CITY OF PORTLAND
PUBLIC SERVICES DEPARTMENT

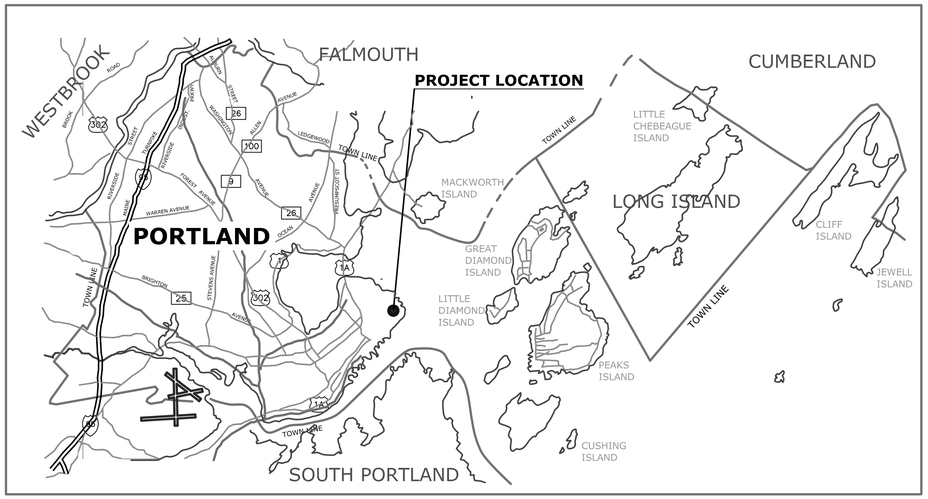
CONTRACT DRAWINGS

EASTERN PROMENADE NEAR CUTTER STREET AND FORT ALLEN PARK
CURB REALIGNMENT PROJECT

IN CONJUNCTION WITH:

STATE P.I.N. NUMBER: 19095.00
FEDERAL P.I.N. NUMBER: AC-STP-1909(500)X

CONSTRUCTION PLANS
FEBRUARY 2013



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COP4	TYPICAL CONSTRUCTION DETAILS
COP5	TYPICAL CONSTRUCTION DETAILS

REFERENCES:
Civil 3D PROJECT: Fort Allen Park Topo 2011
DRAWING NAME: Cutter_Eprom_2012_C3D.dwg
FIELD BOOK: L 827 PP 64-66
VAULT PLAN: 1009/3A

DESIGNED BY: M. FARMER
DRAWN BY: L. K. SCELZA
CHECKED BY: W. G. SCOTT
SCALE: 1" = 25'
DATE: 02/01/2013

STATE OF MAINE — MICHAEL J. FARMER — No. 4172 — REGISTERED PROFESSIONAL ENGINEER

EASTERN PROMENADE
NEAR CUTTER STREET AND FORT ALLEN PARK
CURB REALIGNMENT PROJECT
CONSTRUCTION PLAN
IN CONJUNCTION WITH
STATE P.I.N. #: 19095.00
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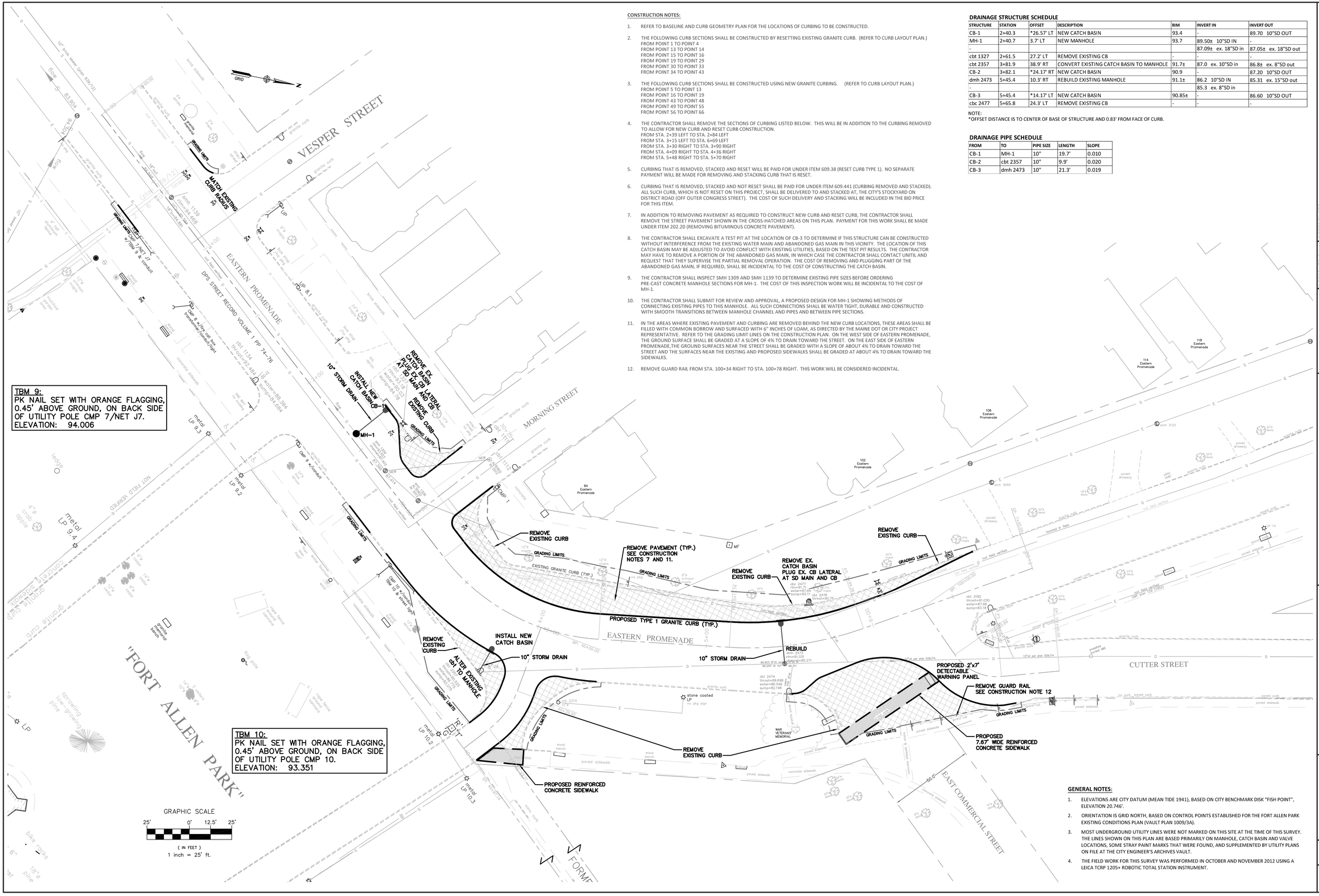
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

SHEET #
COP1

PLAN NUMBER



CONSTRUCTION NOTES:

1. REFER TO BASELINE AND CURB GEOMETRY PLAN FOR THE LOCATIONS OF CURBING TO BE CONSTRUCTED.
2. THE FOLLOWING CURB SECTIONS SHALL BE CONSTRUCTED BY RESETTING EXISTING GRANITE CURB. (REFER TO CURB LAYOUT PLAN.)
   FROM POINT 1 TO POINT 4
   FROM POINT 13 TO POINT 14
   FROM POINT 15 TO POINT 16
   FROM POINT 19 TO POINT 29
   FROM POINT 30 TO POINT 33
   FROM POINT 34 TO POINT 43
3. THE FOLLOWING CURB SECTIONS SHALL BE CONSTRUCTED USING NEW GRANITE CURBING. (REFER TO CURB LAYOUT PLAN.)
   FROM POINT 5 TO POINT 13
   FROM POINT 16 TO POINT 19
   FROM POINT 43 TO POINT 48
   FROM POINT 49 TO POINT 55
   FROM POINT 56 TO POINT 66
4. THE CONTRACTOR SHALL REMOVE THE SECTIONS OF CURBING LISTED BELOW. THIS WILL BE IN ADDITION TO THE CURBING REMOVED TO ALLOW FOR NEW CURB AND RESET CURB CONSTRUCTION.
   FROM STA. 2+39 LEFT TO STA. 2+84 LEFT
   FROM STA. 3+15 LEFT TO STA. 6+69 LEFT
   FROM STA. 3+30 RIGHT TO STA. 3+90 RIGHT
   FROM STA. 4+09 RIGHT TO STA. 4+36 RIGHT
   FROM STA. 5+48 RIGHT TO STA. 5+70 RIGHT
5. CURBING THAT IS REMOVED, STACKED AND RESET WILL BE PAID FOR UNDER ITEM 609.38 (RESET CURB TYPE 1). NO SEPARATE PAYMENT WILL BE MADE FOR REMOVING AND STACKING CURB THAT IS RESET.
6. CURBING THAT IS REMOVED, STACKED AND NOT RESET SHALL BE PAID FOR UNDER ITEM 609.441 (CURBING REMOVED AND STACKED). ALL SUCH CURB, WHICH IS NOT RESET ON THIS PROJECT, SHALL BE DELIVERED TO AND STACKED AT, THE CITY'S STOCKYARD ON DISTRICT ROAD (OFF OUTER CONGRESS STREET). THE COST OF SUCH DELIVERY AND STACKING WILL BE INCLUDED IN THE BID PRICE FOR THIS ITEM.
7. IN ADDITION TO REMOVING PAVEMENT AS REQUIRED TO CONSTRUCT NEW CURB AND RESET CURB, THE CONTRACTOR SHALL REMOVE THE STREET PAVEMENT SHOWN IN THE CROSS-HATCHED AREAS ON THIS PLAN. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEM 202.20 (REMOVING BITUMINOUS CONCRETE PAVEMENT).
8. THE CONTRACTOR SHALL EXCAVATE A TEST PIT AT THE LOCATION OF CB-3 TO DETERMINE IF THIS STRUCTURE CAN BE CONSTRUCTED WITHOUT INTERFERENCE FROM THE EXISTING WATER MAIN AND ABANDONED GAS MAIN IN THIS VICINITY. THE LOCATION OF THIS CATCH BASIN MAY BE ADJUSTED TO AVOID CONFLICT WITH EXISTING UTILITIES, BASED ON THE TEST PIT RESULTS. THE CONTRACTOR MAY HAVE TO REMOVE A PORTION OF THE ABANDONED GAS MAIN, IN WHICH CASE THE CONTRACTOR SHALL CONTACT UNITIL AND REQUEST THAT THEY SUPERVISE THE PARTIAL REMOVAL OPERATION. THE COST OF REMOVING AND PLUGGING PART OF THE ABANDONED GAS MAIN, IF REQUIRED, SHALL BE INCIDENTAL TO THE COST OF CONSTRUCTING THE CATCH BASIN.
9. THE CONTRACTOR SHALL INSPECT SMH 1309 AND SMH 1139 TO DETERMINE EXISTING PIPE SIZES BEFORE ORDERING PRE-CAST CONCRETE MANHOLE SECTIONS FOR MH-1. THE COST OF THIS INSPECTION WORK WILL BE INCIDENTAL TO THE COST OF MH-1.
10. THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL, A PROPOSED DESIGN FOR MH-1 SHOWING METHODS OF CONNECTING EXISTING PIPES TO THIS MANHOLE. ALL SUCH CONNECTIONS SHALL BE WATER TIGHT, DURABLE AND CONSTRUCTED WITH SMOOTH TRANSITIONS BETWEEN MANHOLE CHANNEL AND PIPES AND BETWEEN PIPE SECTIONS.
11. IN THE AREAS WHERE EXISTING PAVEMENT AND CURBING ARE REMOVED BEHIND THE NEW CURB LOCATIONS, THESE AREAS SHALL BE FILLED WITH COMMON BORROW AND SURFACED WITH 6" INCHES OF LOAM, AS DIRECTED BY THE MAINE DOT OR CITY PROJECT REPRESENTATIVE. REFER TO THE GRADING LIMIT LINES ON THE CONSTRUCTION PLAN. ON THE WEST SIDE OF EASTERN PROMENADE, THE GROUND SURFACE SHALL BE GRADED AT A SLOPE OF 4% TO DRAIN TOWARD THE STREET. ON THE EAST SIDE OF EASTERN PROMENADE,THE GROUND SURFACES NEAR THE STREET SHALL BE GRADED WITH A SLOPE OF ABOUT 4% TO DRAIN TOWARD THE STREET AND THE SURFACES NEAR THE EXISTING AND PROPOSED SIDEWALKS SHALL BE GRADED AT ABOUT 4% TO DRAIN TOWARD THE SIDEWALKS.
12. REMOVE GUARD RAIL FROM STA. 100+34 RIGHT TO STA. 100+78 RIGHT. THIS WORK WILL BE CONSIDERED INCIDENTAL.

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE	STATION	OFFSET	DESCRIPTION	RIM	INVERT IN	INVERT OUT
CB-1	2+40.3	*26.57' LT	NEW CATCH BASIN	93.4	-	89.70 10"SD OUT
MH-1	2+40.7	3.7' LT	NEW MANHOLE	93.7	89.50± 10"SD IN	-
-					87.09± ex. 18"SD in	87.05± ex. 18"SD out
cbt 1327	2+61.5	27.2' LT	REMOVE EXISTING CB	-	-	-
cbt 2357	3+81.9	38.9' RT	CONVERT EXISTING CATCH BASIN TO MANHOLE	91.7±	87.0 ex. 10"SD in	86.8± ex. 8"SD out
CB-2	3+82.1	*24.17' RT	NEW CATCH BASIN	90.9	-	87.20 10"SD OUT
dmh 2473	5+45.4	10.3' RT	REBUILD EXISTING MANHOLE	91.1±	86.2 10"SD IN	85.31 ex. 15"SD out
-					85.3 ex. 8"SD in	
CB-3	5+45.4	*14.17' LT	NEW CATCH BASIN	90.85±	-	86.60 10"SD OUT
cbc 2477	5+65.8	24.3' LT	REMOVE EXISTING CB	-	-	-

NOTE:
*OFFSET DISTANCE IS TO CENTER OF BASE OF STRUCTURE AND 0.83' FROM FACE OF CURB.

DRAINAGE PIPE SCHEDULE

FROM	TO	PIPE SIZE	LENGTH	SLOPE
CB-1	MH-1	10"	19.7'	0.010
CB-2	cbt 2357	10"	9.9'	0.020
CB-3	dmh 2473	10"	21.3'	0.019

GENERAL NOTES:

1. ELEVATIONS ARE CITY DATUM (MEAN TIDE 1941), BASED ON CITY BENCHMARK DISK "FISH POINT", ELEVATION 20.746'.
2. ORIENTATION IS GRID NORTH, BASED ON CONTROL POINTS ESTABLISHED FOR THE FORT ALLEN PARK EXISTING CONDITIONS PLAN (VAULT PLAN 1009/3A).
3. MOST UNDERGROUND UTILITY LINES WERE NOT MARKED ON THIS SITE AT THE TIME OF THIS SURVEY. THE LINES SHOWN ON THIS PLAN ARE BASED PRIMARILY ON MANHOLE, CATCH BASIN AND VALVE LOCATIONS, SOME STRAY PAINT MARKS THAT WERE FOUND, AND SUPPLEMENTED BY UTILITY PLANS ON FILE AT THE CITY ENGINEER'S ARCHIVES VAULT.
4. THE FIELD WORK FOR THIS SURVEY WAS PERFORMED IN OCTOBER AND NOVEMBER 2012 USING A LEICA TCRP 1205+ ROBOTIC TOTAL STATION INSTRUMENT.

REFERENCES:
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FIELD BOOK: L 827 PP 64-66
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CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

CITY RESURGAM — CITY OF PORTLAND, MAINE

SHEET # COP2

PLAN NUMBER

CURB LAYOUT DATA								
From Point	**Station**	**Offset**	**To Point**	**Station**	**Offset**	**LENGTH**	**RADIUS**	**TYPE**
BL EPROM (LT)								
1	47.93	-28.71	2	54.93	-28.68	7.00		TC
2	54.93	-28.68	3	60.60	-28.65	5.67		FLUSH
3	60.60	-28.65	4	67.46	-30.71	7.00	12'	TC-CIR.
BL EPROM (RT)								
30	48.05	24.84	31	55.05	24.89	7.00		TC
31	55.05	24.89	32	60.72	24.94	5.67		FLUSH
32	60.72	24.94	33	67.72	25.00	7.00		TC
BL EPROM (LT)								
5	238.29	-27.41	6	242.28	-27.36	4.00		CB STONE
6	242.28	-27.36	7	247.78	-27.32	5.50		STRAIGHT
7	247.78	-27.32	8	253.38	-25.59	5.95	10'	CIRCULAR
8	253.38	-25.59	9	266.18	-16.77	15.55		STRAIGHT
9	266.18	-16.77	10	271.85	-15.00	6.03	10'	CIRCULAR
10	271.85	-15.00	11	278.85	-15.00	7.00		TC
11	278.85	-15.00	12	284.85	-21.00	9.42	6'	FLUSH-CIR.
BL MORNING (LT)								
12	3021.00	-14.80	13	3028.00	-14.80	7.00		TC
13	3028.00	-14.80	14	3048.32	-14.80	20.32		STRAIGHT
BL MORNING (RT)								
15	3048.32	14.80	16	3028.00	14.80	20.32		STRAIGHT
16	3028.00	14.80	17	3021.00	14.80	7.00		TC
BL EPROM (LT)								
17	314.45	-21.00	18	320.45	-15.00	9.42	6'	FLUSH-CIR.
18	320.45	-15.00	19	327.45	-15.00	7.00		TC
19	327.45	-15.00	20	330.03	-15.00	2.58		STRAIGHT
20	330.03	-15.00	21	436.50	-15.00	93.70	110'	CIRCULAR
21	436.50	-15.00	22	513.74	-15.00	77.24		STRAIGHT
22	513.74	-15.00	23	543.27	-15.00	27.32	185'	CIRCULAR
23	543.27	-15.00	24	547.59	-15.00	4.00		CB STONE
24	547.59	-15.00	25	594.26	-15.00	43.17	185'	CIRCULAR
25	594.26	-15.00	26	612.89	-15.00	18.63		STRAIGHT
26	612.89	-15.00	27	619.88	-15.41	7.01	60'	CIRCULAR
27	619.88	-15.41	28	663.05	-20.47	43.47		STRAIGHT
28	663.05	-20.47	29	669.76	-20.88	6.74	60'	CIRCULAR

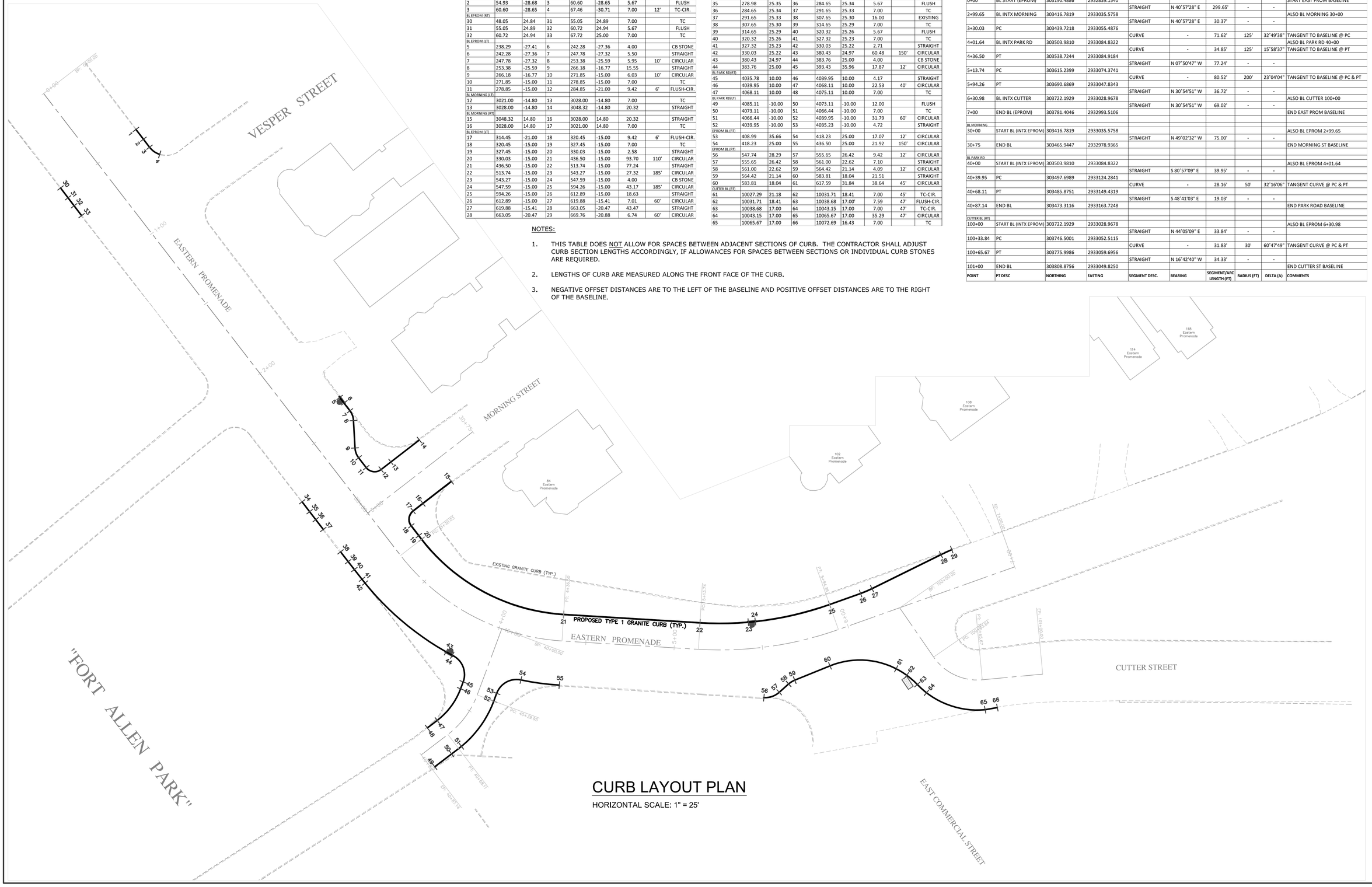
CURB LAYOUT DATA	(cont'd)							
From Point	**Station**	**Offset**	**To Point**	**Station**	**Offset**	**LENGTH**	**RADIUS**	**TYPE**
BL EPROM (RT)								
34	271.98	25.36	35	278.98	25.35	7.00		TC
35	278.98	25.35	36	284.65	25.34	5.67		FLUSH
36	284.65	25.34	37	291.65	25.33	7.00		TC
37	291.65	25.33	38	307.65	25.30	16.00		EXISTING
38	307.65	25.30	39	314.65	25.29	7.00		TC
39	314.65	25.29	40	320.32	25.26	5.67		FLUSH
40	320.32	25.26	41	327.32	25.23	7.00		TC
41	327.32	25.23	42	330.03	25.22	2.71		STRAIGHT
42	330.03	25.22	43	380.43	24.97	60.48	150'	CIRCULAR
43	380.43	24.97	44	383.76	25.00	4.00		CB STONE
44	383.76	25.00	45	393.43	35.96	17.87	12'	CIRCULAR
BL PARK RD(RT)								
45	4035.78	10.00	46	4039.95	10.00	4.17		STRAIGHT
46	4039.95	10.00	47	4068.11	10.00	22.53	40'	CIRCULAR
47	4068.11	10.00	48	4075.11	10.00	7.00		TC
BL PARK RD(LT)								
49	4085.11	-10.00	50	4073.11	-10.00	12.00		FLUSH
50	4073.11	-10.00	51	4066.44	-10.00	7.00		TC
51	4066.44	-10.00	52	4039.95	-10.00	31.79	60'	CIRCULAR
52	4039.95	-10.00	53	4035.23	-10.00	4.72		STRAIGHT
EPROM BL (RT)								
53	408.99	35.66	54	418.23	25.00	17.07	12'	CIRCULAR
54	418.23	25.00	55	436.50	25.00	21.92	150'	CIRCULAR
EPROM BL (RT)								
56	547.74	28.29	57	555.65	26.42	9.42	12'	CIRCULAR
57	555.65	26.42	58	561.00	22.62	7.10		STRAIGHT
58	561.00	22.62	59	564.42	21.14	4.09	12'	CIRCULAR
59	564.42	21.14	60	583.81	18.04	21.51		STRAIGHT
60	583.81	18.04	61	617.59	31.84	38.64	45'	CIRCULAR
CUTTER BL (RT)								
61	10027.29	21.18	62	10031.71	18.41	7.00	45'	TC-CIR.
62	10031.71	18.41	63	10038.68	17.00'	7.59	47'	FLUSH-CIR.
63	10038.68	17.00	64	10043.15	17.00	7.00	47'	TC-CIR.
64	10043.15	17.00	65	10065.67	17.00	35.29	47'	CIRCULAR
65	10065.67	17.00	66	10072.69	16.43	7.00		TC

NOTES:

1. THIS TABLE DOES NOT ALLOW FOR SPACES BETWEEN ADJACENT SECTIONS OF CURB. THE CONTRACTOR SHALL ADJUST CURB SECTION LENGTHS ACCORDINGLY, IF ALLOWANCES FOR SPACES BETWEEN SECTIONS OR INDIVIDUAL CURB STONES ARE REQUIRED.
2. LENGTHS OF CURB ARE MEASURED ALONG THE FRONT FACE OF THE CURB.
3. NEGATIVE OFFSET DISTANCES ARE TO THE LEFT OF THE BASELINE AND POSITIVE OFFSET DISTANCES ARE TO THE RIGHT OF THE BASELINE.

BASELINE GEOMETRIC DATA

POINT	**PT DESC**	**NORTHING**	**EASTING**	**SEGMENT DESC.**	**BEARING**	**SEGMENT/ARC LENGTH (FT)**	**RADIUS (FT)**	**DELTA (Δ)**	**COMMENTS**
BL EPROM									
0+00	BL START (EPROM)	303190.4886	2932839.1540						START EAST PROM BASELINE
				STRAIGHT	N 40°57'28" E	299.65'	-	-	
2+99.65	BL INTX MORNING	303416.7819	2933035.5758						ALSO BL MORNING 30+00
				STRAIGHT	N 40°57'28" E	30.37'	-	-	
3+30.03	PC	303439.7218	2933055.4876						
				CURVE	-	71.62'	125'	32°49'38"	TANGENT TO BASELINE @ PC
4+01.64	BL INTX PARK RD	303503.9810	2933084.8322						ALSO BL PARK RD 40+00
				CURVE	-	34.85'	125'	15°58'37"	TANGENT TO BASELINE @ PT
4+36.50	PT	303538.7244	2933084.9184						
				STRAIGHT	N 07°50'47" W	77.24'	-	-	
5+13.74	PC	303615.2399	2933074.3741						
				CURVE	-	80.52'	200'	23°04'04"	TANGENT TO BASELINE @ PC & PT
5+94.26	PT	303690.6869	2933047.8343						
				STRAIGHT	N 30°54'51" W	36.72'	-	-	
6+30.98	BL INTX CUTTER	303722.1929	2933028.9678						ALSO BL CUTTER 100+00
				STRAIGHT	N 30°54'51" W	69.02'	-	-	
7+00	END BL (EPROM)	303781.4046	2932993.5106						END EAST PROM BASELINE
BL MORNING									
30+00	START BL (INTX EPROM)	303416.7819	2933035.5758						ALSO BL EPROM 2+99.65
				STRAIGHT	N 49°02'32" W	75.00'	-	-	
30+75	END BL	303465.9447	2932978.9365						END MORNING ST BASELINE
BL PARK RD									
40+00	START BL (INTX EPROM)	303503.9810	2933084.8322						ALSO BL EPROM 4+01.64
				STRAIGHT	S 80°57'09" E	39.95'	-	-	
40+39.95	PC	303497.6989	2933124.2841						
				CURVE	-	28.16'	50'	32°16'06"	TANGENT CURVE @ PC & PT
40+68.11	PT	303485.8751	2933149.4319						
				STRAIGHT	S 48°41'03" E	19.03'	-	-	
40+87.14	END BL	303473.3116	2933163.7248						END PARK ROAD BASELINE
CUTTER BL (RT)									
100+00	START BL (INTX EPROM)	303722.1929	2933028.9678						ALSO BL EPROM 6+30.98
				STRAIGHT	N 44°05'09" E	33.84'	-	-	
100+33.84	PC	303746.5001	2933052.5115						
				CURVE	-	31.83'	30'	60°47'49"	TANGENT CURVE @ PC & PT
100+65.67	PT	303775.9986	2933059.6956						
				STRAIGHT	N 16°42'40" W	34.33'	-	-	
101+00	END BL	303808.8756	2933049.8250						END CUTTER ST BASELINE
POINT	**PT DESC**	**NORTHING**	**EASTING**	**SEGMENT DESC.**	**BEARING**	**SEGMENT/ARC LENGTH (FT)**	**RADIUS (FT)**	**DELTA (Δ)**	**COMMENTS**



CURB LAYOUT PLAN

HORIZONTAL SCALE: 1" = 25'

REFERENCES:
Civil 3D PROJECT: Fort Allen Park Topo 2011
DRAWING NAME: Cutter_Eprom_2012_CSD.dwg
FIELD BOOK: L 827 PP 64-66
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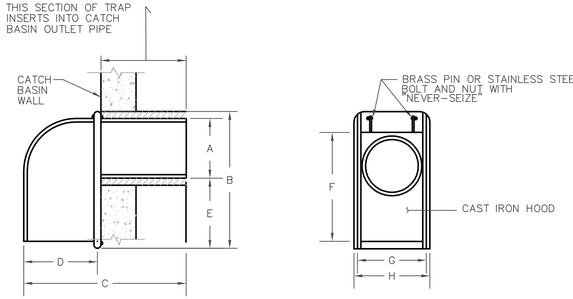
CITY RESURGAM OF PORTLAND, MAINE

SHEET #
COP3

PLAN NUMBER



SIDE VIEW FRONT VIEW

SIZE	A	B	C	D	E	F	G	H
6 in.	5 1/2"	13 3/8"	13 3/4"	5 3/8"	5 7/8"	11 5/8"	6 1/2"	7 1/4"
8 in.	7 1/2"	15"	15 3/8"	5 1/2"	5 3/8"	13 3/4"	8 3/4"	9 3/8"
10 in.	9 1/2"	16"	16 1/4"	6"	4 1/2"	14 1/8"	11 1/2"	12 3/8"
12 in.	11 1/2"	17"	22"	8"	3 1/2"	17"	12 1/2"	13 3/8"

(AS MANUFACTURED BY THE ETHERIDGE FOUNDRY IN PORTLAND, ME.)

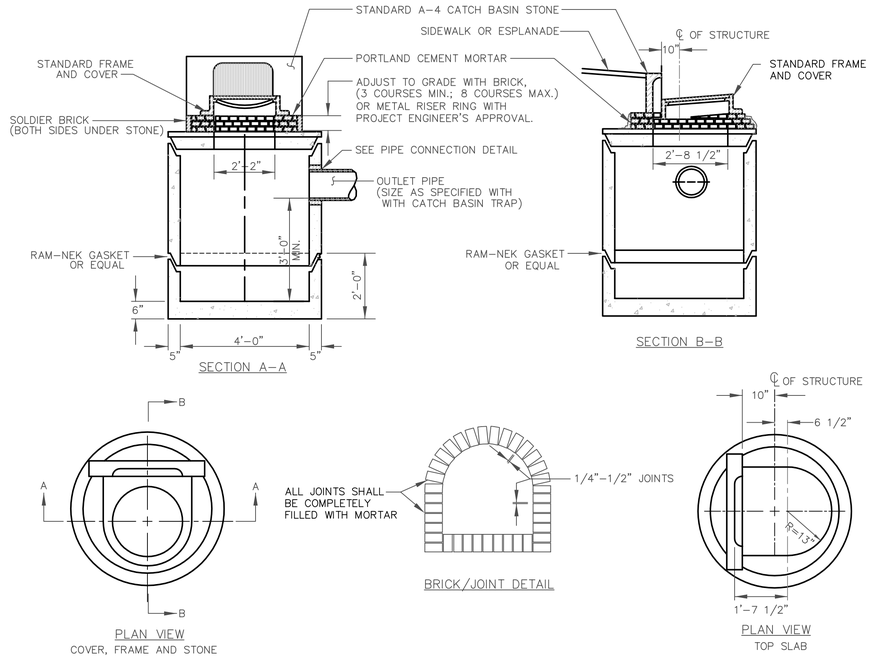
NOTE: CONTRACTOR SHALL UTILIZE THE "CASCO TRAP" AS MANUFACTURED BY THE ETHERIDGE FOUNDRY, OR AN APPROVED EQUIVALENT.

CASCO TRAP

NOT TO SCALE

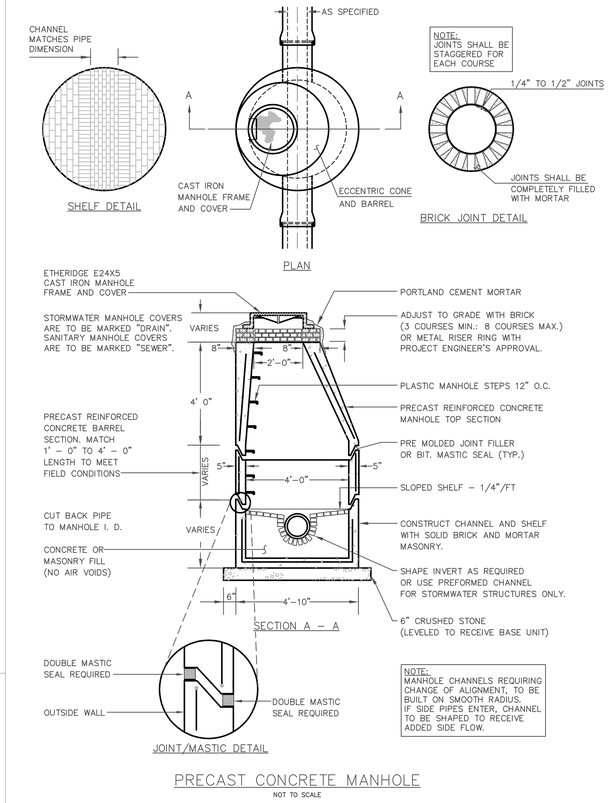
GENERAL NOTES FOR MANHOLES AND CATCH BASINS

1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVED EQUAL.
7. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
8. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
9. CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DR5A OR APPROVED EQUAL.
10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND
12. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CASCO TRAP. SEE FIGURE II-09.
13. EAST JORDAN IRON WORKS MODEL 7268Z CATCH BASIN FRAMES AND MODEL 7268M1 "D"STYLE GRATES CAN BE USED ON CATCH BASINS IN LIEU OF ETHERIDGE DR5-A FRAMES AND GRATES.
14. BMP, INC MODEL 18R "SNOUT" CATCH BASIN TRAPS CAN BE USED IN LIEU OF CAST IRON "CASCO TRAPS".
15. MANHOLES ON SANITARY SEWERS AND COMBINED (SANITARY AND STORM) SEWERS SHALL BE BUILT WITH BRICK AND MORTAR SHELVES AND CHANNELS. CHANNELS MAY ALSO BE CONSTRUCTED USING FIBERGLASS CHANNEL SECTIONS MANUFACTURED BY RELINER/DURAN, INC. OF LYME CONNECTICUT.



PRECAST CONCRETE CATCH BASIN - TYPE "E"
(MAINE DOT TYPE A1-P)

NOT TO SCALE

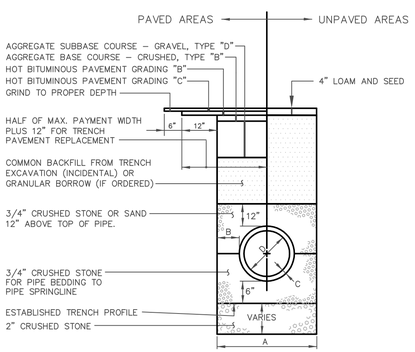


PRECAST CONCRETE MANHOLE

NOT TO SCALE

NOTES:
DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.

ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES..



TYPICAL PIPE TRENCH INSTALLATION

NOT TO SCALE

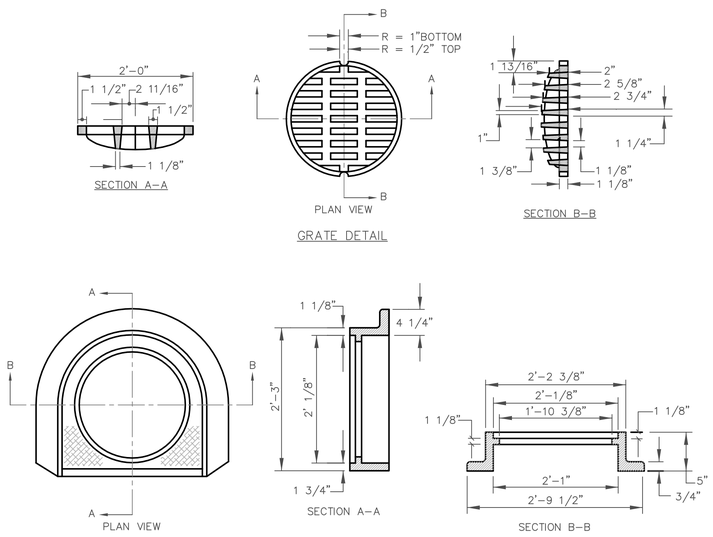
NOTES

1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
3. DIMENSION **B** SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION **B** SHALL BE AT LEAST 9".
4. DIMENSION **A** IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION **A** SHALL BE BASED ON PIPE DIAMETER **D**, AS SET FORTH IN THE FOLLOWING TABLE.

PIPE DIAMETER, **D** (INCHES)	MAX. TRENCH WIDTH, **A** (FEET)
4 - - - -	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18 - - - -	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36 - - - -	6.0
42	7.0
48	7.0

TYPICAL PIPE INSTALLATION - NOTES

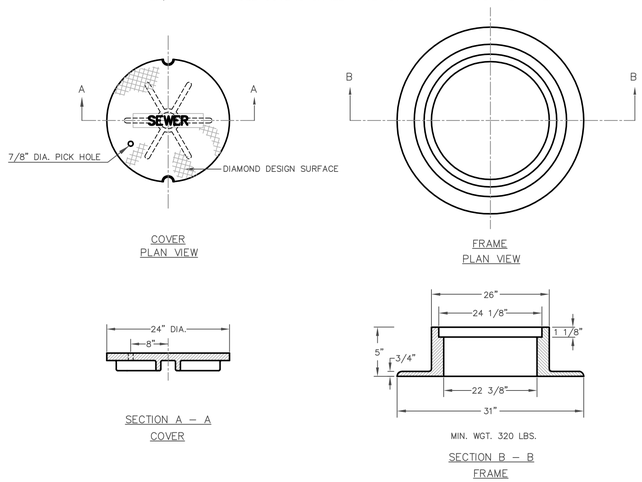
NOT TO SCALE



CATCH BASIN FRAME & GRATE

NOTE:
ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 8" FROM THE CENTER OF THE COVER.

ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.



CAST IRON MANHOLE COVER AND FRAME

NOT TO SCALE

REFERENCES:
LDD PROJECT: Fort Allen Park Topo 2011
DRAWING: CutterSt_2012_Details.dwg

DESIGNED BY: M. FARMER
DRAWN BY: L. SCELZA
CHECKED BY: M. FARMER
SCALE: AS NOTED
DATE: FEBRUARY 2013

STATE OF MAINE MICHAEL FARMER No. 4172 LICENSED PROFESSIONAL ENGINEER

EASTERN PROMENADE
NEAR CUTTER STREET AND FORT ALLEN PARK
CURB REALIGNMENT PROJECT
TYPICAL CONSTRUCTION DETAILS
IN CONJUNCTION WITH
STATE P.I.N. #: 19095.00
FEDERAL P.I.N. #: AC-STP-1909(500)X

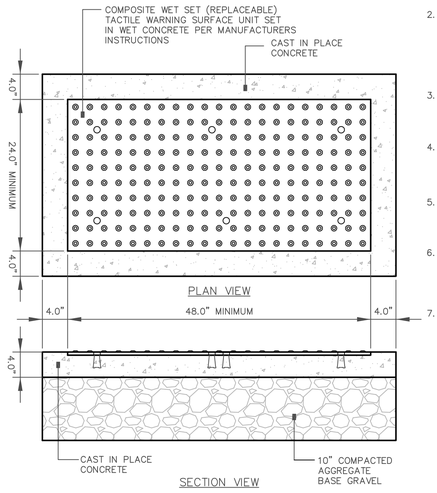
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

SHEET # COP4

PLAN NUMBER

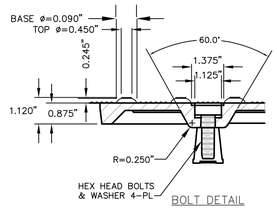
NOTES:

1. COMPOSITE WET SET (REPLACEABLE) TACTILE WARNING SURFACE UNITS SHALL BE AS MANUFACTURED BY ADA SOLUTIONS, INC. (WWW.ADATILE.COM), OR APPROVED EQUAL.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE CONCRETE SHALL BE SEALED PRIOR TO SETTING PANELS. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A GROOVED EDGE BETWEEN THE TILE AND CONCRETE, ALONG WITH A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. FOR ALL DETECTABLE WARNING PANELS (EXCEPT AS SPECIFIED IN FIGURE I–7A AND TECHNICAL MANUAL SECTION 1.8.4), FEDERAL YELLOW COLORED (#33538) PANELS SHALL BE USED. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
5. SIZE: THE DETECTABLE WARNING PANEL(S) SHALL EXTEND 24" MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING OR BLENDED TRANSITION TO THE STREET.
6. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.
7. NOTE: USE GREY DETECTABLE WARNING PANELS ALONG THE EASTERN PROMENADE.

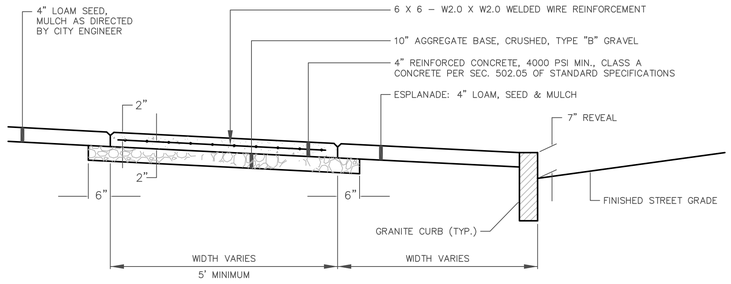


SIDEWALK RAMP DETECTABLE WARNING TILE

NOT TO SCALE

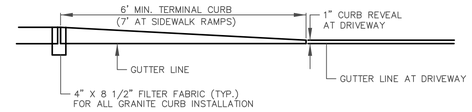


BOLT DETAIL

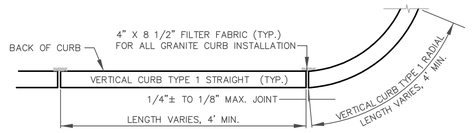


REINFORCED CONCRETE SIDEWALK

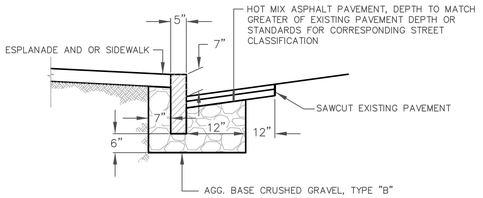
NOT TO SCALE



TERMINAL CURB PROFILE



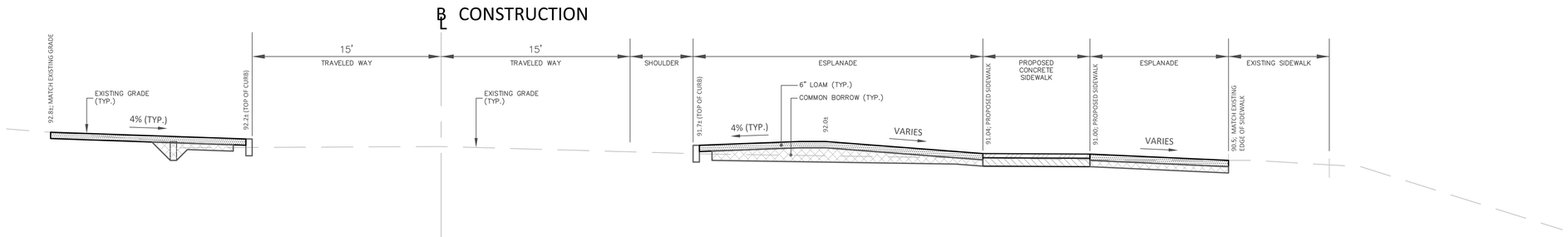
VERTICAL GRANITE CURB PLAN VIEW



VERTICAL GRANITE CURB CROSS SECTION

VERTICAL GRANITE CURB INSTALLATION IN EXISTING STREETS

NOT TO SCALE



NOTE
REFER TO MAINE DOT CONTRACT DOCUMENTS FOR MILLING, SHIMMING AND PAVEMENT REQUIREMENTS FOR THE EASTERN PROMENADE.

EASTERN PROMENADE

CROSS SECTION @ 6+00

SHOWING

TYPICAL CURB AND ESPLANADE CONSTRUCTION

SCALE: 1"= 5' HORZ. , 1" = 5' VERT.

REFERENCES:
LDD PROJECT: Fort Allen Park Topo 2011
DRAWING: CutterSL_2012_Details.dwg

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:	DATE:
M. FARMER	L. SCELZA	M. FARMER	AS NOTED	FEBRUARY 2013

STATE OF MAINE — MICHAEL J. FARMER No. 4172 — REGISTERED PROFESSIONAL ENGINEER

EASTERN PROMENADE
NEAR CUTTER STREET AND FORT ALLEN PARK
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CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

CITY OF PORTLAND, MAINE — RESURGAM

SHEET #
COP5

PLAN NUMBER