

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2008	1	13

INDEX of DRAWINGS

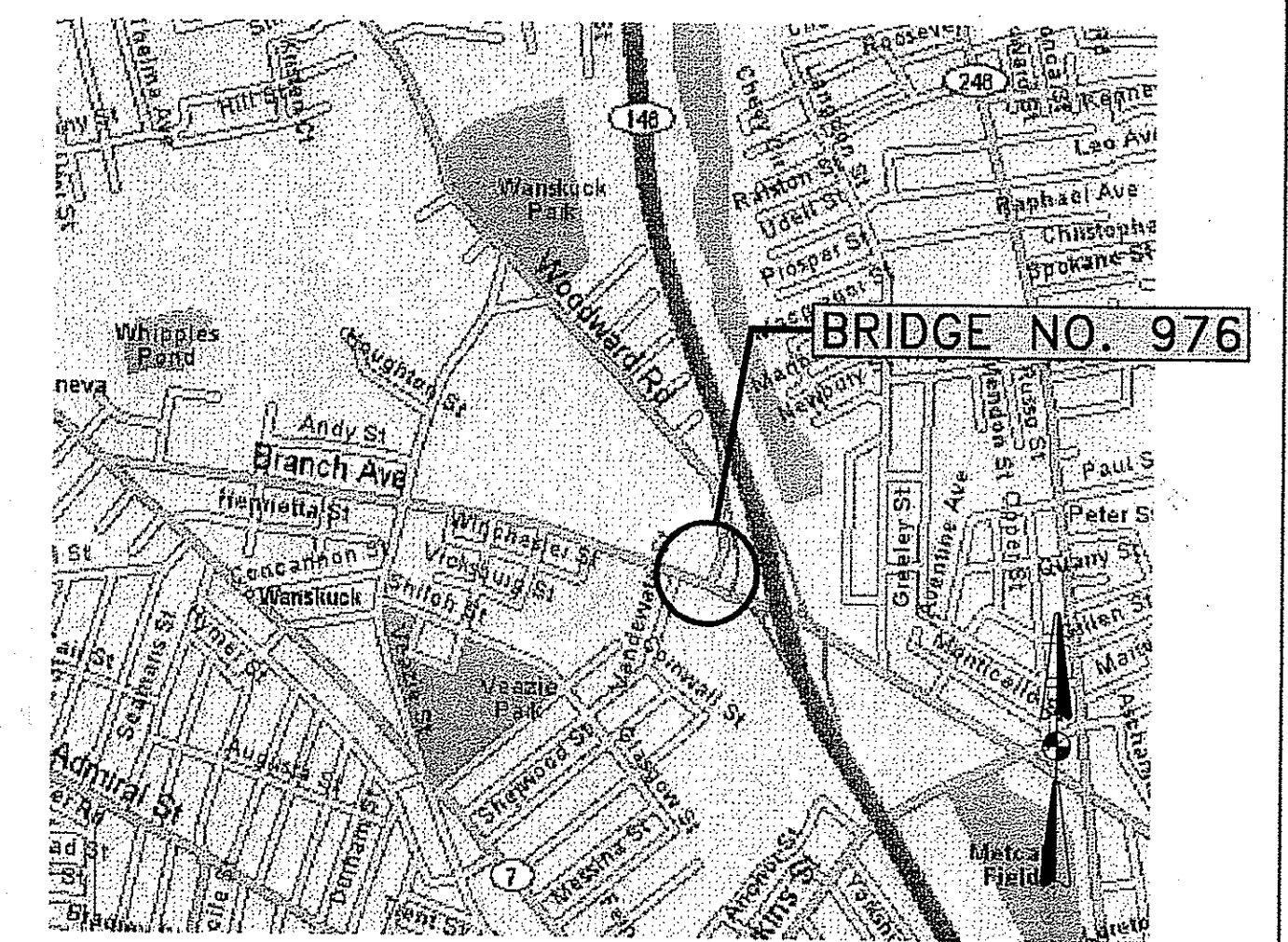
SHEET No.	DESCRIPTION
1.	COVER SHEET
2.	STANDARD PLAN SYMBOLS & STANDARD LEGEND
3.	STANDARD NOTES - 1
4.	STANDARD NOTES - 2
5.	JOB SPECIFIC PLAN SYMBOLS, LEGEND & NOTES
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7.	GENERAL NOTES - SHEET 2
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9.	GENERAL PLAN
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11.	GRADE PLAN
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30.	WEST ABUTMENT - PLAN AND ELEVATION
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STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PLAN, PROFILE AND SECTIONS OF PROPOSED REPLACEMENT OF BRANCH AVENUE BRIDGE No. 976

PROVIDENCE, RHODE ISLAND
PROVIDENCE COUNTY

R.I. FEDERAL AID PROJECT No.
R.I. CONTRACT No.
LENGTH = 0.05 MILES



LOCATION MAP

SCALE: 1"=500'

NOV 19 2009

PAVEMENT COMPOSITION

2" BITUMINOUS SURFACE COURSE, TYPE I-1
6" BITUMINOUS CONCRETE BASE IN 2-3" LIFTS
12" GRAVEL BORROW SUBBASE

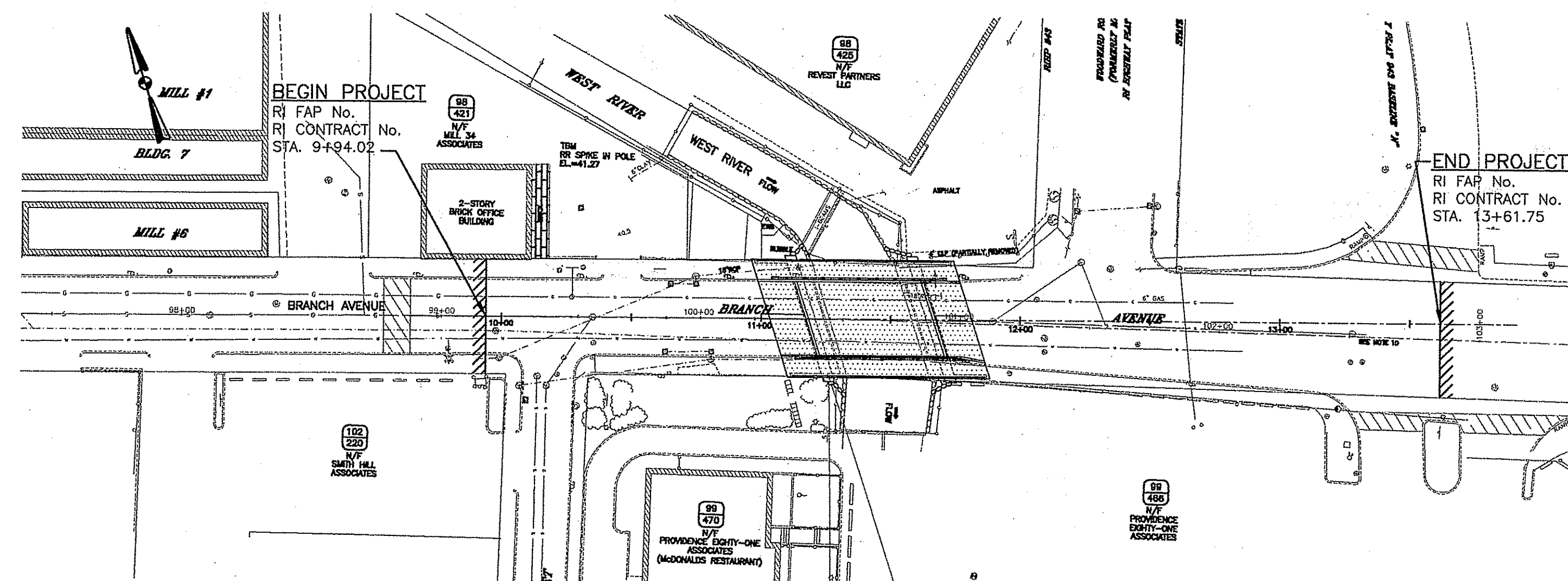
PROVIDE ASPHALT EMULSION TACK COAT
BETWEEN ALL BITUMINOUS SURFACES.

DESIGN DESIGNATION

AADT (2008) = 24,000 VPD
AADT (2028) = 27,700 VPD
DHV (2028) = 2,275 VPD
D = 56%
T = 5%
V = 30 MPH

HYDRAULIC DATA

DRAINAGE AREA = 23.1 SQ. MI.
100-YEAR FLOOD EL. = 34.95 FT.
Q₁₀₀ = 927 CFS
V₍₁₀₀₎ = 7.72 FT/S



BASE OF LEVELS
N.G.V.D. of 1929

PLAN

SCALE: 1"=40'

R.I. STANDARD SPECIFICATIONS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, AND: THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, REVISED JUNE 15, 1998.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM R.I.
APPROVED WITH CONDITIONS APPROVED
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 11 2009 FILE # 07-028-3
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Horbe

DEPARTMENT OF TRANSPORTATION

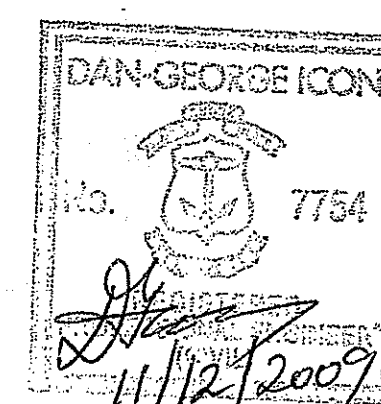
DESIGN ENGINEER DATE

CHIEF ENGINEER DATE

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED

DIVISION ADMINISTRATOR DATE



ENVIRONMENTAL SUBMITTAL

CROSSMAN ENGINEERING, INC.
Civil - Transportation - Environmental - Site Planning - Land Surveying
151 Centerville Road
Warwick, Rhode Island 02886

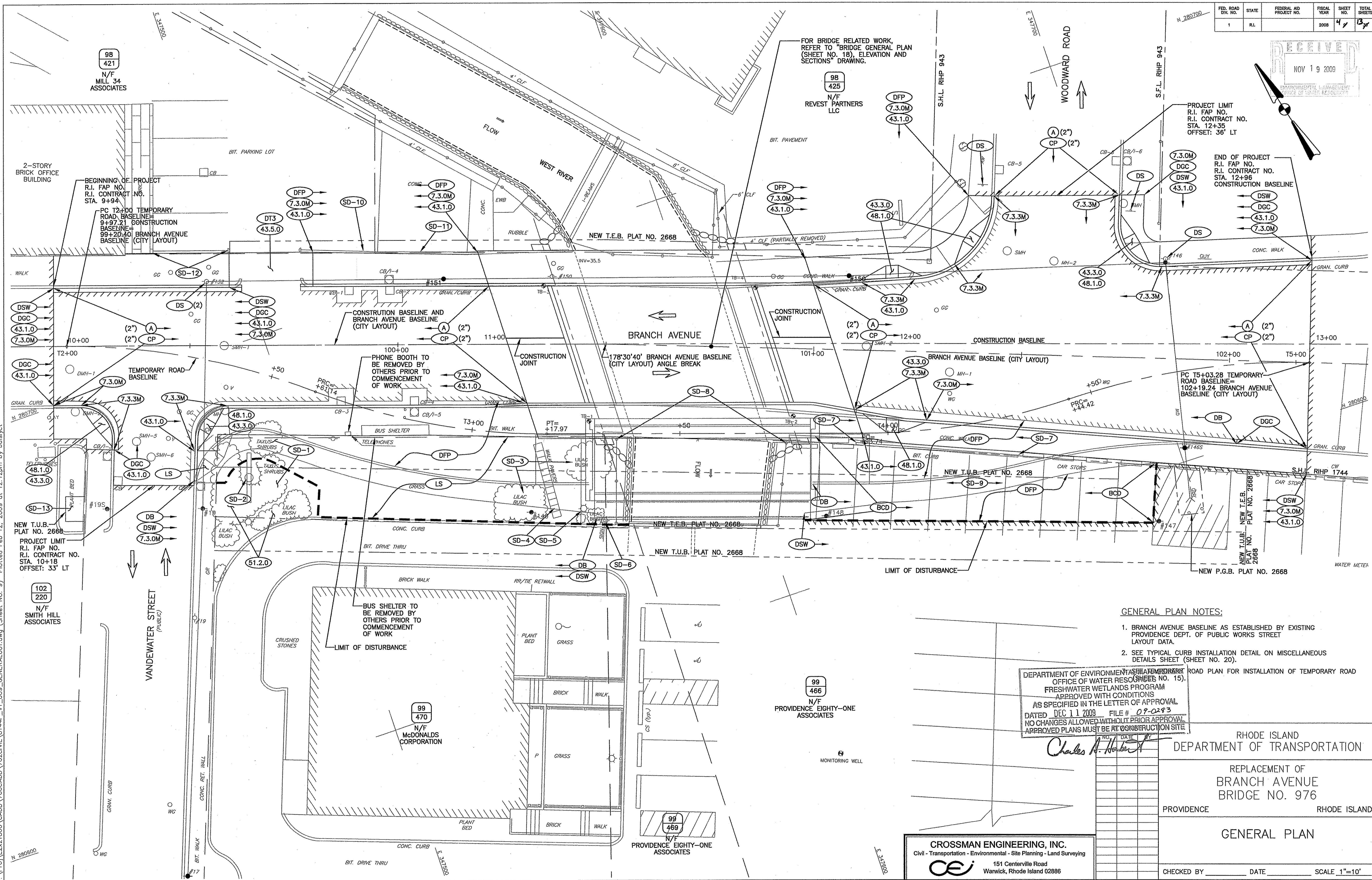
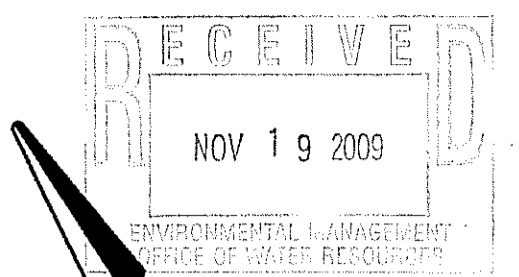
JACOBS JACOBS ENGINEERING GROUP, INC.
343 CONGRESS STREET
BOSTON, MA 02110
(817) 242-9222

Contract Number 2001-EB-008

Number of Sheet . . . 1 . . .

Total Sheets 39

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.		2008	4	13



- GENERAL PLAN NOTES:**
- BRANCH AVENUE BASELINE AS ESTABLISHED BY EXISTING PROVIDENCE DEPT. OF PUBLIC WORKS STREET LAYOUT DATA.
 - SEE TYPICAL CURB INSTALLATION DETAIL ON MISCELLANEOUS DETAILS SHEET (SHEET NO. 20).

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES (SHEET NO. 15)
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 11 2009 FILE # 07-0283
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE RE-CORRECTED AT CONSTRUCTION SITE

Charles A. Hildebrand

RHODE ISLAND
 DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF
 BRANCH AVENUE
 BRIDGE NO. 976

PROVIDENCE RHODE ISLAND

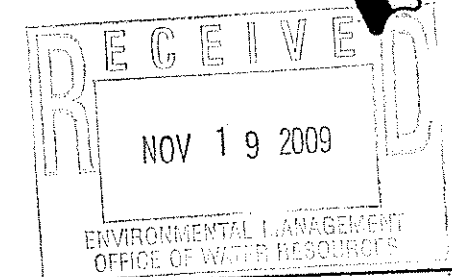
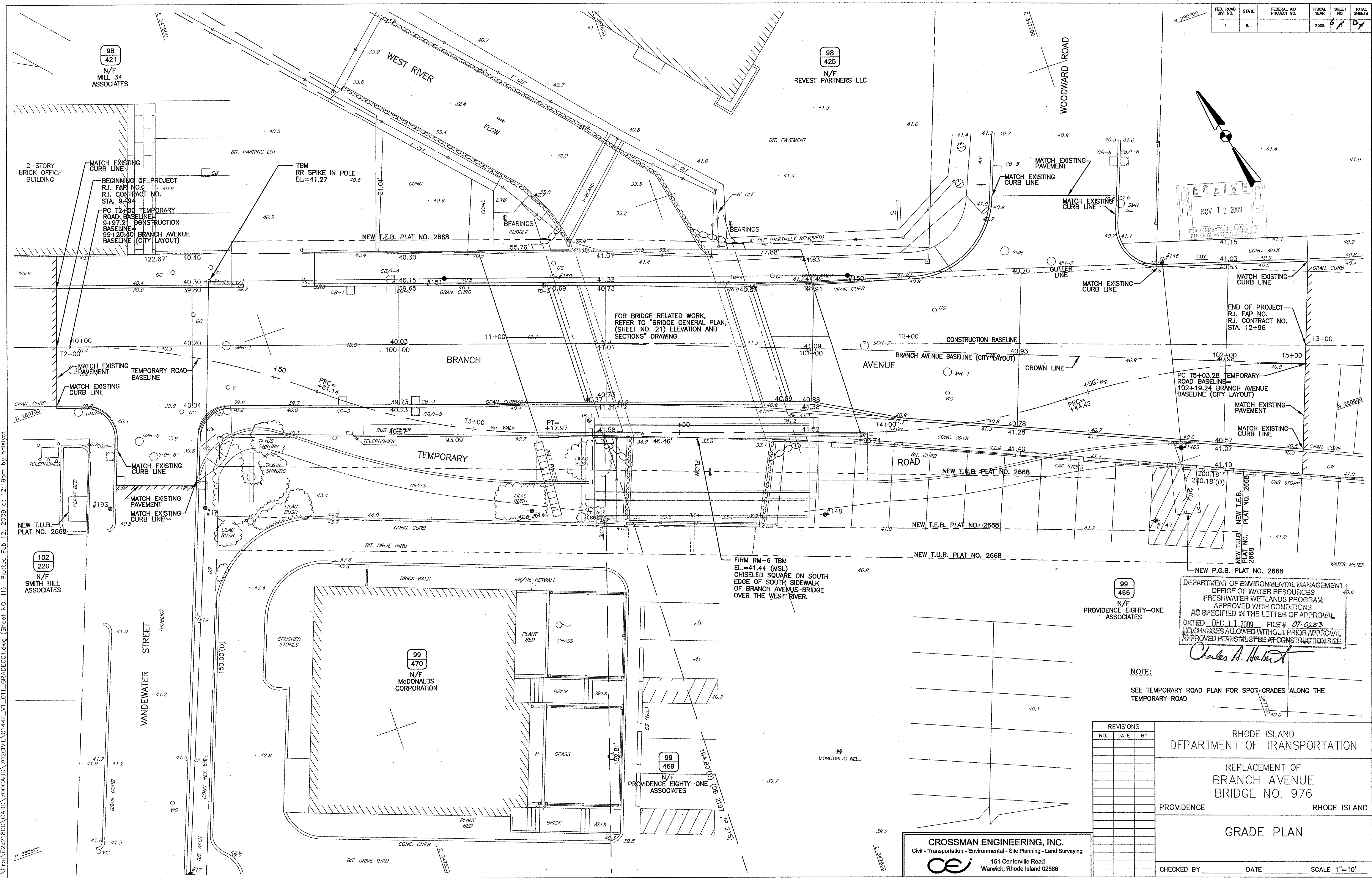
GENERAL PLAN

CROSSMAN ENGINEERING, INC.
 Civil - Transportation - Environmental - Site Planning - Land Surveying
 151 Centerville Road
 Warwick, Rhode Island 02886

CHECKED BY _____ DATE _____ SCALE 1"=10'

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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2008	5	13



FOR BRIDGE RELATED WORK, REFER TO "BRIDGE GENERAL PLAN, (SHEET NO. 21) ELEVATION AND SECTIONS" DRAWING

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 11 2009 FILE # 07-0283
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Herbert

NOTE:
 SEE TEMPORARY ROAD PLAN FOR SPOT GRADES ALONG THE TEMPORARY ROAD

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
 DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF
 BRANCH AVENUE
 BRIDGE NO. 976
 PROVIDENCE RHODE ISLAND

GRADE PLAN

CHECKED BY _____ DATE _____ SCALE 1"=10'

CROSSMAN ENGINEERING, INC.
 Civil - Transportation - Environmental - Site Planning - Land Surveying
 151 Centerville Road
 Warwick, Rhode Island 02886

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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.		2008	1	1

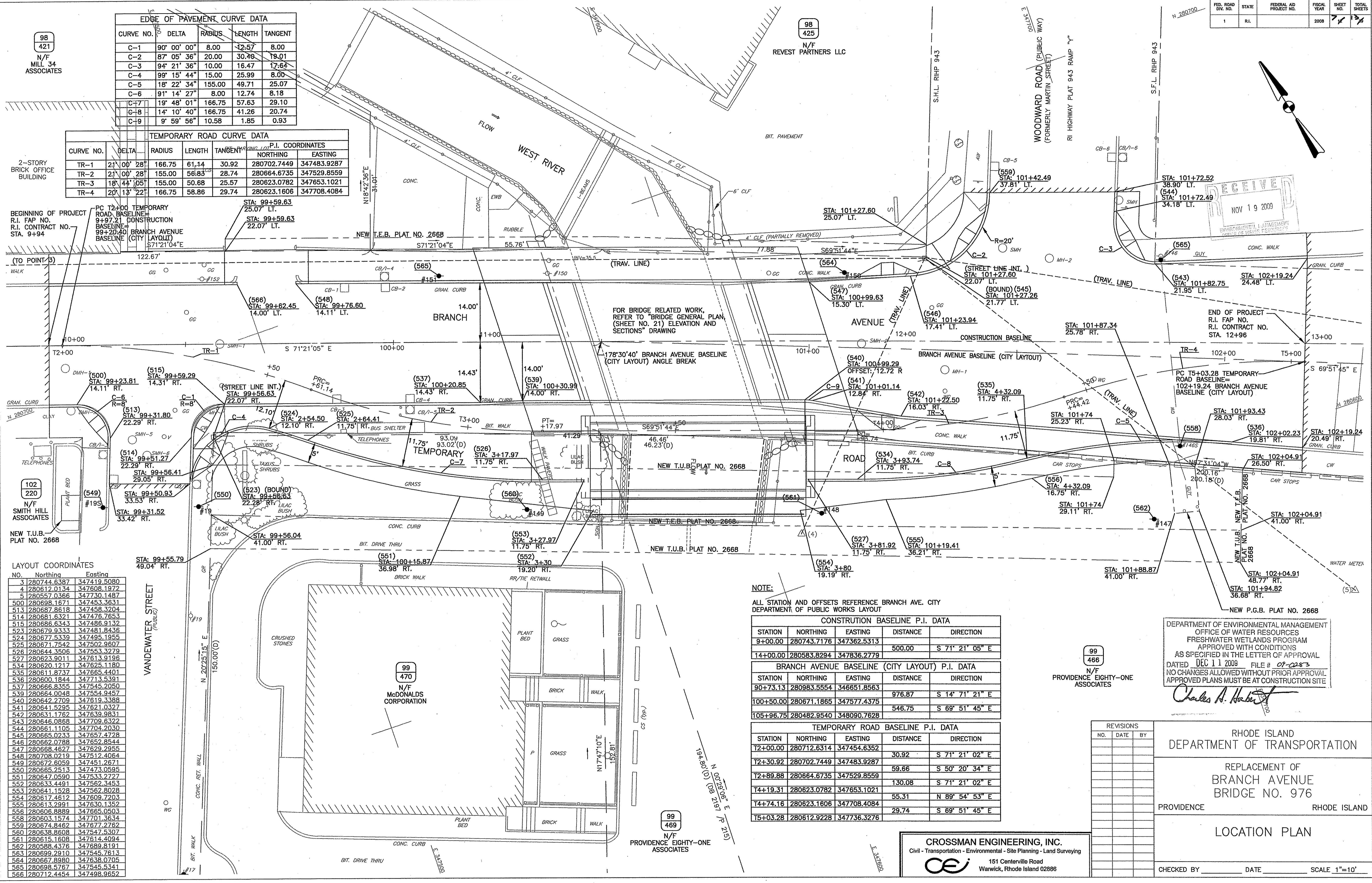
CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
C-1	90° 00' 00"	8.00	12.57	8.00
C-2	87° 05' 36"	20.00	30.49	19.01
C-3	94° 21' 36"	10.00	16.47	17.64
C-4	99° 15' 44"	15.00	25.99	8.00
C-5	18° 22' 34"	155.00	49.71	25.07
C-6	91° 14' 27"	8.00	12.74	8.18
C-7	19° 48' 01"	166.75	57.63	29.10
C-8	14° 10' 40"	166.75	41.26	20.74
C-9	9° 59' 56"	10.58	1.85	0.93

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	P.I. COORDINATES	
					NORTHING	EASTING
TR-1	21° 00' 28"	166.75	61.14	30.92	280702.7449	347483.9287
TR-2	21° 00' 28"	155.00	56.83	28.74	280664.6735	347529.8559
TR-3	18° 44' 05"	155.00	50.68	25.57	280623.0782	347653.1021
TR-4	20° 13' 22"	166.75	58.86	29.74	280623.1806	347708.4084

2-STORY BRICK OFFICE BUILDING
 BEGINNING OF PROJECT R.I. FAP NO. R.I. CONTRACT NO. STA. 9+94
 (TO POINT B)

NO.	Northing	Eastng
3	280744.6387	347419.5080
4	280612.0134	347608.1972
5	280557.0366	347730.1487
500	280698.1671	347453.3631
513	280687.8618	347458.3204
514	280681.6321	347476.7653
515	280686.6343	347486.9132
523	280679.9333	347481.8436
524	280677.5339	347495.1955
525	280671.7542	347502.9607
526	280644.3506	347553.3279
527	280623.9011	347613.9196
534	280620.1217	347625.1180
535	280611.8737	347665.4401
536	280600.1844	347713.5391
537	280666.8365	347545.2050
539	280664.0048	347554.9457
540	280642.2709	347619.3388
541	280641.5295	347621.0327
542	280631.1762	347639.9831
543	280646.0868	347709.6322
544	280661.1105	347704.2030
545	280665.0233	347657.4728
546	280662.0788	347652.8544
547	280668.4627	347629.2955
548	280708.0219	347512.4064
549	280672.6059	347451.2671
550	280665.2513	347473.0595
551	280647.0590	347533.2727
552	280633.4491	347562.3453
553	280641.1528	347562.8028
554	280617.4612	347609.7203
555	280613.2991	347630.1352
556	280606.8889	347665.0503
558	280603.1574	347701.3634
559	280674.8482	347677.2782
560	280638.8608	347547.5307
561	280615.1608	347614.4094
562	280588.4376	347689.8191
563	280699.2910	347545.7813
564	280667.8980	347638.0705
565	280698.5767	347545.5341
566	280712.4454	347498.9652

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NOTE:
 ALL STATION AND OFFSETS REFERENCE BRANCH AVE. CITY DEPARTMENT OF PUBLIC WORKS LAYOUT

STATION	NORTHING	EASTING	DISTANCE	DIRECTION
9+00.00	280743.7176	347362.5313		
14+00.00	280583.8294	347836.2779	500.00	S 71° 21' 05" E

STATION	NORTHING	EASTING	DISTANCE	DIRECTION
90+73.13	280983.5554	346651.8563		
100+50.00	280671.1865	347577.4375	976.87	S 14° 71' 21" E
105+96.75	280482.9540	348090.7628	546.75	S 69° 51' 45" E

STATION	NORTHING	EASTING	DISTANCE	DIRECTION
T2+00.00	280712.6314	347454.6352	30.92	S 71° 21' 02" E
T2+30.92	280702.7449	347483.9287	59.66	S 50° 20' 34" E
T2+89.88	280664.6735	347529.8559	130.08	S 71° 21' 02" E
T4+19.31	280623.0782	347653.1021	55.31	N 89° 54' 53" E
T4+74.16	280623.1806	347708.4084	29.74	S 69° 51' 45" E
T5+03.28	280612.9228	347736.3276		

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 11 2009 FILE # 07-025
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Harter

REVISIONS		
NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF BRANCH AVENUE BRIDGE NO. 976

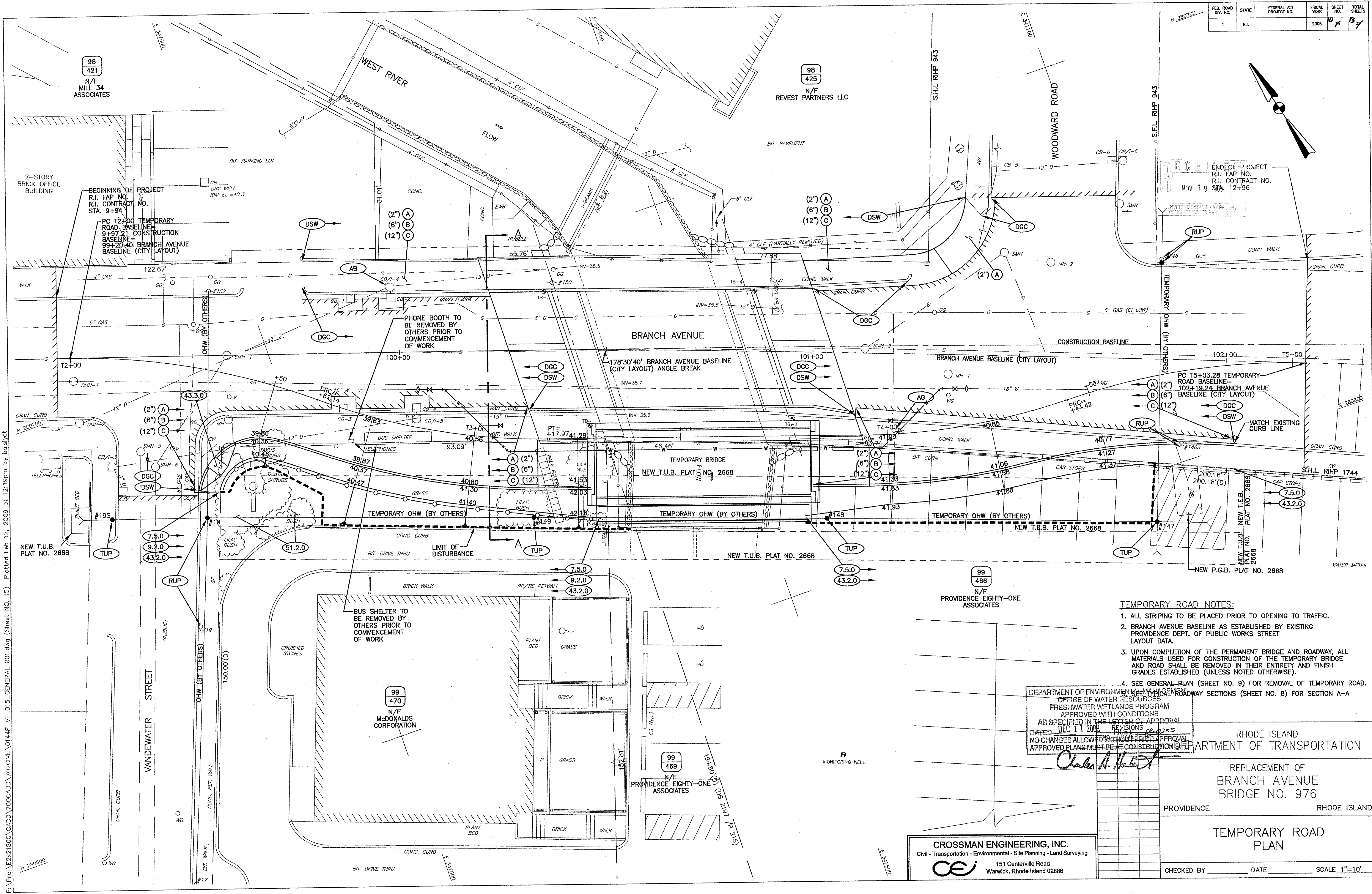
PROVIDENCE RHODE ISLAND

LOCATION PLAN

CHECKED BY _____ DATE _____ SCALE 1"=10'

CROSSMAN ENGINEERING, INC.
 Civil - Transportation - Environmental - Site Planning - Land Surveying
 151 Centerville Road
 Warwick, Rhode Island 02886

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.		2008	10	15



END OF PROJECT
R.I. FAP NO. _____
R.I. CONTRACT NO. _____
NOV 19 STA. 12+96

- TEMPORARY ROAD NOTES:**
- ALL STRIPING TO BE PLACED PRIOR TO OPENING TO TRAFFIC.
 - BRANCH AVENUE BASELINE AS ESTABLISHED BY EXISTING PROVIDENCE DEPT. OF PUBLIC WORKS STREET LAYOUT DATA.
 - UPON COMPLETION OF THE PERMANENT BRIDGE AND ROADWAY, ALL MATERIALS USED FOR CONSTRUCTION OF THE TEMPORARY BRIDGE AND ROAD SHALL BE REMOVED IN THEIR ENTIRETY AND FINISH GRADES ESTABLISHED (UNLESS NOTED OTHERWISE).
 - SEE GENERAL PLAN (SHEET NO. 9) FOR REMOVAL OF TEMPORARY ROAD.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DEC 11 2008 REVISIONS 02-02-08
DATED 02-02-08
NO CHANGES ALLOWED WITHOUT FIELD APPROVAL
APPROVED PLANS MUST BE IN CONSTRUCTION SET

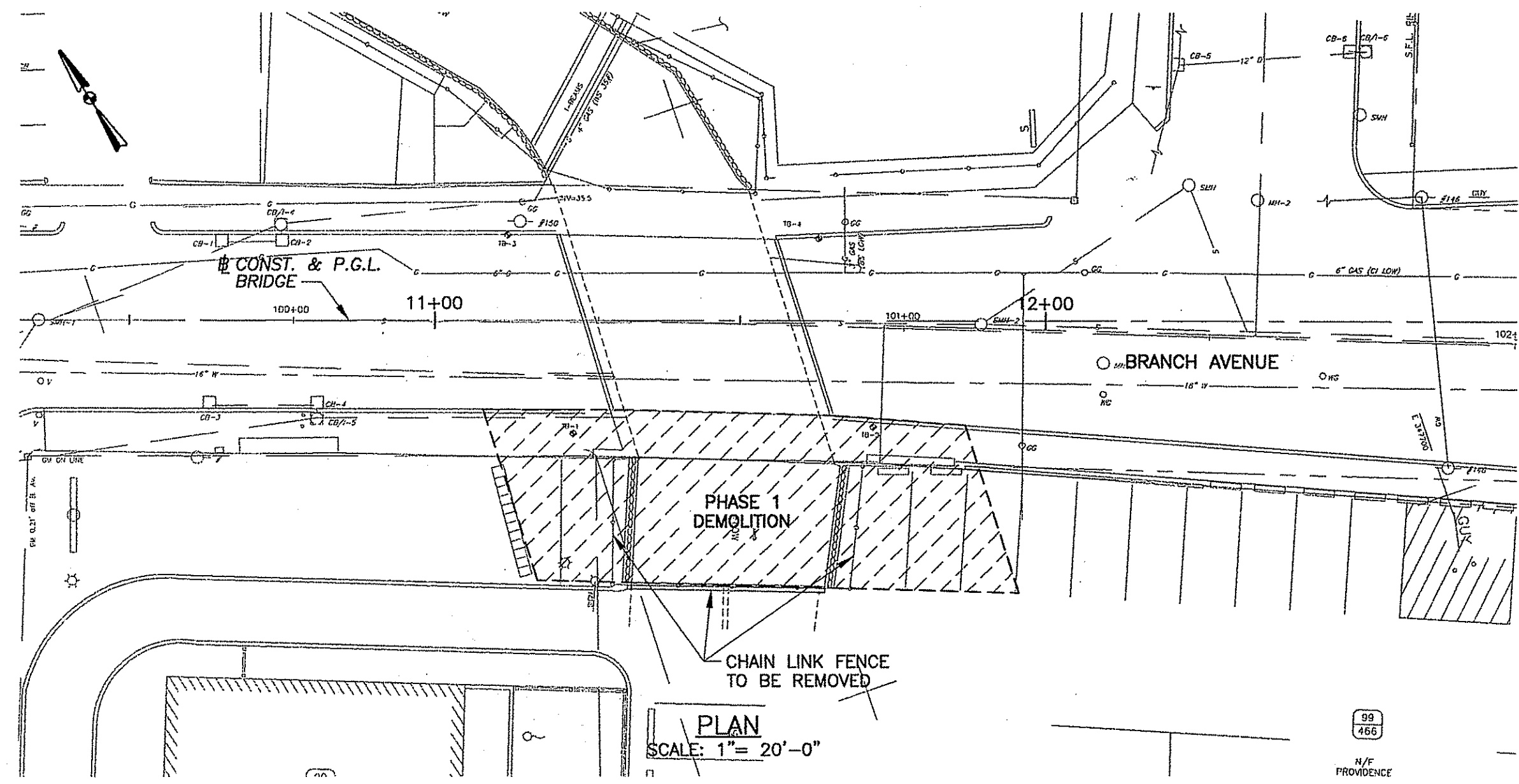
Charles A. Haber

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
REPLACEMENT OF
BRANCH AVENUE
BRIDGE NO. 976
PROVIDENCE RHODE ISLAND

CROSSMAN ENGINEERING, INC.
Civil - Transportation - Environmental - Site Planning - Land Surveying
151 Centerville Road
Warwick, Rhode Island 02886

TEMPORARY ROAD
PLAN
CHECKED BY _____ DATE _____ SCALE 1"=10'

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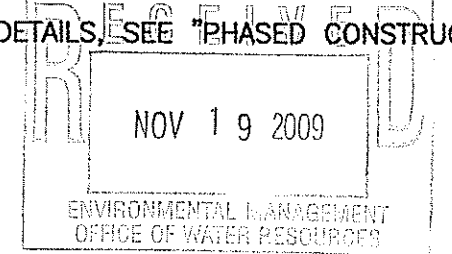


PHASE 1 DEMOLITION:

1. REMOVE THE SOUTH ORNAMENTAL (HISTORIC) PEDESTRIAN RAILING, WITHOUT DAMAGING ITS STRUCTURAL INTEGRITY. THE PEDESTRIAN RAILING SHOULD BE STORED IN THE SHOP WHERE THE REPLICATION WILL BE PERFORMED.
2. REMOVE THE THREE SEGMENTS OF CHAIN LINK FENCE ON THE SOUTH SIDE OF THE BRIDGE TO MAKE ROOM FOR THE TEMPORARY BRIDGE.
3. SAW CUT PORTION OF THE SUPERSTRUCTURE AS INDICATED ON SHEET NO. 22 FOR PHASE 1 CONSTRUCTION AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

NOTES:

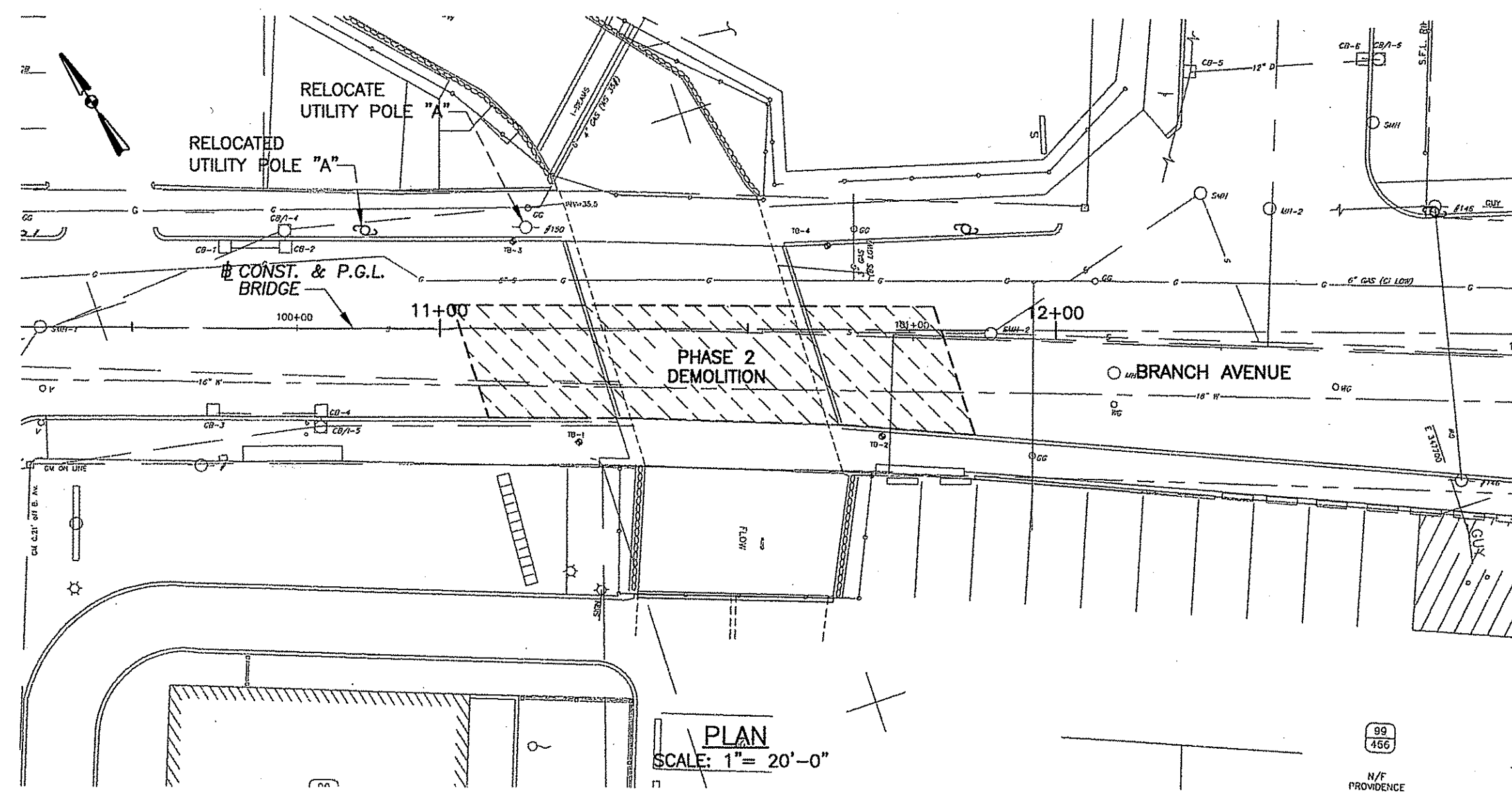
1. DEMOLITION OF SUPERSTRUCTURE AND CONSTRUCTION OF BRIDGE IMPROVEMENTS SHALL BE FROM ABOVE THE RIVER. FALLEN DEBRIS SHALL BE PROMPTLY REMOVED AND DISPOSED OF FROM THE RIVER, AS SOON AS SAFETY PERMITS. NO CONSTRUCTION MACHINERY SHALL ENTER THE RIVER.
2. DEMOLITION QUANTITIES ARE BASED ON EXISTING BRIDGE PLANS AND SUBSURFACE EXPLORATION DATE, AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. RIDOT AND THE ENGINEER ASSUME NO RESPONSIBILITY FOR THEIR ACCURACY.
3. DURING DEMOLITION UTMOST CARE SHALL BE TAKEN TO PREVENT DEBRIS FROM FALLING INTO THE RIVER.
4. FOR MORE DETAILS, SEE "PHASED CONSTRUCTION SEQUENCE" SHEETS.



ESTIMATED DEMOLITION QUANTITIES	
ITEM	QUANTITY
SUPERSTRUCTURE REINF. CONCRETE SAWCUT DEMOLITION	110 CY
CONCRETE ABUTMENT SUBSTRUCTURE SAWCUT DEMOLITION	20 CY
BITUMINOUS WEARING SURFACE REMOVAL	70 TON
HISTORIC PARAPET RAILING REMOVAL	75 LF
EXISTING CHAIN LINK FENCE REMOVAL	140 LF

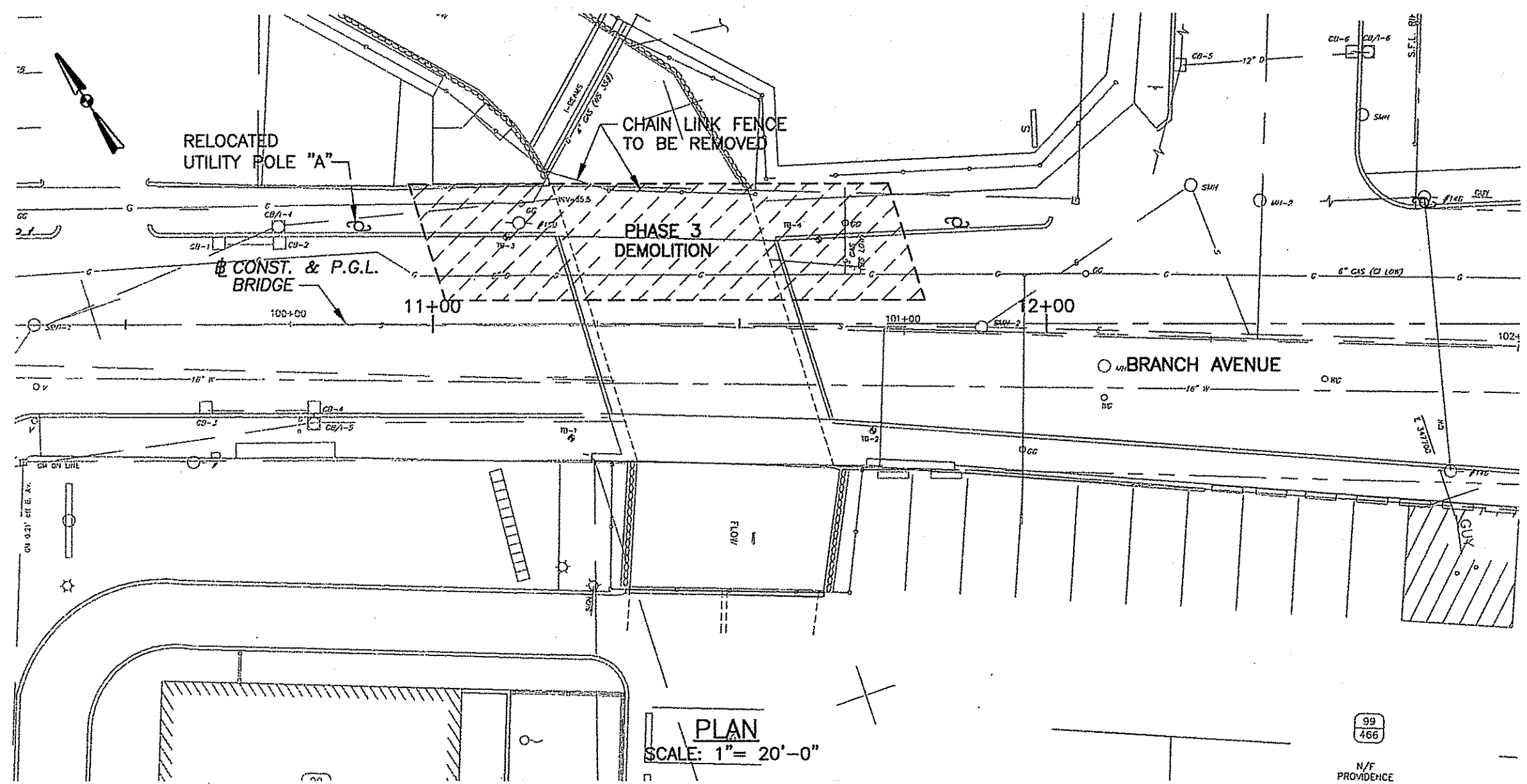
PHASE 2 DEMOLITION:

1. RELOCATE UTILITY POLE "A" AS SHOWN ON THE UTILITY PLAN, SHEET NO. 9.
2. SAW CUT PORTION OF THE SUPERSTRUCTURE AS INDICATED ON SHEET NO. 22 FOR PHASE 2 CONSTRUCTION AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



PHASE 3 DEMOLITION:

1. REMOVE THE CHAIN LINK FENCE ON THE NORTH SIDE OF THE BRIDGE.
2. SAW CUT PORTION OF THE SUPERSTRUCTURE AS INDICATED ON SHEET NO. 22 FOR PHASE 3 CONSTRUCTION AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 11 2009 FILE # 07-0283
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Harbeck

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
 DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF
 BRANCH AVENUE
 BRIDGE NO. 976
 PROVIDENCE RHODE ISLAND

BRIDGE DEMOLITION
 PLAN

CHECKED BY _____ DATE _____ SCALE 1" = 10'

JACOBS 343 CONGRESS STREET
 BOSTON, MA 02110