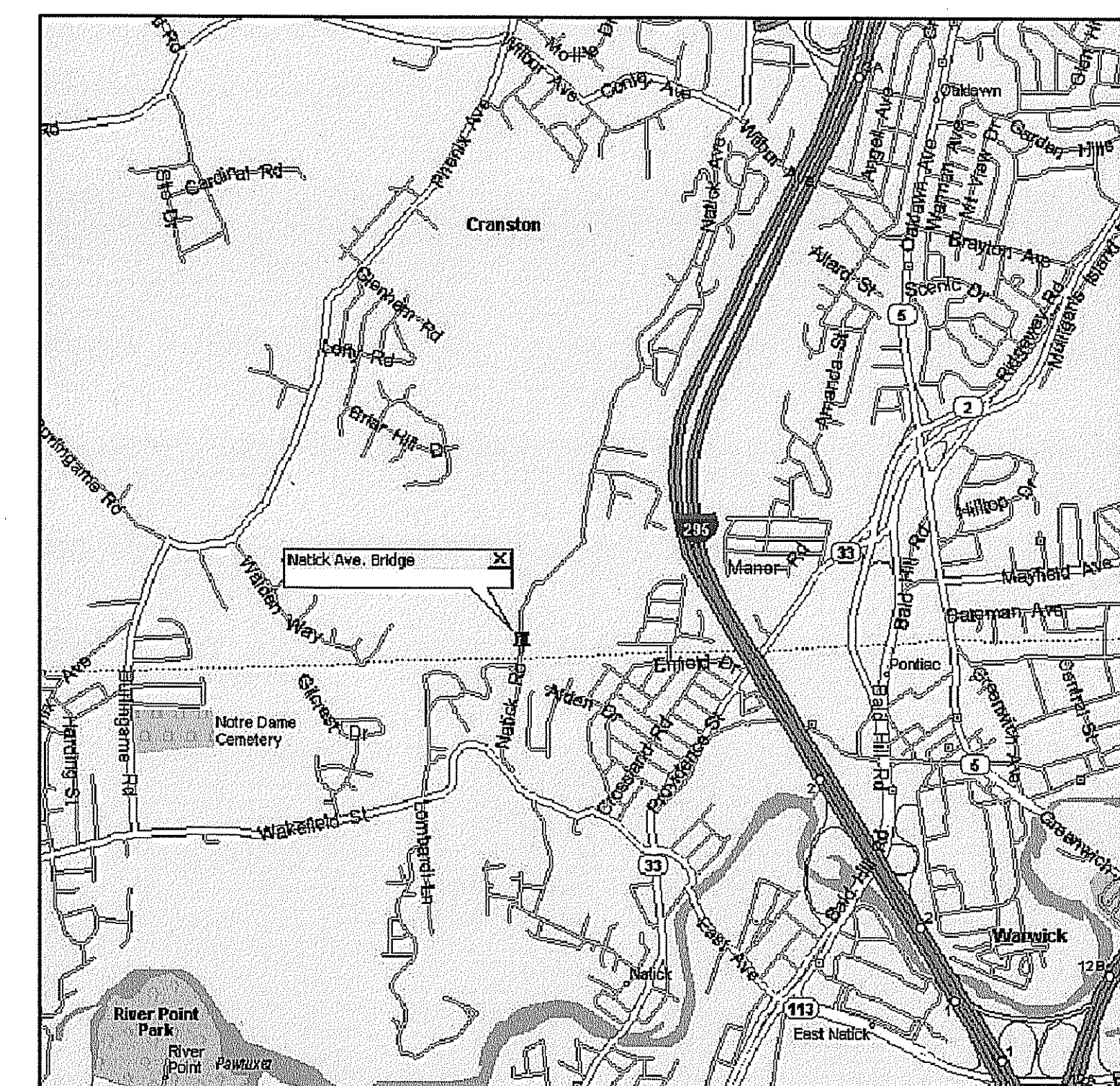


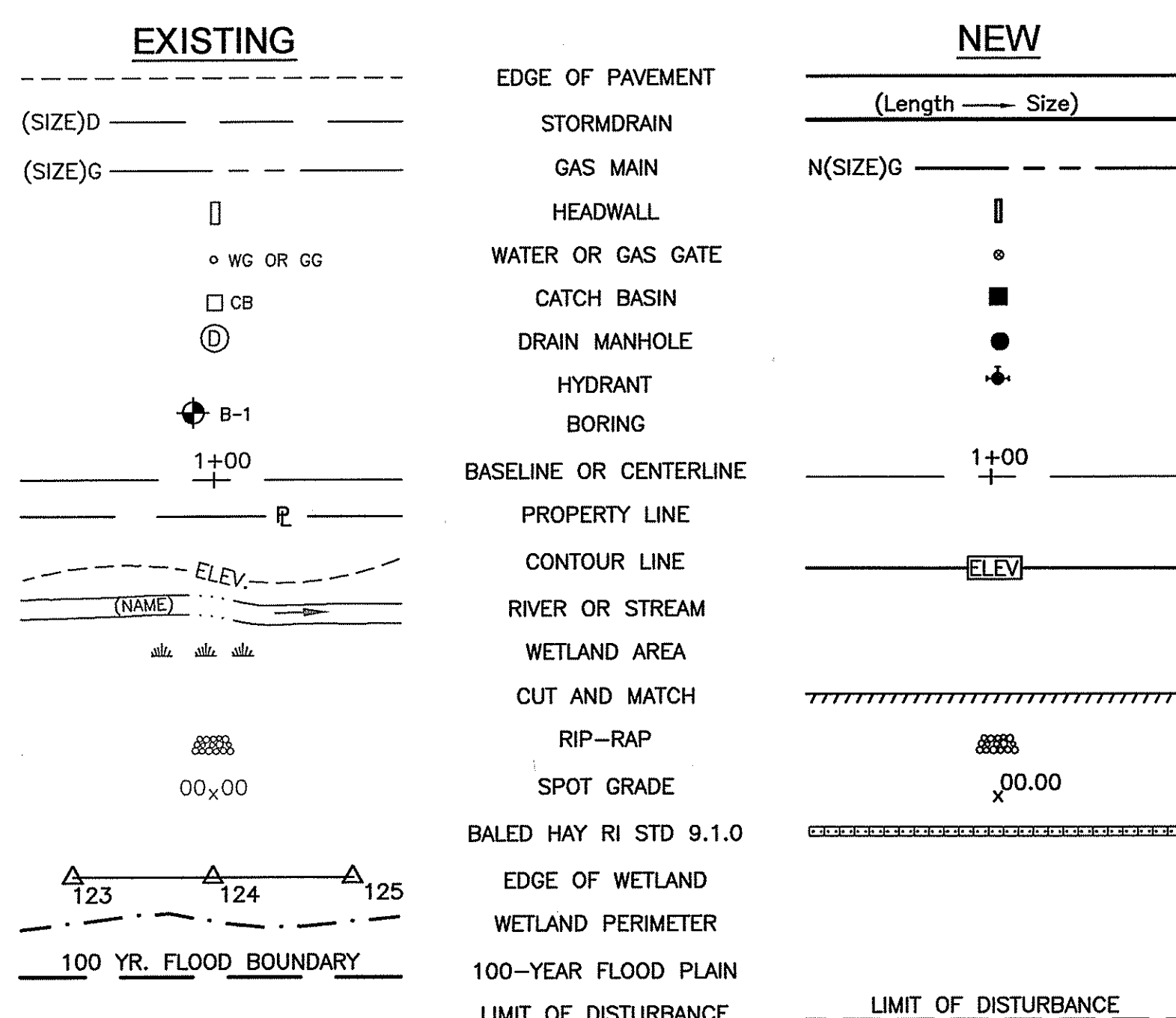
# REPLACEMENT OF NATICK AVENUE CULVERT CRANSTON, RHODE ISLAND

PREPARED FOR:  
CITY OF CRANSTON  
DEPARTMENT OF PUBLIC WORKS  
869 PARK AVENUE  
CRANSTON, RI 02910



LOCUS MAP

SHEET No.	DESCRIPTION
1	COVER SHEET
2	STANDARD NOTES
3	BRIDGE GENERAL PLAN
4	PROFILE
5	PHASE CONSTRUCTION PLAN
6	CULVERT DETAILS AND SECTIONS
7	RETAINING WALL ELEVATIONS & DETAILS - ALTERNATE 1
8	RETAINING WALL DETAILS - ALTERNATE 1
9	RETAINING WALL ELEVATIONS & DETAILS - ALTERNATE 2
10	DETAILS



- ⊙ 4.4.0 (DIA.) PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN
- ⊙ 5.3.0 CATCH BASIN AND MANHOLE STEP
- ⊙ 6.2.1 HEAVY-DUTY ROUND FRAME AND COVER
- ⊙ 8.2.0 BITUMINOUS CONCRETE DITCH
- ⊙ 9.1.0 BALED HAY EROSION CHECK
- ⊙ 9.5.0 LOG AND HAY CHECK DAM
- ⊙ 9.7.0 DEWATERING BASIN
- ⊙ 9.9.0 CONSTRUCTION ACCESS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED FEB 7 2011 FILE # 10-0195  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Charles A. ...*  
Environmental Management  
JAN 28 2011  
Office of Water Resources

STEVEN M. CLARKE  
No. 4477  
REGISTERED PROFESSIONAL ENGINEER

REVISIONS		
NO.	DATE	BY
1	1/24/11	KB

CITY OF CRANSTON

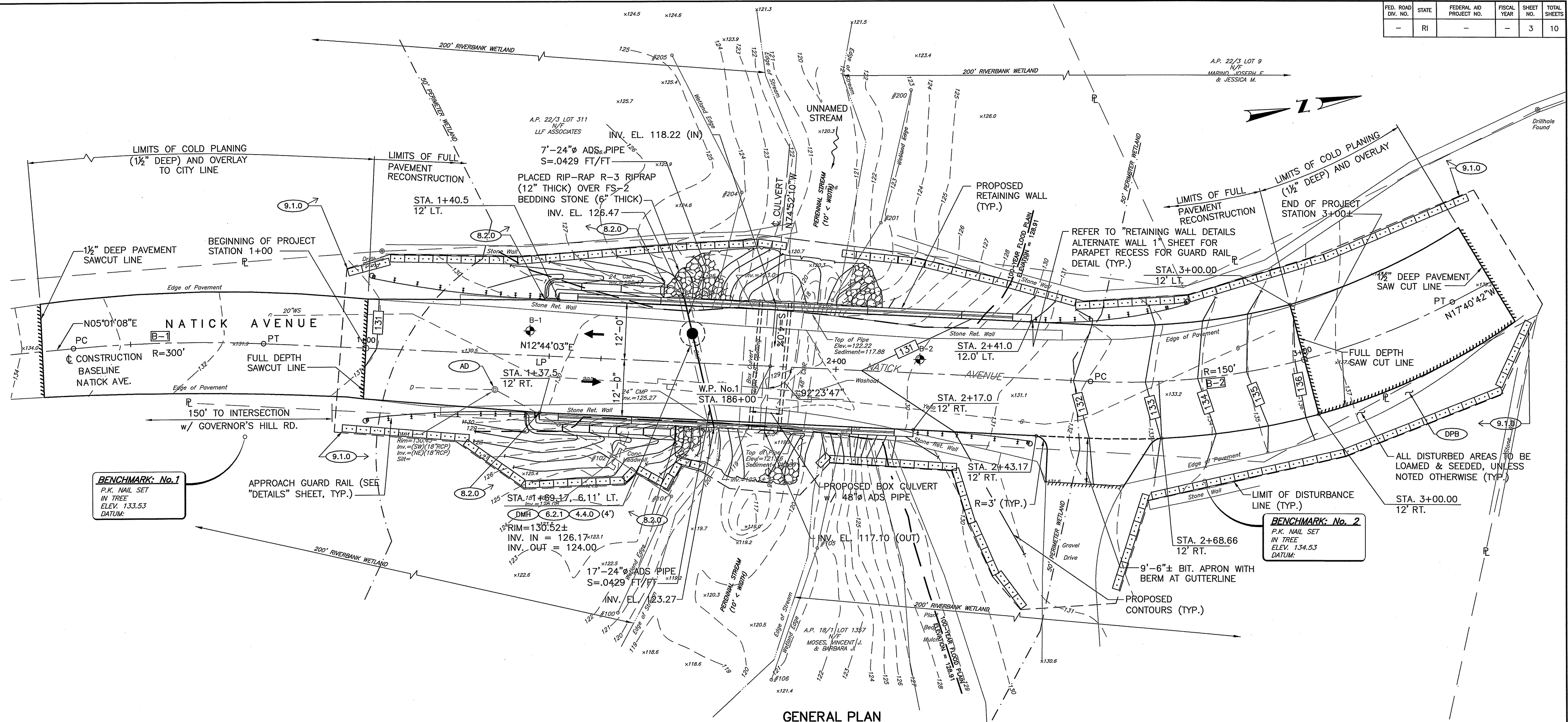
BRIDGE REPLACEMENT  
NATICK AVE. BRIDGE

CRANSTON, RHODE ISLAND

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ SCALE \_\_\_\_\_

COMMONWEALTH  
ENGINEERS & CONSULTANTS, INC.  
400 SMITH STREET  
PROVIDENCE, RI 02908





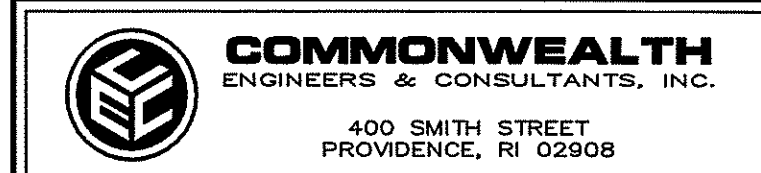
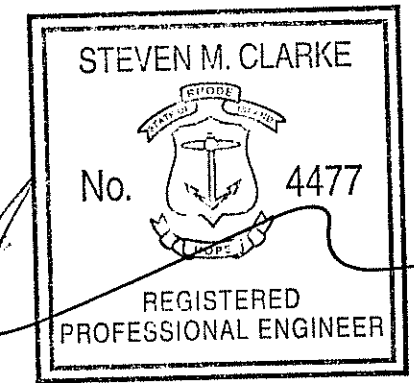
**GENERAL PLAN**  
SCALE: 1"=10'

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CURVE NO.	STATION	R.I. STATE COORDINATE SYSTEM	
		NORTHING	EASTING
B-1	PC 0+37.84	236085.1687	328673.0203
	RP	236058.9242	328971.8801
	PT 0+78.23	236125.0525	328679.2592
	PI	236105.3206	328674.8000
B-2	PC 2+54.15	236296.6421	328718.0361
	RP	236329.7063	328571.7256
	PT 3+33.77	236375.2570	328714.6421
	PI	236336.4108	328727.0232

BENCHMARK NUMBER	ELEV.	LABEL	NORTHING	EASTING
1	133.53	P.K. NAIL IN TREE	236,117.68	328,697.93
2	134.53	P.K. NAIL IN TREE	236,316.85	328,742.96

CURVE NO.	DELTA	RADIUS	TANGENT	LENGTH
B-1	7°42'55"	300.00'	20.23'	40.40'
B-2	30°24'45"	150.00'	40.77'	79.62'



NO.	DATE	BY
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CITY OF CRANSTON

**BRIDGE REPLACEMENT  
NATICK AVE. BRIDGE**

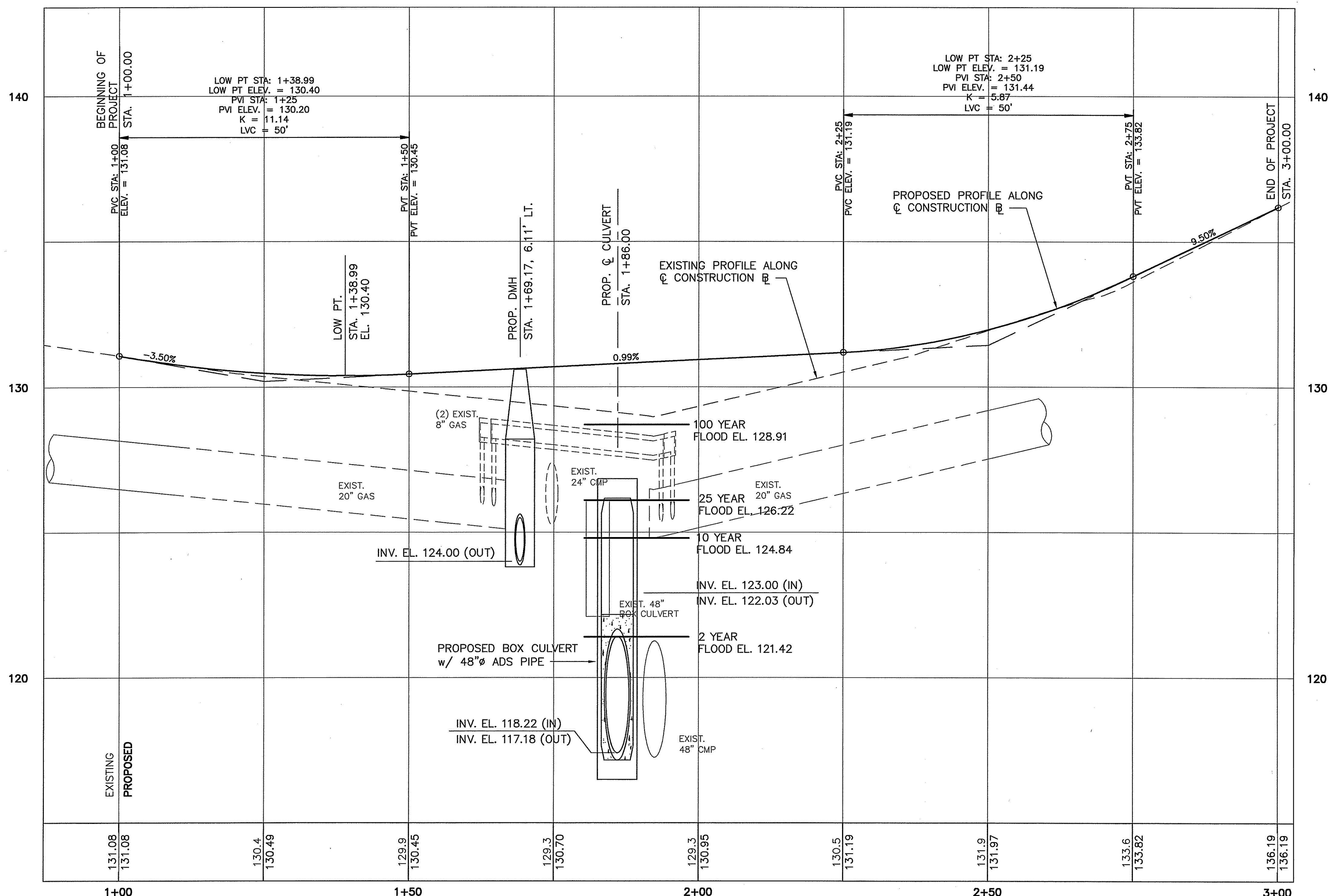
CRANSTON, RHODE ISLAND

**BRIDGE GENERAL PLAN**

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ SCALE AS SHOWN

C:\1002001077\01 Natick Avenue Bridge\_Coverage\Drawings\GenPlan\_V1\_003\_GENPLAN.dwg, 1/25/2011 11:02:16 AM, PTA

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
-	RI	-	-	4	10



**ROAD PROFILE - NATICK AVENUE**  
 SCALE: HORIZ: 1"=10'  
 VERT. 1"=2'

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**CITY OF CRANSTON**

**BRIDGE REPLACEMENT  
 NATICK AVE BRIDGE**

CRANSTON, RHODE ISLAND

**PROFILE**

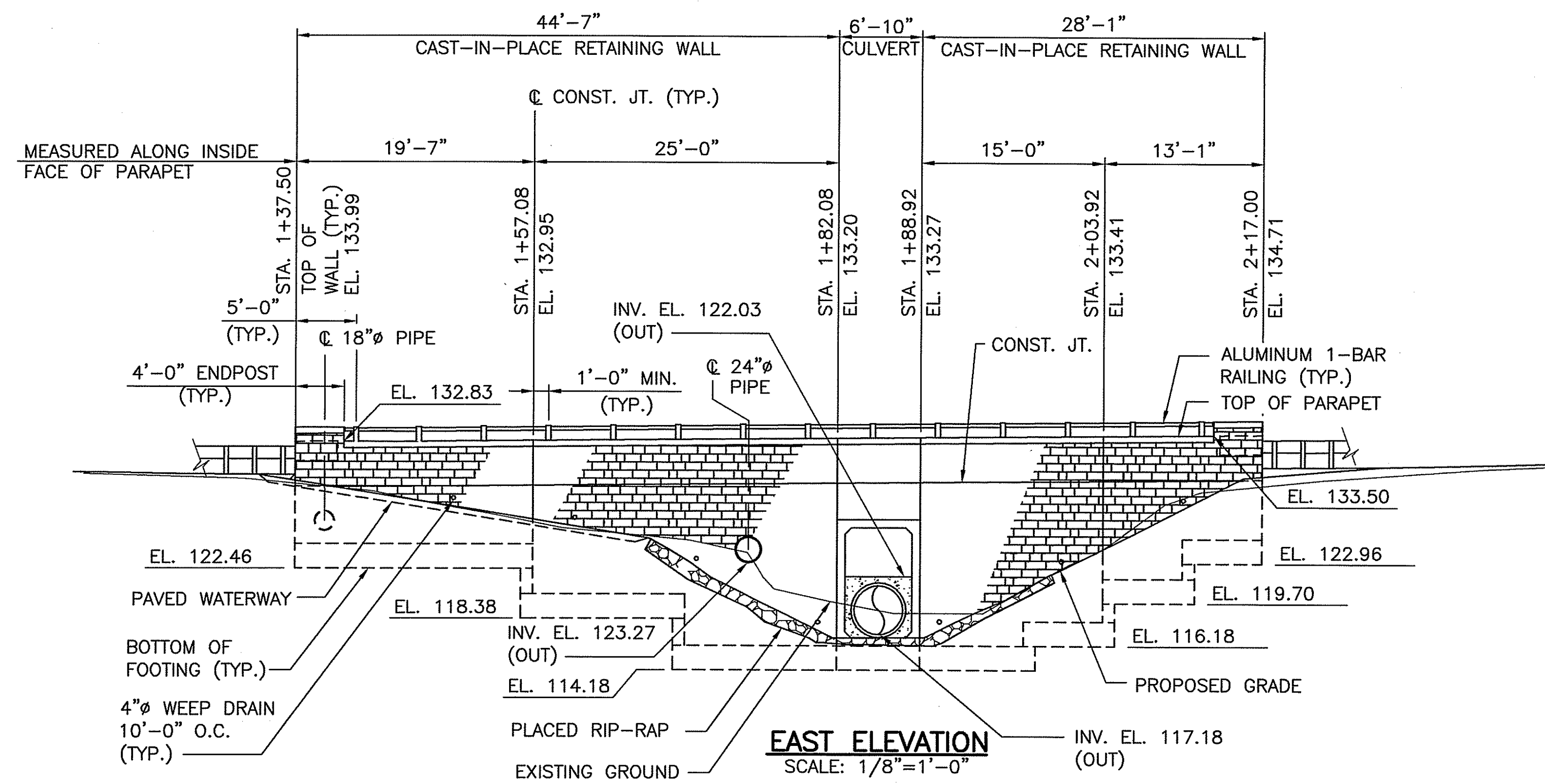
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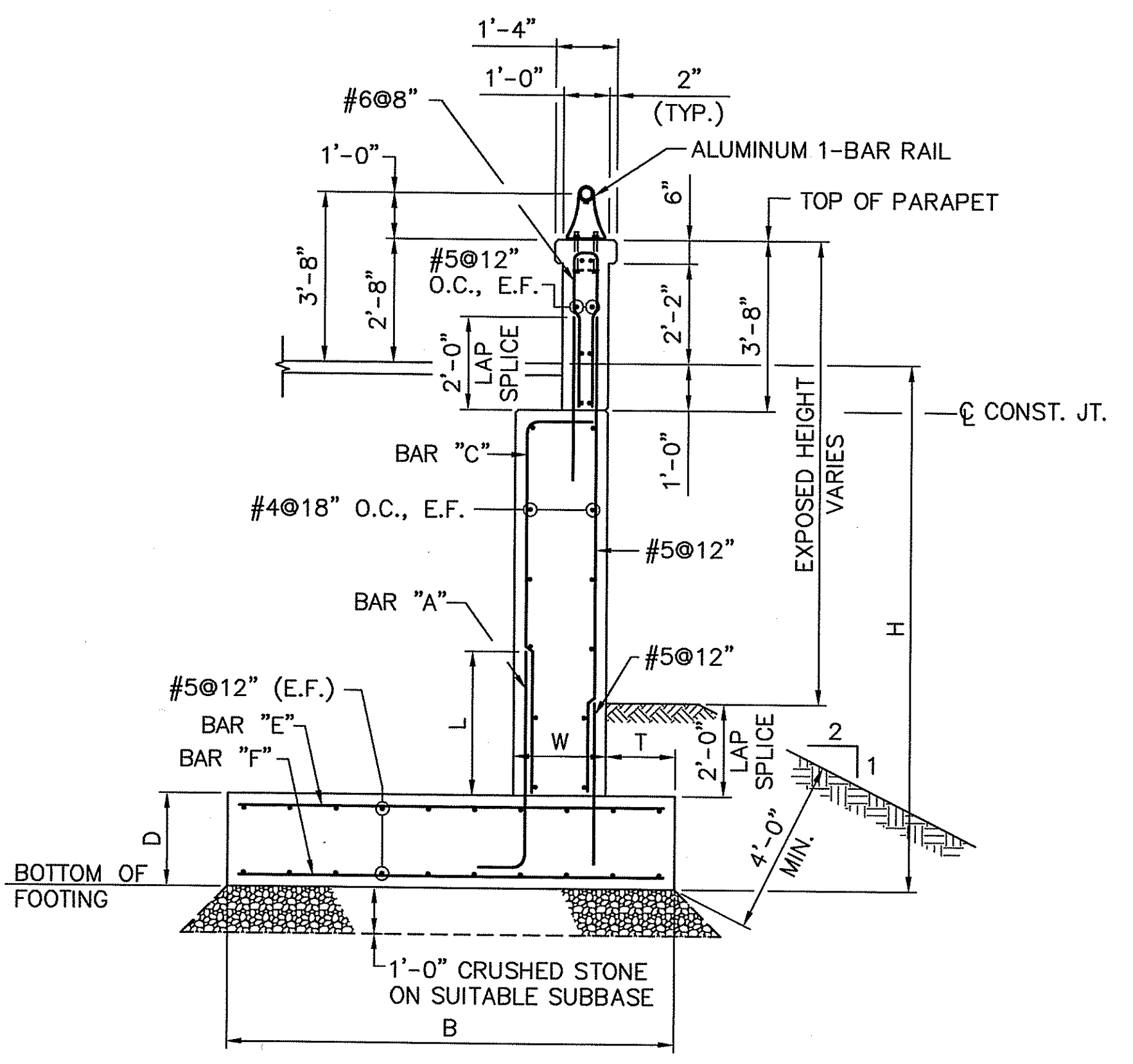




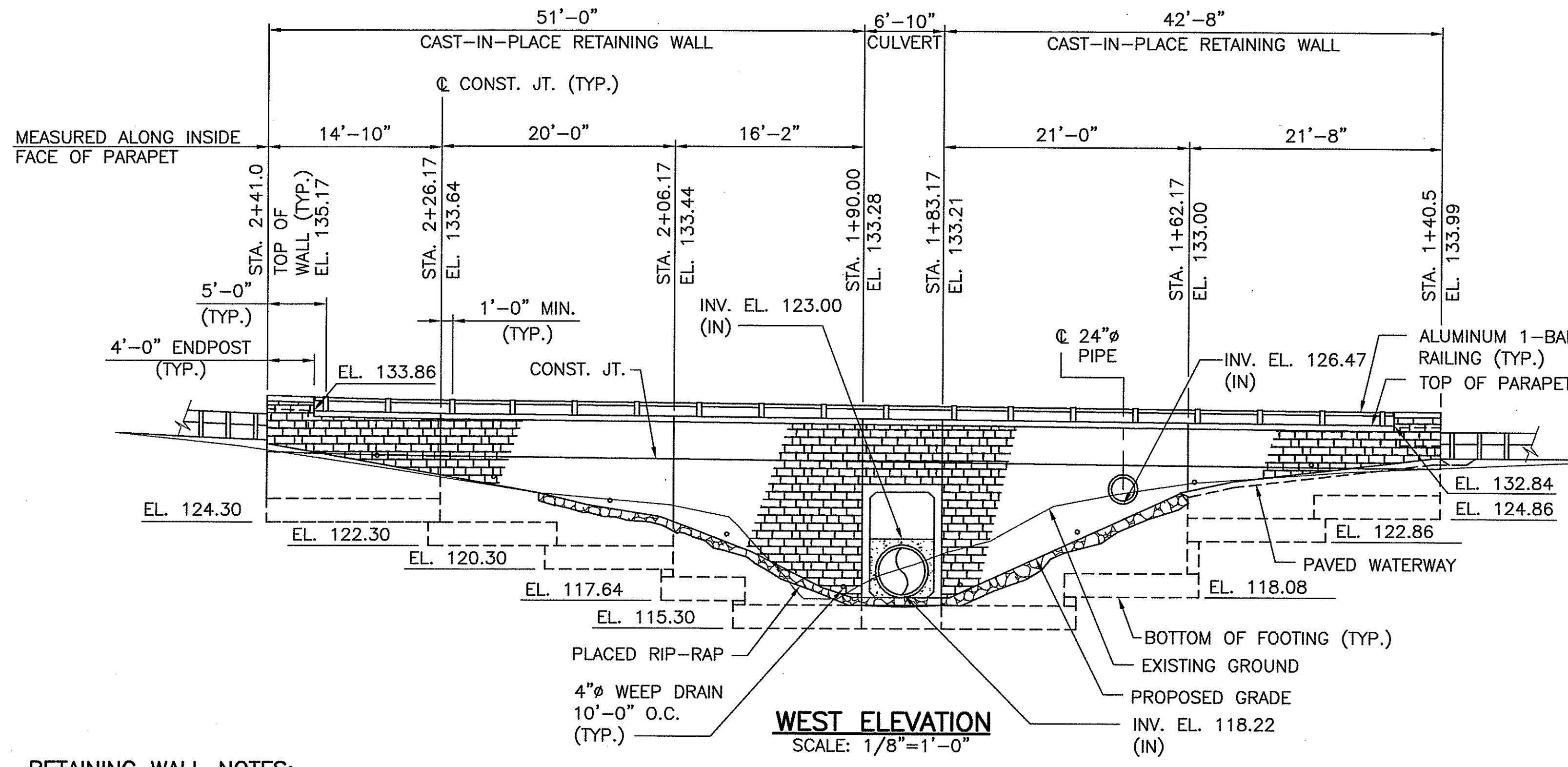




**EAST ELEVATION**  
SCALE: 1/8" = 1'-0"



**TYPICAL SECTION AT RETAINING WALL**  
SCALE: 3/8" = 1'-0"



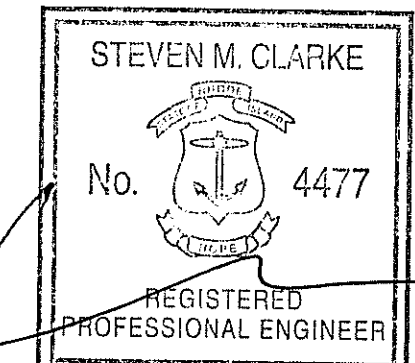
**WEST ELEVATION**  
SCALE: 1/8" = 1'-0"

H	B	T	W	D	BAR "A"	BAR "C"	BAR "E"	BAR "F"	L
6'	4'-0"	0'-9"	1'-3"	1'-3"					
7'	4'-9"	0'-10"	1'-3"	1'-3"					
8'	5'-6"	1'-0"	1'-3"	1'-3"					
10'	6'-9"	1'-3"	1'-6"	1'-3"					
11'	7'-6"	1'-5"	1'-6"	1'-6"					
13'	9'-0"	1'-8"	1'-6"	1'-9"					
14'	9'-6"	1'-9"	1'-6"	1'-9"					
15'	10'-3"	1'-11"	1'-6"	2'-0"					
17'	11'-9"	2'-3"	1'-6"	2'-3"					
19'	13'-0"	2'-6"	1'-6"	2'-6"					

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**RETAINING WALL NOTES:**  
ALTERNATE 2 - REINFORCED CAST-IN-PLACE CONCRETE CANTILEVER RETAINING WALL

- RETAINING WALLS SHALL CONSIST OF FURNISHING AND CONSTRUCTING REINFORCED CAST-IN-PLACE CONCRETE RETAINING WALL TO THE LINES AND GRADES SHOWN ON THESE PLANS.
- THE DESIGN OF THE WALL IS SHOWN ON THE PLANS. SHOP DRAWINGS ARE NOT REQUIRED UNLESS THE CONTRACTOR PROPOSES TO ALTER THE DESIGN OR DETAILS PROVIDED ON THIS SHEET. IF THE CONTRACTOR PROPOSES TO MODIFY THIS DESIGN HE SHALL SUBMIT STAMPED SHOP DRAWINGS FOR ALL MODIFICATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION.
- THE EXTERIOR SURFACE OF THE WALLS SHALL BE CAST WITH A FORM LINER TO PROVIDE AN ARCHITECTURAL FINISH. THE FINISH SHALL BE AT THE APPROVAL OF THE CITY OF CRANSTON PRIOR TO CONSTRUCTION.



NO.	DATE	BY

**CITY OF CRANSTON**

**BRIDGE REPLACEMENT  
NATICK AVE. BRIDGE**

CRANSTON, RHODE ISLAND

**RETAINING WALL ELEVATIONS  
& DETAILS - ALTERNATE 2**

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ SCALE AS SHOWN

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