY SET TO NON-LOCKING OPERATIONS



INTERSECTION:  
 SABATTUS STREET / RANDALL ROAD  
 SIGNAL GROUP:  
 1  
 LOCATION / PROPOSED DROP:  
 108 / 55



PROJ. MANAGER	B. KEIZER	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012	J. ROBERT	11-2012			
CHECKED-REVIEWED	C. BOBAY		M. SIEMEN				
DESIGN-2-DETAILED							
DESIGN-3-DETAILED							
REVISIONS 1							
REVISIONS 2							
REVISIONS 3							
REVISIONS 4							
FIELD CHANGES							

**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY	EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
FURNISH AND INSTALL (3-INCH) NON-METALLIC CONDUIT (ITEM 626.22)	90 LF	FURNISH AND INSTALL POLE RISER (ITEM 643.90)	4
FURNISH AND INSTALL 18-INCH FOUNDATION (ITEM 626.31)	4	FURNISH AND INSTALL (8-FOOT) PEDESTAL POLE (ITEM 643.92)	4
FURNISH AND INSTALL CONTROLLER CABINET FOUNDATION (ITEM 626.35)	1	FURNISH AND INSTALL 4-FOOT BOLLARD (ITEM 841.48)	1
FURNISH AND INSTALL 4-CHANNEL DATA AND PRESENCE VIDEO DETECTOR UNIT (ITEM 643.83)	1		
FURNISH AND INSTALL VIDEO COMMUNICATIONS BOARD (ITEM 643.83)	1		
FURNISH AND INSTALL VIDEO DETECTION CAMERA (ITEM 643.83)	4		

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

**PROPOSED EMERGENCY VEHICLE PRE-EMPTION OPERATION**

ID	PREEMPT ASSIGNMENT	ACTIVE PHASE
R1	3	Ø2 & Ø5
R2	4	Ø6

**EMERGENCY VEHICLE PRE-EMPTION NOTES:**

- PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1 = HIGHEST, 2 = LOWEST)
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (3.0 SECONDS YELLOW AND 3.0 SECONDS ALL RED) AND SERVICE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PRE-EMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.
- MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
- EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.
- CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

**PROPOSED SPAN WIRE MOUNTED SIGNS**

**R3-6L**  
30" x 36"  
3 - PROPOSED

**R3-6R**  
30" x 36"  
2 - PROPOSED

**R3-5a**  
30" x 36"  
1 - PROPOSED

**R3-5R**  
30" x 36"  
2 - PROPOSED

**R3-5L**  
30" x 36"  
1 - PROPOSED

**R10-15R**  
30" x 30"  
4 - PROPOSED

**R10-3eL**  
9" x 15"  
4 - PROPOSED

**R10-3eR**  
9" x 15"  
4 - PROPOSED

**Sabattus St**  
D3-1a  
12" x 48"  
1 - PROPOSED

**Randall Rd**  
D3-1d  
12" x 48"  
2 - PROPOSED

**EXISTING SPAN WIRE AND POST MOUNTED SIGNS**

**R2-1 (30)**  
1 - RETAINED

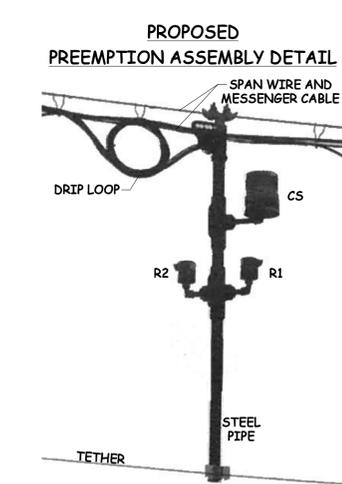
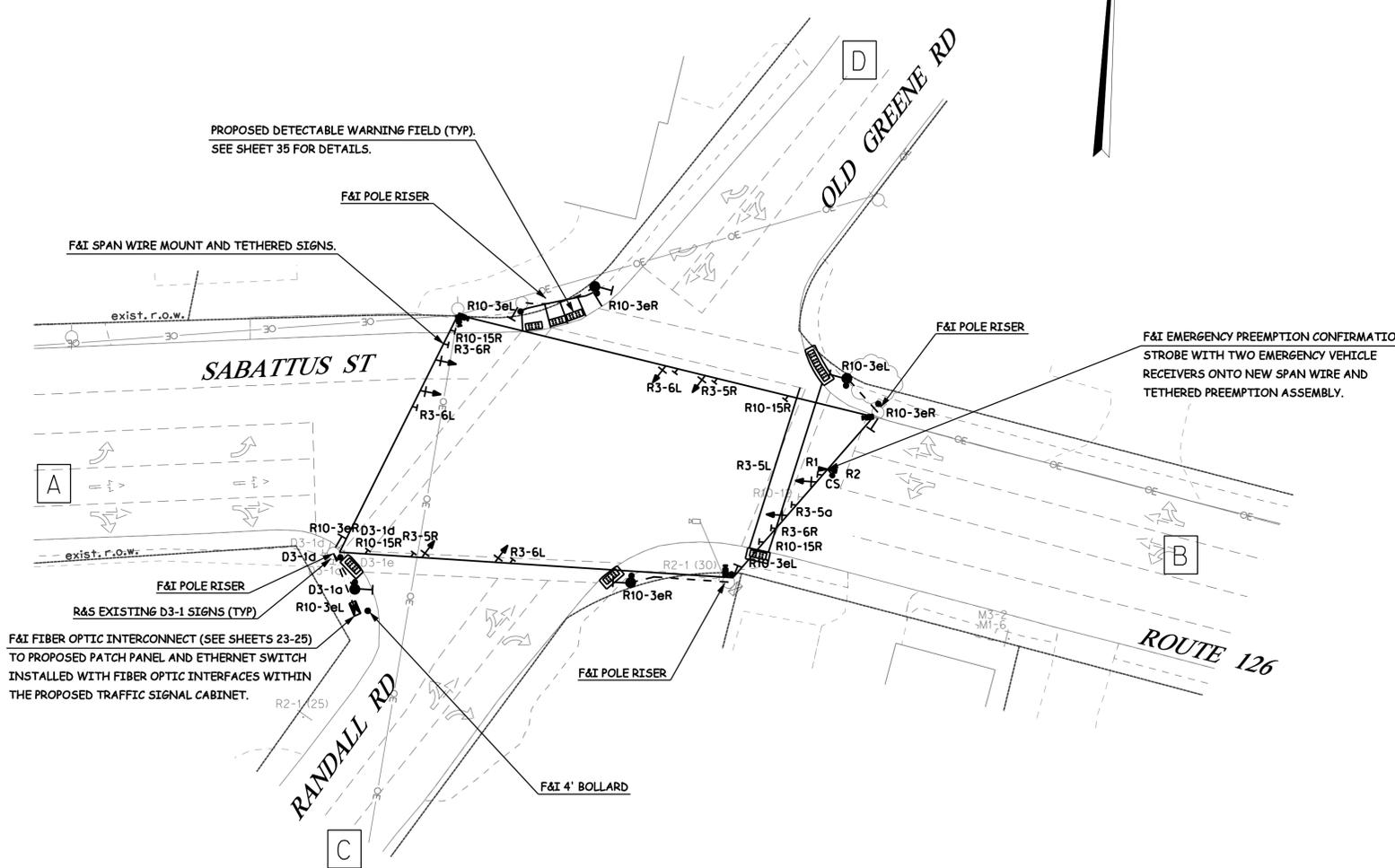
**R2-1 (25)**  
1 - RETAINED

**R10-12**  
1 - RETAINED

**D3-1e**  
1 - REMOVED

**D3-1d**  
1 - REMOVED

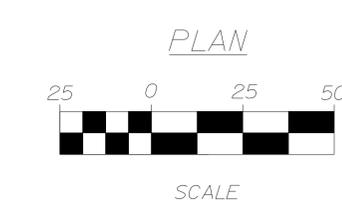
**D3-1a**  
1 - REMOVED



**INTERSECTION:**  
SABATTUS STREET / RANDALL ROAD

**SIGNAL GROUP:**  
1

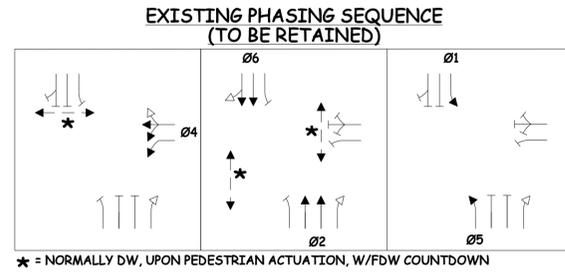
**LOCATION / PROPOSED DROP:**  
108 / 55



Date: 3/26/2013  
Username: J. ROBERT  
Division:  
Filename: ... \plan\set\018\_52164005C008A.dgn

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	AC-STP-1900(700)E	WIN 19007.00
PROJECT MANAGER M. GRAHAM	DESIGN-DETAILED M. GRAHAM	DATE 10-2012
CHECKED-REVIEWED C. BOGAY	DESIGN-REVIEWED C. BOGAY	DATE 11-2012
DESIGN-DETAILED DESIGN-REVIEWED	SIGNATURE	P.E. NUMBER
REVISIONS 1	REVISIONS 2	DATE
REVISIONS 3	REVISIONS 4	DATE
FIELD CHANGES	FIELD CHANGES	DATE
ROUTE 126 / SABATTUS ST RANDALL ROAD	<b>TRAFFIC SIGNAL PLAN</b>	
SHEET NUMBER	<b>18</b>	
	OF 36	

LOCATION 111  
SABATTUS STREET AT MAIN STREET



COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE  
ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3	PLAN 11	PLAN 22	PLAN 33
CYCLE LENGTH	80	90	90	110	100	90
OFFSET (BEGIN GRN)	21	30	30	69	77	30
COORDINATED Ø	2	2	2	2	2	2
SPLIT TIME Ø1	14	15	13	16	15	13
SPLIT TIME Ø2	33	35	47	58	52	47
SPLIT TIME Ø3	0	0	0	0	0	0
SPLIT TIME Ø4	33	20	30	36	33	30
SPLIT TIME Ø5	14	15	13	16	15	13
SPLIT TIME Ø6	33	35	47	58	52	47
SPLIT TIME Ø7	0	0	0	0	0	0
SPLIT TIME Ø8	33	20	30	36	33	30

COORDINATION NOTES:

- OFFSET IS REFERENCED TO THE BEGINNING OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY (SEE SHEET 2 FOR DAY PLAN SETTINGS).
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.
- PHASE 8 IS A DUMMY PHASE TO BE SET WITH SPLIT TIMES FOR NTCIP COMPLIANCE.
- EXISTING DAILY AND WEEKLY COORDINATION SCHEDULE SHALL BE RETAINED

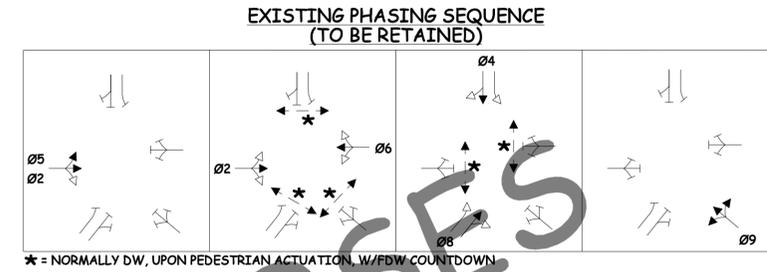
SIGNAL TIMING SCHEDULE

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	6	10		5	5	10			
PASSAGE TIME	3.0	5.0		3.0	3.0	5.0			
MAXIMUM 1	20	40		25	20	40			
MAXIMUM 2	15	60		30	15	60			
YELLOW	3.0	3.0		3.0	3.0	3.0			
ALL RED	2.0	2.0		2.0	2.0	2.0			
PEDESTRIAN WALK	4			4		4			
PEDESTRIAN CLEARANCE	20			19		15			
RECALL	0	5		0		5			
DETECTOR OPERATION	PR	PR		PR	PR	PR			
PREEMPTION PRIORITY	1	2		3	2	1			
FLASH	R	Y		R	R	Y			
DUAL ENTRY	OFF	ON		OFF	OFF	ON			

NOTES: S = SOFT RECALL                      Y = YELLOW  
 O = RECALL OFF                              R = RED  
 PR = PRESENCE                              D = DARK  
 MAX2 = UNDER COORDINATION

LOCATION/EXISTING DROP  
111/11

LOCATION 125  
SABATTUS STREET AT  
COLLEGE STREET/HORTON STREET



COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE  
ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	61	62	14
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	0	0	0
SPLIT TIME Ø2	66	56	46
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	28	28	28
SPLIT TIME Ø5	16	16	13
SPLIT TIME Ø6	50	40	33
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	28	28	28
SPLIT TIME Ø9 / Ø13	16	16	16

COORDINATION NOTES:

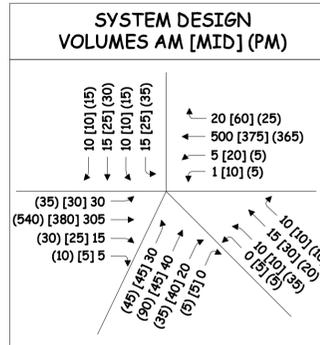
- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY (SEE CENTER OF PAGE FOR DAY PLAN SETTINGS).
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.
- PHASE 13 IS A DUMMY PHASE TO BE SET WITH SPLIT TIMES FOR NTCIP COMPLIANCE.

SIGNAL TIMING SCHEDULE

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL		10		5	5	10		5	5
PASSAGE TIME		3.0		3.0	3.0	3.0		3.0	3.0
MAXIMUM 1		35		15	8	35		15	15
MAXIMUM 2		70		20	10	60		20	15
YELLOW		3.0		3.0	3.0	3.0		3.0	3.0
ALL RED		3.0		3.0	3.0	3.0		3.0	3.0
PEDESTRIAN WALK		7		7		7		7	
PEDESTRIAN CLEARANCE		15		15		15		15	
RECALL		S		O	MIN	S		O	O
DETECTOR OPERATION		PR		PR	PR	PR		PR	PR
PREEMPTION PRIORITY		2		4	2	1		3	5
FLASH		Y		R		Y		R	R
DUAL ENTRY		ON		ON	OFF	ON		ON	OFF

NOTES: S = SOFT RECALL                      Y = YELLOW  
 O = RECALL OFF                              R = RED  
 PR = PRESENCE                              D = DARK  
 MAX2 = UNDER COORDINATION

LOCATION/PROPOSED DROP  
125/49



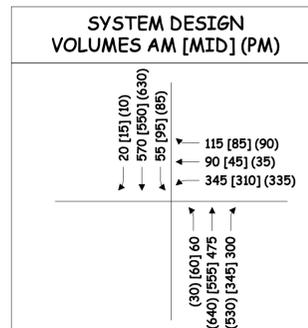
DAILY AND WEEKLY COORDINATION SCHEDULE

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

PROGRAM PERIODS OF OPERATION

	1	2	3	4	5	6	7	8	9	10	11	12
SUNDAY												
MONDAY	FR	3	1	3	2		3	1	3	FR		
TUESDAY	FR	3	1	3	2		3	1	3	FR		
WEDNESDAY	FR	3	1	3	2		3	1	3	FR		
THURSDAY	FR	3	1	3	2		3	1	3	FR		
FRIDAY	FR	3	1	3	2		3	1	3	FR		
SATURDAY			FR									

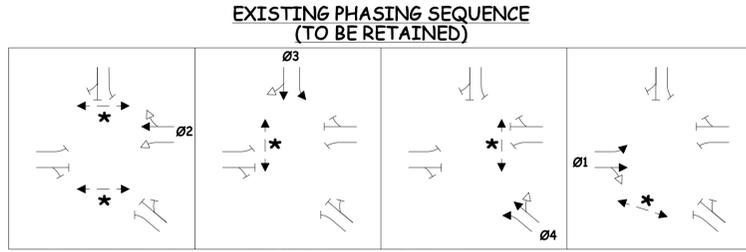
FR - FREE



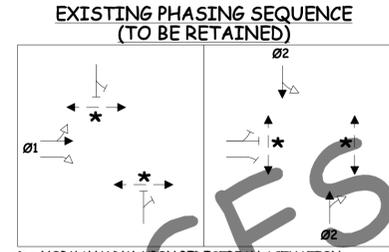
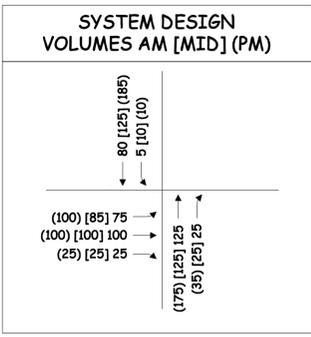
PROJ. MANAGER	B. KEIZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-DETAILED	C. BOBAY	
DESIGN-DETAILED	M. SIEMEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

LOCATION 129  
SABATTUS STREET AT CENTRAL STREET /  
ASH STREET / WEBSTER STREET

LOCATION 127  
WEBSTER STREET AT PINE STREET



\* = NORMALLY DW, UPON PEDESTRIAN ACTUATION, W/FDW COUNTDOWN



\* = NORMALLY DW, UPON PEDESTRIAN ACTUATION, W/FDW COUNTDOWN

COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE  
ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	104	98	38
COORDINATED Ø	1	1	1
SPLIT TIME Ø1	24	21	21
SPLIT TIME Ø2	32	22	24
SPLIT TIME Ø3	24	25	19
SPLIT TIME Ø4	30	32	26
SPLIT TIME Ø5	24	21	21
SPLIT TIME Ø6	32	22	24
SPLIT TIME Ø7	24	25	19
SPLIT TIME Ø8	30	32	26

COORDINATION NOTES:

- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY (SEE CENTER OF PAGE FOR DAY PLAN SETTINGS).
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.
- PHASES 5 THRU 8 ARE DUMMY PHASES TO BE SET WITH SPLIT TIMES FOR NTCIP COMPLIANCE.

SIGNAL TIMING SCHEDULE

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	10	10	5	5					
PASSAGE TIME	2.0	2.0	2.0	2.0					
MAXIMUM 1	40	40	15	20					
MAXIMUM 2	40	40	15	15					
YELLOW	3.0	3.0	3.0	3.0					
ALL RED	3.0	3.0	3.0	3.0					
PEDESTRIAN WALK	4	4	4	4					
PEDESTRIAN CLEARANCE	9	16	14	11					
RECALL	O	S	O	O					
DETECTOR OPERATION	PR	PR	PR	PR					
PREEMPTION PRIORITY	1	2							
FLASH	R	R	R	R					
DUAL ENTRY	OFF	OFF	OFF	OFF					

NOTES: S = SOFT RECALL      Y = YELLOW  
O = RECALL OFF            R = RED  
PR = PRESENCE            D = DARK  
MAX2 = UNDER COORDINATION

LOCATION/PROPOSED DROP  
129/50

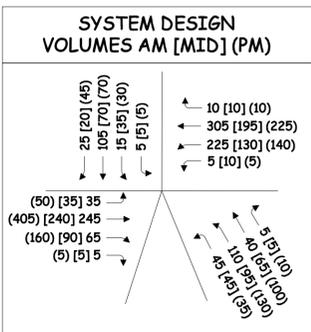
DAILY AND WEEKLY COORDINATION SCHEDULE

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

PROGRAM PERIODS OF OPERATION

	1	2	3	4	5	6	7	8	9	10	11	12
SUNDAY												
MONDAY	FR	3	1	3	2		3	1	3	FR		
TUESDAY	FR	3	1	3	2		3	1	3	FR		
WEDNESDAY	FR	3	1	3	2		3	1	3	FR		
THURSDAY	FR	3	1	3	2		3	1	3	FR		
FRIDAY	FR	3	1	3	2		3	1	3	FR		
SATURDAY			FR									

FR - FREE



COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE  
ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	55	50	45
OFFSET (END GRN)	11	5	0
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	29	28	24
SPLIT TIME Ø2	26	22	21
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	0	0	0
SPLIT TIME Ø5	0	0	0
SPLIT TIME Ø6	0	0	0
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	0	0	0

COORDINATION NOTES:

- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY (SEE CENTER OF PAGE FOR DAY PLAN SETTINGS).
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.

SIGNAL TIMING SCHEDULE

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	10	5							
PASSAGE TIME	3.0	3.0							
MAXIMUM 1	40	25							
MAXIMUM 2	60	20							
YELLOW	3.0	3.0							
ALL RED	2.5	2.5							
PEDESTRIAN WALK	4	4							
PEDESTRIAN CLEARANCE	14	11							
RECALL	S	O							
DETECTOR OPERATION	PR	PR							
PREEMPTION PRIORITY									
FLASH	Y	R							
DUAL ENTRY	OFF	ON							

NOTES: S = SOFT RECALL      Y = YELLOW  
O = RECALL OFF            R = RED  
PR = PRESENCE            D = DARK  
MAX2 = UNDER COORDINATION

LOCATION/PROPOSED DROP  
127/60

Date: 3/26/2013

Username: J. ROBERT

Division:

Filename: ... \planset\020\_5216400STD02.dgn

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEIZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-DETAILED	C. BOGAY	
DESIGN-DETAILED	M. SUENEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

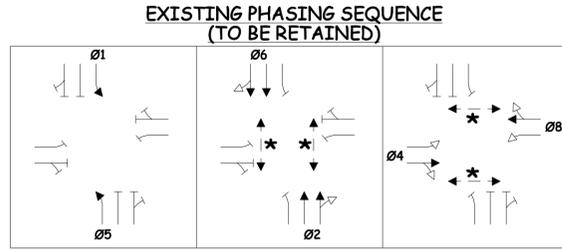
ROUTE 126 / SABATTUS ST  
SIGNAL TIMING DATA

SHEET NUMBER

20

OF 36

LOCATION 122  
WEBSTER STREET AT EAST AVENUE



\* = NORMALLY DW, UPON PEDESTRIAN ACTUATION, W/FDW COUNTDOWN  
Ø1 & Ø5 LEAD

COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE  
ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	55	42	16
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	26	20	16
SPLIT TIME Ø2	42	44	41
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	42	36	33
SPLIT TIME Ø5	20	20	21
SPLIT TIME Ø6	48	44	36
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	42	36	33

COORDINATION NOTES:

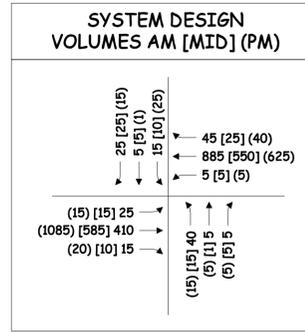
- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY (SEE CENTER OF PAGE FOR DAY PLAN SETTINGS).
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.

SIGNAL TIMING SCHEDULE

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	5	10		5	5	10		5	
PASSAGE TIME	3.0	3.0		3.0	3.0	3.0		3.0	
MAXIMUM 1	15	35		25	15	35		25	
MAXIMUM 2	20	60		30	20	60		30	
YELLOW	3.0	3.0		3.0	3.0	3.0		3.0	
ALL RED	2.0	2.0		2.0	2.0	2.0		2.0	
PEDESTRIAN WALK	7			7		7		7	
PEDESTRIAN CLEARANCE	17			19		17		19	
RECALL	0	5		0	0	5		0	
DETECTOR OPERATION	PR	PR		PR	PR	PR		PR	
PREEMPTION PRIORITY	1	2		4	2	1		3	
FLASH	R	Y		R	R	Y		R	
DUAL ENTRY	OFF	ON		ON	OFF	ON		ON	

NOTES: S = SOFT RECALL                      Y = YELLOW  
O = RECALL OFF                              R = RED  
PR = PRESENCE                              D = DARK  
MAX2 = UNDER COORDINATION

LOCATION/PROPOSED DROP  
122/22



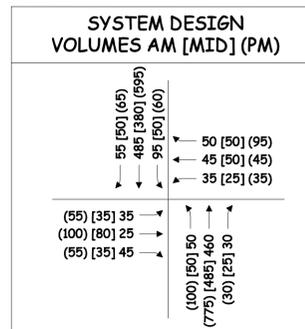
DAILY AND WEEKLY COORDINATION SCHEDULE

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

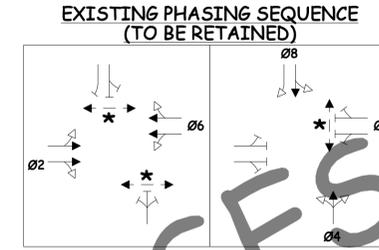
PROGRAM PERIODS OF OPERATION

	1	2	3	4	5	6	7	8	9	10	11	12
	AM						PM					
SUNDAY												
MONDAY	FR	3	1	3	2		3	1	3	FR		
TUESDAY	FR	3	1	3	2		3	1	3	FR		
WEDNESDAY	FR	3	1	3	2		3	1	3	FR		
THURSDAY	FR	3	1	3	2		3	1	3	FR		
FRIDAY	FR	3	1	3	2		3	1	3	FR		
SATURDAY												

FR - FREE



LOCATION 45  
SABATTUS STREET AT NORTH TEMPLE STREET /  
SOUTH TEMPLE STREET



\* = NORMALLY DW, UPON PEDESTRIAN ACTUATION, W/FDW COUNTDOWN

COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE  
ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	12	64	14
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	0	0	0
SPLIT TIME Ø2	77	69	59
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	33	31	31
SPLIT TIME Ø5	0	0	0
SPLIT TIME Ø6	77	69	59
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	33	31	31

COORDINATION NOTES:

- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY (SEE CENTER OF PAGE FOR DAY PLAN SETTINGS).
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.

SIGNAL TIMING SCHEDULE

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL		10		5		10		5	
PASSAGE TIME		5.5		3.0		5.5		3.0	
MAXIMUM 1		40		20		40		20	
MAXIMUM 2		80		20		80		20	
YELLOW		3.5		3.0		3.5		3.0	
ALL RED		3.0		2.5		3.0		2.5	
PEDESTRIAN WALK		7		7		7		7	
PEDESTRIAN CLEARANCE		15		15		15		15	
RECALL		5		0		5		0	
DETECTOR OPERATION		PR		PR		PR		PR	
PREEMPTION PRIORITY		1				2			
FLASH		Y		R		Y		R	
DUAL ENTRY		ON		ON		ON		ON	

NOTES: S = SOFT RECALL                      Y = YELLOW  
O = RECALL OFF                              R = RED  
PR = PRESENCE                              D = DARK  
MAX2 = UNDER COORDINATION

LOCATION/PROPOSED DROP  
45/56

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-2-DETAILED	C. BOGAY	
DESIGN-3-DETAILED	M. SUENEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ROUTE 126 / SABATTUS ST

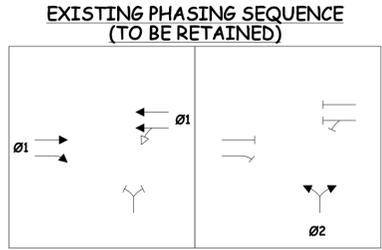
SIGNAL TIMING DATA

SHEET NUMBER

21

OF 36

LOCATION 117  
SABATTUS STREET AT GROVE STREET



COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE  
ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	50	45
OFFSET (END GRN)	69	16	22
COORDINATED Ø	1	1	1
SPLIT TIME Ø1	69	31	29
SPLIT TIME Ø2	31	19	16
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	0	0	0
SPLIT TIME Ø5	0	0	0
SPLIT TIME Ø6	0	0	0
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	0	0	0

COORDINATION NOTES:

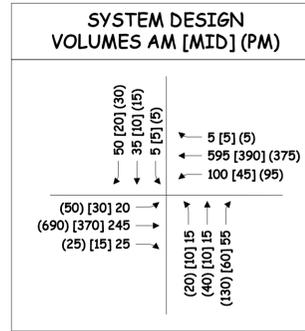
- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY (SEE CENTER OF PAGE FOR DAY PLAN SETTINGS).
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.

SIGNAL TIMING SCHEDULE

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	10	5							
PASSAGE TIME	6.0	4.0							
MAXIMUM 1	40	25							
MAXIMUM 2	60	20							
YELLOW	4.0	3.0							
ALL RED	3.0	3.0							
PEDESTRIAN WALK									
PEDESTRIAN CLEARANCE									
RECALL	S	O							
DETECTOR OPERATION	PR	PR							
PREEMPTION PRIORITY	1								
FLASH	Y	R							
DUAL ENTRY	ON	OFF							

NOTES: S = SOFT RECALL O = RECALL OFF PR = PRESENCE MAX2 = UNDER COORDINATION  
Y = YELLOW R = RED D = DARK

LOCATION/PROPOSED DROP  
117/57



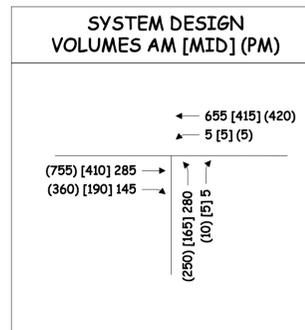
DAILY AND WEEKLY COORDINATION SCHEDULE

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

PROGRAM PERIODS OF OPERATION

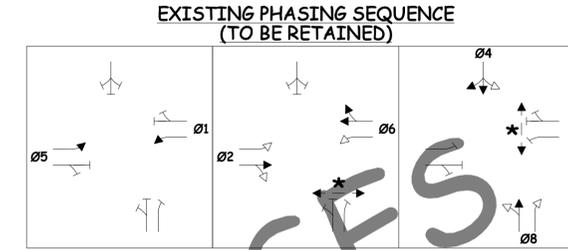
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	AM												PM											
SUNDAY																								
MONDAY	FR	3	1	3	2								3	1	3	FR								
TUESDAY	FR	3	1	3	2								3	1	3	FR								
WEDNESDAY	FR	3	1	3	2								3	1	3	FR								
THURSDAY	FR	3	1	3	2								3	1	3	FR								
FRIDAY	FR	3	1	3	2								3	1	3	FR								
SATURDAY																								

FR - FREE



LOCATION/PROPOSED DROP  
116/58

LOCATION 116  
SABATTUS STREET AT POND ROAD



\* = NORMALLY DW, UPON PEDESTRIAN ACTUATION, W/FDWM COUNTDOWN  
Ø1 & Ø5 LEAD

COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE  
ALL ENTRIES IN SECONDS

	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	10	16	53
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	21	19	16
SPLIT TIME Ø2	66	56	51
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	23	25	23
SPLIT TIME Ø5	16	19	16
SPLIT TIME Ø6	71	56	51
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	23	25	23

COORDINATION NOTES:

- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY (SEE CENTER OF PAGE FOR DAY PLAN SETTINGS).
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.

SIGNAL TIMING SCHEDULE

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL	5	10		5	5	10		5	
PASSAGE TIME	2.0	3.0		3.0	2.0	3.0		3.0	
MAXIMUM 1	10	25		20	10	25		20	
MAXIMUM 2	15	75		25	15	75		25	
YELLOW	4.0	4.0		4.0	4.0	4.0		4.0	
ALL RED	2.5	3.0		2.0	2.5	3.0		2.0	
PEDESTRIAN WALK									
PEDESTRIAN CLEARANCE									
RECALL	O	S		O	O	S		O	
DETECTOR OPERATION	PR	PR		PR	PR	PR		PR	
PREEMPTION PRIORITY	2	1			1	2			
FLASH	R	Y		R	R	Y		R	
DUAL ENTRY	OFF	ON		ON	OFF	ON		ON	

NOTES: S = SOFT RECALL O = RECALL OFF PR = PRESENCE MAX2 = UNDER COORDINATION  
Y = YELLOW R = RED D = DARK

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-DETAILED	C. BOGAY	
DESIGN-DETAILED	M. SUENEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ROUTE 126 / SABATTUS ST  
SIGNAL TIMING DATA

SHEET NUMBER

22

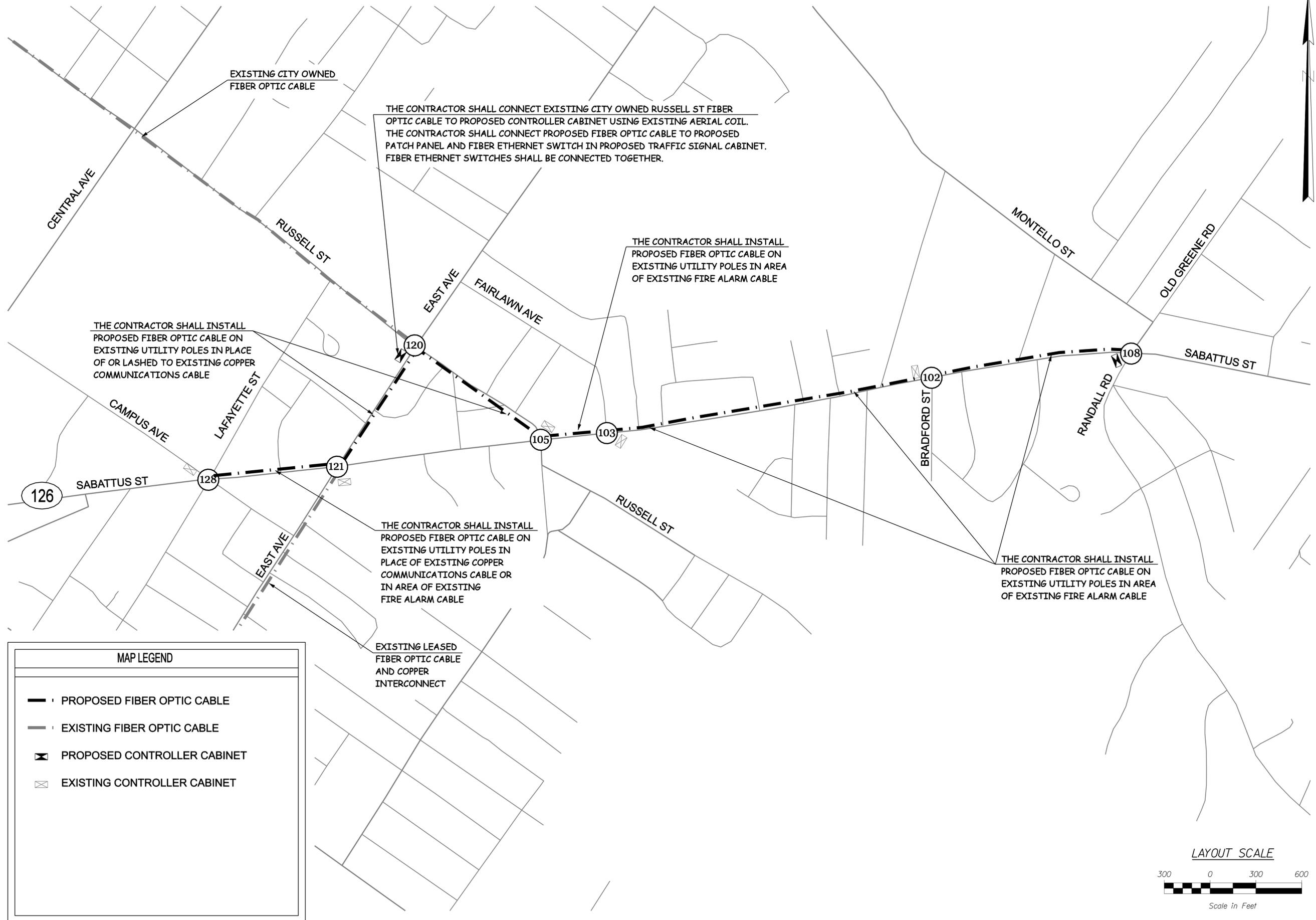
OF 36

Date: 3/26/2013

Username: J. ROBERT

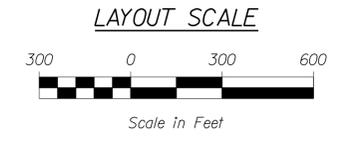
Division:

Filename: ... \planset\022\_5216400STD04.dgn



**MAP LEGEND**

- PROPOSED FIBER OPTIC CABLE
- EXISTING FIBER OPTIC CABLE
- PROPOSED CONTROLLER CABINET
- EXISTING CONTROLLER CABINET



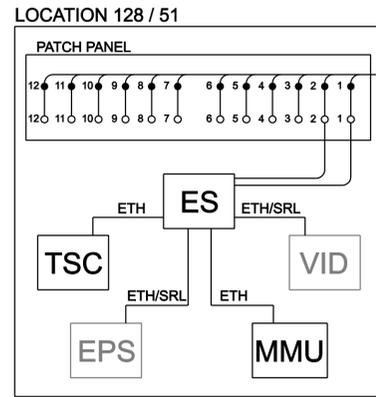
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	BY	DATE
DESIGN-DETAILED	M. GRAHAM	J. ROBERT	10-2012
CHECKED-REVIEWED	C. BOBAY	M. SIENEN	11-2012
DESIGN-DETAILED2			
DESIGN-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

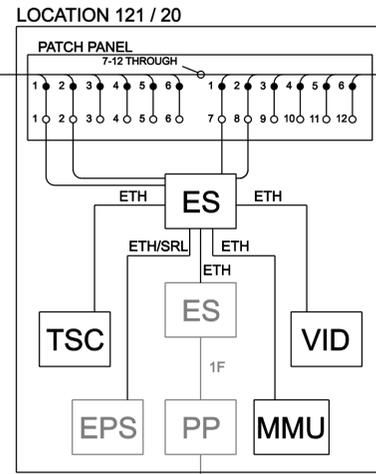
ROUTE 126 / SABATTUS ST  
INTERCONNECT PLAN

SHEET NUMBER  
**23**  
OF 36

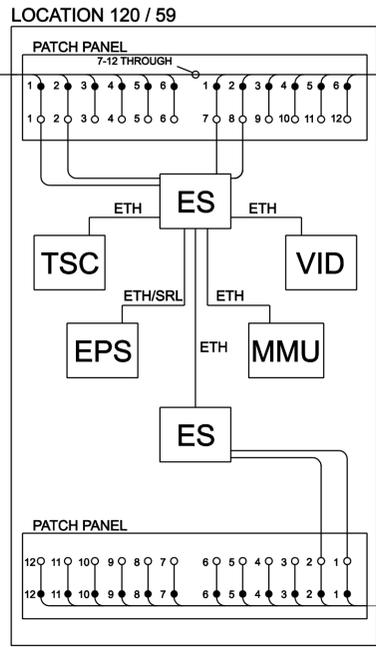
**SABATTUS ST / CAMPUS AVE**



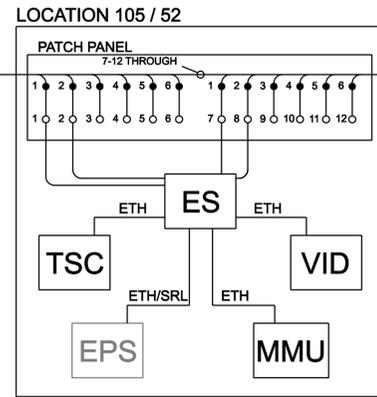
**SABATTUS ST / EAST AVE**



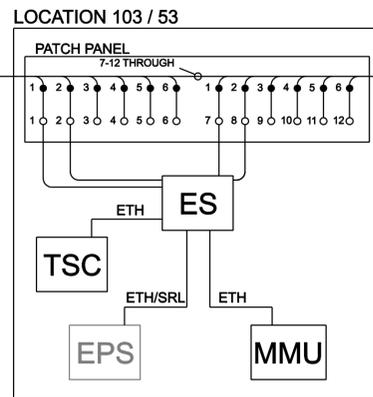
**RUSSELL ST / EAST AVE**



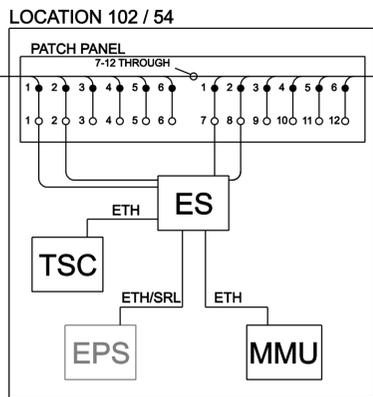
**SABATTUS ST / RUSSELL ST**



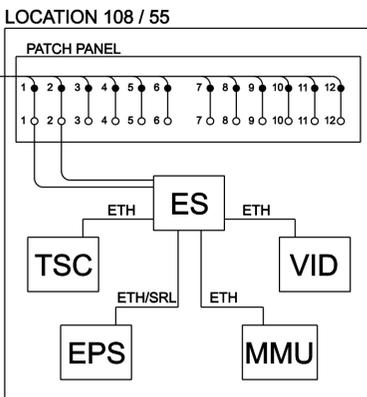
**SABATTUS ST / FAIRLAWN AVE**



**SABATTUS ST / BRADFORD ST**



**SABATTUS ST / RANDALL RD**



**FIBER OPTIC CABLE CONSTRUCTION NOTES:**

1. MANUFACTURED PIGTAILS SHALL BE TERMINATED ON PATCH PANELS.
2. FIBER OPTIC CABLE BENDS SHALL EXCEED THE MINIMUM BENDING RADIUS FOR THE CABLE AT ALL TIMES DURING INSTALLATION, MODIFICATION, REPAIR, SPLICING, OR IN THE PERMANENT CONDITION.
3. FIBER OPTIC CABLE SHALL NOT BE SPLICED. FIBERS NOT TERMINATED IN A SPLICE ENCLOSURE OR SHOWN AS THROUGH FIBERS SHALL NOT BE CUT.

**LEGEND**

- FIBER OPTIC PIGTAIL
- FIBER OPTIC SPLICE
- ES - FIBER ETHERNET SWITCH
- ETH - ETHERNET CABLE
- ETH/SRL - SERIAL-TO-ETHERNET CONNECTIVITY CABLE (PER MANUFACTURERS RECOMMENDATION)
- EPS - EMERGENCY PREEMPTION SYSTEM
- MMU - MALFUNCTION MANAGEMENT UNIT
- PP - PATCH PANEL
- SE - SPLICE ENCLOSURE
- TSC - TRAFFIC SIGNAL CONTROLLER
- VID - VIDEO DETECTION CONTROL UNIT

EXISTING LEASED FIBER OPTIC CABLE

EXISTING AERIAL COILED FIBER OPTIC CABLE

PROJ. MANAGER	B. KEEZER	DATE	
DESIGN-DETAILED	M. GRAHAM	10-2012	
CHECKED-REVIEWED	J. ROBERT	11-2012	
DESIGN-DETAILED	C. BOBAY		
DESIGN-DETAILED	M. SIEMEN		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SIGNATURE			
P.E. NUMBER			
DATE			

**FIBER OPTIC SPLICE TABLE - SABATTUS ST AT CAMPUS AVE**

PATCH PANEL AT CONTROLLER CABINET (SABATTUS ST / CAMPUS AVE)	CABLE	STRAND	CONNECTION TYPE	CABLE	STRAND	DESCRIPTION
	12F FROM EAST AVE	1	SPLICE	PIGTAIL	-	ES, PP POSITION 1
	12F FROM EAST AVE	2	SPLICE	PIGTAIL	-	ES, PP POSITION 2
	12F FROM EAST AVE	3	SPLICE	PIGTAIL	-	SPARE, PP POSITION 3
	12F FROM EAST AVE	4	SPLICE	PIGTAIL	-	SPARE, PP POSITION 4
	12F FROM EAST AVE	5	SPLICE	PIGTAIL	-	SPARE, PP POSITION 5
	12F FROM EAST AVE	6	SPLICE	PIGTAIL	-	SPARE, PP POSITION 6
	12F FROM EAST AVE	7	SPLICE	PIGTAIL	-	SPARE, PP POSITION 7
	12F FROM EAST AVE	8	SPLICE	PIGTAIL	-	SPARE, PP POSITION 8
	12F FROM EAST AVE	9	SPLICE	PIGTAIL	-	SPARE, PP POSITION 9
	12F FROM EAST AVE	10	SPLICE	PIGTAIL	-	SPARE, PP POSITION 10
	12F FROM EAST AVE	11	SPLICE	PIGTAIL	-	SPARE, PP POSITION 11
	12F FROM EAST AVE	12	SPLICE	PIGTAIL	-	SPARE, PP POSITION 12

**FIBER OPTIC SPLICE TABLE - SABATTUS ST AT EAST AVE**

PATCH PANEL AT CONTROLLER CABINET (SABATTUS ST / EAST AVE)	CABLE	STRAND	CONNECTION TYPE	CABLE	STRAND	DESCRIPTION
	12F FROM CAMPUS AVE	1	SPLICE	PIGTAIL	-	ES, PP POSITION 1
	12F FROM CAMPUS AVE	2	SPLICE	PIGTAIL	-	ES, PP POSITION 2
	12F FROM CAMPUS AVE	3	SPLICE	PIGTAIL	-	SPARE, PP POSITION 3
	12F FROM CAMPUS AVE	4	SPLICE	PIGTAIL	-	SPARE, PP POSITION 4
	12F FROM CAMPUS AVE	5	SPLICE	PIGTAIL	-	SPARE, PP POSITION 5
	12F FROM CAMPUS AVE	6	SPLICE	PIGTAIL	-	SPARE, PP POSITION 6
	12F FROM CAMPUS AVE	7-12	THROUGH	12 F TO RUSSELL ST/EAST AVE	-	-

**FIBER OPTIC SPLICE TABLE - RUSSELL ST AT EAST AVE**

PATCH PANEL AT CONTROLLER CABINET (RUSSELL ST / EAST AVE)	CABLE	STRAND	CONNECTION TYPE	CABLE	STRAND	DESCRIPTION
	12F FROM AERIAL COIL	1	SPLICE	PIGTAIL	-	ES, PP POSITION 1
	12F FROM AERIAL COIL	2	SPLICE	PIGTAIL	-	ES, PP POSITION 2
	12F FROM AERIAL COIL	3	SPLICE	PIGTAIL	-	SPARE, PP POSITION 3
	12F FROM AERIAL COIL	4	SPLICE	PIGTAIL	-	SPARE, PP POSITION 4
	12F FROM AERIAL COIL	5	SPLICE	PIGTAIL	-	SPARE, PP POSITION 5
	12F FROM AERIAL COIL	6	SPLICE	PIGTAIL	-	SPARE, PP POSITION 6
	12F FROM AERIAL COIL	7	SPLICE	PIGTAIL	-	SPARE, PP POSITION 7
	12F FROM AERIAL COIL	8	SPLICE	PIGTAIL	-	SPARE, PP POSITION 8
	12F FROM AERIAL COIL	9	SPLICE	PIGTAIL	-	SPARE, PP POSITION 9
	12F FROM AERIAL COIL	10	SPLICE	PIGTAIL	-	SPARE, PP POSITION 10
	12F FROM AERIAL COIL	11	SPLICE	PIGTAIL	-	SPARE, PP POSITION 11
12F FROM AERIAL COIL	12	SPLICE	PIGTAIL	-	SPARE, PP POSITION 12	

PATCH PANEL AT CONTROLLER CABINET (RUSSELL ST / EAST AVE)	CABLE	STRAND	CONNECTION TYPE	CABLE	STRAND	DESCRIPTION
	12F FROM EAST AVE	1	SPLICE	PIGTAIL	-	ES, PP POSITION 1
	12F FROM EAST AVE	2	SPLICE	PIGTAIL	-	ES, PP POSITION 2
	12F FROM EAST AVE	3	SPLICE	PIGTAIL	-	SPARE, PP POSITION 3
	12F FROM EAST AVE	4	SPLICE	PIGTAIL	-	SPARE, PP POSITION 4
	12F FROM EAST AVE	5	SPLICE	PIGTAIL	-	SPARE, PP POSITION 5
	12F FROM EAST AVE	6	SPLICE	PIGTAIL	-	SPARE, PP POSITION 6
12F FROM EAST AVE	7-12	THROUGH	12F TO RUSSELL ST/SABATTUS ST	-	-	

**FIBER OPTIC SPLICE TABLE - SABATTUS ST AT RUSSELL ST**

PATCH PANEL AT CONTROLLER CABINET (SABATTUS ST / RUSSELL ST)	CABLE	STRAND	CONNECTION TYPE	CABLE	STRAND	DESCRIPTION
	12F FROM EAST AVE	1	SPLICE	PIGTAIL	-	ES, PP POSITION 1
	12F FROM EAST AVE	2	SPLICE	PIGTAIL	-	ES, PP POSITION 2
	12F FROM EAST AVE	3	SPLICE	PIGTAIL	-	SPARE, PP POSITION 3
	12F FROM EAST AVE	4	SPLICE	PIGTAIL	-	SPARE, PP POSITION 4
	12F FROM EAST AVE	5	SPLICE	PIGTAIL	-	SPARE, PP POSITION 5
	12F FROM EAST AVE	6	SPLICE	PIGTAIL	-	SPARE, PP POSITION 6
	12F FROM EAST AVE	7-12	THROUGH	12 F TO FAIRLAWN AVE	-	-

**FIBER OPTIC SPLICE TABLE - SABATTUS ST AT FAIRLAWN AVE**

PATCH PANEL AT CONTROLLER CABINET (SABATTUS ST / FAIRLAWN AVE)	CABLE	STRAND	CONNECTION TYPE	CABLE	STRAND	DESCRIPTION
	12F FROM RUSSELL ST	1	SPLICE	PIGTAIL	-	ES, PP POSITION 1
	12F FROM RUSSELL ST	2	SPLICE	PIGTAIL	-	ES, PP POSITION 2
	12F FROM RUSSELL ST	3	SPLICE	PIGTAIL	-	SPARE, PP POSITION 3
	12F FROM RUSSELL ST	4	SPLICE	PIGTAIL	-	SPARE, PP POSITION 4
	12F FROM RUSSELL ST	5	SPLICE	PIGTAIL	-	SPARE, PP POSITION 5
	12F FROM RUSSELL ST	6	SPLICE	PIGTAIL	-	SPARE, PP POSITION 6
	12F FROM RUSSELL ST	7-12	THROUGH	12 F TO BRADFORD ST	-	-

**FIBER OPTIC SPLICE TABLE - SABATTUS ST AT BRADFORD ST**

PATCH PANEL AT CONTROLLER CABINET (SABATTUS ST / BRADFORD ST)	CABLE	STRAND	CONNECTION TYPE	CABLE	STRAND	DESCRIPTION
	12F FROM FAIRLAWN AVE	1	SPLICE	PIGTAIL	-	ES, PP POSITION 1
	12F FROM FAIRLAWN AVE	2	SPLICE	PIGTAIL	-	ES, PP POSITION 2
	12F FROM FAIRLAWN AVE	3	SPLICE	PIGTAIL	-	SPARE, PP POSITION 3
	12F FROM FAIRLAWN AVE	4	SPLICE	PIGTAIL	-	SPARE, PP POSITION 4
	12F FROM FAIRLAWN AVE	5	SPLICE	PIGTAIL	-	SPARE, PP POSITION 5
	12F FROM FAIRLAWN AVE	6	SPLICE	PIGTAIL	-	SPARE, PP POSITION 6
	12F FROM FAIRLAWN AVE	7-12	THROUGH	12 F TO RANDALL RD	-	-

**FIBER OPTIC SPLICE TABLE - SABATTUS ST AT RANDALL RD**

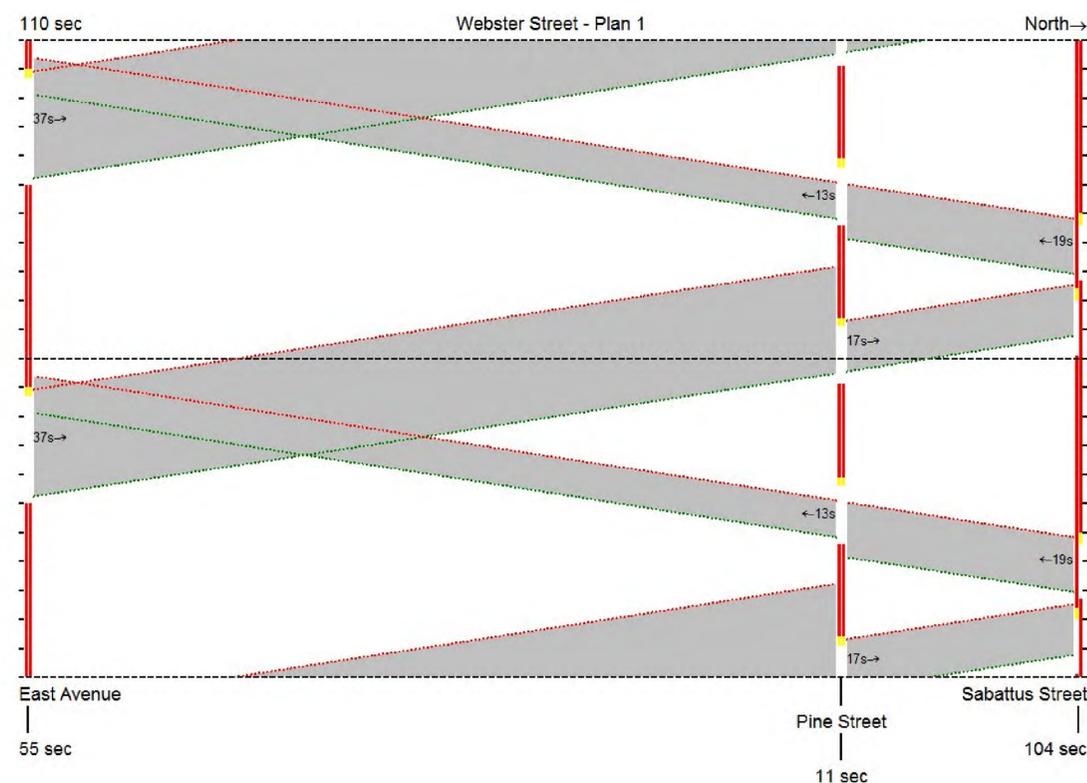
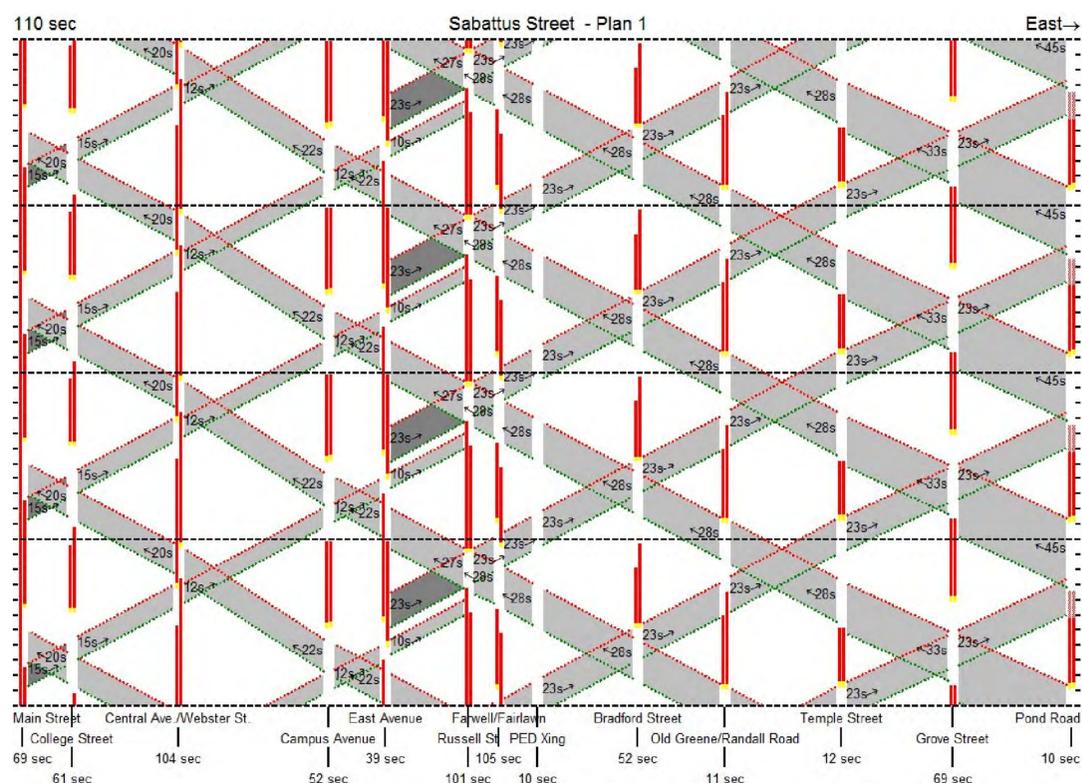
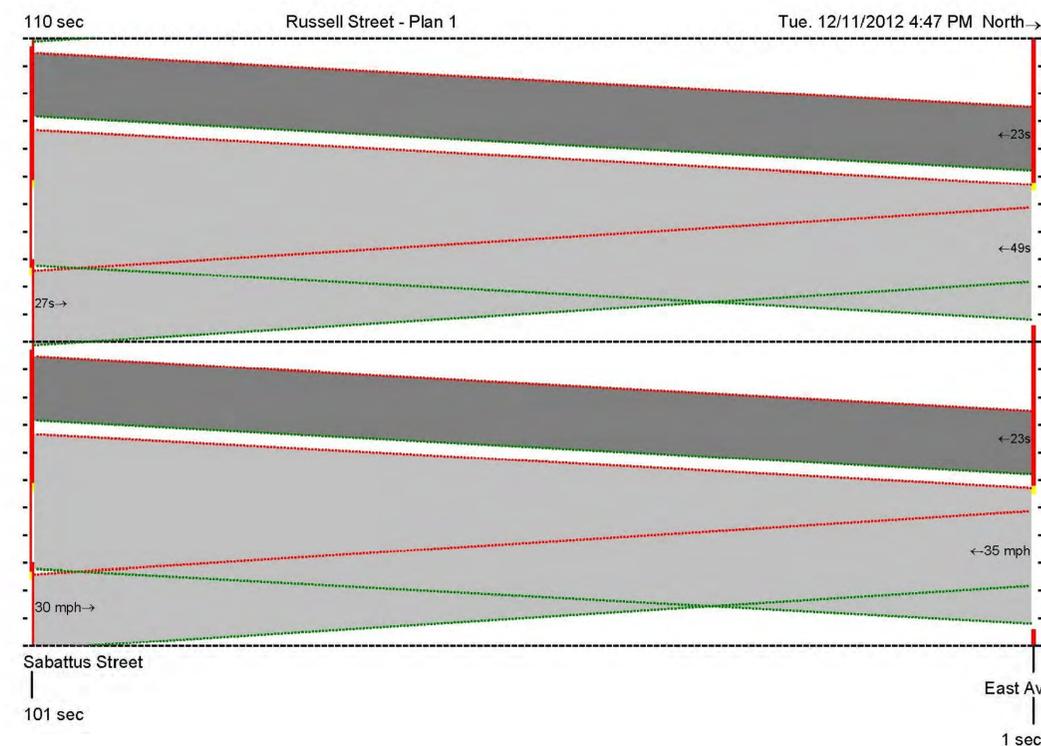
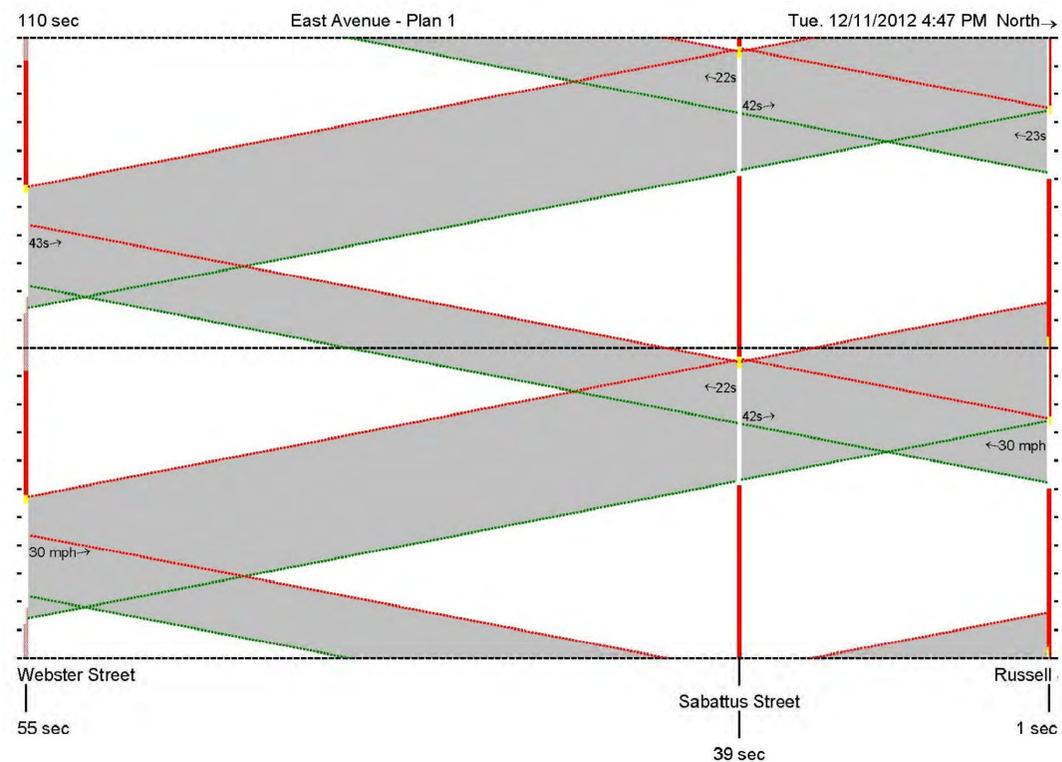
PATCH PANEL AT CONTROLLER CABINET (SABATTUS ST / RANDALL RD)	CABLE	STRAND	CONNECTION TYPE	CABLE	STRAND	DESCRIPTION
	12F FROM BRADFORD ST	1	SPLICE	PIGTAIL	-	ES, PP POSITION 1
	12F FROM BRADFORD ST	2	SPLICE	PIGTAIL	-	ES, PP POSITION 2
	12F FROM BRADFORD ST	3	SPLICE	PIGTAIL	-	SPARE, PP POSITION 3
	12F FROM BRADFORD ST	4	SPLICE	PIGTAIL	-	SPARE, PP POSITION 4
	12F FROM BRADFORD ST	5	SPLICE	PIGTAIL	-	SPARE, PP POSITION 5
	12F FROM BRADFORD ST	6	SPLICE	PIGTAIL	-	SPARE, PP POSITION 6
	12F FROM BRADFORD ST	7	SPLICE	PIGTAIL	-	SPARE, PP POSITION 7
	12F FROM BRADFORD ST	8	SPLICE	PIGTAIL	-	SPARE, PP POSITION 8
	12F FROM BRADFORD ST	9	SPLICE	PIGTAIL	-	SPARE, PP POSITION 9
	12F FROM BRADFORD ST	10	SPLICE	PIGTAIL	-	SPARE, PP POSITION 10
	12F FROM BRADFORD ST	11	SPLICE	PIGTAIL	-	SPARE, PP POSITION 11
12F FROM BRADFORD ST	12	SPLICE	PIGTAIL	-	SPARE, PP POSITION 12	

NOTES:

1. ALL FIBER OPTIC PIGTAILS SHALL BE TERMINATED ON PATCH PANELS (PP).

PROJ. MANAGER	B. KEEZER	BY	J. ROBERT	DATE	10-2012
DESIGN-DETAILED	M. GRAHAM	CHECKED-REVIEWED	J. ROBERT	SIGNATURE	
DESIGN-REVIEWED	C. BOGAY	DESIGN-DETAILED	M. SIENEN	P.E. NUMBER	
DESIGN-DETAILED		REVISIONS		DATE	
		REVISIONS 1			
		REVISIONS 2			
		REVISIONS 3			
		REVISIONS 4			
		FIELD CHANGES			

PLAN 1  
55/110 SECOND BACKGROUND CYCLE



Date: 3/26/2013

Username: J. ROBERT

Filename: ... \s\planset\026\_52164001SD1.dgn Division:

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER  
DESIGN-DETAILED  
CHECKED-REVIEWED  
DESIGN-DETAILED  
REVISIONS 1  
REVISIONS 2  
REVISIONS 3  
REVISIONS 4  
FIELD CHANGES

DATE  
10-2012  
11-2012

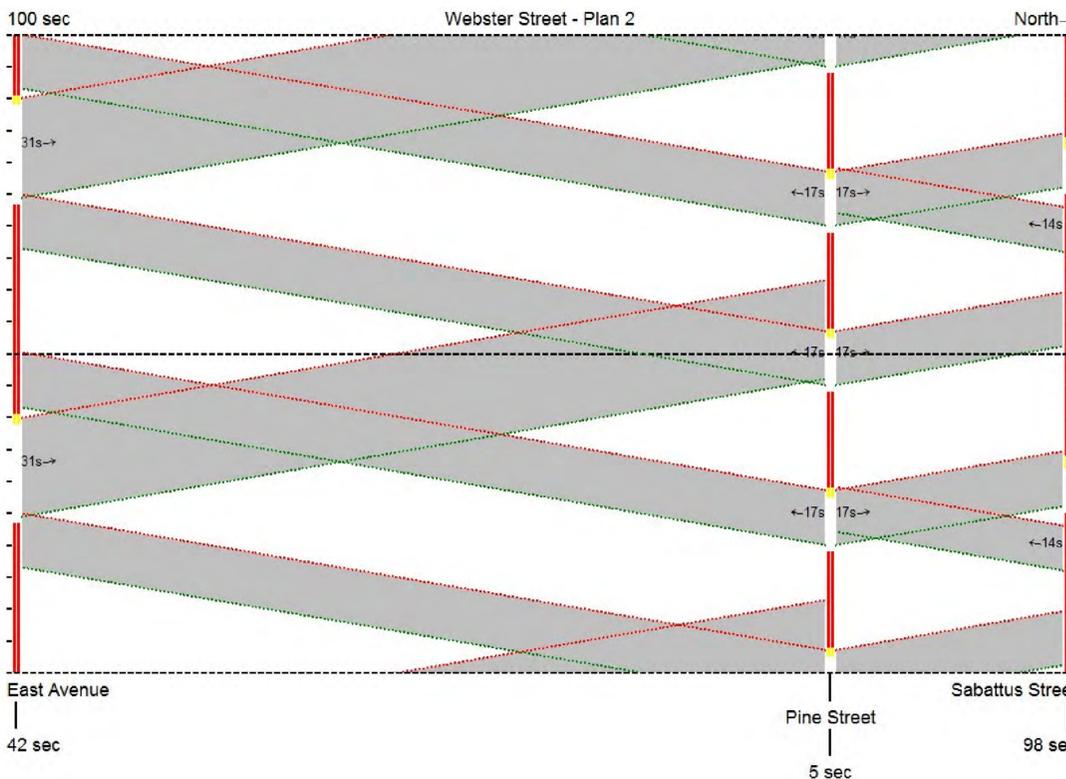
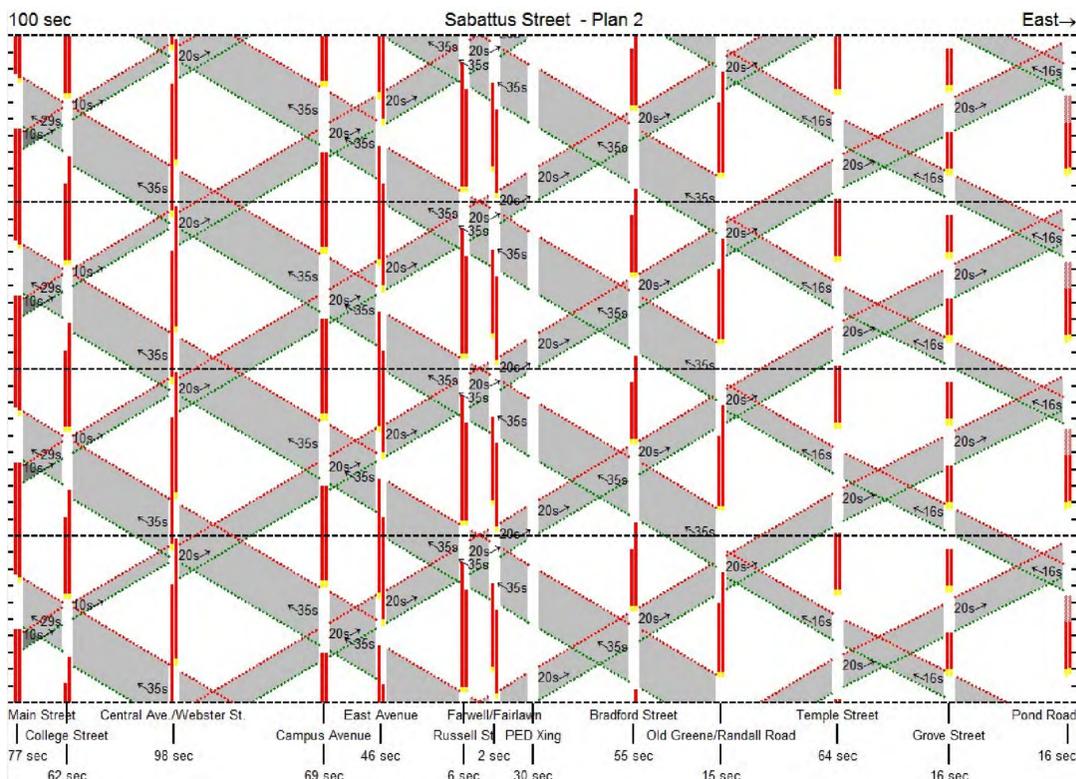
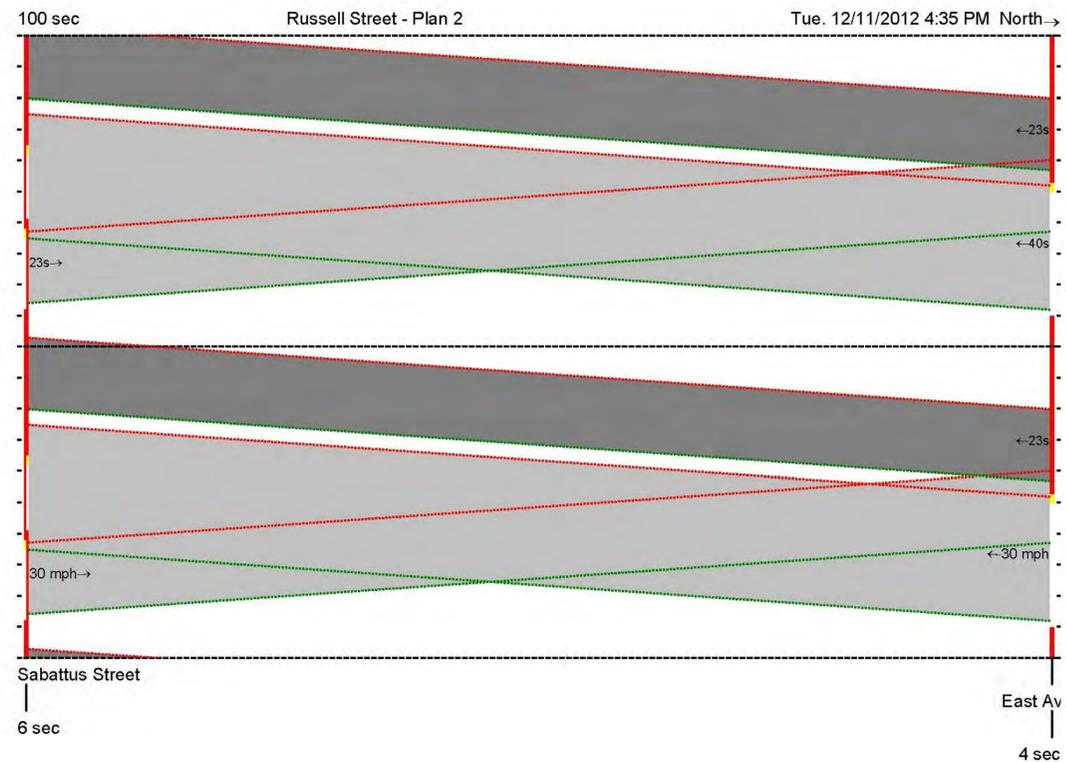
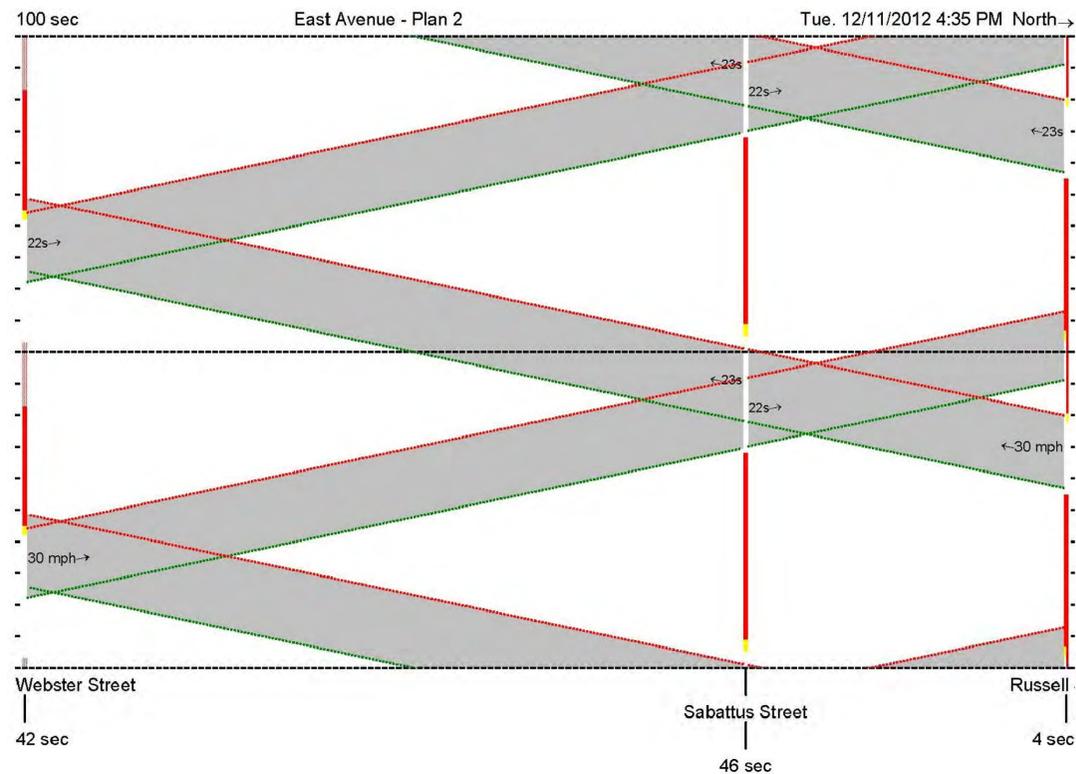
BY  
M. GRAHAM  
C. BOBAY  
J. ROBERT  
M. SIEMEN

SIGNATURE  
P.E. NUMBER  
DATE

ROUTE 126 / SABATTUS ST  
COORDINATION PLAN 1  
TIME SPACE DIAGRAMS

SHEET NUMBER  
26  
OF 36

PLAN 2  
50/100 SECOND BACKGROUND CYCLE



Date: 3/26/2013

Username: J. ROBERT

Filename: ... \s\planset\027\_52164001SD2.dgn Division:

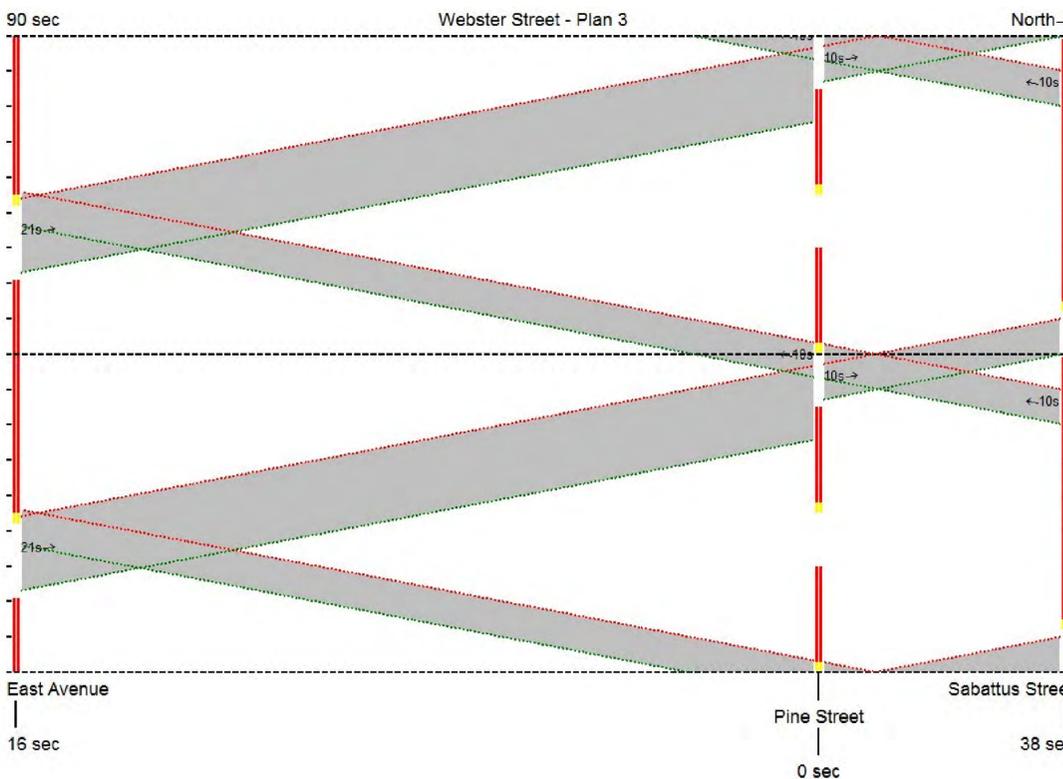
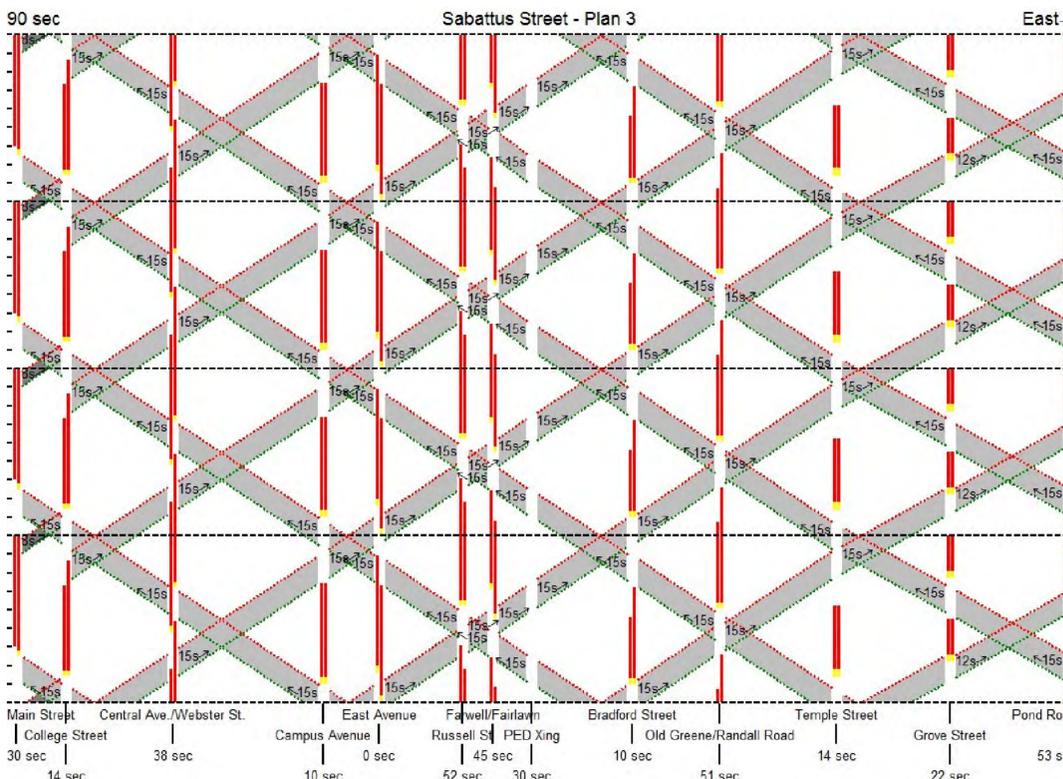
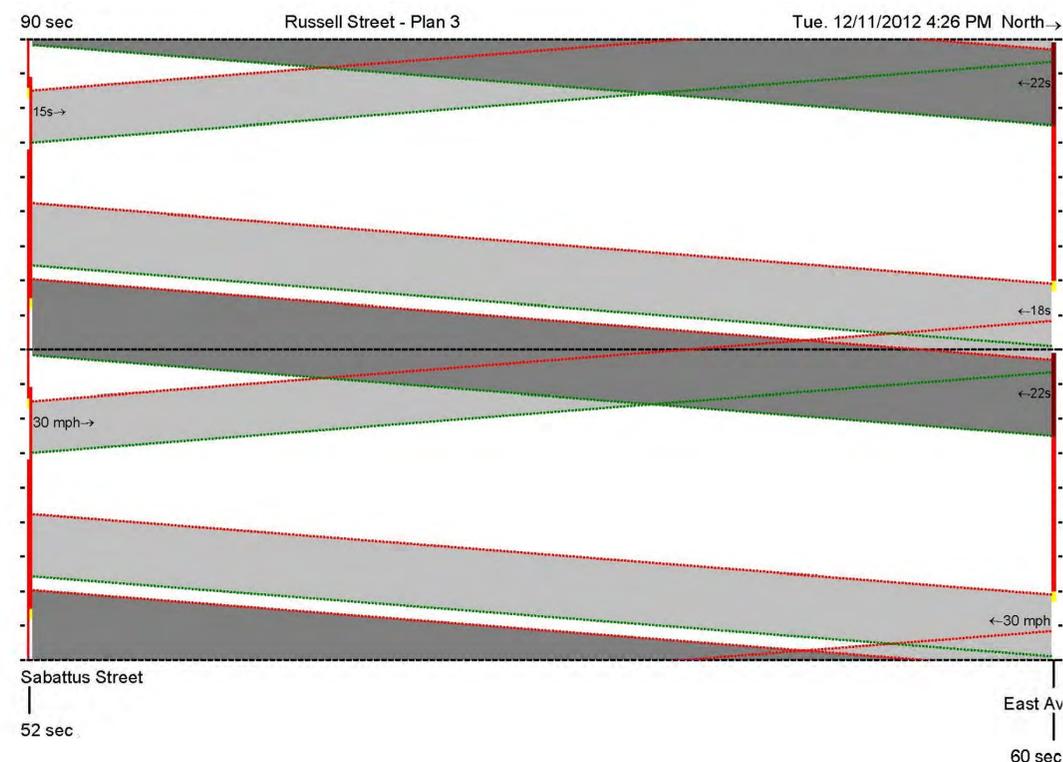
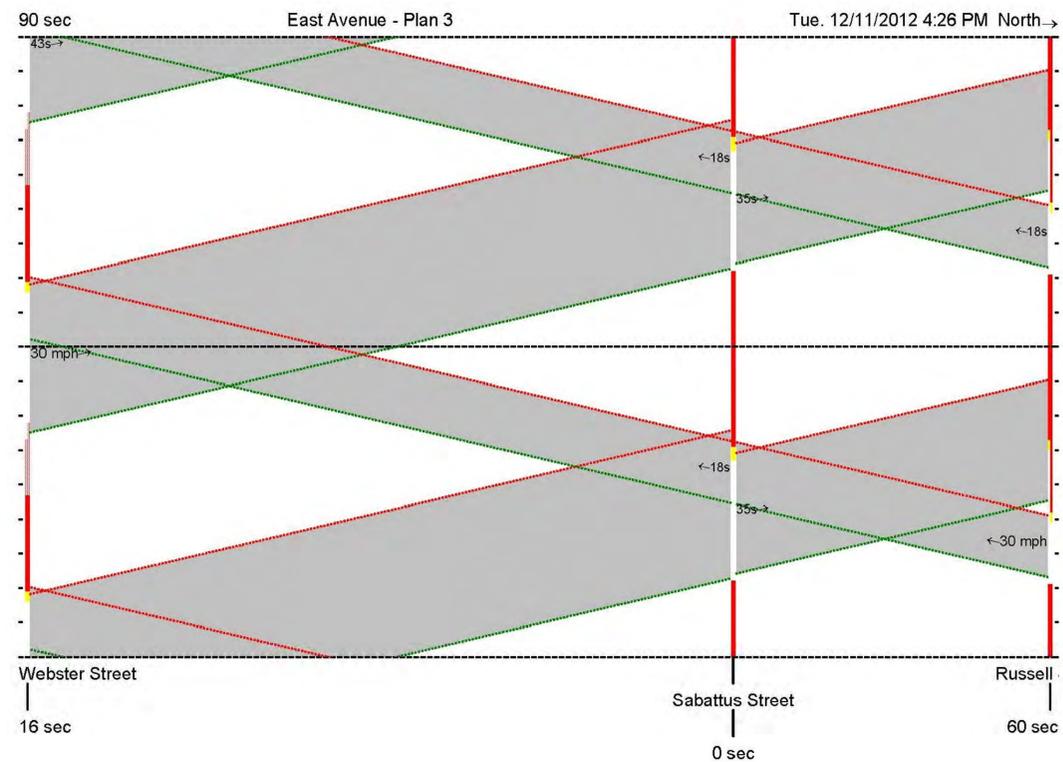
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-DETAILED2	C. BOBAY	
DESIGN-DETAILED3	M. SIEMEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ROUTE 126 / SABATTUS ST  
COORDINATION PLAN 2  
TIME SPACE DIAGRAMS

SHEET NUMBER  
27  
OF 36

PLAN 3  
45/90 SECOND BACKGROUND CYCLE



Date: 3/26/2013

Username: J. ROBERT

Filename: ... \s\planset\028\_52164001SD3.dgn Division:

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-DETAILED	C. BOBAY	
DESIGN-DETAILED	M. SIENEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

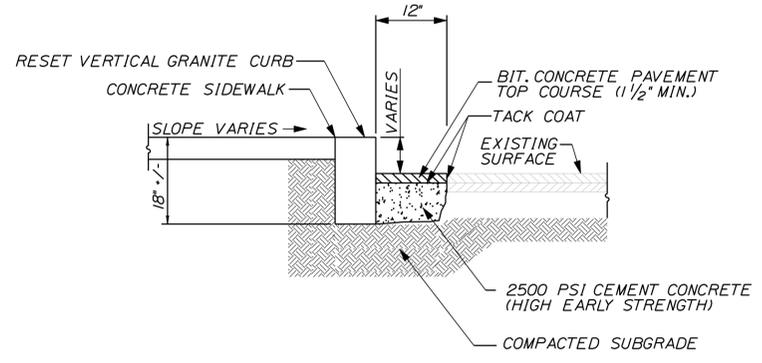
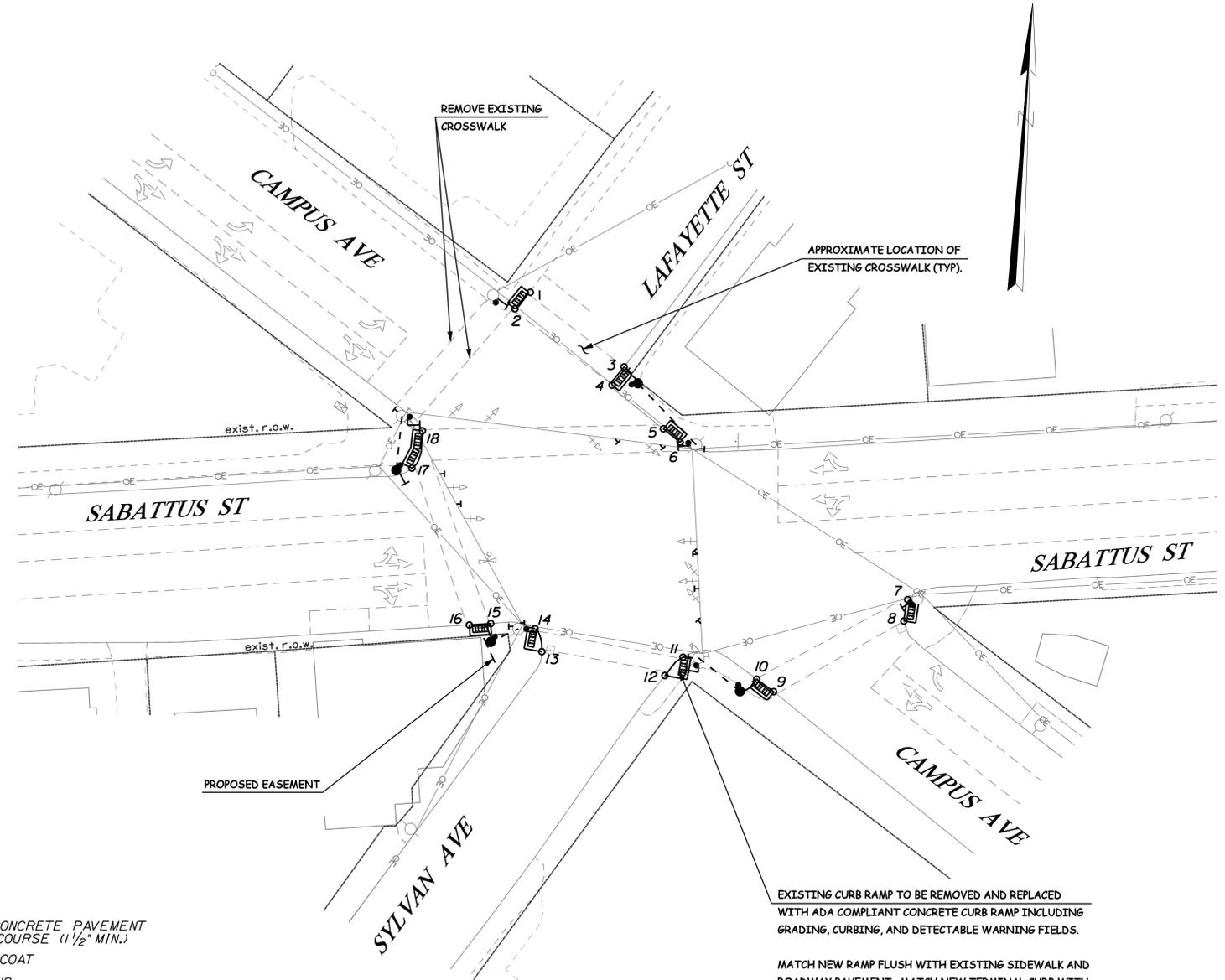
ROUTE 126 / SABATTUS ST  
COORDINATION PLAN 3  
TIME SPACE DIAGRAMS

SHEET NUMBER  
**28**  
OF 36

**LIST OF MAJOR ITEMS**

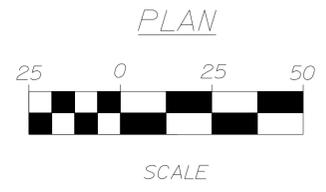
EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
COMMON EXCAVATION (ITEM 203.20)	9.7 CY
HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS) (ITEM 403.209)	1 TON
CURB RAMP DETECTABLE WARNING FIELD (ITEM 608.26)	100 SF
REMOVE EXISTING PAVEMENT MARKINGS (ITEM 627.77)	100 SF

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.



VERTICAL GRANITE CURB SET IN EXISTING PAVEMENT  
PEDESTRIAN RAMP INSTALLATION  
SEE MAINEDOT STANDARD DETAILS 609 & 801

EXISTING CURB RAMP TO BE REMOVED AND REPLACED WITH ADA COMPLIANT CONCRETE CURB RAMP INCLUDING GRADING, CURBING, AND DETECTABLE WARNING FIELDS.  
MATCH NEW RAMP FLUSH WITH EXISTING SIDEWALK AND ROADWAY PAVEMENT. MATCH NEW TERMINAL CURB WITH EXISTING CURB (TYP).



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	BY	DATE
DESIGN-DETAILED	M. GRAHAM	J. ROBERT	10-2012
CHECKED-REVIEWED	C. BOBAY	M. SIENEN	11-2012
DESIGN-DETAILED			
DESIGN-DETAILED			
REVISIONS			
FIELD CHANGES			

ROUTE 126 / SABATTUS ST  
CAMPUS AVE  
CURB RAMP LAYOUT AND  
PAVEMENT MARKING PLAN

SHEET NUMBER  
**29**  
OF 36

Date: 4/10/2013

Username: J. ROBERT

Division:

Filename: ... \planset\030\_5216400SG02B.dgn

**TERMINAL CURB TYPE 1 - 7 FT - CIRCULAR**

POINT TO POINT	RADIUS	LENGTH
5 TO 6	20.0'	7.0'
7 TO 8	25.0'	7.0'
9 TO 10	25.0'	7.0'
11 TO 12	20.0'	7.0'

**TERMINAL CURB TYPE 1 - 7 FT**

POINT TO POINT	RADIUS	LENGTH
1 TO 2	-	7.0'
3 TO 4	-	7.0'

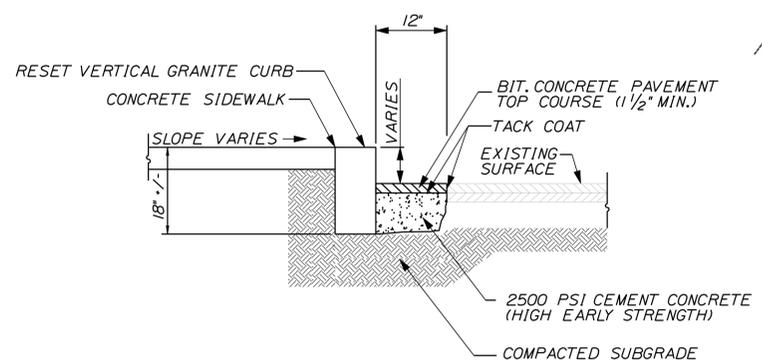
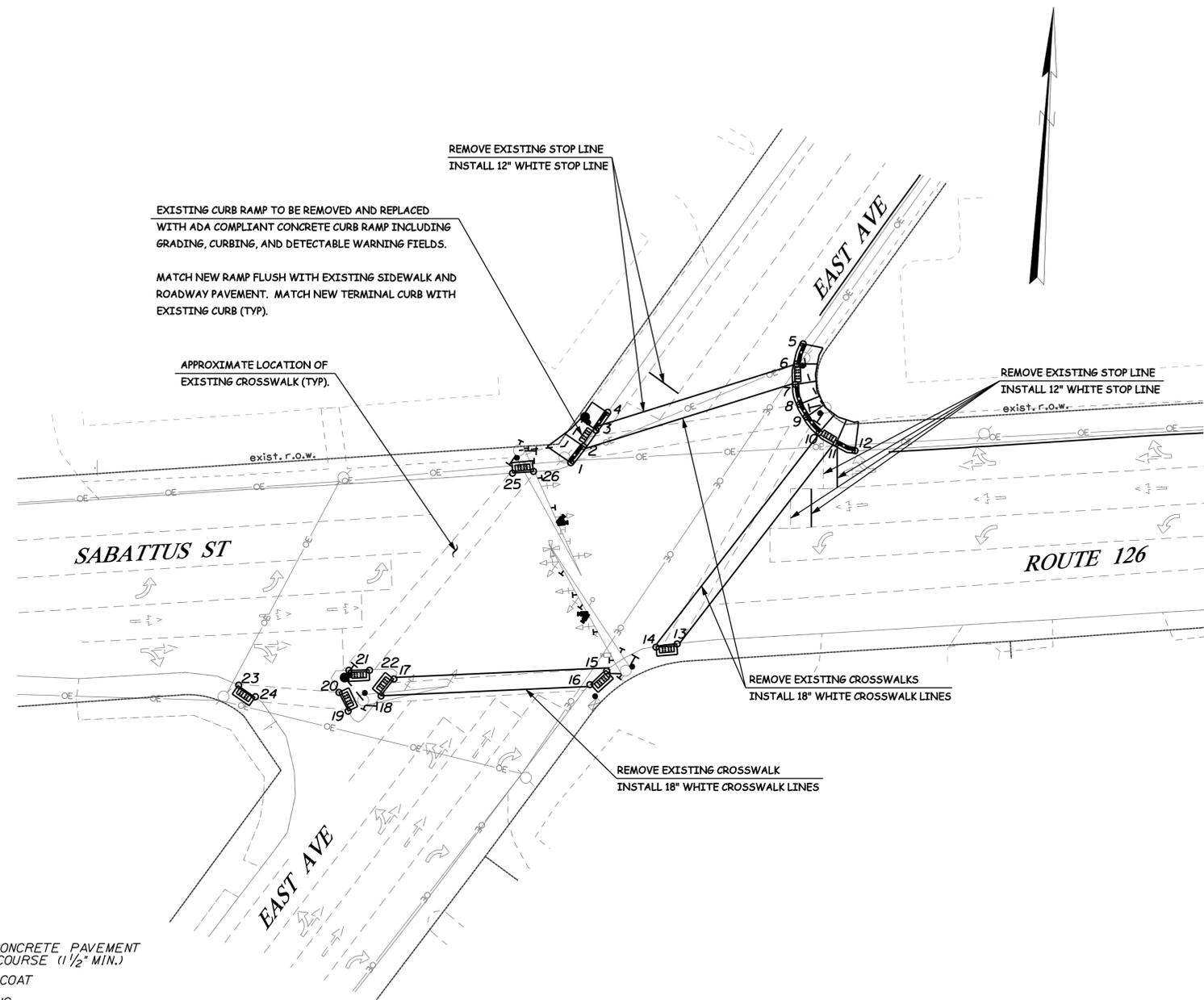
**VERTICAL CURB TYPE 1**

POINT TO POINT	RADIUS	LENGTH
8 TO 9	-	5.0'

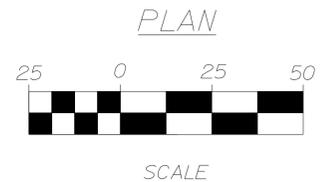
**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
COMMON EXCAVATION (ITEM 203.20)	26.7 CY
HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS (ITEM 403.209)	3.8 TONS
CURB RAMP DETECTABLE WARNING FIELD (ITEM 608.26)	100 SF
REGRADE SIDEWALK (ITEM 608.46)	53 SY
VERTICAL CURB TYPE 1 (ITEM 609.11)	5 LF
TERMINAL CURB TYPE 1 - 7 FEET (ITEM 609.237)	2
TERMINAL CURB TYPE 1 - 7 FEET CIRCULAR (ITEM 609.2371)	4
12-INCH SOLID WHITE PAVEMENT MARKING LINE (ITEM 627.18)	39 LF
WHITE OR YELLOW PAVEMENT & CURB MARKING (ITEM 627.75)	695 SF
REMOVE EXISTING PAVEMENT MARKING (ITEM 627.77)	477 LF
ACRYLIC LATEX FINISH, GREEN (ITEM 658.20)	170 SF

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.



VERTICAL GRANITE CURB SET IN EXISTING PAVEMENT PEDESTRIAN RAMP INSTALLATION  
SEE MAINEDOT STANDARD DETAILS 609 & 801



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	AC-STP-1900(700)E WIN 19007.00
ROUTE 126 / SABATTUS ST EAST AVE	CURB RAMP LAYOUT AND PAVEMENT MARKING PLAN
SHEET NUMBER <b>30</b> OF 36	SIGNATURE P.E. NUMBER DATE

Date: 4/10/2013

Username: J. ROBERT

Division:

Filename: ... \plan\set\031\_5216400503B.dgn

**TERMINAL CURB TYPE 1 - 7 FT - CIRCULAR**

POINT TO POINT	RADIUS	LENGTH
1 TO 2	35.0'	7.0'

**TERMINAL CURB TYPE 1 - 7 FT**

POINT TO POINT	RADIUS	LENGTH
6 TO 7	-	7.0'
8 TO 9	-	7.0'

**VERTICAL CURB TYPE 1**

POINT TO POINT	RADIUS	LENGTH
12 TO 13	-	9.5'

**CURB TYPE 5**

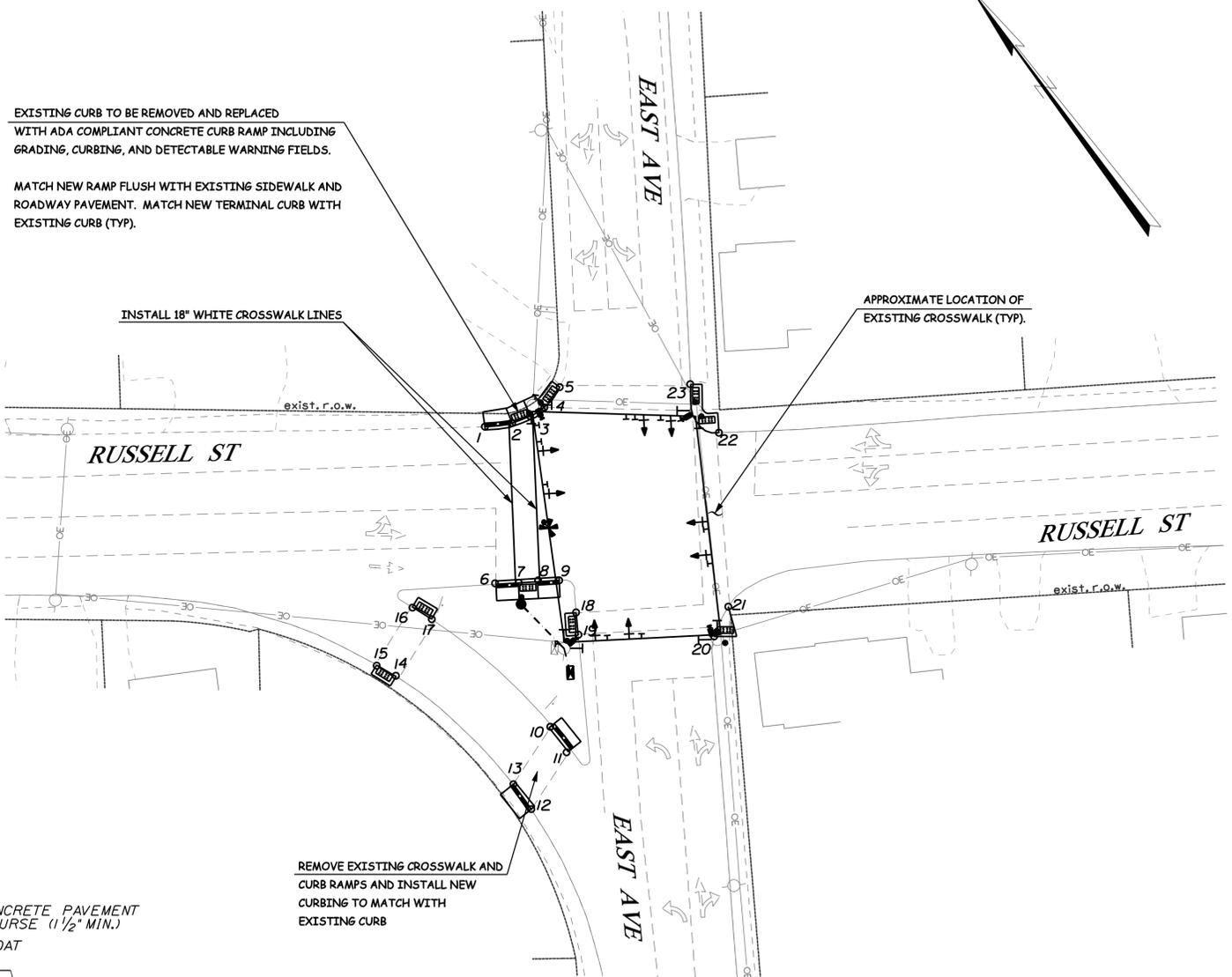
POINT TO POINT	RADIUS	LENGTH
10 TO 11	-	9.5'

EXISTING CURB TO BE REMOVED AND REPLACED WITH ADA COMPLIANT CONCRETE CURB RAMP INCLUDING GRADING, CURBING, AND DETECTABLE WARNING FIELDS.

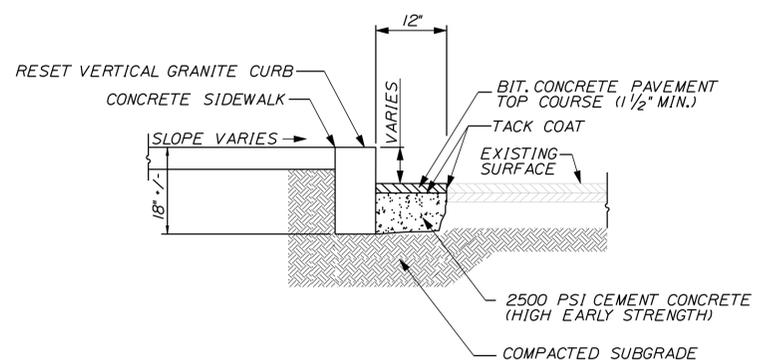
MATCH NEW RAMP FLUSH WITH EXISTING SIDEWALK AND ROADWAY PAVEMENT. MATCH NEW TERMINAL CURB WITH EXISTING CURB (TYP).

INSTALL 18" WHITE CROSSWALK LINES

APPROXIMATE LOCATION OF EXISTING CROSSWALK (TYP).



REMOVE EXISTING CROSSWALK AND CURB RAMPS AND INSTALL NEW CURBING TO MATCH WITH EXISTING CURB

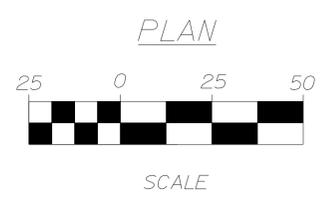


VERTICAL GRANITE CURB SET IN EXISTING PAVEMENT  
PEDESTRIAN RAMP INSTALLATION  
 SEE MAINEDOT STANDARD DETAILS 609 & 801

**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
COMMON EXCAVATION (ITEM 203.20)	20.1 CY
HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS (ITEM 403.209)	2.8 TONS
CURB RAMP DETECTABLE WARNING FIELD (ITEM 608.26)	90 SF
REGRADE SIDEWALK (ITEM 608.46)	30.4 SY
VERTICAL CURB TYPE 1 (ITEM 609.11)	9.5 LF
TERMINAL CURB TYPE 1 - 7 FEET (ITEM 609.237)	2
TERMINAL CURB TYPE 1 - 7 FEET CIRCULAR (ITEM 609.2371)	1
CURB TYPE 5 (ITEM 609.34)	9.5 LF
WHITE OR YELLOW PAVEMENT & CURB MARKING (ITEM 627.75)	161.5 SF
REMOVE EXISTING PAVEMENT MARKING (ITEM 627.77)	45 LF
ACRYLIC LATEX FINISH, GREEN (ITEM 658.20)	1538 SF

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

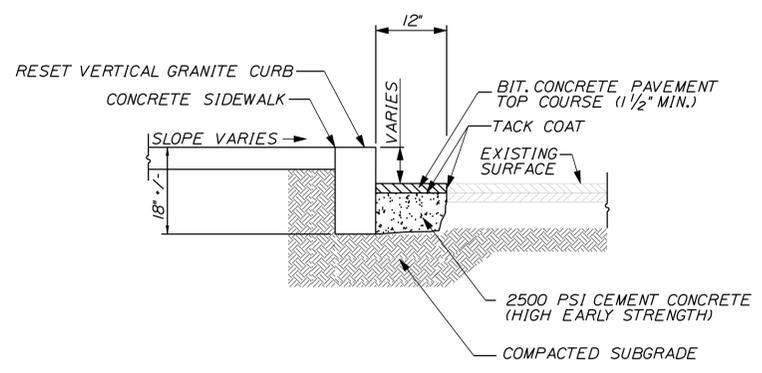
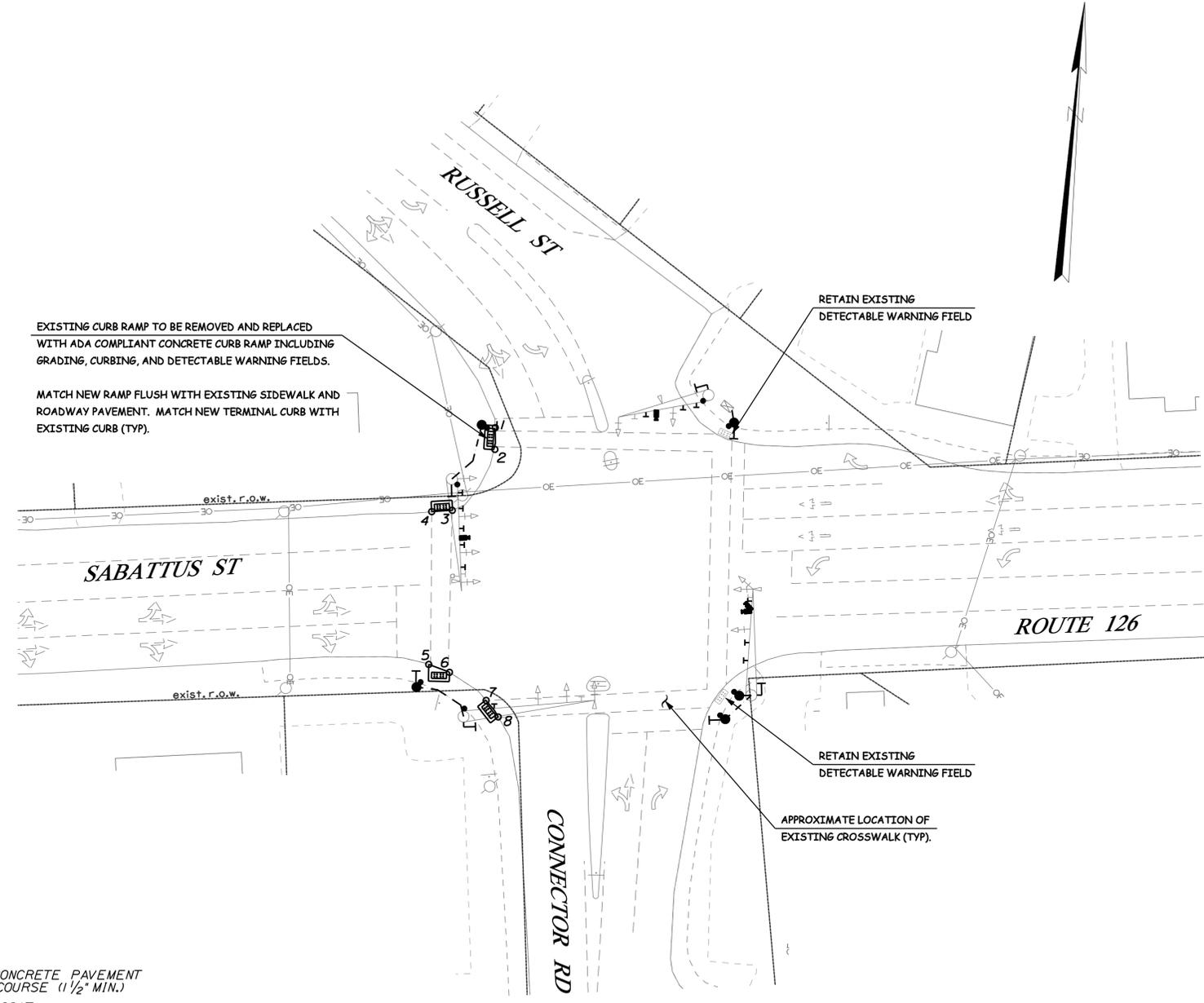


STATE OF MAINE DEPARTMENT OF TRANSPORTATION	AC-STP-1900(700)E WIN 19007.00
ROUTE 126 / SABATTUS ST EAST AVE	CURB RAMP LAYOUT AND PAVEMENT MARKING PLAN
SHEET NUMBER <b>31</b> OF 36	SIGNATURE P.E. NUMBER DATE

**LIST OF MAJOR ITEMS**

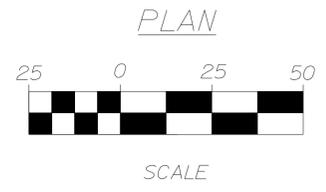
EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
COMMON EXCAVATION (ITEM 203.20)	3.8 CY
HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS) (ITEM 403.209)	0.4 TONS
CURB RAMP DETECTABLE WARNING FIELD (ITEM 608.26)	40 SF

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.



VERTICAL GRANITE CURB SET IN EXISTING PAVEMENT  
PEDESTRIAN RAMP INSTALLATION  
SEE MAINEDOT STANDARD DETAILS 609 & 801

INTERSECTION:  
SABATTUS STREET / RUSSELL STREET



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	DATE
DESIGN-DETAILED	M. GRAHAM	10-2012
CHECKED-REVIEWED	J. ROBERT	11-2012
DESIGN-DETAILED	C. BOBAY	
DESIGN-DETAILED	M. SIENNEN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

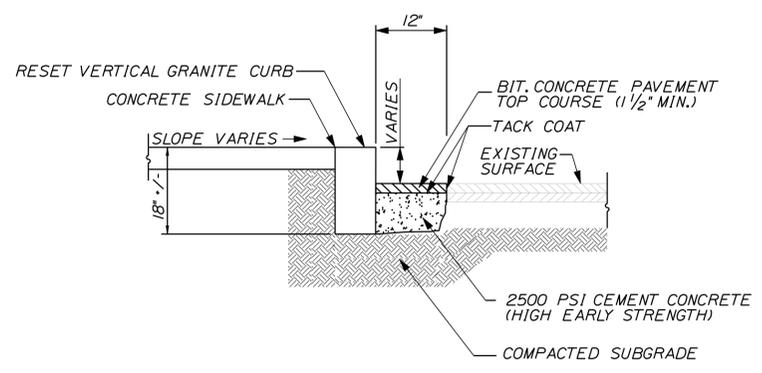
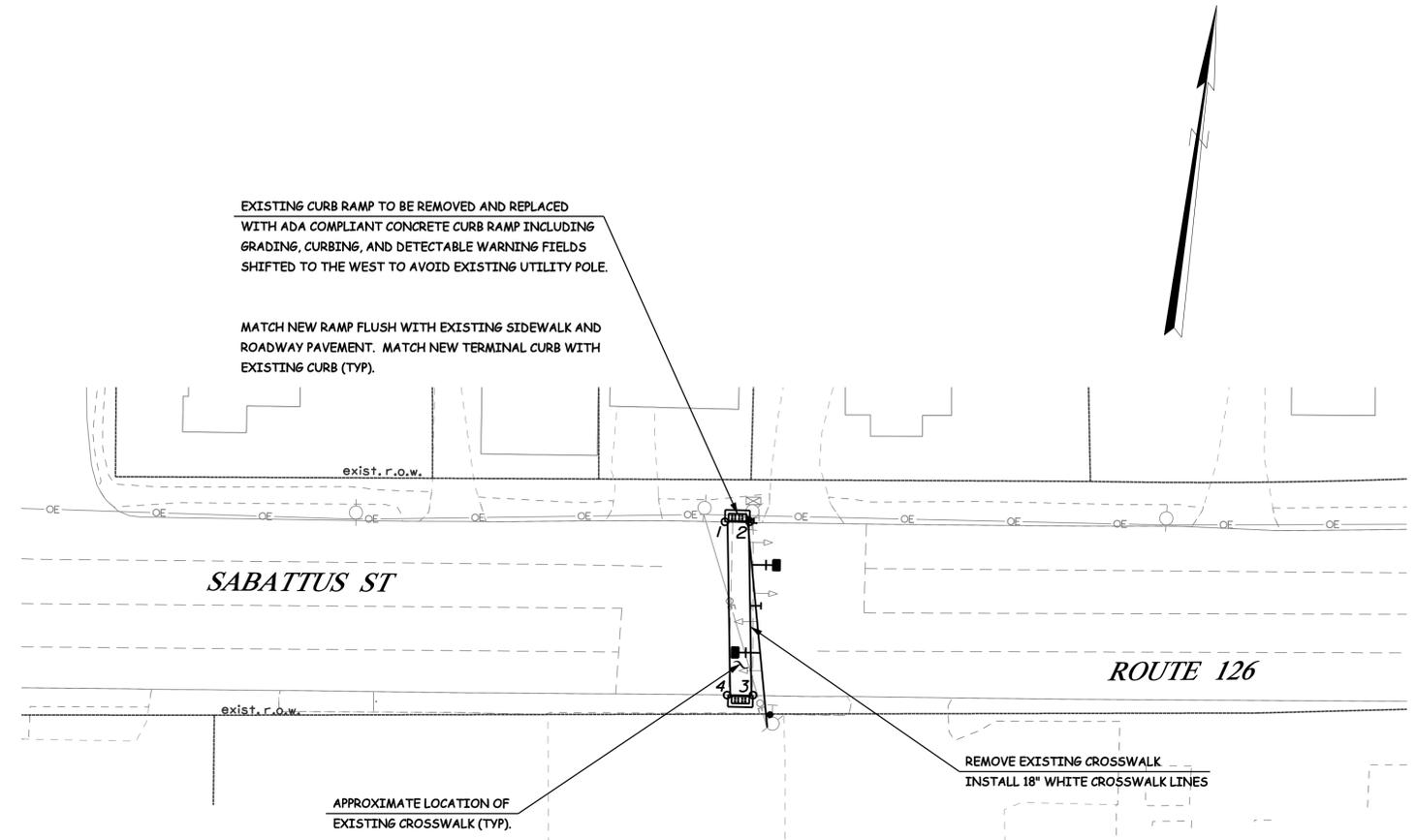
ROUTE 126 / SABATTUS ST  
RUSSELL STREET  
CURB RAMP LAYOUT AND  
PAVEMENT MARKING PLAN

SHEET NUMBER  
**32**  
OF 36

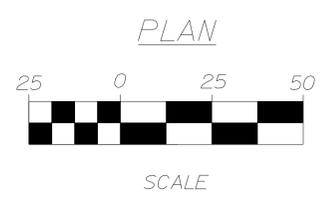
LIST OF MAJOR ITEMS

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
COMMON EXCAVATION (ITEM 203.20)	1.7 CY
HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS) (ITEM 403.209)	0.2 TONS
CURB RAMP DETECTABLE WARNING FIELD (ITEM 608.26)	20 SF
WHITE OR YELLOW PAVEMENT & CURB MARKING (ITEM 627.75)	147 SF
REMOVE EXISTING PAVEMENT MARKING (ITEM 627.77)	100 SF

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.



VERTICAL GRANITE CURB SET IN EXISTING PAVEMENT  
PEDESTRIAN RAMP INSTALLATION  
SEE MAINEDOT STANDARD DETAILS 609 & 801



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	BY	DATE
DESIGN-DETAILED	M. GRAHAM	J. ROBERT	10-2012
CHECKED-REVIEWED	C. BOBAY	M. SIENNEN	11-2012
DESIGN-DETAILED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

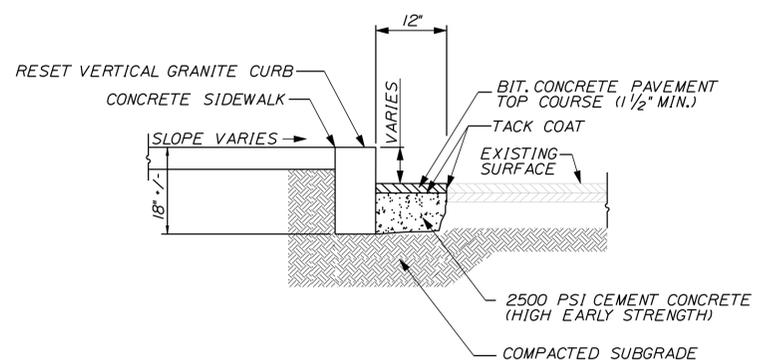
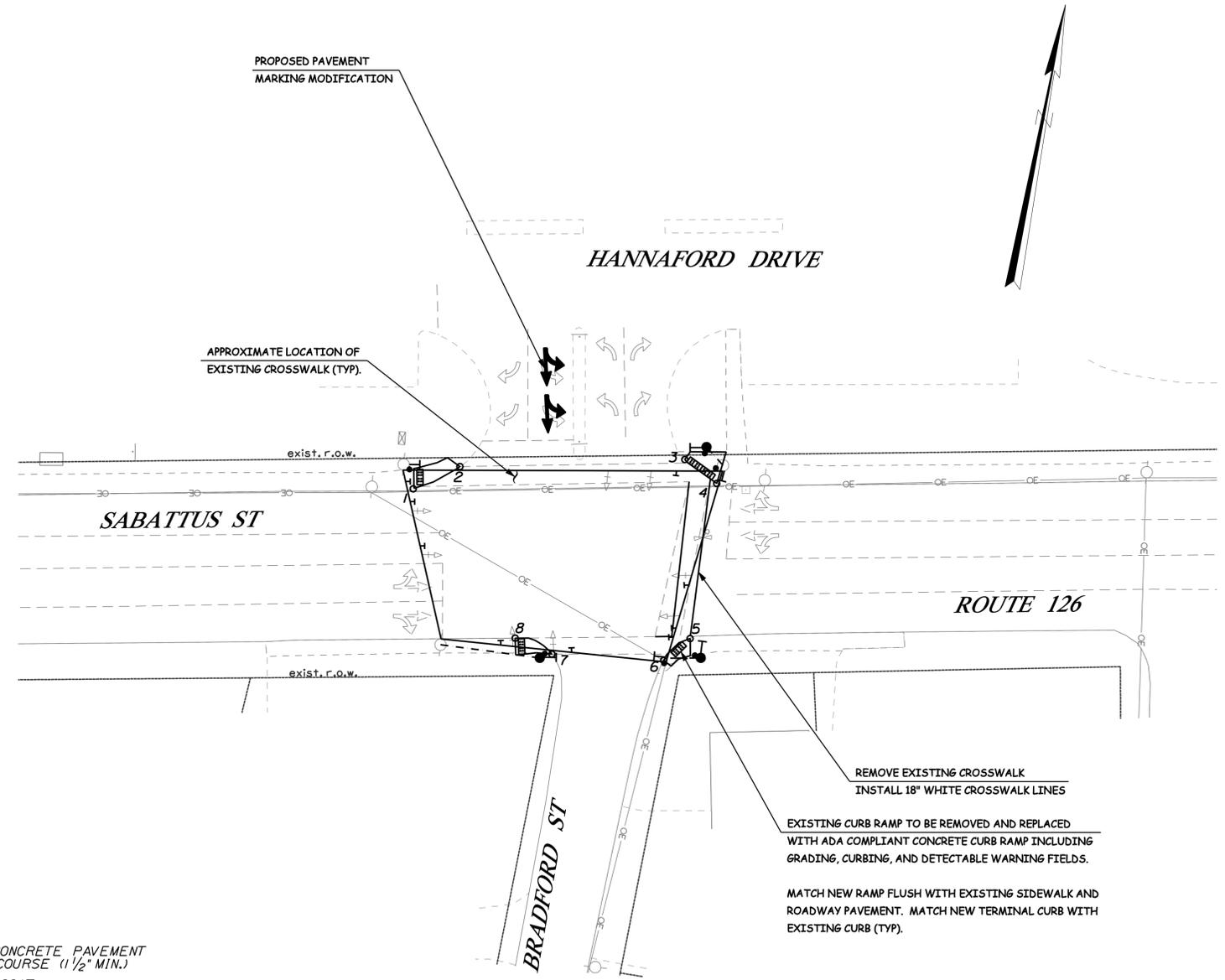
ROUTE 126 / SABATTUS ST  
HOLY FAMILY PEDESTRIAN CROSSING  
CURB RAMP LAYOUT AND  
PAVEMENT MARKING PLAN

SHEET NUMBER  
**33**  
OF 36

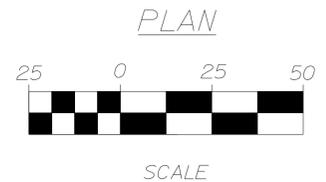
**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
COMMON EXCAVATION (ITEM 203.20)	8.6 CY
HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS) (ITEM 403.209)	1.2 TONS
CURB RAMP DETECTABLE WARNING FIELD (ITEM 608.26)	50 SF
WHITE OR YELLOW PAVEMENT & CURB MARKING (ITEM 627.75)	223 SF
REMOVE EXISTING PAVEMENT MARKING (ITEM 627.77)	142 SF

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.



VERTICAL GRANITE CURB SET IN EXISTING PAVEMENT  
PEDESTRIAN RAMP INSTALLATION  
SEE MAINEDOT STANDARD DETAILS 609 & 801



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER	B. KEEZER	BY	DATE
DESIGN-DETAILED	M. GRAHAM	J. ROBERT	10-2012
CHECKED-REVIEWED	C. BOBAY	M. SIENEN	11-2012
DESIGN-DETAILED			
DESIGN-DETAILED			
REVISIONS			
FIELD CHANGES			

ROUTE 126 / SABATTUS ST  
BRADFORD STREET  
CURB RAMP LAYOUT AND  
PAVEMENT MARKING PLAN

SHEET NUMBER  
**34**  
OF 36

Date: 4/10/2013

Username: J. ROBERT

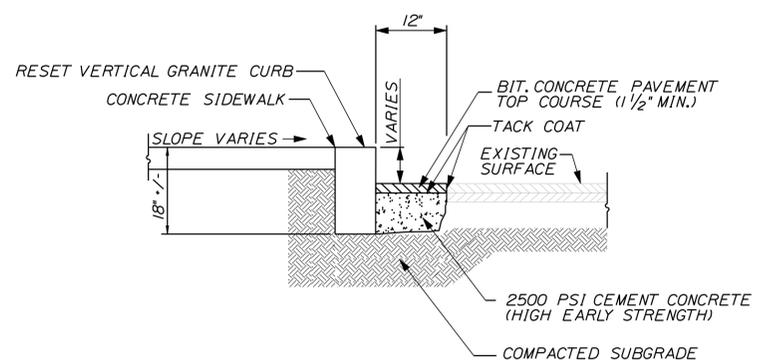
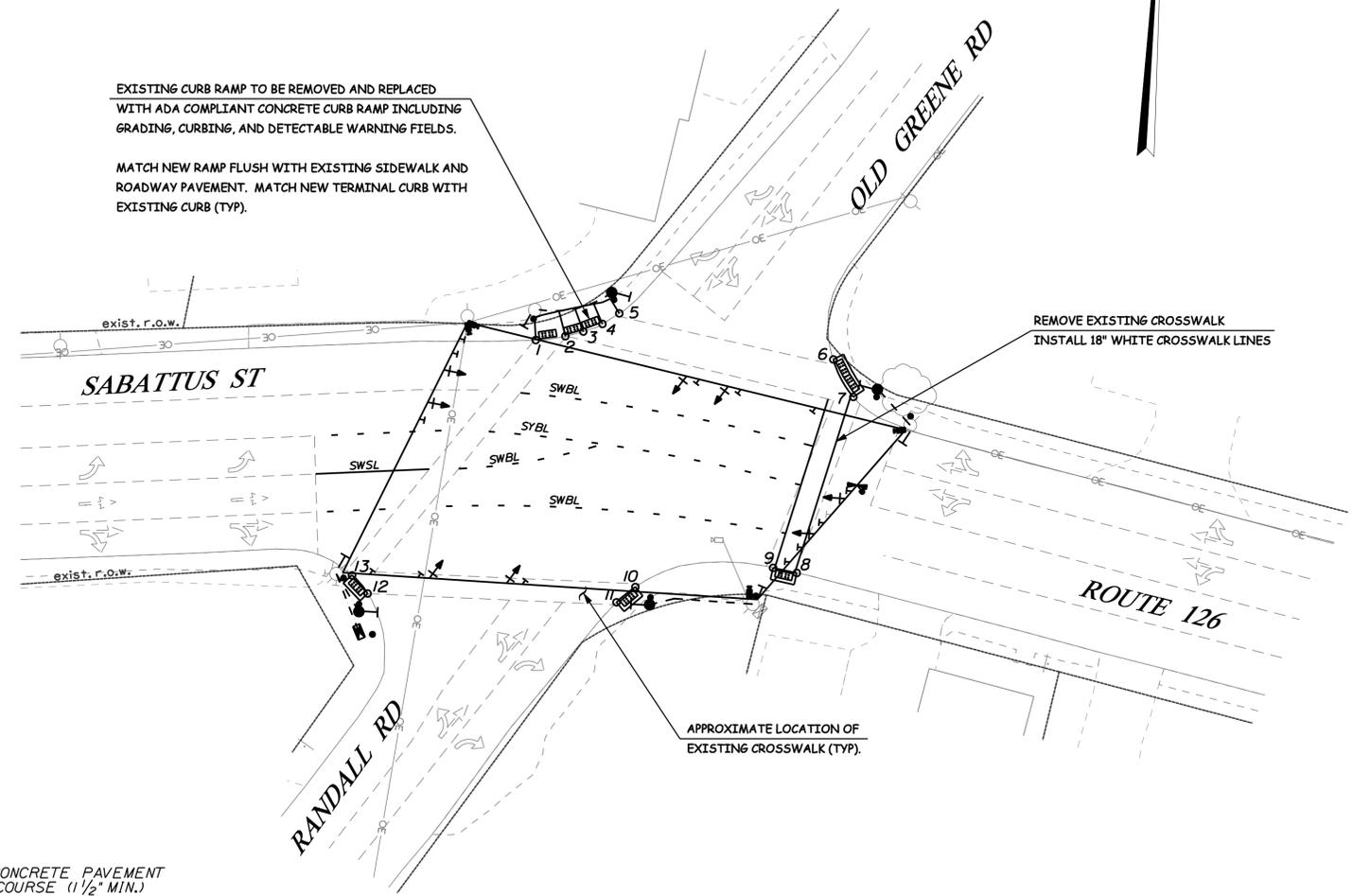
Division:

Filename: ... \planset\035\_5216400\035088.dgn

LIST OF MAJOR ITEMS

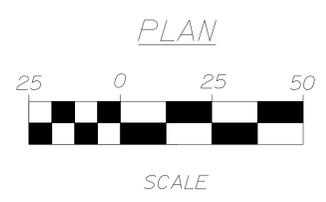
EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
COMMON EXCAVATION (ITEM 203.20)	9.1 CY
HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS) (ITEM 403.209)	1.2 TONS
CURB RAMP DETECTABLE WARNING FIELD (ITEM 608.26)	80 SF
WHITE OR YELLOW PAVEMENT & CURB MARKING (ITEM 627.75)	232.5 SF
REMOVE EXISTING PAVEMENT MARKING (ITEM 627.77)	104 SF

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.



VERTICAL GRANITE CURB SET IN EXISTING PAVEMENT  
PEDESTRIAN RAMP INSTALLATION  
SEE MAINEDOT STANDARD DETAILS 609 & 801

PAVEMENT MARKING LEGEND  
 SYBL = SINGLE YELLOW BROKEN LINE (2' LONG, 6' SPACE)  
 SWBL = SINGLE WHITE BROKEN LINE (2' LONG, 6' SPACE)  
 SWSL = SINGLE WHITE SOLID LINE



STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 AC-STP-1900(700)E  
 WIN  
 19007.00

PROJ. MANAGER	B. KEEZER	DATE
DESIGN-DETAILED	M. GRAHAM	J. ROBERT
CHECKED-REVIEWED	C. BOBAY	M. SIENEN
DESIGN-DETAILED		
DESIGN-DETAILED		
REVISIONS		
FIELD CHANGES		

ROUTE 126 / SABATTUS ST  
 RANDALL ROAD  
 CURB RAMP LAYOUT AND  
 PAVEMENT MARKING PLAN

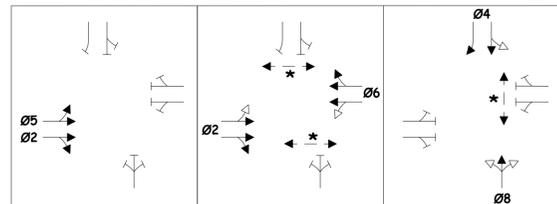
SHEET NUMBER  
 35  
 OF 36

**LIST OF MAJOR ITEMS**

EQUIPMENT AND WORK (ITEM 643.71)	QUANTITY	EQUIPMENT AND WORK (ITEM XXX.YYZ)	QUANTITY
FURNISH AND INSTALL NEW P-TYPE BASE MOUNT NEMA TS2 MAINEDOT SPEC CABINET COMPLETE WITH ALL ANCILLARY EQUIPMENT AND WIRING	1	FURNISH AND INSTALL CONTROLLER CABINET FOUNDATION (ITEM 626.35)	1

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY.

**PROPOSED PHASING SEQUENCE**



\* = NORMALLY DW, UPON PEDESTRIAN ACTUATION, W/FDW COUNTDOWN Ø5 LEADS

**BID OPTION #1**

**EMERGENCY VEHICLE PRE-EMPTION OPERATION**

ID	PREEMPT ASSIGNMENT	ACTIVE PHASE
R1	3	Ø2 & Ø5
R2	4	Ø6

**EMERGENCY VEHICLE PRE-EMPTION NOTES:**

- PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES (1 = HIGHEST, 2 = LOWEST)
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (3.0 SECONDS YELLOW AND 2.5 SECONDS ALL RED) AND SERVICE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PRE-EMPTION CYCLE, THE CONTROLLER SHALL TIME THE PRE-EMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATION.
- MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
- EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.
- CONFIRMATION STROBES SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.

**SIGNAL TIMING SCHEDULE**

ITEM / PHASE	1	2	3	4	5	6	7	8	9
MINIMUM INITIAL		10		5	5	10		5	
PASSAGE TIME		4.0		3.0	3.0	4.0		3.0	
MAXIMUM 1		40		30	10	40		30	
MAXIMUM 2		80		30	10	80		30	
YELLOW		3.0		3.0	3.0	3.0		3.0	
ALL RED		2.5		2.5	2.5	2.5		2.5	
PEDESTRIAN WALK		7				7		7	
PEDESTRIAN CLEARANCE		11				21		14	
RECALL		S		O	O	S		O	
DETECTOR OPERATION		PR		PR	PR	PR		PR	
PREEMPTION PRIORITY		1			1	2			
FLASH		Y		R	R	Y		R	
DUAL ENTRY		ON		ON	OFF	ON		ON	

NOTES: S = SOFT RECALL Y = YELLOW  
O = RECALL OFF R = RED  
PR = PRESENCE D = DARK  
MAX2 = UNDER COORDINATION

**DAILY AND WEEKLY COORDINATION SCHEDULE**

	MON.-FRI.	SAT.-SUN.
PLAN 1 55/110 SECS MAX 2	0730-0845 1615-1745	-
PLAN 2 50/100 SECS MAX 2	1000-1500	-
PLAN 3 90 SECS MAX 2	0600-0730 0845-1000 1500-1615 1745-1830	1000-1400
PLAN 4 FREE OPERATIONS MAX 1	0000-0600 1830-2400	0000-1000 1400-2400

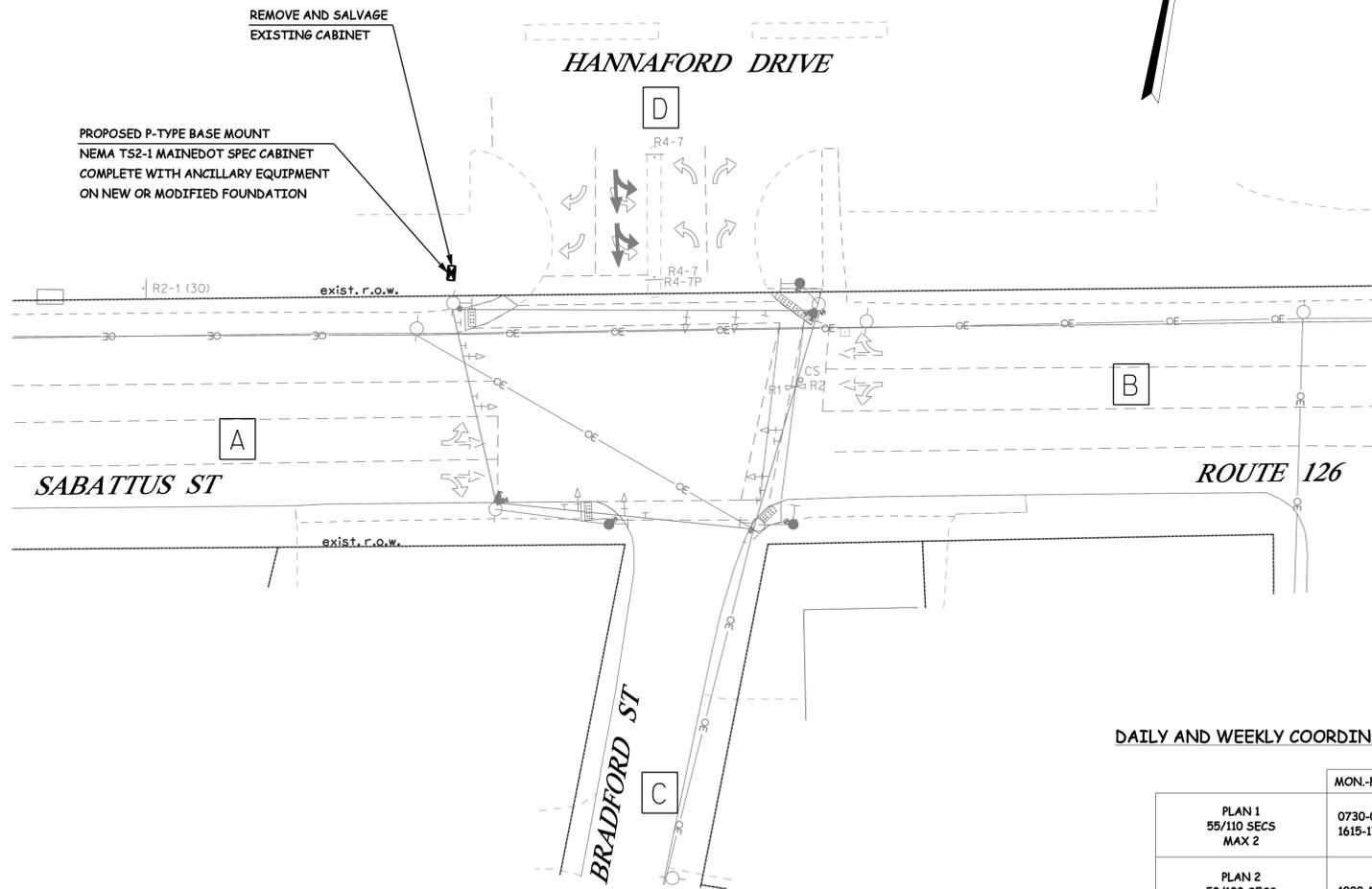
**COORDINATION CYCLE/SPLIT/OFFSET SCHEDULE**

ALL ENTRIES IN SECONDS

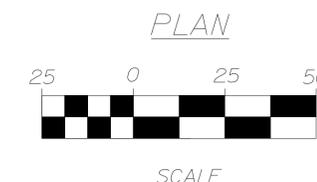
	PLAN 1	PLAN 2	PLAN 3
CYCLE LENGTH	110	100	90
OFFSET (END GRN)	52	55	10
COORDINATED Ø	2	2	2
SPLIT TIME Ø1	0	0	0
SPLIT TIME Ø2	83	68	55
SPLIT TIME Ø3	0	0	0
SPLIT TIME Ø4	27	32	35
SPLIT TIME Ø5	16	16	16
SPLIT TIME Ø6	67	52	39
SPLIT TIME Ø7	0	0	0
SPLIT TIME Ø8	27	32	35

**COORDINATION NOTES:**

- OFFSET IS REFERENCED TO THE END OF THE COORDINATED PHASE.
- COORDINATION TO OPERATE BY TIME-OF-DAY.
- TRAFFIC SIGNAL CONTROLLER SHALL BE SET FOR STOP TIME IN WALK TO ON.



INTERSECTION:  
SABATTUS STREET / BRADFORD STREET  
SIGNAL GROUP:  
1  
LOCATION / PROPOSED DROP:  
102 / 54



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AC-STP-1900(700)E  
WIN  
19007.00

PROJ. MANAGER  
DESIGN-DETAILED  
CHECKED-REVIEWED  
DESIGN-DETAILED  
REVISIONS 1  
REVISIONS 2  
REVISIONS 3  
REVISIONS 4  
FIELD CHANGES

DATE  
10-2012  
11-2012  
BY  
M. GRAHAM  
J. ROBERT  
M. SIEMEN  
SIGNATURE  
P.E. NUMBER  
DATE

ROUTE 126 / SABATTUS ST  
BRADFORD STREET  
TRAFFIC SIGNAL PLAN  
BID OPTION #1

SHEET NUMBER  
36  
OF 36

Date: 3/26/2013

Username: J. ROBERT

Division:

Filename: ... \036\_5216400SG07-BA1.dgn