

TOWN OF MONTAGUE
MONTAGUE CITY ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	12	29
PROJECT FILE NO.		607239	

SIGN SUMMARY SHEET

IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		RADIUS (INCHES)	BORDER SIZE (INCHES)	POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VER. SPAC.	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER					
D3-101	VARIES	12	Montague City Rd	6D/4.5D	3/3	6	2	GREEN H/1	WHITE H/1	1.5	0.5	P5 (2)	-	-
D3-102	VARIES	12	Cabot Rd				1					MOUNT w/D3-101	-	-
D3-103	VARIES	12	Masonic Ave				1					P5 (1)	-	-
D3-104	VARIES	12	Farren Ave				1					P5 (1)	-	-
D3-105	VARIES	12	Depot St				1					MOUNT w/D3-101	-	-
D3-106	VARIES	12	Solar Ave				1					P5 (1)	-	-
				MUTCD STANDARD				MUTCD STANDARD						
R1-1	30	30	STOP				4					P5 (4)	5.20	21.00
R3-17	24	18					4					P5 (4)	5.00	20.00
R3-17aP	24	8	AHEAD				2					MOUNT 2 w/R3-17	2.50	5.00
R3-17bP	24	8	ENDS				2					MOUNT 2 w/R3-17	2.50	5.00
R4-1	24	30	DO NOT PASS				2					P5 (2)	5.00	10.00
R4-7	24	30					2					P5 (2)	5.00	10.00
R4-7c	18	30					1					P5 (2)	5.00	5.00
R7-1D	12	18	NO PARKING ANY TIME				2					P5 (1)	1.50	3.00
R7-1L	12	18	NO PARKING ANY TIME				6					P5 (6)	1.50	9.00
R7-1R	12	18	NO PARKING ANY TIME				7					P5 (7)	1.50	10.50
R7-7L	12	18	NO PARKING BUS STOP				2					P5 (2)	1.50	3.00
R7-7R	12	18	NO PARKING BUS STOP				2					P5 (2)	1.50	3.00

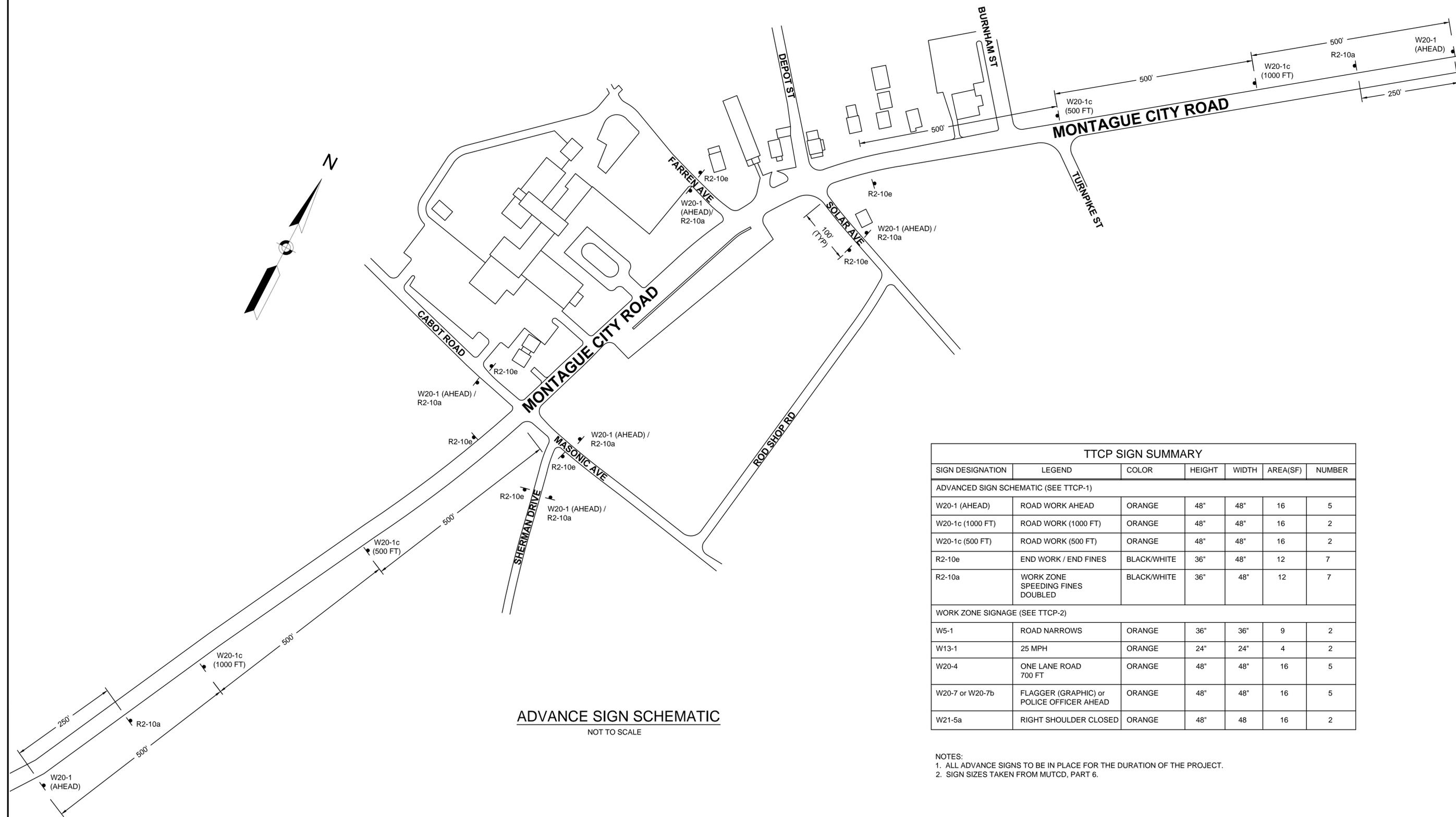
IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		RADIUS (INCHES)	BORDER SIZE (INCHES)	POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VER. SPAC.	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER					
				MUTCD STANDARD				MUTCD STANDARD						
W11-1	30	30					2					P5 (3)	6.25	12.50
W11-2	30	30					3					P5 (3)	6.25	18.75
W11-2* (LIGHTED) (SEE SPECIAL PROV.)	30	30					2					PER MANUF. RECOMMENDATIONS (2)	6.25	12.50
W14-1	30	30	DEAD END				1					P5 (1)	6.25	6.25
W11-15	30	30					2					P5 (2)	6.25	12.50
W11-15* (LIGHTED) (SEE SPECIAL PROV.)	30	30					2					PER MANUF. RECOMMENDATIONS (2)	6.25	12.50
W11-15P	24	18	TRAIL X-ING				4					MOUNT (2) w/W11-15 (2) w/W11-15*	3.00	12.00
W16-1P	18	24	SHARE THE ROAD				2					MOUNT (2) w/W11-1	5.00	10.00
W16-9P	24	12	AHEAD				4					MOUNT (1) w/W11-2 (1) w/W11A-2 (2) w/W11-15	2.50	10.00
W16-7P	24	12					6					MOUNT 2 w/W11-2* MOUNT 2 w/W11-15* MOUNT 2 w/W11-2	2.50	15.00

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MA	-	13	29
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TEMPORARY TRAFFIC CONTROL PLANS - 1

19-NOV-2014
607239_TR (TRAFFIC-PLANS) DWG



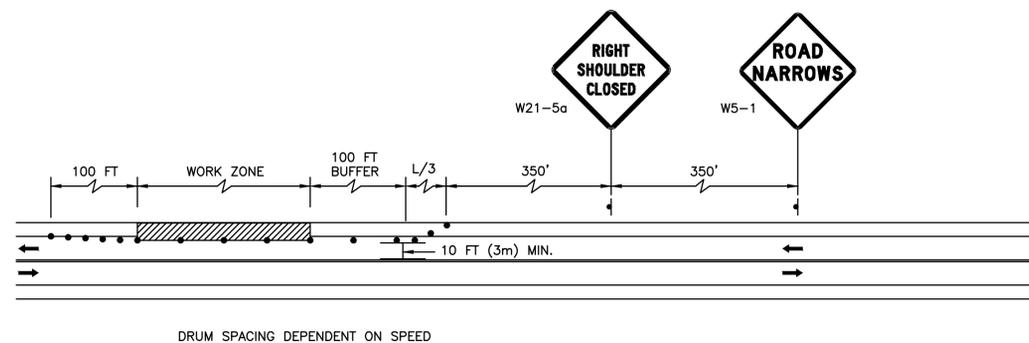
ADVANCE SIGN SCHEMATIC
NOT TO SCALE

TTCP SIGN SUMMARY

SIGN DESIGNATION	LEGEND	COLOR	HEIGHT	WIDTH	AREA(SF)	NUMBER
ADVANCED SIGN SCHEMATIC (SEE TTCP-1)						
W20-1 (AHEAD)	ROAD WORK AHEAD	ORANGE	48"	48"	16	5
W20-1c (1000 FT)	ROAD WORK (1000 FT)	ORANGE	48"	48"	16	2
W20-1c (500 FT)	ROAD WORK (500 FT)	ORANGE	48"	48"	16	2
R2-10e	END WORK / END FINES	BLACK/WHITE	36"	48"	12	7
R2-10a	WORK ZONE SPEEDING FINES DOUBLED	BLACK/WHITE	36"	48"	12	7
WORK ZONE SIGNAGE (SEE TTCP-2)						
W5-1	ROAD NARROWS	ORANGE	36"	36"	9	2
W13-1	25 MPH	ORANGE	24"	24"	4	2
W20-4	ONE LANE ROAD 700 FT	ORANGE	48"	48"	16	5
W20-7 or W20-7b	FLAGGER (GRAPHIC) or POLICE OFFICER AHEAD	ORANGE	48"	48"	16	5
W21-5a	RIGHT SHOULDER CLOSED	ORANGE	48"	48"	16	2

- NOTES:
 1. ALL ADVANCE SIGNS TO BE IN PLACE FOR THE DURATION OF THE PROJECT.
 2. SIGN SIZES TAKEN FROM MUTCD, PART 6.

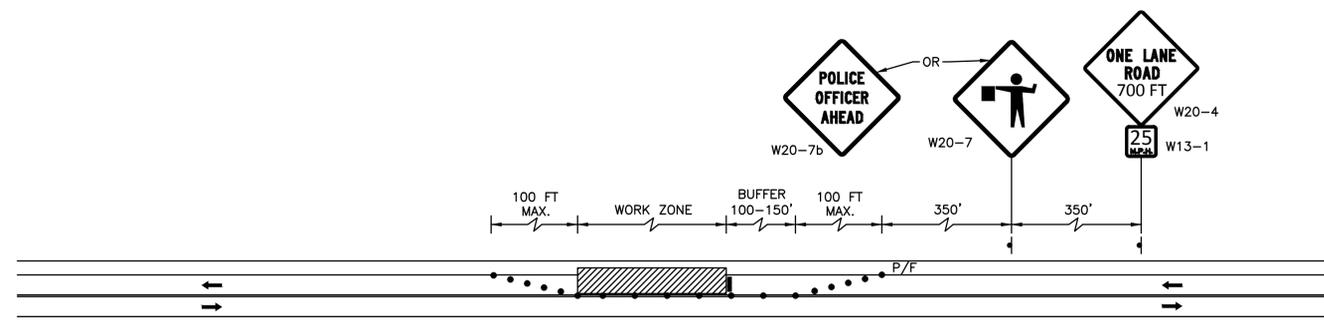
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	14	29
PROJECT FILE NO.		607239	



DRUM SPACING DEPENDENT ON SPEED

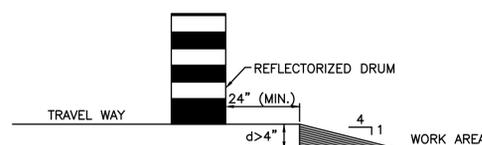
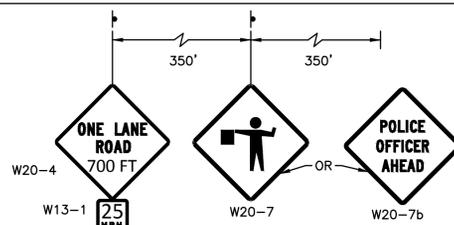
TYPICAL SHOULDER CLOSURE

NOT TO SCALE



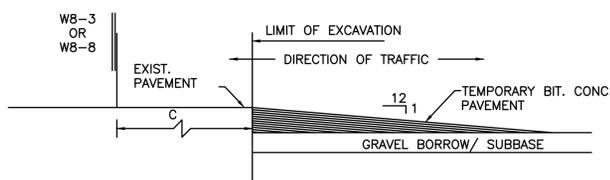
TWO LANE ROAD
ONE LANE ALTERNATING TRAFFIC
WITH POLICE OR FLAGGER DETAIL

NOT TO SCALE



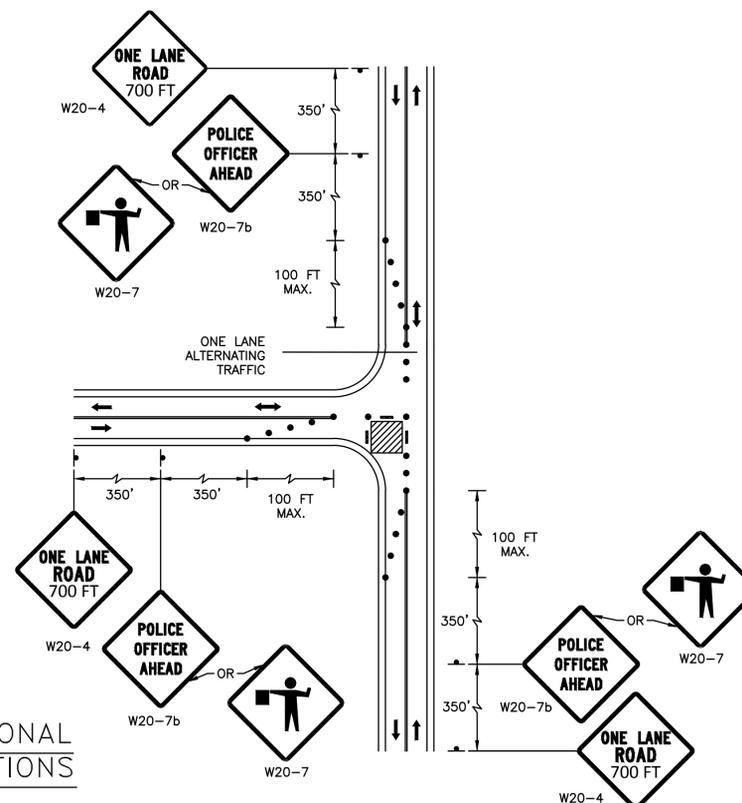
LATERAL DROP-OFF DETAIL

NOT TO SCALE



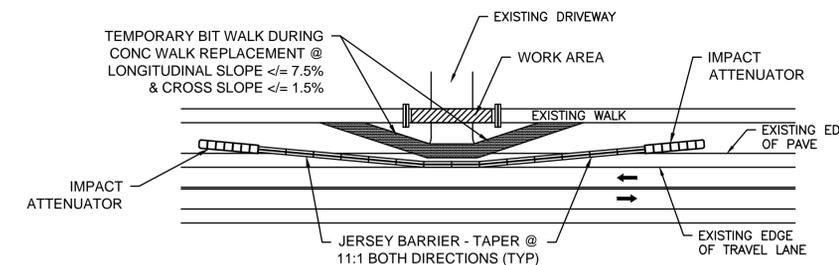
LONGITUDINAL DROP-OFF DETAIL

NOT TO SCALE



ONE LANE BI-DIRECTIONAL
TRAFFIC AT INTERSECTIONS

NOT TO SCALE



NOTES:

1. TEMP SW SHALL BE A MIN. OF 4 FEET WIDE.
2. TEMP SW SHALL HAVE MAX. LONGITUDINAL SLOPE OF 8%.
3. TEMP SW SHALL HAVE MAX. CROSS SLOPE OF 1.5%.
4. GRAN CURBING SHALL BE REMOVED AS NECESSARY TO FACILITATE TEMPORARY CONSTRUCTION.

PEDESTRIAN BYPASS AT SIDEWALK
REPLACEMENT AT DRIVEWAYS

NOT TO SCALE

NOTES:

1. ALL TRAFFIC CONTROL SCENARIOS SHALL CONFORM WITH THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS.
2. ALL CONSTRUCTION SIGNING, DRUMS, BARRICADES AND OTHER DEVICES SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AS AMENDED.
3. ALL DRUMS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
4. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES.
5. CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
6. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON TWO WAY STREETS SHALL BE MAINTAINED AT ALL TIMES, EXCEPT DURING WORKING HOURS, TRAFFIC MAY BE REDUCED TO ONE LANE UNDER POLICE OR FLAGGER CONTROL FOR SHORT TIME PERIODS WHEN REQUIRED FOR THE WORK, AS SHOWN.
7. GRADE SEPARATIONS IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
8. EXCAVATION EDGES IN EXCESS OF 4" DEEP SHALL BE PROTECTED DURING NON-WORKING HOURS BY BACKFILLING WITH A WEDGE OF GRAVEL OR SOIL TO COMPACTED 1:4 SLOPE.
9. 10' MINIMUM LANE WIDTHS SHALL BE MAINTAINED.
10. NON-ESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
11. ADVISORY SPEED PLATES (W13-1) SHALL BE USED IF APPROPRIATE AND AS DIRECTED BY THE ENGINEER.
12. CONSTRUCTION SIGNS ASSOCIATED WITH THE DAILY LANE CLOSURES AND SHOULDER WORK AREAS WILL NOT BE MEASURED FOR PAYMENT MORE THAN ONCE REGARDLESS OF THE NUMBER OF TIMES THE SIGNS ARE REUSED.
13. TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.

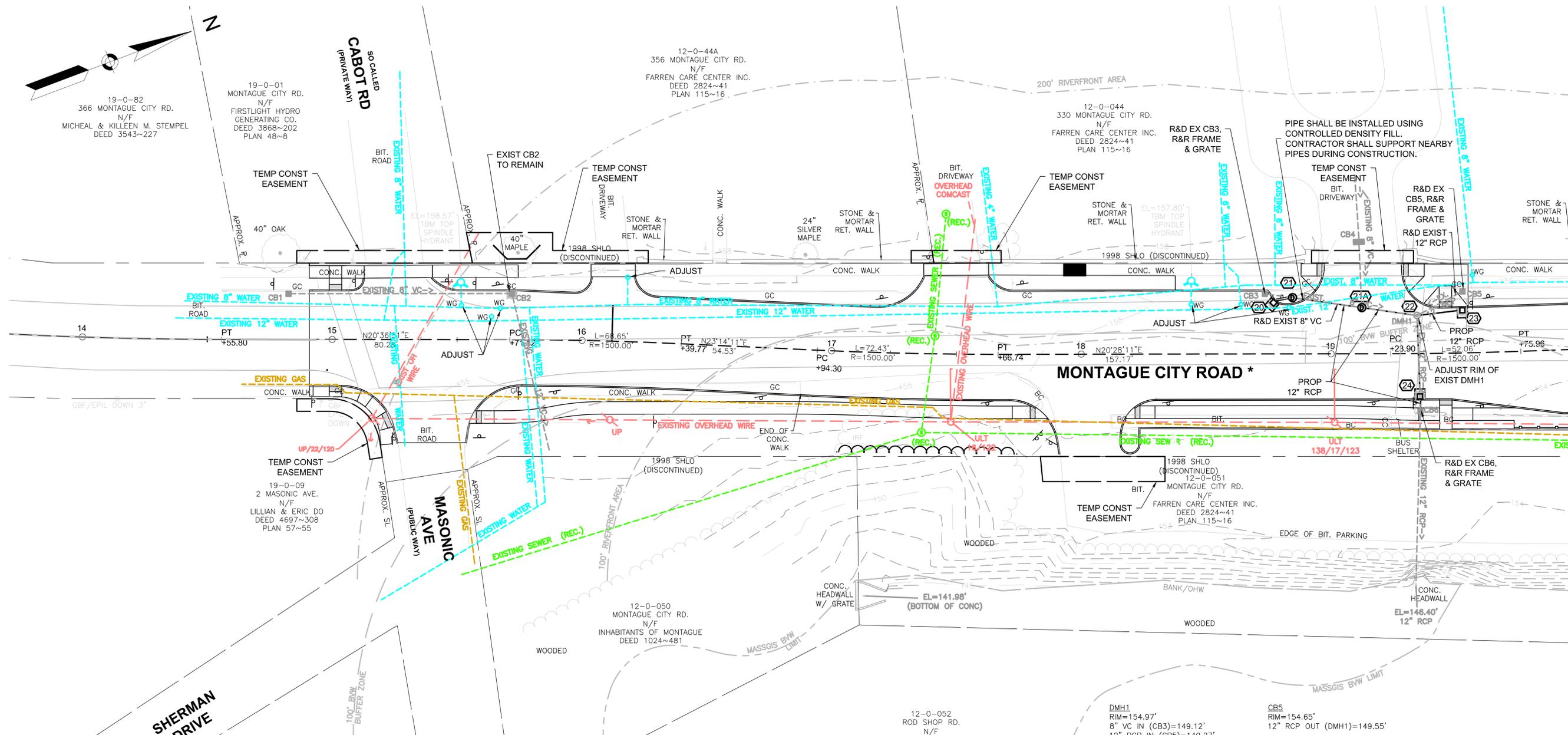
**TOWN OF MONTAGUE
MONTAGUE CITY ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	15	26
PROJECT FILE NO. 607239			

UTILITY PLAN - 1

NOTES:

- SANITARY SEWER INFORMATION SHOWN IS IDENTIFIED AS RECORD INFORMATION BY THE SURVEYOR, NO SURFACE EVIDENCE FOUND.
- STRUCTURES SHOWN AS "ADJUST" MAY NOT BE INDICATIVE OF ALL STRUCTURES TO BE ADJUSTED. CONTRACTOR SHALL ADJUST ANY SURFACE STRUCTURE ENCOUNTERED AFTER CONSULTATION WITH THE ENGINEER.
- SEE SHEET 7 FOR DRAINAGE SYSTEM CONSTRUCTION AND RECONSTRUCTION INFORMATION.
- NO WORK IS PROPOSED FOR THE WATER SYSTEM, SANITARY SEWER SYSTEM, UNDERGROUND GAS OR ELECTRICAL DISTRIBUTION SYSTEM.



DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
20	CB	18+77.34, 21.1' LT	154.54	--	150.26 (21)	REPLACE EX CB3
21	DMH	18+84.63, 22.4' LT	155.40	150.14 (20)	150.04 (21A)	TO AVOID WATER SYSTEM
21A	DMH	19+12.33, 18.4' LT	154.53	EX FROM CB4 149.67 (20)	149.57 (22)	TO CONNECT DRAIN LINE FROM EX CB4
22	EX DMH1	19+34.56, 15.2' LT	154.97 EX	149.30 (21A) 149.30 (23)	149.20 (24)	ADJUST EX RIM
23	CB	19+52.96, 17.0' LT	154.55	--	149.70 (22)	REPLACE EX CB5
24	CB	19+35.48, 17.0' RT	154.13	148.65 (22)	148.55	CONNECT TO EX PIPE, REPLACE EX CB6

PIPE LOCATION	TYPE	LENGTH	SLOPE
CB 20 TO DMH 21	RCP	5'	0.0240
DMH 21 TO DMH 21A	RCP	25'	0.0148
DMH 21A TO EX DMH1	RCP	19'	0.0142
CB 23 TO EX DMH1	RCP	16'	0.0250
EX DMH1 TO CB 24	RCP	30'	0.0183
CB 24 TO EX CB6	RCP	6'	0.0200

NOTE: ALL PROPOSED CATCH BASINS SHALL BE HOODED WITH DEEP SUMPS

DMH1	RIM=154.97'	8" VC IN (CB3)=149.12'	12" RCP IN (CB5)=149.27'	12" RCP OUT (CB6)=148.99'
CB1	RIM=155.01'	8" VC OUT (CB2)=152.01'		
CB2	RIM=155.17'	8" VC IN (CB1)=150.87'	12" VC OUT (E) DEBRIS AT 151.29'	
CB3	RIM=154.71'	8" VC OUT (DMH1)=149.47'		
CB4	RIM=154.84'	8" VC IN (E)=152.21'	8" VC OUT (W)=152.00'	
CB5	RIM=154.65'	12" RCP OUT (DMH1)=149.55'		
CB6	RIM=154.05'	12" RCP IN (DMH1)=148.40'	12" RCP OUT (E)=148.45'	OUT IS HIGHER THAN IN
CB7	RIM=153.05'	12" RCP IN (CB8)=148.21'	12" RCP OUT (E)=148.37'	OUT IS HIGHER THAN IN
CB8	RIM=154.22'	12" RCP OUT (CB7)=149.09'		



CONTINUED ON SHEET NO. 16

607239_UTILITY-PLANS.DWG 19-Nov-2014

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MA	-	16	26
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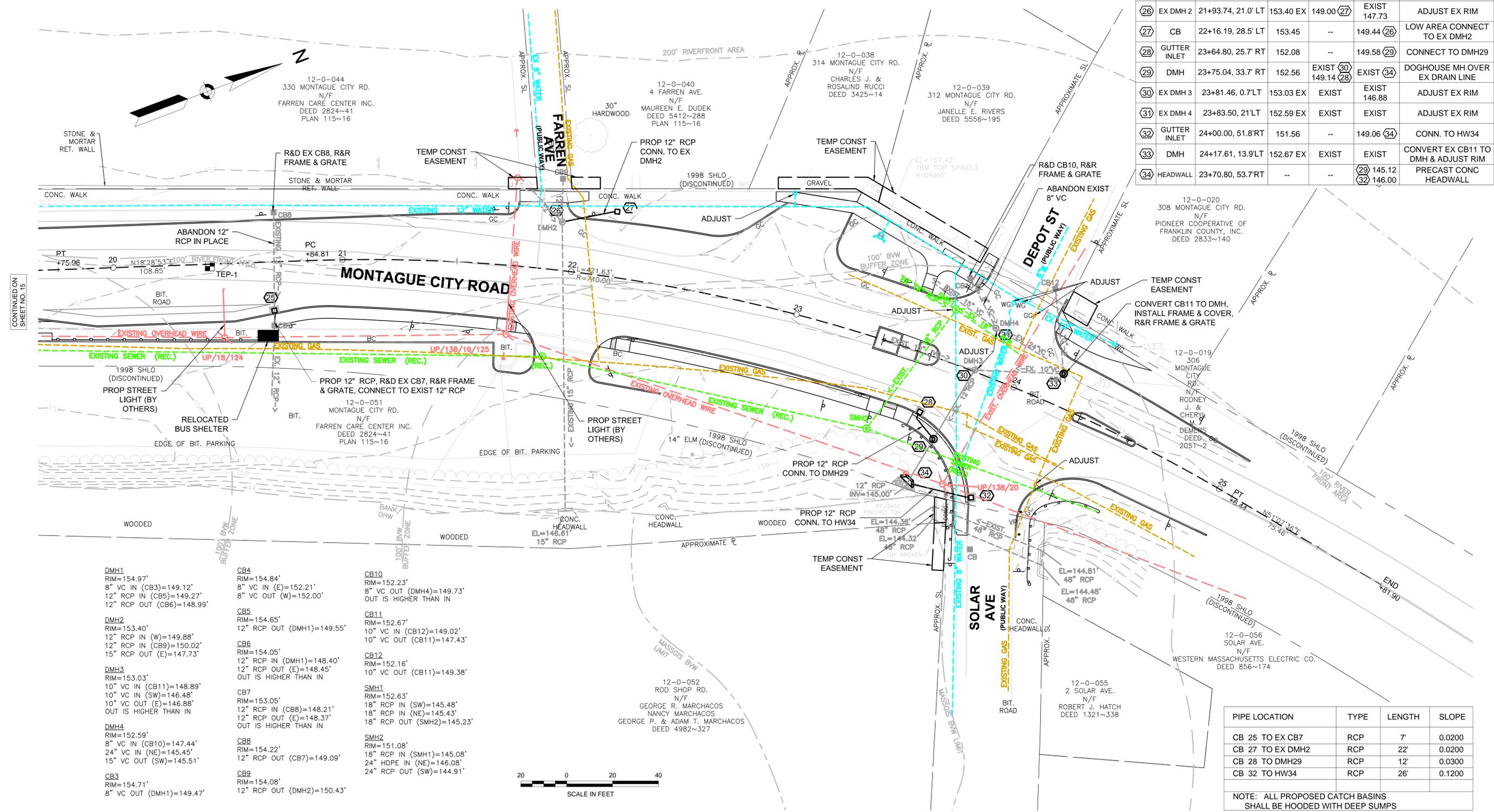
UTILITY SKETCH PLAN - 2

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
25	CB	20+69.64, 21.2' RT	153.38	--	148.50	CONNECT TO EX PIPE, REPLACE EX CB7
26	EX DMH 2	21+93.74, 21.0' LT	153.40 EX	149.00	147.73	ADJUST EX RIM
27	CB	22+16.19, 28.5' LT	153.45	--	149.44	LOW AREA CONNECT TO EX DMH2
28	GUTTER INLET	23+64.80, 25.7' RT	152.08	--	149.58	CONNECT TO DMH29
29	DMH	23+75.04, 33.7' RT	152.56	EXIST	149.14	DOGHOUSE MH OVER EX DRAIN LINE
30	EX DMH 3	23+81.46, 0.7' LT	153.03 EX	EXIST	146.88	ADJUST EX RIM
31	EX DMH 4	23+83.50, 21' LT	152.59 EX	EXIST	EXIST	ADJUST EX RIM
32	GUTTER INLET	24+00.00, 51.8' RT	151.56	--	149.06	CONN. TO HW34
33	DMH	24+17.61, 13.9' LT	152.67 EX	EXIST	EXIST	CONVERT EX CB11 TO DMH & ADJUST RIM
34	HEADWALL	23+70.80, 53.7' RT	--	--	145.12	PRECAST CONC HEADWALL

NOTES:

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- SEE SHEET 7 FOR DRAINAGE SYSTEM CONSTRUCTION AND RECONSTRUCTION INFORMATION.
- NO WORK IS PROPOSED FOR THE WATER SYSTEM, SANITARY SEWER SYSTEM, UNDERGROUND GAS OR ELECTRICAL DISTRIBUTION SYSTEM.



DMH1 RIM=154.97' 8" VC IN (CB3)=149.12' 12" RCP IN (CB5)=149.27' 12" RCP OUT (CB6)=148.99'	CB4 RIM=154.84' 8" VC IN (E)=152.21' 8" VC OUT (W)=152.00'	CB10 RIM=152.23' 8" VC OUT (DMH4)=149.73' OUT IS HIGHER THAN IN
DMH2 RIM=153.40' 12" RCP IN (W)=149.88' 12" RCP IN (CB9)=150.02' 15" RCP OUT (E)=147.73'	CB5 RIM=154.65' 12" RCP OUT (DMH1)=149.55'	CB11 RIM=152.67' 10" VC IN (CB12)=149.02' 10" VC OUT (CB11)=147.43'
DMH3 RIM=153.03' 10" VC IN (CB11)=148.89' 10" VC IN (SW)=146.48' 10" VC OUT (E)=146.88' OUT IS HIGHER THAN IN	CB6 RIM=154.05' 12" RCP IN (DMH1)=148.40' 12" RCP OUT (E)=148.45' OUT IS HIGHER THAN IN	CB12 RIM=152.16' 10" VC OUT (CB11)=149.38'
DMH4 RIM=152.59' 8" VC IN (CB10)=147.44' 24" RCP IN (NE)=145.45' 15" VC OUT (SW)=145.51'	CB7 RIM=153.05' 12" RCP IN (CB8)=148.21' 12" RCP OUT (E)=148.37' OUT IS HIGHER THAN IN	SMH1 RIM=152.63' 18" RCP IN (SW)=145.48' 18" RCP IN (NE)=145.43' 18" RCP OUT (SMH2)=145.23'
CB3 RIM=154.71' 8" VC OUT (DMH1)=149.47'	CB8 RIM=154.22' 12" RCP OUT (CB7)=149.09'	SMH2 RIM=151.08' 18" RCP IN (SMH1)=145.08' 24" HOPE IN (NE)=146.08' 24" RCP OUT (SW)=144.91'
	CB9 RIM=154.08' 12" RCP OUT (DMH2)=150.43'	



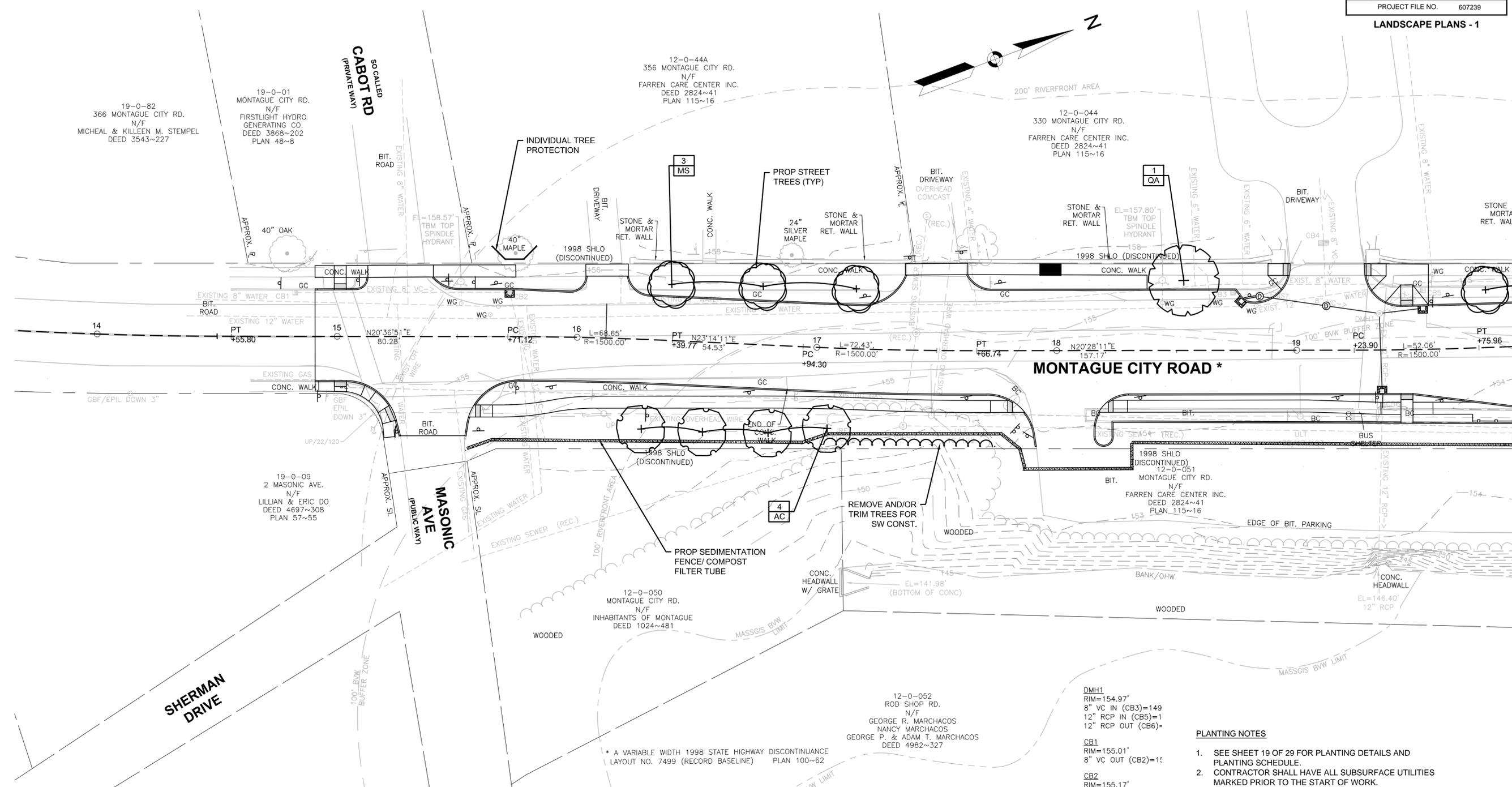
PIPE LOCATION	TYPE	LENGTH	SLOPE
CB 25 TO EX CB7	RCP	7'	0.0200
CB 27 TO EX DMH2	RCP	22'	0.0200
CB 28 TO DMH29	RCP	12'	0.0300
CB 32 TO HW34	RCP	26'	0.1200

NOTE: ALL PROPOSED CATCH BASINS SHALL BE HOODED WITH DEEP SUMPS

TOWN OF MONTAGUE
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MA	-	17	29
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LANDSCAPE PLANS - 1



SYMBOL	QTY	LATIN NAME	COMMON NAME	SIZE	NOTE
DECIDUOUS TREES					
AC	4	AMELANCHIER x GRANDIFLORA "AUTUMN BRILLIANCE"	APPLE SERVICEBERRY	2'-2½" CAL	B&B
QA	1	QUERCUS ALBA	WHITE OAK	3'-3½" CAL	B&B
FLOWERING TREES					
MS	3	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	2'-2½" CAL	B&B

DMH1
RIM=154.97'
8" VC IN (CB3)=149
12" RCP IN (CB5)=1
12" RCP OUT (CB6)=

CB1
RIM=155.01'
8" VC OUT (CB2)=1'

CB2
RIM=155.17'
8" VC IN (CB1)=150
12" VC OUT (E) DEB

CB3
RIM=154.71'
8" VC OUT (DMH1)=

CB4
RIM=154.84'
8" VC IN (E)=152.21
8" VC OUT (W)=152.

- PLANTING NOTES**
- SEE SHEET 19 OF 29 FOR PLANTING DETAILS AND PLANTING SCHEDULE.
 - CONTRACTOR SHALL HAVE ALL SUBSURFACE UTILITIES MARKED PRIOR TO THE START OF WORK.
 - FINAL LOCATION OF ALL PLANT MATERIAL WILL BE APPROVED BY THE RESIDENT ENGINEER PRIOR TO PLANTING.
 - ALL PLANT MATERIAL WILL HAVE TAGS INDICATING COMMON NAME, BOTANICAL NAME & SIZE.
 - ALL PLANTS WILL BE MULCHED PER THE PLANTING SPECIFICATIONS AND DETAILS. PLANTING DETAILS AND SPECIAL PROVISIONS.
 - ALL DISTURBED AREAS WILL BE LOAMED AND SEEDED UNLESS NOTED OTHERWISE.



CONTINUED ON
SHEET NO. 18

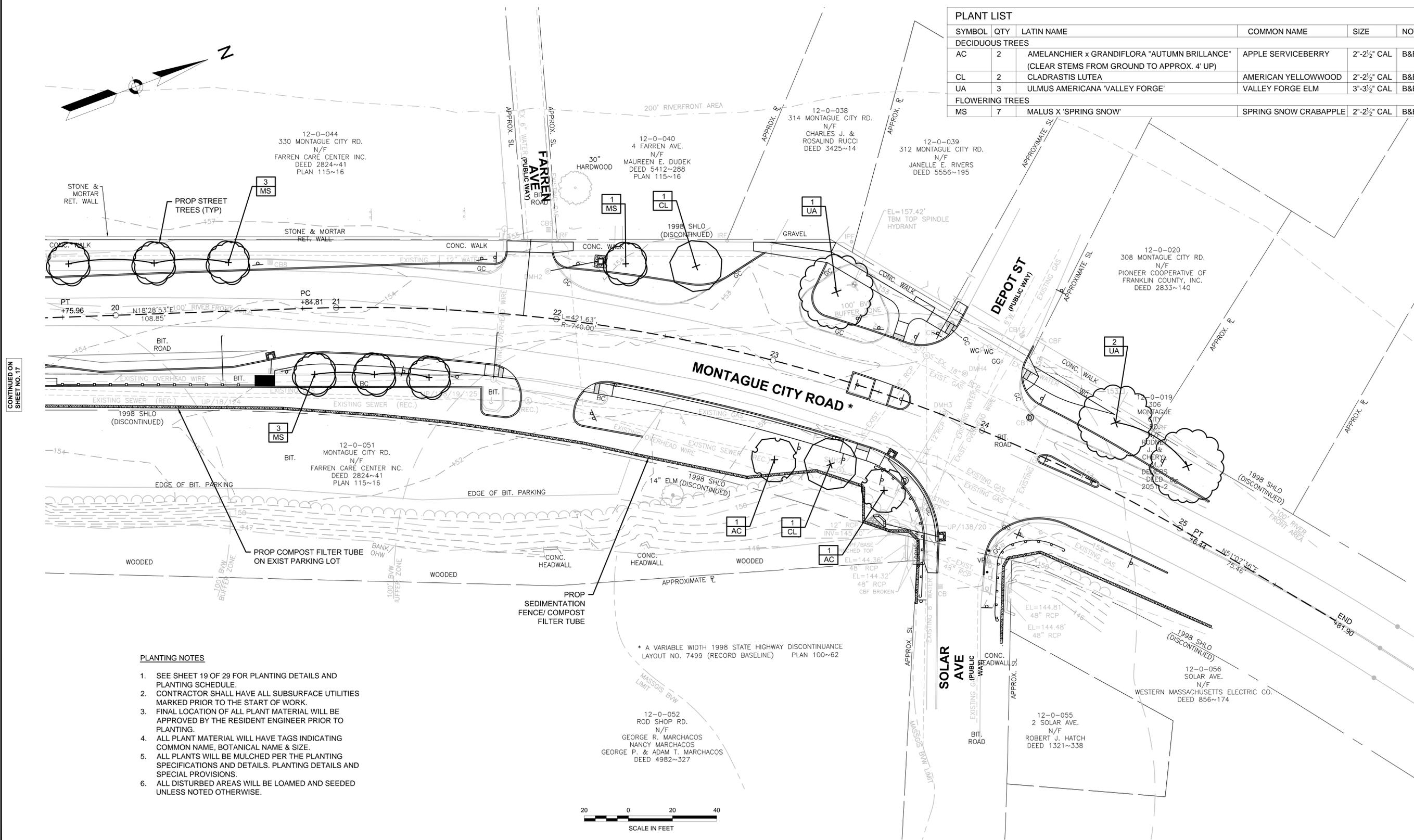
607239_HD(DSIGN-PLANS).DWG 19-Nov-2014

TOWN OF MONTAGUE
MONTAGUE CITY ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	18	29
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LANDSCAPE PLANS - 2

SYMBOL	QTY	LATIN NAME	COMMON NAME	SIZE	NOTE
DECIDUOUS TREES					
AC	2	AMELANCHIER x GRANDIFLORA 'AUTUMN BRILLANCE'	APPLE SERVICEBERRY	2'-2½" CAL	B&B
CL	2	CLADRASTIS LUTEA	AMERICAN YELLOWWOOD	2'-2½" CAL	B&B
UA	3	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE ELM	3'-3½" CAL	B&B
FLOWERING TREES					
MS	7	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	2'-2½" CAL	B&B

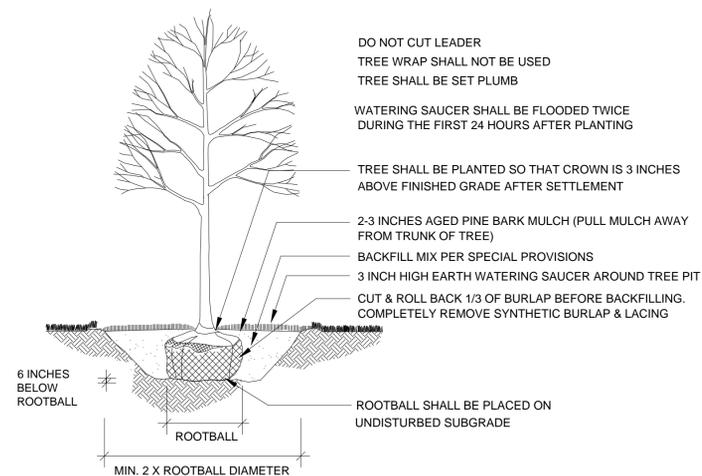


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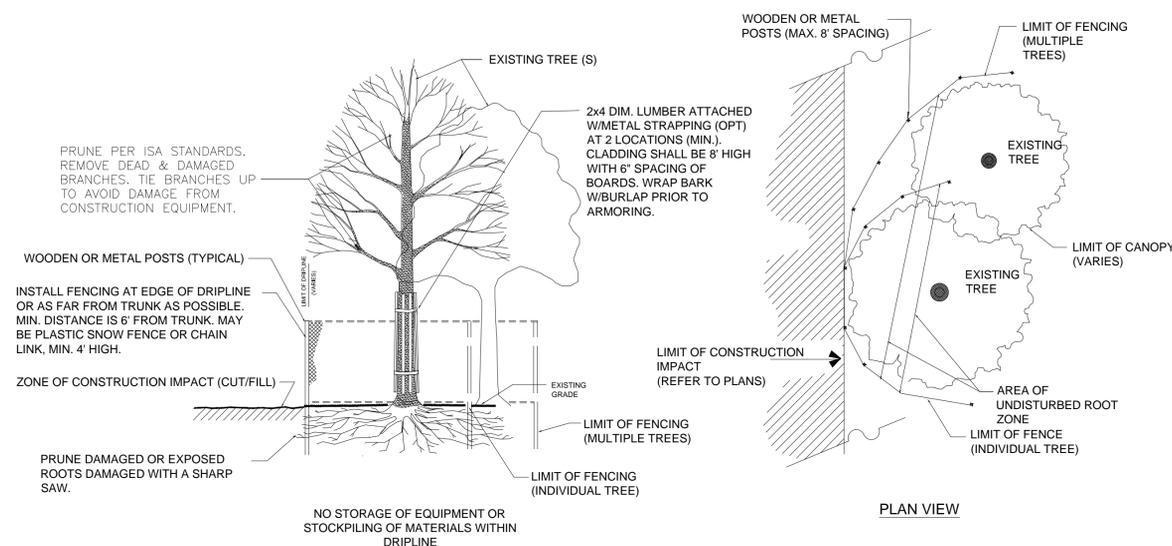
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LANDSCAPE DETAILS AND
PLANT SCHEDULE



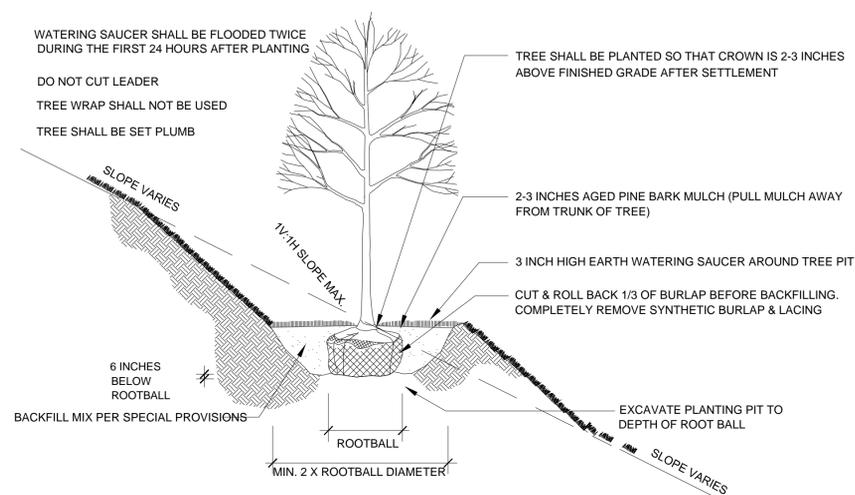
DECIDUOUS TREE PLANTING

NOT TO SCALE



TREE PROTECTION-EXISTING TREE(S)

NOT TO SCALE



DECIDUOUS TREE PLANTING (SLOPE)

NOT TO SCALE