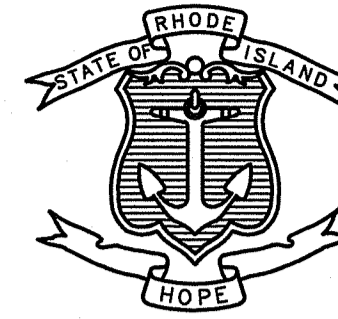


STATE OF RHODE ISLAND



DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

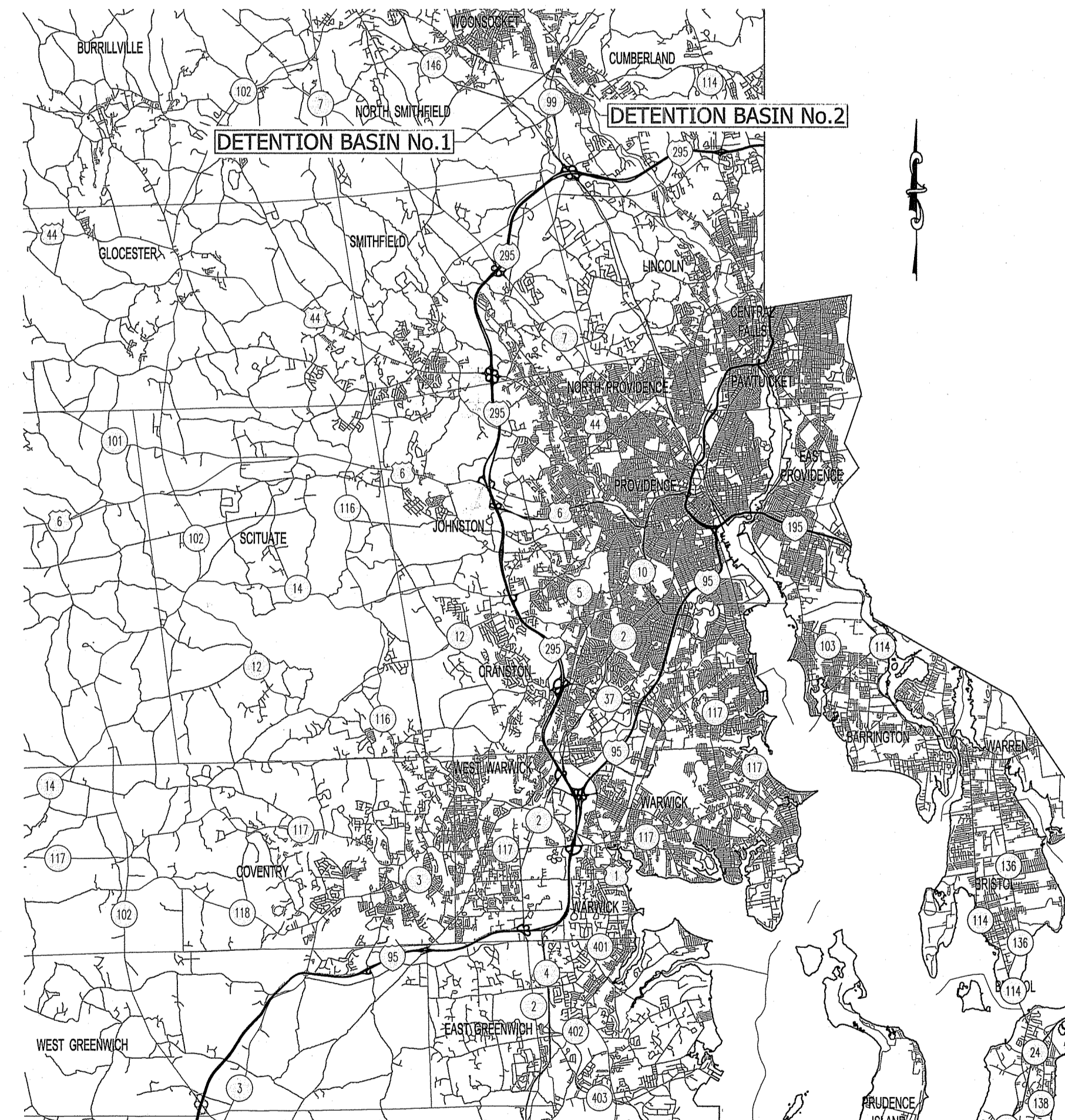
R.I. ROUTE 99 STORMWATER IMPROVEMENTS

CUMBERLAND, RHODE ISLAND  
PROVIDENCE COUNTY

R.I. CONTRACT NO. 2020-CH-XXX F.A. PROJECT NO. XXX-XXX-XXX

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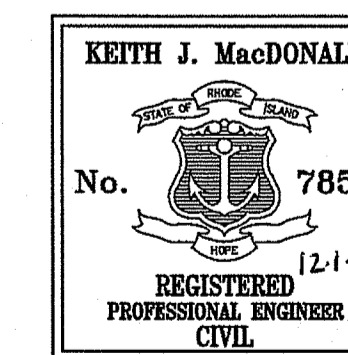
LOCATION MAP  
SCALE: N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

PERMIT SUBMISSION

DECEMBER 1, 2021  
REVISED JANUARY 14, 2022

Environmental Management  
JAN 18 2022  
Office of Water Resources



*Keith J. MacDonald*

R.I. DEPARTMENT OF TRANSPORTATION	
APPROVED	_____
ADMINISTRATOR, PROJECT MANAGEMENT	DATE
APPROVED	_____
CHIEF ENGINEER OF INFRASTRUCTURE	DATE
APPROVED	_____
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
APPROVED	_____
DIVISION ADMINISTRATOR	DATE

Contract Number \_\_\_\_\_  
Number of Sheet 1  
Total Sheets 27



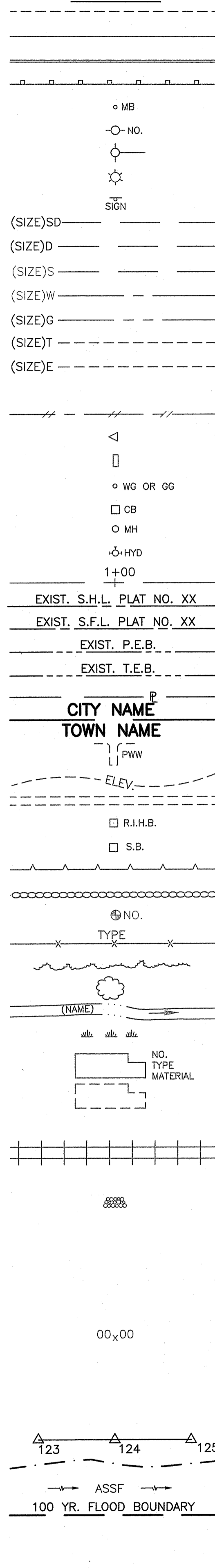
SCALES OF DRAWINGS  
PLANS: 1 INCH = 20 FEET

BASE OF LEVELS  
VERTICAL DATUM USED: NAVD-88  
HORIZONTAL DATUM: RHODE ISLAND STATE PLANE, NAD-83 (2011) (2002.00)

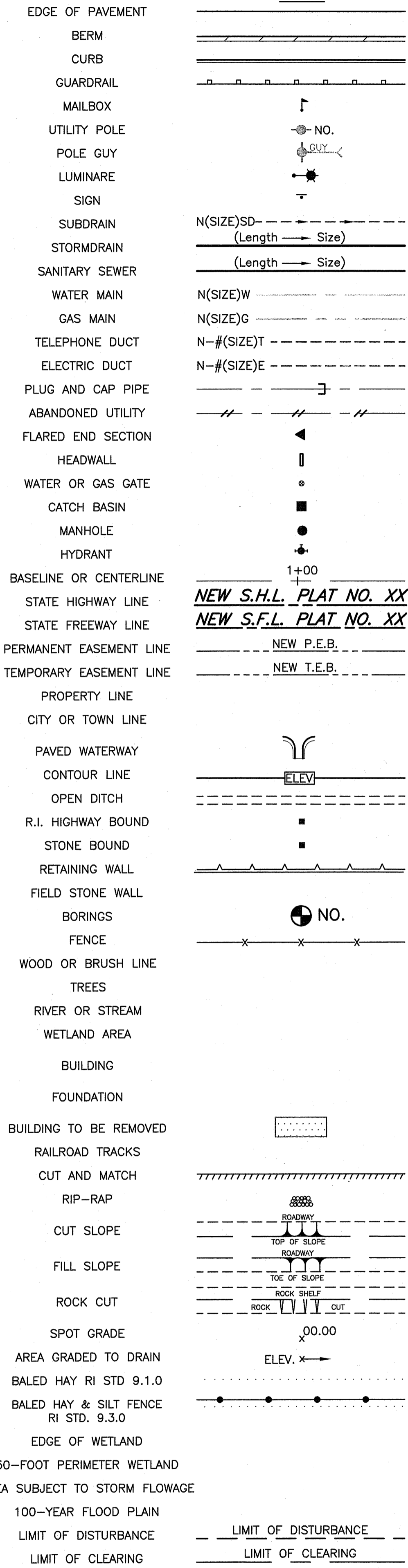
R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION (AMENDED MARCH 2018), 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.

**EXISTING**



**NEW**



1.1.0	UNDERDRAIN	7.4.2	GRANITE TRANSITION CURB (VERTICAL FACE TO SLOPE FACE)	AB	ADJUST CATCH BASIN TO GRADE
1.3.0	CONCRETE CONNECTING COLLAR	7.5.0	BITUMINOUS CONCRETE LIP CURB	ABM	ADJUST CATCH BASIN TO MANHOLE
2.1.0	CONCRETE HEADWALLS FOR PIPE CULVERTS	7.5.1A	BITUMINOUS BERM (CONSTRUCTION METHOD A)	AC	ADJUST CURB STOP TO GRADE
2.2.0	STANDARD HEADWALLS FOR MULTIPLE 3'-6" TO 7'-0" PIPE CULVERTS	7.5.1B	BITUMINOUS BERM (CONSTRUCTION METHOD B)	AD	ADJUST DRAINAGE MANHOLE TO GRADE
2.3.0 (DIA.)	PRECAST CONCRETE FLARED END SECTION	7.6.0	CURB SETTING DETAIL	AE	ADJUST ELECTRIC MANHOLE TO GRADE
3.2.0	BRICK/SOLID BLOCK 4'-0" ROUND MANHOLE	8.2.0	BITUMINOUS CONCRETE DITCH	AFC	ADJUST FRAME AND COVER TO GRADE
3.2.1 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND MANHOLE	8.3.0	RIP-RAP DITCH	AFG	ADJUST FRAME AND GRATE TO GRADE
3.3.0	BRICK/SOLID BLOCK TYPE "D" SQUARE CATCH BASIN	8.4.0	PAVED WATERWAY	AG	ADJUST GAS GATE BOX TO GRADE
3.3.2	BRICK/SOLID BLOCK TYPE "F" SQUARE CATCH BASIN	9.1.0	BALED HAY EROSION CHECK	AHH	ADJUST HANDHOLE TO GRADE
3.3.3	SOLID BLOCK FLUSH SQUARE CATCH BASIN	9.2.0	SILT FENCE DETAIL	AS	ADJUST SANITARY SEWER MANHOLE TO GRADE
3.4.0	BRICK/SOLID BLOCK TYPE "D" ROUND CATCH BASIN	9.3.0	BALED HAY DITCH EROSION CHECK AND SILT FENCE COMBINED	AT	ADJUST TELEPHONE MANHOLE TO GRADE
3.4.1	BRICK/SOLID BLOCK ROUND CATCH BASIN WITH GUTTER INLET	9.4.0	BALED HAY DITCH AND SWALE EROSION CHECK	AW	ADJUST WATER GATE BOX TO GRADE
3.4.2	BRICK/SOLID BLOCK TYPE "F" ROUND CATCH BASIN	9.5.0	LOG AND HAY CHECK DAM	BCD	BITUMINOUS CONCRETE DRIVEWAY
3.4.3	BRICK/SOLID BLOCK TYPE "R" CATCH BASIN	9.7.0	DEWATERING BASIN	BPS	3" BITUMINOUS CONCRETE TYPE 1-2
3.4.4	SOLID BLOCK FLUSH ROUND CATCH BASIN	9.8.0	BALED HAY CATCH BASIN INLET PROTECTION	CCB	8" GRAVEL BORROW SUBBASE COURSE
3.4.5 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND CATCH BASIN	9.9.0	CONSTRUCTION ACCESS	CCP	BUILD NEW STRUCTURE OVER EXISTING PIPE
3.5.0	SOLID BLOCK SHALLOW TYPE "F" SQUARE CATCH BASIN	10.1.0	WET STONE MASONRY RETAINING WALL	CCP	CLEAN CATCH BASIN
3.5.1 (SIZE)	SOLID BLOCK SHALLOW 5'-0" OR 6'-0" SQUARE CATCH BASIN	10.2.0	RUBBLE MASONRY WALL	CCP	CUT AND CAP PIPE WITH RESTRAINT (ALL SIZES)
3.6.0	BRICK/SOLID BLOCK DROP INLET	10.3.0	CONCRETE RETAINING WALL	CFP	CLEAN AND FLUSH PIPE
3.7.0 (DIA.)	BRICK/SOLID BLOCK ROUND MANHOLE OR CATCH BASIN GREATER THAN 12'-0"	10.4.0	STONE MASONRY STEPS	CG	CLEARING AND GRUBBING
4.2.0	PRECAST 4'-0" ROUND MANHOLE	14.1.0	CONCRETE HIGHWAY BOUND	CMH	CLEAN MANHOLE
4.2.1	PRECAST 5'-0" ROUND MANHOLE	15.1.0	POST AND MOUNTINGS FOR RURAL MAILBOX	CP (DEPTH)	COLD PLANE
4.2.2	PRECAST 6'-0" ROUND MANHOLE	15.2.0 (NO.)	POST AND MULTIPLE MOUNTINGS FOR RURAL MAILBOXES	CPP	CUT AND PLUG PIPE (ALL TYPES, ALL SIZES)
4.3.0 (SIZE)	PRECAST 4'-0" OR 6'-0" SQUARE MANHOLE OR CATCH BASIN	18.2.0	PRECAST TYPE "A" HANDHOLE	DB	REMOVE AND DISPOSE BITUMINOUS CURB
4.4.0 (DIA.)	PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN	18.2.2	HEAVY DUTY TYPE "H" HANDHOLE	DC	REMOVE AND DISPOSE CONCRETE CURB
4.5.0	PRECAST CONCRETE DROP INLET	18.3.0	ALUMINUM LIGHTING STANDARDS	DCB	REMOVE AND DISPOSE CATCH BASIN
4.5.1	PRECAST CONCRETE DROP INLET LATERAL OUTLET	20.2.0	BI-DIRECTIONAL CONTROL DEVICE	DDI	REMOVE AND DISPOSE DROP INLET
4.5.2	PRECAST CONCRETE DROP INLET LONGITUDINAL OUTLET	24.6.1	STREET SIGN MOUNTING DETAIL	DF	REMOVE AND DISPOSE FENCE
5.3.0	CATCH BASIN AND MANHOLE STEP	26.2.0	POLYETHYLENE DRUM WITH MARKINGS	DFC	REMOVE AND DISPOSE FRAME AND COVER
5.4.0	CONCRETE COLLARS	26.3.0	PVC PLASTIC PIPE TYPE III BARRICADE	DFE	REMOVE AND DISPOSE FLARED END SECTION
6.1.0	LIGHT-DUTY SQUARE FRAME AND ROUND COVER	31.1.0	CHAIN LINK FENCE 3'-0" TO 4'-0"	DFG	REMOVE AND DISPOSE FRAME AND GRATE
6.1.1	HEAVY DUTY SQUARE FRAME AND ROUND COVER	31.2.0	CHAIN LINK FENCE 5'-0" TO 6'-0"	DFH	REMOVE AND DISPOSE FIRE HYDRANT
6.2.0	LIGHT-DUTY ROUND FRAME AND COVER	31.2.1	CHAIN LINK FENCE 5'-0" TO 6'-0" INTERMEDIATE POST	DFP	REMOVE AND DISPOSE FLEXIBLE PAVEMENT
6.2.1	HEAVY-DUTY ROUND FRAME AND COVER	31.3.0	WOVEN WIRE RIGHT-OF-WAY FENCE (STEEL POST)	DG	REMOVE AND DISPOSE GUARDRAIL
6.3.0	SQUARE FRAME AND GRATE	34.1.0	TYPICAL GUARDRAIL INSTALLATION	DH	REMOVE AND DISPOSE GUARDRAIL
6.3.1	SQUARE FRAME AND GRATE	34.2.0	STEEL BEAM GUARDRAIL	DH	REMOVE AND DISPOSE HEADWALL
6.3.2	SQUARE FRAME AND GRATE (BICYCLE SAFE)	34.2.1	STEEL BEAM GUARDRAIL DETAILS	DHB	REMOVE AND DISPOSE HIGHWAY BOUND
6.3.3	HIGH CAPACITY FRAME AND GRATE	34.2.2	STEEL BEAM GUARDRAIL DOUBLE FACED ASSEMBLY	DHH	REMOVE AND DISPOSE HANDHOLE
6.3.4	HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)	34.2.3	STEEL BEAM GUARDRAIL FIXTURES	DL	REMOVE AND DISPOSE LIGHT AND FOUNDATION
7.1.0S	ROUND FRAME AND GRATE	34.2.5	STEEL BEAM GUARDRAIL REFLECTORIZED TRIANGULAR DELINEATOR	DMB	REMOVE AND DISPOSE MEDIAN BARRIER
7.1.0C	PRECAST CONCRETE CURB (STRAIGHT)	34.3.1	GUARDRAIL END SECTION	DMH	REMOVE AND DISPOSE MANHOLE
7.1.1	3'-0" PRECAST CONCRETE TRANSITION CURB	34.3.2	TERMINAL END SECTION (SINGLE FACE)	DMM	REMOVE AND DISPOSE MEDIAN MARKER
7.1.2	6'-0" PRECAST CONCRETE TRANSITION CURB	34.3.3	ANCHORAGE DETAILS APPROACH END SECTION	DOW	REMOVE AND DISPOSE OBSERVATION WELL
7.1.4	PRECAST 2'-0" RADIUS CORNER	34.3.4	ANCHORAGE DETAILS TRAILING END SECTION	DP	REMOVE AND DISPOSE PIPE
7.1.5	PRECAST CONCRETE INLET STONE (FOR SQUARE CATCH BASIN)	34.4.0	STEEL BACKED TIMBER GUARDRAIL	DPB	REMOVE AND DISPOSE PAVEMENT AND RIGID BASE
7.1.6	PRECAST CONCRETE INLET STONE (FOR ROUND CATCH BASIN)	40.1.0	STEEL BACKED TIMBER GUARDRAIL TERMINAL SECTION-TYPE 1	DRB	REMOVE AND DISPOSE RIGID BASE
7.1.7	PRECAST CONCRETE INLET STONE (FOR SQUARE CATCH BASIN)	40.2.0	DOUBLE-FACED PRECAST MEDIAN BARRIER	DS	REMOVE AND DISPOSE SIGN
7.1.8	PRECAST CONCRETE APRON STONE (FOR SQUARE CATCH BASIN)	40.2.1	SINGLE-FACED PRECAST MEDIAN BARRIER	DSS	REMOVE AND DISPOSE TRAFFIC SIGNAL SYSTEM
7.2.0S	PRECAST CONCRETE SLOPED FACE CURB (STRAIGHT)	40.3.0	SINGLE-FACED PRECAST MEDIAN BARRIER	DSW	REMOVE AND DISPOSE SIDEWALK
7.2.0C	PRECAST CONCRETE SLOPED FACE CURB (CIRCULAR)	40.4.0	PRECAST MEDIAN BARRIER TRANSITION UNIT	DTD	REMOVE AND DISPOSE TELEPHONE DUCT BANKS
7.2.1	PRECAST CONCRETE SLOPED FACE TRANSITION CURB	40.5.0	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL	DUP	REMOVE AND DISPOSE UTILITY POLE
7.2.2	PRECAST CONCRETE TRANSITION CURB (VERTICAL FACE TO SLOPED FACE)	43.1.0	CEMENT CONCRETE SIDEWALK	DWW	REMOVE AND DISPOSE PAVED WATERWAY
7.3.0S	GRANITE CURB (STRAIGHT)	43.2.0	BITUMINOUS CONCRETE SIDEWALK	FF	FILTER FABRIC RIPRAP FLARED END UNDERLAYMENT
7.3.0C	GRANITE CURB (CIRCULAR)	43.3.0	WHEELCHAIR RAMP	GET	FLARED GUARDRAIL END TREATMENT
7.3.1	3'-0" GRANITE TRANSITION CURB	43.3.1	WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS	IA	IMPACT ATTENUATOR
7.3.2	6'-0" GRANITE TRANSITION CURB	43.4.0	DRIVEWAY DEVELOPMENT FOR 3'-0" TRANSITION CURB	IDL	IMPERVIOUS DITCH LINER
7.3.3	GRANITE WHEELCHAIR RAMP TRANSITION CURB	43.4.1	DRIVEWAY DEVELOPMENT FOR 6'-0" TRANSITION CURB	LOD	LIMIT OF DISTURBANCE
7.3.4	GRANITE 2'-0" RADIUS CORNER	43.5.0	CEMENT CONCRETE DRIVEWAYS	LOR	LIMIT OF REGRADING
7.3.5	GRANITE INLET STONE (FOR SQUARE CATCH BASIN)	48.1.0	DETECTABLE WARNING SYSTEM	LS	4" LOAM AND SEED
7.3.6	GRANITE INLET STONE (FOR ROUND CATCH BASIN)	51.1.0	TREE PROTECTION DEVICE		
7.3.7	GRANITE INLET STONE (FOR SQUARE CATCH BASIN)	51.1.1	DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES		
7.3.8	GRANITE APRON STONE (FOR SQUARE CATCH BASIN)	51.2.0	SHRUB PROTECTION DEVICE		
7.4.0	GRANITE APRON STONE (FOR ROUND CATCH BASIN)	51.3.0	TREE WELL		
7.4.1	GRANITE SLOPED FACE CURB	51.4.0	TREE WALL		
7.4.1	GRANITE SLOPED FACE TRANSITION CURB				

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	THREE BEAM TRANSITION
TBBC	THREE 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

RI Environmental Management  
JAN 18 2022  
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Andy J. Freeman*

**GENERAL NOTES:**

- 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.
- 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.
- 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.
- ALL R.I. STD. 9.9.0 CONSTRUCTION ACCESS ROADS SHALL BE CONSTRUCTED PRIOR TO ANY ROADWAY ACCEPTING CONSTRUCTION TRAFFIC.
- THE FREQUENCY AND APPLICATION RATES FOR THE DUST CONTROL ITEMS WILL BE AS DIRECTED BY THE ENGINEER.
- ALL SIDEWALK AND DRIVEWAYS DESIGNATED FOR REPLACEMENT SHALL BE CUT AND MATCHED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 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."
- 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.
- UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED PAVEMENT MATERIALS WITHIN THE PROJECT LIMITS.
- 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.
- PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY THE ENGINEER.
- THE COORDINATE SYSTEM, IF SHOWN, IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM.
- 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 SKI-TYPE DEVICE FOR AUTOMATIC GRADE CONTROL, BUT WILL BE ALLOWED TO MANUALLY ADJUST THE BITUMINOUS PAVER FOR CONTROLLING GRADE.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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).
- 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).
- 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.
- 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:**

- 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).
- 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.
- 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.
- IF THE PLANS INCLUDE SPECIFIC AREAS FOR PLACEMENT OF CONSTRUCTION DEWATERING BASINS AND/OR EQUIPMENT AND MATERIALS STORAGE AND STOCKPILING, AND IF THERE ARE ANY OTHER AREAS TO BE UTILIZED 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.
- 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.
- SEEDING ON ALL SLOPES 3 TO 1 OR STEEPER SHALL CONSIST OF THE FOLLOWING APPLICATIONS UNLESS CHANGED IN THE CONTRACT.
  - SEEDING TYPE I.
  - ADHESIVE MULCH STABILIZER
- UNVEGETATED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR PERIODS IN EXCESS OF 2 WEEKS OR THROUGH THE INACTIVE WINTER SEASON.
- 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.
- ALL DRAINAGE AND UTILITY STRUCTURES WITHIN THE PAVED ROADWAY SHALL BE ADJUSTED TO GRADE WITH THE SURROUNDING PAVEMENT PRIOR TO THE WINTER SHUTDOWN.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.
- 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.
- PROVISIONS FOR CLEARING TO ACCESS OUTFALLS DURING THE CLEANING AND FLUSHING OF THE CLOSED DRAINAGE SYSTEM SHALL BE KEPT TO A MINIMUM.
  - ANY VEGETATIVE CLEARING SHALL BE LIMITED TO BRUSH AND TREES LESS THAN 3" DIAMETER.
  - NO HEAVY EQUIPMENT MAY ENCROACH UPON VEGETATED PERIMETER OR RIVERBANK WETLANDS AS WELL AS BIOLOGICAL WETLANDS.
- 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.
- R.I. STD. 9.8.0 BALED HAY INLET PROTECTION SHALL BE INSTALLED AT ALL CATCH BASINS AND INLETS WHENEVER SUBFACE IS EXPOSED, AND SHALL REMAIN IN PLACE UNTIL THE ABUTTING GROUND SURFACES ARE STABILIZED.
- 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):**

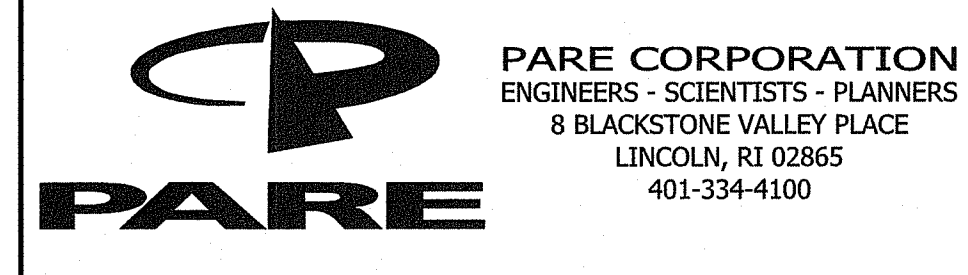
- DETENTION AND RETENTION BASINS MAY BE ROUGH GRADED AND STABILIZED WITH VEGETATION AND/OR OTHER EROSION CONTROL MEASURES AS REQUIRED BY THE ENGINEER PRIOR TO USE AS TEMPORARY SEDIMENTATION BASINS DURING PROJECT CONSTRUCTION. FINAL BASIN CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL SOURCES OF SEDIMENT HAVE 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 RESPONSIBILITY OF THE CONTRACTOR. ANY CORRECTIVE ACTION REQUIRED TO RESOLVE SUCH ISSUES SHALL BE COMPLETED BY THE CONTRACTOR.
- 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.
- 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.
- 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.
- 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.
- THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE SPECIFIED IN SUBSECTION L.02.03 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- 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:**

- 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.
- 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 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.
- ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE CAPPED.
- EXISTING WATER SERVICES SHALL BE RECONNECTED TO THE NEW WATER MAINS.
- UTILITY SERVICE CONNECTIONS SHALL BE MAINTAINED TO ALL EXISTING FACILITIES TO REMAIN.
- FIRE HYDRANTS SHALL NOT BE REMOVED FROM SERVICE WITHOUT WRITTEN AUTHORIZATION FROM THE FIRE DEPARTMENT OR THE WATER AUTHORITY.
- ALL NEW WATER LINES SHALL BE DISINFECTED TO THE SATISFACTION OF THE WATER AUTHORITY IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL UTILITY POLE RELATED WORK SHALL BE BY OTHERS.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Andy L. Freeman*

RI Environmental Management  
JAN 18 2022  
Office of Water Resources



DESIGNED BY:	
CHECKED BY:	
DATE:	
SHEET: 3	
OF: 27	

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

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
CUMBERLAND  
RHODE ISLAND  
STANDARD NOTES - 1

**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.

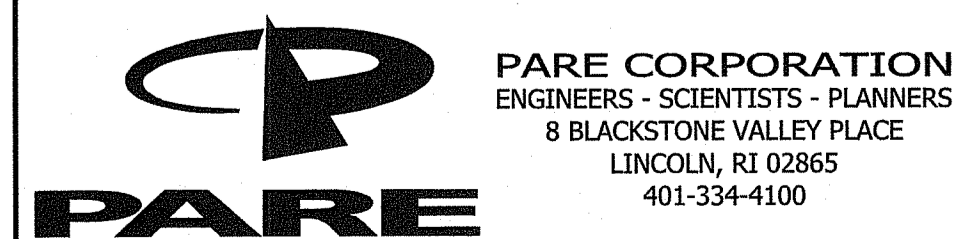
**MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:**

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.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.

*Nancy L. Freeman*

RI Department of Transportation  
JAN 18 2022  
Office of Water Resources



DESIGNED BY:			
CHECKED BY:			
DATE:			
SHEET: 4			
OF: 27			
REVISIONS		REVISIONS	
NO.	DATE	BY	DATE
1	4/07	TRB	
2	11/07	TRB	
3	3/10	RBH	

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
CUMBERLAND RHODE ISLAND

STANDARD NOTES - 2

**JOB SPECIFIC LEGEND:**

- CFS COMPOST FILTER SOCK (SEE "DETAILS")
- ETR EXISTING TO REMAIN
- FDS FULL DEPTH SAWCUT OF BITUMINOUS PAVEMENT
- GRD GRAVEL DRIVE (SEE "DETAILS")
- OCS OUTLET CONTROL STRUCTURE (SEE "DETAILS")
- RRSL RIPRAP SLOPE (SEE "DETAILS")
- RRSW RIPRAP SPILLWAY (SEE "DETAILS")
- R&D REMOVE AND DISPOSE (SEE "TYPICAL DETAILS")
- R&R REMOVE AND RESET
- SFB SEDIMENT FOREBAY
- SFBCD SEDIMENT FOREBAY CHECK DAM (SEE "DETAILS")

**JOB SPECIFIC GENERAL NOTES:**

1. EXISTING CONDITIONS SURVEY WAS PREPARED BY MARTINEZ COUCH & ASSOCIATES ON MARCH 26, 2020. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE.
2. FOR SURVEY WORK PERFORMED BY THE CONTRACTOR, ALL SURVEY FIELD BOOKS AND ELECTRONIC DATA SHALL BE SUBMITTED TO THE RIDOT SURVEY SECTION UPON COMPLETION OF THE CONSTRUCTION WORK. FIELD BOOKS SHALL INCLUDE A LISTING OF ALL RI HIGHWAY BOUNDS THAT WERE SET WITH STATIONS, OFFSETS, COORDINATES, AND DATE SET CERTIFIED BY THE CONTRACTOR'S PROFESSIONAL LAND SURVEYOR.
3. ALL REQUIRED TREE TRIMMING WILL BE COMPLETED UNDER THE RIDOT STATEWIDE TRIMMING CONTRACT. THERE IS NO SEPARATE PAY ITEM FOR THIS WORK. TREE TRIMMING PROVIDED UNDER THE RIDOT STATEWIDE TRIMMING CONTRACT DOES NOT INCLUDE VEGETATION CLEARING ACTIVITIES.
4. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REESTABLISHED WITH PLANTABLE SOIL AND TYPE 1 SEED. IF AREAS ARE BEYOND WORK LIMIT LINES, THEN THE COST SHALL BE BORNE BY THE CONTRACTOR.
5. TREE AND SHRUB PROTECTION DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING TREES AND THEIR ROOT SYSTEMS DURING CONSTRUCTION.
6. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY AUTHORITIES INCLUDING "DIG SAFE" PRIOR TO STARTING WORK. ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST OF REPAIRS SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
7. THE CONTRACTOR SHALL BE AWARE OF THE PRESENCE OF OVERHEAD UTILITIES WITHIN THE WORK ZONE AND SHALL PLAN ALL CONSTRUCTION ACCORDINGLY. NO ADDITIONAL PAYMENT WILL BE MADE FOR EQUIPMENT AND METHODS REQUIRED TO ACCOMMODATE THE OVERHEAD UTILITIES.
8. NO SEPARATE PAYMENT WILL BE MADE FOR TEMPORARY EARTH SUPPORT. SHOULD THE CONTRACTOR USE ANY TEMPORARY EARTH SUPPORT STRUCTURES, THE COST SHALL BE CONSIDERED INCIDENTAL TO THE CORRESPONDING ITEMS OF WORK.
9. THERE SHALL BE NO PARKING OR STORING OF CONSTRUCTION EQUIPMENT UNDER THE DRIPLINE OF ANY TREE.
10. CATCH BASIN INLET SEDIMENT CONTROL DEVICES, AS SHOWN ON THE "SEDIMENT AND EROSION CONTROL DETAILS" SHEET, SHALL BE UTILIZED WHEN ADJACENT WORK ACTIVITY EXPOSES ERODIBLE SOILS.

**JOB SPECIFIC DRAINAGE AND UTILITY NOTES:**

1. CONTRACTOR TO EXCAVATE TEST PITS IN AREAS OF POTENTIAL UTILITY CONFLICTS AND RELAY INFORMATION TO RESIDENT ENGINEER PRIOR TO COMMENCEMENT OF UTILITY WORK.
2. ALL PROPOSED DRAINAGE STRUCTURES MAY BE BACKFILLED USING CONTROLLED LOW STRENGTH MATERIAL (CLSM) CLASS I AND II (EXCAVATABLE) AS A SUBSTITUTE FOR COMPACTED GRAVEL AND STRUCTURAL FILL, IN ACCORDANCE WITH SECTION 603 OF THE R.I. STANDARD SPECIFICATIONS. BACKFILL WITH CLSM SHALL BE CONSIDERED INCIDENTAL TO THE DRAINAGE ITEMS AND NO ADDITIONAL PAYMENT WILL BE MADE FOR THE WORK.
3. COMPOST FILTER SOCKS ARE REQUIRED TO BE INSTALLED AT ALL OUTFALLS PRIOR TO CLEANING AND FLUSHING PIPES.
4. ALL PROPOSED DRAINAGE CATCH BASINS AND MANHOLE STRUCTURES SHALL BE 4' DIAMETER UNLESS OTHERWISE NOTED ON PLANS.
5. WORK ASSOCIATED WITH TYING IN PROPOSED DRAINAGE STRUCTURES INTO EXISTING DRAINAGE STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE DRAINAGE WORK.

**JOB SEPECIFIC SURVEY UTILITY NOTES**

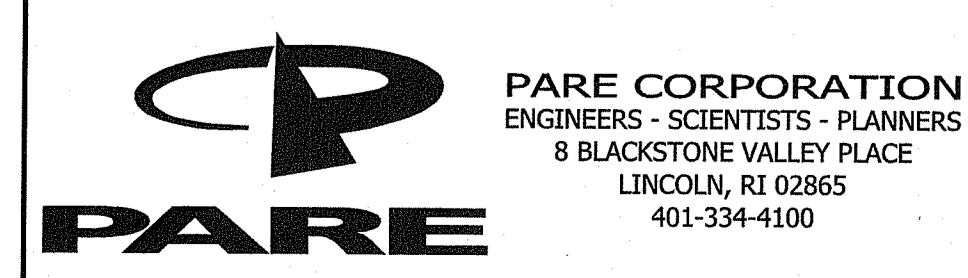
1. ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN WERE PROVIDED BY OTHERS AND ARE APPROXIMATE ONLY. LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE EXCAVATION, UTILITY INSTALLATION, BACKFILLING, GRADING, PAVEMENT RESTORATION, AND ALL OTHER SITE WORK. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THESE DOCUMENTS. CONTACT DIG SAFE A MINIMUM OF 72 WORKING HOURS PRIOR TO ANY CONSTRUCTION AT 811. DIG SAFE IS RESPONSIBLE FOR CONTACTING MEMBER UTILITY COMPANIES. DIG SAFE MEMBER UTILITY COMPANIES ARE RESPONSIBLE TO MARK ONLY THE FACILITIES THAT THEY OWN OR MAINTAIN. NON DIG SAFE MEMBER COMPANIES ARE NOT NOTIFIED BY DIG SAFE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND NOTIFY IF ANY PRIVATELY OWNED OR NON DIG SAFE MEMBER UTILITIES ARE IN THE AREA.
- 1.1. PER THE CODE OF FEDERAL REGULATIONS - TITLE 29, PART 1926 IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ACCURATE UNDERGROUND UTILITY LINE LOCATIONS FROM THE UTILITY COMPANIES, UTILITY OWNERS AND, OR VIA UNDERGROUND UTILITY LOCATION EQUIPMENT AS NEEDED TO ESTABLISH ACCURATE LOCATIONS PRIOR TO ANY EXCAVATION. THE USE OF PROFESSIONAL UTILITY LOCATING COMPANIES PRIOR TO ANY EXCAVATION IS RECOMMENDED.
- 1.2. MARTINEZ COUCH & ASSOCIATES IS NOT A PROFESSIONAL UTILITY LOCATION COMPANY, AND IS NOT RESPONSIBLE FOR UNDERGROUND UTILITIES, DEPICTED OR NOT, EITHER IN SERVICE OR ABANDONED. ANY SIZES, LOCATIONS, EXISTENCE, OR LACK OF EXISTENCE OF UTILITIES SHOWN ON THESE PLANS SHOULD BE CONSIDERED APPROXIMATE UNTIL VERIFIED BY A PROFESSIONAL UTILITY LOCATION COMPANY. MARTINEZ COUCH & ASSOCIATES ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED.

**JOB SPECIFIC PLAN SYMBOLS**

- |   |   |
|---|---|
| <p>EXISTING</p> <p>SW</p> <p>○</p> <p>□</p> | <p>NEW</p> <p>DIRECTION OF TRAVEL →</p> <p>STONE WALL</p> <p>BOLLARD</p> <p>CURB INLET</p> <p>COMPOST FILTER SOCK</p> |
|---|---|

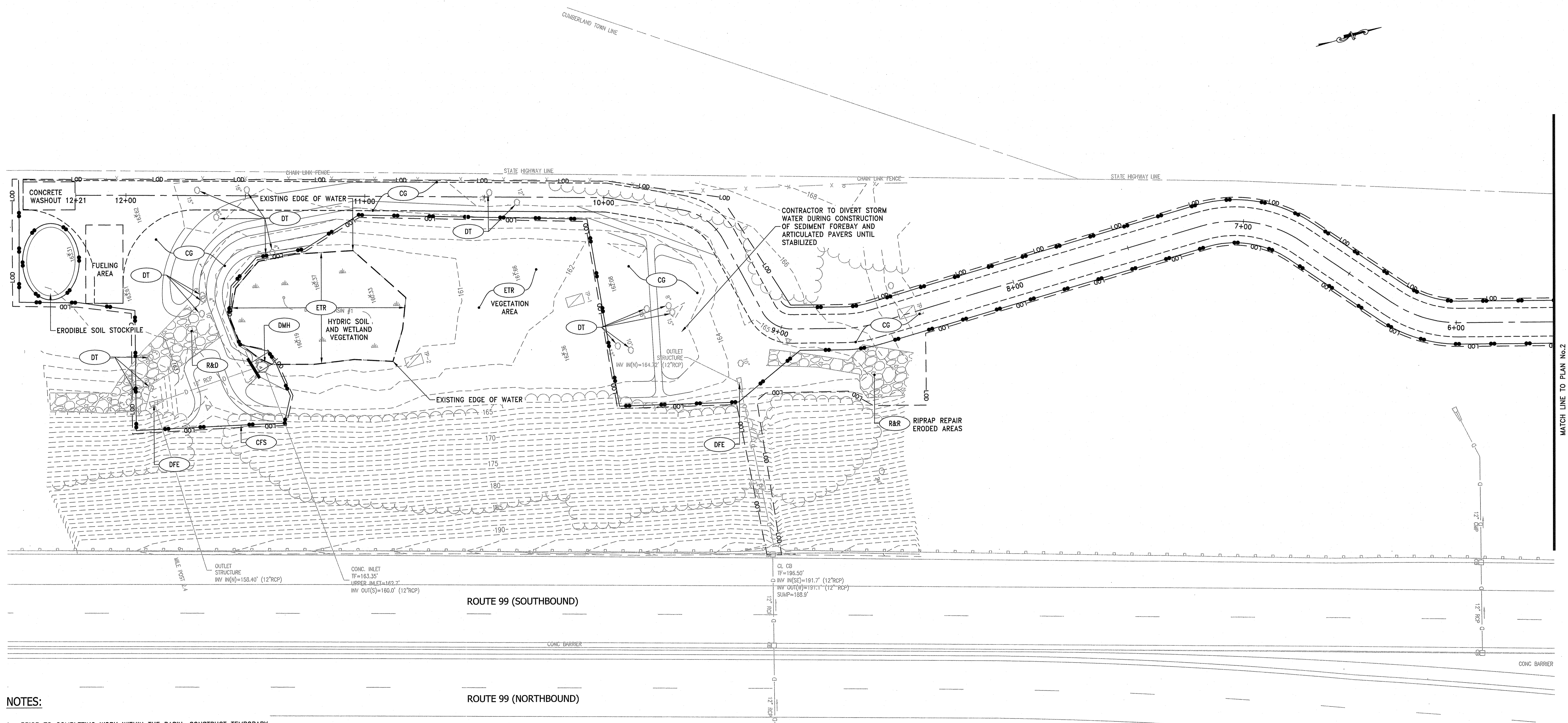
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

RI Environmental Management  
JAN 18 2022  
Office of Water Resources



DESIGNED BY:	
CHECKED BY:	
DATE:	
SHEET: 5	
OF: 27	

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
CUMBERLAND RHODE ISLAND  
**JOB SPECIFIC  
PLAN SYMBOLS, LEGEND & NOTES**

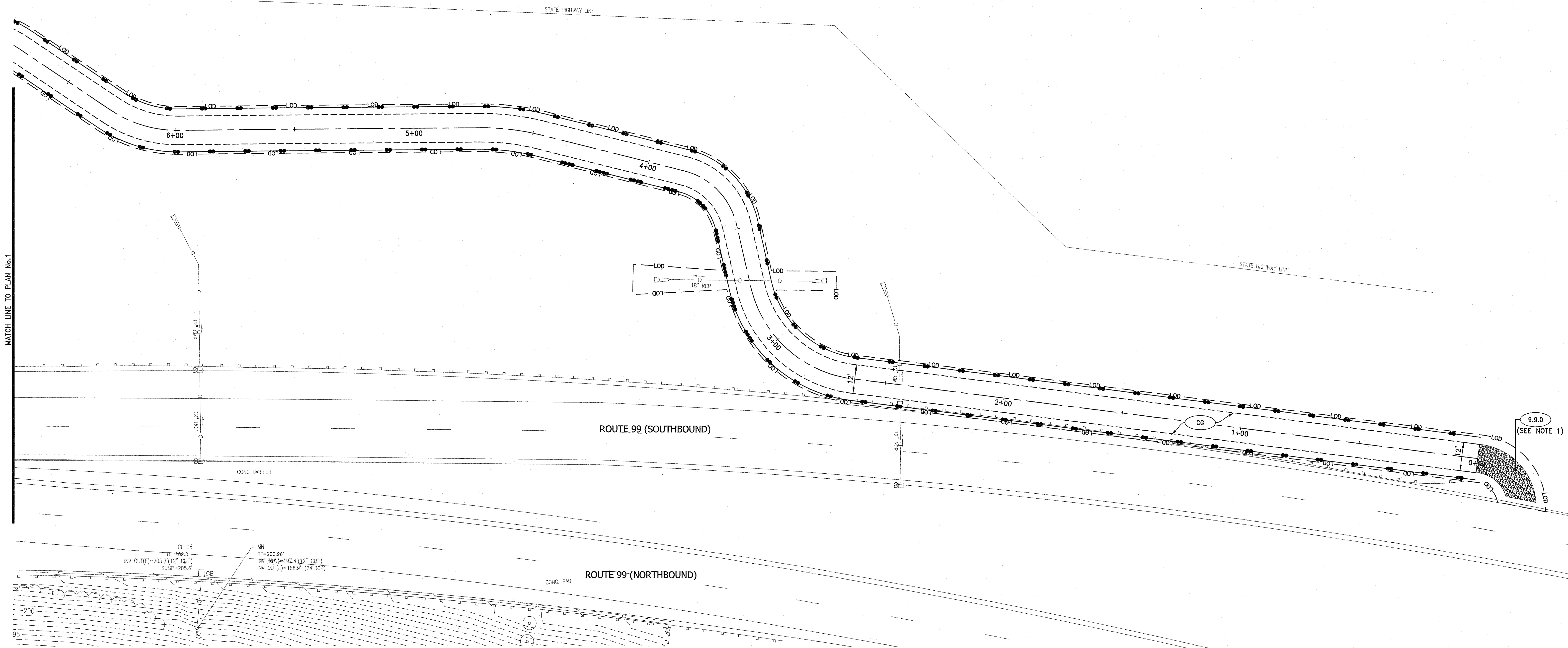


- NOTES:**
1. PRIOR TO COMPLETING WORK WITHIN THE BASIN, CONSTRUCT TEMPORARY DIVERSION SWALE OR PIPE AND DIVERT STORMWATER DISCHARGING TO THE BASIN INTO THE TEMPORARY DIVERSION SWALE OR PIPE.
  2. TEMPORARY DIVERSION SWALES OR PIPES SHALL BE SIZED TO ACCOMMODATE THE 10-YEAR DESIGN STORM FLOW OF 10.5 CFS.
  3. SWALES SHALL BE SEEDED WITH TEMPORARY SEED MIX AND STABILIZED WITH JUTE MESH PRIOR TO ACCEPTING ANY RUNOFF.
  4. CONSTRUCTION RUNOFF SHALL NOT ENTER THE OUTFALL TO THE BLACKSTONE RIVER WITHOUT FIRST PASSING THROUGH A SEDIMENT REMOVAL PRACTICE.
  5. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE AND MODIFICATIONS TO THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN, IF ANY, TO THE OWNER'S REPRESENTATIVE.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
 DATED JAN 21 2022  
 SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

RI Environmental Management  
 JAN 18 2022  
 Office of Water Resources

<p>PARE CORPORATION        ENGINEERS - SCIENTISTS - PLANNERS        8 BLACKSTONE VALLEY PLACE        LINCOLN, RI 02865        401-334-4100</p>	<p>RHODE ISLAND        DEPARTMENT OF TRANSPORTATION</p>	DESIGNED BY: CHECKED BY: DATE: SHEET: 6 OF: 27	SCALE: 1"=20' 	R.I. ROUTE 99 STORMWATER IMPROVEMENTS CUMBERLAND RHODE ISLAND DETENTION BASIN No. 1 DEMOLITION AND EROSION SEDIMENTATION CONTROL PLAN No. 1															
		<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> <th colspan="2">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>NO.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1/12/22</td> <td>RJS</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	REVISIONS		REVISIONS		NO.	DATE	BY	NO.	DATE	BY	1	1/12/22	RJS				
REVISIONS		REVISIONS																	
NO.	DATE	BY	NO.	DATE	BY														
1	1/12/22	RJS																	



MATCH LINE TO PLAN No. 1

9.9.0  
(SEE NOTE 1)

CL CB  
F=209.9'  
INV OUT(E)=205.7'(12" CBP)  
SLUMP=205.5'

MH  
TF=200.9'  
TOP=197.4'(12" CBP)  
INV OUT(E)=188.9'(24" RCP)

- NOTES:**
- CONSTRUCTION ACCESS SHALL REMAIN FOR FUTURE ACCESS BY RIDOT MAINTENANCE

RI Environmental Management  
JAN 18 2022  
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Anthony J. Freeman*

**PARE CORPORATION**  
ENGINEERS - SCIENTISTS - PLANNERS  
8 BLACKSTONE VALLEY PLACE  
LINCOLN, RI 02865  
401-334-4100

**RHODE ISLAND**  
DEPARTMENT OF TRANSPORTATION

DESIGNED BY:  
CHECKED BY:  
DATE:  
SHEET: 7  
OF: 27

SCALE: 1"=20'

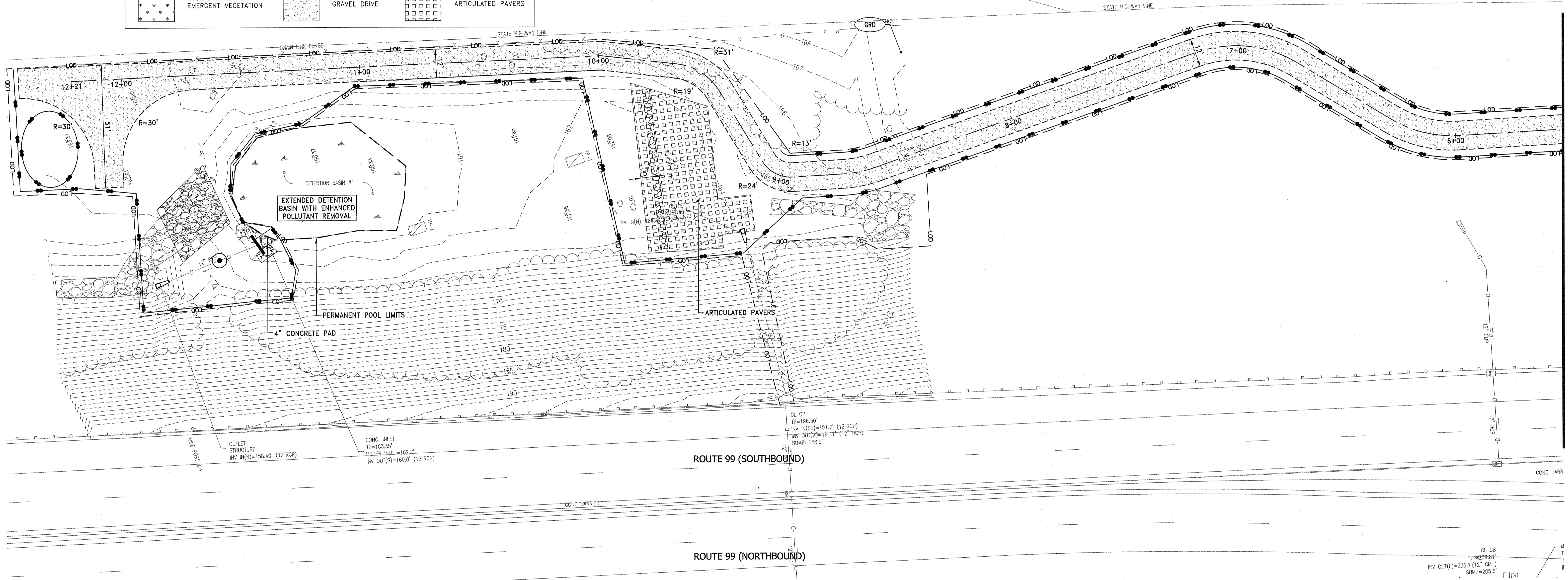
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NO.	DATE	BY	NO.	DATE	BY
1	1/12/22	RJS			

**R.I. ROUTE 99 STORMWATER IMPROVEMENTS**  
CUMBERLAND RHODE ISLAND  
DETENTION BASIN No. 1  
DEMOLITION AND EROSION SEDIMENTATION CONTROL PLAN No. 2

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
00	RI		2021	8	27

**LEGEND**

	HYDRIC SOIL AND EMERGENT VEGETATION		GRAVEL DRIVE		ARTICULATED PAVERS
--	-------------------------------------	--	--------------	--	--------------------



MATCH LINE TO PLAN No. 2

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 REVIEWED SITE PLAN APPLICATION NO.: 21-0319  
 DATED JAN 21 2022  
 SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

RI Environmental Management  
 JAN 18 2022  
 Office of Water Resources

**PARE**  
 PARE CORPORATION  
 ENGINEERS - SCIENTISTS - PLANNERS  
 8 BLACKSTONE VALLEY PLACE  
 LINCOLN, RI 02865  
 401-334-4100

**RI DOT**  
 RHODE ISLAND  
 DEPARTMENT OF TRANSPORTATION

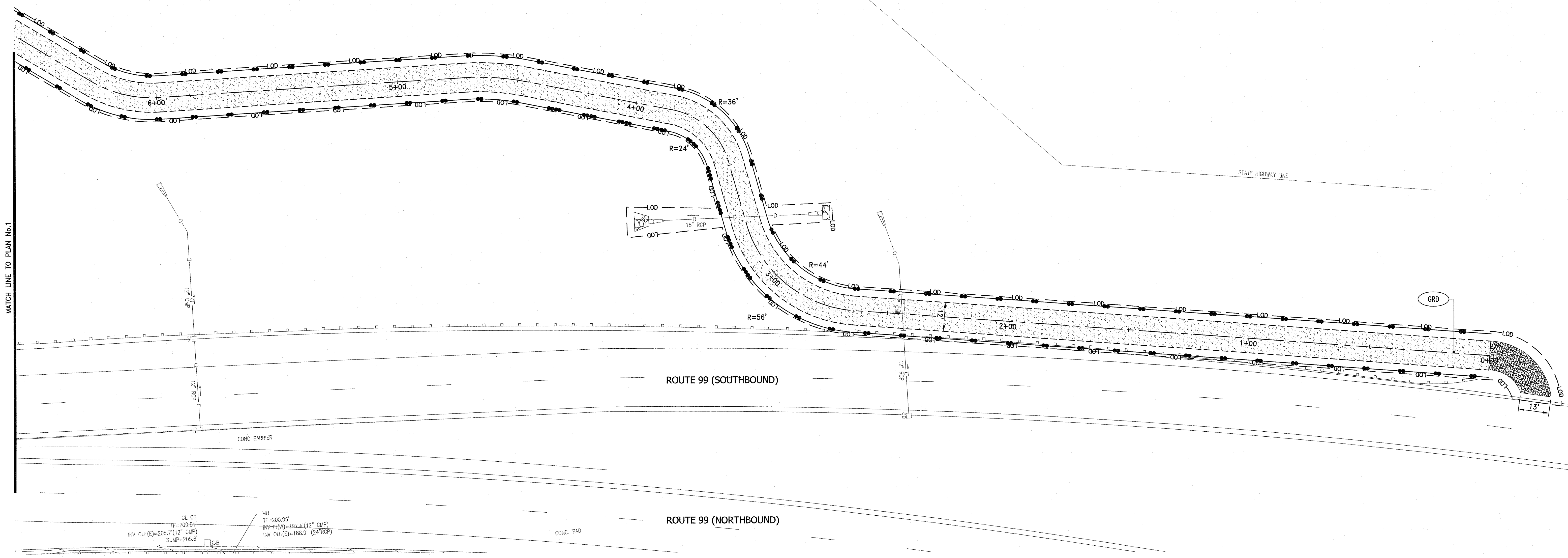
DESIGNED BY:  
 CHECKED BY:  
 DATE:  
 SHEET: 8  
 OF: 27

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY
1	1/12/22	RJS			

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
 CUMBERLAND  
 RHODE ISLAND  
 DETENTION BASIN No. 1  
 GENERAL PLAN No. 1


FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
00	RI		2021	9	27



CL CB  
 F=209.04'  
 INV OUT(E)=205.7' (12" CMP)  
 SUMP=205.6'  
 MH  
 TF=200.96'  
 INV IN(H)=197.2' (12" CMP)  
 INV OUT(E)=188.9' (24" RCP)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
 DATED JAN 21 2022  
 SEE LETTER OF SAME DATE.  
*Andy L. Freeman*

RI Environmental Management  
 JAN 18 2022  
 Office of Water Resources


**PARE CORPORATION**  
 ENGINEERS - SCIENTISTS - PLANNERS  
 8 BLACKSTONE VALLEY PLACE  
 LINCOLN, RI 02865  
 401-334-4100

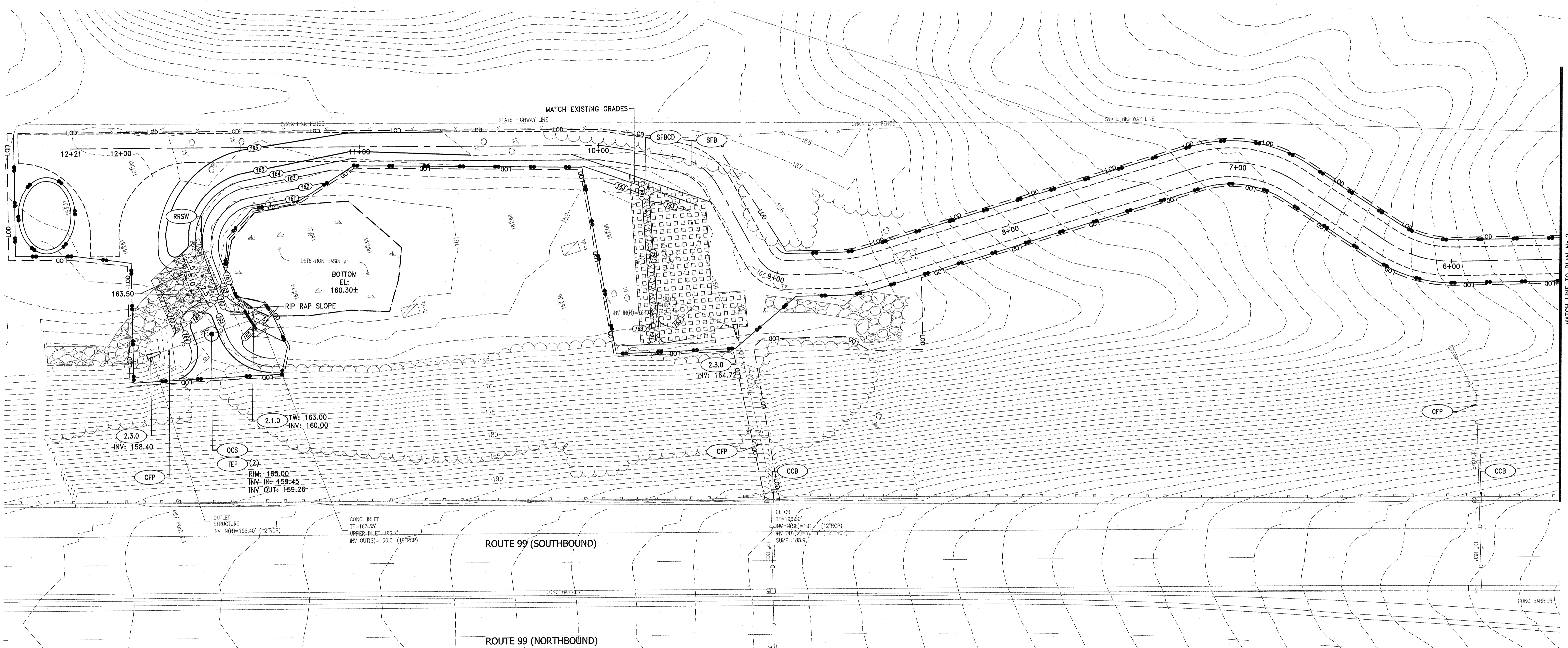

**RHODE ISLAND**  
 DEPARTMENT OF TRANSPORTATION

DESIGNED BY:  
 CHECKED BY:  
 DATE:  
 SHEET: 9  
 OF: 27

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY
1	1/12/22	RJS			

**R.I. ROUTE 99 STORMWATER IMPROVEMENTS**  
 CUMBERLAND RHODE ISLAND  
**DETENTION BASIN No. 1**  
**GENERAL PLAN No. 2**



2.1.0 TW: 163.00  
INV: 160.00

RIM: 165.00  
INV IN: 159.45  
INV OUT: 159.26

2.3.0 INV: 164.72

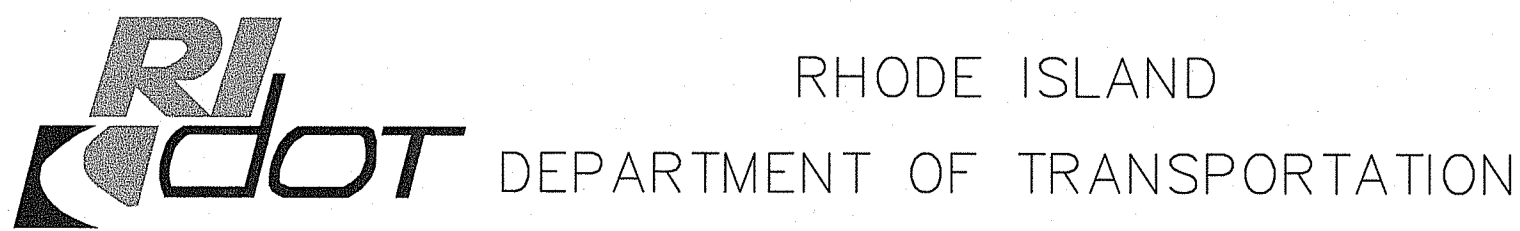
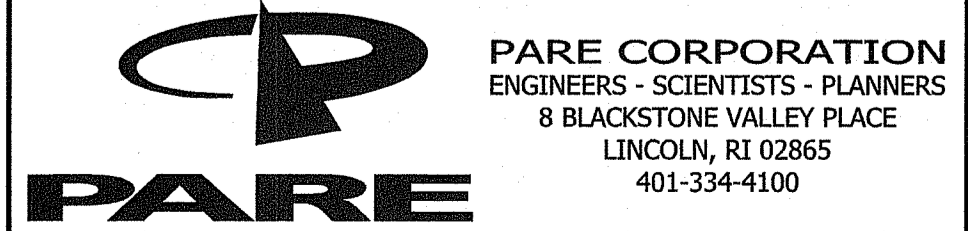
CL CB  
TF=196.60'  
HW-B(SE)=191.7' (12" RCP)  
INV OUT(W)=191.1' (12" RCP)  
SUMP=188.9'

ROUTE 99 (SOUTHBOUND)

ROUTE 99 (NORTHBOUND)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
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REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

RI Environmental Management  
JAN 18 2022  
Office of Water Resources



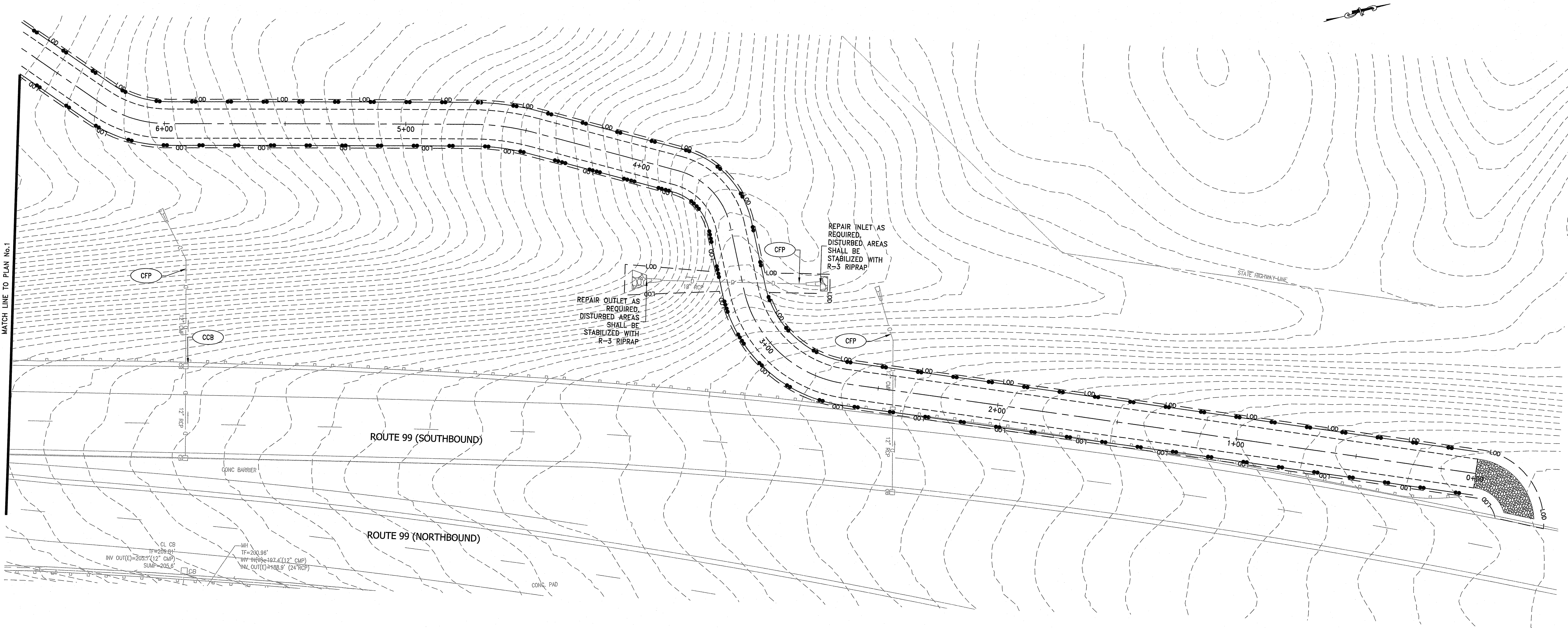
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CHECKED BY:  
DATE:  
SHEET: 10  
OF: 27

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY
1	1/12/22	RJS			

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
CUMBERLAND RHODE ISLAND  
DETENTION BASIN No. 1  
GRADING AND DRAINAGE PLAN No. 1

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
00	RI		2021	11	27



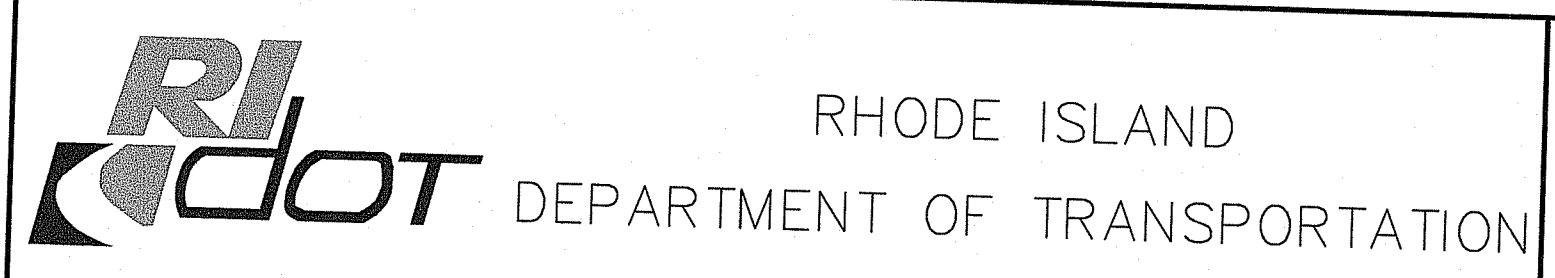
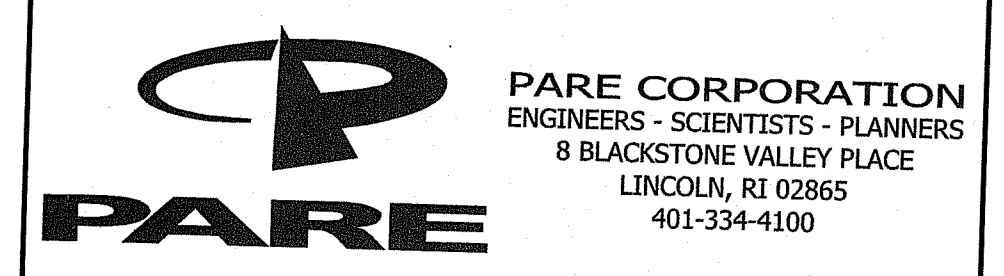
MATCH LINE TO PLAN No. 1

CL CB  
 TP=200.04'  
 INV OUT(E)=203.2'(12" CMP)  
 SUMP=205.6'

MH  
 TP=200.95'  
 INV=199.8=107.4'(12" CMP)  
 INV OUT(E)=188.9'(24" RCP)

RI Environmental Management  
 JAN 1 8 2022  
 Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 REVIEWED SITE PLAN, APPLICATION NO.: 21-0314  
 DATED JAN 21 2022  
 SEE LETTER OF SAME DATE.  
*Mindy L. Freeman*



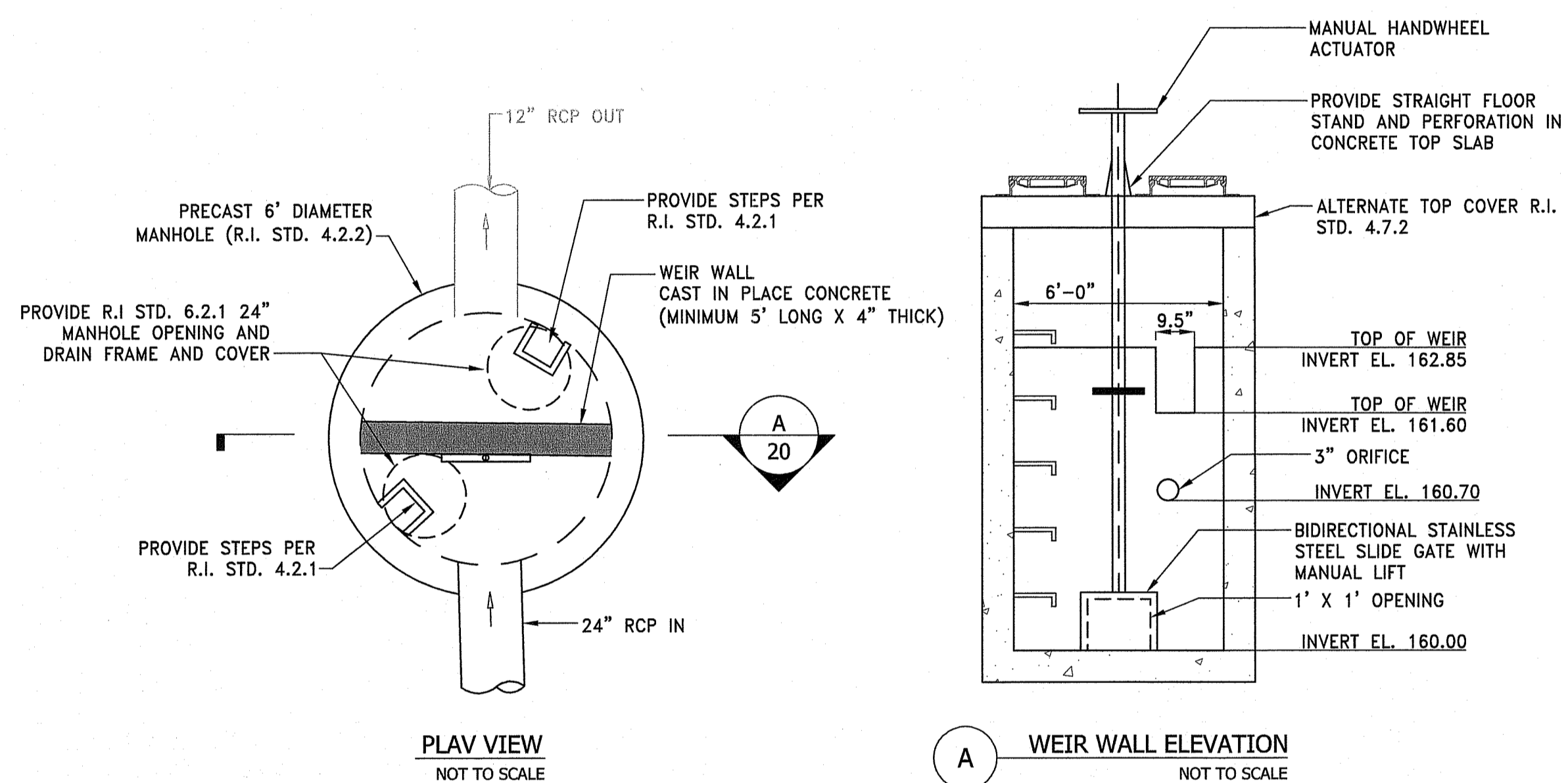
DESIGNED BY:  
 CHECKED BY:  
 DATE:  
 SHEET: 11  
 OF: 27

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY
1	1/12/22	RJS			

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
 CUMBERLAND RHODE ISLAND  
 DETENTION BASIN No. 1  
 GRADING AND DRAINAGE PLAN No. 2

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
00	RI		2021	12	27



**NOTES:**

1. INSTALL SLIDE GATE PER MANUFACTURER'S RECOMMENDATIONS.
2. SLIDE GATE SHALL BE MANUFACTURED BY HYRDO GATE OR APPROVED EQUIVALENT.

**BASIN 1 - ED  
OUTLET CONTROL STRUCTURE**  
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
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*Nancy J. Freeman*

RI Environmental Management  
JAN 18 2022  
Office of Water Resources

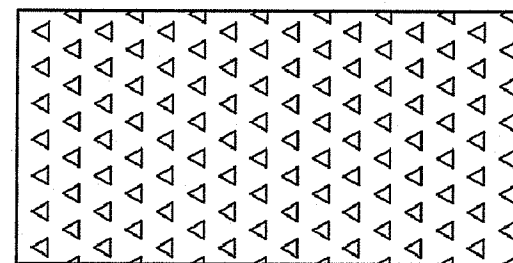
REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

### DETENTION BASIN NO. 1 SEEDING PLAN

SEED FURNISHED BY NEW ENGLAND WETLAND PLANTS, INC.  
820 West Street, Amherst, MA  
www.newp.com OR APPROVED EQUAL

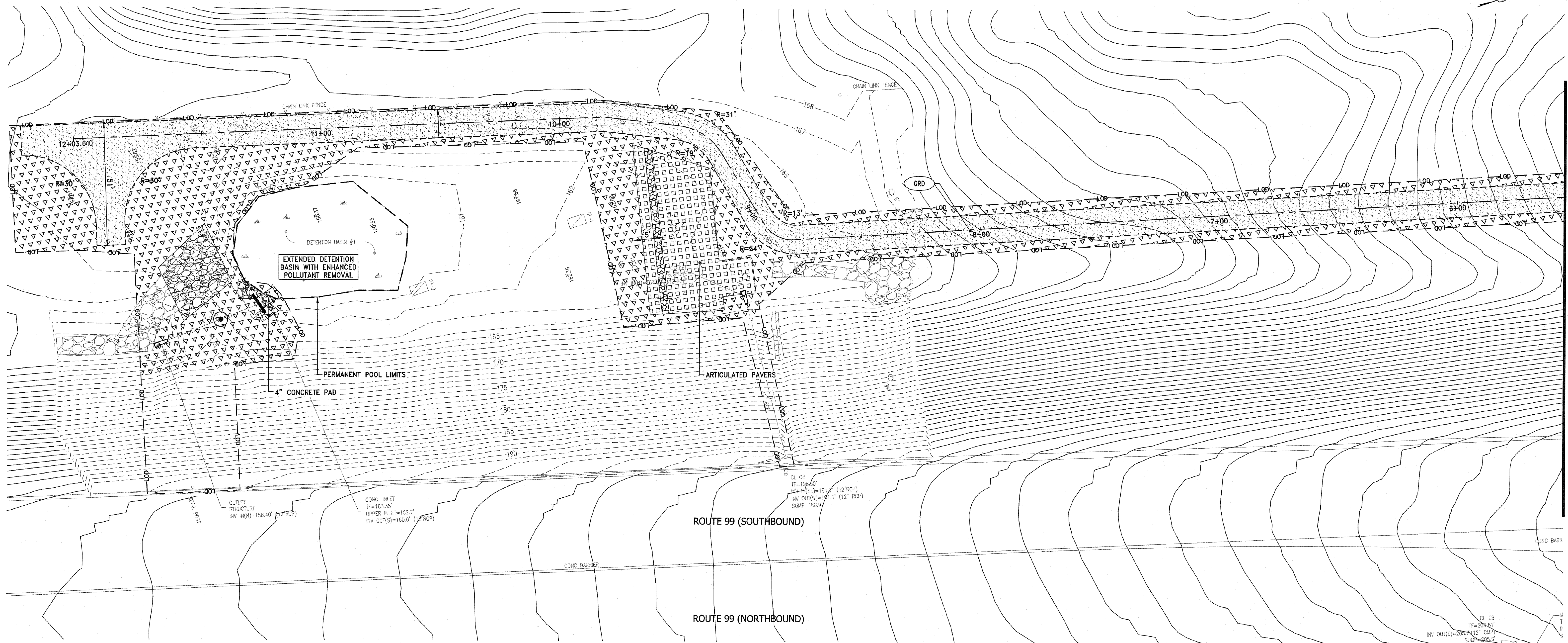
### KEY

RESTORATION LIMITS



RESTORATION LIMITS	BOTANICAL NAME	COMMON NAME	INDICATOR
	<b>NEW ENGLAND CONSERVATION/WILDLIFE MIX</b>		
	ELYMUS VIRGINICUS	VIRGINIA WILD RYE	FACW-
	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
	ANDROPOGON GERARDII	BIG BLUESTEM	FAC
	FESTUCA RUBRA	RED FESCUE	FACU
	SORGHASTRUM NUTANS	INDIAN GRASS	UPL
	PANICUM VIRGATUM	SWITCH GRASS	FAC
	CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	FACU
	DESMODIUM CANADENSE	SHOWY TICK TREEFOIL	FAC
	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	NI
	BIDENS FRONDOSA	BEGGAR TICKS	FACW
	EUPATORIUM PURPUREUM	PURPLE JOE PYE WEED	FAC
	RUBECKIA HIRTA	BLACK EYED SUSAN	FACU-
	ASTER PILOSUS	HEATH OR HAIRY ASTER	UPL
	SOLIDAGO JUNCEA	EARLY GOLDENROD	

NOTE: CONTRACTOR TO SOW ABOVE SEED AT 25 LBS/ACRE. SEED TO BE SOWN BY THE HAND BROADCAST METHOD.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
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RI Environmental Management  
JAN 18 2022  
Office of Water Resources

**PARE CORPORATION**  
ENGINEERS - SCIENTISTS - PLANNERS  
8 BLACKSTONE VALLEY PLACE  
LINCOLN, RI 02865  
401-334-4100

Diane C. Soule & Associates, ASLA  
Landscape Architecture

**RI DOT** RHODE ISLAND  
DEPARTMENT OF TRANSPORTATION

DESIGNED BY:  
CHECKED BY:  
DATE:  
SHEET: 13  
OF: 27

SCALE: 1"=20'  
SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

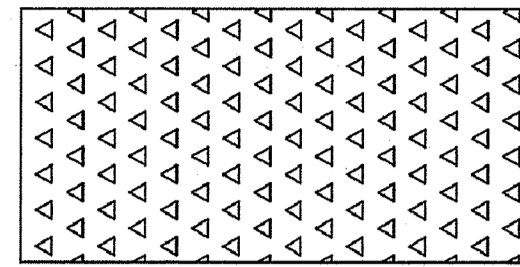
R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
CUMBERLAND  
RHODE ISLAND

DETENTION BASIN No. 1  
LANDSCAPE PLAN No. 1

**DETENTION BASIN NO. 1 SEEDING PLAN**  
 SEED FURNISHED BY NEW ENGLAND WETLAND PLANTS, INC.  
 820 West Street, Amherst, MA  
 www.newp.com OR APPROVED EQUAL

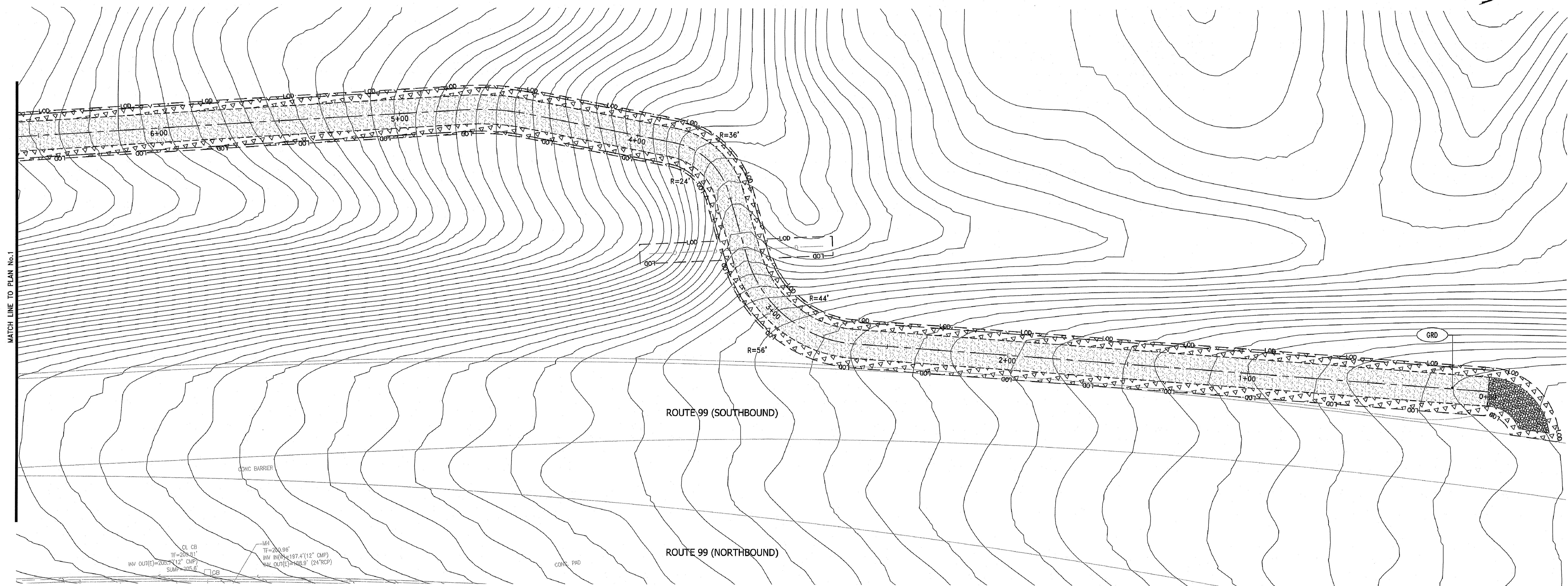
**KEY**

RESTORATION LIMITS



RESTORATION LIMITS	BOTANICAL NAME	COMMON NAME	INDICATOR
	<b>NEW ENGLAND CONSERVATION/WILDLIFE MIX</b>		
▲	ELYMUS VIRGINICUS	VIRGINIA WILD RYE	FACU-
▲	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
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▲	FESTUCA RUBRA	RED FESCUE	FACU
▲	SORGHASTRUM NUTANS	INDIAN GRASS	UPL
▲	PANICUM VIRGATUM	SWITCH GRASS	FAC
▲	CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	FACU
▲	DESMODIUM CANADENSE	SHOWY TICK TREEFOIL	FAC
▲	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	NI
▲	BIDENS FRONDOSA	BEGGAR TICKS	FACU
▲	EUPATORIUM PURPUREUM	PURPLE JOE PYE WEED	FAC
▲	RUBECKIA HIRTA	BLACK EYED SUSAN	FACU-
▲	ASTER PILOSUS	HEATH OR HAIRY ASTER	UPL
▲	SOLIDAGO JUNCEA	EARLY GOLDENROD	

NOTE: CONTRACTOR TO SOW ABOVE SEED AT 25 LBS/ACRE. SEED TO BE SOWN BY THE HAND BROADCAST METHOD.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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*Nancy L. Freeman*

RI Environmental Management  
 JAN 18 2022  
 Office of Water Resources

**PARE CORPORATION**  
 ENGINEERS - SCIENTISTS - PLANNERS  
 8 BLACKSTONE VALLEY PLACE  
 LINCOLN, RI 02865  
 401-334-4100

Diane C. Scule & Associates, ASLA  
 Landscape Architecture

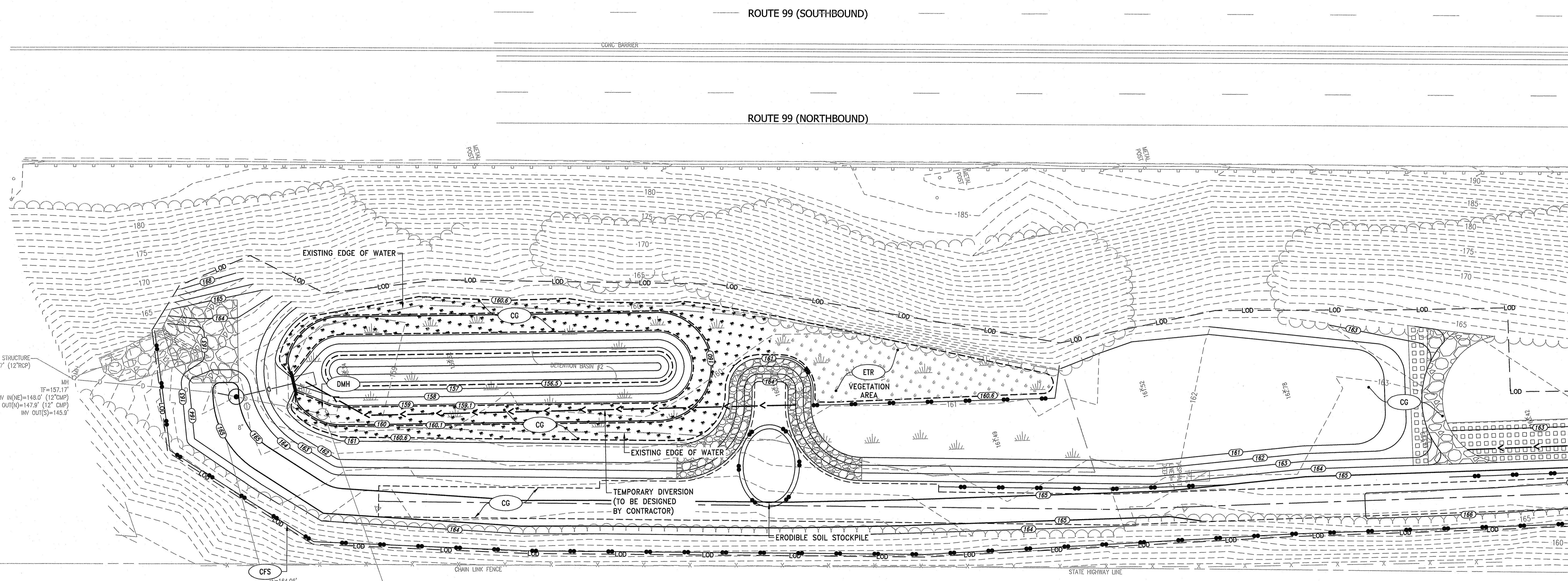
**RI DOT** RHODE ISLAND  
 DEPARTMENT OF TRANSPORTATION

DESIGNED BY:  
 CHECKED BY:  
 DATE:  
 SHEET: 14  
 OF: 27

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

**R.I. ROUTE 99 STORMWATER IMPROVEMENTS**  
 CUMBERLAND RHODE ISLAND  
**DETENTION BASIN No. 1**  
**LANDSCAPE PLAN No. 2**



**NOTES:**

1. PRIOR TO COMPLETING WORK WITHIN THE BASIN, CONSTRUCT TEMPORARY DIVERSION SWALE OR PIPE AND DIVERT STORMWATER DISCHARGING TO THE BASIN INTO THE TEMPORARY DIVERSION SWALE OR PIPE.
2. TEMPORARY DIVERSION SWALES OR PIPES SHALL BE SIZED TO ACCOMMODATE THE 10-YEAR DESIGN STORM FLOW OF 38.0 CFS.
3. SWALES SHALL BE SEEDED WITH TEMPORARY SEED MIX AND STABILIZED WITH JUTE MESH PRIOR TO ACCEPTING ANY RUNOFF.
4. CONSTRUCTION RUNOFF SHALL NOT ENTER THE OUTFALL TO THE BLACKSTONE RIVER WITHOUT FIRST PASSING THROUGH A SEDIMENT REMOVAL PRACTICE.
5. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE AND MODIFICATIONS TO THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN, IF ANY, TO THE OWNER'S REPRESENTATIVE.
6. CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY SAFETY PRECAUTIONS WHEN WORKING ADJACENT TO THE QUARRY.

CFS  
 IF=184.06'  
 INV IN(NE)=158.8' (12" CMP)  
 INV OUT(S)=155.8' (12" CMP)

CONC. INLET  
 TF=163.40'  
 UPPER INLET=162.4'  
 INV (SW)=157.9' (12" CMP)  
 SUMP=155.5'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
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 Office of Water Resources

**PARE CORPORATION**  
 ENGINEERS - SCIENTISTS - PLANNERS  
 8 BLACKSTONE VALLEY PLACE  
 LINCOLN, RI 02865  
 401-334-4100

**RHODE ISLAND**  
 DEPARTMENT OF TRANSPORTATION

DESIGNED BY:

CHECKED BY:

DATE:

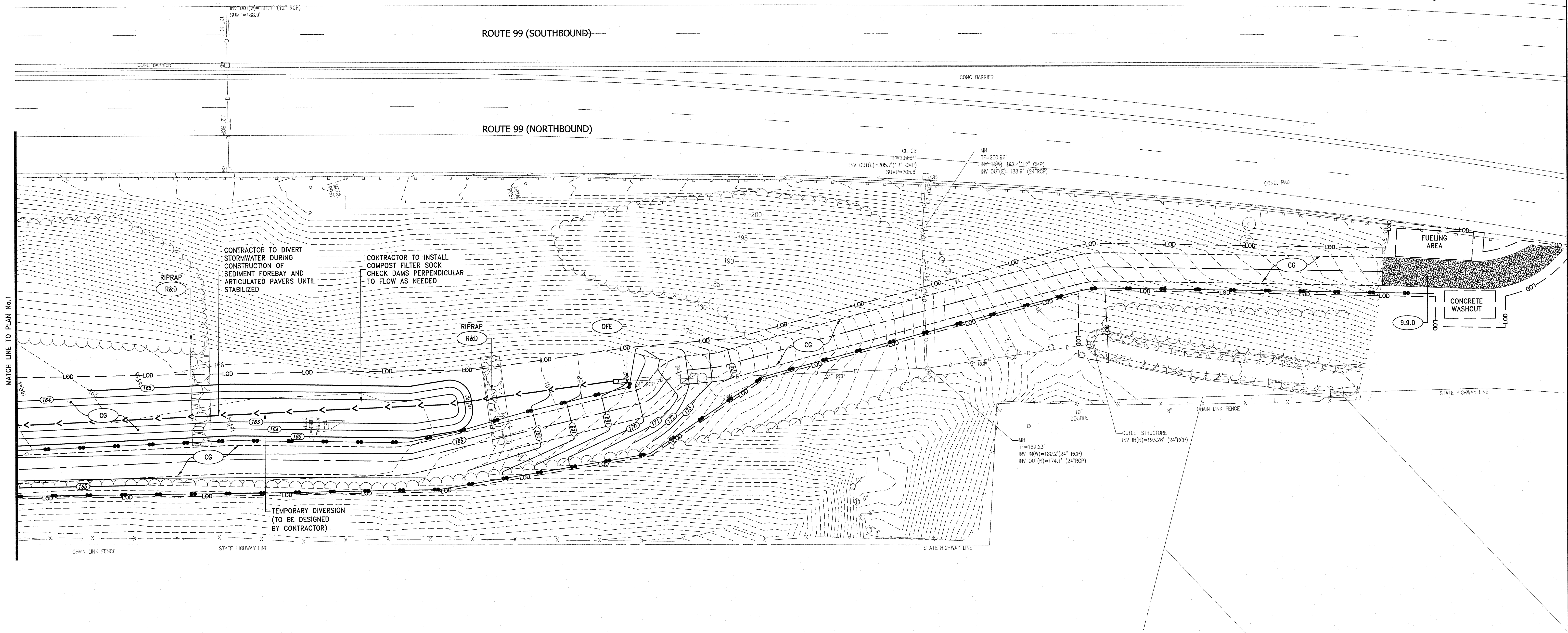
SHEET: 15

OF: 27

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

**R.I. ROUTE 99 STORMWATER IMPROVEMENTS**  
 CUMBERLAND RHODE ISLAND  
 DETENTION BASIN No. 2  
 DEMOLITION AND EROSION SEDIMENTATION CONTROL PLAN No. 1



**NOTES:**

- CONSTRUCTION ACCESS SHALL REMAIN FOR FUTURE ACCESS BY RIDOT MAINTENANCE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 REVIEWED SITE PLAN APPLICATION NO.: 21-0319  
 DATED JAN 21 2022  
 SEE LETTER OF SAME DATE.

*Nancy L. Freeman*

RI Environmental Management  
 JAN 18 2022  
 Office of Water Resources

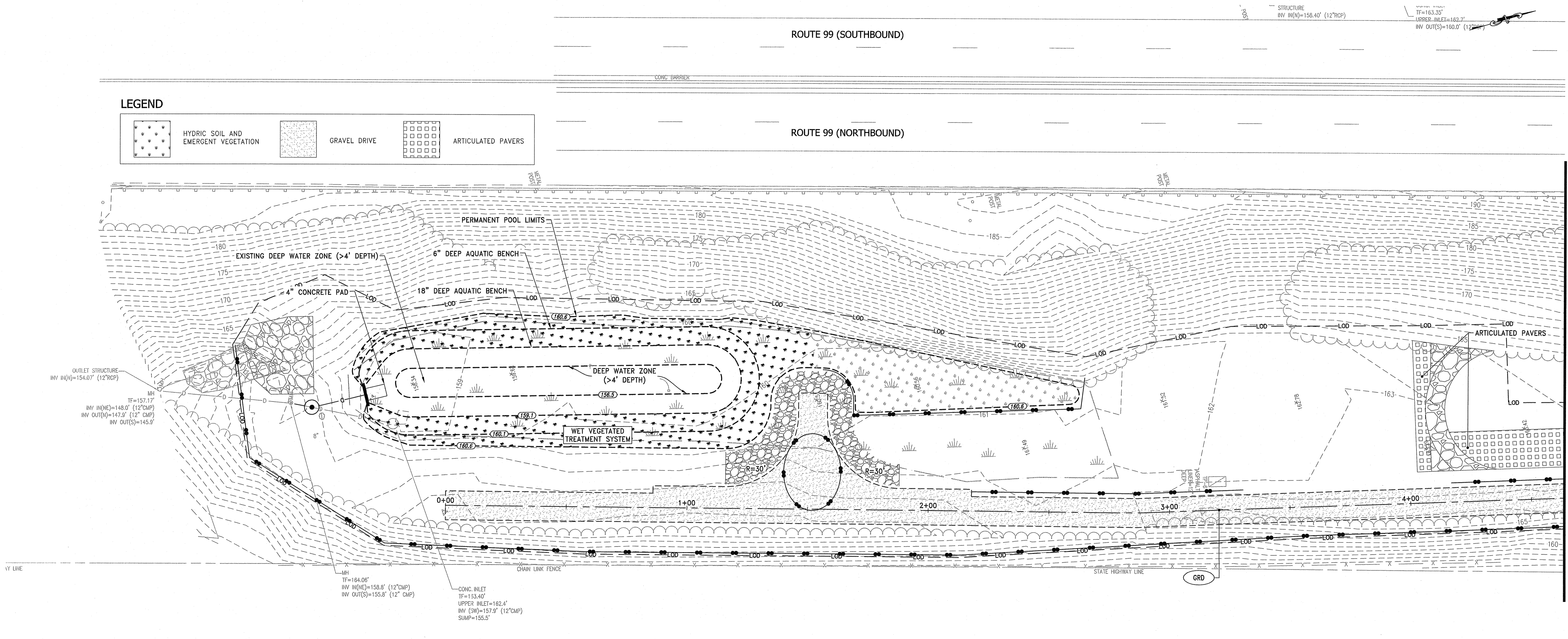
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
00	RI		2021	17	27

ROUTE 99 (SOUTHBOUND)

ROUTE 99 (NORTHBOUND)

LEGEND

	HYDRIC SOIL AND EMERGENT VEGETATION		GRAVEL DRIVE		ARTICULATED PAVERS
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Anthony L. Freeman*

RI Environmental Management  
JAN 18 2022  
Office of Water Resources

**PARE**  
PARE CORPORATION  
ENGINEERS - SCIENTISTS - PLANNERS  
8 BLACKSTONE VALLEY PLACE  
LINCOLN, RI 02865  
401-334-4100

**RI DOT** RHODE ISLAND  
DEPARTMENT OF TRANSPORTATION

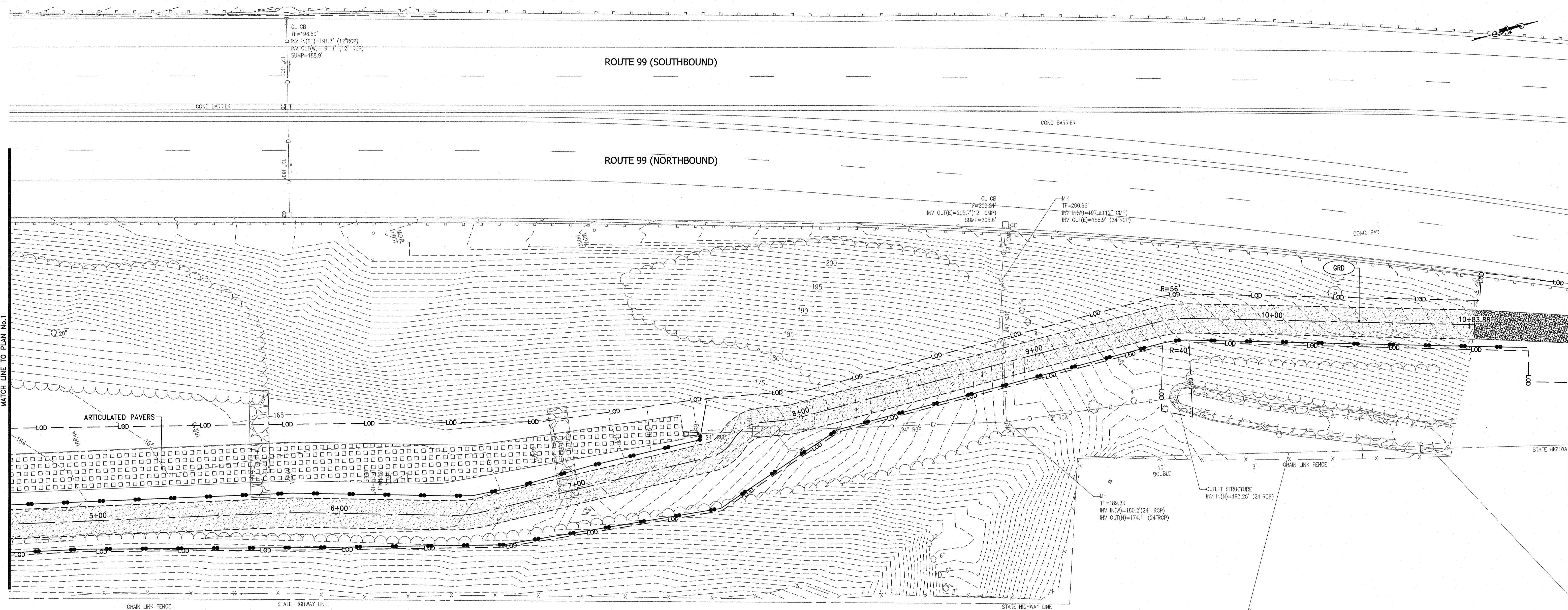
DESIGNED BY:  
CHECKED BY:  
DATE:  
SHEET: 17  
OF: 27

SCALE: 1"=20'  
SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
CUMBERLAND RHODE ISLAND  
DETENTION BASIN No. 2  
GENERAL PLAN No. 1

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
00	RI		2021	18	27



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
 DATED JAN 21 2022  
 SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

RI Environment Management  
 JAN 18 2022  
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**PARE**  
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 ENGINEERS - SCIENTISTS - PLANNERS  
 8 BLACKSTONE VALLEY PLACE  
 LINCOLN, RI 02865  
 401-334-4100

**RI DOT** RHODE ISLAND  
 DEPARTMENT OF TRANSPORTATION

DESIGNED BY:  
 CHECKED BY:  
 DATE:  
 SHEET: 18  
 OF: 27

SCALE: 1"=20'

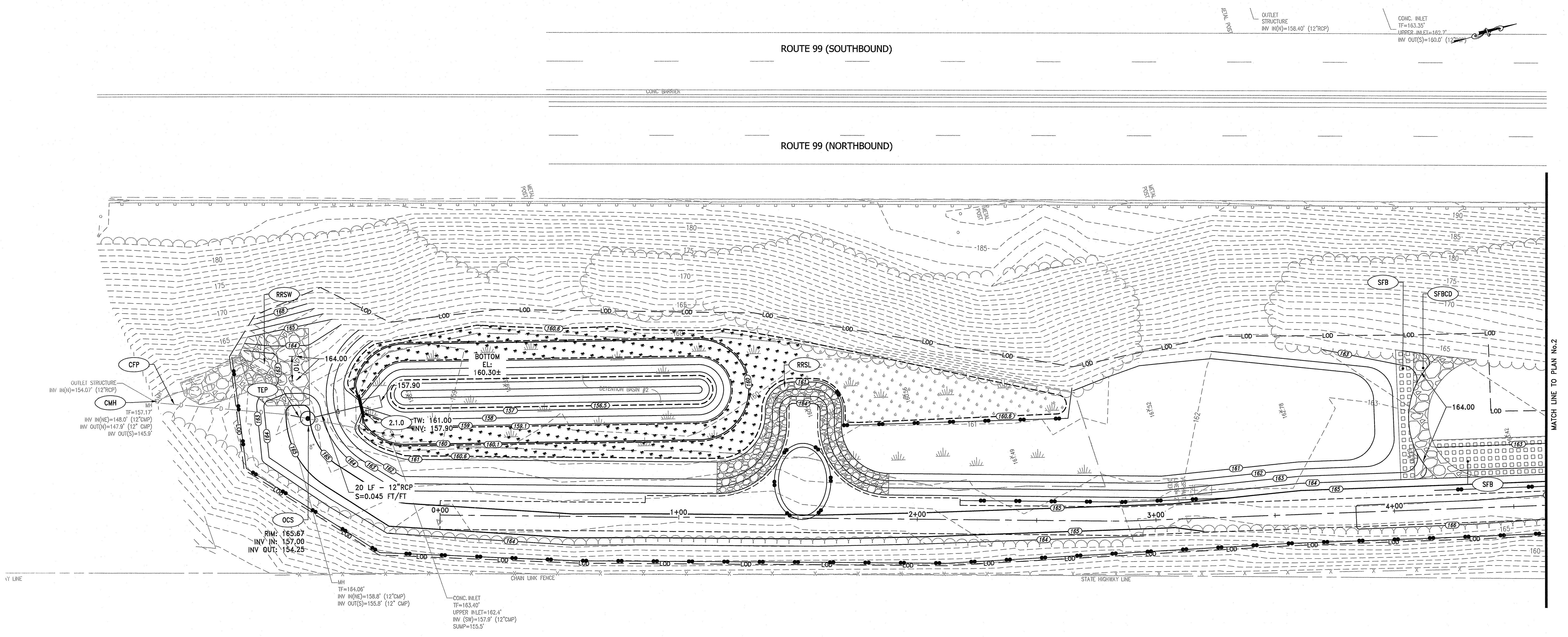
REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
 CUMBERLAND RHODE ISLAND  
 DETENTION BASIN No. 2  
 GENERAL PLAN No. 2

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
00	RI		2021	19	27

ROUTE 99 (SOUTHBOUND)

ROUTE 99 (NORTHBOUND)



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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 DATED JAN 21 2022  
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*Nancy L. Freeman*

RI Environmental Management  
 JAN 18 2022  
 Office of Water Resources

**PARE**  
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 ENGINEERS - SCIENTISTS - PLANNERS  
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**RI DOT**  
 RHODE ISLAND  
 DEPARTMENT OF TRANSPORTATION

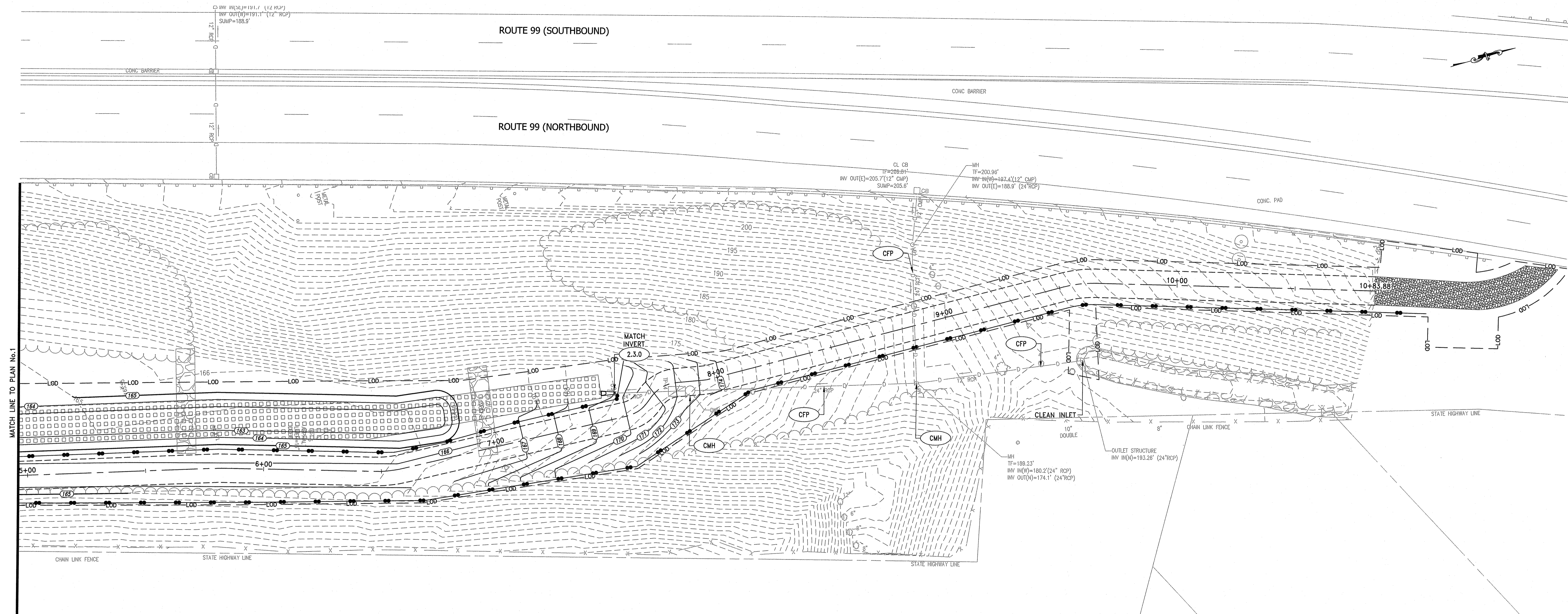
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 CHECKED BY:  
 DATE:  
 SHEET: 19  
 OF: 27

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

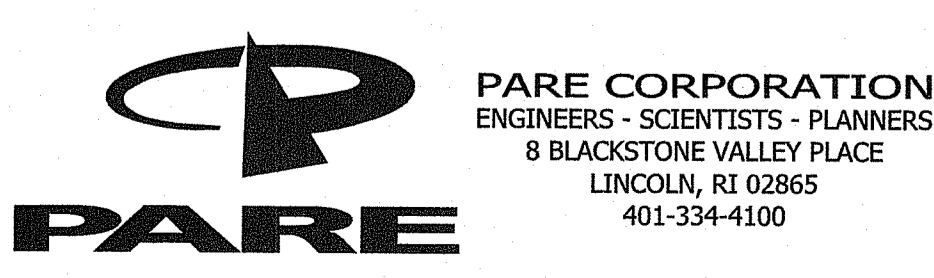
R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
 CUMBERLAND RHODE ISLAND  
**DETENTION BASIN No. 2**  
**GRADING AND DRAINAGE PLAN No. 1**

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
00	RI		2021	20	27



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
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 DATED JAN 21 2022  
 SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

Office of Water Resources  
 JAN 18 2022

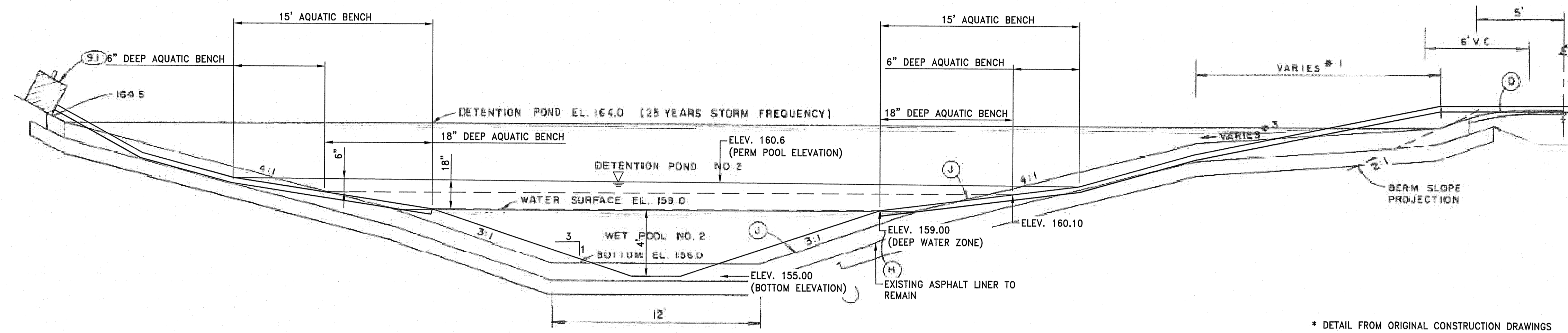


DESIGNED BY:  
 CHECKED BY:  
 DATE:  
 SHEET: 20  
 OF: 27

SCALE: 1"=20'

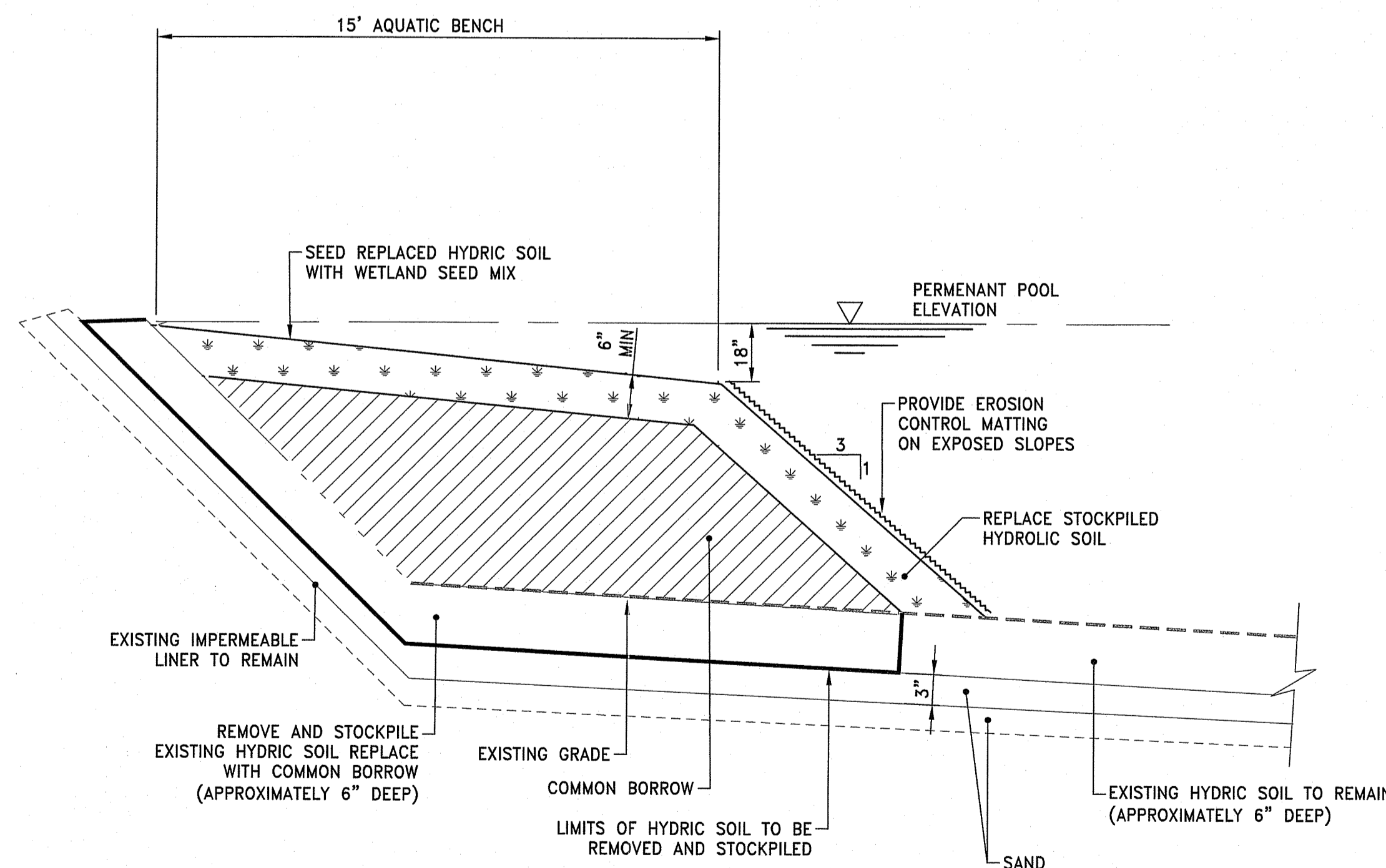
REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
 CUMBERLAND RHODE ISLAND  
 DETENTION BASIN No. 2  
 GRADING AND DRAINAGE PLAN No. 2

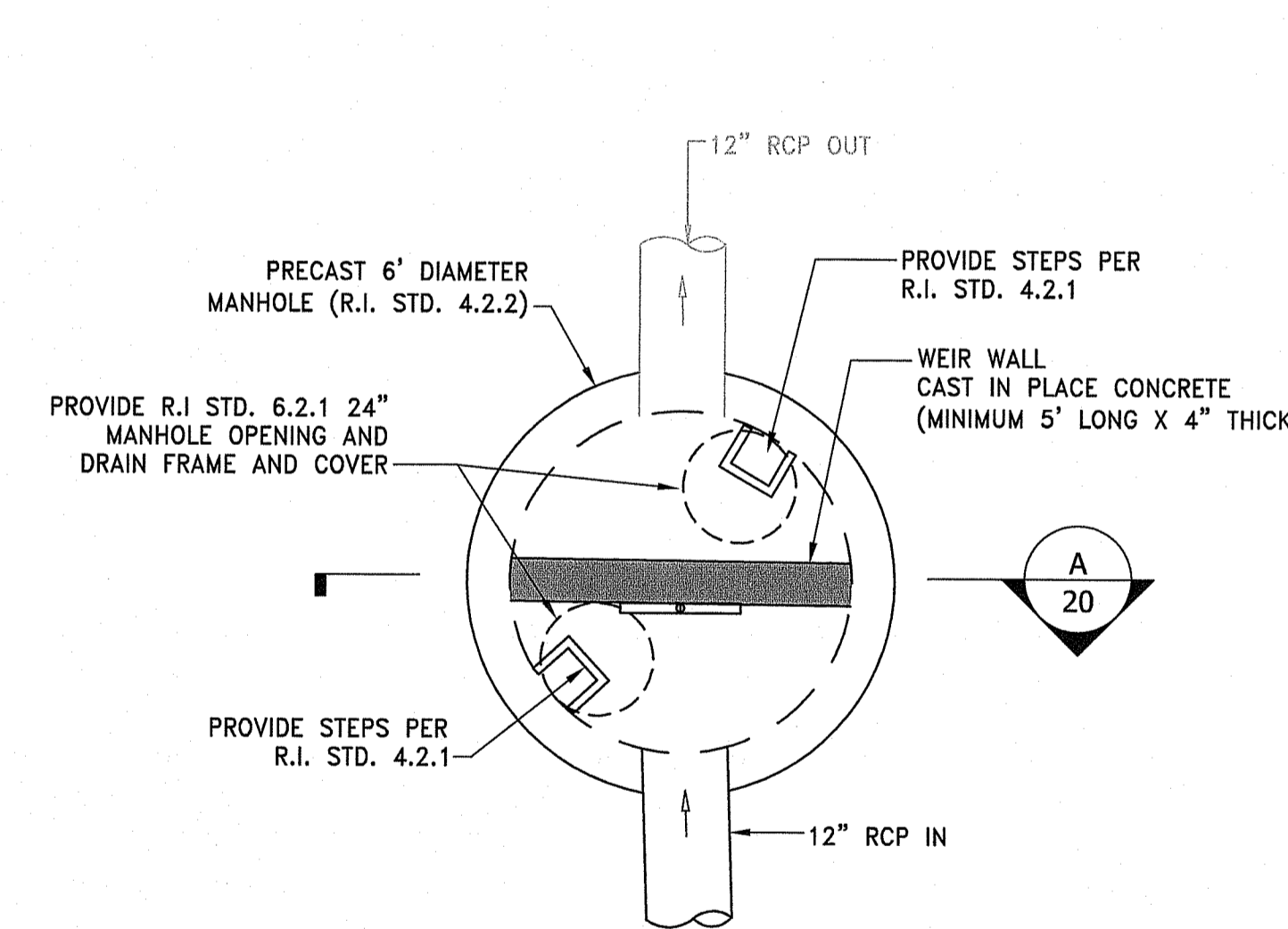


**BASIN 2 SECTION VIEW**  
NOT TO SCALE

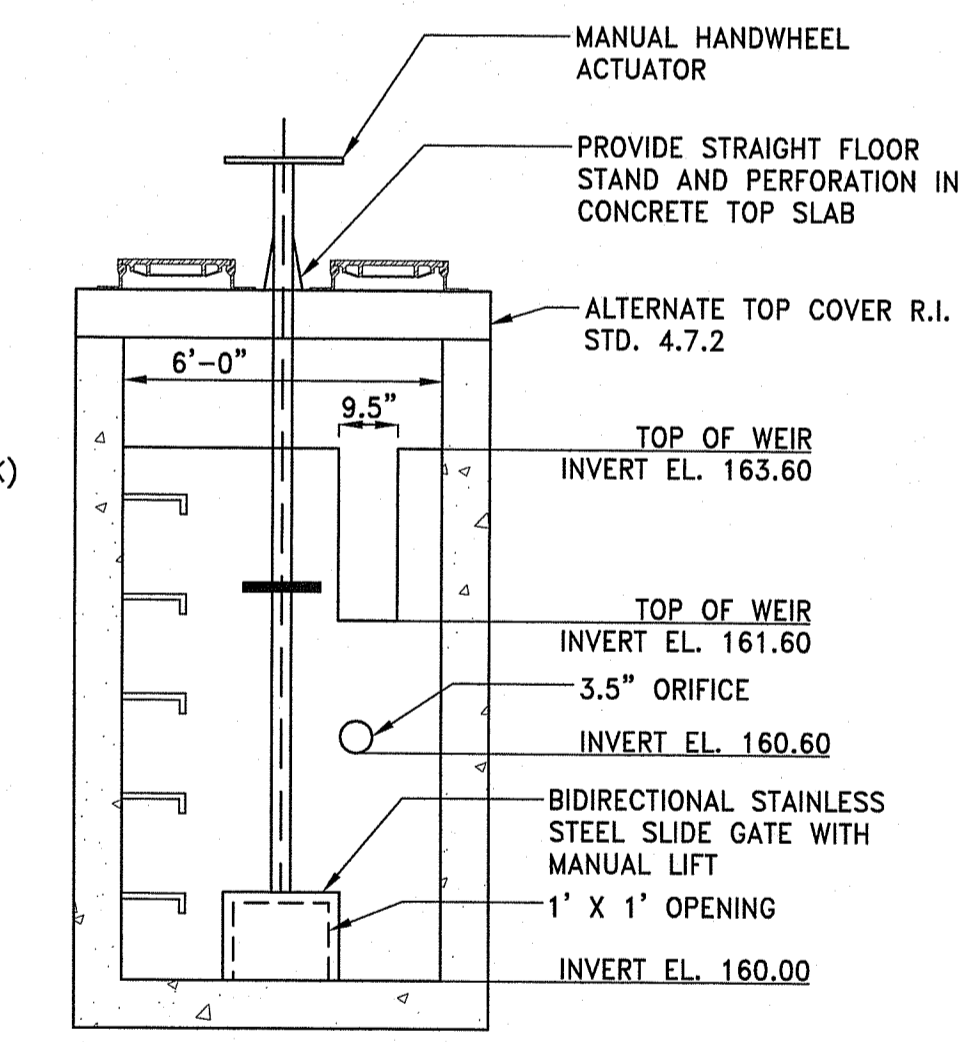
\* DETAIL FROM ORIGINAL CONSTRUCTION DRAWINGS



**15' AQUATIC BENCH SECTION VIEW**  
NOT TO SCALE



**PLAN VIEW**  
NOT TO SCALE



**WEIR WALL ELEVATION**  
NOT TO SCALE

**NOTES:**

1. INSTALL SLIDE GATE PER MANUFACTURER'S RECOMMENDATIONS.
2. SLIDE GATE SHALL BE MANUFACTURED BY HYRDO GATE OR APPROVED EQUIVALENT.

**BASIN 2 - WVTS  
OUTLET CONTROL STRUCTURE**  
NOT TO SCALE

RI Environmental Management  
JAN 18 2022  
Office of Water Resources

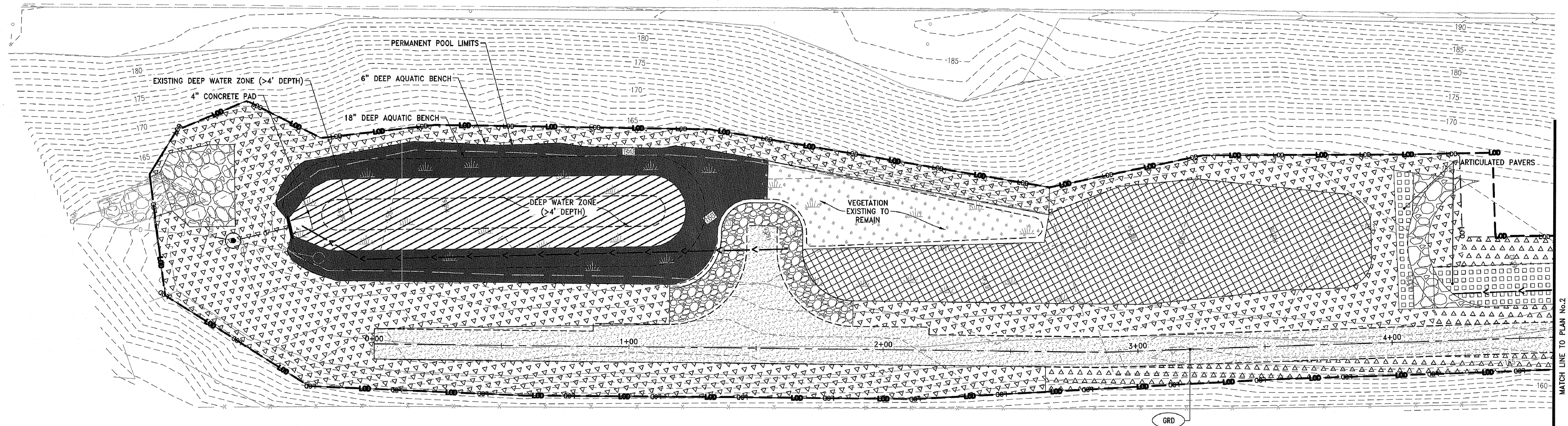
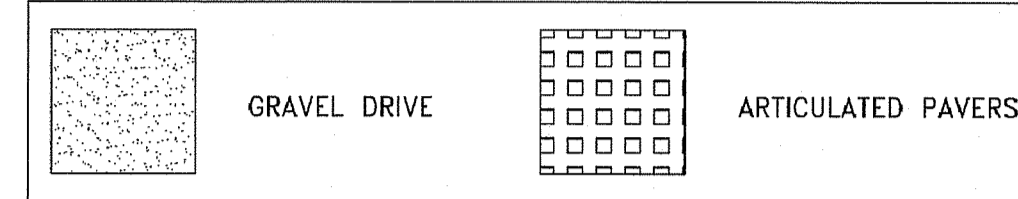
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Andy L. Freeman*

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY
1	1/12/22	RJS			

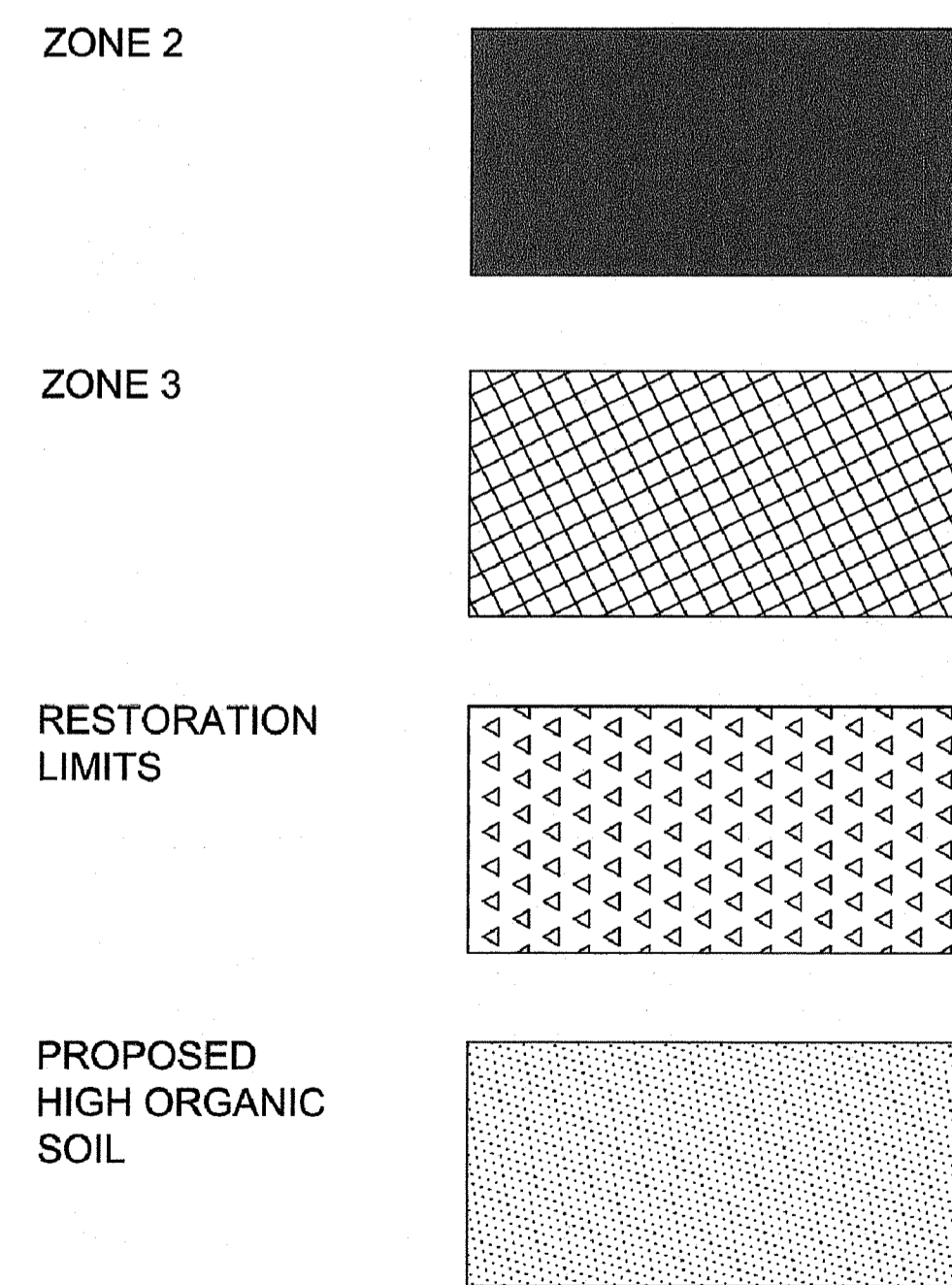
ROUTE 99 (SOUTHBOUND)

ROUTE 99 (NORTHBOUND)

LEGEND



KEY



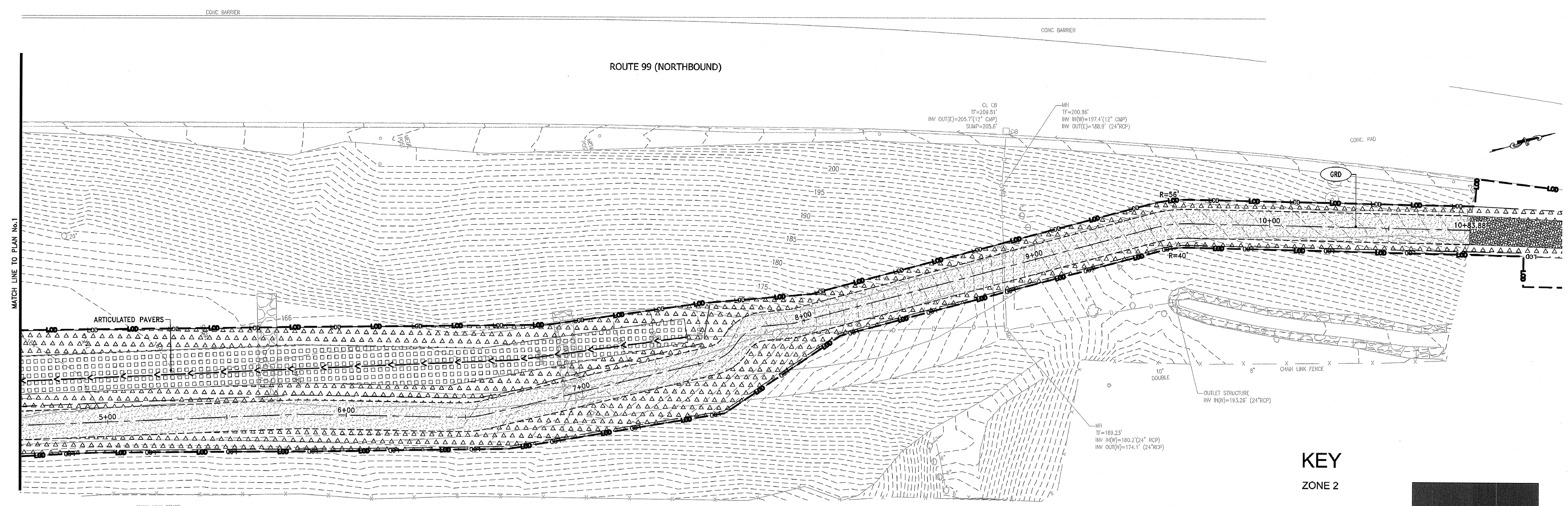
RI Environmental Management  
JAN 18 2022  
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 21 2022  
SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

TF=198.50'  
 INV IN(S)=191.7' (12" RCP)  
 INV OUT(W)=191.1' (12" RCP)  
 SUMP=188.9'

ROUTE 99 (SOUTHBOUND)

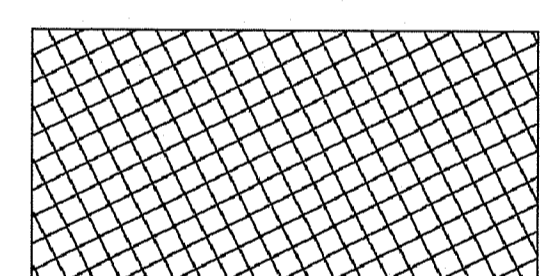
ROUTE 99 (NORTHBOUND)



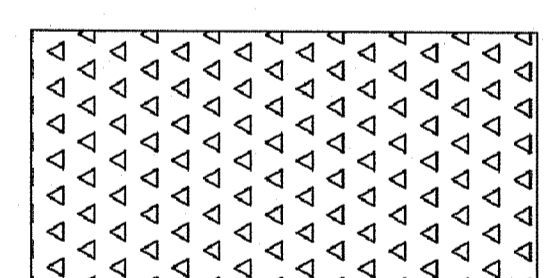
KEY  
 ZONE 2



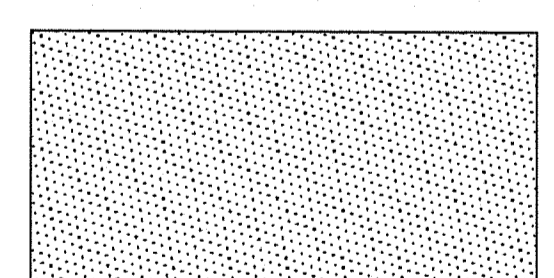
ZONE 3



RESTORATION LIMITS



PROPOSED HIGH ORGANIC SOIL



DETENTION BASIN NO. 2 SEEDING PLAN

SEED FURNISHED BY NEW ENGLAND WETLAND PLANTS, INC.  
 820 West Street, Amherst, MA  
 www.newp.com OR APPROVED EQUAL

ZONE	BOTANICAL NAME	COMMON NAME	QUANTITY*	INDICATOR
2	Carex stricta	Tussock Sedge	432	OBL
	Eupatorium perfoliatum	Boneset	432	FACW+
	Scirpus cyperinus	Woolgrass	432	OBL

\*2 inch plug, 18 inches on center

**Carex stricta (Tussock Sedge)**  
 This hummock-forming sedge is used by geese and other birds for nesting sites.  
 Shallow water, shores, in full sun to full shade

**Eupatorium perfoliatum (Boneset)**  
 A tall flowering herb found in wet meadows and marshes.  
 Shallow water, shores, wet meadows in full sun or partial shade

**Scirpus cyperinus (Woolgrass)**  
 An aggressively rooting plant valuable for erosion control. Provides dense cover for wildlife and web support for various spiders.  
 Shallow water, shores, wet meadows in full sun

ZONE	BOTANICAL NAME	COMMON NAME	INDICATOR
3	<b>NEW ENGLAND WETMIX</b>		
	ALISMA PLANTAGO-AQUATICA	MUD PLANTAIN	OBL
	ASCLEPIAS INCARNATA	SWAMP MILKWEED	OBL
	ASTER NOVI-BELGII	NEW YORK ASTER	FACW
	BIDENS CERNUA	NODDING BUR MARIGOLD	OBL
	CAREX COMOSA	BRISTLY/COSMOS SEDGE	OBL
	CAREX CRINITA	FRINGED SEDGE	OBL
	CAREX LUPULINA	HOP SEDGE	OBL
	CAREX LURIDA	LURID SEDGE	OBL
	CAREX SCOPARIA	BLUNT BROOM SEDGE	FACW
	CAREX VULPINOIDEA	FOX SEDGE	OBL
	EUPATORIUM MACULATUM	SPOTTED JOE PYE WEEED	FACW
	EUPATORIUM PERFORIATUM	BONESET	OBL
	GLYCERIA CANADENSIS	RATTLESNAKE GRASS	OBL
	GLYCERIA STRIATA	FOWL MANNAGRASS	OBL
	JUNCUS EFFUSUS	SOFT RUSH	FACW
	MIMULUS RINGENS	SQUARE STEMMED MONKEY FLOWER	OBL
	ONOCLEA SENSIBILIS	SENSITIVE FERN	FACW

NOTE: CONTRACTOR TO SOW ABOVE SEED AT 18 LBS/ACRE. SEED TO BE SOWN BY THE HAND BROADCAST METHOD.

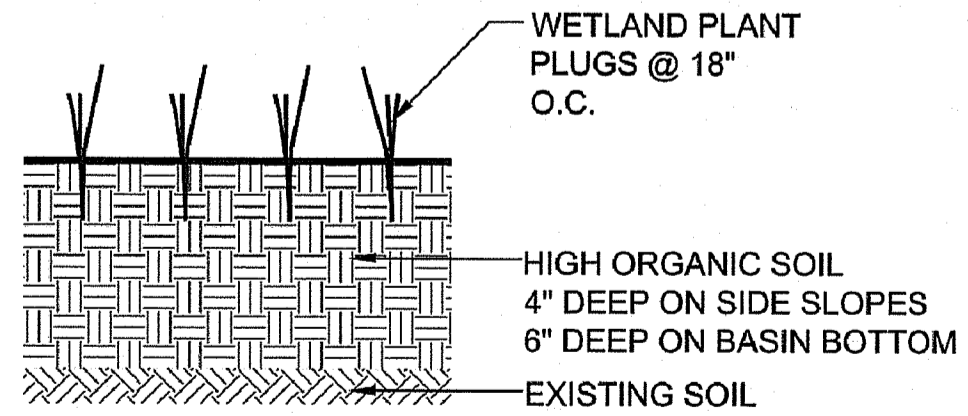
The New England Wetmix (Wetland Seed Mix) contains a wide variety of native seeds that are suitable for most wetland restoration sites that are not permanently flooded. All species are best suited to moist ground as found in most wet meadows, scrub shrub, or forested wetland restoration areas. The mix is well suited for detention basin borders and the bottom of detention basins not generally under standing water. The seeds will not germinate under inundated conditions. If planted during the fall months, the seed mix will germinate the following spring. During the first season of growth, several species will produce seeds while other species will produce seeds after the second growing season. Not all species will grow in all wetland situations. This mix is comprised of the wetland species most likely to grow in created/restored wetlands and should produce more than 75% ground cover in two full growing seasons.

RESTORATION LIMITS	BOTANICAL NAME	COMMON NAME	INDICATOR
	<b>NEW ENGLAND CONSERVATION/WILDLIFE MIX</b>		
	ELYMIUS VIRGINICUS	VIRGINIA WILD RYE	FACW-
	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
	ANDROPOGON GERARDII	BIG BLUESTEM	FAC
	FESTUCA RUBRA	RED FESCUE	FACU
	SORGHASTRUM NUTANS	INDIAN GRASS	UPL
	PANICUM VIRGATUM	SWITCH GRASS	FAC
	CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	FACU
	DESMODIUM CANADENSE	SHOWY TICK TREEFOIL	FAC
	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	NI
	BIDENS FRONDOSA	BEGGAR TICKS	FACW
	EUPATORIUM PURPUREUM	PURPLE JOE PYE WEEED	FAC
	RUBECKIA HIRTA	BLACK EYED SUSAN	FACU-
	ASTER PILOSUS	HEATH OR HAIRY ASTER	UPL
	SOLIDAGO JUNCEA	EARLY GOLDENROD	UPL

NOTE: CONTRACTOR TO SOW ABOVE SEED AT 25 LBS/ACRE. SEED TO BE SOWN BY THE HAND BROADCAST METHOD.

LANDSCAPE NOTES:

- ALL PLANT MATERIALS MUST BE TAGGED AT THE NURSERY BY RIDOT'S LANDSCAPE ARCHITECT IN ACCORDANCE WITH SECTION L.06.03.3 OF THE R.I. STANDARD SPECIFICATIONS.
- ALL PLANT SUBSTITUTIONS AND/OR CHANGES IN PLANT LOCATIONS MUST BE APPROVED BY RIDOT'S LANDSCAPE ARCHITECT IN ACCORDANCE WITH



PLUG PLANTING  
 DETENTION BASIN PLANTING DETAIL

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
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 DATED JAN 21 2022  
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*Mindy L. Freeman*

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 8 BLACKSTONE VALLEY PLACE  
 LINCOLN, RI 02865  
 401-334-4100

Diane C. Soule & Associates, ASLA  
 Landscape Architecture

**RI DOT**  
 RHODE ISLAND  
 DEPARTMENT OF TRANSPORTATION

RI Environmental Management  
 JAN 18 2022  
 Office of Water Resources

DESIGNED BY:  
 CHECKED BY:  
 DATE:  
 SHEET: 23  
 OF: 27

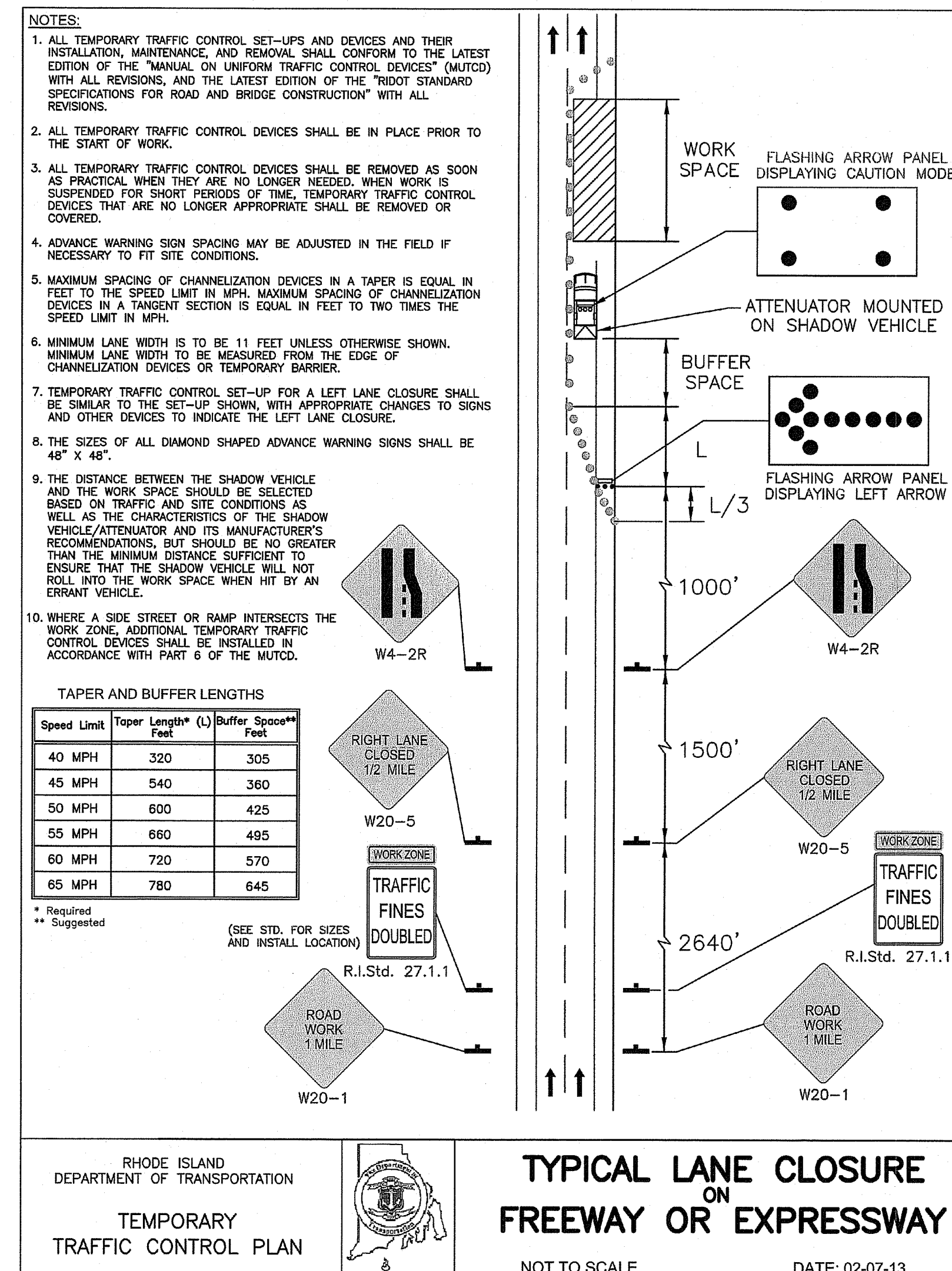
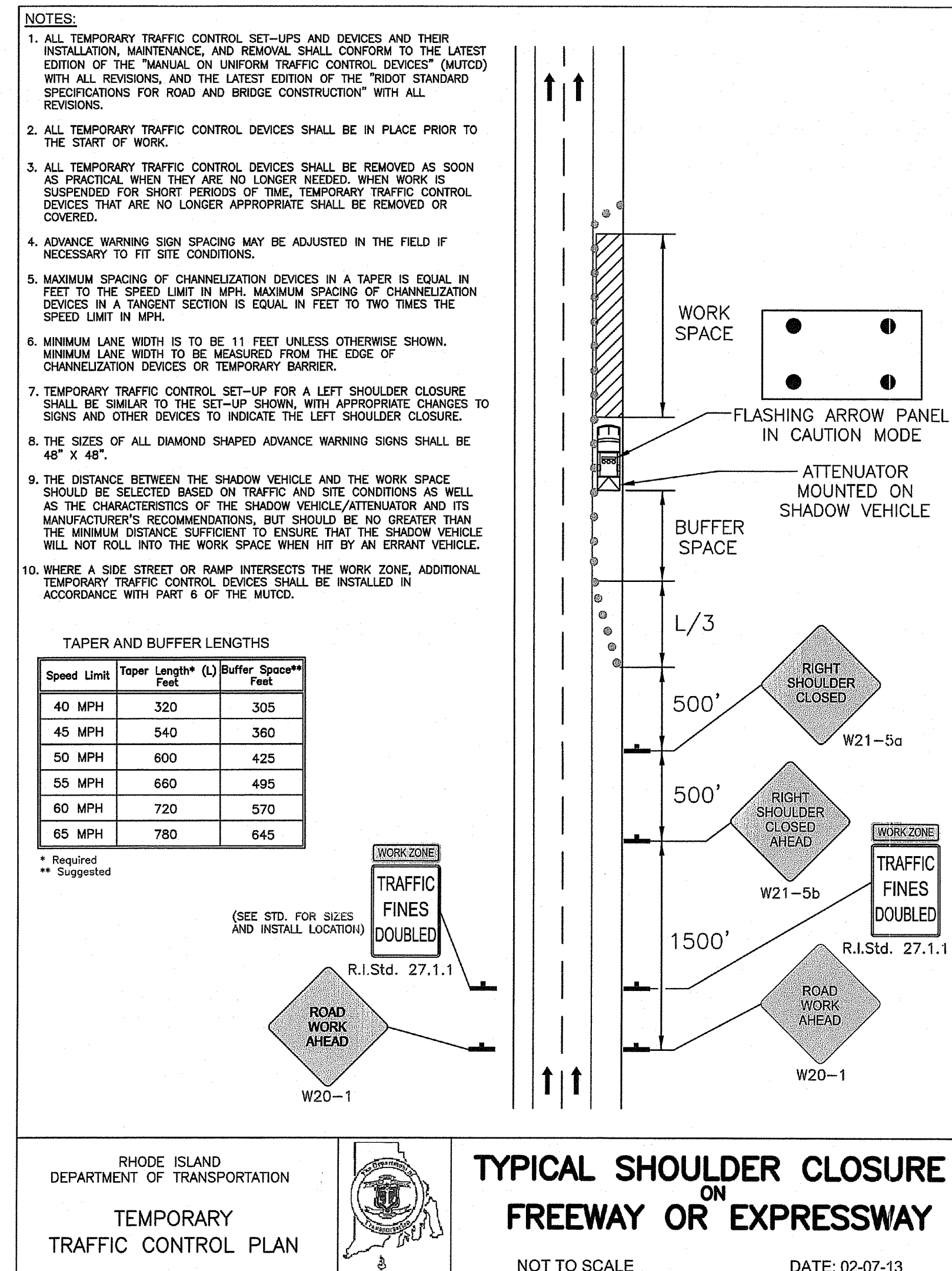
SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

R.I. ROUTE 99 STORMWATER IMPROVEMENTS  
 CUMBERLAND  
 RHODE ISLAND  
 DETENTION BASIN No. 2  
 LANDSCAPE PLAN No. 2

**NOTES:**

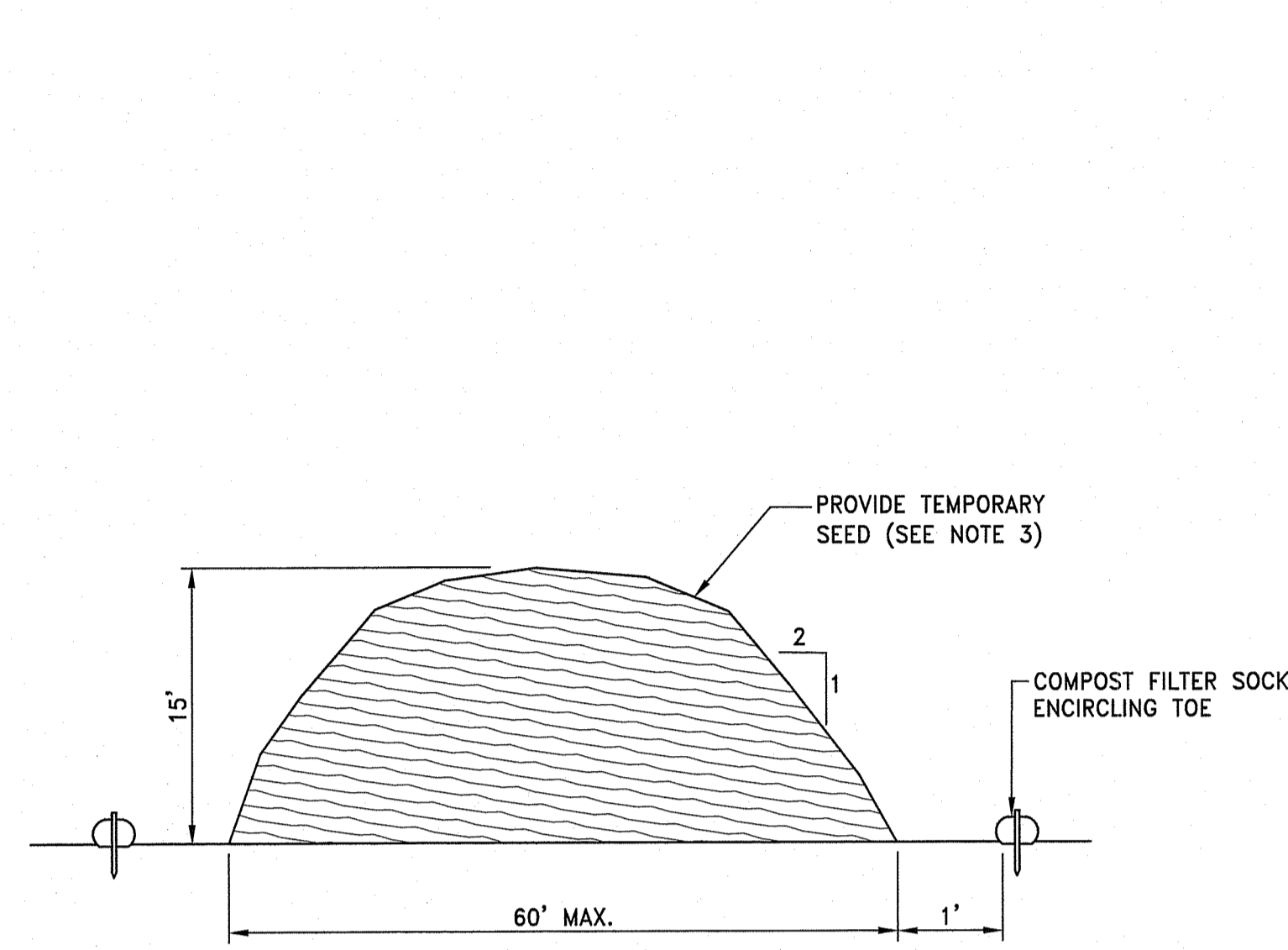
1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
5. MAXIMUM SPACING OF CHANNELIZATION DEVICES FOR TAPER AND TANGENT SECTIONS ON RAMPS AND SIDE STREETS IS 25 FEET. MAXIMUM SPACING OF CHANNELIZATION DEVICES FOR TAPER AND TANGENT SECTIONS ON ROUTE 99 IS 65 FEET.
6. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF THE CHANNELIZATION DEVICES.
7. THE CONTRACTOR SHALL PROVIDE NECESSARY ACCESS FOR FIRE APPARATUS AND OTHER EMERGENCY VEHICLE THROUGH THE WORK ZONE AT ALL TIMES.
8. THE CONTRACTOR SHALL UTILIZE POLICE DETAILS AND ROLLING OPERATIONS FOR ACCESS AND EGRESS TO THE SITE. TEMPORARY TRAFFIC CONTROL SETUPS SHOULD BE MINIMIZED.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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*Nancy J. Freeman*

Ri Environmental Management  
JAN 18 2022  
Office of Water Resources

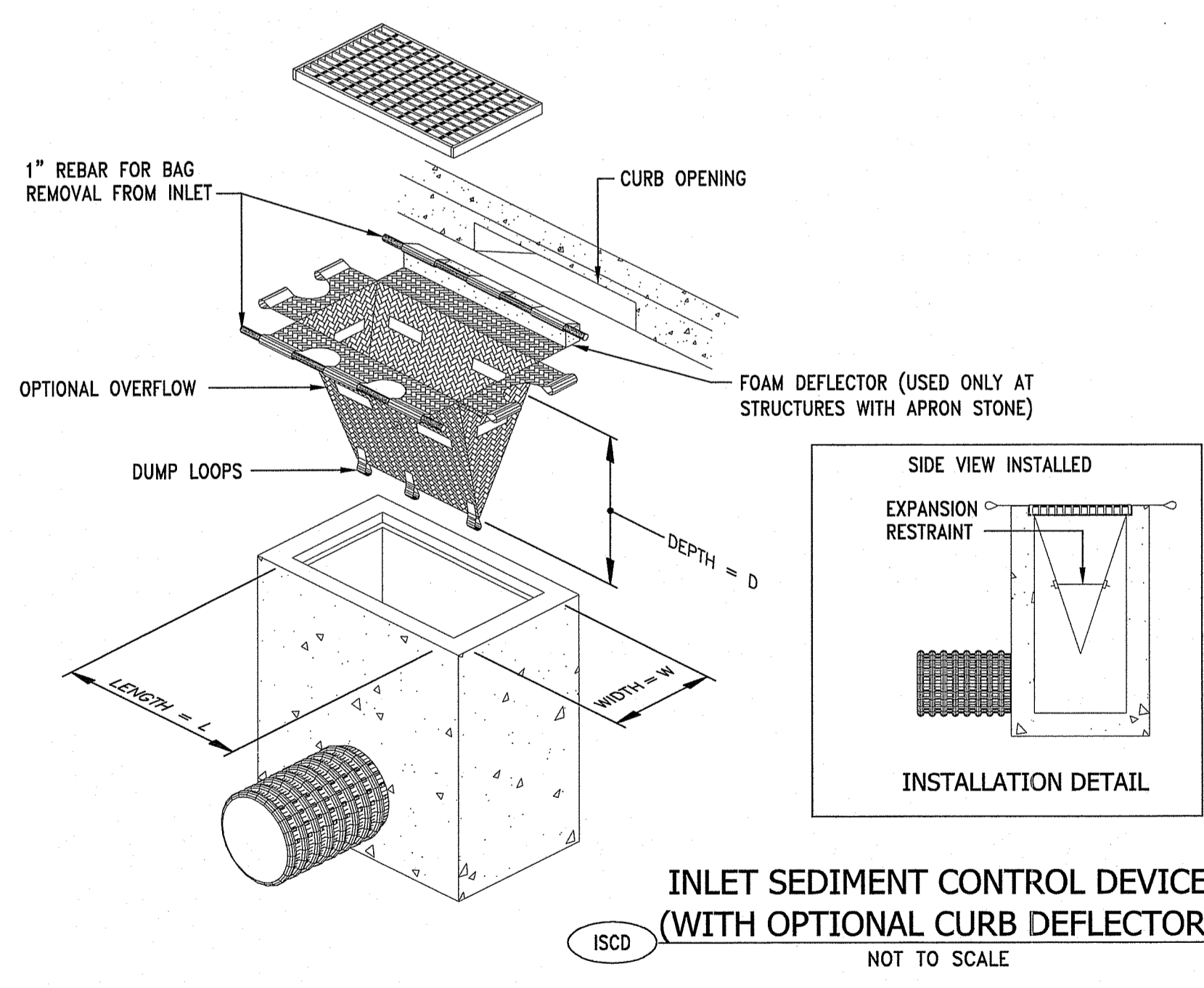
NO.	DATE	BY	REVISIONS	
			NO.	DATE



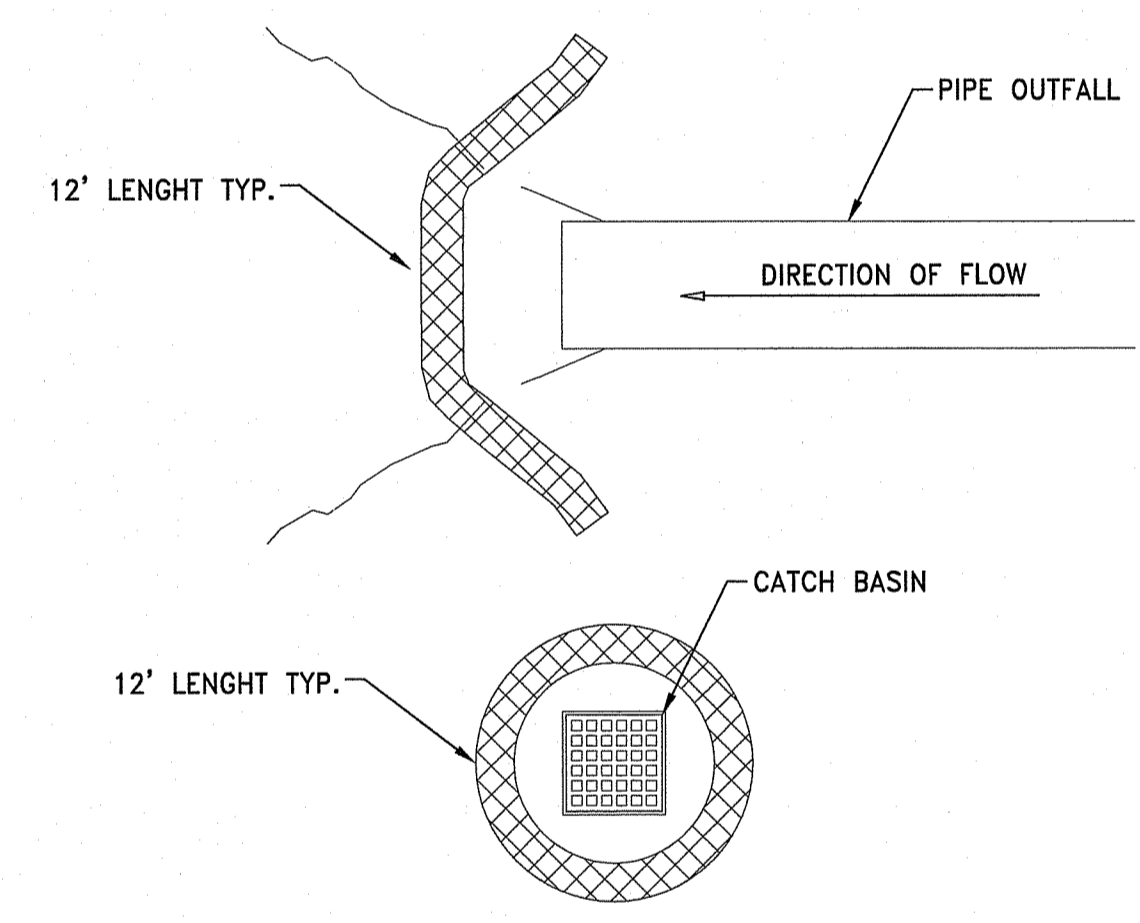
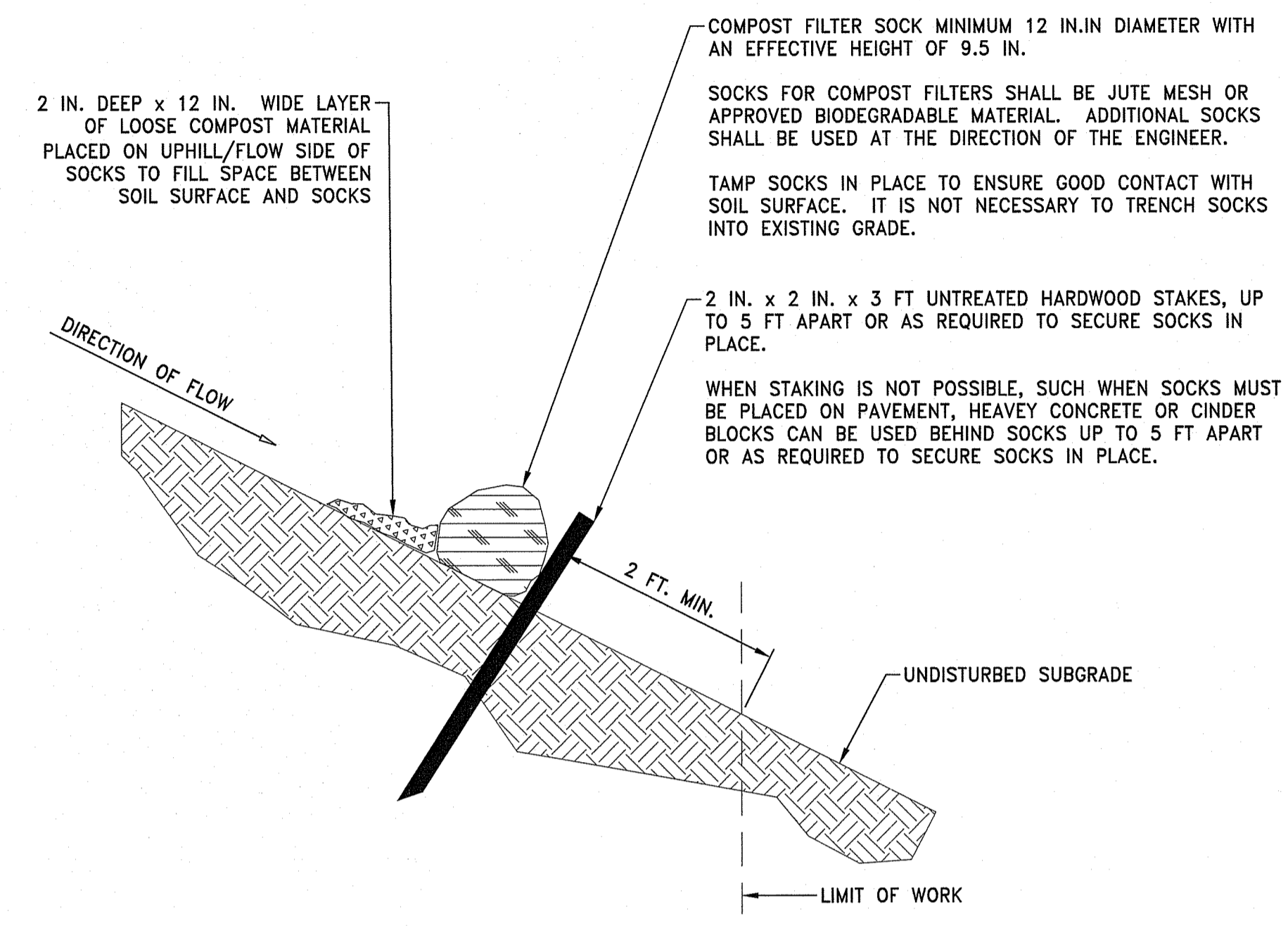
**NOTES:**

1. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL PREPARE A PLAN SHOWING THE PROPOSED LOCATION OF ALL STOCKPILE AREAS.
2. STOCKPILE AREA SHALL NOT EXCEED SPECIFIED DIMENSIONS WITHOUT APPROVAL FROM ENGINEER.
3. STOCKPILED ERODIBLE MATERIAL THAT WILL NOT BE USED FOR GREATER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEED IMMEDIATELY FOLLOWING PLACEMENT.

**ERODIBLE MATERIAL STOCKPILE**  
NOT TO SCALE



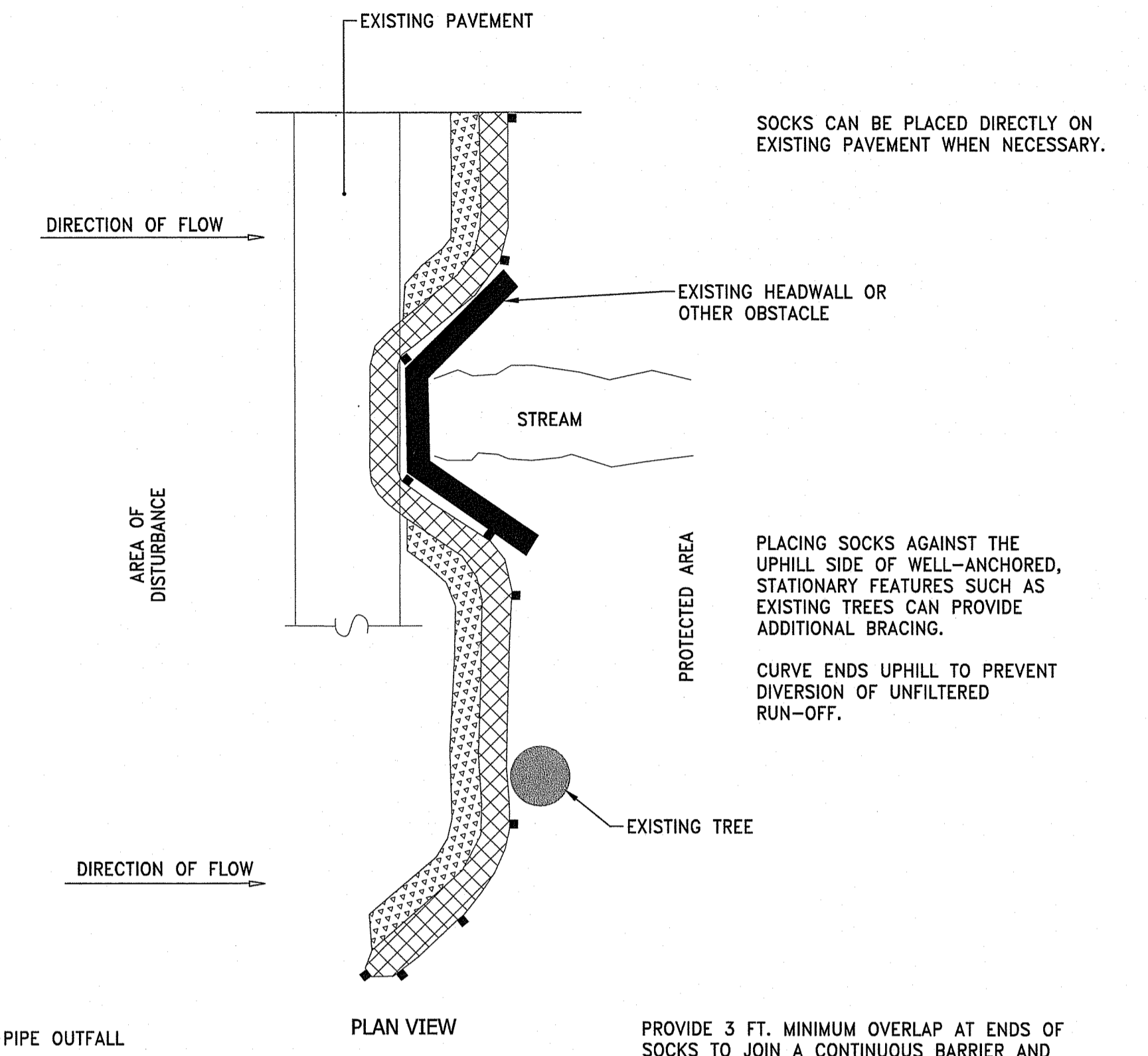
**INLET SEDIMENT CONTROL DEVICE (WITH OPTIONAL CURB DEFLECTOR)**  
ISCD  
NOT TO SCALE



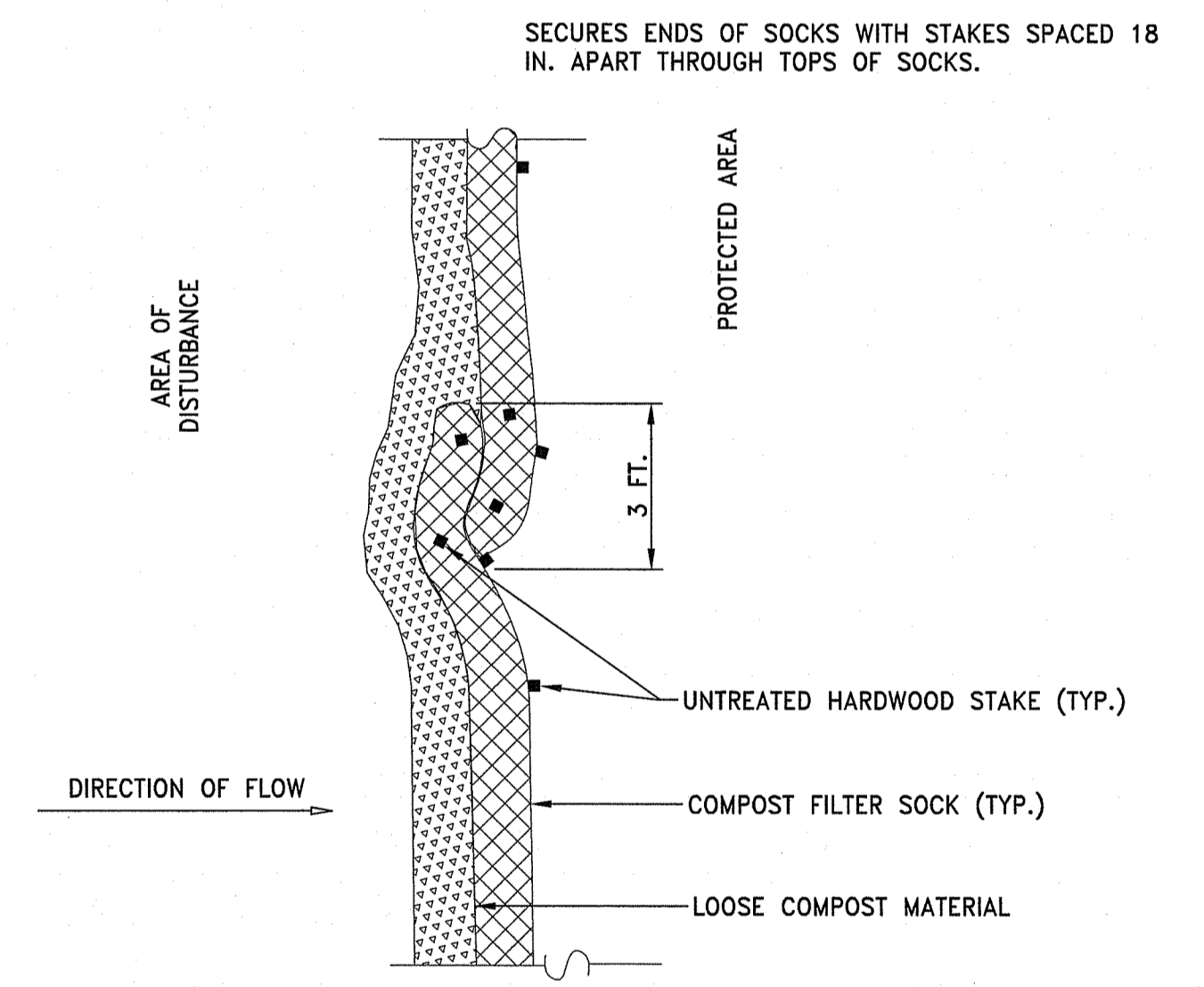
**NOTES:**

1. PROVIDE A MINIMUM SOCK DIAMETER OF 12 INCHES FOR SLOPES UP TO 50 FEET IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER SOCK DIAMETER OR ADDITIONAL COURSING OF FILTER SOCKS TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
2. INSTALL SOCKS ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
4. CONFIGURE SOCKS AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.

**COMPOST FILTER SOCK DETAIL**  
CFS  
NOT TO SCALE



**PLAN VIEW**

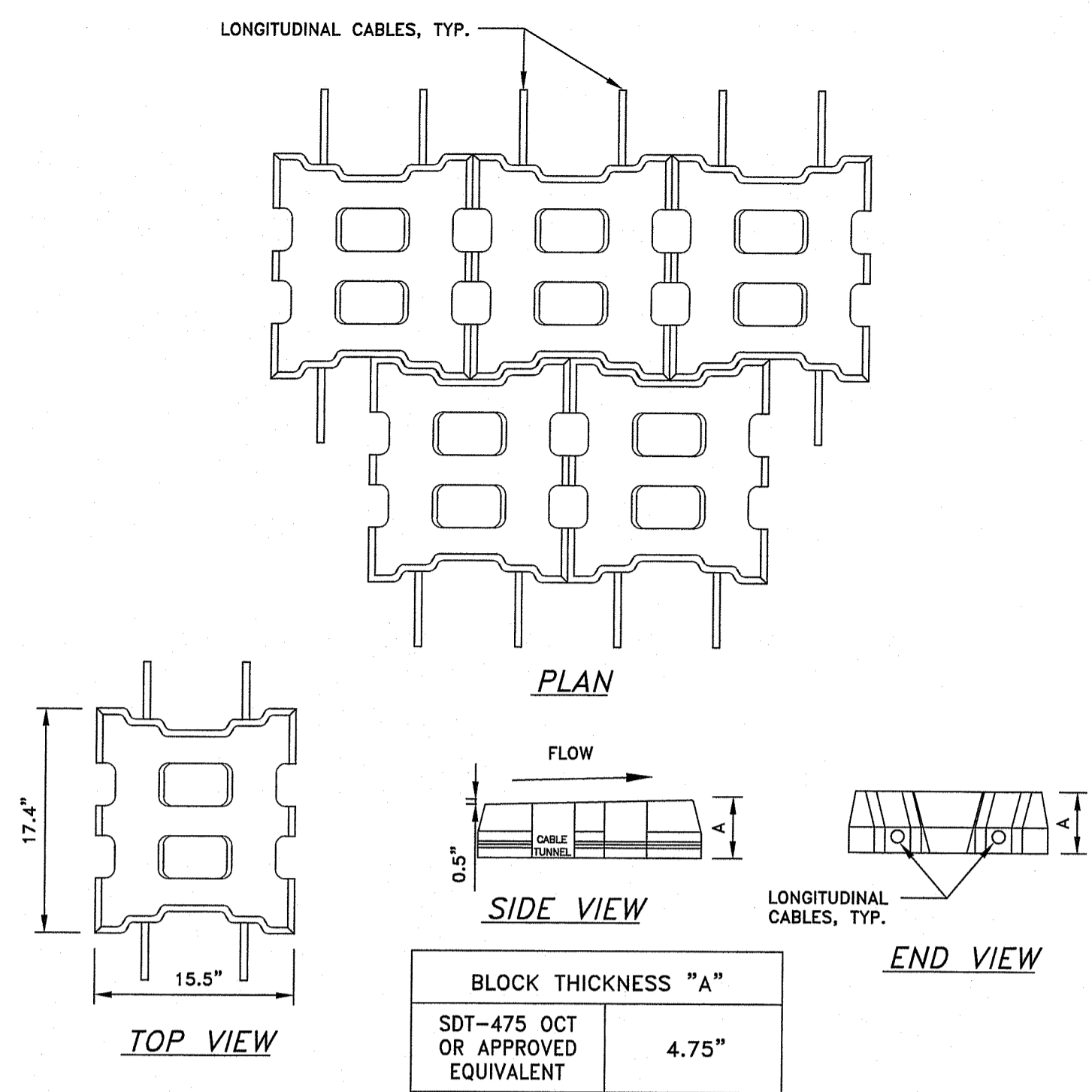


**PLAN VIEW - JOIN DETAIL**

RI Environmental Management  
JAN 18 2022  
Office of Water Resources

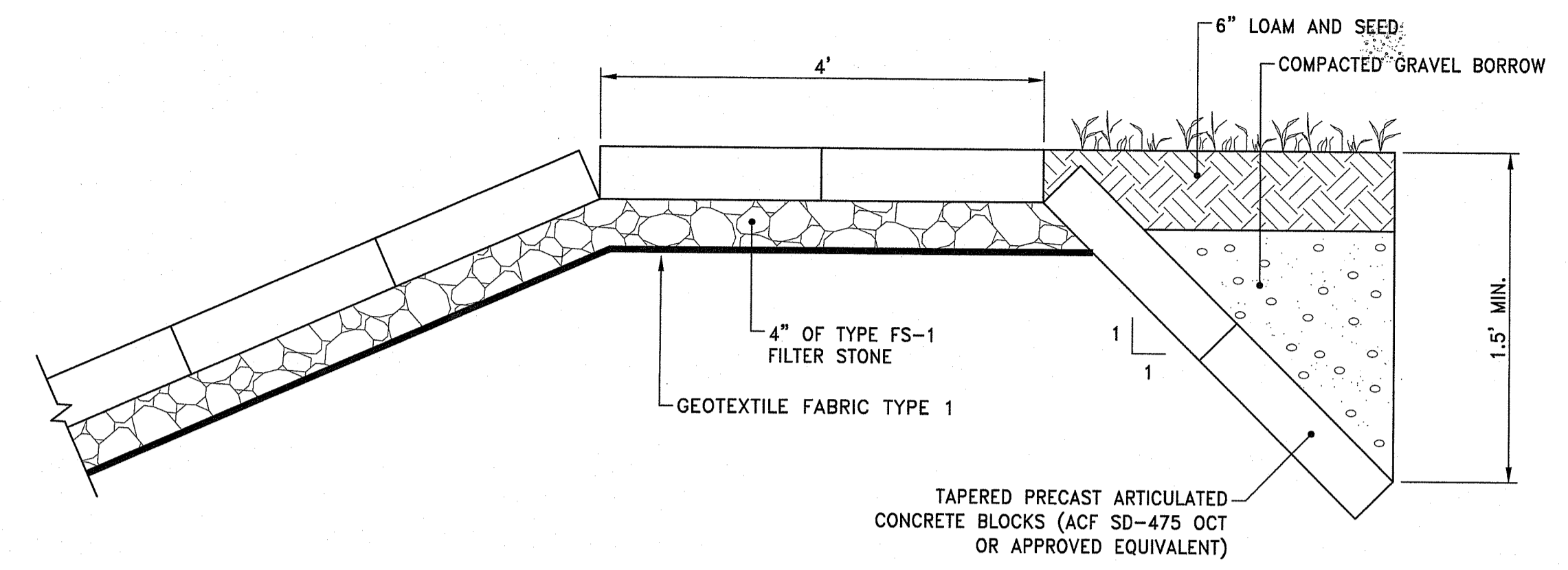
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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*Nancy L. Freeman*

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY



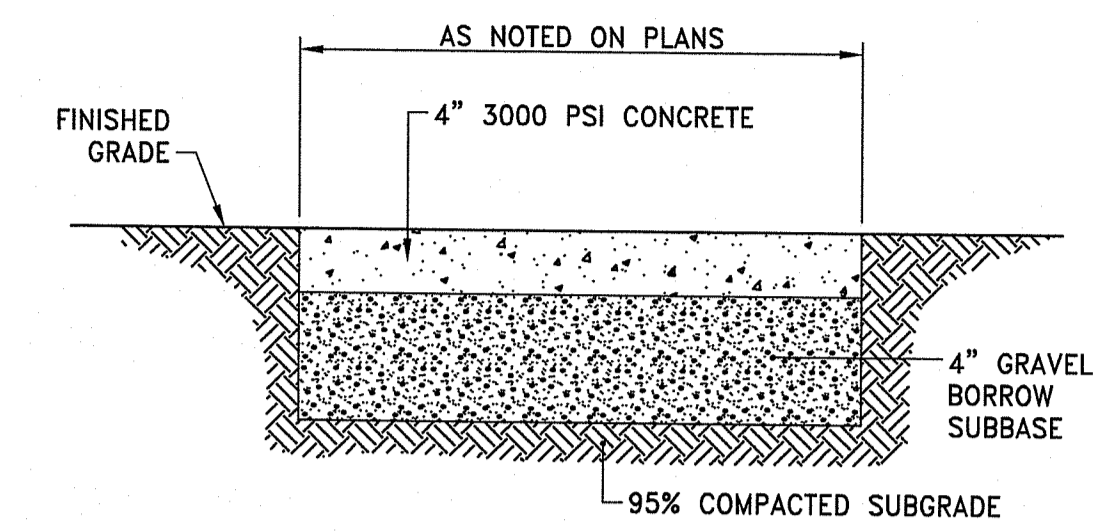
**NOTE:**  
 PRECAST ARTICULATED CONCRETE BLOCK VOIDS SHALL BE FILLED WITH FILTER STONE AND CRUSHED STONE SHALL BE SWEEPED INTO THE JOINTS BETWEEN BLOCKS, FLUSH WITH THE TOP OF THE BLOCKS, OVER THE ENTIRE SURFACE, TO PROVIDE A TIGHT STABLE INSTALLATION.

**ARTICULATED CONCRETE BLOCKS**  
 NOT TO SCALE



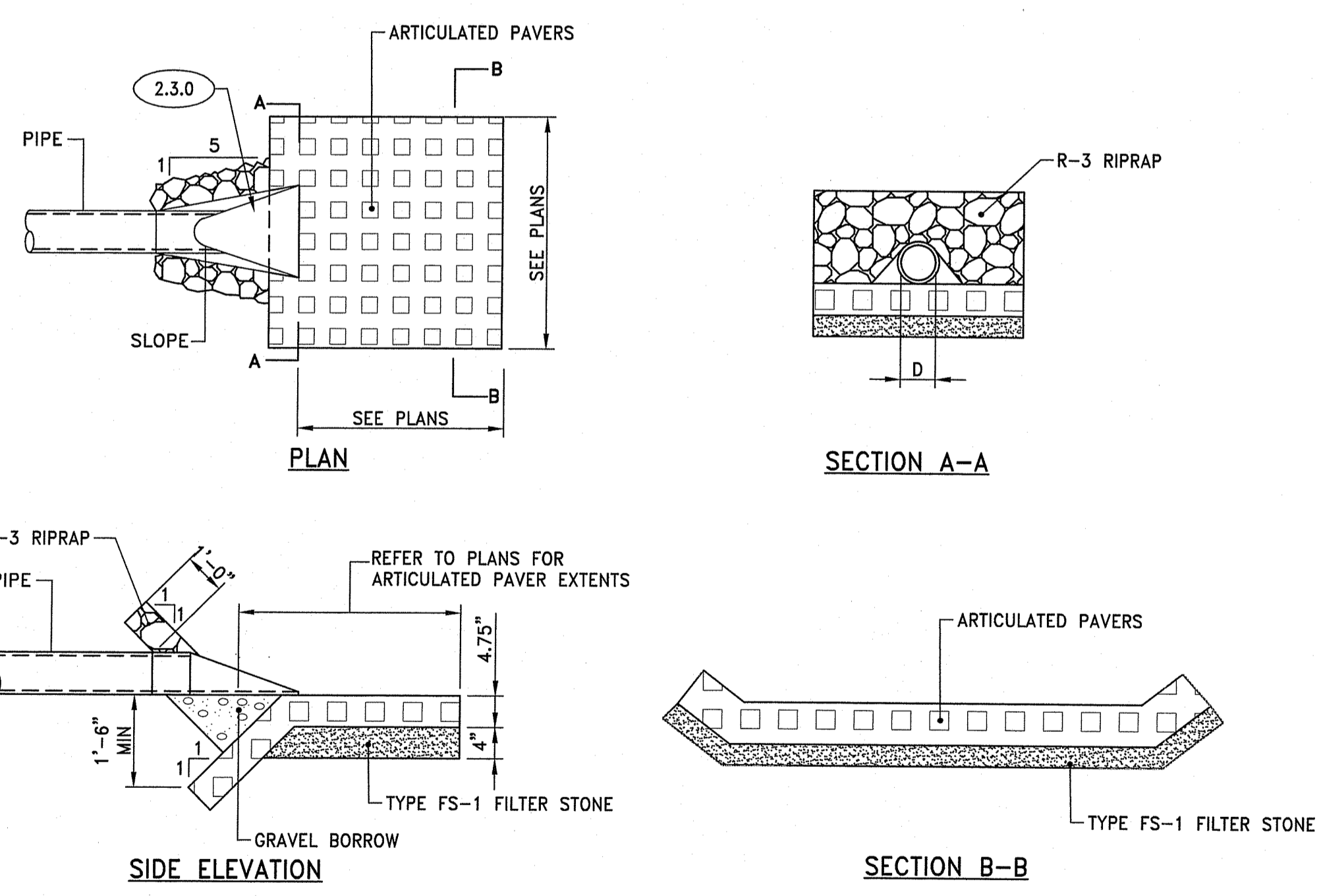
**NOTE:**  
 1. ANCHOR TRENCH SHALL BE PROVIDED AT DOWNSTREAM END OF ARTICULATED PAVERS.

**ARTICULATED CONCRETE BLOCKS ANCHOR DETAIL**  
 NOT TO SCALE

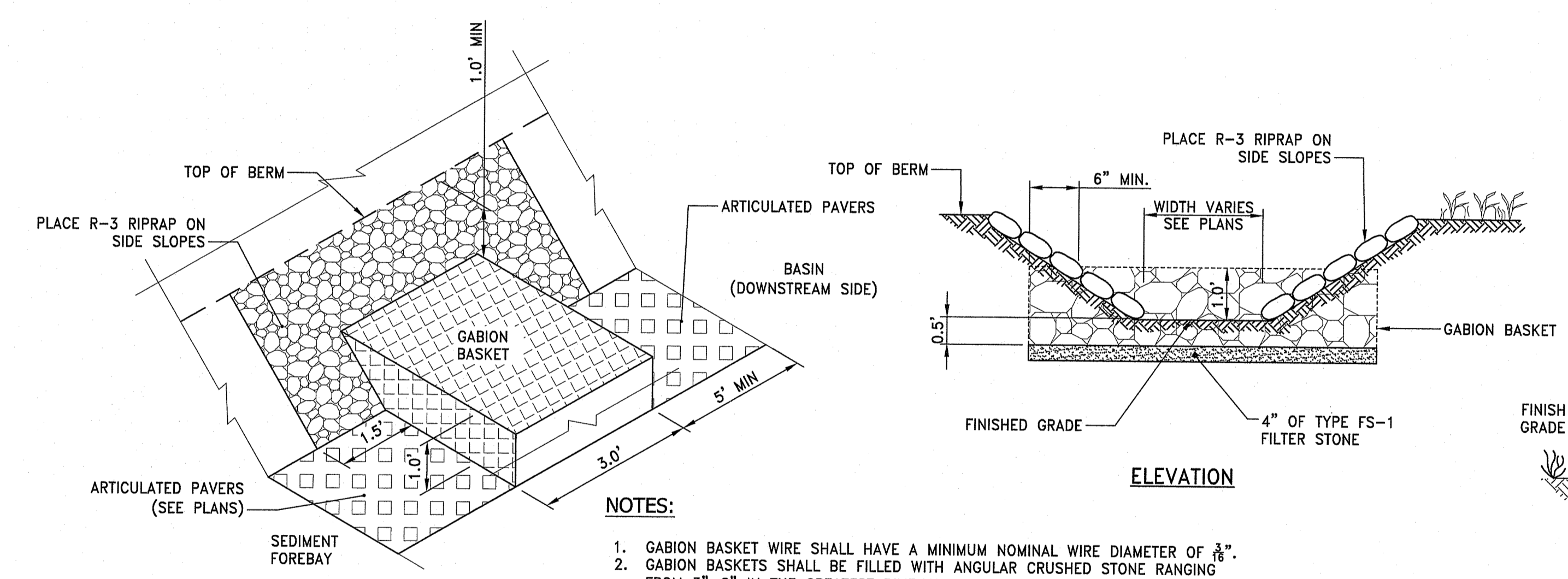


**NOTE:**  
 1. CONCRETE PAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATIONS.

**CONCRETE PAD**  
 NOT TO SCALE



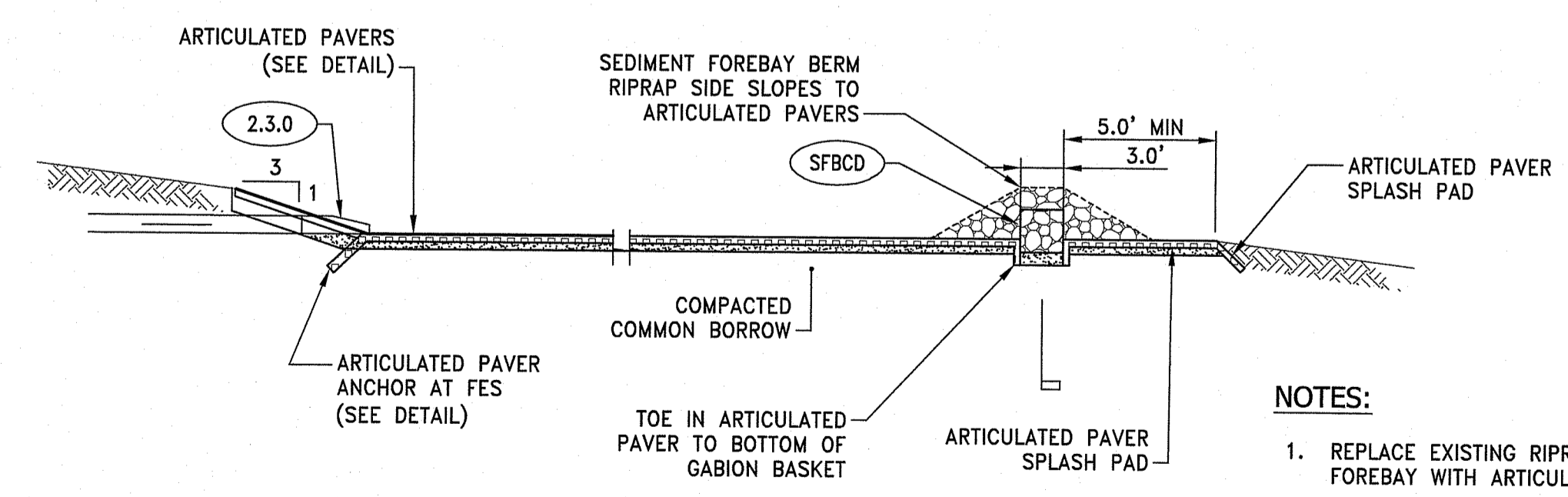
**ARTICULATED PAVER ANCHOR AT FES**  
 NOT TO SCALE



**NOTES:**

- GABION BASKET WIRE SHALL HAVE A MINIMUM NOMINAL WIRE DIAMETER OF 3/8".
- GABION BASKETS SHALL BE FILLED WITH ANGULAR CRUSHED STONE RANGING FROM 3"-6" IN THE GREATEST DIMENSION.
- GABION BASKET SHALL MEET ASTM A-974-97 AND US FEDERAL SPECIFICATION QQ-W-481H AND COATED IN ACCORDANCE WITH ASTM A641, FINISH 5 CLASS 3.
- GEOTEXTILE FABRIC MAY BE USED IN LIEU OF FILTER STONE SETTING BED.

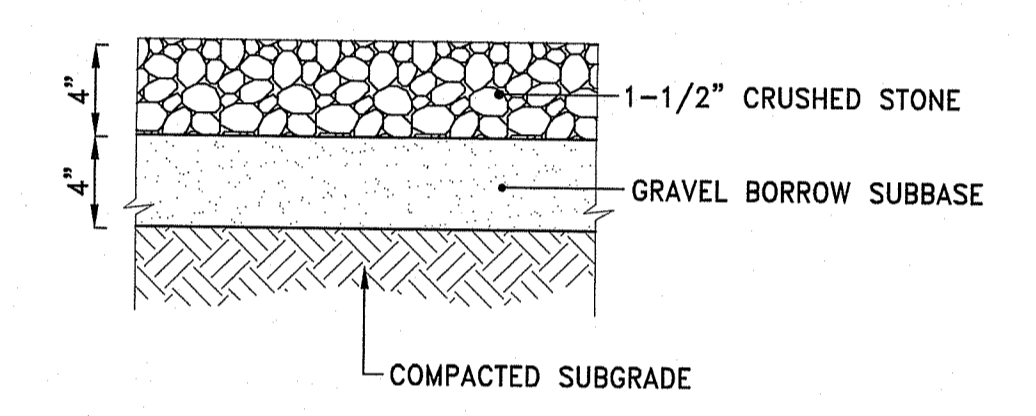
**SFB CD SEDIMENT FOREBAY CHECKDAM**  
 NOT TO SCALE



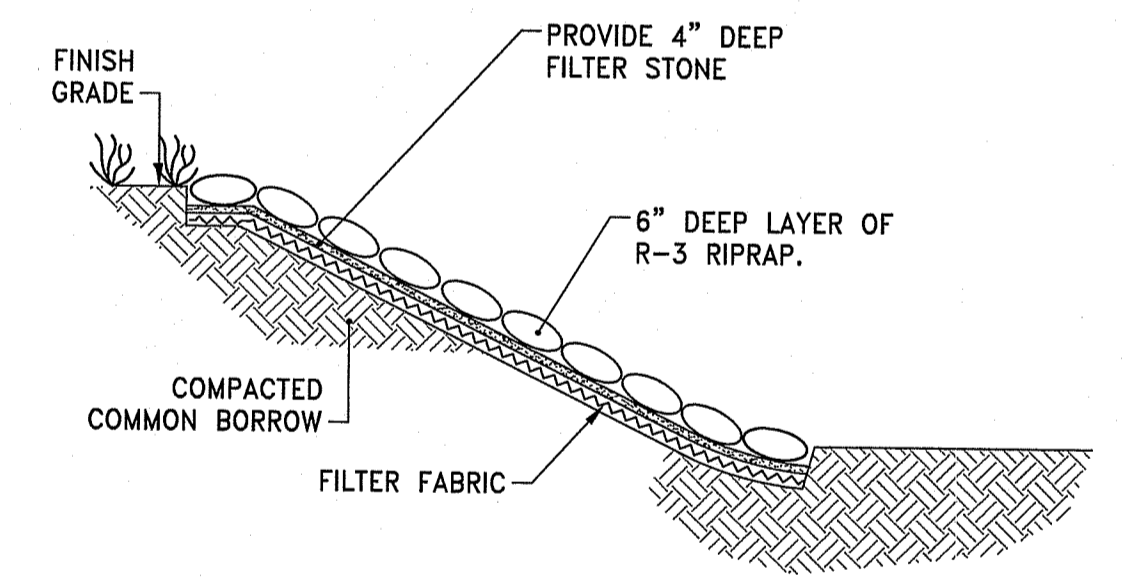
**NOTES:**

- REPLACE EXISTING RIPRAP AT OUTLET TO SEDIMENT FOREBAY WITH ARTICULATED PAVERS.

**SEDIMENT FOREBAY DETAIL**  
 NOT TO SCALE



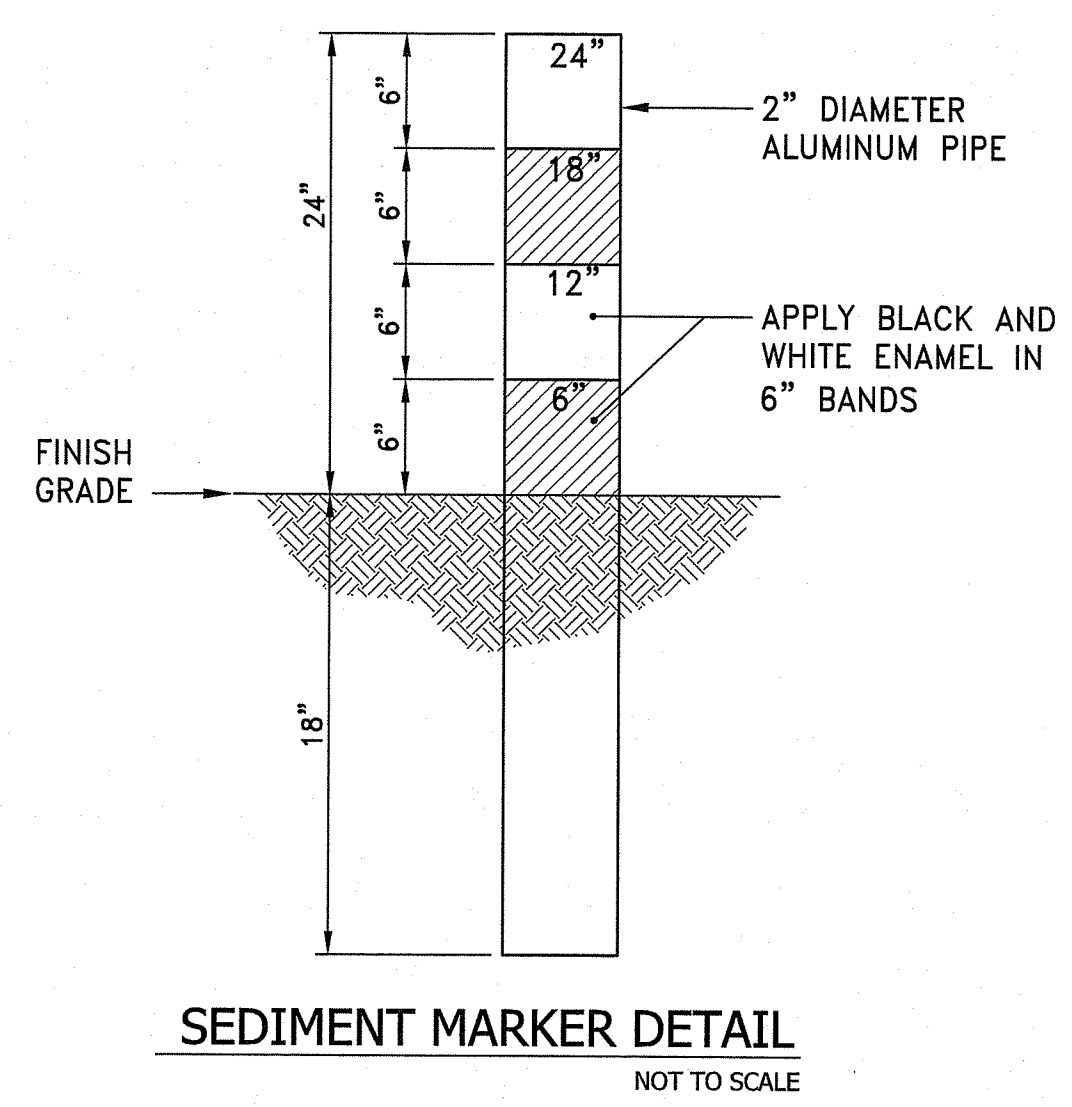
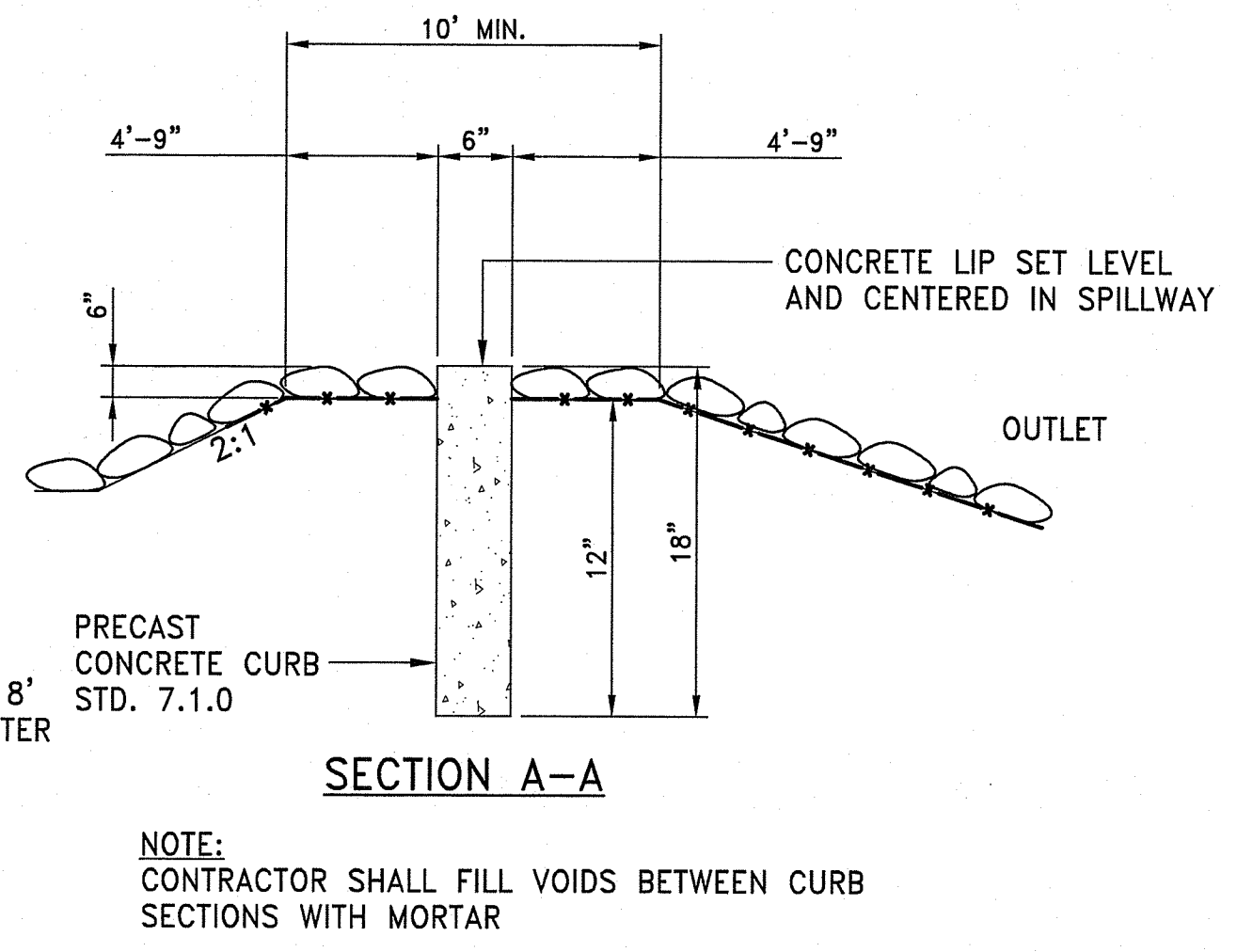
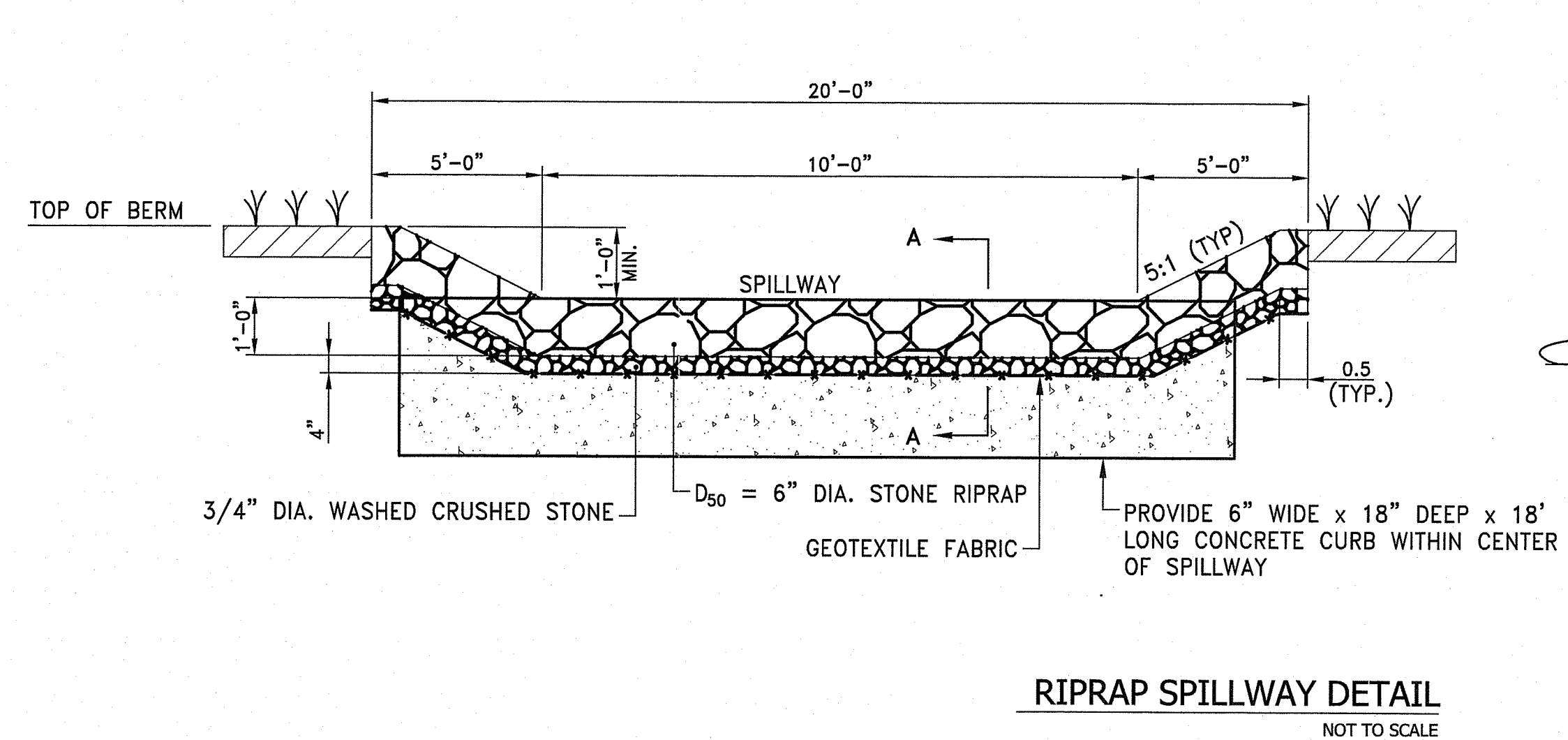
**GRAVEL DRIVE DETAIL**  
 NOT TO SCALE



**RRSL RIPRAP SLOPE**  
 NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
 DATED JAN 21 2022  
 SEE LETTER OF SAME DATE.  
*Nancy L. Freeman*

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY



RI Environmental Management  
JAN 18 2022  
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
REVIEWED SITE PLAN APPLICATION NO.: 21-0314  
DATED JAN 27 2022  
SEE LETTER OF SAME DATE.  
*Andy T. Freeman*