

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

PLAN AND PROFILE OF
COMMONWEALTH AVENUE (ROUTE 30)
IN THE CITY OF
NEWTON
MIDDLESEX COUNTY

FEDERAL AID PROJECT NO. CMQ-003S(686)X

NEWTON
COMMONWEALTH AVENUE (ROUTE 30)

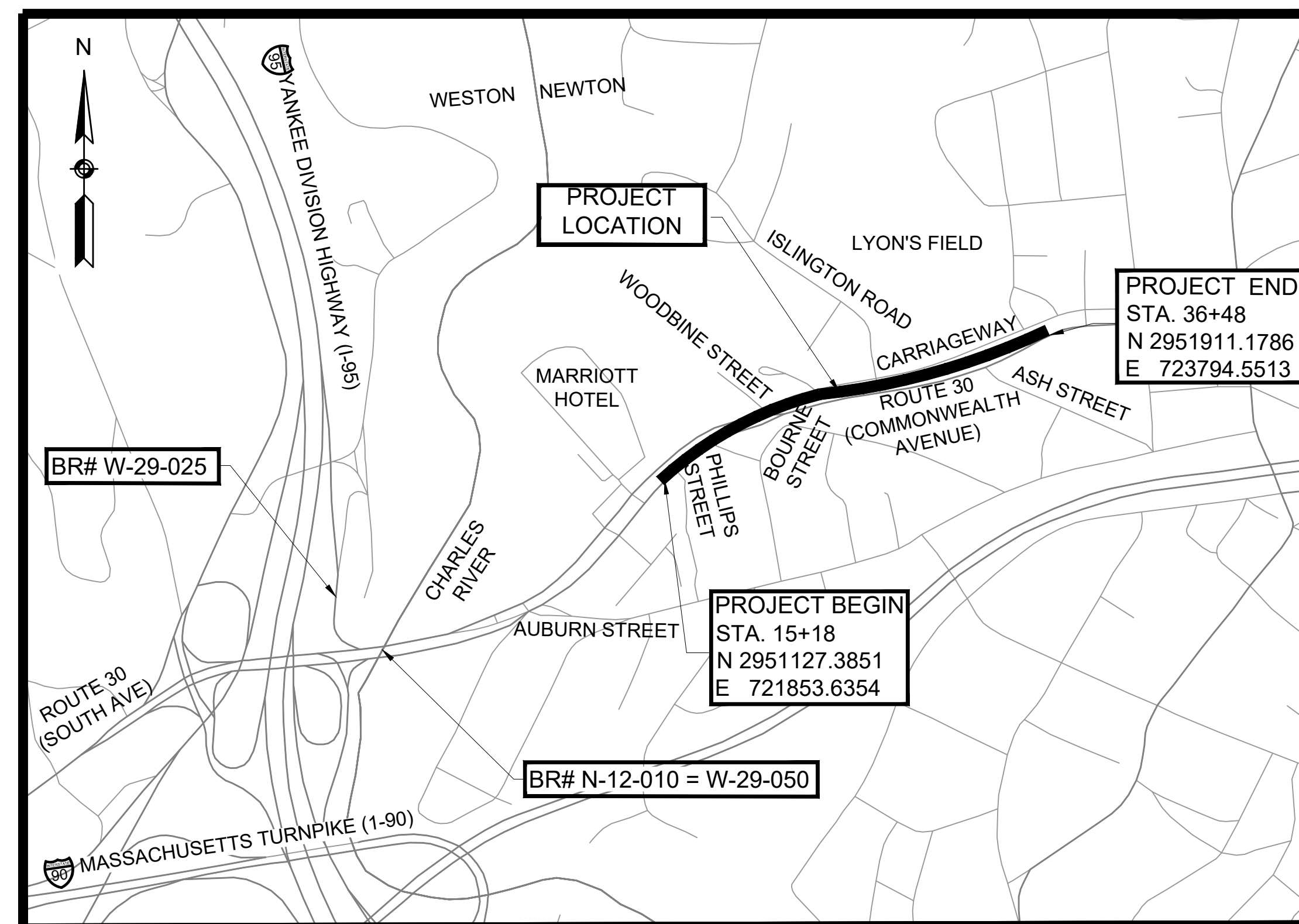
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	1	90
PROJECT FILE NO.		610674	

TITLE SHEET & INDEX

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

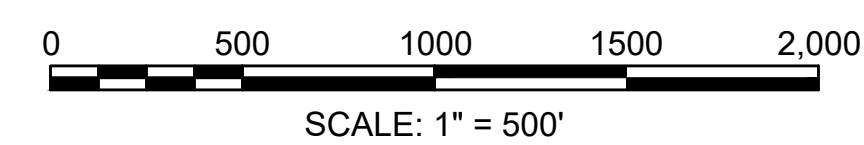
INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	GENERAL NOTES
3	LEGEND & ABBREVIATIONS
4	KEY PLAN & PAVEMENT CORES
5	PAVEMENT NOTES
6 - 7	TYPICAL SECTIONS
8 - 11	CONSTRUCTION BASELINE TIES
12 - 15	CONSTRUCTION PLANS
16 - 22	PROFILES
23 - 26	CURB TIE PLANS
27 - 30	GRADING PLANS
31 - 34	PAVEMENT MARKINGS & SIGNAGE PLANS
35 - 36	TRAFFIC SIGN SUMMARY
37 - 40	TRAFFIC SIGNAL PLANS
41 - 51	TEMPORARY TRAFFIC CONTROL PLANS
52 - 55	UTILITY PLANS
56 - 57	UTILITY DETAILS
58 - 64	LANDSCAPING PLANTING PLANS
65 - 67	CONSTRUCTION DETAILS
68 - 73	PEDESTRIAN CURB RAMP/DRIVEWAY DETAILS
74 - 90	CROSS SECTIONS



DESIGN DESIGNATION (ROUTE 30)

DESIGN SPEED	35 MPH
ADT (2020)	19,619
ADT (2030)	20,625
K	8.2%
D	54%
T (PEAK HOUR)	4.2%
T (AVERAGE DAY)	4.1%
DHV	1,691
DDHV	913
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL



LENGTH OF PROJECT = 2587 FEET = 0.49 MILES

DATE	DESCRIPTION	REV #

25 KINGSTON ST., BOSTON, MA 02111-2200
PHONE: 617.536.5380
WWW.HALVORSON.COM

HOWARD STEIN HUDSON
 11 Beacon Street, Suite 1010
 Boston, MA 02108
www.hshassoc.com

APPROVED

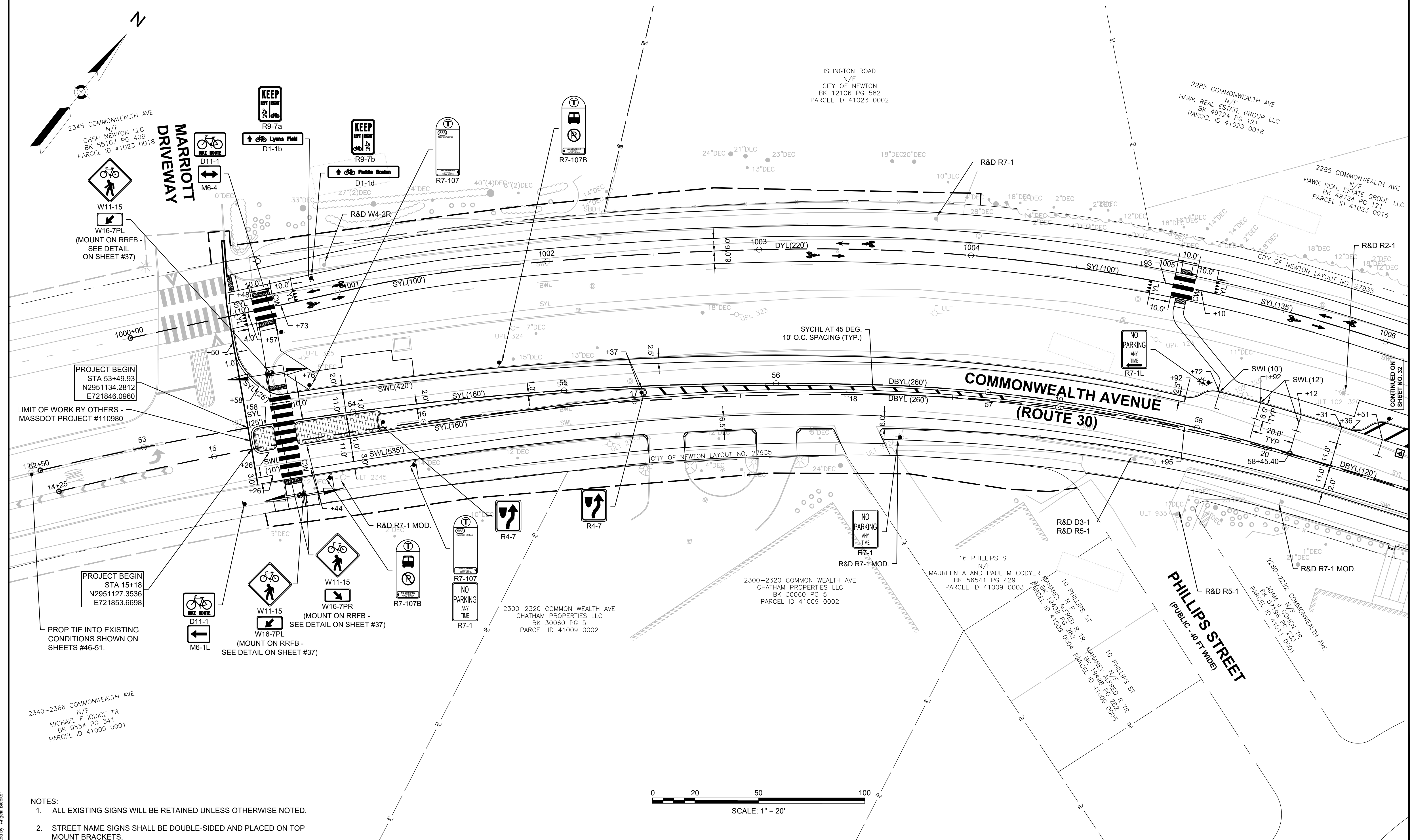
CHIEF ENGINEER

DATE

**NEWTON
COMMONWEALTH AVENUE (ROUTE 30)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	31	90
PROJECT FILE NO.		610674	

PAVEMENT MARKINGS & SIGNAGE PLANS



2345 COMMONWEALTH AVE
N/F
CHSP NEWTON LLC
BK 55107 PG 408
PARCEL ID 41023 0018

ISLINGTON ROAD
N/F
CITY OF NEWTON
BK 12106 PG 582
PARCEL ID 41023 0002

2285 COMMONWEALTH AVE
N/F
HAWK REAL ESTATE GROUP LLC
BK 49724 PG 121
PARCEL ID 41023 0016

2285 COMMONWEALTH AVE
N/F
HAWK REAL ESTATE GROUP LLC
BK 49724 PG 121
PARCEL ID 41023 0015

PROJECT BEGIN
STA 53+49.93
N2951134.2812
E721846.0960

LIMIT OF WORK BY OTHERS -
MASSDOT PROJECT #110980

PROJECT BEGIN
STA 15+18
N2951127.3536
E721853.6698

PROP TIE INTO EXISTING
CONDITIONS SHOWN ON
SHEETS #46-51.

2340-2366 COMMONWEALTH AVE
N/F
MICHAEL F IODICE TR
BK 9854 PG 341
PARCEL ID 41009 0001

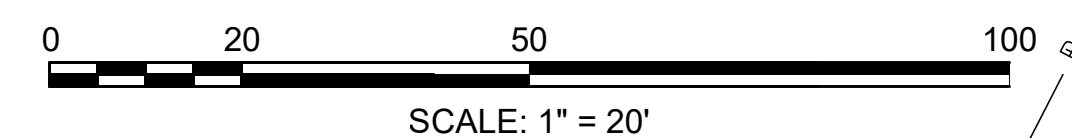
2300-2320 COMMON WEALTH AVE
CHATHAM PROPERTIES LLC
BK 30060 PG 5
PARCEL ID 41009 0002

2300-2320 COMMON WEALTH AVE
CHATHAM PROPERTIES LLC
BK 30060 PG 5
PARCEL ID 41009 0002

16 PHILLIPS ST
N/F
MAUREEN A AND PAUL M CODYER
BK 56541 PG 429
PARCEL ID 41009 0003

2280-2282 COMMONWEALTH AVE
N/F
ADAM J COHEN TR
BK 5196 PG 253
PARCEL ID 41011 0001

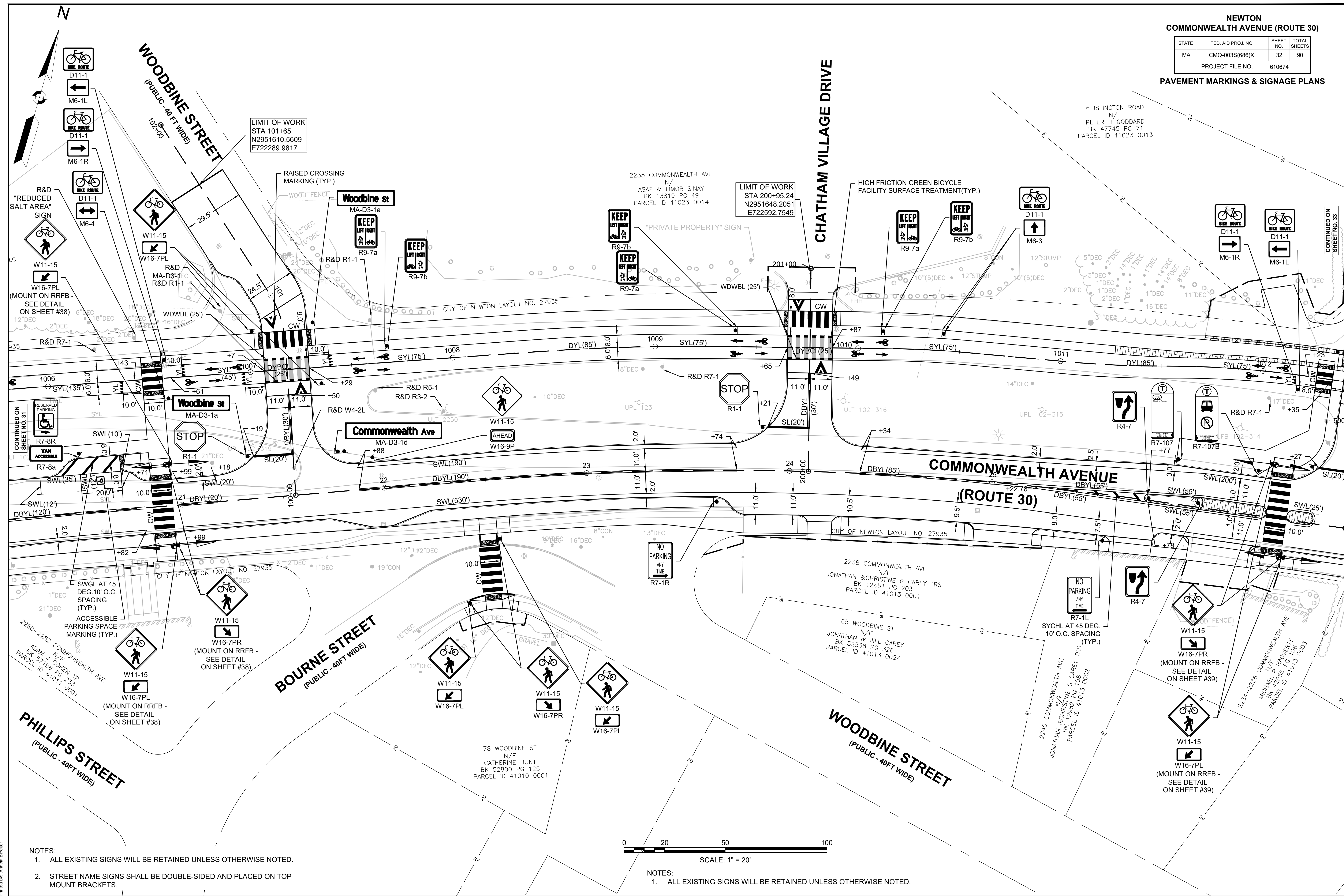
- NOTES:
1. ALL EXISTING SIGNS WILL BE RETAINED UNLESS OTHERWISE NOTED.
 2. STREET NAME SIGNS SHALL BE DOUBLE-SIDED AND PLACED ON TOP MOUNT BRACKETS.



**NEWTON
COMMONWEALTH AVENUE (ROUTE 30)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	32	90
PROJECT FILE NO.		610674	

PAVEMENT MARKINGS & SIGNAGE PLANS



6 ISLINGTON ROAD
N/F
PETER H. GODDARD
BK 47745 PG 71
PARCEL ID 41023 0013

2235 COMMONWEALTH AVE
N/F
ASAF & LIMOR SINAY
BK 13819 PG 49
PARCEL ID 41023 0014

LIMIT OF WORK
STA 200+95.24
N2951648.2051
E722592.7549

HIGH FRICTION GREEN BICYCLE
FACILITY SURFACE TREATMENT (TYP.)

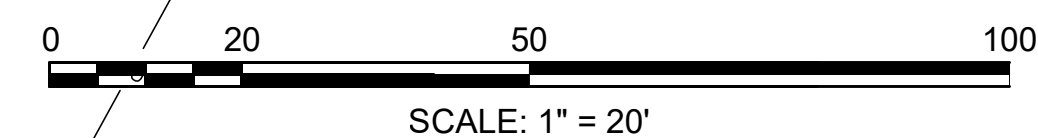
CHATHAM VILLAGE DRIVE

WOODBINE STREET
(PUBLIC - 40 FT WIDE)

BOURNE STREET
(PUBLIC - 40 FT WIDE)

WOODBINE STREET
(PUBLIC - 40 FT WIDE)

PHILLIPS STREET
(PUBLIC - 40 FT WIDE)



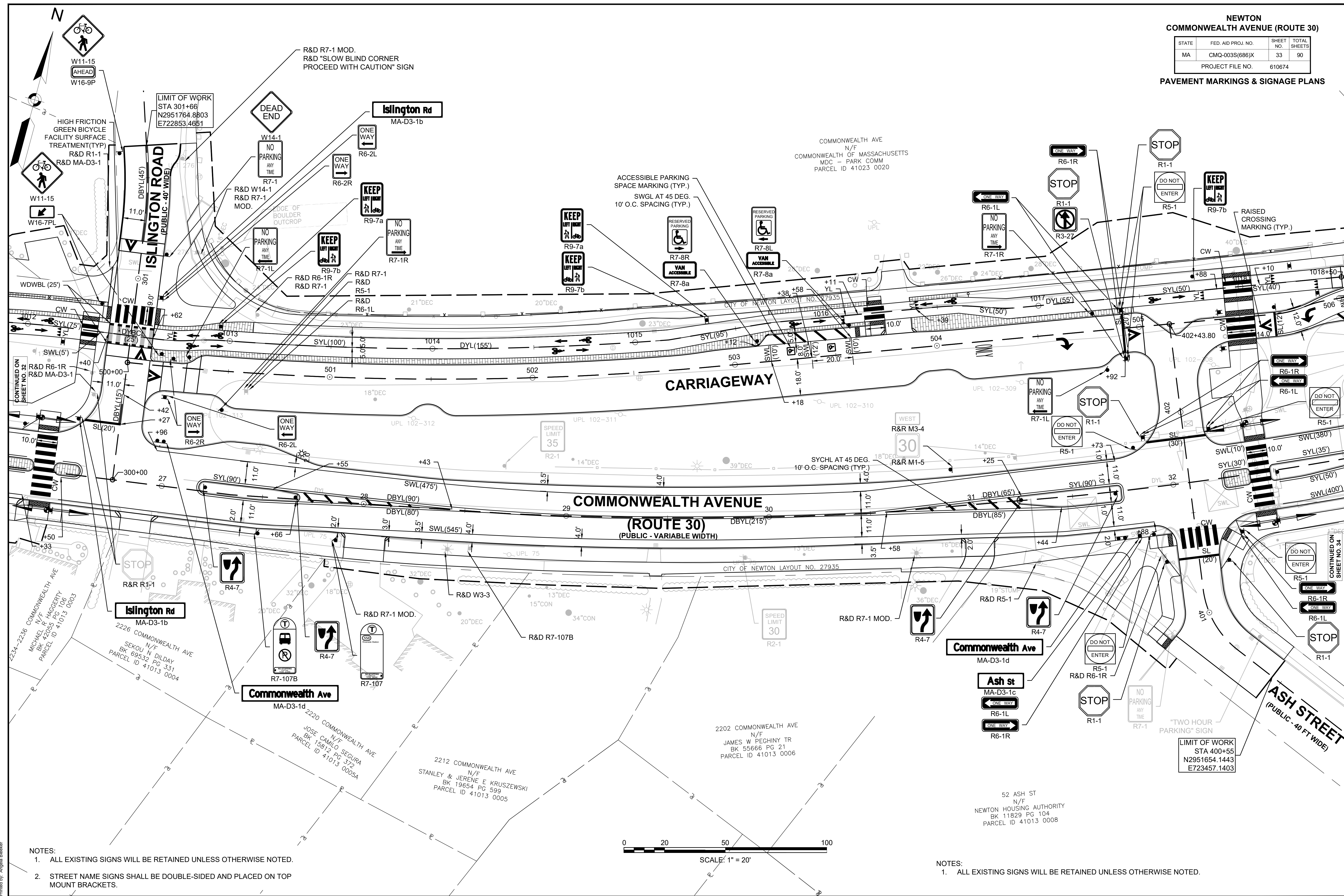
- NOTES:
1. ALL EXISTING SIGNS WILL BE RETAINED UNLESS OTHERWISE NOTED.
 2. STREET NAME SIGNS SHALL BE DOUBLE-SIDED AND PLACED ON TOP MOUNT BRACKETS.

- NOTES:
1. ALL EXISTING SIGNS WILL BE RETAINED UNLESS OTHERWISE NOTED.

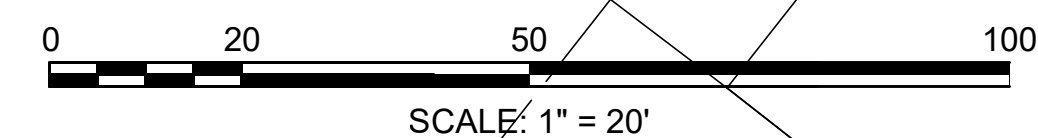
**NEWTON
COMMONWEALTH AVENUE (ROUTE 30)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	33	90
PROJECT FILE NO.		610674	

PAVEMENT MARKINGS & SIGNAGE PLANS



- NOTES:
1. ALL EXISTING SIGNS WILL BE RETAINED UNLESS OTHERWISE NOTED.
 2. STREET NAME SIGNS SHALL BE DOUBLE-SIDED AND PLACED ON TOP MOUNT BRACKETS.



- NOTES:
1. ALL EXISTING SIGNS WILL BE RETAINED UNLESS OTHERWISE NOTED.

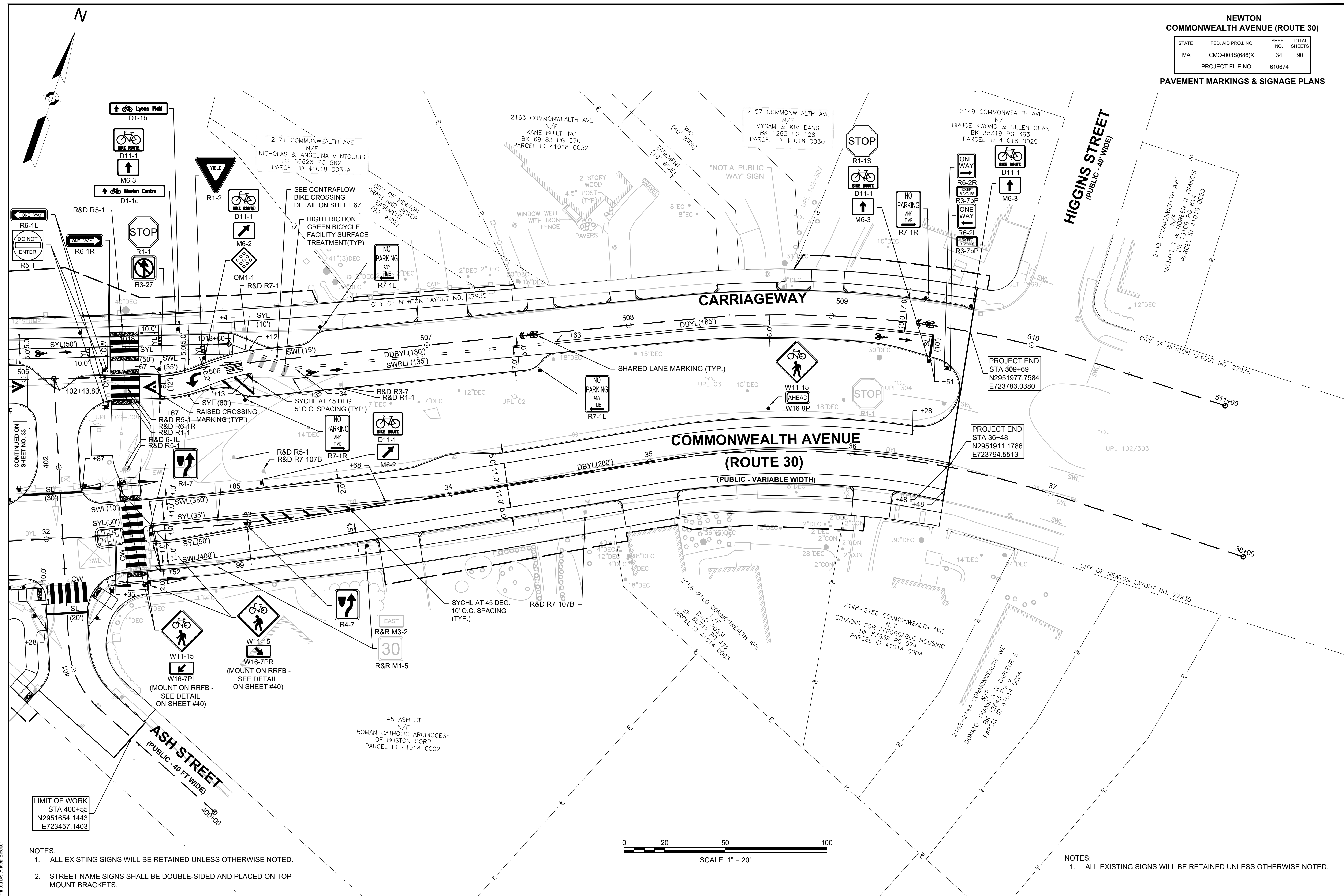
7/12/2023, L:\1905\SUBRENTS\SHEETS\610674_TR (P)MT SIGNAGE.dwg
 Last Saved by: ABLEKER
 Printed by: Angella Blecker

610674_TR (P)MT SIGNAGE.DWG
 Plotted on: 12-Jul-2023 2:15 PM

**NEWTON
COMMONWEALTH AVENUE (ROUTE 30)**

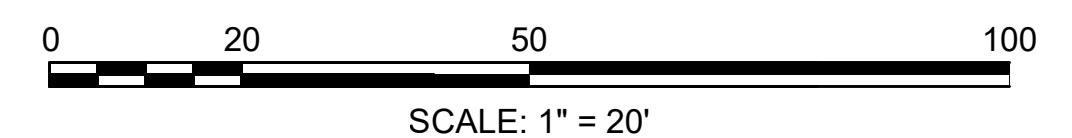
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	34	90
PROJECT FILE NO.		610674	

PAVEMENT MARKINGS & SIGNAGE PLANS



LIMIT OF WORK
STA 400+55
N2951654.1443
E723457.1403

- NOTES:**
1. ALL EXISTING SIGNS WILL BE RETAINED UNLESS OTHERWISE NOTED.
 2. STREET NAME SIGNS SHALL BE DOUBLE-SIDED AND PLACED ON TOP MOUNT BRACKETS.



- NOTES:**
1. ALL EXISTING SIGNS WILL BE RETAINED UNLESS OTHERWISE NOTED.

7/12/2023, L:\1905\CURRENT\SHETS\610674_TR (P)MT SIGNAGE.dwg
 Last Saved by: ABLEKER
 Printed by: Angela Blacker

610674_TR (P)MT SIGNAGE.DWG Plotted on 12-Jul-2023 2:15 PM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	35	90
PROJECT FILE NO.		610674	

TRAFFIC SIGN SUMMARY

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
D1-1b	30"	6"		2"D	1.5" 3" 1.5"	3"	2	GREEN	WHITE	WHITE	P5(2)	1.25	2.50
D1-1c	36"	6"		2"D	1.5" 3" 1.5"	3"	1	GREEN	WHITE	WHITE	P5(1)	1.50	1.50
D1-1d	36"	6"		2"D	1.5" 3" 1.5"	3"	1	GREEN	WHITE	WHITE	P5(1)	1.50	1.50
D11-1	24"	18"			①		13	GREEN	WHITE	WHITE	P5(10)/ MOUNT W/ D1-1c(1)/ MOUNT W/ D11-1(2)	3.00	39.00
MA-D3-1a	30"	8"		4"D	2" 2"	-	2	GREEN	WHITE	WHITE	P5(2)	1.67	3.34
MA-D3-1b	36"	8"		4"D	1.75" 2.25"	-	2	GREEN	WHITE	WHITE	P5(2)	3.00	6.00
MA-D3-1c	24"	8"		4"D	2" 2"	-	1	GREEN	WHITE	WHITE	P5(1)	1.33	1.33
MA-D3-1d	48"	8"		4"D	2" 2"	-	3	GREEN	WHITE	WHITE	2 P5(3)	2.67	8.01
M6-1L	24"	12"			①		3	GREEN	WHITE	WHITE	MOUNT W/ D11-1(3)	2.00	6.00
M6-1R	24"	12"					2	GREEN	WHITE	WHITE	MOUNT W/ D11-1(2)	2.00	4.00
M6-2	24"	12"					2	GREEN	WHITE	WHITE	MOUNT W/ D11-1(2)	2.00	4.00
M6-3	24"	12"					4	GREEN	WHITE	WHITE	MOUNT W/ D11-1(4)	2.00	8.00
M6-4	24"	12"					2	GREEN	WHITE	WHITE	MOUNT W/ D11-1(2)	2.00	4.00
OM1-1	18"	18"					1	YELLOW	YELLOW	-	MOUNT W/ D11-1(1)	2.25	2.25
R1-1	30"	30"					8	RED	WHITE	WHITE	P5(7)/ MOUNT W/ MA-D3-1a(1)	6.25	50.00
R1-1S	18"	18"					1	RED	WHITE	WHITE	MOUNT W/ D11-1(1)	2.25	2.25
R1-2	18"	18"					1	RED	WHITE	WHITE	MOUNT W/ D11-1(1)	2.25	2.25
R3-7bP	24"	12"					2	WHITE	BLACK	BLACK	MOUNT W/ R6-2L(1)/ R6-2R(1)	2.00	4.00
R3-27	24"	24"					2	WHITE	BLACK	BLACK	MOUNT W/ R1-1(2)	4.00	8.00
R4-7	24"	30"					10	WHITE	BLACK	BLACK	P5(10)	5.00	50.00
R5-1	30"	30"					8	RED/ WHITE	WHITE	WHITE	P5(6)/ MOUNT W/ R1-1(2)	6.25	50.00
R6-1L	36"	12"					8	BLACK/ WHITE	WHITE/ BLACK	WHITE	MOUNT W/ MA-D3-1c(1)/ R1-1(3)/R5-1(4)	3.00	24.00
R6-1R	36"	12"					8	BLACK/ WHITE	WHITE/ BLACK	WHITE	MOUNT W/ MA-D3-1c(1)/ R1-1(3)/R5-1(4)	3.00	24.00
R6-2L	24"	30"					3	WHITE	BLACK	BLACK	P5(2)/ MOUNT W/ MA-D3-1b(1)	5.00	15.00
R6-2R	24"	30"					4	WHITE	BLACK	BLACK	P5(1)/ MOUNT W/ R6-2L(2)/ MA-D3-1b(1)	5.00	20.00

TOTAL SF: 340.93

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
R7-1	12"	18"			①		3	WHITE	RED	RED	P5(1)/ MOUNT ON UP(2)	1.50	4.50
R7-1L	12"	18"					6	WHITE	RED	RED	P5(5)/ MOUNT ON UP(1)	1.50	9.00
R7-1R	12"	18"					5	WHITE	RED	RED	P5(4)/ MOUNT ON UP(1)	1.50	7.50
R7-8L	12"	18"					1	WHITE	BLUE/ GREEN	GREEN	P5(1)	1.50	1.50
R7-8R	12"	18"					2	WHITE	BLUE/ GREEN	GREEN	P5(2)	1.50	3.00
R7-8a	18"	9"					3	WHITE	GREEN	GREEN	MOUNT W/ R7-8L(1)/ R7-8R(2)	1.13	3.38
R7-107	12"	32"			②		4	WHITE	BLACK	BLACK	P5(3)/ MOUNT W/ R7-1(1)	2.67	10.68
R7-107B	12"	32"					4	WHITE	BLACK	BLACK	P5(4)	2.67	10.68
R9-7a	12"	18"			①		6	WHITE	BLACK	BLACK	P5(6)	1.50	9.00
R9-7b	12"	18"					7	WHITE	BLACK	BLACK	P5(1)/ MOUNT W/ R9-7a(6)	1.50	10.50
W11-15	30"	30"					27	FYG ⁽¹⁾	BLACK	BLACK	P5(9)/ MOUNT ON RRFB(16) MOUNT W/ W11-15(2)	6.25	168.75
W14-1	30"	30"					1	YELLOW	BLACK	BLACK	MOUNT ON UP(1)	6.25	6.25
W16-7PL	24"	12"					14	FYG ⁽¹⁾	BLACK	BLACK	MOUNT ON RRFB(8)/ MOUNT W/ W11-15(6)	2.00	28.00
W16-7PR	24"	12"					10	FYG ⁽¹⁾	BLACK	BLACK	MOUNT ON RRFB(8)/ MOUNT W/ W11-15(2)	2.00	20.00
W16-9P	24"	12"					3	FYG ⁽¹⁾	BLACK	BLACK	MOUNT W/ W11-15(3)	2.00	6.00

TOTAL SF: 298.74

SIGNS WILL BE DESIGNED IN ACCORDANCE TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND AMENDMENTS AND THE MASSDOT STANDARD SIGNS SUPPLEMENT TO THE MUTCD.

① SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND AMENDMENTS, LATEST EDITION, FOR SPECIFICATION ON TEXT, DIMENSIONS AND COLOR. ALSO REFER TO THE 1995 MHD STANDARD SPECIFICATIONS, SECTION M 9.30.0.

② SEE MBTA STANDARDS FOR SPECIFICATION ON TEXT, DIMENSIONS, AND COLOR. PANELS ARE FABRICATED AND SUPPLIED BY MBTA. CONTRACTOR NEEDS TO OBTAIN AND INSTALL.

(1) FLUORESCENT YELLOW-GREEN (FYG)

**NEWTON
COMMONWEALTH AVENUE (ROUTE 30)**

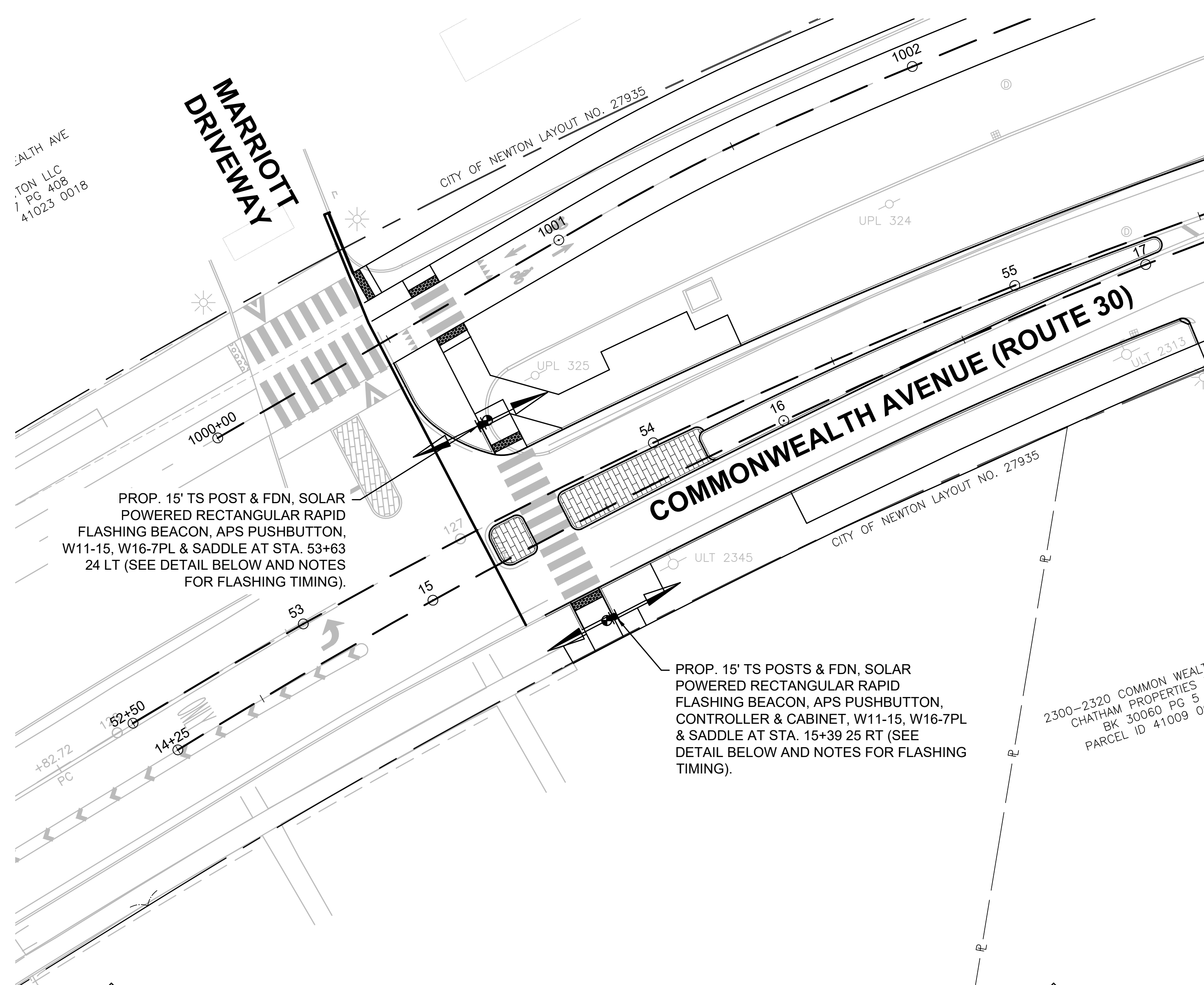
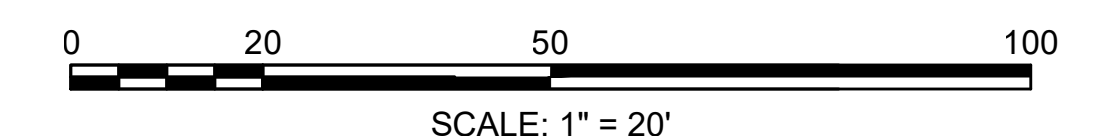
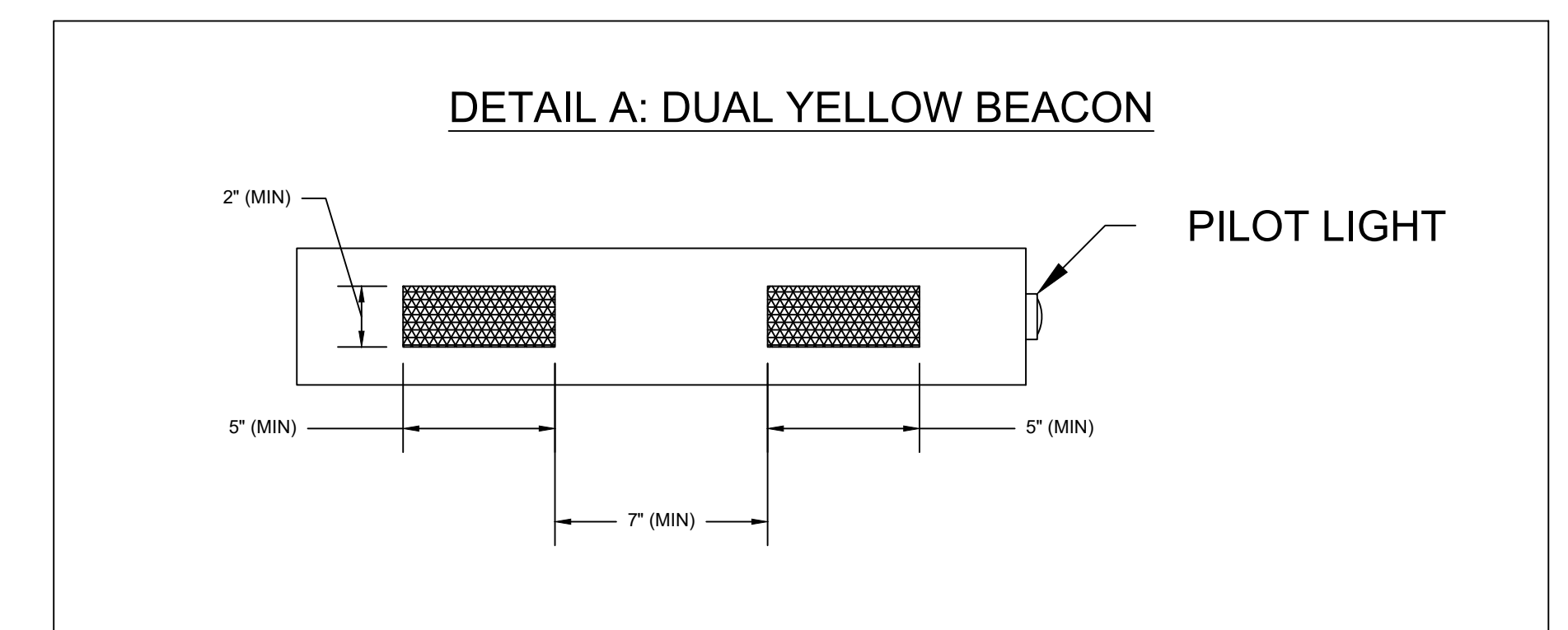
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	37	90
PROJECT FILE NO.		610674	

**TRAFFIC SIGNAL PLANS
LOCATION 1 - BOSTON MARRIOTT NEWTON RRFB**

MAJOR ITEMS REQUIRED		
PAY ITEM	QUANTITY	ITEM
824.211	2	15' TS POST & BASE (PAINTED BLACK)
	2	TS POST FOUNDATION PER 812.30.1
	4	RECTANGULAR RAPID FLASHING YELLOW BEACONS IN NEMA ENCLOSURES
	2	APS PUSHBUTTON, SIGN, & SADDLE
	1	CONTROLLER AND CABINET MOUNTED ON TS POST
	2	NEMA ENCLOSURES FOR ALL COMPONENTS NEEDED TO MEET FUNCTIONAL REQUIREMENTS PER SPECIAL PROVISIONS
	1	WIRELESS (WI-FI, BLUETOOTH, ETC) PROGRAMMING METHOD
	2	SOLAR PANEL SYSTEMS
	2	BATTERY SYSTEMS
		Plus all necessary duct, cable, labor, miscellaneous material and equipment to complete the installation.

NOTES:

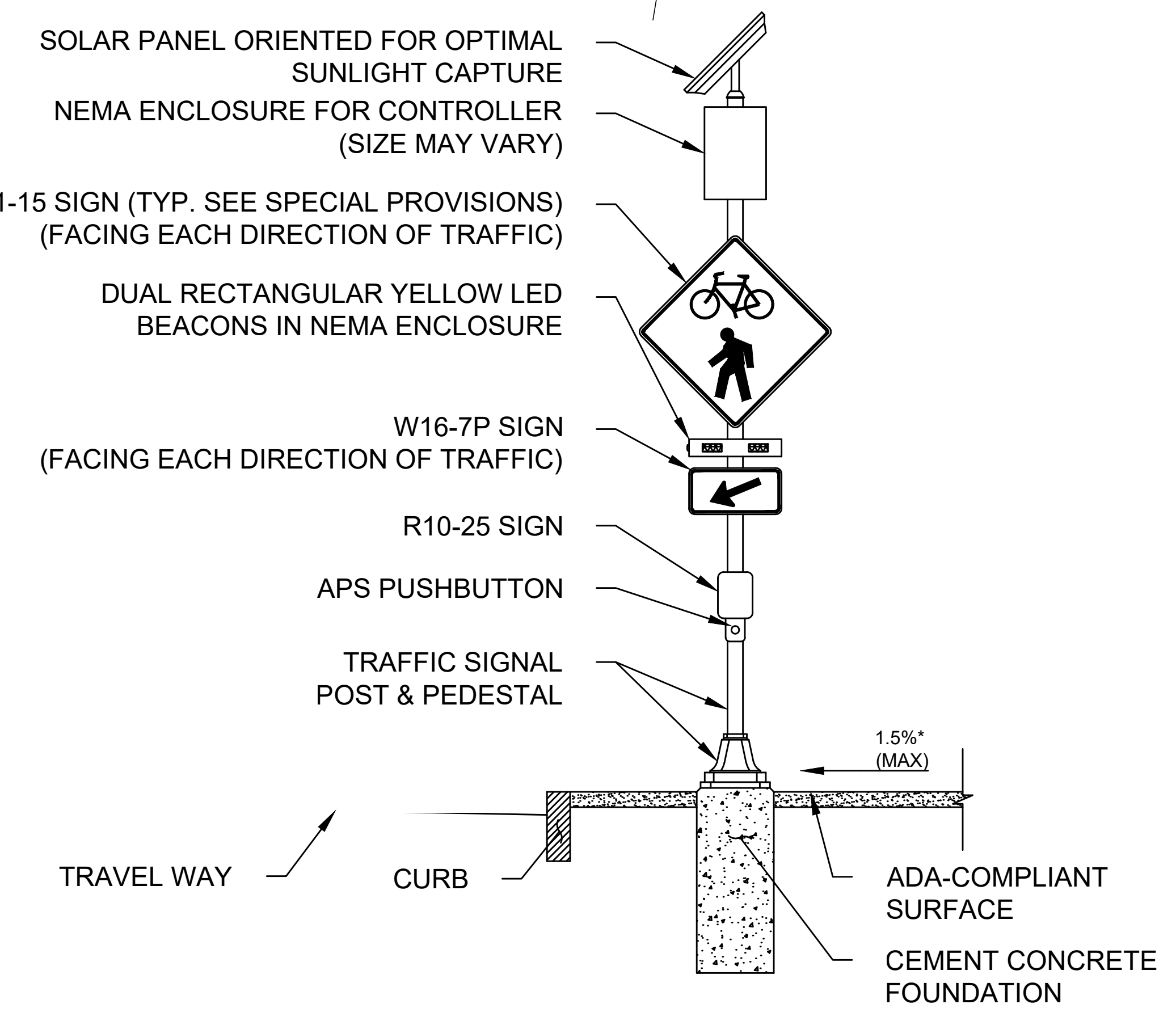
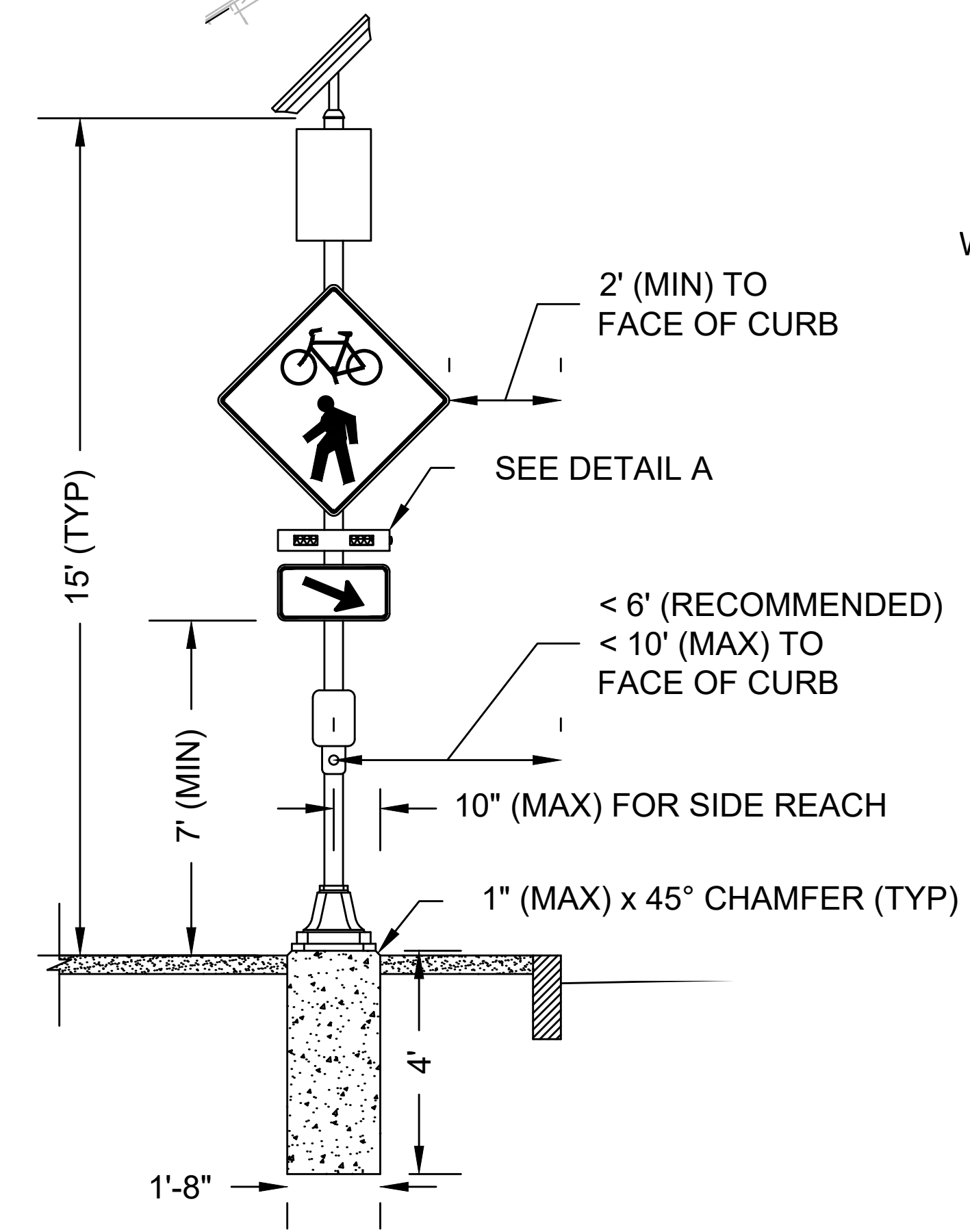
- RRFB SHALL FLASH FOR 14 SECONDS UPON EACH ACTIVATION.
- REFER TO THE SIGN SUMMARY SHEET FOR SIGN DIMENSIONS.
- EQUIPMENT GROUNDING SHALL BE PAID FOR SEPARATELY UNDER THE RESPECTIVE PAY ITEM.
- NO-FEE WIRELESS (WI-FI, BLUETOOTH, ETC) PROGRAMMING METHOD SHALL BE INSTALLED TO COMMUNICATE FLASHING ACTUATION AND DURATION BETWEEN RRFB POSTS.
- ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/AAB COMPLIANT.
- *0.5% CONSTRUCTION TOLERANCE FOR CROSS-SLOPE.
- "YELLOW LIGHTS FLASHING" SPOKEN TWICE (PER INTERIM APPROVAL).



PROP. 15' TS POST & FDN, SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON, APS PUSHBUTTON, W11-15, W16-7PL & SADDLE AT STA. 53+63 24 LT (SEE DETAIL BELOW AND NOTES FOR FLASHING TIMING).

PROP. 15' TS POSTS & FDN, SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON, APS PUSHBUTTON, CONTROLLER & CABINET, W11-15, W16-7PL & SADDLE AT STA. 15+39 25 RT (SEE DETAIL BELOW AND NOTES FOR FLASHING TIMING).

2300-2320 COMMONWEALTH AVENUE
CHATHAM PROPERTIES I
BK 30060 PG 5
PARCEL ID 41009 00



**NEWTON
COMMONWEALTH AVENUE (ROUTE 30)**

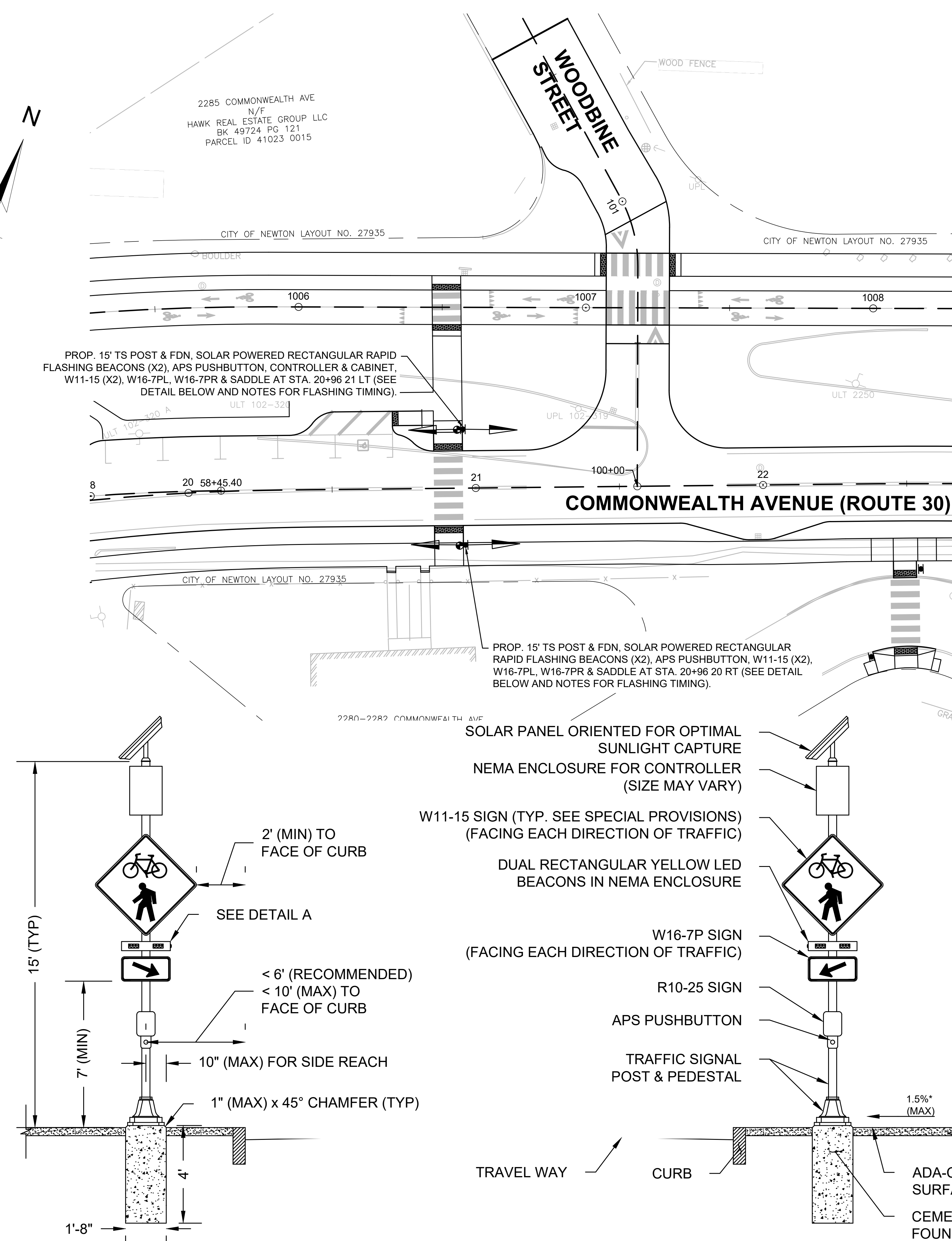
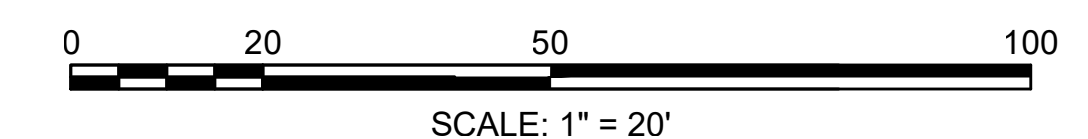
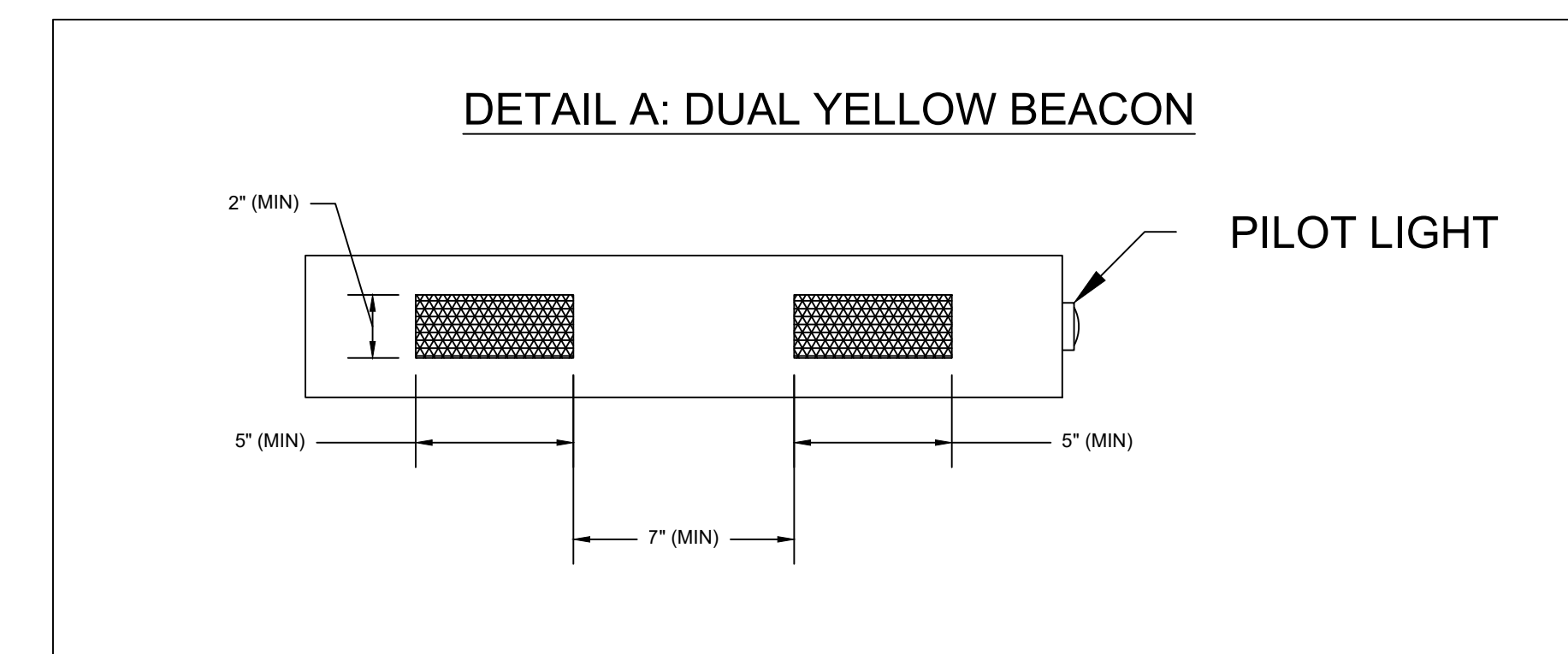
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	38	90
PROJECT FILE NO.		610674	

**TRAFFIC SIGNAL PLANS
LOCATION 2 - WOODBINE STREET RRFB**

PAY ITEM	QUANTITY	MAJOR ITEMS REQUIRED	
		ITEM	
824.212	2	15' TS POST & BASE (PAINTED BLACK)	
	2	TS POST FOUNDATION PER 812.30.1	
	4	RECTANGULAR RAPID FLASHING YELLOW BEACONS IN NEMA ENCLOSURES	
	2	APS PUSHBUTTON, SIGN, & SADDLE	
	1	CONTROLLER AND CABINET MOUNTED ON TS POST	
	2	NEMA ENCLOSURES FOR ALL COMPONENTS NEEDED TO MEET FUNCTIONAL REQUIREMENTS PER SPECIAL PROVISIONS	
	1	WIRELESS (WI-FI, BLUETOOTH, ETC) PROGRAMMING METHOD	
	2	SOLAR PANEL SYSTEMS	
	2	BATTERY SYSTEMS	
			Plus all necessary duct, cable, labor, miscellaneous material and equipment to complete the installation.

NOTES:

- RRFB SHALL FLASH FOR 9 SECONDS UPON EACH ACTIVATION.
- REFER TO THE SIGN SUMMARY SHEET FOR SIGN DIMENSIONS.
- EQUIPMENT GROUNDING SHALL BE PAID FOR SEPARATELY UNDER THE RESPECTIVE PAY ITEM.
- NO-FEE WIRELESS (WI-FI, BLUETOOTH, ETC) PROGRAMMING METHOD SHALL BE INSTALLED TO COMMUNICATE FLASHING ACTUATION AND DURATION BETWEEN RRFB POSTS. ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/AAIB COMPLIANT.
- *0.5% CONSTRUCTION TOLERANCE FOR CROSS-SLOPE.
- "YELLOW LIGHTS FLASHING" SPOKEN TWICE (PER INTERIM APPROVAL).



7/12/2023, L:\1905\CURRENT\TS\610674_TR (TRAFFIC SIGNAL PLAN).dwg
 Last Saved by: ABLEKER
 Printed by: Angella Bleeker

610674_TR (TRAFFIC SIGNAL PLAN).DWG Printed on 12-Jul-2023 2:16 PM

**NEWTON
COMMONWEALTH AVENUE (ROUTE 30)**

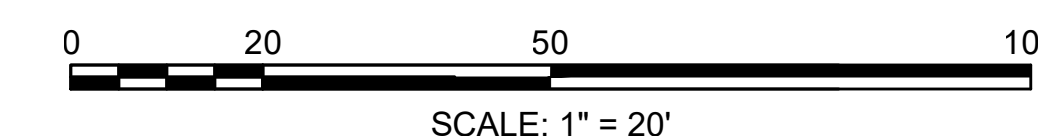
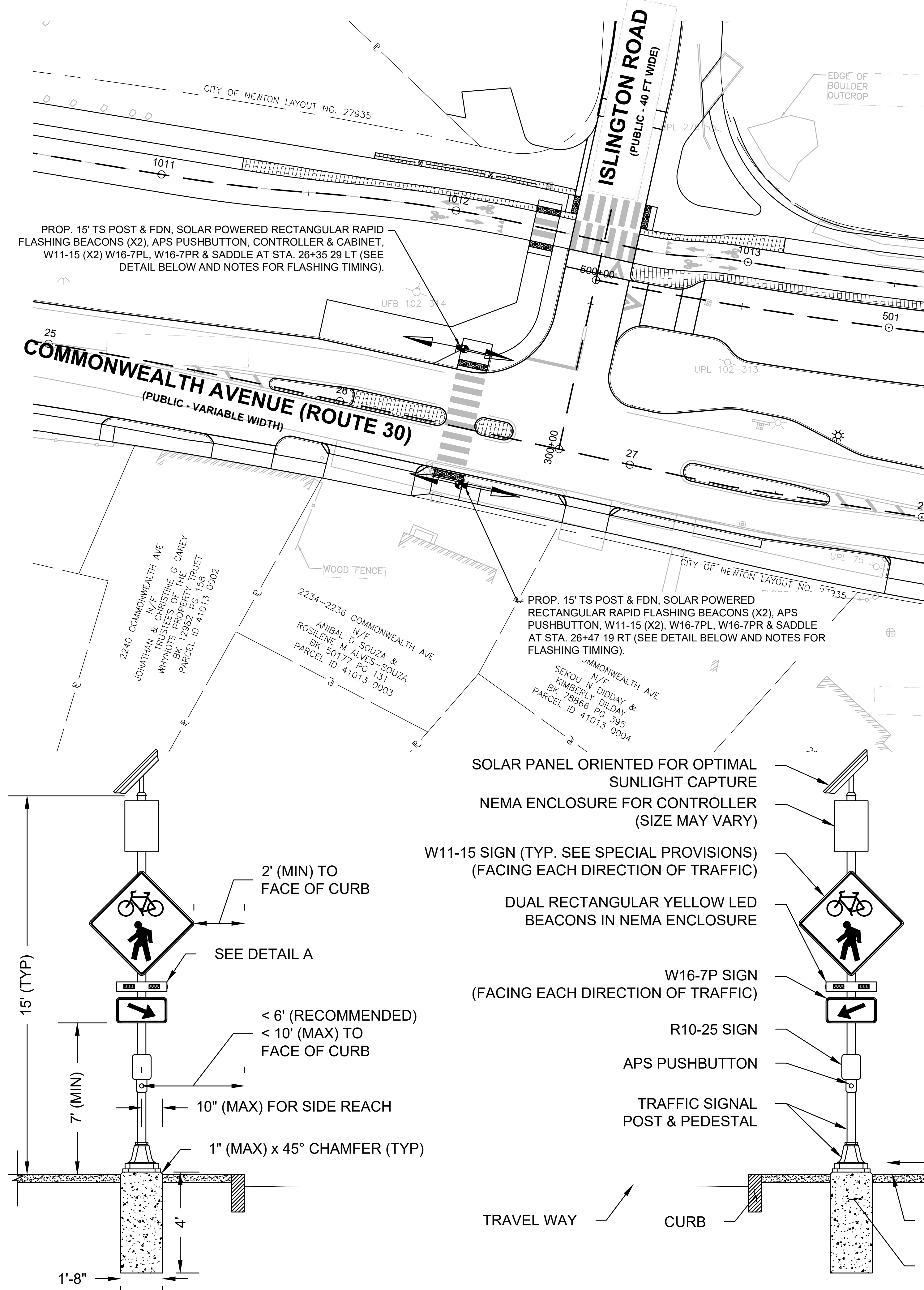
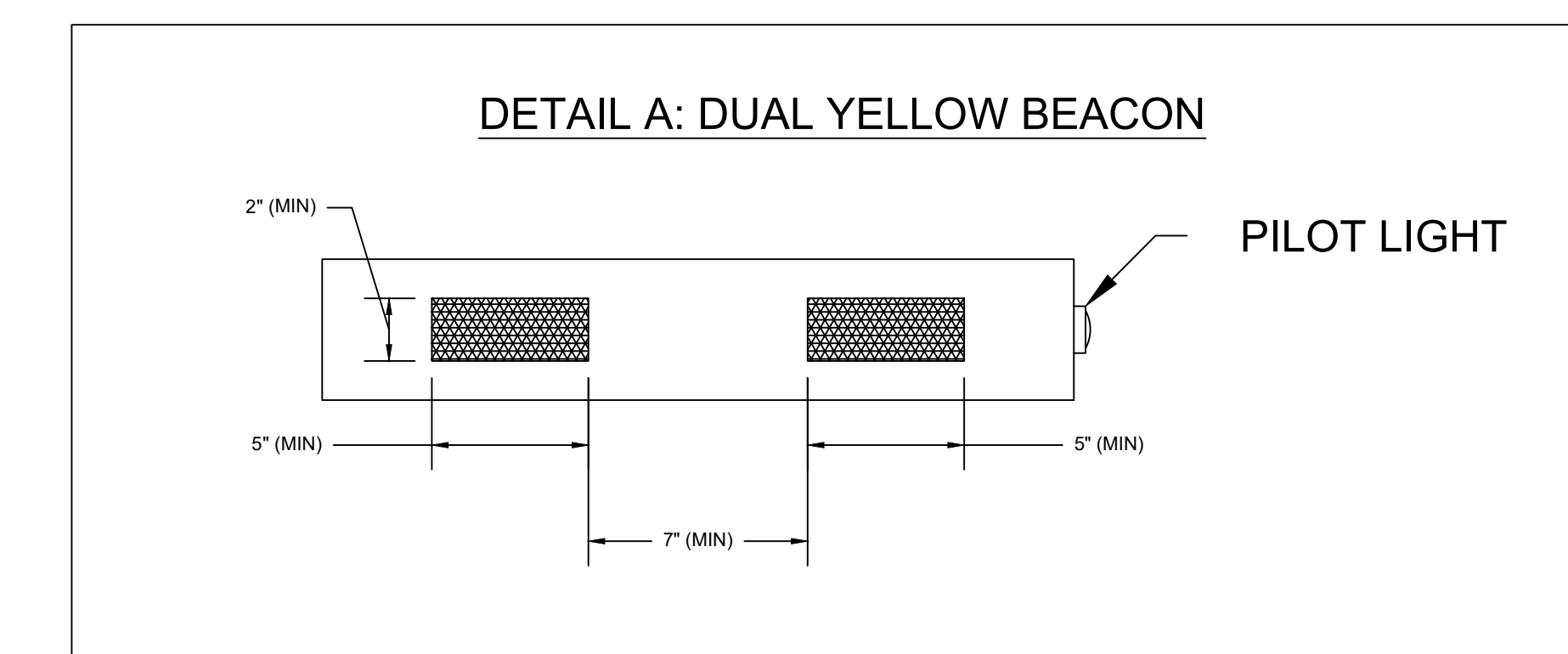
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	39	90
PROJECT FILE NO.		610674	

**TRAFFIC SIGNAL PLANS
LOCATION 3 - ISLINGTON ROAD RRFB**

PAY ITEM	QUANTITY	MAJOR ITEMS REQUIRED
		ITEM
824.213	2	15' TS POST & BASE (PAINTED BLACK)
	2	TS POST FOUNDATION PER 812.30.1
	4	RECTANGULAR RAPID FLASHING YELLOW BEACONS IN NEMA ENCLOSURES
	2	APS PUSHBUTTON, SIGN, & SADDLE
	1	CONTROLLER AND CABINET MOUNTED ON TS POST
	2	NEMA ENCLOSURES FOR ALL COMPONENTS NEEDED TO MEET FUNCTIONAL REQUIREMENTS PER SPECIAL PROVISIONS
	1	WIRELESS (WI-FI, BLUETOOTH, ETC) PROGRAMMING METHOD
	2	SOLAR PANEL SYSTEMS
	2	BATTERY SYSTEMS

NOTES:

- RRFB SHALL FLASH FOR 12 SECONDS UPON EACH ACTIVATION.
- REFER TO THE SIGN SUMMARY SHEET FOR SIGN DIMENSIONS.
- EQUIPMENT GROUNDING SHALL BE PAID FOR SEPARATELY UNDER THE RESPECTIVE PAY ITEM.
- NO-FEE WIRELESS (WI-FI, BLUETOOTH, ETC) PROGRAMMING METHOD SHALL BE INSTALLED TO COMMUNICATE FLASHING ACTUATION AND DURATION BETWEEN RRFB POSTS. ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/AAB COMPLIANT.
- ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/AAB COMPLIANT.
- *0.5% CONSTRUCTION TOLERANCE FOR CROSS-SLOPE.
- "YELLOW LIGHTS FLASHING" SPOKEN TWICE (PER INTERIM APPROVAL).



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(686)X	40	90
PROJECT FILE NO.		610674	

TRAFFIC SIGNAL PLANS
LOCATION 4 - ASH STREET RRFB

PAY ITEM	MAJOR ITEMS REQUIRED	
	QUANTITY	ITEM
824.214	2	15' TS POST & BASE (PAINTED BLACK)
	2	TS POST FOUNDATION PER 812.30.1
	4	RECTANGULAR RAPID FLASHING YELLOW BEACONS IN NEMA ENCLOSURES
	2	APS PUSHBUTTON, SIGN, & SADDLE
	1	CONTROLLER AND CABINET MOUNTED ON TS POST
	2	NEMA ENCLOSURES FOR ALL COMPONENTS NEEDED TO MEET FUNCTIONAL REQUIREMENTS PER SPECIAL PROVISIONS
	1	WIRELESS (WI-FI, BLUETOOTH, ETC) PROGRAMMING METHOD
	2	SOLAR PANEL SYSTEMS
	2	BATTERY SYSTEMS
	5	R&D TRAFFIC SIGNAL POST
816.901	9	R&D TRAFFIC CONTROL SIGNAL
	4	R&D PEDESTRIAN SIGNAL
	3	R&D PUSHBUTTON
	5	R&D FOUNDATION
	1	R&D CONTROLLER, CABINET, & CABINET FOUNDATION
		Plus all necessary duct, cable, labor, miscellaneous material and equipment to complete the installation.

NOTES:

- RRFB SHALL FLASH FOR 12 SECONDS UPON EACH ACTIVATION.
- REFER TO THE SIGN SUMMARY SHEET FOR SIGN DIMENSIONS.
- EQUIPMENT GROUNDING SHALL BE PAID FOR SEPARATELY UNDER THE RESPECTIVE PAY ITEM.
- NO-FEE WIRELESS (WI-FI, BLUETOOTH, ETC) PROGRAMMING METHOD SHALL BE INSTALLED TO COMMUNICATE FLASHING ACTUATION AND DURATION BETWEEN RRFB POSTS. ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/AAB COMPLIANT.
- ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/AAB COMPLIANT.
- *0.5% CONSTRUCTION TOLERANCE FOR CROSS-SLOPE.
- "YELLOW LIGHTS FLASHING" SPOKEN TWICE (PER INTERIM APPROVAL).
- ALL EXISTING CONDUIT AND LOOP DETECTION SHALL BE ABANDONED.

