FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	1	36

INDEX - VOLUME 1 HIGHWAY PLANS

STATE OF RHODE ISLAND

DEPARTMENT OF TRANSPORTATION

PLAN, PROFILES AND SECTIONS OF PROPOSED

BRIDGE REPLACEMENT

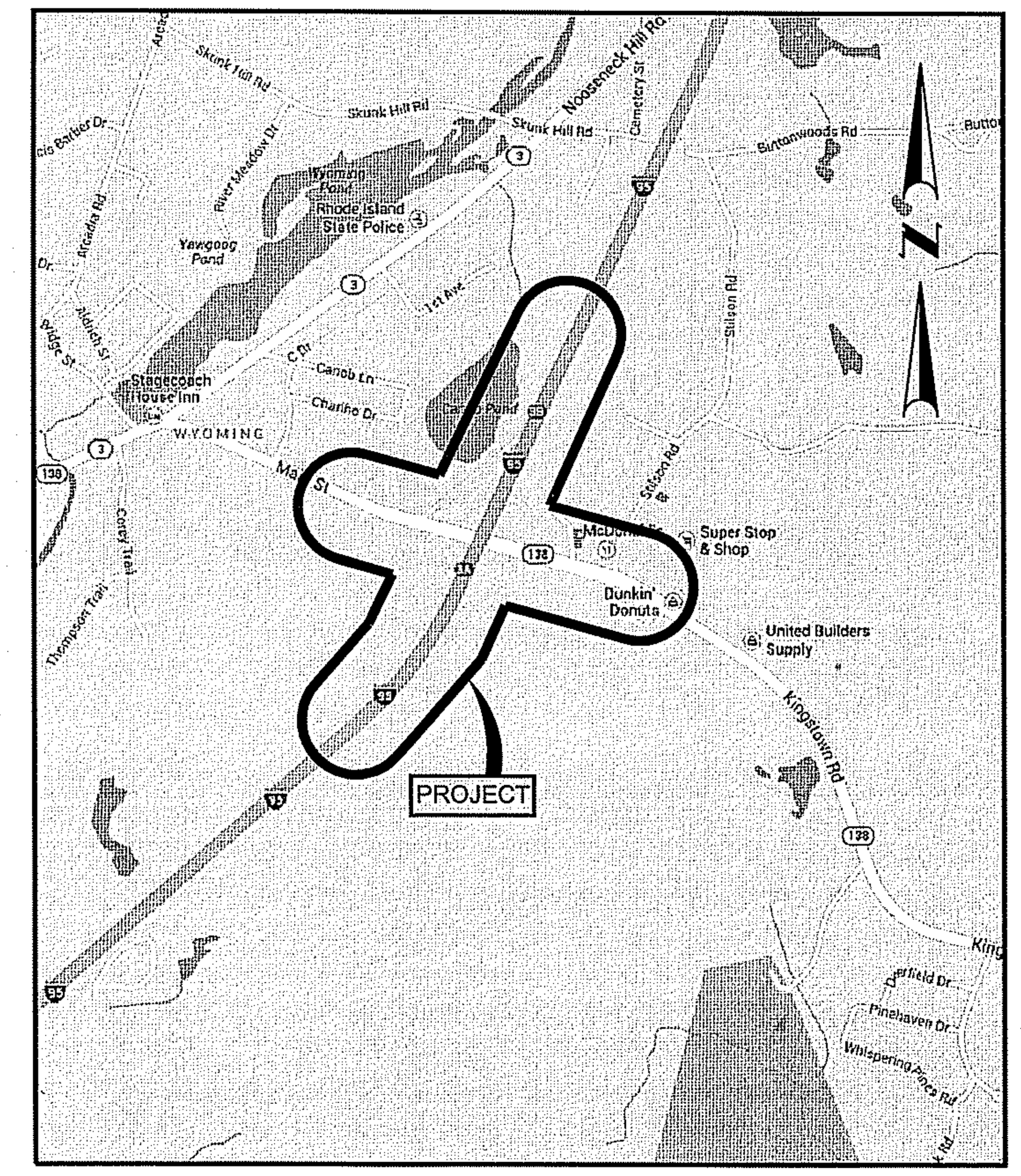
KINGSTON ROAD BRIDGE NO. 403
I-95 INTERCHANGE AND R.I. ROUTE 138 (KINGSTOWN ROAD)

PROJECT LIMITS

I-95 SOUTHBOUND STA. 851+00 TO STA. 895+50
I-95 NORTHBOUND STA. 837+50 TO STA. 889+00
KINGSTOWN ROAD STA. 304+50 TO MAIN STREET STA. 321+00
RICHMOND, RHODE ISLAND
WASHINGTON COUNTY

R.I. CONTRACT NO. 2018-CB-022   F.A. PROJECT NO.

PROJECT LENGTH
I-95 INTERCHANGE = 1.10 MILES
R.I. ROUTE 138 (KINGSTOWN ROAD) = 0.32 MILES



LOCATION MAP
NO TO SCALE

Environmental Management
MAR 20 2018
Office of Water Resources

DESIGN DESIGNATION

I-95
2016 AADT = 51,300 V.P.D.
2036 AADT = 63,300 V.P.D.
2016 DHV = 4,470 V.P.H.
2036 DHV = 5,510 V.P.H.
D = 52% NB/48% SB
K = 8.7%
T = 11.5%
V = 70 M.P.H.

KINGSTOWN RD. AT BRIDGE NO. 403
2016 AADT = 16,700 V.P.D.
2036 AADT = 20,600 V.P.D.
2016 DHV = 1,340 V.P.H.
2036 DHV = 1,650 V.P.H.
D = 60% EB/40% WB
K = 8.0%
T = 3.0%
V = 35 M.P.H. (85th PERCENTILE)

KINGSTOWN RD. (EAST OF BRIDGE)
2016 AADT = 16,900 V.P.D.
2036 AADT = 20,900 V.P.D.
2016 DHV = 1,360 V.P.H.
2036 DHV = 1,680 V.P.H.
D = 52% EB/48% WB
K = 8.0%
T = 3.0%
V = 35 M.P.H. (85th PERCENTILE)

MAIN ST. (WEST OF BRIDGE)
2016 AADT = 14,000 V.P.D.
2036 AADT = 17,200 V.P.D.
2016 DHV = 1,210 V.P.H.
2036 DHV = 1,480 V.P.H.
D = 50% EB/50% WB
K = 8.6%
T = 3.0%
V = 35 M.P.H. (85th PERCENTILE)

RAMP "A" (+ RAMP "G")
2016 AADT = 2,100 (+2,200) = 4,300 V.P.D.
2036 AADT = 2,600 (+2,700) = 5,300 V.P.D.
2016 DHV = 250 (+260) = 510 V.P.H.
2036 DHV = 310 (+320) = 630 V.P.H.
D = 100%
K = 11.7%
T = 3.0%
V = 40 M.P.H.

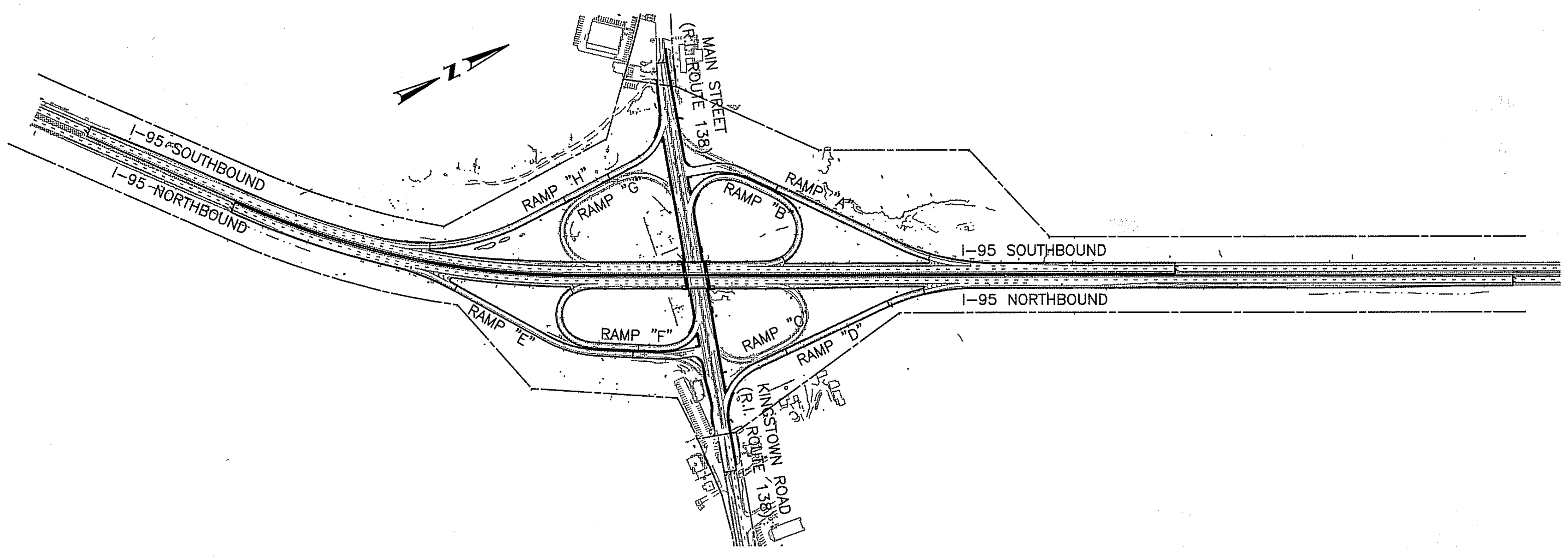
RAMP "B"
2016 AADT = 3,100 V.P.D.
2036 AADT = 3,800 V.P.D.
2016 DHV = 310 V.P.H.
2036 DHV = 380 V.P.H.
D = 100%
K = 10.0%
T = 3.0%
V = 15 M.P.H.

RAMP "D"
2016 AADT = 2,500 V.P.D.
2036 AADT = 3,100 V.P.D.
2016 DHV = 280 V.P.H.
2036 DHV = 350 V.P.H.
D = 100%
K = 11.1%
T = 3.0%
V = 40 M.P.H.

RAMP "H"
2016 AADT = 1,200 V.P.D.
2036 AADT = 1,400 V.P.D.
2016 DHV = 120 V.P.H.
2036 DHV = 140 V.P.H.
D = 100%
K = 9.6%
T = 3.0%
V = 40 M.P.H.

RAMP "F"
2016 AADT = 1,700 V.P.D.
2036 AADT = 2,100 V.P.D.
2016 DHV = 200 V.P.H.
2036 DHV = 250 V.P.H.
D = 100%
K = 11.5%
T = 3.0%
V = 15 M.P.H.

RAMP "E" (+ RAMP "C")
2016 AADT = 3,400 (+900) = 4,300 V.P.D.
2036 AADT = 4,200 (+1,100) = 5,300 V.P.D.
2016 DHV = 340 (+90) = 430 V.P.H.
2036 DHV = 420 (+110) = 530 V.P.H.
D = 100%
K = 9.9%
T = 3.0%
V = 40 M.P.H.



LAYOUT PLAN
SCALE: 1"=400'

HURRICANE EVACUATION ROUTE

THIS PROJECT IS ON A DESIGNATED HURRICANE AND DIVERSIONARY ROUTE. THE CONTRACTOR SHALL REFER TO THE GENERAL BRIDGE NOTES FOR SPECIAL REQUIREMENTS.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DEM SUBMISSION
MARCH 16, 2018

SCALES OF DRAWINGS

Plans	1 inch = 20 feet
Plans (I–95)	1 inch = 40 feet
Profiles	1 inch = 20 feet Horizontal
Profiles	1 inch = 4 feet Vertical
Cross Sections	1 inch = 4 feet Horizontal
Cross Sections	1 inch = 4 feet Vertical

BASE OF LEVELS
NAVD 1988 VERTICAL

RI PLANE COORDINATE SYSTEM
NAD 1983 HORIZONTAL

THOMAS M. CUNNINGHAM
No. PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 2013, WITH ALL REVISIONS AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.

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

Contract Number	2018-CB-022
Volume Number	1
Number of Sheet	1
Total Sheets	36

R.I. DEPARTMENT OF TRANSPORTATION

APPROVED
ADMINISTRATOR, PROJECT MANAGEMENT ____ DATE

APPROVED
CHIEF ENGINEER OF INFRASTRUCTURE ____ DATE

APPROVED
DIRECTOR ____ DATE

US DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED
DIVISION ADMINISTRATOR ____ DATE

CEC# 01060.00

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	2	36

EXISTING

	EDGE OF PAVEMENT
	BERM
	CURB
	GUARDRAIL
MB	MAILBOX
NO.	UTILITY POLE
	POLE GUY
	LUMINARE
SIGN	SIGN
(SIZE)SD	SUBDRAIN
(SIZE)D	STORMDRAIN
(SIZE)S	SANITARY SEWER
(SIZE)W	WATER MAIN
(SIZE)G	GAS MAIN
(SIZE)T	TELEPHONE DUCT
(SIZE)E	ELECTRIC DUCT
	PLUG AND CAP PIPE
	ABANDONED UTILITY
	FLARED END SECTION
	HEADWALL
WG OR GG	WATER OR GAS GATE
CB	CATCH BASIN
MH	MANHOLE
HYD	HYDRANT
1+00	BASELINE OR CENTERLINE
EXIST. S.H.L. PLAT NO. XX	STATE HIGHWAY LINE
EXIST. S.F.L. PLAT NO. XX	STATE FREEWAY LINE
EXIST. P.E.B.	PERMANENT EASEMENT LINE
EXIST. T.E.B.	TEMPORARY EASEMENT LINE
P	PROPERTY LINE
CITY NAME / TOWN NAME	CITY OR TOWN LINE
PWW	PAVED WATERWAY
ELEV.	CONTOUR LINE
	OPEN DITCH
R.I.H.B.	R.I. HIGHWAY BOUND
S.B.	STONE BOUND
	RETAINING WALL
	FIELD STONE WALL
NO.	BORINGS
TYPE	FENCE
	WOOD OR BRUSH LINE
(NAME)	TREES
	RIVER OR STREAM
	WETLAND AREA
NO. TYPE MATERIAL	BUILDING
	FOUNDATION
	BUILDING TO BE REMOVED
	RAILROAD TRACKS
	CUT AND MATCH
	RIP–RAP
	CUT SLOPE
	FILL SLOPE
	ROCK CUT
00x00	SPOT GRADE
	AREA GRADED TO DRAIN
	BALED HAY RI STD 9.1.0
	BALED HAY & SILT FENCE RI STD. 9.3.0
123 124 125	EDGE OF WETLAND
	WETLAND PERIMETER
ASSF	AREA SUBJECT TO STORM FLOW
100 YR. FLOOD BOUNDARY	100–YEAR FLOOD PLAIN
	LIMIT OF DISTURBANCE
	LIMIT OF CLEARING

NEW

NO.	
GUY	
N(SIZE)SD (Length — Size)	
N(SIZE)W	
N(SIZE)G	
N–#(SIZE)T	
N–#(SIZE)E	
1+00	
NEW S.H.L. PLAT NO. XX	
NEW S.F.L. PLAT NO. XX	
NEW P.E.B.	
NEW T.E.B.	
ELEV.	
NO.	
ROADWAY / TOP OF SLOPE / ROADWAY / TOE OF SLOPE / ROCK SHELF / ROCK CUT	
00.00 x	
ELEV. x	
LIMIT OF DISTURBANCE	
LIMIT OF CLEARING	

1.1.0	UNDERDRAIN
1.3.0	CONCRETE CONNECTING COLLAR
2.1.0	CONCRETE HEADWALLS FOR PIPE CULVERTS
2.2.0	STANDARD HEADWALLS FOR MULTIPLE 3'–6" TO 7'–0" PIPE CULVERTS
2.3.0 (DIA.)	PRECAST CONCRETE FLARED END SECTION
3.2.0	BRICK/SOLID BLOCK 4'–0" ROUND MANHOLE
3.2.1 (DIA.)	BRICK/SOLID BLOCK 5'–0" OR 6'–0" ROUND MANHOLE
3.3.0	BRICK/SOLID BLOCK TYPE "D" SQUARE CATCH BASIN
3.3.2	BRICK/SOLID BLOCK TYPE "F" SQUARE CATCH BASIN
3.3.3	SOLID BLOCK FLUSH SQUARE CATCH BASIN
3.4.0	BRICK/SOLID BLOCK TYPE "D" ROUND CATCH BASIN
3.4.1	BRICK/SOLID BLOCK ROUND CATCH BASIN WITH GUTTER INLET
3.4.2	BRICK/SOLID BLOCK TYPE "F" ROUND CATCH BASIN
3.4.3	BRICK/SOLID BLOCK TYPE "R" CATCH BASIN
3.4.4	SOLID BLOCK FLUSH ROUND CATCH BASIN
3.4.5 (DIA.)	BRICK/SOLID BLOCK 5'–0" OR 6'–0" ROUND CATCH BASIN
3.5.0	SOLID BLOCK SHALLOW TYPE "F" SQUARE CATCH BASIN
3.5.1 (SIZE)	SOLID BLOCK SHALLOW 5'–0" OR 6'–0" SQUARE CATCH BASIN
3.6.0	BRICK/SOLID BLOCK DROP INLET
3.7.0 (DIA.)	BRICK/SOLID BLOCK ROUND MANHOLE OR CATCH BASIN GREATER THAN 12'–0"
4.2.0	PRECAST 4'–0" ROUND MANHOLE
4.2.1	PRECAST 5'–0" ROUND MANHOLE
4.2.2	PRECAST 6'–0" ROUND MANHOLE
4.3.0 (SIZE)	PRECAST 4'–0" OR 6'–0" SQUARE MANHOLE OR CATCH BASIN
4.4.0 (DIA.)	PRECAST 4'–0", 5'–0", OR 6'–0" ROUND CATCH BASIN
4.5.0	PRECAST CONCRETE DROP INLET
4.5.1	PRECAST CONCRETE DROP INLET LATERAL OUTLET
4.5.2	PRECAST CONCRETE DROP INLET LONGITUDINAL OUTLET
5.3.0	CATCH BASIN AND MANHOLE STEP
5.4.0	CONCRETE COLLARS
6.1.0	LIGHT–DUTY SQUARE FRAME AND ROUND COVER
6.1.1	HEAVY DUTY SQUARE FRAME AND ROUND COVER
6.2.0	LIGHT–DUTY ROUND FRAME AND COVER
6.2.1	HEAVY–DUTY ROUND FRAME AND COVER
6.3.0	SQUARE FRAME AND GRATE
6.3.1	SQUARE FRAME AND GRATE
6.3.2	SQUARE FRAME AND GRATE (BICYCLE SAFE)
6.3.3	HIGH CAPACITY FRAME AND GRATE
6.3.4	HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
6.4.0	ROUND FRAME AND GRATE
7.1.0S	PRECAST CONCRETE CURB (STRAIGHT)
7.1.0C	PRECAST CONCRETE CURB (CIRCULAR)
7.1.1	3'–0" PRECAST CONCRETE TRANSITION CURB
7.1.2	6'–0" PRECAST CONCRETE TRANSITION CURB
7.1.4	PRECAST 2'–0" RADIUS CORNER
7.1.5	PRECAST CONCRETE INLET STONE (FOR SQUARE CATCH BASIN)
7.1.6	PRECAST CONCRETE INLET STONE (FOR ROUND CATCH BASIN)
7.1.7	PRECAST CONCRETE APRON STONE (FOR SQUARE CATCH BASIN)
7.1.8	PRECAST CONCRETE APRON STONE (FOR ROUND CATCH BASIN)
7.2.0S	PRECAST CONCRETE SLOPED FACE CURB (STRAIGHT)
7.2.0C	PRECAST CONCRETE SLOPED FACE CURB (CIRCULAR)
7.2.1	PRECAST CONCRETE SLOPED FACE TRANSITION CURB
7.2.2	PRECAST CONCRETE TRANSITION CURB (VERTICAL FACE TO SLOPED FACE)
7.3.0S	GRANITE CURB (STRAIGHT)
7.3.0C	GRANITE CURB (CIRCULAR)
7.3.1	3'–0" GRANITE TRANSITION CURB
7.3.2	6'–0" GRANITE TRANSITION CURB
7.3.3	GRANITE WHEELCHAIR RAMP TRANSITION CURB
7.3.4	GRANITE 2'–0" RADIUS CORNER
7.3.5	GRANITE INLET STONE (FOR SQUARE CATCH BASIN)
7.3.6	GRANITE INLET STONE (FOR ROUND CATCH BASIN)
7.3.7	GRANITE APRON STONE (FOR SQUARE CATCH BASIN)
7.3.8	GRANITE APRON STONE (FOR ROUND CATCH BASIN)
7.4.0	GRANITE SLOPED FACE CURB
7.4.1	GRANITE SLOPED FACE TRANSITION CURB
7.4.2	GRANITE TRANSITION CURB (VERTICAL FACE TO SLOPE FACE)
7.5.0	BITUMINOUS CONCRETE LIP CURB
7.5.1A	BITUMINOUS BERM (CONSTRUCTION METHOD A)
7.5.1B	BITUMINOUS BERM (CONSTRUCTION METHOD B)
7.6.0	CURB SETTING DETAIL
8.2.0	BITUMINOUS CONCRETE DITCH
8.3.0	RIP–RAP DITCH
8.4.0	PAVED WATERWAY
9.1.0	BALED HAY EROSION CHECK
9.2.0	SILT FENCE DETAIL
9.3.0	BALED HAY DITCH EROSION CHECK AND SILT FENCE COMBINED
9.4.0	BALED HAY DITCH AND SWALE EROSION CHECK
9.5.0	LOG AND HAY CHECK DAM
9.7.0	DEWATERING BASIN
9.8.0	BALED HAY CATCH BASIN INLET PROTECTION
9.9.0	CONSTRUCTION ACCESS
10.1.0	WET STONE MASONRY RETAINING WALL
10.2.0	RUBBLE MASONRY WALL
10.3.0	CONCRETE RETAINING WALL
10.4.0	STONE MASONRY STEPS
14.1.0	CONCRETE HIGHWAY BOUND
15.1.0	POST AND MOUNTINGS FOR RURAL MAILBOX
15.2.0 (NO.)	POST AND MULTIPLE MOUNTINGS FOR RURAL MAILBOXES
18.2.0	PRECAST TYPE "A" HANDHOLE
18.2.2	HEAVY DUTY TYPE "H" HANDHOLE
18.3.0	ALUMINUM LIGHTING STANDARDS
20.2.0	BI–DIRECTIONAL CONTROL DEVICE
24.6.1	STREET SIGN MOUNTING DETAIL
26.2.0	POLYETHYLENE DRUM WITH MARKINGS
26.3.0	PVC PLASTIC PIPE TYPE III BARRICADE
31.1.0	CHAIN LINK FENCE 3'–0" TO 4'–0"
31.2.0	CHAIN LINK FENCE 5'–0" TO 6'–0"
31.2.1	CHAIN LINK FENCE 5'–0" TO 6'–0" INTERMEDIATE POST
31.3.0	WOVEN WIRE RIGHT–OF–WAY FENCE (STEEL POST)
34.1.0	TYPICAL GUARDRAIL INSTALLATION
34.2.0	STEEL BEAM GUARDRAIL
34.2.1	STEEL BEAM GUARDRAIL DETAILS
34.2.2	STEEL BEAM GUARDRAIL DOUBLE FACED ASSEMBLY
34.2.3	STEEL BEAM GUARDRAIL FIXTURES
34.2.5	STEEL BEAM GUARDRAIL REFLECTORIZED TRIANGULAR DELINEATOR
34.3.1	GUARDRAIL END SECTION
34.3.2	TERMINAL END SECTION (SINGLE FACE)
34.3.3	ANCHORAGE DETAILS APPROACH END SECTION
34.3.4	ANCHORAGE DETAILS TRAILING END SECTION
34.4.0	STEEL BACKED TIMBER GUARDRAIL
34.4.1	STEEL BACKED TIMBER GUARDRAIL TERMINAL SECTION–TYPE 1
40.1.0	DOUBLE–FACED PRECAST MEDIAN BARRIER
40.2.0	SINGLE–FACED PRECAST MEDIAN BARRIER
40.2.1	SINGLE–FACED PRECAST MEDIAN BARRIER
40.3.0	PRECAST MEDIAN BARRIER TRANSITION UNIT
40.5.0	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL
43.1.0	CEMENT CONCRETE SIDEWALK
43.2.0	BITUMINOUS CONCRETE SIDEWALK
43.3.0	WHEELCHAIR RAMP
43.3.1	WHEELCHAIR RAMP FOR LIMITED RIGHT–OF–WAY AREAS
43.4.0	DRIVEWAY DEVELOPMENT FOR 3'–0" TRANSITION CURB
43.4.1	DRIVEWAY DEVELOPMENT FOR 6'–0" TRANSITION CURB
43.5.0	CEMENT CONCRETE DRIVEWAYS
48.1.0	DETECTABLE WARNING SYSTEM
51.1.0	TREE PROTECTION DEVICE
51.1.1	DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES
51.2.0	SHRUB PROTECTION DEVICE
51.3.0	TREE WELL
51.4.0	TREE WALL

AB	ADJUST CATCH BASIN TO GRADE
ABM	ADJUST CATCH BASIN TO MANHOLE
AC	ADJUST CURB STOP TO GRADE
AD	ADJUST DRAINAGE MANHOLE TO GRADE
AE	ADJUST ELECTRIC MANHOLE TO GRADE
AFC	ADJUST FRAME AND COVER TO GRADE
AFG	ADJUST FRAME AND GRATE TO GRADE
AG	ADJUST GAS GATE BOX TO GRADE
AHH	ADJUST HANDHOLE TO GRADE
AS	ADJUST SANITARY SEWER MANHOLE TO GRADE
AT	ADJUST TELEPHONE MANHOLE TO GRADE
AW	ADJUST WATER GATE BOX TO GRADE
BCD	BITUMINOUS CONCRETE DRIVEWAY 3" BITUMINOUS CONCRETE TYPE I–2 8" GRAVEL BORROW SUBBASE COURSE
BPS	BUILD NEW STRUCTURE OVER EXISTING PIPE
CCB	CLEAN CATCH BASIN
CCP	CUT AND CAP PIPE WITH RESTRAINT (ALL SIZES)
CFP	CLEAN AND FLUSH PIPE
CG	CLEARING AND GRUBBING
CMH	CLEAN MANHOLE
CP (DEPTH)	COLD PLANE
CPP	CUT AND PLUG PIPE (ALL TYPES, ALL SIZES)
DB	REMOVE AND DISPOSE BITUMINOUS CURB
DC	REMOVE AND DISPOSE CONCRETE CURB
DCB	REMOVE AND DISPOSE CATCH BASIN
DDI	REMOVE AND DISPOSE DROP INLET
DF	REMOVE AND DISPOSE FENCE
DFC	REMOVE AND DISPOSE FRAME AND COVER
DFE	REMOVE AND DISPOSE FLARED END SECTION
DFG	REMOVE AND DISPOSE FRAME AND GRATE
DFH	REMOVE AND DISPOSE FIRE HYDRANT
DFP	REMOVE AND DISPOSE FLEXIBLE PAVEMENT
DG	REMOVE AND DISPOSE GUARDRAIL
DH	REMOVE AND DISPOSE HEADWALL
DHB	REMOVE AND DISPOSE HIGHWAY BOUND
DHH	REMOVE AND DISPOSE HANDHOLE
DL	REMOVE AND DISPOSE LIGHT AND FOUNDATION
DMB	REMOVE AND DISPOSE MEDIAN BARRIER
DMH	REMOVE AND DISPOSE MANHOLE
DMM	REMOVE AND DISPOSE MEDIAN MARKER
DOW	REMOVE AND DISPOSE OBSERVATION WELL
DP	REMOVE AND DISPOSE PIPE
DPB	REMOVE AND DISPOSE PAVEMENT AND RIGID BASE
DRB	REMOVE AND DISPOSE RIGID BASE
DS	REMOVE AND DISPOSE SIGN
DSS	REMOVE AND DISPOSE TRAFFIC SIGNAL SYSTEM
DSW	REMOVE AND DISPOSE SIDEWALK
DTD	REMOVE AND DISPOSE TELEPHONE DUCT BANKS
DUP	REMOVE AND DISPOSE UTILITY POLE
DWW	REMOVE AND DISPOSE PAVED WATERWAY
FF	FILTER FABRIC RIPRAP FLARED END UNDERLAYMENT
GET	FLARED GUARDRAIL END TREATMENT
IA	IMPACT ATTENUATOR
IDL	IMPERVIOUS DITCH LINER
LOD	LIMIT OF DISTURBANCE
LOR	LIMIT OF REGRADING
LS	4" LOAM AND SEED

NFH	NEW FIRE HYDRANT WITH GATE VALVE
NIC	NOT IN THIS CONSTRUCTION CONTRACT
NWB	FURNISH AND INSTALL NEW WATER GATE VALVE BOX
NWVB	FURNISH AND INSTALL NEW WATER GATE VALVE AND BOX
NWCB	FURNISH AND INSTALL NEW WATER CURB STOP BOX
NWSB	FURNISH AND INSTALL NEW WATER CURB STOP AND BOX
PCD	PERMANENT CHECK DAM
PS	4" PLANTABLE SOIL AND SEED
RCB	RECONSTRUCT TYPE "D" CATCH BASIN, TO CATCH BASIN WITH GUTTER INLET
RCM	R.I.D.O.T. COMMUNICATIONS MANHOLE
RHH	REMOVE, HANDLE, HAUL, TRIM, RESET CURB EDGING, STRAIGHT, CIRCULAR (ALL TYPES)
RLP	RELOCATE LAMP POST
RMB	RELOCATE MAILBOX (BY OTHERS)
RPM	REMOVE PAVEMENT MARKINGS
RRP	RIP–RAP PAD (SEE DETAIL)
RRS	REMOVE AND RELOCATE SIGN
RUP	RELOCATE UTILITY POLE (BY OTHERS)
SB	STONE BAFFLE
SBAE	STEEL BEAM BRIDGE CONNECTION APPROACH END (W/O NESTED RAIL)
SBTE	STEEL BEAM BRIDGE CONNECTION TRAILING END (W/NESTED RAIL)
SD–	STRUCTURAL DISPOSITION – SEE CS PAGES OF SPECIFICATION
SF	REMOVE AND STOCKPILE FENCE
SGA	SPECIAL GRADED AGGREGATE
SGC	REMOVE AND STOCKPILE GRANITE CURB
SGR	REMOVE AND STOCKPILE GUARDRAIL
SH	REMOVE AND STOCKPILE HYDRANT
SS	REMOVE AND STOCKPILE SIGN
STS	REMOVE AND STOCKPILE TRAFFIC SIGNAL SYSTEM
TB	CONCRETE THRUST BLOCK
TEP	TIE EXISTING PIPE INTO NEW STRUCTURE
TNP	TIE NEW PIPE INTO EXISTING STRUCTURE
TBT	THRIE BEAM TRANSITION
TBBC	THRIE BEAM BRIDGE CONNECTION
TT	TREE TRIMMING
WCM	4" WOOD CHIP MULCH
4DY	4" EPOXY RESIN PAVEMENT MARKINGS – DOUBLE YELLOW
6W	6" EPOXY RESIN PAVEMENT MARKINGS – WHITE
12W	12" EPOXY RESIN PAVEMENT MARKINGS – WHITE
6WT	6" PREFORMED PATTERNED MARKING (HIGH PERFORMANCE TAPE)
4Y	4" EPOXY RESIN PAVEMENT MARKINGS – YELLOW
6Y	6" EPOXY RESIN PAVEMENT MARKINGS – YELLOW
P.G.L.	PROFILE GRADE LINE

Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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Charles A. Horbert

THOMAS M. CUNNINGHAM
No. PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY
1	6/07	TRB

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

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

STANDARD PLAN SYMBOLS & STANDARD LEGEND

CHECKED BY _____ DATE _____ SCALE NO SCALE

DEM SUBMISSION - MARCH 16, 2018

P:\01000\01060\00 Kingston Road Bridges_Drawings\Transportation_Current_Drawings\Kingston Road\01406_15_002_STD01M_REV01.dwg, 3/15/2018 2:44:25 PM, RAM

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	3	36

GENERAL NOTES:

1. ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.
2. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD, IN ACCORDANCE WITH SECTION 106.06 OF THE R.I.D.O.T. STANDARD SPECIFICATION, LATEST EDITION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING HIM TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS. SURVEY WILL BE PROVIDED BY THE CONTRACTOR. THE RESIDENT ENGINEER WILL NOT AUTHORIZE CONSTRUCTION ACTIVITIES TO BEGIN UNTIL HE IS SATISFIED THAT ALL GROUND CONTROL HAS BEEN ESTABLISHED, TIED DOWN, AND DULY RECORDED IN STANDARD FIELD BOOKS.
4. ALL R.I. STD. 9.9.0 CONSTRUCTION ACCESS ROADS SHALL BE CONSTRUCTED PRIOR TO ANY ROADWAY ACCEPTING CONSTRUCTION TRAFFIC.
5. THE FREQUENCY AND APPLICATION RATES FOR THE DUST CONTROL ITEMS WILL BE AS DIRECTED BY THE ENGINEER.
6. ALL SIDEWALK AND DRIVEWAYS DESIGNATED FOR REPLACEMENT SHALL BE CUT AND MATCHED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
7. ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON THE CONCRETE BASE OR COLD PLANED PAVEMENT, AND ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS. ALL APPLICATIONS ON BOTH HORIZONTAL AND VERTICAL SURFACES SHALL BE PAID FOR UNDER THE CONTRACT UNIT BID PRICE FOR CODE 403.0300 "ASPHALT EMULSION TACK COAT."
8. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, PLANTABLE SOIL AND SEED IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED WITH THE PERMISSION OF THE ENGINEER.
9. UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED PAVEMENT MATERIALS WITHIN THE PROJECT LIMITS.
10. CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
11. PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY THE ENGINEER.
12. THE COORDINATE SYSTEM, IF SHOWN, IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM.
13. PAVEMENT OPERATIONS FOR CURBED SECTIONS: IN AREAS WHERE CURBING IS SET TO FINISH LINE AND GRADE, THE CONTRACTOR WILL NOT BE REQUIRED TO UTILIZE THE SENSOR AND SKY-TYPE DEVICE FOR AUTOMATIC GRADE CONTROL, BUT WILL BE ALLOWED TO MANUALLY ADJUST THE BITUMINOUS PAVER FOR CONTROLLING GRADE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.
15. NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.
16. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO PAVING AND COLD PLANING OPERATIONS.
17. ALL EMBANKMENTS SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED. ALSO, EMBANKMENT CONSTRUCTION SHALL CONFORM TO SECTION 202.03.2 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
18. IF THIS PROJECT IS ON A HURRICANE EVACUATION AND DIVERSIONARY ROUTE, AS DESIGNATED ON THE COVERSHEET, THE CONTRACTOR IS ADVISED THAT UPON 12 (TWELVE) HOURS NOTICE THE ROADWAY SHALL BE OPEN TO EVACUEES AND EMERGENCY PERSONNEL. ANY EXTRA WORK NECESSARY TO COMPLY WITH THIS REQUIREMENT WILL BE REIMBURSED UNDER FORCE ACCOUNT PROCEDURES.
19. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS STATED IN THE ENVIRONMENTAL APPROVALS ISSUED FOR THE PROJECT FROM THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). AND/OR THE ARMY CORPS OF ENGINEERS (ACOE). AND/OR THE COASTAL RESOURCES MANAGEMENT COUNCIL (CRMC). COPIES OF EACH OF THESE PERMITS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH THESE CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
20. FOR ALL PROJECTS INVOLVING KNOWN SITE REMEDIATION ISSUES, THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE CONSTRUCTION RELATED PROVISIONS, CONDITIONS, AND STIPULATIONS OF ANY REMEDIAL PLANS DEVELOPED FOR THE PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH COMPLIANCE WITH THESE DOCUMENTS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
21. NO UNPROTECTED CONSTRUCTED FEATURE MAY PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. HEADWALL, DRAINAGE INLET, ETC.
22. THE REMAINING SECTION OR STUB OF A BREAKAWAY BASE MAY NOT PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. SIGN POSTS, LIGHT POLES, FIRE HYDRANTS, ETC.

DRAINAGE AND EROSION CONTROL NOTES:

1. FOR ALL PROJECTS WITH AT LEAST ONE(1) ACRE OF SOIL DISTURBANCE. R.I.D.O.T. IS REQUIRED TO DEVELOP AND ENFORCE A SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ORDER TO REMAIN IN COMPLIANCE WITH THE RIPDES GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS OF THE GENERAL PERMIT AND THE SITE SPECIFIC SWPPP FOR THIS PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH ADHERENCE TO THE SWPPP SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
2. NO UNDISTURBED AREAS SHALL BE CLEARED OF EXISTING VEGETATION AFTER OCTOBER 15 OF ANY CALENDAR YEAR OR DURING ANY PERIOD OF FULL OR LIMITED WINTER SHUTDOWN. ALL DISTURBED SOILS EXPOSED PRIOR TO OCTOBER 15 OF ANY CALENDAR YEAR SHALL BE SEEDED OR PROTECTED BY THAT DATE. ANY SUCH AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION, AS DETERMINED BY THE RESIDENT ENGINEER OR ENVIRONMENTAL INSPECTOR, BY NOVEMBER 15 OF ANY CALENDAR YEAR, MUST BE STABILIZED THROUGH THE USE OF EROSION CONTROL MATTING OR HAY MULCH, IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. IF WORK CONTINUES WITHIN ANY OF THESE AREAS DURING THE PERIOD FROM OCTOBER 15 THROUGH APRIL 15, CARE MUST BE TAKEN TO ENSURE THAT ONLY THE AREA REQUIRED FOR THAT DAY'S WORK IS EXPOSED, AND ALL ERODIBLE SOIL MUST BE RESTABILIZED WITHIN 5 WORKING DAYS. ANY WORK TO CORRECT PROBLEMS RESULTING FROM FAILURE TO COMPLY WITH THIS PROVISION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THERE WILL BE NO SEPARATE PAYMENT FOR THIS PROVISION, IT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS. STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 2 WEEKS OF FINAL GRADING.
3. STOCKPILES OF MATERIAL SHALL NOT BE LOCATED WITHIN REGULATED WETLANDS OR BUFFER ZONE AREAS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES OF ERODABLE MATERIAL SHALL ALSO BE SEEDED AND RINGED WITH R.I. STD. 9.1.0 TO STABILIZE.
4. IF THE PLANS INCLUDE SPECIFIC AREAS FOR PLACEMENT OF CONSTRUCTION DEWATERING BASINS AND/OR EQUIPMENT AND MATERIALS STORAGE AND STOCKPILING, AND IF THE CONTRACTOR ELECTS TO UTILIZE ANY OTHER AREAS FOR THESE PURPOSES, THIS SHALL BE APPROVED BY THE ENGINEER ONLY AFTER OBTAINING ANY NECESSARY PERMITS AND/OR PERMIT MODIFICATIONS FROM THE APPROPRIATE REGULATORY AUTHORITY(IES). ANY PERMITTING REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE ACCOMPLISHED AT NO COST TO THE STATE. THE ENGINEER WILL COORDINATE SUBMISSION OF ANY REQUIRED PERMIT APPLICATION MATERIALS WITH THE R.I.D.O.T. OFFICE OF ENVIRONMENTAL PROGRAMS.
5. JUTE MESH SHALL BE USED TO STABILIZE PLANTABLE SOIL AND/OR LOAM IN ALL DITCHES, ON ALL SLOPES ADJACENT TO WETLANDS AND WETLAND PERIMETERS, AND ON ALL SLOPES WITHIN WATER QUALITY BASINS. JUTE MESH IN DITCHES SHALL EXTEND TO AN ELEVATION 2 FEET ABOVE THE BOTTOM OF THE DITCH.
6. SEEDING ON ALL SLOPES 3 TO 1 OR STEEPER SHALL CONSIST OF THE FOLLOWING APPLICATIONS UNLESS CHANGED IN THE CONTRACT.
   a. SEEDING TYPE I.
   b. ADHESIVE MULCH STABILIZER
7. UNVEGETATED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR PERIODS IN EXCESS OF 2 WEEKS OR THROUGH THE INACTIVE WINTER SEASON.
8. PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION (HORIZONTAL AND VERTICAL) OF ALL EXISTING PIPES AND/OR STRUCTURES WHICH ARE TO BE CONNECTED. ANY VARIATION FOUND FROM THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION. WORK CAN COMMENCE ONLY UPON THE ENGINEER'S AUTHORIZATION.
9. ALL DRAINAGE AND UTILITY STRUCTURES WITHIN THE PAVED ROADWAY SHALL BE ADJUSTED TO GRADE WITH THE SURROUNDING PAVEMENT PRIOR TO THE WINTER SHUTDOWN.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.
11. CATCH BASIN RIM GRADES NOTED ON PLANS ARE DEPRESSED 0.1' LOWER THAN THE GUTTER GRADE. RIM ELEVATIONS SHOWN ARE FINAL GRADES. THE CONTRACTOR SHALL PLACE FRAMES AND GRATES 0.1' BELOW THE GRADE CONSTRUCTED IN THIS CONTRACT OR AS DIRECTED BY THE ENGINEER.
12. PROVISIONS FOR CLEARING TO ACCESS OUTFALLS DURING THE CLEANING AND FLUSHING OF THE CLOSED DRAINAGE SYSTEM SHALL BE KEPT TO A MINIMUM.
    a. ANY VEGETATIVE CLEARING SHALL BE LIMITED TO BRUSH AND TREES LESS THAN 3" DIAMETER.
    b. NO HEAVY EQUIPMENT MAY ENCROACH UPON VEGETATED PERIMETER OR RIVERBANK WETLANDS AS WELL AS BIOLOGICAL WETLANDS.
13. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES FOR OUTLET PROTECTION PRIOR TO CLEANING AND FLUSHING STORM WATER DRAINAGE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL FLUSHED SEDIMENTS ARE REMOVED. AT ALL OUTFALL LOCATIONS WHERE PIPES ARE TO BE CLEANED AND FLUSHED, OUTLET PROTECTION (R.I. STD. 9.1.0 OR 9.3.0) SHALL BE INSTALLED TO TRAP SEDIMENTS. THESE SEDIMENTS SHALL THEN BE REMOVED AND DISPOSED OF LEGALLY BEFORE THE OUTLET PROTECTION DEVICES ARE REMOVED. IF OUTLET PROTECTION AT THE OUTFALL IS NOT FEASIBLE, THEN THE OUTLET PIPE OF THE LAST DRAINAGE STRUCTURE TO BE CLEANED SHALL BE PLUGGED TO CAPTURE ALL MATERIALS FLUSHED FROM PIPES. AFTER THE MATERIALS ARE REMOVED FROM THE DRAINAGE STRUCTURE, THE OUTLET SHALL BE UNPLUGGED TO RESUME NORMAL FUNCTIONING.
14. R.I. STD. 9.8.0 BALED HAY INLET PROTECTION SHALL BE INSTALLED AT ALL CATCH BASINS AND INLETS WHENEVER SUBBASE IS EXPOSED, AND SHALL REMAIN IN PLACE UNTIL THE ABUTTING GROUND SURFACES ARE STABILIZED.
15. WHERE BALED HAY INLET PROTECTION AND SILT FENCES ARE USED AT CATCH BASINS, THEY SHALL BE REMOVED AT THE END OF THE PROJECT OR AS DIRECTED BY THE ENGINEER IN ORDER TO PREVENT CLOGGING OF THE INLET.

DRAINAGE AND EROSION CONTROL NOTES (CONTINUED):

16. DETENTION AND RETENTION BASINS MAY BE ROUGH GRADED AND STABILIZED WITH VEGETATION AND/OR OTHER EROSION CONTROL MEASURES AS REQUIRED BY THE ENGINEER PRIOR TO USE AS TEMPORARY SEDIMENTATION BASINS DURING PROJECT CONSTRUCTION. FINAL BASIN CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL SOURCES OF SEDIMENT HAVE BEEN ELIMINATED, FINAL ROADSIDE VEGETATION IS ESTABLISHED AND USE OF TEMPORARY BASINS IS NO LONGER REQUIRED AS DIRECTED BY THE ENGINEER. ANY ISSUES RELATING TO EROSION AND/OR SEDIMENT TRANSPORT INTO WETLAND AREAS RESULTING FROM SUCH USE OF SEDIMENTATION BASINS DURING CONSTRUCTION SHALL BE THE RESPONSIBILTY OF THE CONTRACTOR. ANY CORRECTIVE ACTION REQUIRED TO RESOLVE SUCH ISSUES SHALL BE COMPLETED BY THE CONTRACTOR.
17. THE TOE OF ANY FILL SLOPE IS TO REMAIN AT LEAST 1' INSIDE OF ALL EROSION CONTROLS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR COVER ANY PORTION OF THE EROSION CONTROL MEASURES WITH MATERIAL. ANY MATERIAL THAT IS PLACED ON ANY EROSION CONTROLS BY THE CONTRACTOR, OR ANY AGENT OF THE CONTRACTOR, SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR, AND ANY NECESSARY REPAIRS TO THE EROSION CONTROLS ACCOMPLISHED.
18. PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THOSE AREAS INDICATED ON THE PLANS. CLEARING MAY OCCUR PRIOR TO INSTALLATION OF SUCH CONTROLS, HOWEVER NO GRUBBING, GRADING, FILLING, OR OTHER SOIL DISTURBANCE SHALL OCCUR PRIOR TO INSTALLATION. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS.
19. ALL HAY BALES, SILT FENCE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP TO MINIMIZE EROSION. TEMPORARY SEED WILL CONFORM TO R.I.D.O.T. STANDARD TEMPORARY SEED MIX.
20. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE STATE.
21. THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE SPECIFIED IN SUBSECTION L.02.03 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
22. ADDITIONAL EROSION CONTROLS, SHALL BE INSTALLED AS DIRECTED BY THE RESIDENT ENGINEER. THESE ADDITIONAL ITEMS WILL BE PAID AT THE UNIT PRICE FOR THAT BID ITEM.

UTILITY NOTES:

1. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. BUILDING SERVICE CONNECTIONS (ELECTRIC, GAS, TELEPHONE, WATER AND SANITARY) ARE NOT SHOWN. CONTRACTOR IS TO ASSUME SERVICES ARE PRESENT TO ALL BUILDINGS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH CHAPTER 39-1.2 OF THE R.I. GENERAL LAWS ENTITLED "EXCAVATION NEAR UNDERGROUND UTILITY FACILITIES", WITH AMENDMENTS EFFECTIVE AS OF NOVEMBER 1, 2009 AND, WHEN NECESSARY, BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY APPLICABLE CITY, TOWN, STATE OR FEDERAL AGENCY. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE DIG SAFE PROGRAM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND ENSURE THAT ALL UTILITIES HAVE BEEN MARKED PRIOR TO COMMENCING THEIR WORK. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANY, SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE STATE.
3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE CAPPED.
4. EXISTING WATER SERVICES SHALL BE RECONNECTED TO THE NEW WATER MAINS.
5. UTILITY SERVICE CONNECTIONS SHALL BE MAINTAINED TO ALL EXISTING FACILITIES TO REMAIN.
6. FIRE HYDRANTS SHALL NOT BE REMOVED FROM SERVICE WITHOUT WRITTEN AUTHORIZATION FROM THE FIRE DEPARTMENT OR THE WATER AUTHORITY.
7. ALL NEW WATER LINES SHALL BE DISINFECTED TO THE SATISFACTION OF THE WATER AUTHORITY IN ACCORDANCE WITH THE SPECIFICATIONS.
8. ALL UTILITY POLE RELATED WORK SHALL BE BY OTHERS.

Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0369
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THOMAS M. CUNNINGHAM
No. PE006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

REVISIONS		
NO.	DATE	BY
1	4/07	TRB
2	3/10	RBH
3	4/14	MLP

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

STANDARD NOTES - 1

CHECKED BY ________ DATE ________ SCALE NO SCALE

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	4	36

LANDSCAPE NOTES:

1. ALL PLANT MATERIAL MUST BE TAGGED AT THE NURSERY (A RECOGNIZED GROWER OF PLANT MATERIAL) IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION. ALL PLANT MATERIAL MUST BE NURSERY GROWN; NO PLANTATION GROWN PLANT MATERIAL WILL BE ACCEPTED.
2. ALL PLANT SUBSTITUTIONS AND/OR CHANGES IN PLANT LOCATION MUST BE APPROVED IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. ALL PLANT MATERIAL IS TO BE FIELD LOCATED BY A REPRESENTATIVE FROM THE R.I.D.O.T. LANDSCAPE ARCHITECTURE UNIT.
4. A R.I.D.O.T. LANDSCAPE REPRESENTATIVE MUST BE ON SITE TO APPROVE ALL TRIMMING AND CLEARING NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS.
5. ANY TOPSOIL USED AS PLANTABLE SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS, AND SHALL CONFORM TO SECTION M.18 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
6. ALL TREES AND SHRUBS SHALL BE MULCHED WITH PINE BARK MULCH IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
7. ALL TREES AND/OR SHRUBS THAT ARE PLANTED AS A BED SHALL BE MULCHED AS A BED.
8. PROVIDE A MINIMUM 6'–8" BRANCHING STANDARD ON ALL TREES INSTALLED ADJACENT TO SIDEWALKS AND/OR PEDESTRIAN ACCESS AREAS.

STRUCTURAL NOTES FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS:

GENERAL

1. ALL SUPPORT DESIGNS AND ASSOCIATED SHOP DRAWING REVIEWS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION, OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (THE "SPECIFICATIONS"), INCLUDING THE LATEST INTERIM SPECIFICATIONS, EXCEPT AS MODIFIED HEREIN.

CONSTRUCTION DRAWINGS AND DETAILS

1. THE FOLLOWING NOTES SHALL BE INCLUDED ON ALL PLANS AND/OR SHOP DRAWINGS IN REFERENCE TO ANCHOR BOLTS:
   - "PRETENSIONING OF ALL ANCHOR NUTS IS REQUIRED, AND SHALL BE ACCOMPLISHED BY TIGHTENING TO 1/6TH TURN BEYOND THE SNUG–TIGHT POSITION."
   - "THE MAXIMUM CLEARANCE BETWEEN THE BOTTOM OF THE LEVELING NUTS AND THE TOP OF THE CONCRETE IS CRITICAL AND SHALL NOT EXCEED THE AMOUNT SPECIFIED ON THIS DRAWING."
2. THE USE OF GROUT UNDER BASE PLATES SHALL GENERALLY NOT BE PERMITTED. IF SPECIFIC CONDITIONS WARRANT ITS USE, THE GROUT SHALL NOT BE CONSIDERED LOAD CARRYING; LOADS SHALL BE DIRECTLY SUPPORTED BY THE ANCHOR BOLTS. ADEQUATE DRAINAGE SHALL BE PROVIDED.
3. THE DAMPENING EFFECTS OF VIBRATION MITIGATION DEVICES SHALL NOT BE CONSIDERED IN THE DESIGN OF STRUCTURAL SUPPORTS FOR SIGNS AND TRAFFIC SIGNALS. IF THE CONTRACTOR CHOOSES TO USE THESE DEVICES FOR WARRANTY PURPOSES, THE TYPE OF DEVICES PROPOSED SHALL BE APPROVED BY THE DEPARTMENT PRIOR TO FABRICATION OF SUPPORTS.

TRAFFIC SIGNAL NOTES:

1. ALL SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE R.I.D.O.T. MAINTENANCE HEADQUARTERS, 360 LINCOLN AVENUE, WARWICK, RHODE ISLAND, 02888.
2. BACK PLATES SHALL BE INSTALLED ON ALL TRAFFIC SIGNAL HEADS.
3. THE CONTRACTOR SHALL SUPPLY AND INSTALL ON THE UPPER LEFT HAND CORNER OF THE BACK OF THE CONTROLLER CABINET DOOR A LAMINATED INTERSECTION GRAPHIC AND TABLE DEPICTING THE TRAFFIC DETECTOR RELAY CHANNEL ASSIGNMENTS. THE DIAGRAM SHALL BE A GRAPHIC OF THE INDIVIDUAL INTERSECTION ORIENTED SIMILAR TO THE PLANS SHOWING THE LOCATIONS OF EACH OF THE LOOP DETECTORS. THE DIAGRAM SHALL, AT A MINIMUM, INCLUDE DETECTOR NUMBERS, STREET NAME LABELS, NORTH ARROW, AND CONTROLLER CABINET LOCATION. THE ASSIGNMENT INFORMATION SHALL BE INCLUDED IN A TABLE WHICH SHALL INCLUDE, AT A MINIMUM, THE APPROACH NAME, DETECTOR NUMBER, TERMINAL NUMBER, DETECTOR RACK SLOT NUMBER, RELAY NUMBER, RELAY CHANNEL NUMBER, AND PHASE ASSOCIATED WITH EACH DETECTOR.
4. TRAFFIC CONTROLLER CABINETS, UNLESS OTHERWISE NOTED, SHALL BE NEMA TS2 TYPE 1 CABINET SIZE 6 ("P" TYPE) WITH NOMINAL DIMENSIONS OF 52"Hx44"Wx24"D.
5. ALL DELAY AND EXTENSION TIMES, AS CALLED FOR ON THE PLANS, FOR PROPOSED LOOP DETECTORS SHALL BE PROGRAMMED IN THE TRAFFIC SIGNAL CONTROLLER AND NOT THE DETECTOR RELAY.
6. A BARE GROUND WIRE SHALL BE PLACED IN ALL PVC CONDUITS AND SHALL BE BONDED TO GROUND RODS IN ACCORDANCE WITH SECTION T.03 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
7. THE FINAL POSITION OF SIGNAL HEADS, PEDESTRIAN PUSHBUTTONS, DETECTORS, AND STOP LINE AND CROSSWALK PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD ACCORDING TO ACTUAL INTERSECTION CHARACTERISTICS.
8. A 2' MINIMUM BUFFER SHALL BE PROVIDED BETWEEN THE CURB AND ALL LATERAL OBSTRUCTIONS (INCLUDING ALL SIGNAL POLES AND TRAFFIC/PEDESTRIAN SIGNAL HEADS) TO PROVIDE ADEQUATE CLEARANCE FOR TURNING VEHICLES.
9. ALL FOUNDATIONS MUST HAVE CONES OR BARRELS BOLTED TO FOUNDATION BASES UNTIL ACTUAL POLE IS INSTALLED.
10. WHEN PLACING TRAFFIC SIGNAL HANDHOLES OR CONDUIT IN EXISTING PORTLAND CEMENT CONCRETE SIDEWALKS, THE ENTIRE SIDEWALK SQUARE OF CONCRETE SHALL BE REPLACED IN ACCORDANCE WITH R.I. STD. 43.1.0. NO PATCHES WILL BE ALLOWED.
11. ALL PEDESTRIAN PUSHBUTTONS SHALL BE COMPLIANT WITH "THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES" (ADAAG) AND SHALL INCLUDE A PRESSURE–ACTIVATED (NON–MOVING) BUTTON. SIGNS APPLICABLE TO PUSHBUTTON ACTUATION SHALL BE INSTALLED SUCH THAT THE CROSSING ASSIGNED TO EACH BUTTON IS CLEARLY INDICATED. IF SITE CONDITIONS DO NOT ALLOW PEDESTRIAN PUSHBUTTONS TO BE INSTALLED WHERE CALLED FOR ON THE PLANS, THE R.I.D.O.T. TRAFFIC ENGINEERING UNIT SHALL BE CONSULTED WITH THROUGH AN R.F.I. PRIOR TO INSTALLING THE PUSHBUTTONS. THE FINAL PLACEMENT OF ALL PEDESTRIAN PUSHBUTTONS SHALL BE IN ACCORDANCE WITH ADAAG AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
12. ALL LOOP DETECTORS SHALL BE CENTERED WITHIN EACH LANE AS DELINEATED, UNLESS OTHERWISE DIMENSIONED ON PLANS.
13. ALL LOOP DETECTORS SHALL BE CUT INTO THE FINAL PAVEMENT SURFACE COURSE.
14. TRAFFIC SIGNAL CONTROLLERS SHALL BE WIRED SO THAT ANY FIRE PRE–EMPTION SHALL OVERRIDE MANUAL (PUSH BUTTON) OPERATION.
15. THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE TRAFFIC SIGNAL OPERATION TO ITS INTENDED PURPOSE WHEN REPLACING THE TRAFFIC SIGNAL EQUIPMENT. A POLICE DETAIL IS REQUIRED TO DIRECT TRAFFIC AT THE INTERSECTION AT ALL TIMES WHEN THE TRAFFIC SIGNAL IS INOPERATIVE. AT NO TIME SHALL THE CONTRACTOR LEAVE THE SITE BEFORE RESTORING FULL TRAFFIC OPERATIONS.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. ALL SIGN MOUNTINGS FOR TEMPORARY AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
4. ADVANCE FLAGPERSON SIGNS (W20–7A) SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A FLAGPERSON OR A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
5. POLICE OFFICERS (AND NOT FLAGPERSONS) SHALL BE UTILIZED WHEN WORK WILL IMPACT SIGNALIZED INTERSECTIONS AND LIMITED ACCESS HIGHWAYS.
6. POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET–UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET–UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
7. ARROW PANELS SHALL BE SET IN THE FLASHING FOUR CORNERS CAUTION MODE UNLESS UTILIZED FOR A MERGING TAPER. ARROW PANELS SET IN THE FLASHING ARROW MODE SHALL NOT BE UTILIZED FOR LANE SHIFTS.
8. TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND / OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
9. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS. THEY MAY BE PARKED WITHIN THE STATE RIGHT–OF–WAY ONLY IN AREAS 30' BEYOND THE OUTSIDE EDGE OF THE TRAVEL LANES AND/OR IN AREAS APPROVED BY THE ENGINEER.
10. TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
11. THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES. WATERBORNE PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE THE END OF THE WORK SHIFT ON ALL COLD–PLANED AND NEW ROADWAY SURFACES THAT WILL BE OPENED TO TRAFFIC AT THE END OF THE SHIFT.

Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Horbert

THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY
1.	4/07	TRB
2.	11/07	TRB
3	3/10	RBH

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

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

STANDARD NOTES - 2

CHECKED BY _____ DATE _____ SCALE NO SCALE

DEM SUBMISSION - MARCH 16, 2018

P:\03000\03000.00 Kingston Road Bridge_Drawings\Transportation_Current_Drawings\Kingston Road\03-BAC_01_GRA_STRUCTURES\02_REVISED.DWG, 3/15/2018 2:47:23 PM, RAM

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	5	36

JOB SPECIFIC LEGEND

(3.3.4M)	MODIFIED BRICK/SOLID BLOCK DOUBLE GRATE CATCH BASIN GRATE PARALLEL TO EDGE OF PAVEMENT WITH 4'–0" DEEP SUMP
(3.4.1M)	MODIFIED BRICK/SOLID BLOCK 4'–0" ROUND CATCH BASIN WITH GUTTER INLET AND 4'–0" DEEP SUMP STD. 3.4.1M
(3.4.2M)	MODIFIED BRICK/SOLID BLOCK TYPE "F" 4'–0" ROUND CATCH BASIN WITH 4'–0" DEEP SUMP STD. 3.4.2M
(3.4.5M)	MODIFIED BRICK/SOLID BLOCK TYPE "F" 6'–0" ROUND CATCH BASIN WITH 4'–0" DEEP SUMP STD. 3.4.5M
(4.4.0M)	MODIFIED PRECAST 4'–0" ROUND CATCH BASIN WITH 4'–0" DEEP SUMP STD. 4.4.0M
(17.1.0M)	TRAFFIC MONITORING STATION PVC JUNCTION BOX AND WOODEN MOUNTING POST (CODE 903.9930) TRAFFIC DETECTOR–LOOP–(SAW CUT) (CODE T13.9930) 14 AWG 2 CONDUCTOR TWISTED SHIELDED CABLE (CODE T04.5302)
(20.1.0)	PAVEMENT MARKINGS ARROW AND ONLY
(24.2.0)	SIGN POST SELECTION AND INSTALLATION DETAILS U–CHANNEL POST (SIGNS UP TO 8'–0"W x 4'–0"H)
(24.6.0)	PARKING SIGN MOUNTING DETAIL
(26.1.0)	FLUORESCENT TRAFFIC CONE
(BCD)	BITUMINOUS CONCRETE DRIVEWAY 3" CLASS 9.5 HMA (TWO–1.5" LIFTS) 8" GRAVEL BORROW SUBBASE COURSE
(BRS)	CUT BITUMINOUS RUMBLE STRIP – SEE DETAIL
(CFS)	COMPOST FILTER SOCK 12 INCH DIAMETER
(CPRS)	COLD PLANE EXISTING RUMBLE STRIP
(DGC)	REMOVE AND DISPOSE GRANITE CURB
(GR–A)	GUARDRAIL END TREATMENT ENERGY ABSORBING TERMINAL
(GR–N)	GUARDRAIL END TREATMENT NON–ENERGY ABSORBING TERMINAL
(PS6)	WILDFLOWER SEED MIX (TYPE 6)
N.I.C.	NOT IN CONTRACT
(NUP)	NEW UTILITY POLE (BY OTHERS)
(P–1)	1.80" FRICTION COURSE REMOVED BY MICRO MILLING 1.5" FRICTION COURSE
(P–2)	3" MODIFIED CLASS 12.5 HMA SURFACE COURSE 12" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS (THREE–4" LIFTS) 12" GRAVEL BORROW SUBBASE COURSE
(P–3)	2" SURFACE COURSE REMOVED BY MICRO MILLING 2" MODIFIED CLASS 12.5 HMA SURFACE COURSE
(P–4)	2" MODIFIED CLASS 12.5 HMA SURFACE COURSE 7" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS (TWO–3.5" LIFTS) 12" GRAVEL BORROW SUBBASE COURSE
(P–5)	1.5" SURFACE COURSE REMOVED BY MICRO MILLING 1.5" FRICTION COURSE 1.5"–3" CLASS 9.5 HMA LEVELING COURSE DEPTH VARIES – SEE GRADE PLANS 0"–7" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS DEPTH VARIES – SEE GRADE PLANS (3.5" MAX. LIFTS)
(P–6)	1.5" SURFACE COURSE REMOVED BY MICRO MILLING 1.5" FRICTION COURSE
(P–7)	1.5" FRICTION COURSE 2" MODIFIED CLASS 12.5 HMA SURFACE COURSE 7" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS (TWO–3.5" LIFTS) 12" GRAVEL BORROW SUBBASE COURSE
(R&D)	REMOVE & DISPOSE
(R&R)	REMOVE & RESET
(RRP)	DUMPED STONE RIP–RAP AT FLARED END SECTIONS, PAVED WATERWAYS, DITCHES AND HEADWALLS. MODIFIED NSA NO. R–5 (920.0040) 18" DEEP WITH 12" MODIFIED NSA NO. FS–2 (920.0135) BEDDING FOR RIP–RAP PLACED ON FILTER FABRIC FOR RIP–RAP (920.0200).
(S–1)	CUTTING AND MATCHING ASPHALT, (932.0100)
(S–2)	CUTTING AND MATCHING CONCRETE (932.0101)
(S–3)	FULL DEPTH SAWCUT OF BITUMINOUS PAVEMENT (932.0200)
(S–4)	FULL DEPTH SAWCUT OF RIGID BASE BITUMINOUS PAVEMENT (932.0210)
(S–5)	FULL DEPTH SAWCUT OF BITUMINOUS SIDEWALK/DRIVEWAY (932.0220)
(S–6)	FULL DEPTH SAWCUT OF PORTLAND CEMENT CONCRETE SIDEWALK/DRIVEWAY (932.0230)
(SCCB)	SEDIMENTATION CONTROL – CATCH BASIN
(SCI)	SEDIMENTATION CONTROL – INLET STRUCTURE
(WCRA)	WHEELCHAIR RAMP STD. 43.3.0 WITH TRANSITION CURB STD. 7.3.2, TRANSITION CURB STD. 7.3.3, RAMP STONE STD. 7.3.9 AND DETECTABLE WARNING SYSTEM STD. 48.1.0
(WCRB)	WHEELCHAIR RAMP STD. 43.3.1 WITH TRANSITION CURB STD. 7.3.2, TRANSITION CURB STD. 7.3.3 AND DETECTABLE WARNING SYSTEM STD. 48.1.0

JOB SPECIFIC GENERAL NOTES:

1. THE BASE OF LEVELS FOR THIS PROJECT IS NAVD 1988. DELETE THE VERTICAL CONTROL REFERENCE IN GENERAL NOTE 12 OF THE STANDARD NOTES –1 SHEET.
2. TOPOGRAPHIC CONDITIONS ARE OBTAINED FROM AERIAL PHOTOGRAMMETRY. ACCURACY OF INFORMATION IS WITHIN ONE–HALF FOOT.
3. THE CONTRACTOR SHALL RESTRICT THEIR STOCKPILE AREA ON STATE PROPERTY TO THE LOCATIONS DESIGNATED ON THE PLANS. RIDOT HIGHWAY AND MAINTENANCE SECTION TO ENSURE THAT NO CONTRACTOR CONFLICTS WITH THE MAINTENANCE DIVISION'S OPERATIONS OCCUR DURING THE PROJECT DURATION.
4. ALL SURVEY FIELDBOOKS AND ELECTRONIC DATA SHALL BE SUBMITTED TO THE RIDOT SURVEY SECTION UPON COMPLETION OF PROJECT ALSO TO INCLUDE A LISTING OF ALL RI HIGHWAY BOUND DATA WITH STATIONS, OFFSETS AND COORDINATES.

JOB SPECIFIC DRAINAGE AND EROSION CONTROL NOTES:

1. ALL DRAINAGE PIPES SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS III, WITH MORTAR JOINTS UNLESS OTHERWISE NOTED ON THE PLANS. ALL RCP 30" AND LARGER SHALL HAVE "O" RING GASKETS, AND THE JOINTS ON THE OUTSIDE OF THE PIPE SHALL BE MORTARED.
2. ALL CATCH BASIN INLET GRATES SHALL HAVE 3–FLANGE FRAMES, UNLESS OTHERWISE NOTED ON THE PLANS.
3. ALL R.I. STD. 4.4.0M CATCH BASINS SHALL HAVE A 4–FOOT DIAMETER, UNLESS OTHERWISE NOTED ON THE PLANS.
4. CATCH BASIN AND MANHOLE RIM ELEVATIONS SHOWN ON THE PLANS MATCH PROPOSED FINAL PAVEMENT SURFACE ELEVATIONS. THE CONTRACTOR SHALL DEPRESS THE CATCH BASIN GRATE RIMS 0.1 FEET BELOW THE FINAL PAVEMENT SURFACE ONLY AT THOSE LOCATIONS WHERE THE GRATE IS AT LEAST 2 FEET OUTSIDE THE TRAVEL LANE EDGE STRIPE.
5. ALL EXISTING DRAINAGE STRUCTURES TO REMAIN SHALL BE CLEANED AND INSPECTED AT THE BEGINNING OF THE WORK. ANY NECESSARY REPAIRS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. A SECOND CLEANING OF ALL DRAINAGE STRUCTURES SHALL BE DONE PRIOR TO THE PROJECT COMPLETION.
6. THE DRAINAGE SYSTEM SHALL BE INSPECTED AND CLEANED, AS REQUIRED, PRIOR TO ACCEPTANCE OF THE OVERALL PROJECT. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK IN ACCORDANCE WITH SUBSECTION 104.11 OF THE STANDARD SPECIFICATIONS.
7. IN ALL CLEAR AND GRUB SLOPE AREAS 2:1 OR STEEPER WHICH WILL REMAIN EXPOSED TO EROSION FOR MORE THAN 2 WEEKS, THE CONTRACTOR SHALL BE RESPONSIBLE TO COVER THESE AREAS WITH FILTER FABRIC AND (R–3) RIP–RAP AT NO ADDITIONAL COST TO THE STATE.
8. FOR ALL PROJECTS WITH AT LEAST ONE(1) ACRE OF SOIL DISTURBANCE. R.I.D.O.T. IS REQUIRED TO DEVELOP AND ENFORCE A SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ORDER TO REMAIN IN COMPLIANCE WITH THE RIPDES GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS OF THE GENERAL PERMIT AND THE SITE SPECIFIC SWPPP FOR THIS PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE PROJECT SUPPLEMENTAL DVD. ALL COSTS ASSOCIATED WITH ADHERENCE TO THE SWPPP SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
9. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED RIM AND INVERT GRADES PRIOR TO ORDERING ANY PRECAST STRUCTURE UNITS.

JOB SPECIFIC PAVEMENT MARKINGS NOTES:

1. ALL PAVEMENT MARKINGS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. TRAVEL LANE SKIP STRIPING LINES SHALL CONSIST OF 10' LINES WITH 30' SPACE.
3. FINAL PAVEMENT MARKINGS SHALL BE WHITE AND YELLOW EPOXY RESIN.
4. SEE THE GENERAL PROVISIONS – CONTRACT SPECIFIC DOCUMENTS FOR SPECIAL REQUIREMENTS FOR PAVEMENT MARKINGS.

JOB SPECIFIC PAVEMENT MARKING LEGEND

(6WS)	6" EPOXY RESIN SKIP PAVEMENT MARKINGS – WHITE (SEE PLAN FOR LINE LENGTH AND SPACING)
(8Y)	8" EPOXY RESIN PAVEMENT MARKINGS – YELLOW
(24YL)	EPOXY RESIN PAVEMENT MARKING – WHITE YIELD LINE SYMBOL 24" BASE x 36" HEIGHT/12" GAP
(T4DY)	4" TEMPORARY EPOXY RESIN PAVEMENT MARKINGS – DOUBLE YELLOW
(T6W)	6" TEMPORARY EPOXY RESIN PAVEMENT MARKINGS WHITE
(T6Y)	6" TEMPORARY EPOXY RESIN PAVEMENT MARKINGS YELLOW
(T12W)	12" TEMPORARY EPOXY RESIN PAVEMENT MARKINGS WHITE
(TYL)	TEMPORARY EPOXY RESIN PAVEMENT MARKING – YIELD LINE SYMBOL 24" BASE x 36" HIGH/12" GAP

STRUCTURE DISPOSITIONS

SD–●–●
- PLAN NO.
- STRUCTURE DISPOSITION NO.
- SEE LIST IN CONTRACT BOOK FOR STRUCTURE DISPOSITIONS

TYPICAL SIGN DESIGNATION SYMBOL

PROPOSED SIGN

- SIGN LOCATION NUMBER
- MUTCD SIGN DESIGNATION NUMBER (SIZE)
- SIGN MOUNTING (R.I. STD. DETAIL NO.)

EXISTING SIGN

- DISPOSITION {R&R – REMOVE & RESET / R&D – REMOVE & DISPOSE
- EXISTING SIGN (LEGEND OR DESIGNATION NO.)
- SIGN MOUNTING

JOB SPECIFIC PLAN SYMBOLS

EXISTING		PROPOSED
○ GCS	GAS CURB STOP	● GCS
○ WCS	WATER CURB STOP	● WCS
○ EHH	ELECTRIC HANDHOLE	□ EHH
○ HH	ELECTRIC HANDHOLE	□HH
○ SHH	SIGNAL HANDHOLE	□ SHH
	UTILITY TEST PIT (SEE SUBSURFACE UTILITY PLANS)	TP–32

–◆–––◆––– COMPOST FILTER SOCK 12 INCH DIAMETER

MASTER PLANT SCHEDULE

Key	Botanical Name / Common Name	Qty	Size	Condition	Notes	Spacing
Ac	Amelanchier canadensis / Shadbush	4	7–8'	B&B	multi–stem	15' OC
Bn	Betula nigra / River birch	11	8–10'	B&B	multi–stem	15' OC
Cea	Ceanothus americanus / New Jersey tea	219	#1	CAN	–	5' OC
Ca	Clethra alnifolia rubra / Pink summersweet	41	#5	CAN	–	4' OC
Cr	Cornus racemosa / Gray dogwood	71	#3	CAN	–	6' OC
Ig	Ilex glabra / Inkberry	21	#5	CAN	–	4' OC
Iv	Ilex verticillata / Winterberry	26	#3	CAN	–	4' OC
JK	Juniperus keteleeri / Keteleeri juniper	20	4–5'	B&B	–	6' OC
Kl	Kalmia latifolia / Mountain laurel	13	#5	CAN	–	4' OC
Kp	Koelreuteria paniculata / Golden rain tree	17	2.5–3" cal.	B&B	–	As noted.
Mv	Magnolia virginiana / Sweetbay magnolia	7	7–8'	B&B	–	As noted.
Mp	Myrica pensylvanica / Bayberry	6	#5	CAN	–	6' o.c.
Pm	Prunus maritima / Beach plum	10	#3	CAN	–	4' OC
RGL	Rhus aromatica Gro–Low / Gro–Low sumac	134	#3	CAN	–	5' o.c.
Sj	Styphnolobium japonicum 'Regent' / Regent scholar tree	20	3–3.5" cal.	B&B	–	As noted.

LANDSCAPE NOTES:

1. All plant material must be tagged at the the nursery (recognized licensed grower of the plant material) in accordance with RI Standard Specifications. All plant materials must be nursery grown and no plantation grown plant material will be accepted.
2. All plant material substitutions and/or changes in plant locations must be approved in accordance with the RI Standard Specifications.
3. All plant materials shall be field located in accordance with the RI Standard Specifications.
4. All trees and shrubs shall be mulched with pine bark mulch in accordance with the RI Standard Specifications.
5. All trees and/or shrubs that are planted as a bed shall be mulched as a bed.

THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

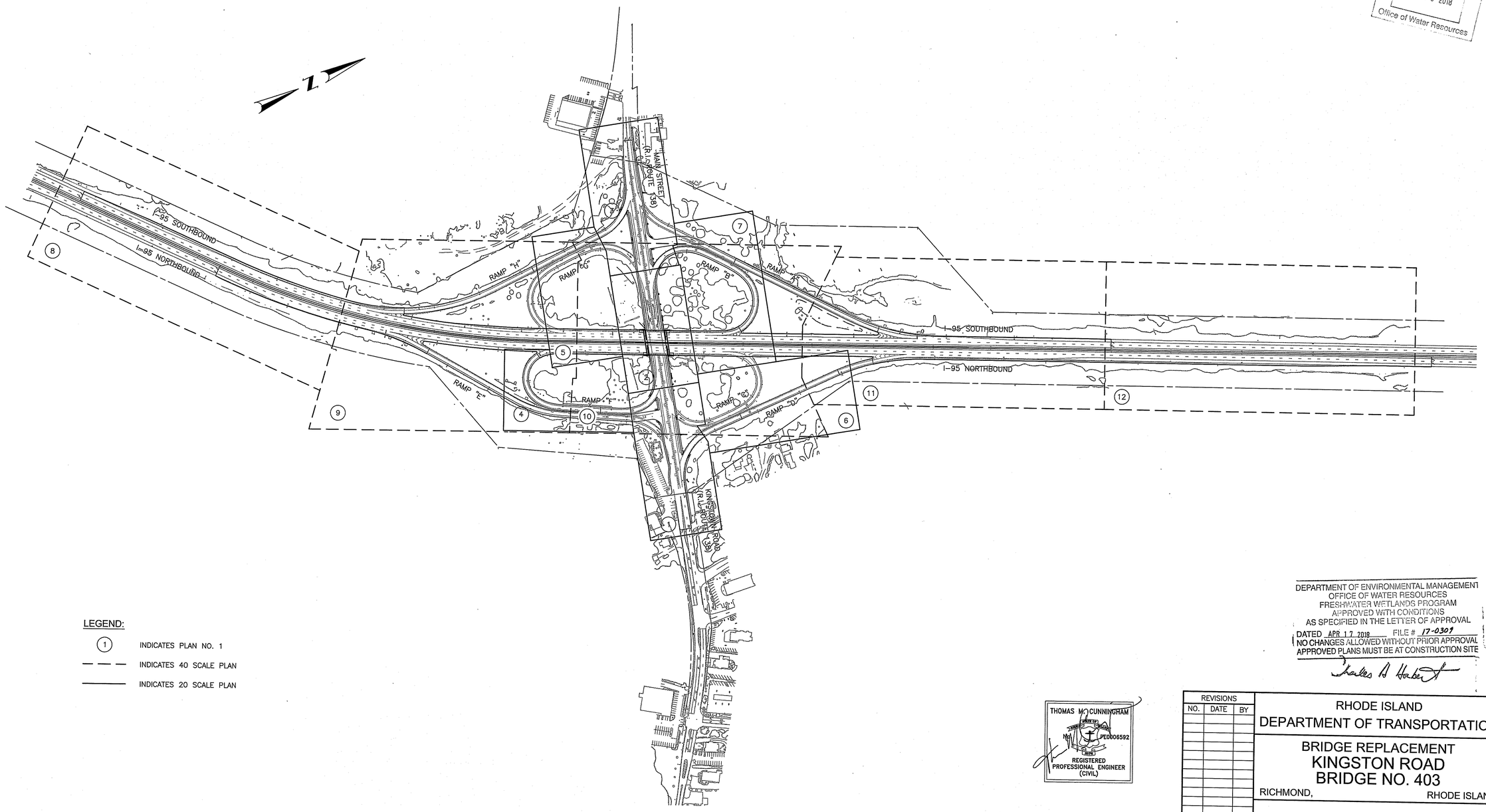
BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

JOB SPECIFIC
PLAN SYMBOLS, LEGEND AND NOTES

CHECKED BY ________ DATE ________ SCALE NO SCALE

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	6	36



LEGEND:

(1) INDICATES PLAN NO. 1

— — — INDICATES 40 SCALE PLAN

——— INDICATES 20 SCALE PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

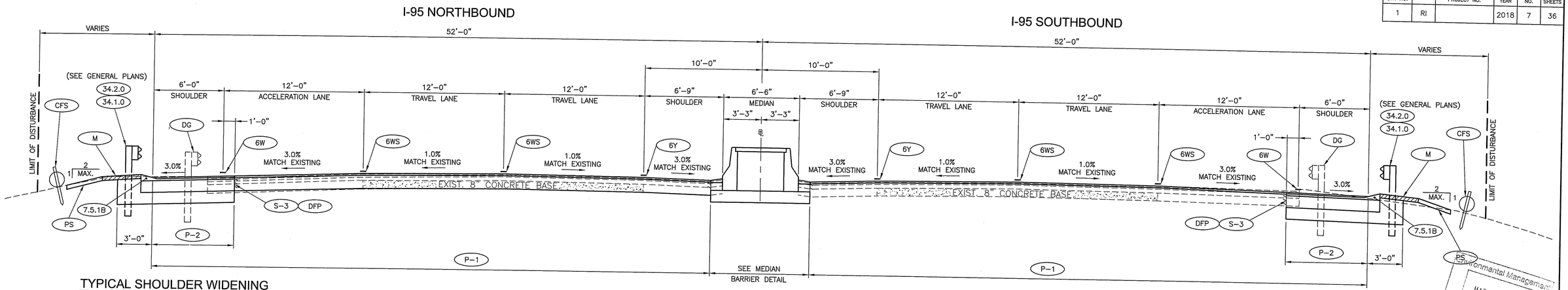
BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

KEY PLAN / ALIGNMENT PLAN

CHECKED BY _____ DATE _____ SCALE 1"=200'

DEM SUBMISSION - MARCH 16, 2018

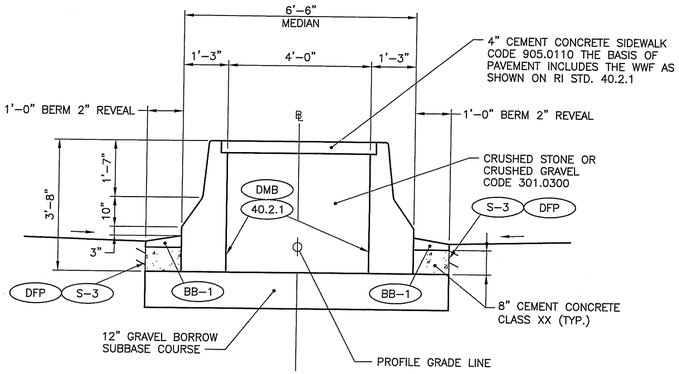
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	7	36



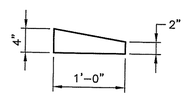
TYPICAL SHOULDER WIDENING
I-95 STA. 839+75± TO STA. 860+00 LT±

TYPICAL ROADWAY SECTION
STA. 857+00± TO STA. 869+00±
STA. 871+25± TO STA. 881+00±
SCALE: 1" = 4'-0"

TYPICAL SHOULDER WIDENING
RAMP "H" TO I-95 STA. 895+50 RT±

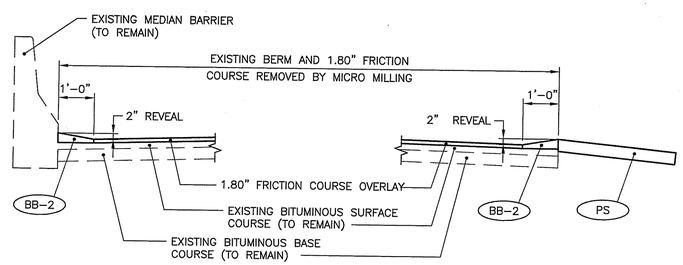


MEDIAN BARRIER DETAIL
STA. 860+00± TO STA. 869+67±
STA. 870+60± TO STA. 880+00±
SCALE: 1" = 2'-0"



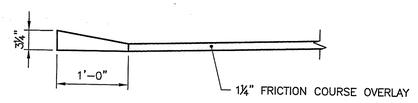
BB-1

MODIFIED BITUMINOUS BERM TYPE 1
SCALE: 1" = 1'-0"



STA. 837+50 NB MEDIAN TO STA. 860+00 NB MEDIAN
STA. 851+00 SB MEDIAN TO STA. 860+00 SB MEDIAN
STA. 880+00 SB MEDIAN TO STA. 895+50 SB MEDIAN
STA. 880+00 NB MEDIAN TO STA. 889+00 NB MEDIAN

MODIFIED BITUMINOUS BERM DETAIL I-95
SCALE: 1" = 2'-0"



BB-2

MODIFIED BITUMINOUS BERM TYPE 2
SCALE: 1" = 1'-0"

STA. 837+00 NB TO STA. 860+00 NB
STA. 851+00 SB TO RAMP "A" STA. 9+50
STA. 880+00 SB TO STA. 895+50 SB
STA. 880+00 NB TO STA. 889+00 NB

PAVEMENT LEGEND

P-1 — 1.80" FRICTION COURSE REMOVED BY MICRO MILLING
1.5" FRICTION COURSE

P-2 — 3" MODIFIED CLASS 12.5 HMA SURFACE COURSE
12" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS (THREE-4" LIFTS)
12" GRAVEL BORROW SUBBASE COURSE

EXISTING PAVEMENT I-95 TRAVEL LANES (FROM RIC 9350)

1.25" BITUMINOUS FRICTION COURSE
2" BITUMINOUS SURFACE COURSE TYPE I-1
8" REINFORCED CEMENT CONCRETE BASE

EXISTING PAVEMENT I-95 SHOULDERS AND ACCELERATION/DECELERATION LANES (FROM RIC 9350)

1.25" BITUMINOUS FRICTION COURSE
2" BITUMINOUS SURFACE COURSE TYPE I-1
8" BITUMINOUS BASE COURSE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

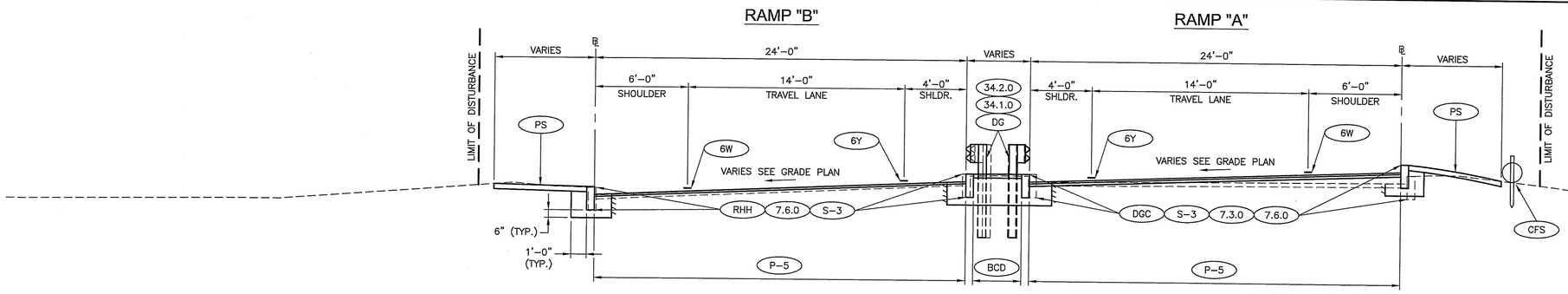
TYPICAL SECTIONS NO. 1

CHECKED BY _____ DATE _____ SCALE AS SHOWN

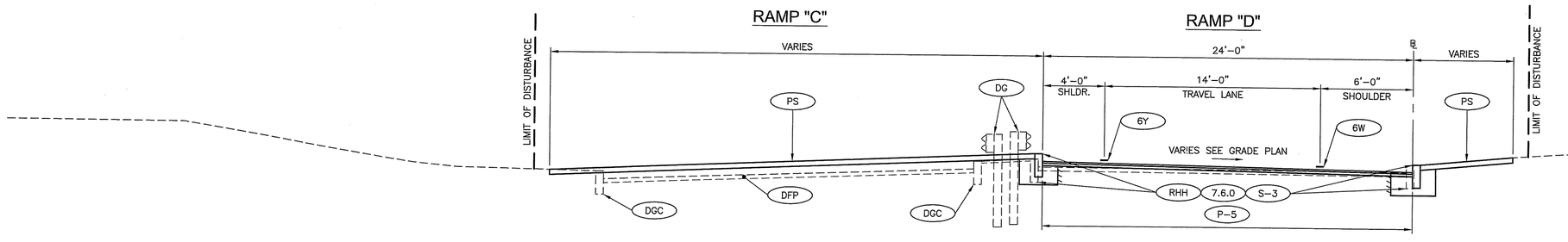
COMMONWEALTH ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RI 02908

DEM SUBMISSION - MARCH 16, 2018

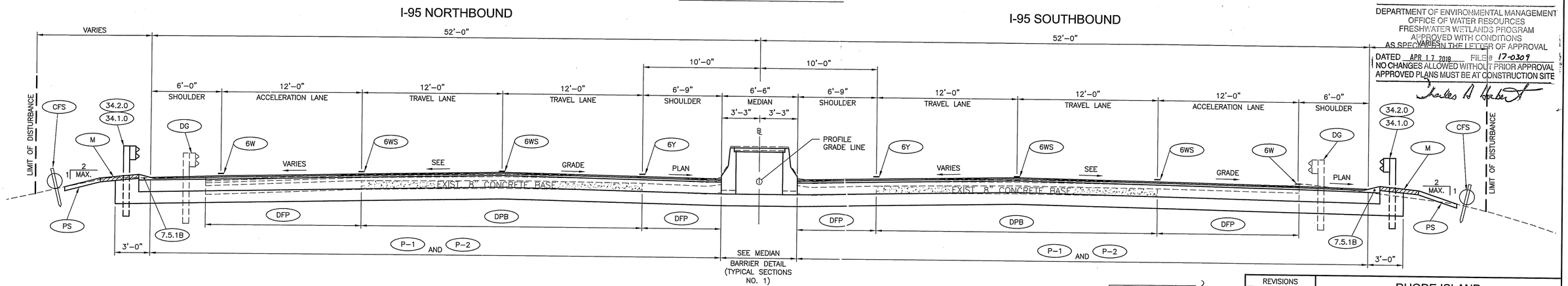
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	8	36



TYPICAL ROADWAY SECTION
RAMP "A" STA. 5+75± TO STA. 9+45±
RAMP "B" STA. 1+50± TO STA. 4+00±



TYPICAL ROADWAY SECTION
RAMP "D" STA. 1+10± TO STA. 10+00±



TYPICAL ROADWAY SECTION
STA. 869+00± TO BRIDGE CIP BARRIER
BRIDGE CIP BARRIER TO STA. 871+25±

PAVEMENT LEGEND

P-1 — 1.80" FRICTION COURSE REMOVED BY MICRO MILLING
1.5" FRICTION COURSE

P-2 — 3" MODIFIED CLASS 12.5 HMA SURFACE COURSE
12" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS (THREE-4" LIFTS)
12" GRAVEL BORROW SUBBASE COURSE

P-5 — 1.5" SURFACE COURSE REMOVED BY MICRO MILLING
1.5" FRICTION COURSE
1.5"-3" CLASS 9.5 HMA LEVELING COURSE DEPTH VARIES - SEE GRADE PLANS
0"-7" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS DEPTH VARIES - SEE GRADE PLANS (3.5" MAX. LIFTS)

Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Horbert

THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

TYPICAL SECTIONS NO. 2

CHECKED BY _____ DATE _____ SCALE 1" = 4'

DEM SUBMISSION - MARCH 16, 2018

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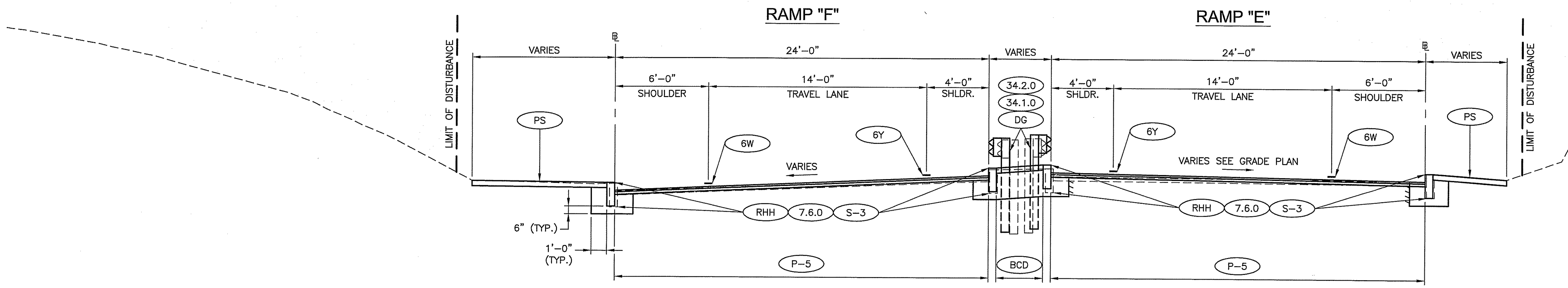
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	9	36



TYPICAL ROADWAY SECTION

RAMP "E" STA. 7+75± TO STA. 10+50±
RAMP "F" STA. 1+40± TO STA. 3+50±

PAVEMENT LEGEND

P-5
1.5" SURFACE COURSE REMOVED BY MICRO MILLING
1.5" FRICTION COURSE
1.5"-3" CLASS 9.5 HMA LEVELING COURSE DEPTH VARIES – SEE GRADE PLANS
0"-7" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS DEPTH VARIES – SEE GRADE PLANS (3.5" MAX. LIFTS)

TYPICAL ROADWAY SECTION

RAMP "H" STA. 1+10± TO STA. 11+50±

THOMAS M. CUNNINGHAM
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ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RI 02908

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403

RICHMOND, RHODE ISLAND

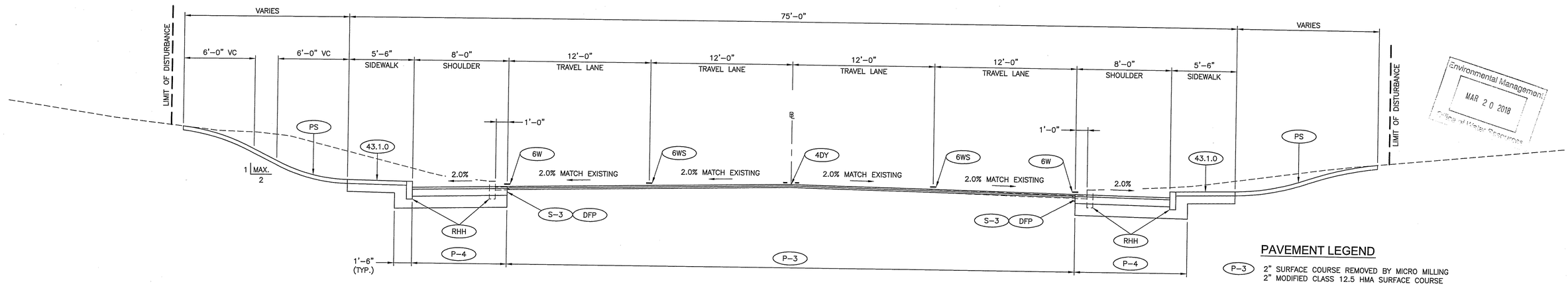
TYPICAL SECTIONS NO. 3

CHECKED BY ________ DATE ________ SCALE 1" = 4'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	10	36

KINGSTOWN ROAD



TYPICAL ROADWAY SECTION
STA. 304+50± TO STA. 306+40±
STA. 319+80± TO STA. 321+00±

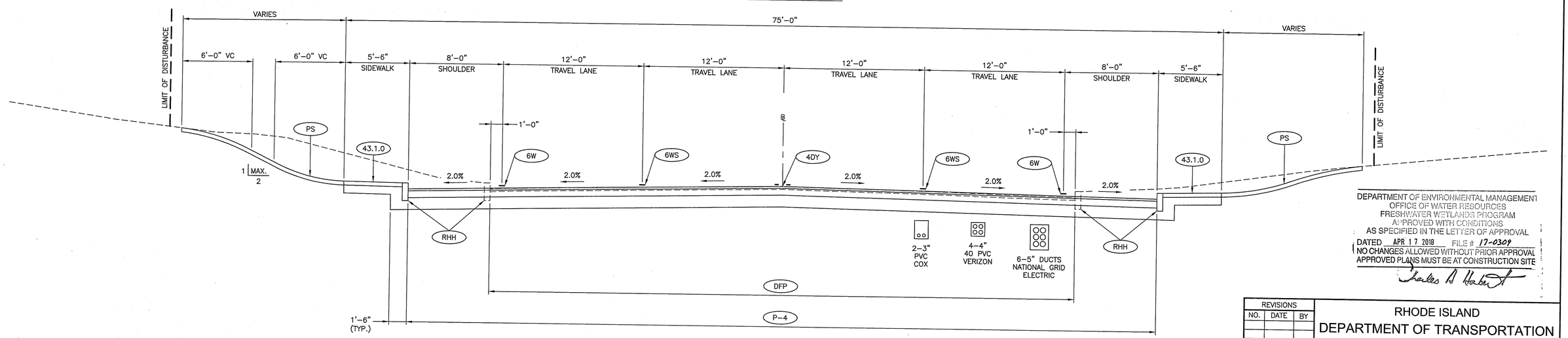
PAVEMENT LEGEND

P–3 — 2" SURFACE COURSE REMOVED BY MICRO MILLING
2" MODIFIED CLASS 12.5 HMA SURFACE COURSE

P–4 — 2" MODIFIED CLASS 12.5 HMA SURFACE COURSE
7" CLASS 19 HMA BASE COURSE WITH PAY ADJUSTMENTS (TWO–3.5" LIFTS)
12" GRAVEL BORROW SUBBASE COURSE

Environmental Management
MAR 20 2018
Office of Water Resources

KINGSTOWN ROAD



TYPICAL ROADWAY SECTION
STA. 306+40± TO STA. 319+80±

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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James A Haber

THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

TYPICAL SECTIONS NO. 4

CHECKED BY _____ DATE _____ SCALE 1" = 4'

DEM SUBMISSION - MARCH 16, 2018

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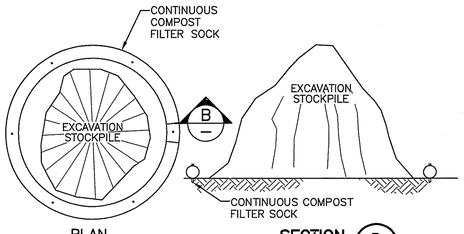
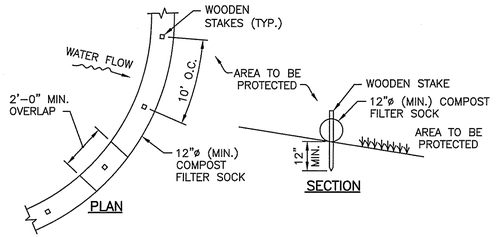
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	11	36



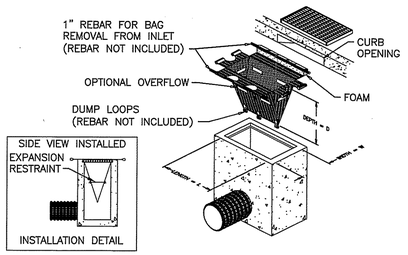
NOTES:
1. REQUIRED SIZE TO BE DETERMINED BY THE ENGINEER
2. SOIL SHALL BE COVERED WITH TARPS WHEN DETERMINED TO BE DRY BY THE RESIDENT ENGINEER

ONSITE SOIL STOCKPILE DETAIL
NOT TO SCALE

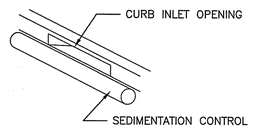


NOTES:
1. ALL MATERIAL TO MEET REQUIREMENTS OF SECTION 206 OF RI STANDARD SPECIFICATIONS.
2. COMPOST MATERIAL MUST BE ACCEPTED BY THE ENGINEER PRIOR TO PLACEMENT.

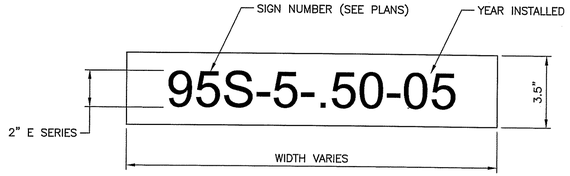
CFS COMPOST FILTER SOCK
NOT TO SCALE



SCCB SEDIMENTATION CONTROL - CATCH BASIN
NOT TO SCALE

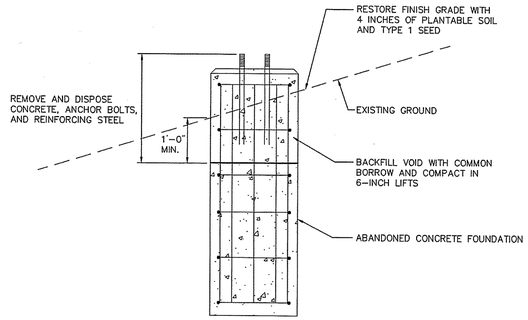


SCI SEDIMENTATION CONTROL - INLET STRUCTURE
NOT TO SCALE

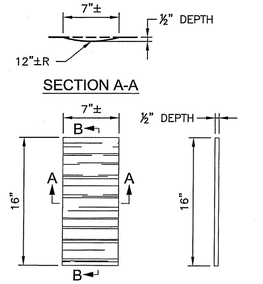


NOTES:
1. SIGN IDENTIFICATION LABEL SHALL BE AFFIXED TO THE BACKSIDE OF THE SIGN PANELS IN THE LOWER LEFT CORNER (WHEN FACING BACK OF SIGN).
2. SIGN IDENTIFICATION LABEL SHALL UTILIZE ENGINEERING GRADE ADHESIVE AND WHITE NON-REFLECTIVE BACKGROUND SHEETING WITH 2 INCH BLACK "E SERIES" LETTERS.
3. PAYMENT FOR THE SIGN ID LABEL SHALL BE INCLUDED IN THE BID PRICE FOR THE SIGN PANELS.

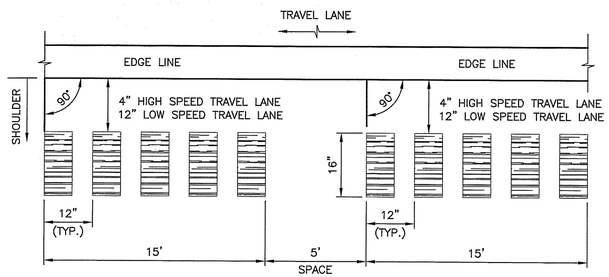
SIGN IDENTIFICATION LABEL DETAIL
NOT TO SCALE



SIGN FOUNDATION REMOVAL DETAIL
NOT TO SCALE



NOTES:
1. RUMBLE STRIP ALIGNMENT OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE AS WELL AS TO AVOID EXISTING LONGITUDINAL CONSTRUCTION JOINTS.
2. THE ½" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.



SPACING OF RUMBLE STRIP

RUMBLE STRIP DETAIL
NOT TO SCALE

Environmental Management
MAR 20 2018
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Charles A. Horbert

THOMAS M. CUNNINGHAM
STATE OF RHODE ISLAND
No. PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

MISCELLANEOUS DETAILS

CHECKED BY _____ DATE _____ SCALE AS SHOWN

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

DEM SUBMISSION - MARCH 16, 2018

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	12	36

MATCH TO PLAN NO. 6

MATCH TO PLAN NO. 2

MATCH TO PLAN NO. 4

KINGSTOWN ROAD (R.I. ROUTE 138)

RAMP "C"

RAMP "D"

RAMP "E"

RAMP "F"

LIMIT OF DISTURBANCE

SEE D&U PLAN NO. 1 FOR BASIN-1 GRADING

HISTORIC CEMETERY NO. 37

#6 THE SIGN SHOPPE

CONC. PAD

#5 WILDWOOD LIQUORS

EXIST. S.H.L. PLAT NO. 850

EXIST. S.H.L. PLAT NO. 849

EXIST. S.H.L. PLAT NO. 880

DENSE TREES

BIT. CONCRETE

BIT. DRIVEWAY

GRAVEL PARKING

PROJECT LIMITS
EAP NO.
RI CONTRACT NO.
2018-CB-022
STA. 304+50±

Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

GENERAL PLAN NO. 1

CHECKED BY _____ DATE _____ SCALE 1"=20'

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

DEM SUBMISSION - MARCH 16, 2018

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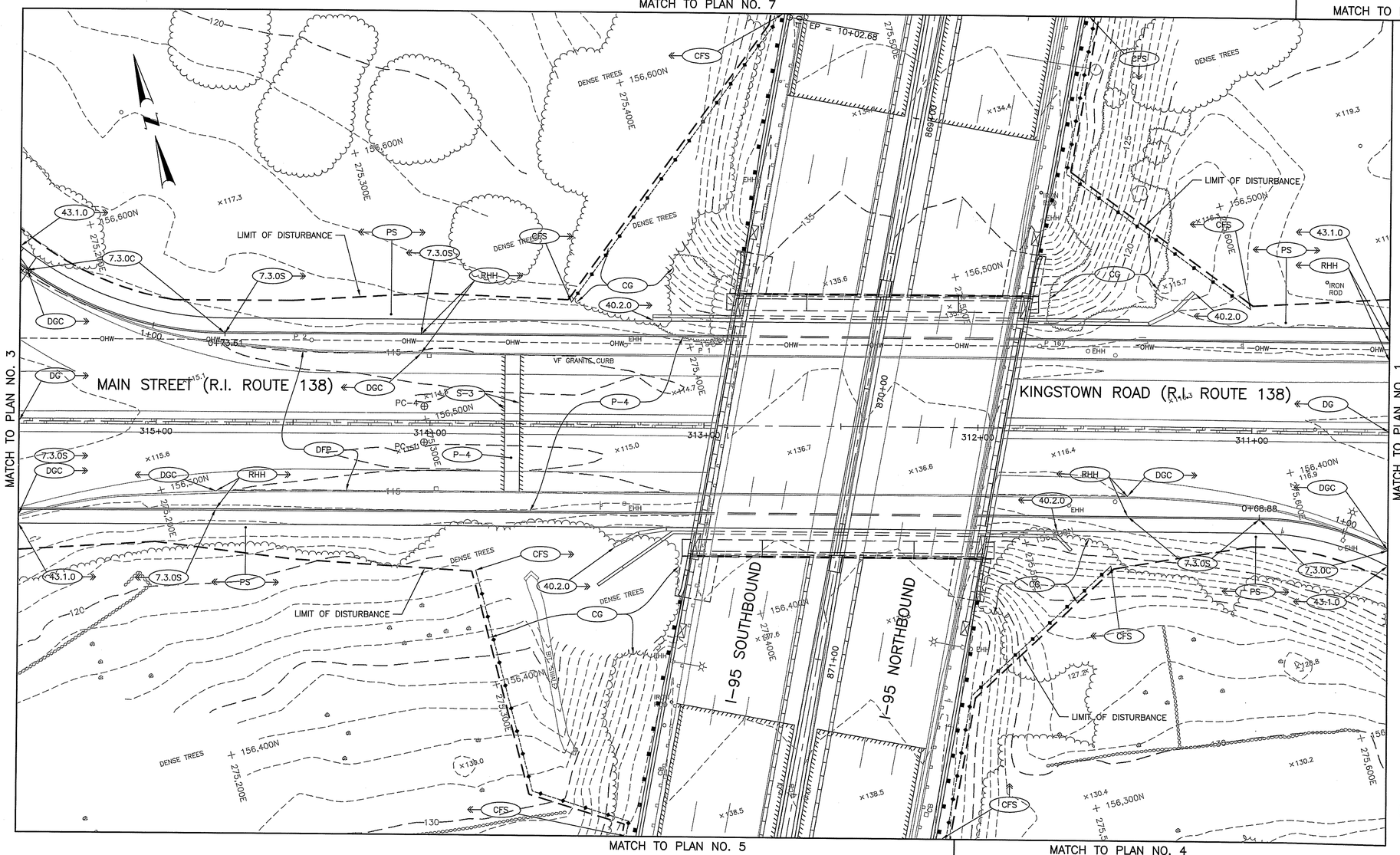
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	13	36



Environmental Management
MAR 2 0 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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THOMAS M. CUNNINGHAM
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REVISIONS		
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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

GENERAL PLAN NO. 2

CHECKED BY _____ DATE _____ SCALE 1"=20'

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

DEM SUBMISSION - MARCH 16, 2018

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	14	36

PROJECT LIMITS
FAP NO.
RI CONTRACT NO.
2018-CB-022
STA. 321+00±

EXIST. S.F.L. PLAT NO. 850

EXIST. S.F.L. PLAT NO. 849

LIMIT OF DISTURBANCE

MATCH TO PLAN NO. 7

MAIN STREET (R.I. ROUTE 138)

RAMP "A"

RAMP "B"

RAMP "G"

RAMP "H"

MATCH TO PLAN NO. 2

MATCH TO PLAN NO. 5

SEE D&U PLAN NO. 13 FOR BASIN-2 GRADING

156,600N VF GRANITE CURB

BIT. PAVEMENT

IRON ROD

DENSE TREES

Environmental Management
MAR 20 2018
Office of Water Resources

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RHODE ISLAND
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BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

GENERAL PLAN NO. 3

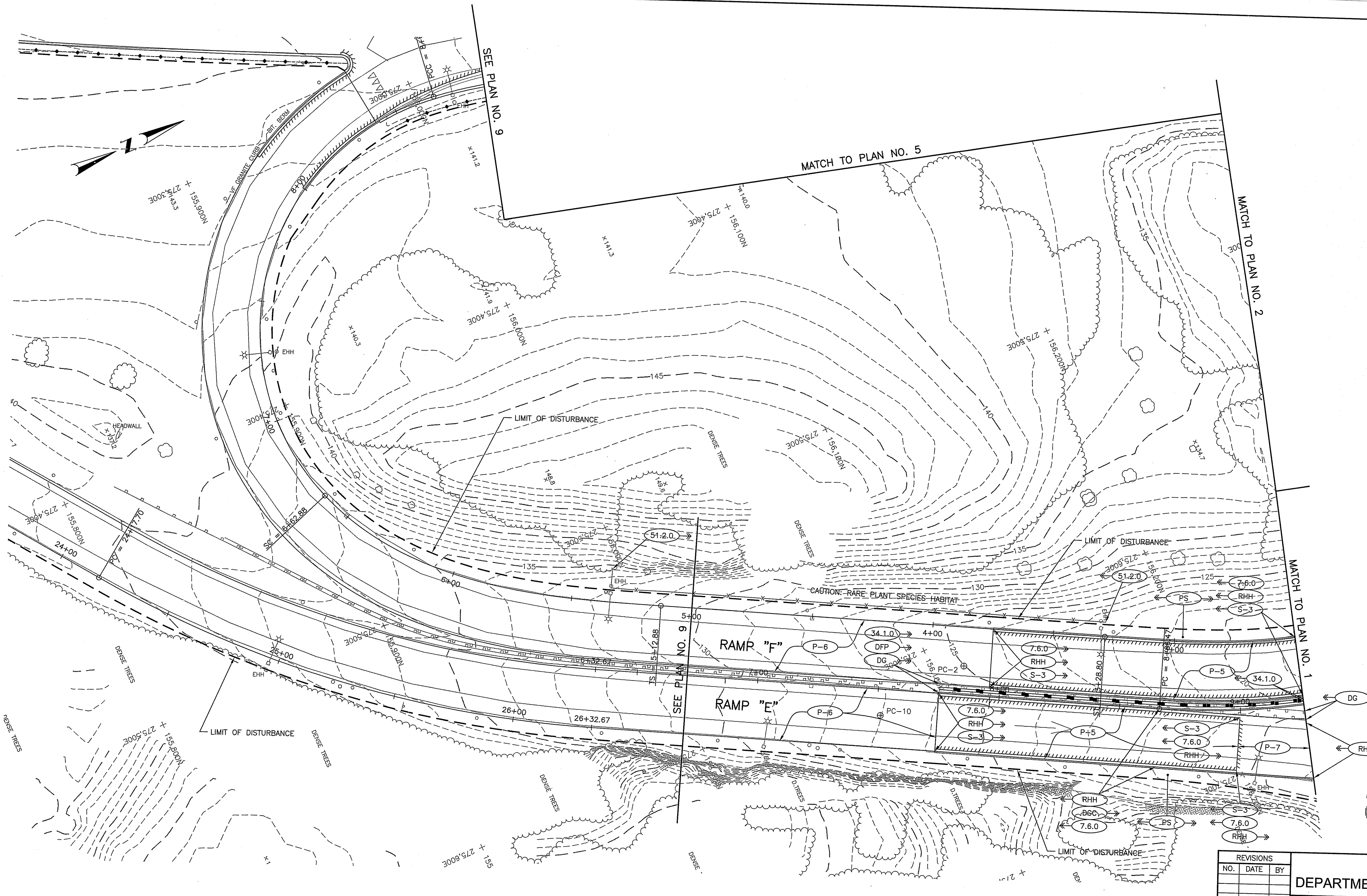
CHECKED BY _____ DATE _____ SCALE 1"=20'

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

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	15	36

Environmental Management
MAR 20 2018
Office of Water Resources



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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REVISIONS		
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RHODE ISLAND
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BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

GENERAL PLAN NO. 4

CHECKED BY ________ DATE ________ SCALE 1"=20'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	16	36

MATCH TO PLAN NO. 3

MATCH TO PLAN NO. 2

MATCH TO PLAN NO. 4

SEE TO PLAN NO. 9

RAMP "H"

RAMP "G"

I-95 SOUTHBOUND

I-95 NORTHBOUND

LIMIT OF DISTURBANCE

EXISTING GUARDRAIL ALONG THE EAST SIDE OF RAMP "H" TO REMAIN

SEE D&J PLAN NO. 5 FOR GRADING IN THIS AREA

DENSE TREES

Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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THOMAS M. CUNNINGHAM
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NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

GENERAL PLAN NO. 5

CHECKED BY _____ DATE _____ SCALE 1"=20'

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

DEM SUBMISSION - MARCH 16, 2018

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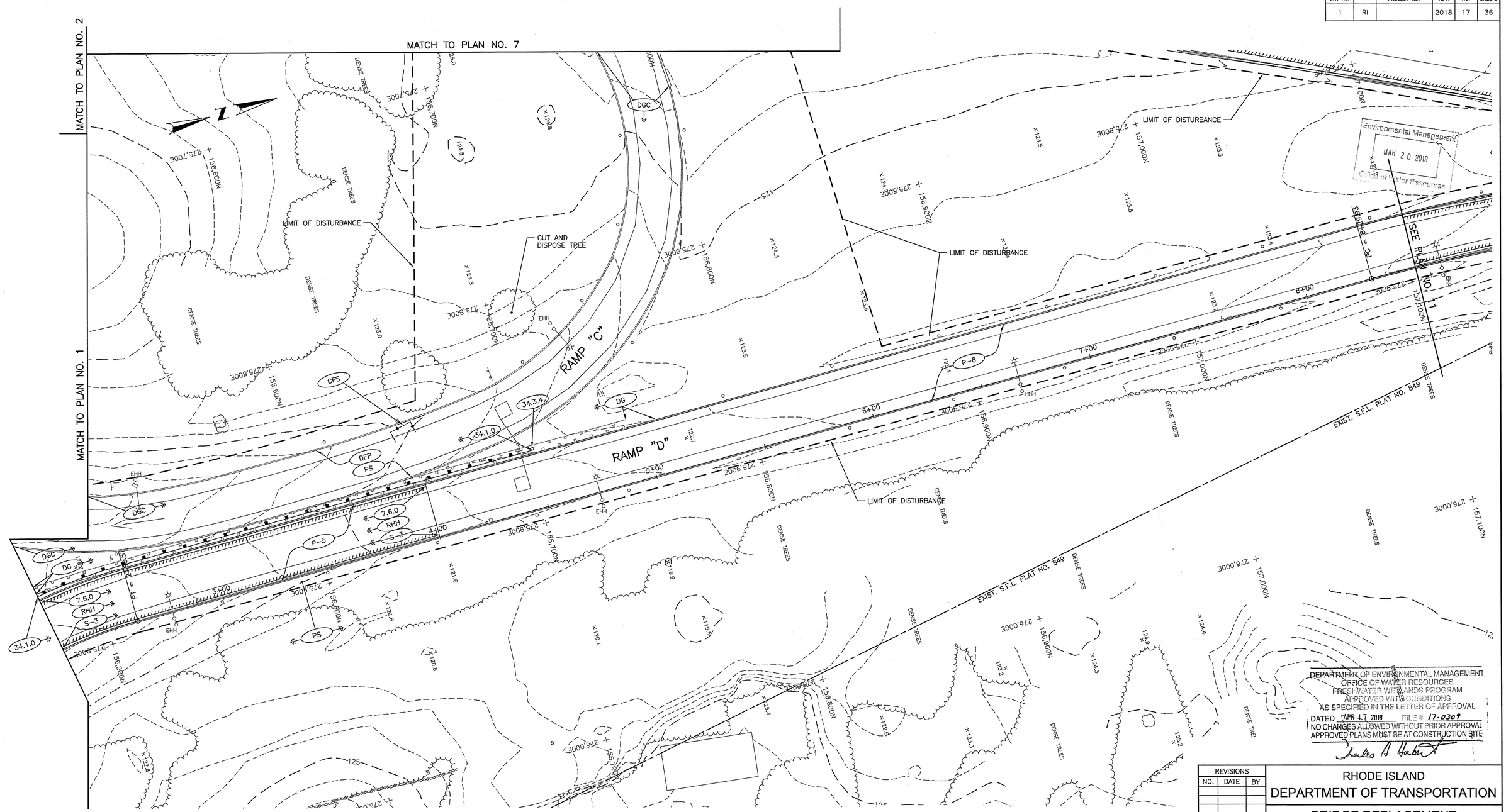
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	17	36



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Charles A. Horbert

THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

GENERAL PLAN NO. 6

CHECKED BY _____ DATE _____ SCALE 1"=20'

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

DEM SUBMISSION - MARCH 16, 2018

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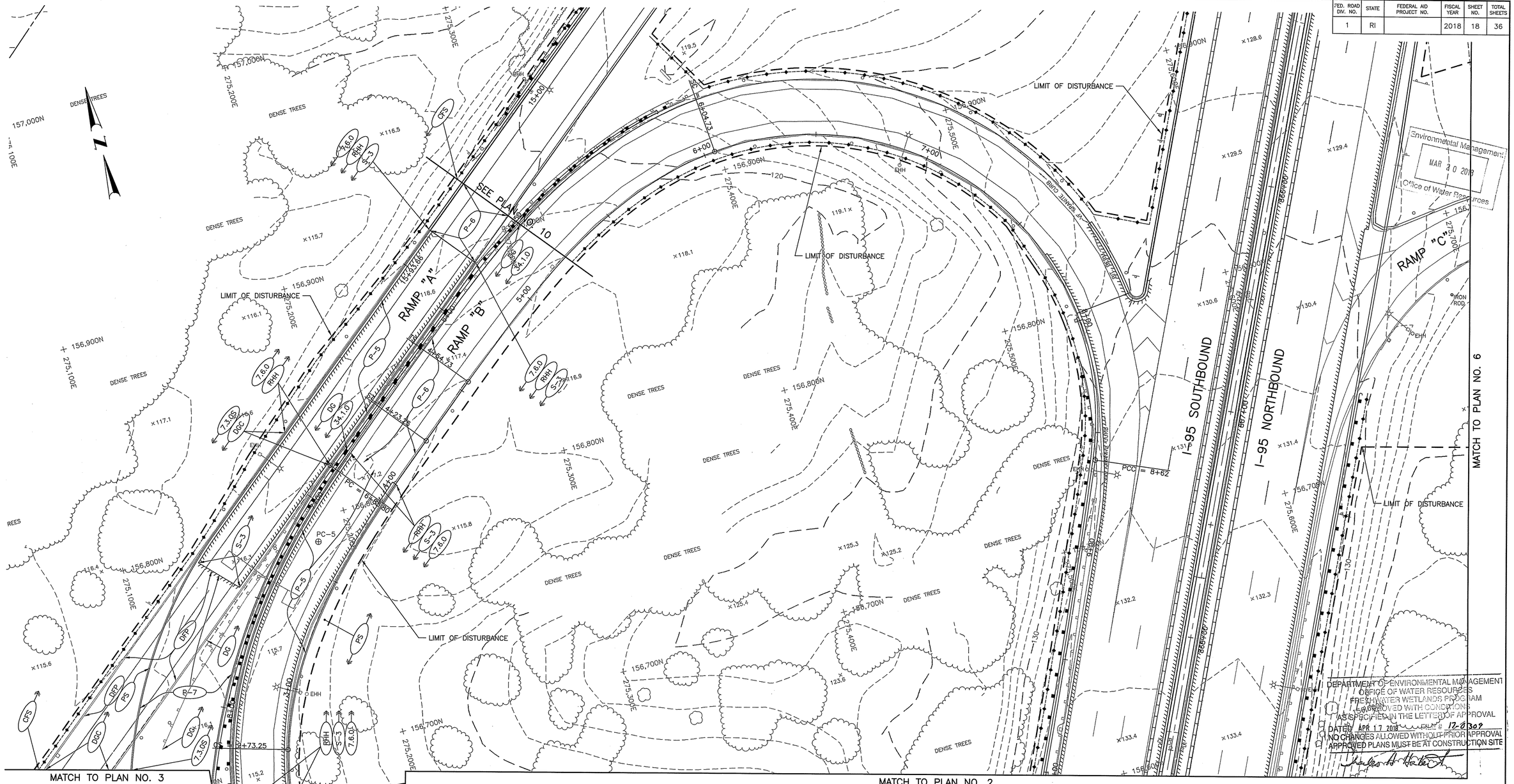
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	18	36



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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COMMONWEALTH ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RI 02908

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

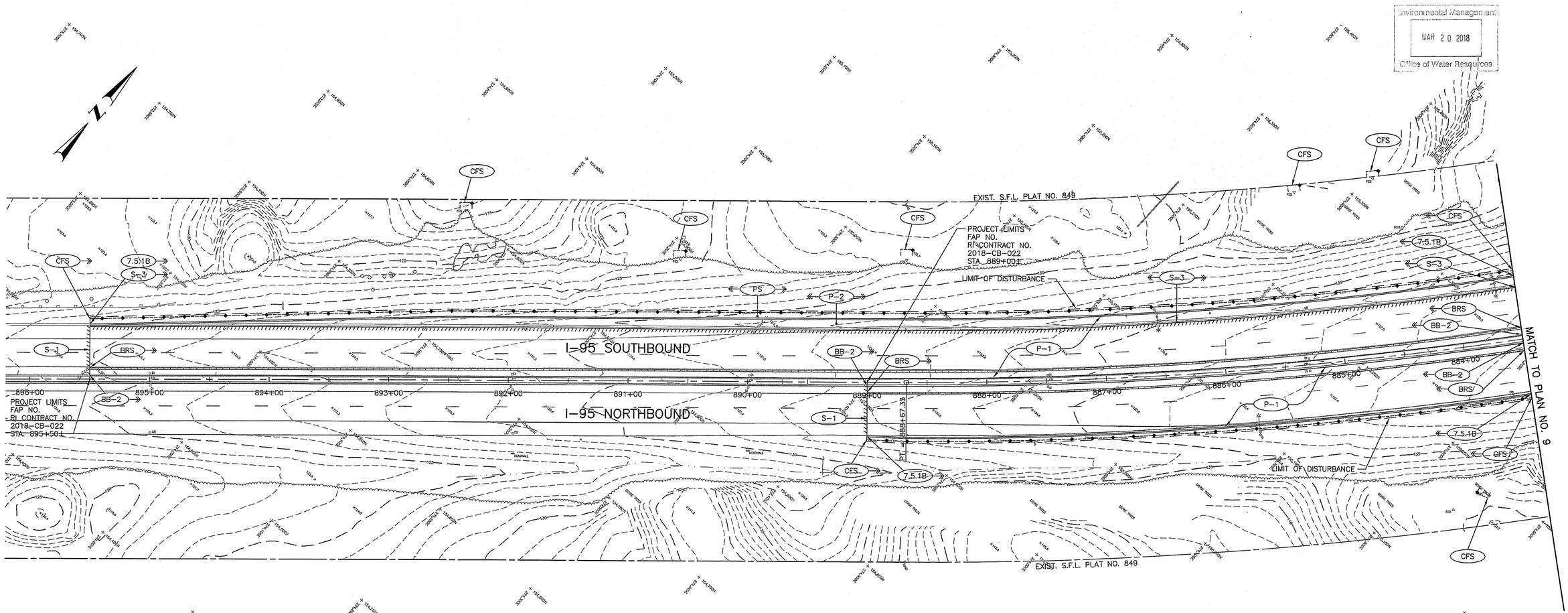
GENERAL PLAN NO. 7

CHECKED BY _____ DATE _____ SCALE 1"=20'

DEM SUBMISSION - MARCH 16, 2018

P:\2100\2015\50.00 Kingston Road Bridge_Drawings\Transportation_Current_Drawings\Kingston Road\SHEETS\C_01_018_GENERAL\007.dwg, 3/13/2018 3:10:41 PM, RMM

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	19	36



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

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

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

GENERAL PLAN NO. 8

CHECKED BY _____ DATE _____ SCALE 1"=40'

DEM SUBMISSION - MARCH 16, 2018

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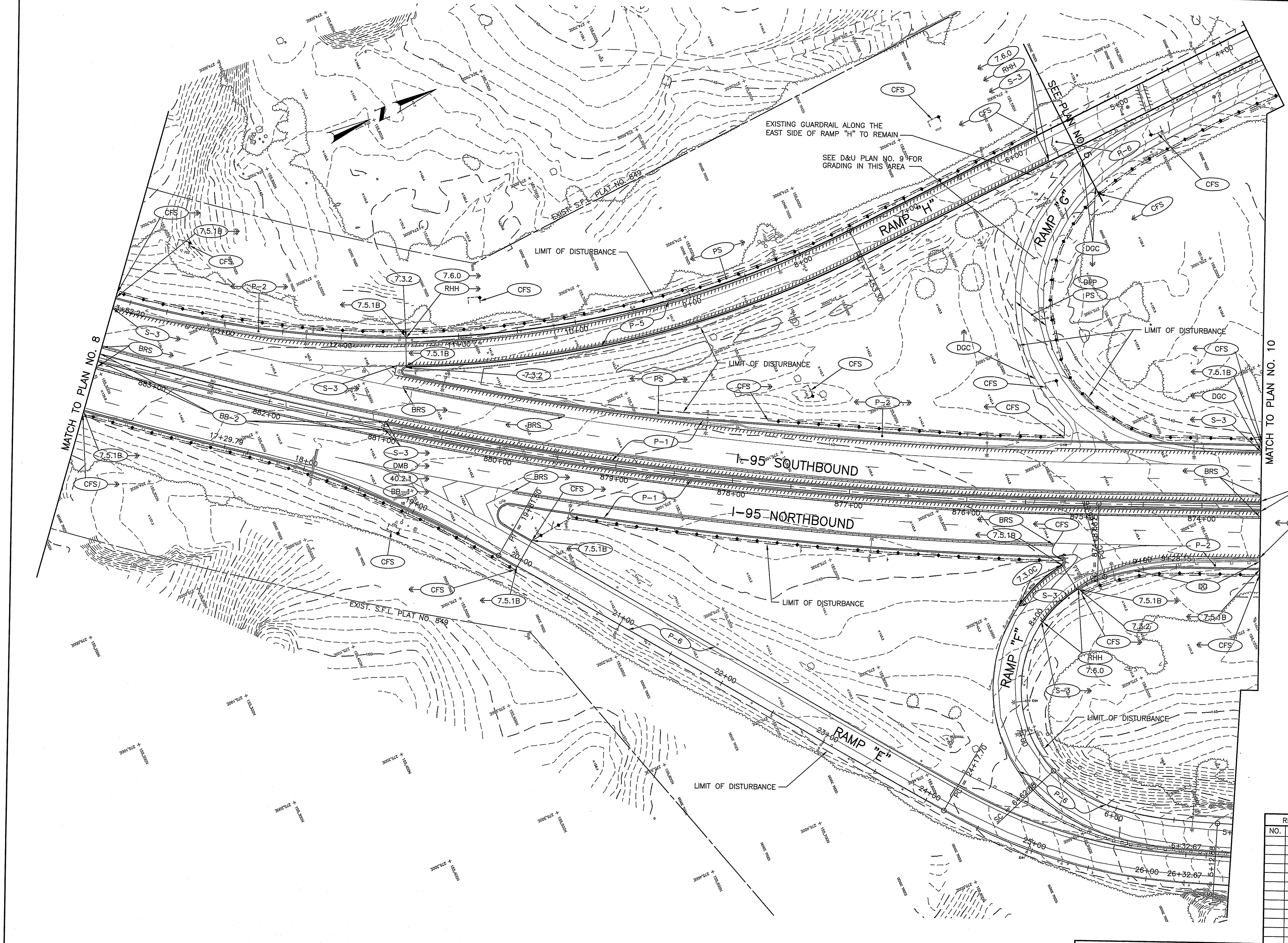
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	20	36



Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

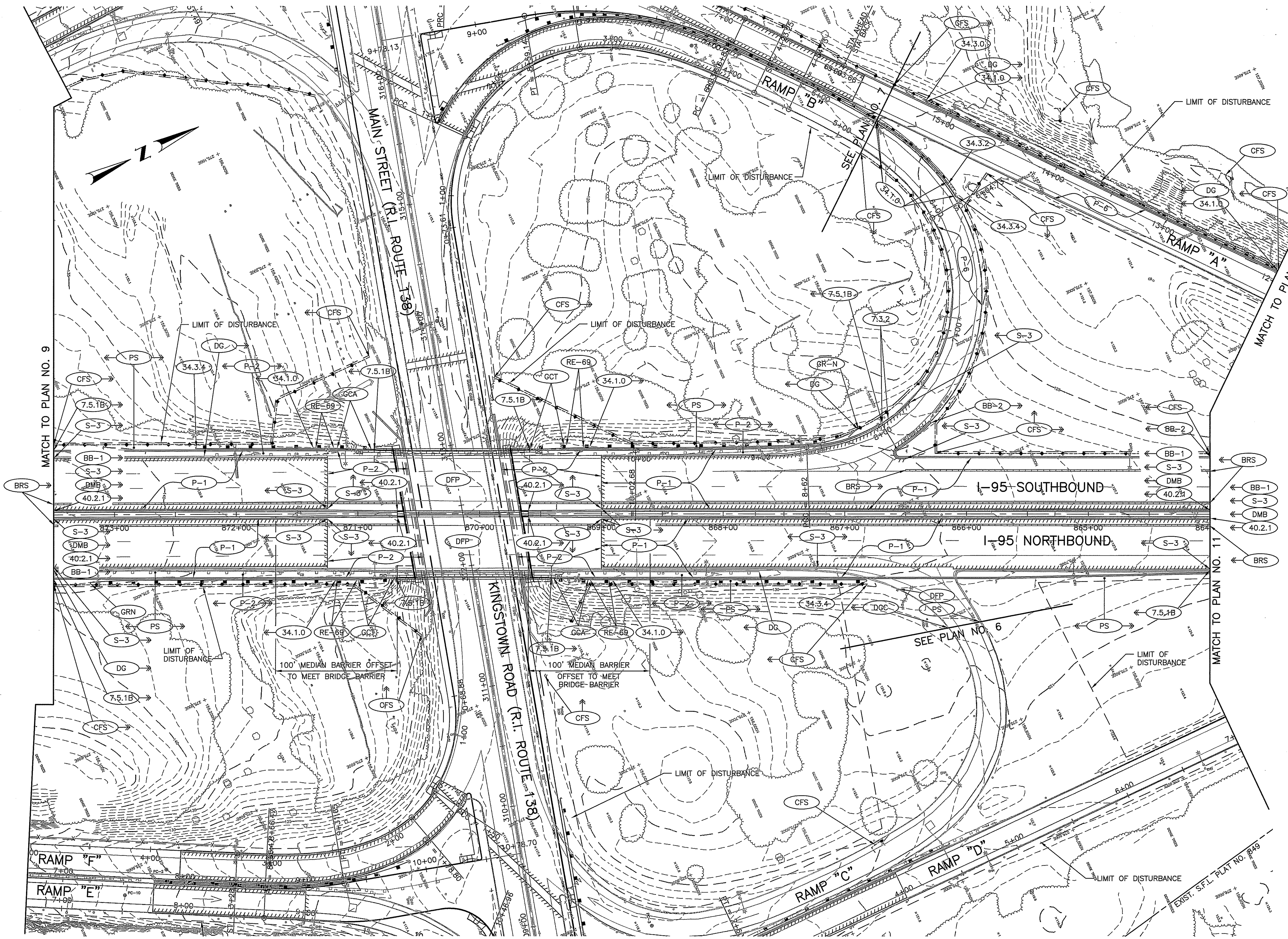
GENERAL PLAN NO. 9

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

CHECKED BY ______ DATE ______ SCALE 1"=40'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	21	36



REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

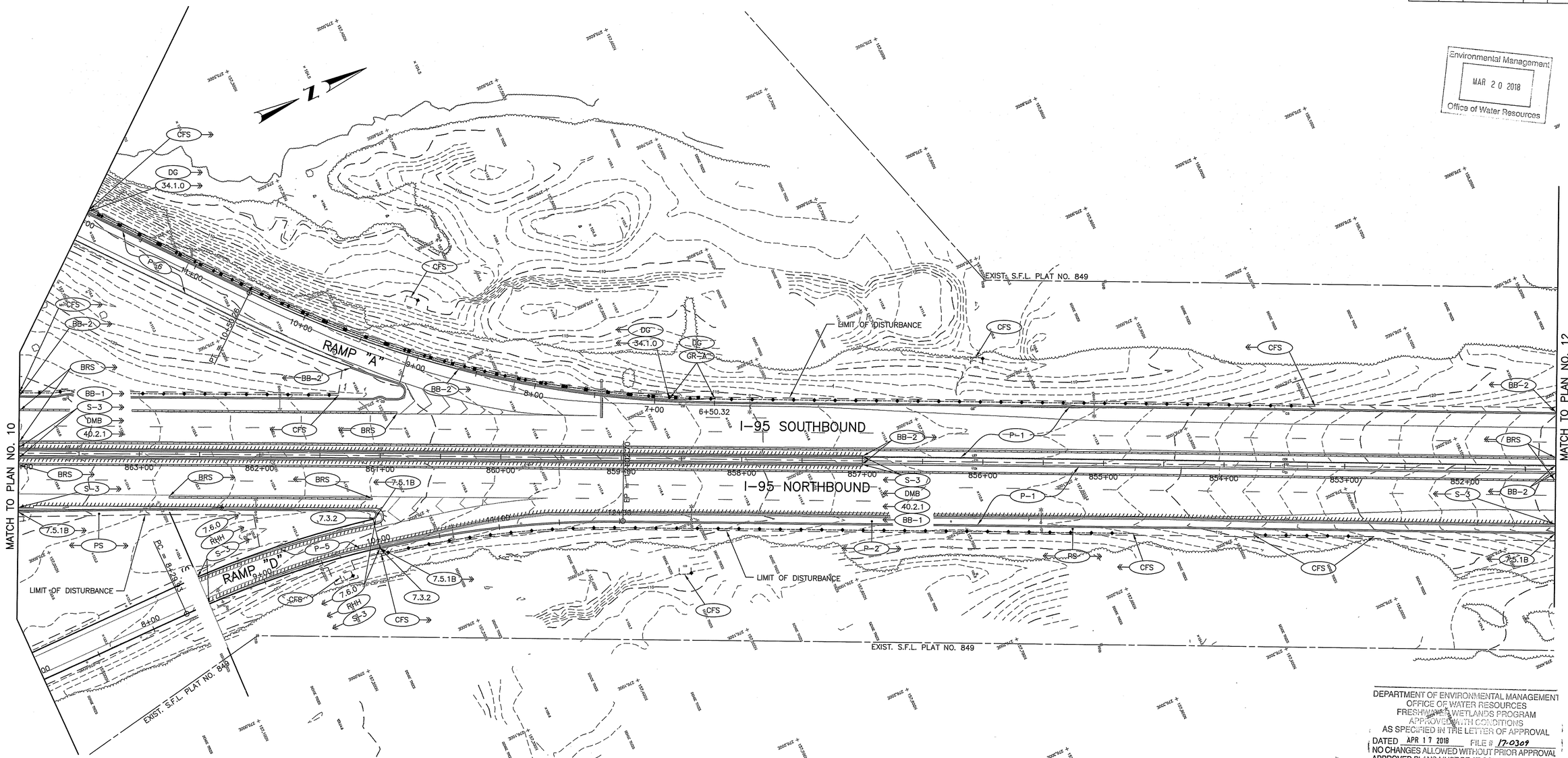
GENERAL PLAN NO. 10

CHECKED BY ________ DATE ________ SCALE 1"=40'

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

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	22	36



THOMAS M. CUNNINGHAM
No. PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

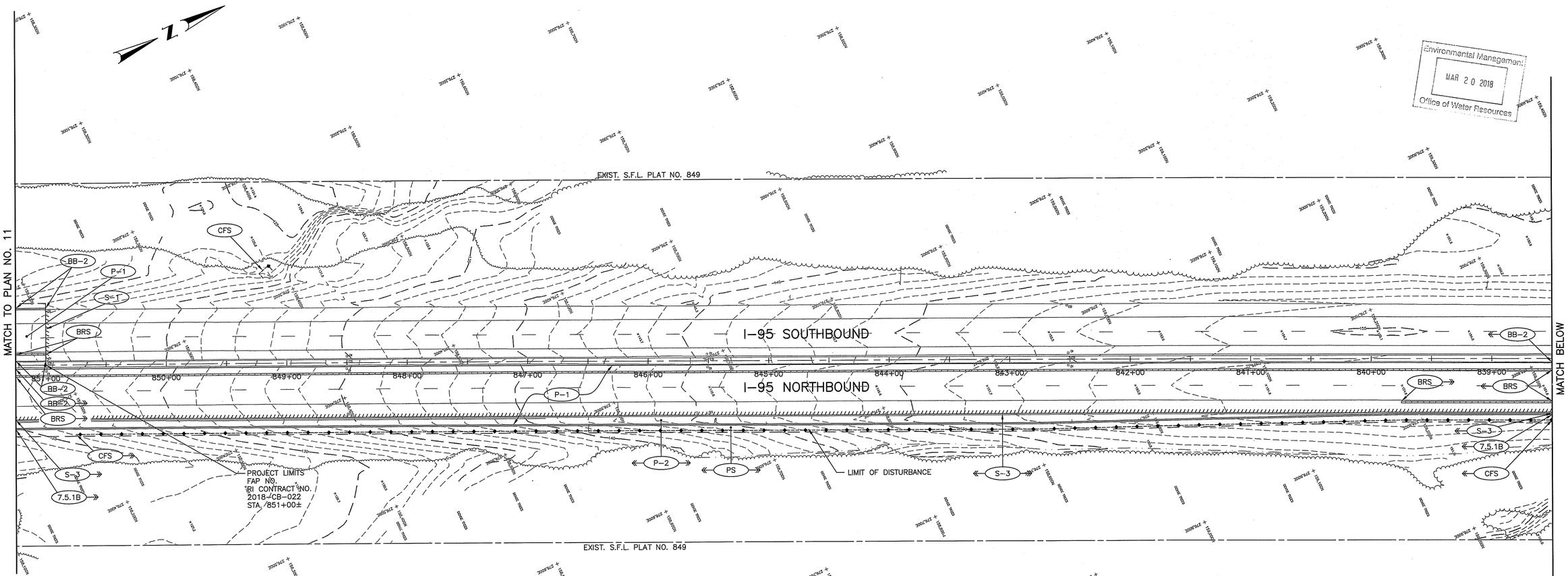
BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

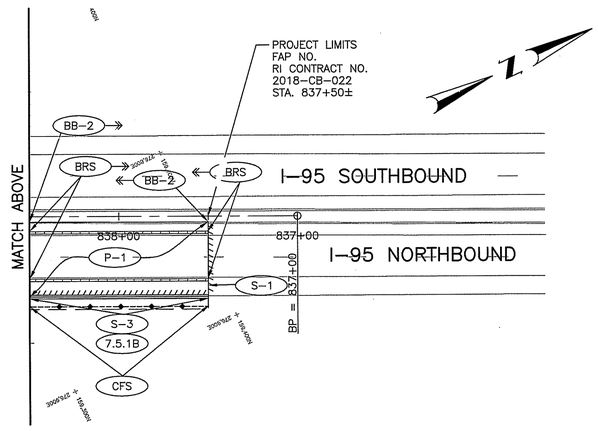
GENERAL PLAN NO. 11

CHECKED BY _____ DATE _____ SCALE 1"=40'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	23	36





Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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THOMAS M. CUNNINGHAM
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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

GENERAL PLAN NO. 12

CHECKED BY _____ DATE _____ SCALE 1"=40'

DEM SUBMISSION - MARCH 16, 2018

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	24	36

MATCH TO PLAN NO. 6
MATCH TO PLAN NO. 2
MATCH TO PLAN NO. 4
KINGSTOWN ROAD (R.I. ROUTE 138)
RAMP "C"
RAMP "D"
RAMP "E"
RAMP "F"
BASIN-1
HISTORIC CEMETERY NO. 37
RD-CB TYPE "F" STA. 2+00
RIM=116.51
INV. (12")SW=111.33
40'-12"RCP
S=0.011
12" RCP TO BE ABANDONED
KR-CB-2 STA. 309+00, 32' RT.
RIM=117.37
INV. (24")=110.74 (IN)
INV. (24")=110.74 (OUT)
COX
2-3" SCHEDULE 40 PVC DUCTS ENCASED IN CONCRETE (SEE DETAILS)
(BY OTHERS)
STA. 310+34, 40.5' RT. TO CENTER OF POLE
LIMIT OF DISTURBANCE
30'-24"RCP
S=0.005
ANCHOR LEAD LENGTH 10'
48'-18"RCP
S=0.009
116'-24"RCP
S=0.005
NEW POLE NO. 165
STA. 308+54, 40.5' RT. TO CENTER OF POLE
KR-MH STA. 308+25, 27' RT.
RIM=117.94
INV. (18")E=111.35 (IN)
INV. (18")N=111.32 (OUT)
224'-18"RCP
S=0.011
OUTLET CONTROL STRUCTURE INV.=110.89
RE-CB-1 STA. 10+40
RIM=116.90
INV. (12")OUT=113.90
12" RCP TO BE ABANDONED
LIMIT OF DISTURBANCE
STA. 306+54, 37.2' RT. TO CENTER OF POLE
ANCHOR LEAD LENGTH 10'
KR-CB TYPE "D" ROUND WITH GUTTER INLET STA. 306+00, 25' RT.
RIM=119.75 (GRATE)
INV. (12")E=113.85
INV. (12")S=114.84
INV. (18")W=113.81
POLE #163 TO REMAIN
PROJECT LIMITS
FAP NO.
RI CONTRACT NO.
2018-CB-022
STA. 304+50±
EXIST. S.H.L. PLAT NO. 850
EXIST. S.F.L. PLAT NO. 849
52'-12"RCP
S=0.011
30'-12"RCP
S=0.011
KR-DOUBLE GRATE-CB STA. 305+73, 46' LT.
RIM=118.74
INV. (12")=115.74
KR-CB TYPE "F" STA. 306+00, 27' LT.
(4 FLANGE FRAME)
RIM=118.96
INV. (12")IN=115.41
INV. (12")OUT=115.41
EXISTING UTILITY POLE TO REMAIN
NEW INV. (24")NE=109.98 (IN)
EXIST. INV. (24")NW=109.98 (OUT)
KR-MH STA. 309+97, 40' LT.
RIM=118.09
INV. (12")SE=110.36 (IN)
INV. (24")NE=110.16 (IN)
INV. (24")SW=110.13 (OUT)
38'-12"RCP
S=0.011
20'-12"RCP
S=0.016
20'-12"RCP
S=0.010
16'-12"RCP
S=0.02
64'-12"RCP
S=0.0375
12" INV.=114.85
RE-CB-2 STA. 10+20
RIM=116.73
INV. (12")N=113.58
INV. (12")S=113.55
INV. (12")E=110.88
INV. (12")NW=110.78 (OUT)
RE-CB-3 STA. 10+00
RIM=116.87
INV. (12")=113.87
R&D PVC JUNCTION BOX, WOODEN POST, EXISTING LOOP WIRES
RE-DMH-1 STA. 10+12.34, 24' RT.
RIM=117.52
INV. (12")SW=111.18
INV. (12")E=112.45
INV. (12")NW=111.08 (OUT)
GRAVEL PARKING
DENSE TREES

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THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

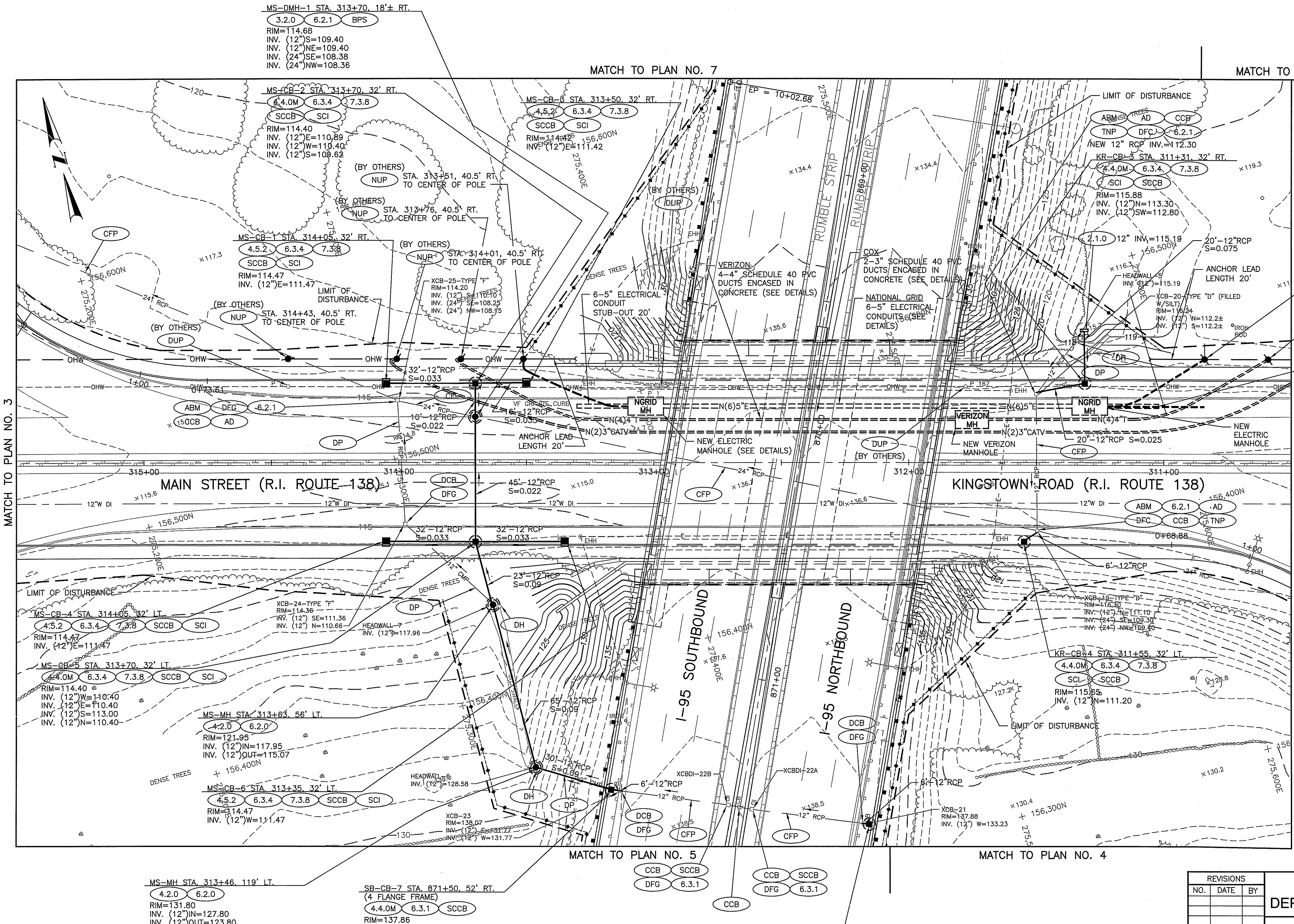
DRAINAGE & UTILITY PLAN NO. 1

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

CHECKED BY ______ DATE ______ SCALE 1"=20'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	25	36



NOTE:

1: STA. 311+50 – NEW CONDUITS TO GO UNDER EXISTING 12" RCP TO REMAIN.

2: CONDUIT MUST BE INSTALLED ON THE POLE SIDE THAT IS AWAY FROM THE TRAFFIC.

Environmental Management
MAR 20 2018
Office of Water Resources

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OFFICE OF WATER RESOURCES
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400 SMITH STREET
PROVIDENCE, RI 02908

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 2

CHECKED BY ________ DATE ________ SCALE 1"=20'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	26	36

RB-CB-2 STA. 2+15.77
(6'-0" DIA. CB TYPE "F")
DCB | DFG | 3.4.5M | 6.3.1 | 7.3.7 | SCCB | SCI
RIM=114.47 (LOW POINT)
INV. (24")SE=107.00
INV. (24")NW=106.95
INV. (24")S=106.97 (NEW)

RIM=115.84±
INV. (12")E=111.10
AD | 6.2.1 | TNP | DFG | CCB | ABM

RA-1-CB-4 STA. 8+47.64
4.4.0M | 6.3.1 | 7.3.8 | SCCB | SCI
RIM=115.29
INV. (12")N=112.00
INV. (12")W=111.30
INV. (12")S=112.25

MATCH TO PLAN NO. 7

XCB-26-TYPE "R"
RIM=115.25
INV. (24") SE=106.40
INV. (24") NW=106.55

20'-12"RCP S=0.02
10'-12"RCP S=0.02

RA-1-CB-3 STA. 8+67
4.5.2 | 6.3.1 | 7.3.8 | SCCB | SCI
RIM=115.36
INV. (12")N=112.64

XCB-25A-TYPE "F"
RIM=114.30
INV. (12") S=109.25
INV. (24") SE=107.00
INV. (24") NW=106.95

PT 8+59.14

LIMIT OF DISTURBANCE

MS-CB-7 STA. 318+94, 31.5' RT.
3.4.2M | 6.3.4 | 7.3.8 | TEP | BPS | SCCB | SCI
RIM=119.20
INV. (12")SW=114.18
INV. (12")NE=114.05

XCB-28-TYPE "D"
RIM=122.14
INV. (12") NE=117.28
INV. (4") N=120.01
INV. (15") SW=117.59
INV. (12") NW=117.44

EXIST. S.H.L. PLAT NO. 850

EXISTING UTILITY POLE TO REMAIN

(BY OTHERS) NUP — STA. 319+96, 36.7' RT. TO CENTER OF POLE

(BY OTHERS) NUP — NEW POLE 5 STA. 318+74, 40.5' RT. TO CENTER OF POLE

(BY OTHERS) NUP — NEW POLE 4 STA. 317+41, 40.5' RT. TO CENTER OF POLE

(BY OTHERS) DUP

XCB-29-TYPE "D"
RIM=118.52
INV. (12") W=115.27
INV. (12") NE=114.32

RAMP "A"

RAMP "B"

(BY OTHERS) DUP — (BY OTHERS) NUP — STA. 316+93, 40.5' RT. TO CENTER OF POLE

MAIN STREET (R.I. ROUTE 138)

ANCHOR LEAD LENGTH 15'

MS-CB-8 STA. 315+83, 32' RT.
4.4.0M | 6.3.4 | 7.3.8 | SCCB | SCI
RIM=116.31
INV. (24")SW=107.33
INV. (24")NE=107.31

XCB-42-TYPE "D"
RIM=116.53
INV. (12") SW=110.63
INV. (12") N=110.58

76'-24"RCP S=0.005

6.2.1 | CCB | AD | DFC | ABM

EXISTING UTILITY POLE TO REMAIN

0+06.23

PROJECT LIMITS
FAP NO.
RI CONTRACT NO. 2018-CB-022
STA. 321+00±

EXISTING UTILITY POLE TO REMAIN

EXIST. S.F.L. PLAT NO. 849

LIMIT OF DISTURBANCE

RH-CB-1 STA. 1+30
4.5.2 | 6.3.1 | SCCB
RIM=118.17
INV. (12")=115.17

RH-CB-2 STA. 1+50.26
4.4.0M | 6.3.1 | 7.3.8 | SCCB | SCI
RIM=118.04
INV. (12")NW=114.75
INV. (12")SE=114.75
INV. (12")SW=113.43
INV. (12")E=113.40

XCB-40-TYPE "F"
RIM=117.56
INV. (12") SW=112.38
INV. (12") E=112.53

2.1.0
INV. (12")=113.67

HEADWALL-10
INV. (12")=113.04

RH-CB-3 STA. 1+74
4.5.2 | 6.3.1 | 7.3.8 | SCCB | SCI
RIM=118.16
INV. (12")=115.16

RAMP "H"

RAMP "G"

2.3.0 (12") INV.=113.00

HEADWALL-11
INV. (12")=115.07

XCB-41-TYPE "D"
RIM=116.93
INV. (12") NE=111.72
INV. (12") SW=113.38
INV. (12") S=111.63

50'-12"RCP S=0.006

30'-12"RCP S=0.006

BASIN - 2

28'-24"RCP S=0.005

MS-CB-9 STA. 316+31, 32' LT.
4.4.0M | 6.3.4 | 7.3.8 | TEP | SCCB | SCI
RIM=116.61
INV. (24")N=107.71
INV. (24")S=107.73

OUTLET CONTROL STRUCTURE INV.=107.87

68'-24"RCP S=0.005

XCB-39-TYPE "F"
RIM=117.76
INV. (12") S=113.16
INV. (12") W=111.76
INV. (12") N=111.74

12" RCP TO BE ABANDONED

PT = 2+51.49

MATCH TO PLAN NO. 5

MATCH TO PLAN NO. 2

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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THOMAS W. CUNNINGHAM
STATE OF RHODE ISLAND
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 3

CHECKED BY _____ DATE _____ SCALE 1"=20'

DEM SUBMISSION - MARCH 16, 2018

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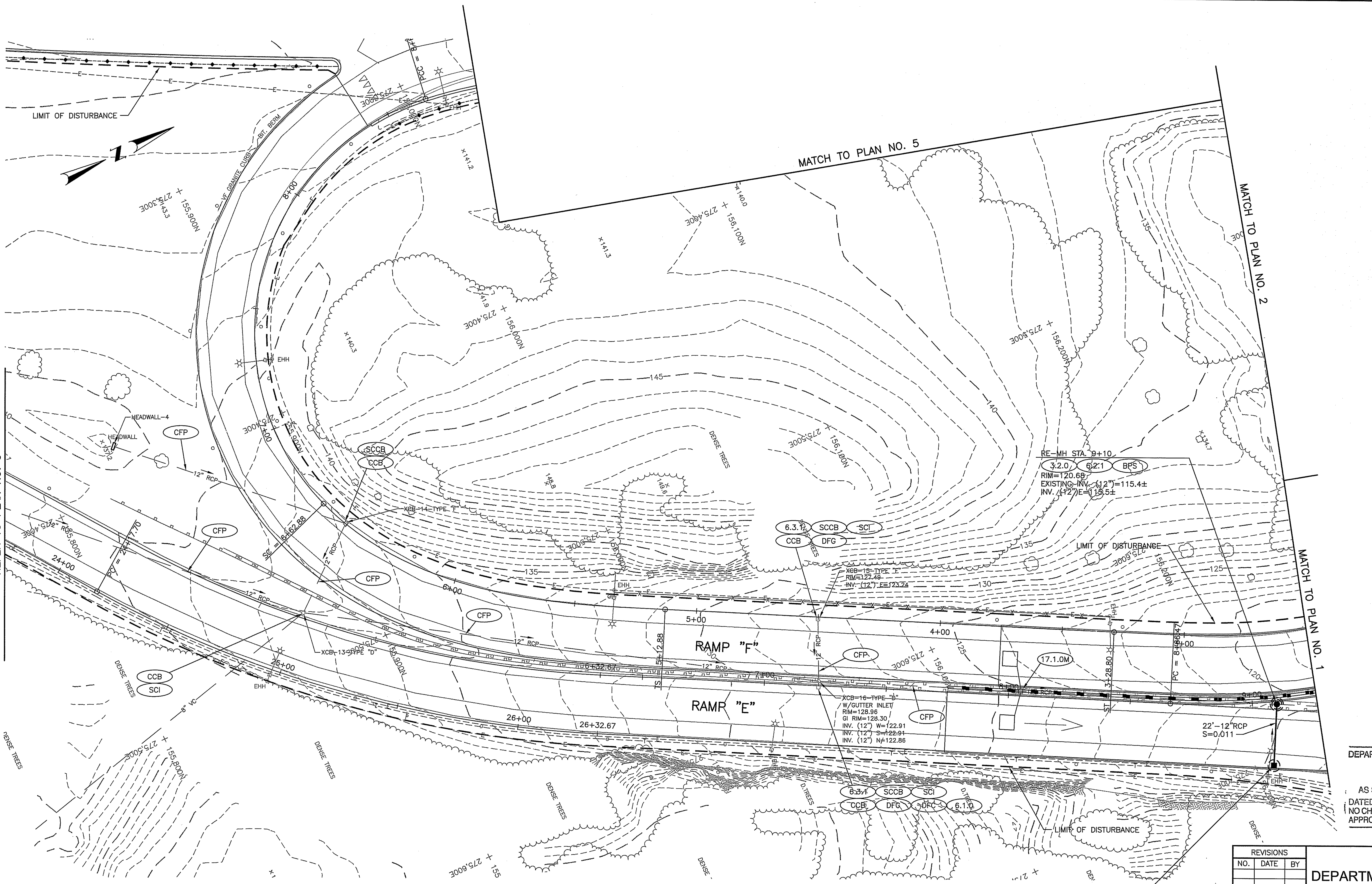
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	27	36

Environmental Management
MAR 20 2018
Office of Water Resources



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BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 4

CHECKED BY ________ DATE ________ SCALE 1"=20'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	28	36

MATCH TO PLAN NO. 3

MATCH TO PLAN NO. 2

MATCH TO PLAN NO. 4

N

12" RCP TO BE ABANDONED

R&D PVC JUNCTION BOX, WOODEN POST, EXISTING LOOP WIRES

LIMIT OF DISTURBANCE

RAMP "H"

RAMP "G"

XCB-37-TYPE "F"
RIM=130.86
INV. (12") E=126.51

32'-12"RCP
S=0.016

XCB-38-TYPE "F"
RIM=130.06
INV. (12") W=126.26
INV. (12") S=126.36
INV. (12") N=125.61

RH-CB-4 STA. 4+77
RIM=130.93
INV. (12")E=127.00

2.1.0 INV.(12")=126.50

XCB-36-TYPE "R"
RIM=135.06
INV. (12") N=129.86
INV. (12") S=129.86

I-95 SOUTHBOUND

I-95 NORTHBOUND

REFER TO PLAN NO. 9

NOTE:

REFER TO CROSS SECTION NO. 28 FOR SECTION "A-A" & "B-B".

Environmental Management
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BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 5

CHECKED BY _____ DATE _____ SCALE 1"=20'

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

DEM SUBMISSION - MARCH 16, 2018

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	29	36

Environmental Management
MAR 2 0 2018
Office of Water Resources

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AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 1 7 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403

RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 6

THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

CHECKED BY ______ DATE ______ SCALE 1"=20'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	30	36

REFER TO PLAN NO. 10

MATCH TO PLAN NO. 6

MATCH TO PLAN NO. 3

MATCH TO PLAN NO. 2

Environmental Management
MAR 2 6 2018
Office of Water Resources

RAMP "A"
RAMP "B"
RAMP "C"
I-95 SOUTHBOUND
I-95 NORTHBOUND
LIMIT OF DISTURBANCE
DENSE TREES
CFP
SCI
SCCB
CCB
DFC
DCB
DP
TNP
CMH
ABM
AD
EHH
XCB-53-TYPE "F"
RIM=119.94
INV. (12") S=112.24
INV. (12") N=112.29
XDMH-3
RIM=119.47
INV. (12") SE=112.67
INV. (12") NE=116.37
INV. (12") N=112.77
XCB-52-TYPE "F"
RIM=117.73
INV. (12") NW=112.98
XCB-46-TYPE "D"
RIM=129.59±
INV. (12") NW=123.1
INV. (12") NE=123.1
XCB-DI-44
XCB-DI-45
XCB-43-TYPE "D"
RIM=129.35
INV. (12") W=125.18
XCB-30 TYPE "D"
RIM=117.92±
INV. (12") SW=106.27
INV. (24") SE=106.07
INV. (30") NE=106.17
RB-CB-1 STA. 8+00
RIM=129.59±
3.4.2M 6.3.1 7.3.8 TEP BPS SCI SCCB
SB-CB-8 STA. 868+50, 52' RT.
(4' FLANGE FRAME)
RIM=132.70±
INV. (12")E=128.50
NB-CB-3 STA. 866+56, 52' LT.
(4' FLANGE FRAME)
3.4.2M 6.3.1 SCCB BPS
NB-CB-2 STA. 868+50, 52' LT.
(4' FLANGE FRAME)
4.4.0M 6.3.1 TEP SCCB
RIM=133.20±
INV. (12")E=128.55
RA-CB-5 STA. 8+30, 41' LT.
4.5.2 6.3.1 7.1.8 SCCB SCI
RIM=115.38
INV. (12")S=112.38
XCB
RIM=132.73
INV. (12") E=128.48
400' TO HEADWALL
HEADWALL-13
97'-12" RCP S=0.032
6'-12"RCP
R&D PVC JUNCTION BOX, WOODEN POST, EXISTING LOOP WIRES
PC = 6+68.90
PCC = 8+62
6.2.0 ABM AD DFG CCB CFP
17.1.0M
157,000N
156,900N
156,800N
156,700N
156,600N
275,100E
275,200E
275,300E
275,400E
275,500E
275,600E

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
6'-12"RCP PROVED WITH CONDITIONS
ASSIGNED IN EXECUTION OF APPROVAL
APPROVED: APR 17 2018 FILE #: 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 7

CHECKED BY _____ DATE _____ SCALE 1"=20'

DEM SUBMISSION - MARCH 16, 2018

P:\01\00\00\1000-00 Kingston Road Bridge_Drawings\Transportation_Current_Drawings\Kingston Road\Roll\ASC_VI_000_DRAINUTL001.dwg, 3/15/2018 8:54:47 PM, RAM

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	31	36

Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THOMAS M. CUNNINGHAM
No. PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

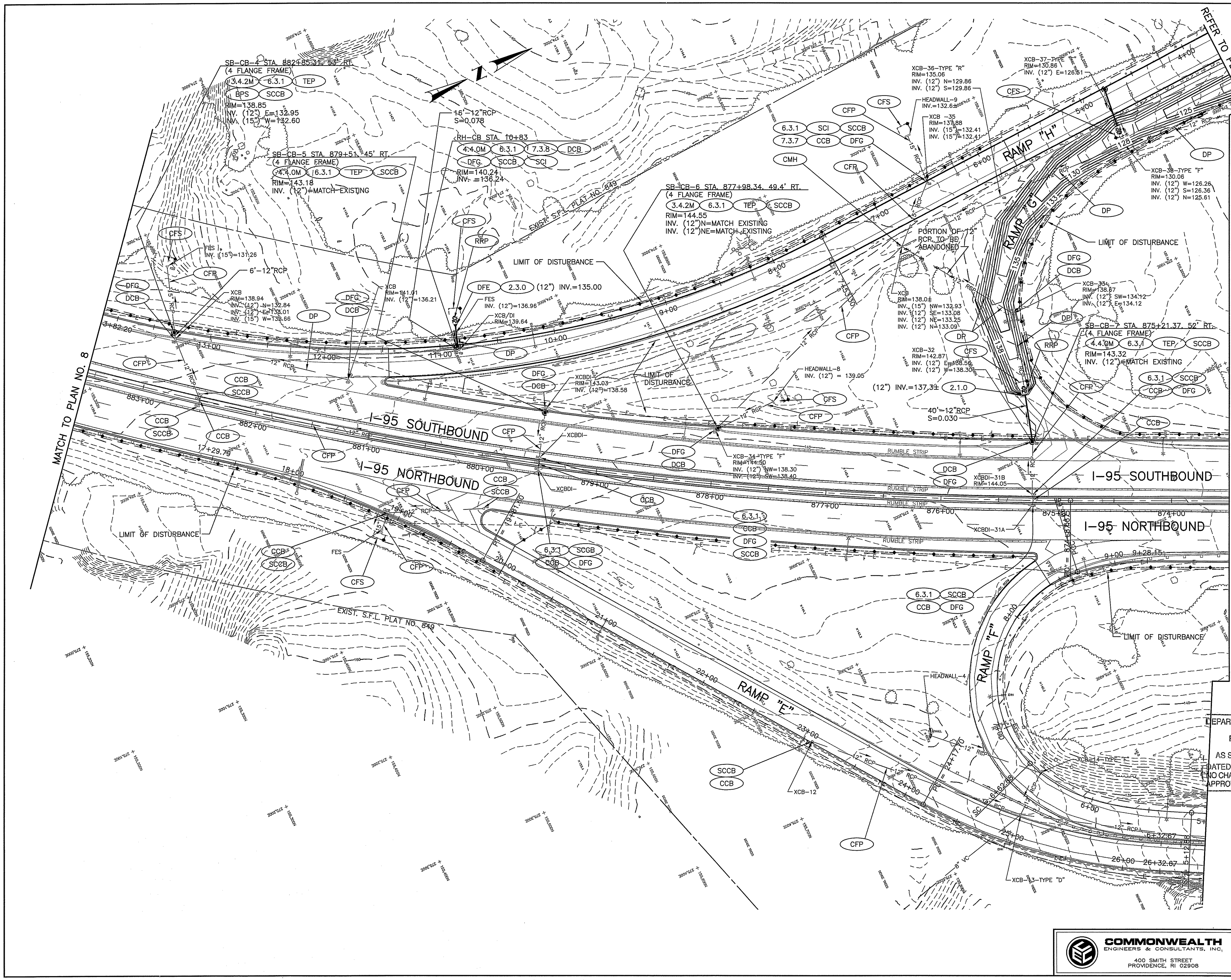
DRAINAGE & UTILITY PLAN NO. 8

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

CHECKED BY ______ DATE ______ SCALE 1"=40'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	32	36



THOMAS M. CUNNINGHAM
PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 9

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

CHECKED BY ________ DATE ________ SCALE 1"=40'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	33	36

Environmental Management
MAR 20 2018
Office of Water Resources

REFER TO PLAN NO. 7

MATCH TO PLAN NO. 9

MATCH TO PLAN NO. 11

MAIN STREET (R.I. ROUTE 138)

KINGSTOWN ROAD (R.I. ROUTE 138)

RAMP "A"

RAMP "B"

RAMP "C"

RAMP "D"

RAMP "E"

RAMP "F"

I-95 SOUTHBOUND

I-95 NORTHBOUND

LIMIT OF DISTURBANCE

SEE BRIDGE PLANS

EXIST. S.F.L. PLAT NO. 649

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THOMAS M. CUNNINGHAM
No. PE.0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

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

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 10

CHECKED BY _____ DATE _____ SCALE 1"=40'

DEM SUBMISSION - MARCH 16, 2018

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	34	36

Environmental Management
MAR 20 2018
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THOMAS M. CUNNINGHAM
No. PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

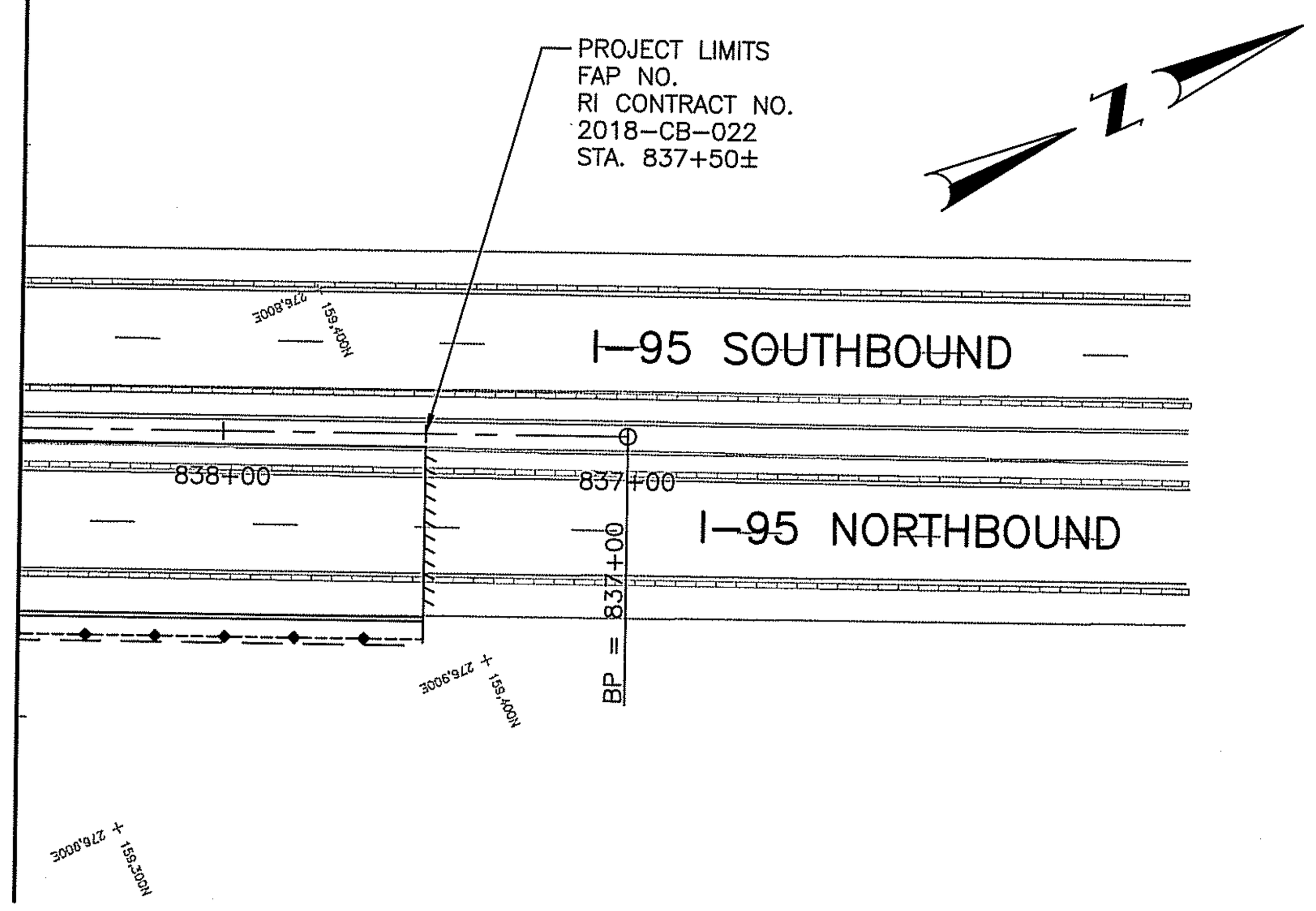
DRAINAGE & UTILITY PLAN NO. 11

CHECKED BY ______ DATE ______ SCALE 1"=40'

DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	35	36

Environmental Management
MAR 20 2018
Office of Water Resources



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 17-0309
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THOMAS M. CUNNINGHAM
No. PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

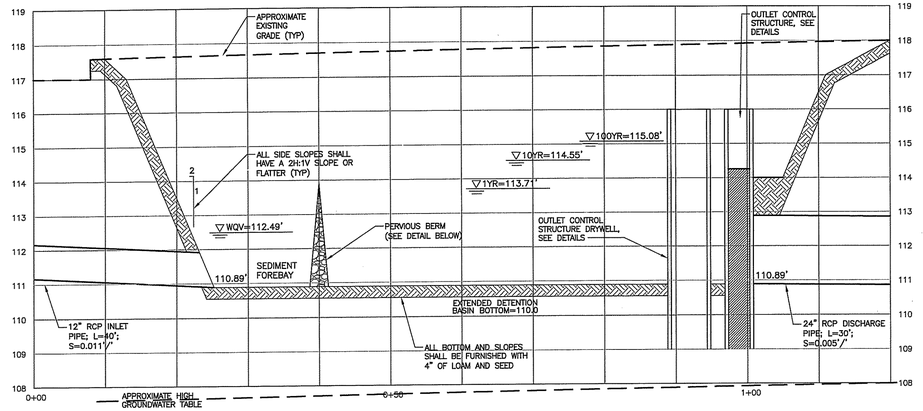
BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE & UTILITY PLAN NO. 12

CHECKED BY ______ DATE ______ SCALE 1"=40'

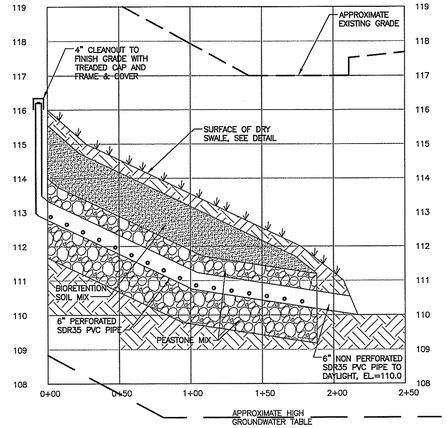
DEM SUBMISSION - MARCH 16, 2018

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI		2018	36	36



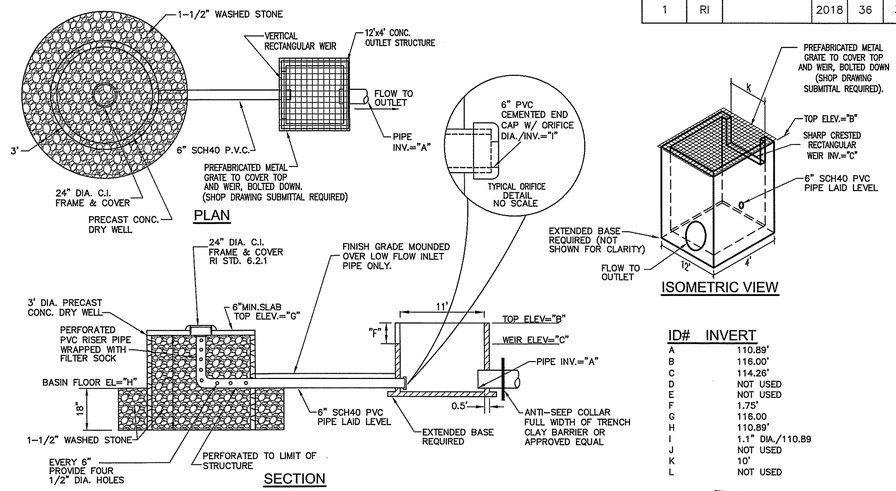
DRY SWALE INTO BASIN 1
EXTENDED DETENTION BASIN (SECTION A-A)

SCALE: AS SHOWN (APPROXIMATE)



DRY SWALE (SECTION B-B)

SCALE: AS SHOWN (APPROXIMATE)



ID#	INVERT
A	110.89'
B	116.00'
C	114.26'
D	NOT USED
E	NOT USED
F	1.75'
G	116.00
H	110.89'
I	1.1" DIA./110.89
J	NOT USED
K	10'
L	NOT USED

EXTENDED DETENTION BASIN OUTLET CONTROL STRUCTURE

NOT TO SCALE
(SHOP DRAWING SUBMITTAL REQUIRED)

DRY SWALE INTO BASIN 2
INFILTRATION BASIN (SECTION C-C)

SCALE: AS SHOWN (APPROXIMATE)

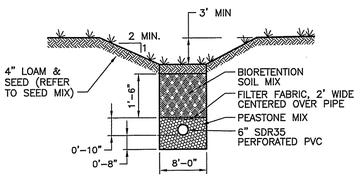
DRY SWALE (SECTION D-D)

SCALE: AS SHOWN (APPROXIMATE)

ID#	INVERT
A	107.87'
B	116.00'
C	113.00
D	NOT USED
E	NOT USED
F	3'
G	NOT USED
H	NOT USED
I	NOT USED
J	NOT USED
K	10'
L	NOT USED

INFILTRATION BASIN OUTLET CONTROL STRUCTURE

(SHOP DRAWING SUBMITTAL REQUIRED)



SECTION

NOTES:

1. THE BIORETENTION SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OTHER WOODY MATERIAL OVER 1" IN DIAMETER, OR BRUSH/SEEDS FROM NOXIOUS WEEDS. PLACEMENT OF THE SOIL SHOULD BE IN LIFTS OF 12 TO 18 INCHES, LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET).
2. CONSTRUCT AND MAINTAIN IN ACCORDANCE WITH THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, DEC. 2010 AS AMENDED.
3. SIDE SLOPES SHALL BE 3:1 (HORIZONTAL:VERTICAL) OR FLATTER, SEE GRADING PLAN.
4. PROVIDE TERMINAL END CLEANOUT TO FINISH GRADE WITH THREADED CAP ON 6" PIPE.

BIORETENTION SOIL MIX (BY VOLUME):

SAND	85 TO 88%
ORGANIC MATTER	3 TO 5%
SILT	0 TO 12%
CLAY	0 TO 2%

PEASTONE MIX:

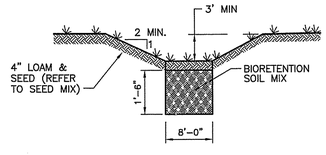
SIZE	% PASS
3/8"	100
NO. 4	40–80
NO. 8	10–50
NO. 40	0–10%
NO. 50	<1%

FILTER FABRIC:
MIRAFI 140N OR EQUAL

SEED MIX:
TYPE 6

DRY SWALE W/DRAIN TYPICAL DETAIL

NOT TO SCALE



SECTION

NOTES:

1. THE BIORETENTION SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OTHER WOODY MATERIAL OVER 1" IN DIAMETER, OR BRUSH/SEEDS FROM NOXIOUS WEEDS. PLACEMENT OF THE SOIL SHOULD BE IN LIFTS OF 12 TO 18 INCHES, LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET).
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3. SIDE SLOPES SHALL BE 3:1 (HORIZONTAL:VERTICAL) OR FLATTER, SEE GRADING PLAN.

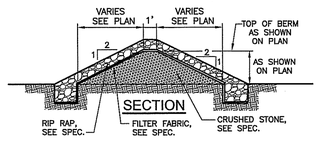
BIORETENTION SOIL MIX (BY VOLUME):

SAND	85 TO 88%
ORGANIC MATTER	3 TO 5%
SILT	0 TO 12%
CLAY	0 TO 2%

SEED MIX:
TYPE 6

DRY SWALE W/O DRAIN TYPICAL DETAIL

NOT TO SCALE



NOTES:

1. THIS DETAIL PERTAINS TO THE BERMS BETWEEN THE SEDIMENT FOREBAY AND WET SWALE AND BETWEEN THE WET SWALE AND EXTENDED DETENTION POND.

PERVIOUS BERM TYPICAL DETAIL

NOT TO SCALE

MATERIAL SPECIFICATIONS:

CRUSHED STONE:
100% PASS – 3"
80–95% PASS – 2½"
60–80% PASS – 1½"
0–50% PASS – ¾"
0–15% PASS – NO. 4
<1% PASS – NO. 40

FILTER FABRIC:
MIRAFI 180N OR EQUAL

RIP RAP (R–4):
100% PASS – 14"
0–50% PASS – 7"
0–15% PASS – 4"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 17 2018 FILE # 12-0309
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THOMAS M. CUNNINGHAM
No. PE0006592
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
KINGSTON ROAD
BRIDGE NO. 403
RICHMOND, RHODE ISLAND

DRAINAGE DETAILS

CHECKED BY _____ DATE _____ SCALE N.T.S.

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

DEM SUBMISSION - MARCH 16, 2018

P:\0500\0506\00 Kingston Road Bridge_Drawings\Transportation_Current_Drawings\Kingston Road\DRAC_VI_DET_DRAIN.dgn 3/15/2018 4:05:20 PM RAM