STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

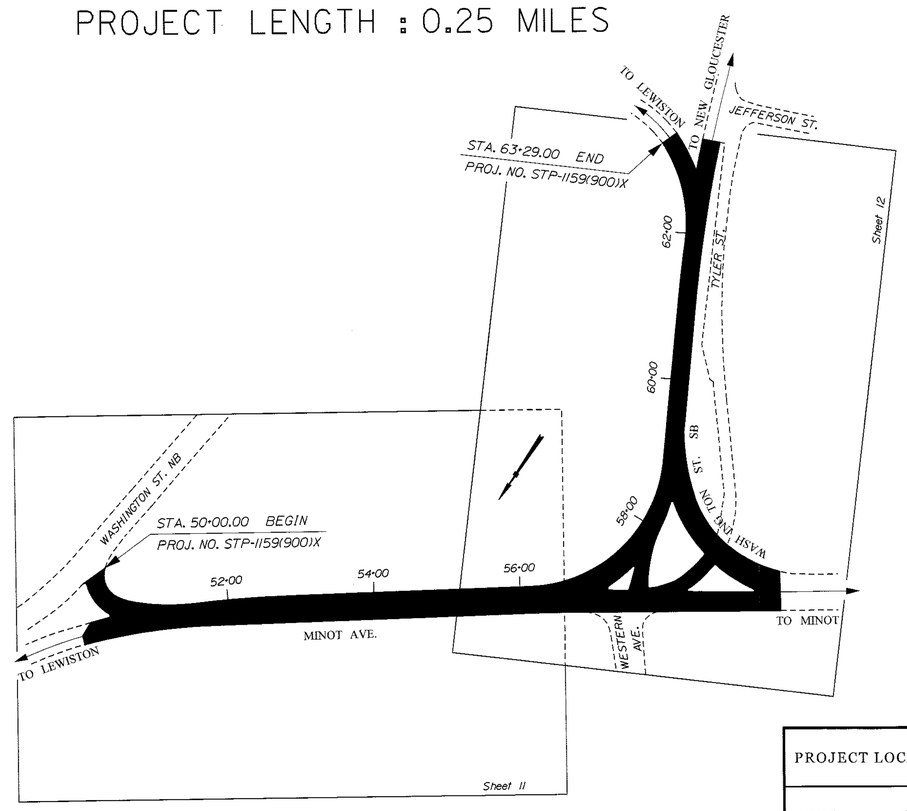
PLAN LEGEND

Town, County, State
Property Lines
R/W Lines-Existing
R/W Lines-Proposed
Culvert-Existing
Culvert Proposed
Curbing — Existing — Proposed
Type 1
Type 3
Type 5
Outline of Bodies of Water
Ledge
Buildings
Trees — Conifer — Deciduous
Tree Line
Clearing Limit Line — CLL
Centerline-Existing
Centerline-Proposed — 10+00
Travelway-Existing
Travelway-Proposed
Railroad
Catch Basins — Existing — Proposed
Manholes — Existing — Proposed
Proposed Underdrain
Proposed Ditch
Existing Ditch
Utlity Poles — Existing — Proposed
Fire Hydrants — Existing — Proposed
Existing Water Line — W
Existing San. Sewer
Existing San. Sewer Manhole
Guardrail-Existing
Guardrail-Proposed
Guardrail-Cable, Other

AUBURN
ANDROSCOGGIN COUNTY
MINOT AVENUE ROTARY
STP-1159(900)X
PROJECT LENGTH : 0.25 MILES

INDEX OF SHEETS

Description	Sheet No.
Title Sheet	1
Typical Sections, General Notes & Estimated Quantities	2
Plans	3-4
Geometric Layout	5-6



LAYOUT SCALE

100 0 100 200
Scale in Feet

TRAFFIC DATA

	MINOT AVE. (E/O WESTERN AVE.)	MINOT AVE. (SW/O TYLER ST.)	WASHINGTON ST. (SOUTHBOUND)
Current (2012) AADT	16570	15160	13070
Future (2032) AADT	19880	18190	15680
DHV - % of AADT	10%	10%	10%
Design Hour Volume	1988	1819	1568
% Heavy Trucks (AADT)	11%	7%	12%
% Heavy Trucks (DHV)	11%	7%	12%
Directional Distribution (DHV)	100%	60%	100%
18 kip Equivalent P 2.0	2577	497	2344
18 kip Equivalent P 2.5	2455	474	2233
Design Speed (mph)	25	25	25
Functional Class:	Major Arterial	Minor Arterial	Major Arterial

PROJECT LOCATION:	INTERSECTION OF MINOT AVENUE, WASHINGTON STREET, AND WESTERN AVENUE
PROGRAM AREA:	HIGHWAY PROGRAM
SCOPE OF WORK:	STRIPING AND CURB RECONFIGURATION

WIN 11599.00 STP-1159(900)X

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED — DATE
COMMISSIONER: 3/19/12
CHIEF ENGINEER: 3/15/12

STATE OF MAINE — ATLEE MOUSSEAU — No. 10415 — LICENSED PROFESSIONAL ENGINEER

PROJECT INFORMATION

PROGRAM	HIGHWAY
PROJECT MANAGER	P. MACDONALD
DESIGNER	A. MOUSSEAU
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

SIGNATURE
10415
P.E. NUMBER
3-15-12
DATE

AUBURN
MINOT AVENUE ROTARY
TITLE SHEET

SHEET NUMBER
1
OF 6

Filename: ...\00\HIGHWAY\MSTA\001_Title.dgn Division: HIGHWAY Username: atlee.mousseau Date:3/15/2012

ESTIMATED QUANTITIES

FOR ESTIMATED QUANTITIES, REFER TO
THE MOST CURRENT SCHEDULE OF ITEMS IN THE CONTRACT BOOK.

GENERAL NOTES

1. NO UTILITY INVOLVEMENT IS ANTICIPATED.

2. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN WASTE AREAS APPROVED BY THE RESIDENT.

3. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 4 INCHES.

4. SEEDING METHOD NO. 2 SHALL BE UTILIZED ON ALL DISTURBED AREAS.

5. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.

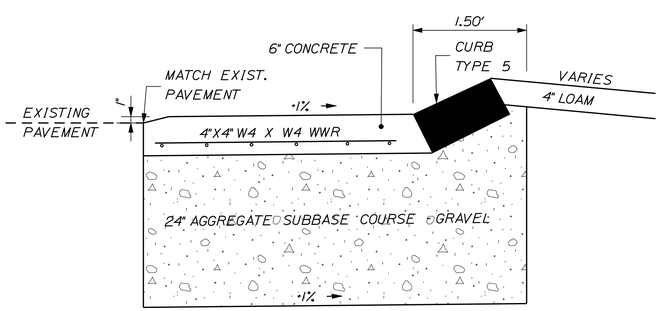
6. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.

7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION'S BEST MANAGEMENT PRACTICES FOR EROSION CONTROL & SEDIMENT CONTROL, FEBRUARY, 2008.

8. ALL STRIPING THAT WILL NOT BE RE-STRIPED ACCORDING TO THE STRIPING PLAN SHALL BE REMOVED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER ITEM 627.77 REMOVE PAVEMENT MARKINGS.

9. ALL STRIPING SHALL BE LAID OUT ACCORDING TO THE CURVE DATA AND OTHER INFORMATION PROVIDED. WHERE NO INFORMATION HAS BEEN PROVIDED, STRIPING SHALL BE LAID OUT AS DIRECTED BY THE RESIDENT. MINOR FIELD ADJUSTMENTS MAY NEED TO BE MADE TO BETTER MATCH EXISTING STRIPING AT LIMITS OF WORK.

CONCRETE ISLAND DETAIL



1. SAWCUT PAVEMENT VERTICALLY AND REMOVE THE EXISTING MATERIAL TO SPECIFIED SUBGRADE AS DIRECTED BY THE RESIDENT.

2. APPLY A LIGHT COAT OF ASPHALT TO ACT AS A BOND BREAKER BETWEEN THE CONCRETE AND ADJACENT PAVEMENT.

3. CONSTRUCT CONCRETE ISLAND WITH CLASS A CONCRETE.

4. ISLAND EDGES SHALL BE BEVELED AT A 4:1 SLOPE.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1159(900)X

WIN
11599.00

HIGHWAY PLANS

PROJ. MANAGER	P. MACDONALD	BY	DATE
DESIGN-DETAILED	A. MOUSSEAU	BT TRAN	03/2012
CHECKED-REVIEWED	------	------	------
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

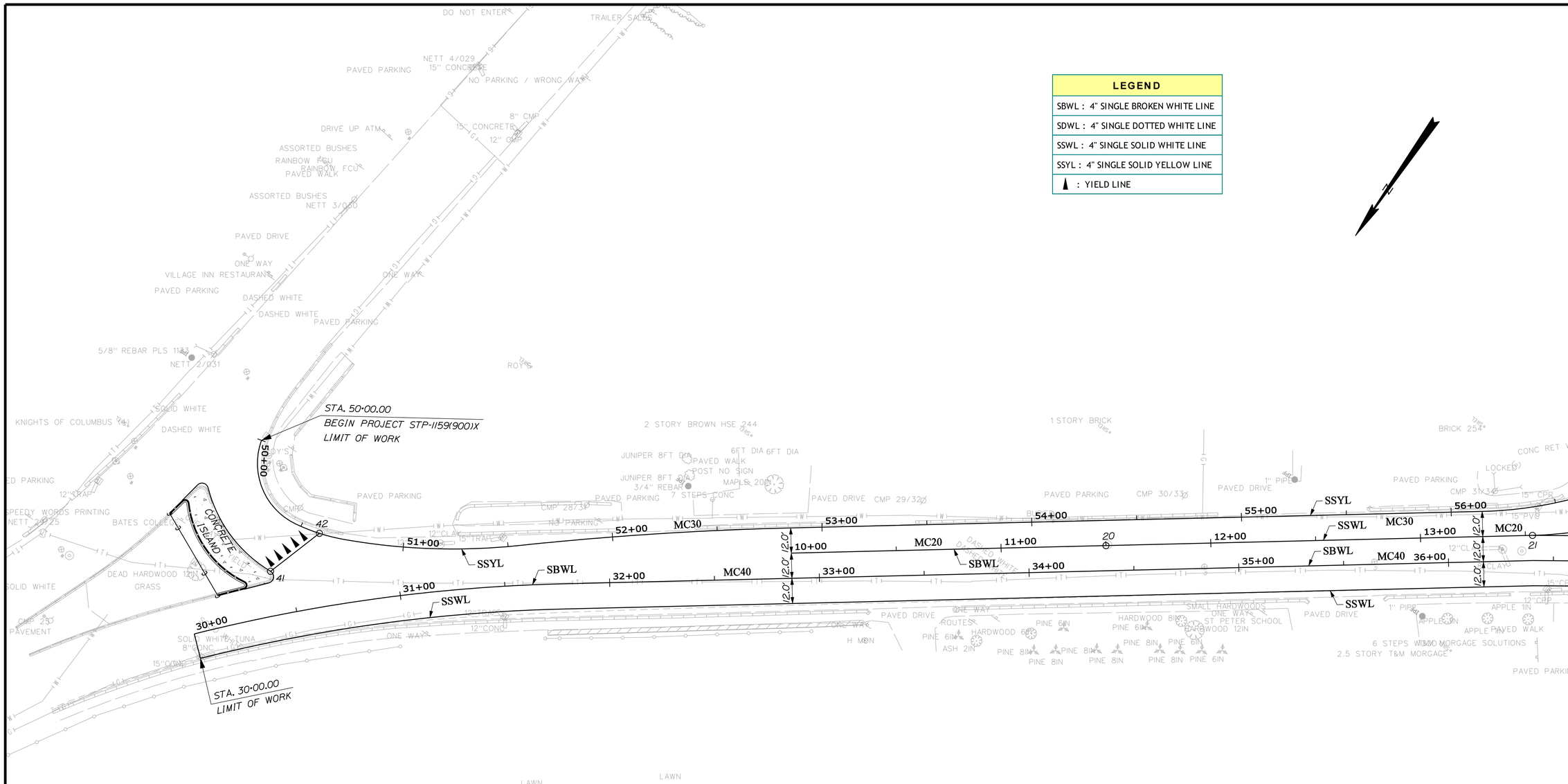
DATE

AUBURN
MINOT AVENUE ROTARY

TYPICAL SECTIONS, GENERAL NOTES
& ESTIMATED QUANTITIES

SHEET NUMBER
2
OF 6

Filename: ...\002_Typical_General Notes_Estimate.dgn Division: HIGHWAY Username: atlee.mousseau Date:3/21/2012



LEGEND
SBWL : 4" SINGLE BROKEN WHITE LINE
SDWL : 4" SINGLE DOTTED WHITE LINE
SSWL : 4" SINGLE SOLID WHITE LINE
SSYL : 4" SINGLE SOLID YELLOW LINE
: YIELD LINE

PAVEMENT MARKING NOTES:

1. THE FIRST SET OF PAVEMENT MARKINGS IN THE TWO LEFT-MOST LANES SHALL BE REMOVED

2. MIDDLE LANE LEFT/THROUGH COMBINATION ARROW SHALL BE REPLACED WITH THROUGH ONLY ARROW TO REFLECT THE DETAIL SHOWN HERE.

3. ALL ADJUSTMENTS TO PAVEMENT MARKING ARROWS SHALL BE AS DIRECTED BY THE RESIDENT.

4. PAYMENT WILL BE MADE UNDER THE APPROPRIATE STRIPING ITEMS.

LEFT LANE

MIDDLE LANE

RIGHT LANE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1159(900)X

WIN 11599.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	P. MACDONALD	03/2012
DESIGN-DETAILED	A. MOUSSEAU	BT TRAN
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REVISIONS 3	------	------
REVISIONS 4	------	------
FIELD CHANGES	------	------

SIGNATURE

P.E. NUMBER

DATE

AUBURN
MINOT AVENUE ROTARY

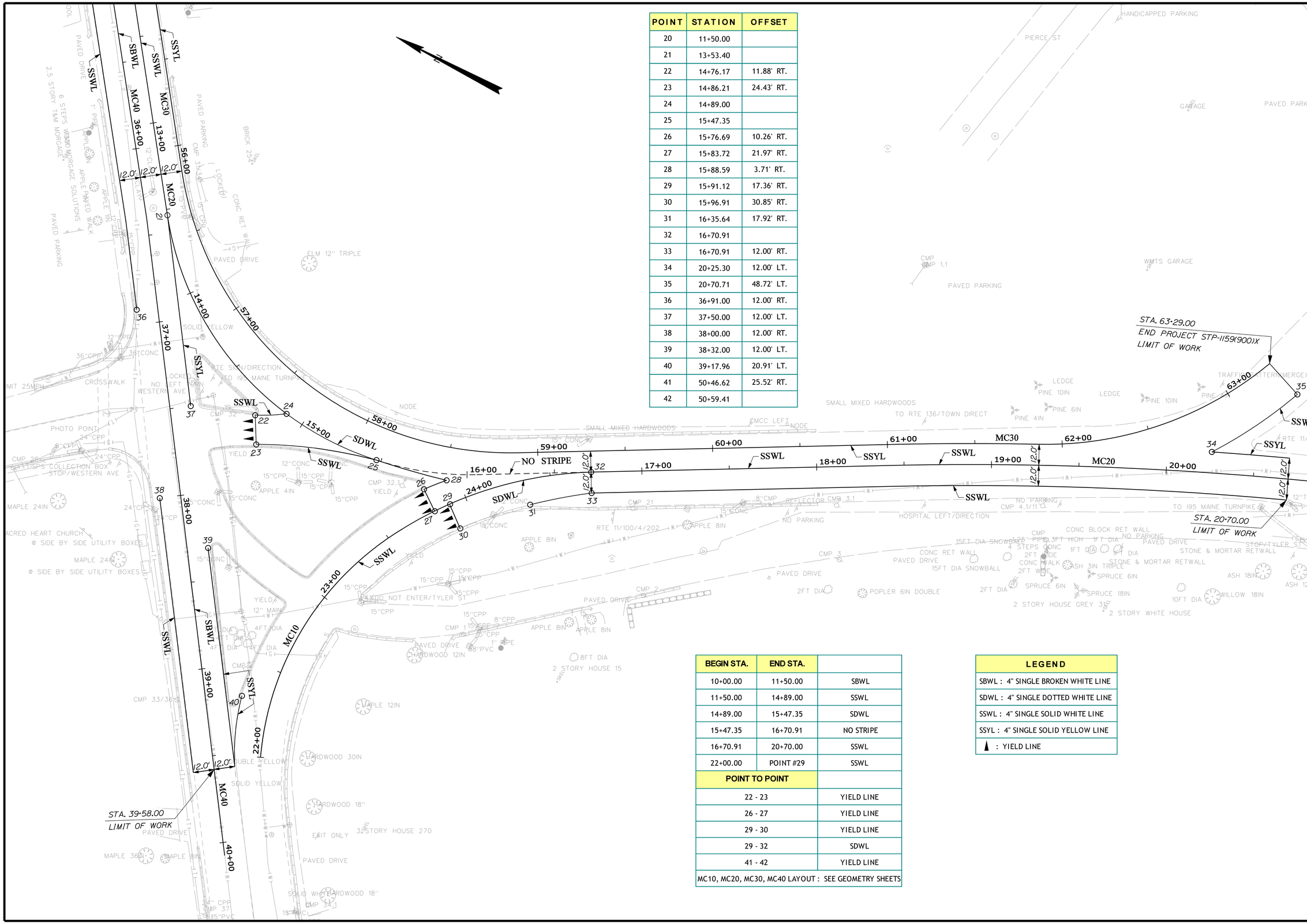
PLANS

SHEET NUMBER

3

OF 6

Filename: ...\highway\msta\003_HDPlan1.dgn Division: HIGHWAY Username: atlee.mousseau Date:3/21/2012



POINT	STATION	OFFSET
20	11+50.00	
21	13+53.40	
22	14+76.17	11.88' RT.
23	14+86.21	24.43' RT.
24	14+89.00	
25	15+47.35	
26	15+76.69	10.26' RT.
27	15+83.72	21.97' RT.
28	15+88.59	3.71' RT.
29	15+91.12	17.36' RT.
30	15+96.91	30.85' RT.
31	16+35.64	17.92' RT.
32	16+70.91	
33	16+70.91	12.00' RT.
34	20+25.30	12.00' LT.
35	20+70.71	48.72' LT.
36	36+91.00	12.00' RT.
37	37+50.00	12.00' LT.
38	38+00.00	12.00' RT.
39	38+32.00	12.00' LT.
40	39+17.96	20.91' LT.
41	50+46.62	25.52' RT.
42	50+59.41	

BEGIN STA.	END STA.	
10+00.00	11+50.00	SBWL
11+50.00	14+89.00	SSWL
14+89.00	15+47.35	SDWL
15+47.35	16+70.91	NO STRIPE
16+70.91	20+70.00	SSWL
22+00.00	POINT #29	SSWL
POINT TO POINT		
22 - 23		YIELD LINE
26 - 27		YIELD LINE
29 - 30		YIELD LINE
29 - 32		SDWL
41 - 42		YIELD LINE
MC10, MC20, MC30, MC40 LAYOUT : SEE GEOMETRY SHEETS		

LEGEND
SBWL : 4" SINGLE BROKEN WHITE LINE
SDWL : 4" SINGLE DOTTED WHITE LINE
SSWL : 4" SINGLE SOLID WHITE LINE
SSYL : 4" SINGLE SOLID YELLOW LINE
▲ : YIELD LINE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1159(900)X

WIN 11599.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	P. MACDONALD		
DESIGN-DETAILED	A. MOUSSEAU	BT TRAN	03/2012
CHECKED-REVIEWED	------	------	------
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

AUBURN
MINOT AVENUE ROTARY

PLANS

SHEET NUMBER

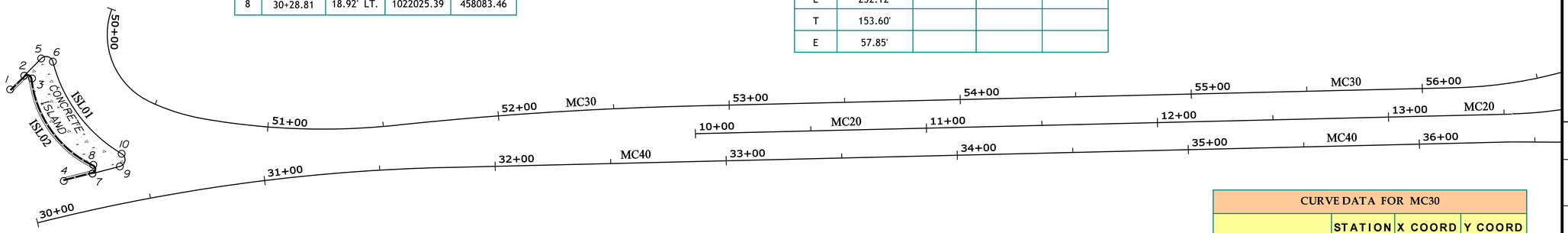
4

OF 6

Filename: ...\highway\msta\004_HDPlan2.dgn Division: HIGHWAY Username: allee.mousseau Date:3/21/2012

PT.	STATION	OFFSET	X COORD	Y COORD
CONTROL POINTS FOR ISL01				
2	30+09.16	63.10' LT.	1022071.92	458068.87
5	30+17.32	68.66' LT.	1022070.14	458058.59
6	30+21.58	66.22' LT.	1022065.22	458056.83
7	30+27.69	15.34' LT.	1022023.56	458086.75
9	30+39.69	15.95' LT.	1022015.58	458077.46
10	30+41.47	21.18' LT.	1022018.07	458072.51
CONTROL POINTS FOR ISL02				
1	30+02.35	58.74' LT.	1022073.52	458077.25
2	30+09.16	63.10' LT.	1022071.92	458068.87
3	30+11.96	61.14' LT.	1022068.44	458067.93
4	30+15.11	14.94' LT.	1022031.94	458096.45
7	30+27.69	15.34' LT.	1022023.56	458086.75
8	30+28.81	18.92' LT.	1022025.39	458083.46

CURVE DATA FOR MC20				
		STATION	X COORD	Y COORD
TANGENT				
POB		10+00.00	1021819.09	457923.80
PC		13+53.40	1021533.73	457715.33
BEARING	S 53°-51'-00" W			
L	353.40'			
CURVE				
PC		13+53.40	1021533.73	457715.33
PI		15+07.00	1021409.71	457624.72
CC			1021636.96	457574.02
PT		16+05.52	1021483.46	457489.99
R	175.00'			
Δ	82°-32'-48" LT.			
D	32°-44'-26"			
L	252.12'			
T	153.60'			
E	57.85'			



PT. to PT.	RADIUS	LENGTH	STATION	OFFSET	X COORD	Y COORD
TANGENT , CURVE & CENTER POINT DATA FOR ISL01						
2 - 5		10.43'				
5 - 6	3.00'	6.34'	30+18.81	66.14' LT.	1022067.18	458059.10
6 - 10	65.00'	50.99'	30+81.32	70.69' LT.	1022022.69	458007.67
10 - 9	3.00'	7.06'	30+39.52	18.95' LT.	1022017.85	458075.50
9 - 7		12.25'				

PT. to PT.	RADIUS	LENGTH	STATION	OFFSET	X COORD	Y COORD
TANGENT , CURVE & CENTER POINT DATA FOR ISL02						
ITEM 609.34 CURB TYPE 5 - ISLAND						
1 - 2		8.53'				
7 - 4		12.82'				
ITEM 609.35 CURB TYPE 5 - CIRCULAR						
2 - 3	2.00'	4.47'	30+10.12	61.38' LT.	1022069.95	458069.24
3 - 8	47.00'	47.80'	30+55.55	56.68' LT.	1022032.98	458037.08
8 - 7	2.00'	4.89'	30+27.61	17.34' LT.	1022025.07	458085.44

CURVE DATA FOR MC40				
		STATION	X COORD	Y COORD
CURVE				
PC		30+00.00	1022030.92	458117.77
PI		30+89.25	1021972.23	458050.53
CC			1021428.24	458643.86
PT		31+77.77	1021900.16	457997.88
R	800.00'			
Δ	12°-43'-55" RT.			
D	07°-09'-43"			
L	177.77'			
T	89.25'			
E	4.96'			
TANGENT				
PT		31+77.77	1021900.16	457997.88
AP		36+40.33	1021526.65	457725.02
BEARING	S 53°-51'-00" W			
L	462.56'			
TANGENT				
AP		36+40.33	1021526.65	457725.02
POE		40+07.53	1021223.66	457517.59
BEARING	S 55°-36'-18" W			
L	367.19'			

CURVE DATA FOR MC30				
		STATION	X COORD	Y COORD
CURVE				
PC		50+00.00	1022057.22	458023.71
PI		50+29.12	1022049.82	458051.88
CC			1022026.27	458015.58
PCC		50+47.25	1022021.09	458047.16
R	32.00'			
Δ	84°-35'-56" LT.			
D	179°-02'-58"			
L	47.25'			
T	29.12'			
E	11.26'			
CURVE				
PCC		50+47.25	1022021.09	458047.16
PI		50+59.48	1022009.02	458045.18
CC			1022035.67	457958.35
PCC		50+71.56	1021997.91	458040.05
R	90.00'			
Δ	15°-28'-40" LT.			
D	63°-39'-43"			
L	24.31'			
T	12.23'			
E	0.83'			

CURVE DATA FOR MC30				
		STATION	X COORD	Y COORD
CURVE				
PCC		50+71.56	1021997.91	458040.05
PI		51+13.71	1021959.65	458022.36
CC			1022123.76	457767.72
PRC		51+55.31	1021927.74	457994.82
R	300.00'			
Δ	15°-59'-42" LT.			
D	19°-05'-55"			
L	83.75'			
T	42.15'			
E	2.95'			
CURVE				
PRC		51+55.31	1021927.74	457994.82
PI		52+20.23	1021878.60	457952.41
CC			1020882.33	459206.07
PT		52+85.09	1021826.17	457914.11
R	1600.00'			
Δ	04°-38'-50" RT.			
D	03°-34'-52"			
L	129.77'			
T	64.92'			
E	1.32'			
TANGENT				
PT		52+85.09	1021826.17	457914.11
PC		56+14.79	1021559.95	457719.62
BEARING	S 53°-51'-00" W			
L	329.70'			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1159(900)X

WIN 11599.00

HIGHWAY PLANS

PROJ. MANAGER	P. MACDONALD	BY	DATE
DESIGN-DETAILED	A. MOUSSEAU	BT TRAN	03/2012
CHECKED-REVIEWED	------	------	------
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

AUBURN
MINOT AVENUE ROTARY

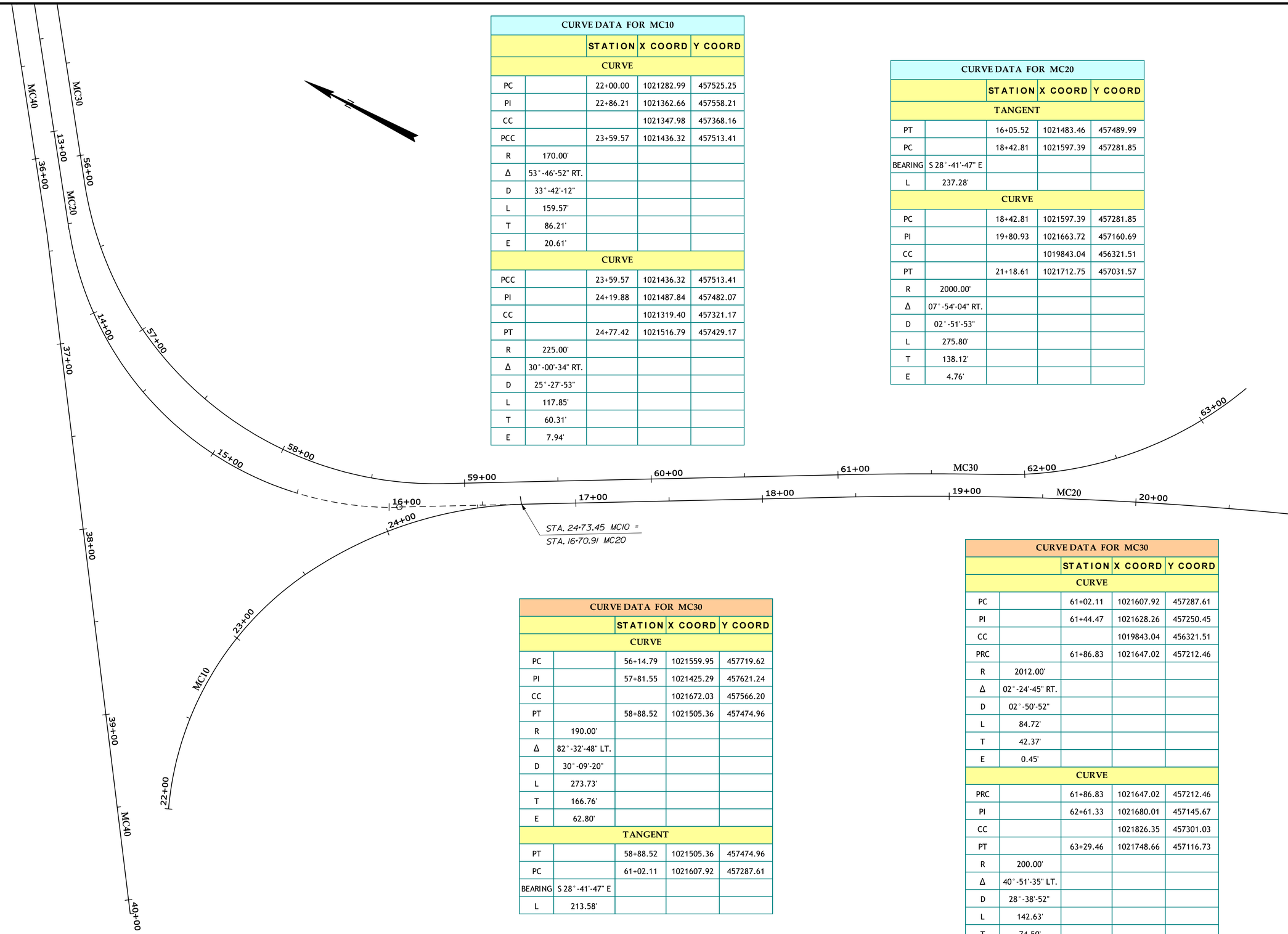
GEOMETRIC LAYOUT

SHEET NUMBER

5

OF 6

Filename: ...\highway\msta\005_Geometry1.dgn Division: HIGHWAY Username: atlee.mousseau Date:3/21/2012



CURVE DATA FOR MC10				
		STATION	X COORD	Y COORD
CURVE				
PC		22+00.00	1021282.99	457525.25
PI		22+86.21	1021362.66	457558.21
CC			1021347.98	457368.16
PCC		23+59.57	1021436.32	457513.41
R	170.00'			
Δ	53°-46'-52" RT.			
D	33°-42'-12"			
L	159.57'			
T	86.21'			
E	20.61'			
CURVE				
PCC		23+59.57	1021436.32	457513.41
PI		24+19.88	1021487.84	457482.07
CC			1021319.40	457321.17
PT		24+77.42	1021516.79	457429.17
R	225.00'			
Δ	30°-00'-34" RT.			
D	25°-27'-53"			
L	117.85'			
T	60.31'			
E	7.94'			

CURVE DATA FOR MC20				
		STATION	X COORD	Y COORD
TANGENT				
PT		16+05.52	1021483.46	457489.99
PC		18+42.81	1021597.39	457281.85
BEARING	S 28°-41'-47" E			
L	237.28'			
CURVE				
PC		18+42.81	1021597.39	457281.85
PI		19+80.93	1021663.72	457160.69
CC			1019843.04	456321.51
PT		21+18.61	1021712.75	457031.57
R	2000.00'			
Δ	07°-54'-04" RT.			
D	02°-51'-53"			
L	275.80'			
T	138.12'			
E	4.76'			

CURVE DATA FOR MC30				
		STATION	X COORD	Y COORD
CURVE				
PC		56+14.79	1021559.95	457719.62
PI		57+81.55	1021425.29	457621.24
CC			1021672.03	457566.20
PT		58+88.52	1021505.36	457474.96
R	190.00'			
Δ	82°-32'-48" LT.			
D	30°-09'-20"			
L	273.73'			
T	166.76'			
E	62.80'			
TANGENT				
PT		58+88.52	1021505.36	457474.96
PC		61+02.11	1021607.92	457287.61
BEARING	S 28°-41'-47" E			
L	213.58'			

CURVE DATA FOR MC30				
		STATION	X COORD	Y COORD
CURVE				
PC		61+02.11	1021607.92	457287.61
PI		61+44.47	1021628.26	457250.45
CC			1019843.04	456321.51
PRC		61+86.83	1021647.02	457212.46
R	2012.00'			
Δ	02°-24'-45" RT.			
D	02°-50'-52"			
L	84.72'			
T	42.37'			
E	0.45'			
CURVE				
PRC		61+86.83	1021647.02	457212.46
PI		62+61.33	1021680.01	457145.67
CC			1021826.35	457301.03
PT		63+29.46	1021748.66	457116.73
R	200.00'			
Δ	40°-51'-35" LT.			
D	28°-38'-52"			
L	142.63'			
T	74.50'			
E	13.42'			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1159(900)X

WIN 11599.00

HIGHWAY PLANS

PROJ. MANAGER	P. MACDONALD		
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REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

AUBURN
MINOT AVENUE ROTARY

GEOMETRIC LAYOUT

SHEET NUMBER

6

OF 6

Filename: ...\highway\msta\006_Geometry2.dgn Division: HIGHWAY Username: allee.mousseau Date:3/21/2012