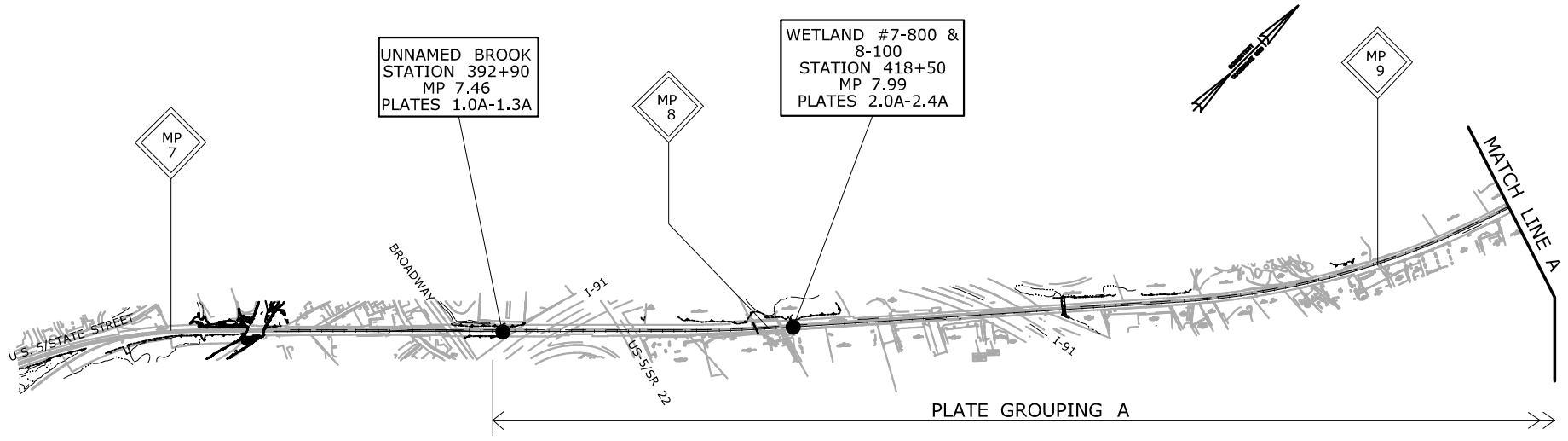
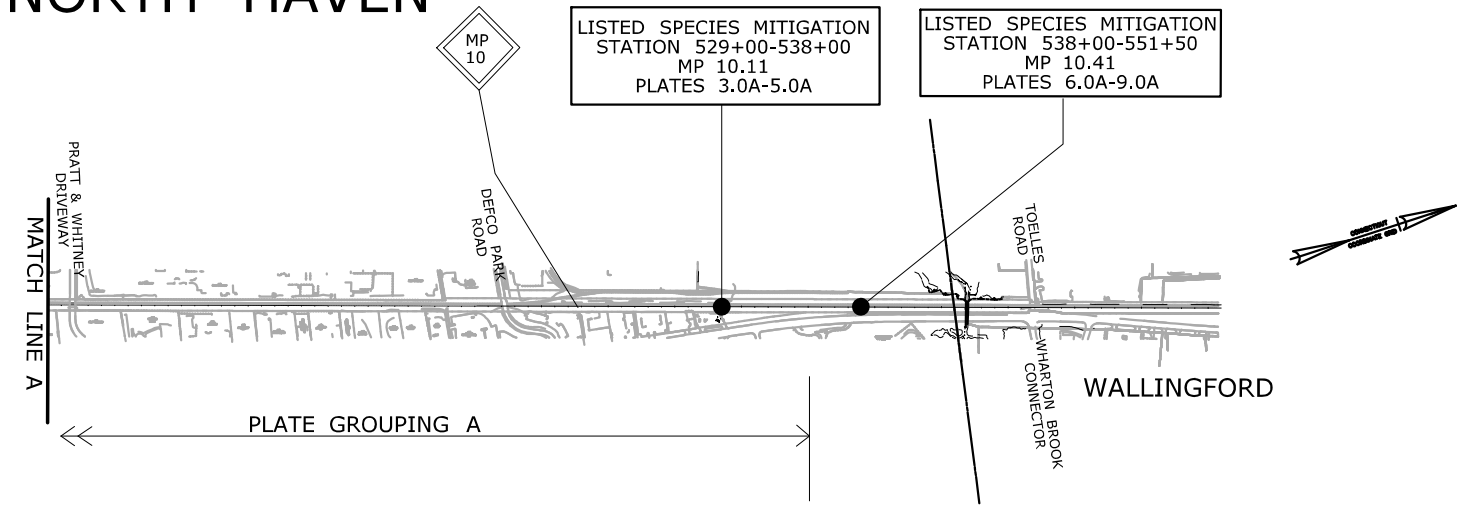


PHASE 2

NORTH HAVEN



PHASE 2

INDEX OF PERMIT PLATES

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

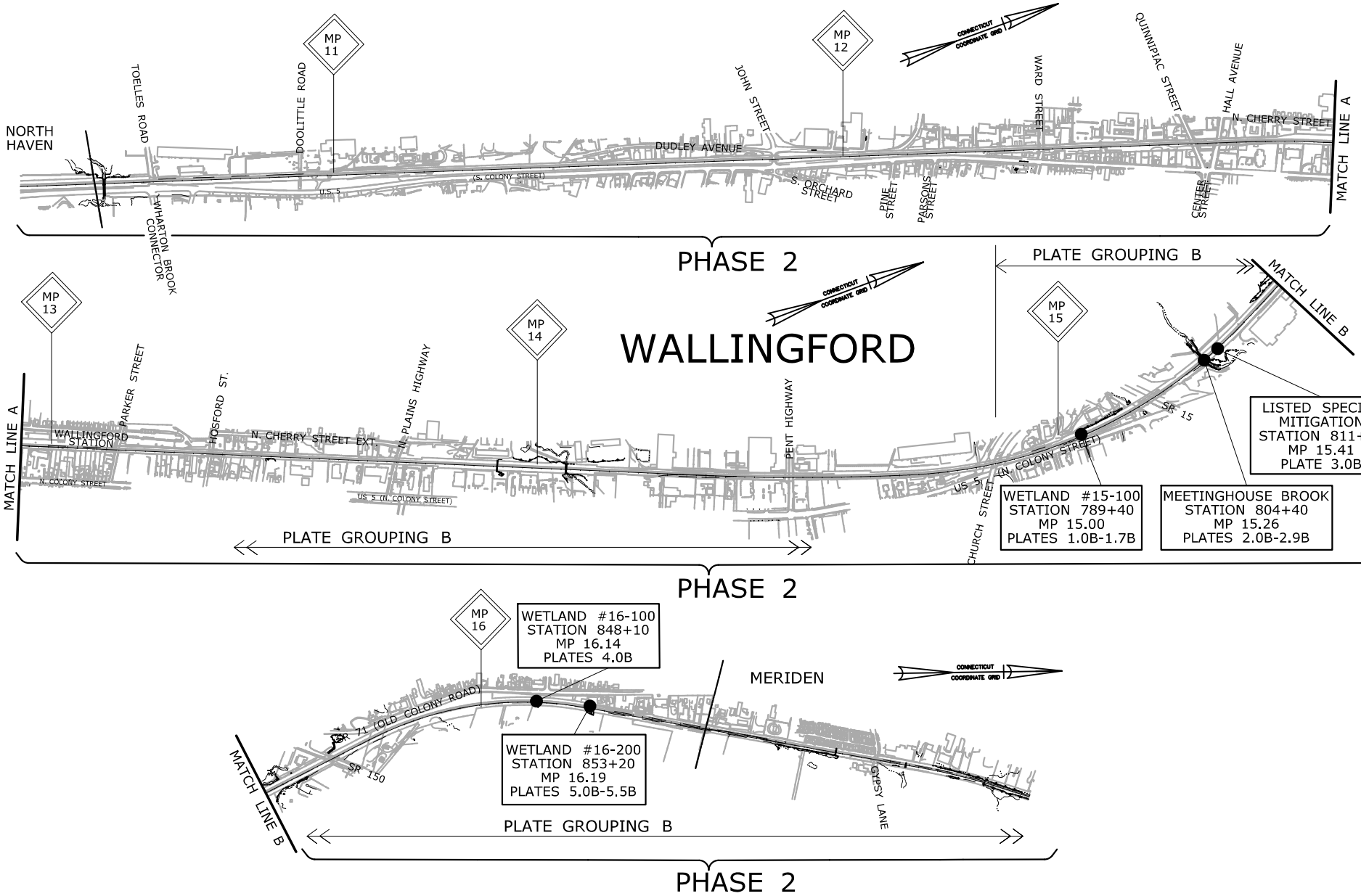
PARSONS BRINCKERHOFF

NOT TO SCALE

DATE: MAR 2014

PLATE 1 OF 7

Filename: ...\FA_CGR_CPS_0170-2296_000_03_CIN_PERMIT PLATE INDEX - 1.dgn



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CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

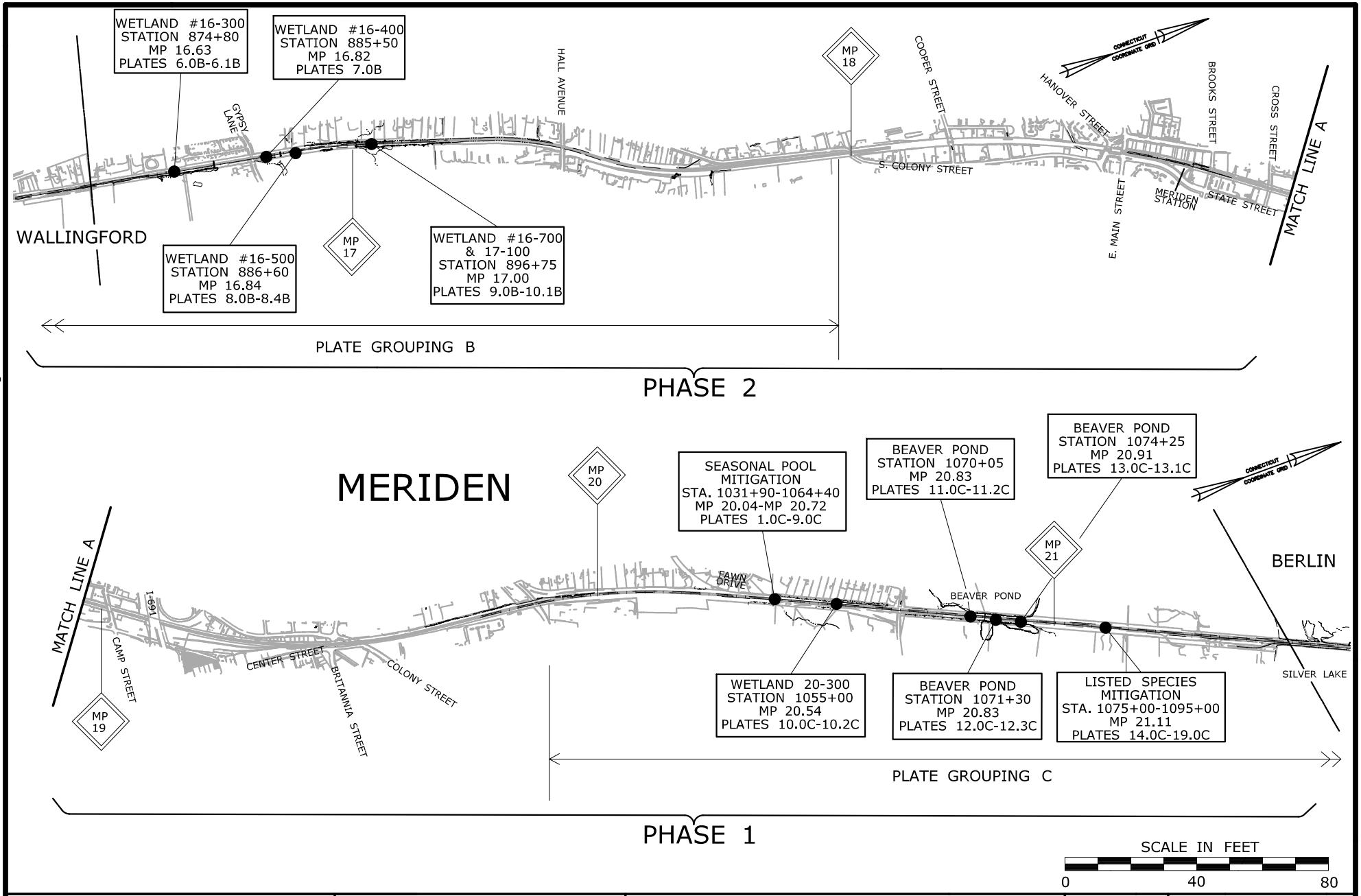
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NOT TO SCALE

DATE: MAR 2014

PLATE 2 OF 7

Filename: ...\FA_CGR_CPS_0170-2296_000_03_CIN_PERMIT PLATE INDEX - 2.dgn



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CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

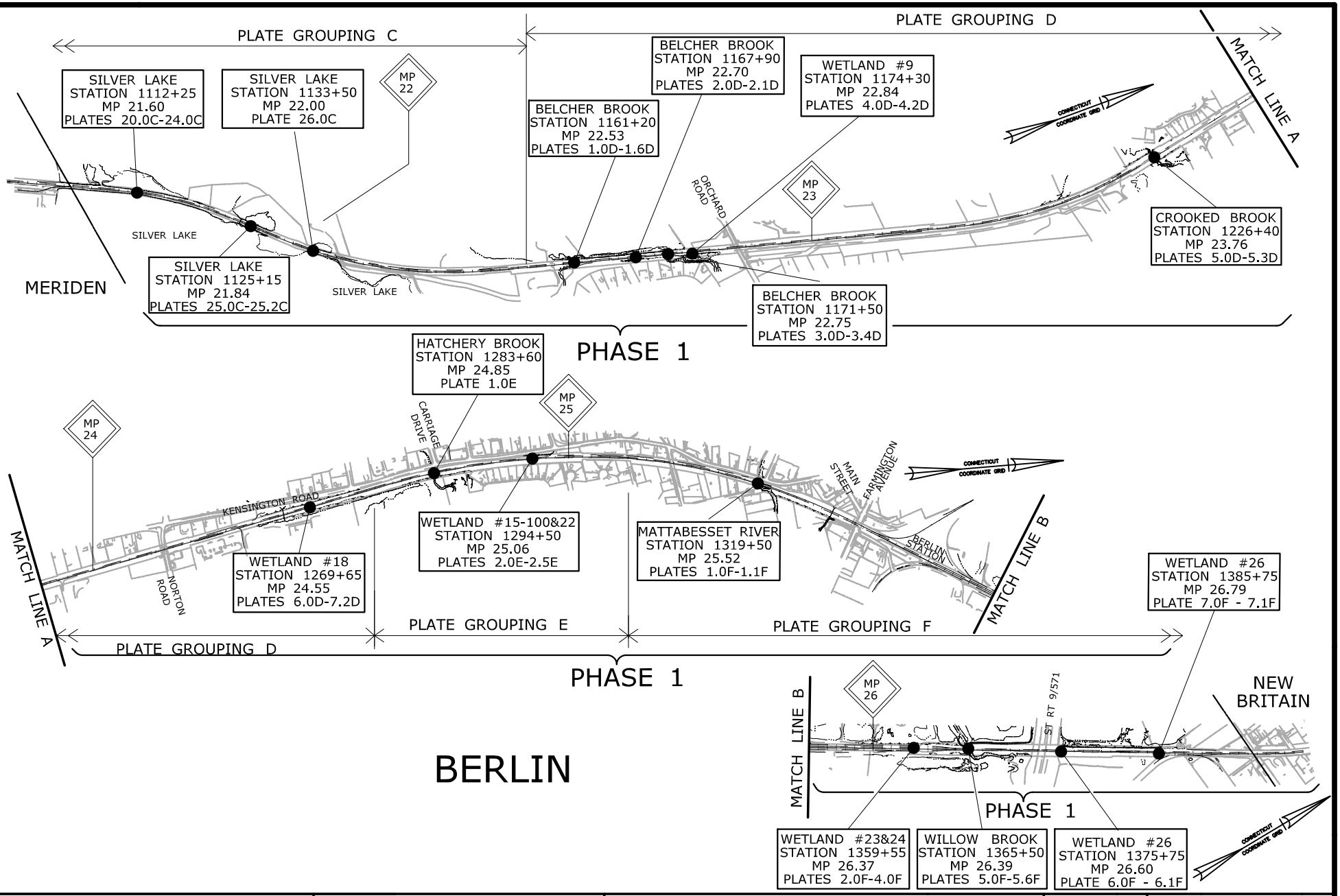
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NOT TO SCALE

DATE:
MAR 2014

PLATE 3 OF 7

Filename: ...\FA_CGR_CPS_0170-2296_000_03_CIN_PERMIT PLATE INDEX - 3.dgn



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CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

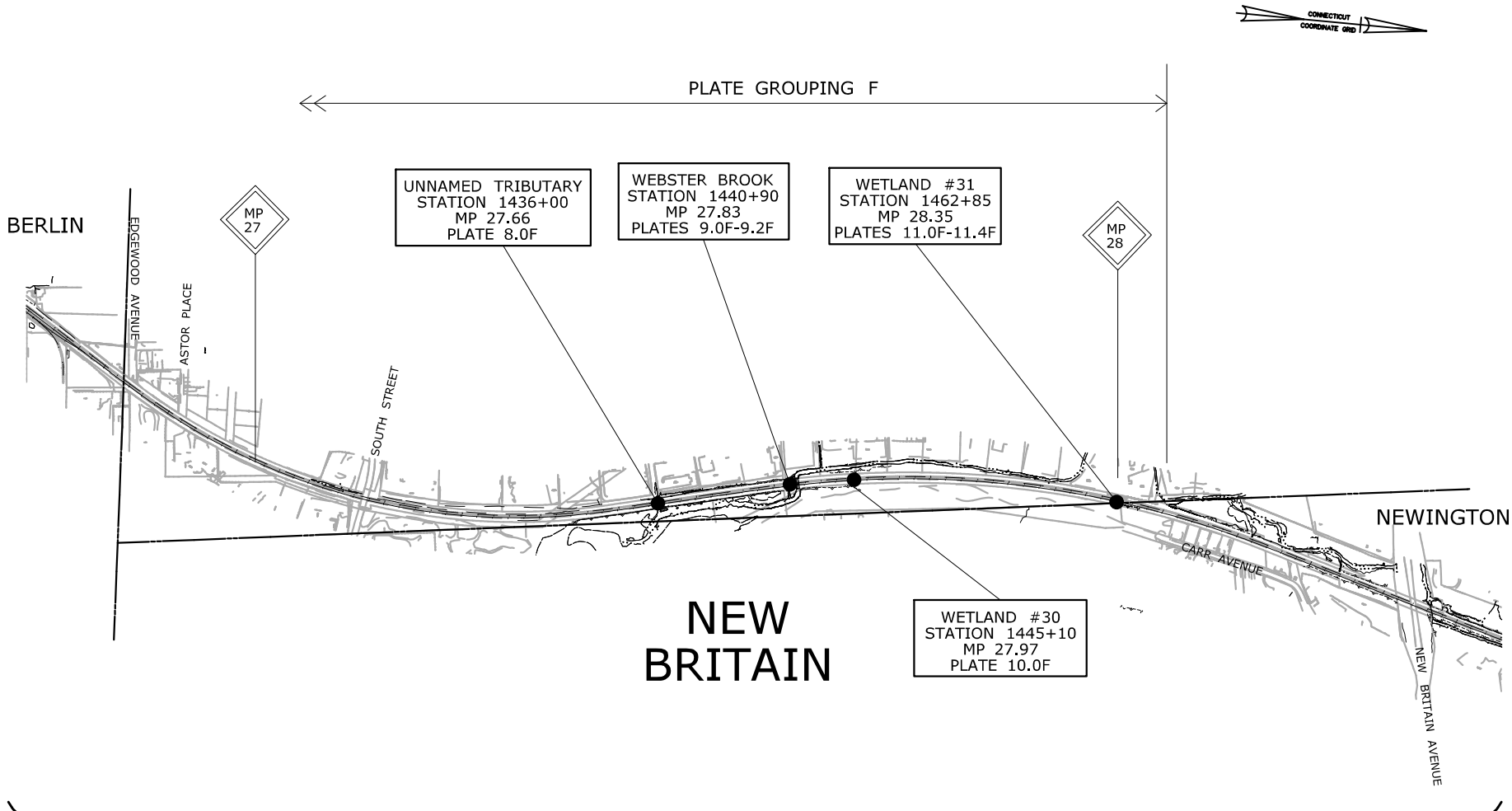
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NOT TO SCALE

DATE: MAR 2014

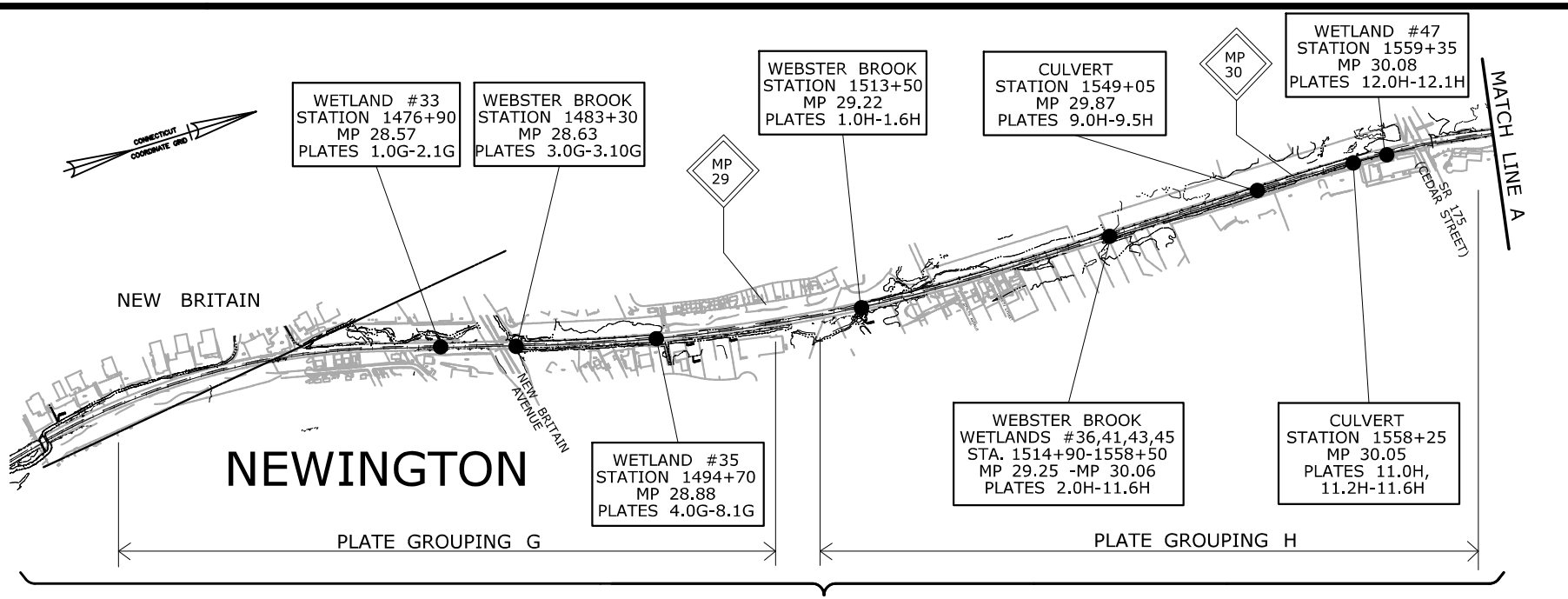
PLATE 4 OF 7

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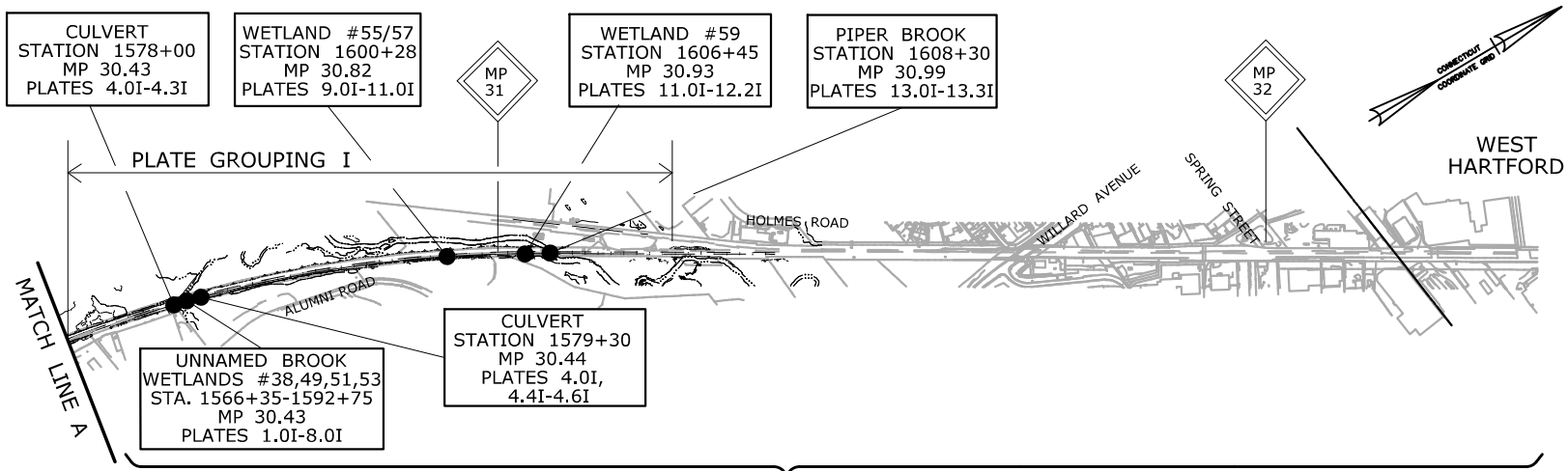


INDEX OF PERMIT PLATES	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: HARTFORD CITY/TOWN: NEW BRITAIN	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	PARSONS BRINCKERHOFF NOT TO SCALE	DATE: MAR 2014 PLATE 5 OF 7

Filename: ...\FA_CGR_CPS_0170-2296_000_03_CIN_PERMIT PLATE INDEX - 5.dgn



PHASE 1



PHASE 1

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CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

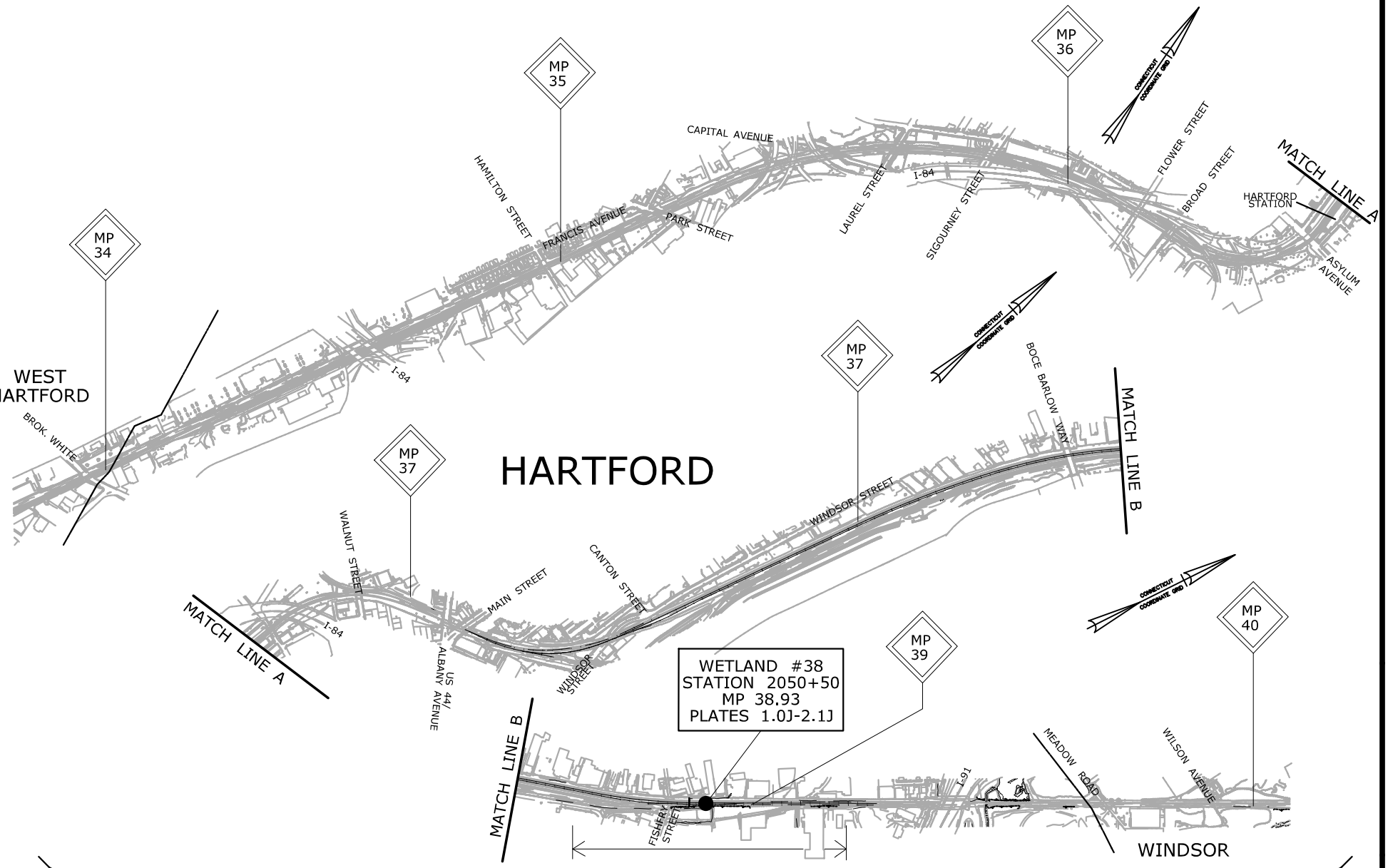
PARSONS BRINCKERHOFF

NOT TO SCALE

DATE:
MAR 2014

PLATE 6 OF 7

Filename: ...\FA_CGR_CPS_0170-2296_000_03_CIN_PERMIT PLATE INDEX - 6.dgn



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CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: HARTFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

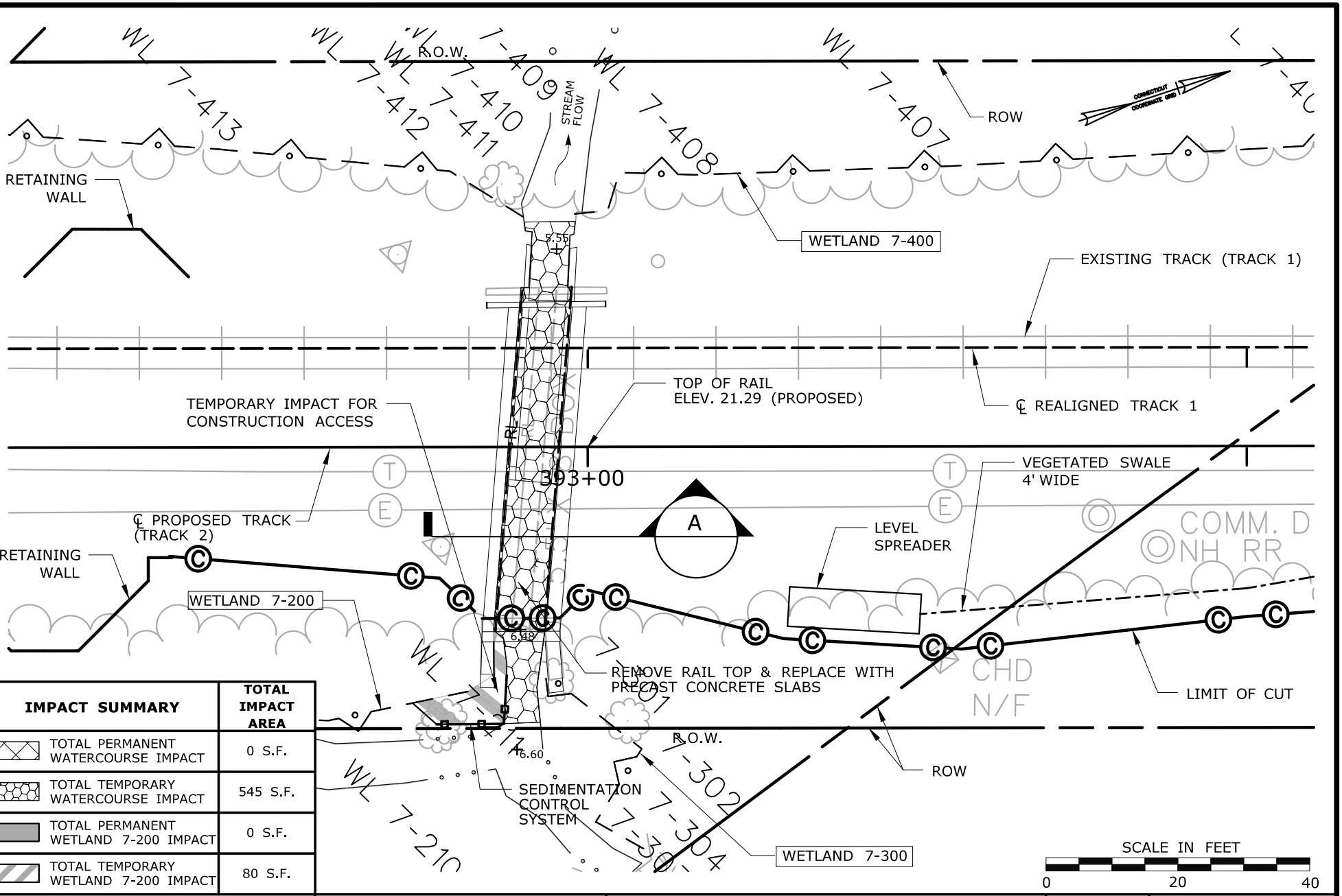
PARSONS BRINCKERHOFF

NOT TO SCALE

DATE: MAR 2014

PLATE 7 OF 7

Filename: ...\FA_CGR_CPS_0170-2296_000_03_CIN_PERMIT PLATE INDEX - 7.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	0 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	545 S.F.
TOTAL PERMANENT WETLAND 7-200 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 7-200 IMPACT	80 S.F.

IMPACT PLAN

UNNAMED BROOK/WETLAND ID 7-200

MP 7.46

STA. 392+90

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

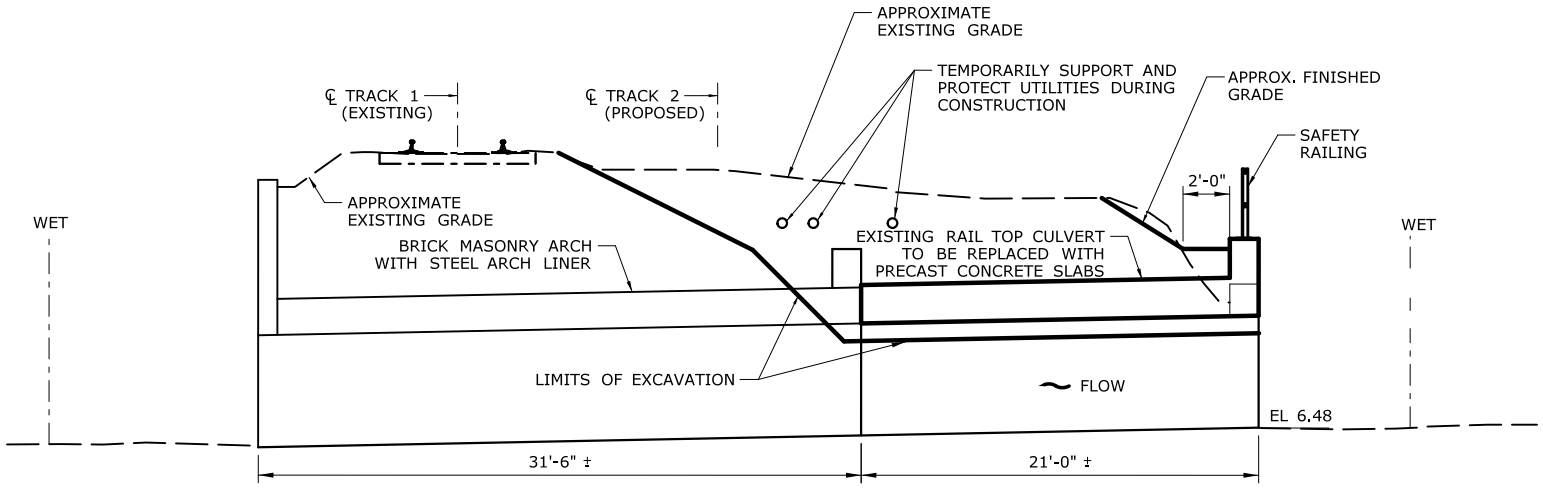
SCALE:1"=20'

DATE:
MARCH 2014

WETLAND ID No.7-200, 7-300 & 7-400
WATERCOURSE
UNNAMED BROOK

PLATE 1.0A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_02_PER_MP 07.46-1.0A.dgn



EXISTING AND PROPOSED LONGITUDINAL CROSS SECTION
(LOOKING NORTH)

SCALE: 1"=10'

SCALE IN FEET

0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_100_02_PER_MP 07.46-1.1A.dgn

EXIST. CROSS SECTION UNNAMED BROOK/WETLAND ID 7-200, 7-300 & 7-400 MP 7.46 STA. 392+90	CTDOT PROJECT NO.: 170-2296/3154/3155/3156 COUNTY: NEW HAVEN CITY/TOWN: NORTH HAVEN	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	STV 100 Years SCALE:1"=10'	DATE: MARCH 2014 WETLAND ID No.7-200, 7-300 & 7-400 WATERCOURSE UNNAMED BROOK PLATE 1.1A OF 9.0A

GENERAL NOTES:

CONTRACTOR SHALL FOLLOW "2002 GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL"

RECOMMENDED STAGING SEQUENCE NOTES:

1. INSTALL EROSION AND SEDIMENTATION CONTROL SYSTEM.
2. DIVERT WATER FLOW FROM THE HALF OF THE CULVERT UNDER REPAIR BY INSTALLING SAND BAGS AT THE MIDDLE OF THE EXISTING CHANNEL AT ELEVATION 7.85 FT. REPEAT THE PROCEDURE IN THE OTHER HALF OF THE CULVERT UNDER REPAIR.
3. CLEAN LOOSE MATERIALS, REPAIR AND FILL VOIDS AND REPOINT JOINTS AT MASONRY ARCH, SPANDRELS, ABUTMENT AND WING WALLS.
4. REPAIR UNIDENTIFIED CONCRETE DEFICIENCIES VIA EPOXY INJECTION CRACKS, REMOVE UNSOUND CONCRETE & REPAIR WITH VARIABLE DEPTH PATCH (VARIOUS LOCATIONS ON REINFORCED CONCRETE ABUTMENT & WING WALLS)
5. EXCAVATE THE FILL ON TOP OF THE RAIL TOP SUPERSTRUCTURE TO THE LIMITS SHOWN ON THE DRAWING.
6. REMOVE RAIL TOP SLAB, REPAIR THE EXISTING WALLS (IF NECESSARY) AND PLACE NEW PRECAST CONCRETE SLABS WITH HEADWALL AND SAFETY RAILING.
7. PLACE NEW WATERPROOFING MEMBRANE AS SHOWN.
8. PLACE NEW EMBANKMENT FILL.
9. STABILIZE EXCAVATED AREAS & SLOPES WITH TURF ESTABLISHMENT AN EROSION CONTROL MATTING , WHERE NEEDED.
10. ONCE ALL DISTURBED AREAS HAVE BEEN STABILIZED, REMOVE EROSION CONTROL SYSTEMS.

CONSTRUCTION METHODS

BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.

ALL CONSTRUCTION DEBRIS MUST BE CONTAINED. THE CONTAINMENT SYSTEMSYSTEM SHALL INCLUDE TARPS AND, ANCHORED OR FLOATING SILT CURTAINS IN THE STREAM, OR ANY OTHER MEANS NECESSARY TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE STREAM OR ITS BANKS.

STOCK PILLING OF CONSTRUCTION DEBRIS WILL NOT BE ALLOWED AND MUST BE REMOVED DAILY.

EROSION AND SEDIMENTATION CONTROL SYSTEM SHALL BE MAINTAINED OR REPLACED UNTIL THEY ARE NO LONGER NECESSARY FOR THE PURPOSE INTENDED OR ARE ORDERED REMOVED BY 'THE ENGINEER. CLEAN OUT OF ACCUMULATED SEDIMENT SHALL BE ACCOMPLISHED WHEN ONE-HALF OF THE ORIGINAL HEIGHT OF THE SEDIMENTATION CONTROL SYSTEM, AS INSTALLED, BECOMES FILLED WITH SEDIMENT OR AS ORDERED BY THE ENGINEER.

TEMPORARY HYDRAULIC DATA

AVERAGE DAILY FLOW	N/A
AVERAGE SPRING FLOW	0.34 CFS
2-YEAR FREQUENCY DISCHARGE	62.2 CFS
TEMPORARY DESIGN DISCHARGE	0.34 CFS
TEMPORARY DESIGN FREQUENCY	ASF
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	6.85 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	5.61 FT
TEMPORARY SANDBAG DIVERSION ELEVATION FOR AVERAGE SPRING FLOW	7.85 FT

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CONSTRUCTION NOTES

UNNAMED BROOK/WETLAND ID
7-200, 7-300 & 7-400
MP 7.46
STA. 392+90

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

-

DATE:
MARCH 2014

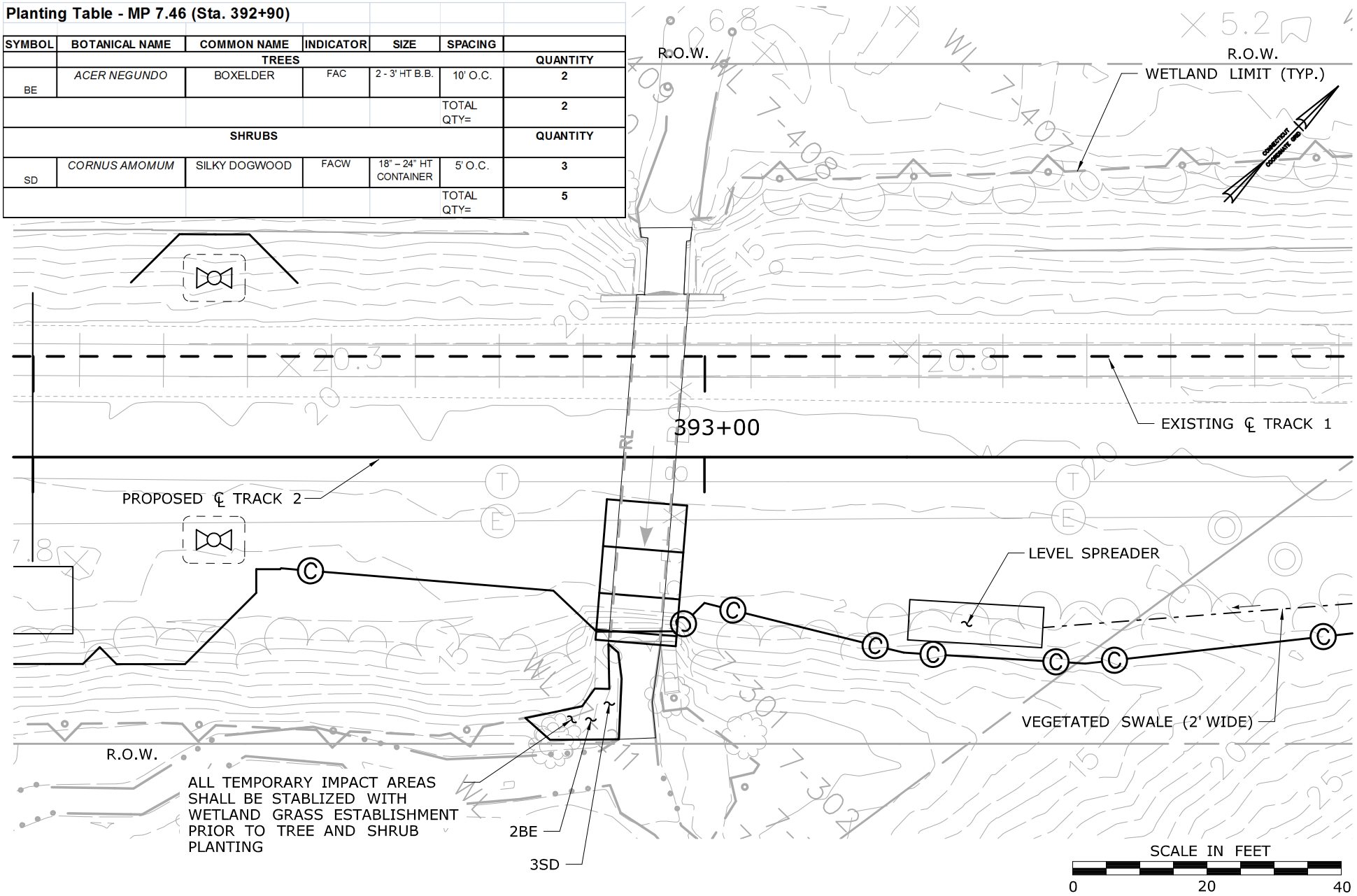
WETLAND ID No.
7-300 & 7-400

WATERCOURSE
UNNAMED BROOK

PLATE 1.2A OF 9.0A

Planting Table - MP 7.46 (Sta. 392+90)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	
		TREES				QUANTITY
BE	*ACER NEGUNDO*	BOXELDER	FAC	2 - 3' HT B.B.	10' O.C.	2
					TOTAL QTY=	2
		SHRUBS				QUANTITY
SD	*CORNUS AMOMUM*	SILKY DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	3
					TOTAL QTY=	5



PLANTING PLAN

UNNAMED BROOK
WETLAND ID 7-200, 7-300, & 7-400
MP 7.46
STA. 392+90

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

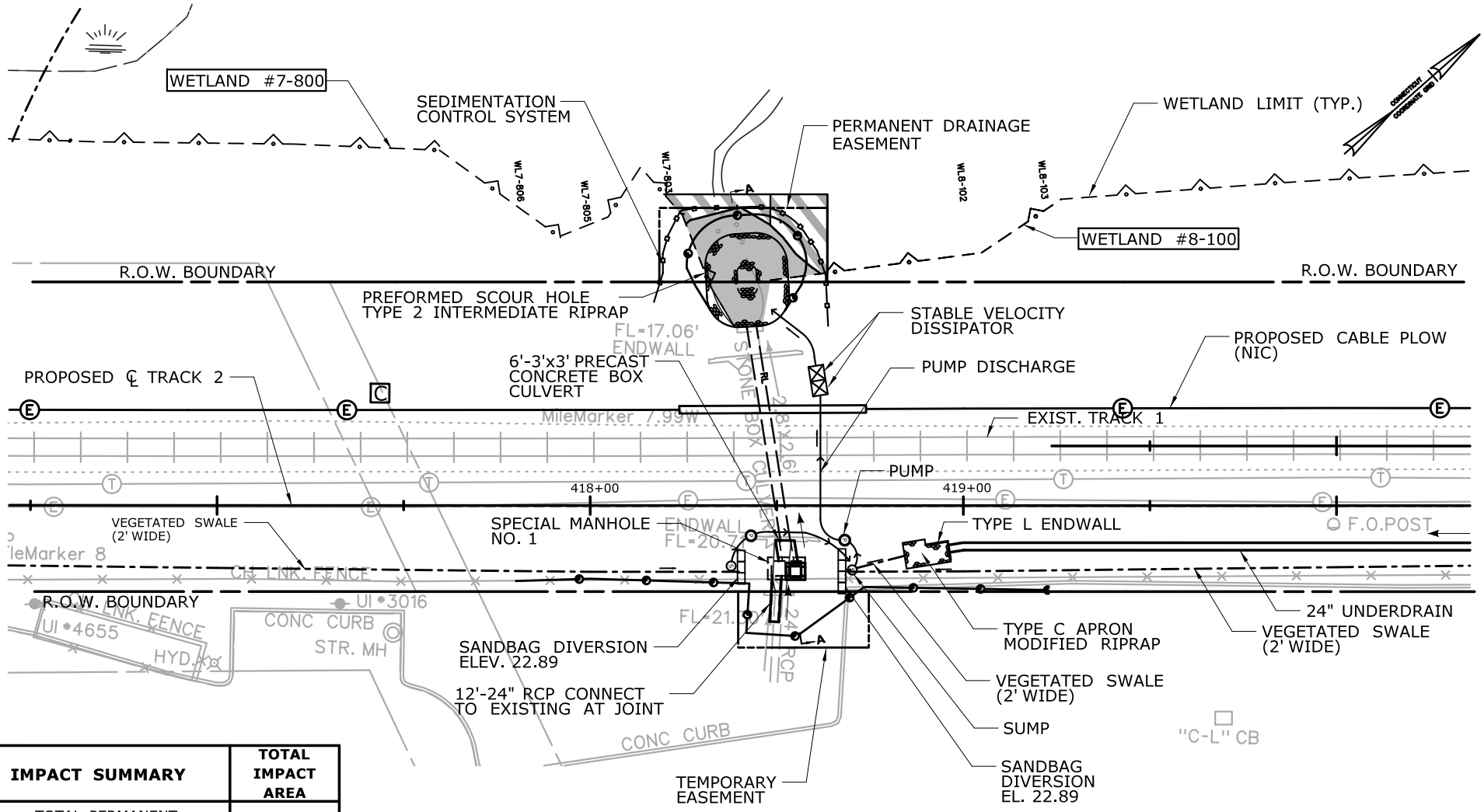
DATE:
OCT 2013

WETLAND ID No.7-200, 7-300, & 7-400

WATERCOURSE
UNNAMED BROOK

PLATE 1.3A OF 3.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_PER_Permit Plate 1.3A.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 7-800 IMPACT	505 S.F.
TOTAL TEMPORARY WETLAND 7-800 IMPACT	150 S.F.
TOTAL PERMANENT WETLAND 8-100 IMPACT	95 S.F.
TOTAL TEMPORARY WETLAND 8-100 IMPACT	245 S.F.

IMPACT PLAN

WETLAND ID 7-800 & 8-100
MP 7.99
STA. 418+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

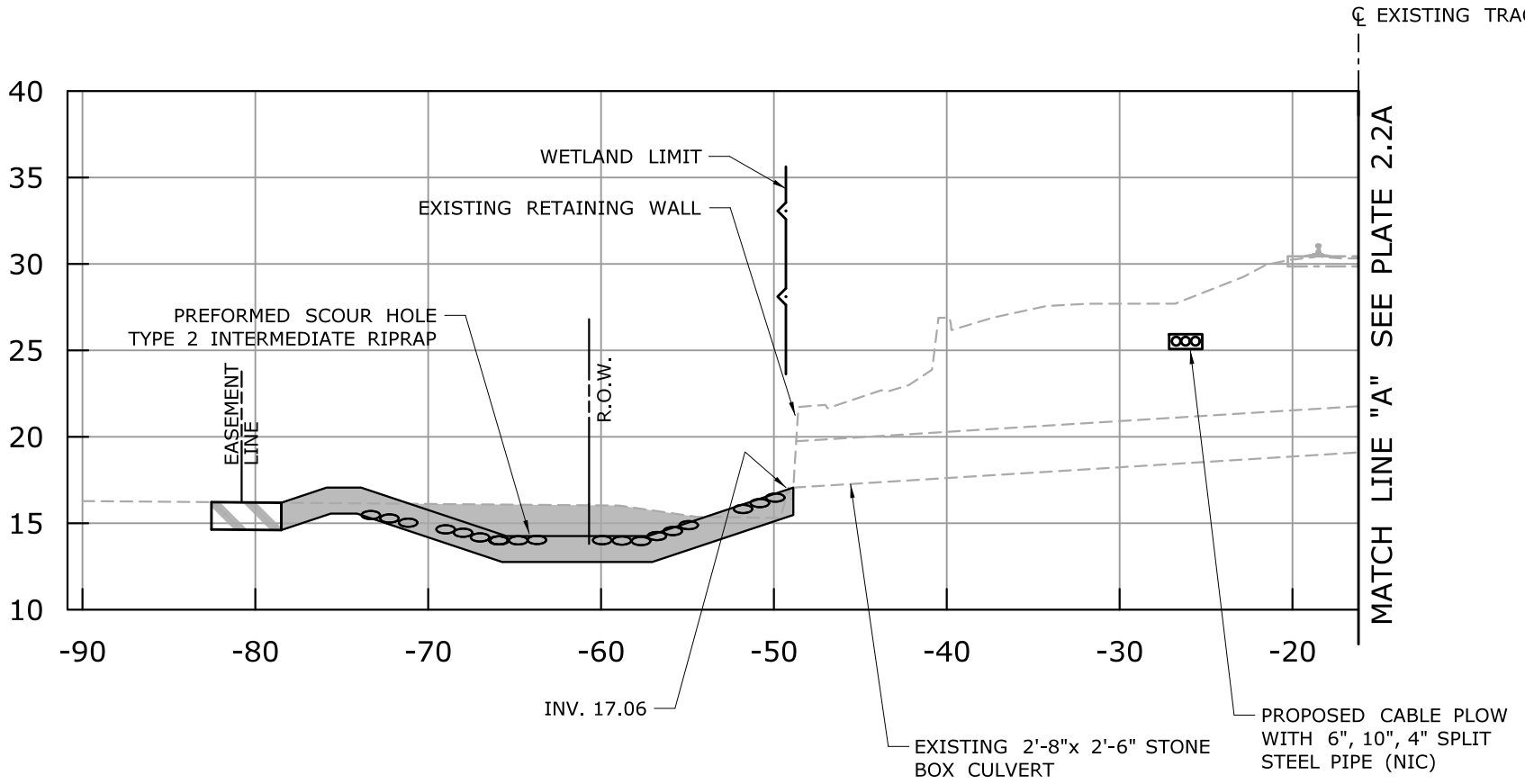
STV 100 Years

SCALE:1"=40'

DATE:
MARCH 2014
WETLAND ID No. 7-800
8-100

PLATE 2.0A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_MP 07.99-2.0A



SECTION A-A

SCALE IN FEET

0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_MP 07.99-2.1A

IMPACT SECTION

WETLAND ID 7-800 & 8-100
MP 7.99
STA. 418+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

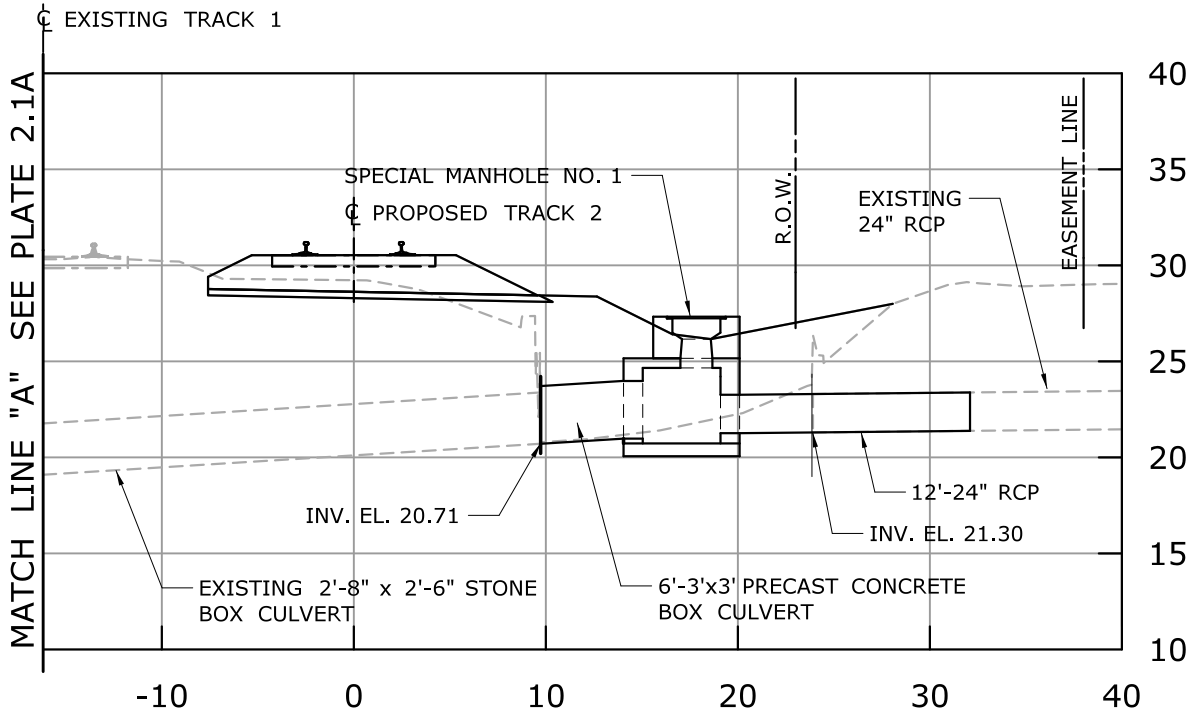
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

SCALE:1"=10'

DATE:
MARCH 2014
WETLAND ID No.7-800
8-100

PLATE 2.1A OF 9.0A



SECTION A-A

SCALE IN FEET

0 10 20

IMPACT SECTION

WETLAND ID 7-800 & 8-100
MP 7.99
STA. 418+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

SCALE:1"=10'

DATE:
MARCH 2014
WETLAND ID No.7-800
8-100

PLATE 2.2A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER__MP 07.99-2.2A

GENERAL NOTES

1. THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY BYPASS SUMP, PUMP AND FORCEMAIN AS SHOWN DURING CONSTRUCTION OF IMPROVEMENTS.

2. A DEWATERING PUMP DISCHARGE AREA SHALL BE ESTABLISHED TEMPORARILY INSIDE THE WETLAND LIMITS, USING A TEMPORARY DEWATERING SEDIMENTATION BASIN. THE LOCATION AND SIZE OF THE DISCHARGE BASIN IS APPROXIMATE. THE EXACT LOCATION MAY VARY BASED ON THE SIZE OF THE BASIN REQUIRED TO PROVIDE A STORAGE VOLUME CAPABLE OF RETAINING THE FIRST TWO HOURS OF THE PUMP DISCHARGE.

CONSTRUCTION SEQUENCE

THE FOLLOWING SEQUENCE SHALL BE FOLLOWED FOR THE CONSTRUCTION OF THE PROPOSED PIPE CULVERT, ENDWALLS AND RIPRAP SCOUR HOLE:

1. INSTALL COFFERDAM AND DEWATERING DEVICES AS SHOWN AND AS SITE CONDITIONS WARRANT.
2. INSTALL PREFORMED SCOUR HOLE TYPE 2.
3. INSTALL SPECIAL MANHOLE NO. 1.
4. INSTALL 24" RCP TO NEAREST JOINT. REMOVE EXISTING ENDWALL.
5. INSTALL 6'-3'x3' PRECAST CONCRETE BOX CULVERT.
6. REMOVE COFFERDAM AND DEWATERING DEVICES.
7. BACKFILL AND INSTALL TYPE C APRON MODIFIED RIPRAP.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.

2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.

3. TURF ESTABLISH ALL DISTURBED AREAS THAT ARE NOT RIPRAPED, ONCE FINAL SLOPES ARE ESTABLISHED. DISTURBED AREAS WHICH CURRENTLY HAVE A BALLAST SURFACE WILL HAVE NEW BALLAST REINSTALLED.

TEMPORARY HYDRAULIC DATA

AVERAGE DAILY FLOW	0.07 CFS
AVERAGE SPRING FLOW	0.14 CFS
2-YEAR FREQUENCY DISCHARGE	34.83 CFS
TEMPORARY DESIGN DISCHARGE	0.14 CFS
TEMPORARY DESIGN FREQUENCY	AVE. SPRING FLOW
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	21.89'
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	17.10'
TEMPORARY SANDBAG DIVERSION ELEVATION FOR AVERAGE SPRING FLOW	22.89'

CONSTRUCTION DETAILS
AND NOTES
WETLAND ID 7-800 & 8-100
MP 7.99
STA. 418+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

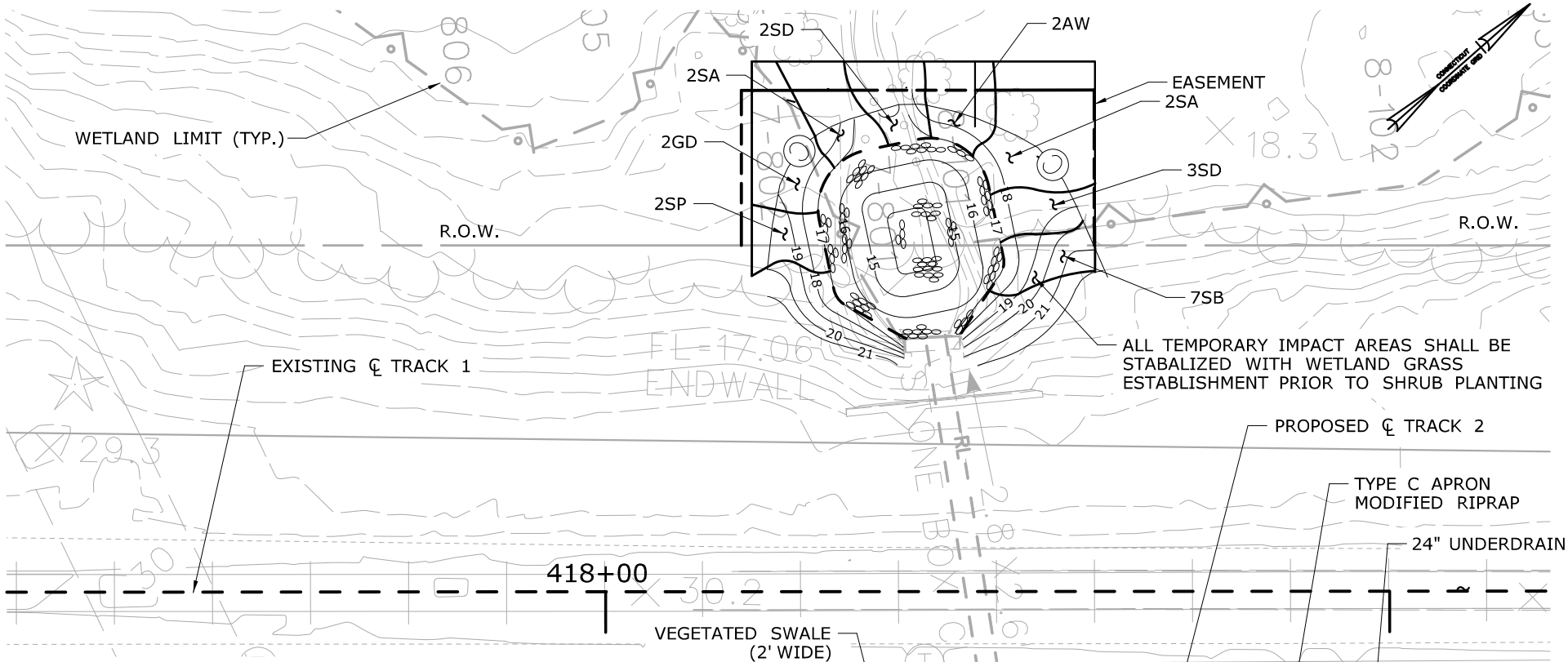
STV 100 Years

N.T.S.

DATE:
MARCH 2014
WETLAND ID No. 7-800
8-100

PLATE 2.3A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_MP 07.99-2.3A



Planting Table - MP 7.99 (Sta. 418+50)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	4
SB	*AMELANCHIER CANADENSIS*	SERVICEBERRY	FAC	4'-5' HT B.B.	5' O.C.	7
SP	*CLETHRA ALNIFOLIA*	SWEET PEPPERBUSH	FAC	2'-3' HT B.B.	5' O.C.	2
SD	*CORNUS AMOMUM*	SILKY DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	5
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	2
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	2
					TOTAL QTY=	22

PLANTING PLAN

WETLAND ID 7-800 & 8-100
MP 7.99
STA. 418+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

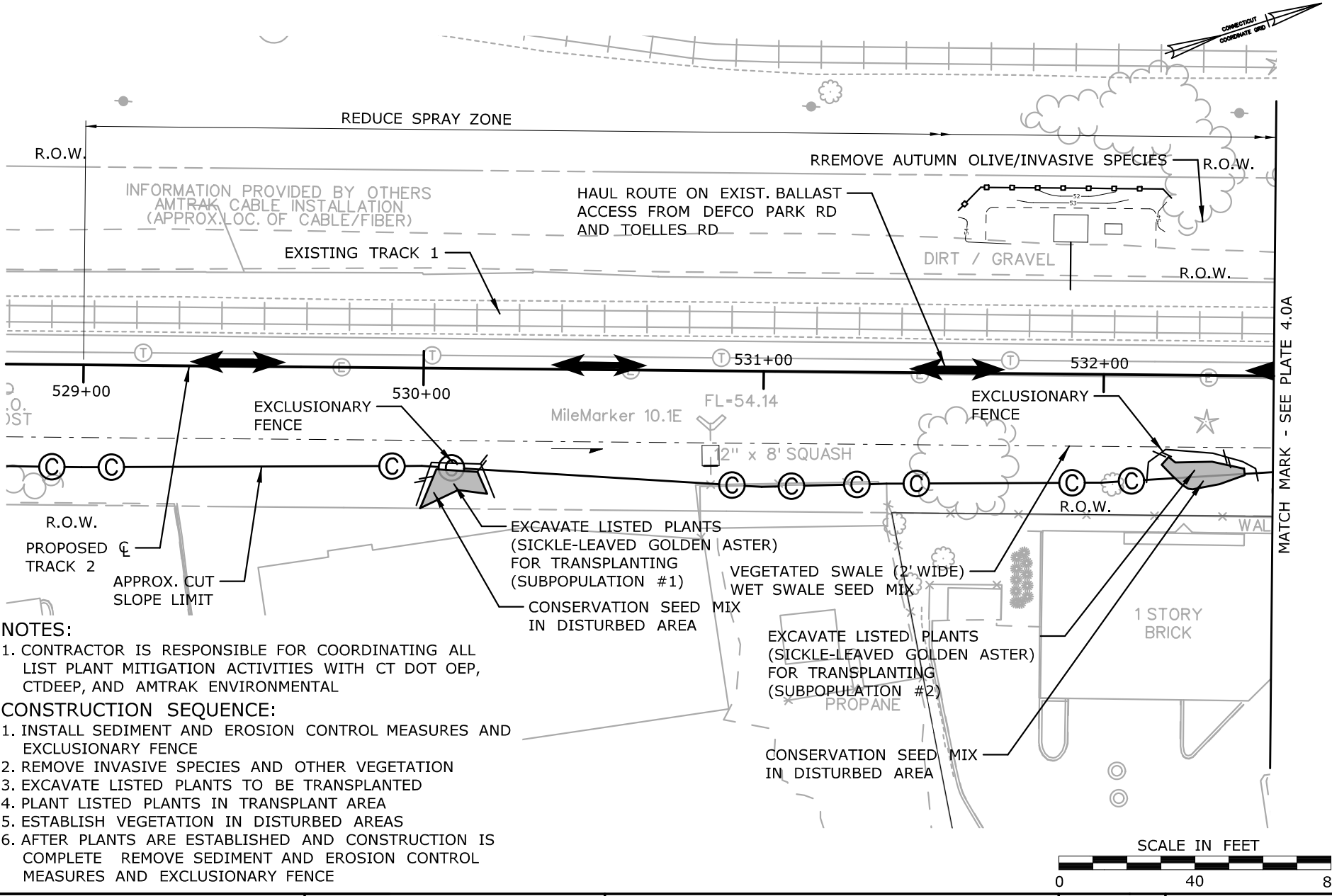
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.7-800 & 8-100

PLATE 2.4A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_Permit Plate 2.4A.dgn



NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL LIST PLANT MITIGATION ACTIVITIES WITH CT DOT OEP, CTDEEP, AND AMTRAK ENVIRONMENTAL

CONSTRUCTION SEQUENCE:

1. INSTALL SEDIMENT AND EROSION CONTROL MEASURES AND EXCLUSIONARY FENCE
2. REMOVE INVASIVE SPECIES AND OTHER VEGETATION
3. EXCAVATE LISTED PLANTS TO BE TRANSPLANTED
4. PLANT LISTED PLANTS IN TRANSPLANT AREA
5. ESTABLISH VEGETATION IN DISTURBED AREAS
6. AFTER PLANTS ARE ESTABLISHED AND CONSTRUCTION IS COMPLETE REMOVE SEDIMENT AND EROSION CONTROL MEASURES AND EXCLUSIONARY FENCE

MITIGATION PLAN

LISTED PLANT SPECIES

MP 10.11

STA. 529+00 - 538+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

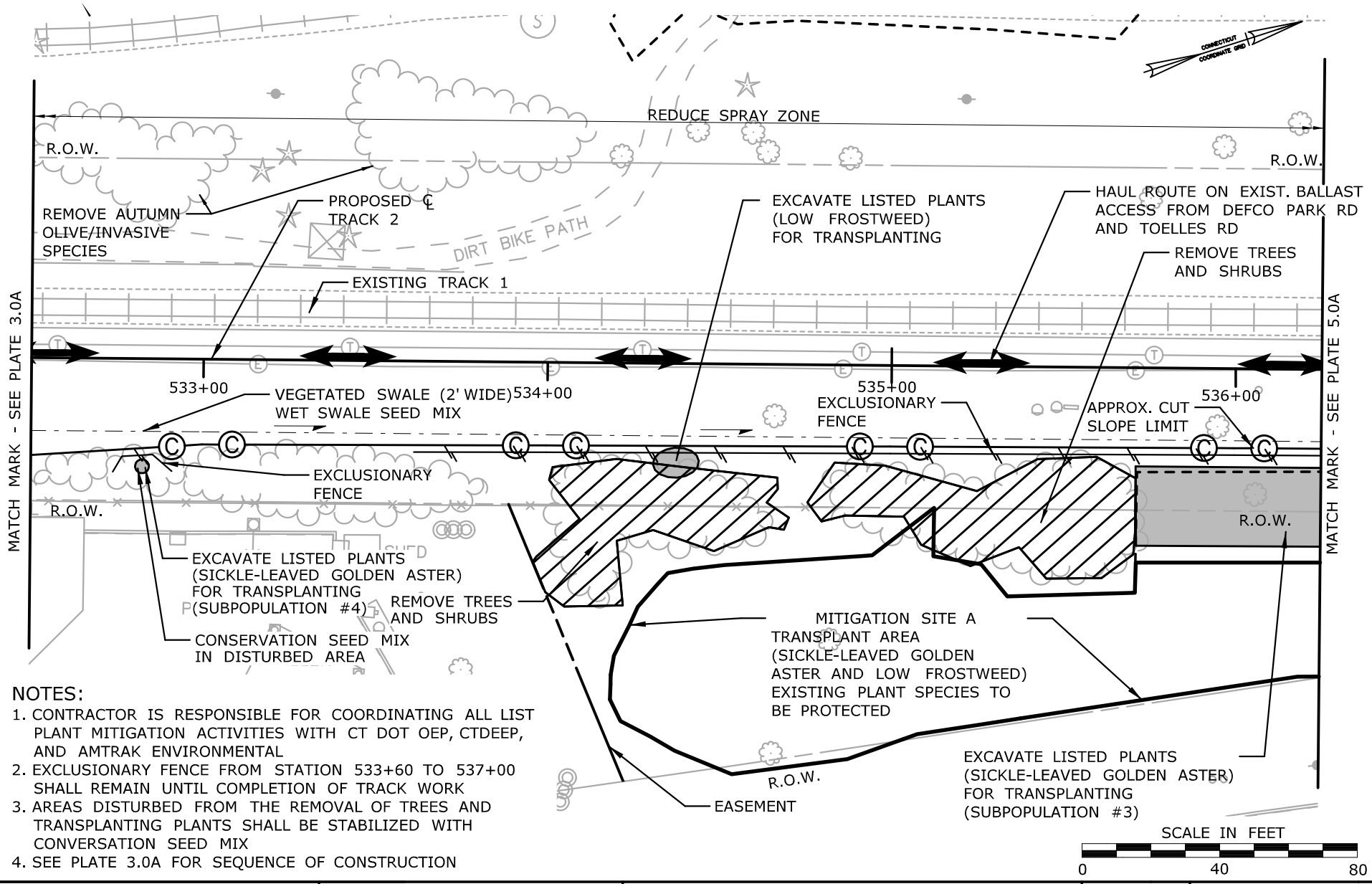
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DATE:
MAR 2014

LISTED SPECIES
MITIGATION
PLANTS

PLATE 3.0A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_Permit plate 3.0A.dgn



NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL LIST PLANT MITIGATION ACTIVITIES WITH CT DOT OEP, CTDEEP, AND AMTRAK ENVIRONMENTAL
2. EXCLUSIONARY FENCE FROM STATION 533+60 TO 537+00 SHALL REMAIN UNTIL COMPLETION OF TRACK WORK
3. AREAS DISTURBED FROM THE REMOVAL OF TREES AND TRANSPLANTING PLANTS SHALL BE STABILIZED WITH CONVERSATION SEED MIX
4. SEE PLATE 3.0A FOR SEQUENCE OF CONSTRUCTION

MITIGATION PLAN

LISTED PLANT SPECIES

MP 10.11

STA. 529+00 - 538+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

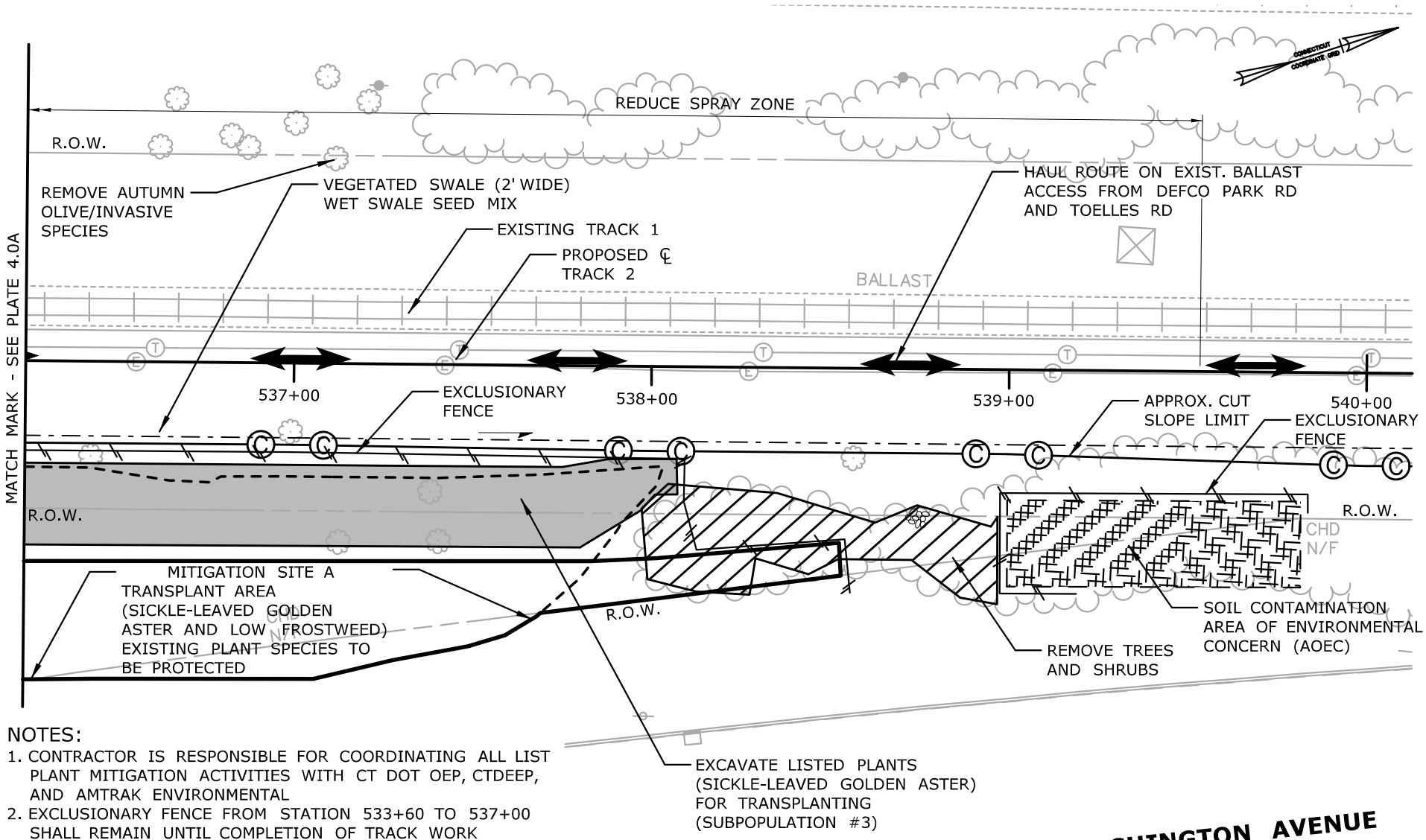
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DATE: MAR 2014

LISTED SPECIES MITIGATION PLANTS

PLATE 4.0A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_Permit Plate 4.0A.dgn



NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL LIST PLANT MITIGATION ACTIVITIES WITH CT DOT OEP, CTDEEP, AND AMTRAK ENVIRONMENTAL
2. EXCLUSIONARY FENCE FROM STATION 533+60 TO 537+00 SHALL REMAIN UNTIL COMPLETION OF TRACK WORK
3. AREAS DISTURBED FROM THE REMOVAL OF TREES AND TRANSPLANTING PLANTS SHALL BE STABILIZED WITH CONVERSATION SEED MIX
4. SEE PLATE 3.0A FOR SEQUENCE OF CONSTRUCTION

U.S. 5/WASHINGTON AVENUE

SCALE IN FEET

0 40 80

MITIGATION PLAN

LISTED PLANT SPECIES

MP 10.11

STA. 529+00 - 538+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

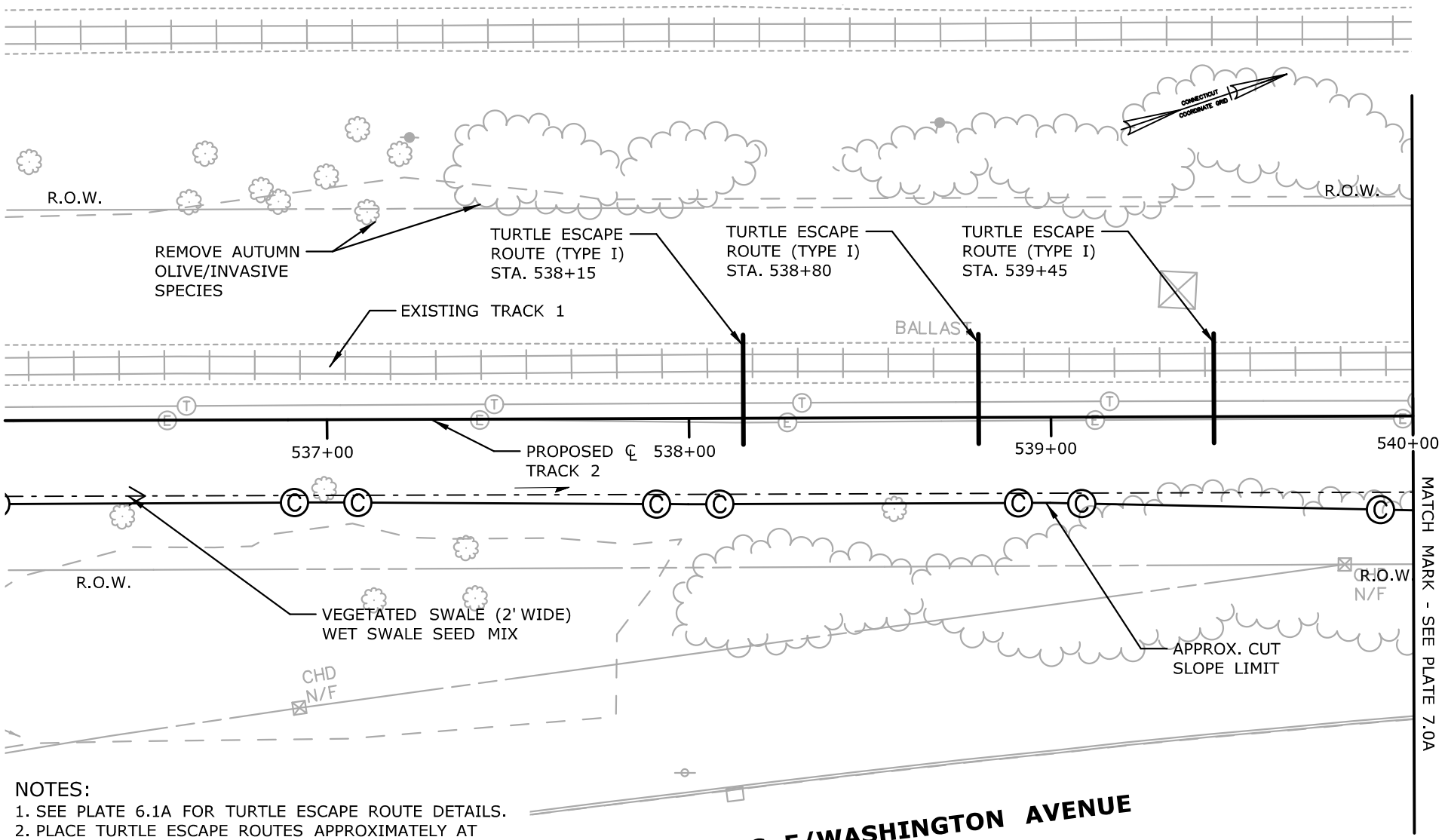
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DATE: MAR 2014

LISTED SPECIES MITIGATION PLANTS

PLATE 5.0A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_PER_Permit Plate 5.0A.dgn



NOTES:

1. SEE PLATE 6.1A FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM DEFCO PARK RD AND TOELLES RD

MITIGATION PLAN

EASTERN BOX TURTLE

MP 10.41

STA. 538+00 TO 551+50

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

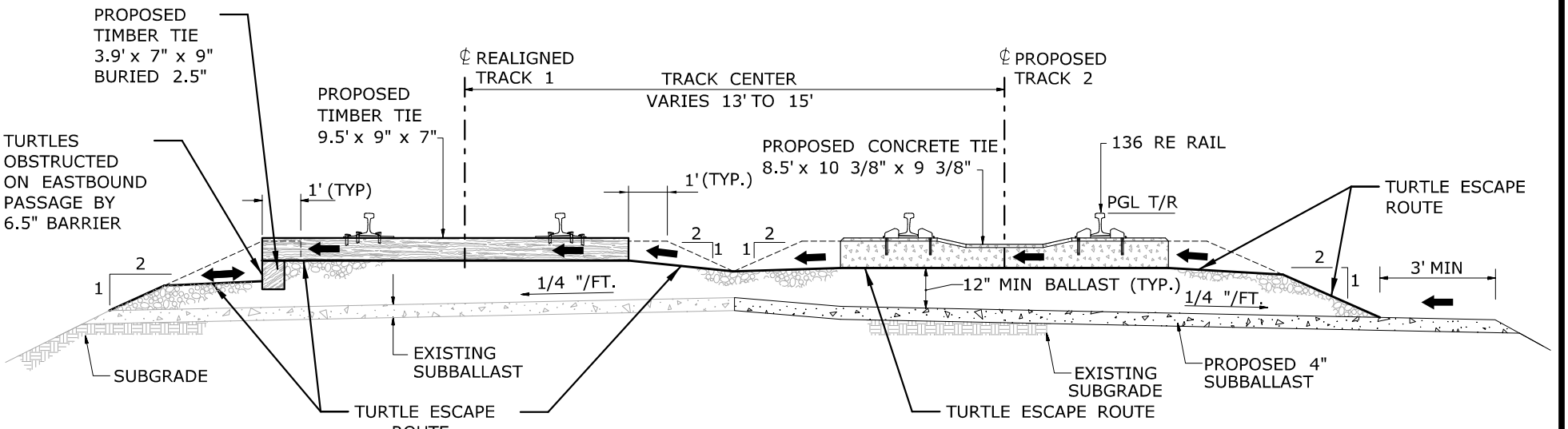
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DATE: MAR 2014

LISTED SPECIES MITIGATION EASTERN BOX TURTLE

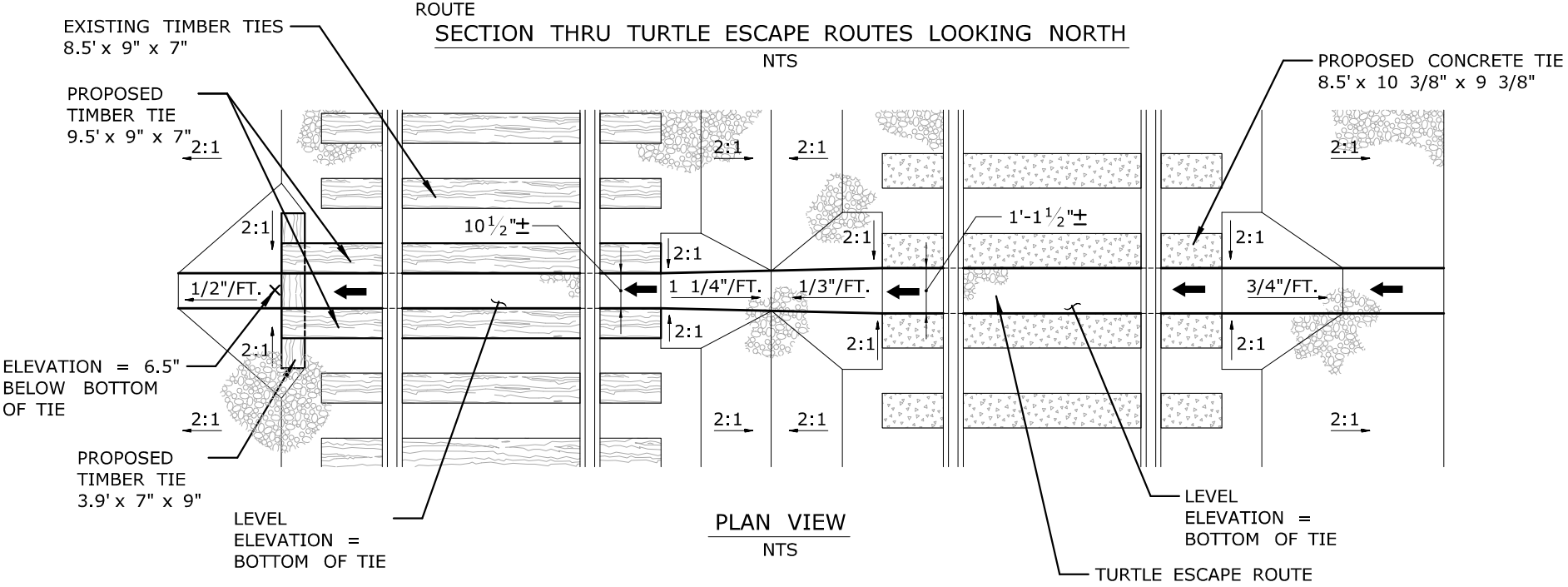
PLATE 6.0A OF 5.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_Permit plate 6.0A.dgn



SECTION THRU TURTLE ESCAPE ROUTES LOOKING NORTH

NTS

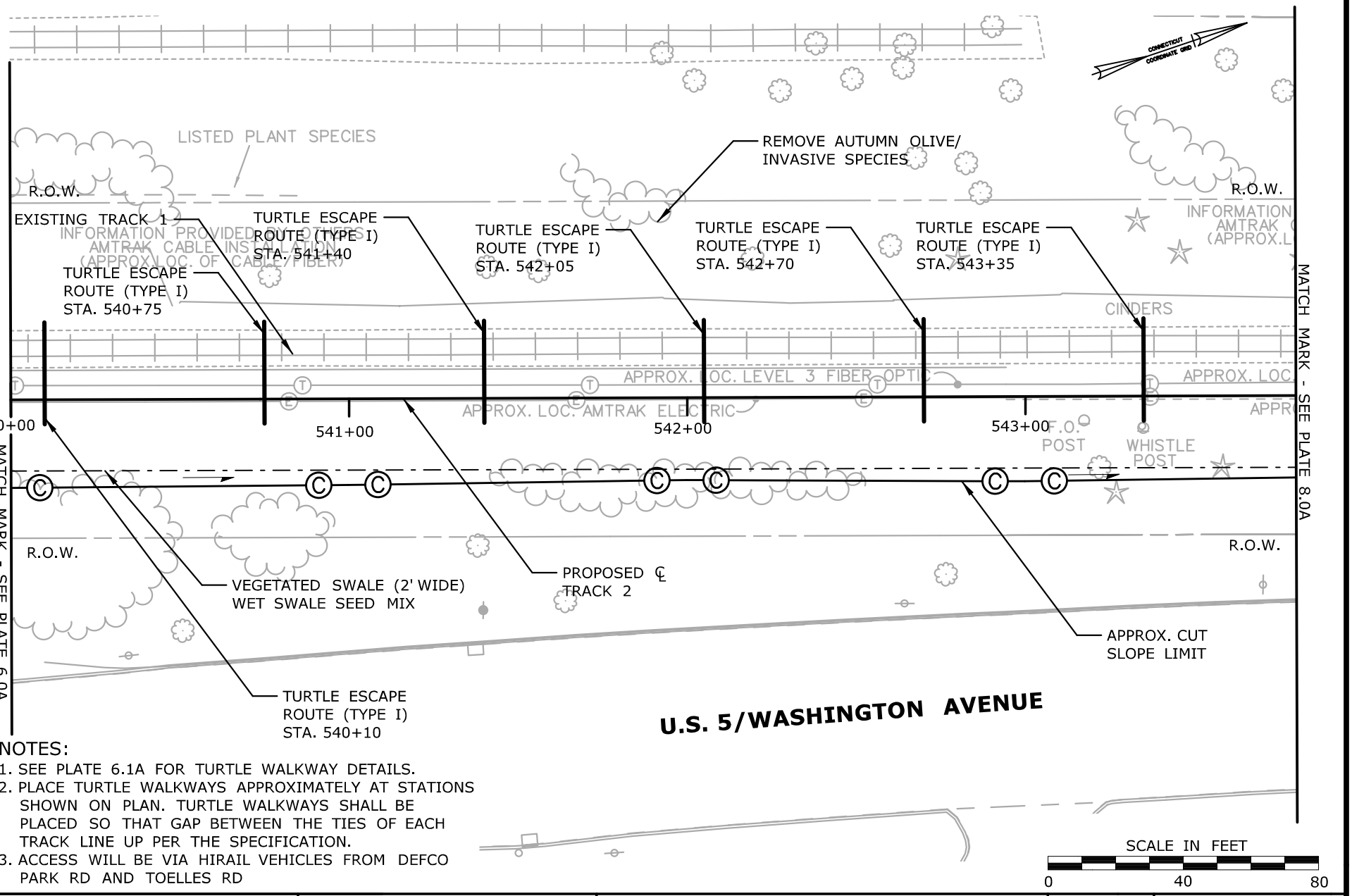


PLAN VIEW

NTS

TURTLE ESCAPE ROUTE TYPE I LISTED SPECIES MITIGATION MP 10.41 STA. 538+00 - 551+50	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: NEW HAVEN CITY/TOWN: WALLINGFORD	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	PARSONS BRINCKERHOFF SCALE:NTS	DATE: MAR 2014 LIST SPECIES MITIGATION EASTERN BOX TURTLE PLATE 6.1A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_PER_Permit Plate 6.1A.dgn



NOTES:

1. SEE PLATE 6.1A FOR TURTLE WALKWAY DETAILS.
2. PLACE TURTLE WALKWAYS APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE WALKWAYS SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM DEFCO PARK RD AND TOELLES RD

SCALE IN FEET

0 40 80

MITIGATION PLAN

EASTERN BOX TURTLE

MP 10.41

STA. 538+00 TO 551+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

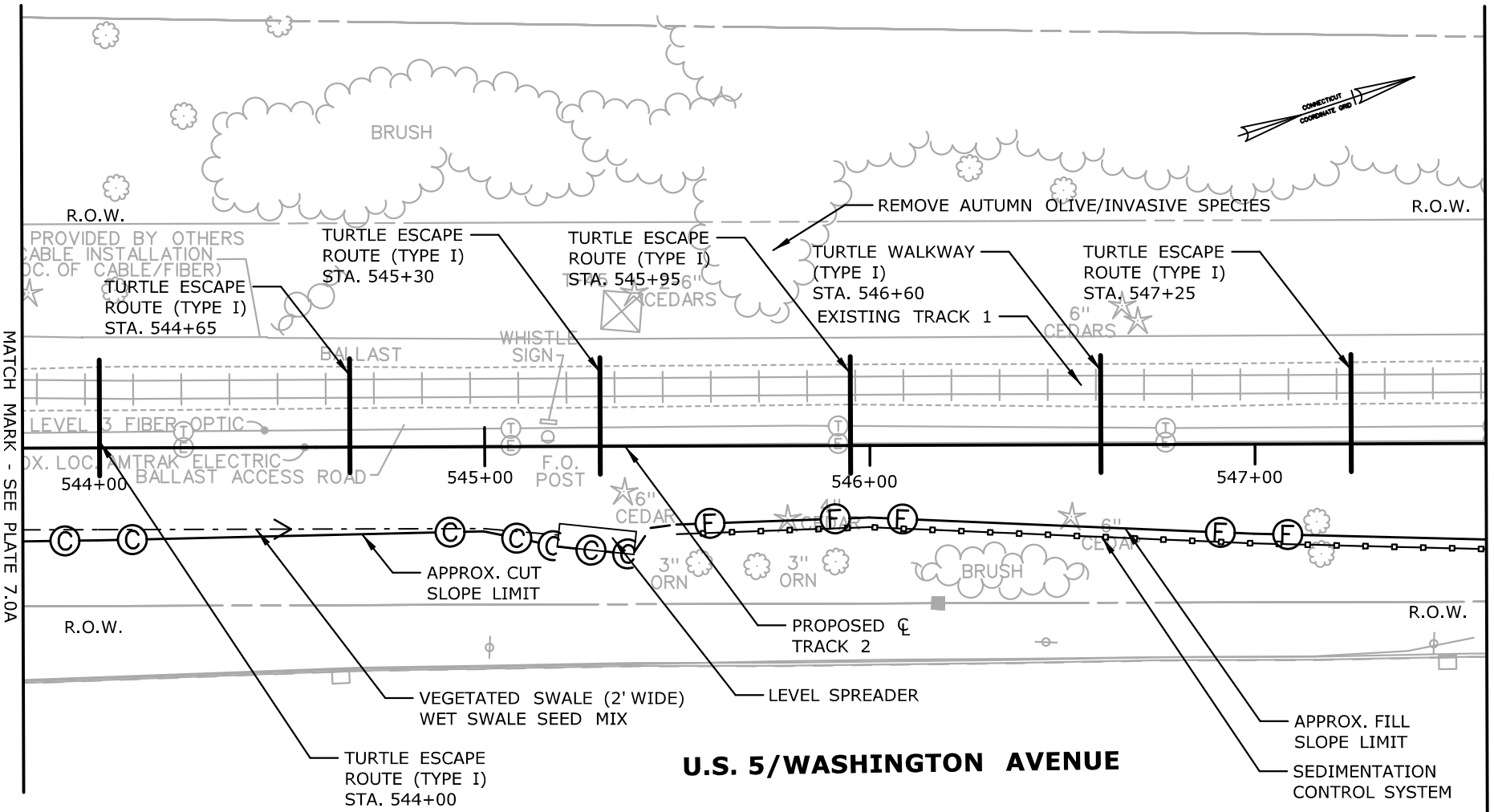
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DATE:
MAR 2014

LISTED SPECIES
MITIGATION
EASTERN BOX TURTLE

PLATE 7.0A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_PER_Permit plate 7.0A.dgn



NOTES:

1. SEE PLATE 6.1A FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM DEFCO PARK RD AND TOELLES RD

SCALE IN FEET

0 40 80

MITIGATION PLAN

EASTERN BOX TURTLE

MP 10.41

STA. 538+00 TO 551+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

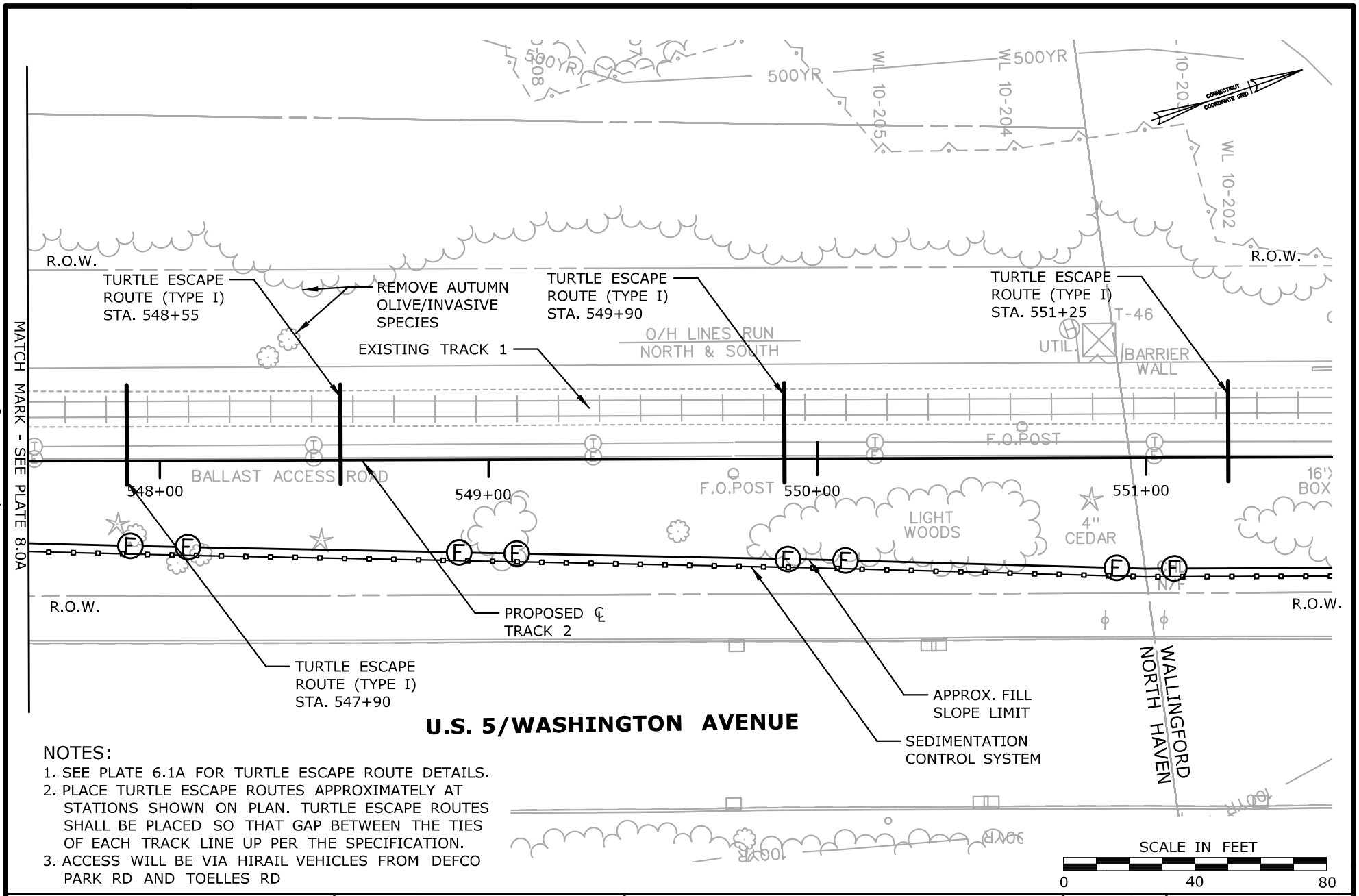
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DATE:
MAR 2014

LISTED SPECIES
MITIGATION
EASTERN BOX TURTLE

PLATE 8.0A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_PER_Permit plate 8.0A.dgn



NOTES:

1. SEE PLATE 6.1A FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM DEFCO PARK RD AND TOELLES RD

MITIGATION PLAN

EASTERN BOX TURTLE

MP 10.41

STA. 538+00 TO 551+50

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN/ WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

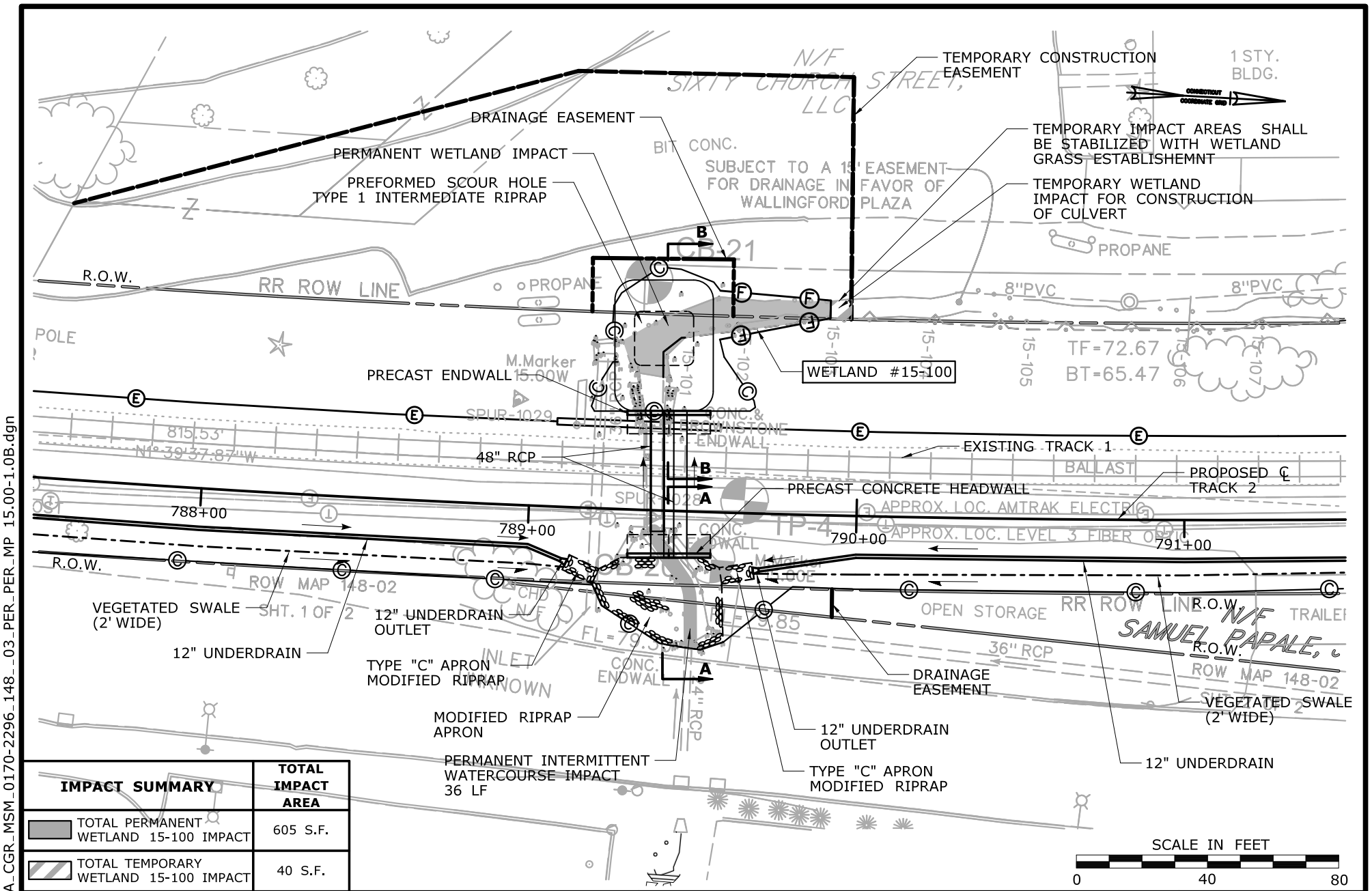
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DATE: MAR 2014

LISTED SPECIES MITIGATION
EASTERN BOX TURTLE

PLATE 9.0A OF 9.0A

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_PER_Permit plate 9.0A.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 15-100 IMPACT	605 S.F.
TOTAL TEMPORARY WETLAND 15-100 IMPACT	40 S.F.

IMPACT PLAN
WETLAND ID 15-100
MP 15.00
STA. 789+40

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

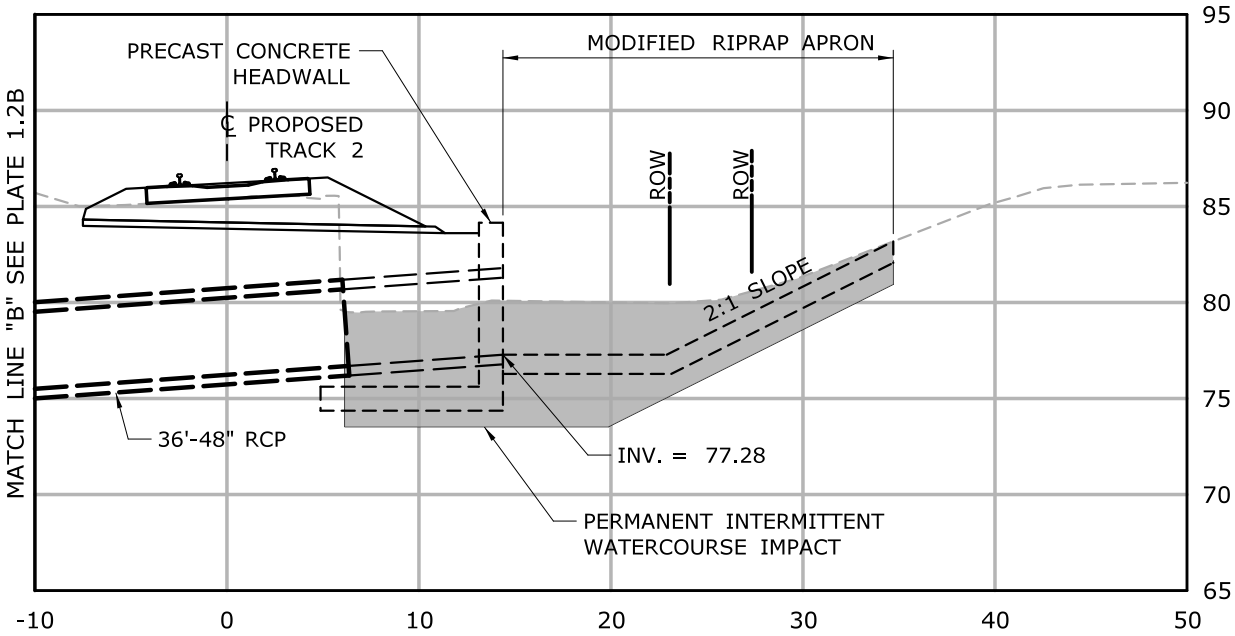
STV 100 years

SCALE:1"=40'

DATE: MARCH 2014
WETLAND ID No. 15-100

PLATE 1.0B OF 9.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_MP 15.00-1.0B.dgn



SECTION A-A

SCALE IN FEET

0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_PER_MP 15.00-1.1B.dgn

IMPACT SECTION

WETLAND ID 15-100
MP 15.00
STA. 789+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

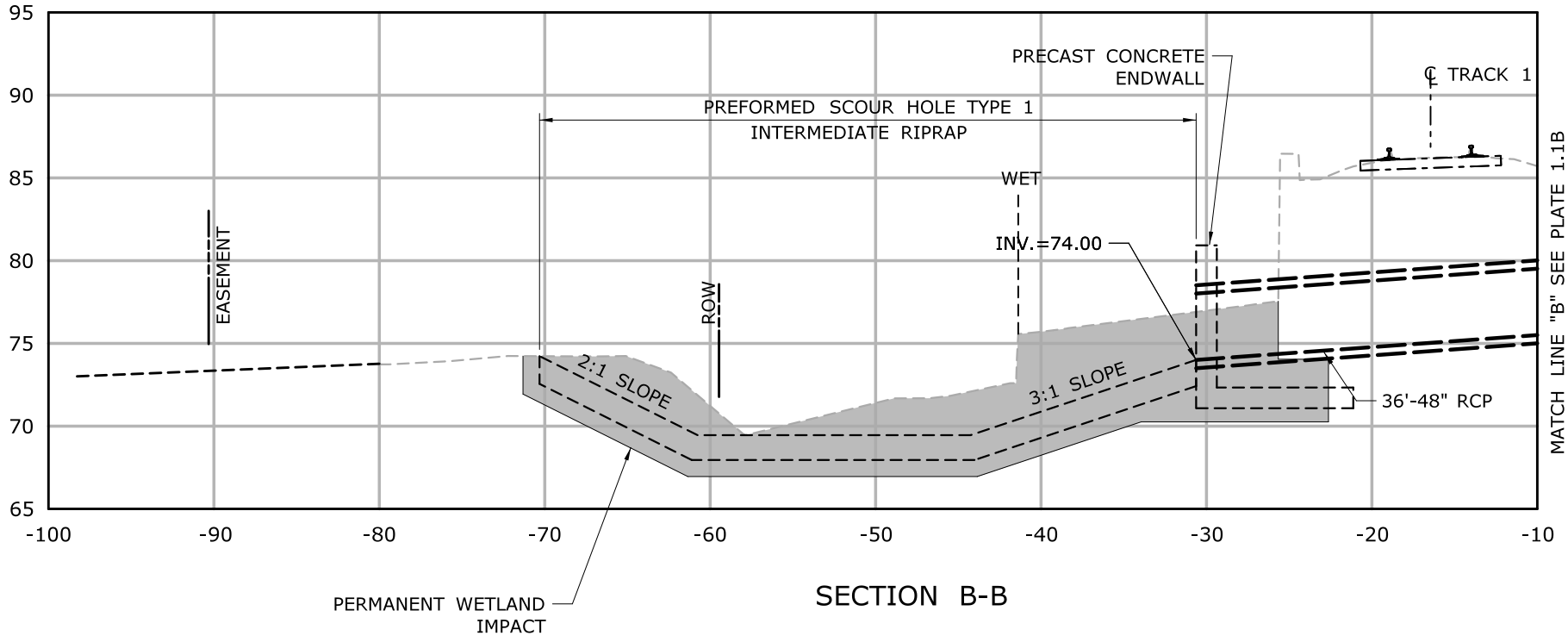
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

SCALE:1"=10'

DATE:
MARCH 2014
WETLAND ID No.
15-100

PLATE 1.1B OF 9.1B



SECTION B-B

SCALE IN FEET

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Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_PER_MP 15.00-1.2B.dgn

IMPACT SECTION

WETLAND ID 15-100
MP 15.00
STA. 789+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

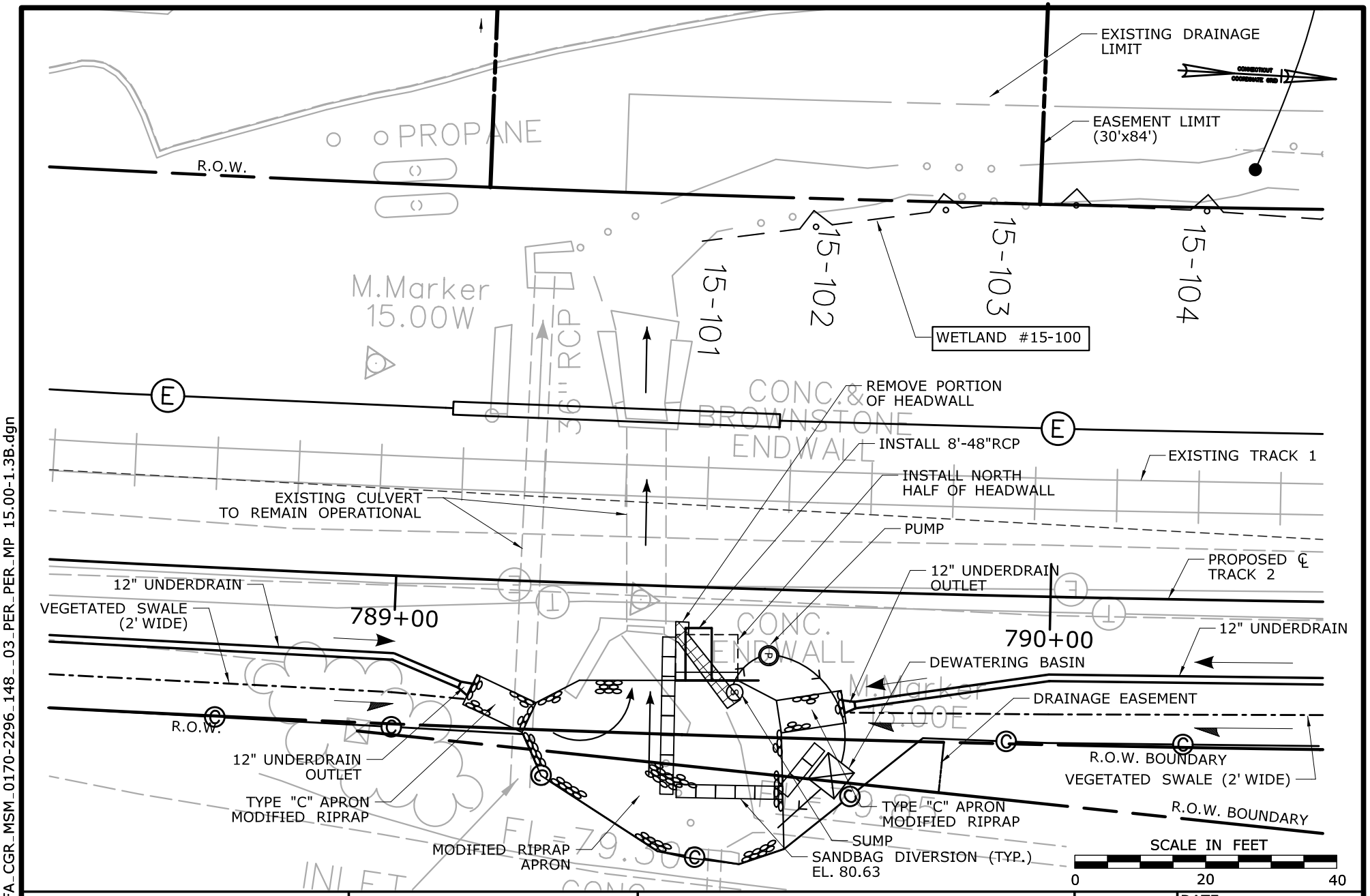
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

SCALE:1"=10'

DATE:
MARCH 2014
WETLAND ID No.
15-100

PLATE 1.2B OF 9.1B



STAGE 1

CONSTRUCTION PLAN

WETLAND ID 15-100

MP 15.00

STA. 789+40

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

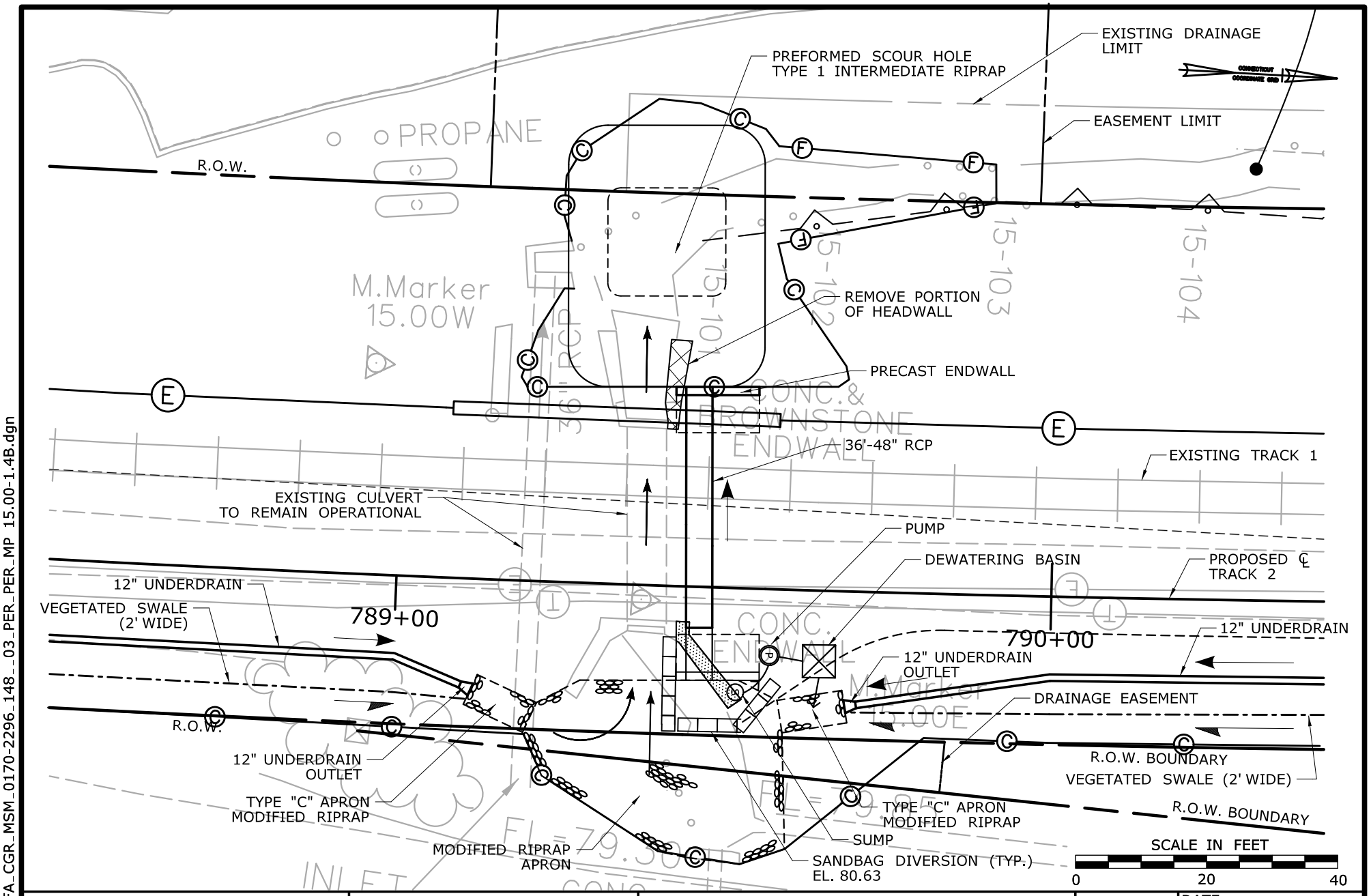
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DATE: MARCH 2014

WETLAND ID No. 15-100

PLATE 1.3B OF 9.1B

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STAGE 2

CONSTRUCTION PLAN

WETLAND ID 15-100
MP 15.00
STA. 789+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

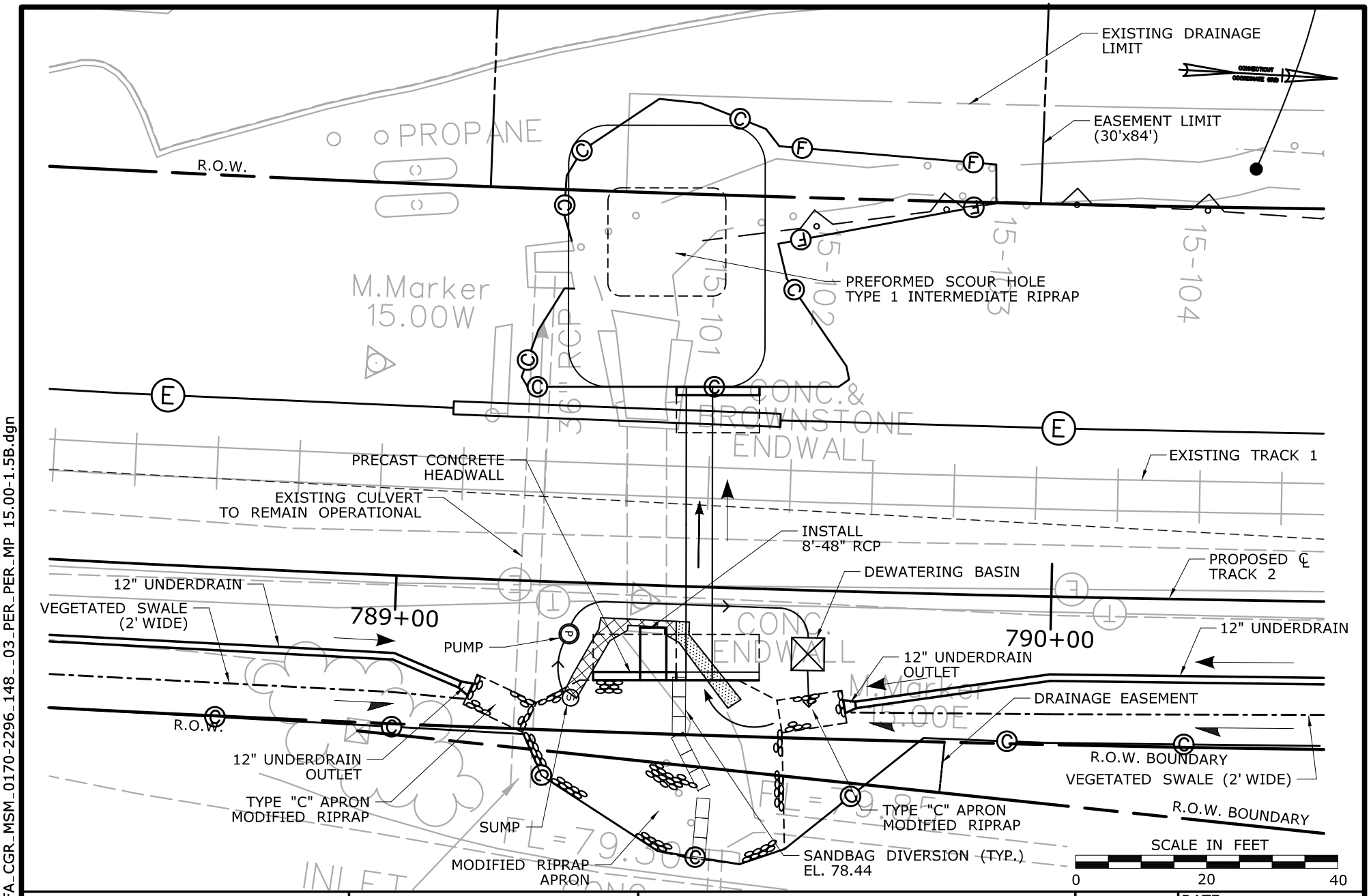
STV 100 Years

SCALE:1"=20'

DATE:
MARCH 2014
WETLAND ID No.
15-100

PLATE 1.4B OF 9.1B

Filename: ...\FA_CGR_MSM_0170-2296_148__03_PER_MP 15.00-1.4B.dgn



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STAGE 3

CONSTRUCTION PLAN

WETLAND ID 15-100
MP 15.00
STA. 789+40

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

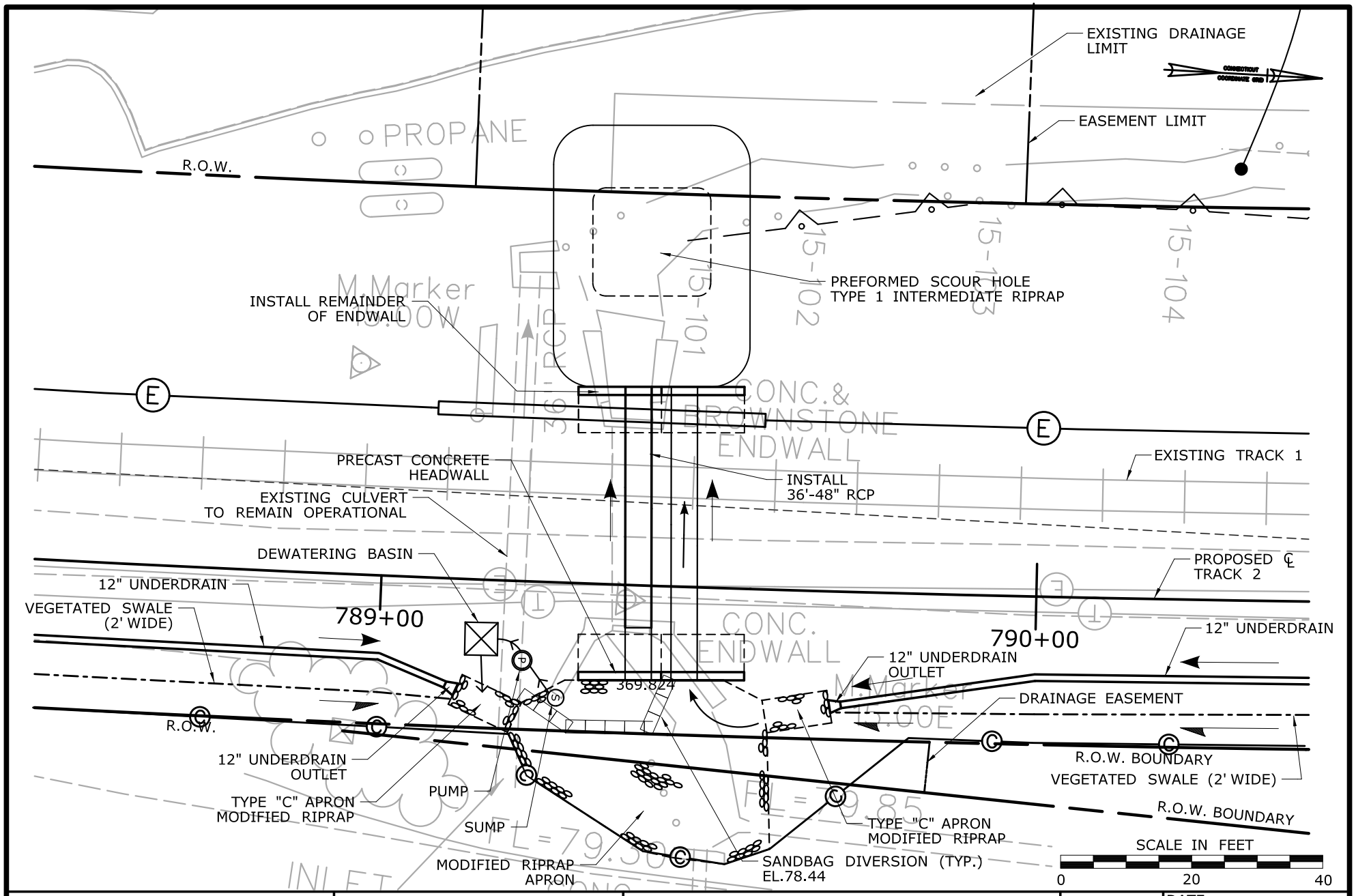
STV 100 Years

SCALE:1"=20'

DATE: MARCH 2014

WETLAND ID No. 15-100

PLATE 1.5B OF 9.1B



STAGE 4

CONSTRUCTION PLAN

WETLAND ID 15-100

MP 15.00

STA. 789+40

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

SCALE:1"=20'

DATE: MARCH 2014

WETLAND ID No. 15-100

PLATE 1.6B OF 9.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_MP 15.00-1.6B

GENERAL NOTES

1. THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY BYPASS SUMP, PUMP AND FORCEMAIN AS SHOWN DURING CONSTRUCTION OF THE NEW CULVERT.

2. A DEWATERING PUMP DISCHARGE AREA SHALL BE ESTABLISHED OUTSIDE OF THE WETLAND LIMITS, USING A TEMPORARY DEWATERING SEDIMENTATION BASIN. THE LOCATION AND SIZE OF THE DISCHARGE BASIN IS APPROXIMATE. THE EXACT LOCATION MAY VARY BASED ON THE SIZE OF THE BASIN REQUIRED TO PROVIDE A STORAGE VOLUME CAPABLE OF RETAINING THE FIRST TWO HOURS OF THE PUMP DISCHARGE.

CONSTRUCTION SEQUENCE

THE FOLLOWING SEQUENCE SHALL BE FOLLOWED FOR THE CONSTRUCTION OF THE PROPOSED PIPE CULVERT, ENDWALLS, RIPRAP SCOUR HOLE AND RIPRAP APRON:

STAGE 1
1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. INSTALL MODIFIED RIPRAP APRON AS SHOWN.
3. PROPOSED DRAINAGE SWALES, UNDERDRAINS AND TYPE C RIPRAP APRONS TO THE NORTH AND SOUTH CAN BE INSTALLED AS SCHEDULE WARRANTS.
4. REMOVE NORTHERN WINGWALL AND PORTIONS OF HEADWALL AS REQUIRED FOR THE INSTALLATION OF THE NORTHERN BARREL AND HEADWALL.
5. INSTALL 8 L.F. OF 48" RCP CLASS V.

STAGE 2
1. CHECK AND MAINTAIN COFFERDAM AND DEWATERING DEVICES INSTALLED IN STAGE 1 THAT ARE TO REMAIN.
2. CHECK AND REPAIR MODIFIED RIPRAP APRON, (INLET) FOR DAMAGE THAT MAY HAVE OCCURED DUE TO CONSTRUCTION ACTIVITIES.
3. INSTALL PORTION OF ENDWALL REMOVING PORTIONS OF ENDWALLS AND WINGWALLS AS WARRANTED FOR CONSTRUCTION.
4. INSTALL 36 L.F. OF 48" RCP. CLASS V.

STAGE 3
1. WHILE STAGE 2 COFFERDAM AND DEWATERING DEVICES ARE STILL OPERATIONAL, INSTALL PREFORMED SCOUR HOLE REMOVING PORTIONS OF ENDWALLS AND WINGWALLS AS WARRANTED FOR CONSTRUCTION. IN ORDER TO INSTALL THE PREFORMED SCOUR HOLE IN THE "DRY", THE CONTRACTOR MAY BLOCK THE EXISTING NORTHERN CONDUIT TEMPORARILY DURING THAT WORK SHIFT. THE EXISTING FLOW SHALL BE PUMPED TO THE NORTH OF THE PROPOSED PREFORMED SCOUR HOLE. A STABLE VELOCITY DISSIPATOR SHALL BE INSTALLED BEFORE THE POINT OF DISCHARGE. THE CONTRACTOR MAY ALSO BLOCK THE EXISTING SOUTHERN CONDUIT TEMPORARILY DURING THAT WORK SHIFT. THE EXISTING FLOW SHALL BE PUMPED TO THE NORTH OF THE PROPOSED PREFORMED SCOUR HOLE. A STABLE VELOCITY DISSIPATOR SHALL BE INSTALLED BEFORE THE POINT OF DISCHARGE. THE FLOW THROUGH THESE TWO CULVERTS MUST BE RESTORED BY THE END OF THE WORK SHIFT TO MATCH CONDITIONS SHOWN ON DRAWING NO. UTD-205.
2. CHECK AND MAINTAIN COFFERDAM AND DEWATERING DEVICES INSTALLED IN PREVIOUS STAGES THAT ARE TO REMAIN.
3. CHECK AND REPAIR MODIFIED RIPRAP APRON (INLET) FOR DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ACTIVITIES.
4. INSTALL COFFERDAM AND DEWATERING DEVICES.
5. REMOVE REMAINDER OF EXISTING HEADWALL AND PORTIONS OF EXISTING CULVERT.
6. INSTALL REMAINDER OF HEADWALL.
7. INSTALL 8 L.F. OF 48" RCP CLASS V.

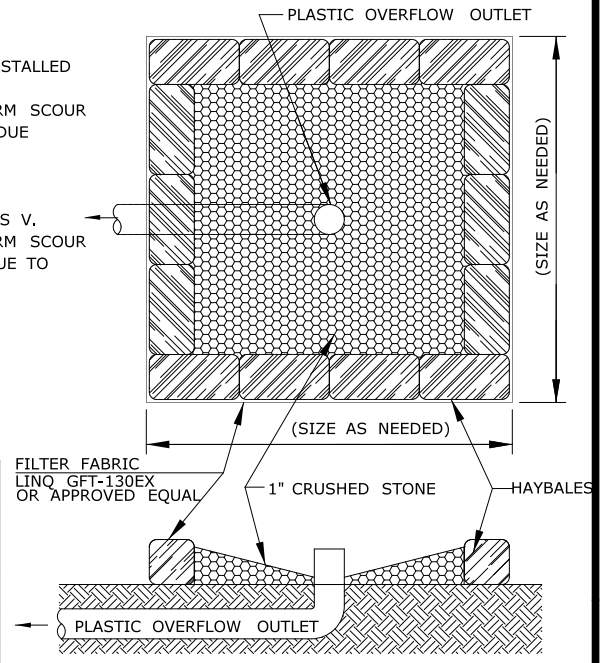
STAGE 4
1. CHECK AND MAINTAIN COFFERDAM AND DEWATERING DEVICES INSTALLED IN PREVIOUS STAGES THAT ARE TO REMAIN.
2. CHECK AND REPAIR MODIFIED RIPRAP APRON (INLET) AND PREFORM SCOUR HOLE TYPE 1 (OUTLET) FOR DAMAGE THAT MAY HAVE OCCURED DUE CONSTRUCTION ACTIVITIES.
3. REMOVE REMAINDER OF EXISTING ENDWALL.
4. INSTALL REMAINDER OF ENDWALL.
5. REMOVE EXISTING CULVERT AND INSTALL 36 L.F. OF 48" RCP CLASS V.
6. CHECK AND REPAIR MODIFIED RIPRAP APRON (INLET) AND PREFORM SCOUR HOLE TYPE 1 (OUTLET) FOR DAMAGE THAT MAY HAVE OCCURED DUE TO CONSTRUCTION ACTIVITIES.
7. REMOVE COFFERDAM AND DEWATERING DEVICES.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.

2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.

3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED. DISTURBED AREAS WHICH CURRENTLY HAVE A BALLAST SURFACE WILL HAVE NEW BALLAST REINSTALLED.



TEMPORARY HYDRAULIC DATA

TEMPORARY SANDBAG DIVERSION ELEVATION STAGES 1 AND 2 FOR AVERAGE SPRING FLOW	80.63
TEMPORARY SANDBAG DIVERSION ELEVATION STAGES 3 AND 4 FOR AVERAGE SPRING FLOW	78.44
AVERAGE DAILY FLOW	0.30 CFS
AVERAGE SPRING FLOW	0.58 CFS
2-YEAR FREQUENCY DISCHARGE	23.7 CFS
TEMPORARY DESIGN DISCHARGE	0.58 CFS
TEMPORARY DESIGN FREQUENCY	AVE. SPRING FLOW
TEMPORARY WATER SURFACE ELEVATION UPSTREAM STAGES 1 AND 2	79.63'
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM STAGES 1 AND 2	78.99'
TEMPORARY WATER SURFACE ELEVATION UPSTREAM STAGES 3 AND 4	77.44'
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM STAGES 3 AND 4	70.06

NOTES:

1. THE SIZE AND DEPTH OF THE BASIN SHALL BE DETERMINED BY THE CONTRACTOR'S ENGINEER. THE BASIN MUST BE SIZED TO PROVIDE STORAGE VOLUME CAPABLE OF RETAINING THE FIRST TWO HOURS OF THE PUMP DISCHARGE.

TEMPORARY DEWATERING SEDIMENTATION BASIN

CONSTRUCTION DETAILS AND NOTES
WETLAND ID 15-100
MP 15.00
STA. 789+40

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

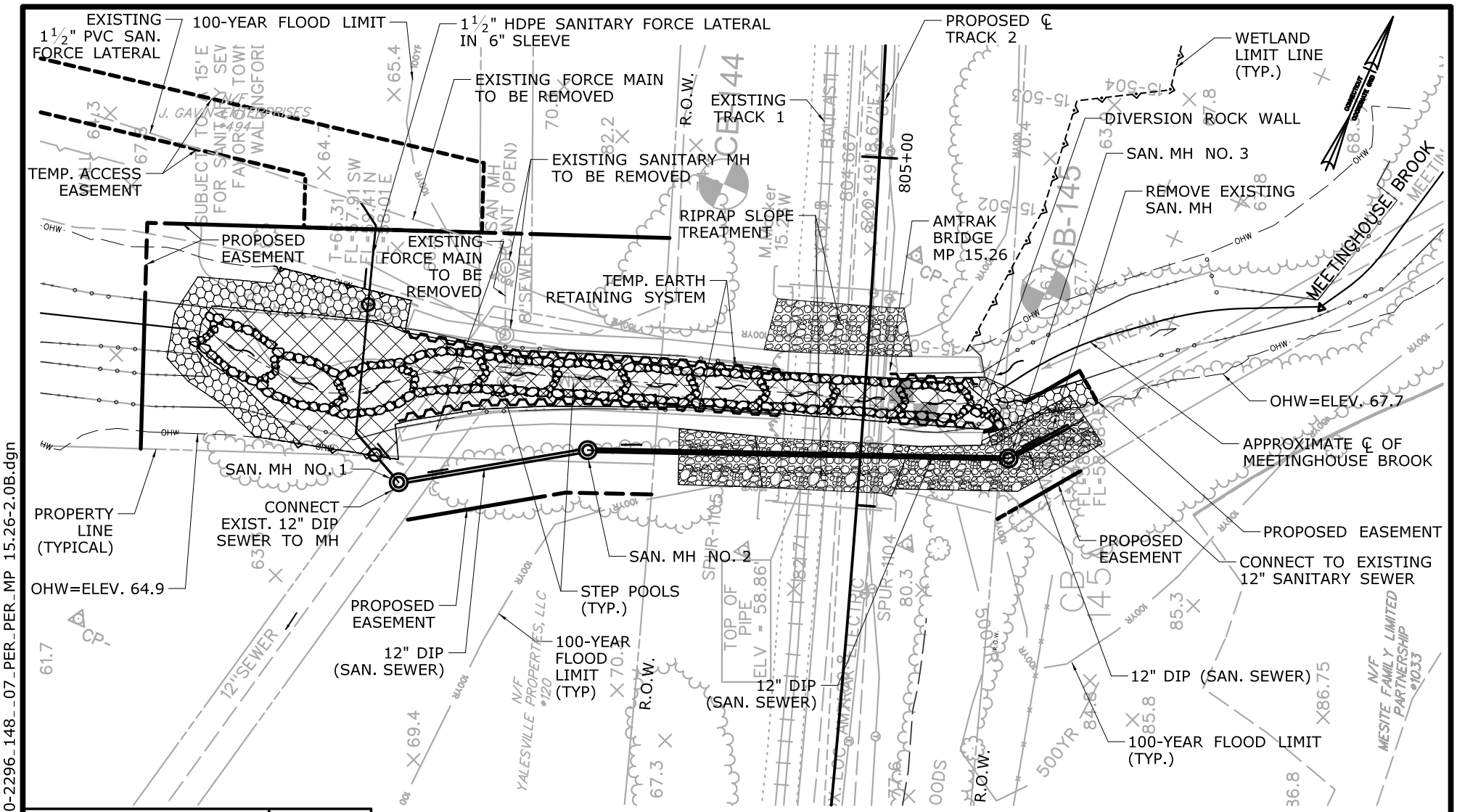
N.T.S.

DATE: MARCH 2014

WETLAND ID No. 15-100

PLATE 1.7B OF 9.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_MP 15.00-1.7B



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	4,315 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	1,290 S.F.

IMPACT PLAN

MEETINGHOUSE BROOK/FALLS BROOK

MP 15.26

STA. 804+40

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 years

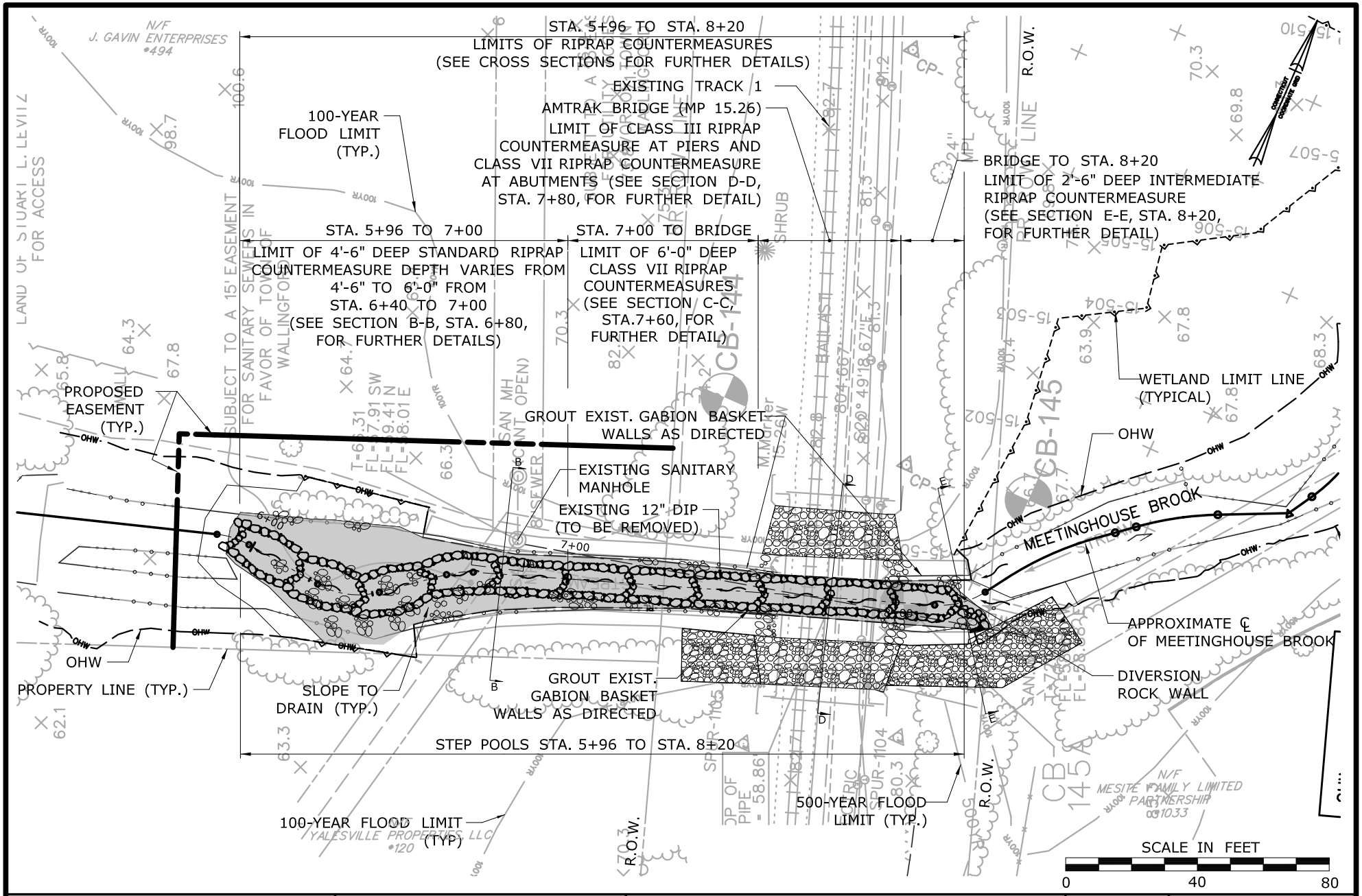
SCALE:1"=40'

DATE: MARCH 2014

WETLAND ID No. 15-300, 15-400, & 15-500 WATERCOURSE MEETINGHOUSE BROOK/ FALLS BROOK

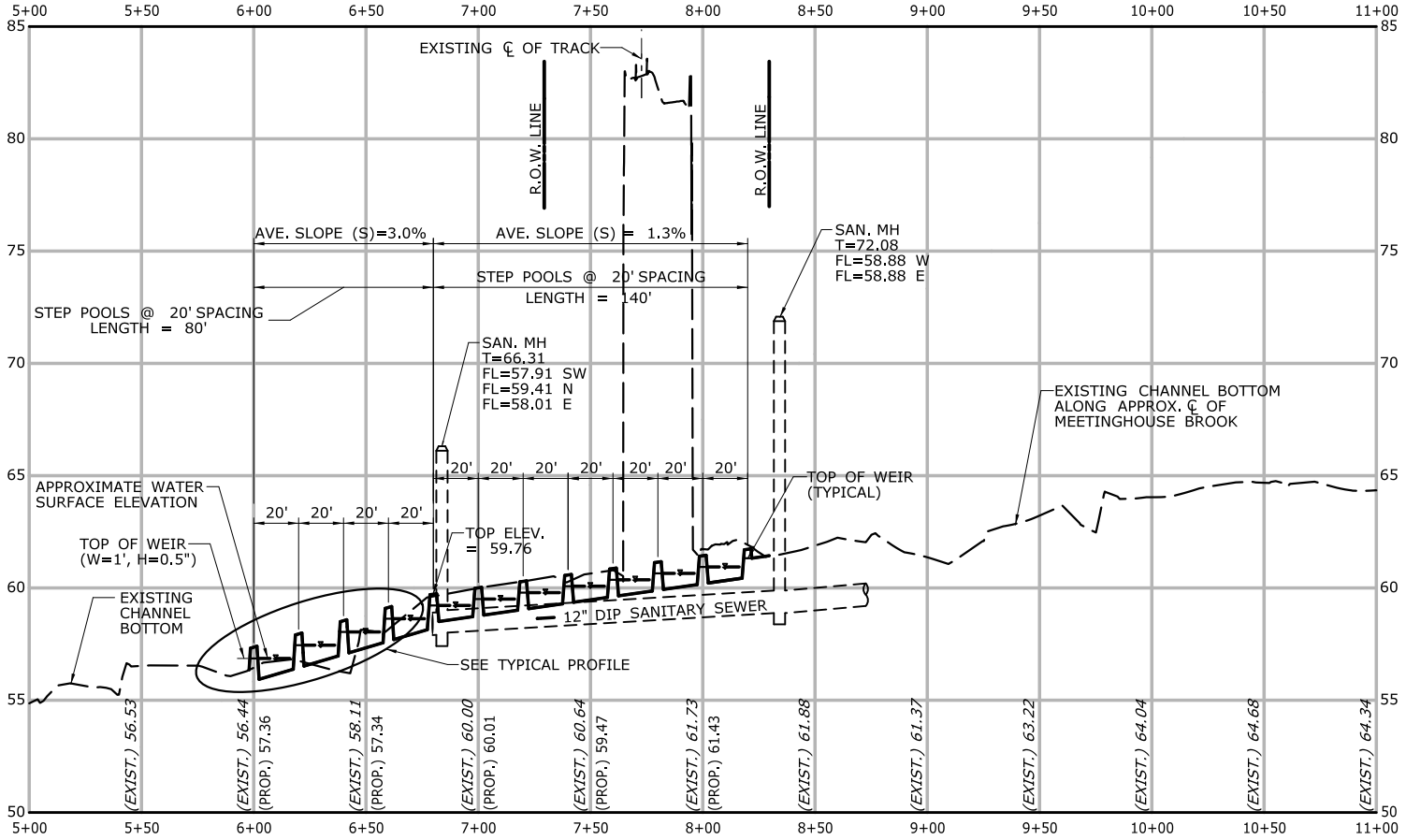
PLATE 2.0B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_PER_MP 15.26-2.0B.dgn



FISHERIES MITIGATION AND RIPRAP COUNTERMEASURES MEETINGHOUSE BROOK/FALLS BROOK MP 15.26 STA. 804+40	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: NEW HAVEN CITY/TOWN: WALLINGFORD	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	STV 100 years SCALE:1"=40'	DATE: MARCH 2014 WETLAND ID No. 15-300, 15-400, & 15-500 WATERCOURSE MEETINGHOUSE BROOK/ FALLS BROOK PLATE 2.1B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_PER_MP 15.26-2.1B



PROFILE

IMPACT SUMMARY	TOTAL IMPACT AREA
FILL BELOW OHW	13,094 C.F.
CUT BELOW OHW	13,120 C.F.

BROOK PROFILE

MEETINGHOUSE BROOK/FALLS BROOK

MP 15.26

STA. 804+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

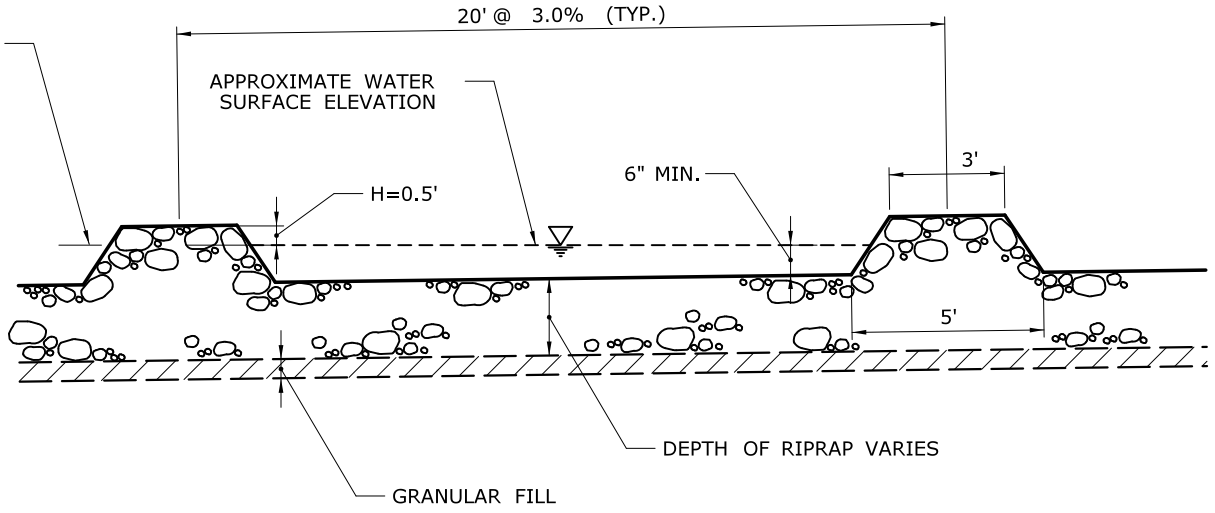
SCALE 1"=80' H
1"=8' V

DATE:
MARCH 2014

WETLAND ID No.
15-300, 15.400, & 15.500
WATERCOURSE
MEETINGHOUSE BROOK/
FALLS BROOK

PLATE 2.2B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_MP 15.26-2.2B



STEP POOL DETAIL

MEETINGHOUSE BROOK/FALLS BROOK

MP 15.26

STA. 804+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

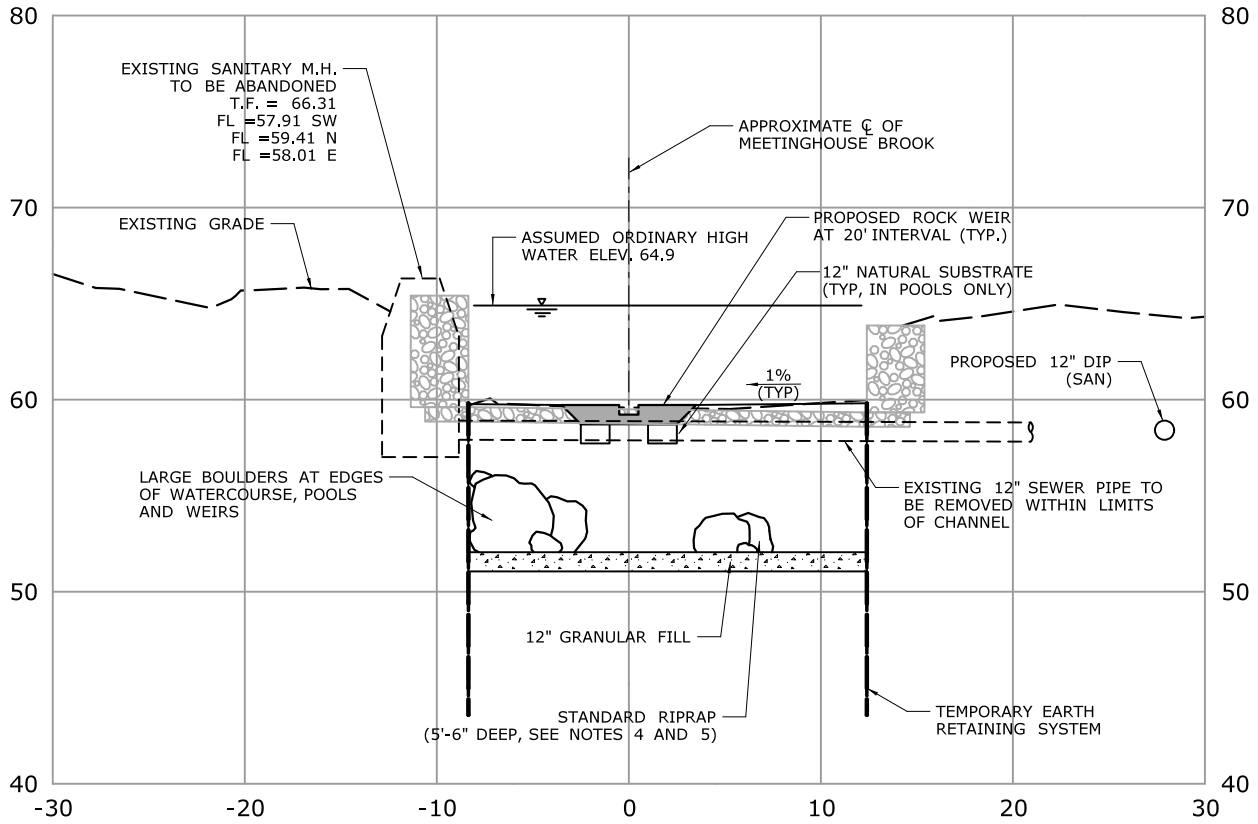
SCALE N.T.S.

DATE:
MARCH 2014

WETLAND ID No.
15-300, 15.400, & 15.500
WATERCOURSE
MEETINGHOUSE BROOK/
FALLS BROOK

PLATE 2.3B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_PER_MP 15.26-2.3B



STA. 6+80 (B-B)

NOTES:

1. FILL ⅓(MIN.) TO ½(MAX.) OF VOID SPACE WITH GROUT AND REMAINING VOID SPACE WITH NATURAL SUBSTRATE.
2. PROPOSED ROCK WEIR TO BE PLACED APPROXIMATELY FLUSH WITH EXISTING STREAM BED ELEVATION.
3. DEPTH OF EXCAVATION TO BE 6'-0" BELOW TOP OF FOOTING.
4. FILL VOID SPACE WITH NATURAL SUBSTRATE.
5. GRADATION OF STANDARD AND INTERMEDIATE RIPRAP SHALL CONFORM TO THE REQUIREMENTS OF CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION (FORM 816) , SECTION M.12.02. FOR GRADATION OF CLASS III AND CLASS VII RIPRAP, SEE RIPRAP GRADATION TABLE.

RIPRAP GRADATION TABLE

(FOR RIPRAP OTHER THAN CONNDOT STANDARD OR INTERMEDIATE RIPRAP DESIGNATIONS)

RIPRAP CLASS DESIGNATION	D_{50}	D_{100}
CLASS III	12"	24"
CLASS VII	24"	48"

SCALE IN FEET

0 10 20

IMPACT SECTION

MEETINGHOUSE BROOK/FALLS BROOK

MP 15.26

STA. 804+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

SCALE:1"=10'

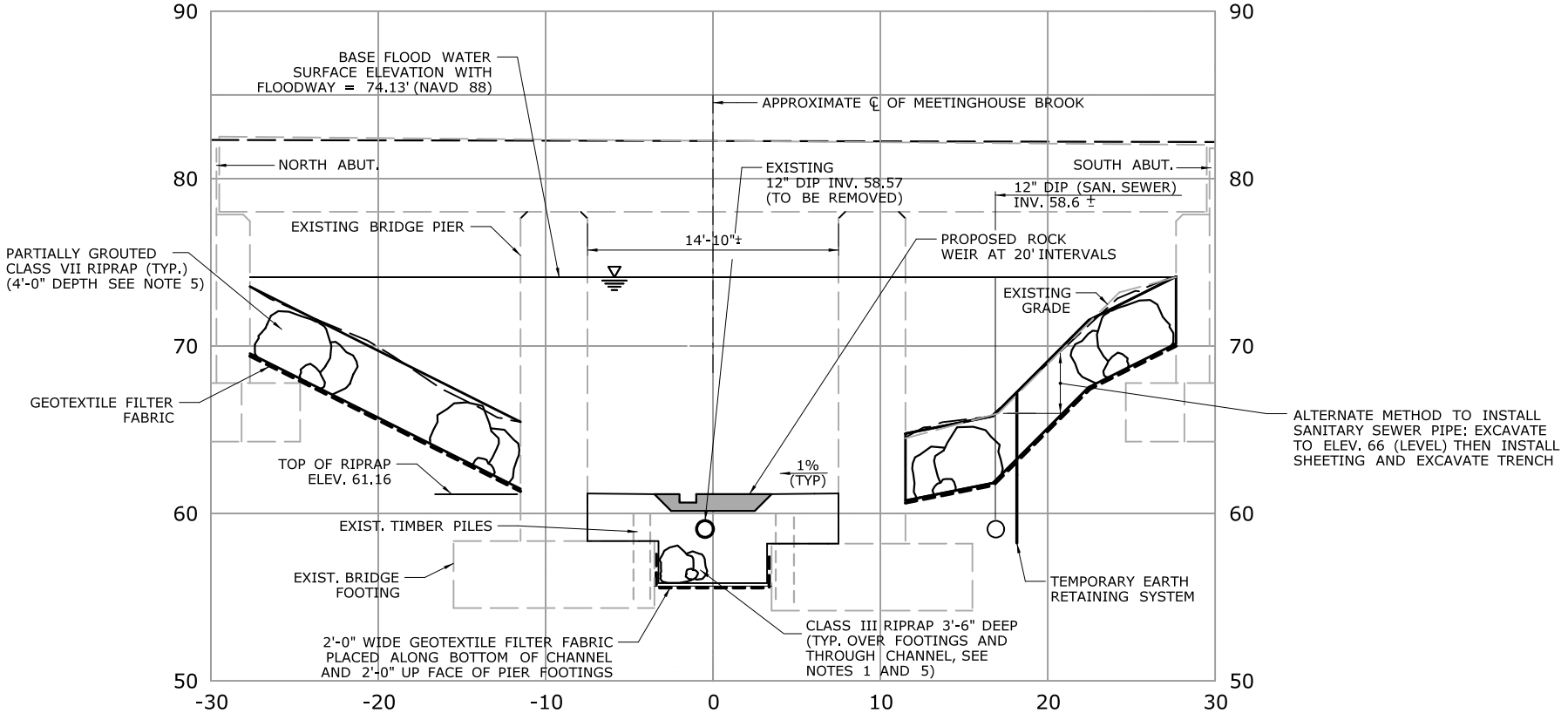
DATE:
MARCH 2014

WETLAND ID No.
15-300, 15-400, & 15-500

WATERCOURSE
MEETINGHOUSE BROOK/
FALLS BROOK

PLATE 2.4B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_MP 15.26-2.4B.dgn



STA. 7+80 (D-D)
AT AMTRAK BRIDGE

NOTE:

FOR NOTES SEE PLATE 2.4B

SCALE IN FEET

0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_PER_MP 15.26-2.5B

IMPACT SECTION

MEETINGHOUSE BROOK/FALLS BROOK

MP 15.26

STA. 804+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

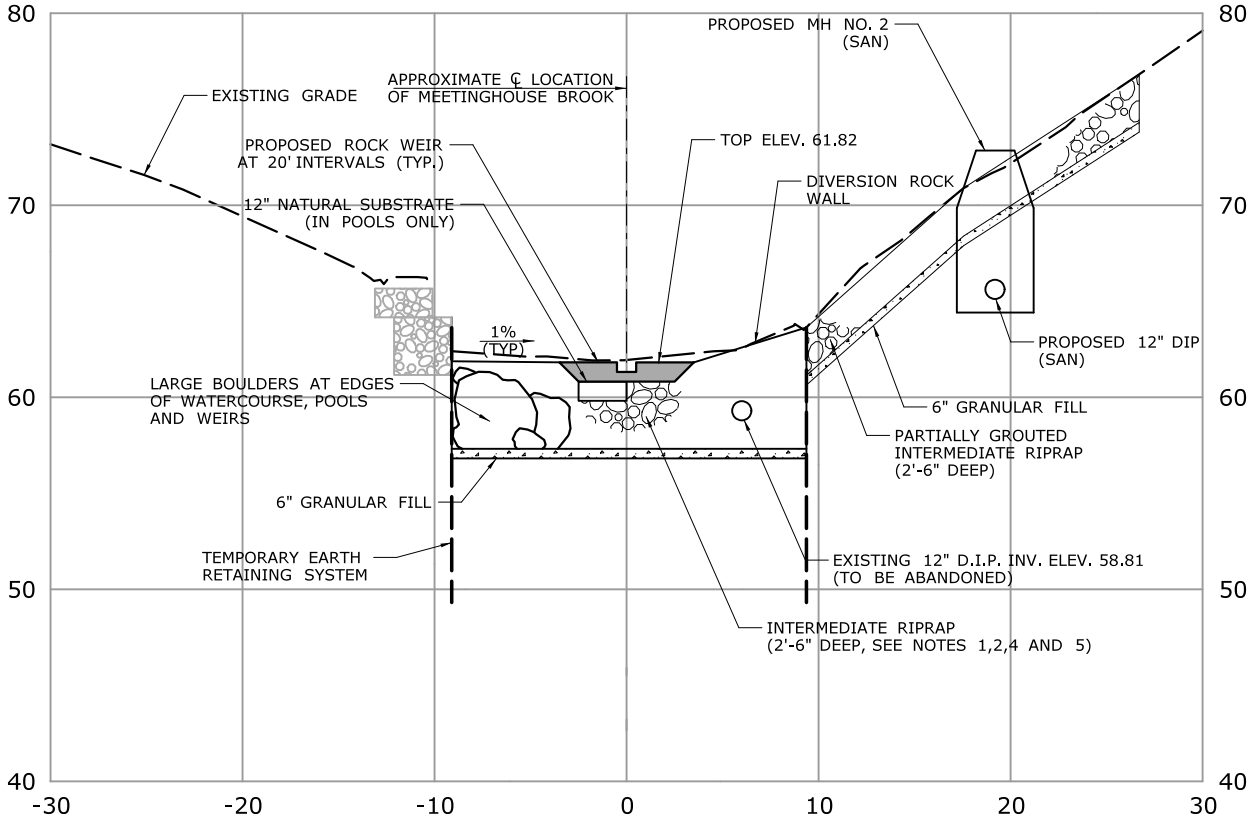
SCALE:1"=10'

DATE:
MARCH 2014

WETLAND ID No.
15-300, 15-400, & 15-500

WATERCOURSE
MEETINGHOUSE BROOK\
FALLS BROOK

PLATE 2.5B OF 10.1B



STA. 8+20 (E-E)

NOTE:

FOR NOTES SEE PLATE 2.4B.

SCALE IN FEET

0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_PER_MP 15.26-2.6B

IMPACT SECTION

MEETINGHOUSE BROOK/FALLS BROOK

MP 15.26

STA. 804+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

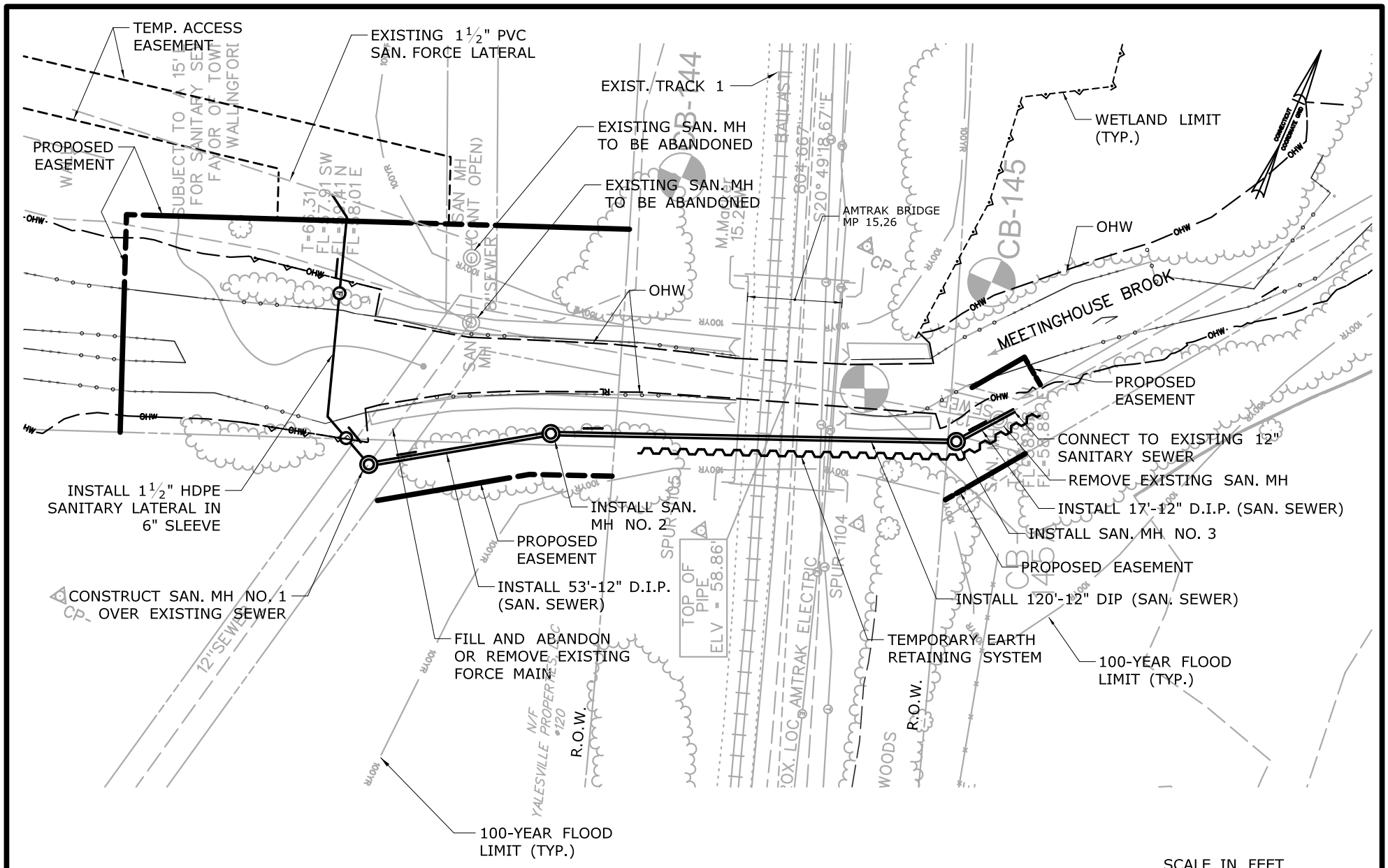
SCALE:1"=10'

DATE:
MARCH 2014

WETLAND ID No.
15-300, 15-400, & 15-500

WATERCOURSE
MEETINGHOUSE BROOK/
FALLS BROOK

PLATE 2.6B OF 10.1B



Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_PER_MP 15.26-2.7B

STAGE 1
CONSTRUCTION PLAN
MEETINGHOUSE BROOK/FALLS BROOK
MP 15.26
STA. 804+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

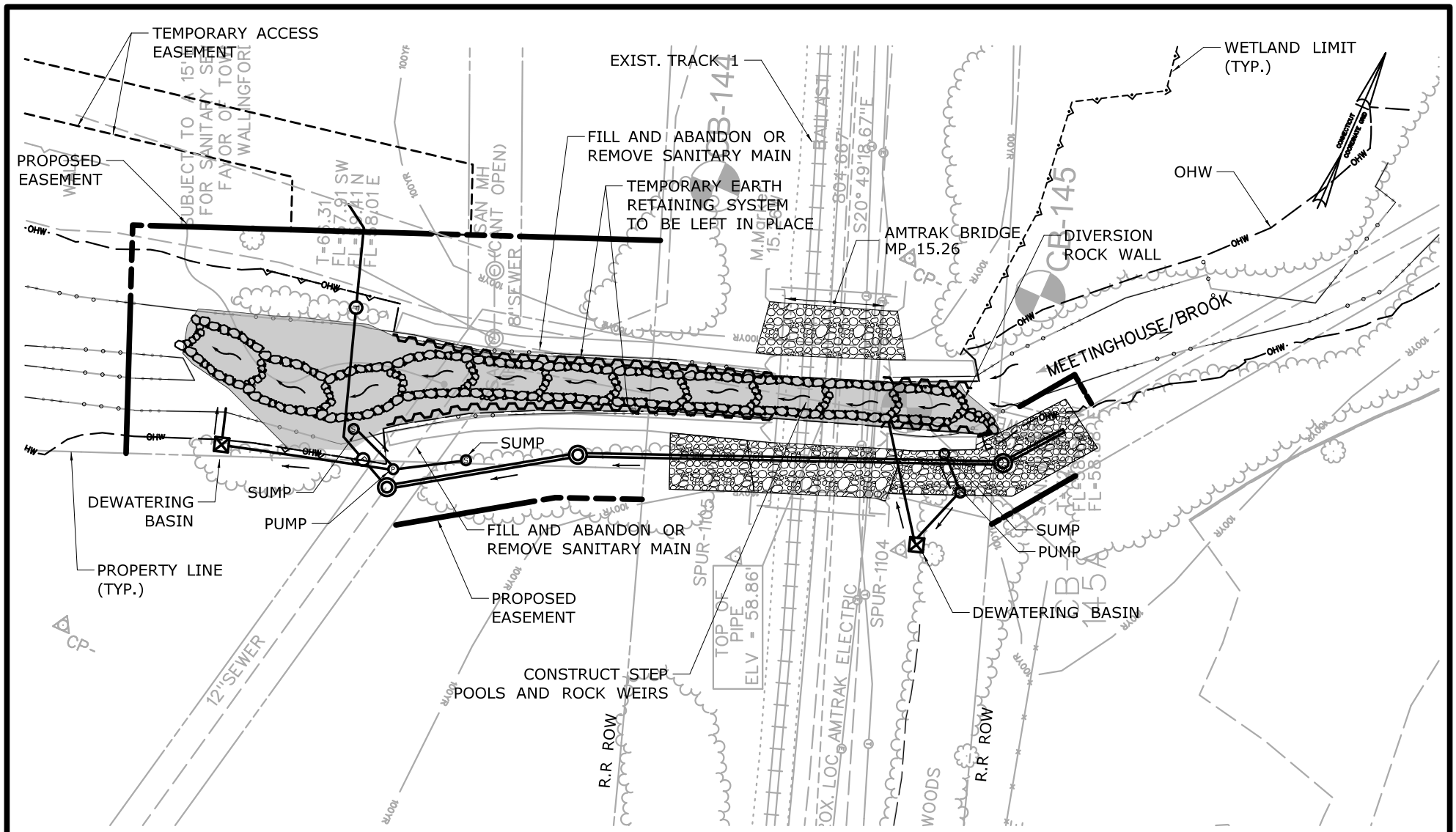
SCALE:1"=40'

DATE:
MARCH 2014

WETLAND ID No.
15-300, 15-400, & 15-500

WATERCOURSE
MEETINGHOUSE BROOK/
FALLS BROOK

PLATE 2.7B OF 10.1B



STAGE 2

CONSTRUCTION PLAN

MEETINGHOUSE BROOK/FALLS BROOK

MP 15.26

STA. 804+40

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 years

SCALE:1"=40'

DATE: MARCH 2014

WETLAND ID No. 15-300, 15-400, & 15-500

WATERCOURSE MEETINGHOUSE BROOK/ FALLS BROOK

PLATE 2.8B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_PER_MP 15.26-2.8B

GENERAL NOTES

1. A DEWATERING PUMP DISCHARGE AREA SHALL BE ESTABLISHED OUTSIDE OF THE WETLAND LIMITS, USING A TEMPORARY DEWATERING SEDIMENTATION BASIN. THE LOCATION AND SIZE OF THE DISCHARGE BASIN IS APPROXIMATE. THE EXACT LOCATION MAY VARY BASED ON THE SIZE OF THE BASIN REQUIRED TO PROVIDE A STORAGE VOLUME CAPABLE OF RETAINING THE FIRST TWO HOURS OF THE PUMP DISCHARGE.

2. WORK WITHIN THE BROOK CHANNEL SHALL BE RESTRICTED TO THE PERIOD BETWEEN JULY 1 TO SEPTEMBER 30.

CONSTRUCTION SEQUENCE

THE FOLLOWING SEQUENCE SHALL BE FOLLOWED FOR THE CONSTRUCTION OF THE PROPOSED RIPRAP STEP POOLS AND ROCK WEIR:

STAGE 1

1. INSTALL COFFERDAM AND DEWATERING DEVICES AS SHOWN AND AS SITE CONDITIONS WARRANT.

2. INSTALL TEMPORARY SANITARY SEWER BYPASS PUMPING SYSTEM.

3. THE TRENCH FOR THE SANITARY SEWER MUST BE DEWATERED WHEN INSTALLING THE SEWER BEFORE IT IS BACKFILLED.

4. INSTALL SANITARY SEWER AND MANHOLES.

STAGE 2

5. INSTALL PERMANENT SHEETING ALONG EXISTING GABION WALLS AT EDGE OF BROOK AND INSTALL RIPRAP STEP POOLS AND ROCK WEIRS IN THE WET WITHOUT DIVERTING FLOW..

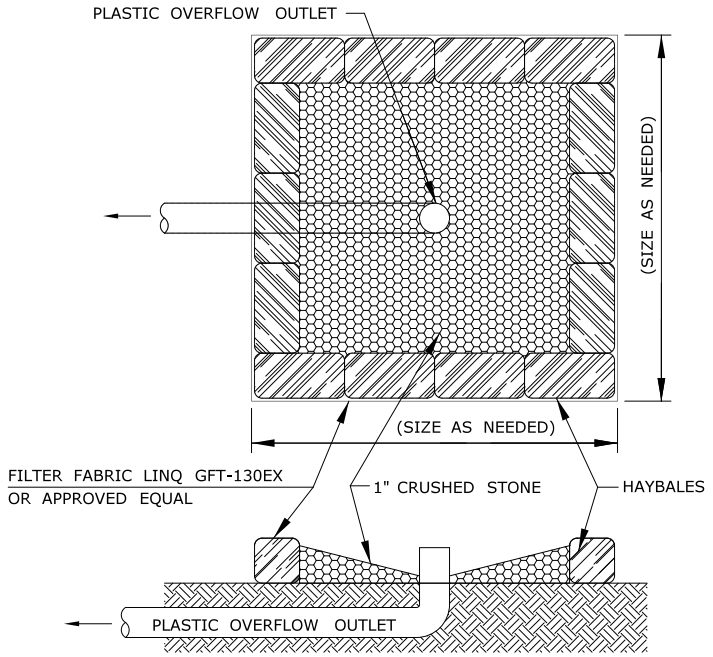
6. REMOVE DEWATERING DEVICES.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.

2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.

3. TURF ESTABLISH ALL DISTURBED AREAS THAT ARE NOT RIPRAPED, ONCE FINAL SLOPES ARE ESTABLISHED.



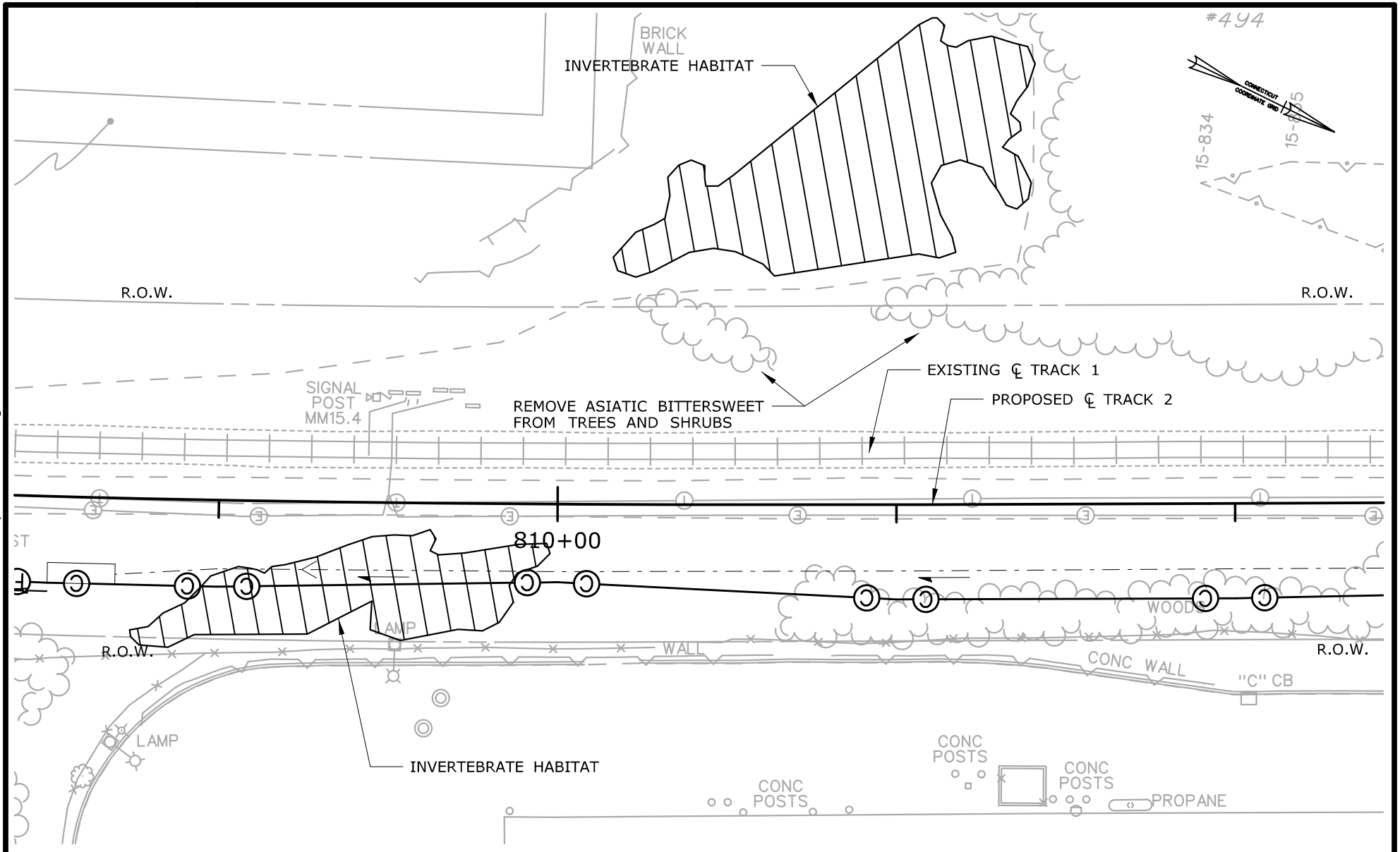
NOTES:

1. THE SIZE AND DEPTH OF THE BASIN SHALL BE DETERMINED BY THE CONTRACTOR'S ENGINEER. THE BASIN MUST BE SIZED TO PROVIDE STORAGE VOLUME CAPABLE OF RETAINING THE FIRST TWO HOURS OF THE PUMP DISCHARGE.

TEMPORARY DEWATERING SEDIMENTATION BASIN

CONSTRUCTION DETAILS AND NOTES MEETINGHOUSE BROOK/FALLS BROOK MP 15.26 STA. 804+40	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: NEW HAVEN CITY/TOWN: WALLINGFORD	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	STV 100 Years N.T.S.	DATE: MARCH 2014 WETLAND ID No. 15-33, 15-400, & 15-500 WATERCOURSE MEETINGHOUSE BROOK/ FALLS BROOK PLATE 2.9B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_07_PER_PER_MP 15.26-2.9B.dgn



IMPACT PLAN

INVERTEBRATE SPECIES
(MEETINGHOUSE SITE)
MP 15.41
STA. 811+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

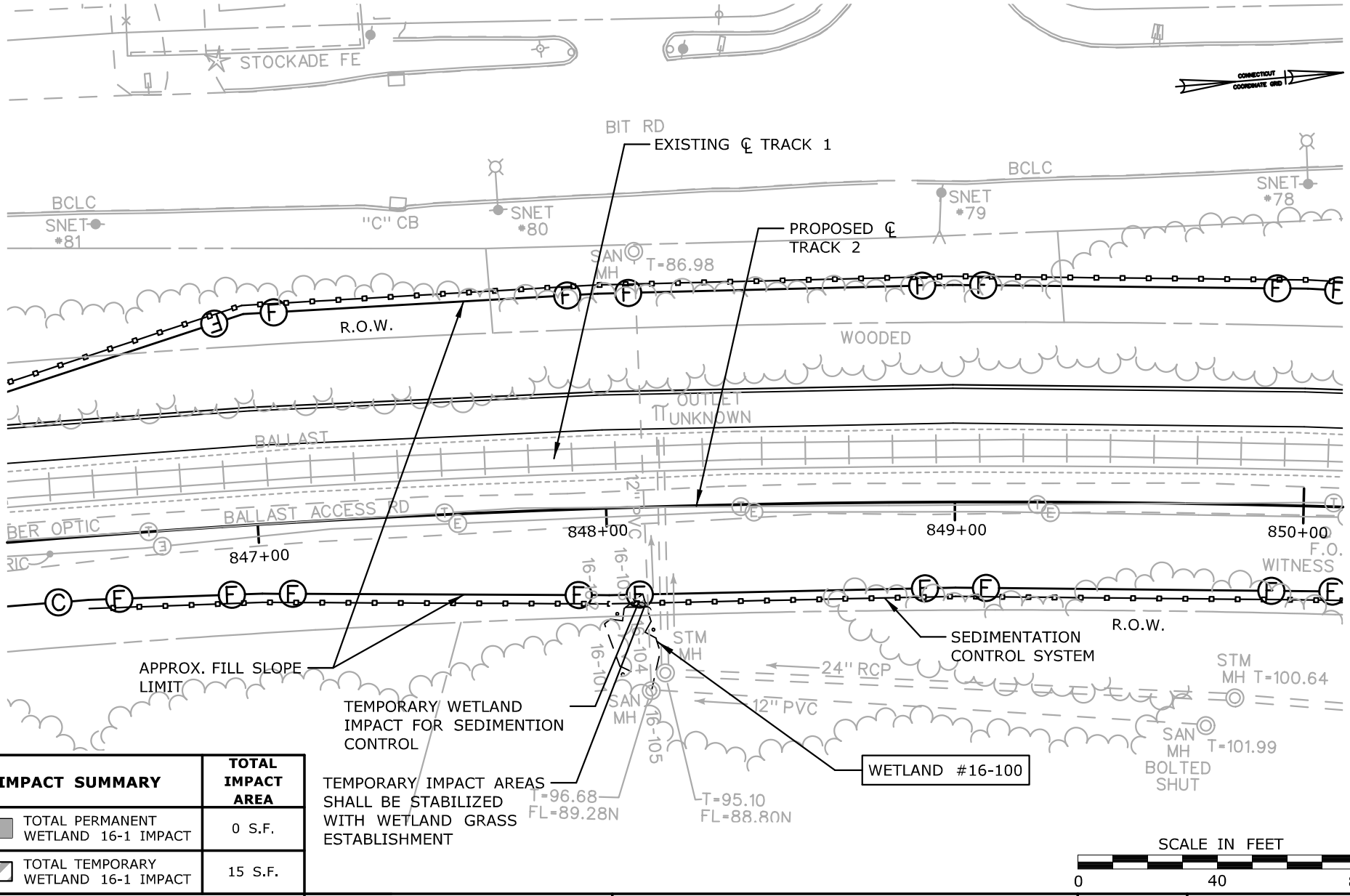
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SPECIES
INVERTEBRATE

PLATE 3.0B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_PER_Permit plate 3.0Ba.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 16-1 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 16-1 IMPACT	15 S.F.

IMPACT PLAN

WETLAND ID 16-100
MP 16.14
STA. 848+10

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

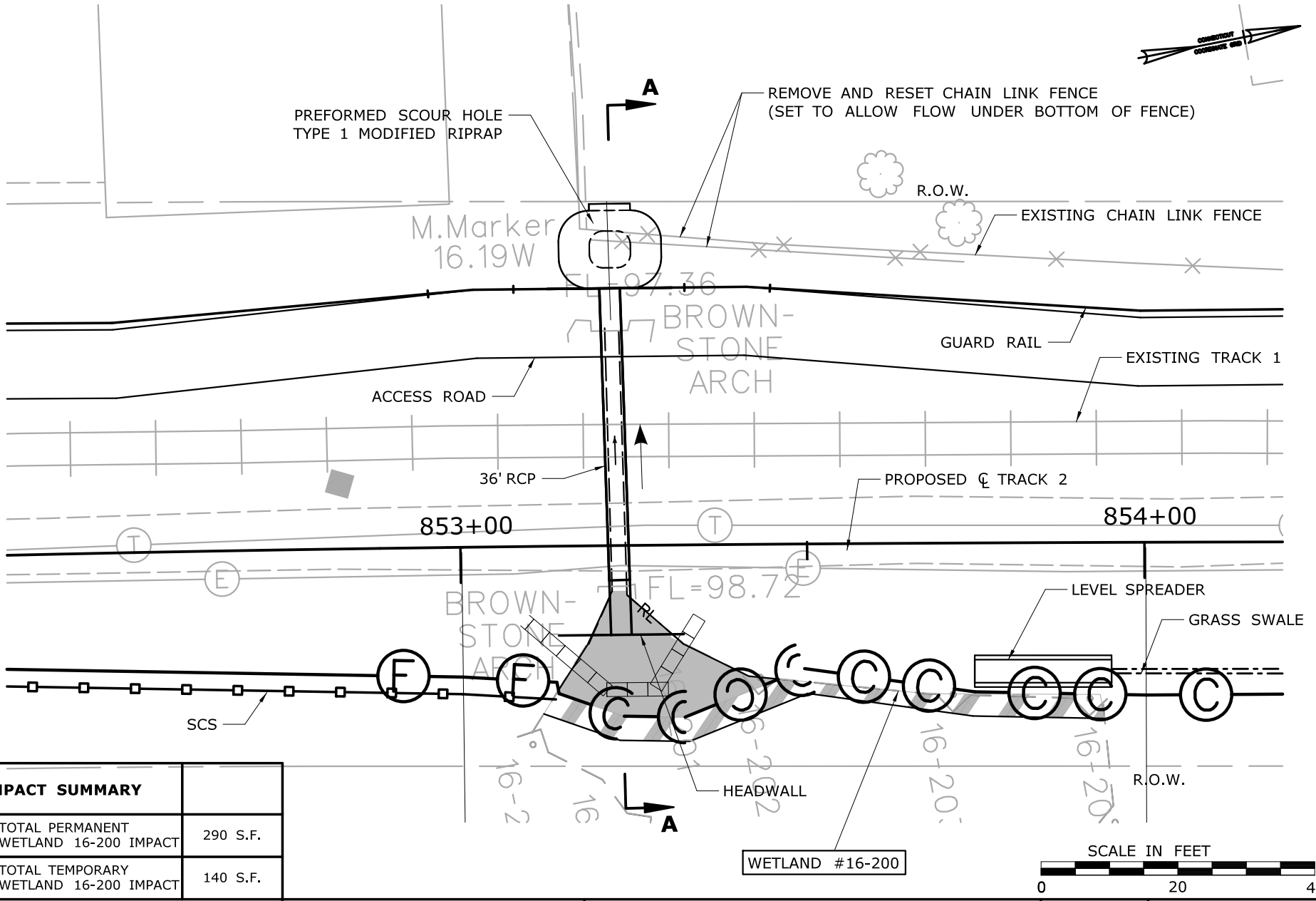
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
16-100

PLATE 4.0B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_PER_Permit Plate 4.0B.dgn



IMPACT SUMMARY	
TOTAL PERMANENT WETLAND 16-200 IMPACT	290 S.F.
TOTAL TEMPORARY WETLAND 16-200 IMPACT	140 S.F.

IMPACT PLAN

WETLAND ID 16-200
MP 16.19
STA. 853+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

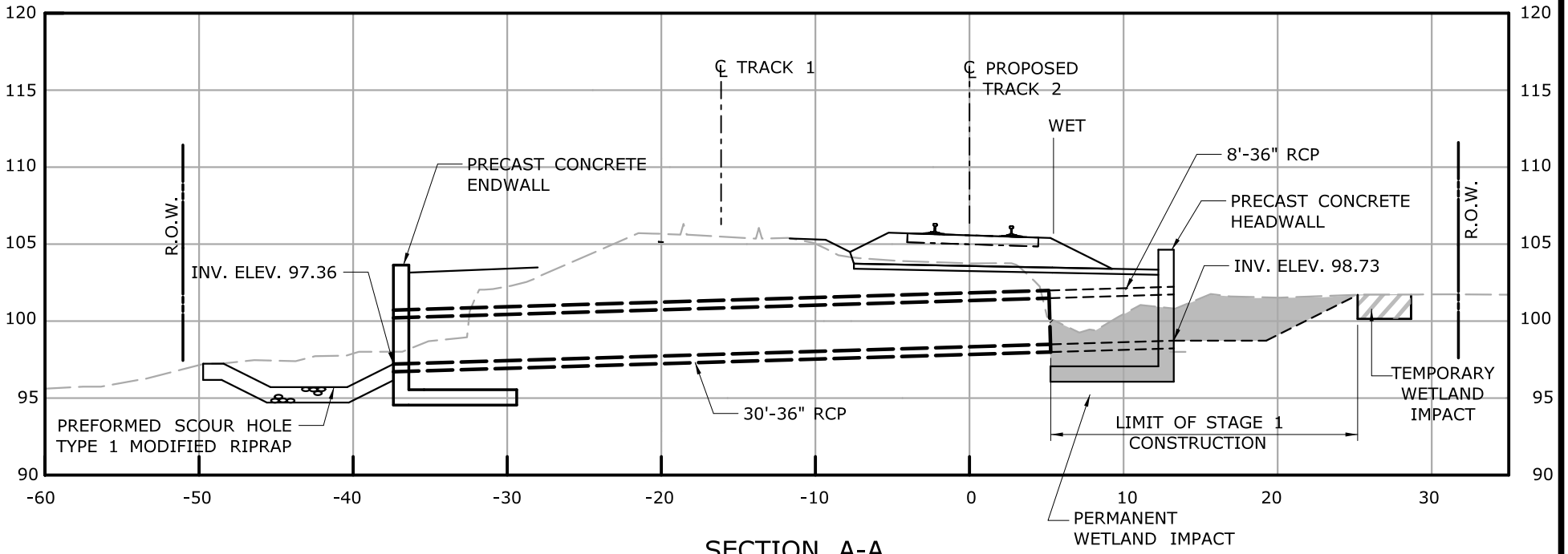
STV 100 Years

SCALE:1"=20'

DATE:
MARCH 2014
WETLAND ID No.
16-200

PLATE 5.0B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_MP 16.19-5.0B.dgn



SECTION A-A

SCALE IN FEET

0 10 20

IMPACT SECTION

WETLAND ID 16-200
MP 16.19
STA. 853+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

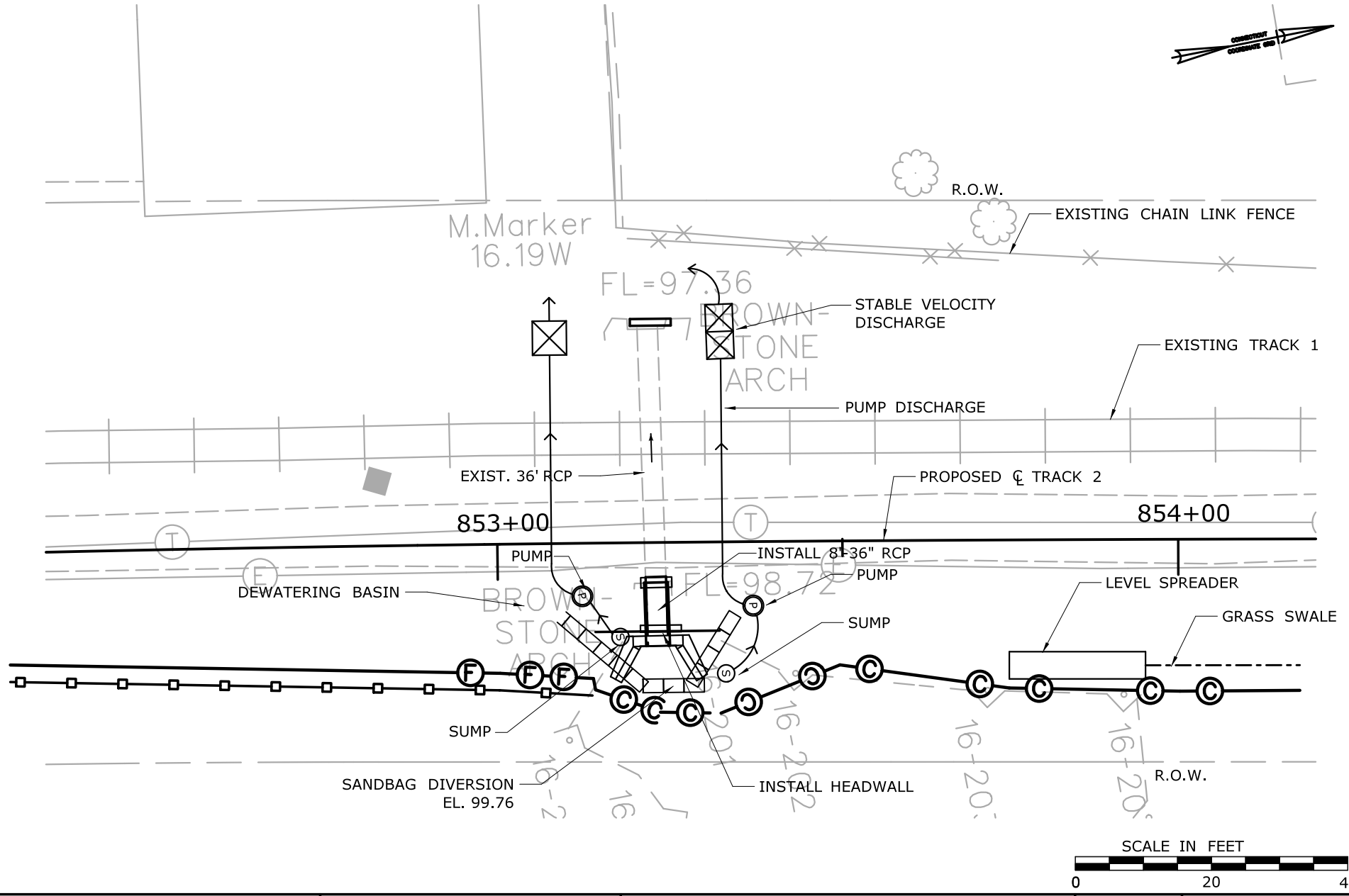
SCALE:1"=10'

DATE:
MARCH 2014

WETLAND ID No.
16-200

PLATE 5.1B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_MP 16.19-5.1B.dgn



STAGE 1 CONSTRUCTION PLAN

WETLAND ID 16-200
MP 16.19
STA. 853+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

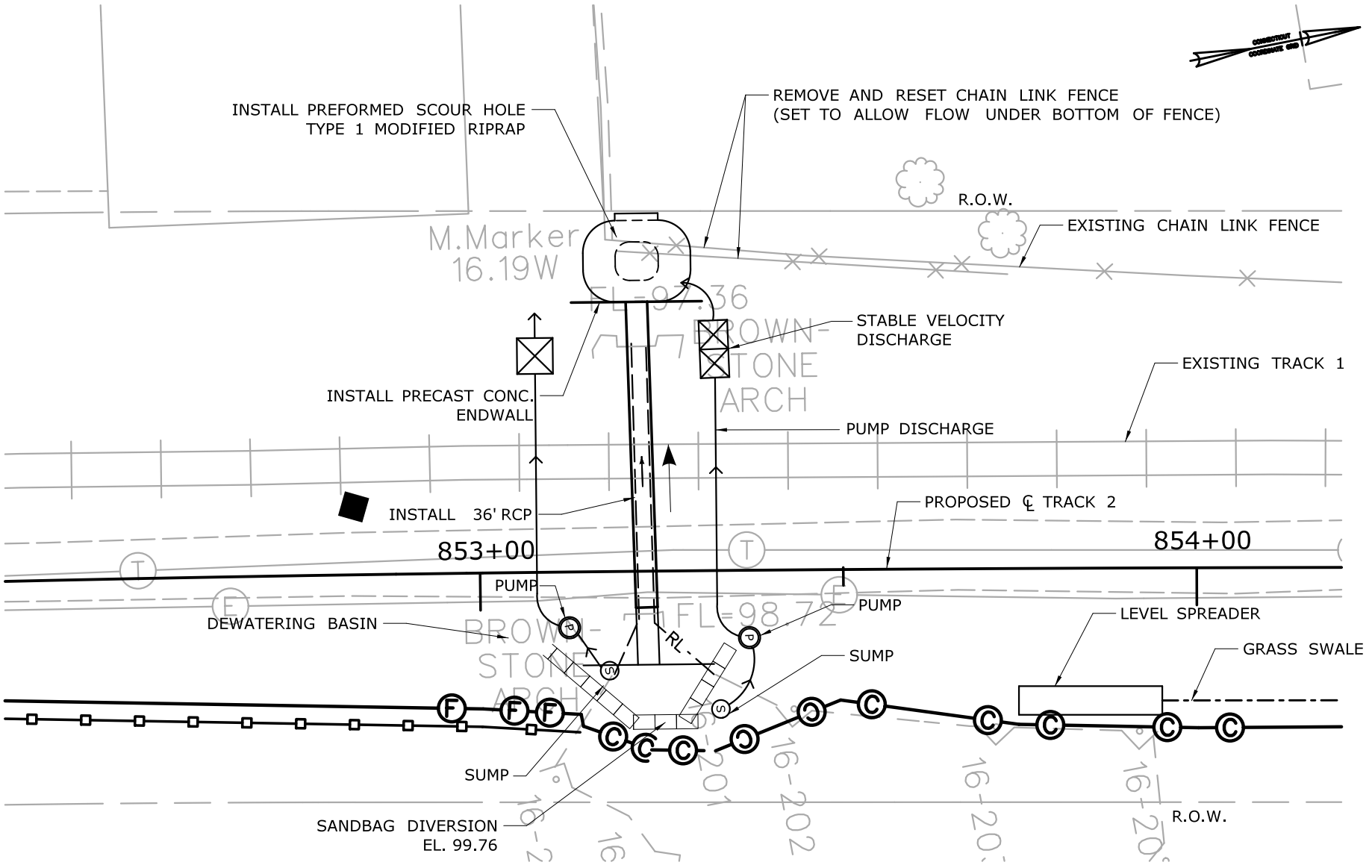
STV 100 years

SCALE:1"=20'

DATE:
MARCH 2014
WETLAND ID No.
16-200

PLATE 5.2B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_100__03_PER_PER_MP 16.19-5.2B.dgn



STAGE 2 CONSTRUCTION PLAN

WETLAND ID 16-200
MP 16.19
STA. 853+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 years

SCALE:1"=20'

DATE:
MARCH 2014
WETLAND ID No.
16-200

PLATE 5.3B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_MP 16.19-5.3B.dgn

GENERAL NOTES

1. THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY BYPASS SUMP, PUMP AND FORCEMAIN AS SHOWN DURING CONSTRUCTION OF IMPROVEMENTS.

CONSTRUCTION SEQUENCE

THE FOLLOWING SEQUENCE SHALL BE FOLLOWED FOR THE CONSTRUCTION OF THE PROPOSED PIPE CULVERT, HEADWALL, ENDWALL AND RIPRAP SCOUR HOLE:

STAGE 1 CONSTRUCTION

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. REMOVE EXISTING HEADWALL.
3. INSTALL HEADWALL.
4. INSTALL 8 L.F. OF EACH 36" RCP.

STAGE 2 CONSTRUCTION

1. CHECK AND MAINTAIN COFFERDAM AND DEWATERING DEVICES INSTALLED IN STAGE 1 THAT ARE TO REMAIN.
2. REMOVE EXISTING CULVERT AND INSTALL 30 L.F. OF 36" RCP CLASS V.
3. REMOVE EXISTING ENDWALL AND INSTALL CONCRETE ENDWALL.
4. INSTALL PREFORMED SCOUR HOLE TYPE 1.
5. REMOVE COFFERDAM AND DEWATERING DEVICES.

TEMPORARY HYDRAULIC DATA

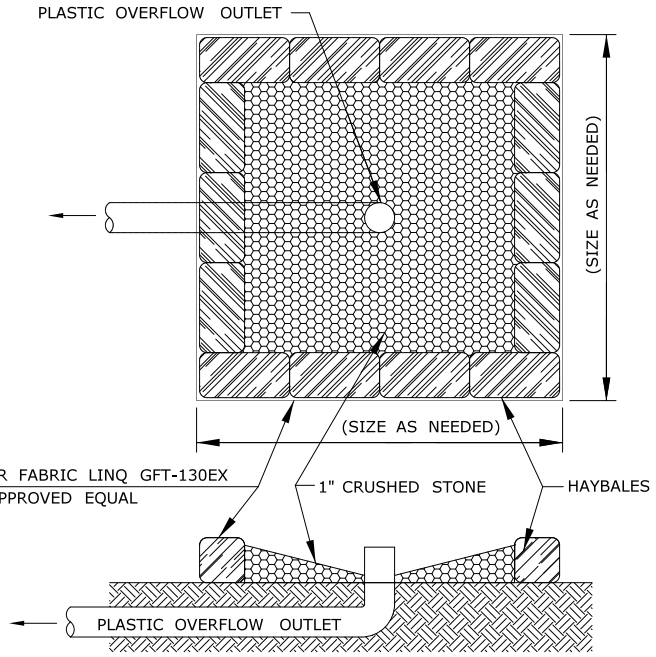
AVERAGE DAILY FLOW	0.11 CFS
AVERAGE SPRING FLOW	0.20 CFS
2-YEAR FREQUENCY DISCHARGE	19.63 CFS
TEMPORARY DESIGN DISCHARGE	0.20 CFS
TEMPORARY DESIGN FREQUENCY	AVE. SPRING FLOW
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	98.76'
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	97.63'
TEMPORARY SANDBAG DIVERSION ELAVATION FOR AVERAGE SPRING FLOW	99.76

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.

2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.

3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED. DISTURBED AREAS WHICH CURRENTLY HAVE A BALLAST SURFACE WILL HAVE NEW BALLAST REINSTALLED.



NOTES:

1. THE SIZE AND DEPTH OF THE BASIN SHALL BE DETERMINED BY THE CONTRACTOR'S ENGINEER. THE BASIN MUST BE SIZED TO PROVIDE STORAGE VOLUME CAPABLE OF RETAINING THE FIRST TWO HOURS OF THE PUMP DISCHARGE.

TEMPORARY DEWATERING SEDIMENTATION BASIN

SCALE IN FEET

0 40 80

Filename: ...\FA_CGR_MSM_0170-2296_100_03_PER_MP 16.19-5.4B.dgn

CONSTRUCTION NOTES
WETLAND ID 16-200
MP 16.19
STA. 853+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: NORTH HAVEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

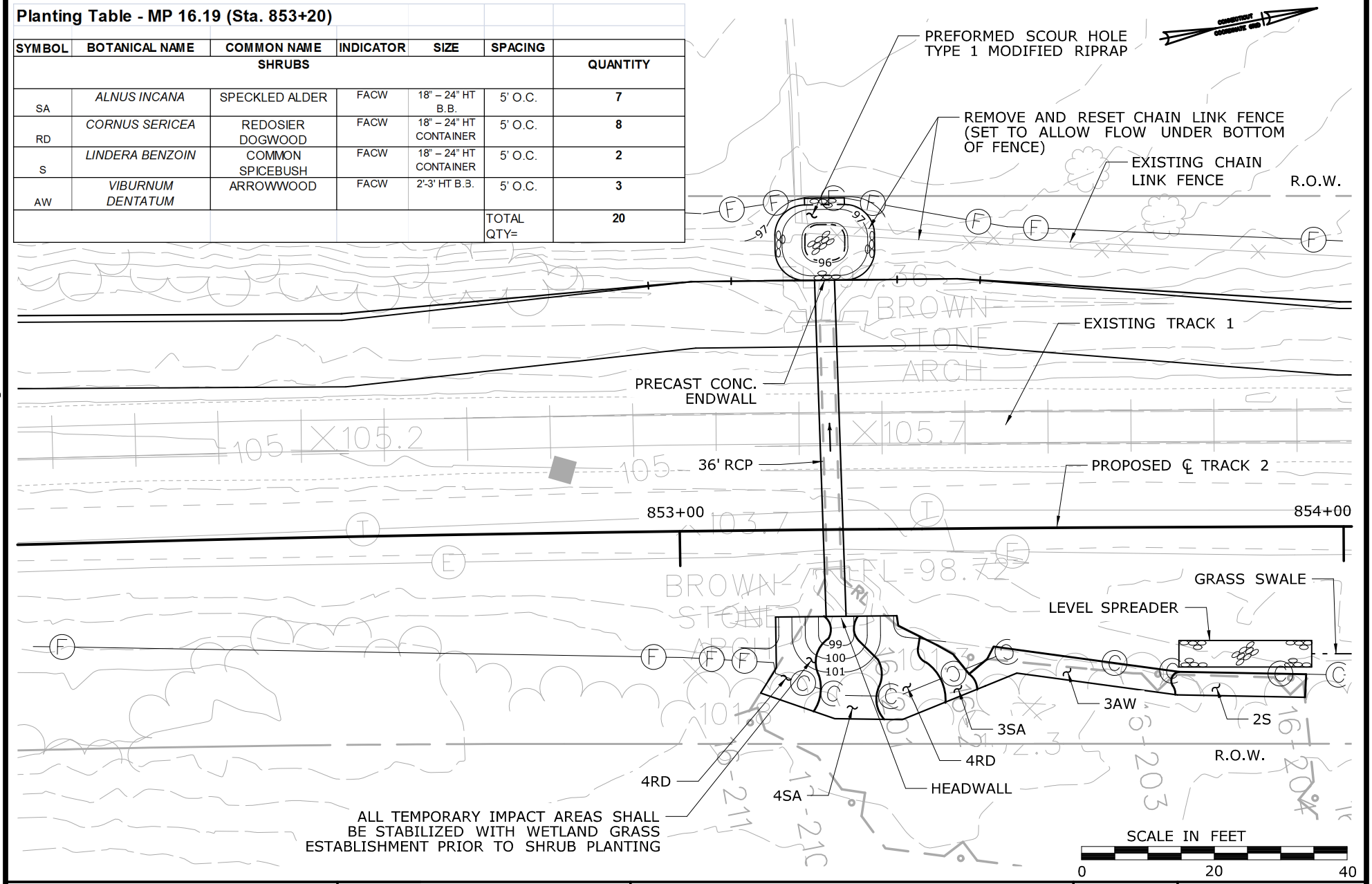
SCALE:1"=40'

DATE:
MARCH 2014
WETLAND ID No.
16-200

PLATE 5.4B OF10.1B

Planting Table - MP 16.19 (Sta. 853+20)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	7
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	8
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	2
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	3
					TOTAL QTY=	20



PLANTING PLAN
WETLAND ID 16-200
MP 16.19
STA. 853+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

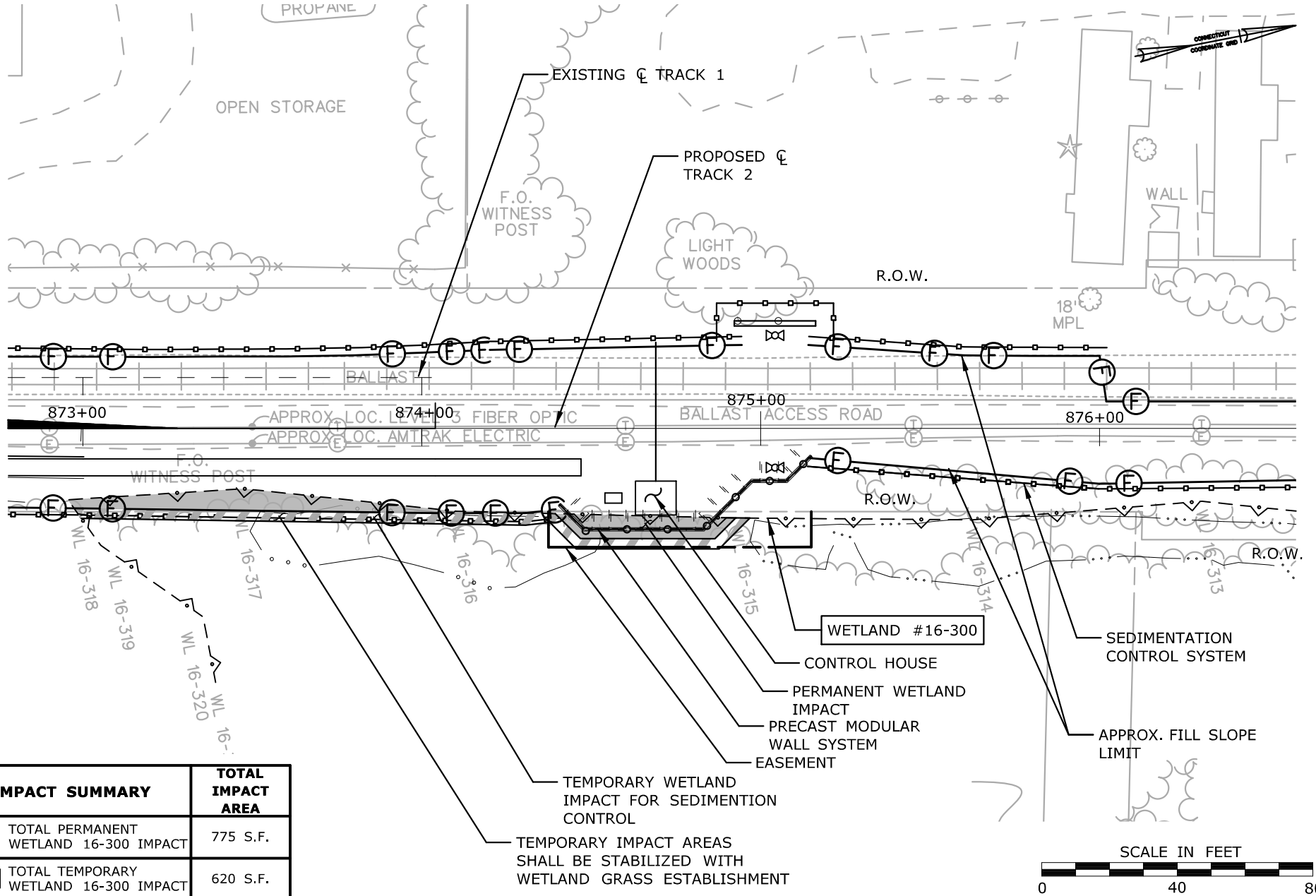
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.
16-200

PLATE 5.5B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_148_03_PER_PER_Permit Plate 5.5B.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 16-300 IMPACT	775 S.F.
TOTAL TEMPORARY WETLAND 16-300 IMPACT	620 S.F.

IMPACT PLAN

WETLAND ID 16-300
MP 16.63
STA. 872+90 - 876+70

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

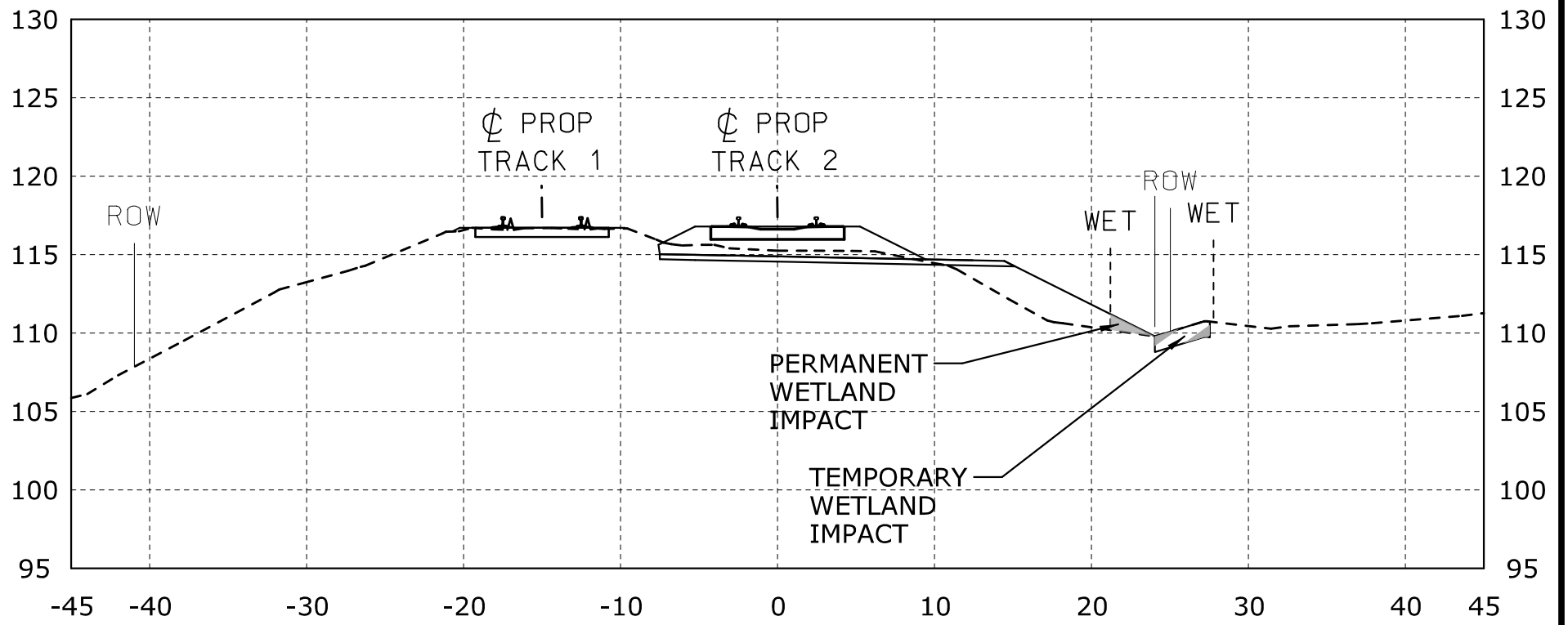
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
16-300

PLATE 6.0B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_Permit Plate 6.0B.dgn



873+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTRUBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 16-300
MP 16.63
STA. 872+90 - 876+70

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

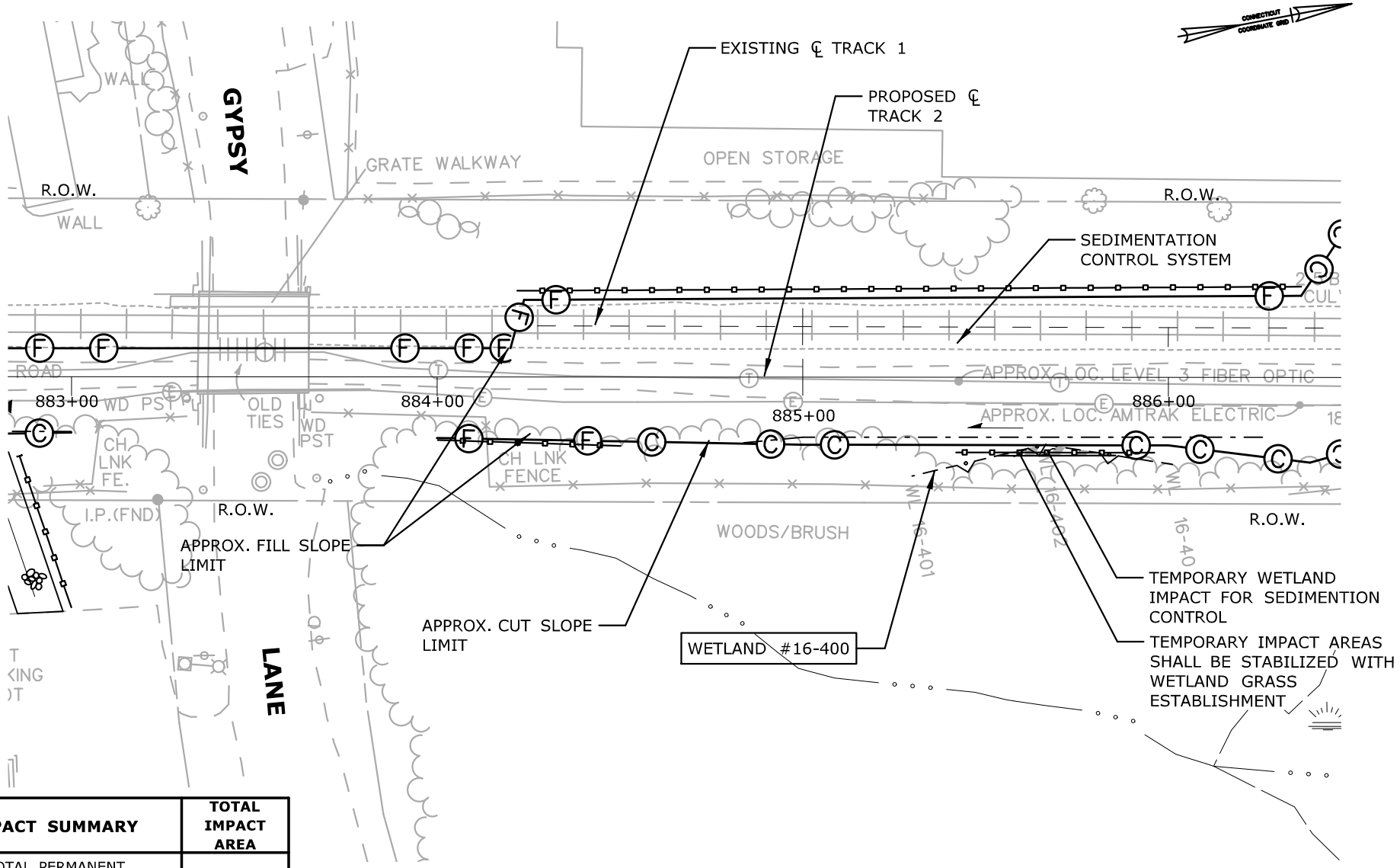
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.
16-300

PLATE 6.1B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_Permit Plate 6.1B.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 16-400 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 16-400 IMPACT	50 S.F.

IMPACT PLAN

WETLAND ID 16-400
MP 16.82
STA. 885+20 - 885+80

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

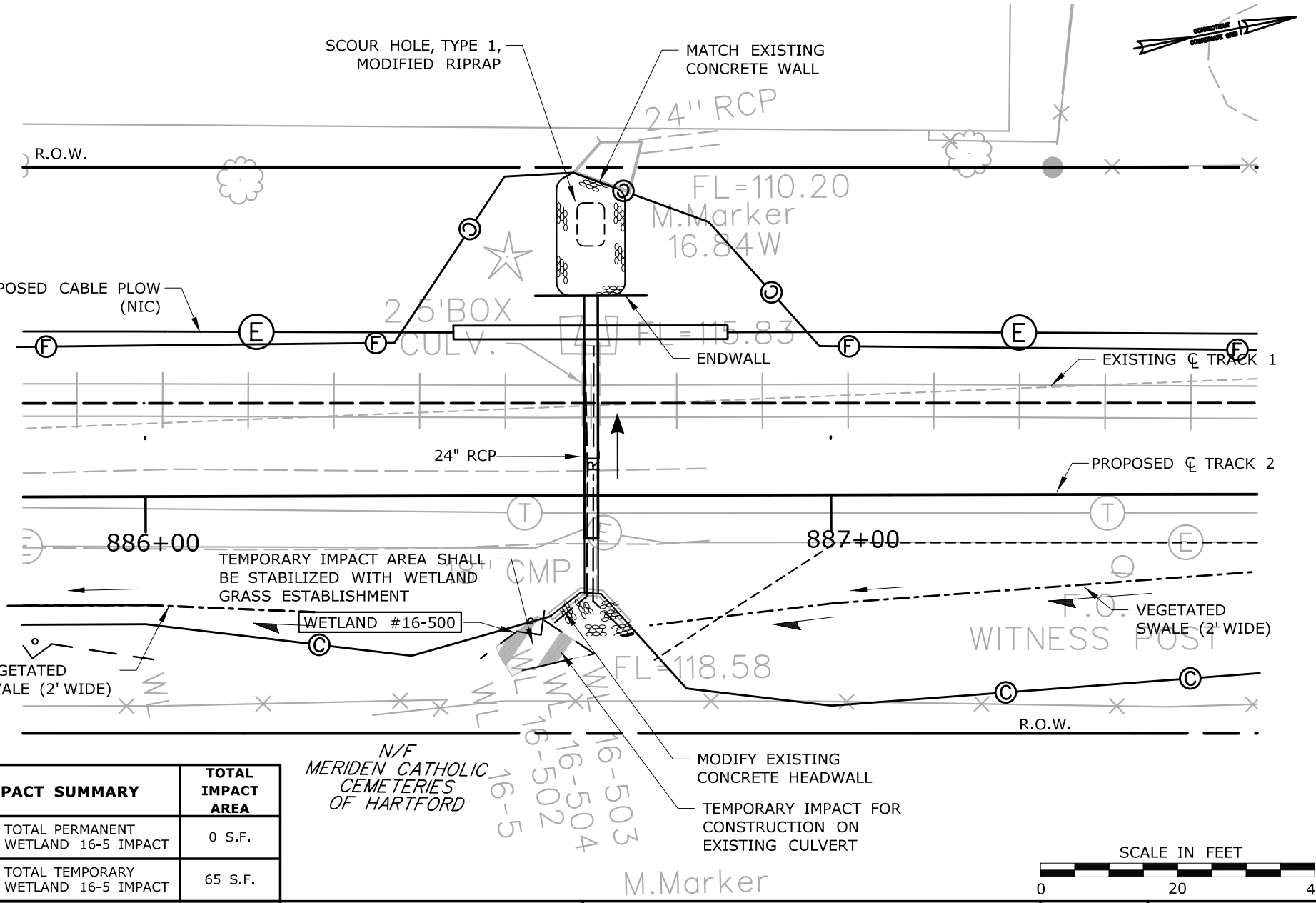
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
16-400

PLATE 7.0B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_Permit Plate 7.0B.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 16-5 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 16-5 IMPACT	65 S.F.

IMPACT SECTION

WETLAND ID 16-500
MP 16.84
STA. 886+60

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

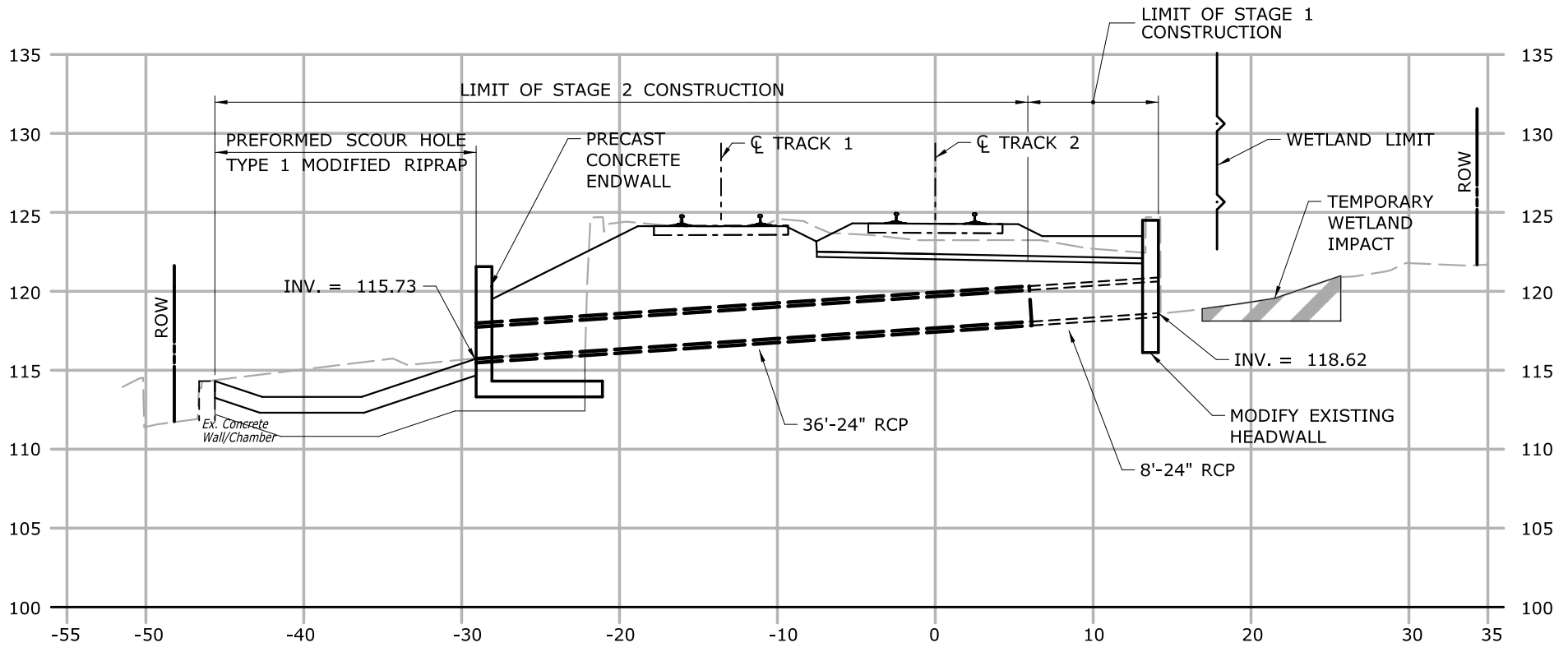
STV 100 years

SCALE: 1"=20'

DATE:
MARCH 2014
WETLAND ID No.
16-500

PLATE 8.0B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_MP 16.84-8.0B.dgn



SECTION A-A

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_MP 16.84-8.1B.dgn

IMPACT SECTION

WETLAND ID 16-500
MP 16.84
STA. 886+84

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

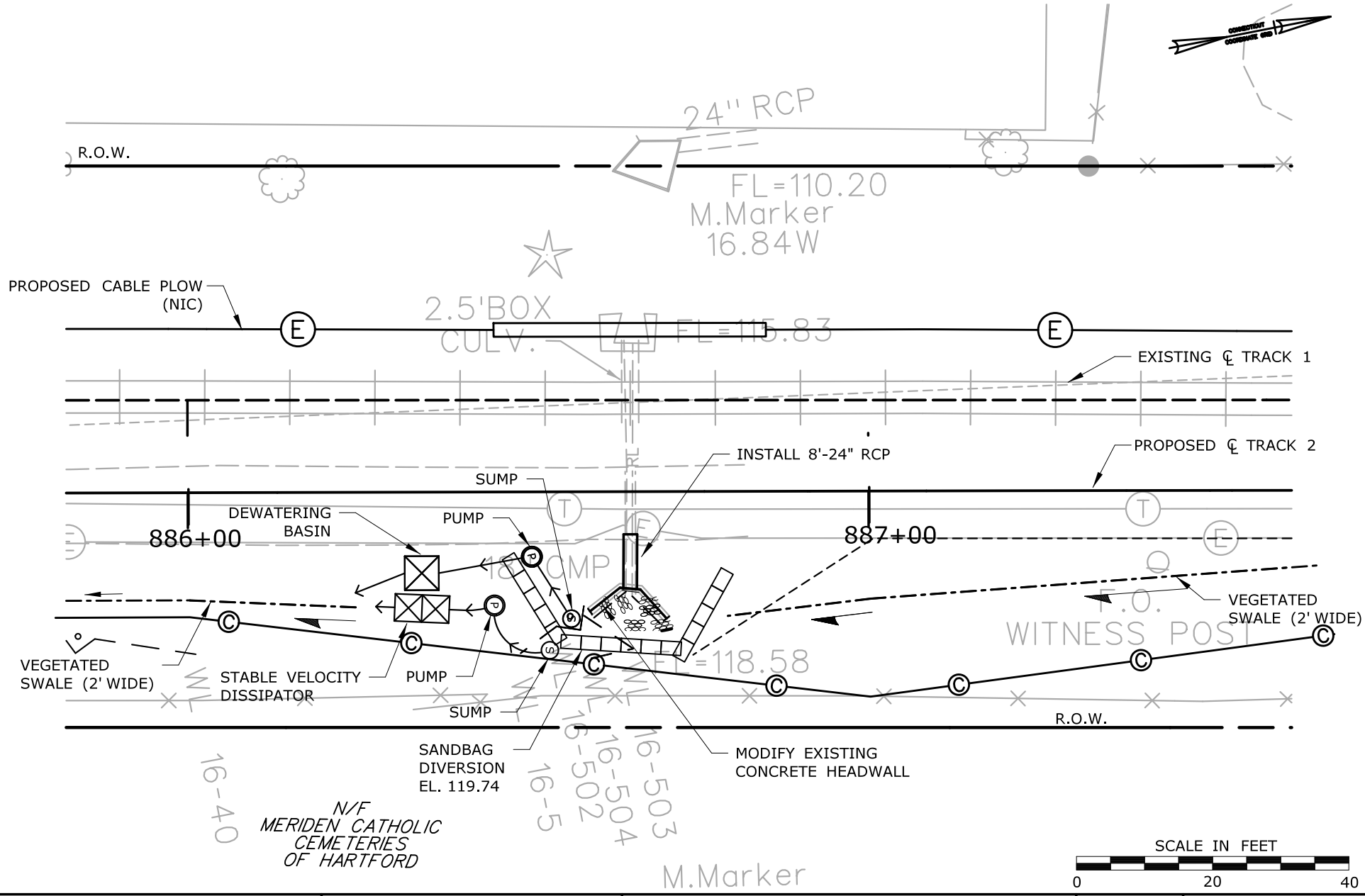
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 years

SCALE: 1"=10'

DATE:
MARCH 2014
WETLAND ID No.
16-500

PLATE 8.1B OF 10.1B



STAGE 1 CONSTRUCTION PLAN

WETLAND ID 16-500
MP 16.84
STA. 886+60

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

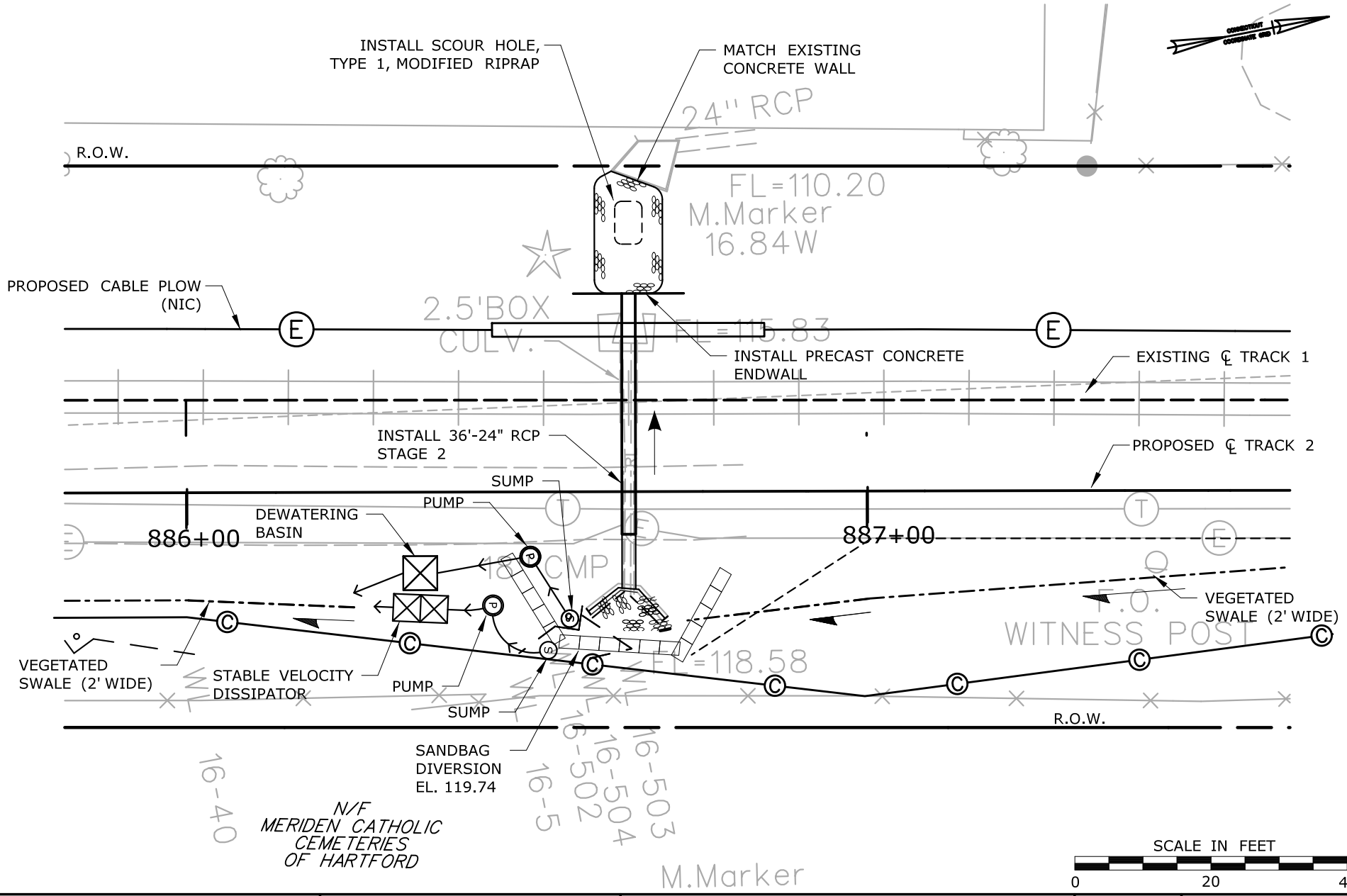
STV 100 Years

SCALE 1"=20'

DATE:
MARCH 2014
WETLAND ID No.
16-500

PLATE 8.2B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_MP 16.84-8.2B.dgn



STAGE 2 CONSTRUCTION PLAN

WETLAND ID 16-500
MP 16.84
STA. 886+60

CTDOT PROJECT NO.: 170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

STV 100 Years

SCALE 1"=20'

DATE: MARCH 2014

WETLAND ID No. 16-500

PLATE 8.3B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_MP 16.84-8.3B.dgn

GENERAL NOTES

1. THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY BYPASS SUMP, PUMP AND FORCEMAIN AS SHOWN DURING CONSTRUCTION OF THE NEW CULVERT.

2. A DEWATERING PUMP DISCHARGE AREA SHALL BE ESTABLISHED OUTSIDE OF THE WETLAND LIMITS, USING A TEMPORARY DEWATERING SEDIMENTATION BASIN. THE LOCATION AND SIZE OF THE DISCHARGE BASIN IS APPROXIMATE. THE EXACT LOCATION MAY VARY BASED ON THE SIZE OF THE BASIN REQUIRED TO PROVIDE A STORAGE VOLUME CAPABLE OF RETAINING THE FIRST TWO HOURS OF THE PUMP DISCHARGE.

CONSTRUCTION SEQUENCE

THE FOLLOWING SEQUENCE SHALL BE FOLLOWED FOR THE CONSTRUCTION OF THE PROPOSED PIPE CULVERT, ENDWALLS, RIPRAP SCOUR HOLE AND RIPRAP APRON:

STAGE 1

1. INSTALL COFFERDAM AND DEWATERING DEVICES.

2. MODIFY EXISTING HEADWALL.

3. INSTALL 8 L.F. OF 24" RCP.

STAGE 2

1. CHECK AND MAINTAIN COFFERDAM AND DEWATERING DEVICES INSTALLED IN PHASE 1 THAT ARE TO REMAIN.

2. REMOVE EXISTING CULVERT AND INSTALL 36 L.F. OF 24" RCP CLASS V.

3. REMOVE EXISTING ENDWALL AND INSTALL CONCRETE ENDWALL.

4. INSTALL PREFORMED SCOUR HOLE TYPE 1.

5. REMOVE COFFERDAM AND DEWATERING DEVICES.

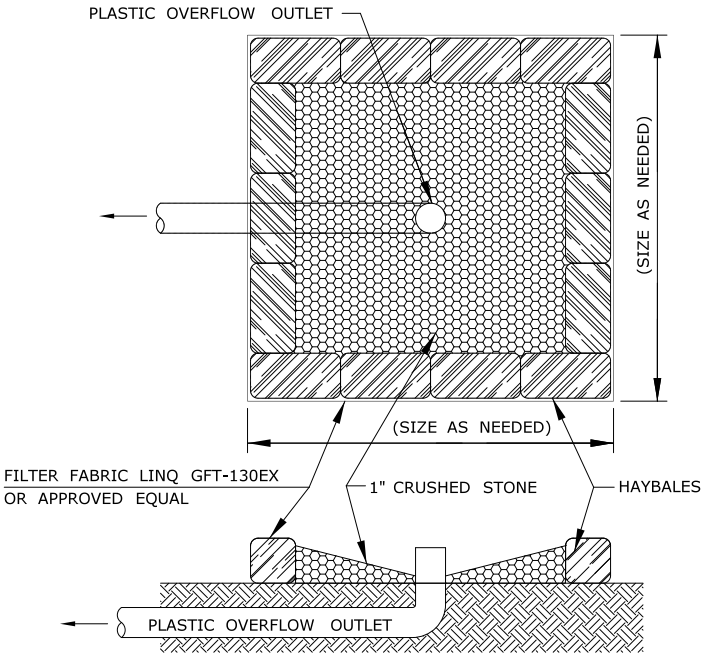
TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	0.08 CFS
AVERAGE SPRING FLOW	0.14 CFS
2-YEAR FREQUENCY DISCHARGE	10.63 CFS
TEMPORARY DESIGN DISCHARGE	0.14 CFS
TEMPORARY DESIGN FREQUENCY	AVE SPRING FLOW
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	118.74'
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	115.48'
TEMPORARY SANDBAG DIVERSION ELEVATION FOR AVERAGE SPRING FLOW	119.74

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.

2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.

3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED. DISTURBED AREAS WHICH CURRENTLY HAVE A BALLAST SURFACE WILL HAVE NEW BALLAST REINSTALLED.



NOTES:

1. THE SIZE AND DEPTH OF THE BASIN SHALL BE DETERMINED BY THE CONTRACTOR'S ENGINEER. THE BASIN MUST BE SIZED TO PROVIDE STORAGE VOLUME CAPABLE OF RETAINING THE FIRST TWO HOURS OF THE PUMP DISCHARGE.

TEMPORARY DEWATERING SEDIMENTATION BASIN

CONSTRUCTION DETAILS AND NOTES
WETLAND ID 16-500
MP 16.84
STA. 886+60

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: WALLINGFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

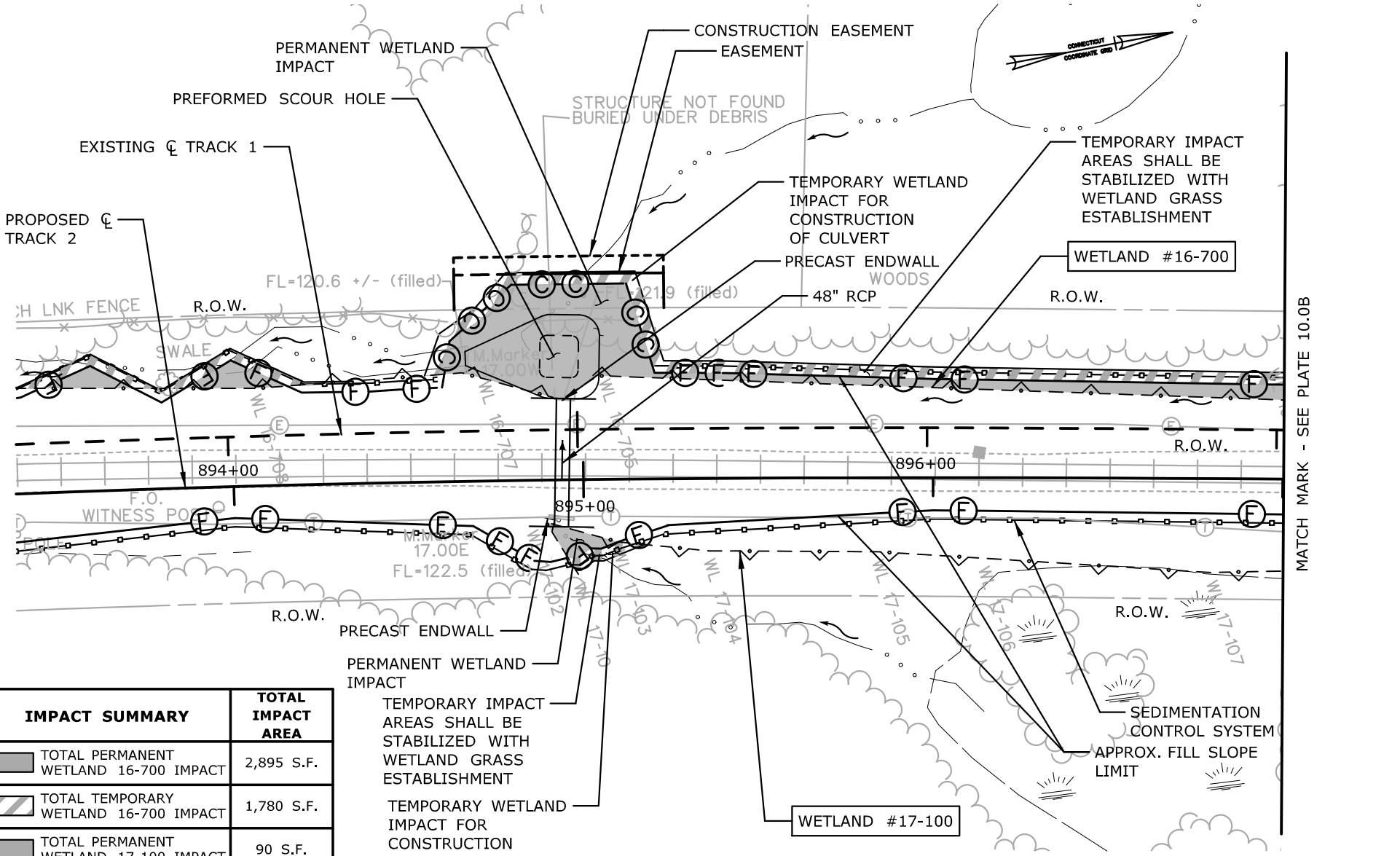
STV 100 Years

N.T.S.

DATE:
MARCH 2014
WETLAND ID No.
16-500

PLATE 8.4B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_MP 16.84-8.4B.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 16-700 IMPACT	2,895 S.F.
TOTAL TEMPORARY WETLAND 16-700 IMPACT	1,780 S.F.
TOTAL PERMANENT WETLAND 17-100 IMPACT	90 S.F.
TOTAL TEMPORARY WETLAND 17-100 IMPACT	65 S.F.

IMPACT AREAS FOR WETLANDS 16-700 & 17-100 ARE ALSO SHOWN ON PLATE 9.0B

IMPACT PLAN

WETLAND ID 16-700 & 17-100
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

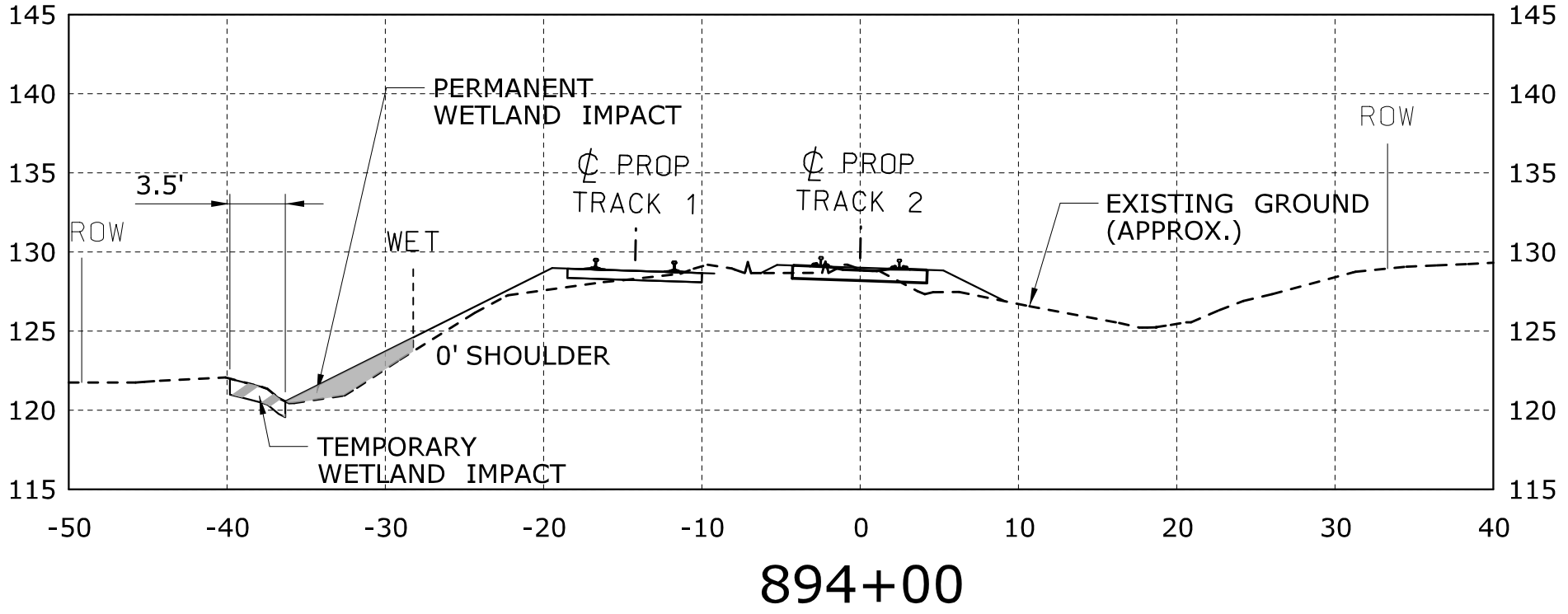
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
16-700 & 17-100

PLATE 9.0B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_000_03_PER_PER_Permit Plate 9.0B.dgn



894+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTRUBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

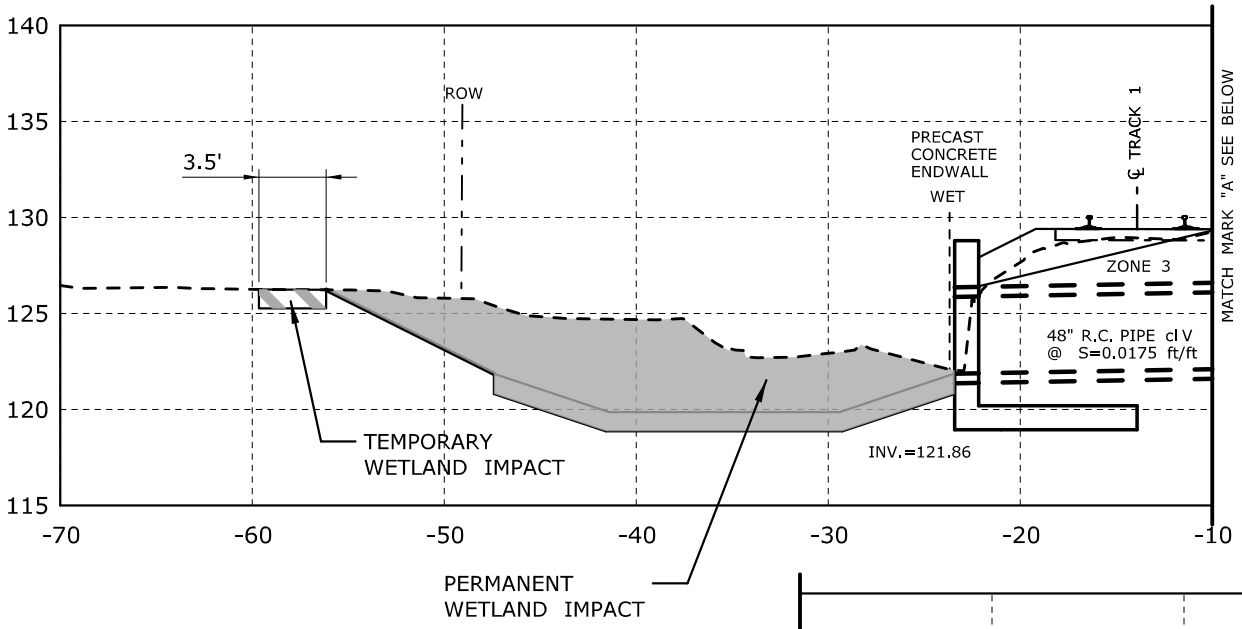
1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

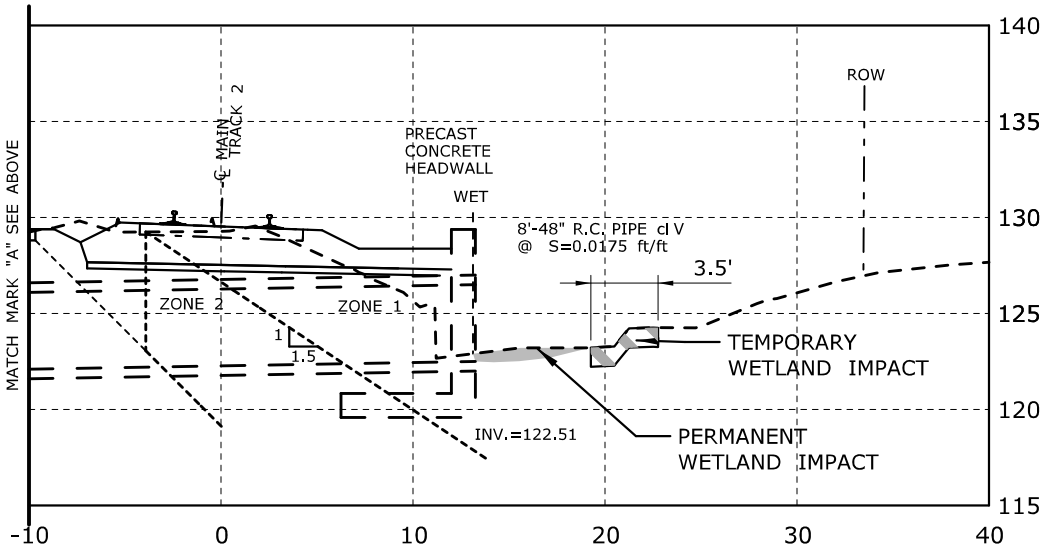
SCALE IN FEET

0 10 20

IMPACT SECTION WETLAND ID 16-700 & 17-100 MP 17.00 STA. 893+10 - 900+40	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: NEW HAVEN CITY/TOWN: WALLINGFORD	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	PARSONS BRINCKERHOFF SCALE:1"=10'	DATE: MAR 2014 WETLAND ID No. 16-700 & 17-100 PLATE 9.1B OF10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079__03_PER_PER_Permit Plate 9.1B_(1).dgn





894+92

SCALE IN FEET
0 10 20

IMPACT SECTION

WETLAND ID 16-700 & 17-100
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

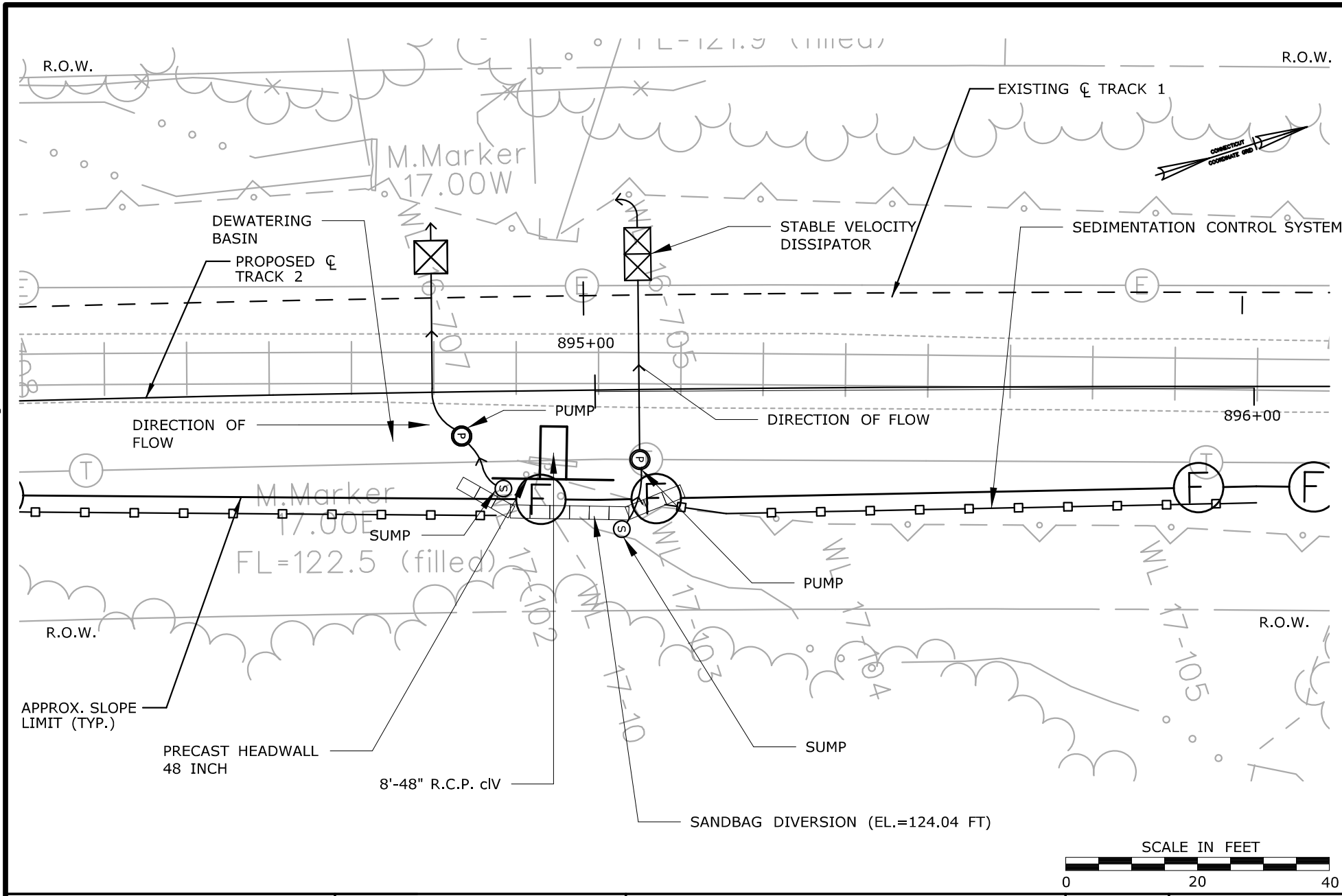
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.
16-700 & 17-100

PLATE 9.2B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_000_03_PER_PER_Permit Plate 9.2B.dgn



STAGE 1

CONSTRUCTION PLAN

WETLAND ID 16-700
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

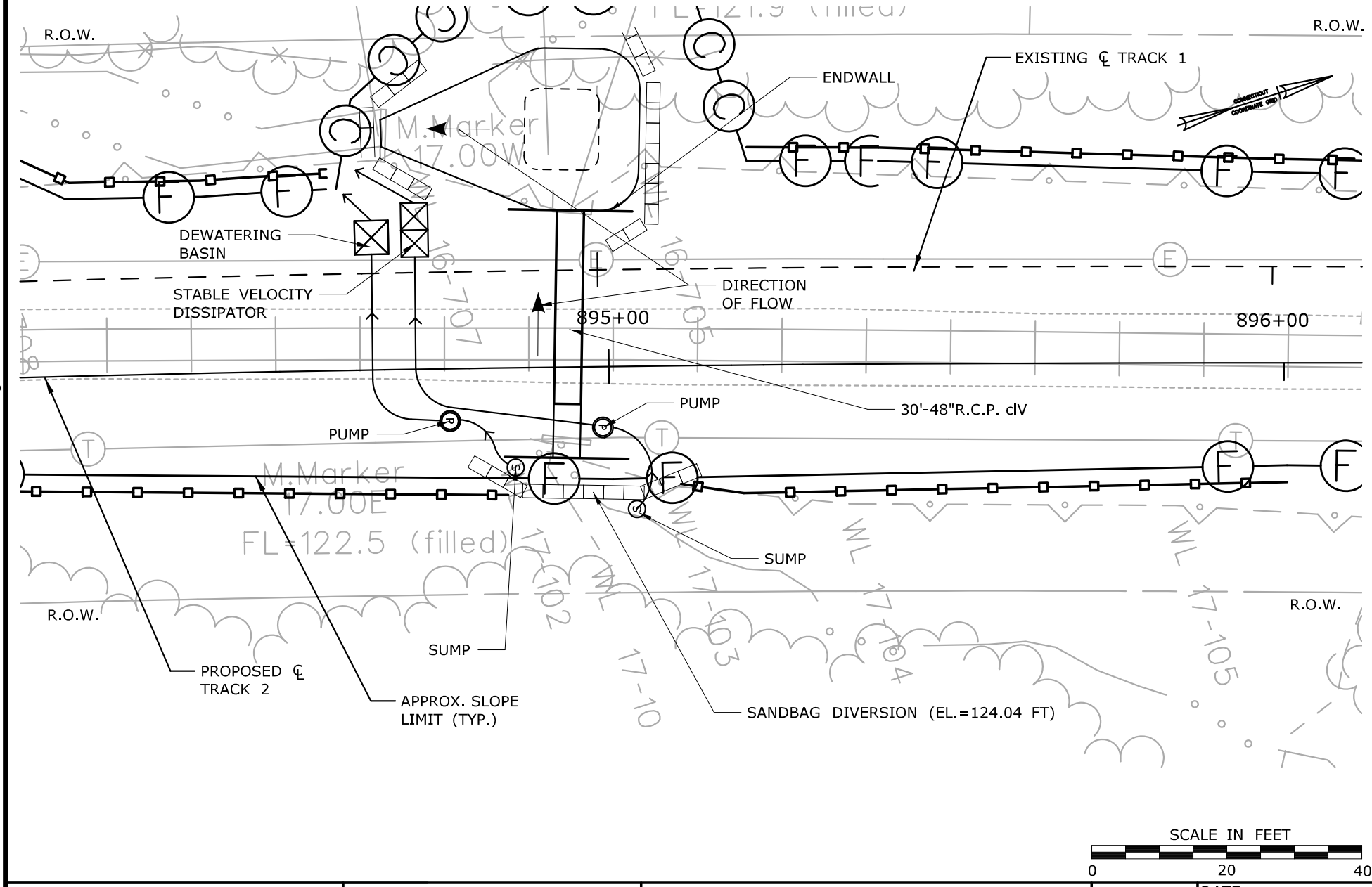
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.
16-700

PLATE 9.3B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_02_PER_PER_Permit Plate 9.3B.dgn



Filename: ...\FA_CGR_MSM_0170-2296_079_02_PER_PER_Permit Plate 9.4B.dgn

STAGE 2

CONSTRUCTION PLAN

WETLAND ID 16-700
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.
16-700

PLATE 9.4B OF 10.1B

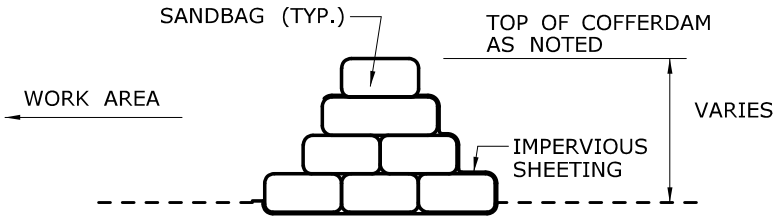
CONSTRUCTION SEQUENCE PHASE 1

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. REMOVE EXISTING HEADWALL.
3. INSTALL HEADWALL.
4. INSTALL 8 L.F. OF EACH 48" R.C. PIPE.

CONSTRUCTION SEQUENCE PHASE 2

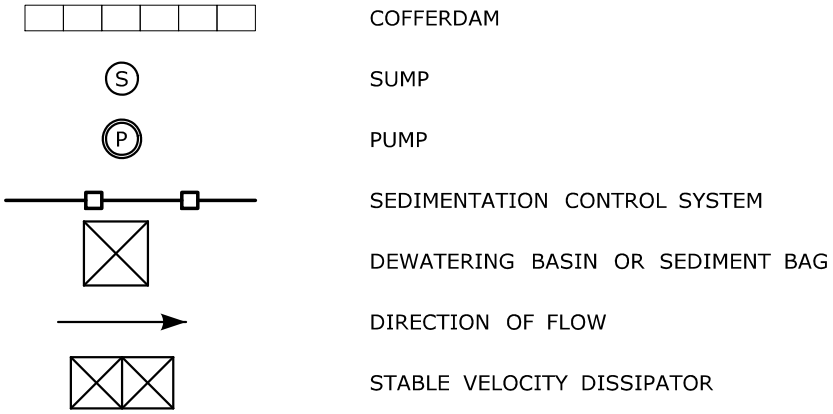
1. CHECK AND MAINTAIN COFFERDAMS AND DEWATERING DEVICES INSTALLED IN PHASE 1 THAT ARE TO REMAIN.
2. REMOVE EXISTING CULVERT AND INTALL 30 FEET OF 48" R.C. PIPE CLASS V.
3. REMOVE EXISTING ENDWALL AND INSTALL CONCRETE ENDWALL.
4. INSTALL PREFORMED SCOUR HOLE TYPE 1
5. REMOVE COFFERDAM AND DEWATERING DEVICES.

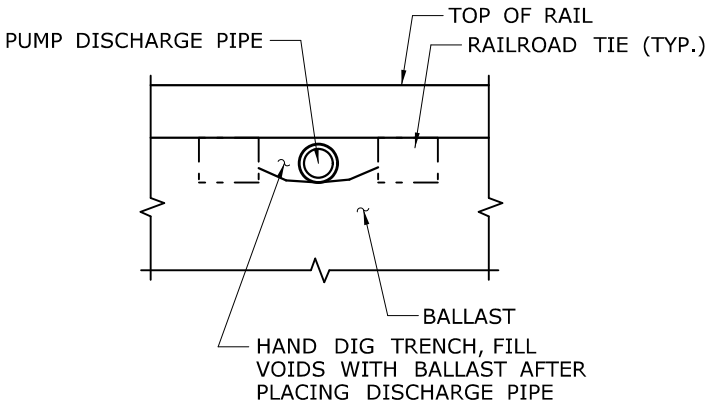
TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	n/a
AVERAGE SPRING FLOW	0.29 CFS
TWO (2) YEAR FREQUENCY DISCHARGE	41.55 CFS
TEMPORARY DESIGN DISCHARGE	0.29 CFS
TEMPORARY DESIGN FREQUENCY	ASF +1
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	123.04 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	121.93 FT
SANDBAG DIVERSION	124.04 FT



COFFERDAM DETAIL

LEGEND





PUMP DISCHARGE PIPE UNDER RAILROAD TRACKS DETAIL

CONSTRUCTION DETAILS & NOTES

WETLAND ID 16-700 & 17-100
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

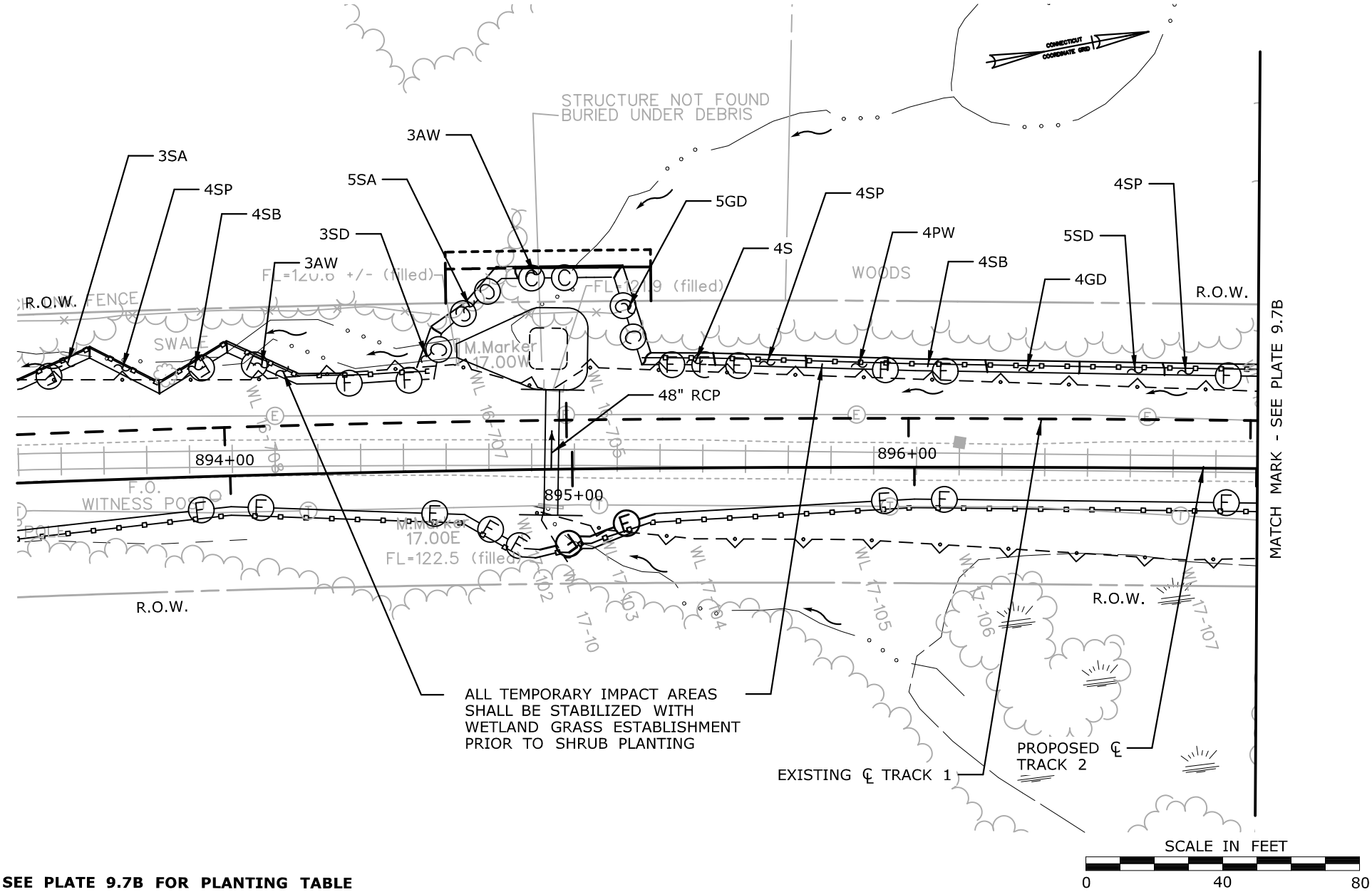
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DATE: MAR 2014

WETLAND ID No. 16-700 & 17-100

PLATE 9.5B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_02_PER_PER_Permit Plate 9.5B.dgn



SEE PLATE 9.7B FOR PLANTING TABLE

PLANTING PLAN

WETLAND ID 16-700 & 17-100
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

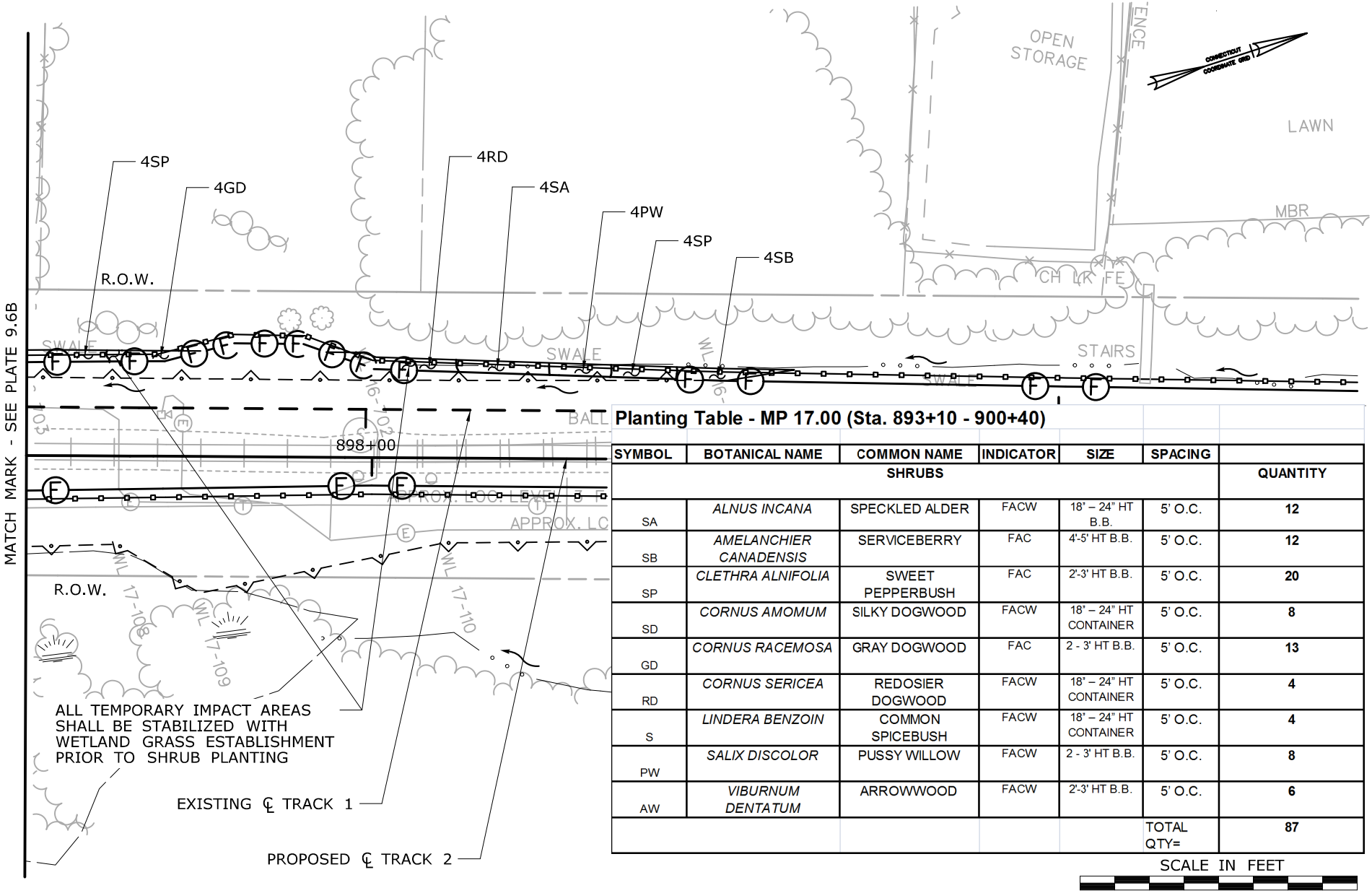
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DATE:
MAR 2014

WETLAND ID No.
16-700 & 17-100

PLATE 9.6B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_Permit Plate 9.6B.dgn



Planting Table - MP 17.00 (Sta. 893+10 - 900+40)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	12
SB	*AMELANCHIER CANADENSIS*	SERVICEBERRY	FAC	4'-5' HT B.B.	5' O.C.	12
SP	*CLETHRA ALNIFOLIA*	SWEET PEPPERBUSH	FAC	2'-3' HT B.B.	5' O.C.	20
SD	*CORNUS AMOMUM*	SILKY DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	8
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	13
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	4
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	4
PW	*SALIX DISCOLOR*	PUSSY WILLOW	FACW	2 - 3' HT B.B.	5' O.C.	8
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	6
					TOTAL QTY=	87

SCALE IN FEET
0 40 80

IMPACT PLAN

WETLAND ID 16-700 & 17-100
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

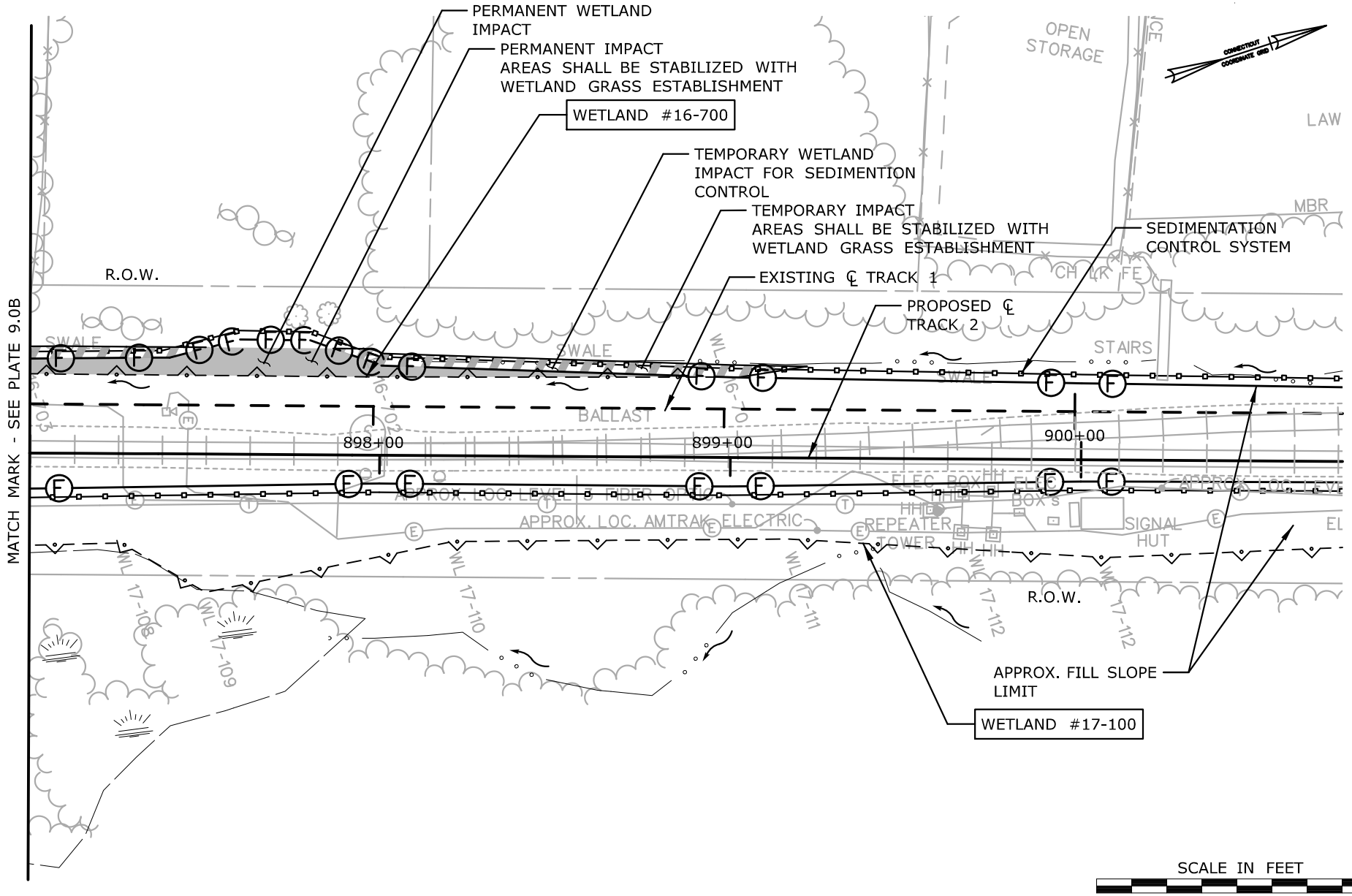
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
16-700 & 17-100

PLATE 9.7B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_Permit Plate 9.7B.dgn



SEE PLATE 8.0B FOR WETLAND ID 16-700 & 17-100 TOTAL IMPACT AREAS

IMPACT PLAN

WETLAND ID 16-700 & 17-100
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

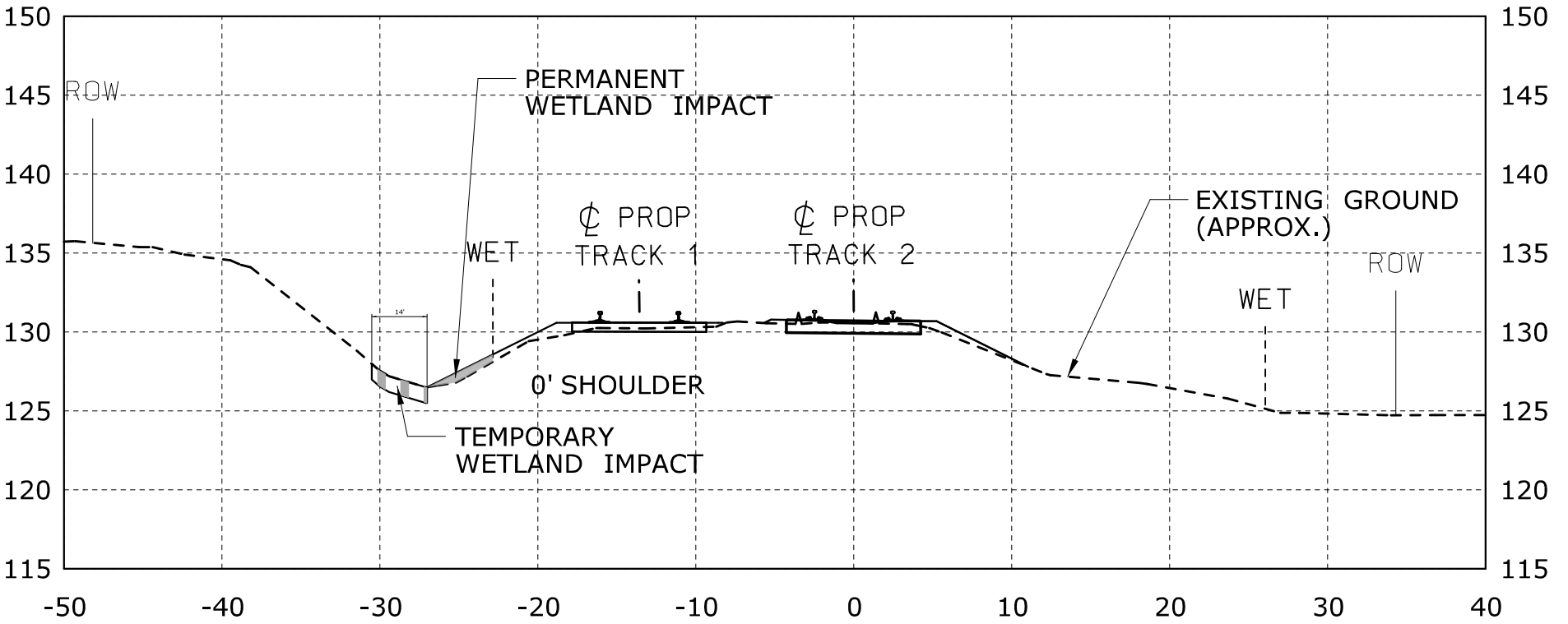
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
16-700 & 17-100

PLATE 10.0B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_Permit Plate 10.0B.dgn



897+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTRUBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET

0 10 20

IMPACT SECTION
WETLAND ID 16-700
MP 17.00
STA. 893+10 - 900+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

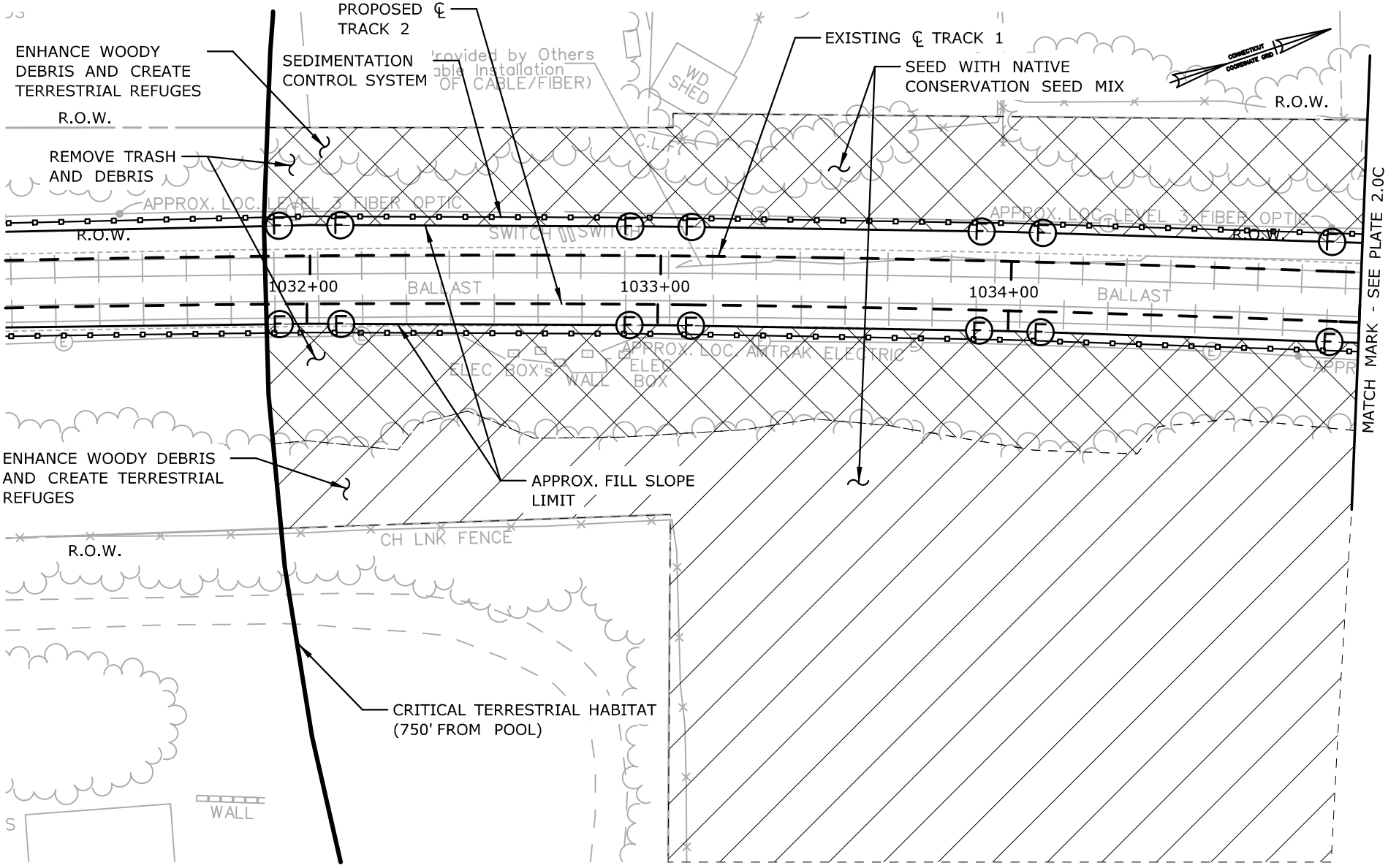
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.
16-700 & 17-100

PLATE 10.1B OF 10.1B

Filename: ...\FA_CGR_MSM_0170-2296_079_03_PER_PER_Permit Plate 10.1B.dgn



SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

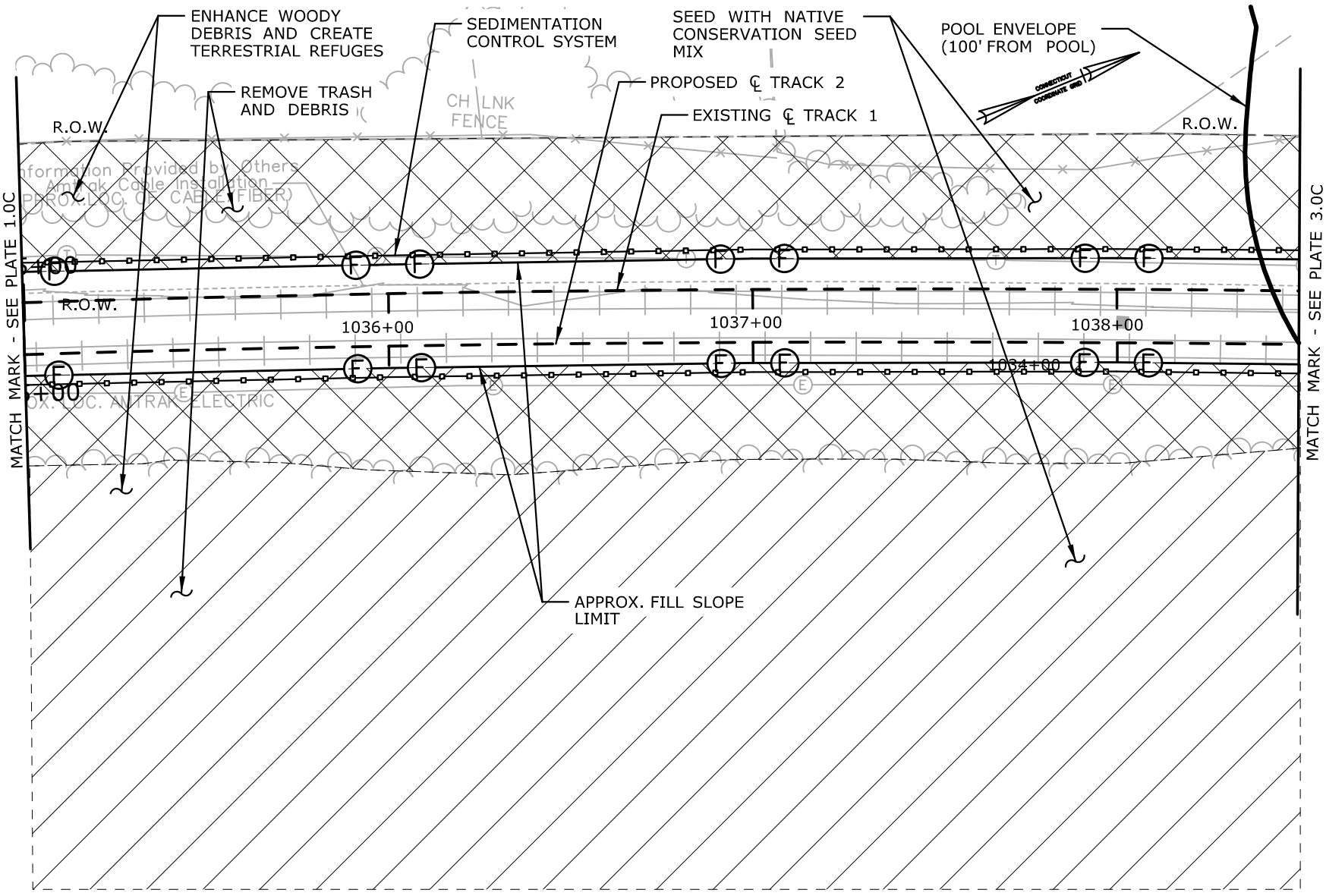
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 1.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 1.0C.dgn



SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

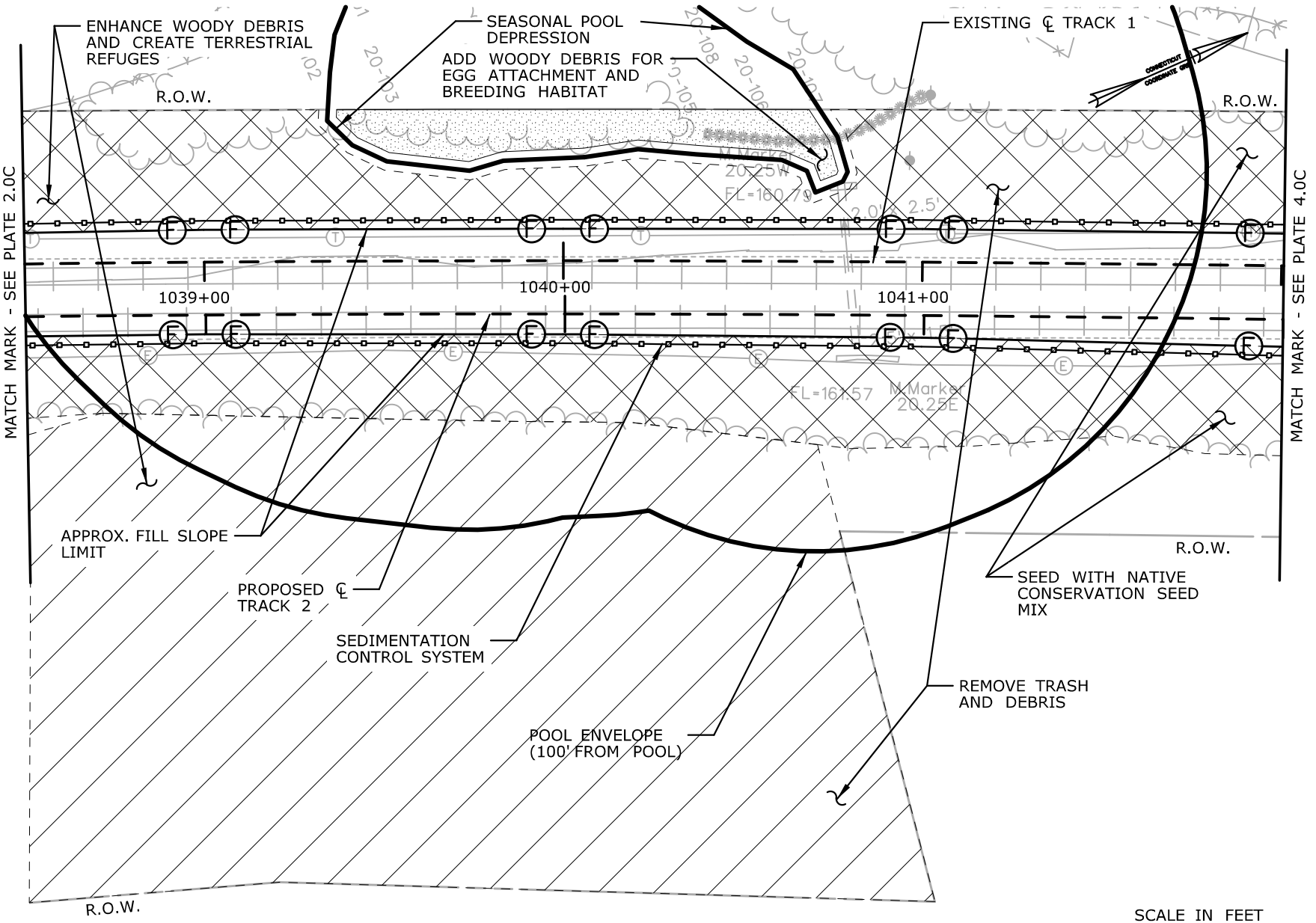
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 2.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079__01_PER_PER_Permit Plate 2.0C.dgn



SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

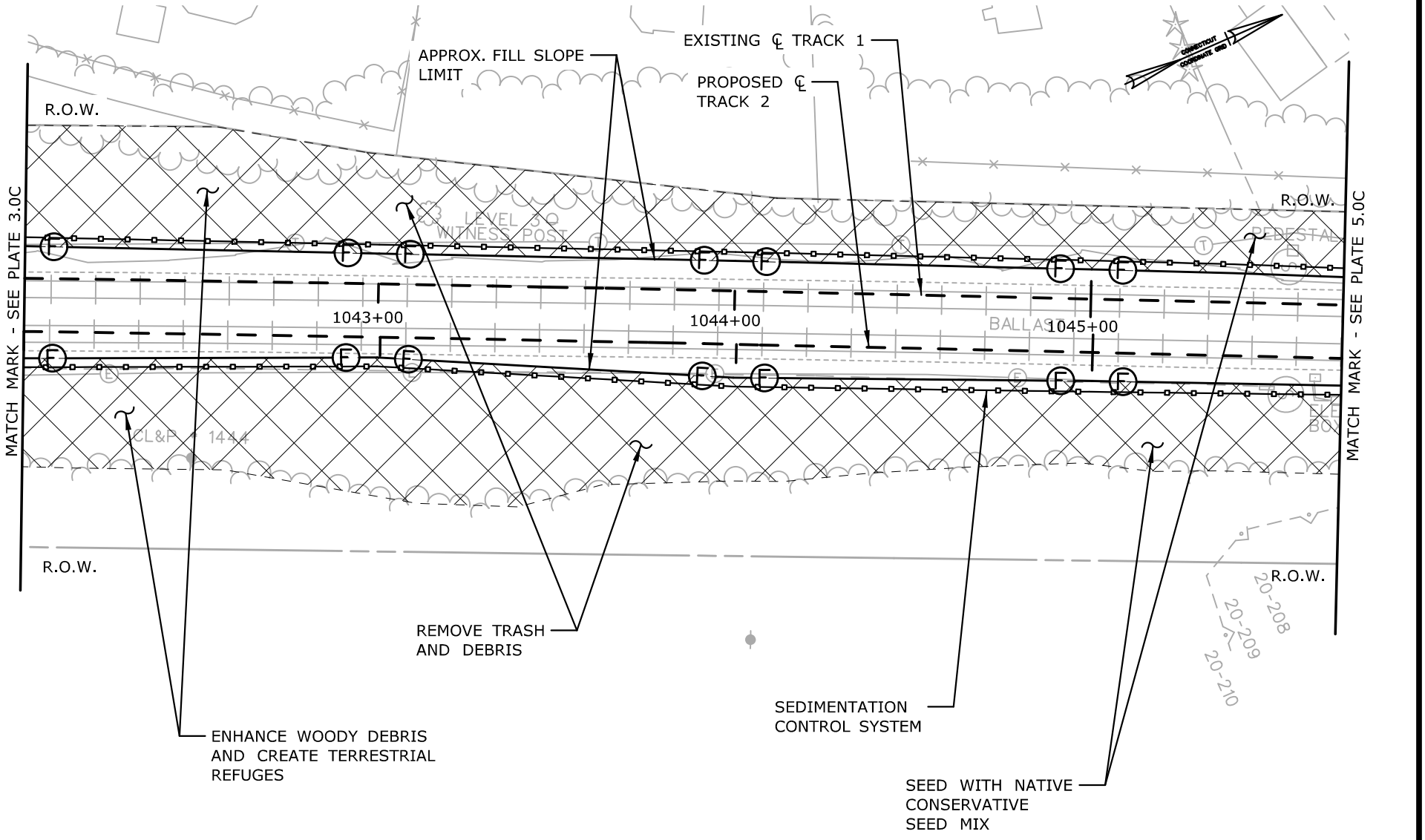
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 3.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 3.0C.dgn



SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

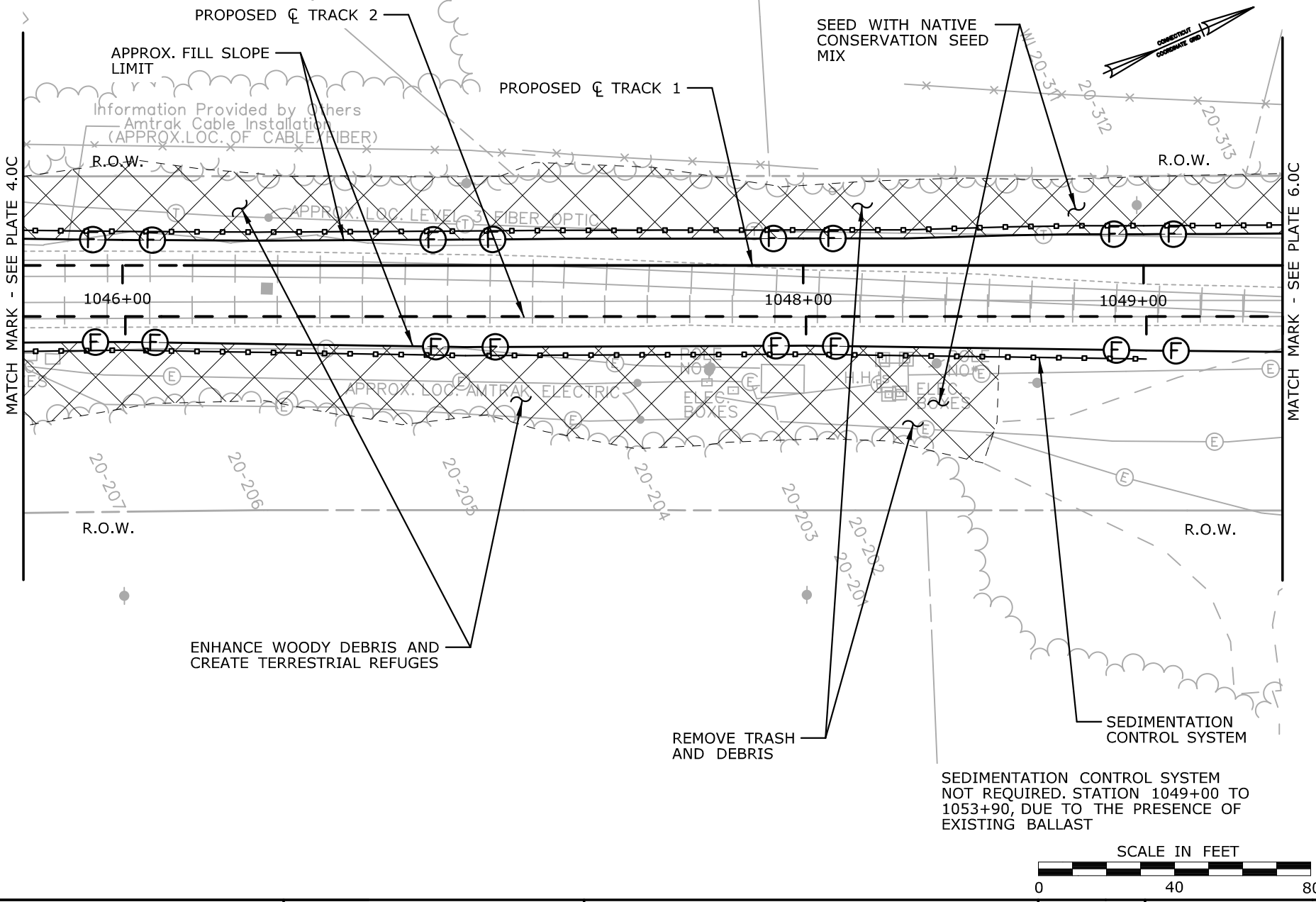
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 4.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 4.0C.dgn



SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

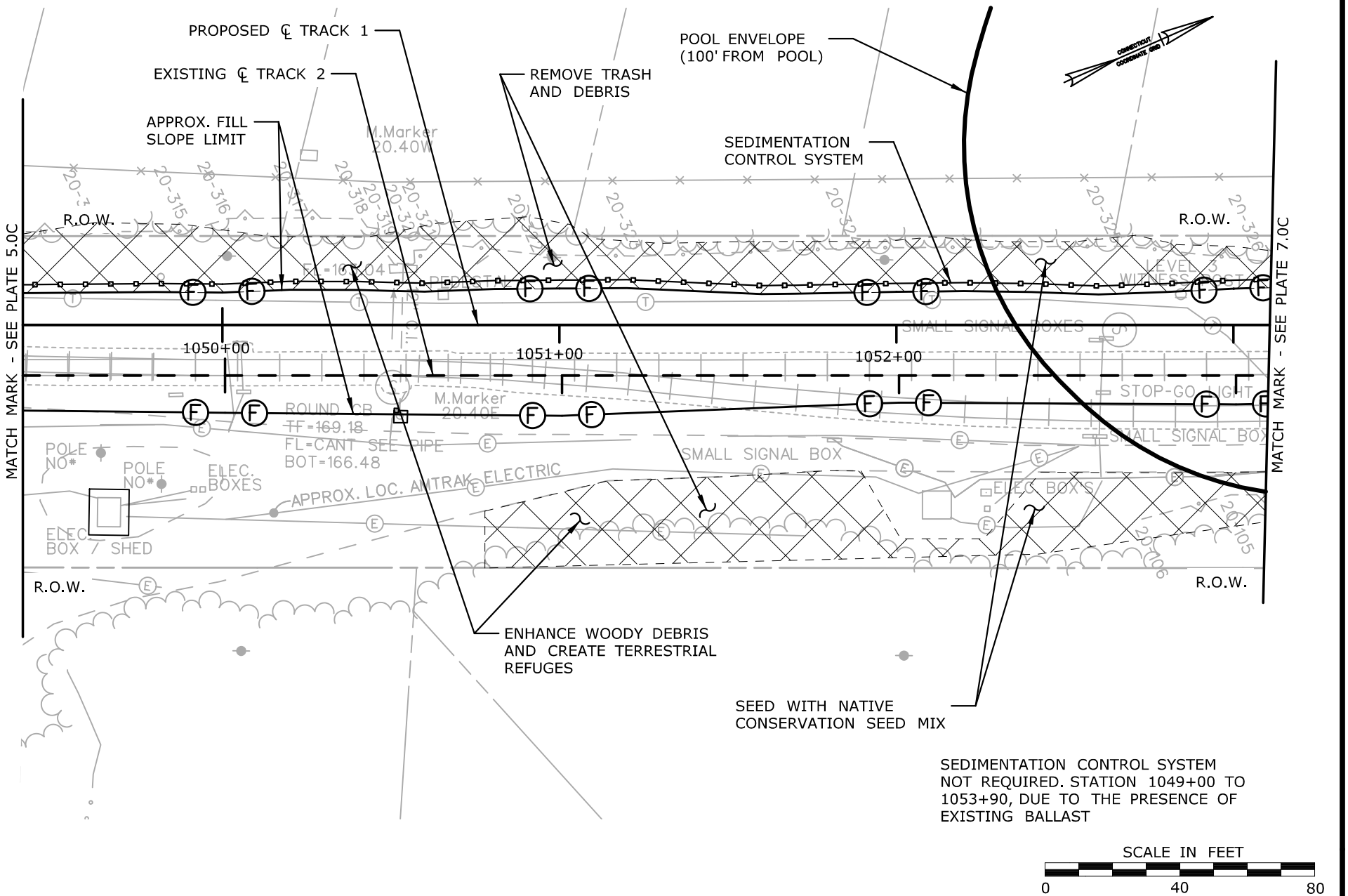
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 5.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 5.0C.dgn



Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 6.0C.dgn

SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

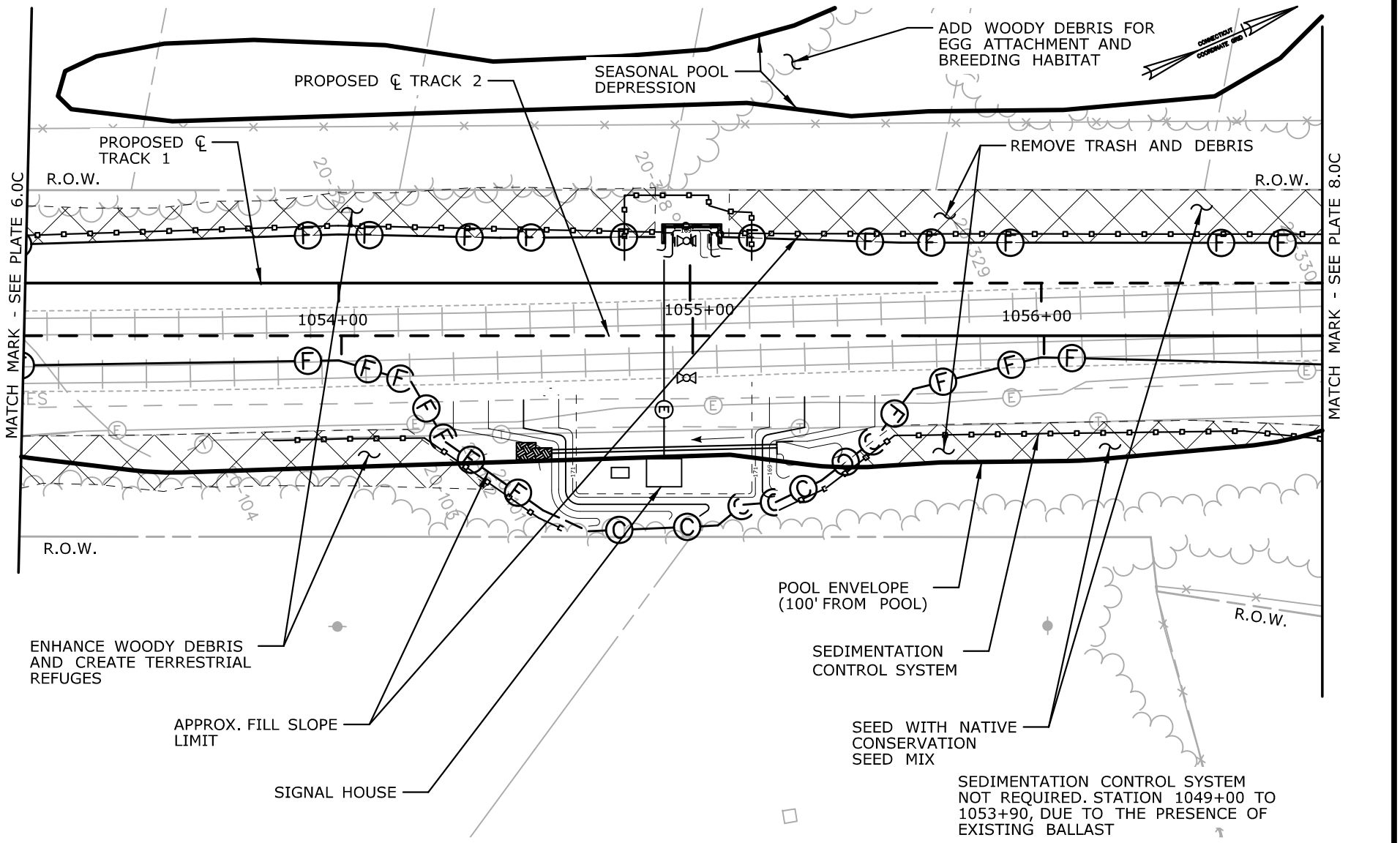
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 6.0C OF 26.0C



SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

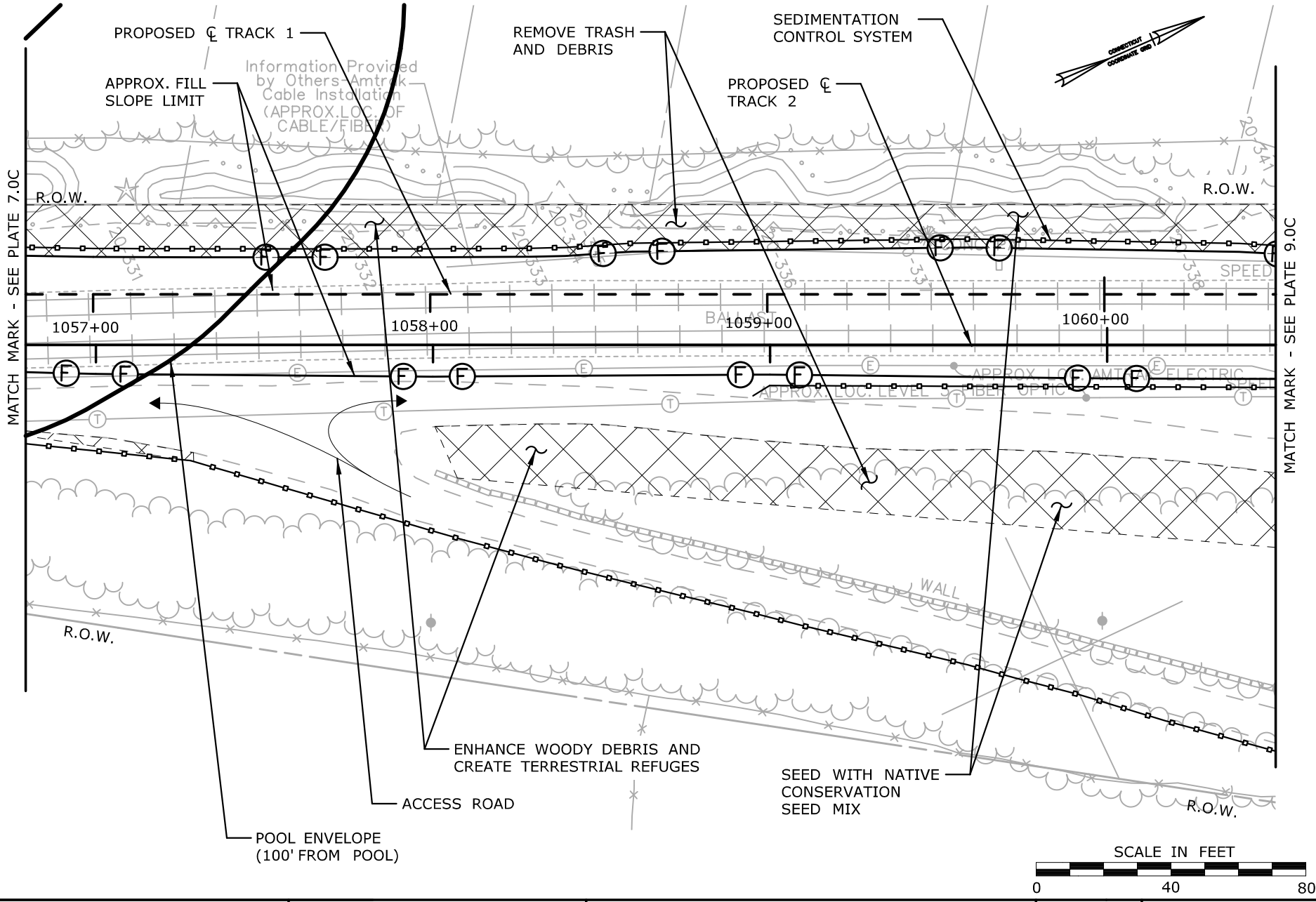
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 7.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 7.0C.dgn



Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 8.0C.dgn

SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

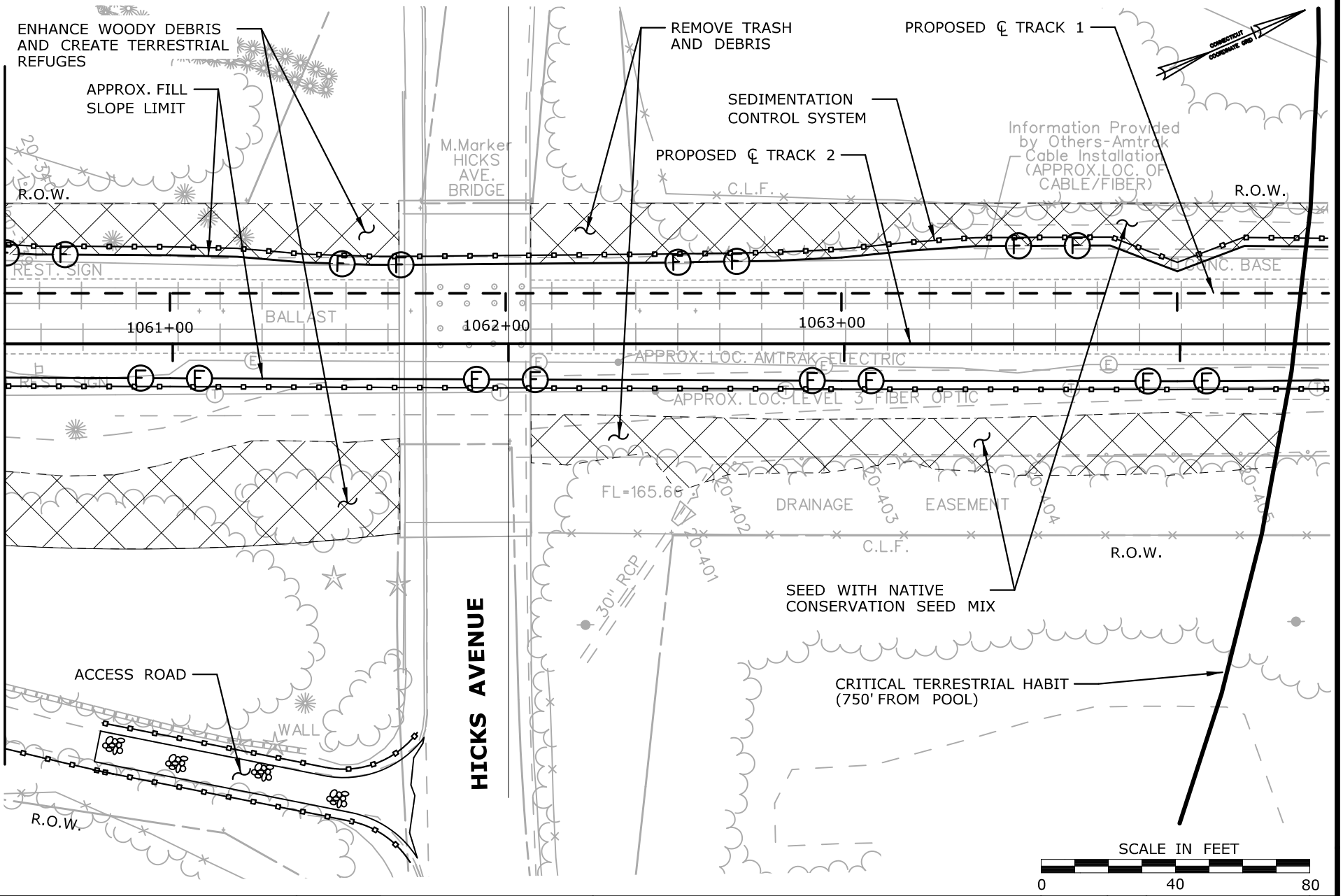
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 8.0C OF 26.0C



SEASONAL POOL MITIGATION

MP 20.04 - MP 20.72
STA. 1031+90 - 1064+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

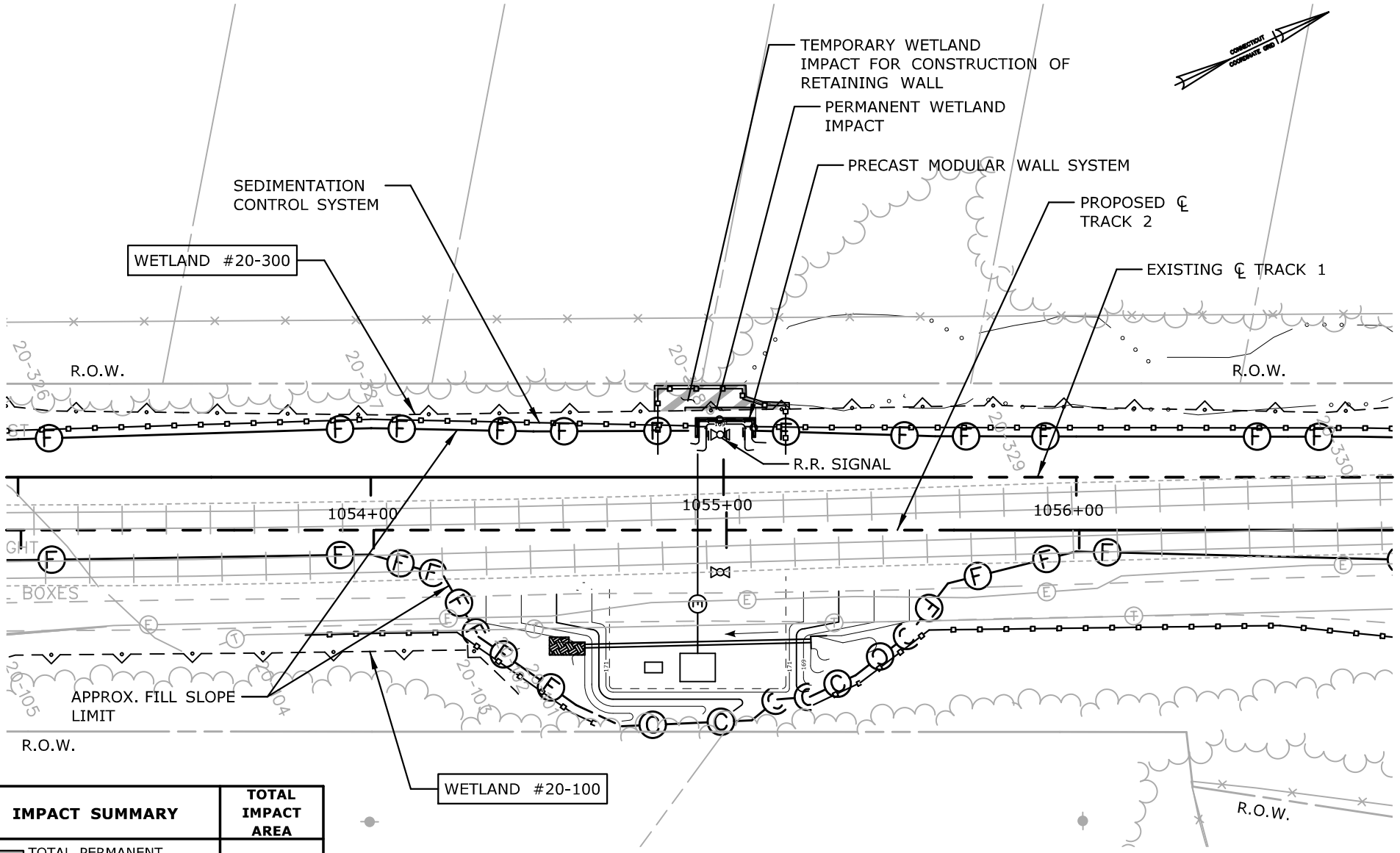
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
SEASONAL POOL MITIGATION

PLATE 9.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 9.0C.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 20-300 IMPACT	20 S.F.
TOTAL TEMPORARY WETLAND 20-300 IMPACT	200 S.F.

IMPACT PLAN

WETLAND ID 20-300
MP 20.54
STA. 1055+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

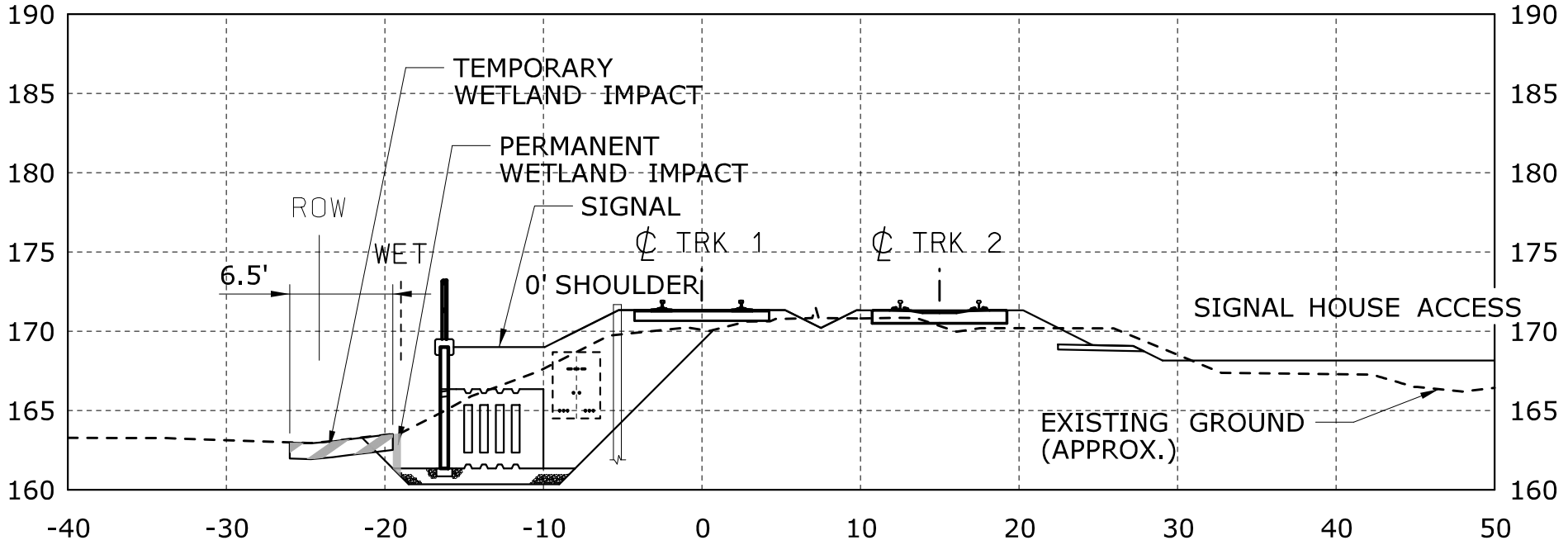
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
20-100 & 20-300

PLATE 10.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 10.0C.dgn



1055+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 20-300
MP 20.54
STA. 1055+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

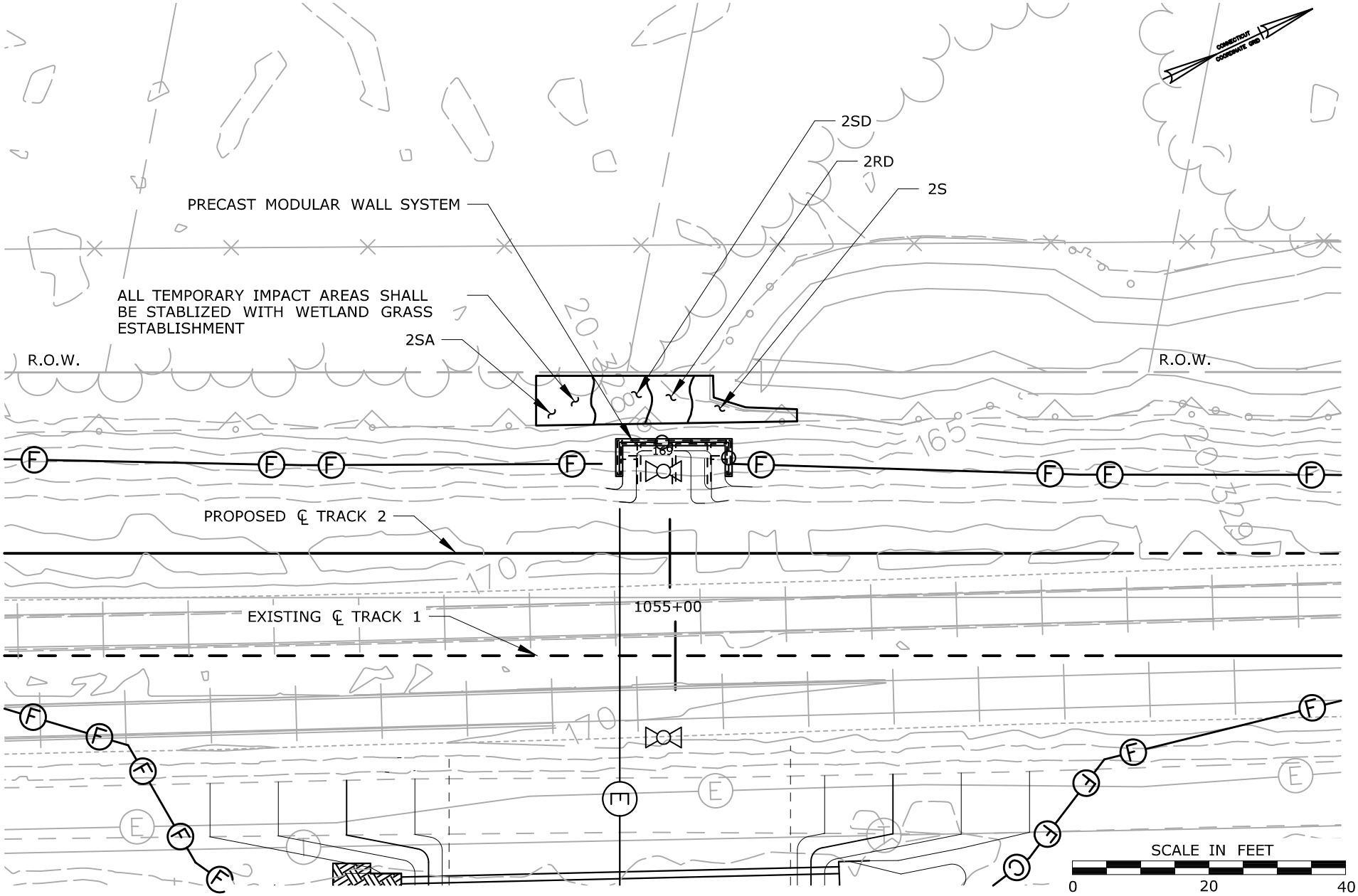
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.
20-100 & 20-300

PLATE 10.1C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 10.1C.dgn



PLANTING PLAN

WETLAND ID 20-300
MP 20.54
STA. 1055+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

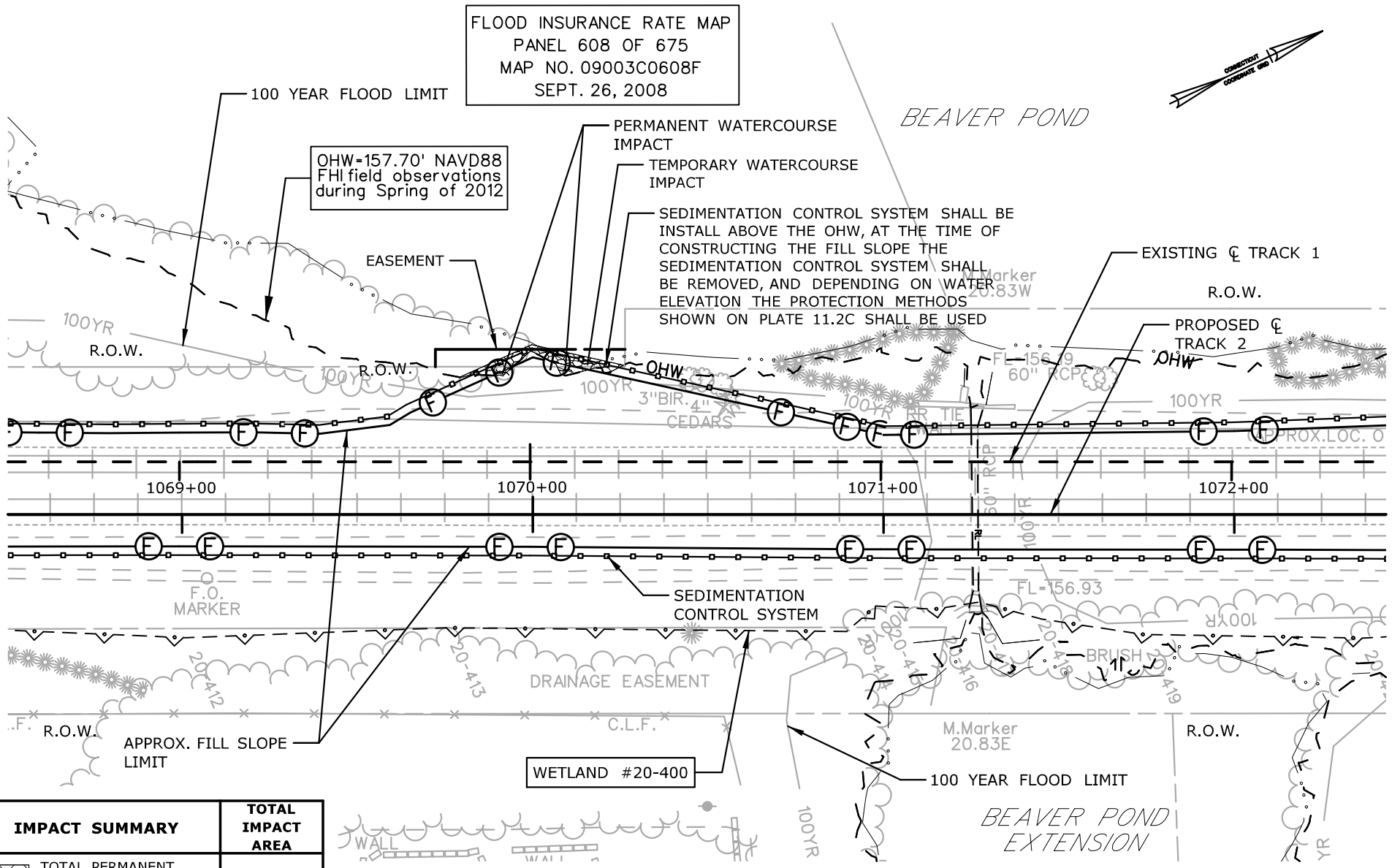
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DATE:
MAR 2014

WETLAND ID No.
20-100 & 20-300

PLATE 10.2C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 10.2C.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	25 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	655 S.F.

IMPACT AREAS FOR WETLAND 20-400 ARE ALSO SHOWN ON PLATES 12.0C & 13.0C

IMPACT PLAN

BEAVER POND
MP 20.83
STA. 1069+90 - 1070+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

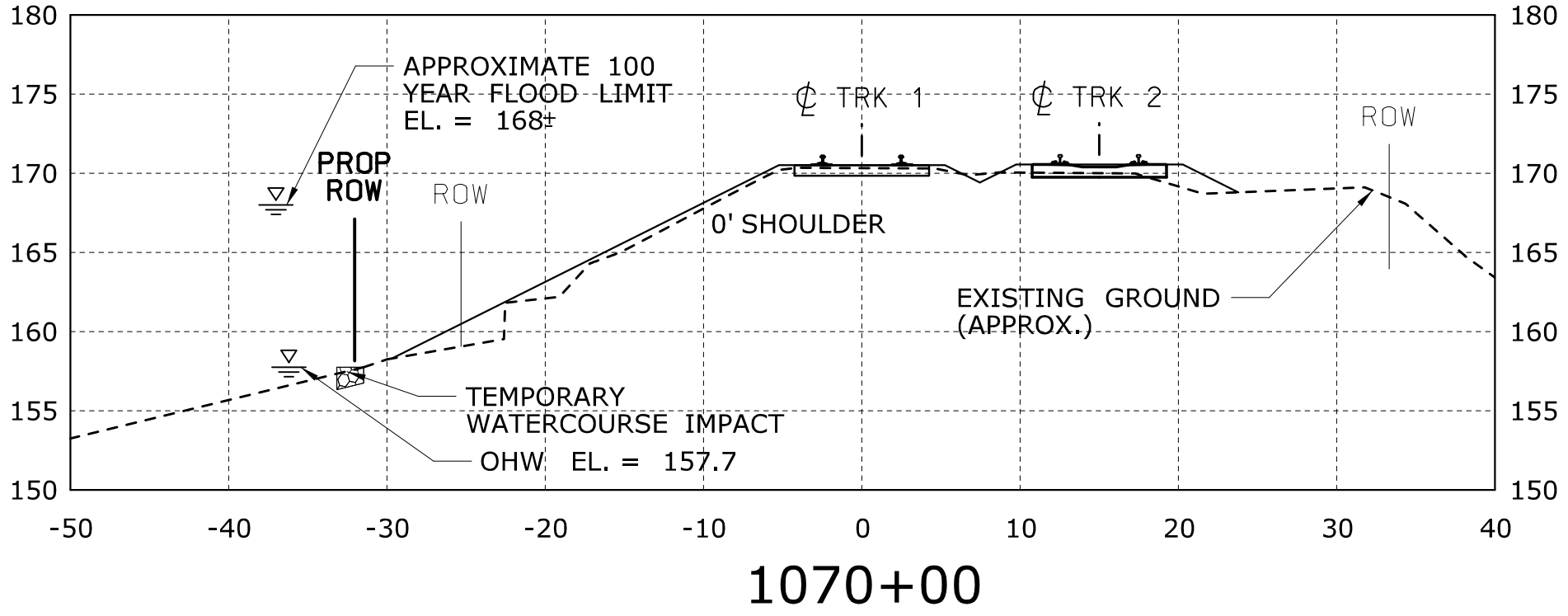
DATE:
MAR 2014

WETLAND ID No.
20-400

WATERCOURSE
BEAVER POND

PLATE 11.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 11.0C.dgn



1070+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTRUBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
BEAVER POND
MP 20.83
STA. 1069+90 - 1070+20

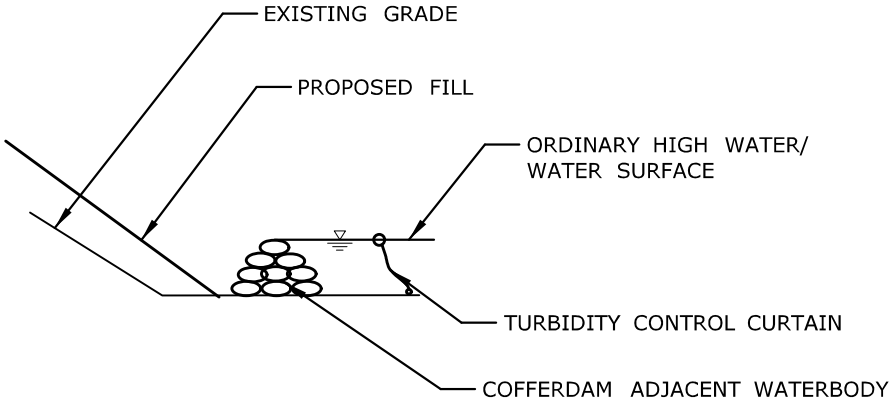
CTDOT PROJECT NO.: 170-3154/3155/3156
COUNTY: NEW HAVEN
CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

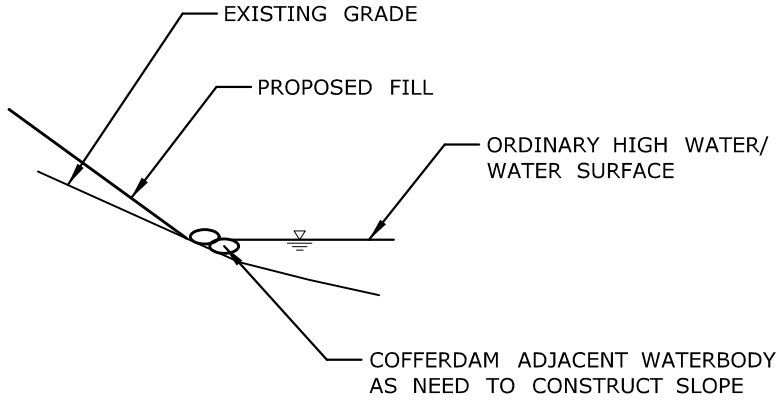
PARSONS BRINCKERHOFF
SCALE:1"=10'

DATE: MAR 2014
WETLAND ID No. 20-400
WATERCOURSE BEAVER POND
PLATE 11.1C OF 26.0C

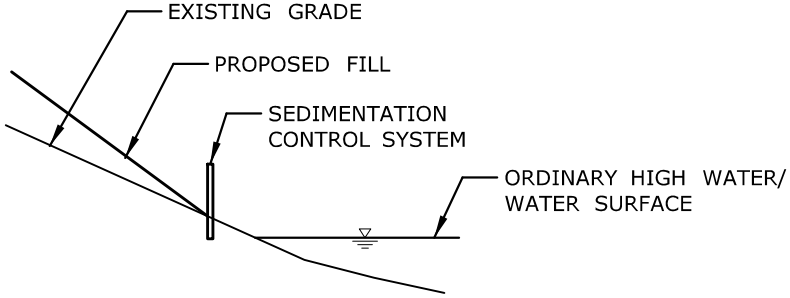
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SECTION WITH FILL BELOW ORDINARY HIGH WATER/ WATER SURFACE



SECTION WITH FILL AT ORDINARY HIGH WATER/ WATER SURFACE



SECTION WITH FILL ABOVE ORDINARY HIGH WATER/ WATER SURFACE

CONSTRUCTION DETAILS

BEAVER POND
MP 20.83
STA. 1069+90 - 1070+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:NTS

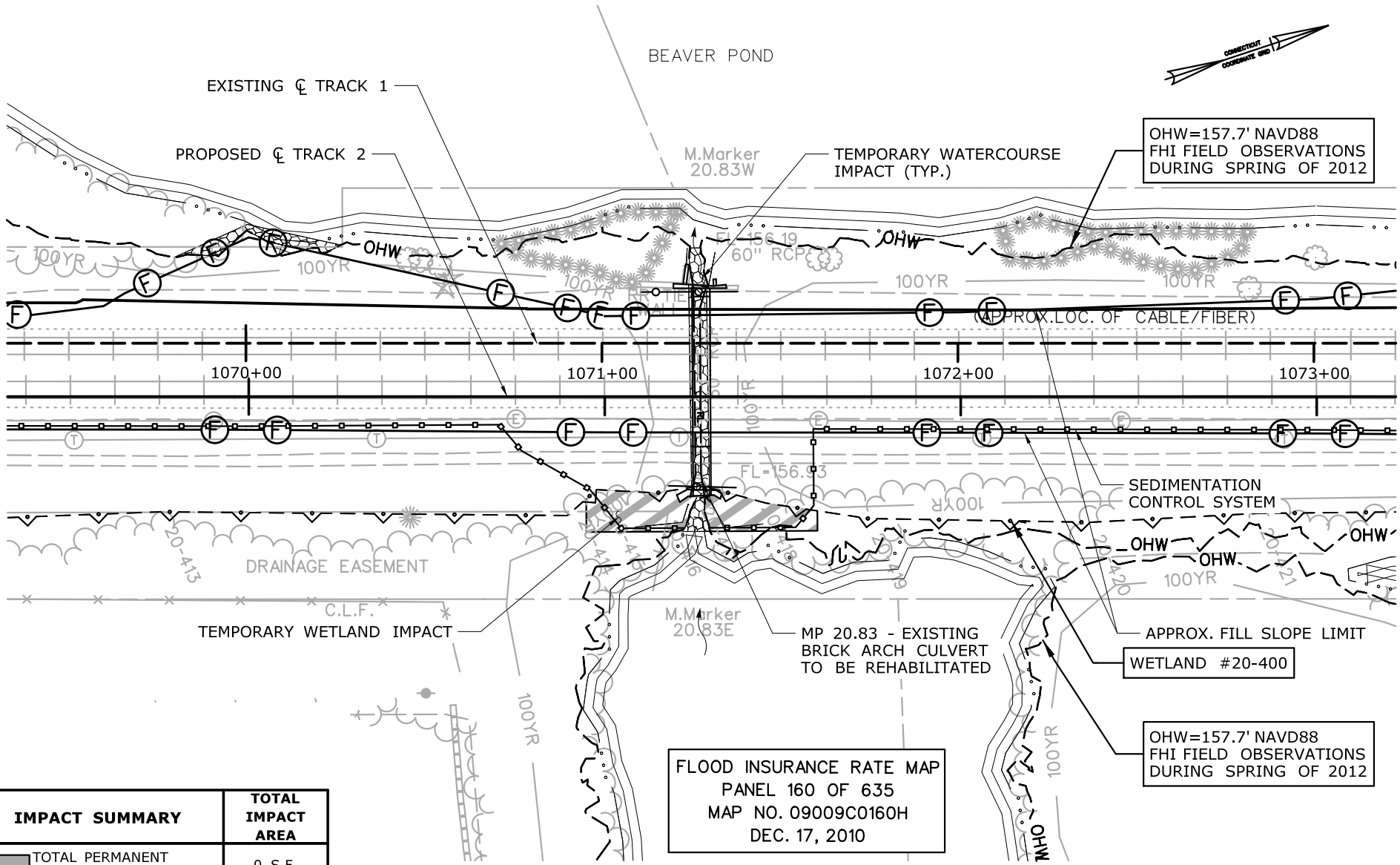
DATE:
MAR 2014

WETLAND ID No.
20-400

WATERCOURSE
BEAVER POND

PLATE 11.2C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 11.2C.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 20-400 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 20-400 IMPACT	575 S.F.

SEE PLATE 11.0C FOR TOTAL BEAVER POND IMPACT AREAS

IMPACT PLAN

BEAVER POND
WETLAND ID 20-400
MP 20.83
STA.1071+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014

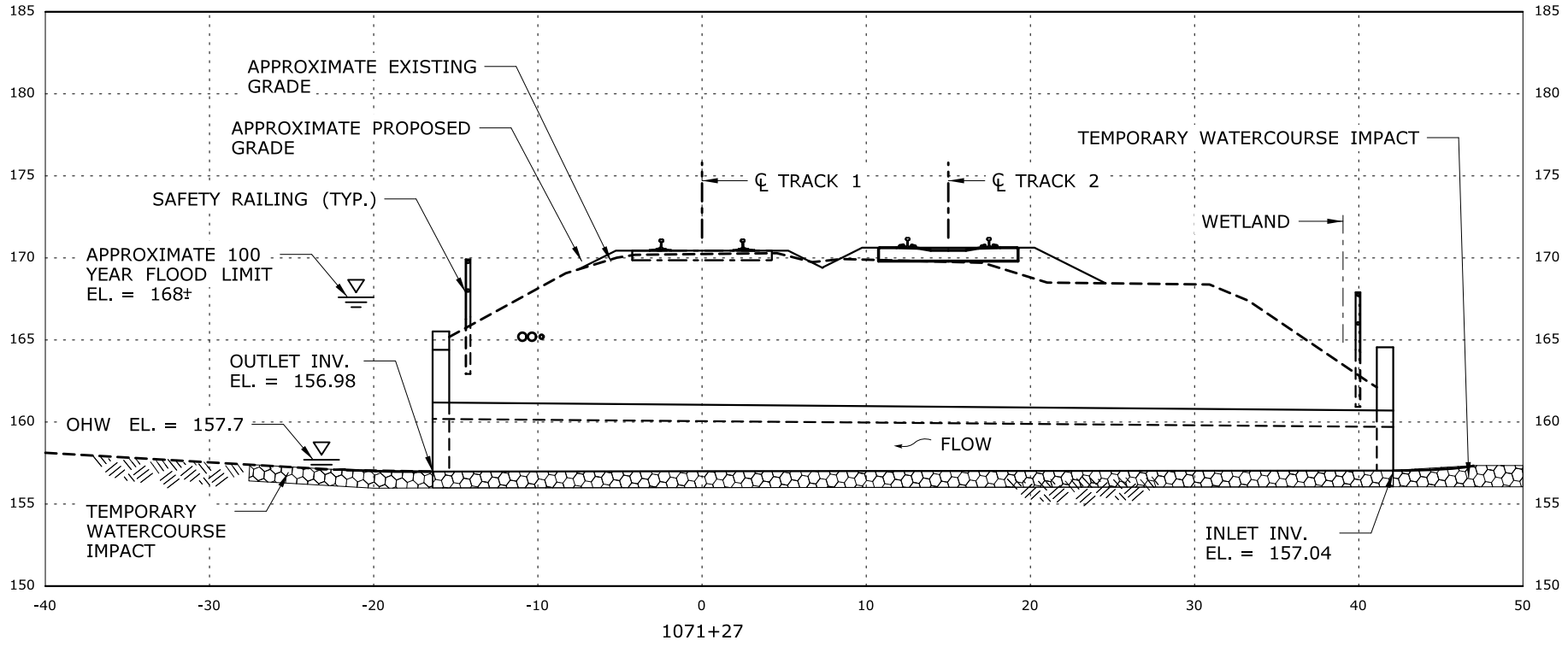
WETLAND ID No.
20-400

WATERCOURSE
BEAVER POND

PLATE 12.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER__MP 20.83_01.dgn

TEMPORARY HYDRAULIC DATA - BEAVER POND	
TEMPORARY DESIGN DISCHARGE	0 CFS
TEMPORARY DESIGN FREQUENCY	OHW
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	157.7'
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	157.7'



SCALE IN FEET

0 10 20

IMPACT SECTION

BEAVER POND
WETLAND ID 20-400
MP 20.83
STA. 1071+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

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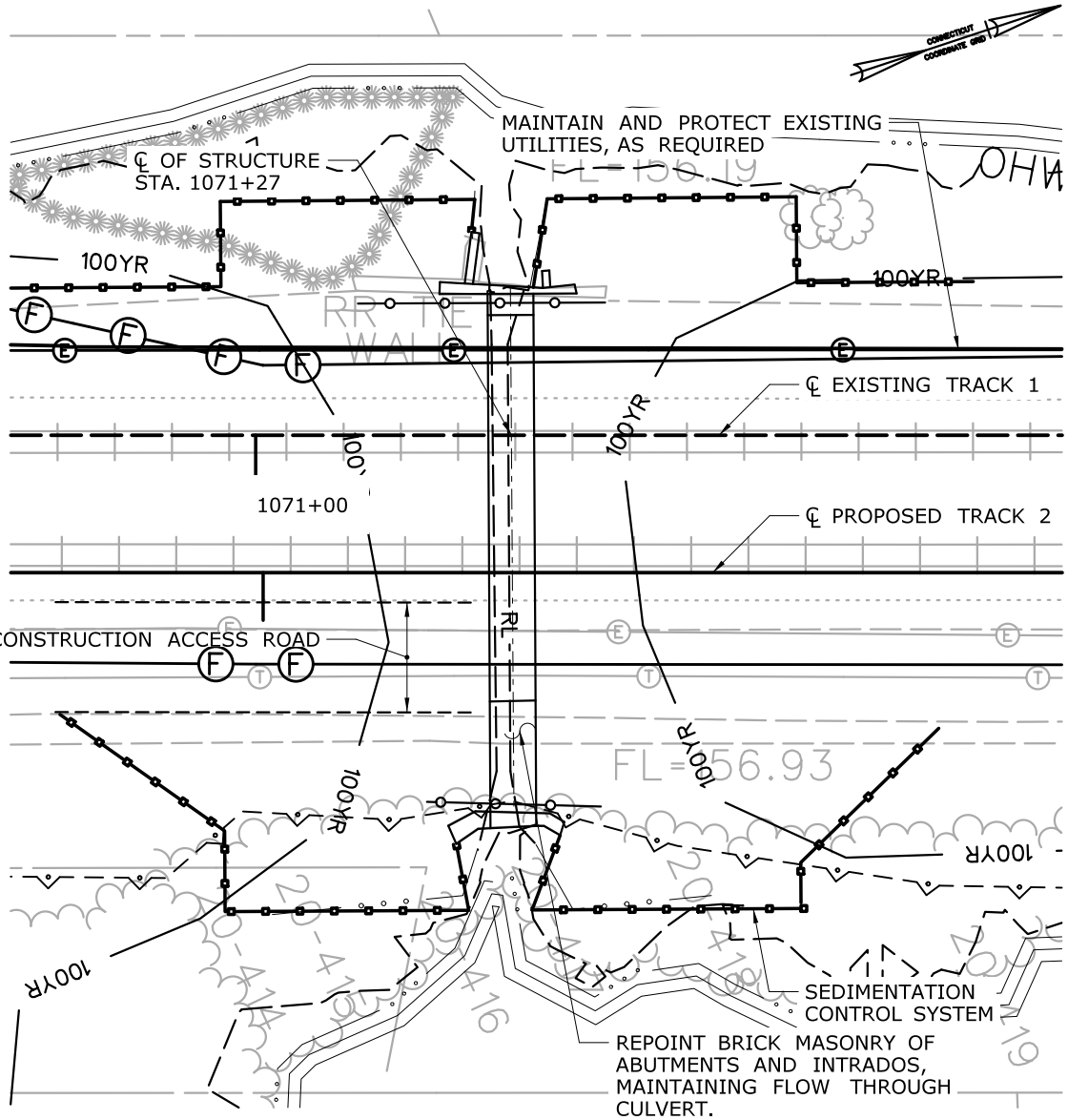
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DATE:
MAR 2014

WETLAND ID No.
20-400
WATERCOURSE
BEAVER POND

PLATE 12.1C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 20.83_02.dgn



CONSTRUCTION SEQUENCE NOTES:

1. TRACK 1 IS ACTIVE, ALL WORK PERFORMED DURING FOUL TIME AND SHORT TERM TRACK OUTAGES.

STAGE 1:

1. INSTALL SEDIMENTATION AND EROSION CONTROL AROUND WORK SITE AT INLET AND OUTLET AS SHOWN ON PLANS.
2. PLACE SANDBAGS WITHIN CULVERT TO DIVERT FLOW LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE CULVERT. REPOINT JOINTS AND REPAIR SETTLEMENT CRACKS WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. SANDBAGS ARE TO BE PLACED UP TO ELEVATION 158.7'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
3. RELOCATE SANDBAGS WITHIN CULVERT TO DIVERT AND MAINTAIN FLOW IN SECOND HALF OF CULVERT LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE CULVERT. REPOINT JOINTS AND SETTLEMENT CRACKS WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. SANDBAGS ARE TO PLACED UP TO ELEVATION 158.7'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
4. REMOVE SANDBAGS AND RESTORE FULL FLOW TO CULVERT.
5. ONCE SUBSTRUCTURE REPAIRS ARE COMPLETE INSTALL MONITOR POINTS IN LOCATIONS SHOWN ON PLANS. SEE INSTALL MONITOR POINTS REPAIR DETAIL.
6. REMOVE SEDIMENTATION AND EROSION CONTROL.

SCALE IN FEET
0 20 40

STAGE 1
CONSTRUCTION PLAN
BEAVER POND
WETLAND ID 20-400
MP 20.83 STA. 1071+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=20'

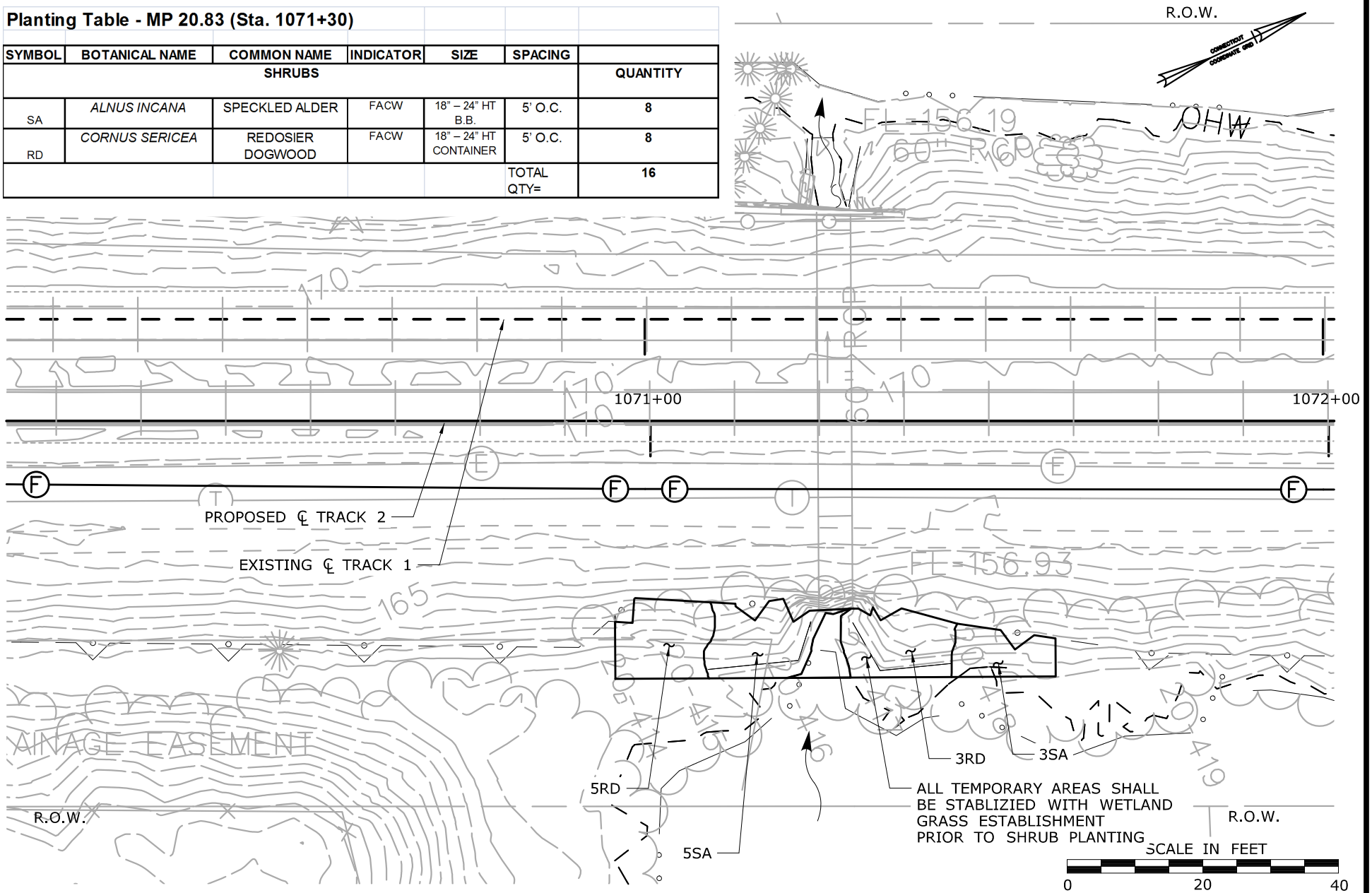
DATE:
MAR 2014
WETLAND ID No.
20-400
WATERCOURSE
BEAVER POND

PLATE 12.2C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 20.83_03.dgn

Planting Table - MP 20.83 (Sta. 1071+30)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	
		SHRUBS				QUANTITY
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	8
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	8
					TOTAL QTY=	16



PLANTING PLAN

BEAVER POND
WETLAND ID 20-400
MP 20.83
STA.1071+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

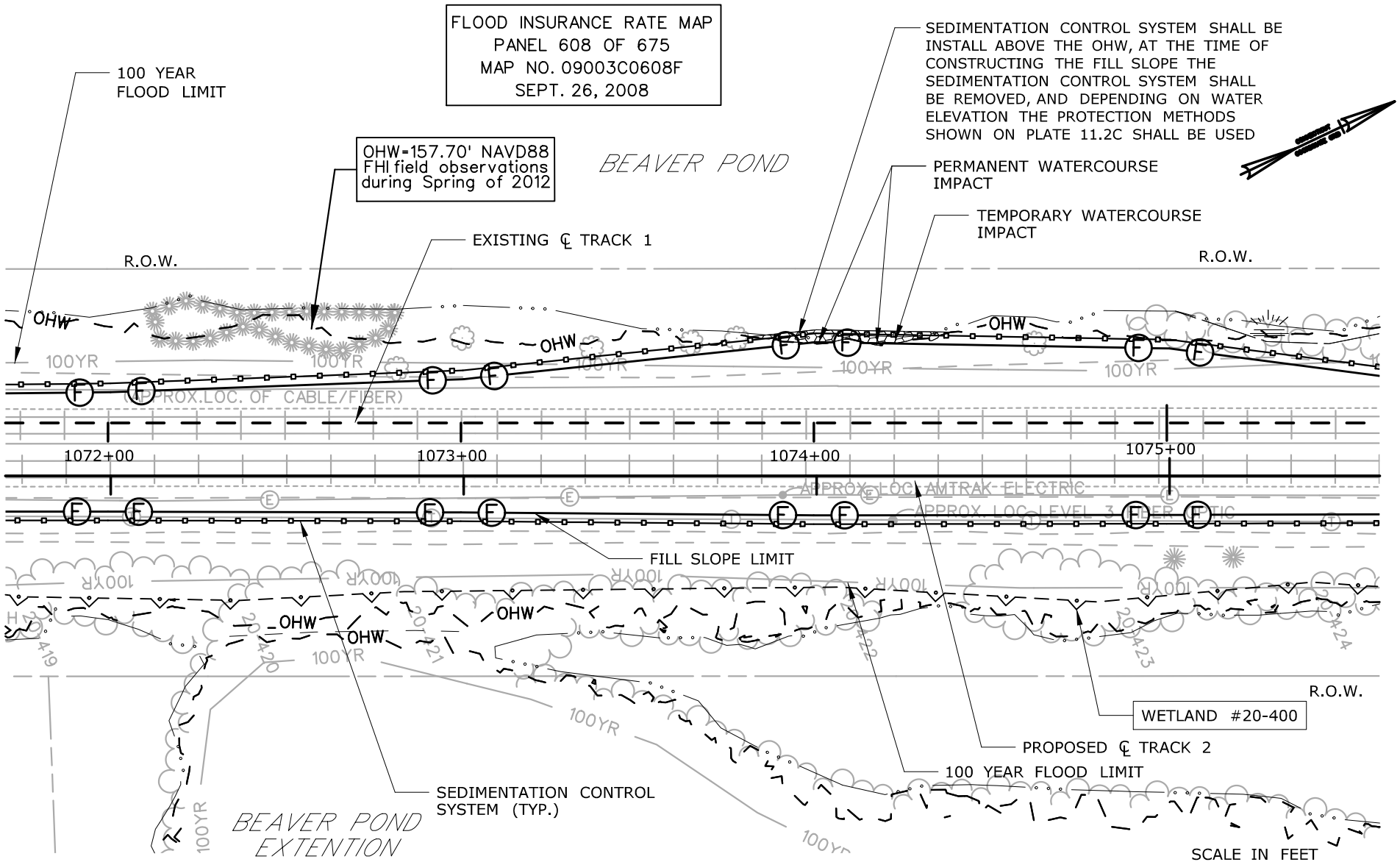
DATE:
MAR 2014

WETLAND ID No.
20-400

WATERCOURSE
BEAVER POND

PLATE 12.3C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 12.3C.dgn



SEE PLATE 2.0C FOR TOTAL BEAVER POND IMPACT AREAS

IMPACT PLAN

BEAVER POND
MP 20.91
STA. 1073+50 - 1075+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

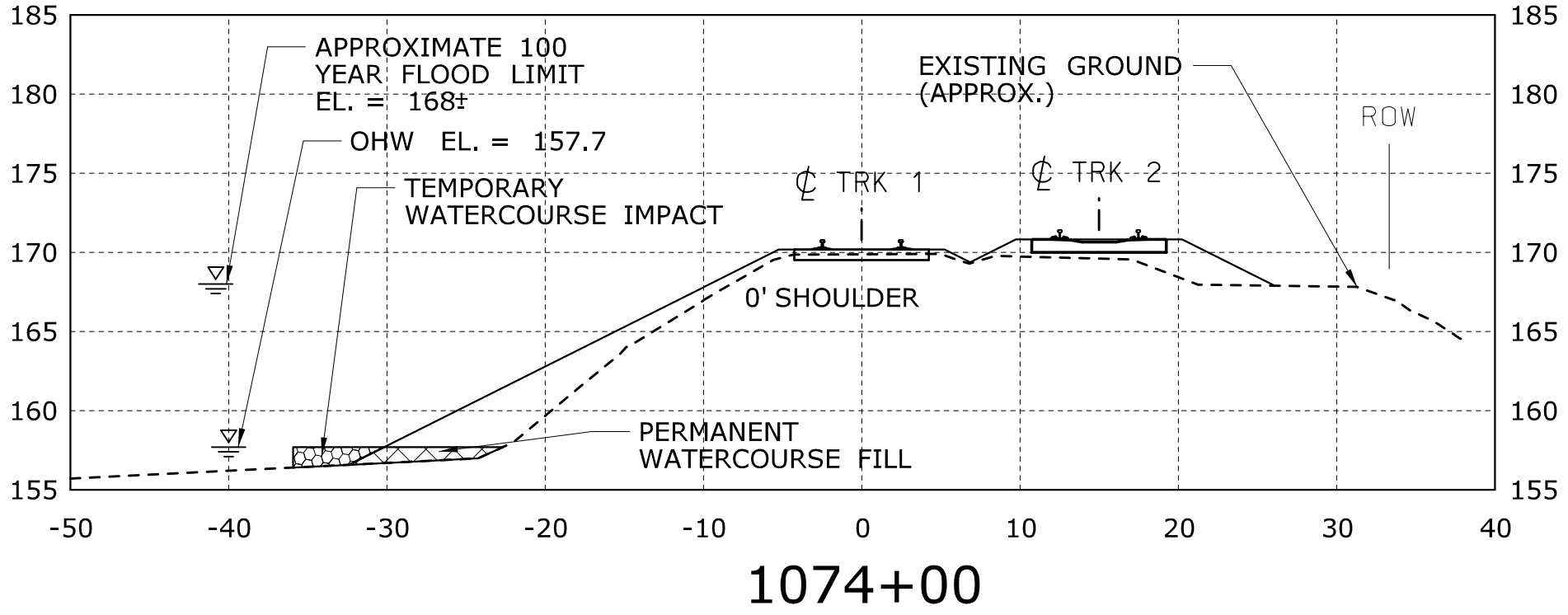
DATE:
MAR 2014

WETLAND ID No.

WATERCOURSE
BEAVER POND

PLATE 13.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 13.0C.dgn



GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTRUBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
BEAVER POND
MP 20.91
STA. 1073+50 - 1075+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

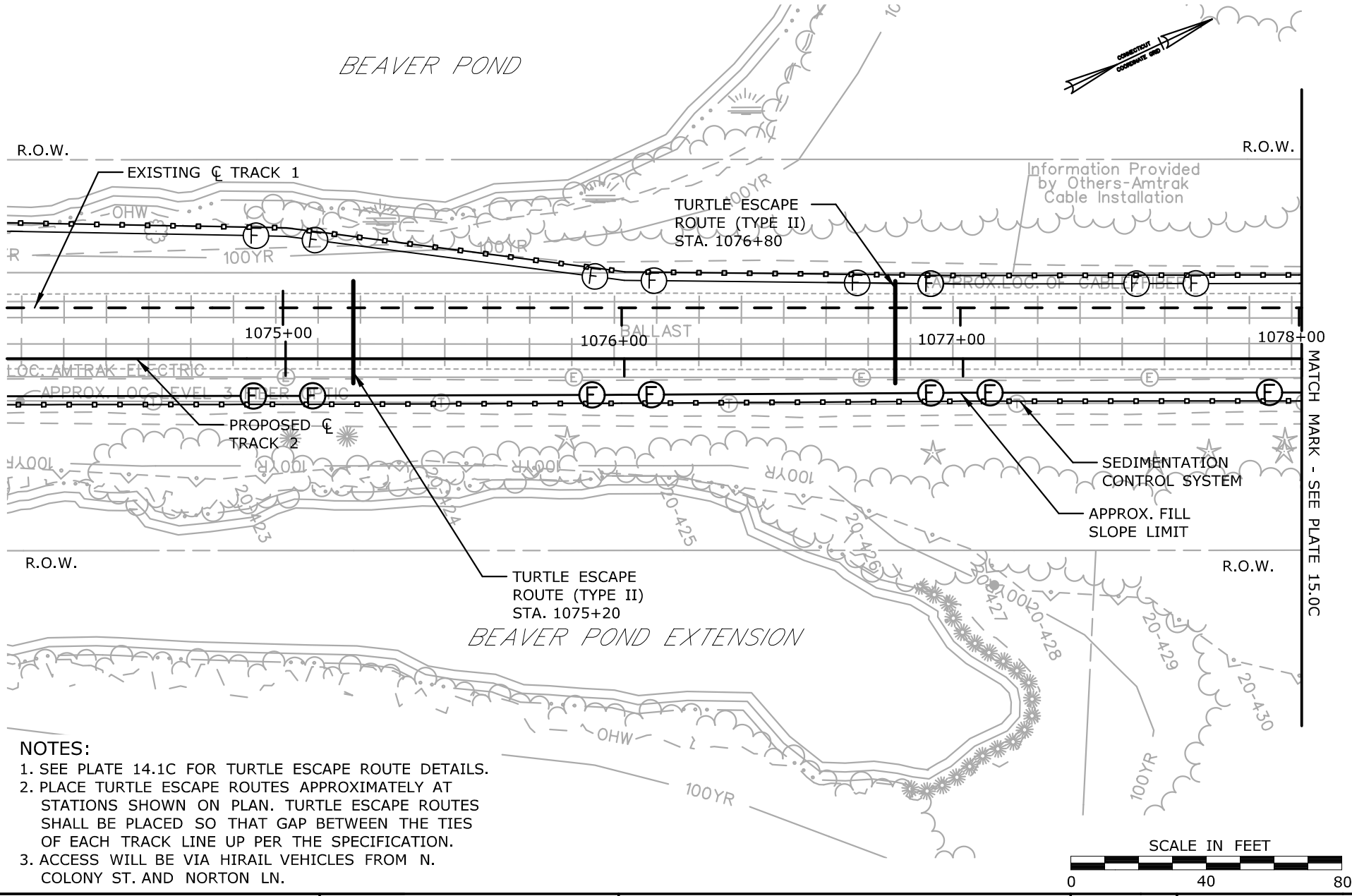
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DATE:
MAR 2014
WETLAND ID No.

WATERCOURSE
BEAVER POND

PLATE 13.1C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_PER_Permit Plate 13.1C.dgn



NOTES:

1. SEE PLATE 14.1C FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM N. COLONY ST. AND NORTON LN.

MITIGATION PLAN

EASTERN BOX TURTLE

MP 21.11

STA. 1075+00 TO 1095+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

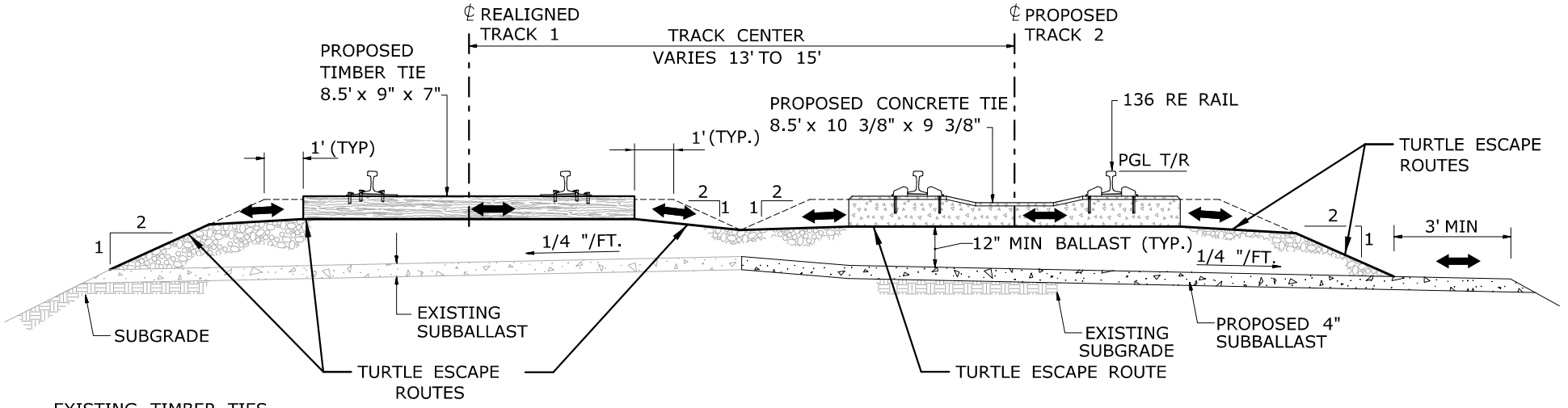
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DATE:
MAR 2014

LISTED SPECIES
MITIGATION
EASTERN BOX TURTLE
WATERCOURSE
BEAVER POND

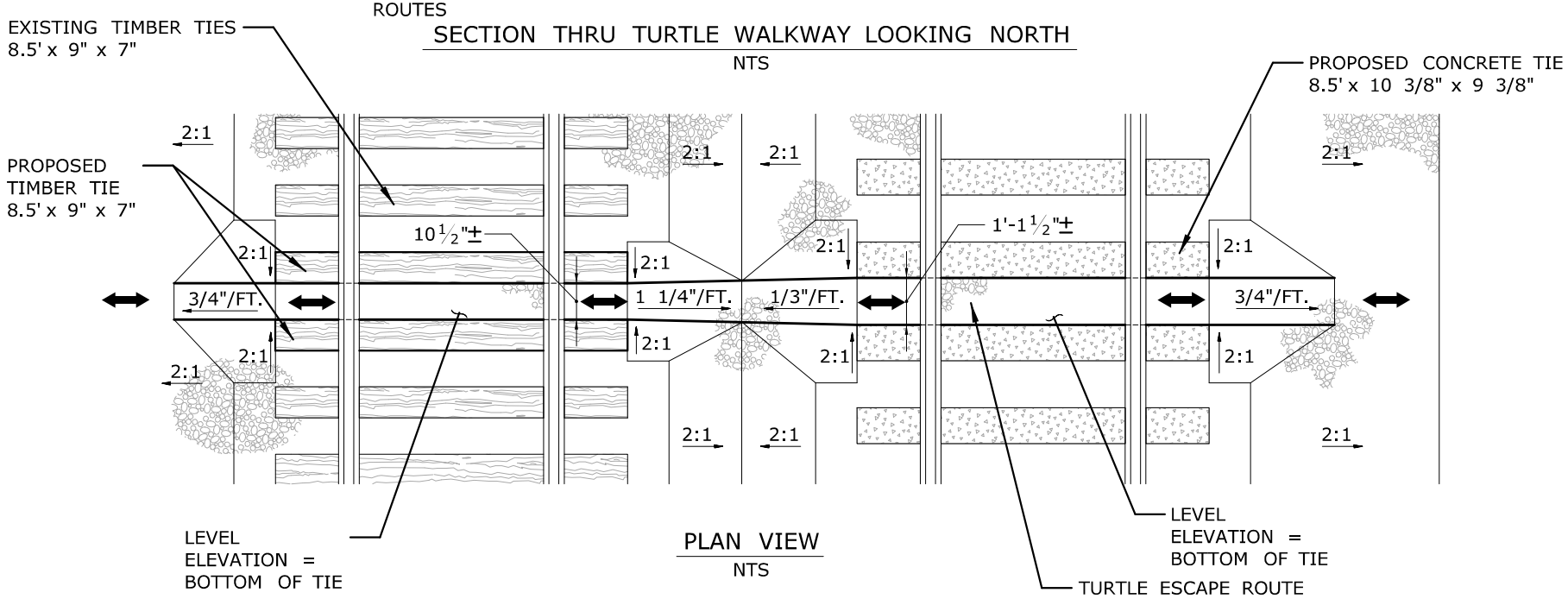
PLATE 14.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079__01_PER_PER_Permit Plate 14.0C.dgn



SECTION THRU TURTLE WALKWAY LOOKING NORTH

NTS

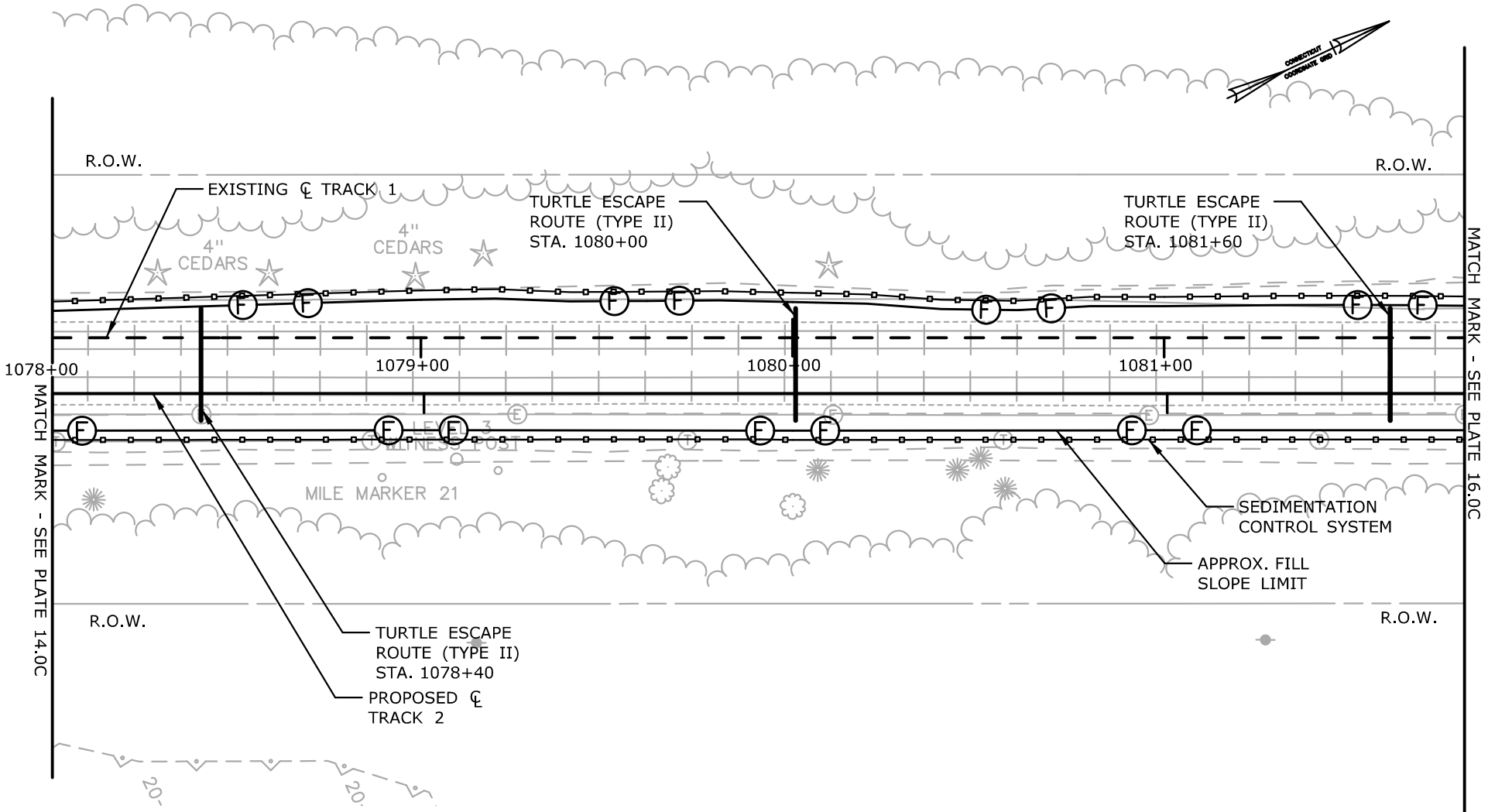


PLAN VIEW

NTS

TURTLE ESCAPE ROUTE TYPE II LISTED SPECIES MITIGATION MP 21.11 STA. 1075+00 - 1095+00	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: NEW HAVEN CITY/TOWN: MERIDEN	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	PARSONS BRINCKERHOFF SCALE:NTS	DATE: MAR 2014 LISTED SPECIES MITIGATION EASTERN BOX TURTLE PLATE 14.1C OF26.0C

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_Permit Plate 14.1C.dgn



NOTES:

1. SEE PLATE 14.1C FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM N. COLONY ST. AND NORTON LN.

SCALE IN FEET

0 40 80

MITIGATION PLAN

EASTERN BOX TURTLE

MP 21.11

STA. 1075+00 TO 1095+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

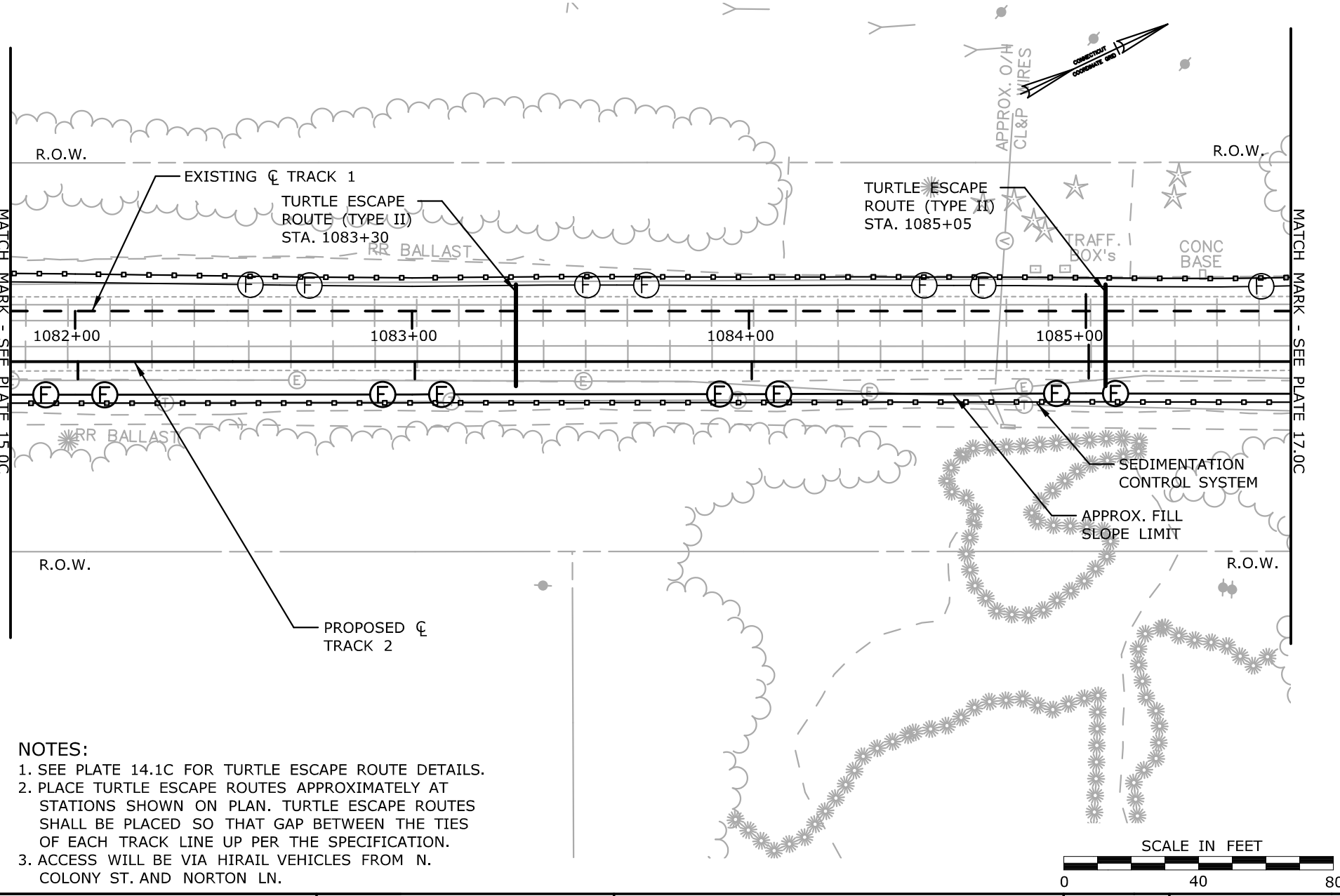
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DATE: MAR 2014

LISTED SPECIES MITIGATION
EASTERN BOX TURTLE

PLATE 15.0C OF26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079__01_PER_PER_Permit Plate 15.0C.dgn



NOTES:

1. SEE PLATE 14.1C FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM N. COLONY ST. AND NORTON LN.

SCALE IN FEET

0 40 80

MITIGATION PLAN

EASTERN BOX TURTLE

MP 21.11

STA. 1075+00 TO 1095+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

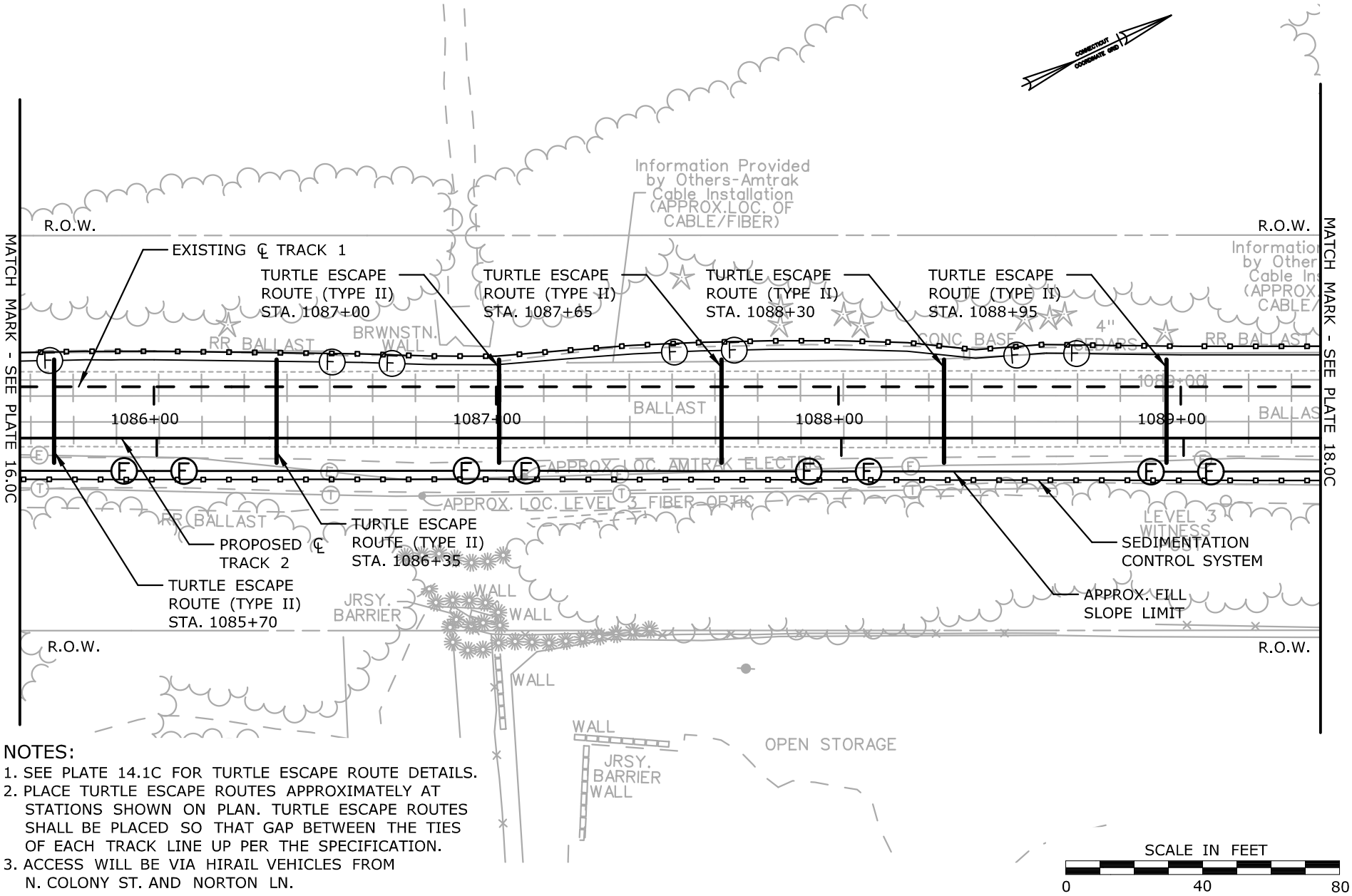
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DATE: MAR 2014

LISTED SPECIES MITIGATION
EASTERN BOX TURTLE

PLATE 16.0C OF26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079__01_PER_PER_Permit Plate 16.0C.dgn



NOTES:

1. SEE PLATE 14.1C FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM N. COLONY ST. AND NORTON LN.

MITIGATION PLAN

EASTERN BOX TURTLE

MP 21.11

STA. 1075+00 TO 1095+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

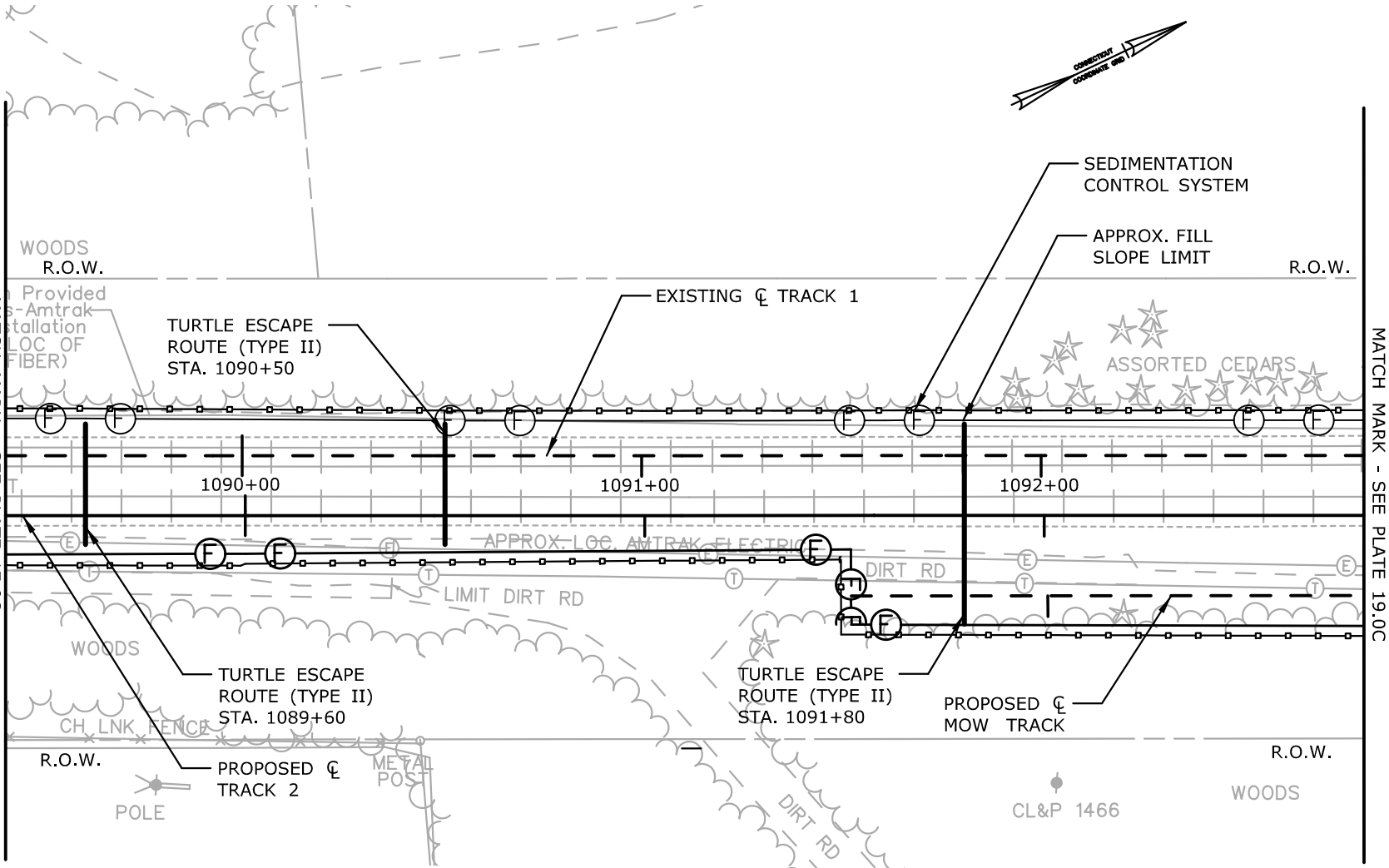
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DATE: MAR 2014

LISTED SPECIES MITIGATION
EASTERN BOX TURTLE

PLATE 17.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079__01_PER_PER_Permit Plate 17.0C.dgn



NOTES:

1. SEE PLATE 14.1C FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM N. COLONY ST. AND NORTON LN.

SCALE IN FEET

0 40 80

MITIGATION PLAN

EASTERN BOX TURTLE

MP 21.11

STA. 1075+00 TO 1095+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

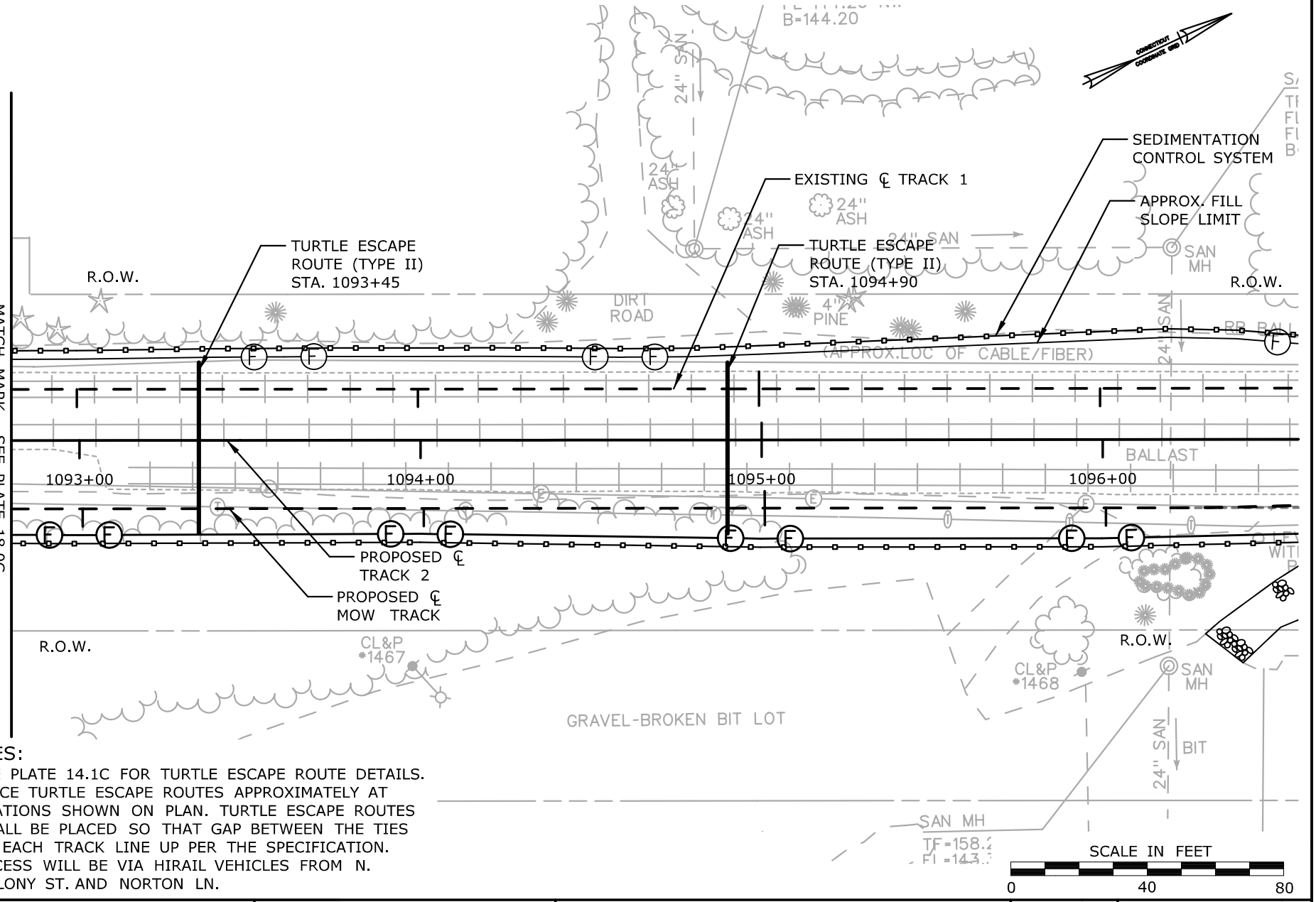
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DATE: MAR 2014

LISTED SPECIES MITIGATION
EASTERN BOX TURTLE

PLATE 18.0C OF26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079__01_PER_PER_Permit Plate 18.0C.dgn



NOTES:

1. SEE PLATE 14.1C FOR TURTLE ESCAPE ROUTE DETAILS.
2. PLACE TURTLE ESCAPE ROUTES APPROXIMATELY AT STATIONS SHOWN ON PLAN. TURTLE ESCAPE ROUTES SHALL BE PLACED SO THAT GAP BETWEEN THE TIES OF EACH TRACK LINE UP PER THE SPECIFICATION.
3. ACCESS WILL BE VIA HIRAIL VEHICLES FROM N. COLONY ST. AND NORTON LN.

MITIGATION PLAN

EASTERN BOX TURTLE

MP 21.11

STA. 1075+00 TO 1095+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

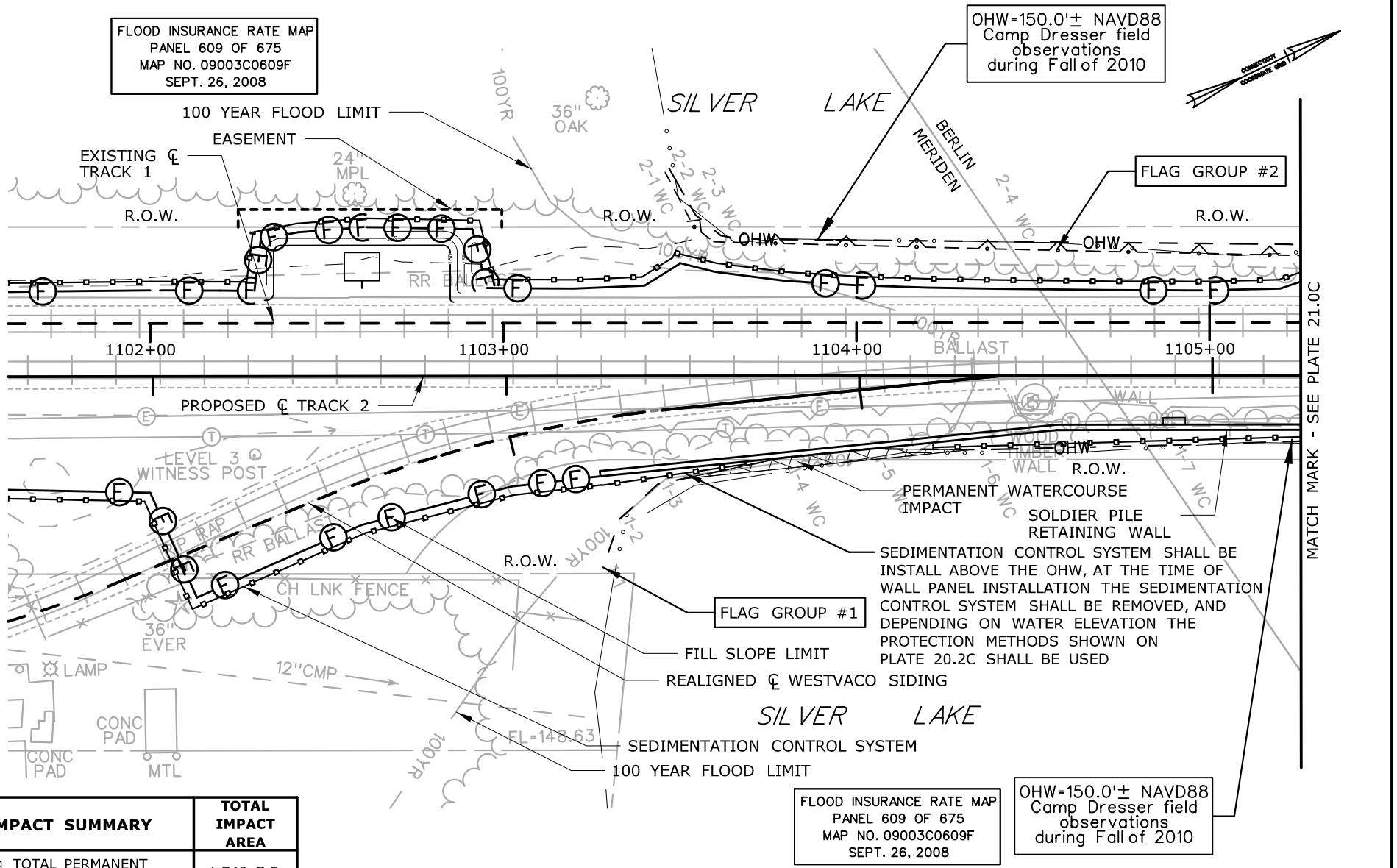
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DATE: MAR 2014

LISTED SPECIES MITIGATION
EASTERN BOX TURTLE

PLATE 19.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079__01_PER_PER_Permit Plate 19.0C.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	1,740 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	0 S.F.

IMPACT AREAS FOR SILVER LAKE ARE ALSO SHOWN ON PLATES 21.0C, 22.0C, 23.0C, 26.0C

SCALE IN FEET
0 40 80

IMPACT PLAN
SILVER LAKE
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: NEW HAVEN & HARTFORD
CITY/TOWN: MERIDEN & BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

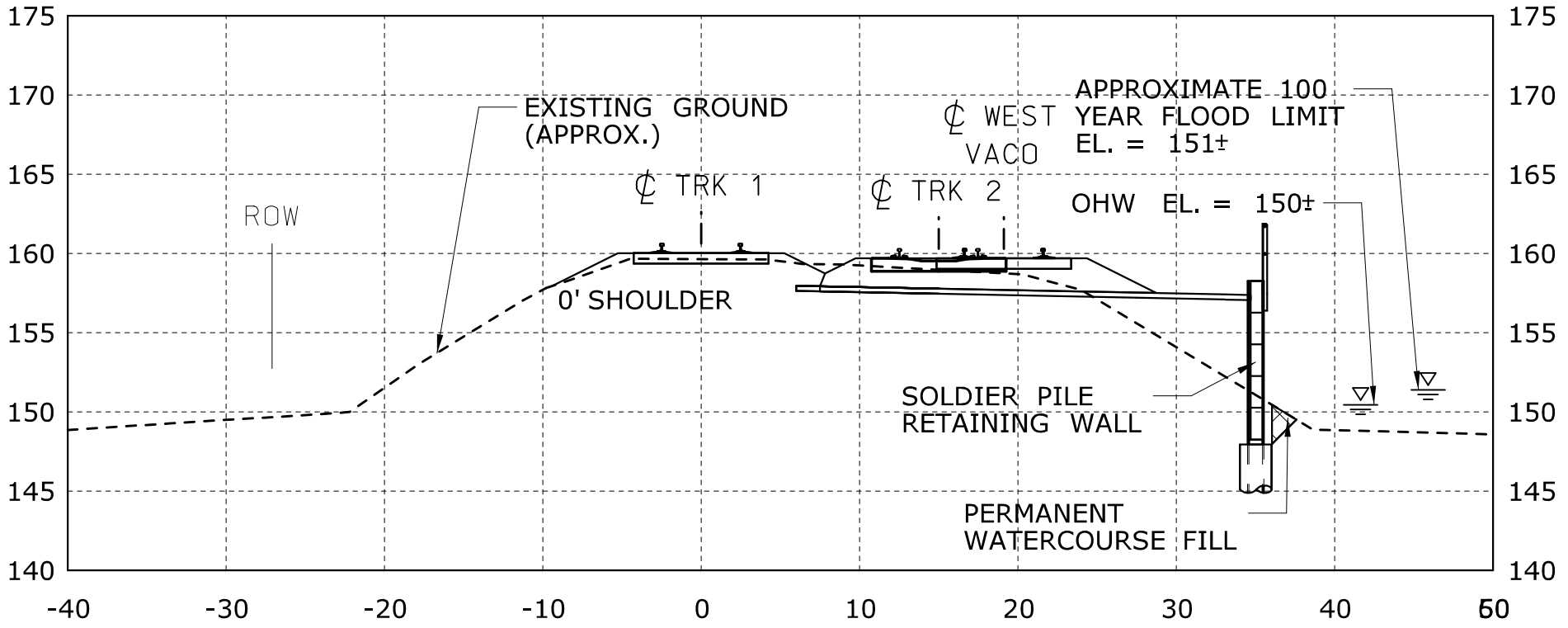
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DATE:
MAR 2014
WETLAND ID No.

WATERCOURSE
SILVER LAKE

PLATE 20.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER_PER_Permit Plate 20.0C.dgn



1104+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
SILVER LAKE
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

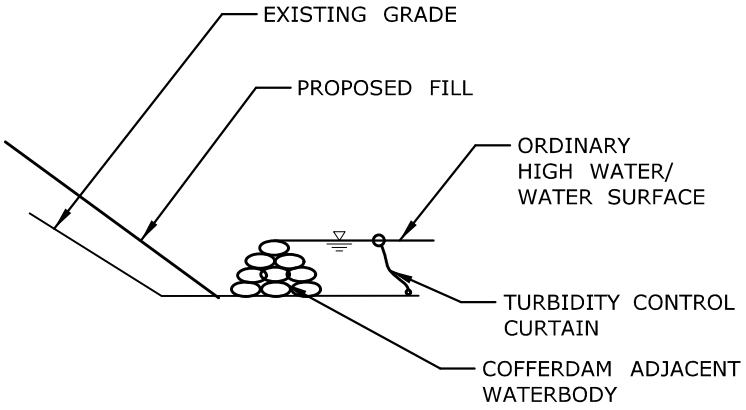
PARSONS BRINCKERHOFF

SCALE:1"=10'

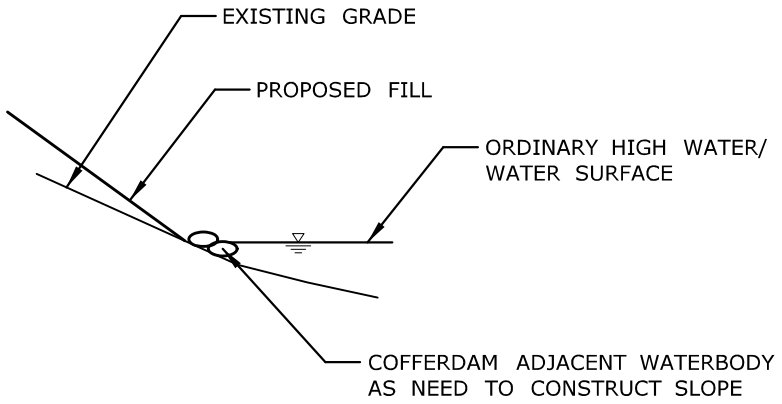
DATE:
MAR 2014
WETLAND ID No.

PLATE 20.1C OF 26.0C

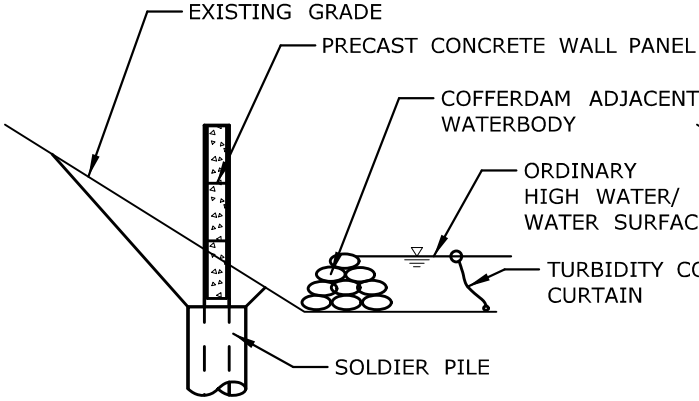
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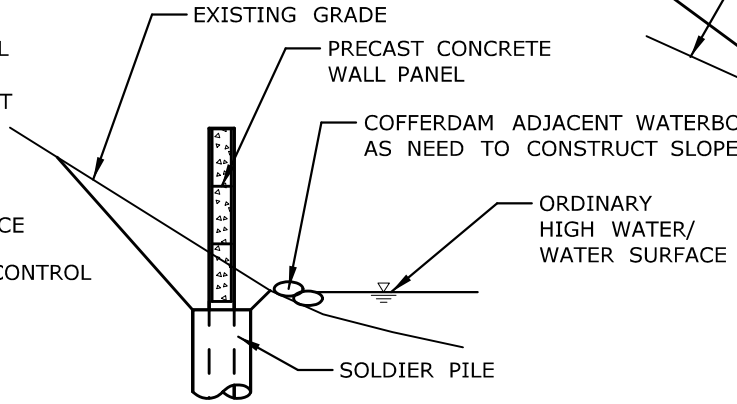
SECTION WITH FILL BELOW ORDINARY HIGH WATER/ WATER SURFACE



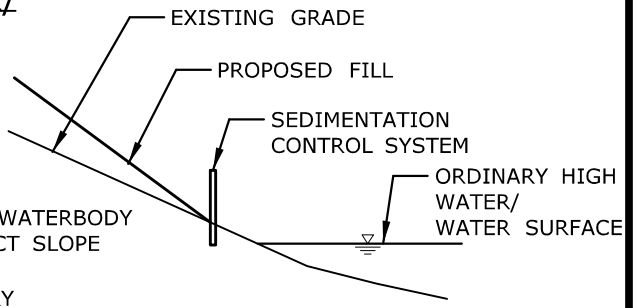
SECTION WITH FILL AT ORDINARY HIGH WATER/ WATER SURFACE



SECTION WITH WALL BELOW ORDINARY HIGH WATER/ WATER SURFACE



SECTION WITH WALL AT ORDINARY HIGH WATER/ WATER SURFACE



SECTION WITH FILL ABOVE ORDINARY HIGH WATER/ WATER SURFACE

CONSTRUCTION DETAILS

SILVER LAKE
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: NEW HAVEN

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:NTS

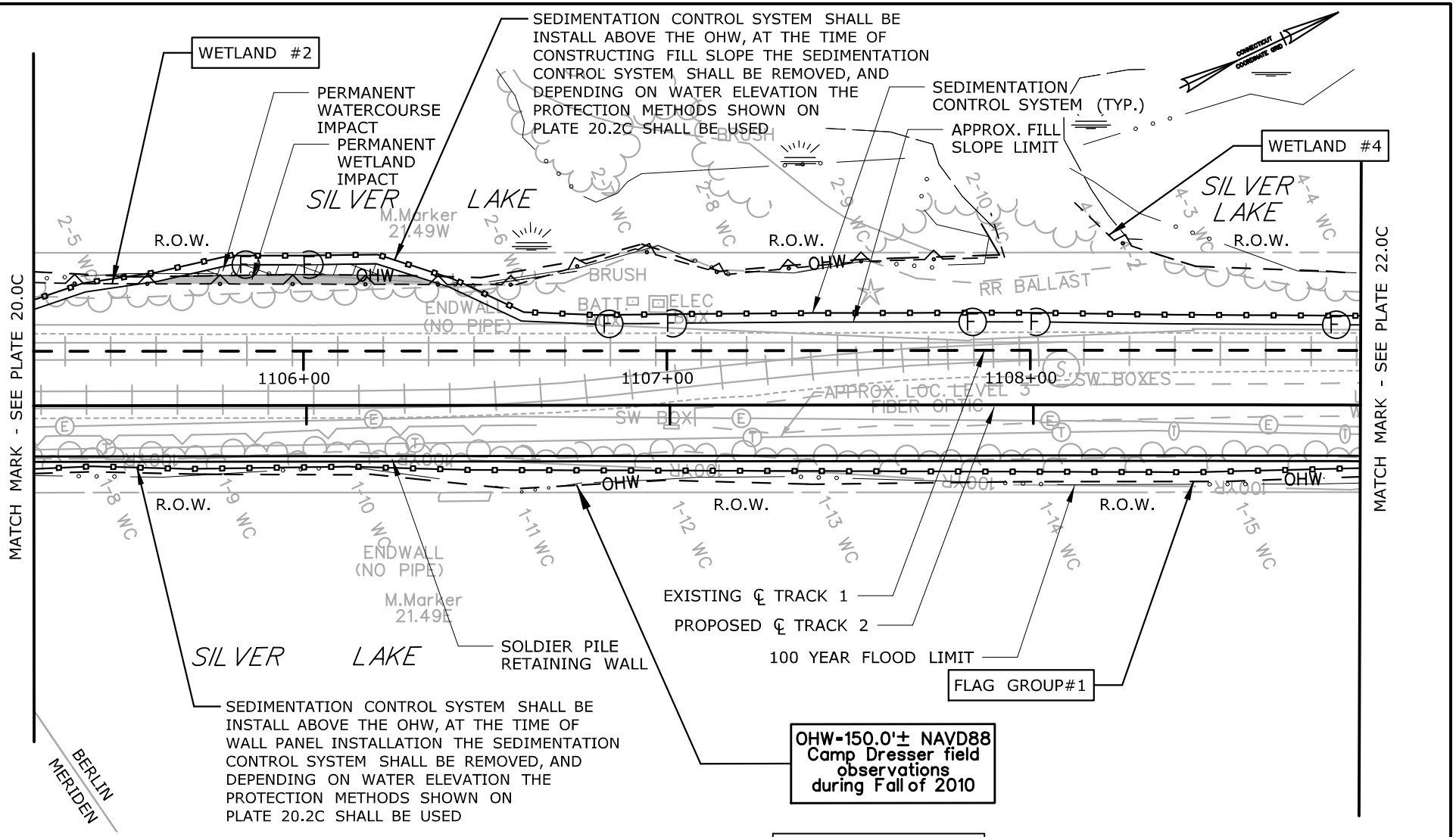
DATE: MAR 2014

WETLAND ID No.

WATERCOURSE SILVER LAKE

PLATE 20.2C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_079_01_PER_Permit Plate 20.2C.dgn



FLOOD INSURANCE RATE MAP
PANEL 609 OF 675
MAP NO. 09003C0609F
SEPT. 26, 2008

IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 2 IMPACT	175 S.F.
TOTAL TEMPORARY WETLAND 2 IMPACT	0 S.F.

SCALE IN FEET
0 40 80

SEE PLATE 20.0C FOR TOTAL SILVER LAKE IMPACT AREAS

IMPACT PLAN

SILVER LAKE/WETLAND ID 2
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

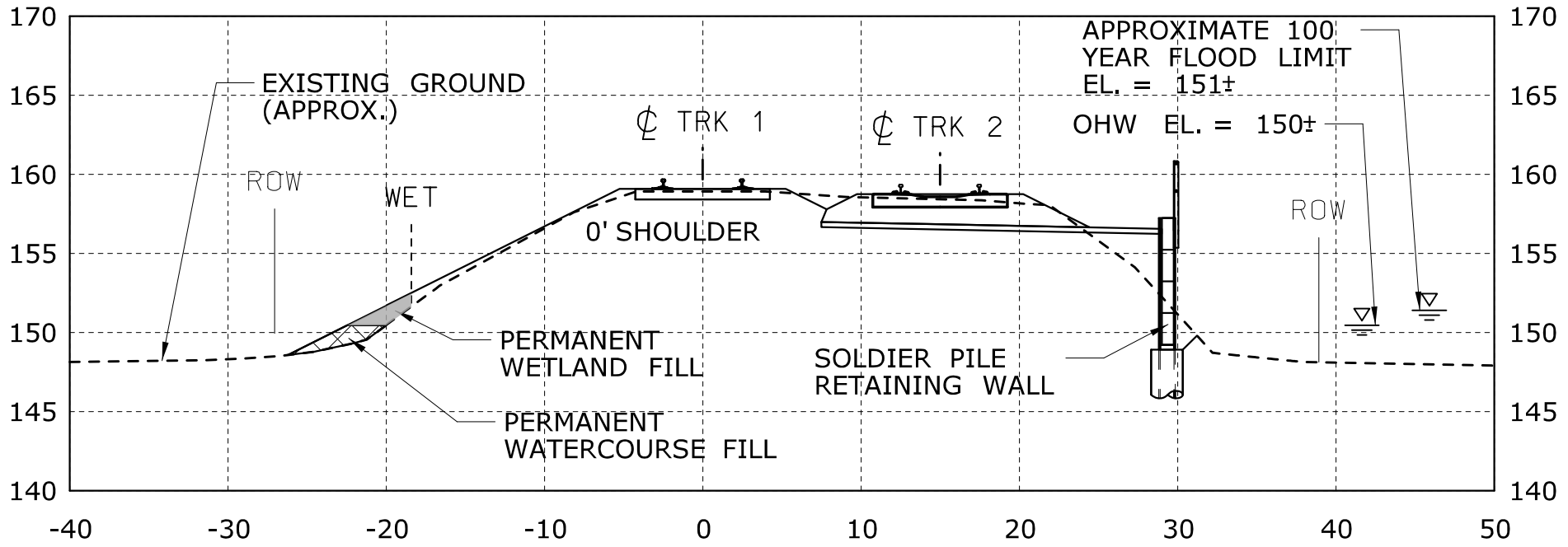
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DATE:
MAR 2014
WETLAND ID No.2

WATERCOURSE
SILVER LAKE

PLATE 21.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 21.0C.dgn



1106+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 21.1C.dgn

IMPACT SECTION
SILVER LAKE/WETLAND ID 2
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

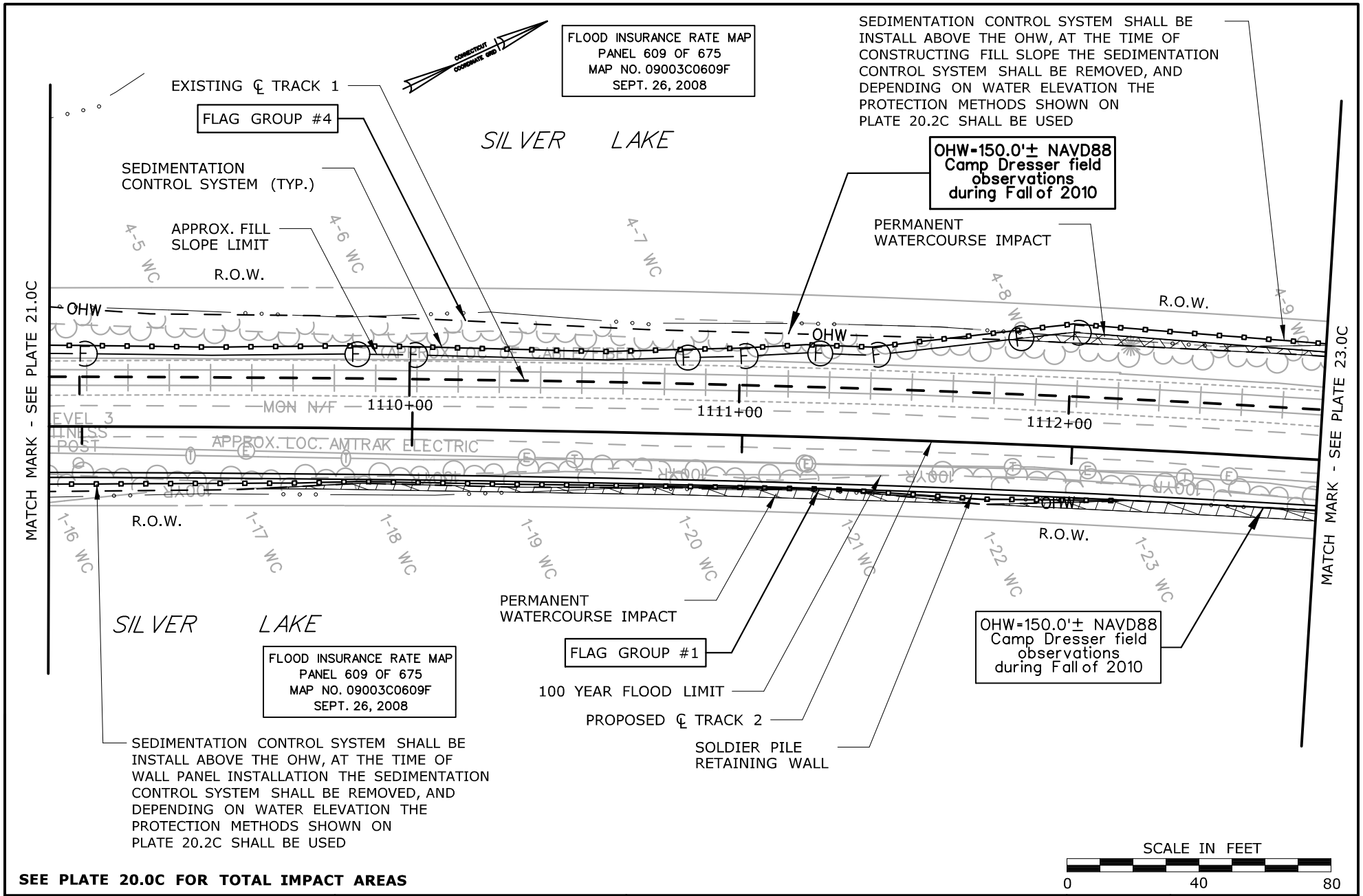
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.2

PLATE 21.1C OF 26.0C



SEE PLATE 20.0C FOR TOTAL IMPACT AREAS

IMPACT PLAN

SILVER LAKE
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

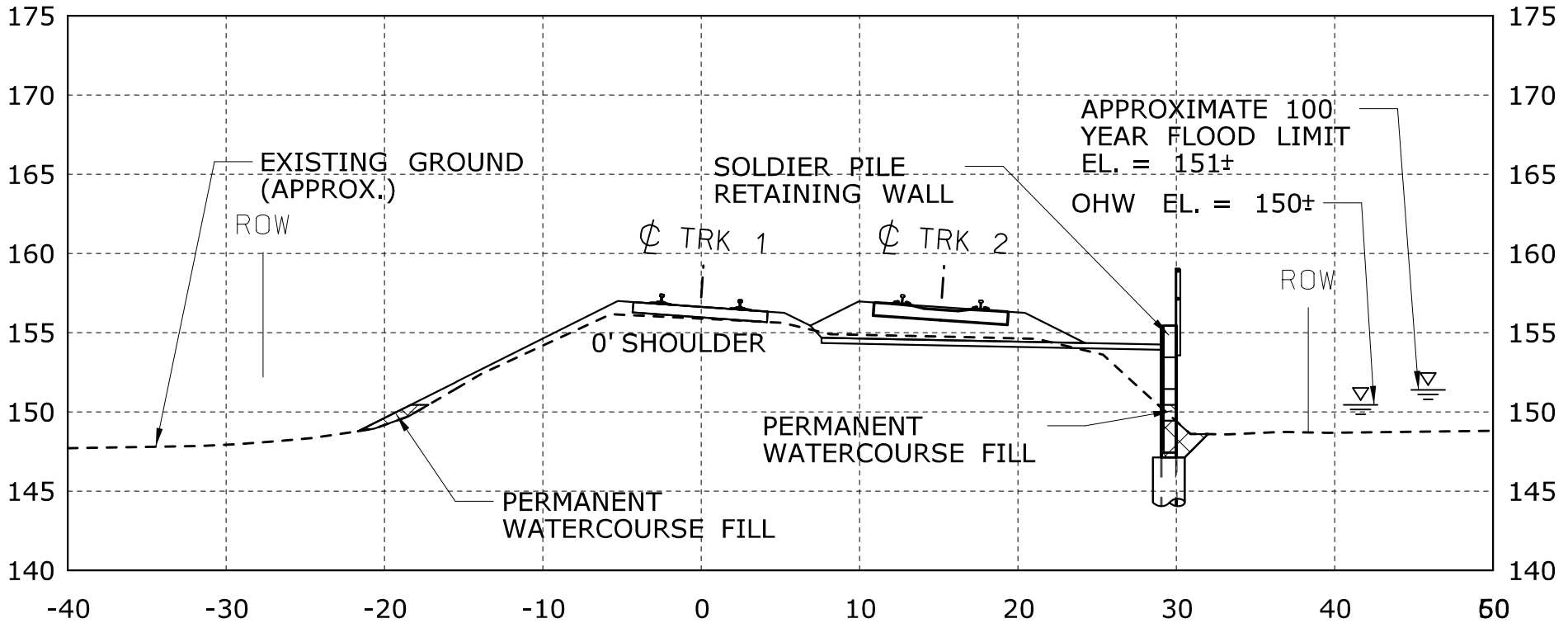
DATE:
MAR 2014

WETLAND ID No.

WATERCOURSE
SILVER LAKE

PLATE 22.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 22.0C.DGN



1112+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
SILVER LAKE
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

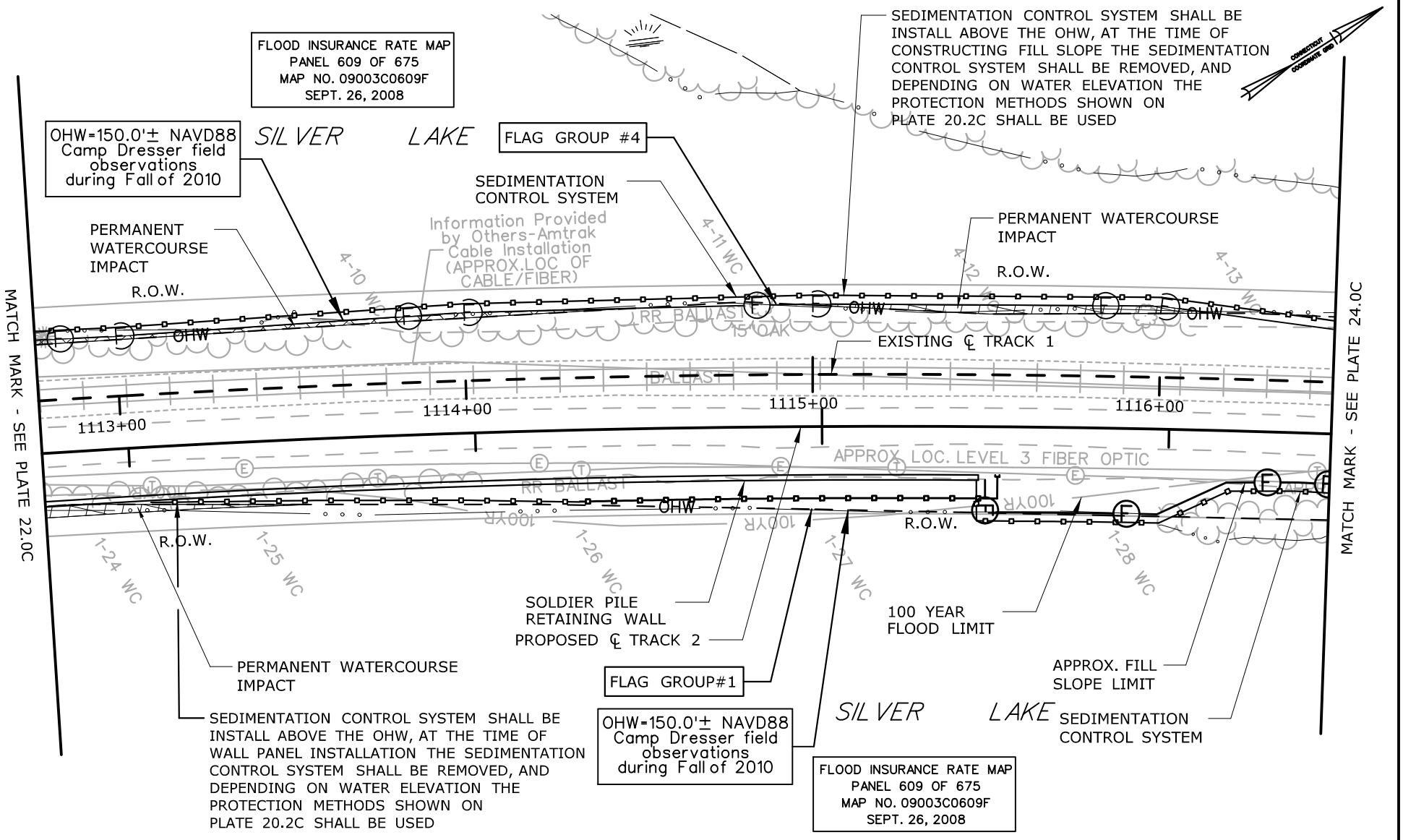
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DATE:
MAR 2014
WETLAND ID No.

WATER COURSE
SILVER LAKE

PLATE 22.1C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 22.1C.dgn



SEE PLATE 20.0C FOR TOTAL SILVER LAKE IMPACT AREAS

IMPACT PLAN

SILVER LAKE
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

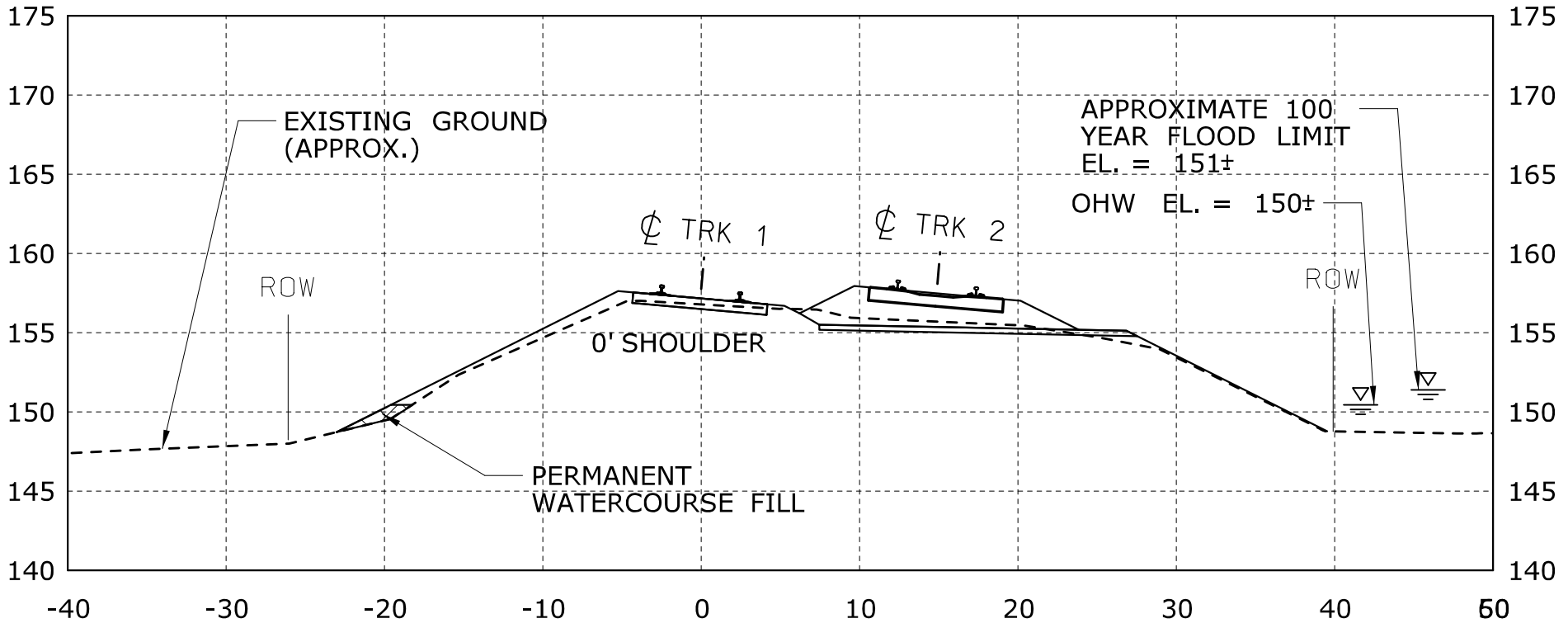
SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.

WATERCOURSE
SILVER LAKE

PLATE 23.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 23.0C.DGN



1116+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
SILVER LAKE
MP 21.60
STA. 1103+50 - 1121+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

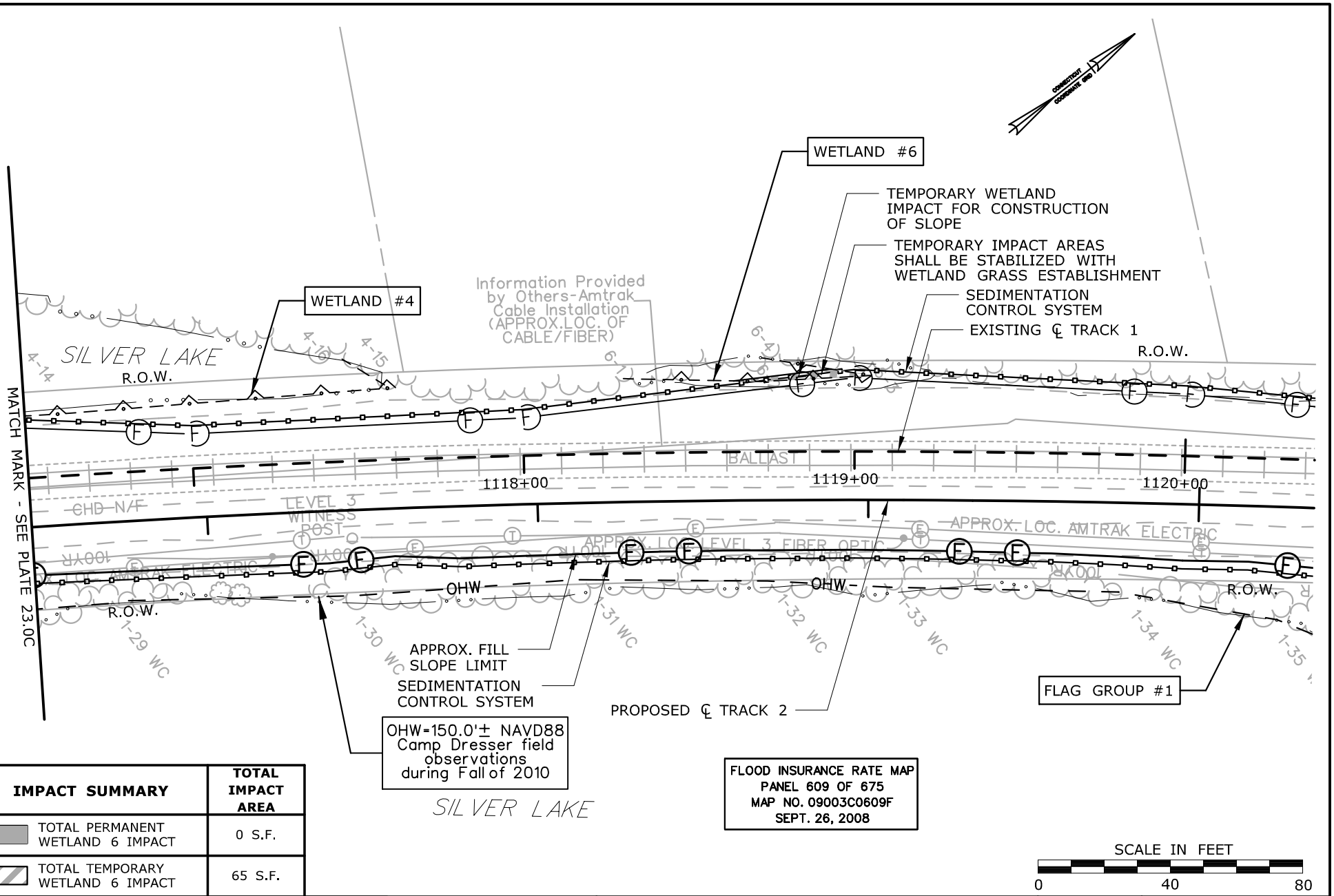
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.

PLATE 23.1C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 23.1C.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 6 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 6 IMPACT	65 S.F.

IMPACT PLAN

WETLAND ID 6

MP 21.60

STA. 1103+50 - 1121+00

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

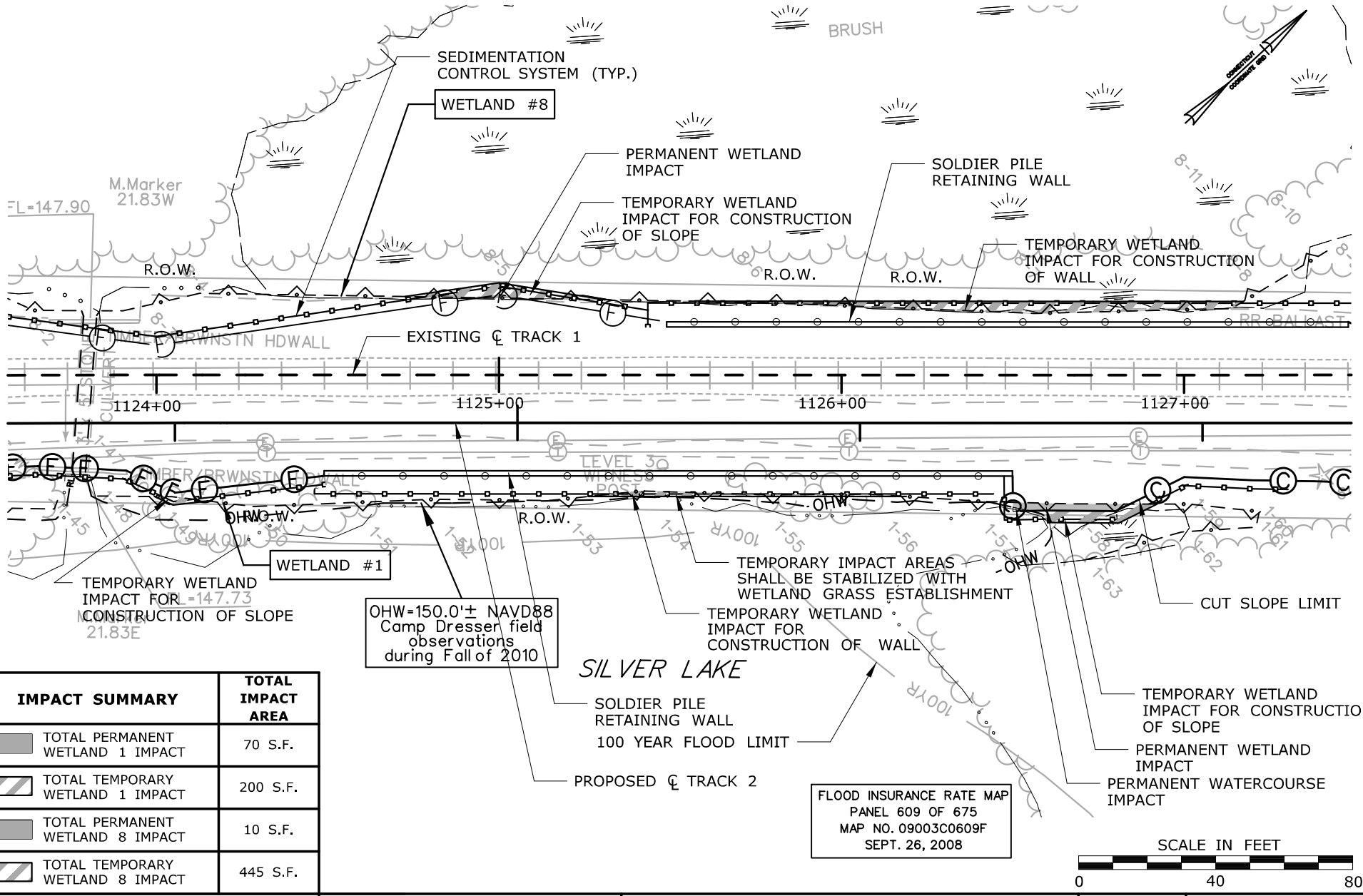
DATE: MAR 2014

WETLAND ID No.6

WATERCOURSE SILVER LAKE

PLATE 24.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 24.0C.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 1 IMPACT	70 S.F.
TOTAL TEMPORARY WETLAND 1 IMPACT	200 S.F.
TOTAL PERMANENT WETLAND 8 IMPACT	10 S.F.
TOTAL TEMPORARY WETLAND 8 IMPACT	445 S.F.

IMPACT PLAN

SILVER LAKE/
WETLAND ID 1 & 8
MP 21.84
STA. 1123+20 - 1127+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

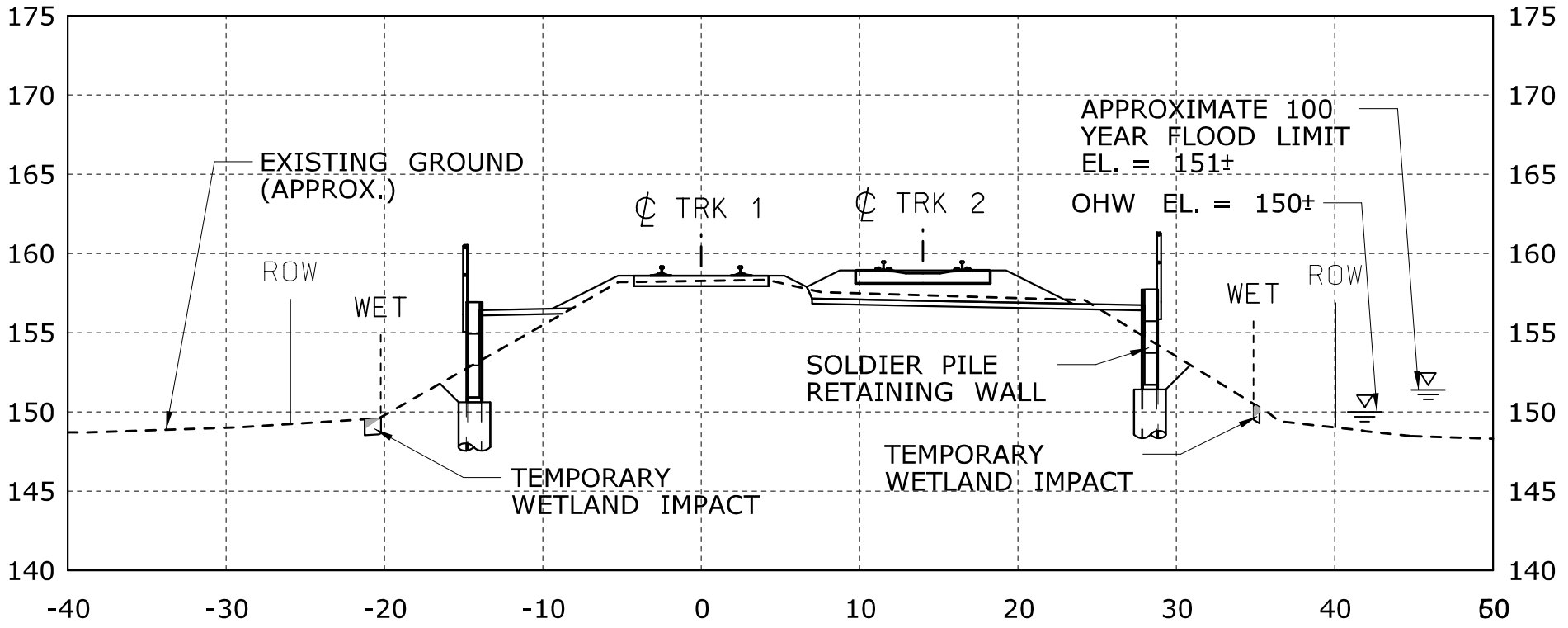
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.1 & 8
WATERCOURSE
SILVER LAKE

PLATE 25.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 25.0C.dgn



1126+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
SILVER LAKE/WETLAND
ID 1 & 8
MP 21.84
STA. 1123+20 - 1127+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

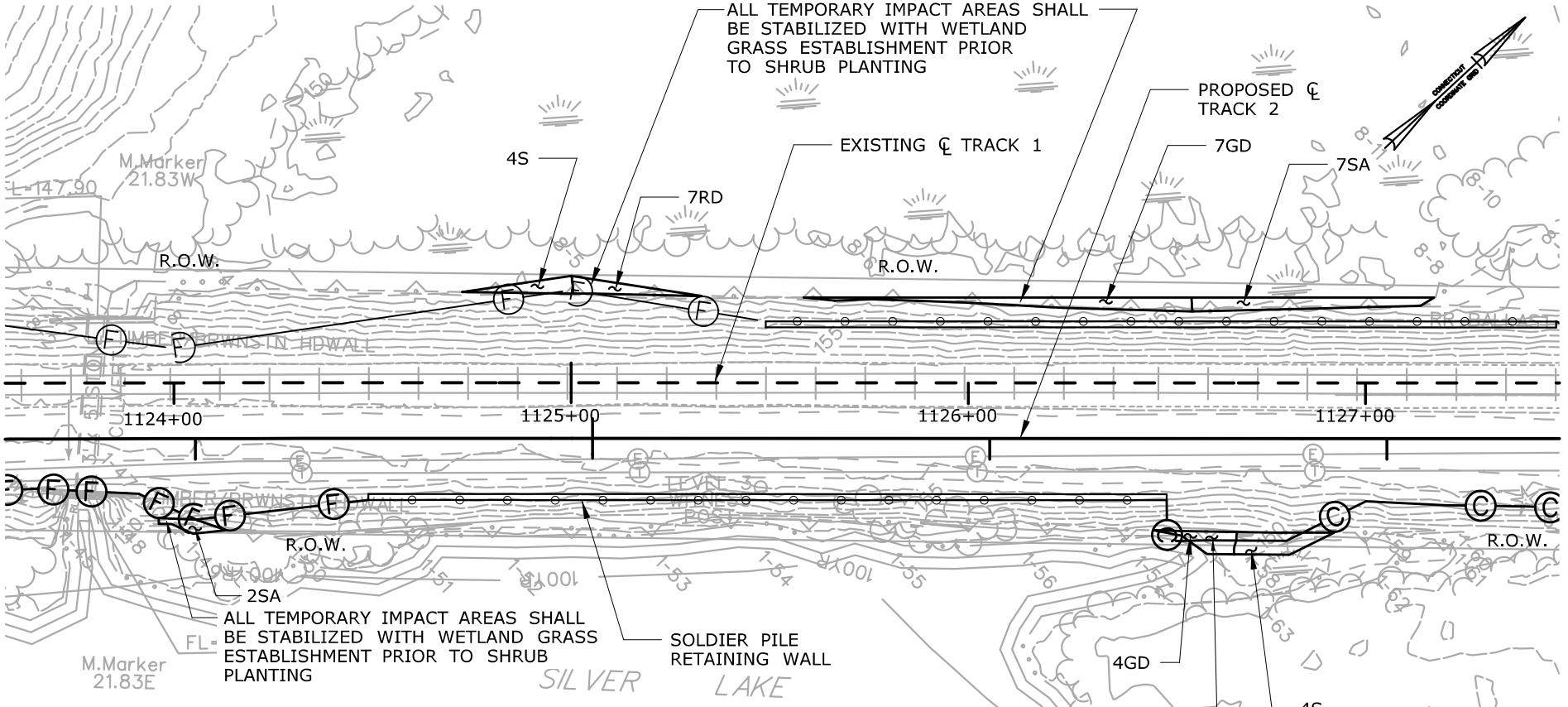
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.1 & 8
WATERCOURSE
SILVER LAKE

PLATE 25.1C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 25.1C.dgn



Planting Table - MP 21.84 (Sta. 1127+00)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	
	SHRUBS					QUANTITY
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	9
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	11
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	7
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	8
					TOTAL QTY=	35

SCALE IN FEET
0 40 80

PLANTING PLAN
SILVER LAKE/WETLAND
ID 1 & 8
MP 21.84
STA. 1123+20 - 1127+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: MERIDEN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

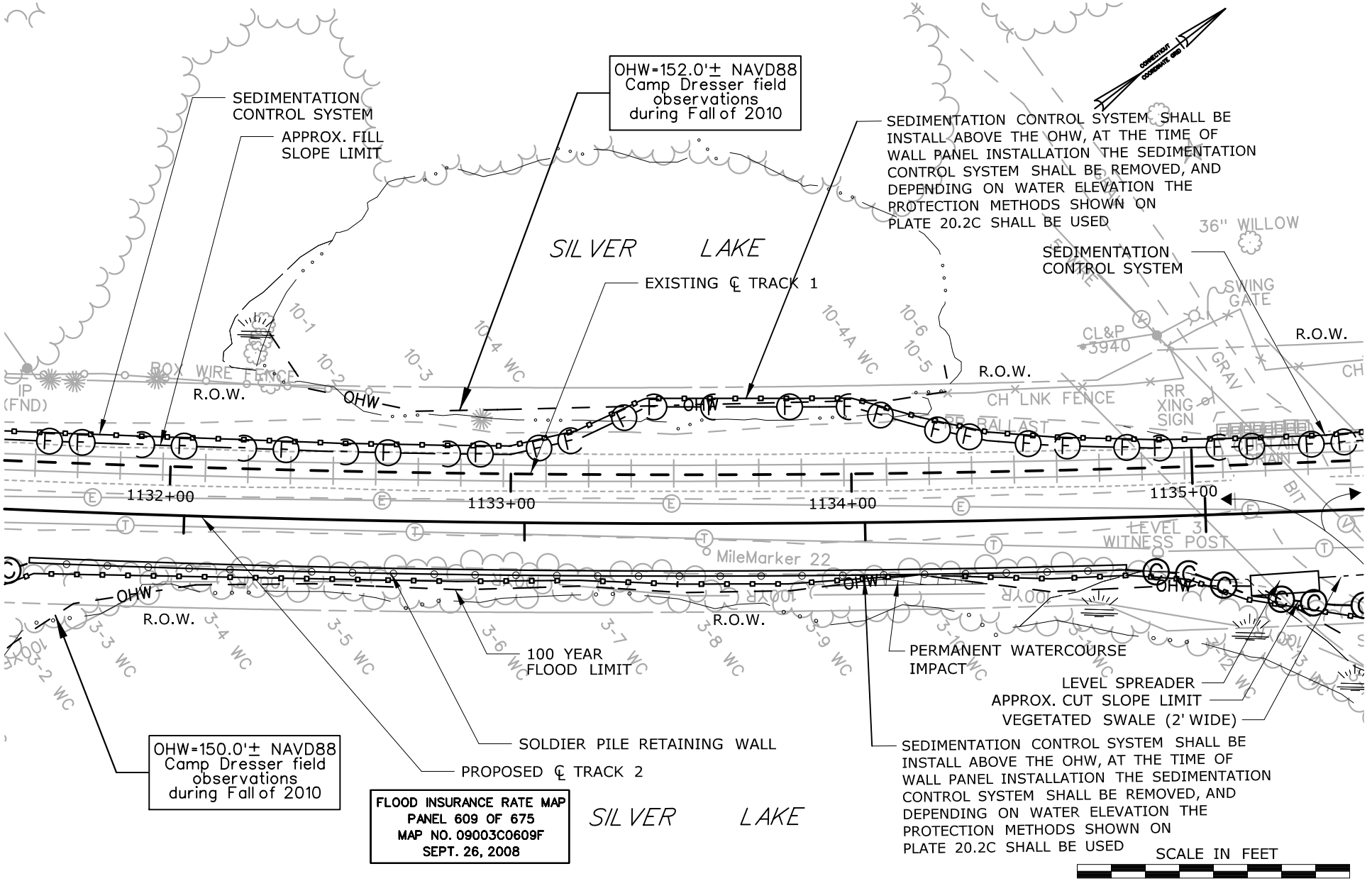
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.1 & 8
WATERCOURSE
SILVER LAKE

PLATE 25.2C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 25.2C.dgn



SEE PLATE 11.0C FOR TOTAL SILVER LAKE IMPACT AREAS

IMPACT PLAN

SILVER LAKE
WETLAND ID 3 & 10
MP 22.00
STA. 1131+60 - 1135+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

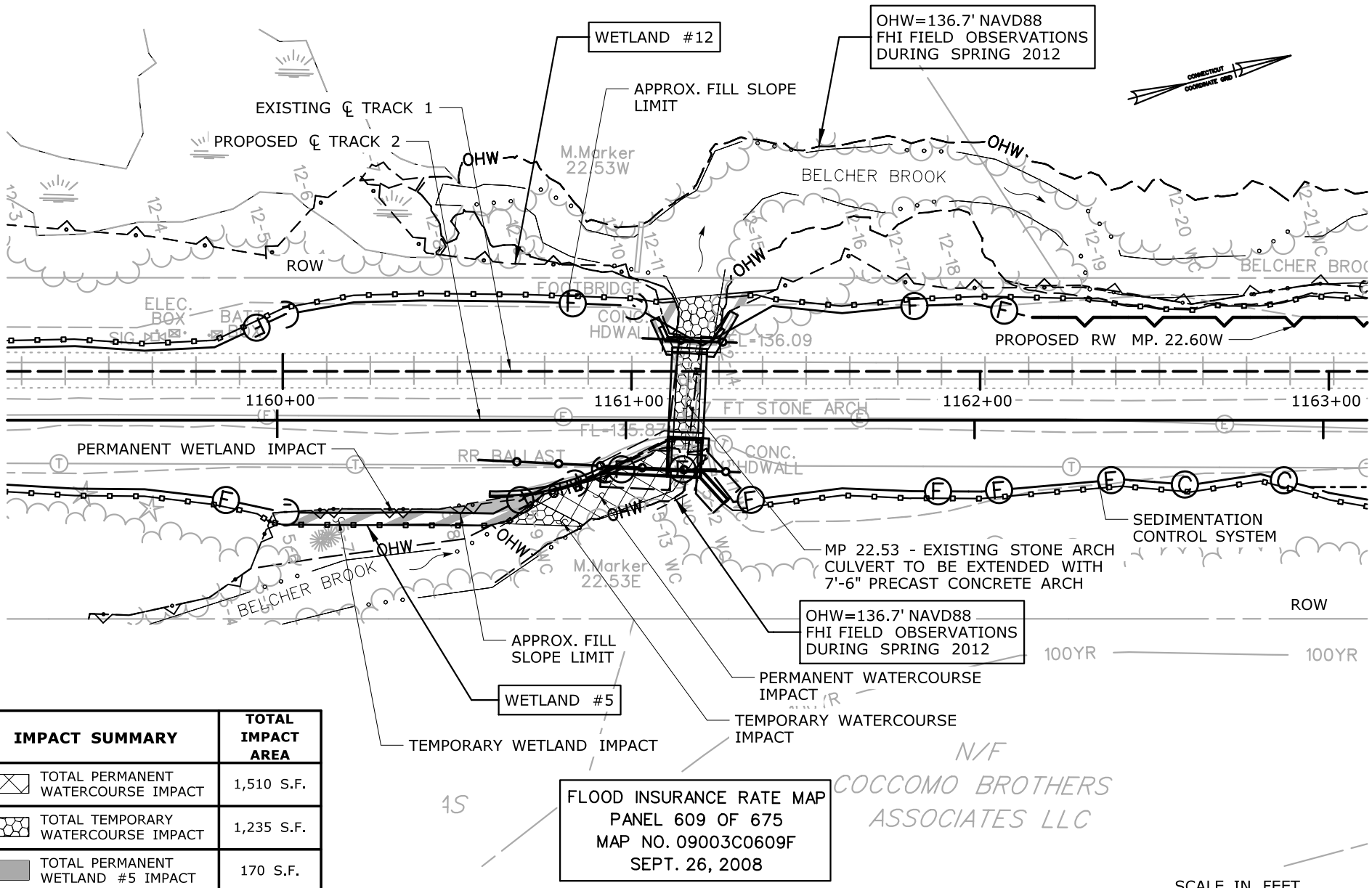
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DATE:
MAR 2014

WETLAND ID No.3 & 10
WATERCOURSE
SILVER LAKE

PLATE 26.0C OF 26.0C

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 26.0C.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	1,510 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	1,235 S.F.
TOTAL PERMANENT WETLAND #5 IMPACT	170 S.F.
TOTAL TEMPORARY WETLAND #5 IMPACT	245 S.F.

SEE PLATE 3.0D FOR TOTAL WETLAND ID 12 IMPACT AREAS
IMPACT AREAS FOR BELCHER BROOK ARE ALSO SHOWN ON PLATES 2.0D & 3.0D

IMPACT PLAN

BELCHER BROOK
WETLAND ID 5 & 12
MP 22.53
STA. 1161+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

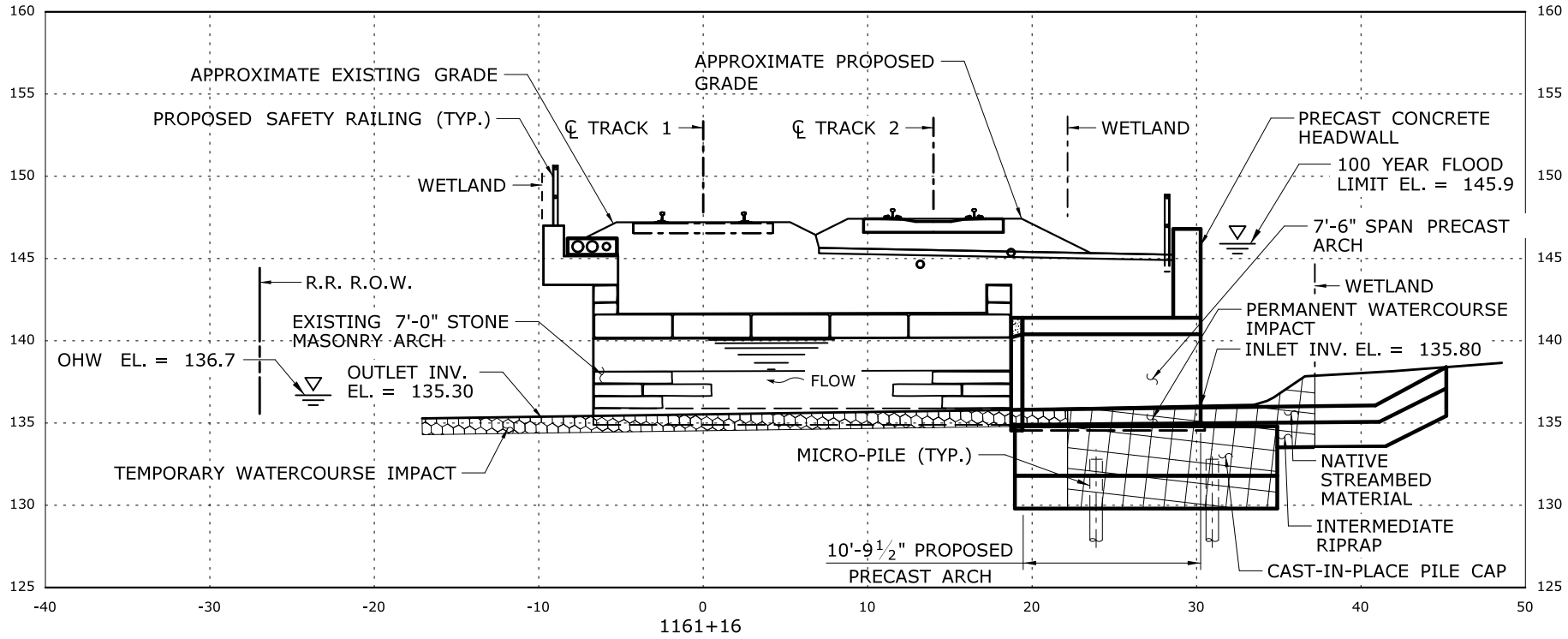
LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.5
& 12
WATERCOURSE
BELCHER BROOK

PLATE 1.0D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 22.53_01.dgn



SCALE IN FEET

0 10 20

IMPACT SECTION

BELCHER BROOK
WETLAND ID 5 & 12
MP 22.53
STA. 1161+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=10'

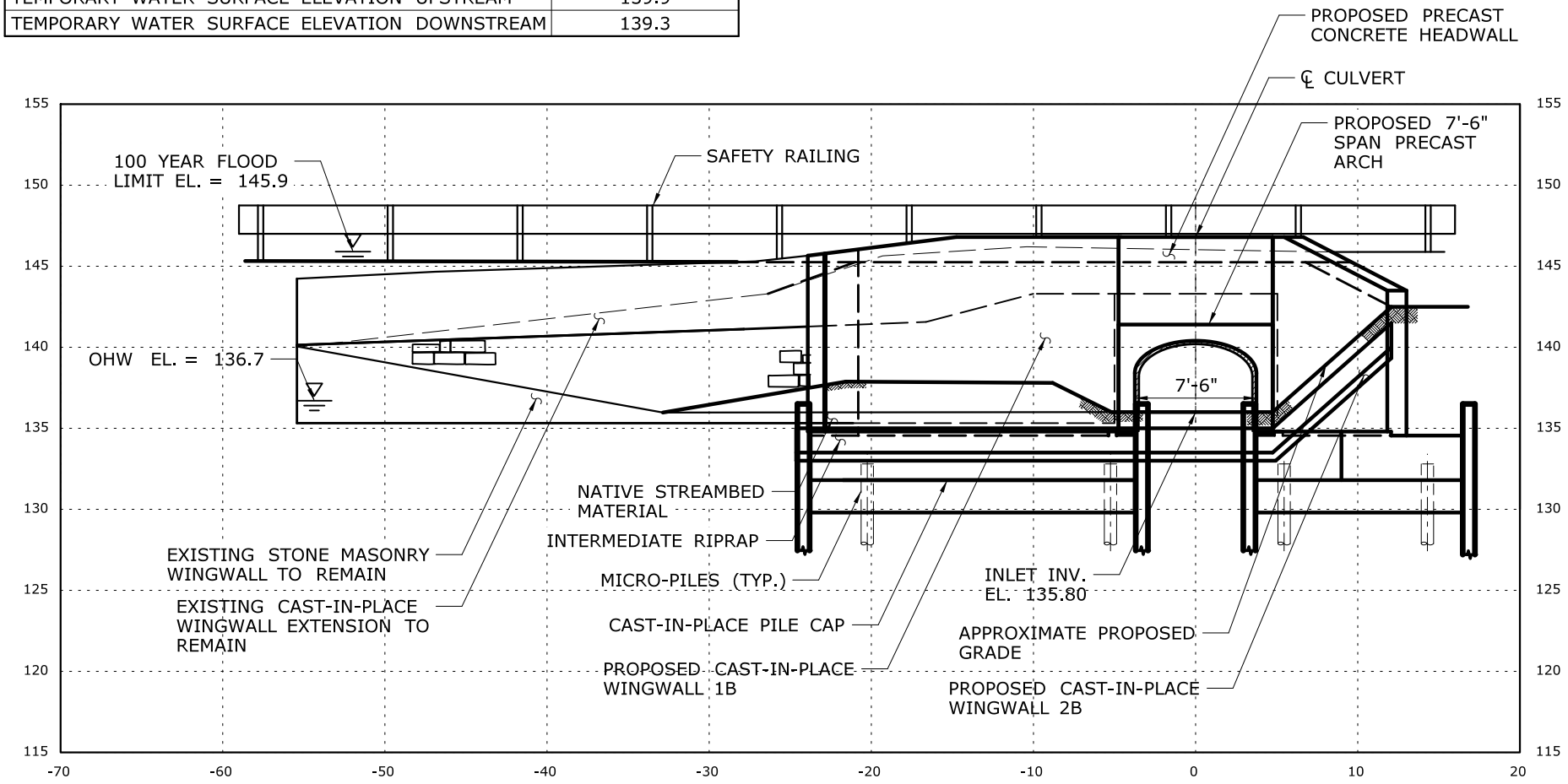
DATE:
MAR 2014

WETLAND ID No.5 & 12
WATERCOURSE
BELCHER BROOK

PLATE 1.1D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER__MP 22.53_02.dgn

TEMPORARY HYDRAULIC DATA - BELCHER BROOK	
AVERAGE DAILY FLOW	4.1 CFS
AVERAGE SPRING FLOW	8.0 CFS
2-YR FREQUENCY DISCHARGE	180 CFS
TEMPORARY DESIGN DISCHARGE	71 CFS
TEMPORARY DESIGN FREQUENCY	1-YR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	139.9
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	139.3



EAST ELEVATION

SCALE IN FEET

0 10 20

CULVERT ELEVATION

BELCHER BROOK
WETLAND ID 5 & 12
MP 22.53
STA. 1161+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
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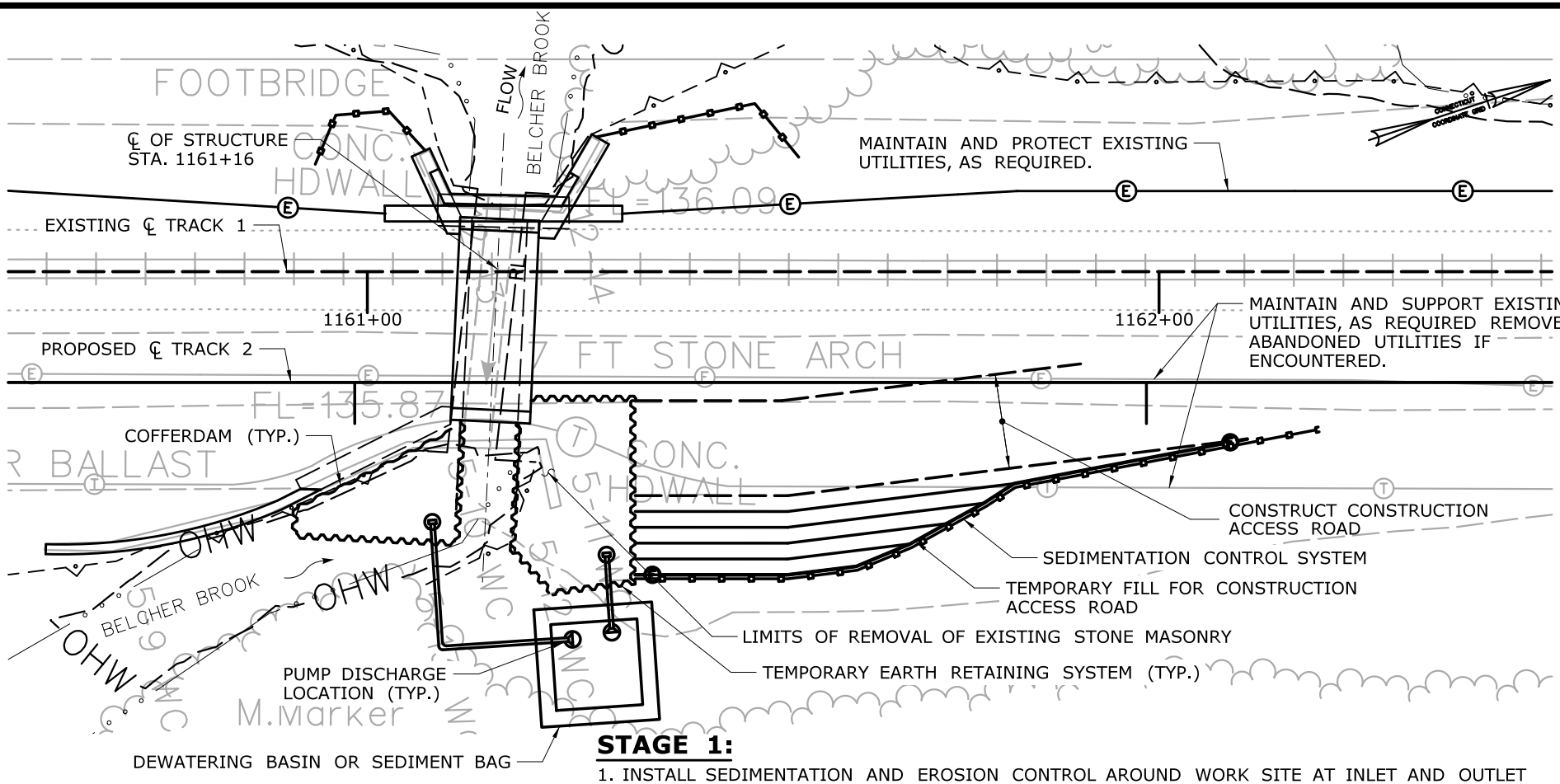
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DATE:
MAR 2014

WETLAND ID No.5 & 12
WATERCOURSE
BELCHER BROOK

PLATE 1.2D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 22.53_03.dgn



CONSTRUCTION SEQUENCE NOTES

1. TEMPORARY EARTH RETAINING SYSTEM SHALL BE CUT-OFF PER THE REQUIREMENTS OF AMTRAK SPECIFICATIONS 02261A.
2. TRACK 1 IS ACTIVE, ALL WORK PERFORMED DURING FOUL TIME AND SHORT TERM TRACK OUTAGES.
3. TEMPORARY SHORING IS REQUIRED TO LIMIT EXCAVATION AND RELATED IMPACT TO RAILROAD OPERATIONS. NO EXCAVATION WITHIN AMTRAK ZONE 3 IS ALLOWED WITH THE TRACK IN SERVICE UNLESS TEMPORARY SHORING IS DESIGNED FOR RAILROAD LOADS.

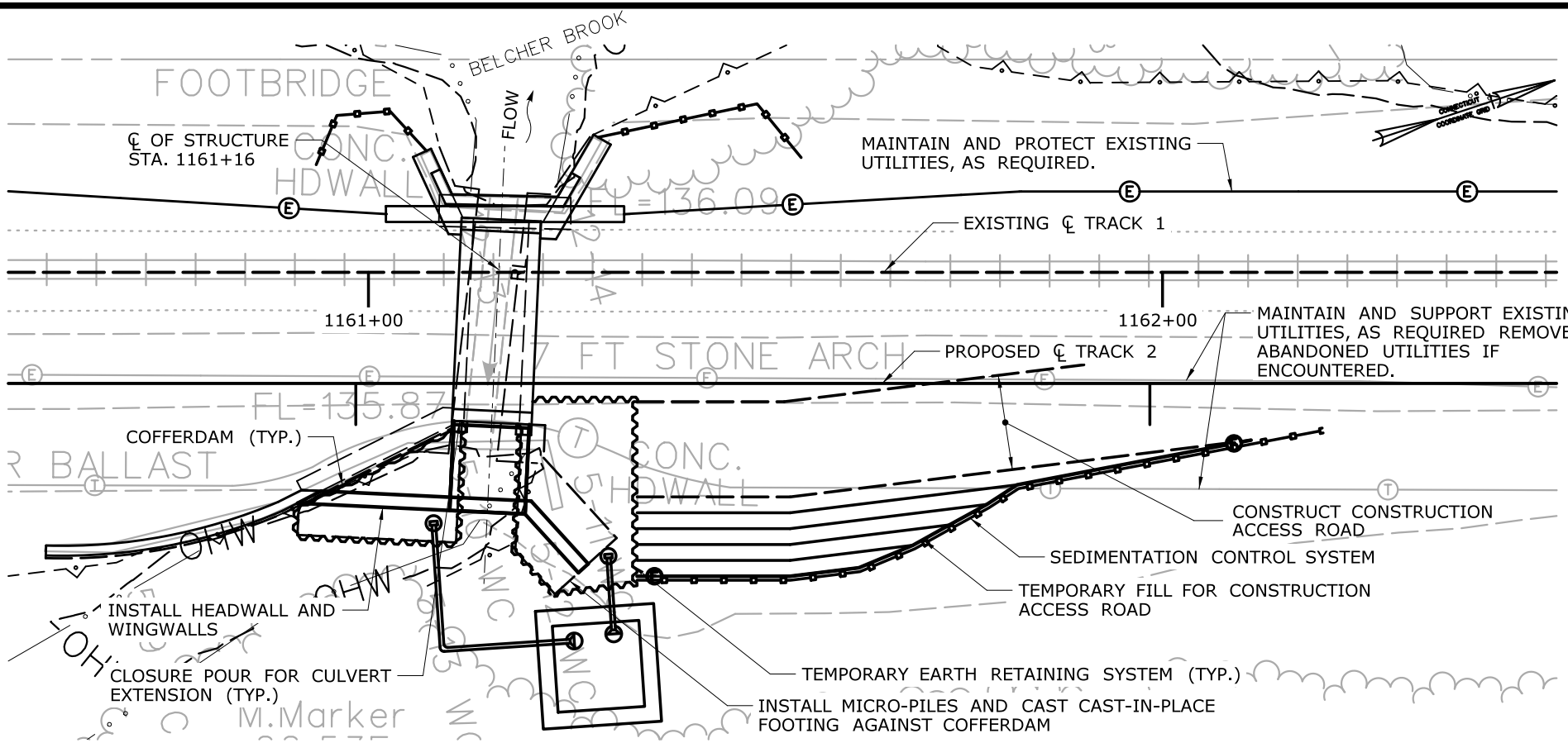
STAGE 1:

1. INSTALL SEDIMENTATION AND EROSION CONTROL AROUND WORK SITE AT INLET AND OUTLET AS SHOWN ON PLANS.
2. INSTALL TEMPORARY EARTH RETAINING SYSTEM IN LOCATIONS SHOWN ON PLANS. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGE TO EXISTING CULVERT WHEN INSTALLING TEMPORARY EARTH RETAINING SYSTEM. CONSTRUCT CONSTRUCTION ACCESS ROAD. REMOVE EASTERN EXISTING RAILTOP EXTENSION TO LIMIT OF MASONRY ARCH CULVERT.
3. INSTALL COFFERDAM TO LIMITS AS SHOWN ON PLANS. PROPOSED COFFERDAM SHALL MESH WITH TEMPORARY EARTH RETAINING SYSTEM. TOP OF COFFERDAM IS TO BE SET UP TO ELEVATION 139.5'. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGE TO PORTION OF EXISTING CULVERT TO REMAIN WHEN INSTALLING COFFERDAM.
4. REMOVE WINGWALLS AND WINGWALL FOOTING TO LIMITS SHOWN ON PLANS.

SCALE IN FEET
0 20 40

STAGE 1 CONSTRUCTION PLAN BELCHER BROOK MP 22.53 STA. 1161+20	CTDOT PROJECT NO.: 170-2296/3154/3155/3156 COUNTY: HARTFORD CITY/TOWN: BERLIN	APPLICATION BY: AMTRAK NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	LOCHNER H.W. LOCHNER, INC. 2110 Silas Deane Highway Rocky Hill, CT 06067 SCALE:1"=20'	DATE: MAR 2014 WETLAND ID No. 5 & 12 WATERCOURSE BELCHER BROOK PLATE 1.3D OF 7.2D

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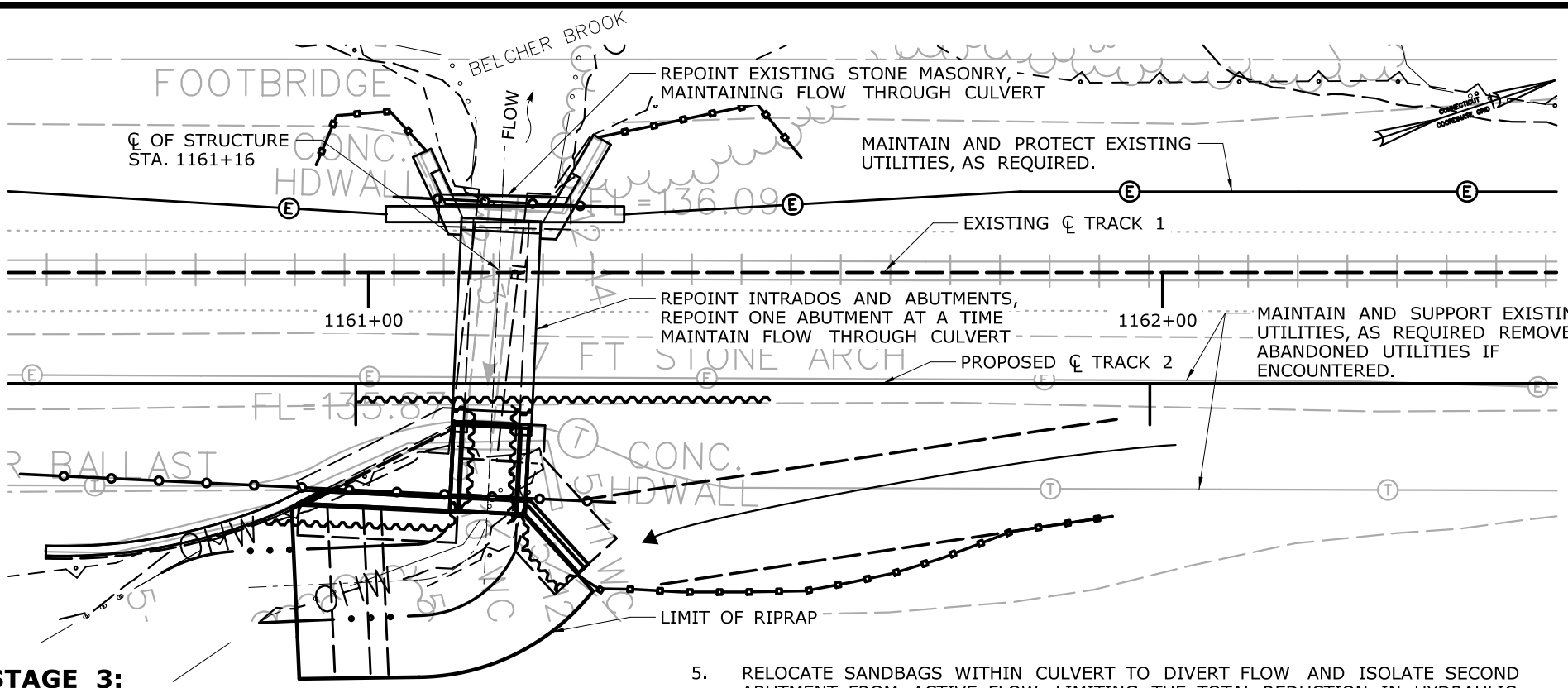
STAGE 2:

1. INSTALL MICRO-PILES WITHIN COFFERDAMS.
2. CAST CONCRETE FOOTING AGAINST COFFERDAM.
3. DRILL AND GROUT REINFORCEMENT INTO EXISTING CULVERT AND AT PROPOSED WINGWALL INTERFACE, CAST CAST-IN-PLACE CLOSURE POUR FOR CULVERT EXTENSION AND FOR WINGWALL INTERFACE, PLACE PRECAST ARCH.
4. INSTALL HEADWALL AND CAST REMAINING PORTION OF CAST-IN-PLACE WINGWALLS.

SCALE IN FEET
0 20 40

STAGE 2 CONSTRUCTION PLAN BELCHER BROOK MP 22.53 STA. 1161+20	CTDOT PROJECT NO.: 170-2296/3154/3155/3156 COUNTY: HARTFORD CITY/TOWN: BERLIN	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	LOCHNER H.W. LOCHNER, INC. 2110 Silas Deane Highway Rocky Hill, CT 06067 SCALE:1"=20'	DATE: MAR 2014 WETLAND ID No.5 & 12 WATERCOURSE BELCHER BROOK PLATE 1.4D OF7.2D

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 22.53_05.dgn



STAGE 3:

1. FILL AREAS BEHIND NEW WINGWALLS AND HEADWALL WITH PERVIOUS STRUCTURE BACKFILL.
2. INSTALL PROTECTION FENCE FOR WESTERN AND EASTERN HEADWALL.
3. REMOVE EXISTING MAPLE TREE NEAR NORTHWEST WINGWALL.
4. PLACE SANDBAGS WITHIN CULVERT TO DIVERT FLOW AND ISOLATE ONE ABUTMENT FROM ACTIVE FLOW LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE CULVERT. SANDBAGS TO BE PLACED UP TO ELEVATION 135.5'. SANDBAGS WILL BE PLACED TO MAINTAIN FLOW IN HALF OF THE CULVERT SECTION. REPOINT JOINTS AND REPAIR DETERIORATED CONCRETE WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THAT REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
5. RELOCATE SANDBAGS WITHIN CULVERT TO DIVERT FLOW AND ISOLATE SECOND ABUTMENT FROM ACTIVE FLOW LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE CULVERT. SET SANDBAGS UP TO ELEVATION 135.5'. SANDBAGS WILL BE PLACED TO MAINTAIN FLOW IN THE SECOND HALF OF CULVERT. REPOINT JOINTS AND REPAIR DETERIORATED CONCRETE WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THAT REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
6. REMOVE SANDBAGS AND RESTORE ACTIVE FLOW TO FULL CULVERT SECTION. CUT COFFERDAM FLUSH WITH TOP OF CAST-IN-PLACE FOOTING.
7. REPAIR WESTERN RAILTOP EXTENSION PER RAILTOP EXTENSION REPAIR AS SHOWN ON PLANS. INSTALL MONITORING POINT FOR KEYSTONE IN INTRADOS.
8. INSTALL RIPRAP AND NATIVE STREAMBED MATERIAL.
9. REMOVE CONSTRUCTION ACCESS ROAD. BACKFILL AND GRADE AS SHOWN ON PLANS.
10. REMOVE SEDIMENTATION AND EROSION CONTROL.

SCALE IN FEET
0 20 40

STAGE 3
CONSTRUCTION PLAN
BELCHER BROOK
MP 22.53
STA. 1161+20

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=20'

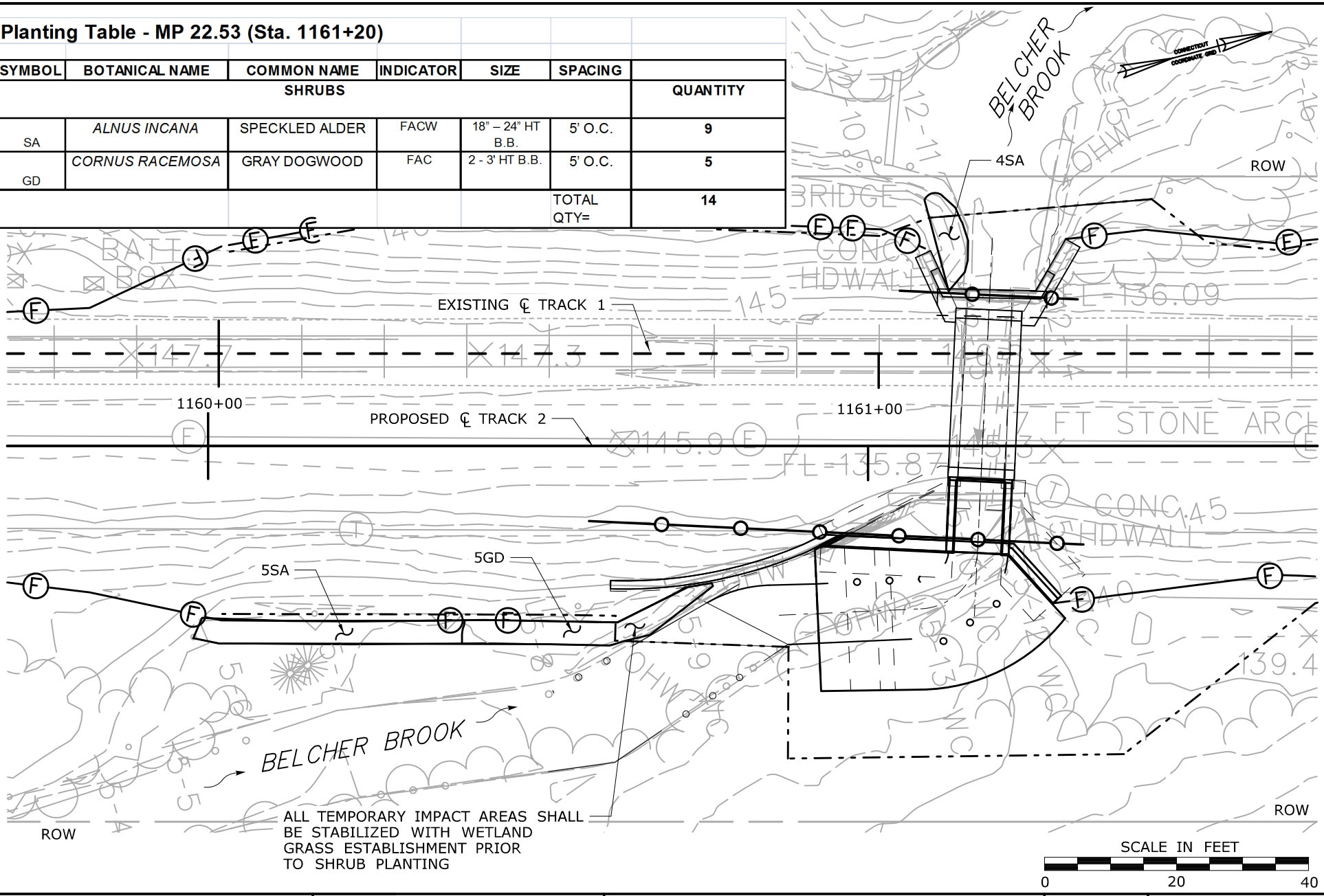
DATE:
MAR 2014
WETLAND ID No.5 & 12
WATERCOURSE
BELCHER BROOK

PLATE 1.5D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 22.53_06.dgn

Planting Table - MP 22.53 (Sta. 1161+20)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	9
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	5
					TOTAL QTY=	14



PLANTING PLAN

BELCHER BROOK
WETLAND ID 5 & 12
MP 22.53
STA. 1161+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

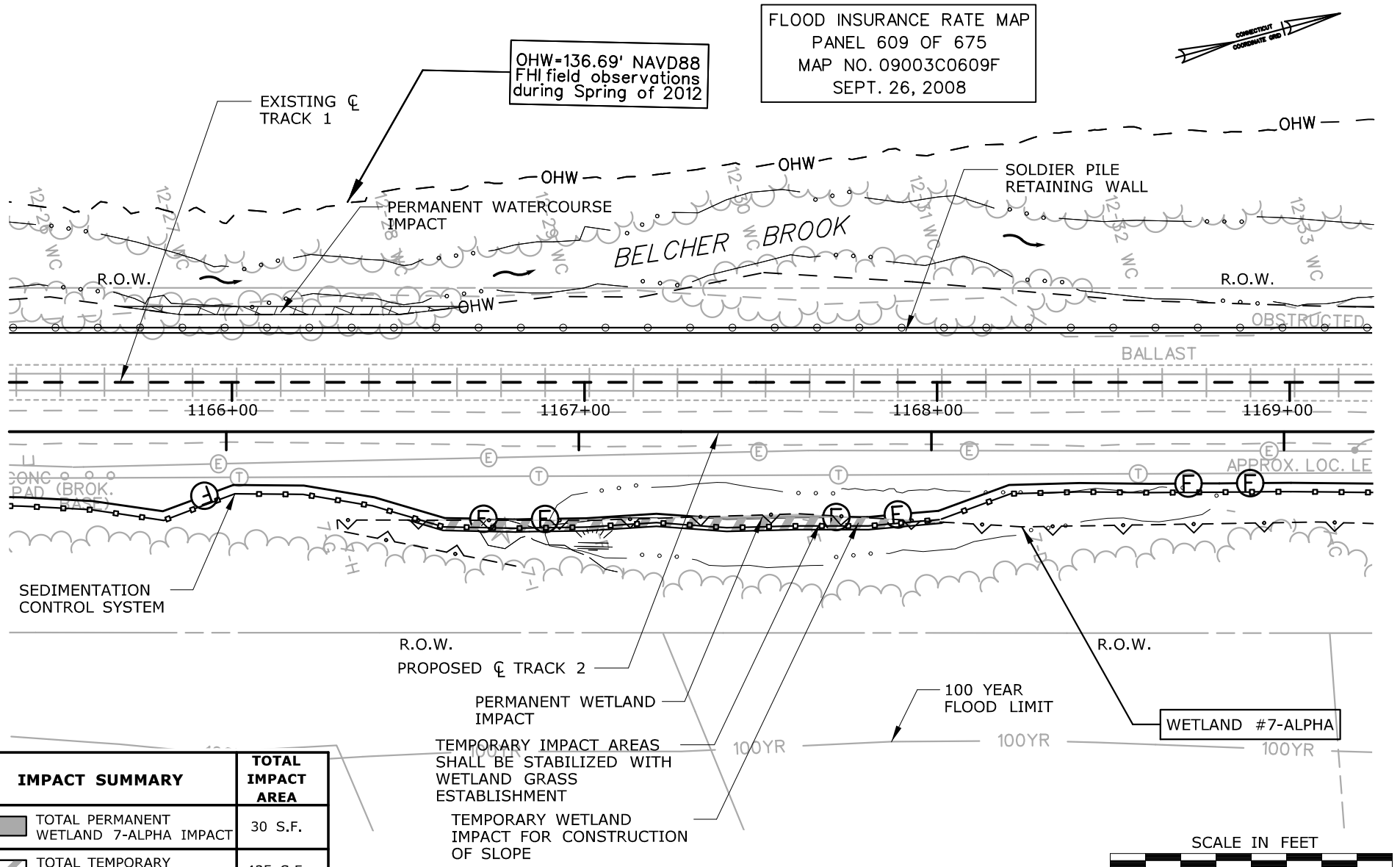
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DATE:
MAR 2014

WETLAND ID No.5 & 12
WATERCOURSE
BELCHER BROOK

PLATE 1.6D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 1.6D.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 7-ALPHA IMPACT	30 S.F.
TOTAL TEMPORARY WETLAND 7-ALPHA IMPACT	435 S.F.

SEE PLATE 1.0D FOR TOTAL BELCHER BROOK IMPACT AREAS

IMPACT PLAN

BELCHER BROOK
WETLAND ID 7-ALPHA
MP 22.70
STA. 1165+50 - 1169+10

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

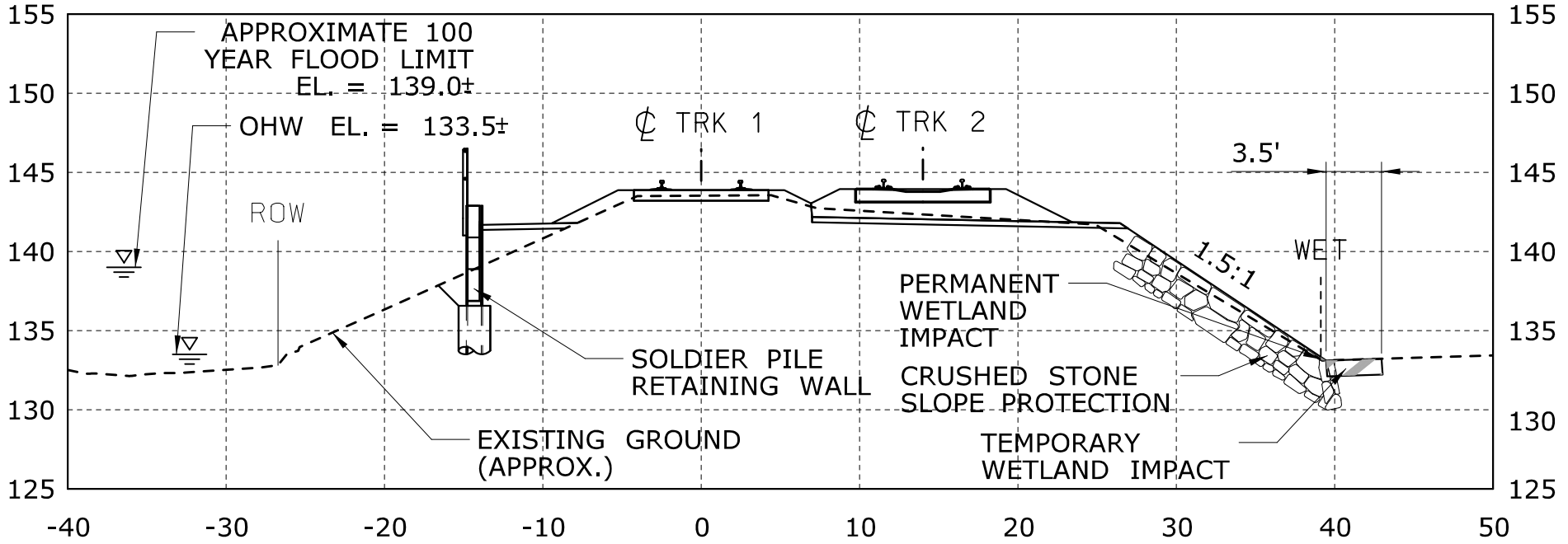
DATE:
MAR 2014

WETLAND ID No.
7-ALPHA

WATERCOURSE
BELCHER BROOK

PLATE 2.0D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_PER_Permit Plate 2.0D.dgn



1167+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 7-ALPHA
MP 22.70
STA. 1165+50- 1169+10

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=10'

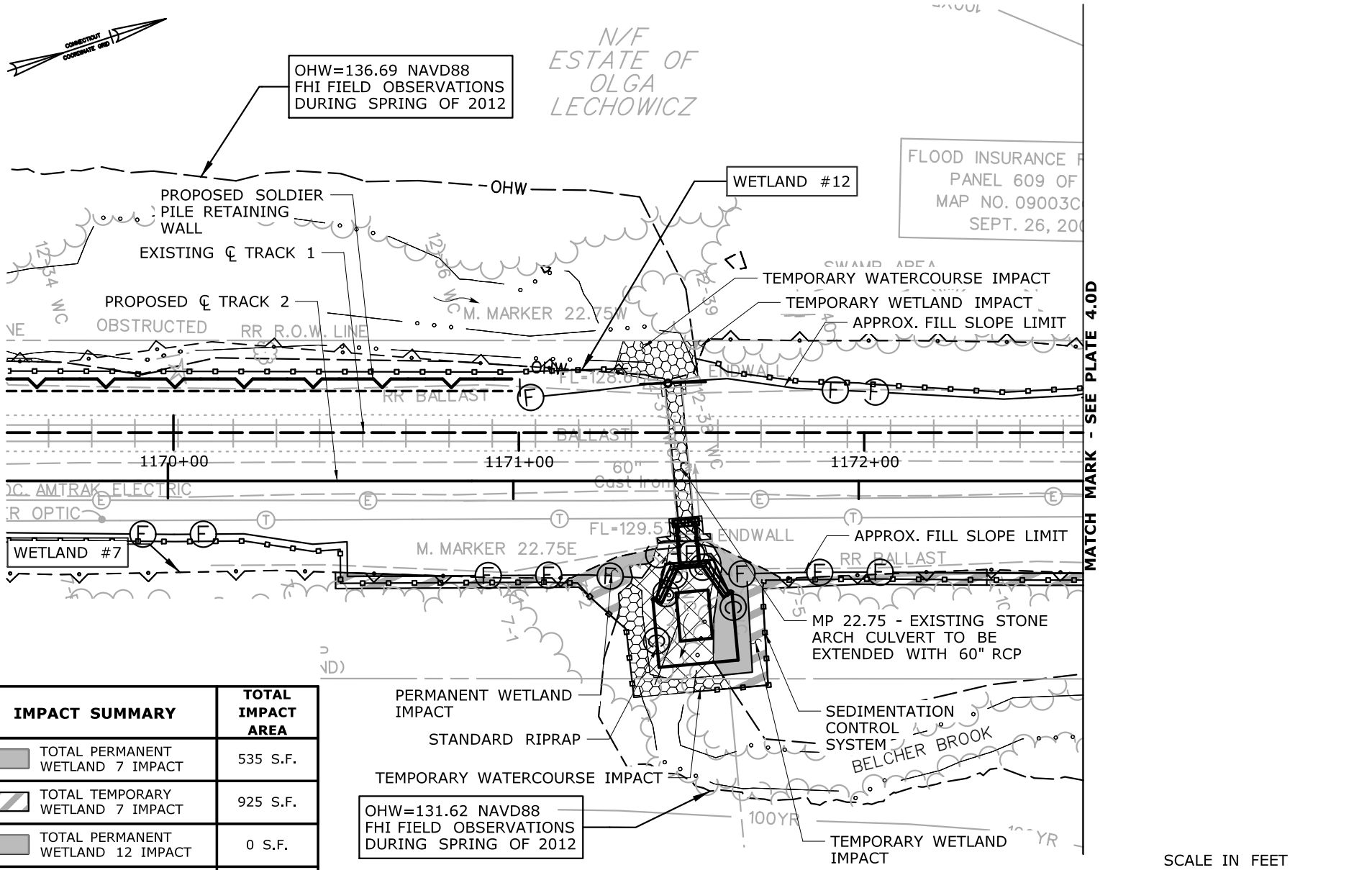
DATE:
MAR 2014

WETLAND ID No.
7-ALPHA

WATERCOURSE
BELCHER BROOK

PLATE 2.1D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 2.1D.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 7 IMPACT	535 S.F.
TOTAL TEMPORARY WETLAND 7 IMPACT	925 S.F.
TOTAL PERMANENT WETLAND 12 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 12 IMPACT	110 S.F.

SEE PLATE 1.0D FOR TOTAL BELCHER BROOK IMPACT AREAS
IMPACT AREAS FOR WETLAND 7 ARE ALSO SHOWN ON PLATE 4.0D

IMPACT PLAN

BELCHER BROOK
WETLAND ID 7 & 12
MP 22.75
STA. 1171+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

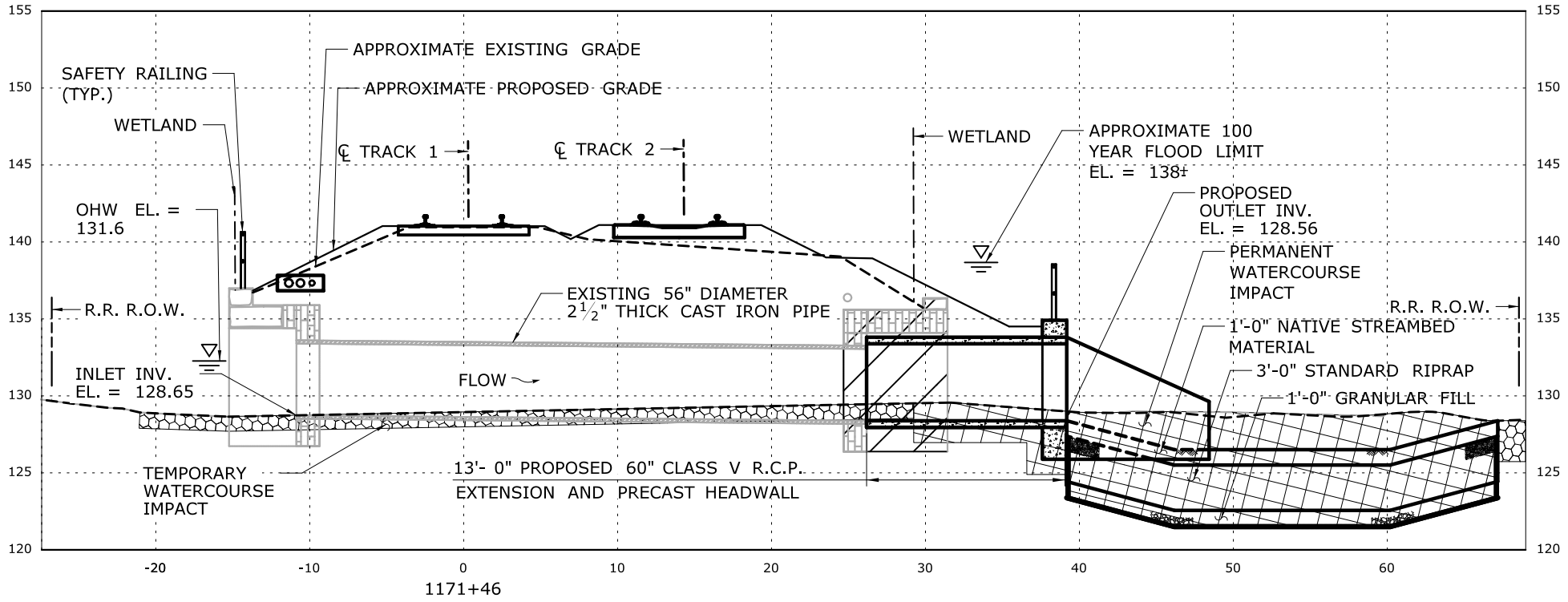
LOCHNER
H.W. LOCHNER, INC
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.7
& 12
WATERCOURSE
BELCHER BROOK

PLATE 3.0D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 22.75_01.dgn



SCALE IN FEET

0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 22.75_02.dgn

IMPACT SECTION

WETLAND ID 7 & 12
MP 22.75
STA. 1171+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

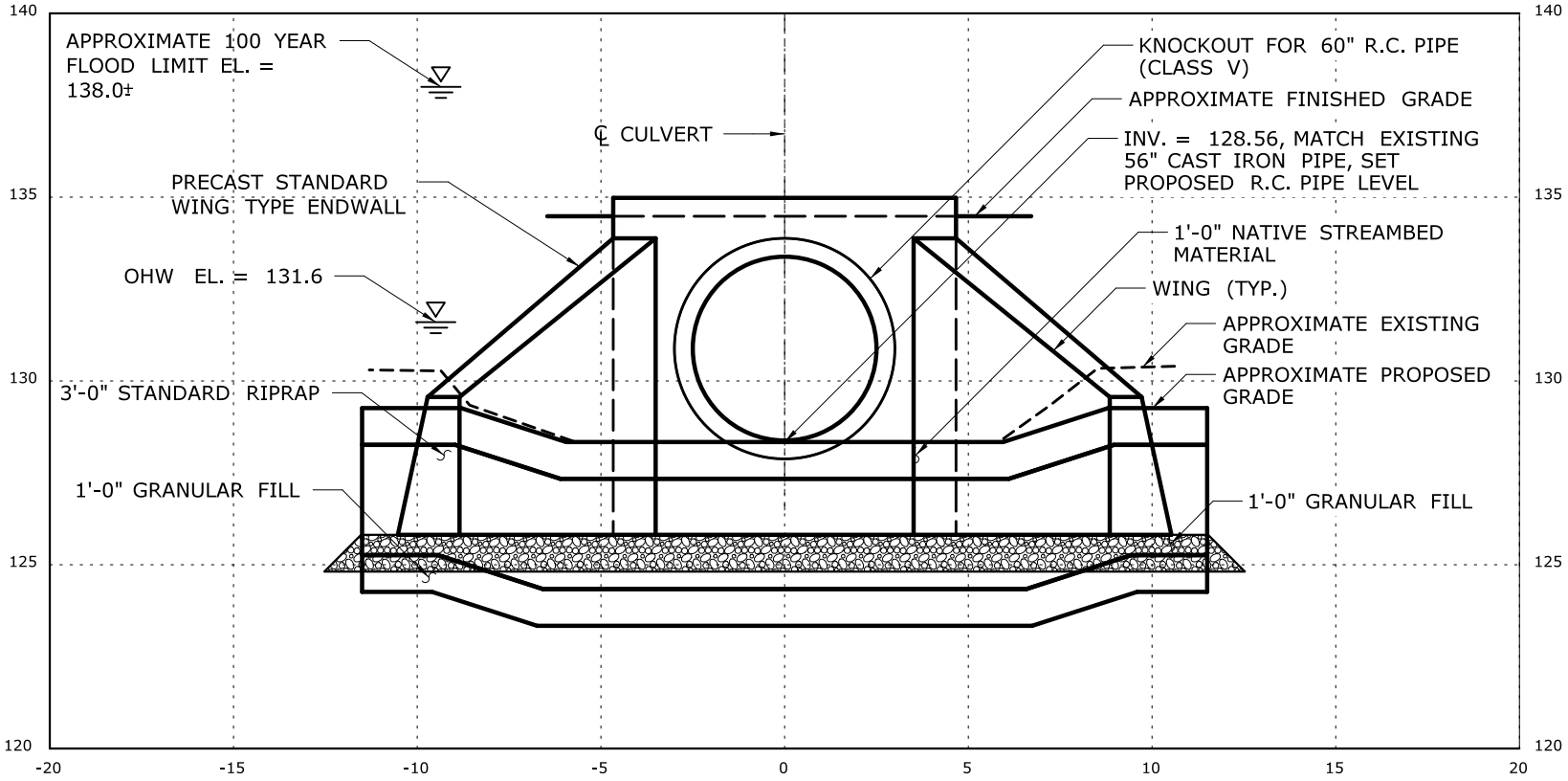
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SCALE:1"=10'

DATE:
MAR 2014

WETLAND ID No.7 & 12
WATERCOURSE
BELCHER BROOK

PLATE 3.1D OF 7.2D



ELEVATION

TEMPORARY HYDRAULIC DATA - BELCHER BROOK	
AVERAGE DAILY FLOW	4.6 CFS
AVERAGE SPRING FLOW	9.0 CFS
2-YR FREQUENCY DISCHARGE	199 CFS
TEMPORARY DESIGN DISCHARGE	10 CFS
TEMPORARY DESIGN FREQUENCY	±ASF
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	130.00
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	129.65

SCALE IN FEET

0 5 10

CULVERT ELEVATION

WETLAND ID 7 & 12
MP 22.75
STA. 1171+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

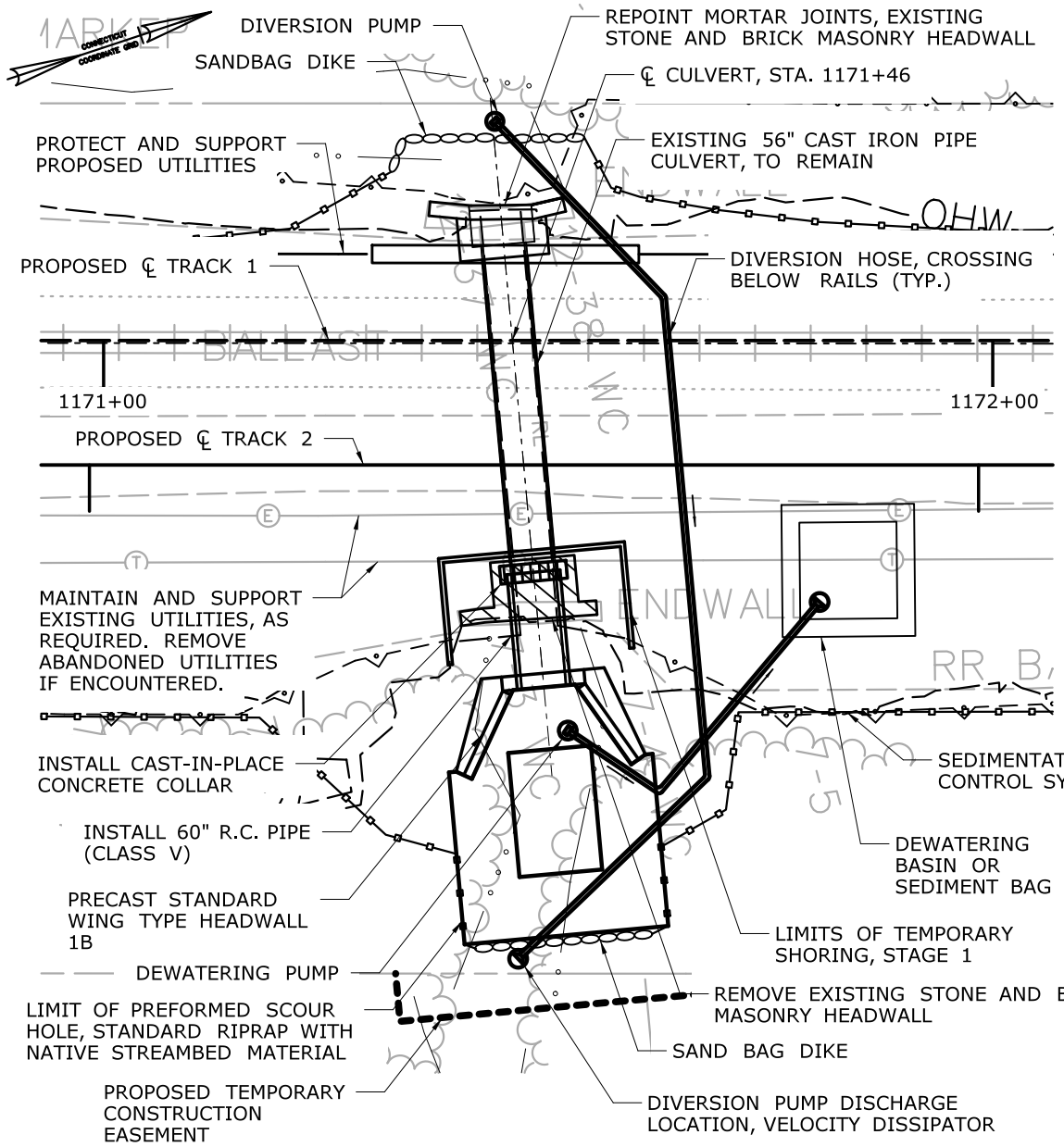
LOCHNER
H.W. LOCHNER, INC.
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Rocky Hill, CT 06067

SCALE:1"=5'

DATE:
MAR 2014
WETLAND ID No.7 & 12
WATERCOURSE
BELCHER BROOK

PLATE 3.2D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER__MP 22.75_03.dgn



CONSTRUCTION NOTES:

1. TEMPORARY SHORING IS REQUIRED TO LIMIT EXCAVATION AND RELATED IMPACT TO RAILROAD OPERATIONS. NO EXCAVATION WITHIN AMTRAK ZONE 3 IS ALLOWED WITH THE TRACK IN SERVICE UNLESS SHORING IS DESIGNED FOR RAILROAD LOADS.

STAGE 1:

1. STAGE 1 WORK SHALL BE PERFORMED DURING FOUL TIME AND TRACK IN SERVICE.
2. CLEARING AND GRUBBING SHALL BE COMPLETED PRIOR TO STARTING THE CULVERT REHABILITATION WORK.
3. INSTALL SEDIMENTATION CONTROL SYSTEMS AND INSTALL DEWATERING BASIN(S).
4. PLACE SANDBAG DIKES UP TO ELEVATION 130.0'. INSTALL DIVERSION PUMP SYSTEM: VELOCITY DISSIPATER(S), DISCHARGE HOSE(S), AND DIVERSION PUMP(S), AS REQUIRED. INSTALL DISCHARGES HOSE BELOW RAILS AND BETWEEN THE TIES.
5. DIVERT THE CHANNEL FLOW AND START THE STREAM DIVERSION PUMP SYSTEM. BEGIN CULVERT REHABILITATION WORK

   A. REPAIR EXISTING HEADWALL 1A (WEST SIDE): REPOINT MORTAR JOINTS, INSTALL RIPRAP MAT AND INSTALL NATIVE STREAM BED MATERIAL. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA ON WEST SIDE IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOACTIONS AS REQUIRED.

   B. EXTEND CULVERT (EAST SIDE): INSTALL TEMPORARY SHORING AND REMOVE THE EXISTING STONE AND BRICK MASONRY HEADWALL. INSTALL DEWATERING PUMP(S), EXCAVATE, INSTALL GRANULAR FILL AND PIPE BEDDING, INSTALL PRECAST HEADWALL 1B AND WINGS, INSTALL 60" R.C. PIPE AND CAST-IN-PLACE CONCRETE COLLAR.
6. INSTALL PREFORMED SCOUR HOLE AND NATIVE STREAMBED MATERIAL. COMPLETE GRADING AROUND CULVERT END.

SCALE IN FEET
0 20 40

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 22.75_04.dgn

STAGE 1
CONSTRUCTION PLAN
WETLAND ID 7 & 12
MP 22.75
STA. 1171+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

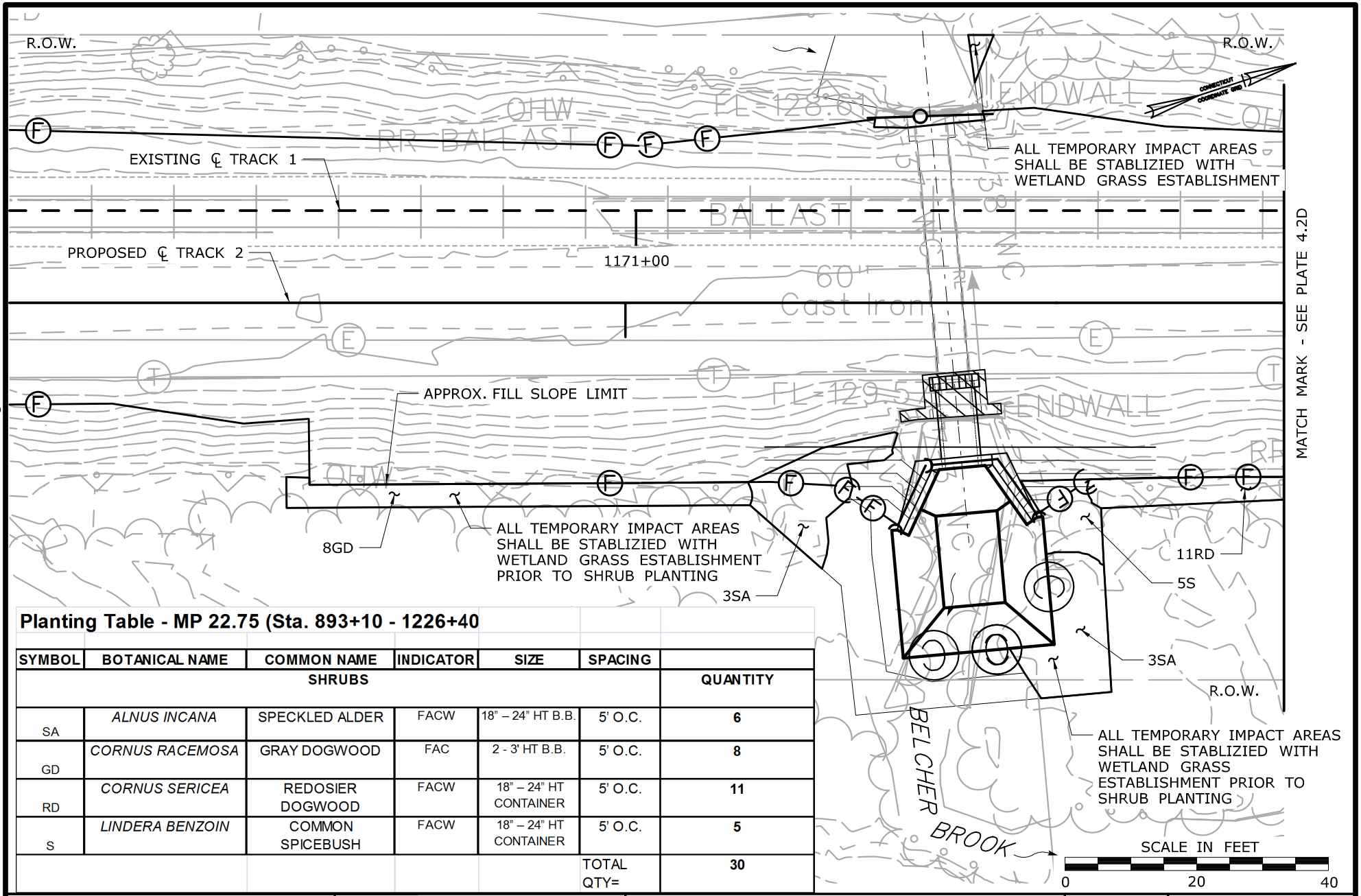
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SCALE:1"=20'

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WETLAND ID No.7 & 12
WATERCOURSE
BELCHER BROOK

PLATE 3.3D OF 7.2D



Planting Table - MP 22.75 (Sta. 893+10 - 1226+40)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	
		SHRUBS				QUANTITY
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	**6**
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	**8**
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	**11**
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	**5**
					TOTAL QTY=	**30**

PLANTING PLAN

BELCHER BROOK
WETLAND ID 7, 7-100, & 12
MP 22.75
STA. 1171+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

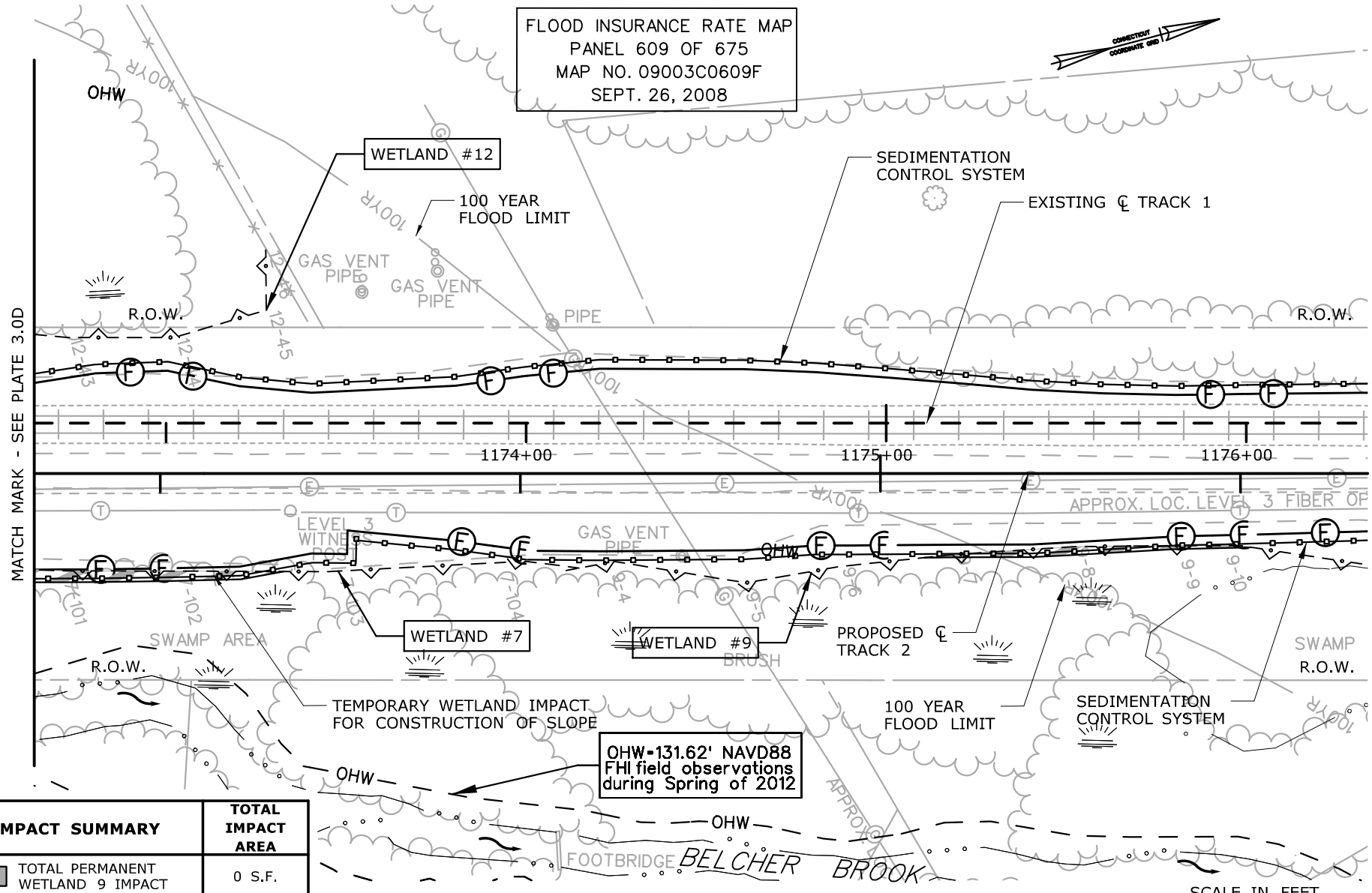
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DATE:
MAR 2014

WETLAND ID No.7, 7-100, & 12
WATERCOURSE
BELCHER BROOK

PLATE 3.4D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_Permit Plate 3.4D.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 9 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 9 IMPACT	125 S.F.

SEE PLATE 3.0D FOR TOTAL WETLAND ID 7 IMPACT AREAS

IMPACT PLAN

BELCHER BROOK
WETLAND ID 7, 9, & 12
MP 22.84
STA. 1172+80 - 1176+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

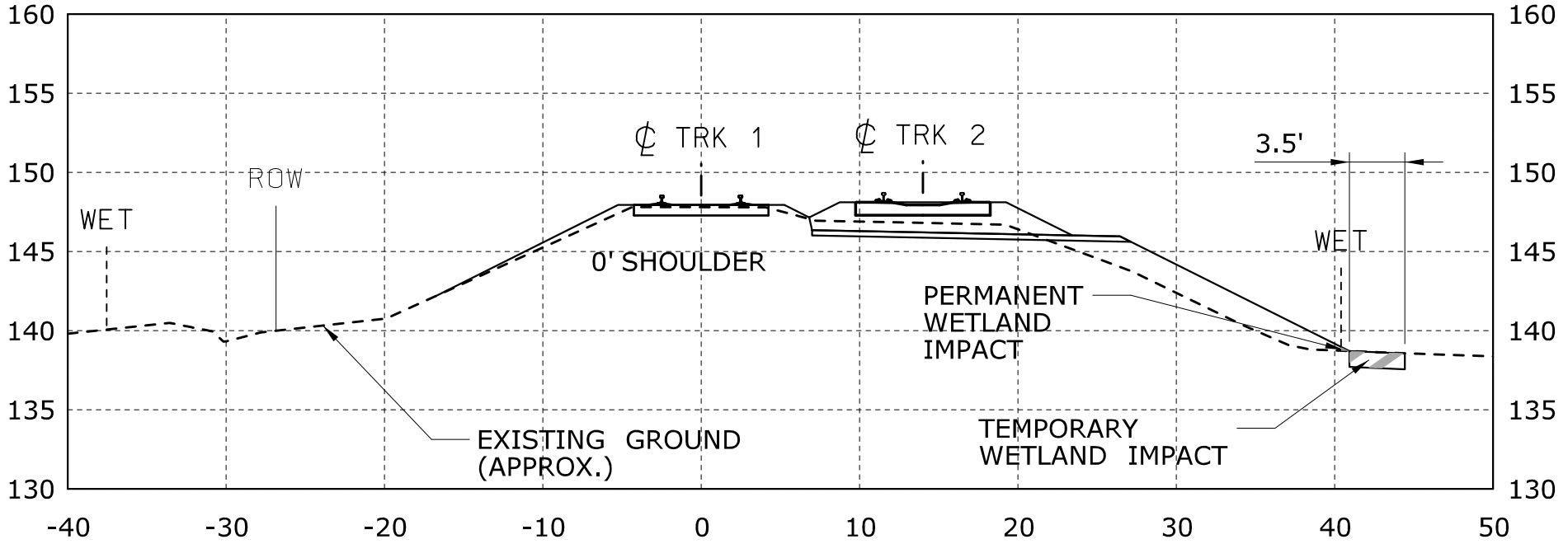
DATE:
MAR 2014

WETLAND ID No.7
9, & 12

WATERCOURSE
BELCHER BROOK

PLATE 4.0D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 4.0D.dgn



1160+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 7, 9, & 12
MP 22.84
STA. 1159+40 - 1176+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

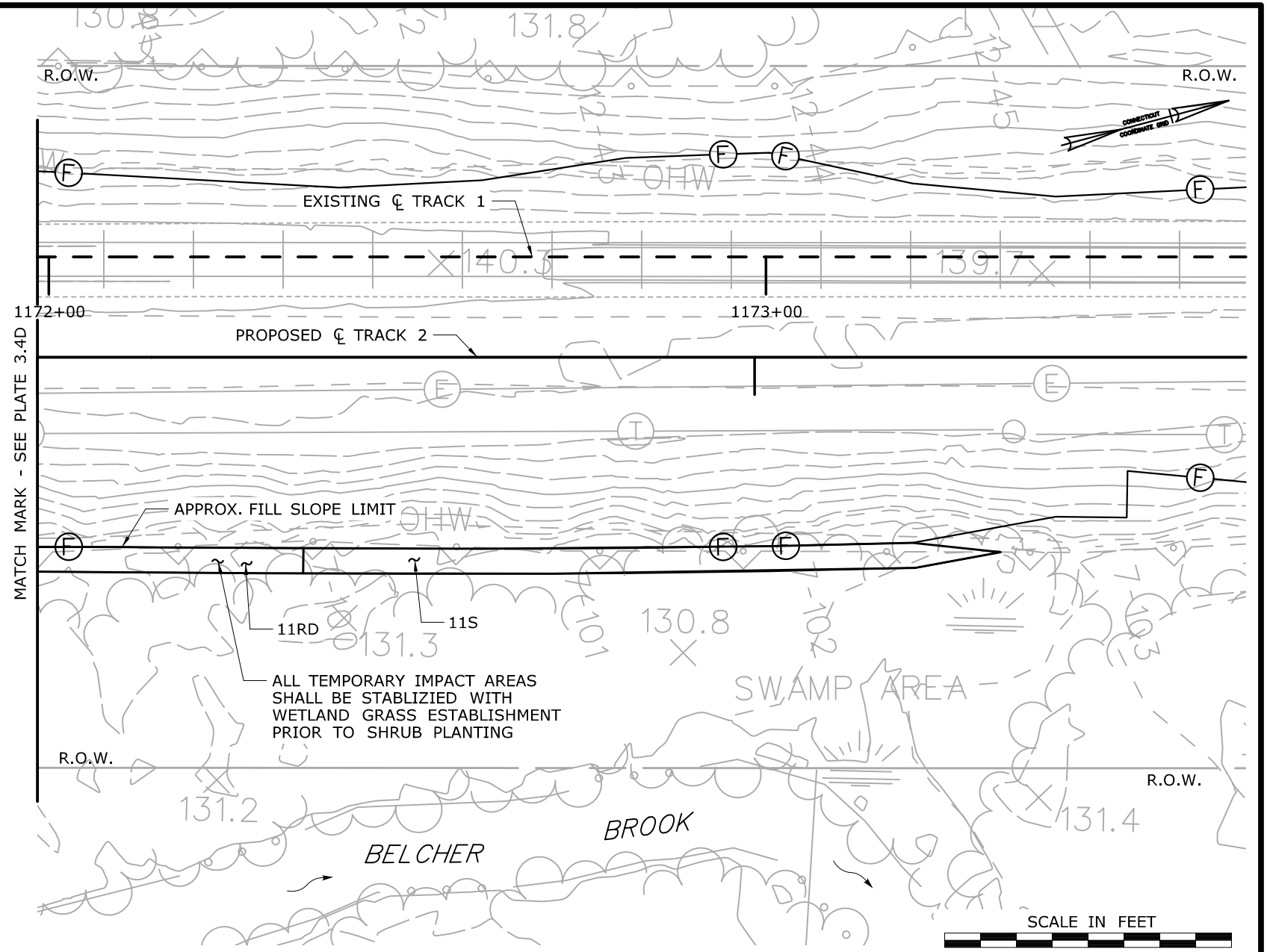
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.7, 9, & 12

PLATE 4.1D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 4.1D.dgn



SEE PLATE 3.4D FOR PLANTING TABLE

PLANTING PLAN

BELCHER BROOK
WETLAND ID 7, 9, & 12
MP 22.84
STA. 1172+80 - 1176+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014

WETLAND ID No.7, 9, & 12

WATERCOURSE
BELCHER BROOK

PLATE 4.2D OF 7.2D

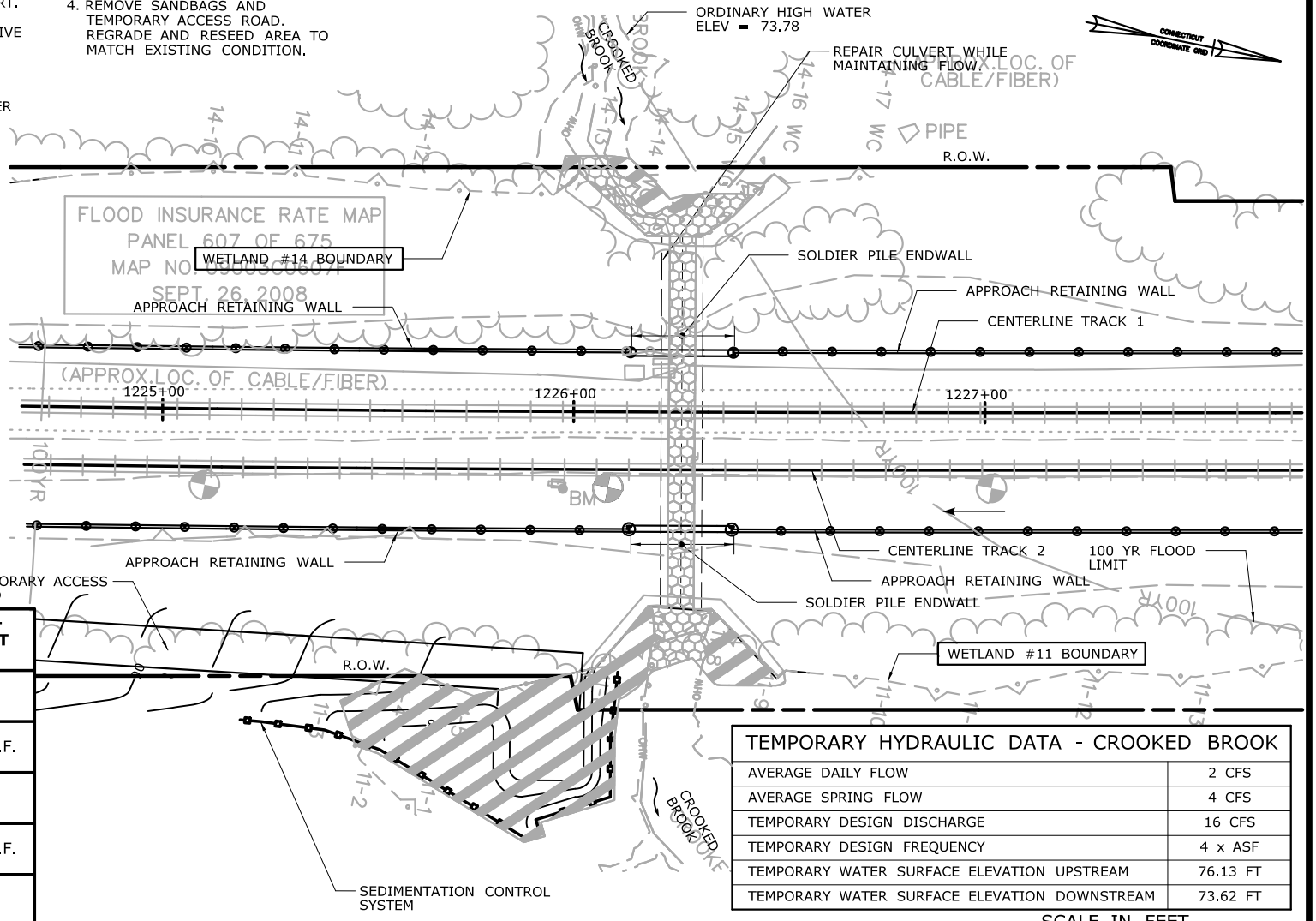
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SEQUENCE OF CONSTRUCTION

REPAIRS - STAGE 1

1. CONSTRUCT TEMPORARY ACCESS ROAD.
2. PLACE SANDBAGS WITHIN CULVERT TO DIVERT FLOW LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE CULVERT. REPOINT JOINTS AND REPAIR SETTLEMENT CRACKS WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. SANDBAGS ARE TO BE PLACED UP TO ELEVATION 77.25'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
3. RELOCATE SANDBAGS WITHIN CULVERT TO DIVERT AND MAINTAIN FLOW IN SECOND HALF OF CULVERT LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE CULVERT. REPOINT JOINTS AND SETTLEMENT CRACKS WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. SANDBAGS ARE TO PLACED UP TO ELEVATION 77.25'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
4. REMOVE SANDBAGS AND TEMPORARY ACCESS ROAD. REGRADE AND RESEED AREA TO MATCH EXISTING CONDITION.

FLOOD INSURANCE RATE MAP
PANEL 607 OF 675
MAP NO. 09003C0607F
SEPT. 26, 2008



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	0 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	1,050 S.F.
TOTAL PERMANENT WETLAND 11 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 11 IMPACT	2,205 S.F.
TOTAL PERMANENT WETLAND 14 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 14 IMPACT	135 S.F.

TEMPORARY HYDRAULIC DATA - CROOKED BROOK	
AVERAGE DAILY FLOW	2 CFS
AVERAGE SPRING FLOW	4 CFS
TEMPORARY DESIGN DISCHARGE	16 CFS
TEMPORARY DESIGN FREQUENCY	4 x ASF
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	76.13 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	73.62 FT

SCALE IN FEET
0 40 80

IMPACT PLAN
CROOKED BROOK
WETLAND ID 11 & 14
MP 23.76
STA. 1226+40

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

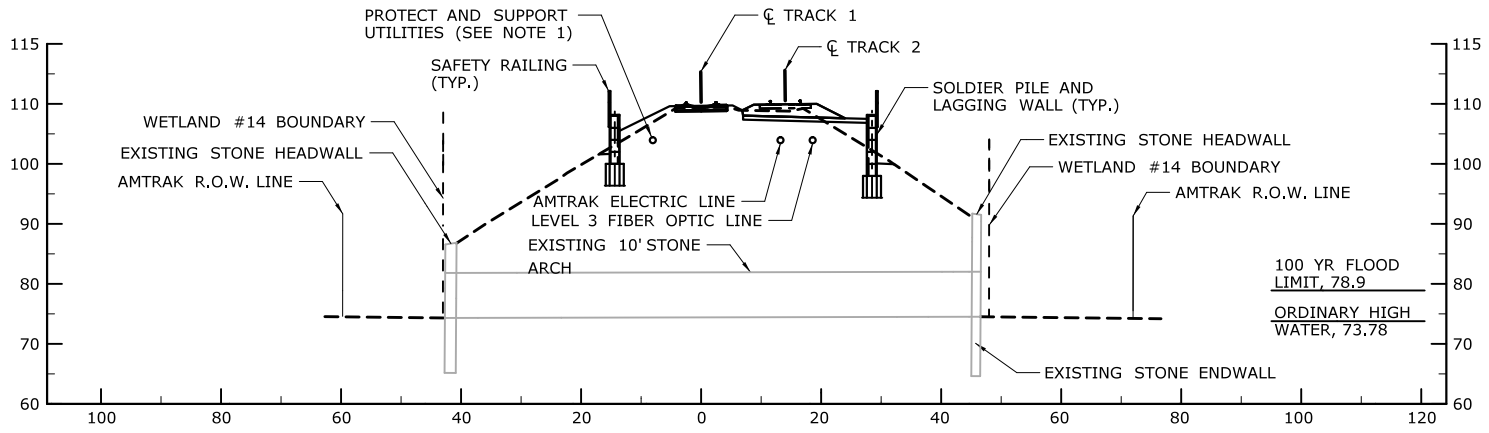
HNTB CORP.

SCALE:1"=40'

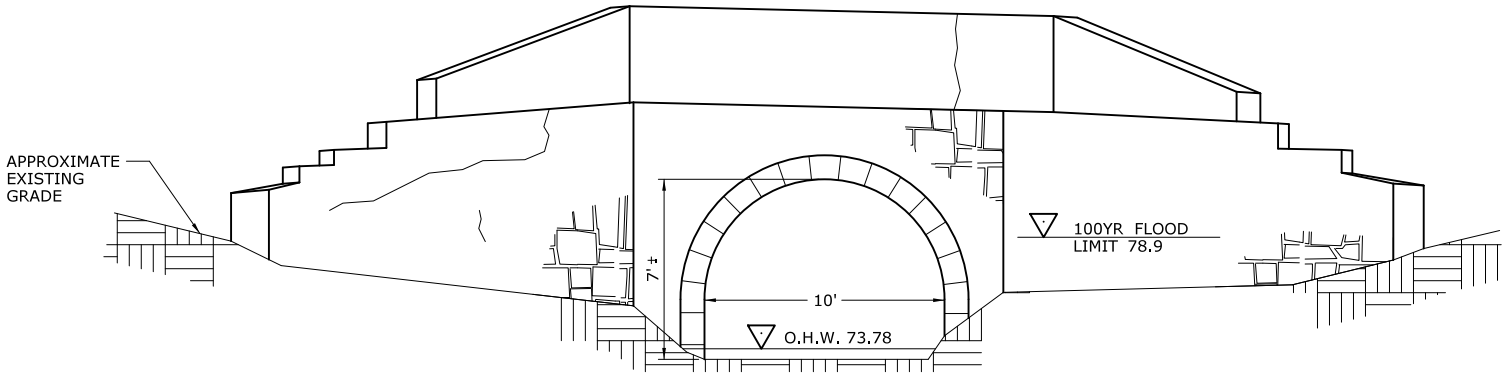
DATE:
MAR 2014

WETLAND ID No. 11& 14

PLATE 5.0D OF 7.2D



LONGITUDINAL SECTION



EAST ELEVATION
N.T.S.

SCALE IN FEET
0 40 80

SECTION & ELEVATION

CROOKED BROOK
WETLAND ID 11 & 14
MP 23.76
STA. 1226+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

HNTB CORP.

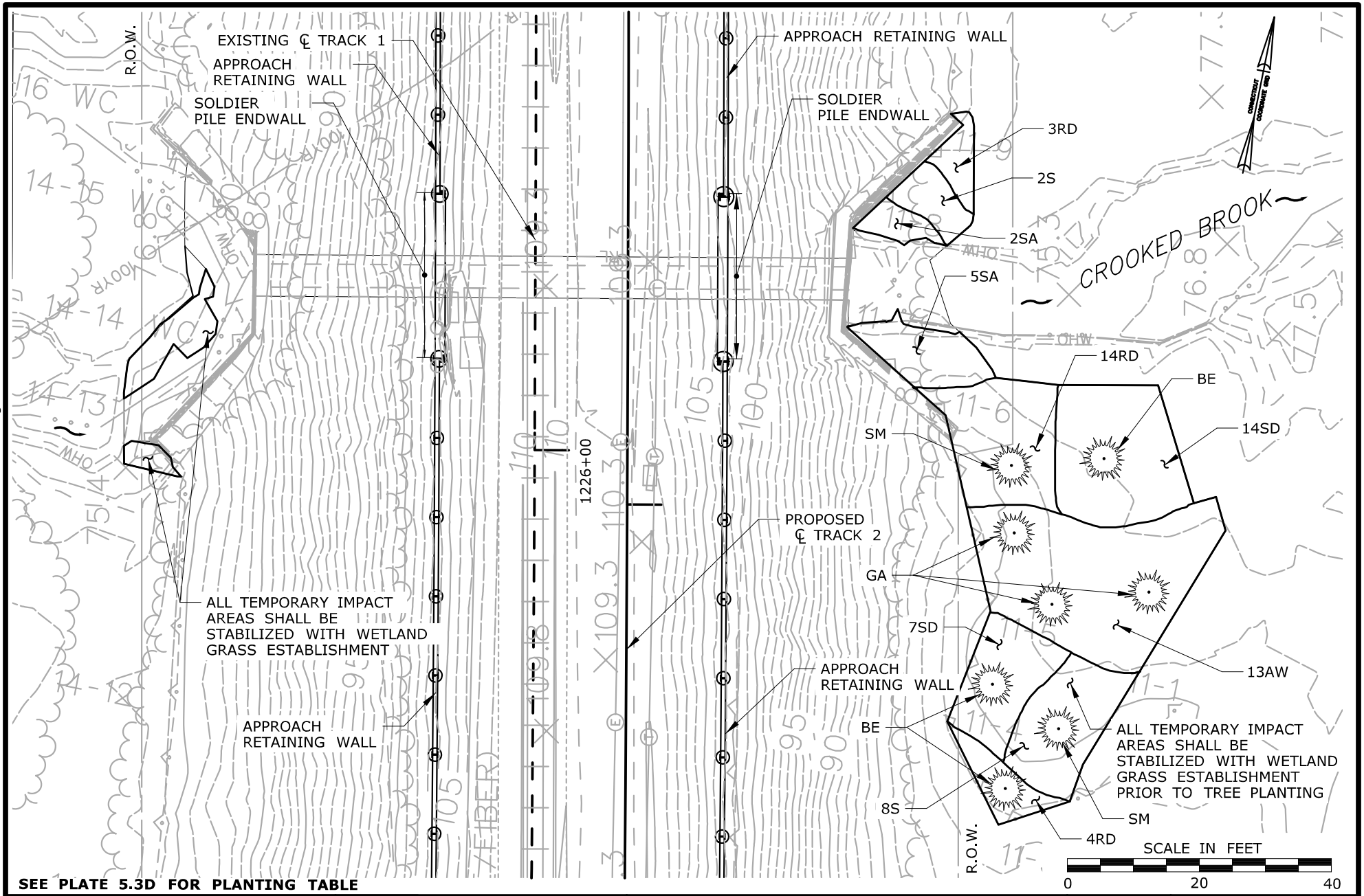
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DATE:
MAR 2014

WETLAND ID No. 11& 14

PLATE 5.1D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_03_PER_MP 23.76_2.dgn



SEE PLATE 5.3D FOR PLANTING TABLE

PLANTING PLAN

CROOKED BROOK
WETLAND ID 11 & 14
MP 23.76
STA. 1226+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014

WETLAND ID No.14 & 18

WATERCOURSE
CROOKED BROOK

PLATE 5.2D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 5.2D.dgn

Planting Table - MP 23.76 (Sta. 1226+40)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	
	TREES					**QUANTITY**
BE	*ACER NEGUNDO*	BOXELDER	FAC	2 - 3' HT B.B.	10' O.C.	**3**
SM	*ACER SACCHARINUM*	SILVER MAPLE	FACW	18" – 24" HT B.B.	10' O.C.	**2**
GA	*FRAXINUS PENNSYLVANICA*	GREEN ASH	FACW	2 - 3' HT B.B.	10' O.C.	**3**
					TOTAL QTY=	**8**
	SHRUBS					**QUANTITY**
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	**7**
SD	*CORNUS AMOMUM*	SILKY DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	**21**
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	**21**
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	**10**
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	**13**
					TOTAL QTY=	**72**

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 5.3D.dgn

PLANTING PLAN
CROOKED BROOK
WETLAND ID 11 & 14
MP 23.76
STA. 1226+40

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

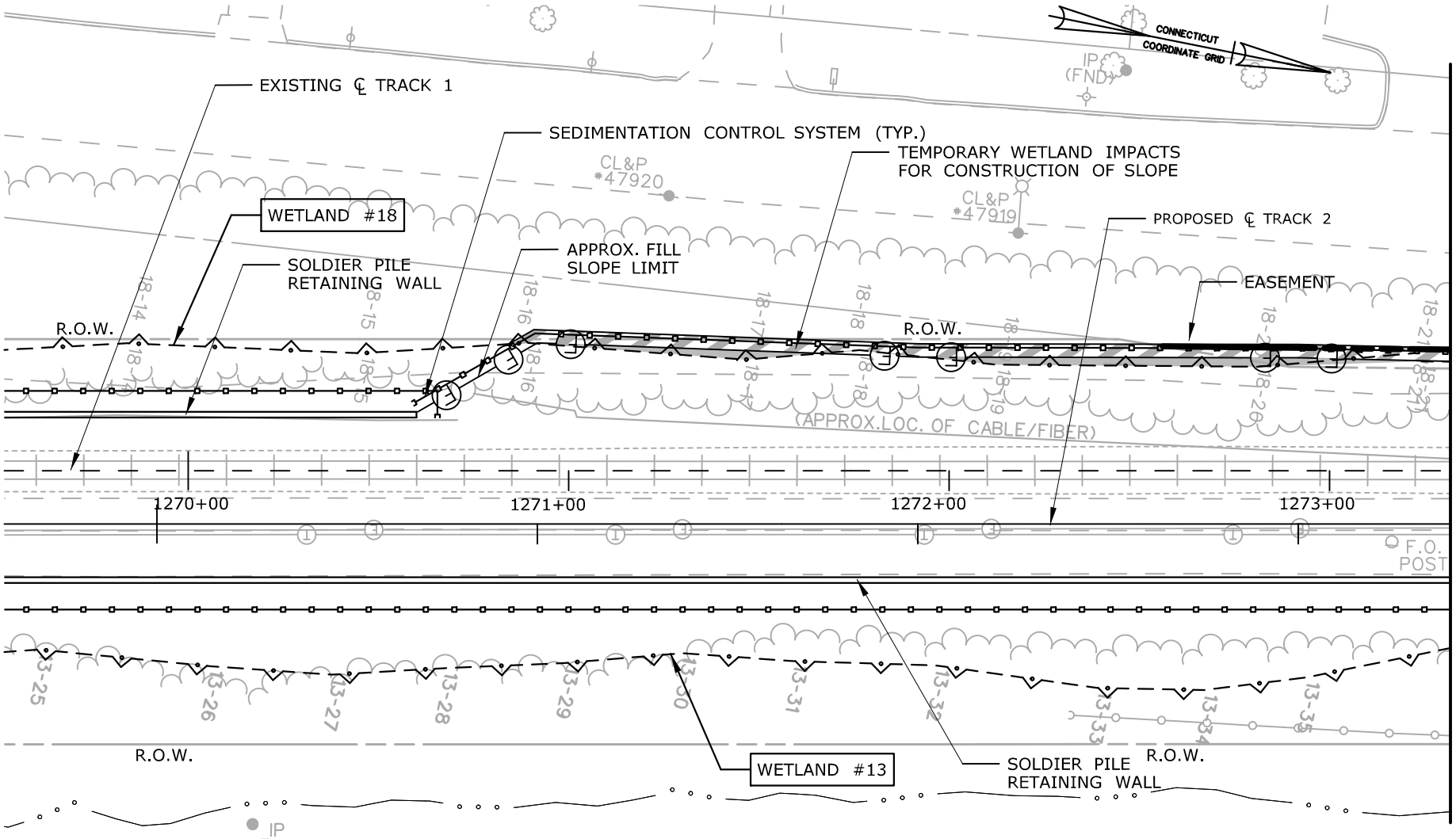
APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

DATE:
MAR 2014
WETLAND ID No.14 & 18
WATERCOURSE
CROOKED BROOK

PLATE 5.3D OF 7.2D



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 18 IMPACT	320 S.F.
TOTAL TEMPORARY WETLAND 18 IMPACT	1,400 S.F.

IMPACT AREAS FOR WETLAND ID 18 ARE ALSO SHOWN ON PLATE 7.0D

IMPACT PLAN

WETLAND ID 18
MP 24.55
STA. 1264+10 - 1275+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

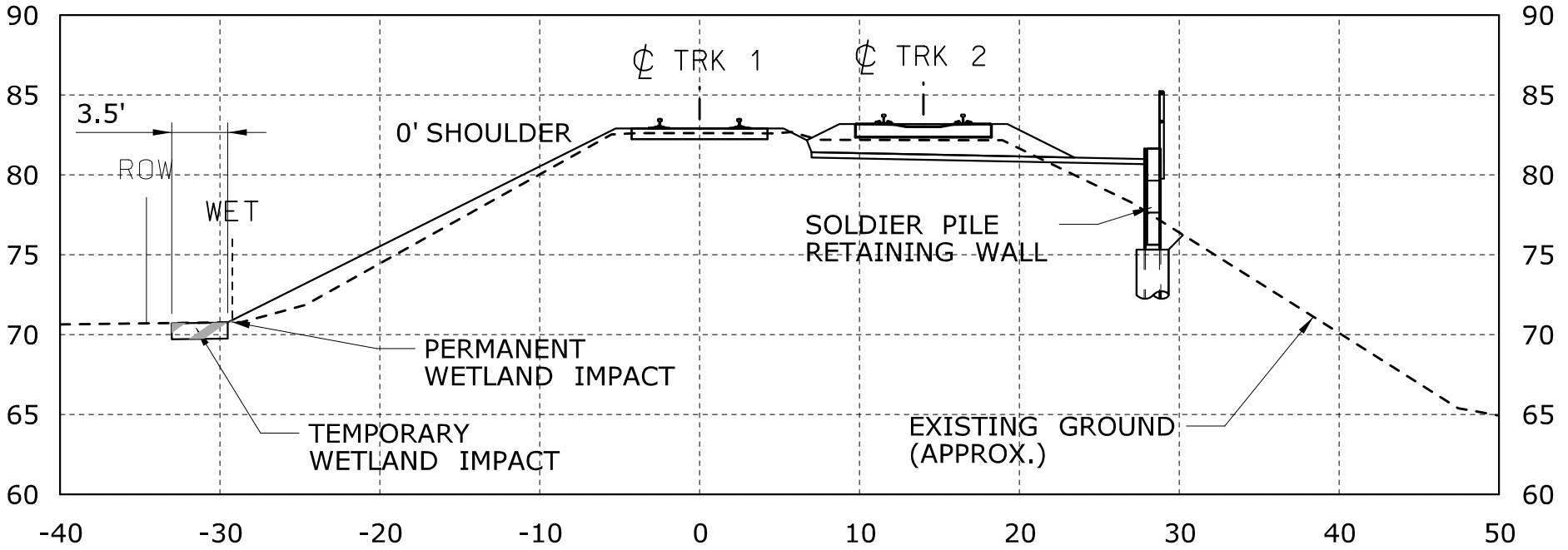
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.18

PLATE 6.0D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 6.0D.dgn



1272+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
3. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
4. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 13, & 18
MP 24.55
STA. 1264+10 - 1275+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

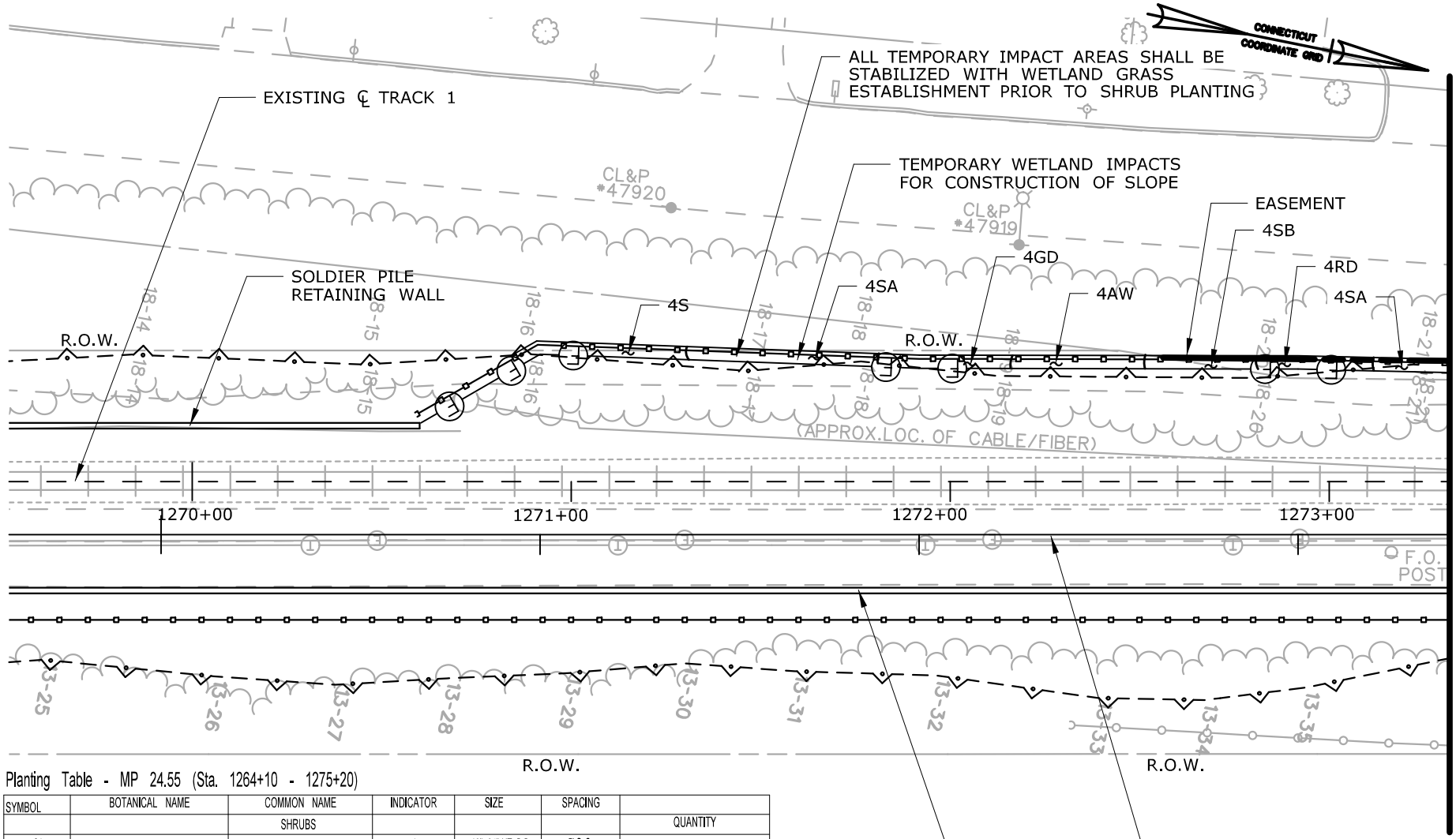
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.13 & 18

PLATE 6.1D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 6.1D.dgn



Planting Table - MP 24.55 (Sta. 1264+10 - 1275+20)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	
		SHRUBS				QUANTITY
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18"- 24" HT B.B.	5' O.C.	12
SB	*AMELANCHIER CANADENSIS*	SERVICEBERRY	FAC	4'-5' HT B.B.	5' O.C.	8
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	8
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18"- 24" HT CONTAINER	5' O.C.	8
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18"- 24" HT CONTAINER	5' O.C.	12
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	8
					TOTAL QTY=	56

PLANTING PLAN

WETLAND ID 18
MP 24.55
STA. 1264+10 - 1275+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

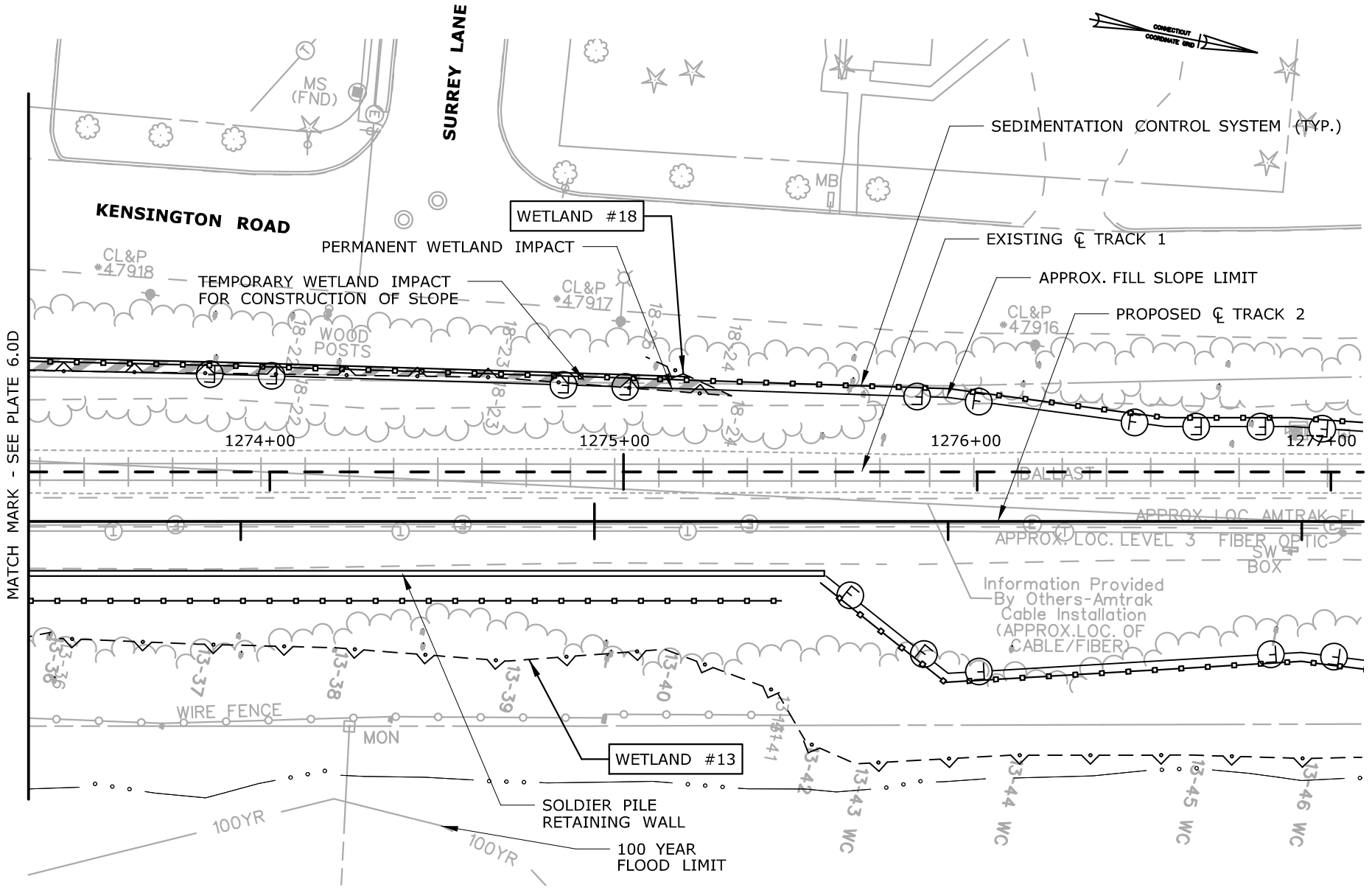
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.18

PLATE 6.2D OF 7.1D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 6.2D.dgn



SEE PLATE 6.0D FOR TOTAL WETLAND ID 18 IMPACT AREAS

IMPACT PLAN

WETLAND ID 18
MP 24.55
STA. 1264+10 - 1275+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

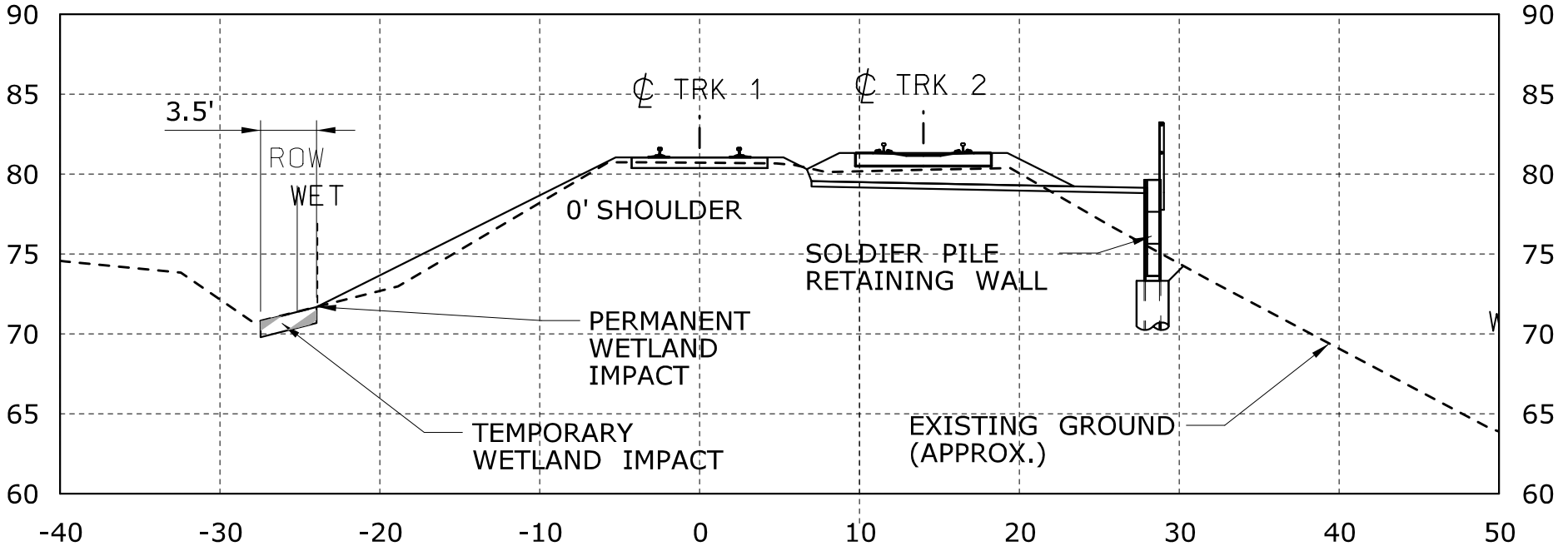
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.18

PLATE 7.0D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 7.0D.dgn



1275+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 18
MP 24.55
STA. 1264+10 - 1275+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

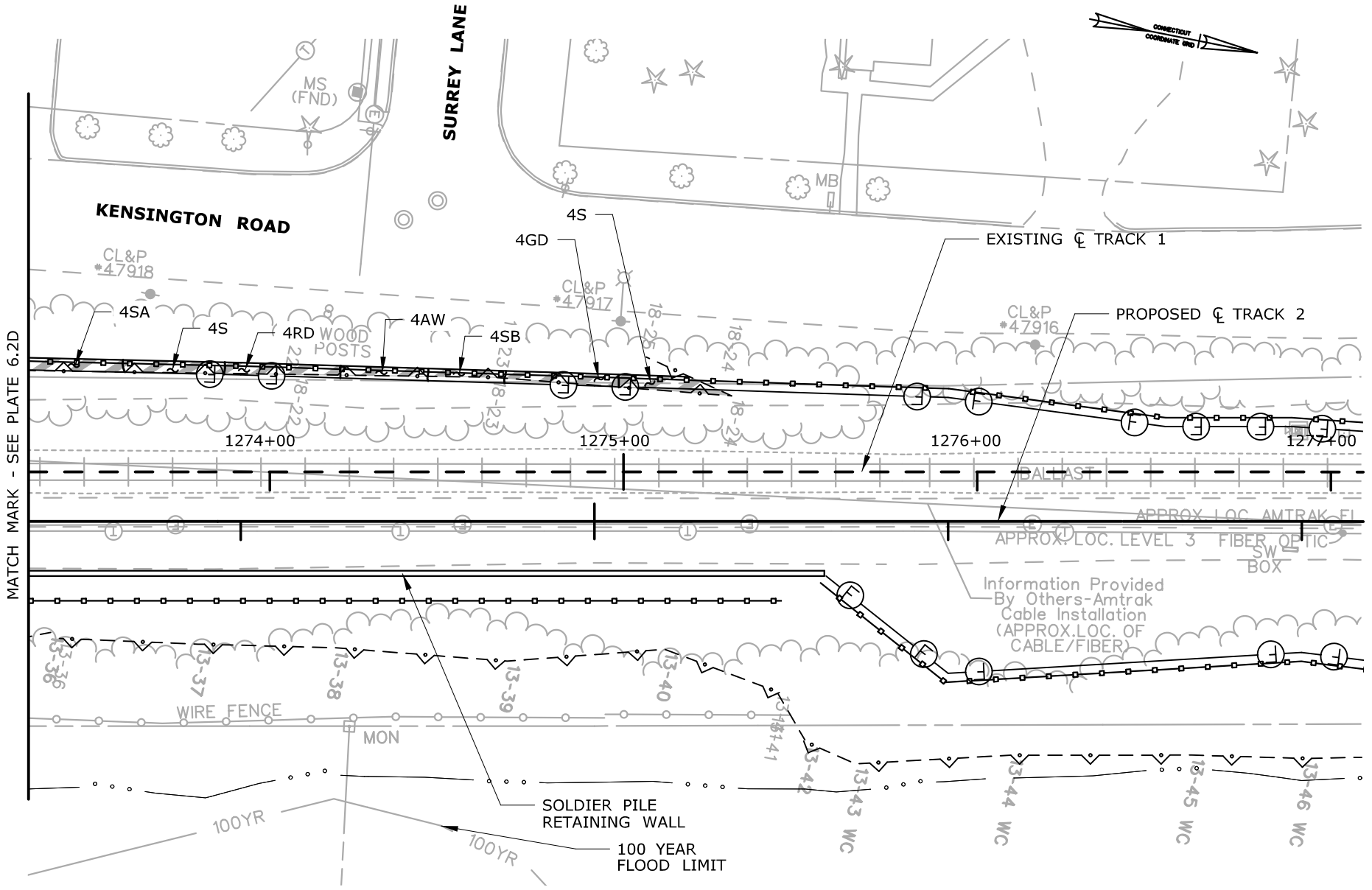
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.18

PLATE 7.1D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 7.1D.dgn



SEE PLATE 6.2D FOR PLANTING TABLE

PLANTING PLAN

WETLAND ID 18
MP 24.55
STA. 1264+10 - 1275+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

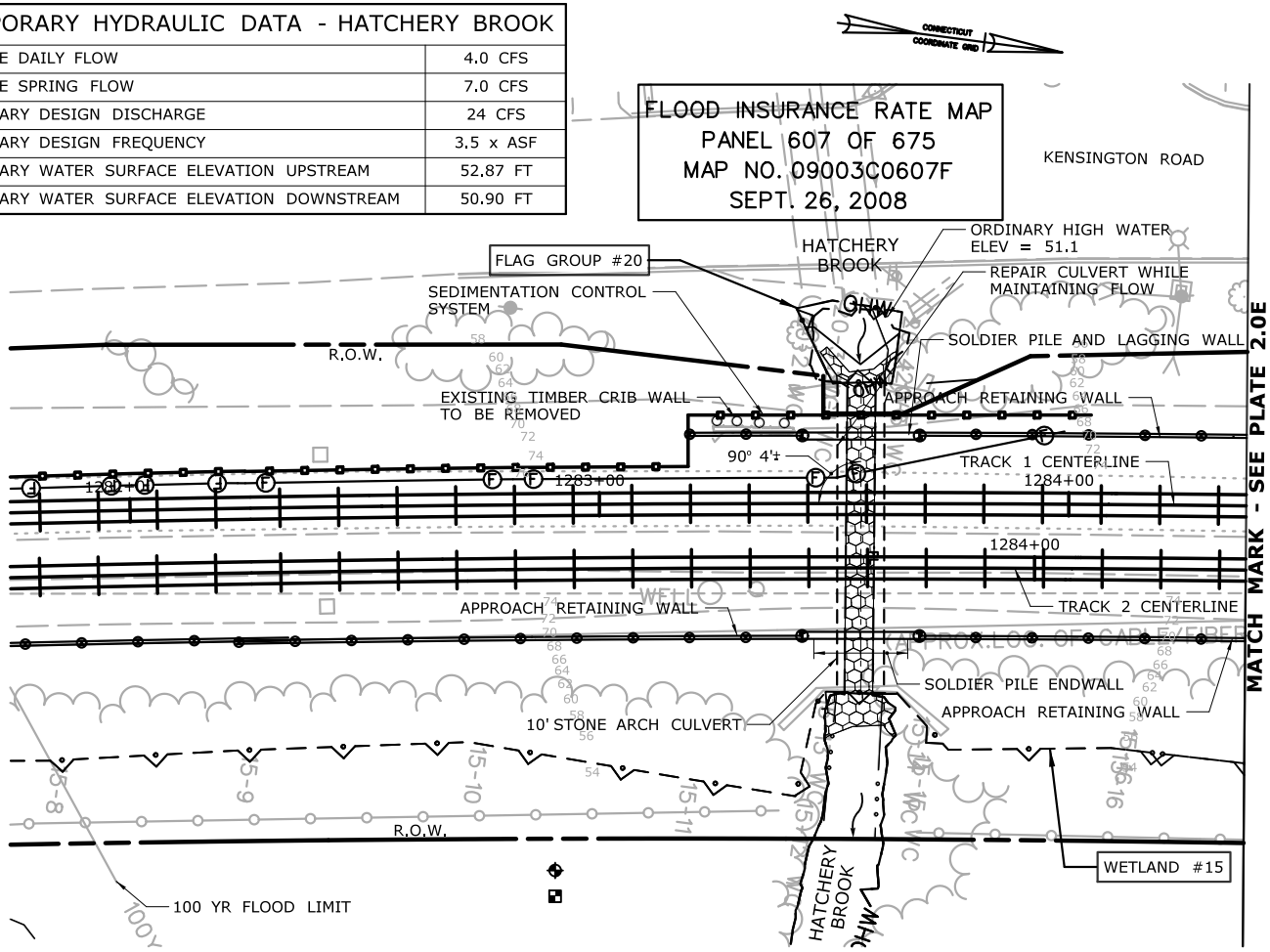
SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.18

PLATE 7.2D OF 7.2D

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 7.2D.dgn

TEMPORARY HYDRAULIC DATA - HATCHERY BROOK	
AVERAGE DAILY FLOW	4.0 CFS
AVERAGE SPRING FLOW	7.0 CFS
TEMPORARY DESIGN DISCHARGE	24 CFS
TEMPORARY DESIGN FREQUENCY	3.5 x ASF
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	52.87 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	50.90 FT



SEQUENCE OF CONSTRUCTION

REPAIRS - STAGE 1

1. PLACE SANDBAGS WITHIN CULVERT TO DIVERT FLOW LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE CULVERT. REPOINT JOINTS AND REPAIR SETTLEMENT CRACKS WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. SANDBAGS ARE TO BE PLACED UP TO ELEVATION 53.87'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
2. RELOCATE SANDBAGS WITHIN CULVERT TO DIVERT AND MAINTAIN FLOW IN SECOND HALF OF CULVERT LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE CULVERT. REPOINT JOINTS AND SETTLEMENT CRACKS WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. SANDBAGS ARE TO PLACED UP TO ELEVATION 53.87'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
4. REMOVE SANDBAGS AND RESTORE FULL FLOW TO CULVERT.

IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	0 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	545 S.F.

SCALE IN FEET
0 40 80

SEE PLATE 2.0E FOR TOTAL WETLAND ID 15 IMPACT AREAS

IMPACT PLAN
HATCHERY BROOK
WETLAND ID 15
MP 24.85
STA. 1283+60

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

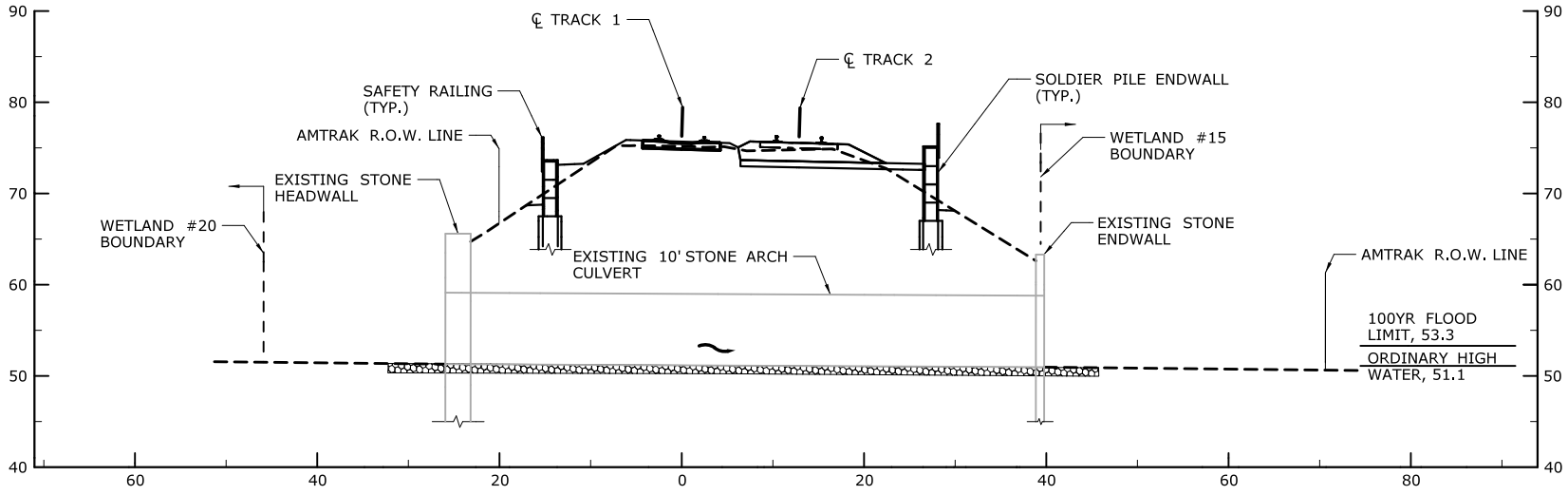
HNTB CORP.

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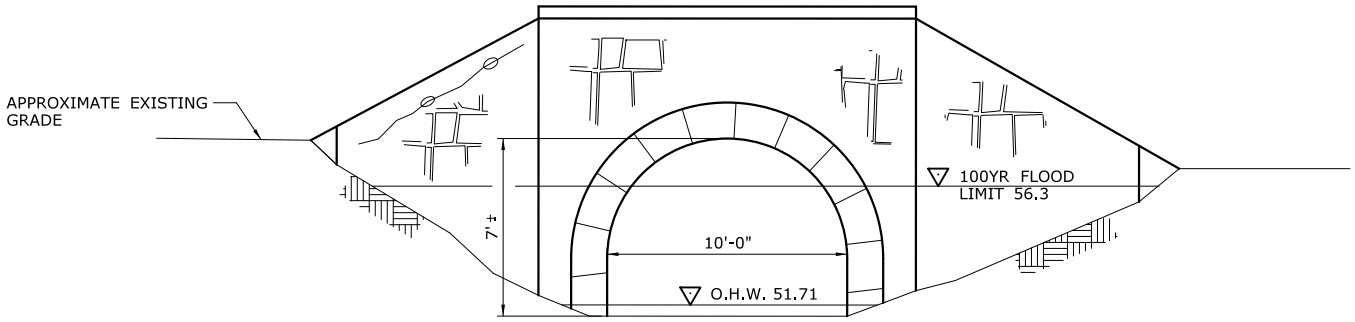
DATE:
MAR 2014

WETLAND ID No. 15

PLATE 1.0E OF 2.5E



LONGITUDINAL SECTION



EAST ELEVATION

N.T.S.

SCALE IN FEET

0 40 80

SECTION & ELEVATION

HATCHERY BROOK
WETLAND ID 15

MP 24.85
STA. 1283+60

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

HNTB CORP.

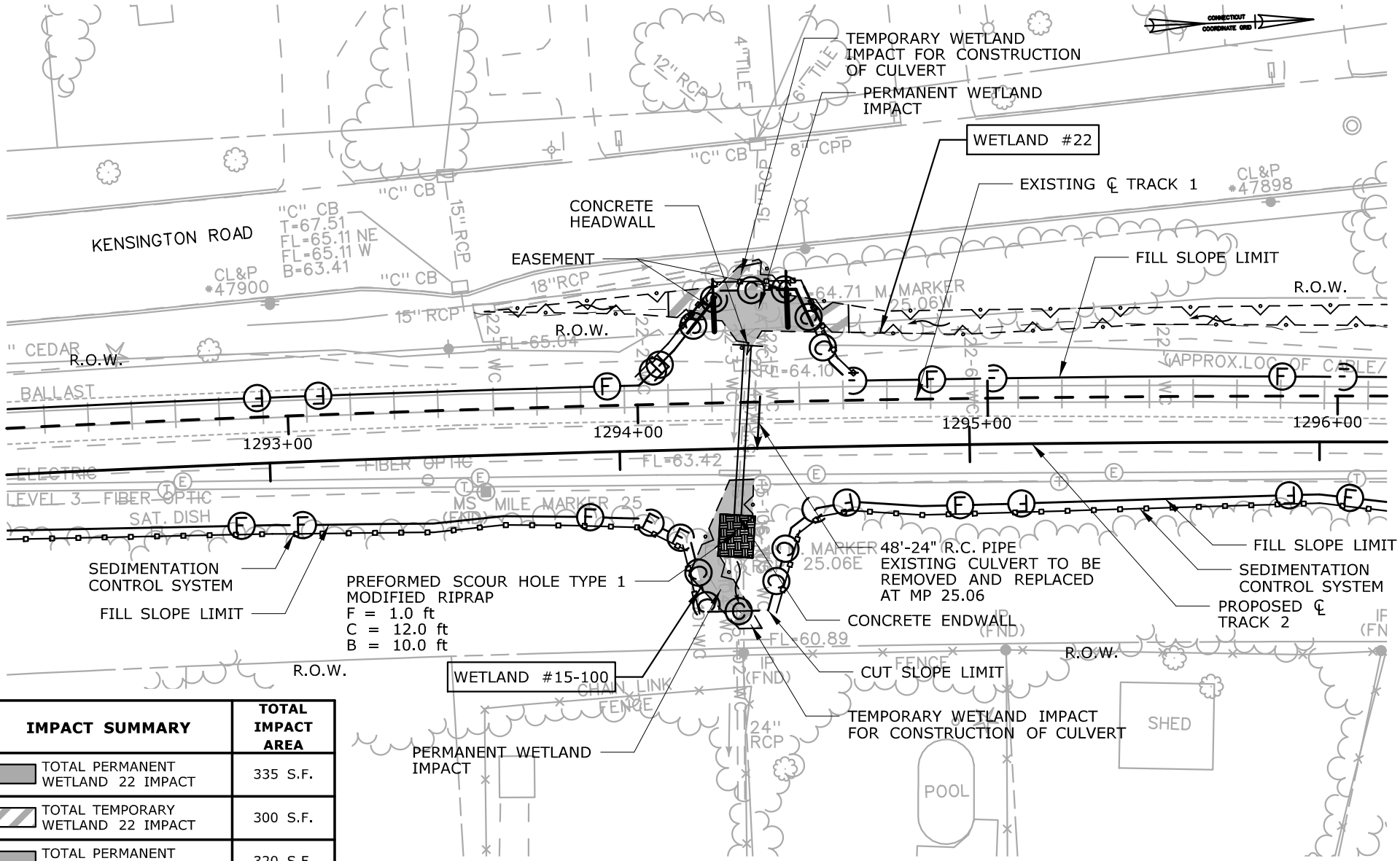
SCALE:1"=40'

DATE:
MAR 2014

WETLAND ID No.15

PLATE 1.1E OF 2.5E

Filename: ...\FA_CGR_MSM_0170-2296_007_03_PER_MP 24.85_2.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 22 IMPACT	335 S.F.
TOTAL TEMPORARY WETLAND 22 IMPACT	300 S.F.
TOTAL PERMANENT WETLAND 15-100 IMPACT	320 S.F.
TOTAL TEMPORARY WETLAND 15-100 IMPACT	50 S.F.

IMPACT PLAN

WETLAND ID 15-100 & 22
MP 25.06
STA. 1294+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

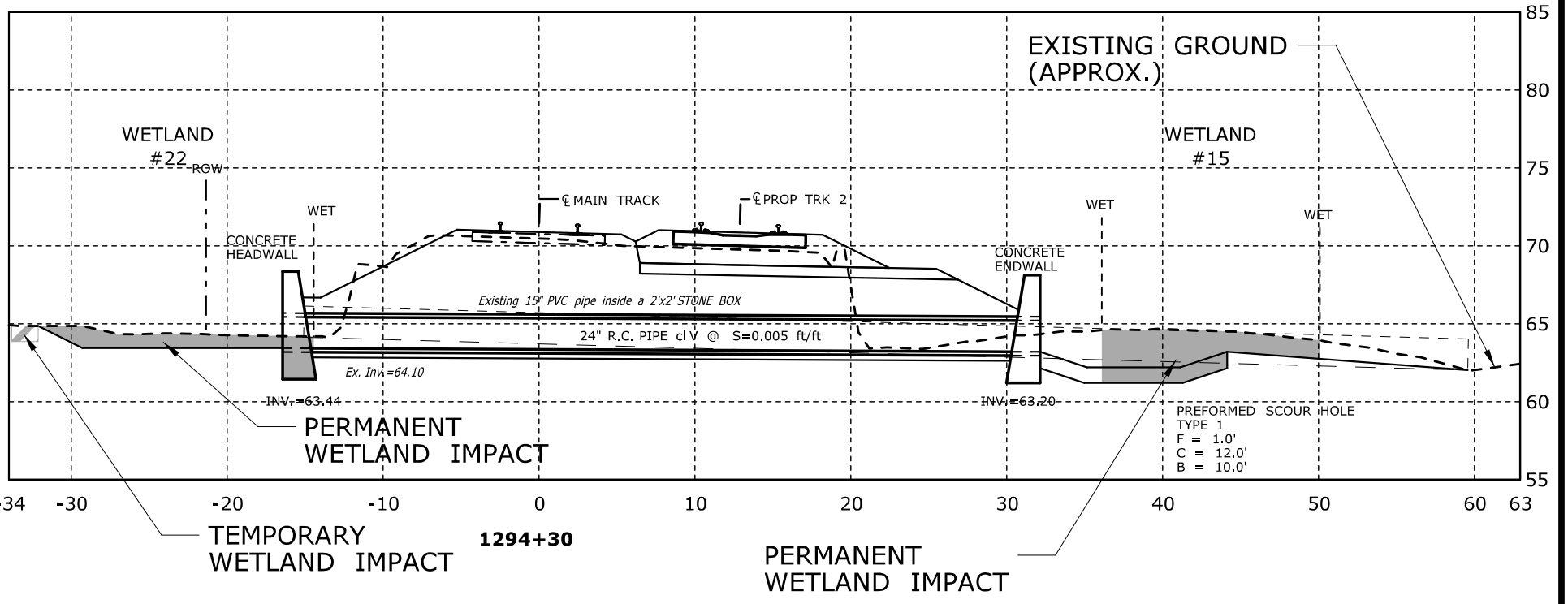
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
15-100 & 22

PLATE 2.0E OF 2.5E

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 2.0E.dgn



SCALE IN FEET

0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 2.1E.dgn

IMPACT PLAN

WETLAND ID 15-100 & 22
MP 25.06
STA. 1294+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

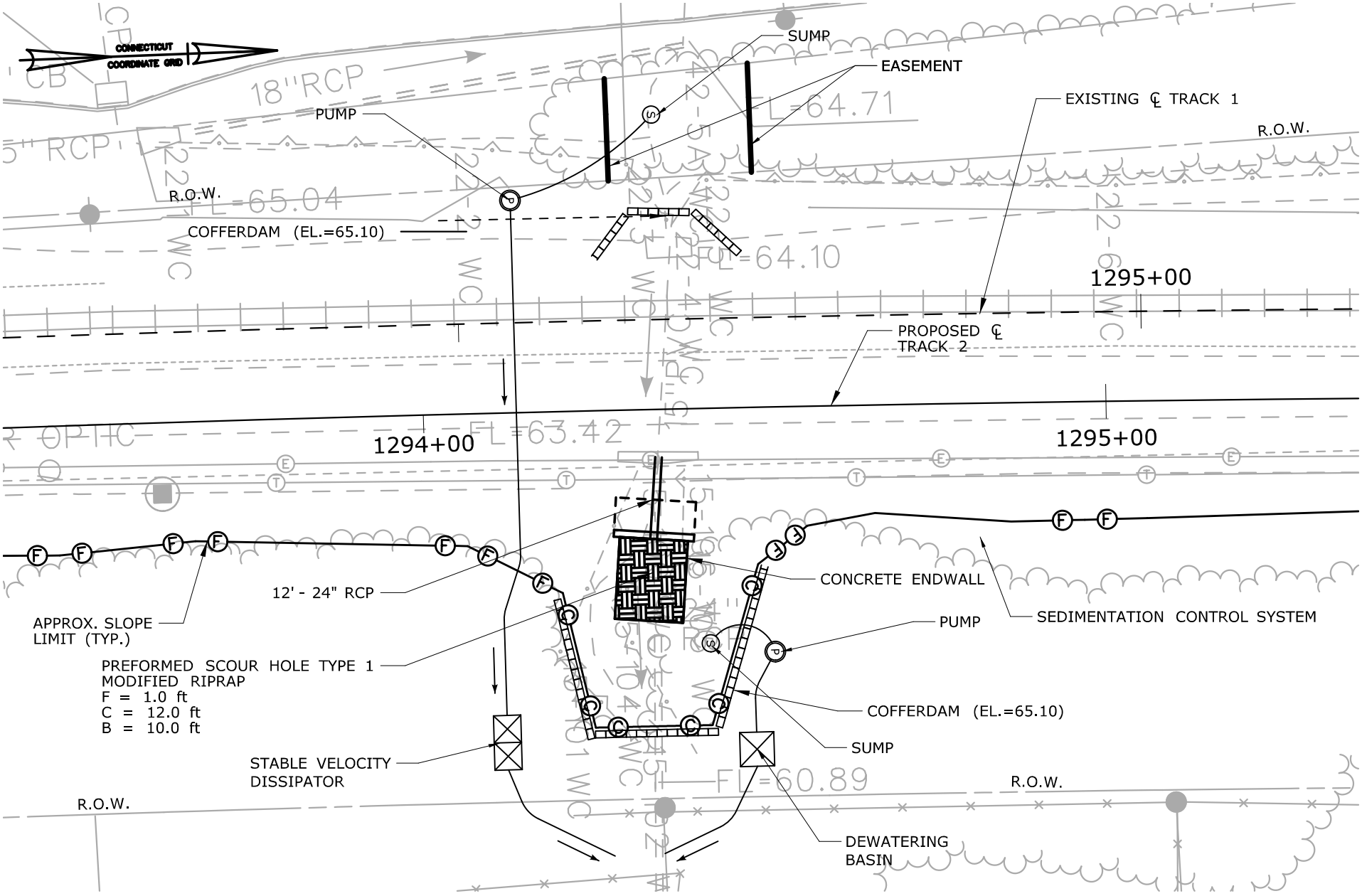
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014

WETLAND ID No.
15-100 & 22

PLATE 2.1E OF 2.5E



Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_PER_Permit Plate 2.2E.dgn

STAGE 1

CONSTRUCTION PLAN

WETLAND ID 15-100 & 22
MP 25.06
STA. 1294+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

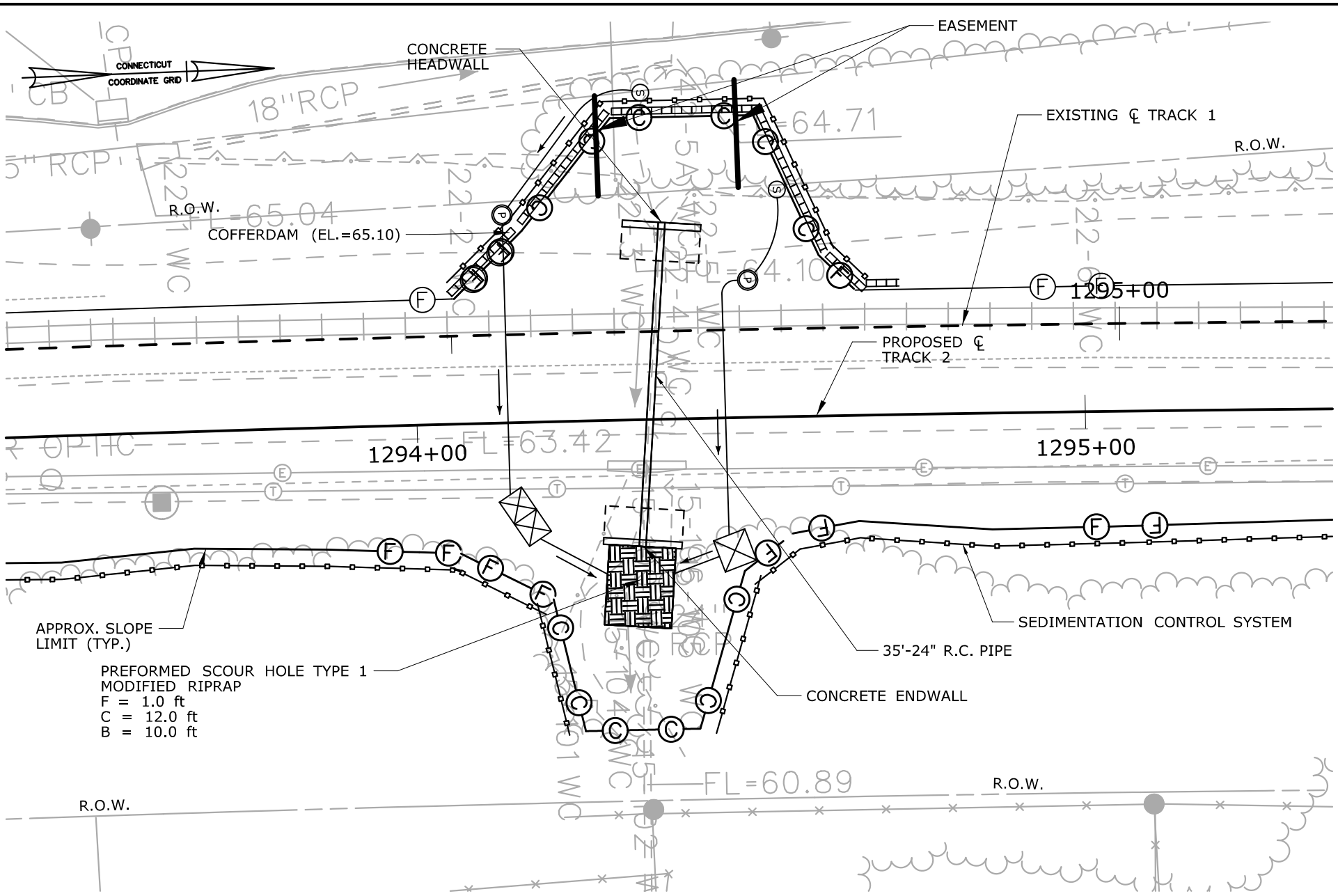
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.
15-100 & 22

PLATE 2.2E OF 2.5E



Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_PER_Permit Plate 2.3E.dgn

STAGE 2

CONSTRUCTION PLAN

WETLAND ID 15-100 & 22
MP 25.06
STA. 1294+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.
15-100 & 22

PLATE 2.3E OF 2.5E

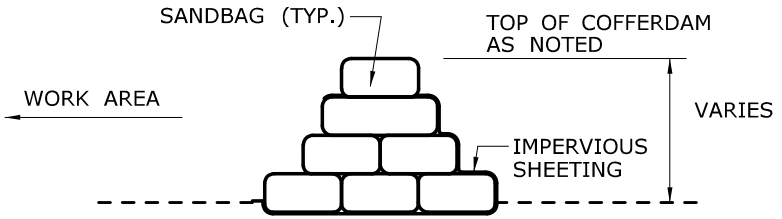
CONSTRUCTION SEQUENCE PHASE 1

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. REMOVE EXISTING ENDWALL.
3. INSTALL LENGTHS OF 24" R.C. PIPE AS SHOWN.
4. INSTALL CONCRETE ENDWALL.
5. INSTALL PREFORMED SCOUR HOLE TYPE 1.

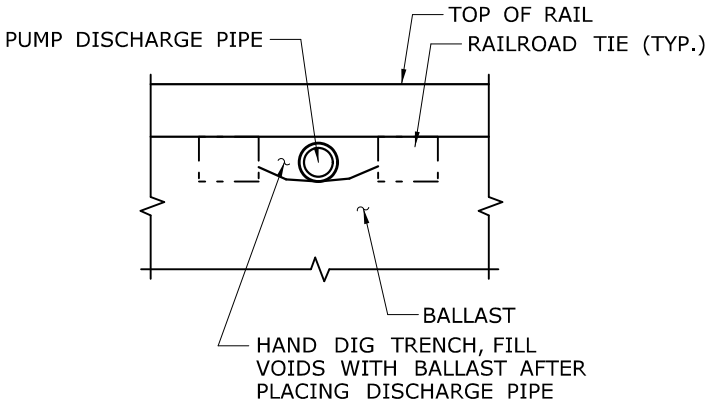
TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	n/a
AVERAGE SPRING FLOW	0.09 CFS
TWO (2) YEAR FREQUENCY DISCHARGE	14.46 CFS
TEMPORARY DESIGN DISCHARGE	2.55 CFS
TEMPORARY DESIGN FREQUENCY	3.5 x ASF
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	65.10 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	64.42 FT
COFFERDAM ELEVATION	65.10 FT

CONSTRUCTION SEQUENCE PHASE 2

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. CHECK AND MAINTAIN COFFERDAMS AND DEWATERING DEVICES INSTALLED IN PHASE 1 THAT ARE TO REMAIN.
3. REMOVE EXISTING HEADWALL.
4. INSTALL REMAINING LENGTHS OF 24" R.C. PIPE.
5. INSTALL CONCRETE HEADWALL.
6. REMOVE COFFERDAM AND DEWATERING DEVICES.



COFFERDAM DETAIL



PUMP DISCHARGE PIPE UNDER RAILROAD TRACKS DETAIL

CONSTRUCTION DETAILS & NOTES

WETLAND ID 15-100 & 22
MP 25.06
STA. 1294+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

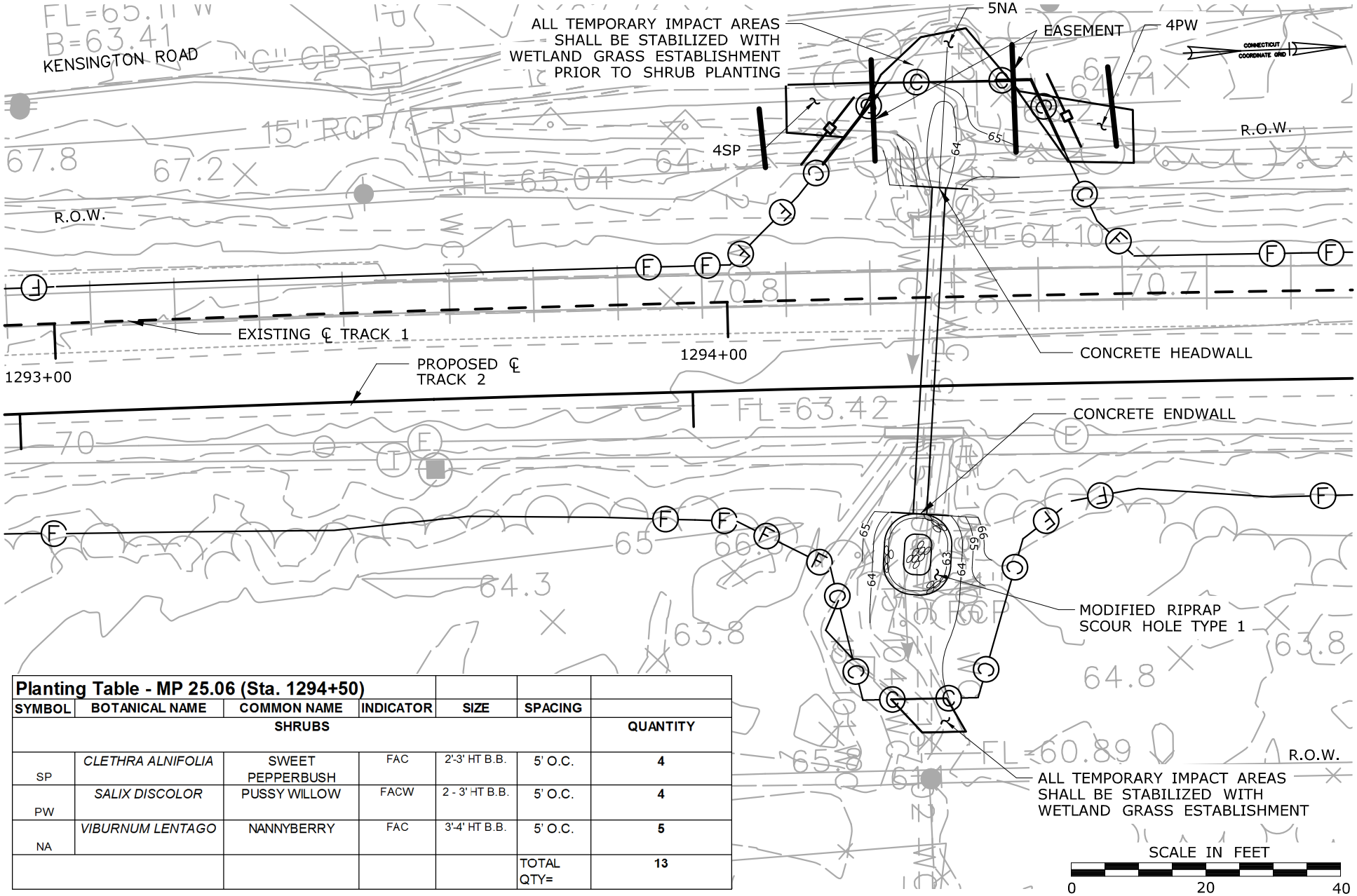
PARSONS BRINCKERHOFF

SCALE:N.T.S.

DATE:
MAR 2014
WETLAND ID No.
15-100 & 22

PLATE 2.4E OF 2.5E

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 2.4E.dgn



Planting Table - MP 25.06 (Sta. 1294+50)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SP	*CLETHRA ALNIFOLIA*	SWEET PEPPERBUSH	FAC	2'-3' HT B.B.	5' O.C.	4
PW	*SALIX DISCOLOR*	PUSSY WILLOW	FACW	2 - 3' HT B.B.	5' O.C.	4
NA	*VIBURNUM LENTAGO*	NANNYBERRY	FAC	3'-4' HT B.B.	5' O.C.	5
					TOTAL QTY=	13

PLANTING PLAN

WETLAND ID 15-100 & 22
MP 25.06
STA. 1294+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.
15-100 & 22

PLATE 2.5E OF 2.5E

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 2.5E.dgn

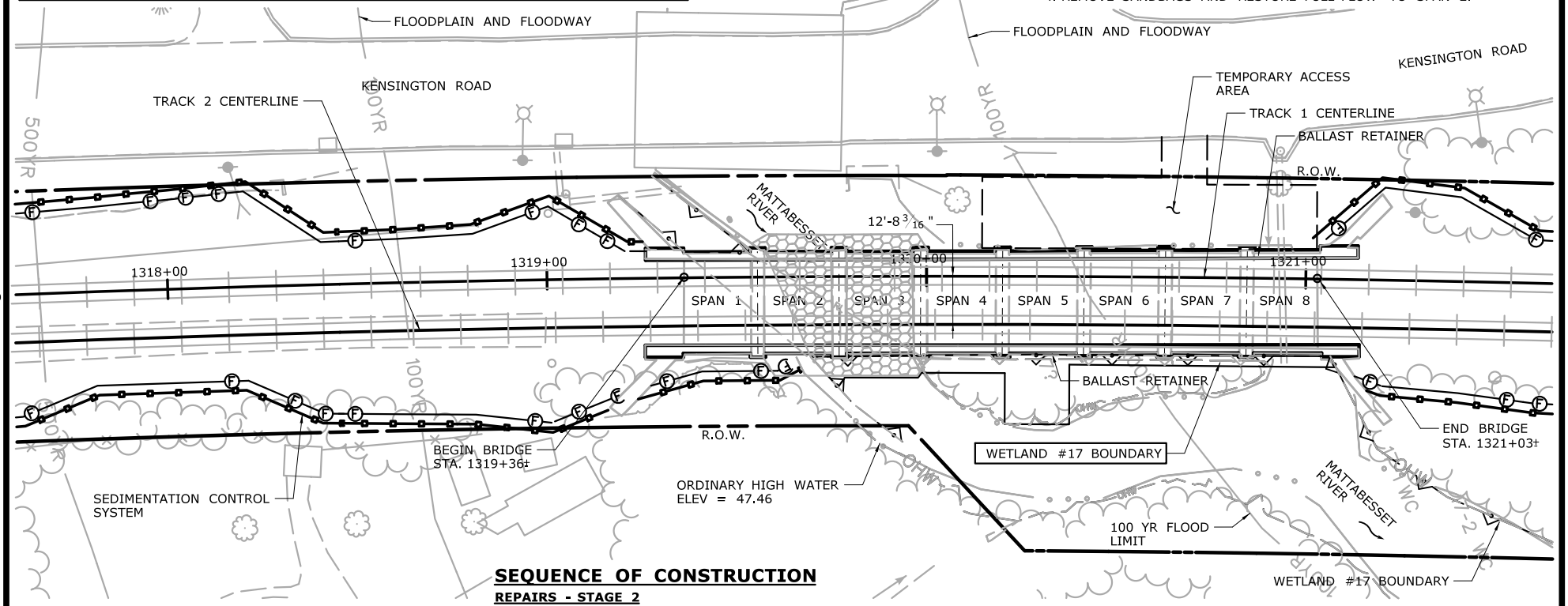
TEMPORARY HYDRAULIC DATA - MATTABESSET RIVER		
	STAGE 1	STAGE 2
AVERAGE DAILY FLOW	18 CFS	18 CFS
AVERAGE SPRING FLOW	35 CFS	35 CFS
2-YEAR FREQUENCY DISCHARGE	302 CFS	302 CFS
TEMPORARY DESIGN DISCHARGE	35 CFS	302 CFS
TEMPORARY DESIGN FREQUENCY	ASF	2-YR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	48.1 FT	49.4 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	47.9 FT	49.3 FT
COFFERDAM ELEVATION	49.1 FT	50.4 FT

FLOOD INSURANCE RATE MAP
PANEL 494 OF 675
MAP NO. 09003C0494F
SEPT. 26, 2008

SEQUENCE OF CONSTRUCTION

REPAIRS - STAGE 1

1. CONSTRUCT TEMPORARY ACCESS AREA.
2. REPOINT JOINTS AND REPAIR CRACKS IN SPAN 1.
3. PLACE SANDBAGS WITHIN SPAN 2 TO DIVERT FLOW, LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE SPAN. REPOINT JOINTS AND REPAIR CRACKS WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. SANDBAGS ARE TO BE PLACED UP TO ELEVATION 49.1'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
3. RELOCATE SANDBAGS WITHIN SPAN TO DIVERT AND MAINTAIN FLOW AROUND THE AREA BEING REPAIRED LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE SPAN.
4. REMOVE SANDBAGS AND RESTORE FULL FLOW TO SPAN 2.



SEQUENCE OF CONSTRUCTION

REPAIRS - STAGE 2

1. PLACE SANDBAGS WITHIN SPAN 3 TO DIVERT FLOW, LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE SPAN. REPOINT JOINTS AND REPAIR CRACKS WITHIN AREA PROTECTED FROM ACTIVE FLOW BY SANDBAGS. SANDBAGS ARE TO BE PLACED UP TO ELEVATION 50.4'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.
2. RELOCATE SANDBAGS WITHIN SPAN TO DIVERT AND MAINTAIN FLOW AROUND THE AREA BEING REPAIRED LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF OF THE SPAN.
3. REMOVE SANDBAGS AND RESTORE FULL FLOW TO SPAN 3.
4. REPOINT JOINTS AND REPAIR CRACKS IN SPAN 4 THROUGH 8.
5. REMOVE TEMPORARY ACCESS AREA AND RESEED AREA TO MATCH EXISTING CONDITION.

IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	0 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	1,135 S.F.

SCALE IN FEET
0 40 80

IMPACT PLAN
MATTABESSETT RIVER
WETLAND ID 17
MP 25.52
STA. 1319+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

HNTB CORP.

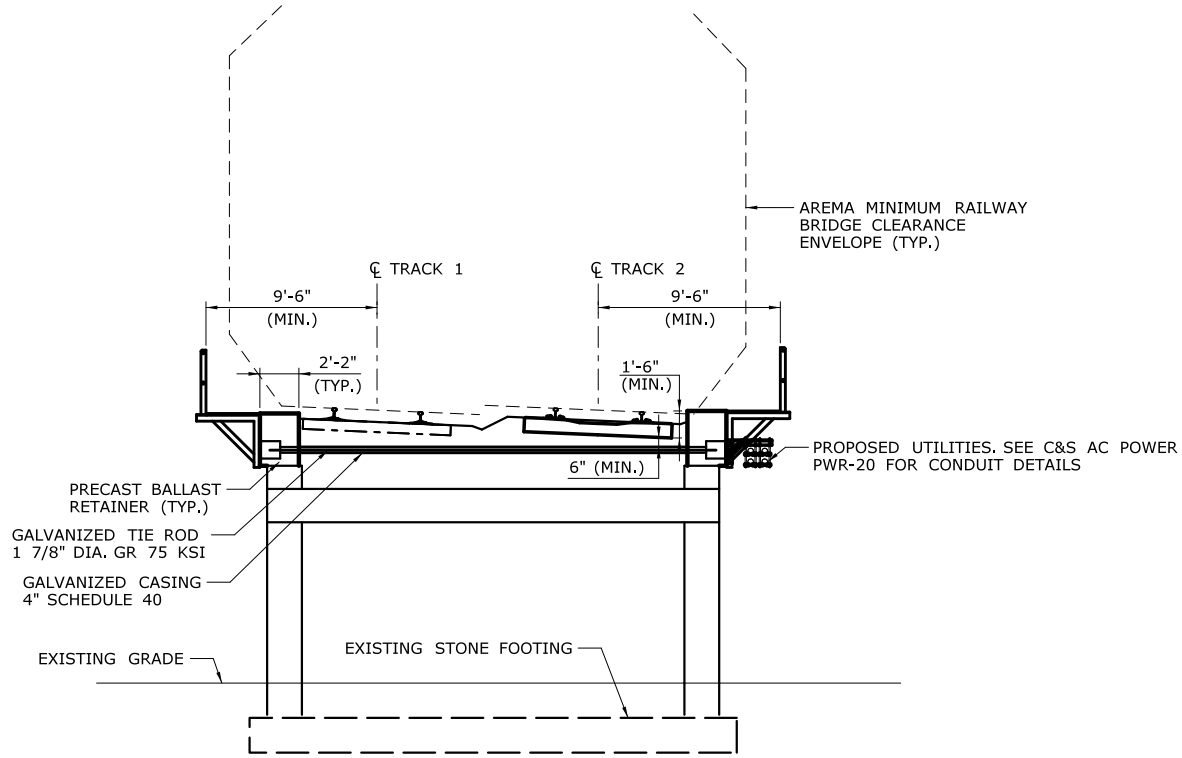
SCALE:1"=40'

DATE:
MAR 2014

WETLAND ID No. 17

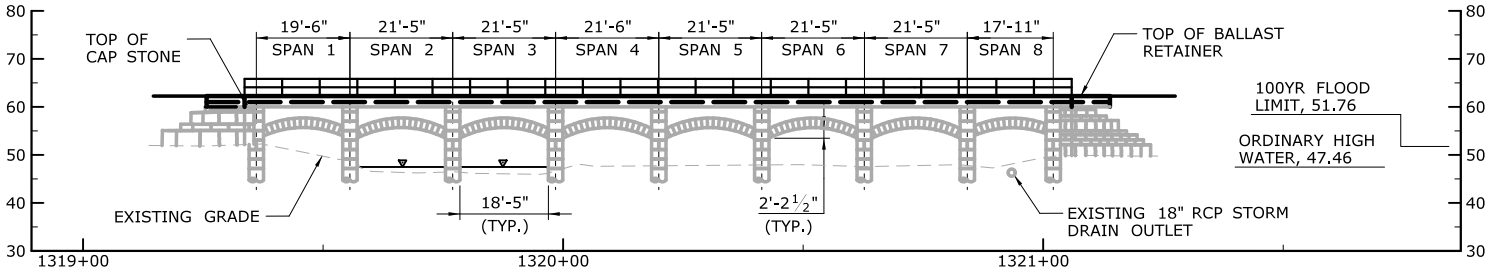
PLATE 1.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007_03_PER_MP 25.52_1.dgn



CROSS SECTION VIEW

SCALE: $^{3}/_{16}$" = 1'-0"



EAST ELEVATION

Filename: ...\FA_CGR_MSM_0170-2296_007_03_PER_MP 25.52_2.dgn

SECTION & ELEVATION

MATTABESSETT RIVER
WETLAND ID 17
MP 25.52
STA. 1319+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

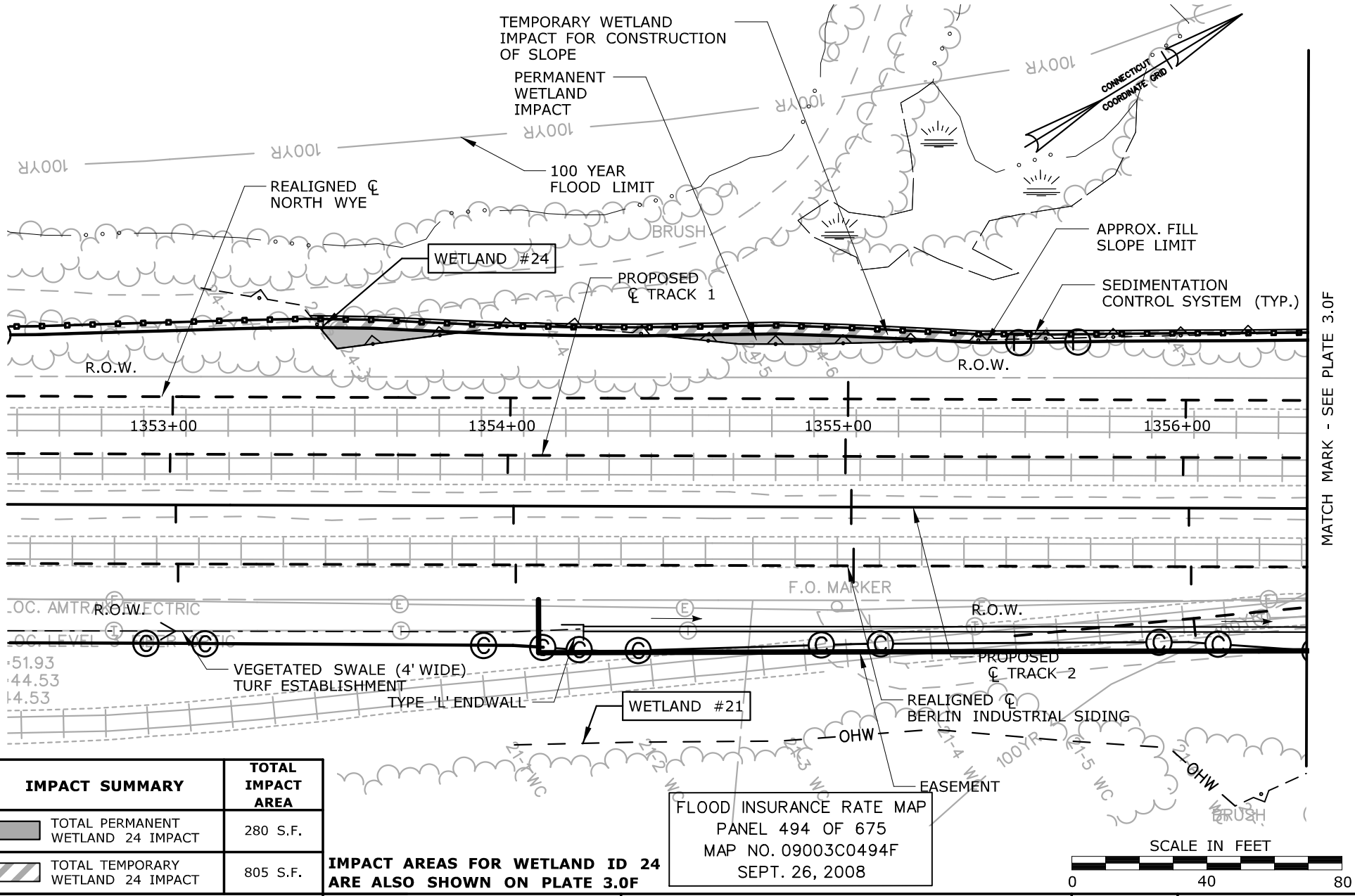
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

HNTB CORP.

SCALE:
AS NOTED

DATE:
MAR 2014
WETLAND ID No. 17

PLATE 1.1F OF 11.4F



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 24 IMPACT	280 S.F.
TOTAL TEMPORARY WETLAND 24 IMPACT	805 S.F.

IMPACT AREAS FOR WETLAND ID 24 ARE ALSO SHOWN ON PLATE 3.0F

IMPACT PLAN

WETLAND ID 24
MP 26.37
STA. 1353+30 - 1365+80

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

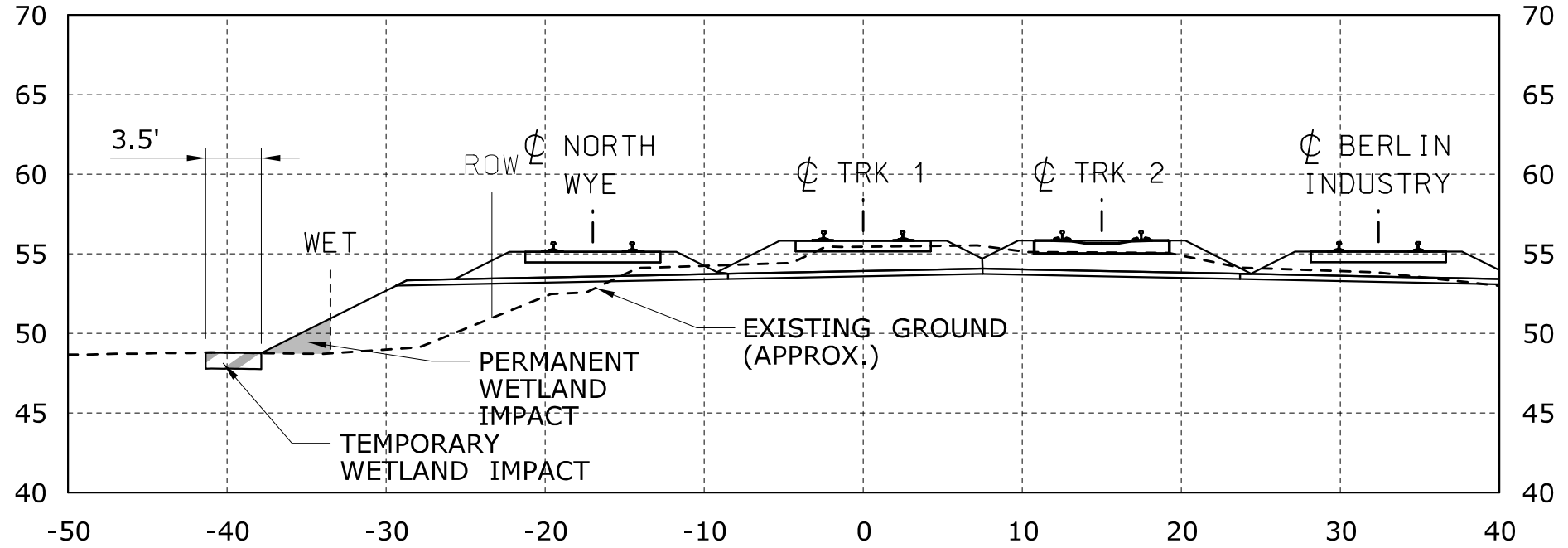
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.24

PLATE 2.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 2.0F.dgn



1355+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION

MP 26.37
STA. 1353+30 - 1365+80

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

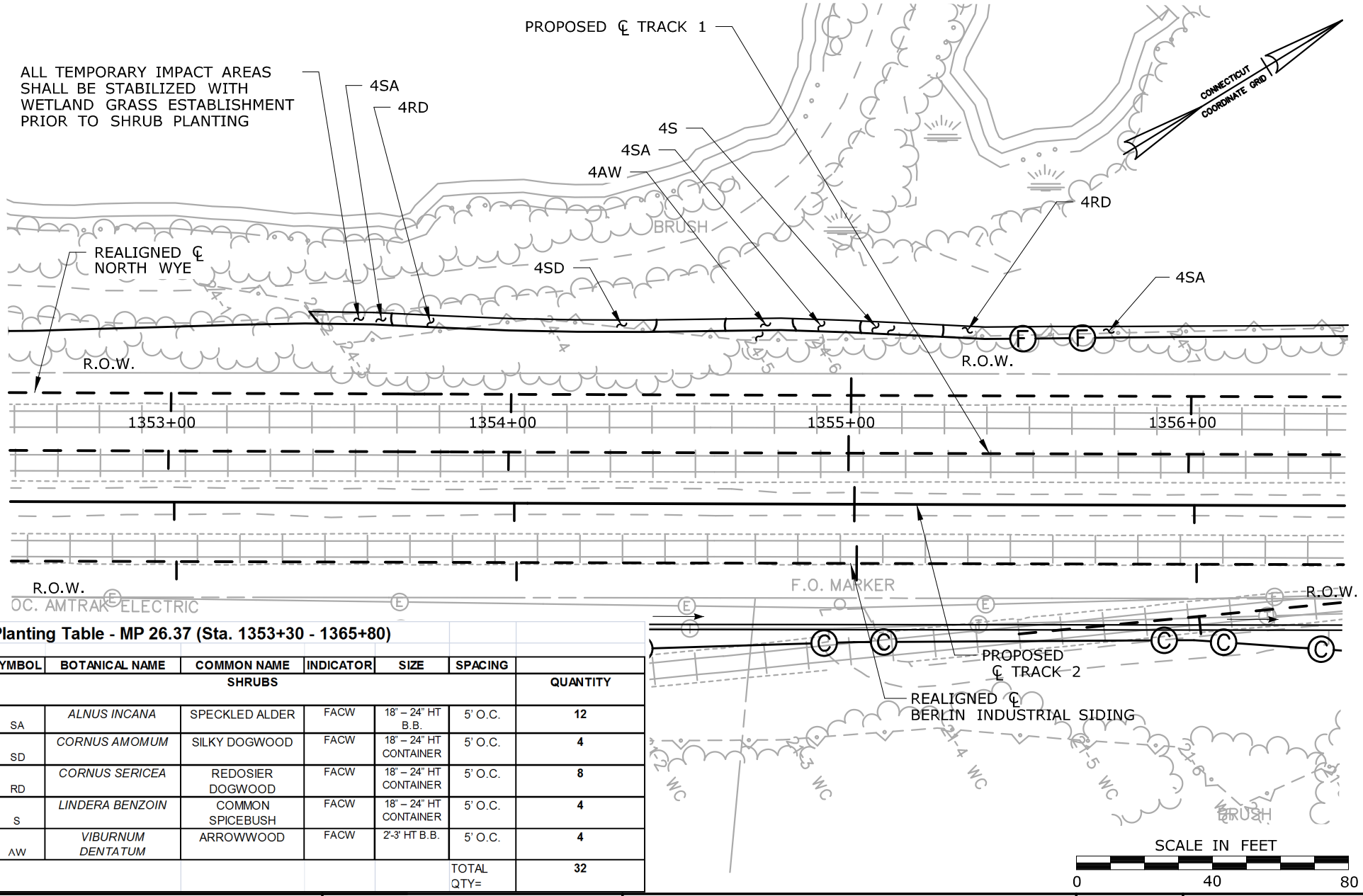
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.24

PLATE 2.1F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 2.1F.dgn



Planting Table - MP 26.37 (Sta. 1353+30 - 1365+80)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	12
SD	*CORNUS AMOMUM*	SILKY DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	4
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	8
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	4
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	4
					TOTAL QTY=	32

PLANTING PLAN

WETLAND ID 24
MP 26.37
STA. 1353+30 - 1365+80

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

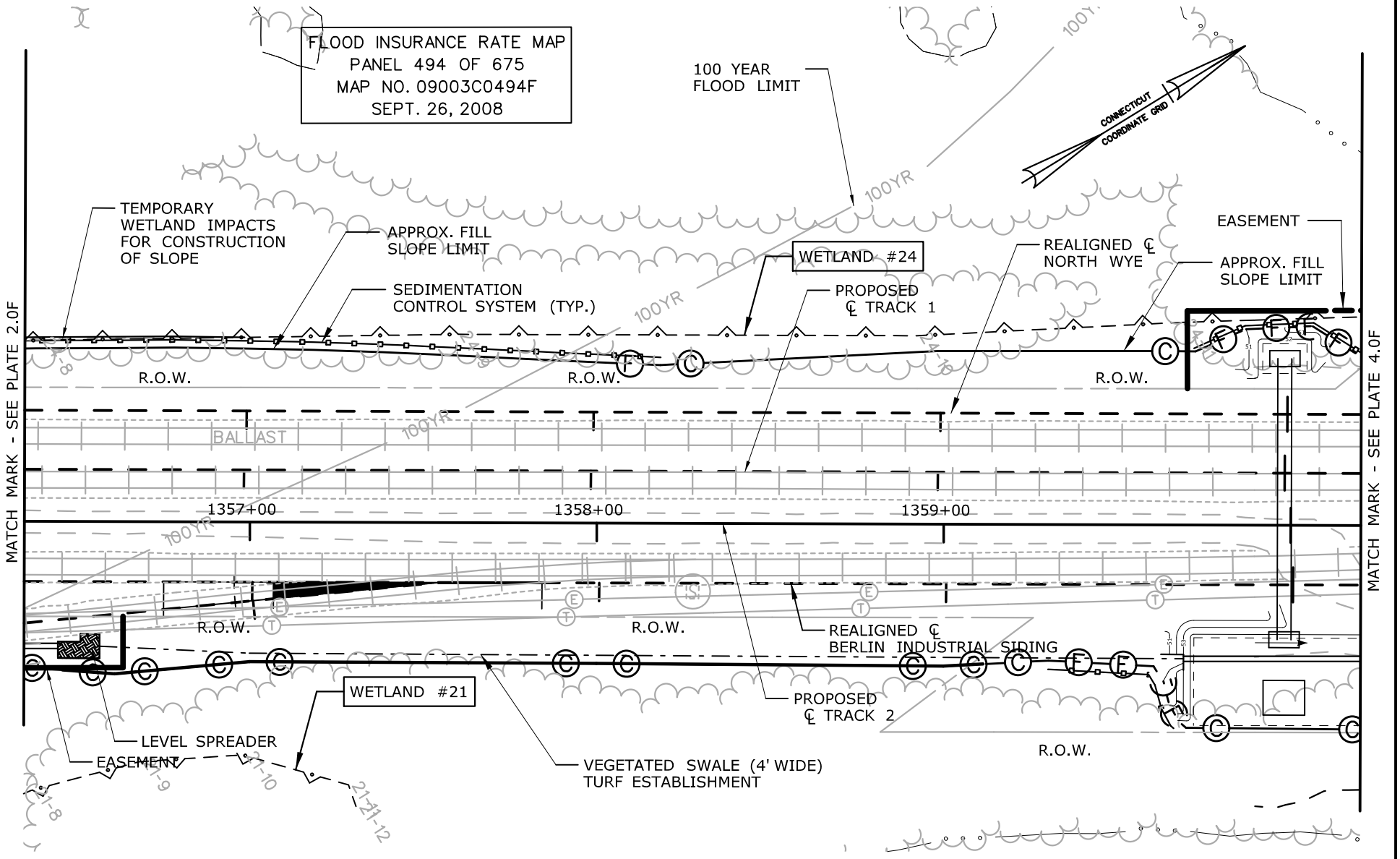
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.24

PLATE 2.2F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 2.2F.dgn



SEE PLATE 2.0F FOR TOTAL WETLAND ID 24 IMPACT AREAS

IMPACT PLAN

WETLAND ID 24
MP 26.37
STA. 1353+30 - 1365+80

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

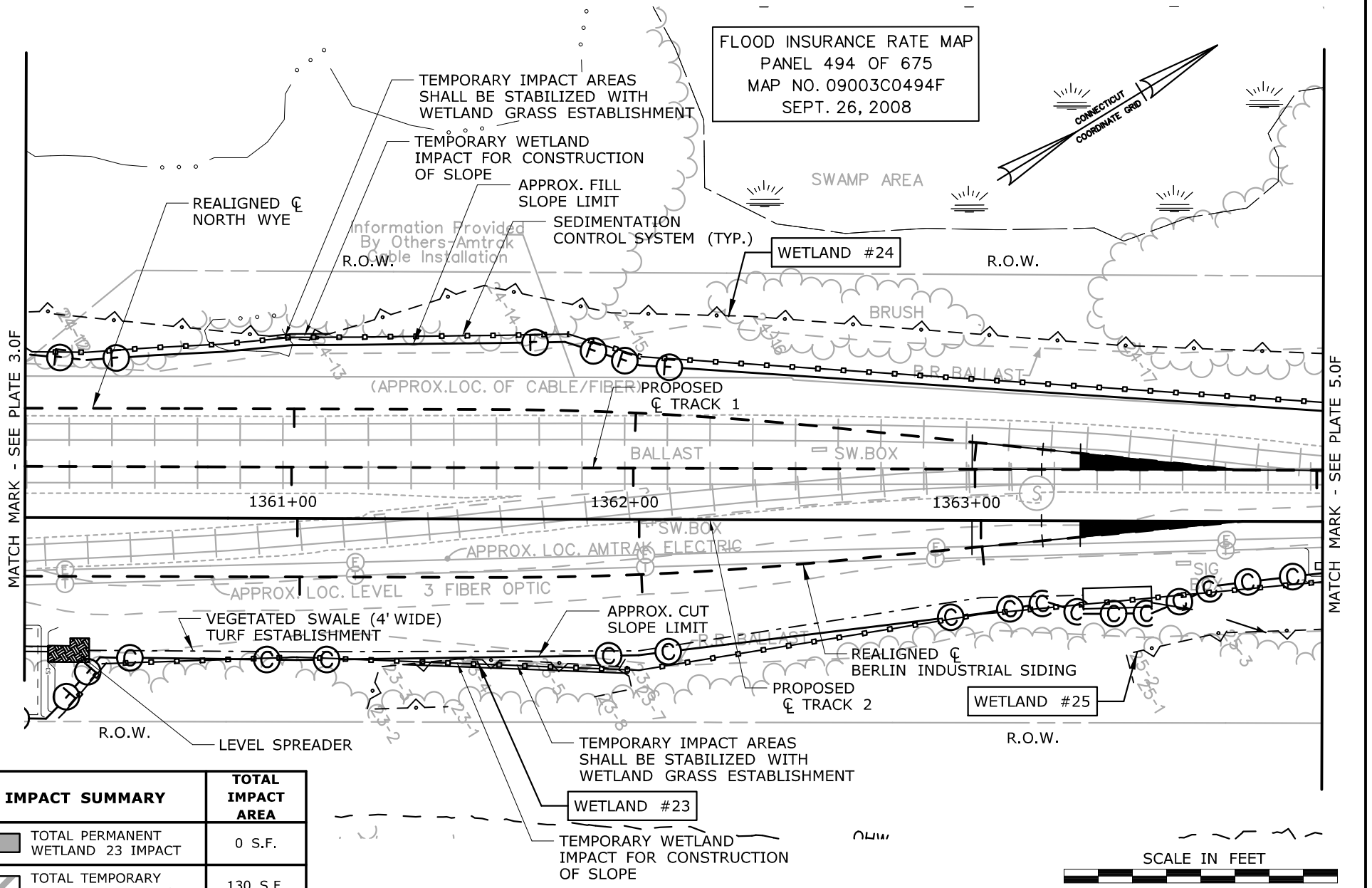
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.24

PLATE 3.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 3.0F.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 23 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 23 IMPACT	130 S.F.

SEE PLATE 2.0F FOR TOTAL WETLAND ID 24 IMPACT AREAS

IMPACT PLAN

WETLAND ID 23 & 24
MP 26.37
STA. 1353+30 - 1365+80

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

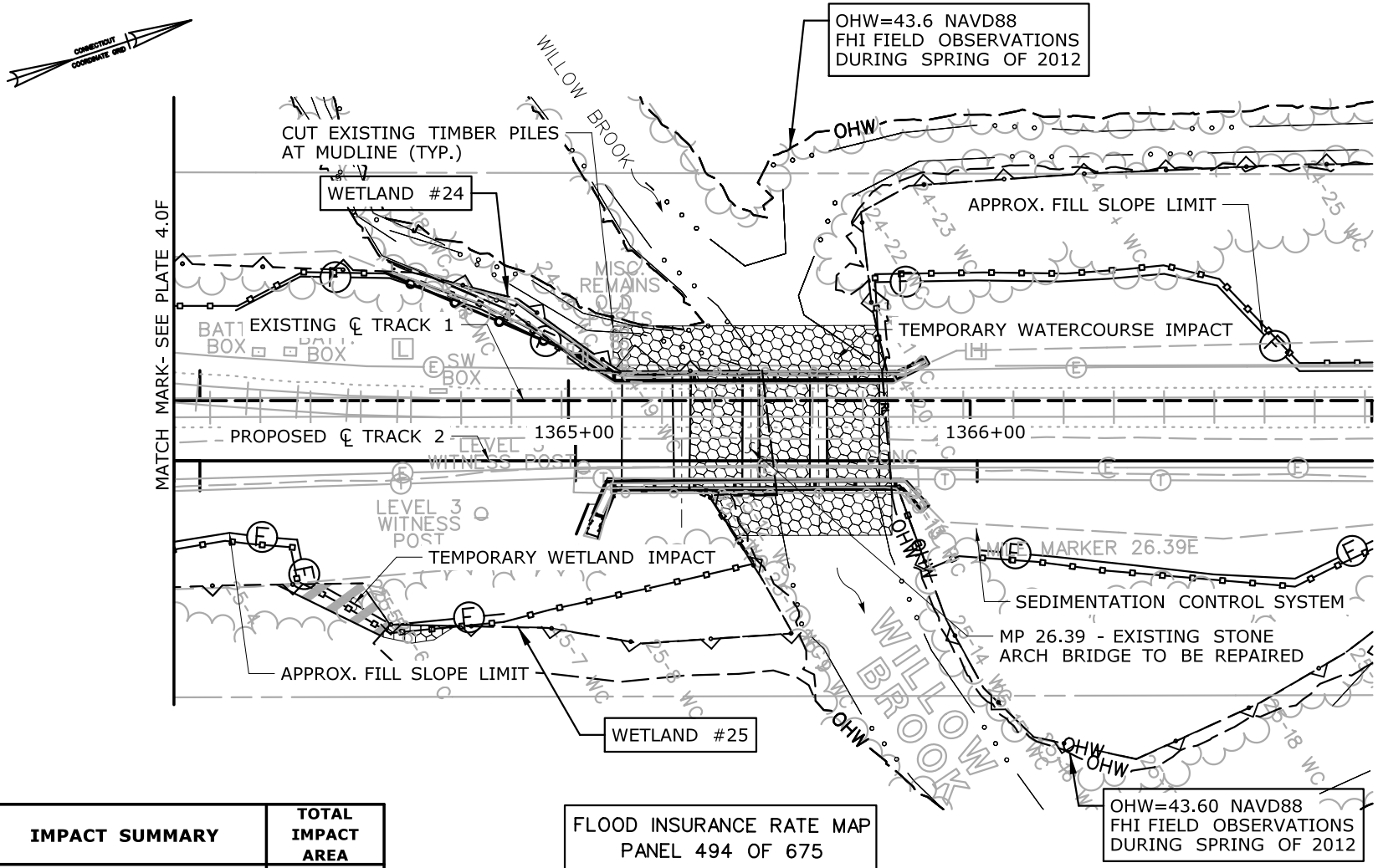
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.23 & 24

PLATE 4.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 4.0F.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	0 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	2,550 S.F.
TOTAL PERMANENT WETLAND 25 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 25 IMPACT	160 S.F.

FLOOD INSURANCE RATE MAP
PANEL 494 OF 675
MAP NO. 09003C0494F
SEPT. 26, 2008

NOTES:

1. PROPOSED WALKWAY ON STRUCTURE NOT SHOWN FOR CLARITY
2. AREAS FOR PERMANENT AND TEMPORARY IMPACT WITHIN BARRELS ARE DIVIDED EQUALLY BETWEEN WETLANDS #24 AND #25.

SCALE IN FEET
0 40 80

IMPACT PLAN
WILLOW BROOK
WETLAND ID 24 & 25
MP 26.39
STA. 1365+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

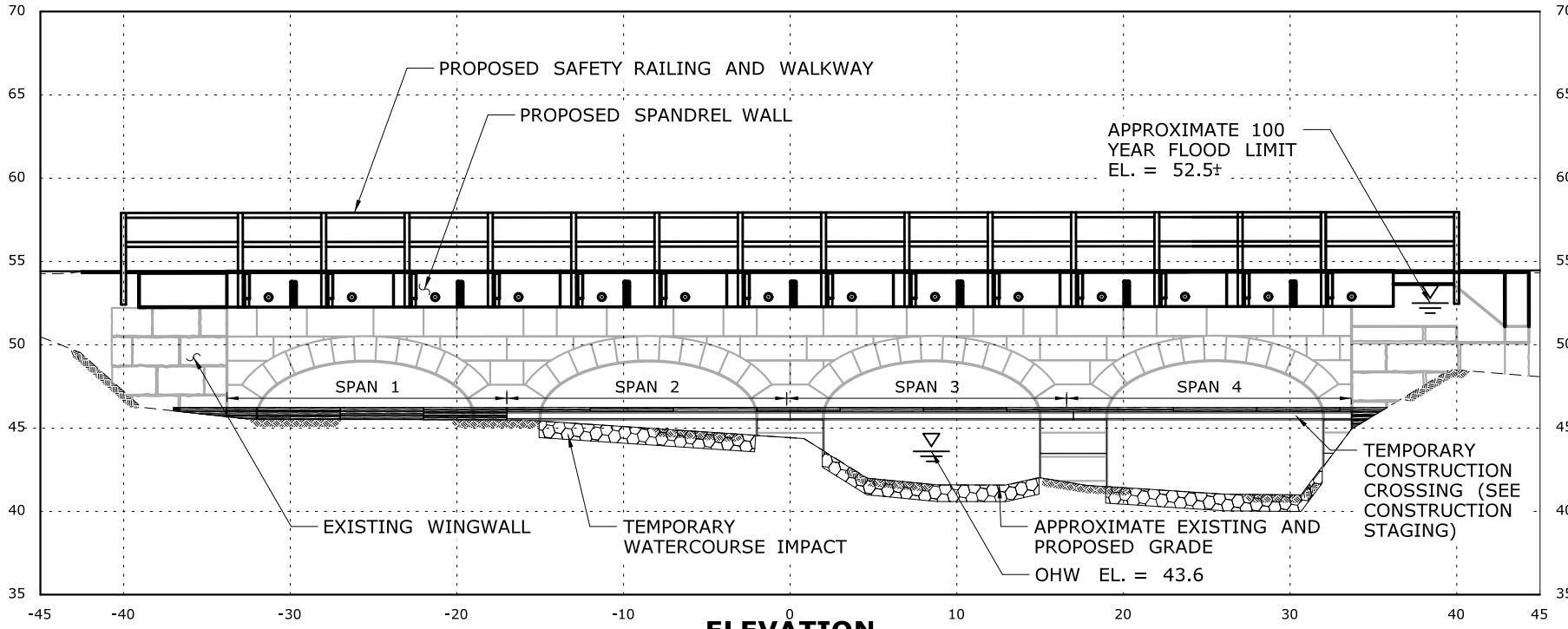
LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.24 & 25
WATERCOURSE
WILLOW BROOK

PLATE 5.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 26.39_01.dgn



ELEVATION

TEMPORARY HYDRAULIC DATA - WILLOW BROOK FOR TEMPORARY CONSTRUCTION CROSSING	
AVERAGE DAILY FLOW	18 CFS
AVERAGE SPRING FLOW	35 CFS
2-YR FREQUENCY DISCHARGE	592 CFS
TEMPORARY DESIGN DISCHARGE	444 CFS
TEMPORARY DESIGN FREQUENCY	1 YR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	45.3
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	42.4

TEMPORARY HYDRAULIC DATA - WILLOW BROOK FOR REPAIR OF MASONRY JOINTS AND REPAIR OF MASONRY CAVITIES	
AVERAGE DAILY FLOW	18 CFS
AVERAGE SPRING FLOW	35 CFS
2-YR FREQUENCY DISCHARGE	592 CFS
TEMPORARY DESIGN DISCHARGE	35 CFS
TEMPORARY DESIGN FREQUENCY	ASF
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	42.1
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	40.8

SCALE IN FEET

0 10 20

IMPACT ELEVATION

WILLOW BROOK
WETLAND ID 24 & 25
MP 26.39
STA. 1365+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

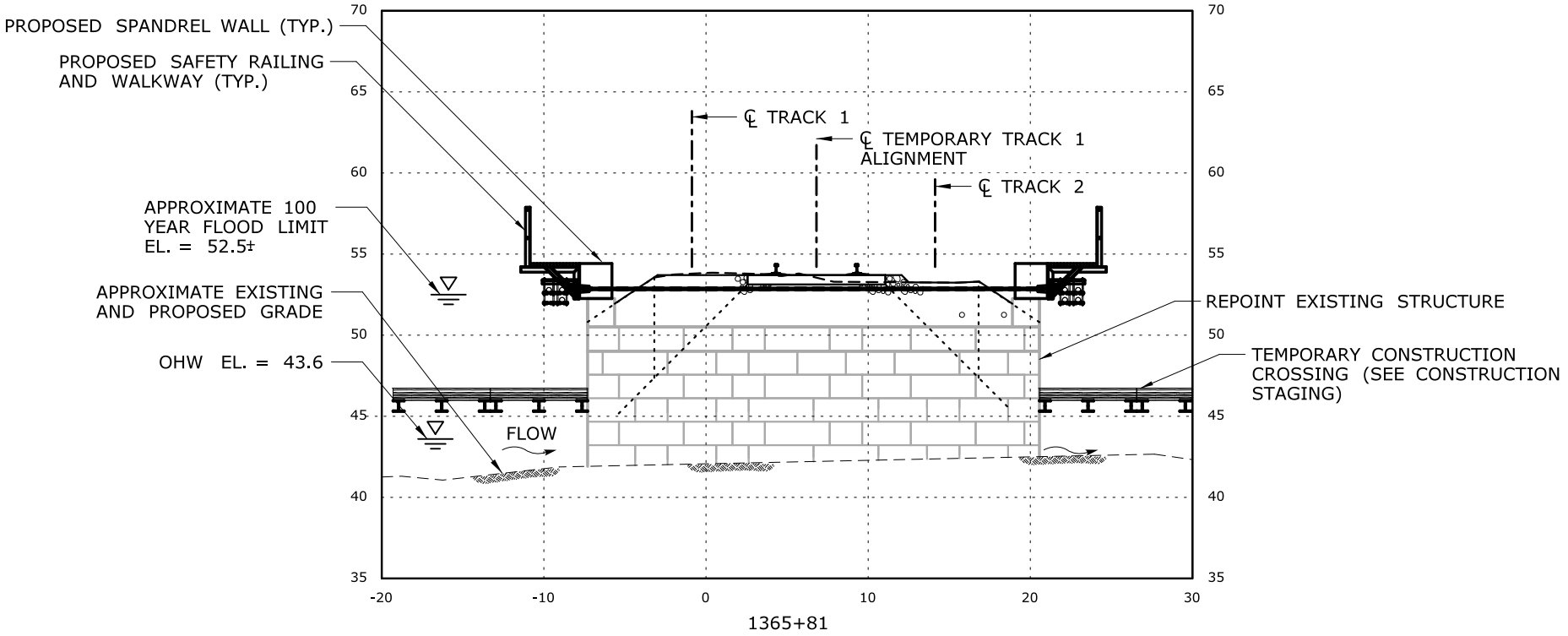
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DATE:
MAR 2014

WETLAND ID No.24 & 25
WATERCOURSE
WILLOW BROOK

PLATE 5.1F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 26.39_02.dgn



SCALE IN FEET

0 10 20

IMPACT SECTION

WILLOW BROOK
WETLAND ID 24 & 25
MP 26.39
STA. 1365+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

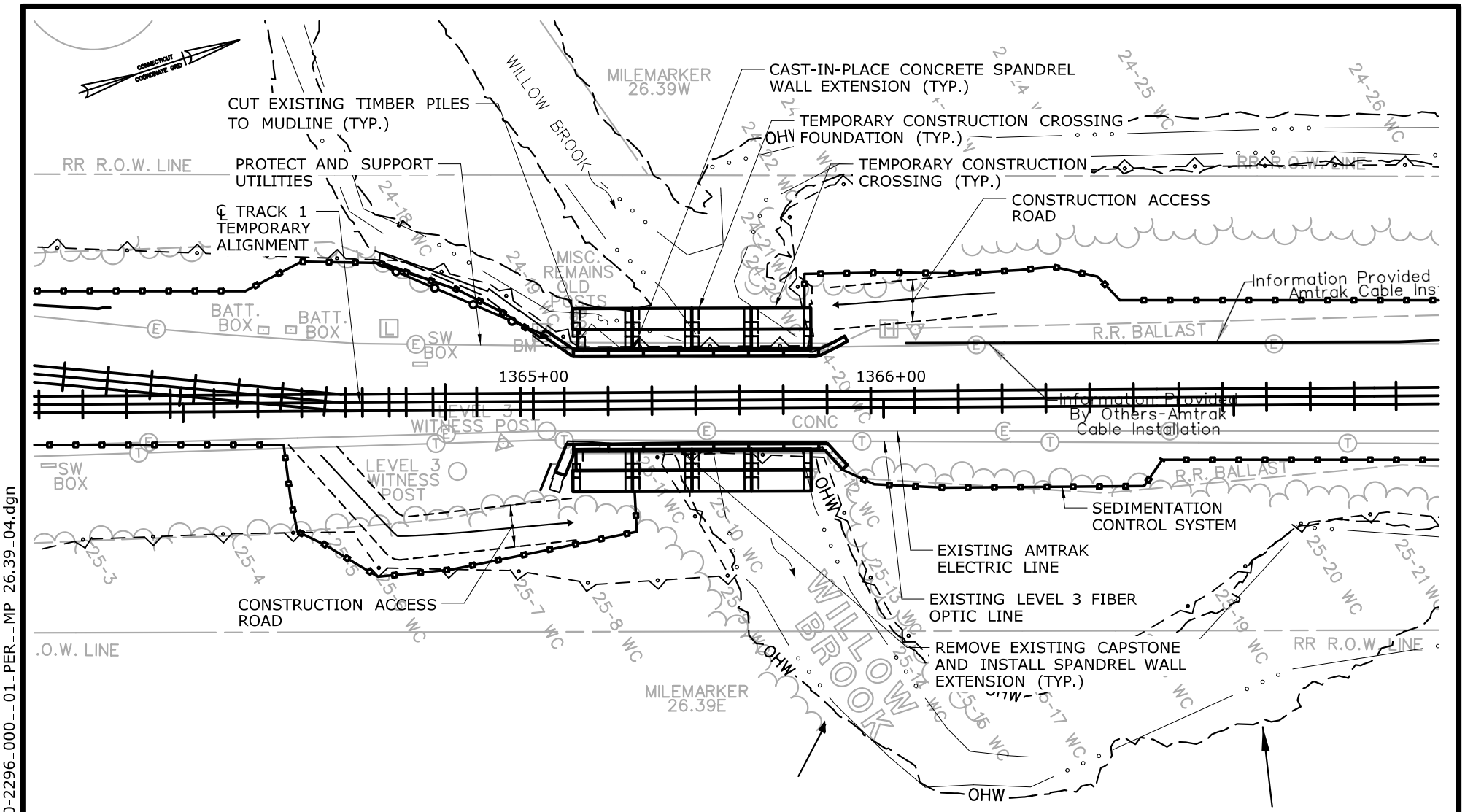
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DATE:
MAR 2014

WETLAND ID No. 24 & 25
WATERCOURSE
WILLOW BROOK

PLATE 5.2F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER__MP 26.39_03.dgn



NOTE:

1. SEE PLATE 4.4F STAGE 1 NOTES

SCALE IN FEET

0 40 80

STAGE 1 CONSTRUCTION PLAN WETLAND ID 24 & 25 MP 26.39 STA. 1365+50	CTDOT PROJECT NO.: 170-2296/3154/3155/3156 COUNTY: HARTFORD CITY/TOWN: BERLIN	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	LOCHNER H.W. LOCHNER, INC 2110 Silas Deane Highway Rocky Hill, CT 06067 SCALE:1"=40'	DATE: MAR 2014 WETLAND ID No.24 & 25 WATERCOURSE WILLOW BROOK PLATE 5.3F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 26.39_04.dgn

CONSTRUCTION SEQUENCE NOTES:

1. THE CONSTRUCTION SEQUENCE SHOWN AND DESCRIBED IN THESE DRAWINGS IS A SUGGESTED SEQUENCE. IT'S INCLUSION IN THESE DRAWINGS DOES NOT INFER THAT THIS SEQUENCE OR METHOD IS MANDATED.

2. TRACK 1 IS ACTIVE, ALL WORK PERFORMED DURING FOUL TIME AND SHORT TERM TRACK OUTAGES.

STAGE 1:

1. INSTALL SEDIMENTATION AND EROSION CONTROL AS SHOWN ON PLANS. CONSTRUCT CONSTRUCTION ACCESS ROADS.

2. CUT EXISTING TIMBER PILES AT MUDLINE.

3. CONSTRUCT TEMPORARY CONSTRUCTION CROSSING. FOUNDATIONS FOR TEMPORARY CROSSING ARE TO BE ALIGNED WITH PIERS AND NOT TO EXCEED WIDTH OF PIERS BY MORE THAN 2'-0" ON EITHER SIDE. THE LOWEST BEAM PORTION OF THE TEMPORARY CROSSING WITHIN THE CHANNEL SHALL BE ABOVE 45.3'.

4. PERFORM TRACK THROW RELOCATING TRACK 1 TO TEMPORARY TRACK 1 ALIGNMENT. EXCAVATE BALLAST AND SUBBALLAST TO DEPTH SHOWN ON PLANS.

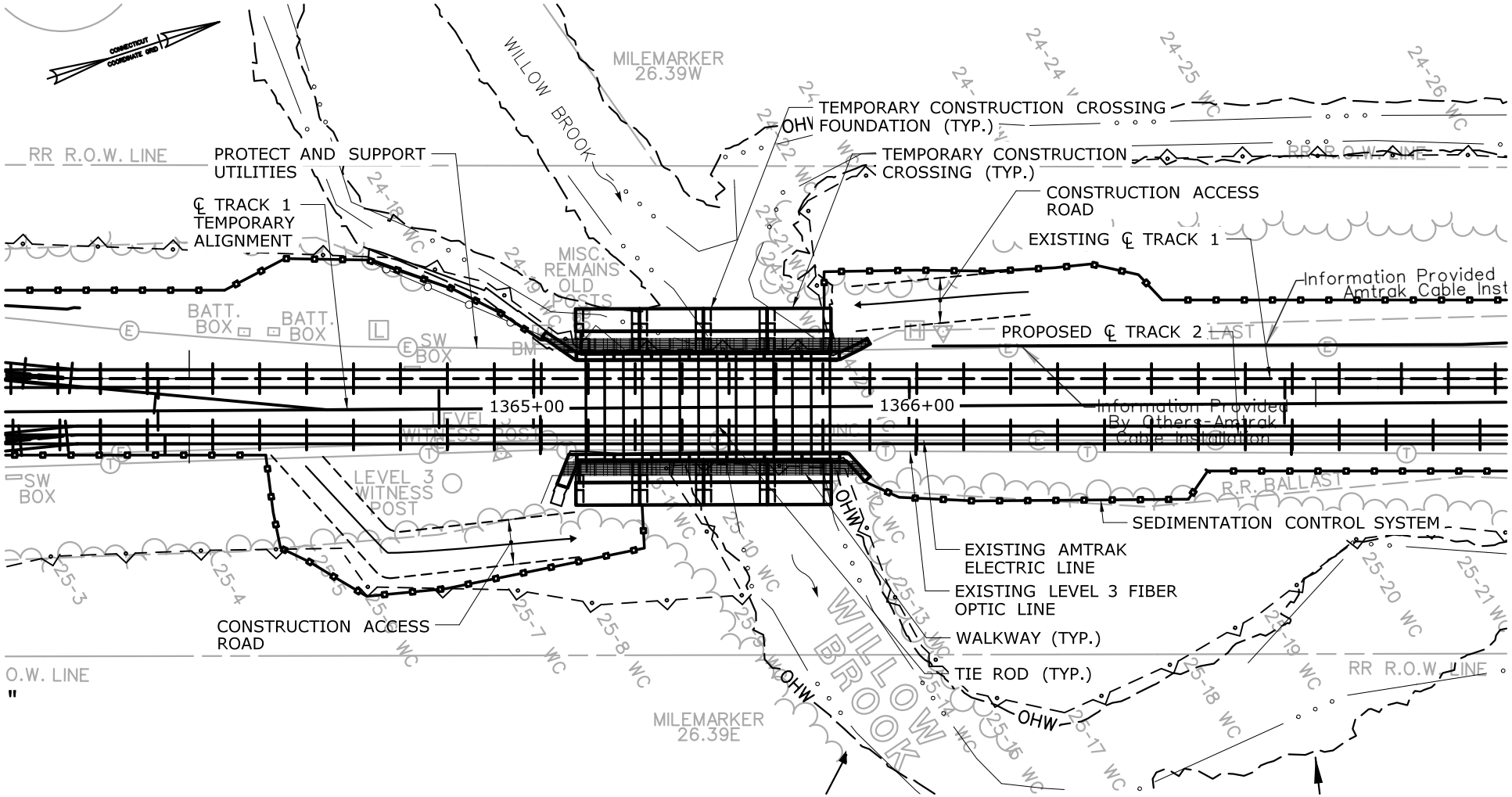
5. REMOVE EXISTING CAPSTONE AND WALKWAY ON EACH SPANDREL WALL. TEMPORARLY PROTECT AND SUPPORT UTILITIES ATTACHED TO SPANDREL WALL.

6. PLACE PRECAST SPANDREL WALL EXTENSION. DRILL HOLES FOR DOWELS INTO EXISTING STONE BELOW REMOVED CAPSTONE. GROUTING ONLY THE WESTERN SPANDREL WALL DOWELS. CAST CAST-IN-PLACE WINGWALL EXTENSIONS.

7. REPAIR MORTAR JOINTS AS SHOWN ON PLANS, INSTALL SANDBAGS TO ISOLATE THE REPAIR AREA(S) FROM ACTIVE FLOW LIMITING THE TOTAL REDUCTION IN HYDRAULIC OPENING TO HALF. WORK IS TO BE STAGED SPAN BY SPAN, REPOINTING ONE BARREL ABUTMENT AT A TIME, TO LIMIT REDUCTION IN HYDRAULIC OPENING TO A MINIMUM. SANDBAGS ARE TO BE SET UP TO ELEVATION 42.1'. IT IS ANTICIPATED THAT DEWATERING OF SANDBAG WORK AREA IS NOT REQUIRED AND THE REPOINTING WILL BE PERFORMED UNDERWATER IN LOCATIONS AS REQUIRED.

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 26.39_05.dgn

STAGE 1 CONSTRUCTION NOTES WETLAND ID 24 & 25 MP 26.39 STA. 1365+50	CTDOT PROJECT NO.: 170-2296/3154/3155/3156 COUNTY: HARTFORD CITY/TOWN: BERLIN	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	LOCHNER H.W. LOCHNER, INC. 2110 Silas Deane Highway Rocky Hill, CT 06067 SCALE:1"=40'	DATE: MAR 2014 WETLAND ID No.24 & 25 WATERCOURSE WILLOW BROOK PLATE 5.4F OF 11.4F



STAGE 2:

1. DURING SHORT TERM OUTAGES AND FOUL TIME EXCAVATE BETWEEN TIES AND PLACE SINGLE TIE ROD AND TIE ROD CASING. BURY CASING AND PROCEED TO NEXT TIE ROD LOCATION. TIE RODS ARE TO BE TIGHTENED AFTER COMPLETION OF PLACING ALL TIE RODS.
2. ONCE ALL TIE RODS HAVE BEEN INSTALLED, INSTALL SAFETY RAILING AND WALKWAY.

STAGE 3:

1. REMOVE TEMPORARY CONSTRUCTION CROSSING. REMOVE CONSTRUCTION ACCESS ROAD.
2. PERFORM TRACK THROW SHIFTING TRACK 1 TEMPORARY ALIGNMENT TO PROPOSED TRACK 1 ALIGNMENT. INSTALL TRACK 2.
3. REMOVE SEDIMENTATION AND EROSION CONTROL.

SCALE IN FEET
0 40 80

STAGE 2 & 3
CONSTRUCTION PLAN
MP 26.39
STA. 1365+50

CTDOT PROJECT NO.: 170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

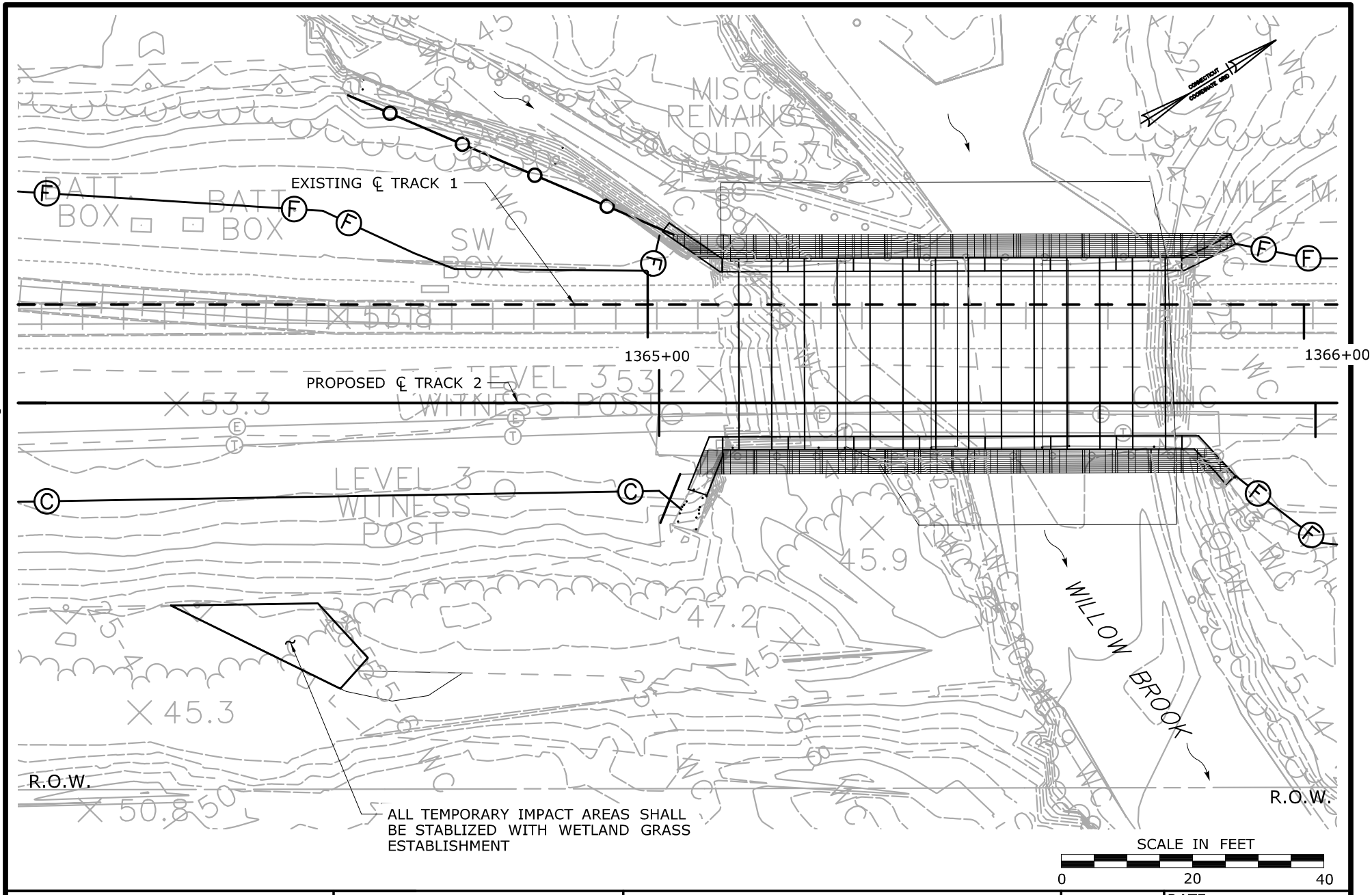
DATE: MAR 2014

WETLAND ID No. 24 & 25

WATERCOURSE WILLOW BROOK

PLATE 5.5F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 26.39_06.dgn



PLANTING PLAN

WILLOW BROOK
WETLAND ID 24 & 25
MP 26.39
STA. 1365+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

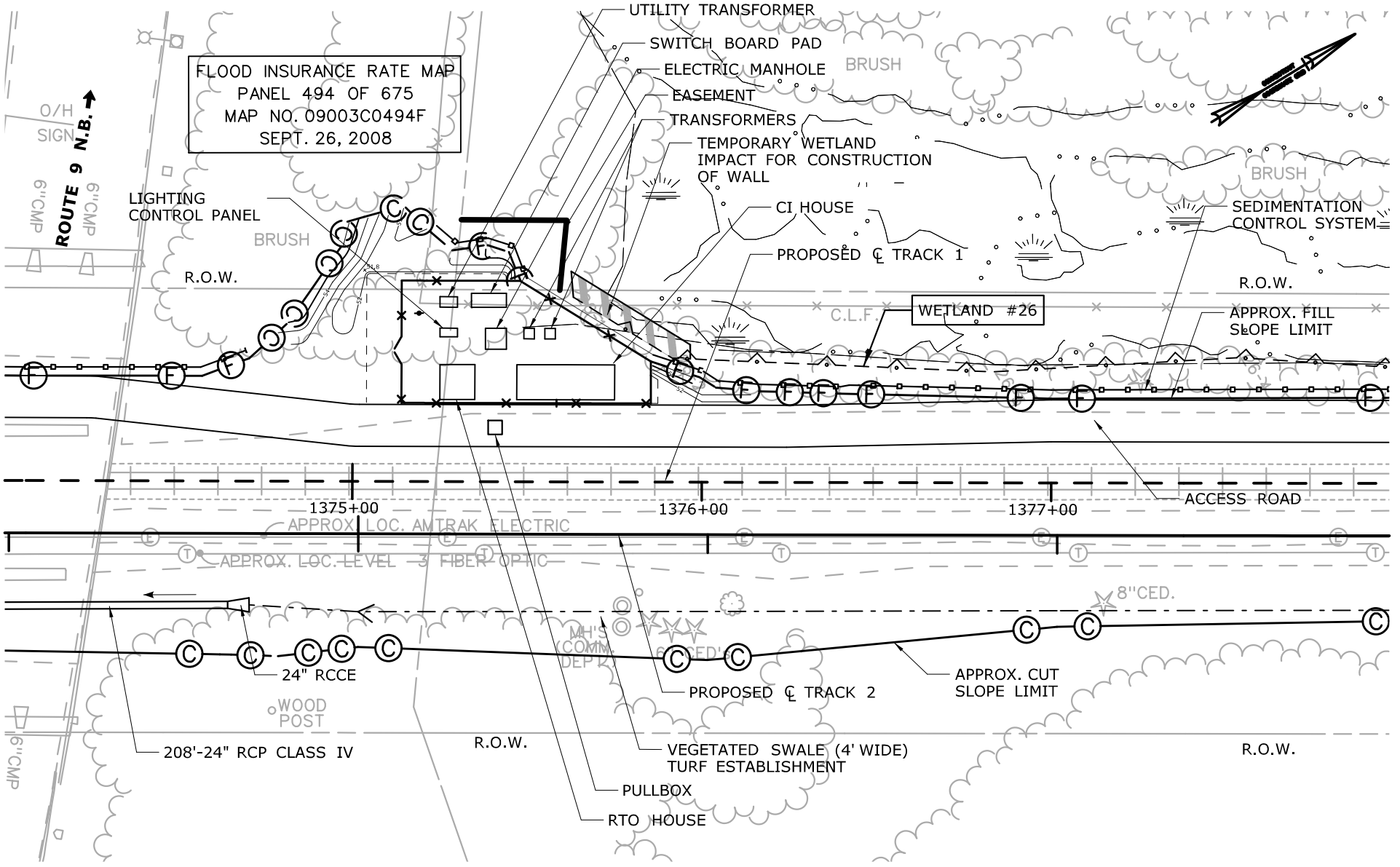
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.24 & 25
WATERCOURSE
WILLOW BROOK

PLATE 5.6F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 5.6F.dgn



SEE PLATE 7.0F FOR TOTAL WETLAND ID 26 IMPACT AREAS

IMPACT PLAN

WETLAND ID 26
MP 26.60
STA. #1375+60

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

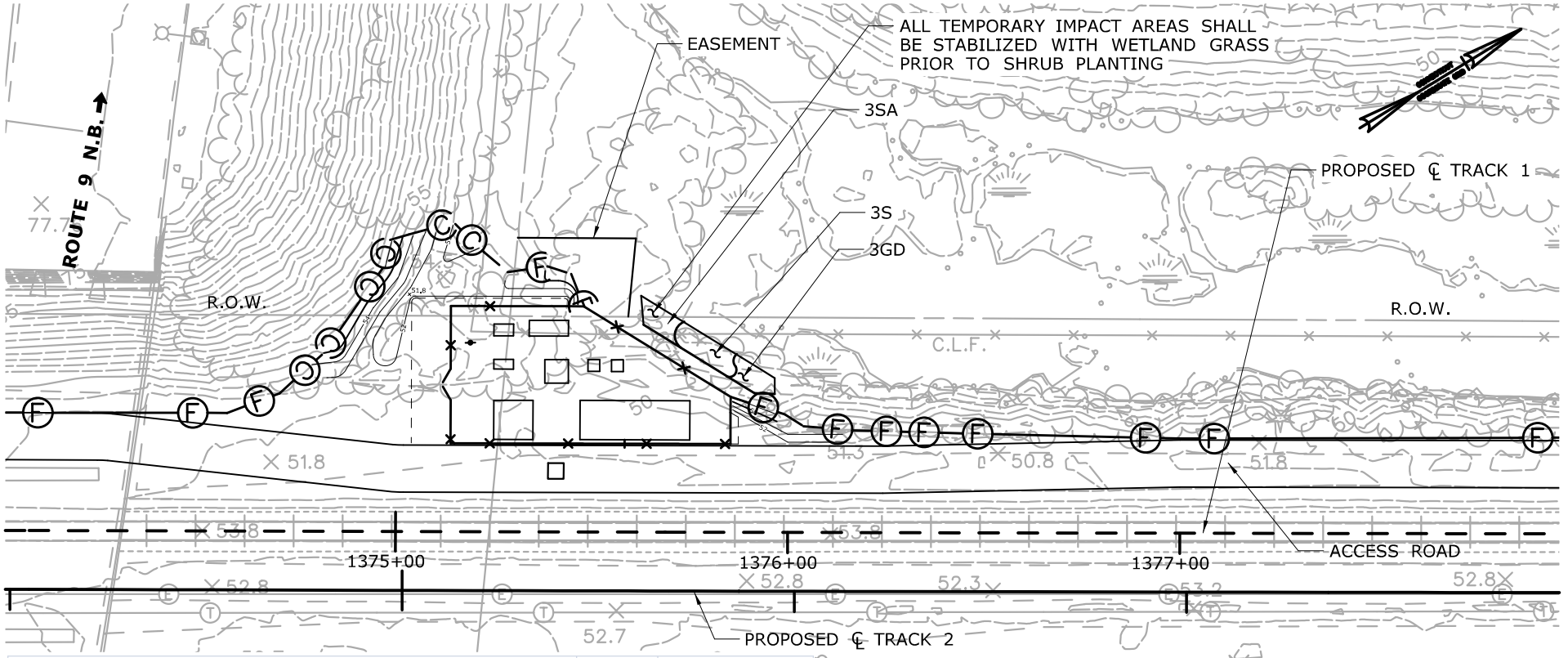
PARSONS BRINCKERHOFF

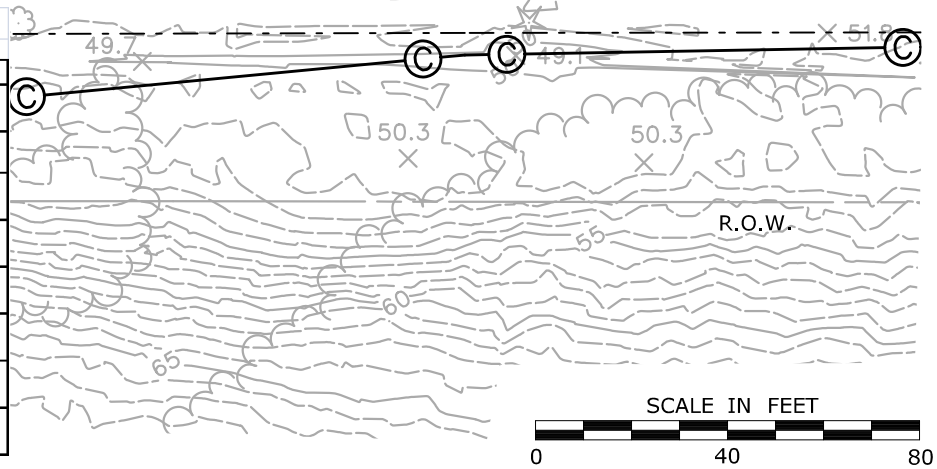
SCALE:1"=40'

DATE:
MAR 2013
WETLAND ID No.26

PLATE 6.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 6.0F.dgn





Planting Table - MP 26.79 (Sta. 1375+60 - 1385+75)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	3
SB	*AMELANCHIER CANADENSIS*	SERVICEBERRY	FAC	4'-5' HT B.B.	5' O.C.	5
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	6
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	4
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	6
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	4
					TOTAL QTY=	28

PLANTING PLAN

WETLAND ID 26
MP 26.60
STA. #1375+60

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

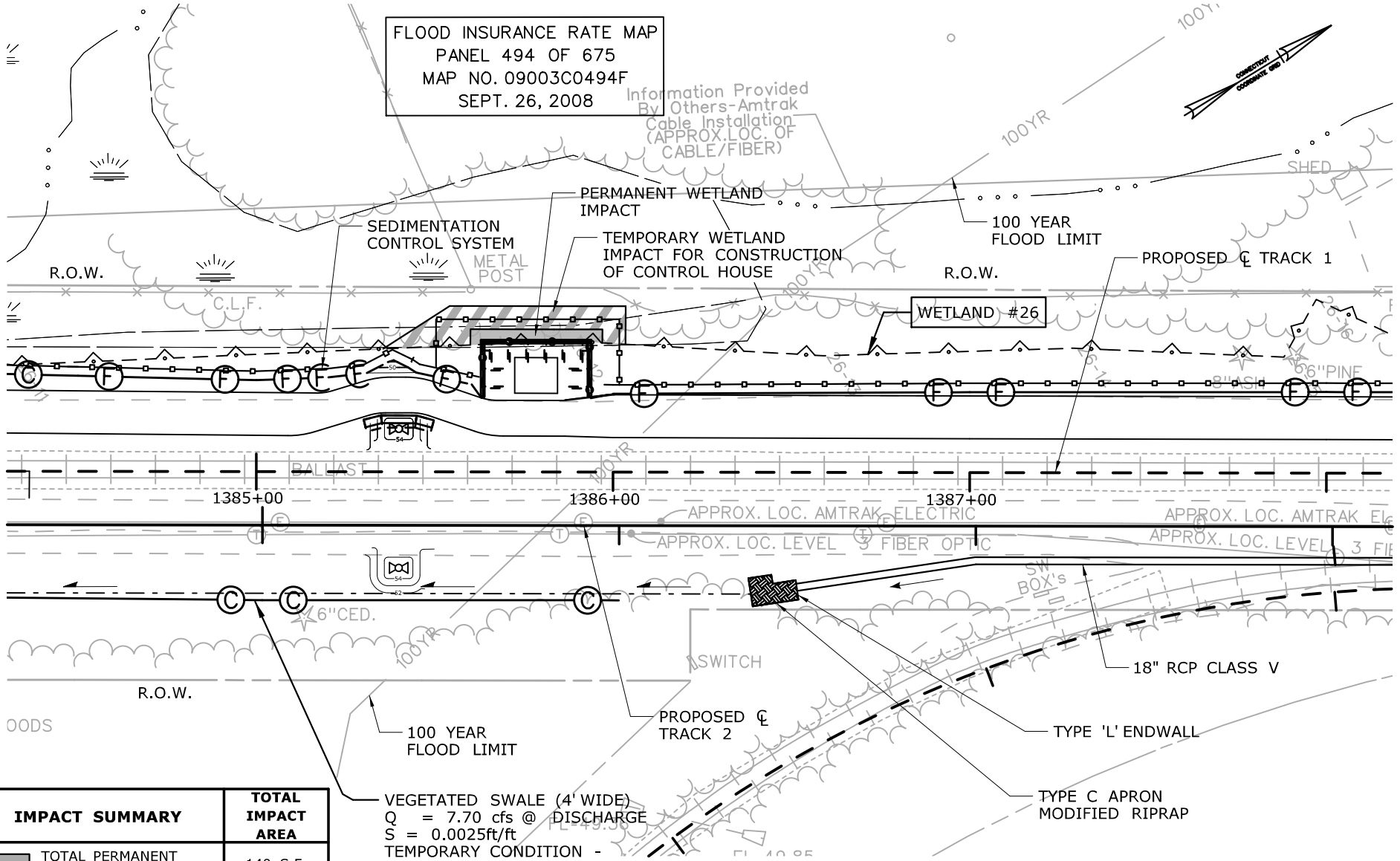
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2013
WETLAND ID No.26

PLATE 6.1F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 6.1F.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 26 IMPACT	140 S.F.
TOTAL TEMPORARY WETLAND 26 IMPACT	710 S.F.

IMPACT AREAS FOR WETLAND ID 26 ARE ALSO SHOWN ON PLATE 6.0F

IMPACT PLAN
WETLAND ID 26
MP 26.79
STA. #1385+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

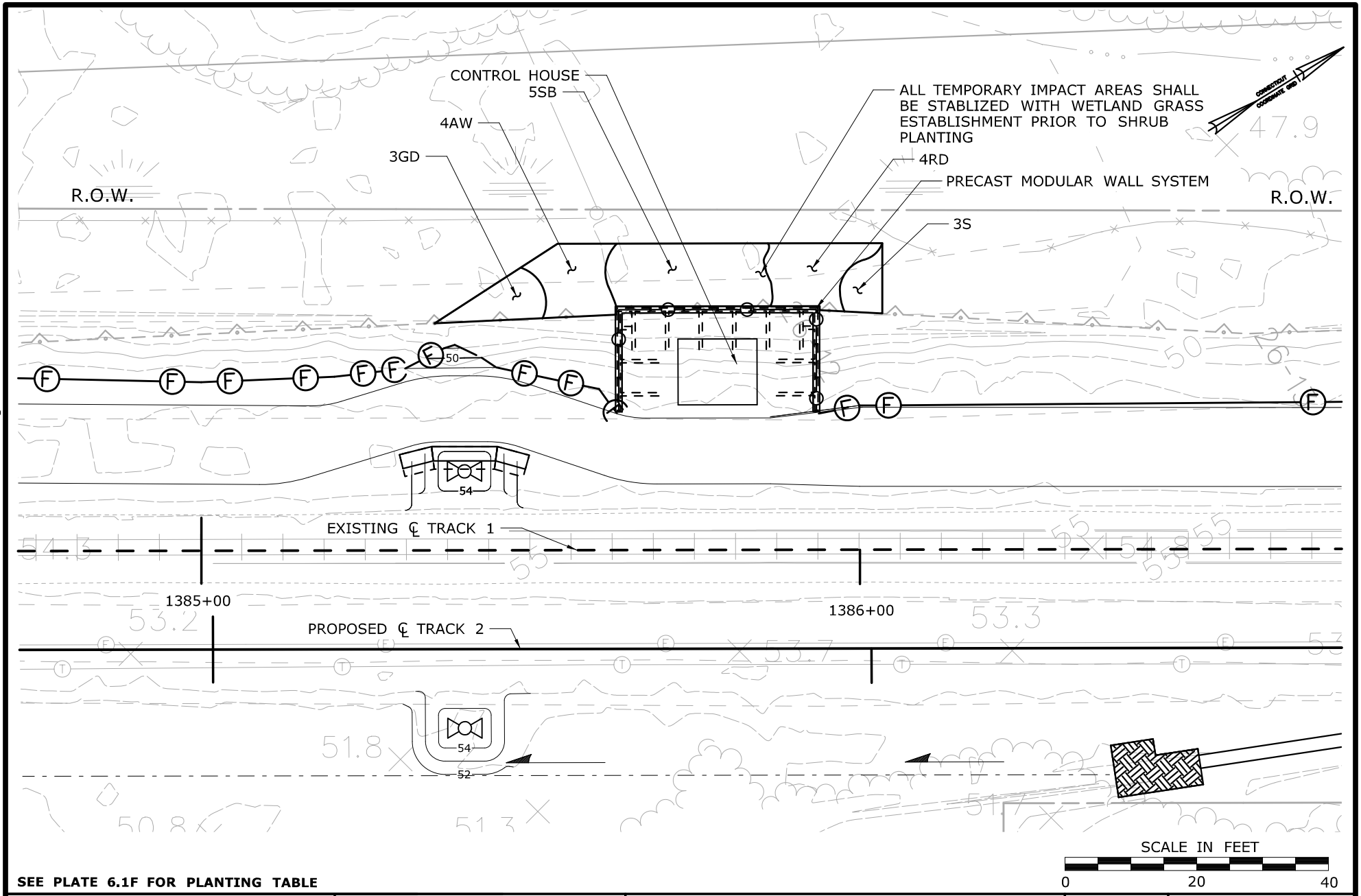
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.26

PLATE 7.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007__01_PER_PER_Permit Plate 7.0F.dgn



SEE PLATE 6.1F FOR PLANTING TABLE

PLANTING PLAN

WETLAND ID 26
MP 26.79
STA. 1385+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: BERLIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

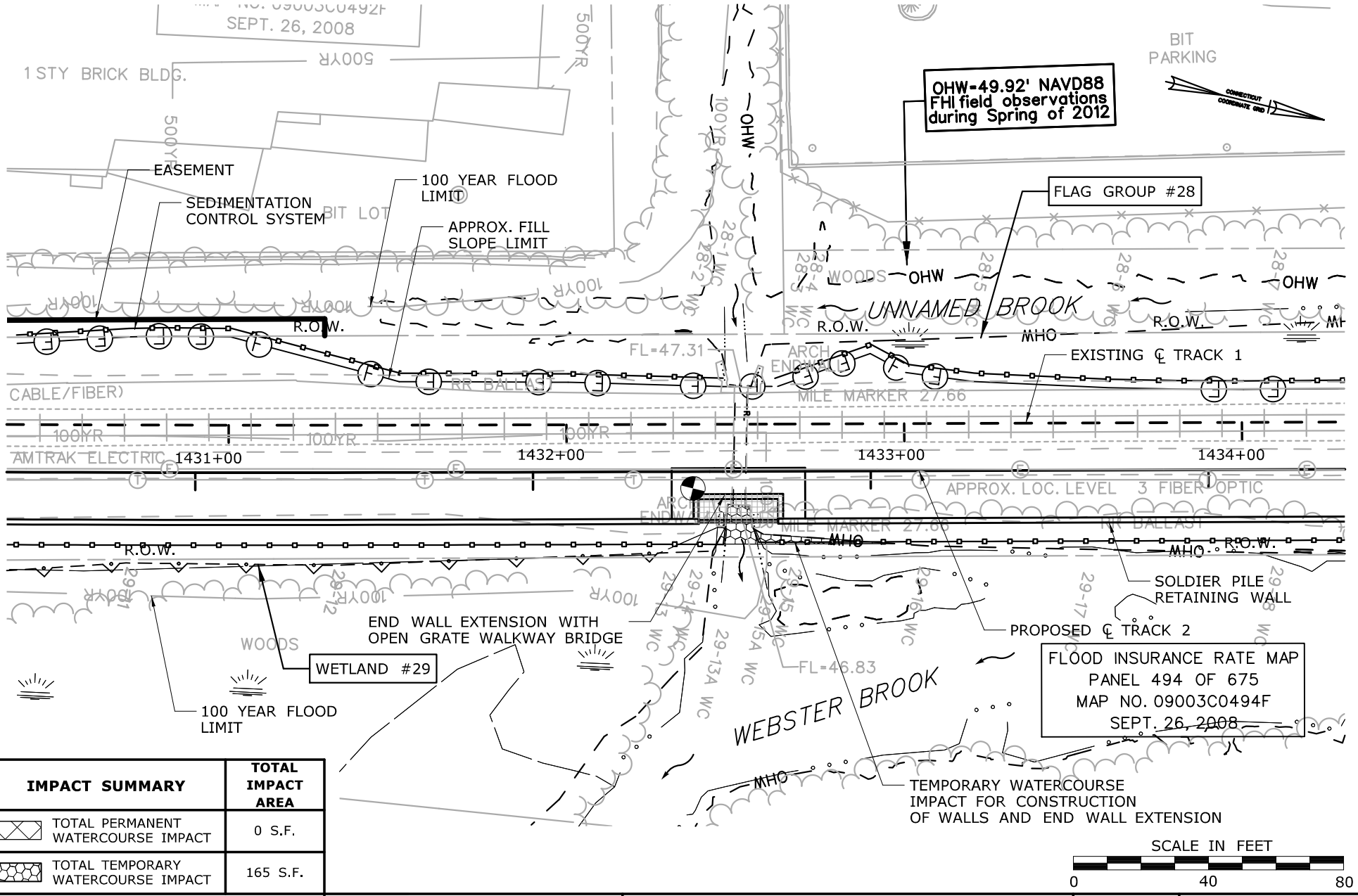
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.26

PLATE 7.1F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 7.1F.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	0 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	165 S.F.

IMPACT PLAN

UNNAMED TRIBUTARY

MP 27.66

STA. 1432+60

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

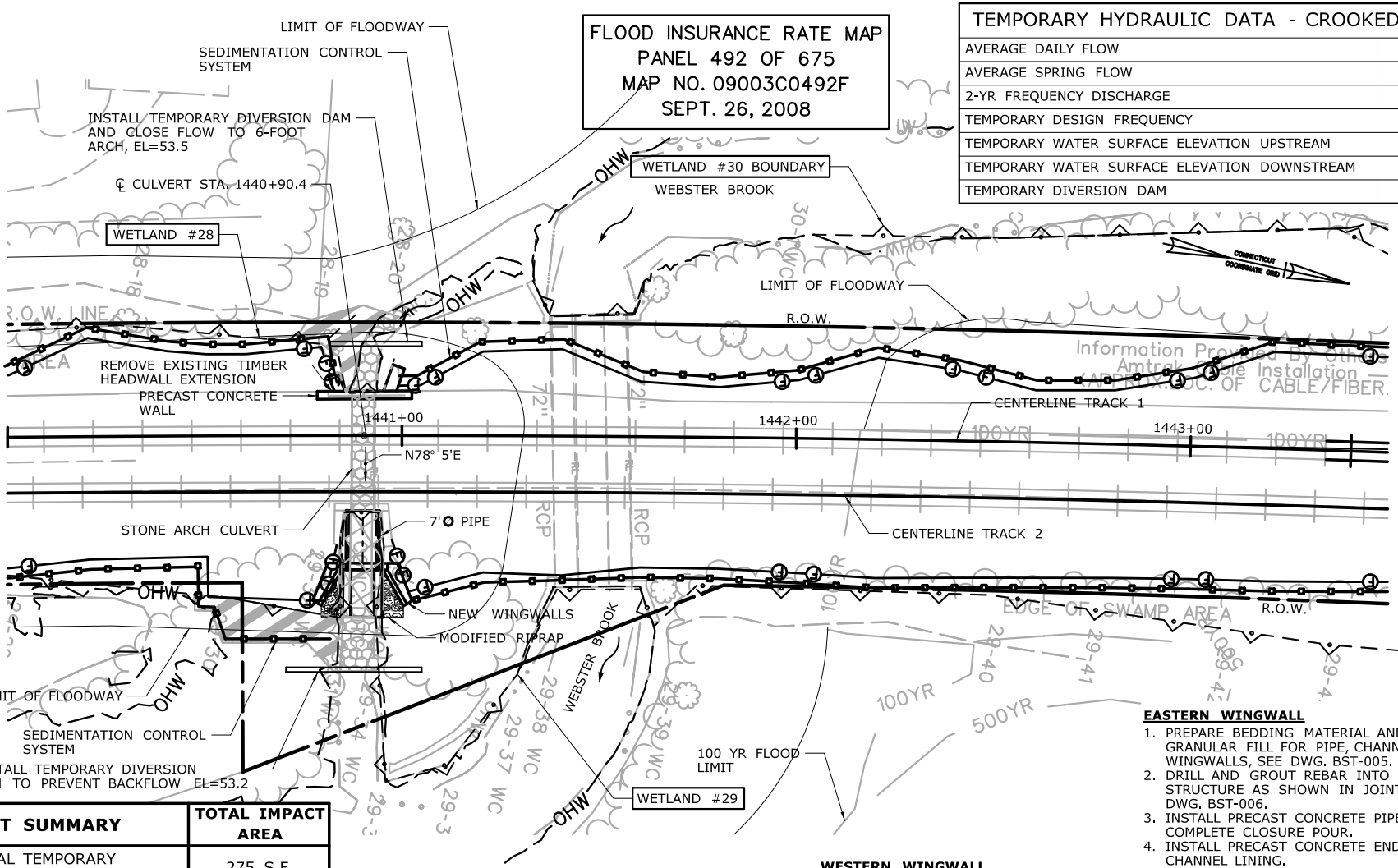
DATE:
MAR 2014

WETLAND ID No.

WATERCOURSE
UNNAMED TRIBUTARY

PLATE 8.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_088_01_PER_PER_Permit Plate 8.0F.dgn



FLOOD INSURANCE RATE MAP
PANEL 492 OF 675
MAP NO. 09003C0492F
SEPT. 26, 2008

TEMPORARY HYDRAULIC DATA - CROOKED BROOK	
AVERAGE DAILY FLOW	3 CFS
AVERAGE SPRING FLOW	6 CFS
2-YR FREQUENCY DISCHARGE	218 CFS
TEMPORARY DESIGN FREQUENCY	2 YR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	52.5 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	52.2 FT
TEMPORARY DIVERSION DAM	53.5 FT

IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL TEMPORARY WATERCOURSE 28 IMPACT	275 S.F.
TOTAL TEMPORARY WETLAND 28 IMPACT	210 S.F.
TOTAL PERMANENT WATERCOURSE 29 IMPACT	270 S.F.
TOTAL TEMPORARY WATERCOURSE 29 IMPACT	140 S.F.
TOTAL TEMPORARY WETLAND 29 IMPACT	335 S.F.

CONSTRUCTION SEQUENCE NOTES:

1. TRACK 1 IS ACTIVE, ALL WORK PERFORMED DURING FOUL TIME AND SHORT TERM TRACK OUTAGES.

SEQUENCE OF CONSTRUCTION

1. INSTALL TEMPORARY DIVERSION DAMS AND SEDIMENTATION AND EROSION CONTROL AROUND WORK SITE AT INLET AND OUTLET AS SHOWN ON PLANS.
2. PERFORM REPAIRS.

WESTERN WINGWALL

1. EXCAVATE AND REMOVE EXISTING TIMBER EXTENSION.
2. DRILL AND GROUT INTO HEADWALL, INSTALL PRECAST BEAM, SEE DWG. BST-006.
3. DRILL AND GROUT INTO EXISTING WINGWALL, FORM CAST-IN PLACE WINGWALL EXTENSION, SEE DWG. BST-006.

EASTERN WINGWALL

1. PREPARE BEDDING MATERIAL AND COMPACTED GRANULAR FILL FOR PIPE, CHANNEL AND WINGWALLS, SEE DWG. BST-005.
2. DRILL AND GROUT REBAR INTO EXISTING STRUCTURE AS SHOWN IN JOINT DETAIL, SEE DWG. BST-006.
3. INSTALL PRECAST CONCRETE PIPE AND COMPLETE CLOSURE POUR.
4. INSTALL PRECAST CONCRETE ENDWALL AND CHANNEL LINING.
5. REMOVE TIMBER BALLAST RETAINER.
6. BACKFILL AND GRADE WITHIN THE LIMITS OF CONSTRUCTION.

AFTER WINGWALL CONSTRUCTION

1. REMOVE TEMPORARY DIVERSION DAMS AND RESTORE TEMPORARY WORK AREAS.
2. REMOVE SEDIMENTATION AND EROSION CONTROL.

SCALE IN FEET
0 40 80

SEE PLATE 3.0G FOR TOTAL WEBSTER BROOK IMPACT AREAS.

IMPACT PLAN

WEBSTER BROOK OVERFLOW
WETLAND ID 28 & 29

MP 27.83
STA. 1440+90

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

HNTB CORP.

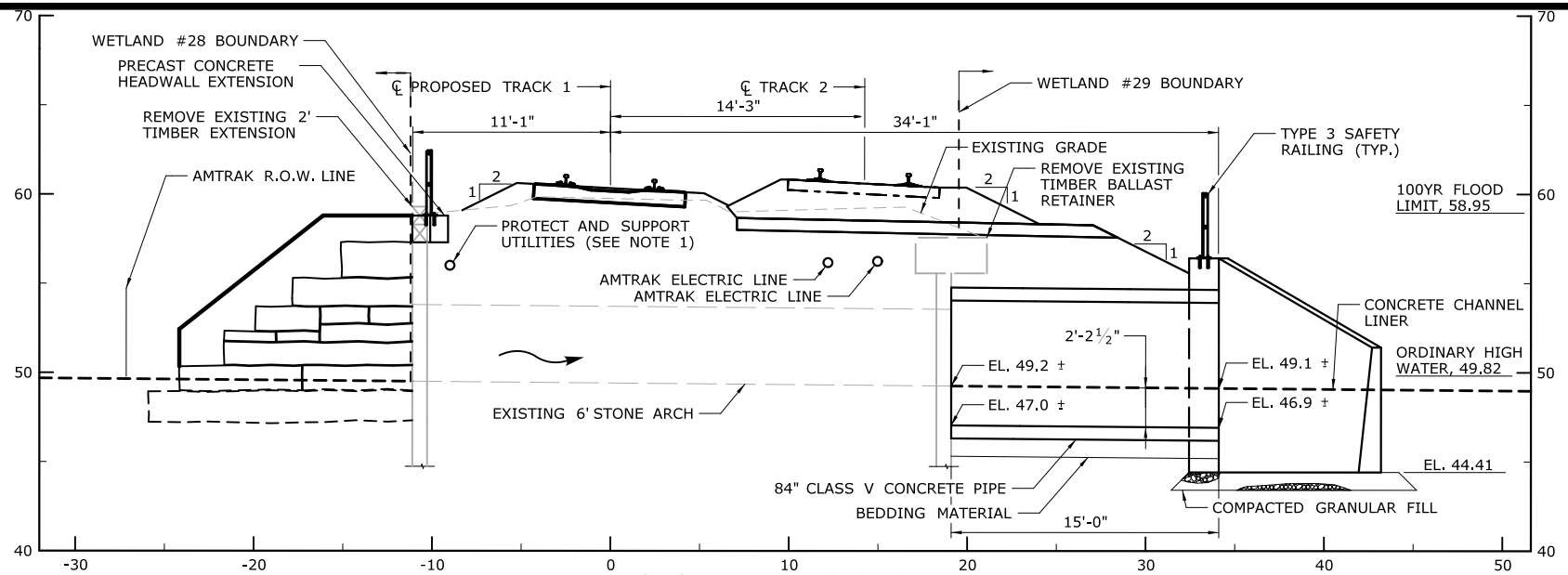
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DATE:
MAR 2014

WETLAND ID No. 28, 29 & 30
WATERCOURSE
WEBSTER BROOK

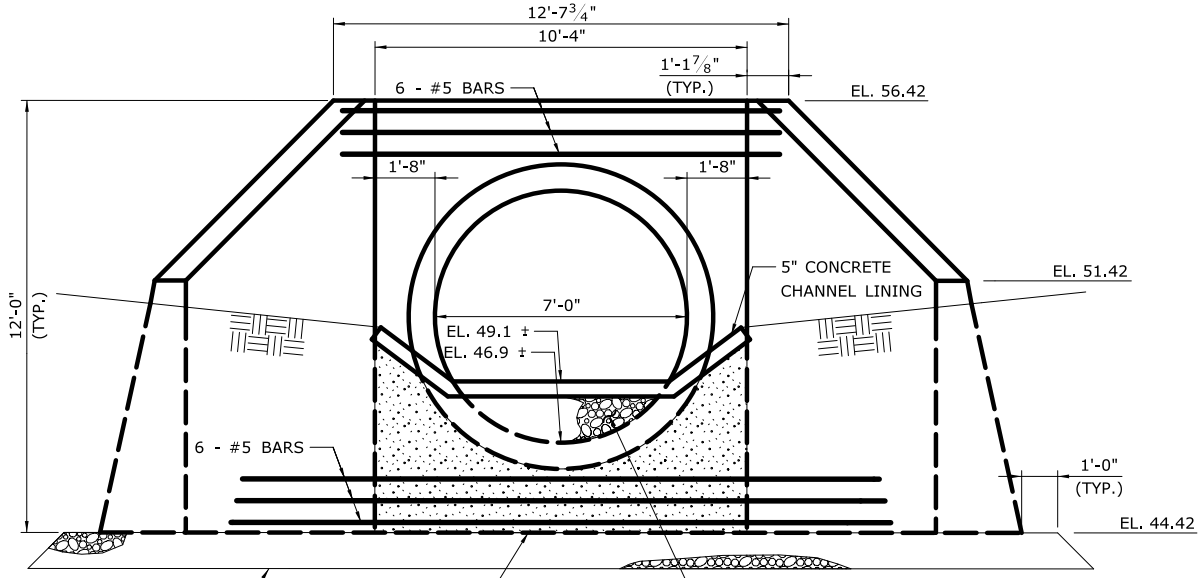
PLATE 9.0F OF 11.5F

Filename: ...\FA_CGR_MSM_0170-2296_088_01_PER_MP 27.83_1.dgn



LONGITUDINAL SECTION

SCALE: 1" = 10'-0"



ELEVATION

SCALE: 3/16" = 1'-0"

SCALE IN FEET

0 40 80

SECTION & ELEVATION

WEBSTER BROOK OVERFLOW
WETLAND ID 11814
MP 27.83
STA. 1440+90

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

SCALE AS NOTED

DATE:
MAR 2014

WETLAND ID No. 28, 29 & 30
WATERCOURSE
WEBSTER BROOK

PLATE 9.1F OF 11.5F

Filename: ...\FA_CGR_MSM_0170-2296_088_01_PER__MP 27.83_2.dgn

Planting Table - MP 27.83 (Sta. 1440+90)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	6
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	5
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	5
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	6
					TOTAL QTY=	22

ALL TEMPORARY IMPACT AREAS SHALL BE STABLIZED WITH WETLAND GRASS ESTABLISHMENT PRIOR TO SHRUB PLANTING

6AW

6SA

R.O.W.

1440+00

1441+00

EXISTING ℄ TRACK 1

PROPOSED ℄ TRACK 2

STONE ARCH CULVERT

7'Ø PIPE

NEW WINGWALLS

ALL TEMPORARY IMPACT AREAS SHALL BE STABLIZED WITH WETLAND GRASS ESTABLISHMENT PRIOR TO SHRUB PLANTING

5S

5RD

EASEMENT

WEBSTER BROOK

SCALE IN FEET

0 20 40

PLANTING PLAN

WEBSTER BROOK OVERFLOW
WETLAND ID 28 & 29
MP 27.83
STA. 1440+90

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

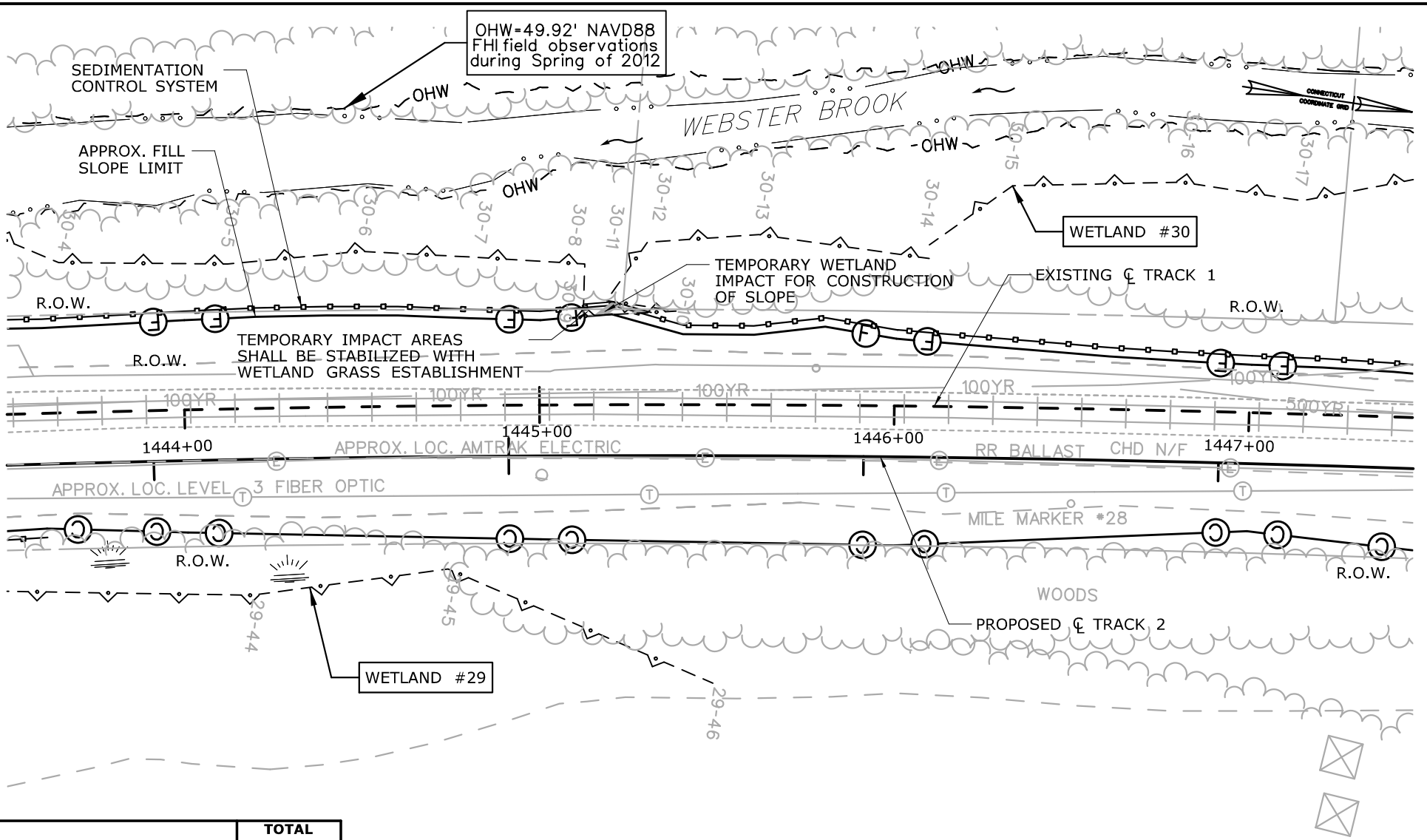
DATE:
MAR 2014

WETLAND ID No.28 & 29

WATERCOURSE
WEBSTER BROOK

PLATE 9.2F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_088_01_PER_PER_Permit Plate 9.2F.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 30 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 30 IMPACT	50 S.F.

FLOOD INSURANCE RATE MAP
PANEL 492 OF 675
MAP NO. 09003C0492F
SEPT. 26, 2008

SCALE IN FEET
0 40 80

IMPACT PLAN
WETLAND ID 30
MP 27.97
STA. 1445+10

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

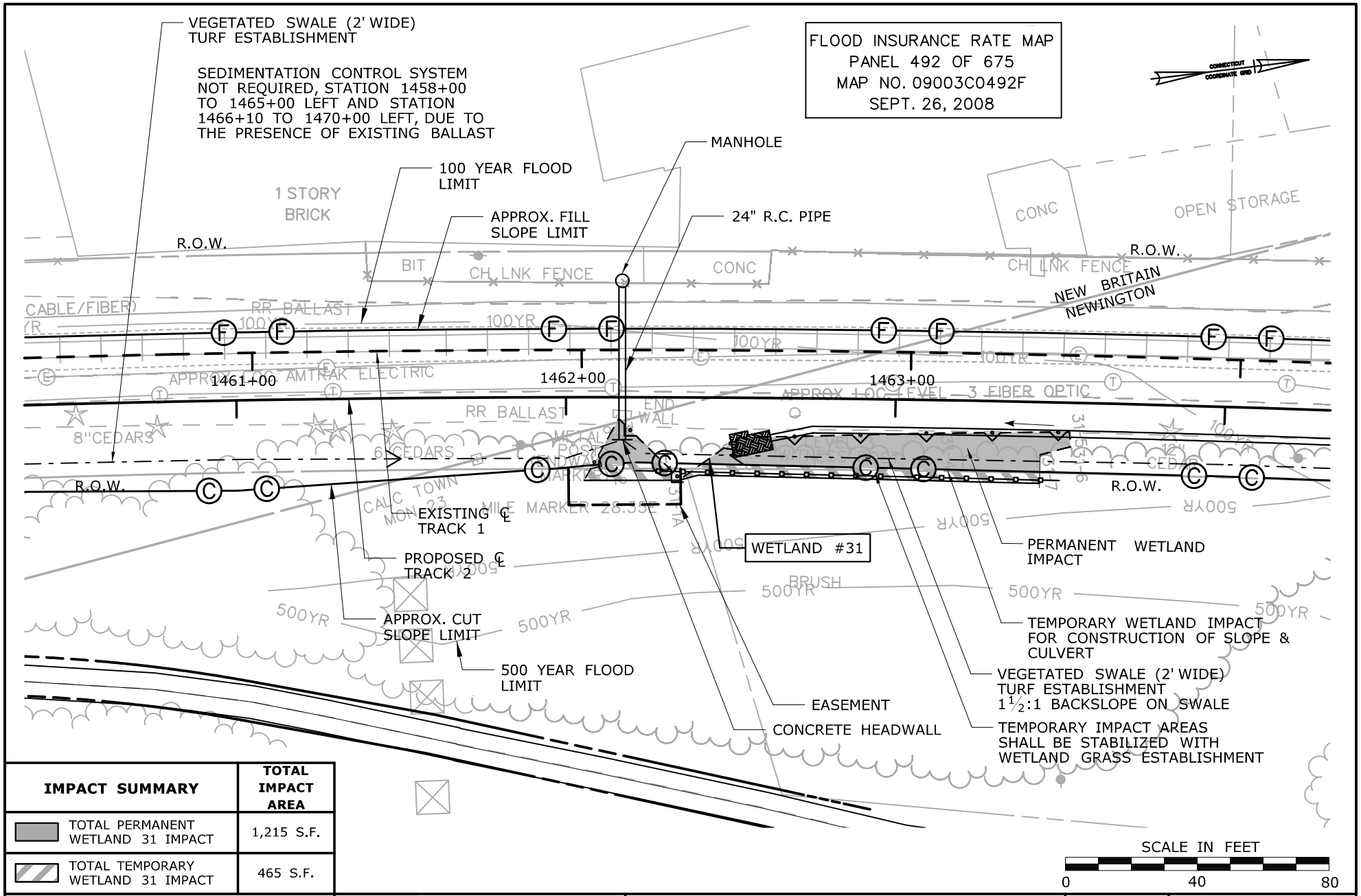
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.30

PLATE 10.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_088_01_PER_PER_Permit Plate 10.0F.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 31 IMPACT	1,215 S.F.
TOTAL TEMPORARY WETLAND 31 IMPACT	465 S.F.

IMPACT PLAN

WETLAND ID 31

MP 28.35

STA. 1462+00 - 1463+55

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN/ NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

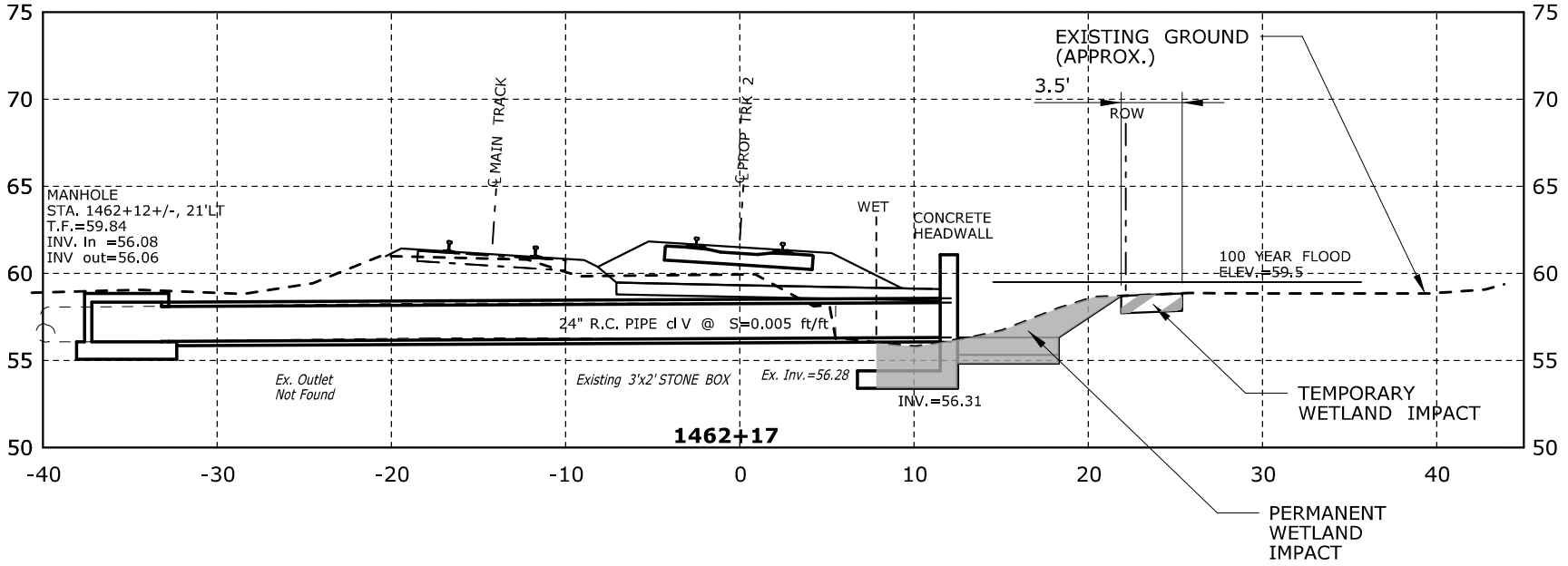
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.31

PLATE 11.0F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER_PER_Permit Plate 11.0F.dgn



SCALE IN FEET

0 10 20

IMPACT SECTION

CULVERT/WETLAND ID 31
MP 28.35
STA. 1462+12

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN/
NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

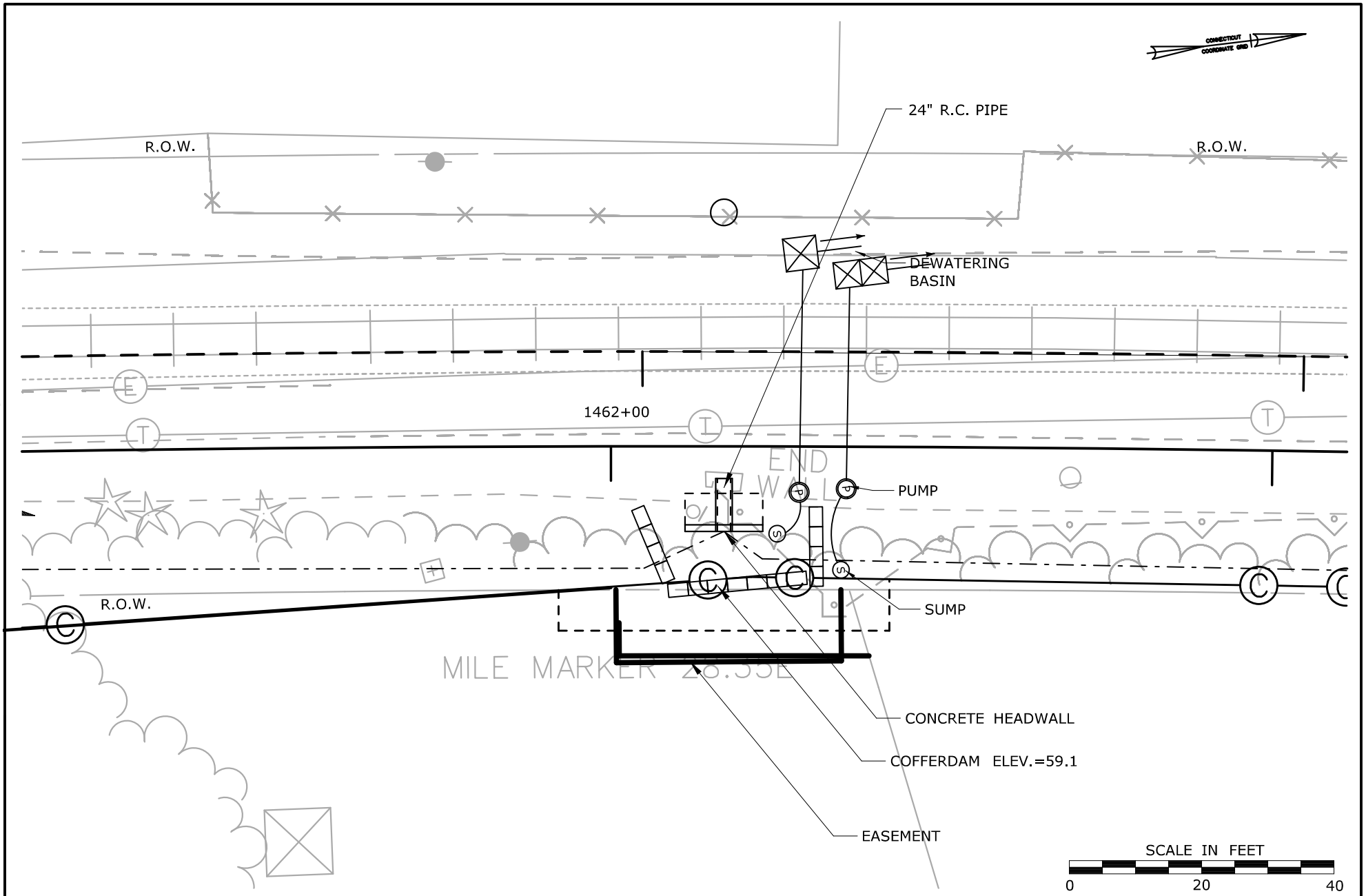
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.31

PLATE 11.1F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_PER_Permit Plate 11.1F.dgn



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STAGE 1

CONSTRUCTION PLAN

CULVERT/WETLAND ID 31
MP 28.35
STA. 1462+40 - 1463+55

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN/
NEWINGTON

APPLICATION BY: AMTRAK®

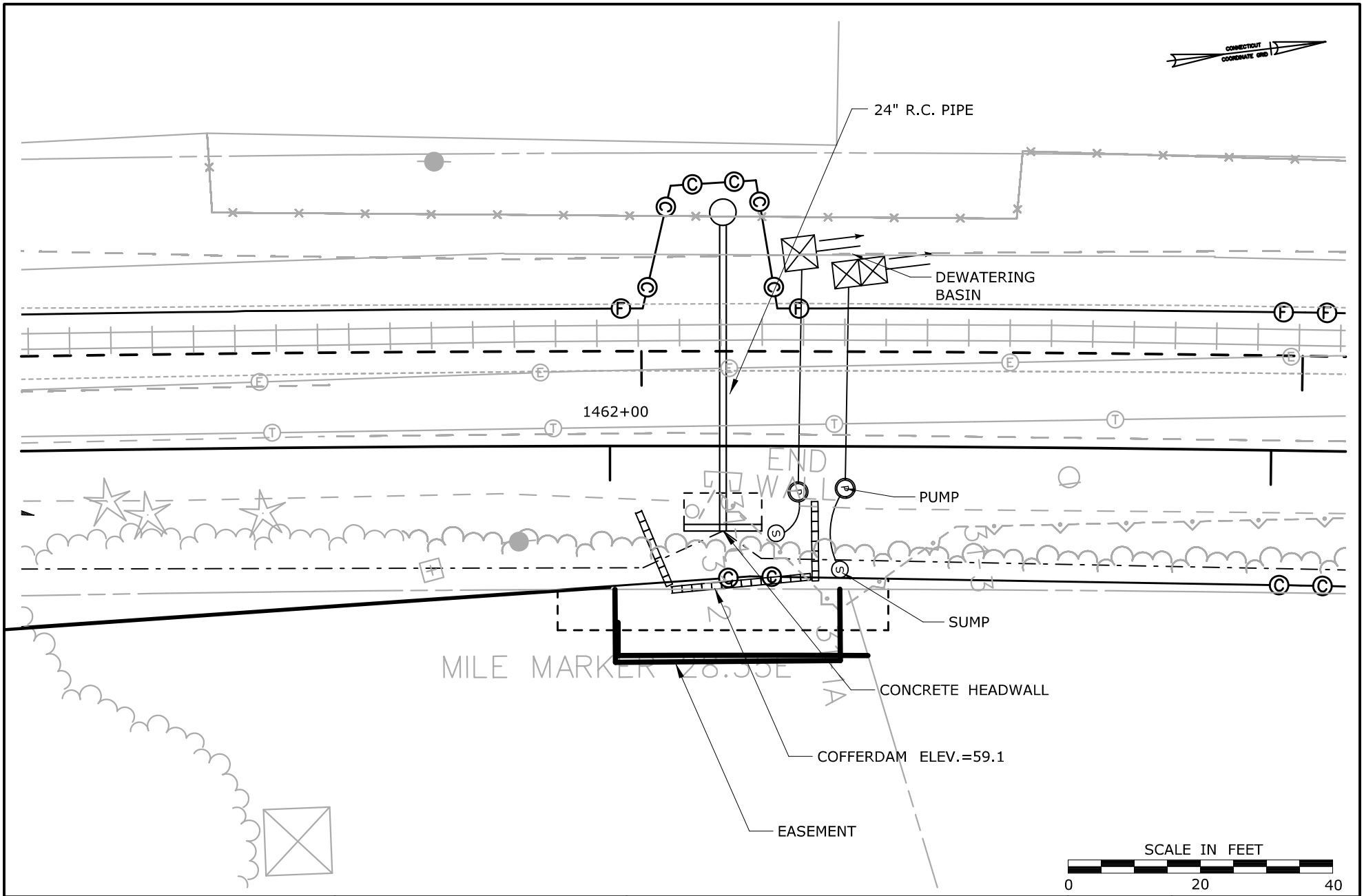
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.31

PLATE 11.2F OF 11.4F



STAGE 2

CONSTRUCTION PLAN

CULVERT/WETLAND ID 31
MP 28.35
STA. 1462+40 - 1463+55

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN/
NEWINGTON

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.31

PLATE 11.3F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER_PER_Permit Plate 11.3F.dgn

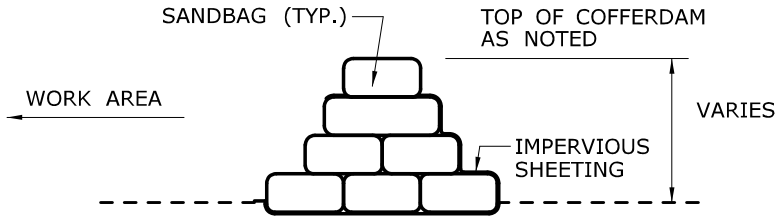
CONSTRUCTION SEQUENCE PHASE 1

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. REMOVE EXISTING HEADWALL.
3. INSTALL LENGTHS OF 24" R.C. PIPE AS SHOWN.
4. INSTALL CONCRETE HEADWALL.
5. INSTALL INLET PROTECTION.

CONSTRUCTION SEQUENCE PHASE 2

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. CHECK AND MAINTAIN COFFERDAMS AND DEWATERING DEVICES INSTALLED IN PHASE 1 THAT ARE TO REMAIN.
3. INSTALL REMAINING LENGTHS OF 24" R.C. PIPE.
4. CONNECT TO EXISTING STRUCTURE.
5. REMOVE COFFERDAM AND DEWATERING DEVICES.

TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	n/a
AVERAGE SPRING FLOW	0.12 CFS
TWO (2) YEAR FREQUENCY DISCHARGE	8.44 CFS
TEMPORARY DESIGN DISCHARGE	8.44 CFS
TEMPORARY DESIGN FREQUENCY	2 YEAR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	58.6 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	58.0 FT
COFFERDAM ELEVATION	59.1 FT



COFFERDAM DETAIL

LEGEND

COFFERDAM

SUMP

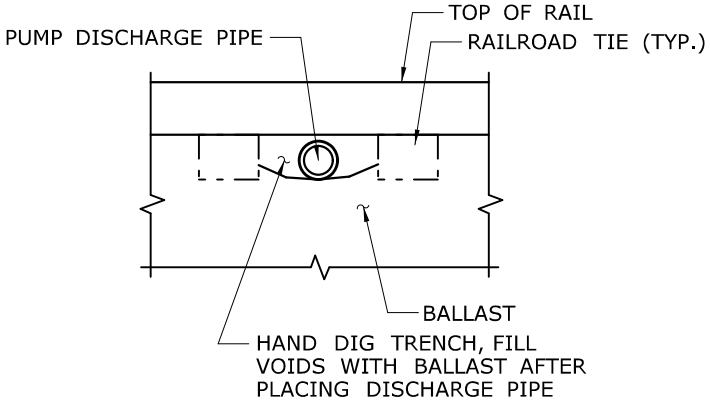
PUMP

SEDIMENTATION CONTROL SYSTEM

DEWATERING BASIN OR SEDIMENT BAG

DIRECTION OF FLOW

STABLE VELOCITY DISSIPATOR



PUMP DISCHARGE PIPE UNDER RAILROAD TRACKS DETAIL

IMPACT PLAN

CULVERT/WETLAND ID 31
MP 28.35
STA. 1462+40 - 1463+55

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEW BRITAIN/
NEWINGTON

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

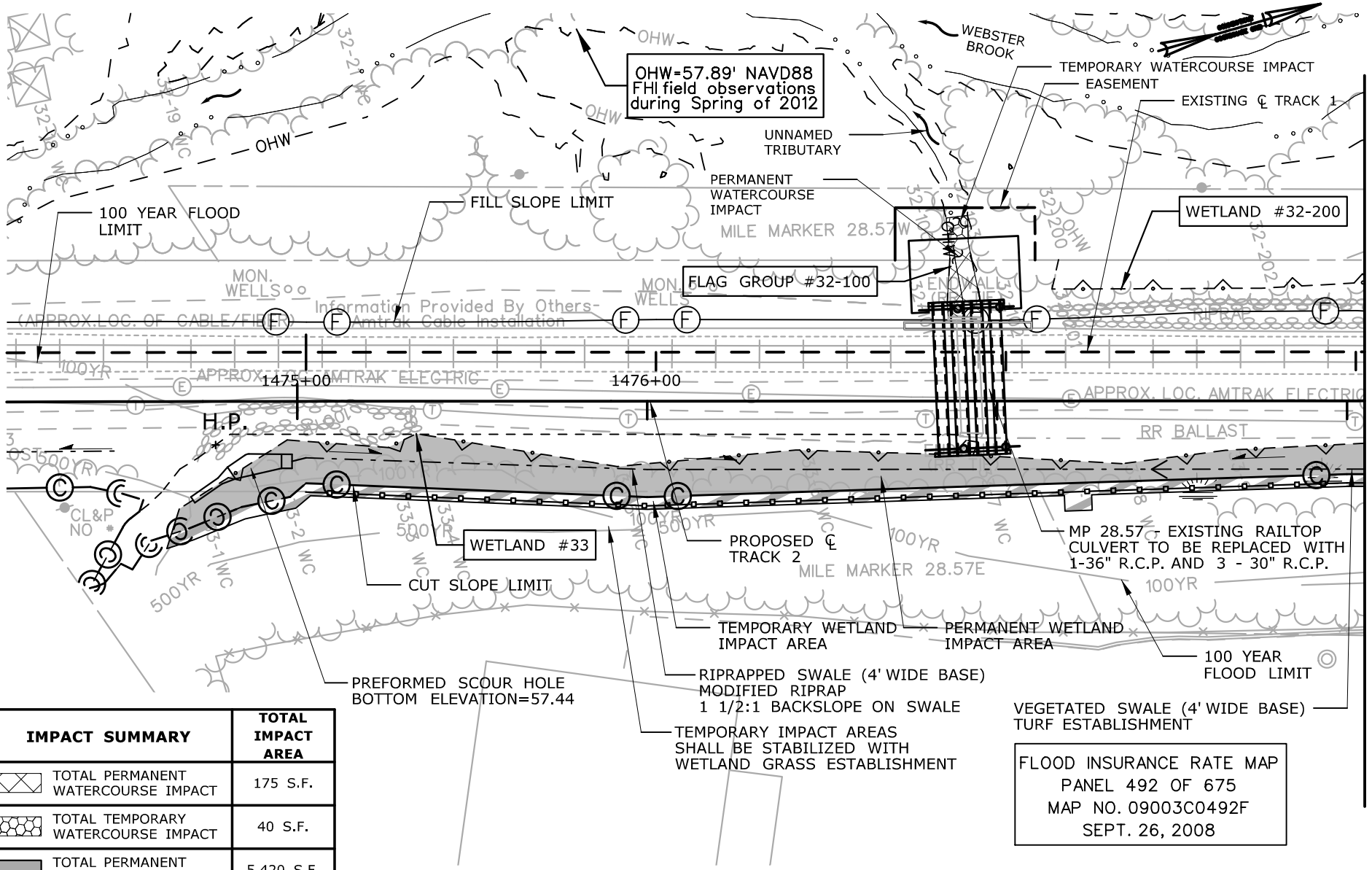
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.31

PLATE 11.4F OF 11.4F

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_PER_Permit Plate 11.4F.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	175 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	40 S.F.
TOTAL PERMANENT WETLAND 33 IMPACT	5,420 S.F.
TOTAL TEMPORARY WETLAND 33 IMPACT	2,305 S.F.

IMPACT PLAN

WETLAND ID 33

MP 28.57

STA. 1474+70 - 1481+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

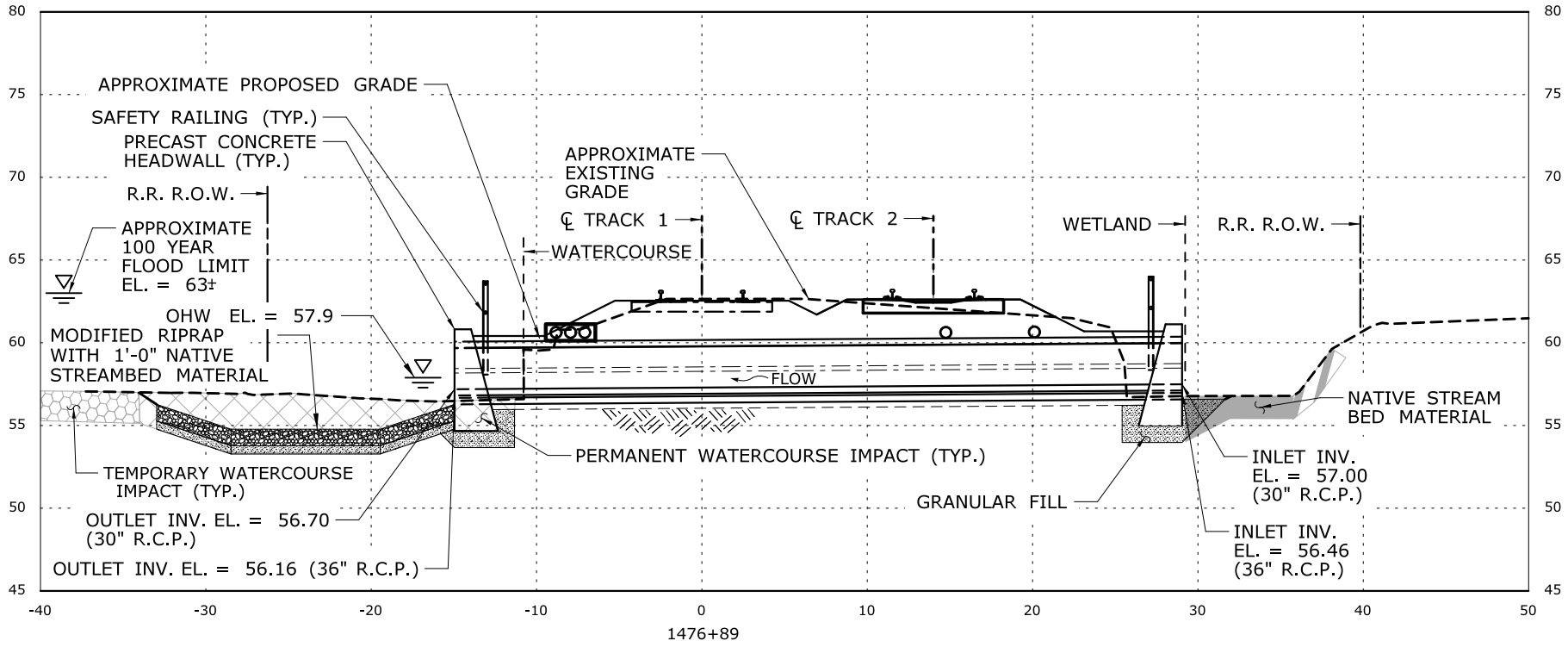
DATE:
MAR 2014

WETLAND ID No.
32-200 & 33

WATERCOURSE
UNNAMED TRIBUTARY

PLATE 1.0G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 1.0G.dgn



SCALE IN FEET

0 40 80

IMPACT SECTION

WETLAND ID 33
UNNAMED TRIBUTARY
MP 28.57
STA. 1474+70 - 1481+00

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

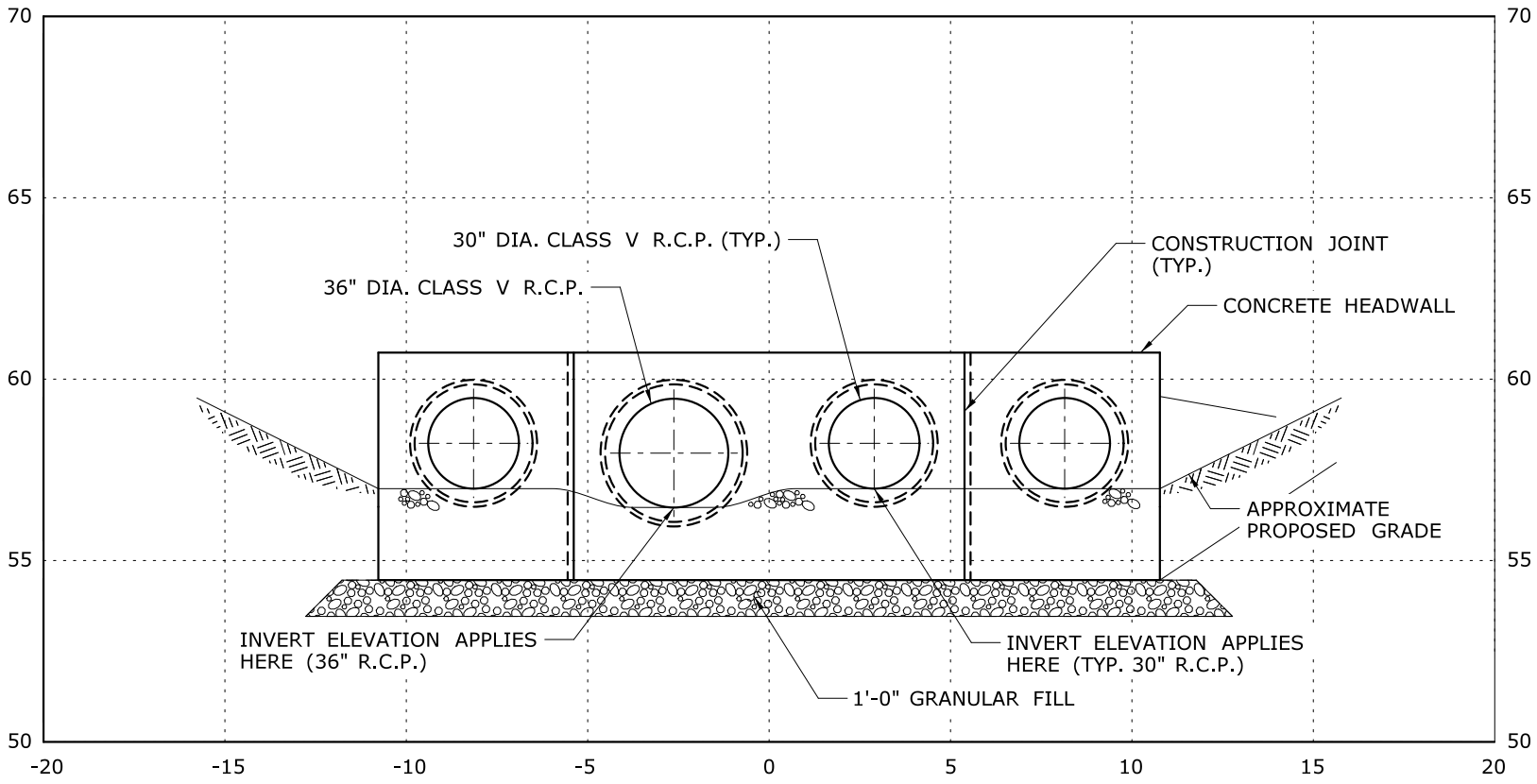
DATE:
MAR 2014

WETLAND ID No.
32-100 & 33

WATERCOURSE
UNNAMED TRIBUTARY

PLATE 1.1G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 28.57_02.dgn



ELEVATION

TEMPORARY HYDRAULIC DATA - WEBSTER BROOK	
AVERAGE DAILY FLOW	0.20 CFS
AVERAGE SPRING FLOW	0.39 CFS
2-YEAR FREQUENCY DISCHARGE	48.06 CFS
TEMPORARY DESIGN DISCHARGE	16.00 CFS
TEMPORARY DESIGN FREQUENCY	2/3 YEAR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	58.34 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	58.89 FT

SCALE IN FEET

0 5 10

IMPACT ELEVATION

WETLAND ID 33
UNNAMED TRIBUTARY
MP 28.57
STA. 1474+70 - 1481+00

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=5'

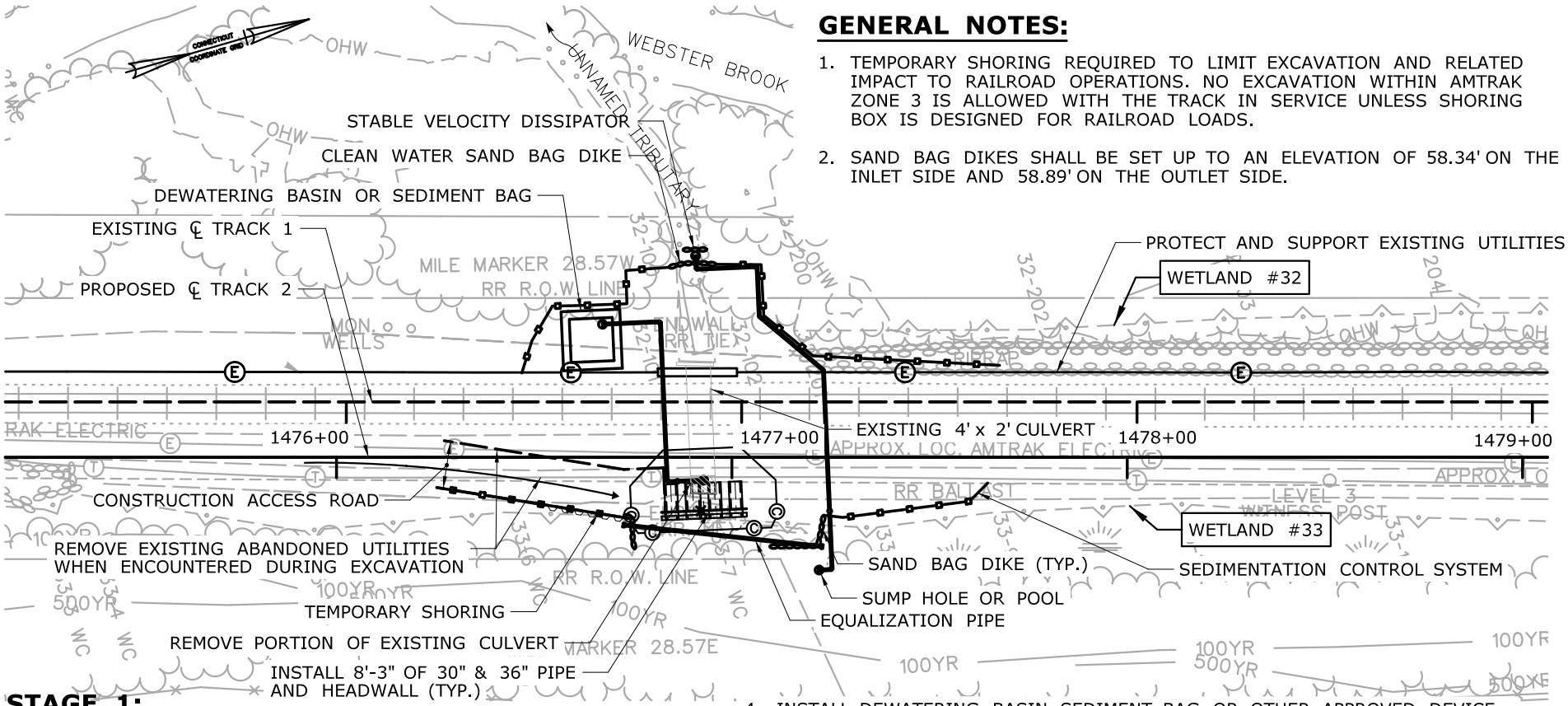
DATE:
MAR 2014

WETLAND ID No.
32-100 & 33

WATERCOURSE
UNNAMED TRIBUTARY

PLATE 1.2G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER__MP 28.57_03.dgn



GENERAL NOTES:

1. TEMPORARY SHORING REQUIRED TO LIMIT EXCAVATION AND RELATED IMPACT TO RAILROAD OPERATIONS. NO EXCAVATION WITHIN AMTRAK ZONE 3 IS ALLOWED WITH THE TRACK IN SERVICE UNLESS SHORING BOX IS DESIGNED FOR RAILROAD LOADS.
2. SAND BAG DIKES SHALL BE SET UP TO AN ELEVATION OF 58.34' ON THE INLET SIDE AND 58.89' ON THE OUTLET SIDE.

STAGE 1:

1. AMTRAK FORCES TO INSTALL RAIL JOINTS FOR TRACK PANEL IN ADVANCE OF CULVERT WORK. EXACT LIMITS TO BE COORDINATED BETWEEN AMTRAK AND THE CONTRACTOR.
2. INSTALL SEDIMENTATION AND EROSION CONTROL. INSTALL STREAM DIVERSION PUMPS IN LOCATIONS AS SHOWN ON PLANS. PUMPS SHOULD DISCHARGE ONTO A STABLE VELOCITY DISSIPATOR MADE OF RIPRAP OR SANDBAGS. STREAM DIVERSION PUMP INTAKE HOSE SHALL BE PLACED IN A SUMP HOLE OR POOL 1'-6" DEEP BY 2'-0" DIA. INSTALL EQUALIZATION PIPE.
3. INSTALL CLEAN WATER SANDBAG DIKE. ACTIVATE STREAM DIVERSION PUMPS.
4. INSTALL DEWATERING BASIN, SEDIMENT BAG OR OTHER APPROVED DEVICE. INSTALL DEWATERING PUMP. INSTALL SANDBAG SEDIMENT DIKE. ACTIVATE DEWATERING PUMP IN WORK AREA.
5. CONSTRUCT CONSTRUCTION ACCESS ROAD. REMOVE EXISTING CULVERT INLET TO LIMIT OF STAGE 1 CONSTRUCTION.
6. PREPARE BEDDING MATERIAL AS SHOWN IN PIPE INSTALLATION DETAIL. PLACE PIPE AND HEADWALL FOR INLET TO LIMIT OF STAGE 1 CONSTRUCTION AS SHOWN ON PLANS.
7. INSTALL SAFETY RAILING FOR EASTERN HEADWALL.
8. BACKFILL AND GRADE WITHIN THE LIMIT OF STAGE 1 CONSTRUCTION.

SCALE IN FEET
0 40 80

STAGE 1 CONSTRUCTION PLAN

UNNAMED TRIBUTARY
MP 28.57
STA. 1474+70 - 1481+00

CTDOT PROJECT NO.: 170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

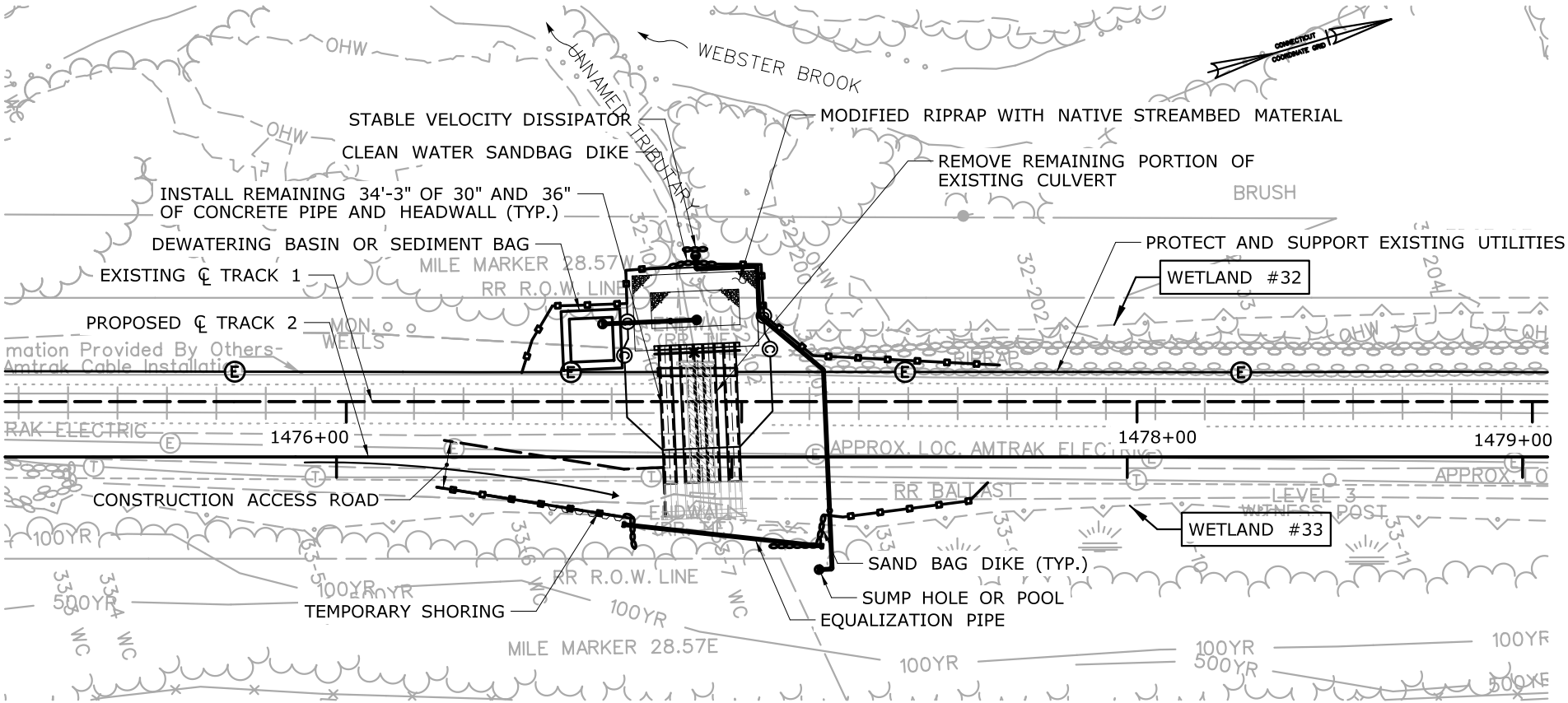
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE: MAR 2014
WETLAND ID No. 32-100 & 33
WATERCOURSE UNNAMED TRIBUTARY
PLATE 1.3G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 28.57_04.dgn



STAGE 2:

1. TRACK 1 TO BE TAKEN OUT OF SERVICE. AMTRAK TO REMOVE TRACK PANEL AT CULVERT.
2. REMOVE REMAINDER OF EXISTING STRUCTURE.
3. PREPARE BEDDING MATERIAL AS SHOWN IN PIPE INSTALLATION DETAIL. PLACE PIPE AND HEADWALL FOR OUTLET AS SHOWN ON PLANS MATCHING IN WITH STAGE 1 CONSTRUCTION. INSTALL SAFETY RAILING FOR WESTERN HEADWALL.
4. BACKFILL AND GRADE WITHIN THE LIMIT OF STAGE 2 CONSTRUCTION, MATCHING IN WITH STAGE 1 CONSTRUCTION. INSTALL PROPOSED OUTLET RIPRAP. REMOVE CONSTRUCTION ACCESS ROAD.
5. REMOVE STREAM DIVERSION PUMPS, SANDBAG DIKES AND DEWATERING BASIN. AMTRAK TO RESTORE TRACK 1, FOR SERVICE. REMOVE SEDIMENTATION AND EROSION CONTROL.

SCALE IN FEET
0 40 80

STAGE 2 CONSTRUCTION PLAN

UNNAMED TRIBUTARY
MP 28.57
STA. 1474+70 - 1481+00

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

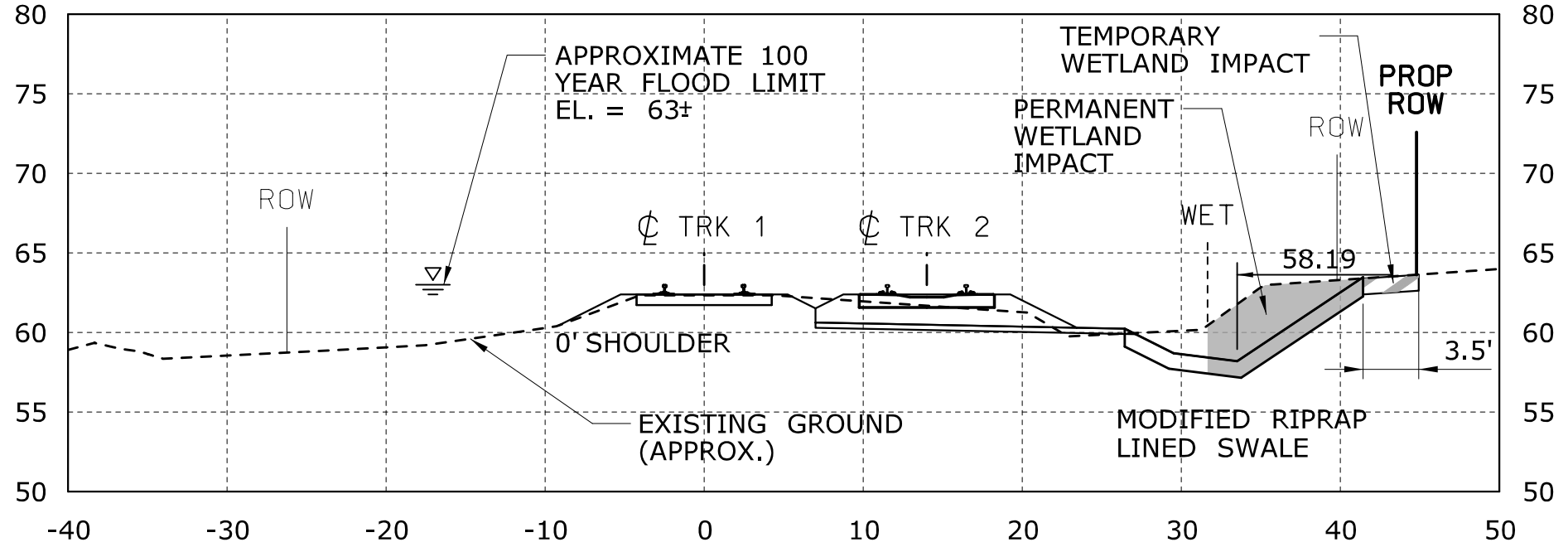
LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
32-100 & 33
WATERCOURSE
UNNAMED TRIBUTARY

PLATE 1.4G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 28.57_05.dgn



1476+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 33
MP 28.57
STA. 1474+70 - 1481+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

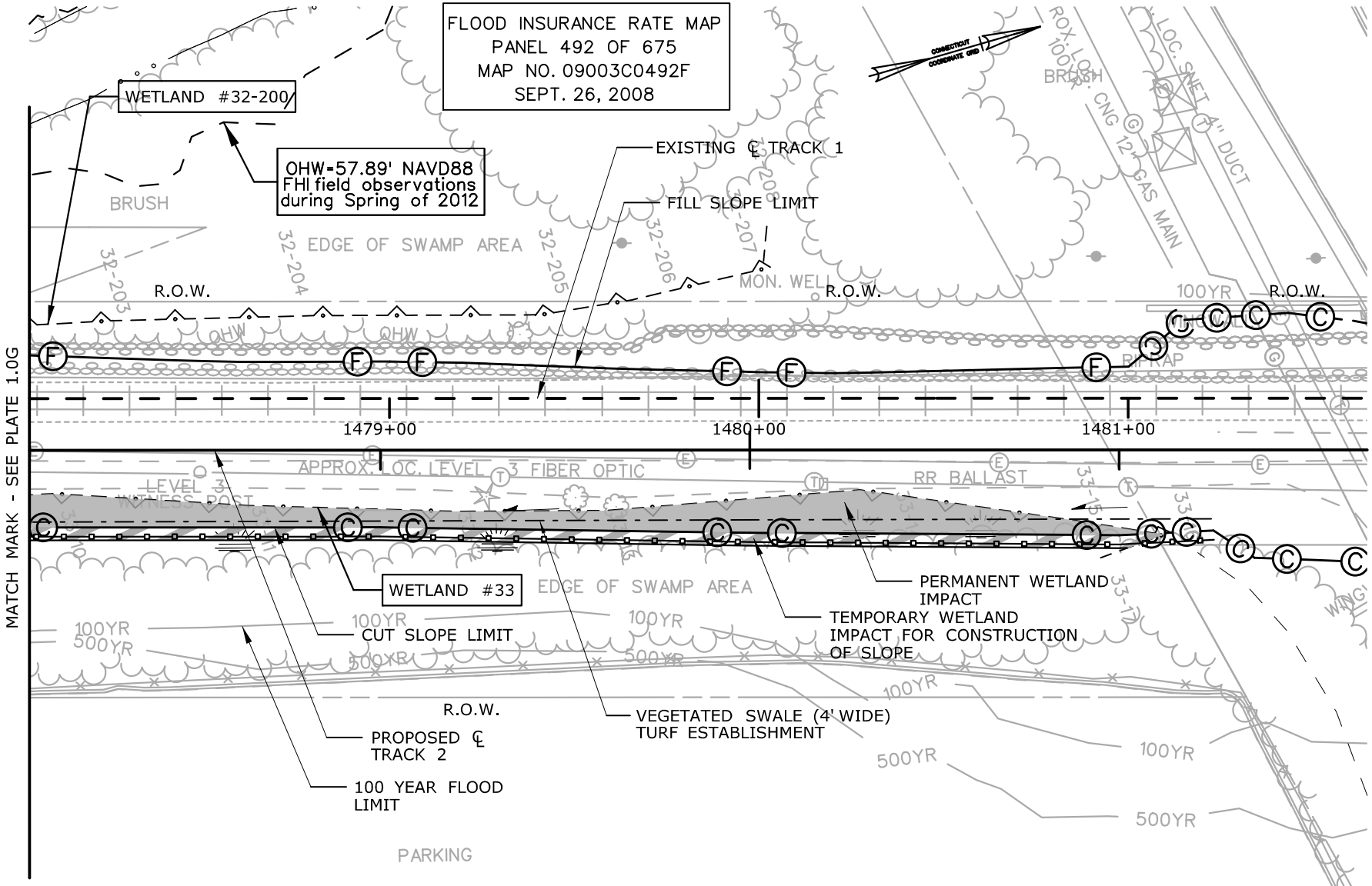
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.33

PLATE 1.6G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 1.6G.dgn



SEE PLATE 1.0G FOR TOTAL WETLAND ID 33 IMPACT AREAS

IMPACT PLAN

WETLAND ID 33
MP 28.57
STA. 1474+70 - 1481+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

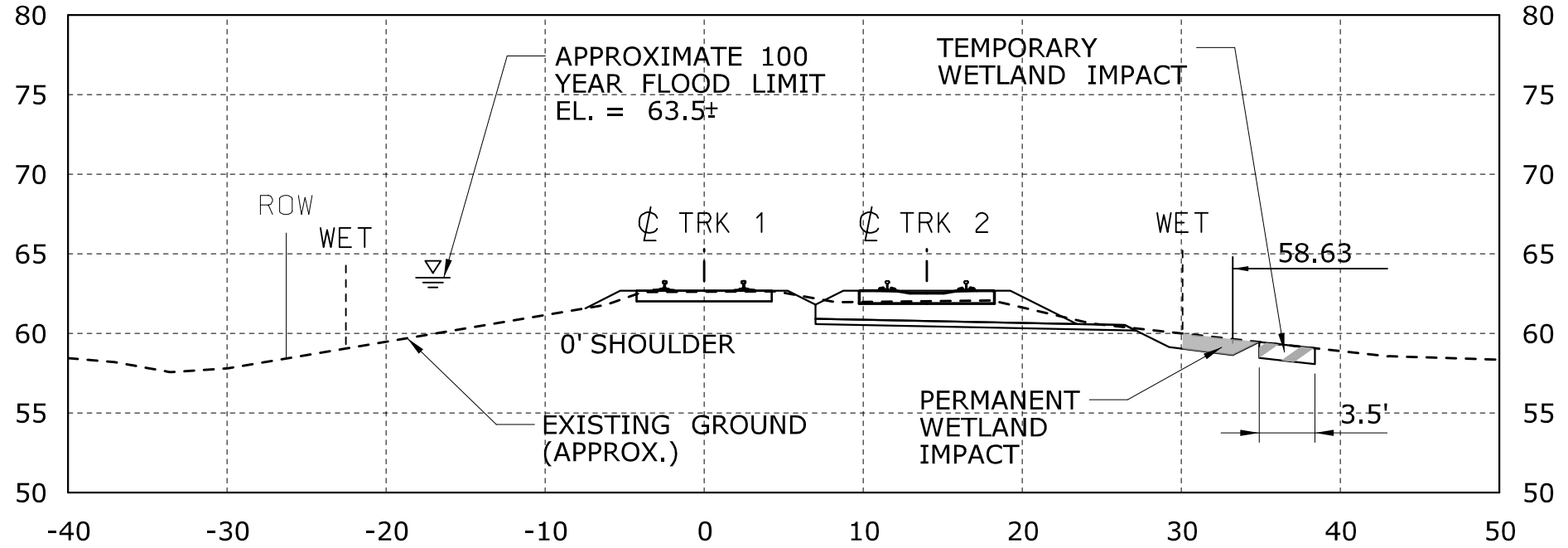
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
32-200 & 33

PLATE 2.0G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 2.0G.dgn



1479+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 33
MP 28.57
STA. 1474+70 - 1481+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

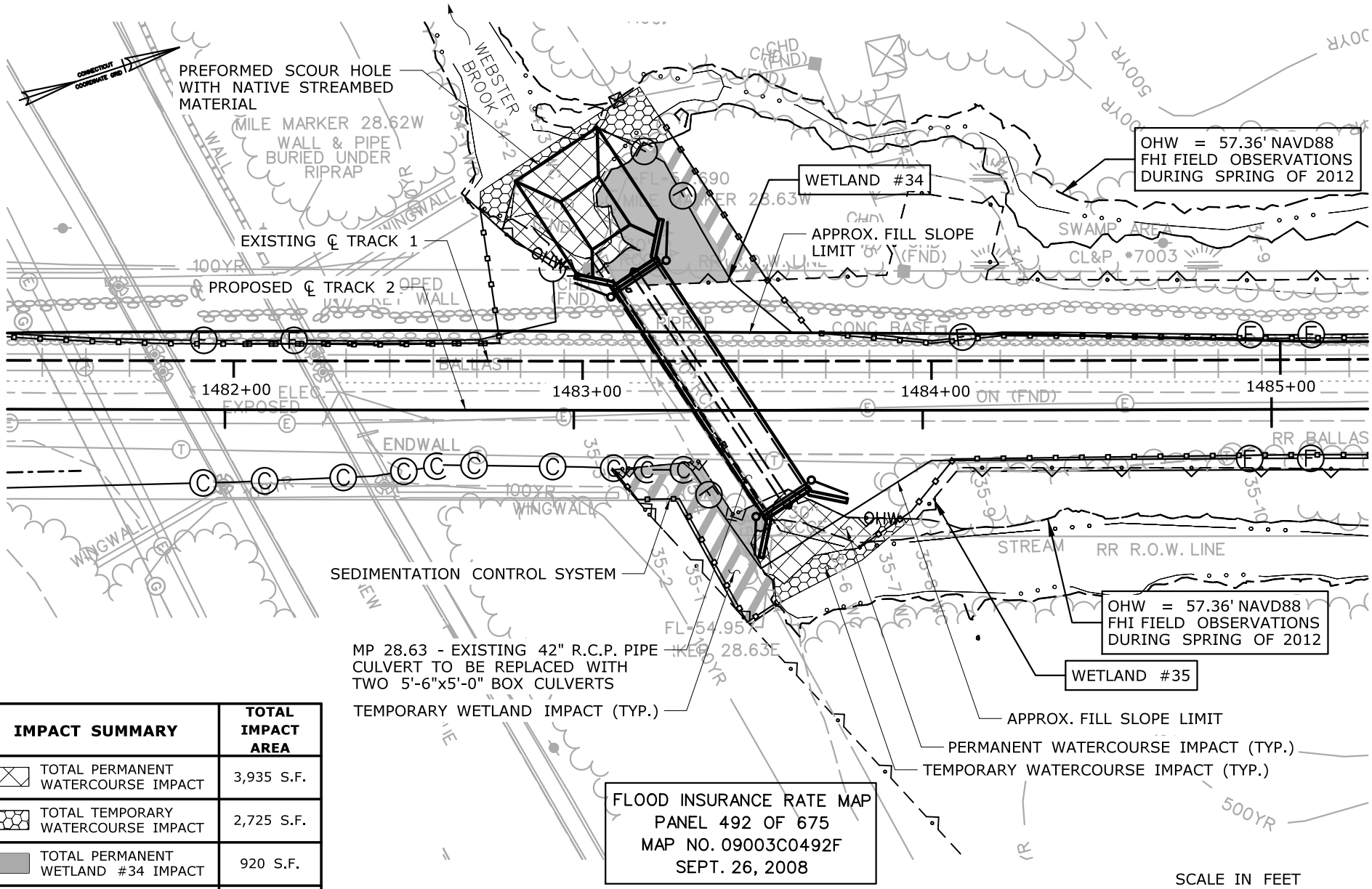
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.33

PLATE 2.1G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_007_01_PER_PER_Permit Plate 2.1G.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	3,935 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	2,725 S.F.
TOTAL PERMANENT WETLAND #34 IMPACT	920 S.F.
TOTAL TEMPORARY WETLAND #34 IMPACT	320 S.F.

SEE PLATE 4.0G FOR TOTAL WETLAND ID 35 IMPACT AREAS

IMPACT PLAN
WEBSTER BROOK
WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

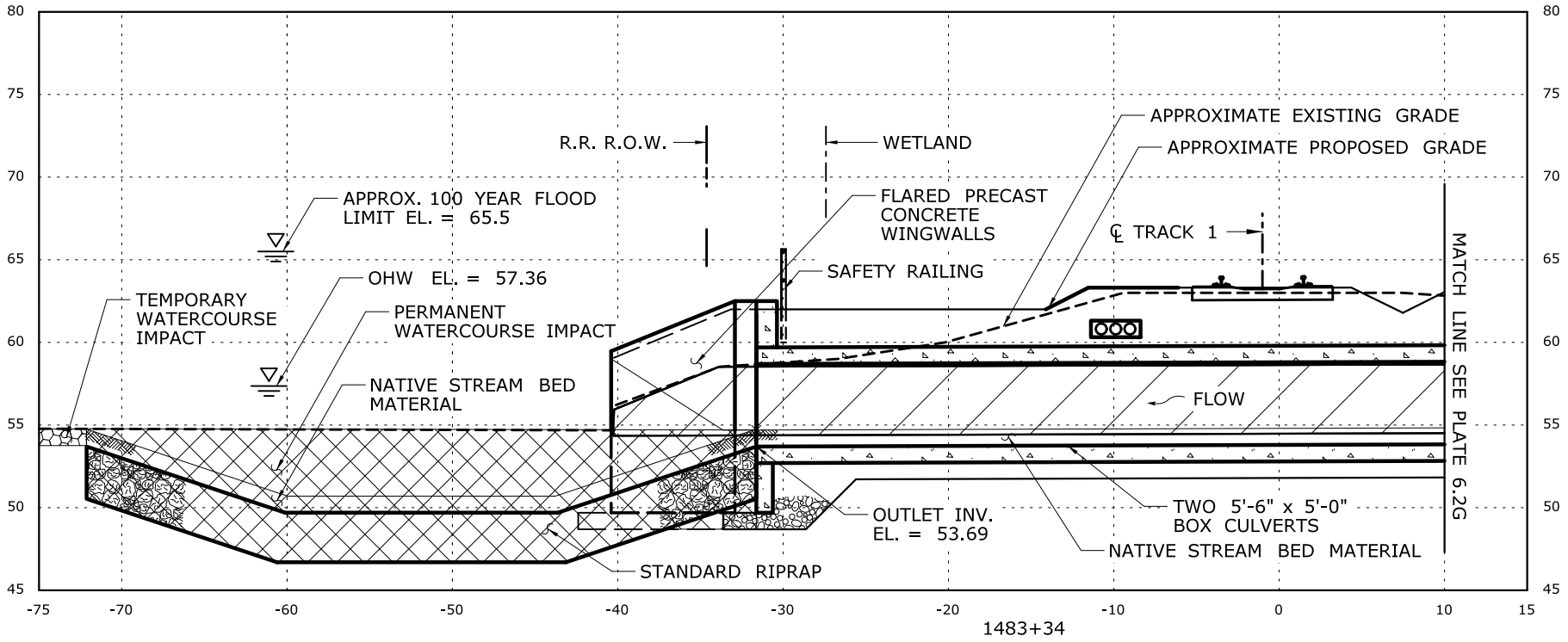
LOCHNER
H.W. LOCHNER, INC
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.0G OF8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER__MP 28.63_01.dgn



SCALE IN FEET

0 10 20

IMPACT SECTION

WEBSTER BROOK
WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
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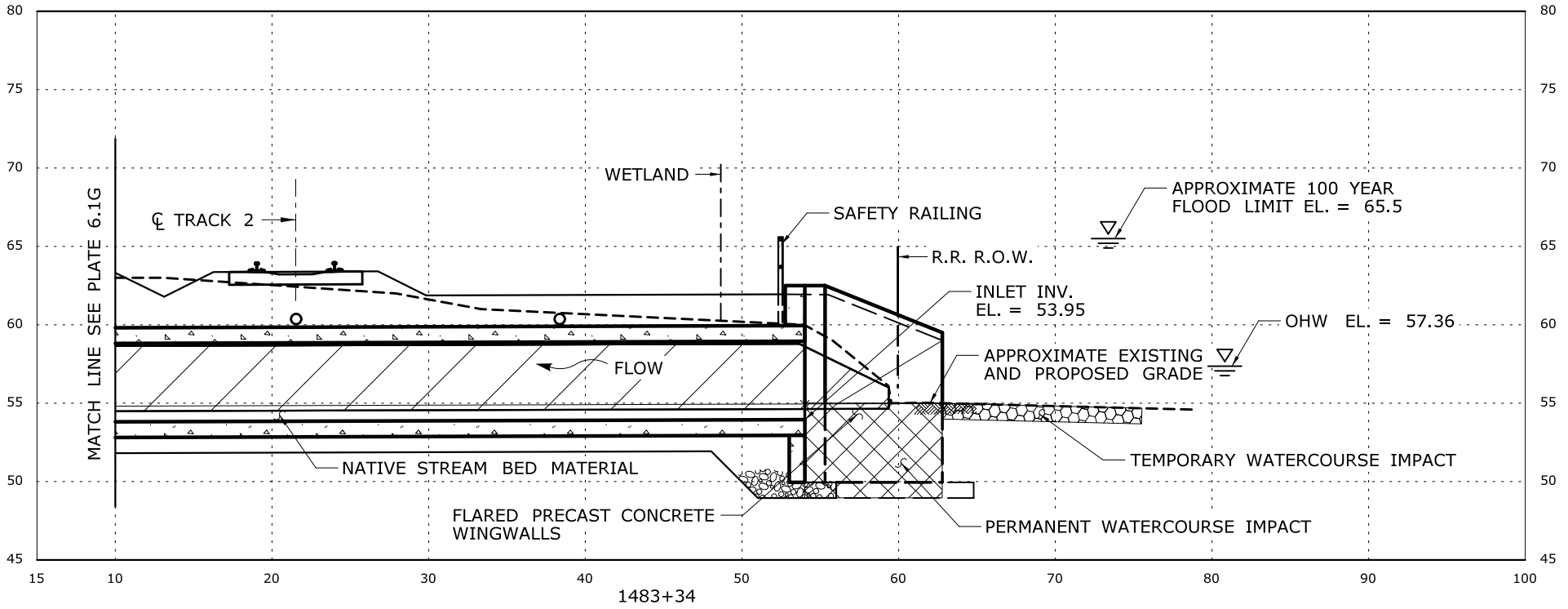
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DATE:
MAR 2014

WETLAND ID No. 34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.1G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 28.63_02.dgn



SCALE IN FEET

0 10 20

IMPACT SECTION

WEBSTER BROOK
WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

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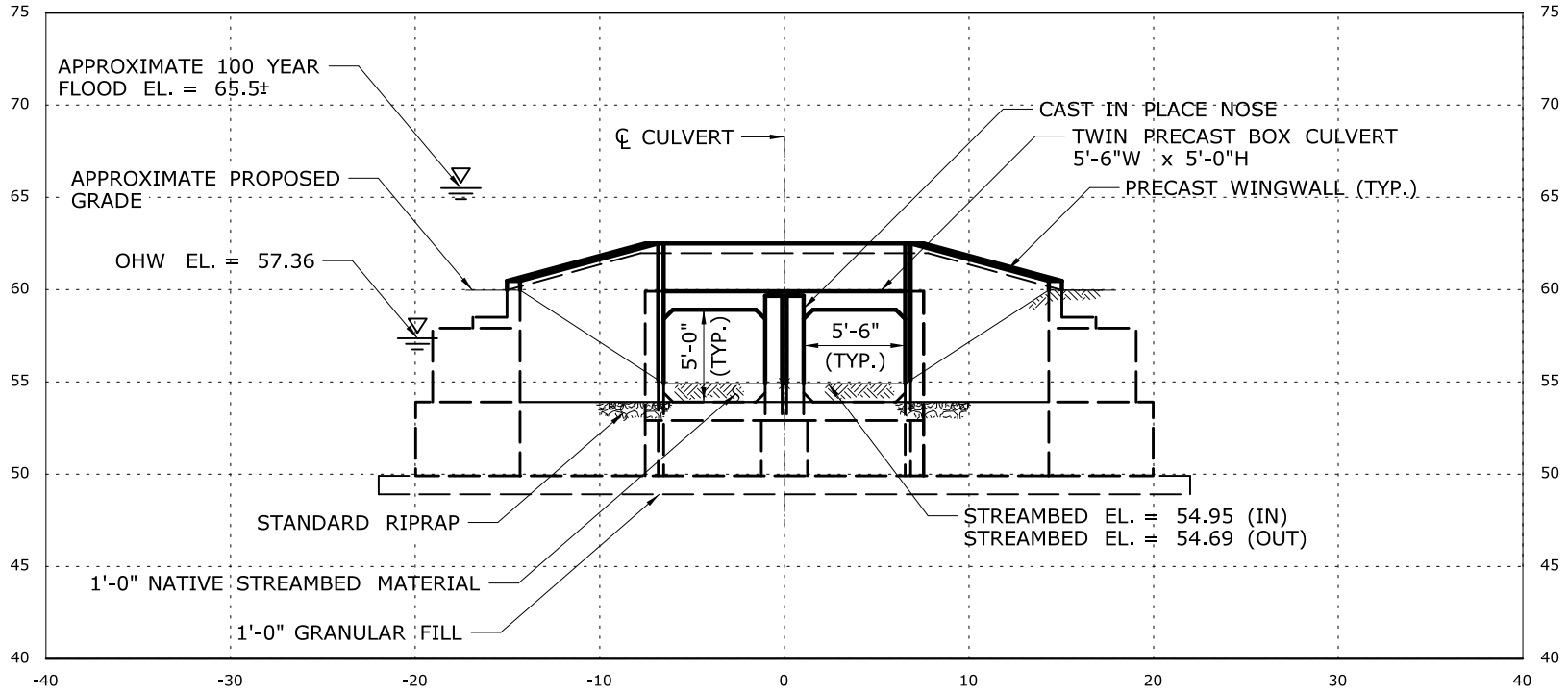
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DATE:
MAR 2014

WETLAND ID No. 34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.2G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 28.63_03.dgn



ELEVATION

TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	1.52 CFS
AVERAGE SPRING FLOW	2.94 CFS
2-YEAR FREQUENCY DISCHARGE	242.2 CFS
TEMPORARY DESIGN DISCHARGE	14.36 CFS
TEMPORARY DESIGN FREQUENCY	1/4 YEAR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	56.8'
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	56.8'

SCALE IN FEET
0 10 20

IMPACT ELEVATION

WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

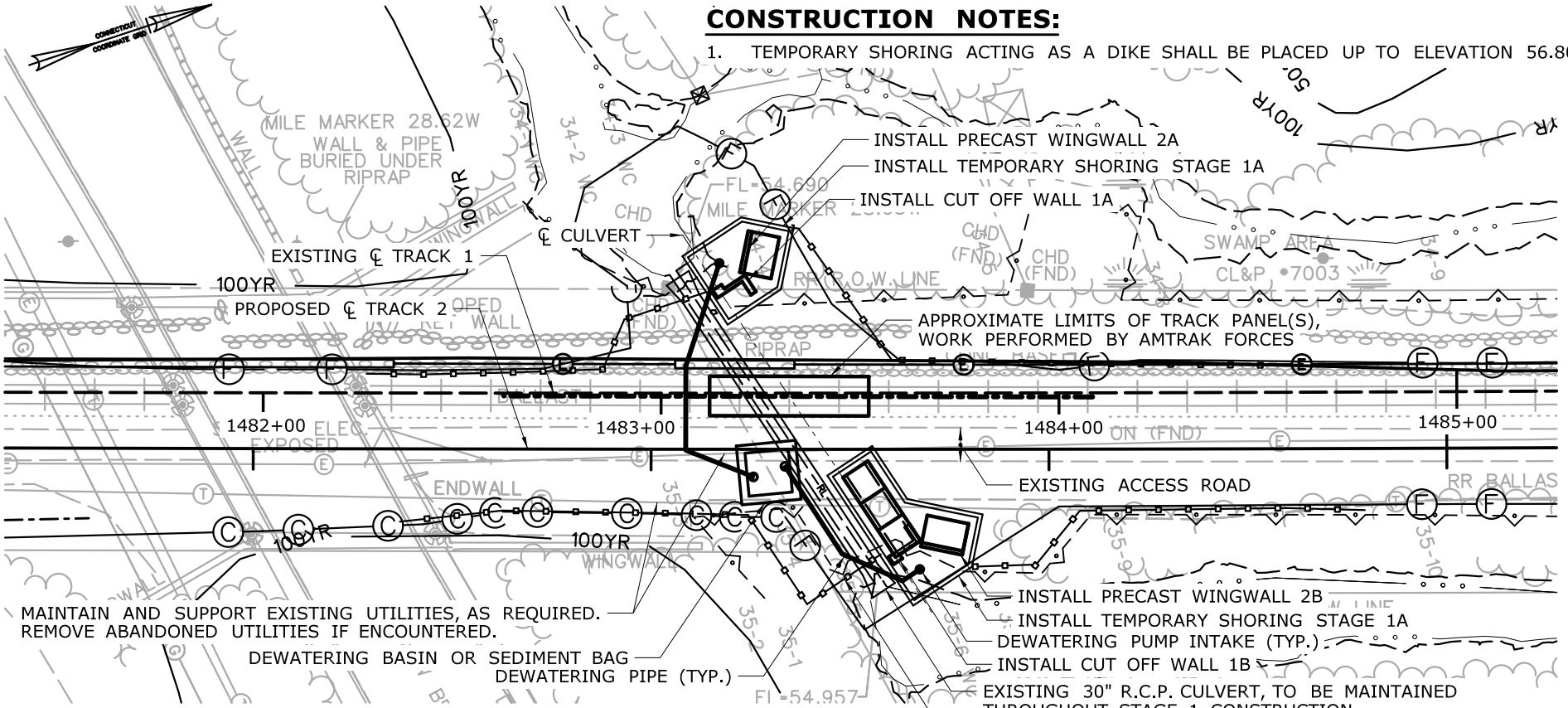
LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No. 34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.3G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER__MP 28.63_04.dgn



CONSTRUCTION NOTES:

1. TEMPORARY SHORING ACTING AS A DIKE SHALL BE PLACED UP TO ELEVATION 56.80'.

STAGE 1A:

1. STAGE 1A WORK SHALL BE PERFORMED DURING FOUL TIME AND TRACK IN SERVICE.
2. CLEARING AND GRUBBING SHALL BE COMPLETED PRIOR TO STARTING THE CULVERT CONSTRUCTION.
3. INSTALL SEDIMENTATION CONTROL SYSTEMS AND INSTALL DEWATERING BASIN(S).
4. MAINTAIN STREAM FLOW THROUGH THE EXISTING 30" R.C.P. CULVERT AND INSTALL TEMPORARY DIKES.
5. INSTALL TEMPORARY SHORING AS REQUIRED FOR STAGE 1A.
6. EXCAVATE AND BEGIN DEWATERING OF WORK AREA(S).
8. INSTALL NORTH PORTION OF CUT OFF WALLS, INSTALL WINGWALL 2A AND 1A. INSTALL THREE SECTIONS OF PRECAST CULVERT (BARREL 2).

SCALE IN FEET
0 40 80

STAGE 1 CONSTRUCTION PLAN

WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
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SCALE:1"=40'

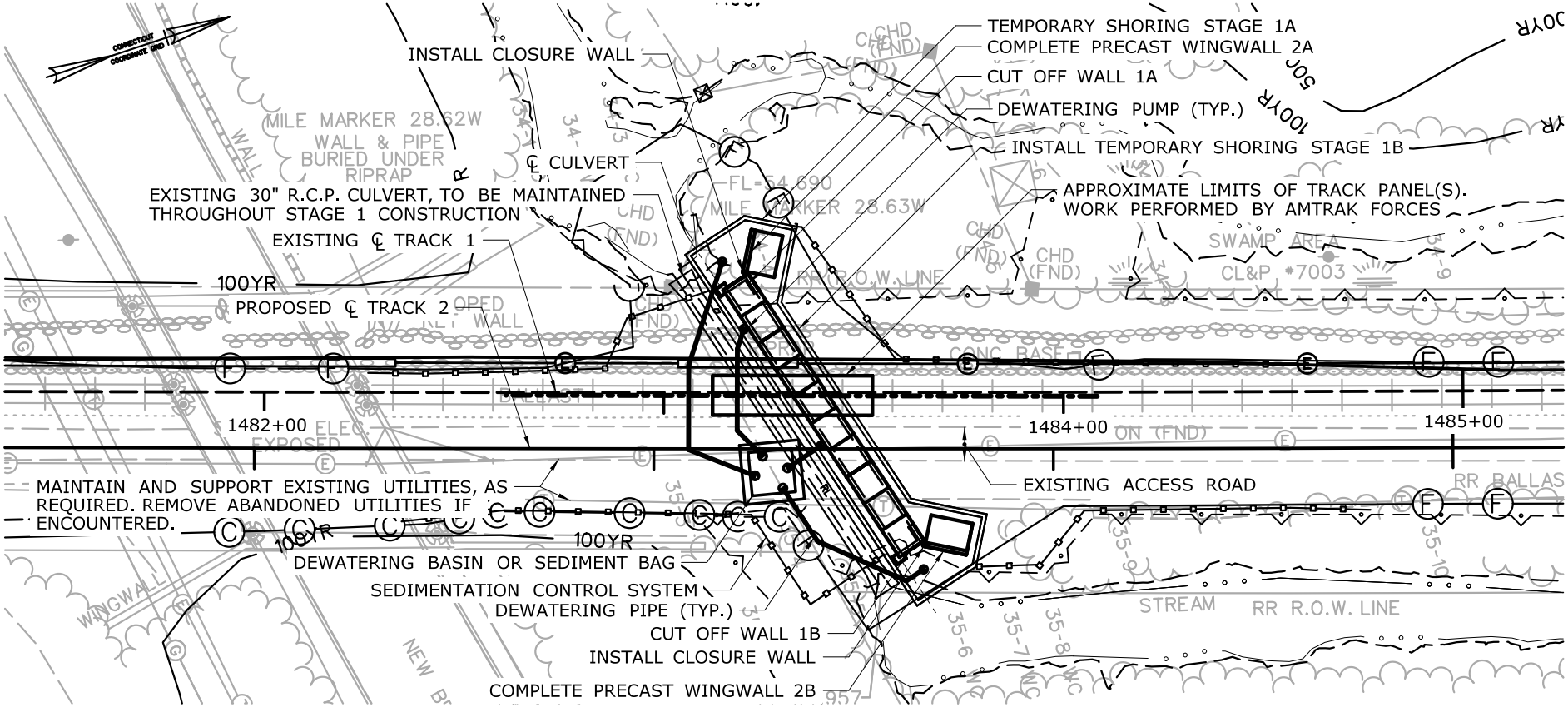
DATE:
MAR 2014

WETLAND ID No. 34 & 35

WATERCOURSE
WEBSTER BROOK

PLATE 3.4G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 28.63_05.dgn



STAGE 1B:

1. STAGE 1B WORK SHALL BE PERFORMED DURING OUTAGE.
2. MAINTAIN STREAM FLOW THROUGH THE EXISTING 30" R.C.P. CULVERT.
3. INSTALL TEMPORARY SHORING AS REQUIRED FOR STAGE 1B.
4. EXCAVATE AND CONTINUE DEWATERING OF WORK AREA(S).
5. INSTALL REMAINING SECTIONS OF PRECAST CULVERT (BARREL 2). COMPLETE WINGWALLS 2A AND 2B, INSTALL CLOSURE WALLS.

A. AMTRAK FORCES SHALL REMOVE THE TRACK PANEL(S).

B. THE CONTRACTOR SHALL: INSTALL TEMPORARY SHORING, EXCAVATE, INSTALL THE PRECAST BOX CULVERT, AND INSTALL PERVIOUS STRUCTURE BACKFILL.

SCALE IN FEET
0 40 80

STAGE 1B CONSTRUCTION PLAN

WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

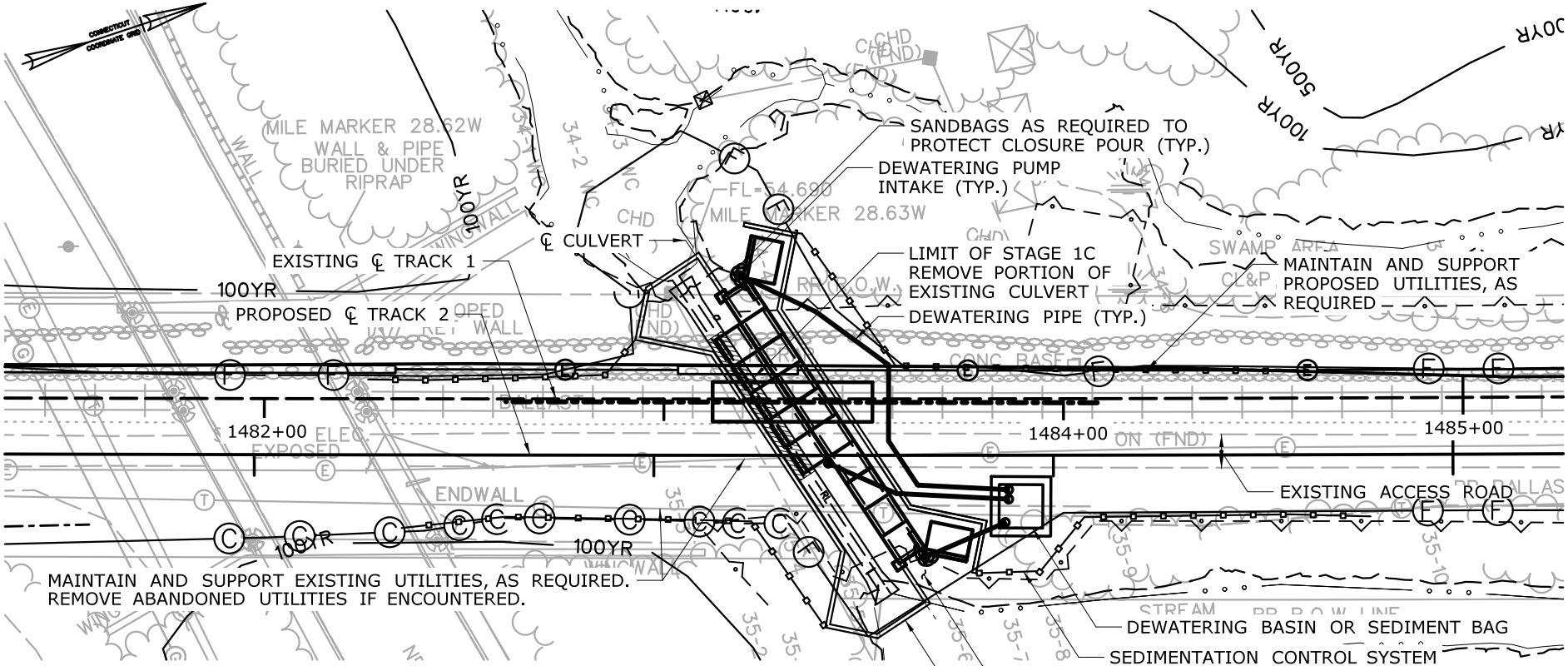
LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No. 34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.5G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 28.63_06.dgn



STAGE 1C:

1. STAGE 1C WORK SHALL BE PERFORMED DURING OUTAGE.

2. INSTALL TEMPORARY SHORING AS REQUIRED FOR STAGE 1C. DIVERT STREAM FLOW THROUGH BARREL 2 OF THE PRECAST BOX CULVERT. CONTRACTOR TO PROTECT CLOSURE POUR WITH SANDBAGS DEWATERING AS REQUIRED. CONSTRUCT TEMPORARY DIKE SUCH THAT CAST-IN-PLACE NOSE CAN BE INSTALLED IN STAGE 2B.

3. EXCAVATE AND CONTINUE DEWATERING OF WORK AREA(S).

4. INSTALL 5 SECTIONS OF PRECAST CULVERT (BARREL 1).

A. THE CONTRACTOR SHALL: INSTALL TEMPORARY SHORING, EXCAVATE, INSTALL THE PRECAST BOX CULVERT, AND INSTALL PERVIOUS STRUCTURE BACKFILL. CONTRACTOR SHALL REMOVE TEMPORARY SHORING AND GRADE AS REQUIRED TO ALLOW AMTRAK FORCES TO RESTORE TRACK.

B. AMTRAK FORCES SHALL REINSTALL THE TEMPORARY TRACK PANEL(S) AND RESTORE TRACK SERVICE.

SCALE IN FEET
0 40 80

STAGE 1C CONSTRUCTION PLAN

WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

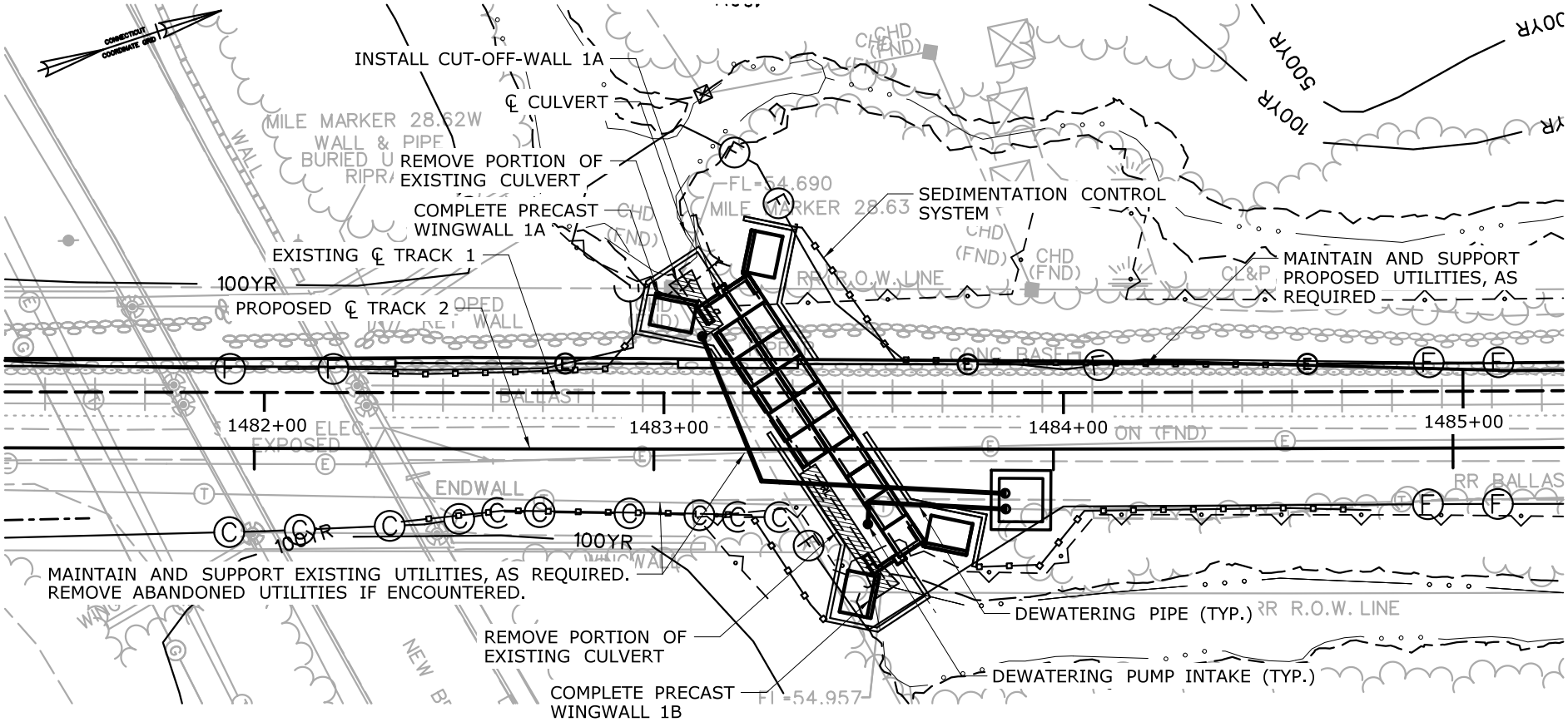
LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No. 34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.6G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 28.63_07.dgn



STAGE 2A:

1. STAGE 2A WORK SHALL BE PERFORMED DURING FOUL TIME AND TRACK IN SERVICE.
2. EXCAVATE AND BEGIN DEWATERING OF WORK AREA(S)
3. INSTALL SOUTH PORTION OF CUT OFF WALLS, INSTALL PRECAST WINGWALL 1A AND 1B.

SCALE IN FEET
0 40 80

STAGE 2A CONSTRUCTION PLAN

WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
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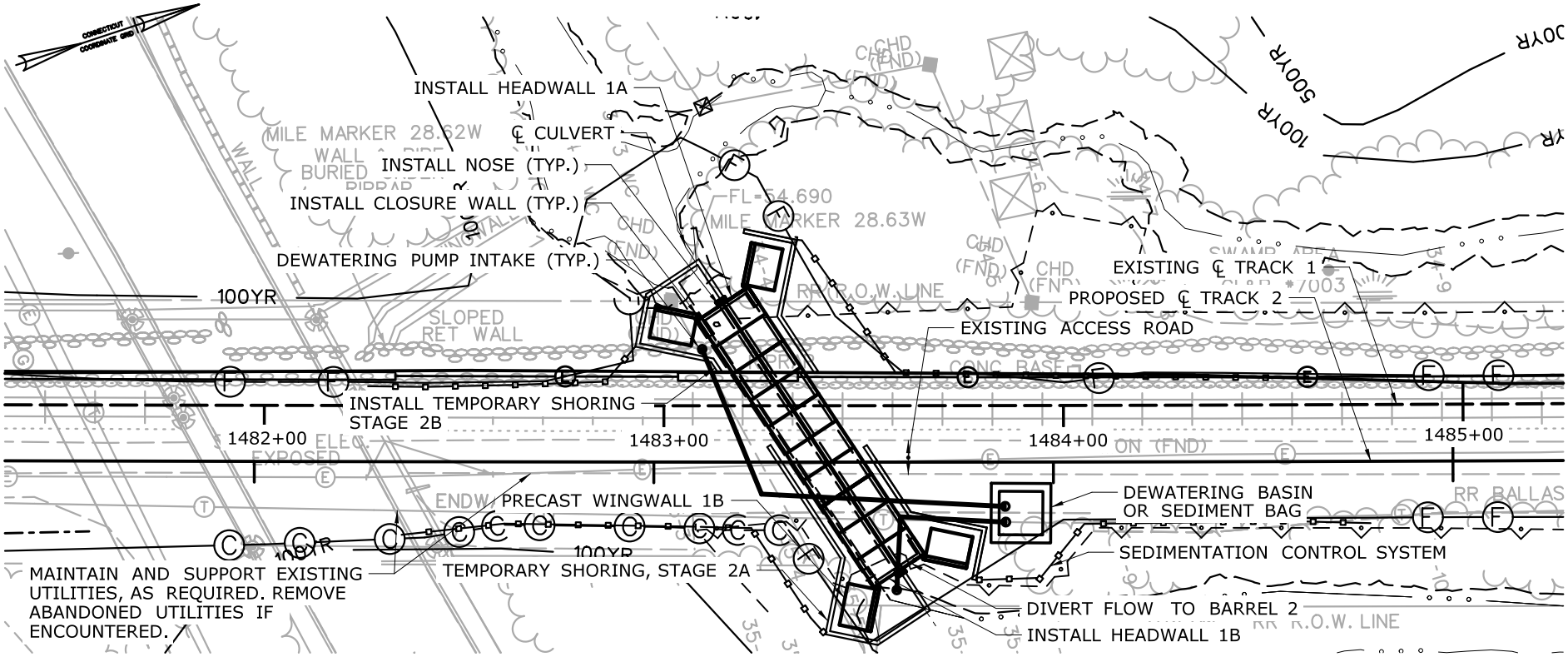
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DATE:
MAR 2014

WETLAND ID No. 34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.7G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 28.63_08.dgn



STAGE 2B:

1. STAGE 2B WORK SHALL BE PERFORMED DURING FOUL TIME AND TRACK IN SERVICE.
2. MAINTAIN STREAM FLOW THROUGH BARREL 2 OF THE PRECAST BOX CULVERT.
3. EXCAVATE AND CONTINUE DEWATERING OF WORK AREA(S).
4. INSTALL REMAINING SECTIONS OF PRECAST CULVERT (BARREL 1). COMPLETE WINGWALLS 1A AND 1B, INSTALL CLOSURE WALLS.
5. INSTALL HEADWALL 1B AND 2A.

SCALE IN FEET
0 40 80

STAGE 2B CONSTRUCTION PLAN

WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

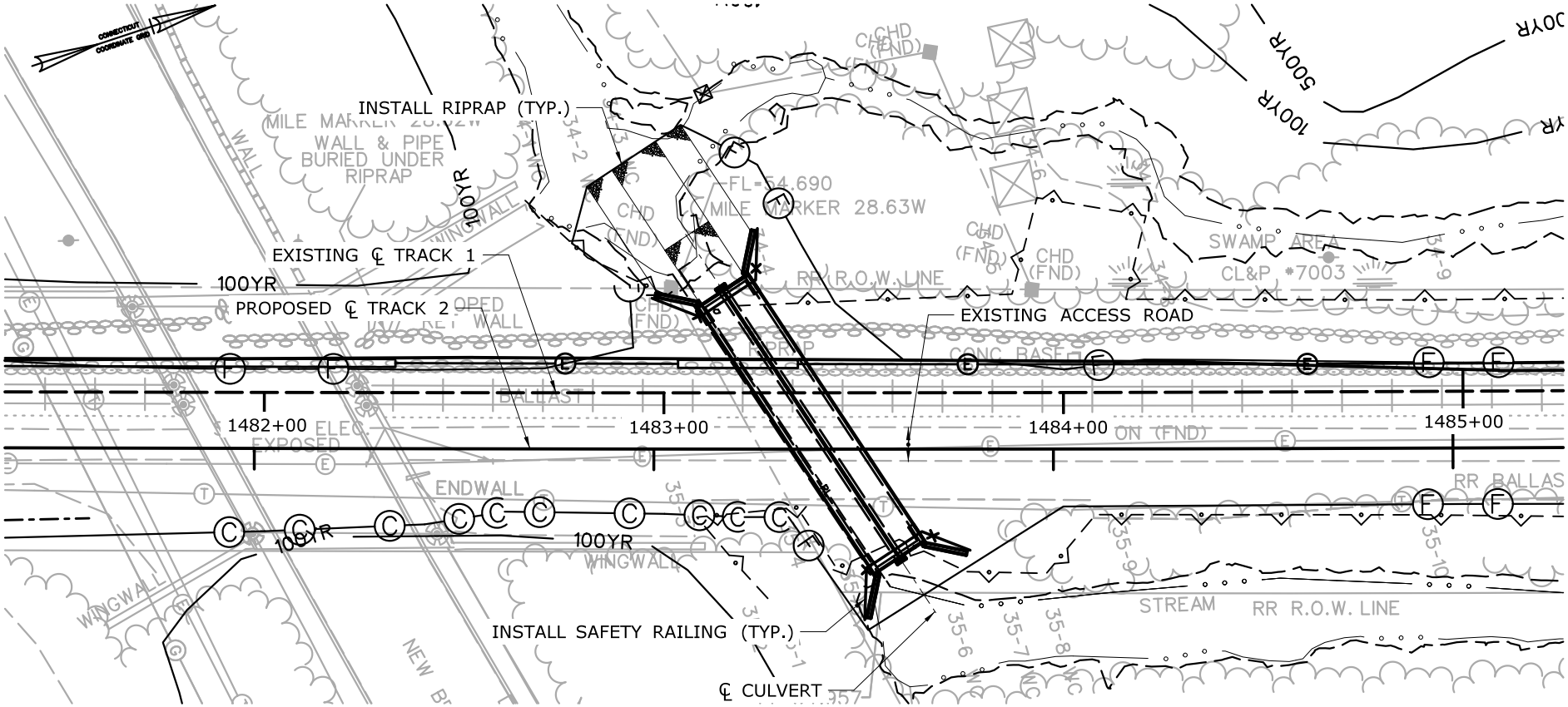
LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No. 34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.8G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 28.63_09.dgn



STAGE 2C:

1. STAGE 2C WORK SHALL BE PERFORMED DURING FOUL TIME AND TRACK IN SERVICE.
2. MAINTAIN STREAM FLOW THROUGH BARREL 2 OF THE PRECAST BOX CULVERT.
3. INSTALL OUTLET RIPRAP PROTECTION AND INSTALL NATIVE STREAMBED MATERIAL.
4. INSTALL MISCELLANEOUS ITEMS AND COMPLETE CULVERT WORK.

SCALE IN FEET

0 40 80

STAGE 2C CONSTRUCTION PLAN

WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

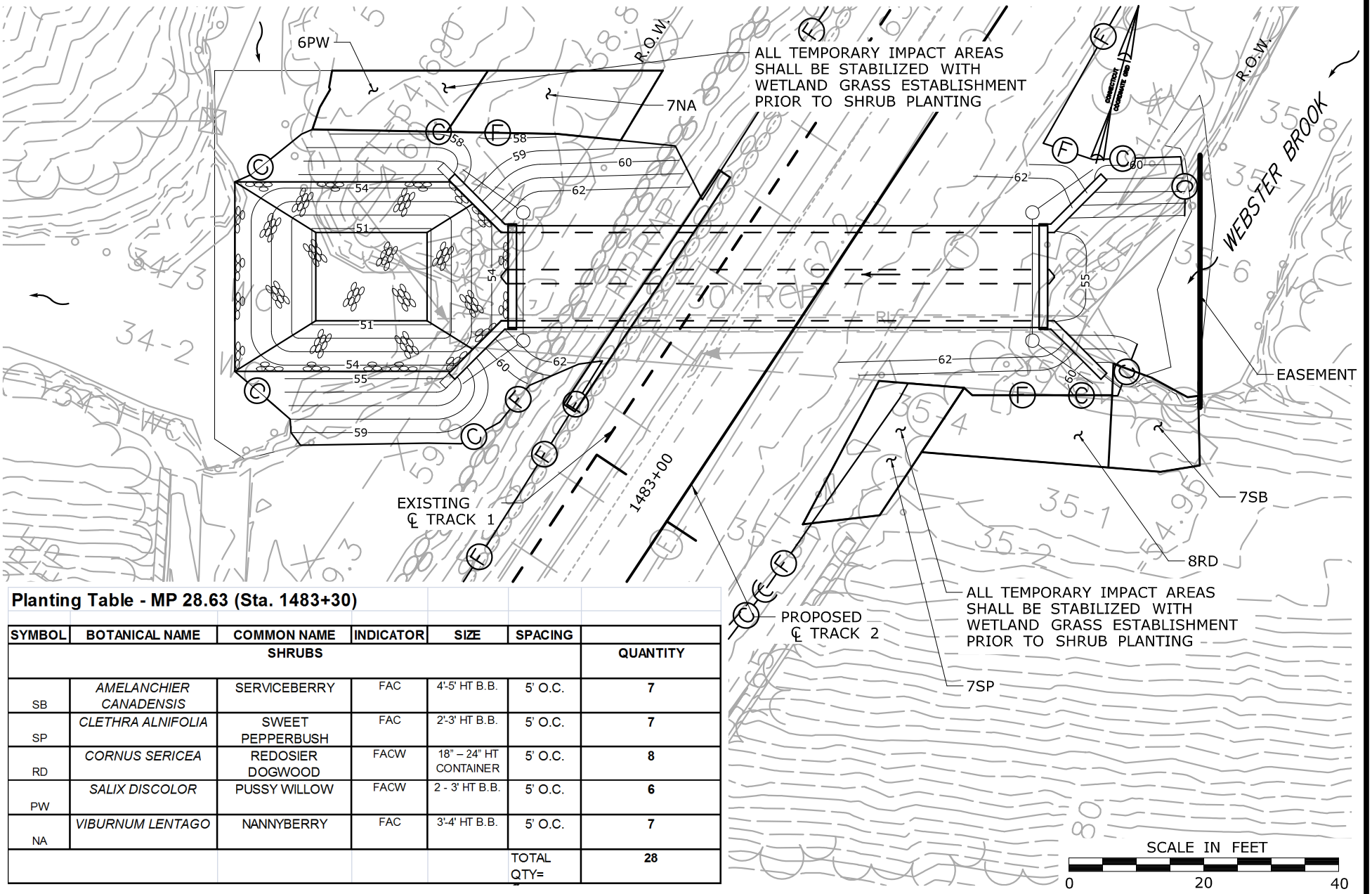
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DATE:
MAR 2014

WETLAND ID No. 34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.9G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 28.63_10.dgn



Planting Table - MP 28.63 (Sta. 1483+30)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SB	*AMELANCHIER CANADENSIS*	SERVICEBERRY	FAC	4'-5' HT B.B.	5' O.C.	**7**
SP	*CLETHRA ALNIFOLIA*	SWEET PEPPERBUSH	FAC	2'-3' HT B.B.	5' O.C.	**7**
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	**8**
PW	*SALIX DISCOLOR*	PUSSY WILLOW	FACW	2 - 3' HT B.B.	5' O.C.	**6**
NA	*VIBURNUM LENTAGO*	NANNYBERRY	FAC	3'-4' HT B.B.	5' O.C.	**7**
					TOTAL QTY=	**28**

PLANTING PLAN

WEBSTER BROOK
WETLAND ID 34 & 35
MP 28.63
STA. 1483+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

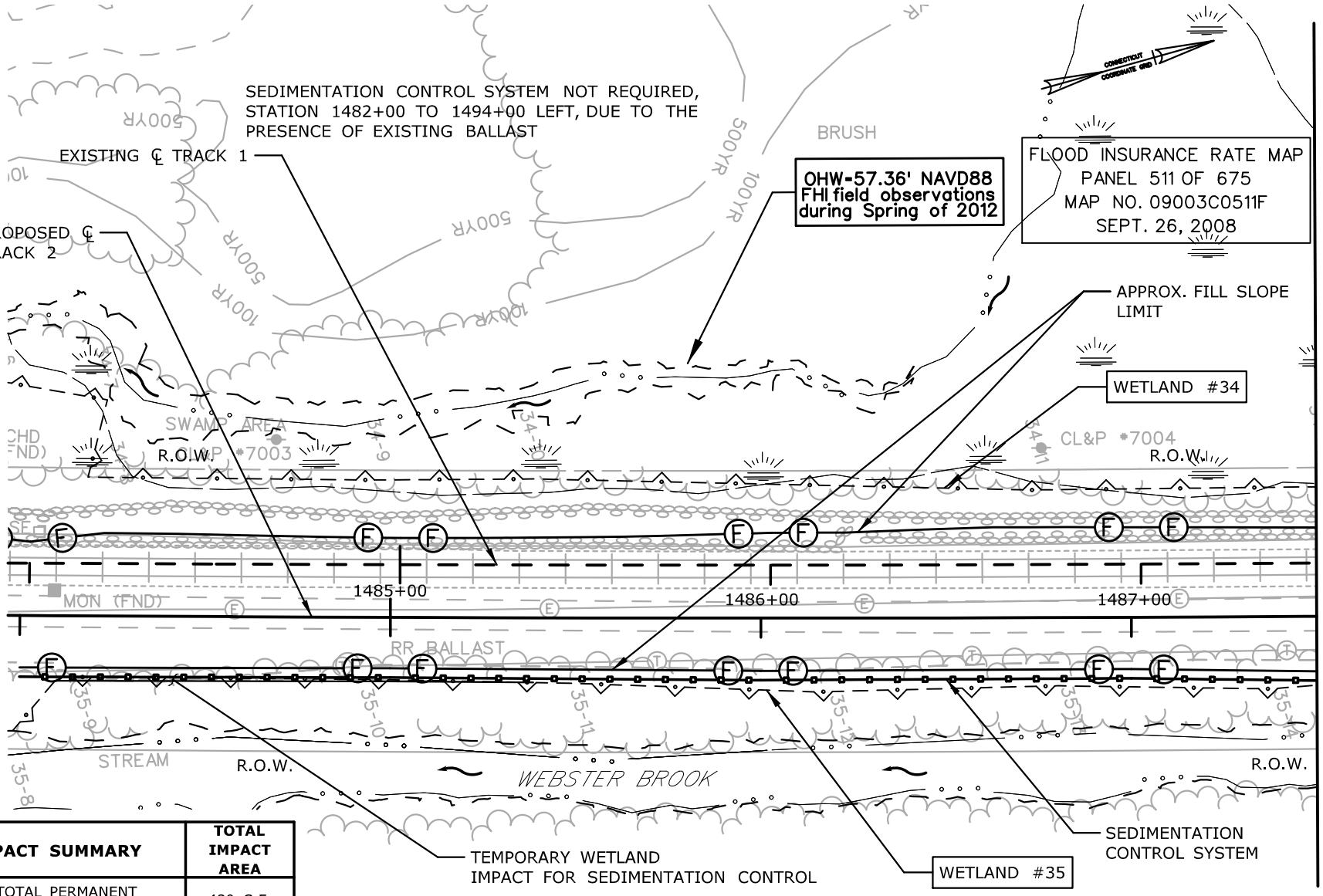
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DATE:
MAR 2014

WETLAND ID No.34 & 35
WATERCOURSE
WEBSTER BROOK

PLATE 3.10G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 3.10.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 35 IMPACT	430 S.F.
TOTAL TEMPORARY WETLAND 35 IMPACT	2,810 S.F.

IMPACT AREAS FOR WETLAND ID 35 ARE ALSO SHOWN ON PLATES 3.0G, 5.0G, 6.0G, 7.0G, 8.0G

SCALE IN FEET
0 40 80

IMPACT PLAN
WETLAND ID 35
MP 28.88
STA. 1484+00 - 1505+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

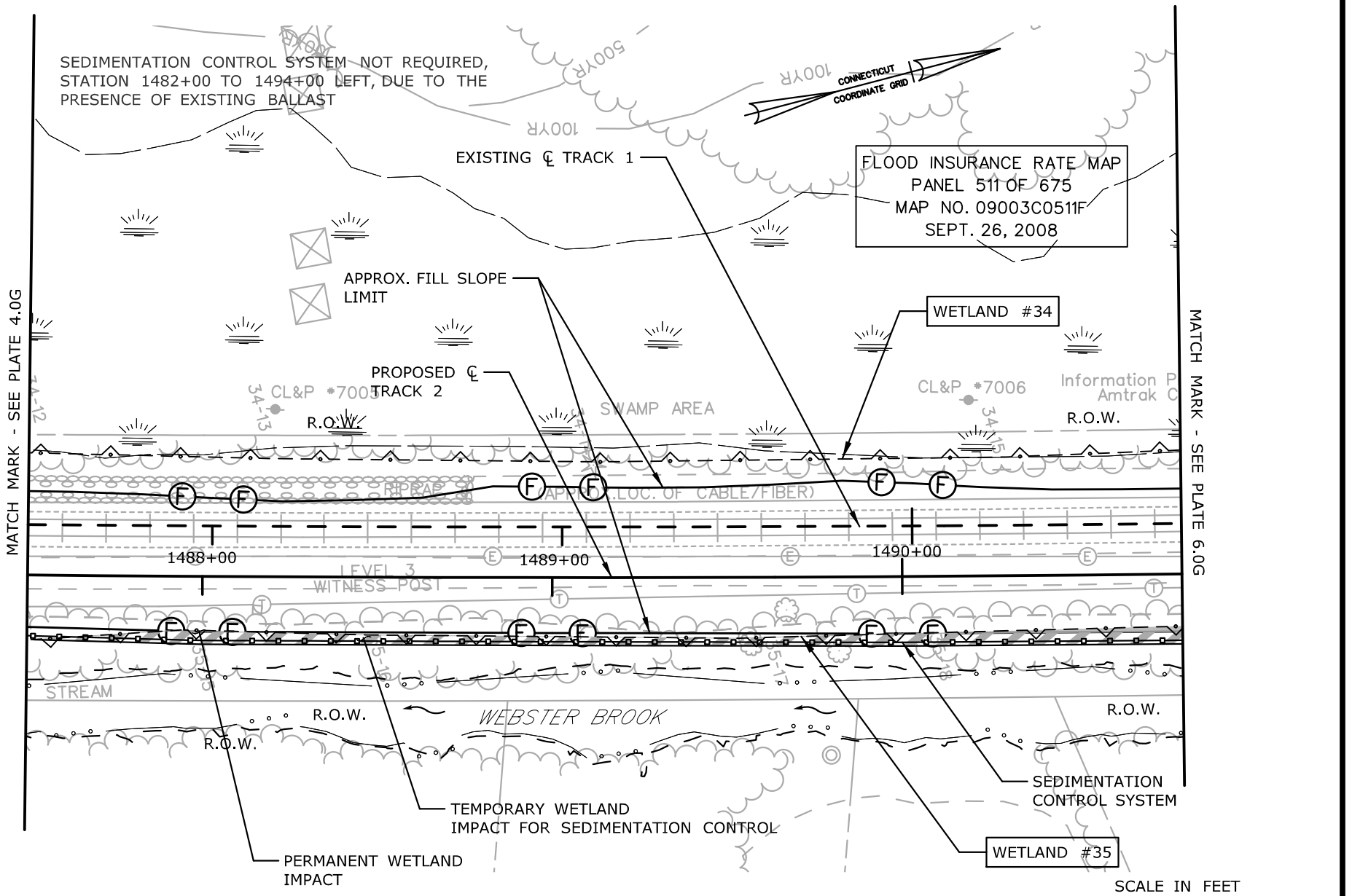
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.34 & 35

PLATE 4.0G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 4.0G.dgn



SEE PLATE 4.0G FOR TOTAL WETLAND ID 35 IMPACT AREAS

IMPACT PLAN

WETLAND ID 35
MP 28.88
STA. 1484+00 - 1505+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

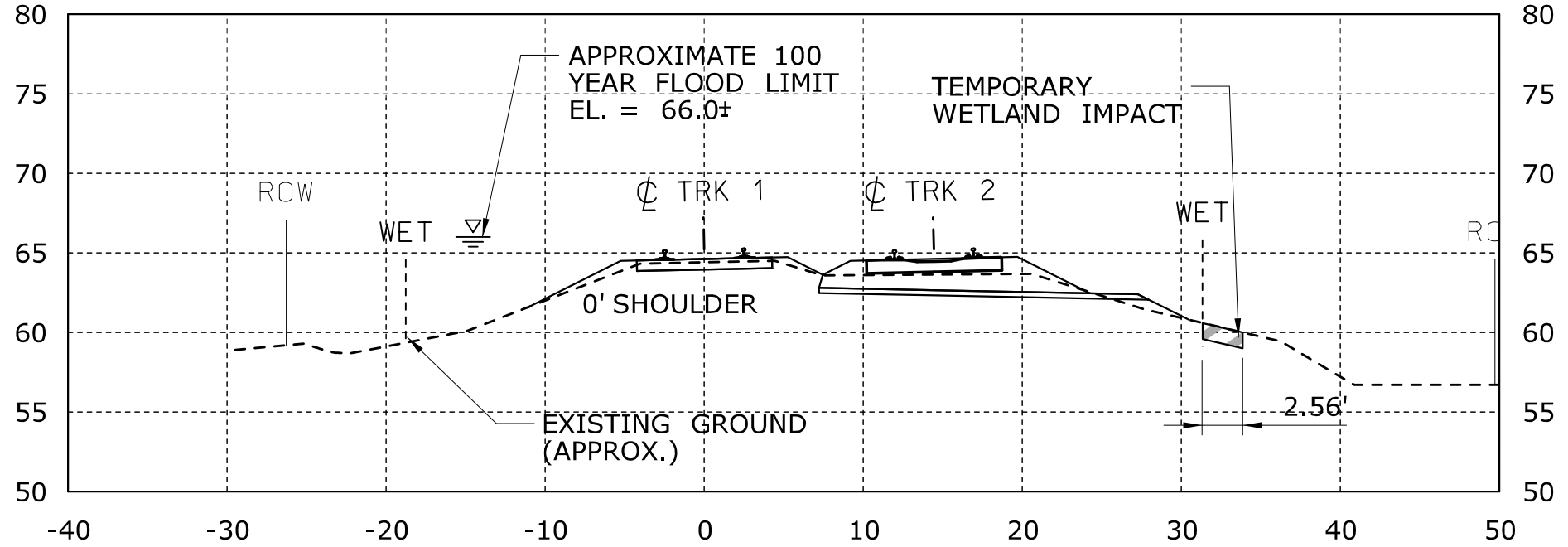
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.34 & 35

PLATE 5.0G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 5.0G.dgn



1489+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 35
MP 28.88
STA. 1484+00 - 1505+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

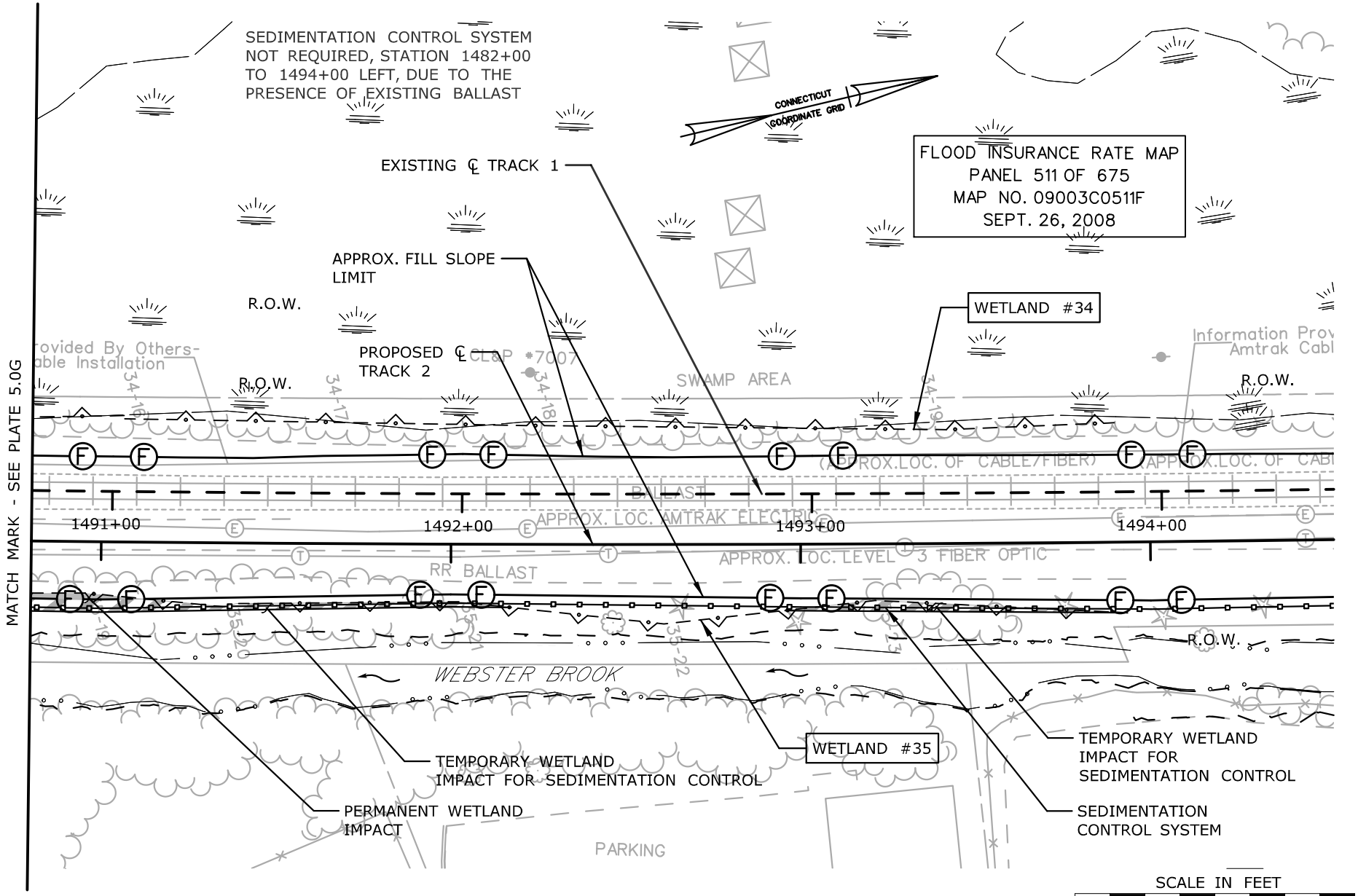
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SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.35

PLATE 5.1G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 5.1G.dgn



SEE PLATE 4.0G FOR TOTAL WETLAND ID 35 IMPACT AREAS

IMPACT PLAN

WETLAND ID 35
MP 28.88
STA. 1484+00 - 1505+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

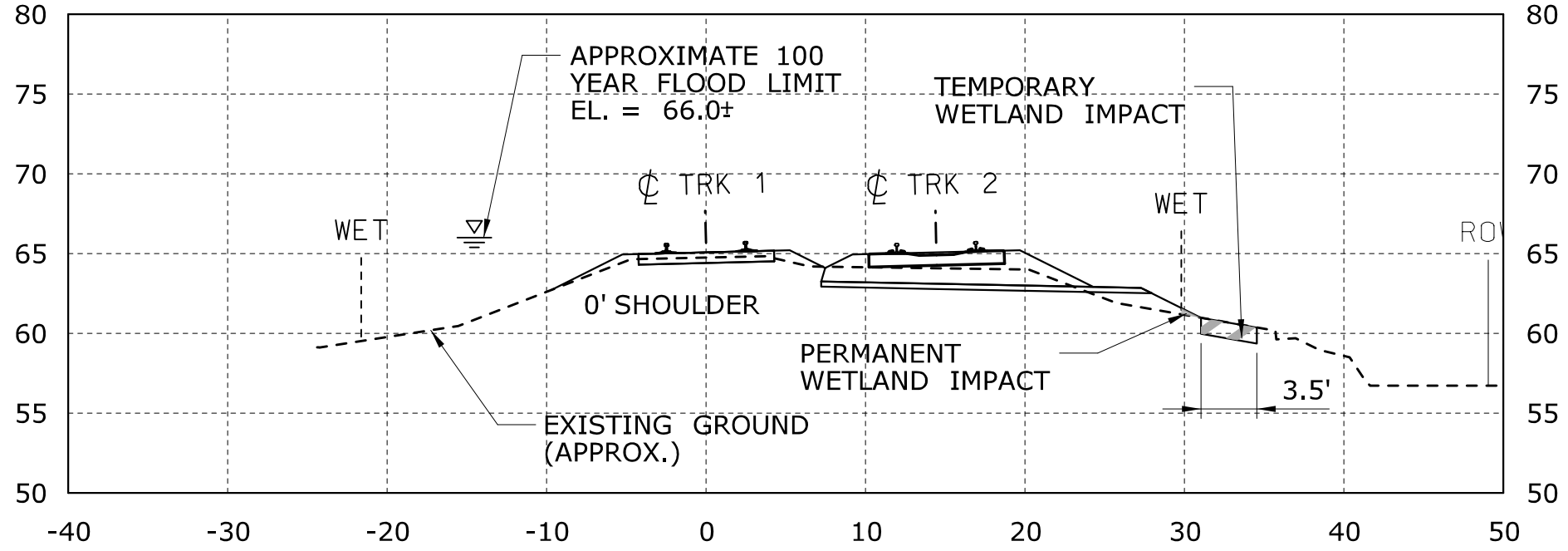
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.34 & 35

PLATE 6.0G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 6.0G.dgn



1491+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET

0 10 20

IMPACT SECTION
WETLAND ID 35
MP 28.88
STA. 1484+00 - 1505+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

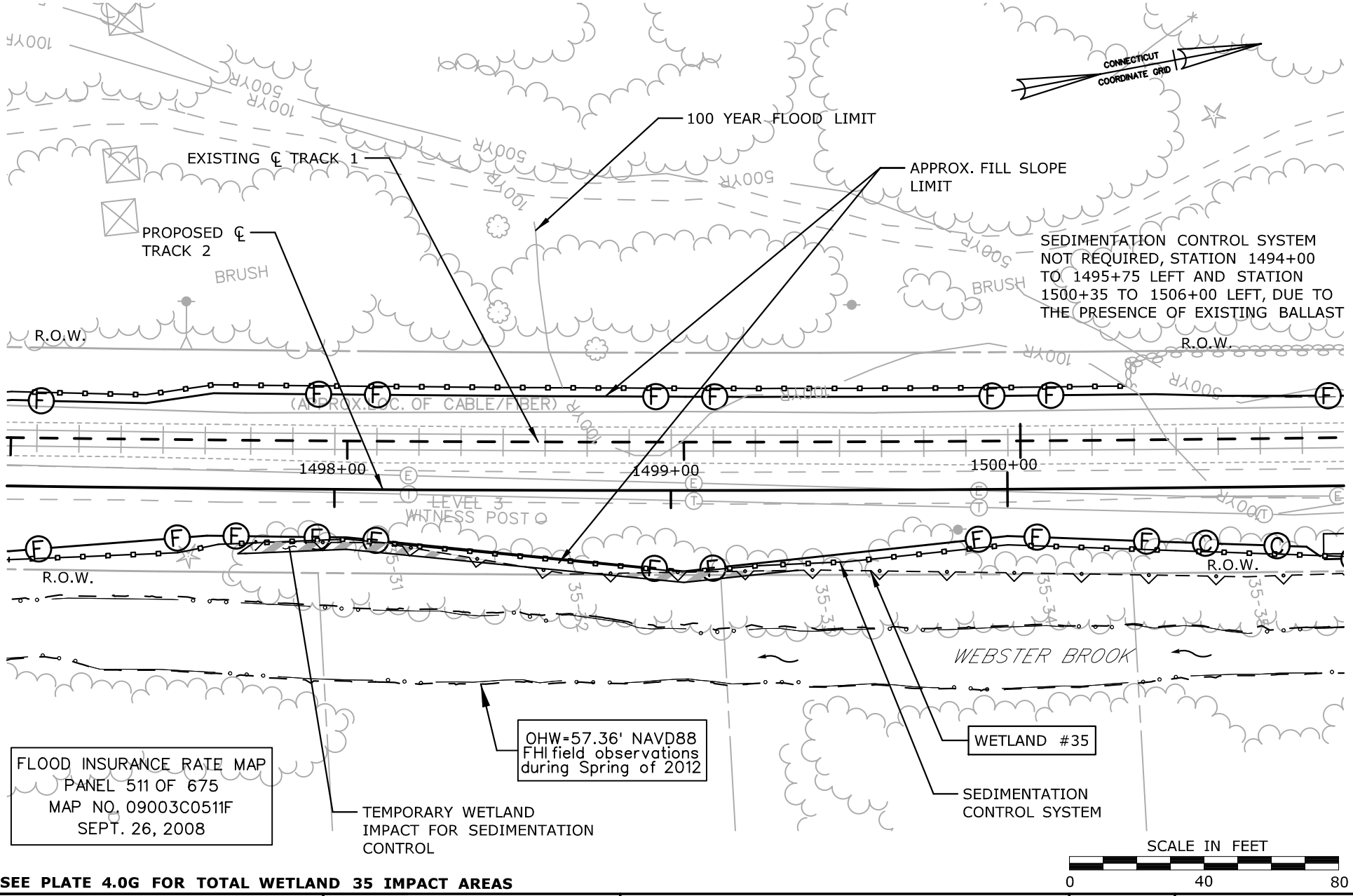
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.35

PLATE 6.1G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 6.1G.dgn



SEE PLATE 4.0G FOR TOTAL WETLAND 35 IMPACT AREAS

IMPACT PLAN

WETLAND ID 35
MP 28.89
STA. 1484+00 - 1507+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

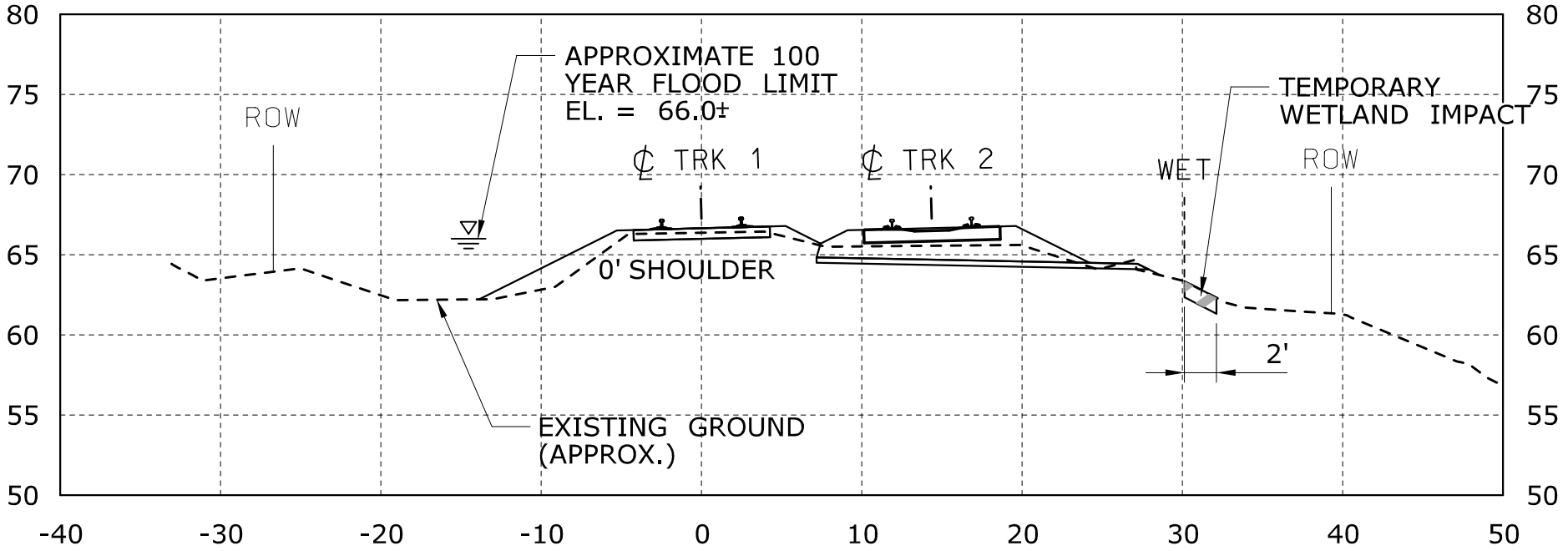
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.35

PLATE 7.0G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 7.0G.dgn



1498+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 35
MP 28.88
STA. 1484+00 - 1505+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

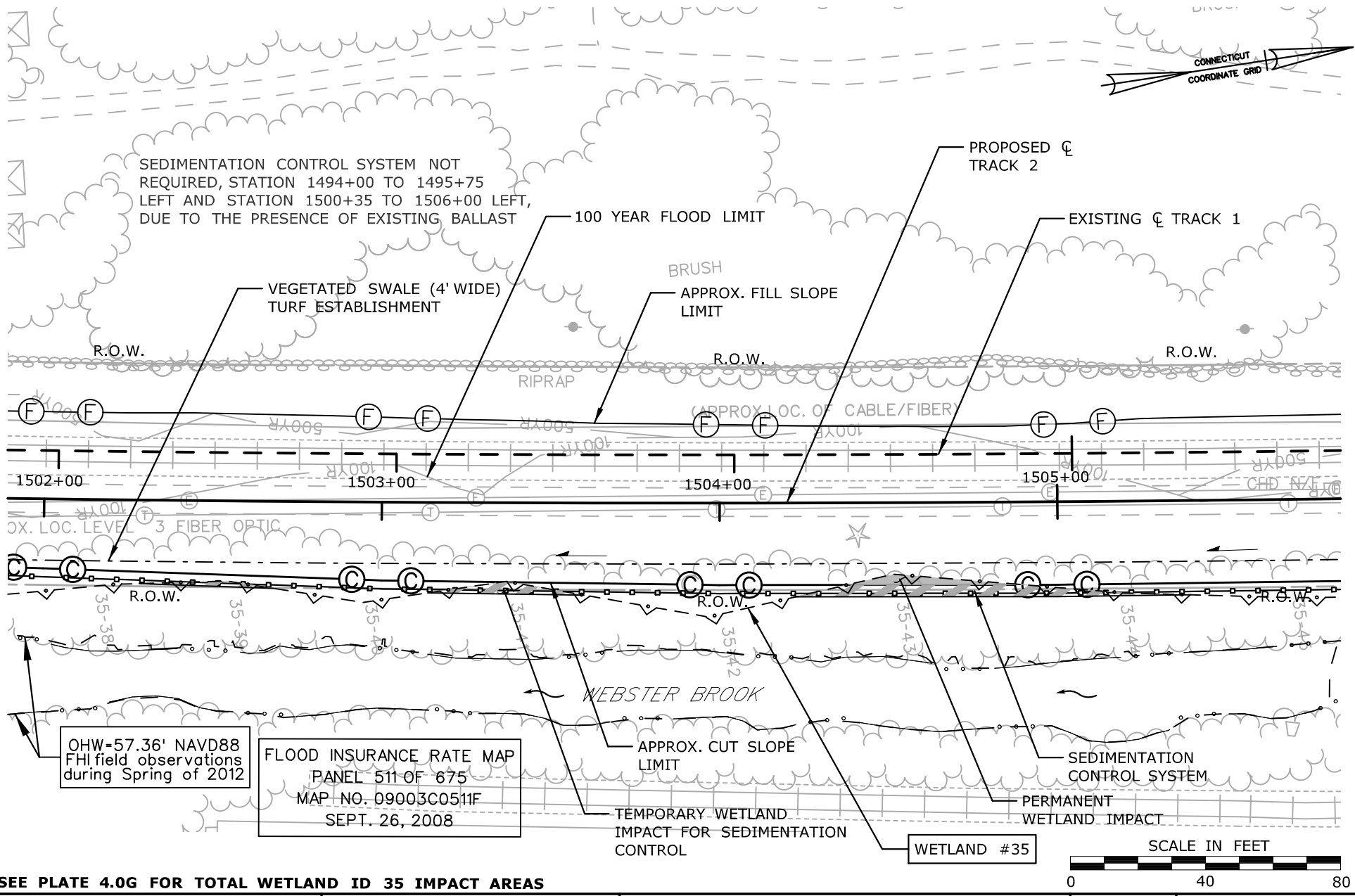
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.35

PLATE 7.1G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 7.1G.dgn



SEE PLATE 4.0G FOR TOTAL WETLAND ID 35 IMPACT AREAS

IMPACT PLAN

WETLAND ID 35

MP 28.88

STA. 1484+00 - 1505+30

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

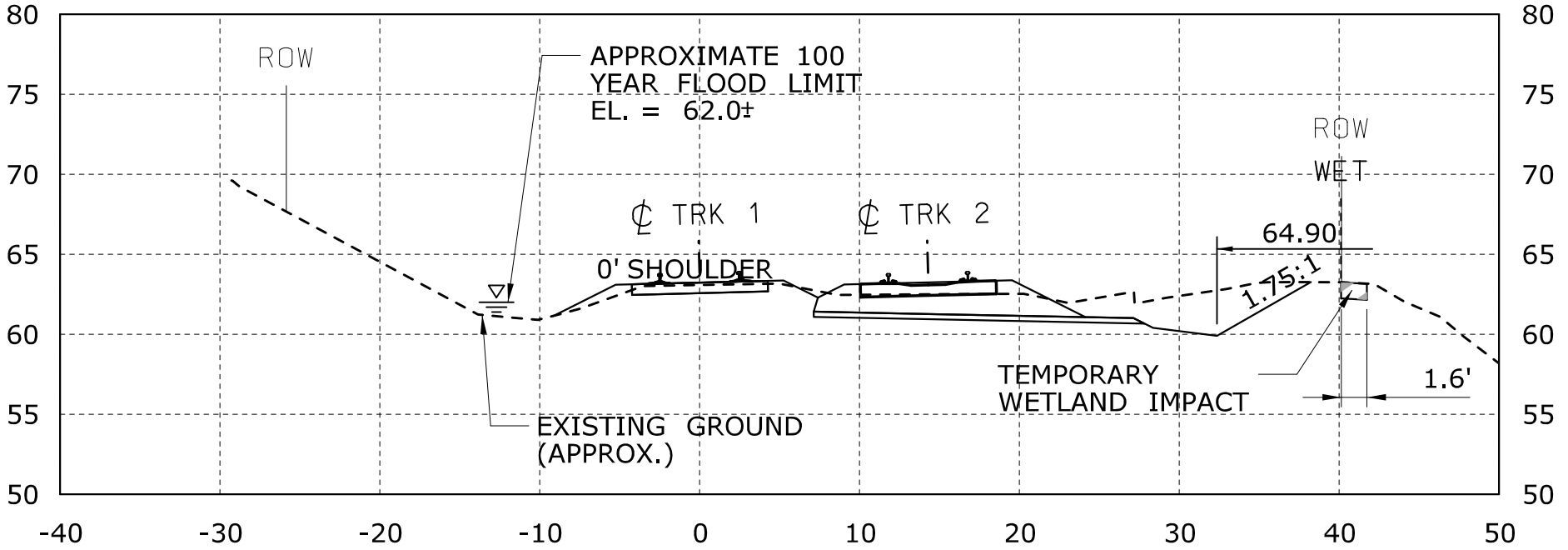
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DATE: MAR 2014

WETLAND ID No.35

PLATE 8.0G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 8.0G.dgn



1505+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 35
MP 28.88
STA. 1484+00 - 1505+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

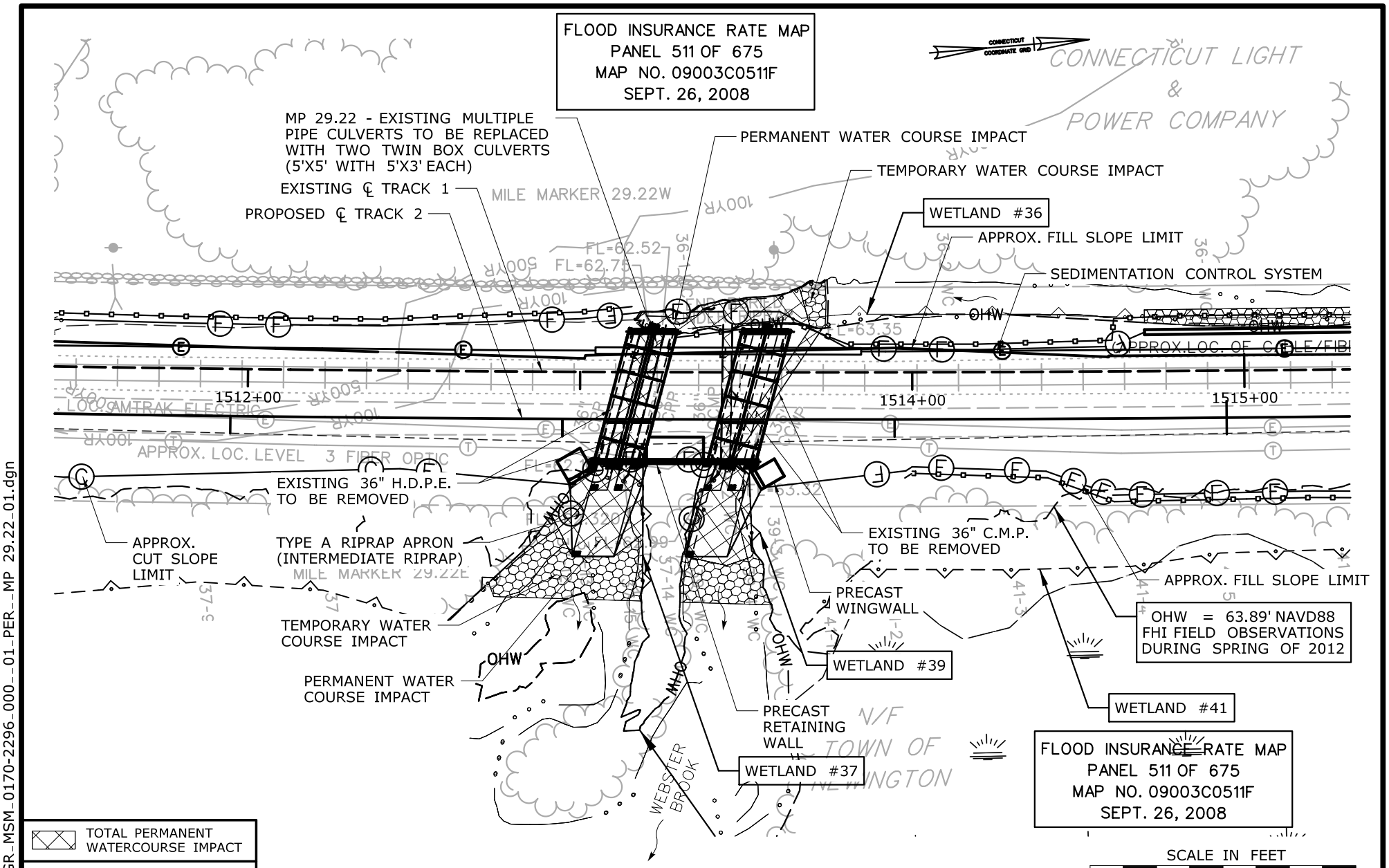
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.35

PLATE 8.1G OF 8.1G

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 8.1G.dgn



SEE PLATE 3.0G FOR TOTAL WEBSTER BROOK IMPACT AREAS

IMPACT PLAN

WEBSTER BROOK
WETLAND ID 36, 37, 39 & 41
MP 29.22
STA. 1513+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

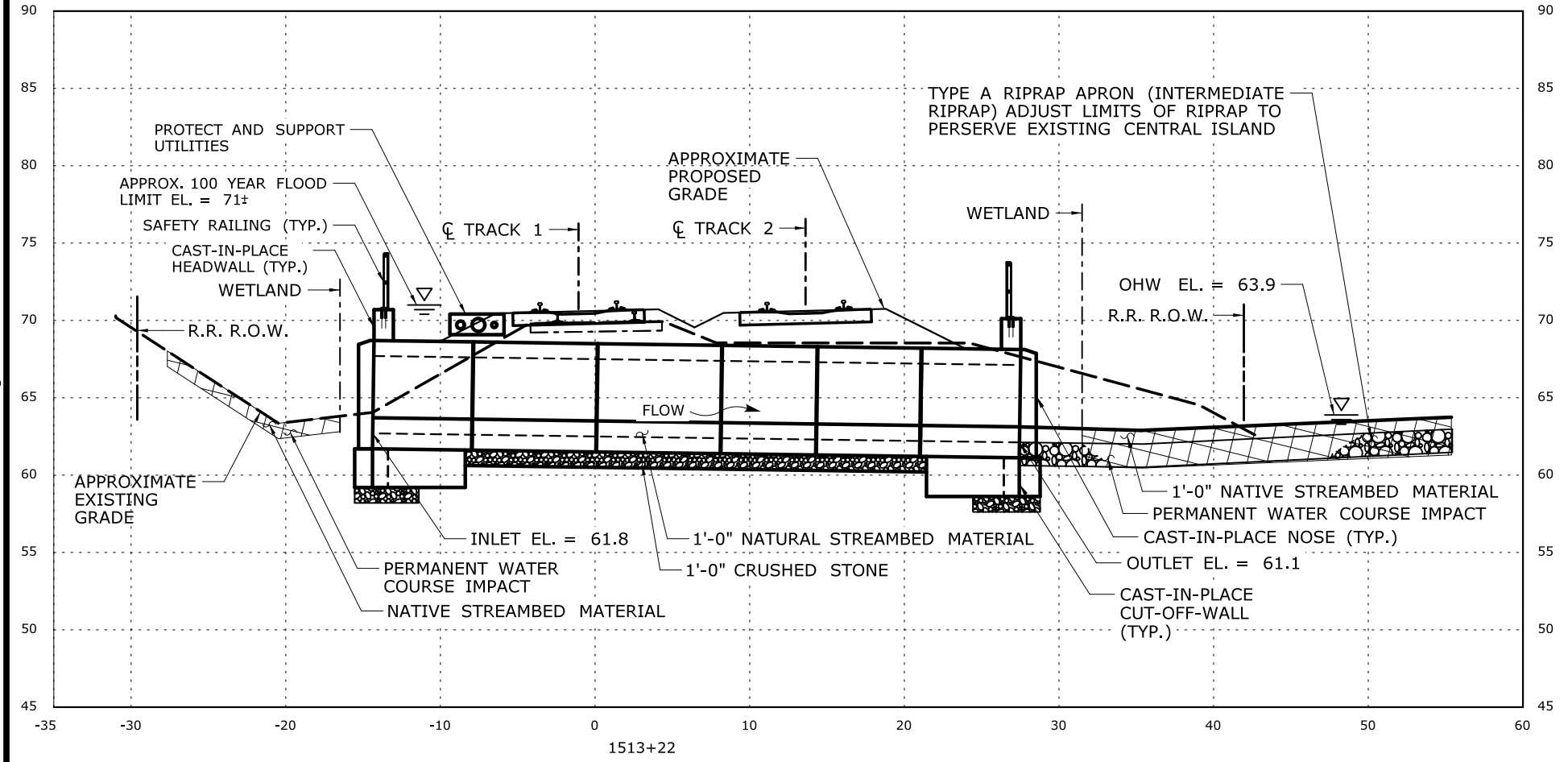
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DATE:
MAR 2014

WETLAND ID No.36, 37, 39 & 41
WATERCOURSE
WEBSTER BROOK

PLATE 1.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 29.22_01.dgn



NOTE:

SECTION THROUGH SOUTH CULVERT AT MP 29.22 SHOWN, NORTH CULVERT SIMILAR

SCALE IN FEET

0 40 80

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 29.22_02.dgn

IMPACT SECTION

WETLAND ID 36, 37, 39, & 41
MP 29.22
STA. 1513+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

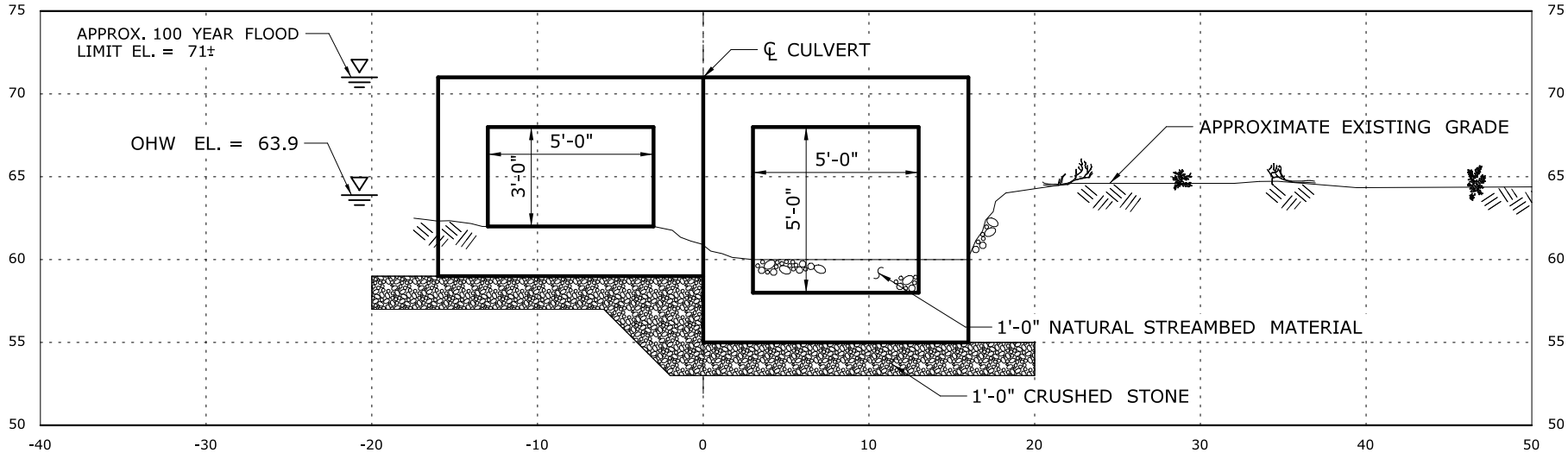
SCALE:1"=40'

DATE:
MAR 2014

WETLAND ID No. 36, 37, 39, & 41
WATERCOURSE
WEBSTER BROOK

PLATE 1.1H OF 12.1H

TEMPORARY HYDRAULIC DATA - WEBSTER BROOK	
AVERAGE DAILY FLOW	0.81 CFS
AVERAGE SPRING FLOW	1.57 CFS
2-YEAR FREQUENCY DISCHARGE	142 CFS
TEMPORARY DESIGN DISCHARGE	1.57 CFS
TEMPORARY DESIGN FREQUENCY	SPRING FLOW
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	63.9'
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	63.8'



ELEVATION

NOTE:

ELEVATION SOUTH CULVERT AT MP 29.22 SHOWN, NORTH CULVERT SIMILAR

SCALE IN FEET

0 10 20

IMPACT ELEVATION

WETLAND ID 36, 37, 39, & 41
MP 29.22
STA. 1513+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=10'

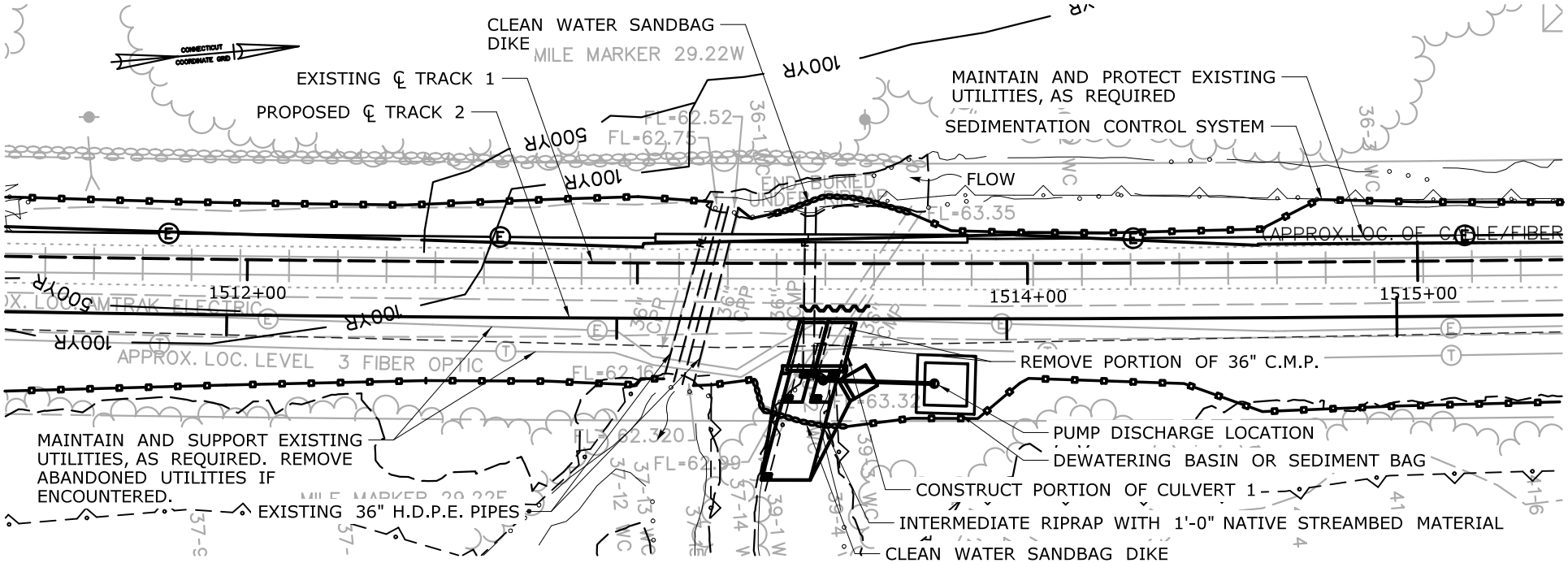
DATE:
MAR 2014

WETLAND ID No. 36, 37, 39, & 41

WATERCOURSE
WEBSTER BROOK

PLATE 1.2H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 29.22_03.dgn



STAGE 1:

THE CONTRACTOR SHALL REPLACE THE EXISTING PIPES WITH THE PROPOSED CULVERTS IN A STAGED MANNER THAT MAINTAINS FLOW. THE FOLLOWING SEQUENCE REPRESENTS A CONSTRUCTION PLAN THAT SATISFIES THIS REQUIREMENT AND SHALL BE FOLLOWED BY THE CONTRACTOR.

1. STAGE 1 WORK SHALL BE PERFORMED DURING FOUL TIME AND TRACK IN SERVICE.
2. CLEARING AND GRUBBING SHALL BE COMPLETED PRIOR TO START OF CULVERT CONSTRUCTION.
3. MAINTAIN STREAM FLOW THROUGH THE TWO EXISTING 36" H.D.P.E. PIPES AND INSTALL TEMPORARY CLEAN WATER SAND BAG DIKES UP TO ELEVATION 63.9 UPSTREAM AND 62.8 DOWNSTREAM.
4. INSTALL TEMPORARY SHORING AS REQUIRED FOR STAGE 1.
5. EXCAVATE AND BEGIN DEWATERING OF WORK AREA(S).
6. BEGIN CONSTRUCTION AT EAST END OF CULVERT-1. INSTALL CUT OFF WALL, INSTALL PORTION OF PRECAST CULVERT, NOSING, HEADWALL, CLOSURE POURS, NORTHEAST WINGWALL AND RIPRAP APRON.

SCALE IN FEET
0 40 80

STAGE 1 CONSTRUCTION PLAN

WETLAND ID 36, 37, 39, & 41
MP 29.22
STA. 1513+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

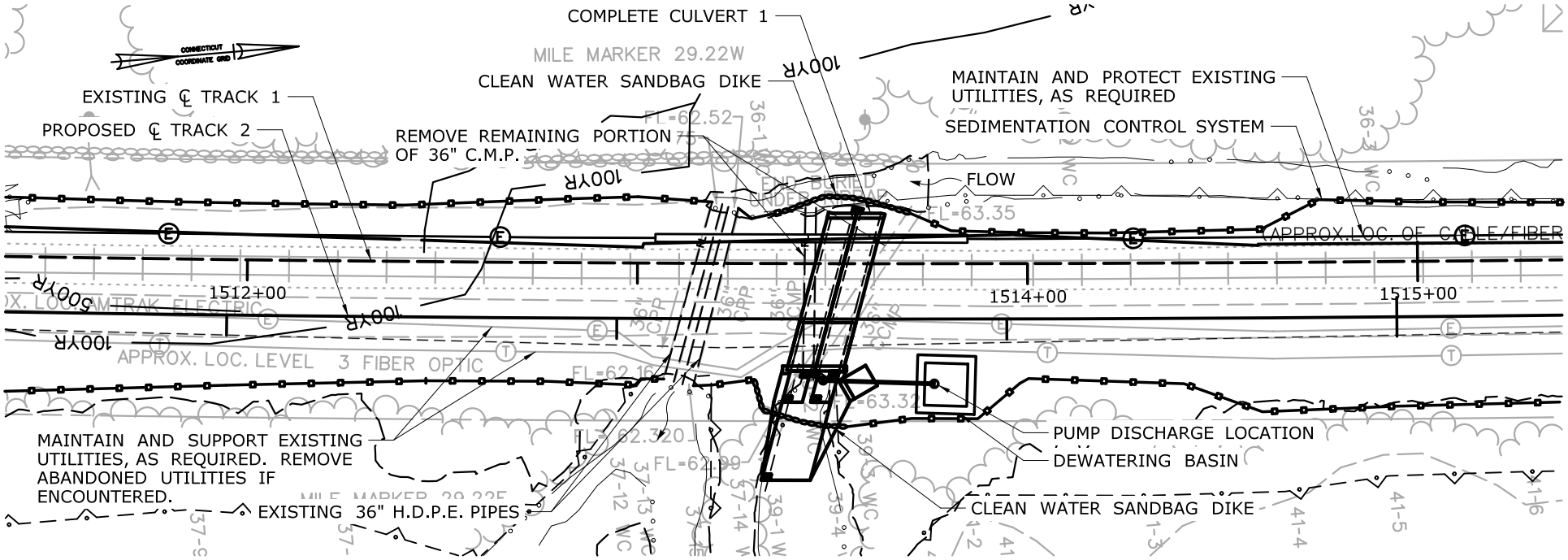
DATE:
MAR 2014

WETLAND ID No. 36, 37, 39, & 41

WATERCOURSE
WEBSTER BROOK

PLATE 1.3H OF 12.1H

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STAGE 2:

1. STAGE 2 WORK SHALL BE PERFORMED DURING OUTAGE.
2. CONTINUE TO MAINTAIN STREAM FLOW THROUGH THE TWO EXISTING 36" H.D.P.E. PIPES.
3. EXCAVATE AND CONTINUE DEWATERING OF WORK AREA(S).
4. INSTALL WEST CUT OFF WALL, REMAINING SECTIONS OF PRECAST CULVERT-1, WEST NOSING, AND WEST HEADWALL.

A. AMTRAK FORCES SHALL REMOVE THE TRACK PANEL(S).

B. THE CONTRACTOR SHALL INSTALL TEMPORARY SHORING, EXCAVATE, INSTALL THE PRECAST BOX CULVERT AND INSTALL PERVIOUS STRUCTURE BACKFILL.

SCALE IN FEET
0 40 80

STAGE 2 CONSTRUCTION PLAN

WETLAND ID 36, 37, 39, & 41
MP 29.22
STA. 1513+50

CTDOT PROJECT NO.: 170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

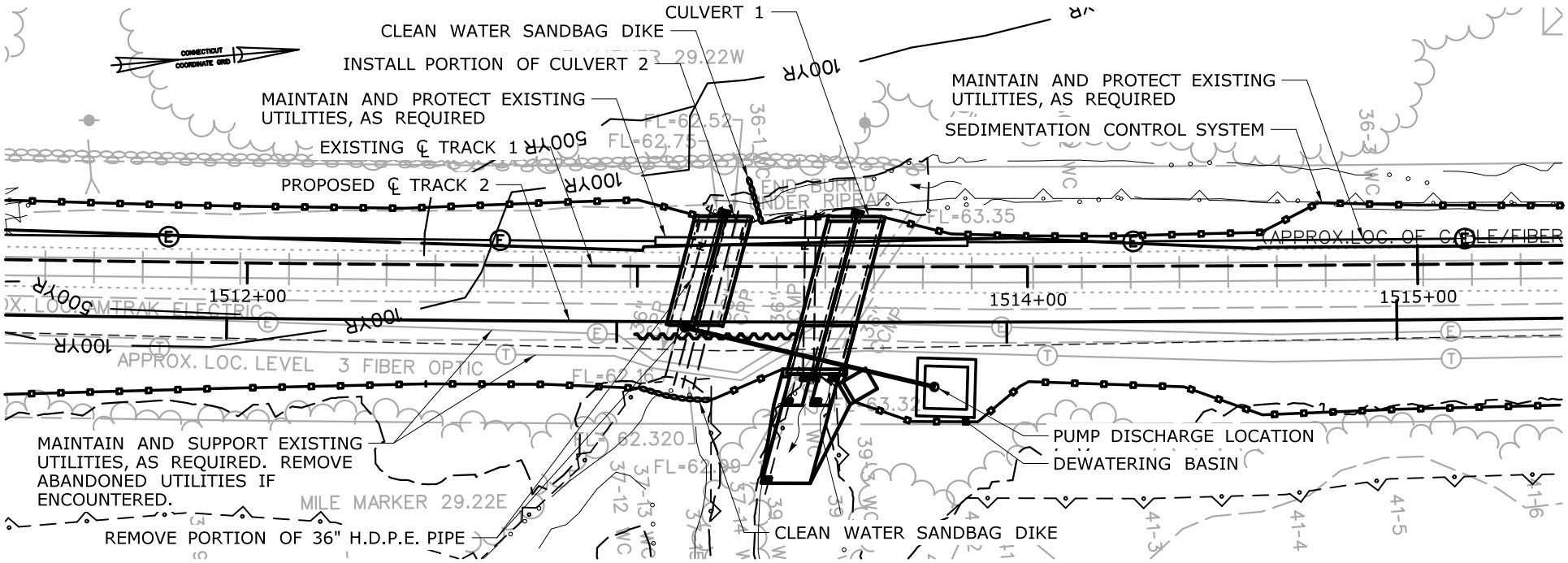
DATE: MAR 2014

WETLAND ID No. 36, 37, 39, & 41

WATERCOURSE WEBSTER BROOK

PLATE 1.4H OF 12.1H

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STAGE 3:

1. STAGE 3 WORK SHALL BE PERFORMED DURING OUTAGE.
2. INSTALL TEMPORARY SHORING AS REQUIRED FOR STAGE 3.
3. RELOCATE CLEAN WATER SANDBAG DIKES TO UPSTREAM AND DOWNSTREAM SIDES OF PROPOSED CULVERT-2 ROUTING FLOW THROUGH PREVIOUSLY CONSTRUCTED CULVERT-1. SANDBAGS ARE TO BE SET UP TO ELEVATION 63.9 UPSTREAM AND 62.8 DOWNSTREAM.
4. CONTRACTOR TO PROTECT CLOSURE POUR AND COMPLETED CONSTRUCTION AREAS WITH SANDBAGS AS REQUIRED.
5. EXCAVATE AND CONTINUE DEWATERING OF WORK AREA(S).
6. INSTALL PORTION OF PRECAST CULVERT-2, WEST NOSING AND HEADWALL.

A. THE CONTRACTOR SHALL INSTALL TEMPORARY SHORING, EXCAVATE, INSTALL THE PRECAST BOX CULVERT, AND INSTALL PERVIOUS STRUCTURE BACKFILL. CONTRACTOR SHALL REMOVE TEMPORARY SHORING AND GARDE AS REQUIRED TO ALLOW AMTRAK FORCES TO RESTORE TRACK TO SERVICE.

B. AMTRAK FORCES SHALL REINSTALL THE TEMPORARY TRACK PANEL(S) AND RESTORE TRACK TO SERVICE.

SCALE IN FEET
0 40 80

STAGE 3 CONSTRUCTION PLAN

WETLAND ID 36, 37, 39, & 41
MP 29.22
STA. 1513+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC
2110 Silas Deane Highway
Rocky Hill, CT 06067

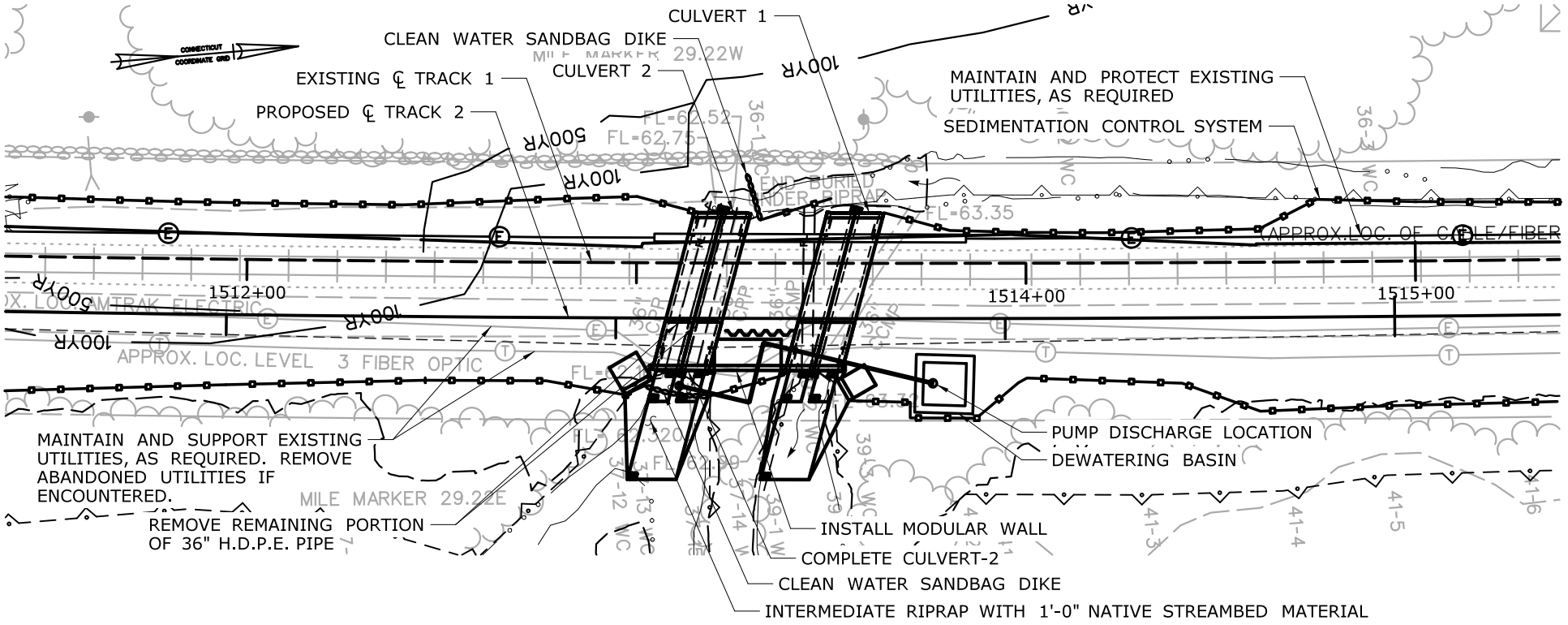
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DATE:
MAR 2014

WETLAND ID No.36, 37,39, & 41
WATERCOURSE
WEBSTER BROOK

PLATE 1.5H OF12.1H

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 29.22_06.dgn



STAGE 4:

1. STAGE 4 WORK SHALL BE PERFORMED DURING FOUL TIME AND TRACK IN SERVICE.
2. MAINTAIN STREAM FLOW THROUGH PRECAST BOX CULVERT-1.
3. EXCAVATE AND CONTINUE DEWATERING OF WORK AREA(S).
4. INSTALL REMAINING SECTIONS OF PRECAST CULVERT-2.
5. COMPLETE CONSTRUCTION OF NOSING, HEADWALL AND CLOSURE POURS AT THE EAST END OF CULVERT-2. COMPLETE CONSTRUCTION OF MODULAR WALLS AT NORTHEAST OF CULVERT-1, SOUTHEAST OF CULVERT-2 AND BETWEEN EAST ENDS OF CULVERTS 1 AND 2.
6. INSTALL OUTLET RIPRAP PROTECTION AND NATIVE STREAMBED MATERIAL.
7. INSTALL ALL REMAINING ITEMS AND COMPLETE CULVERT WORK.

SCALE IN FEET
0 40 80

STAGE 4 CONSTRUCTION PLAN

WETLAND ID 36, 37, 39, & 41
MP 29.22
STA. 1513+50

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

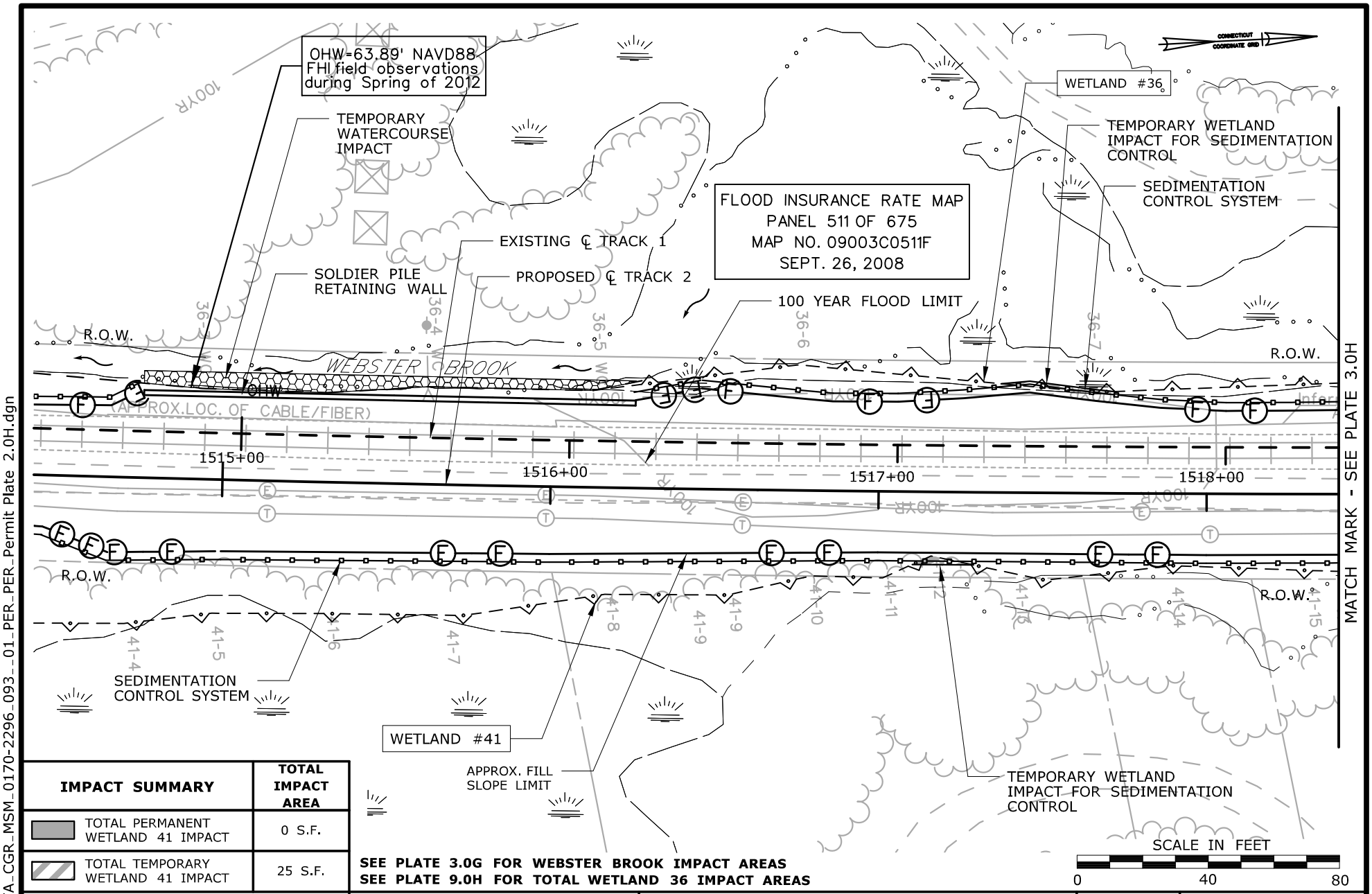
DATE:
MAR 2014

WETLAND ID No.36, 37, 39, & 41

WATERCOURSE
WEBSTER BROOK

PLATE 1.6H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 29.22_07.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 41 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 41 IMPACT	25 S.F.

SEE PLATE 3.0G FOR WEBSTER BROOK IMPACT AREAS
SEE PLATE 9.0H FOR TOTAL WETLAND 36 IMPACT AREAS

IMPACT PLAN

WEBSTER BROOK
WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

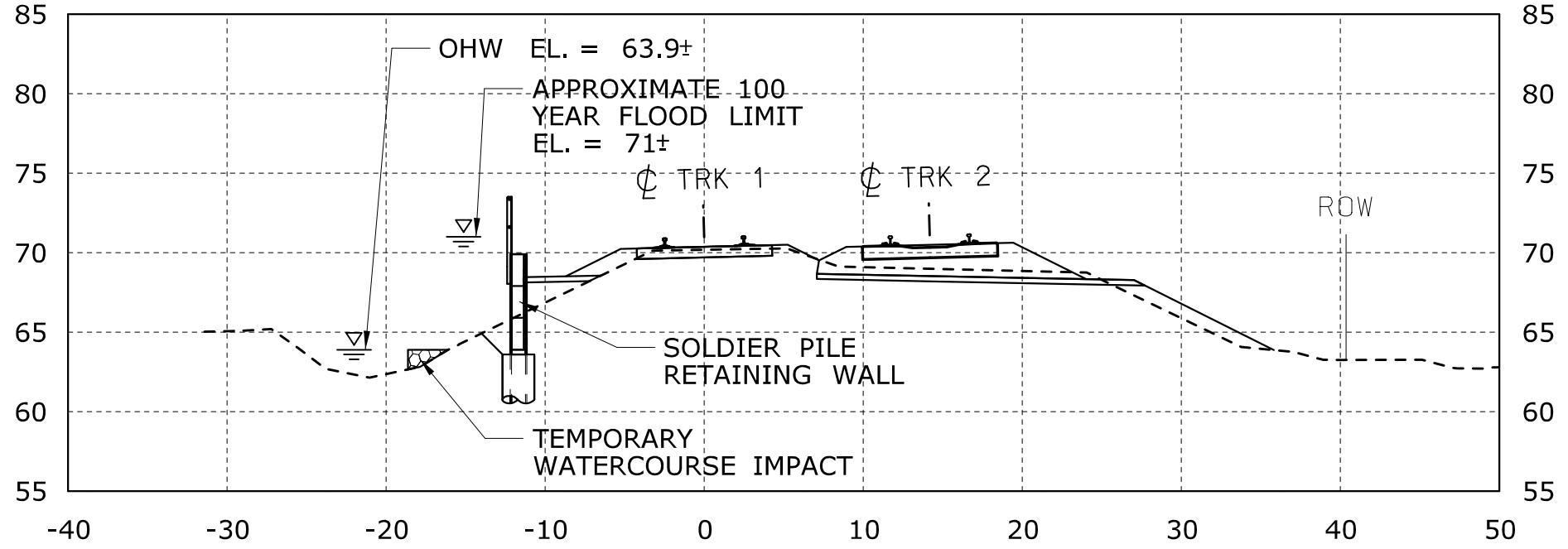
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.36
& 41
WATERCOURSE
WEBSTER BROOK

PLATE 2.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 2.0H.dgn



1515+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WEBSTER BROOK
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

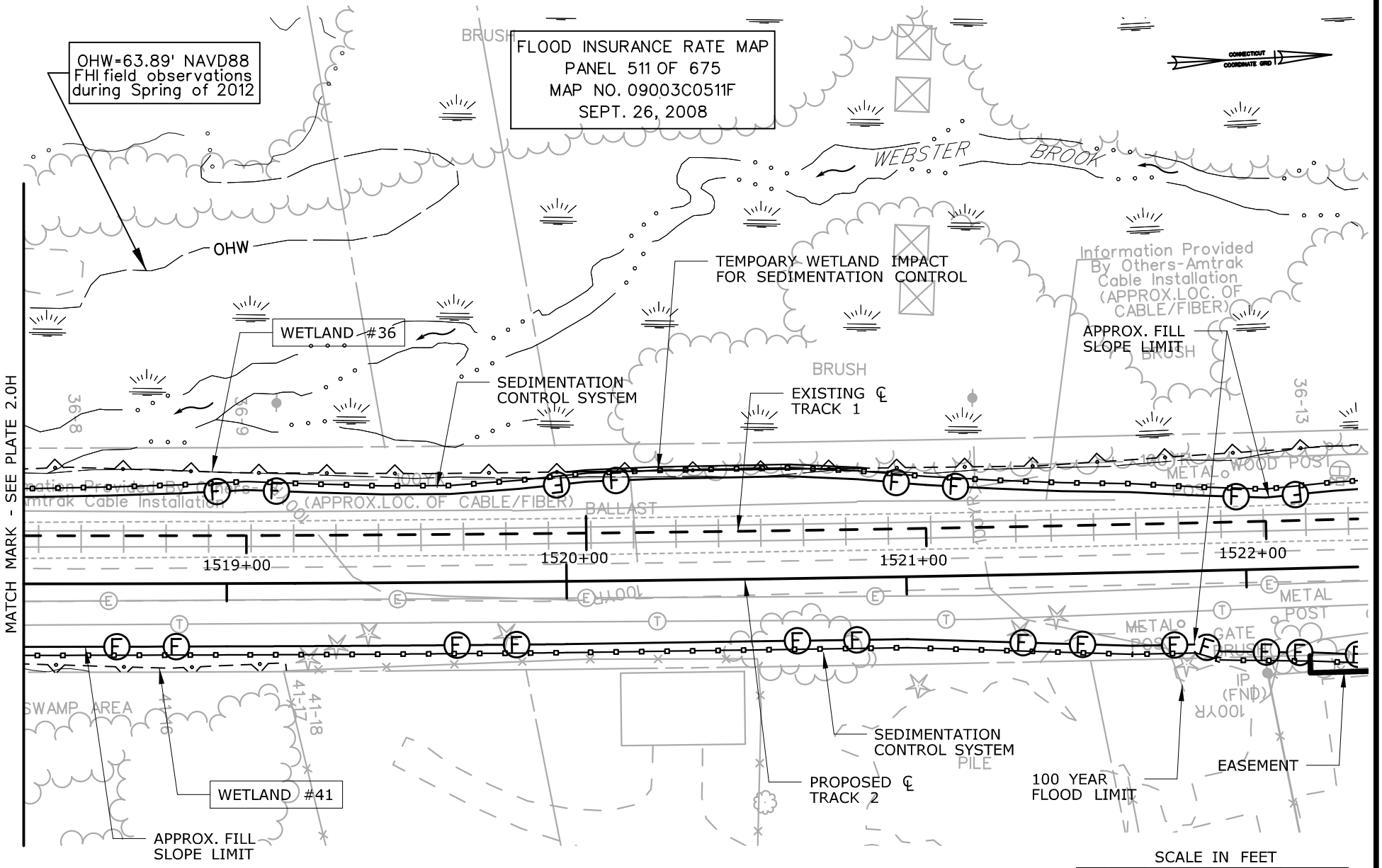
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DATE:
MAR 2014

WETLAND ID No.36 & 41
WATERCOURSE
WEBSTER BROOK

PLATE 2.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 2.1H.dgn



SEE PLATE 9.0H FOR TOTAL WETLAND 36 IMPACT AREAS

IMPACT PLAN

WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

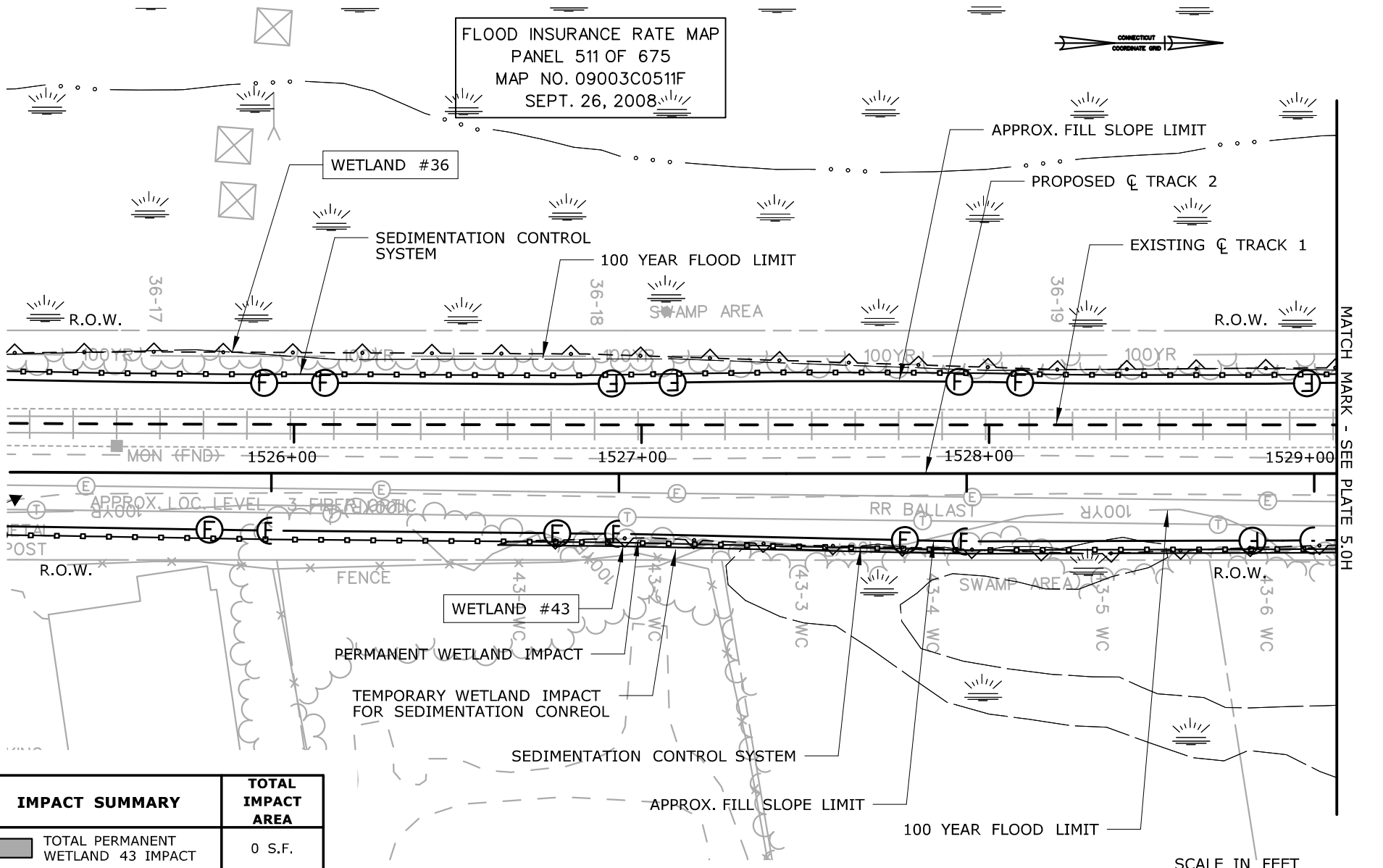
DATE:
MAR 2014

WETLAND ID No.36 & 41

WATERCOURSE
WEBSTER BROOK

PLATE 3.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 3.0H.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 43 IMPACT	0 S.F.
TOTAL TEMPORARY WETLAND 43 IMPACT	815 S.F.

IMPACT AREAS FOR WETLAND ID 43 ARE ALSO SHOWN ON PLATE 5.0H

IMPACT PLAN

WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

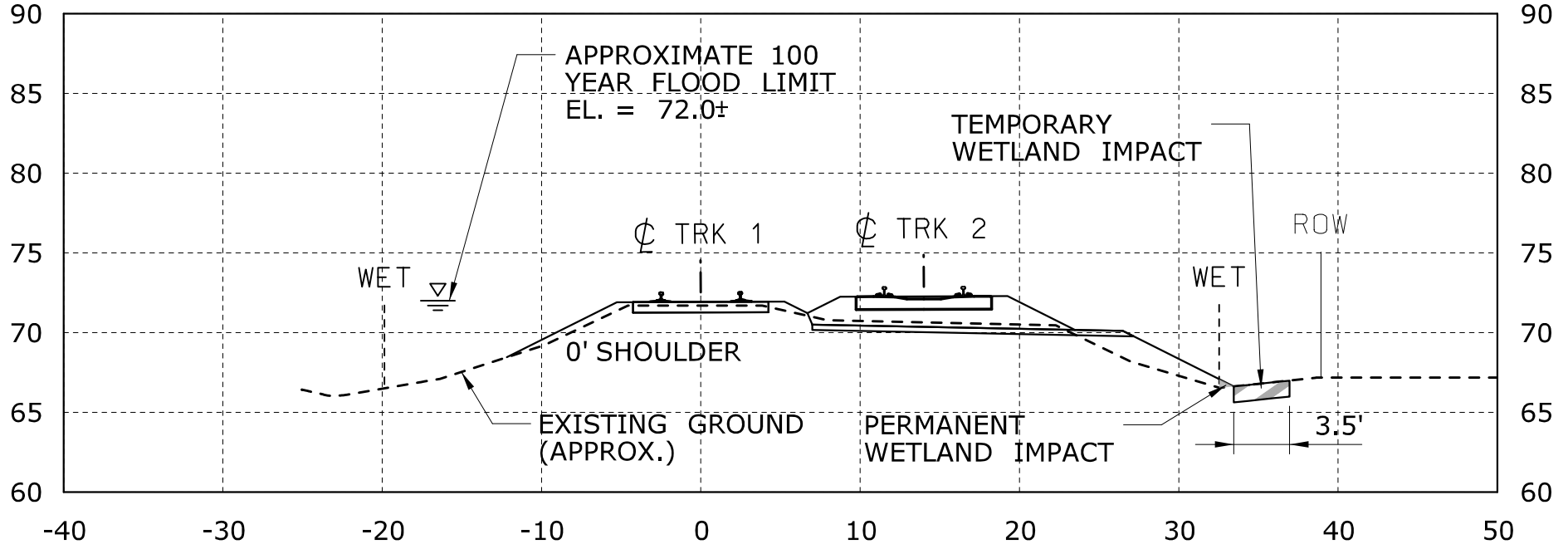
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.36 & 43

PLATE 4.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 4.0H.dgn



1527+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION

WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

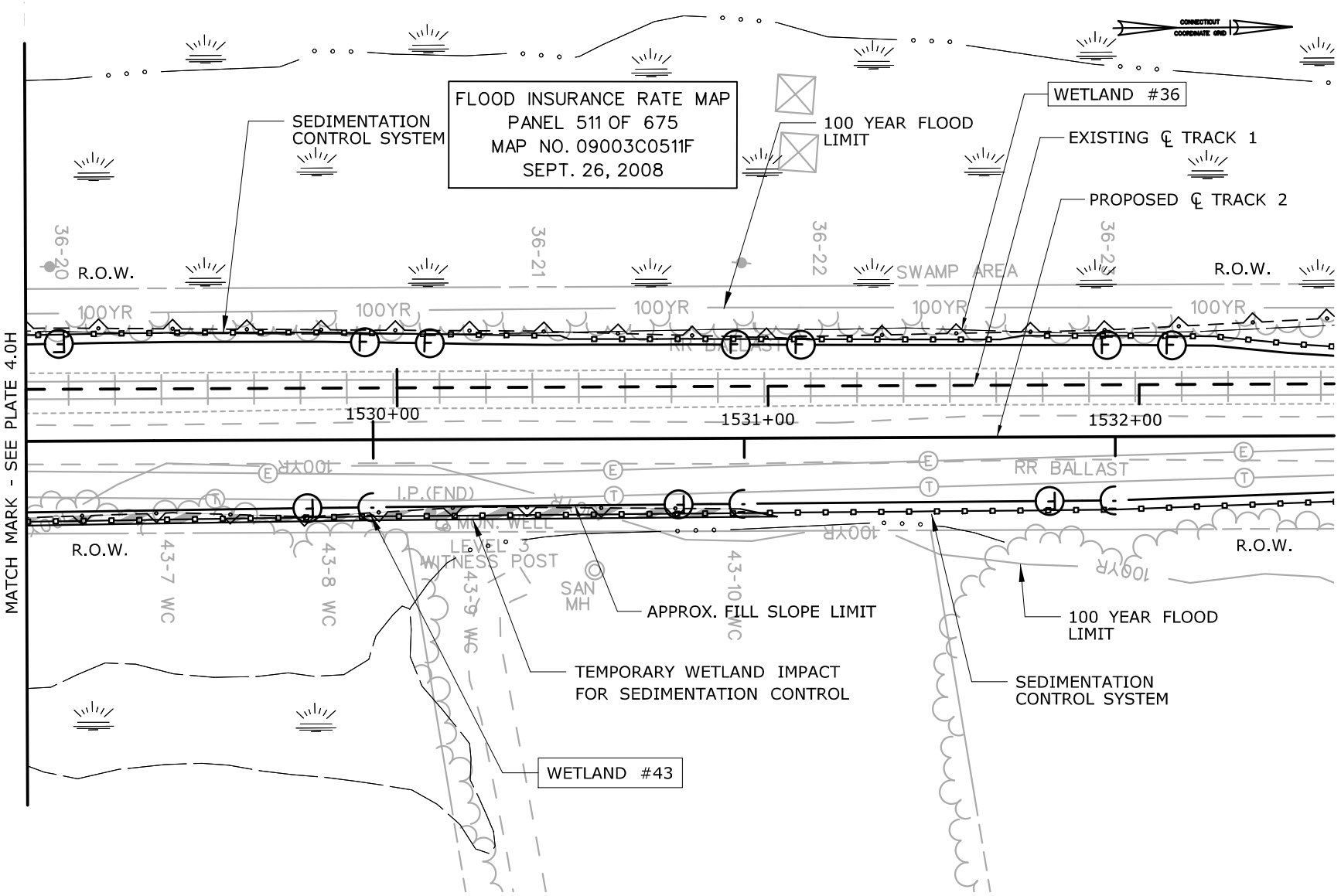
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DATE:
MAR 2014

WETLAND ID No.36 & 43

PLATE 4.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 4.1H.dgn



SEE PLATE 4.0H FOR TOTAL WETLAND 43 IMPACT AREAS

IMPACT PLAN

WETLAND ID 36, 41, 43, & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

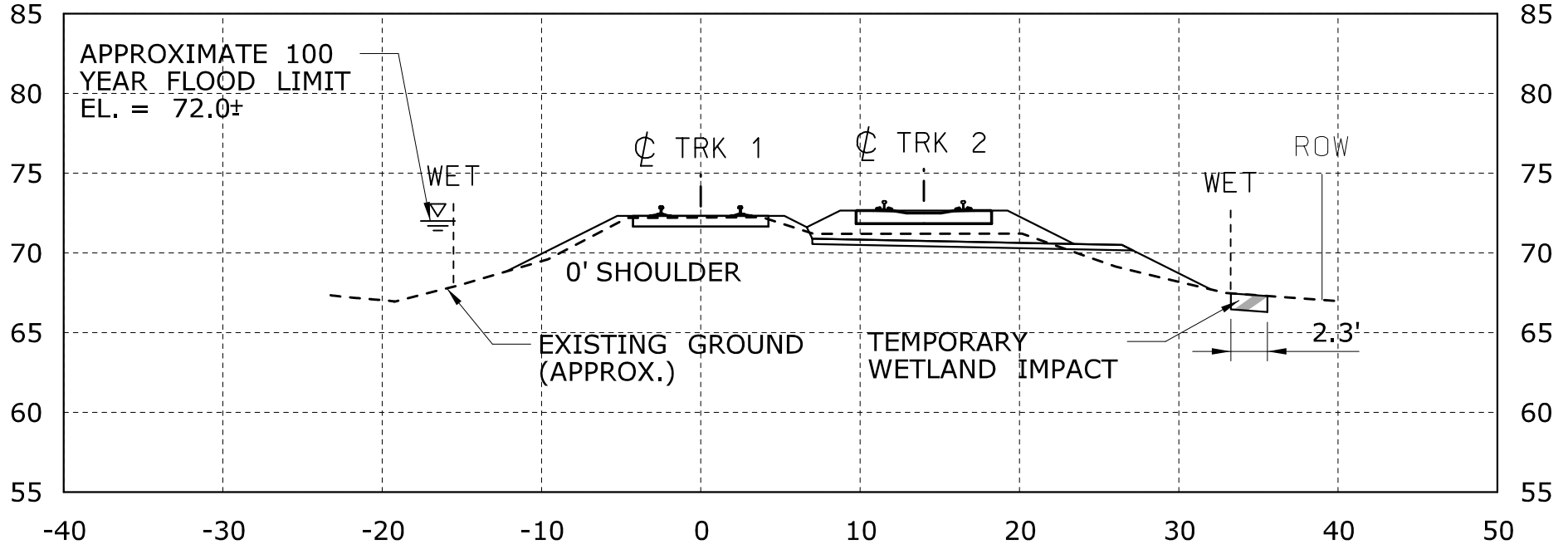
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DATE:
MAR 2014

WETLAND ID No.36 & 43

PLATE 5.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 5.0H.dgn



1530+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET

0 10 20

IMPACT SECTION

WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

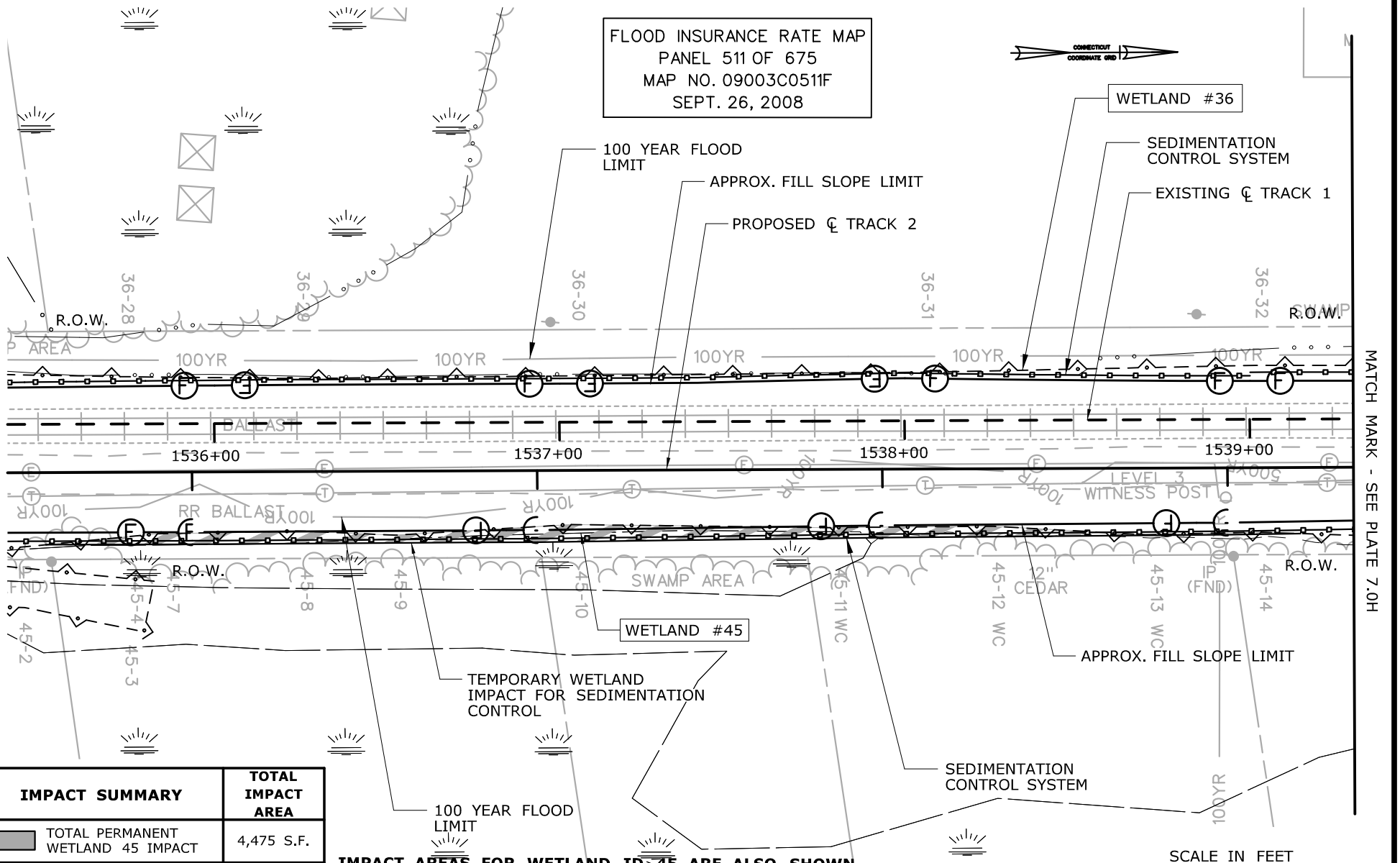
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DATE:
MAR 2014

WETLAND ID No.36 & 43

PLATE 5.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 5.1H.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 45 IMPACT	4,475 S.F.
TOTAL TEMPORARY WETLAND 45 IMPACT	6,240 S.F.

IMPACT AREAS FOR WETLAND ID 45 ARE ALSO SHOWN ON PLATES 7.0H, 8.0H, 9.0H, 10H, 11.0H

IMPACT PLAN

WETLAND ID 36, 41, 43 & 45
MP 29.25 - MP 30.06
STA. 1514+90- 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

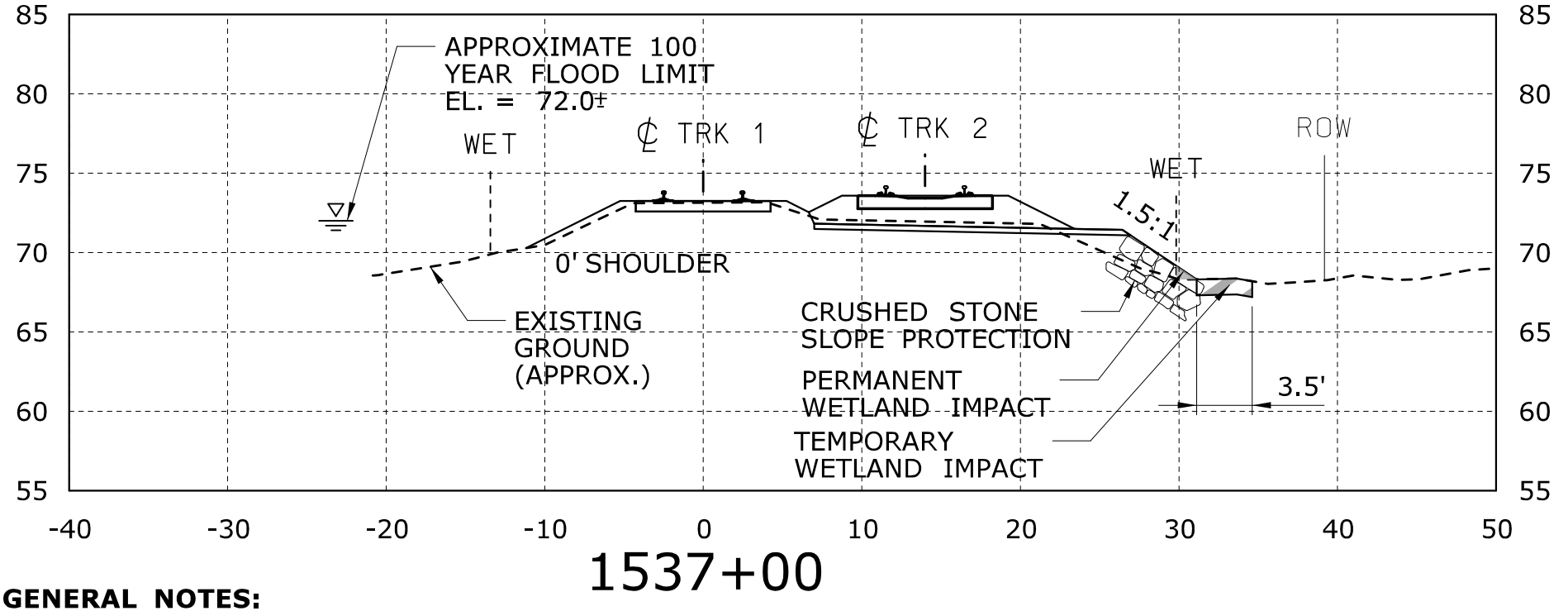
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.36 & 45

PLATE 6.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 6.0H.dgn



1537+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET

0 10 20

IMPACT SECTION

WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

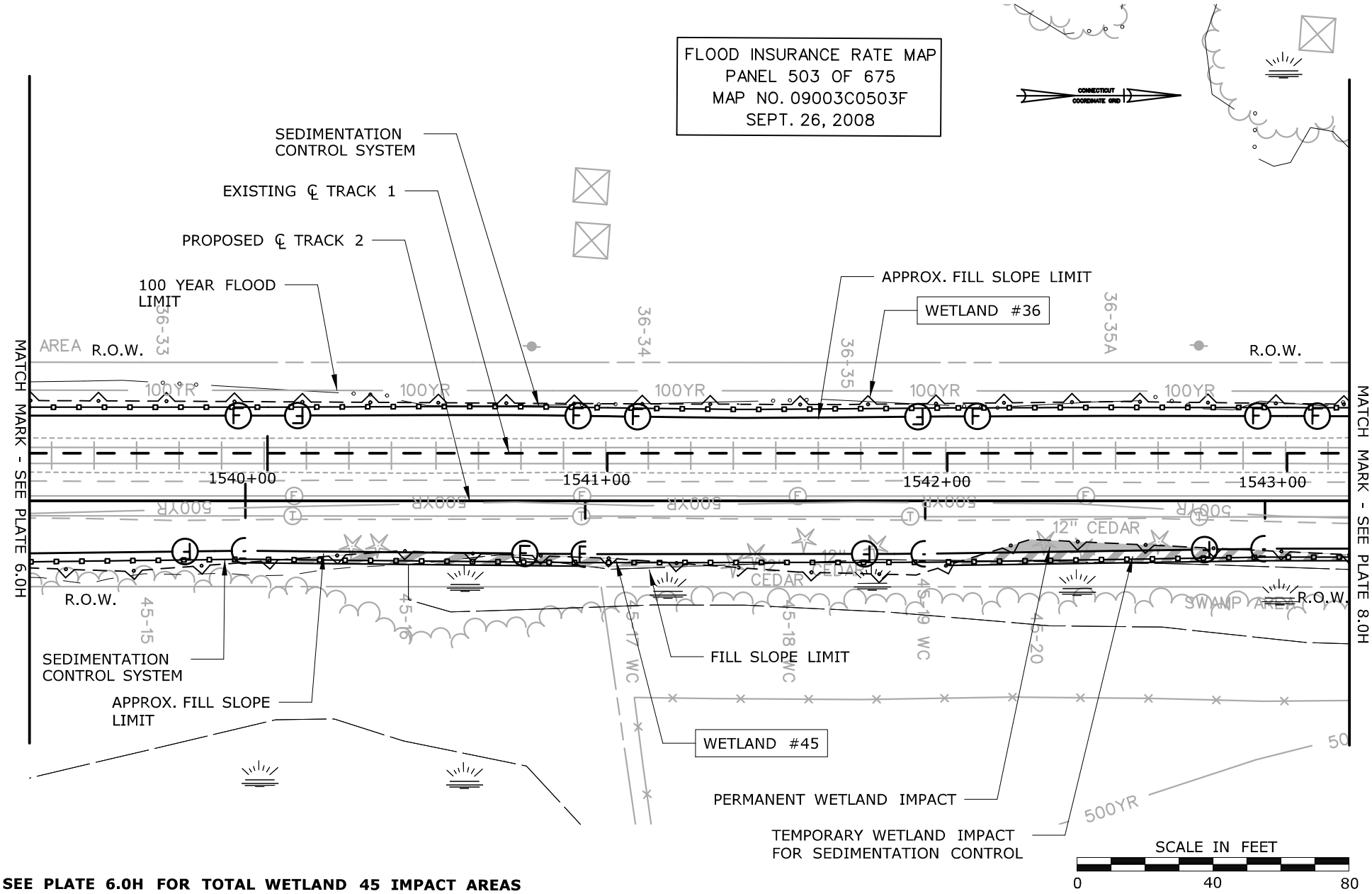
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DATE:
MAR 2014

WETLAND ID No.36 & 45

PLATE 6.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 6.1H.dgn



SEE PLATE 6.0H FOR TOTAL WETLAND 45 IMPACT AREAS

IMPACT PLAN

WETLAND ID 36, 41, 43, & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

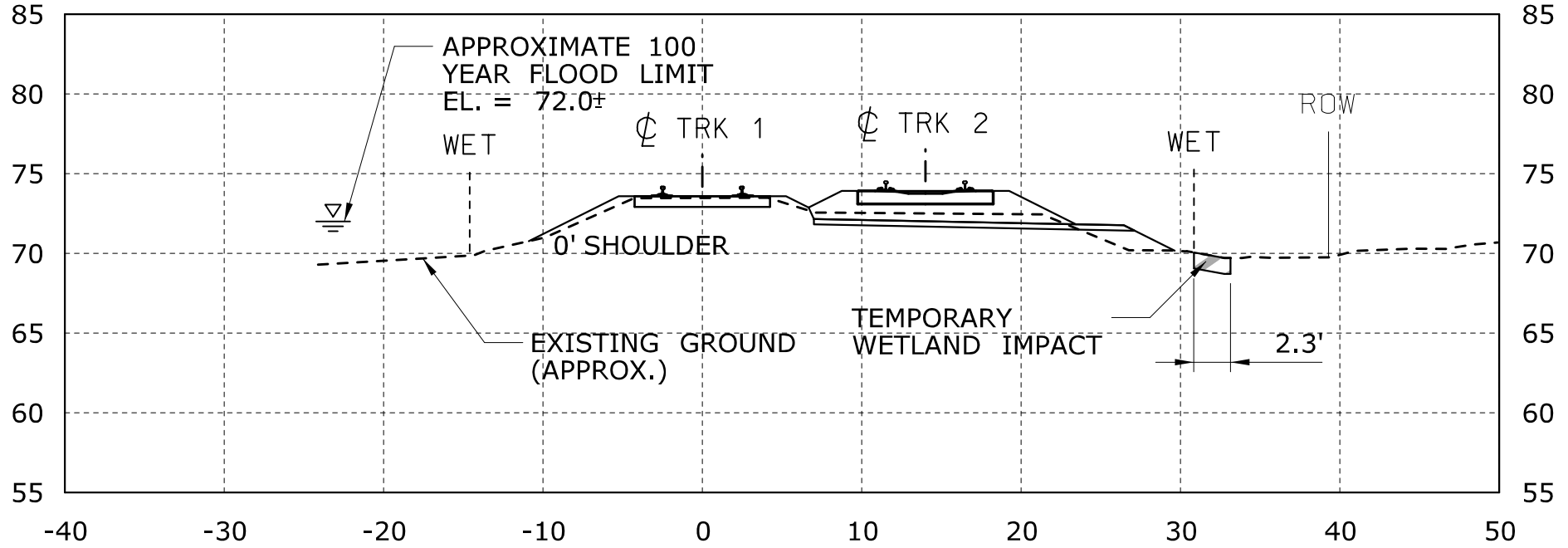
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DATE:
MAR 2014

WETLAND ID No.36 & 45

PLATE 7.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__03_PER_PER_Permit Plate 7.0H.dgn



1541+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

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2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

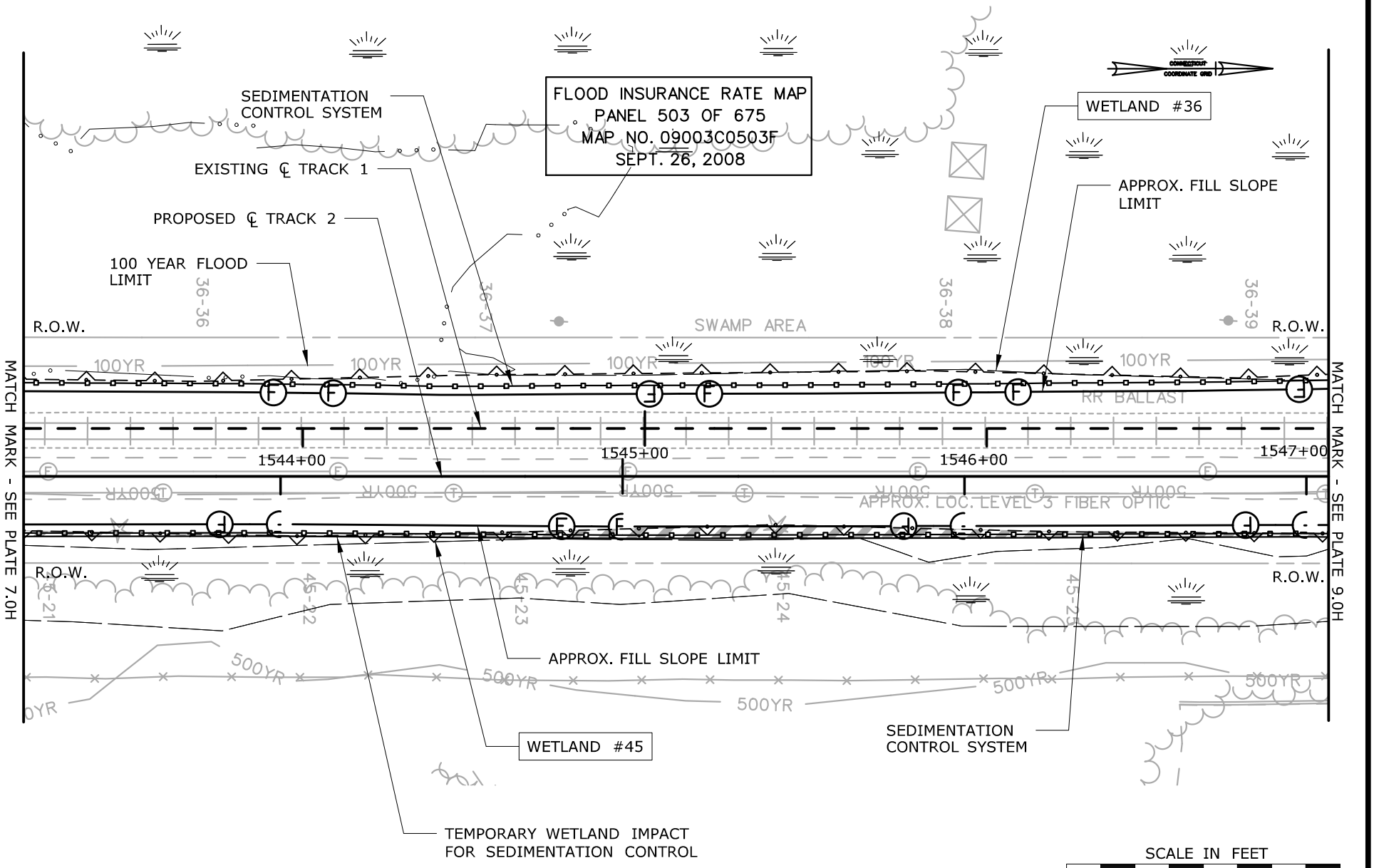
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.36 & 45

PLATE 7.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 7.1H.dgn



SEE PLATE 6.0H FOR TOTAL WETLAND 45 IMPACT AREAS

IMPACT PLAN

WETLAND ID 36, 41, 43, & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

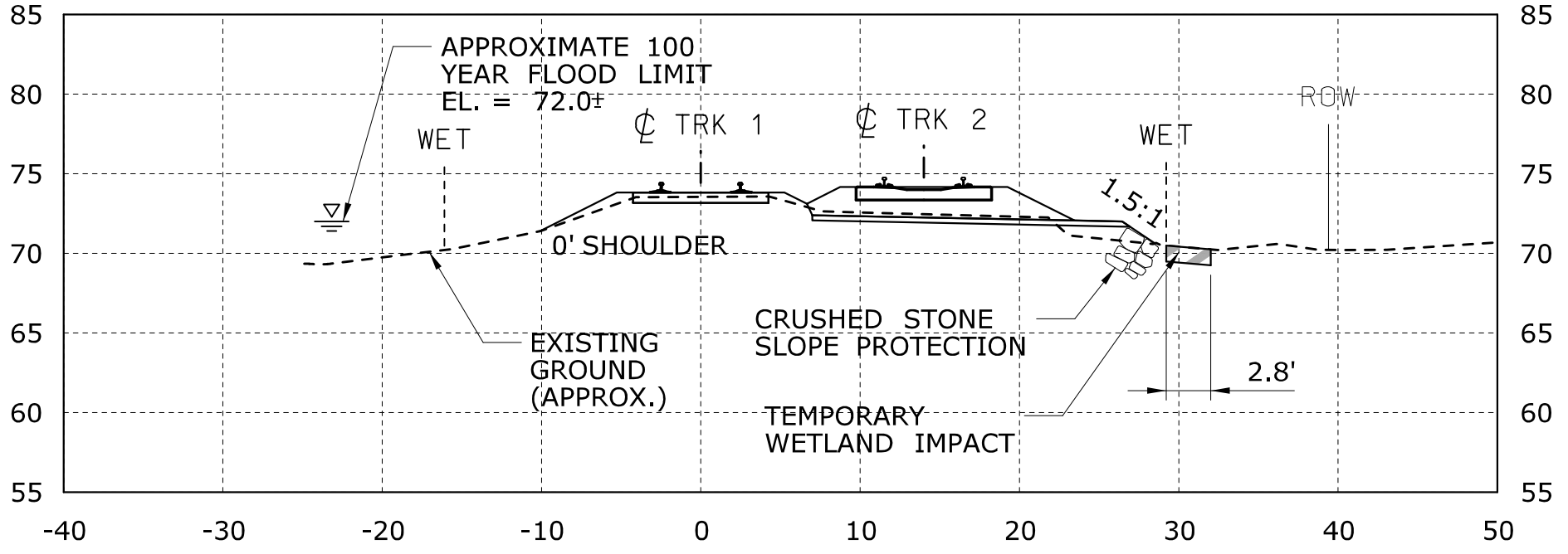
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DATE:
MAR 2014

WETLAND ID No.36 & 45

PLATE 8.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 8.0H.dgn



1545+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

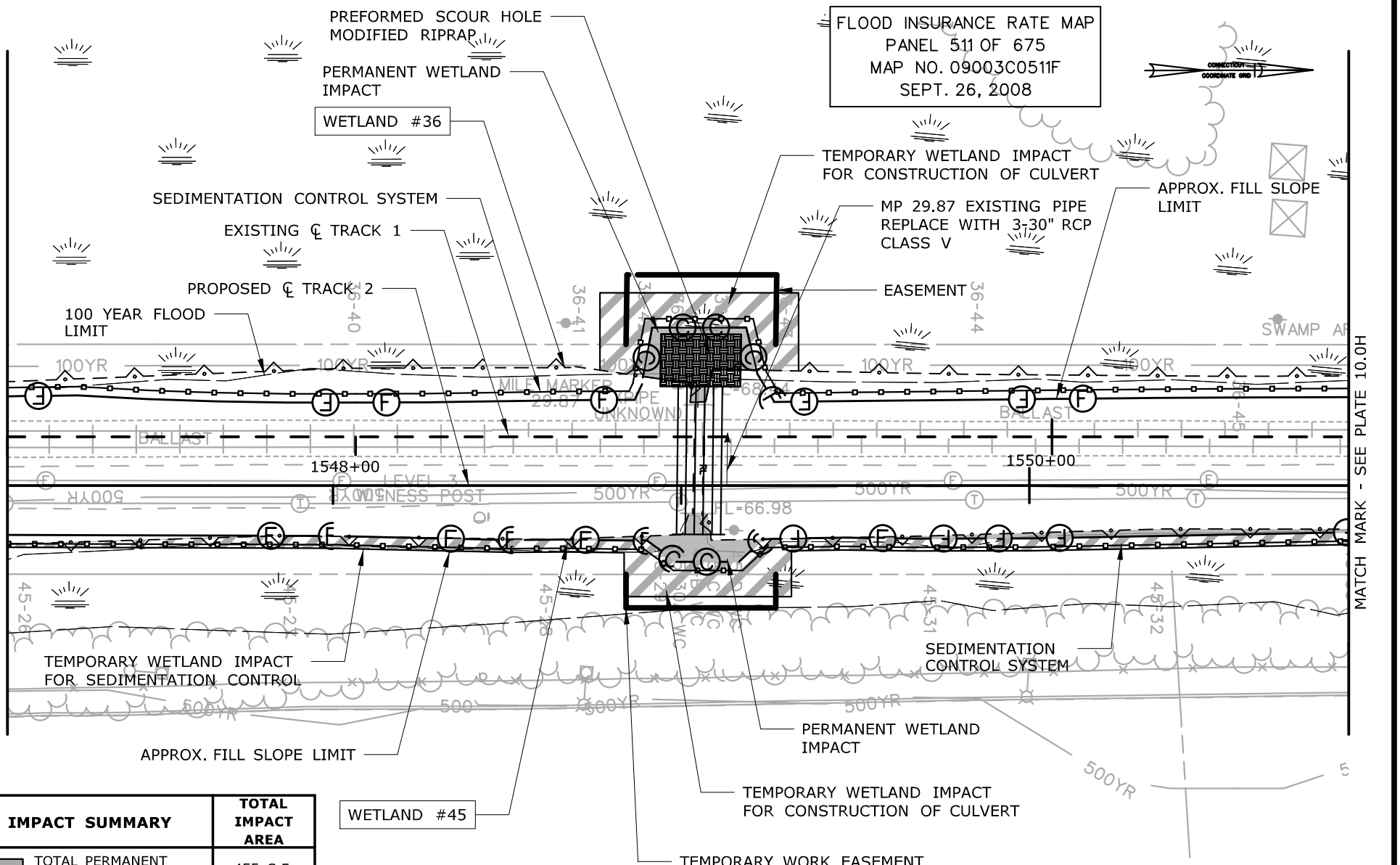
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DATE:
MAR 2014

WETLAND ID No.36 & 45

PLATE 8.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 8.1H.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 36 IMPACT	455 S.F.
TOTAL TEMPORARY WETLAND 36 IMPACT	1,490 S.F.

SEE PLATE 6.0H FOR TOTAL WETLAND ID 45 IMPACT AREAS
IMPACT AREAS FOR WETLAND ID 36 ARE ALSO SHOWN ON PLATES 2.0H, 3.0H, 11.0H

SCALE IN FEET
0 40 80

IMPACT PLAN

WETLAND ID 36, 41, 43 & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

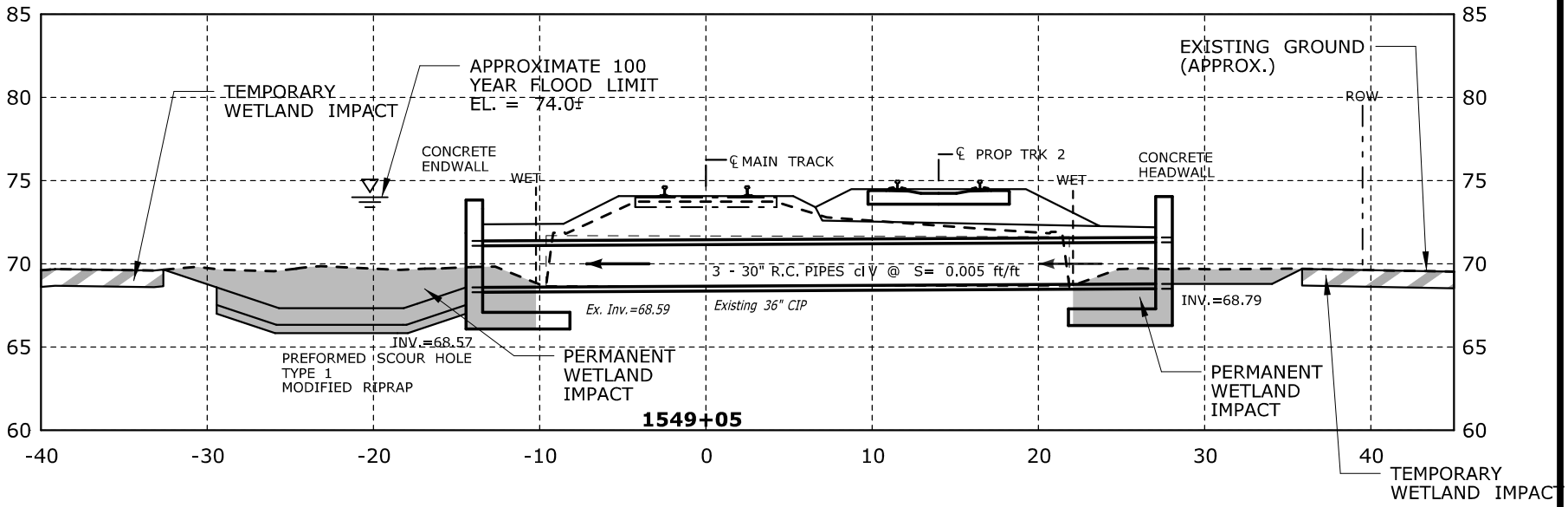
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.36 & 45

PLATE 9.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 9.0H.dgn



SCALE IN FEET

0 10 20

IMPACT SECTION

WETLAND ID 36, 41, 43, & 45
MP 29.87
STA. 1549+05

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

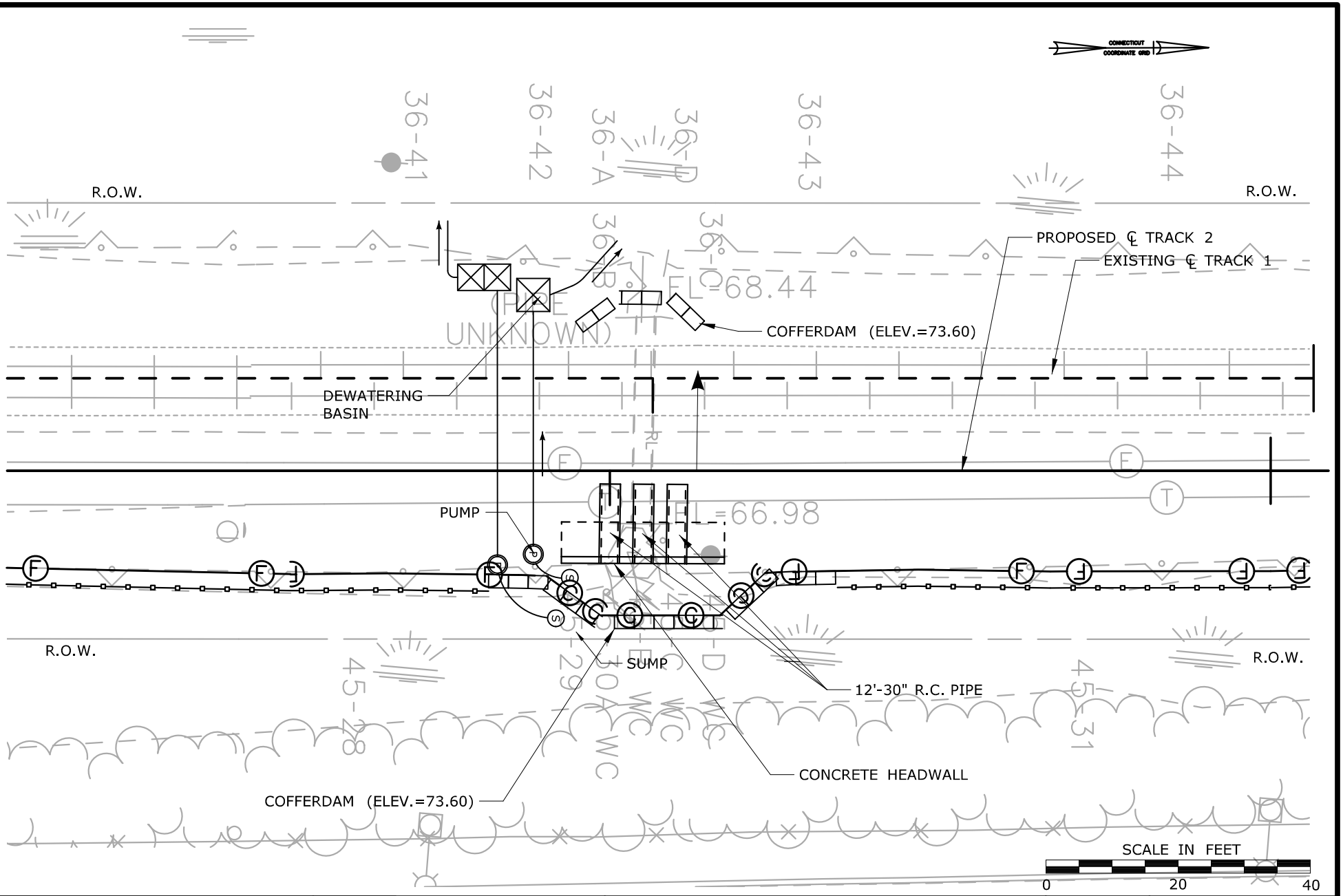
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.36
& 45

PLATE 9.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_PER_Permit Plate 9.1H.dgn



STAGE 1

CONSTRUCTION PLAN

WETLAND ID 36, 41, 43, & 45
MP 29.87
STA. 1549+05

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

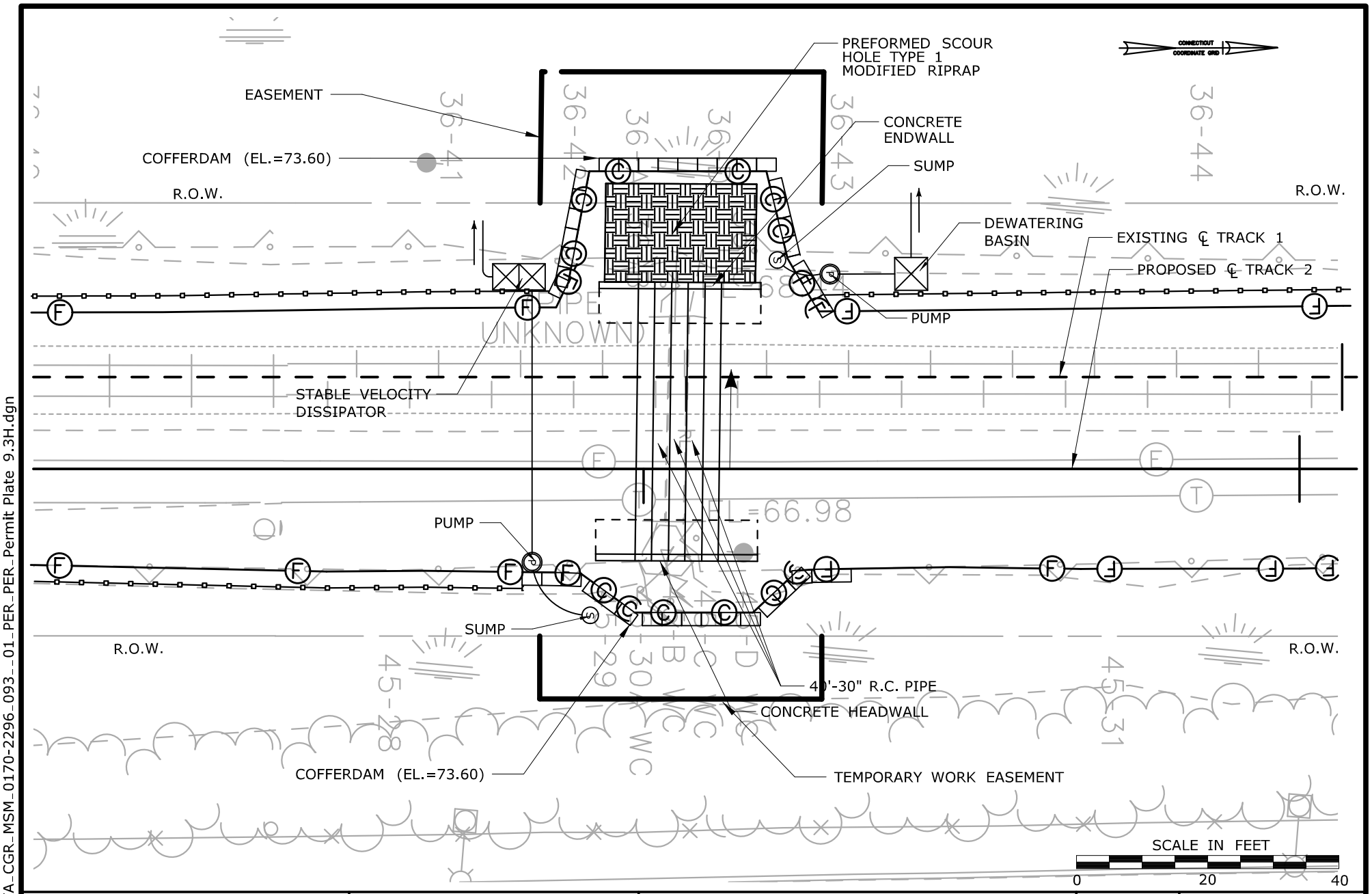
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.36 & 45

PLATE 9.2H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 9.2H.dgn



STAGE #2

CONSTRUCTION PLAN

WETLAND ID 36, 41 43, & 45
MP 29.87
STA. 1549+05

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.36 & 45

PLATE 9.3H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 9.3H.dgn

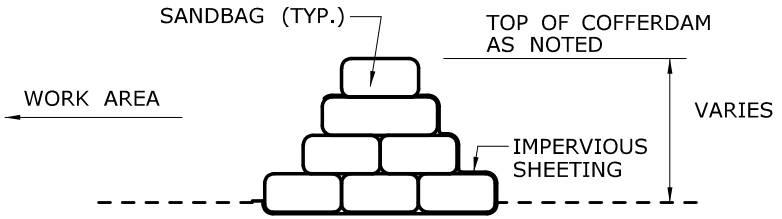
CONSTRUCTION SEQUENCE PHASE 1

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. REMOVE EXISTING ENDWALL.
3. INSTALL LENGTHS OF 12 LF OF EACH 30" R.C. PIPE (TRIPLE PIPE)

CONSTRUCTION SEQUENCE PHASE 2

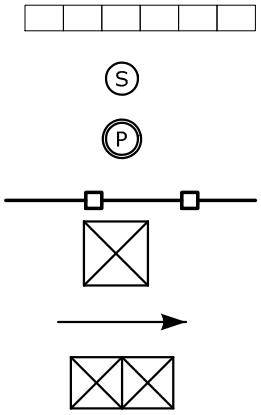
1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. CHECK AND MAINTAIN COFFERDAMS AND DEWATERING DEVICES INSTALLED IN PHASE 1 THAT ARE TO REMAIN.
3. REMOVE EXISTING HEADWALL.
4. INSTALL REMAINING LENGTHS OF 30" R.C. PIPES (TRIPLE)
5. INSTALL CONCRETE ENDWALL.
6. INSTALL PREFORMED SCOUR HOLE TYPE 1.
7. REMOVE COFFERDAM AND DEWATERING DEVICES.

TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	n/a
AVERAGE SPRING FLOW	0.2 CFS
TWO (2) YEAR FREQUENCY DISCHARGE	33.35 CFS
TEMPORARY DESIGN DISCHARGE	0.2 CFS
TEMPORARY DESIGN FREQUENCY	ASF
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	72.63 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	72.63 FT
COFFERDAM ELEVATION	73.60 FT



COFFERDAM DETAIL

LEGEND



COFFERDAM

SUMP

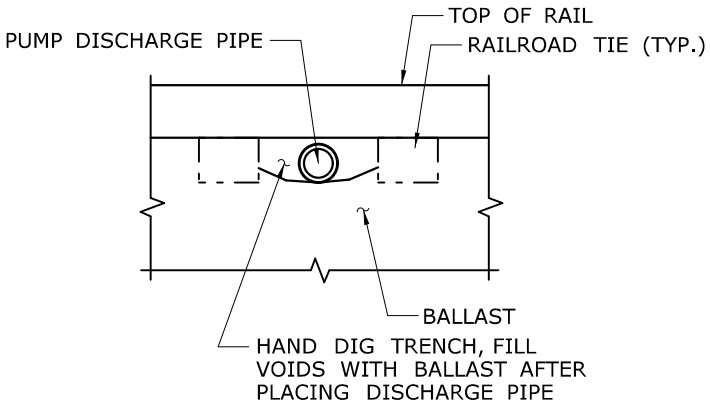
PUMP

SEDIMENTATION CONTROL SYSTEM

DEWATERING BASIN OR SEDIMENT BAG

DIRECTION OF FLOW

STABLE VELOCITY DISSIPATOR



PUMP DISCHARGE PIPE UNDER RAILROAD TRACKS DETAIL

CONSTRUCTION DETAILS & NOTES

WETLAND ID 36, 41, 43, & 45
MP 29.87
STA. 1549+05

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

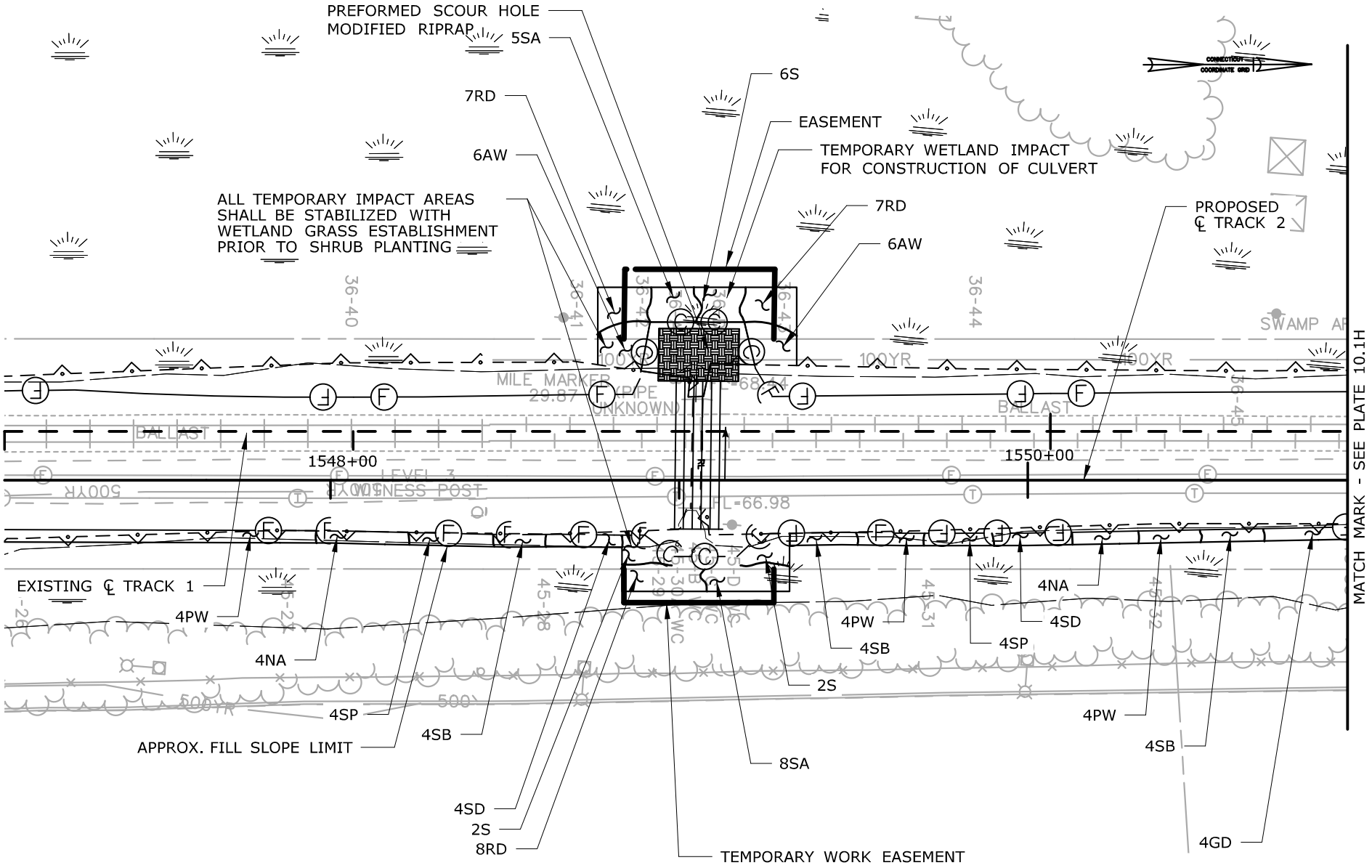
PARSONS BRINCKERHOFF

SCALE: N.T.S.

DATE:
MAR 2014
WETLAND ID No.36 & 45

PLATE 9.4H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 9.4H.dgn



SEE PLATE 10.1 FOR PLANTING TABLE

PLANTING PLAN

WETLAND ID 36, 41, 43 & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

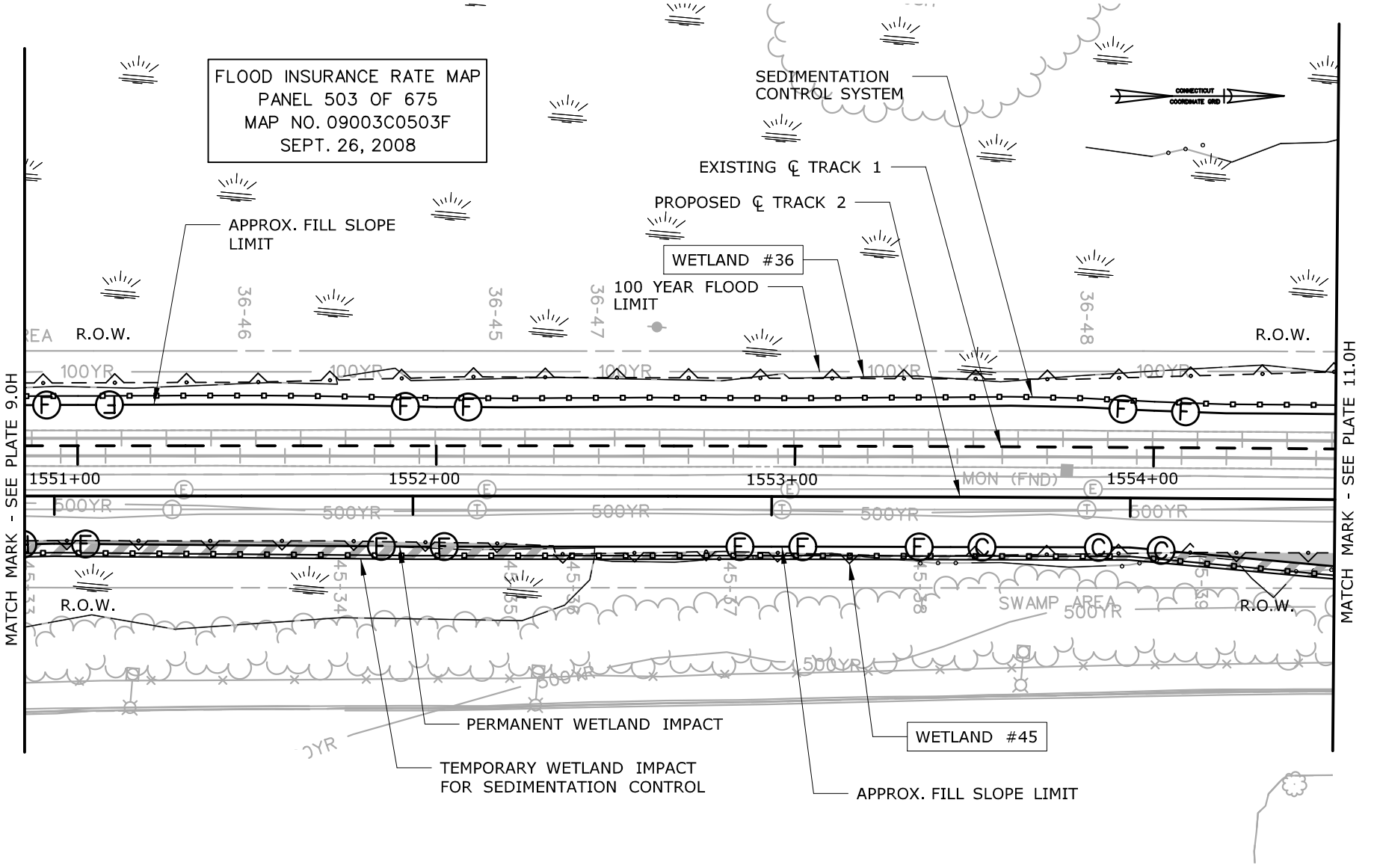
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.36 & 45

PLATE 9.5H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 9.5H.dgn



SEE PLATE 6.0H FOR TOTAL WETLAND 45 IMPACT AREAS

IMPACT PLAN

WETLAND ID 36, 41, 43, & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014

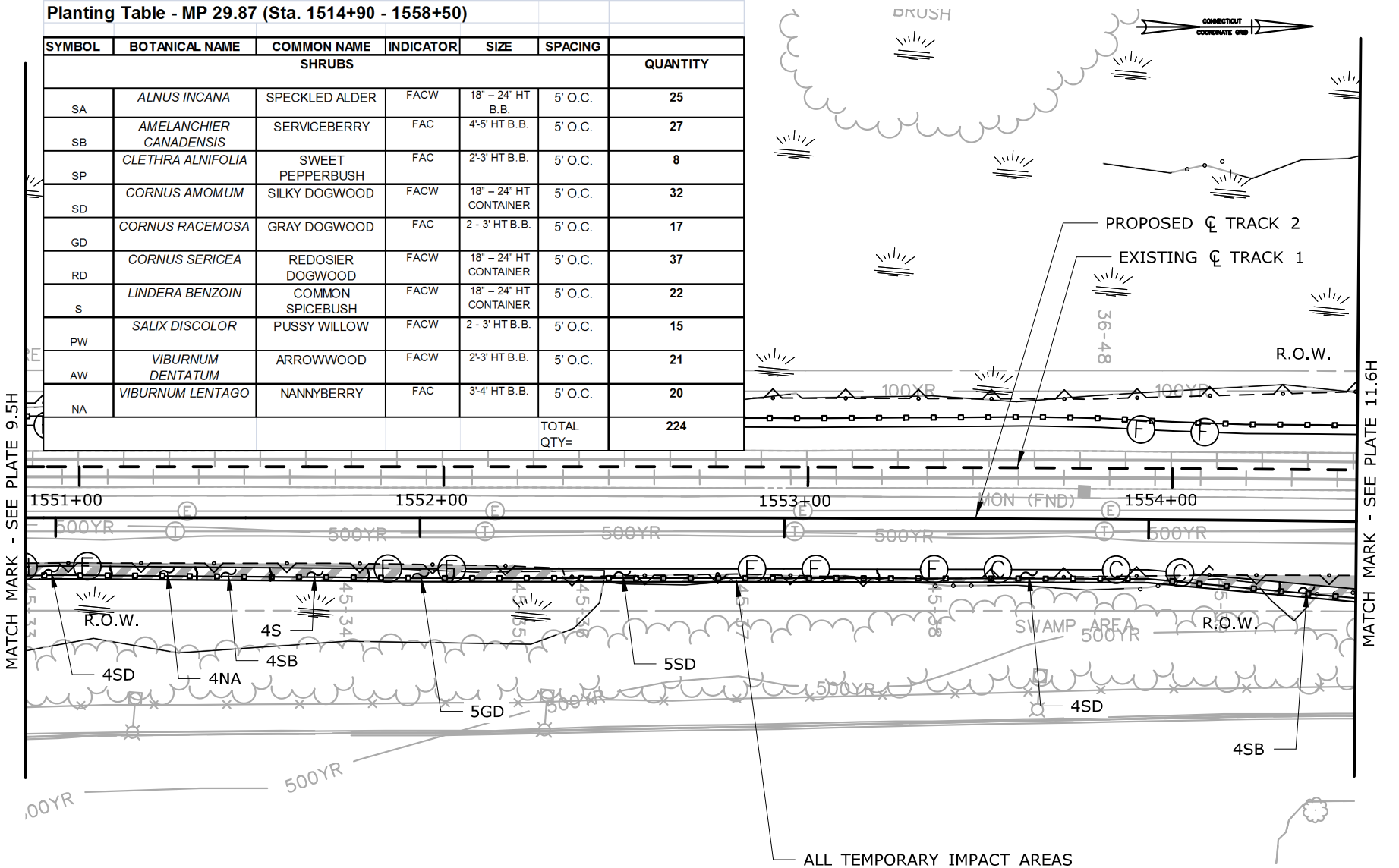
WETLAND ID No.36 & 45

PLATE 10.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 10.0H.dgn

Planting Table - MP 29.87 (Sta. 1514+90 - 1558+50)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	25
SB	*AMELANCHIER CANADENSIS*	SERVICEBERRY	FAC	4'-5' HT B.B.	5' O.C.	27
SP	*CLETHRA ALNIFOLIA*	SWEET PEPPERBUSH	FAC	2'-3' HT B.B.	5' O.C.	8
SD	*CORNUS AMOMUM*	SILKY DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	32
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	17
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	37
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	22
PW	*SALIX DISCOLOR*	PUSSY WILLOW	FACW	2 - 3' HT B.B.	5' O.C.	15
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	21
NA	*VIBURNUM LENTAGO*	NANNYBERRY	FAC	3'-4' HT B.B.	5' O.C.	20
					TOTAL QTY=	224



PLANTING PLAN

WETLAND ID 36, 41, 43, & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

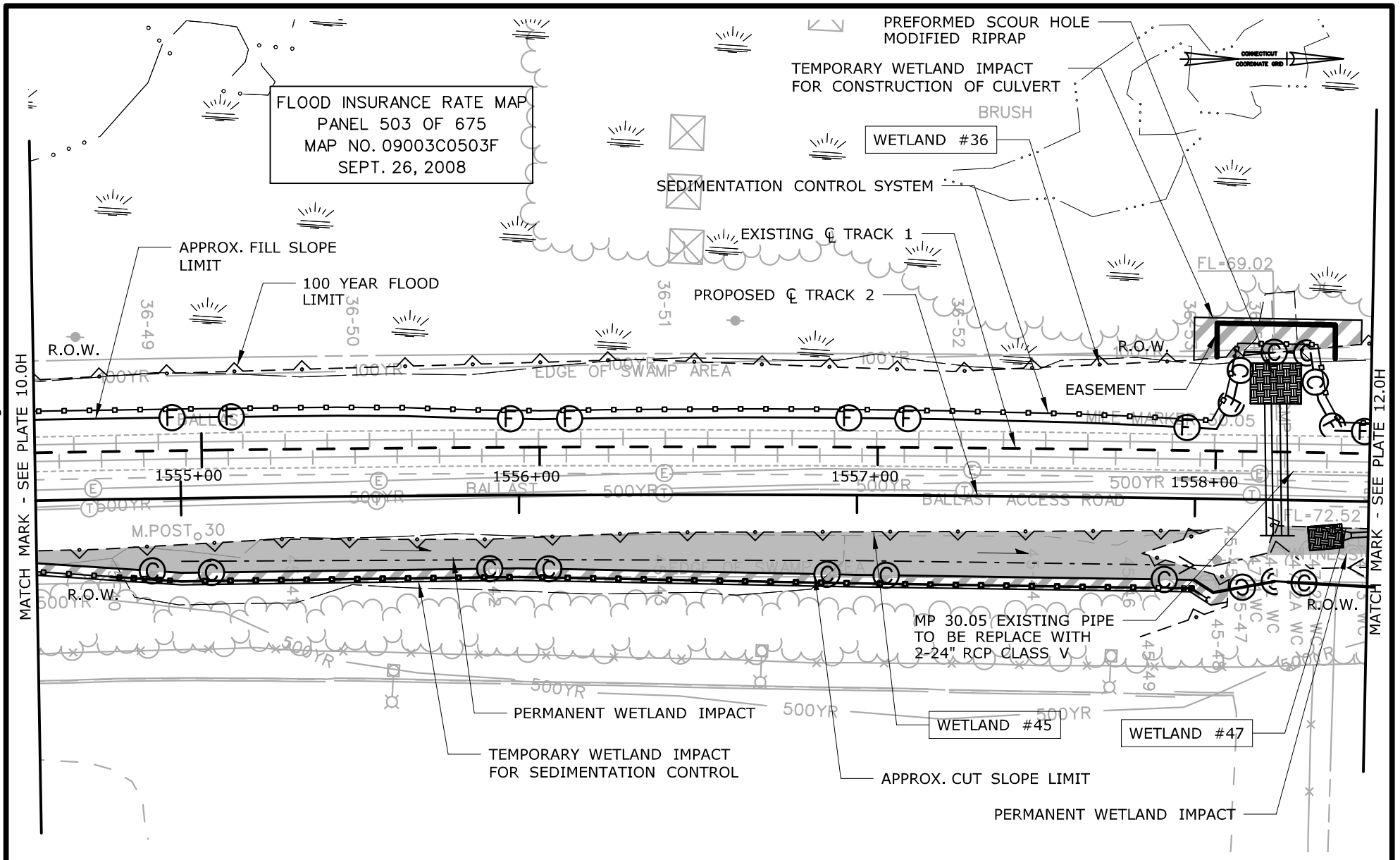
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.36 & 45

PLATE 10.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 10.1H.dgn



SEE PLATE 9.0H FOR TOTAL WETLAND 36 IMPACT AREAS
SEE PLATE 6.0H FOR TOTAL WETLAND 45 IMPACT AREAS
SEE PLATE 12.0H FOR TOTAL WETLAND 47 IMPACT AREAS

IMPACT PLAN

WETLAND ID 36, 41, 43 & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

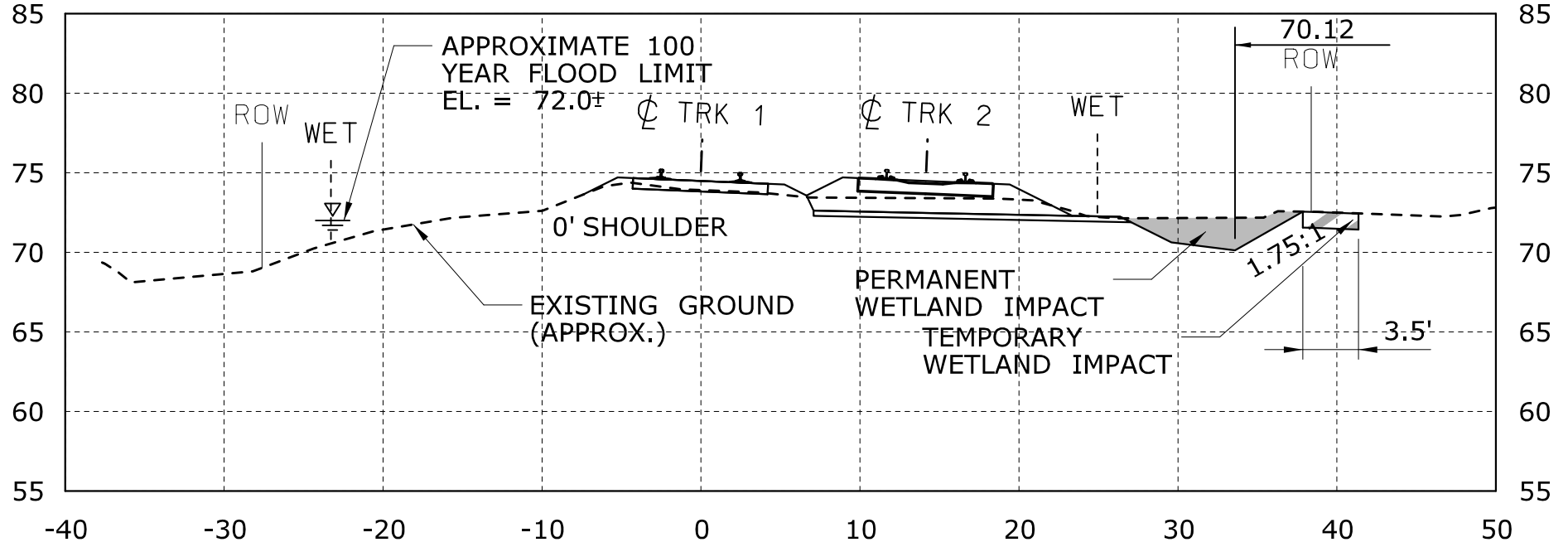
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.36, 45 & 47

PLATE 11.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 11.0H.dgn



1557+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET

0 10 20

IMPACT SECTION
WETLAND ID 36,41,43,&45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

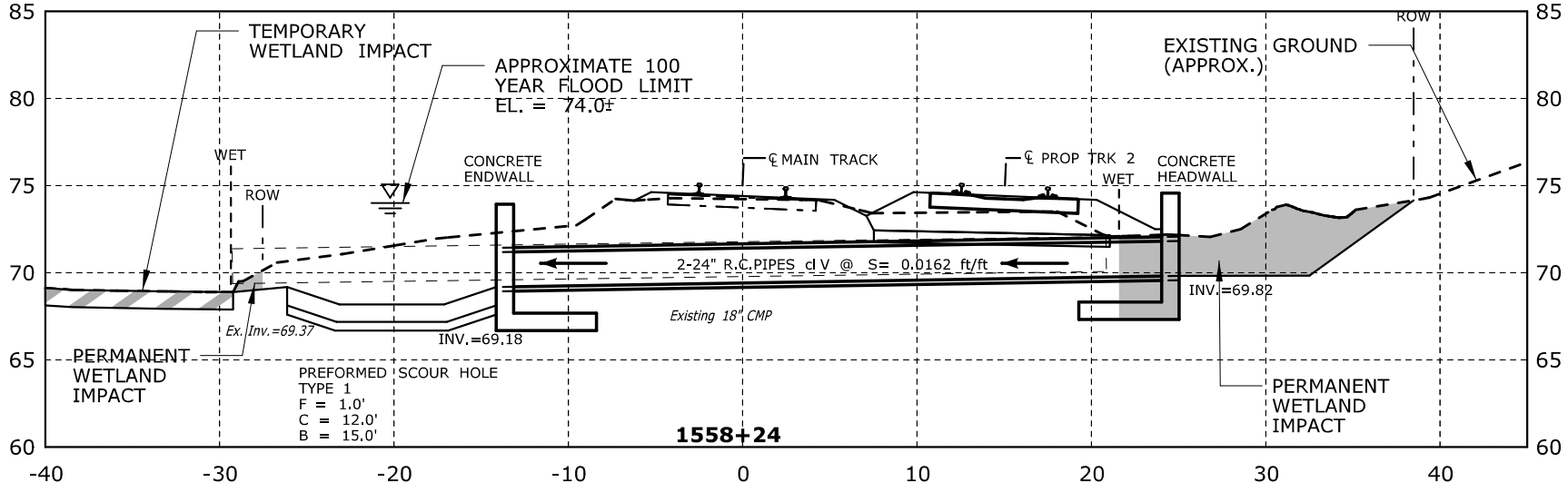
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DATE:
MAR 2014

WETLAND ID No.36
45, & 47

PLATE 11.1H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 11.1H.dgn



SCALE IN FEET

0 10 20

IMPACT SECTION

WETLAND ID 36 & 47
MP 30.05
STA. 1558+25

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

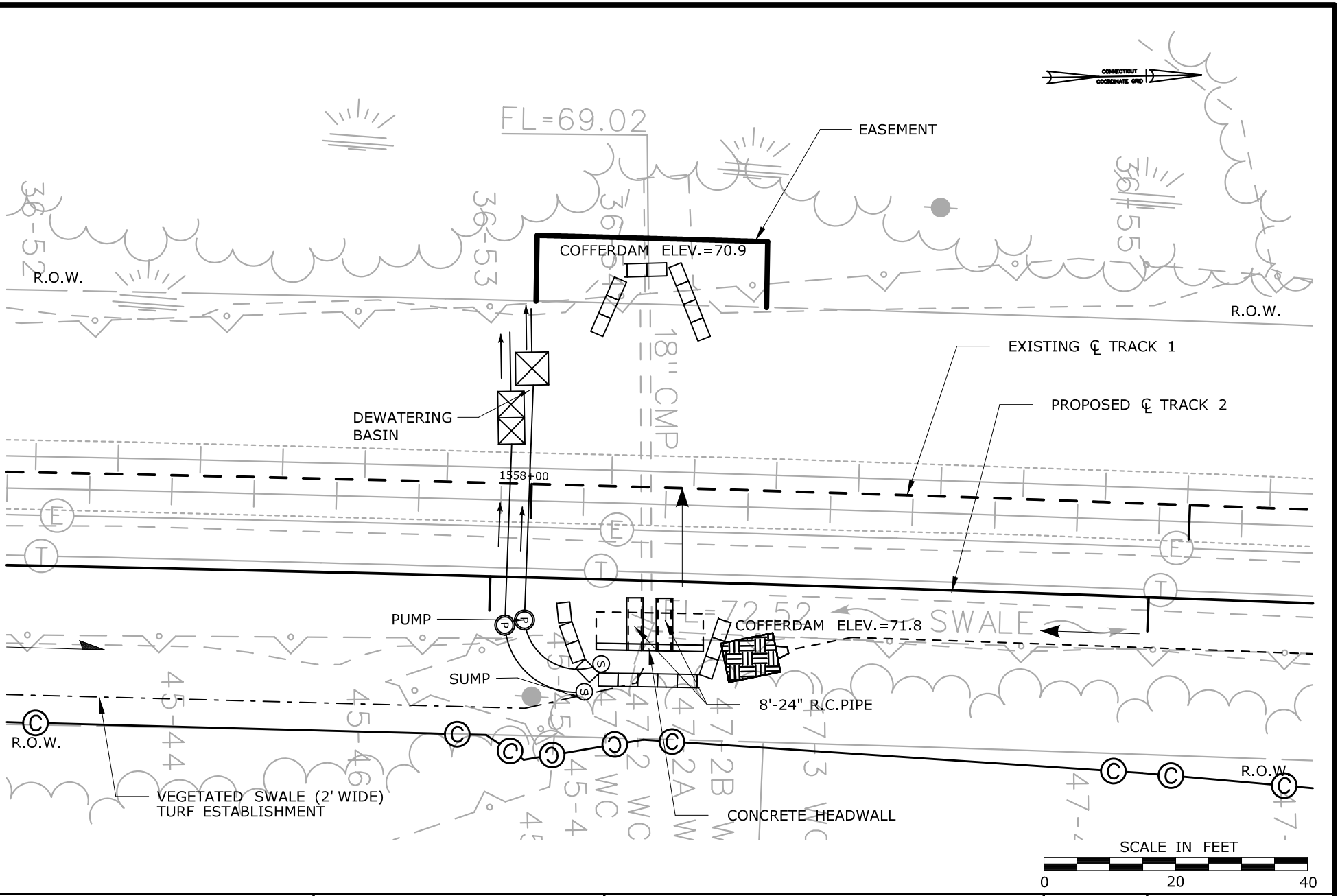
SCALE:1"=10'

DATE:
MAR 2014

WETLAND ID No.36 & 47

PLATE 11.2H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 11.2H.dgn



STAGE 1

CONSTRUCTION PLAN

WETLAND ID 36 & 47
MP 30.05
STA. 1558+25

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

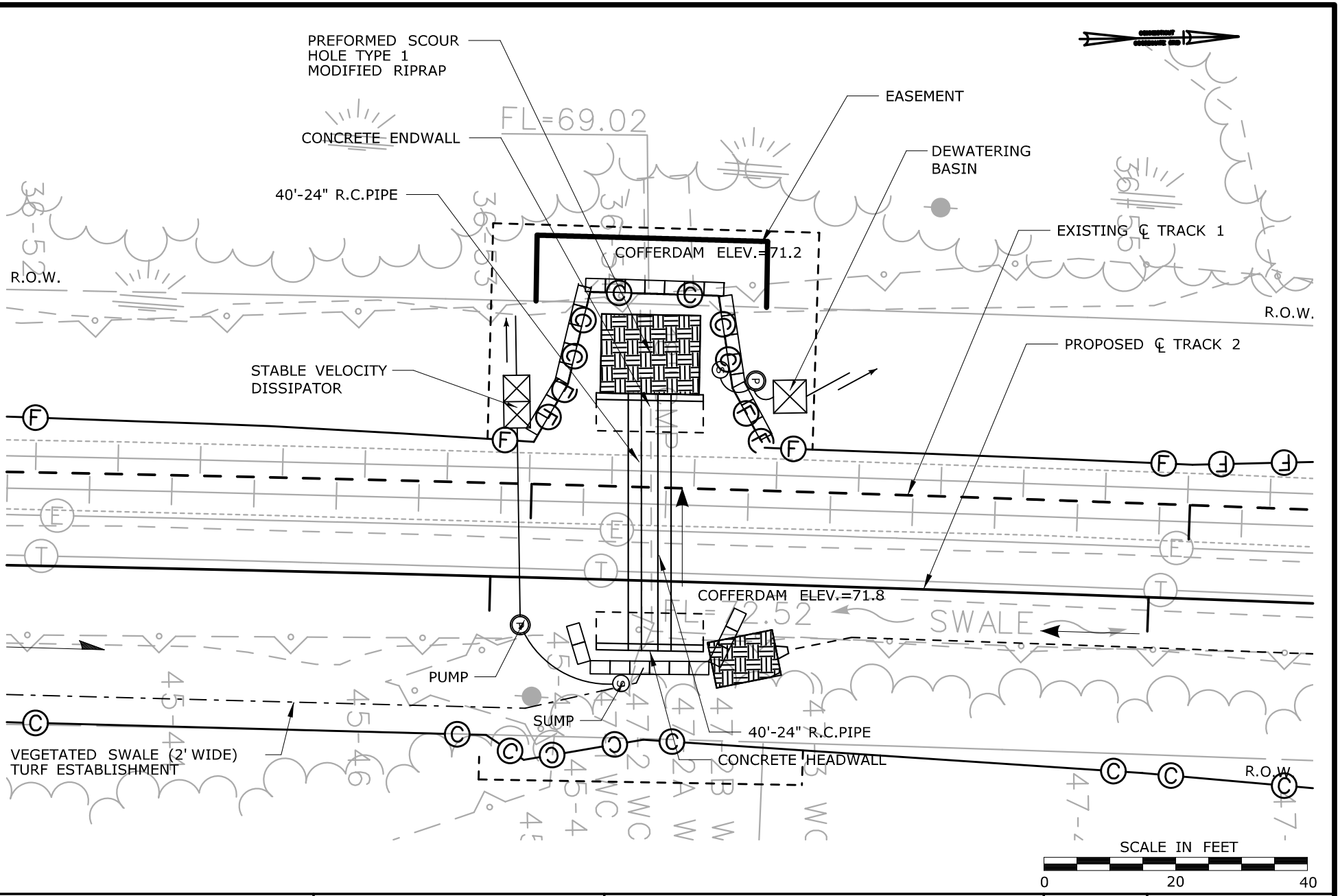
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.36 & 47

PLATE 11.3H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 11.3H.dgn



Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 11.4H.dgn

STAGE 2

CONSTRUCTION PLAN

WETLAND ID 36 & 47
MP 30.05
STA. 1558+25

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.36 & 47

PLATE 11.4H OF 12.1H

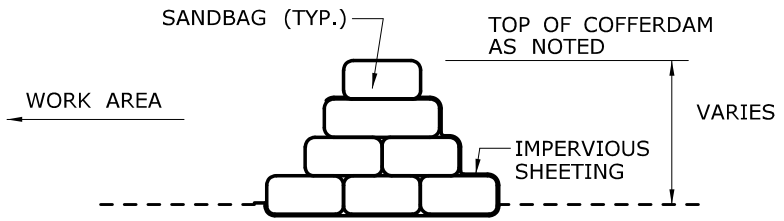
CONSTRUCTION SEQUENCE PHASE 1

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. REMOVE EXISTING HEADWALL.
3. INSTALL HEADWALL.
4. INSTALL 8 L.F. OF EACH 24" R.C. PIPE (DOUBLE PIPE).

CONSTRUCTION SEQUENCE PHASE 2

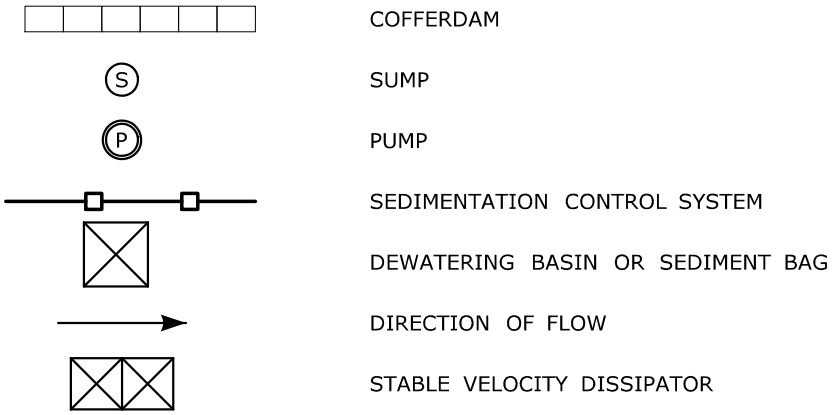
1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. CHECK AND MAINTAIN COFFERDAMS AND DEWATERING DEVICES INSTALLED IN PHASE 1 THAT ARE TO REMAIN.
3. INSTALL REMAINING LENGTHS OF 24" R.C. PIPES (DOUBLE).
4. INSTALL CONCRETE ENDWALL.
5. REMOVE COFFERDAM AND DEWATERING DEVICES.

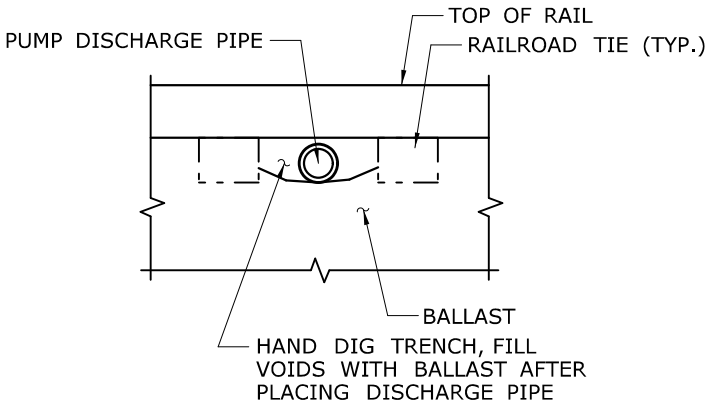
TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	n/a
AVERAGE SPRING FLOW	0.8 CFS
TWO (2) YEAR FREQUENCY DISCHARGE	15.73 CFS
TEMPORARY DESIGN DISCHARGE	3.15 CFS
TEMPORARY DESIGN FREQUENCY	ASF +1
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	73.06 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	71.60 FT
COFFERDAM ELEVATION	73.10 FT



COFFERDAM DETAIL

LEGEND





PUMP DISCHARGE PIPE UNDER RAILROAD TRACKS DETAIL

CONSTRUCTION DETAILS & NOTES

WETLAND ID 36 & 47
MP 30.05
STA. 1558+25

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

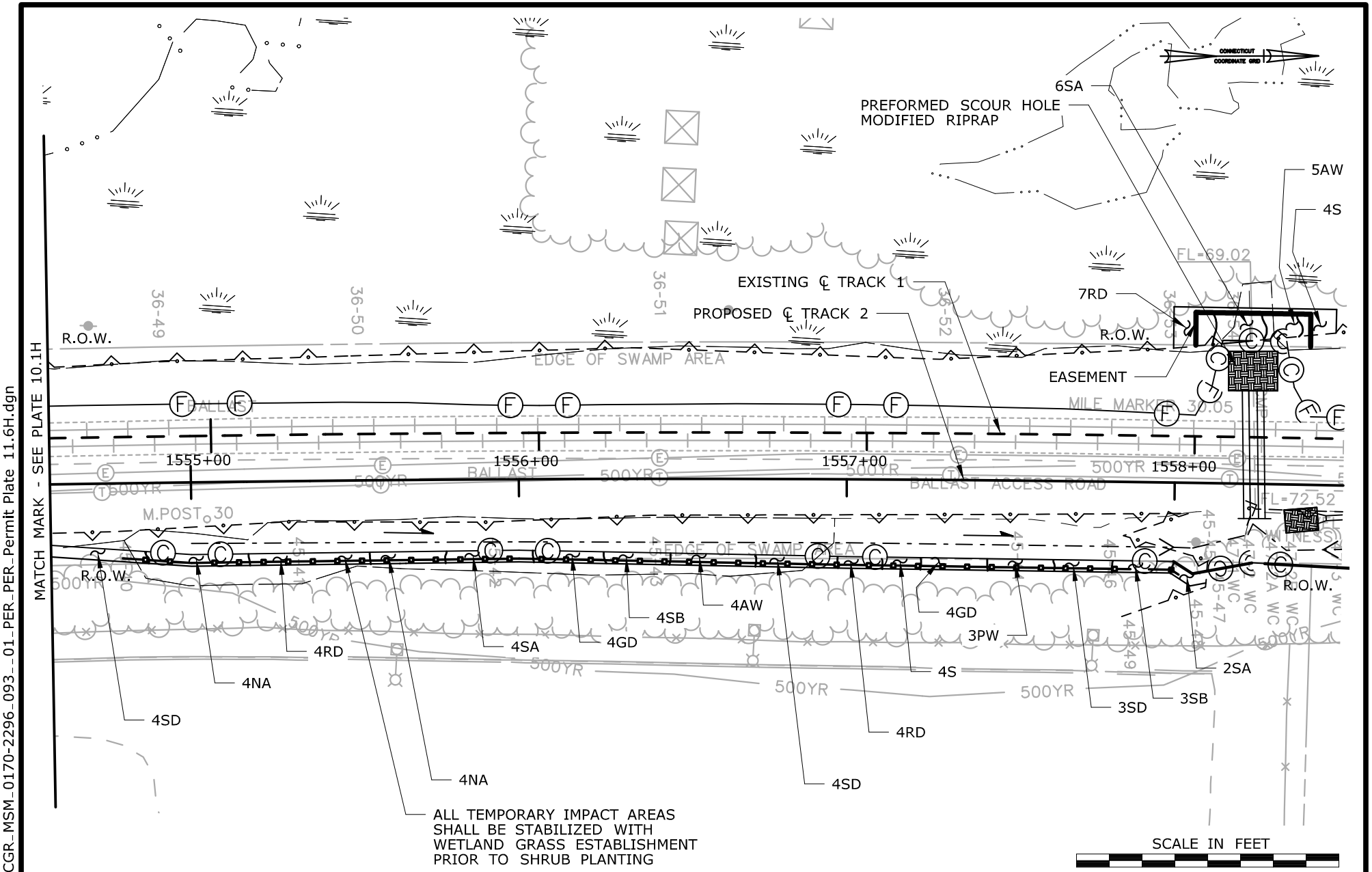
SCALE: N.T.S.

DATE: MAR 2014

WETLAND ID No. 36 & 47

PLATE 11.5H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 11.5H.dgn



SEE PLATE 10.1H FOR PLANTING TABLE

PLANTING PLAN

WETLAND ID 36, 41, 43 & 45
MP 29.25 - MP 30.06
STA. 1514+90 - 1558+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

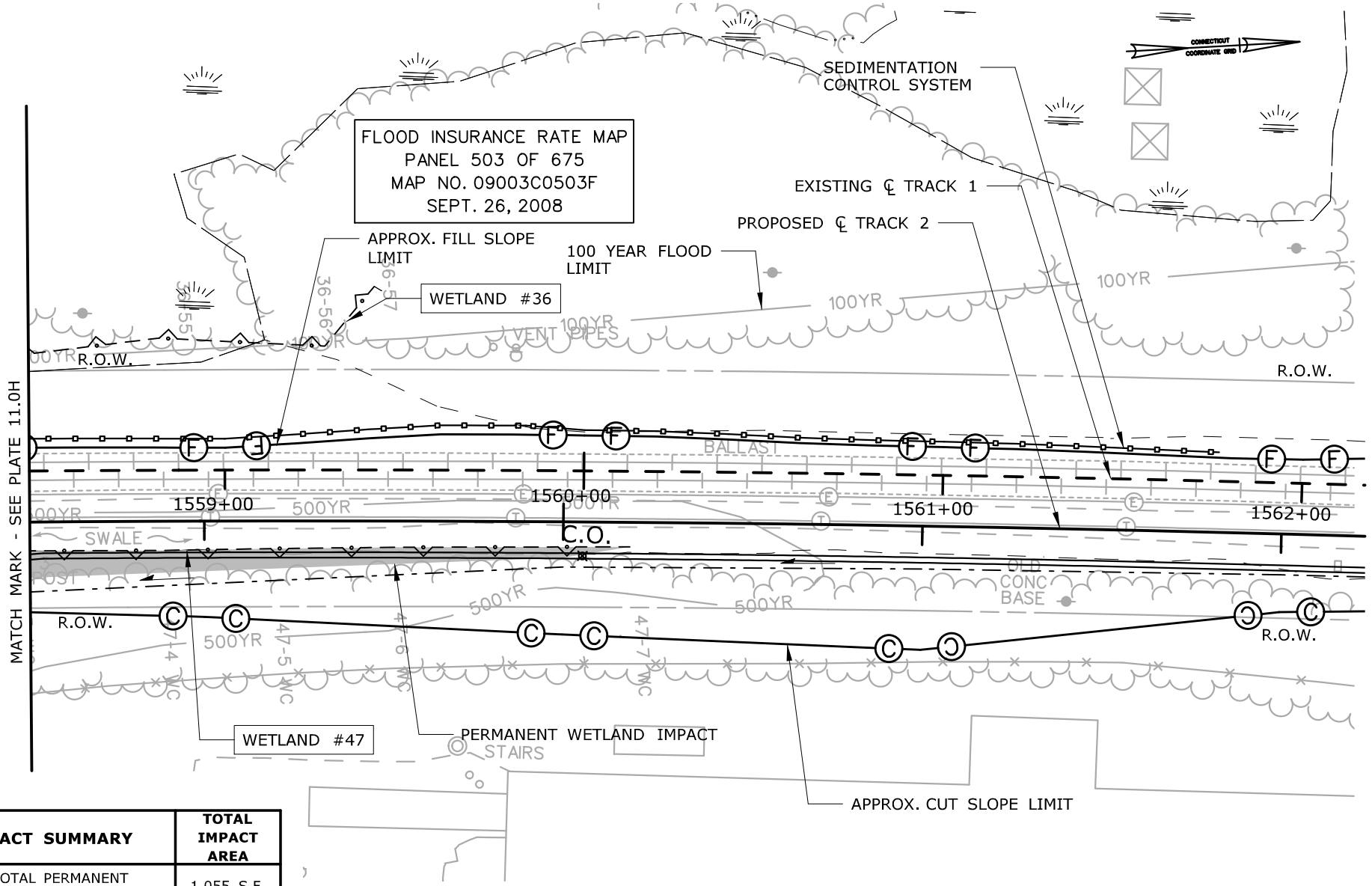
SCALE:1"=40'

DATE:
MAR 2014

WETLAND ID No.36, 45 & 47

PLATE 11.6H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 11.6H.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 47 IMPACT	1,055 S.F.
TOTAL TEMPORARY WETLAND 47 IMPACT	0 S.F.

IMPACT AREAS FOR WETLAND ID 47 ARE ALSO SHOWN ON PLATE 11.0H

IMPACT PLAN

WETLAND ID 47
MP 30.08
STA. 1558+50 - 1560+20

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

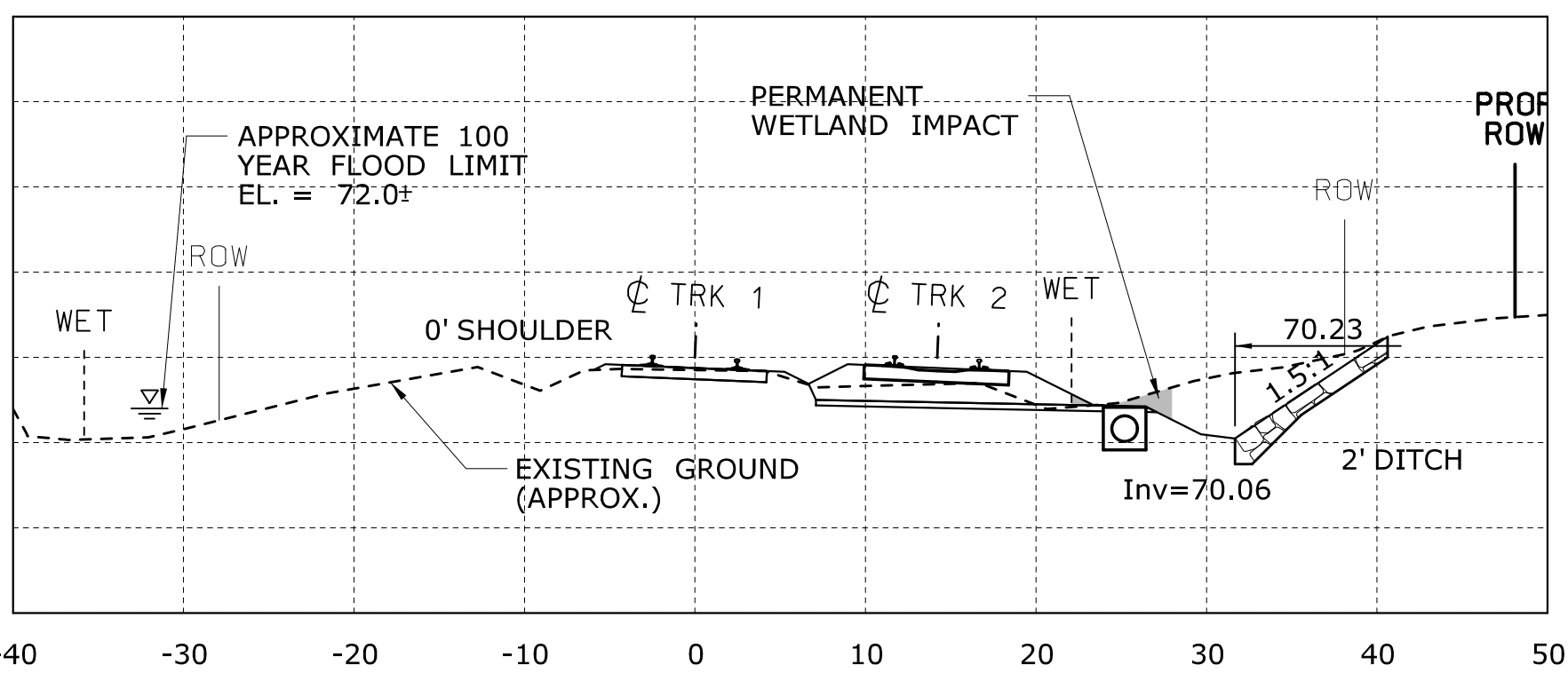
SCALE:1"=40'

DATE:
MAR 2014

WETLAND ID No.36 & 47

PLATE 12.0H OF 12.1H

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 12.0H.dgn



1559+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

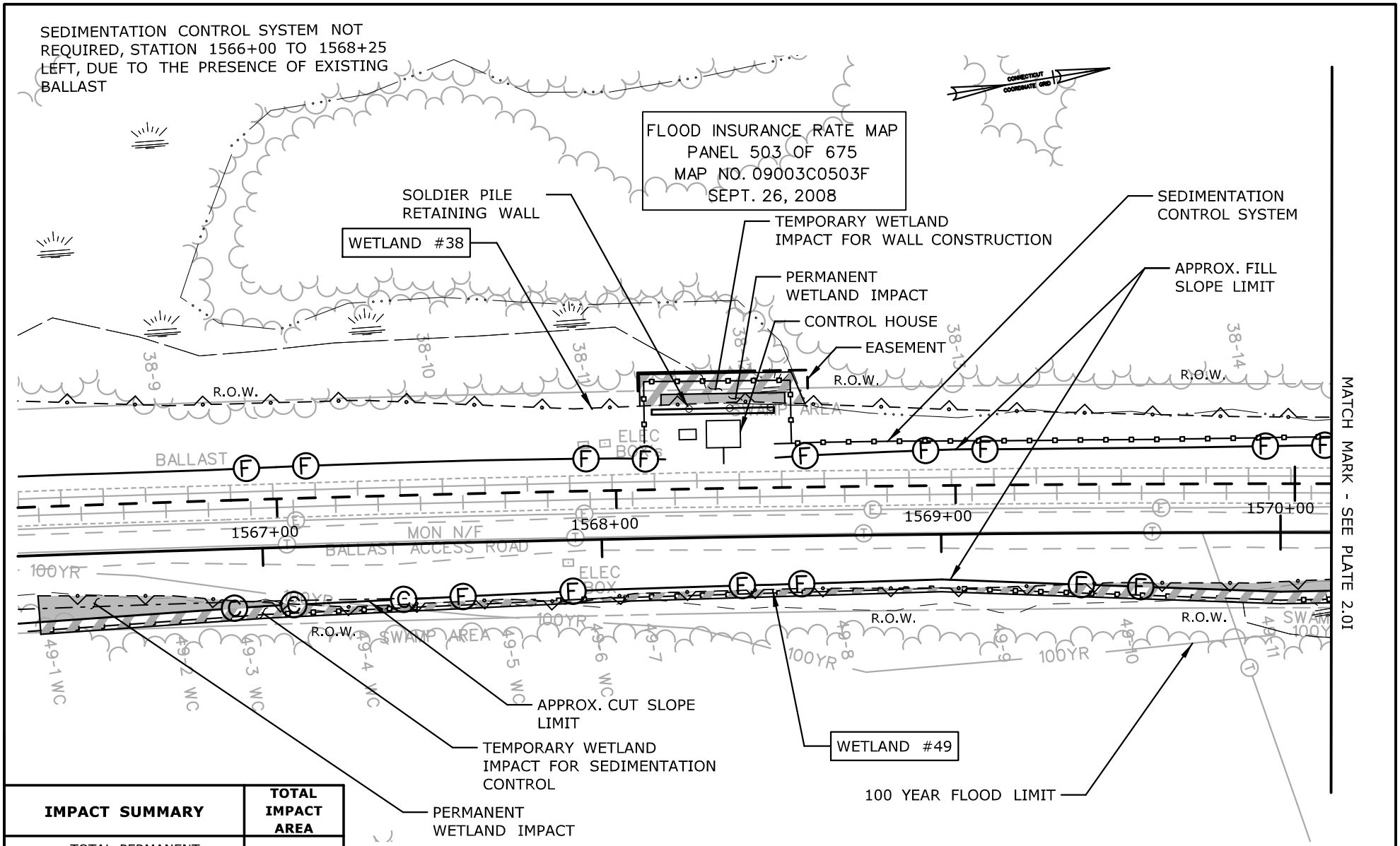
1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET

0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 12.1H.dgn

IMPACT SECTION WETLAND ID 47 MP 30.08 STA. 1558+50 - 1560+20	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: HARTFORD CITY/TOWN: NEWINGTON	APPLICATION BY: AMTRAK NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	PARSONS BRINCKERHOFF SCALE:1"=10'	DATE: MAR 2014 WETLAND ID No.36 & 47 PLATE 12.1H OF 12.1H



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 49 IMPACT	685 S.F.
TOTAL TEMPORARY WETLAND 49 IMPACT	1,305 S.F.

SEE PLATE 2.0I FOR TOTAL WETLAND ID 38
IMPACT AREAS FOR WETLAND ID 49 ARE ALSO SHOWN ON PLATE 2.0I

SCALE IN FEET
0 40 80

IMPACT PLAN

WETLAND ID 38, 49, 51 & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

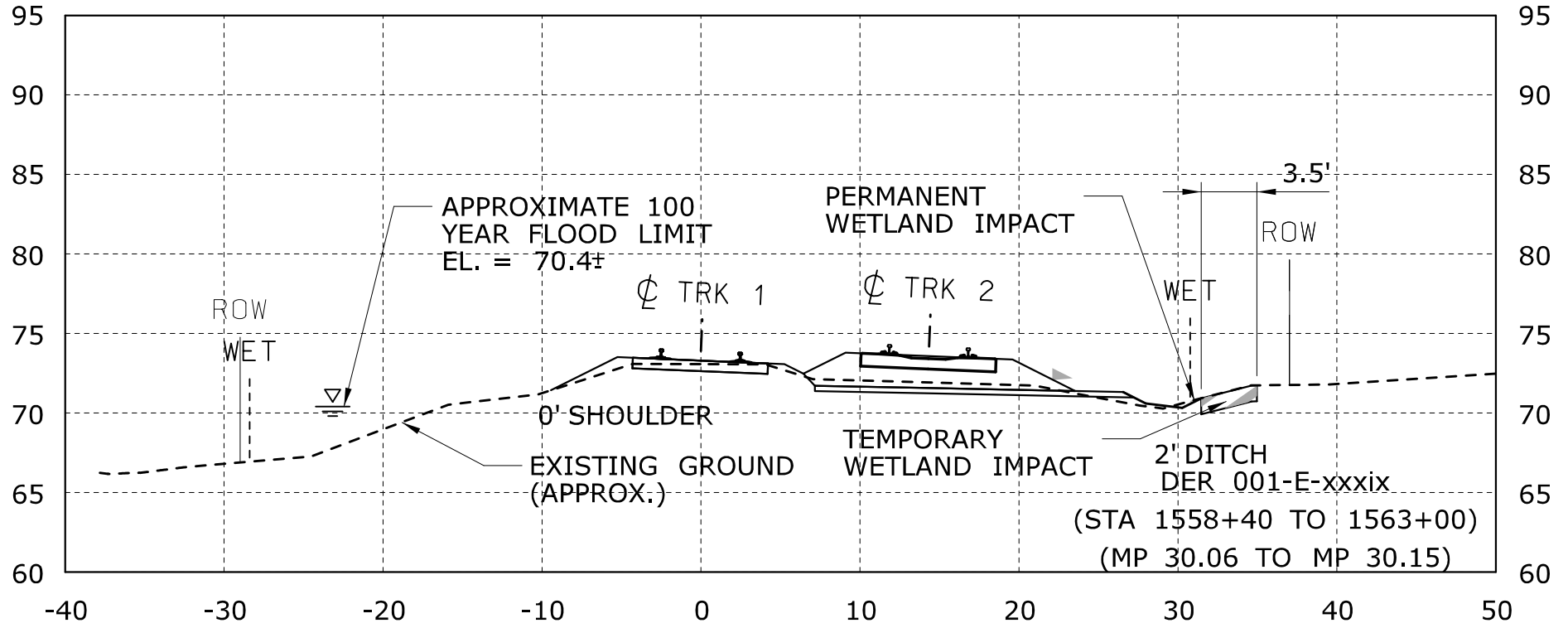
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38 & 49

PLATE 1.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 1.0I.dgn



1567+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 1.1I.dgn

IMPACT SECTION
WETLAND ID 38, 49, 51, & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

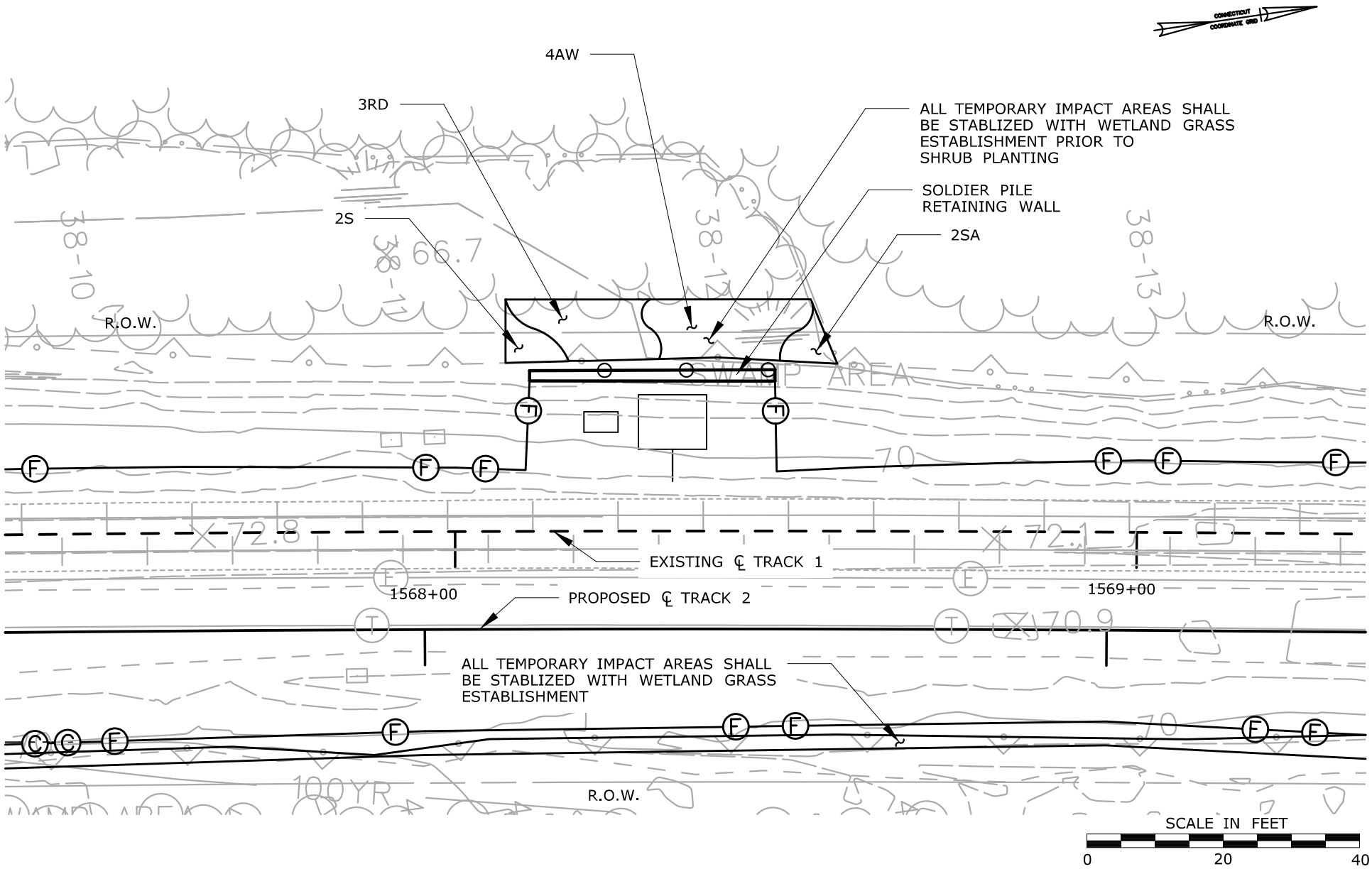
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.38 & 49

PLATE 1.1I OF 13.3I



PLANTING PLAN

WETLAND ID 38, 49, 51 & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

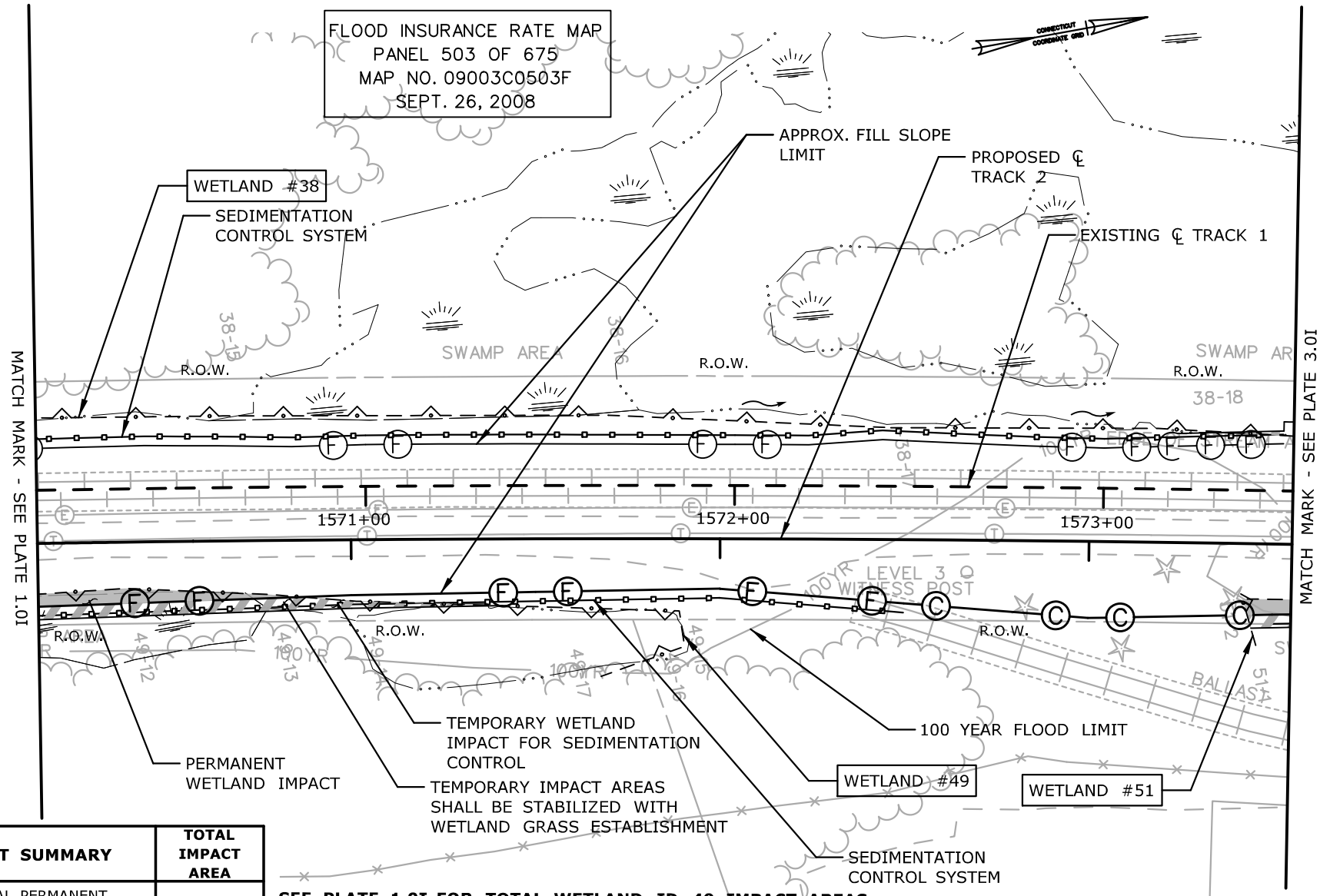
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.38 & 49

PLATE 1.2I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 1.2I.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 38 IMPACT	105 S.F.
TOTAL TEMPORARY WETLAND 38 IMPACT	270 S.F.

SEE PLATE 1.0I FOR TOTAL WETLAND ID 49 IMPACT AREAS
SEE PLATE 3.0I FOR TOTAL WETLAND ID 51 IMPACT AREAS
IMPACT AREAS FOR WETLAND ID 38 ARE ALSO SHOWN ON PLATES 1.0I, 3.0I, 6.0I

SCALE IN FEET
0 40 80

IMPACT PLAN

WETLAND ID 38, 49, 51 & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

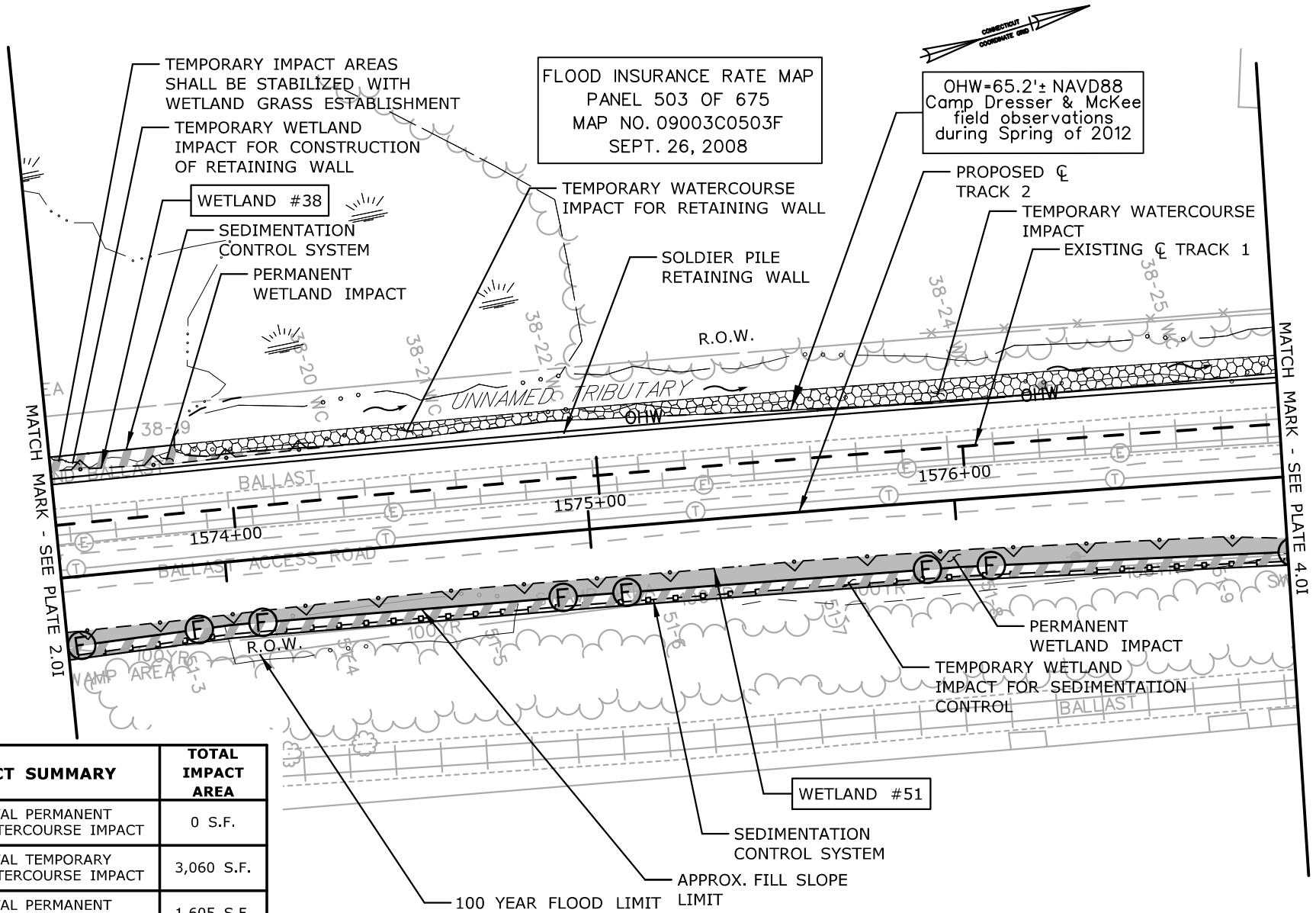
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38,49 & 51

PLATE 2.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 2.0I.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	0 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	3,060 S.F.
TOTAL PERMANENT WETLAND 51 IMPACT	1,605 S.F.
TOTAL TEMPORARY WETLAND 51 IMPACT	1,670 S.F.

SEE PLATE 2.0I FOR TOTAL WETLAND ID 38-100 IMPACT AREAS
IMPACT AREAS FOR PIPER BROOK ARE ALSO SHOWN ON PLATE 4.0I
IMPACT AREAS FOR WETLAND ID 51 ARE ALSO SHOWN ON PLATES 2.0I, 4.0I

IMPACT PLAN

UNNAMED TRIBUTARY
WETLAND ID 38, 49, 51 & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

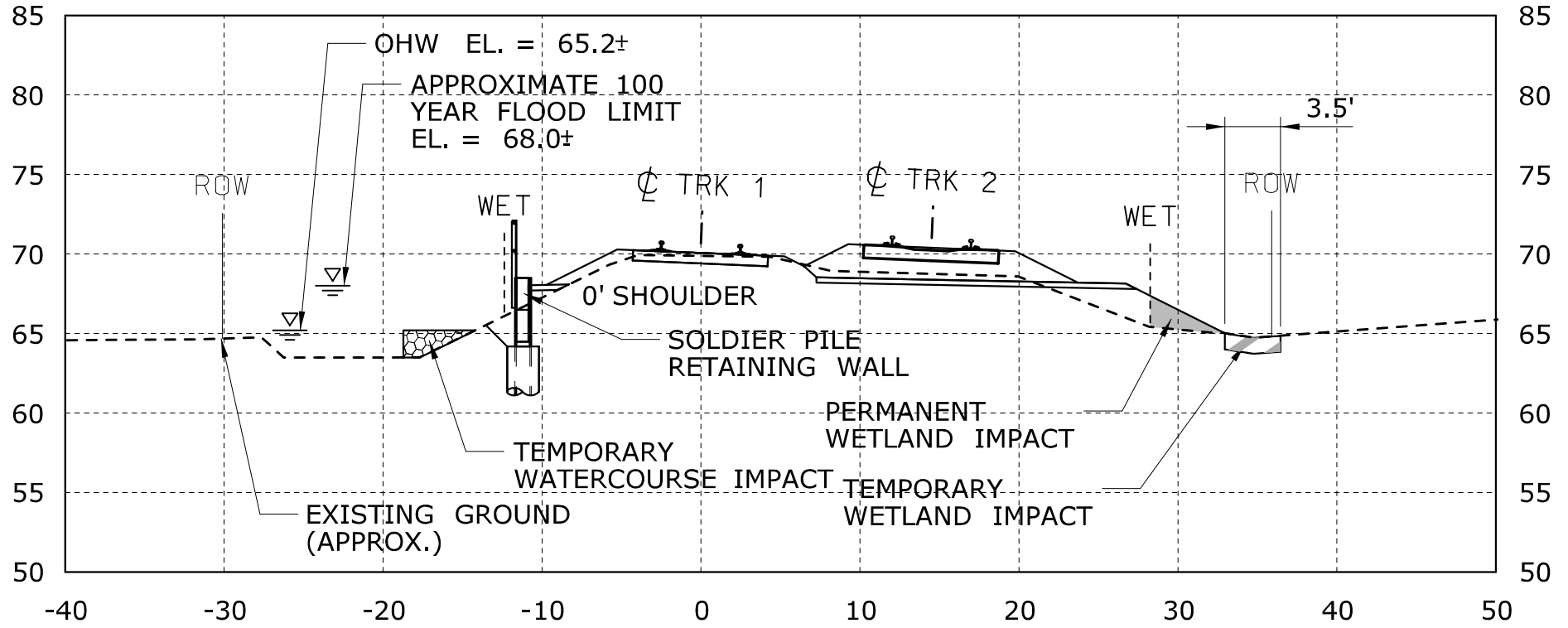
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38
51
WATERCOURSE
UNNAMED TRIBUTARY

PLATE 3.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 3.0I.dgn



1576+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 3.1I.dgn

IMPACT SECTION
WETLAND ID 38, 49, 51, & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

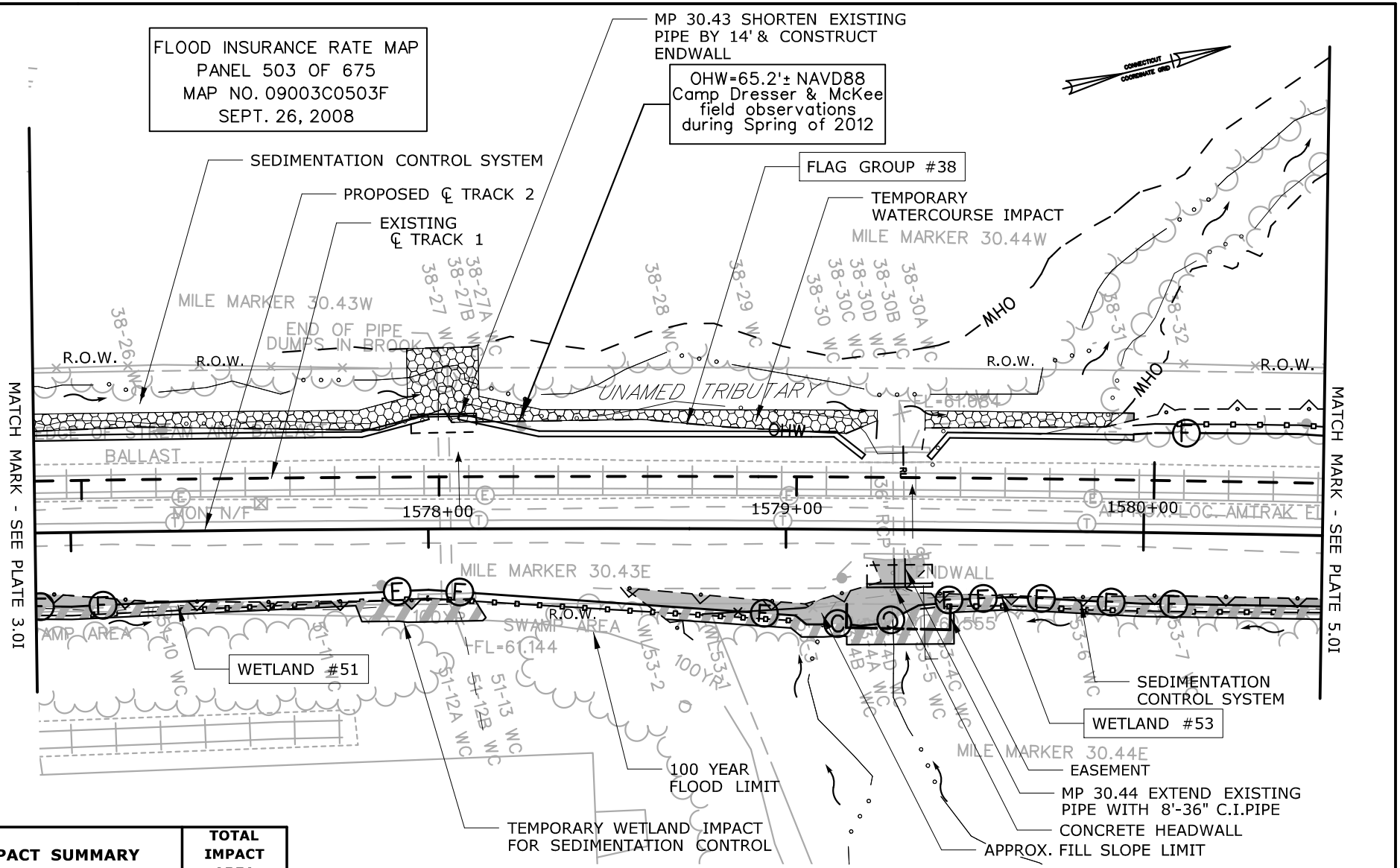
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014

WETLAND ID No.38 & 51

PLATE 3.1I OF 13.3I



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 53 IMPACT	8,560 S.F.
TOTAL TEMPORARY WETLAND 53 IMPACT	5,145 S.F.

SEE PLATE 3.0I FOR TOTAL UNNAMED TRIBUTARY TO PIPER BROOK IMPACT AREAS
SEE PLATE 3.0I FOR TOTAL WETLAND ID 51 IMPACT AREAS
IMPACT AREAS FOR WETLAND ID 53 ARE ALSO SHOW ON PLATE 5.0I, 6.0I, 7.0I, 8.0I

SCALE IN FEET
0 40 80

IMPACT PLAN

UNNAMED TRIBUTARY
WETLAND ID 38, 49, 51 & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

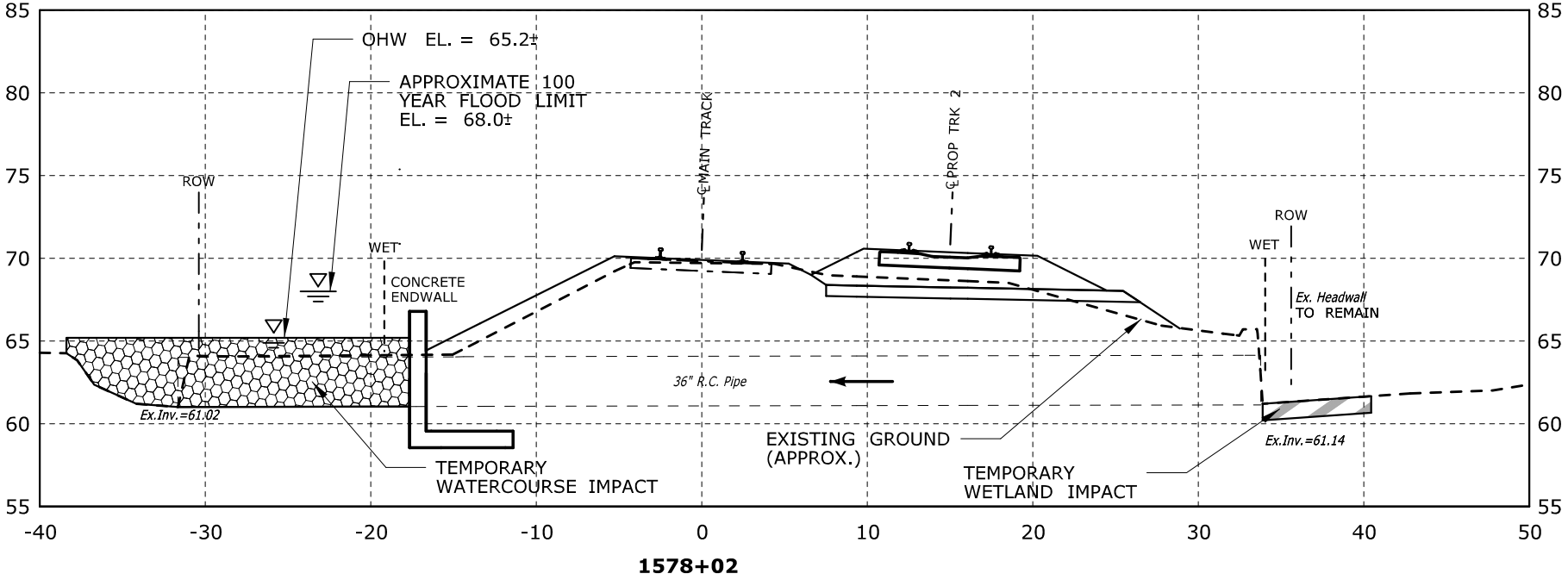
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38,49 51 & 53
WATERCOURSE
UNNAMED TRIBUTARY

PLATE 4.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 4.0I.dgn



CONSTRUCTION SEQUENCE

1. CONSTRUCT THE SEDIMENTATION CONTROL SYSTEMS, AND SWALES AS SHOWN AND IN ACCORDANCE WITH THE "HANDLING WATER" SPECIAL PROVISION AND THE PERMIT DOCUMENTS.
2. STABILIZE SLOPES 1.75:1 AND FLATTER WITH TURF ESTABLISHMENT, SLOPES STEEPER THAN 1.75:1 SHALL HAVE CRUSHED STONE SLOPE PROTECTION OR RIPRAP INSTALLED.
3. ONCE ALL DISTURBED AREAS HAVE BEEN STABILIZED, REMOVE THE SEDIMENTATION CONTROL SYSTEMS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES, 1.75:1 OR FLATTER, ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 38 & 51
MP 30.43
STA. 1578+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

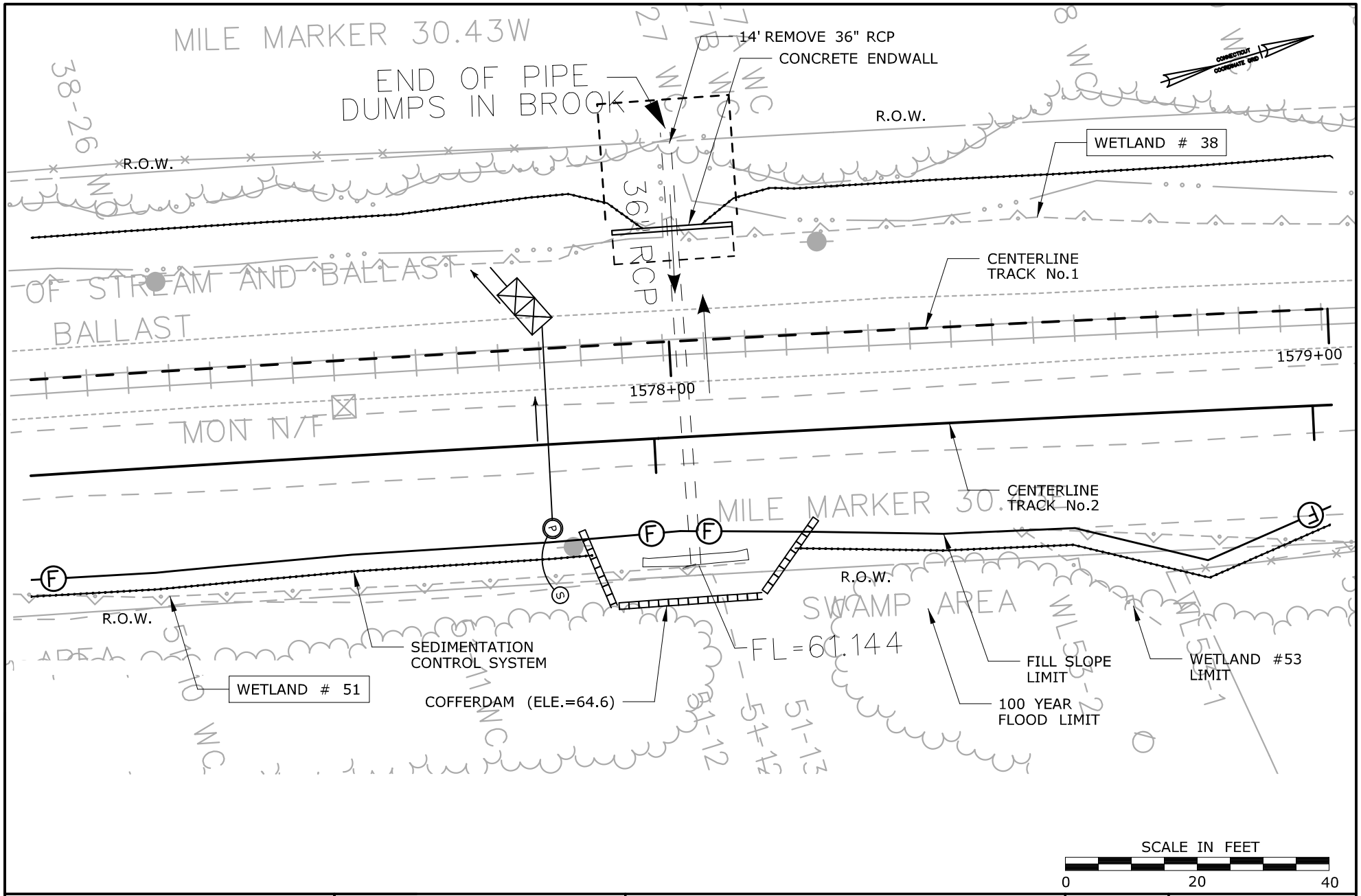
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.38 & 51

PLATE 4.1I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 4.1I.dgn



Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 4.2I.dgn

STAGE CONSTRUCTION PLAN

WETLAND ID 38 & 51
MP 30.43
STA. 1578+00

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

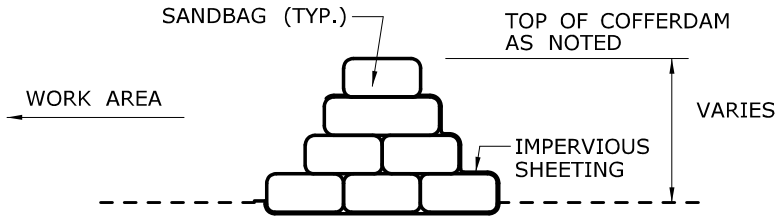
DATE:
MAR 2014
WETLAND ID No.38 & 51

PLATE 4.2I OF 13.3I

CONSTRUCTION SEQUENCE PHASE 1
CULVERT MP 30.43

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. REMOVE 14 L.F. OF 36" R.C.P.
3. INSTALL CONCRETE ENDWALL
4. INSTALL CONCRETE HEADWALL.
5. REMOVE COFFERDAM AND DEWATERING DEVICES.

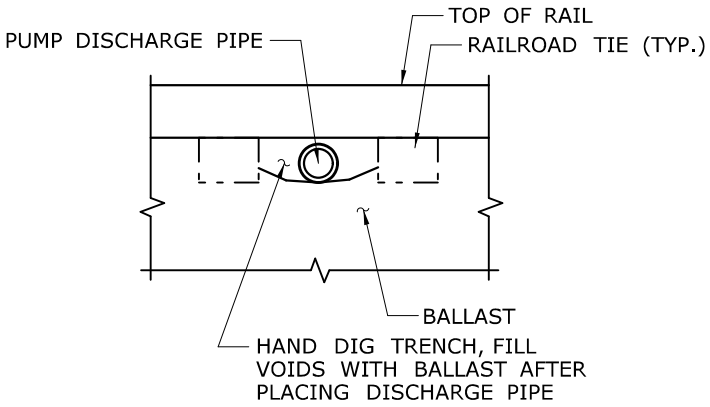
TEMPORARY HYDRAULIC DATA	
COFFERDAM ELEVATION	64.6 FT



COFFERDAM DETAIL

LEGEND

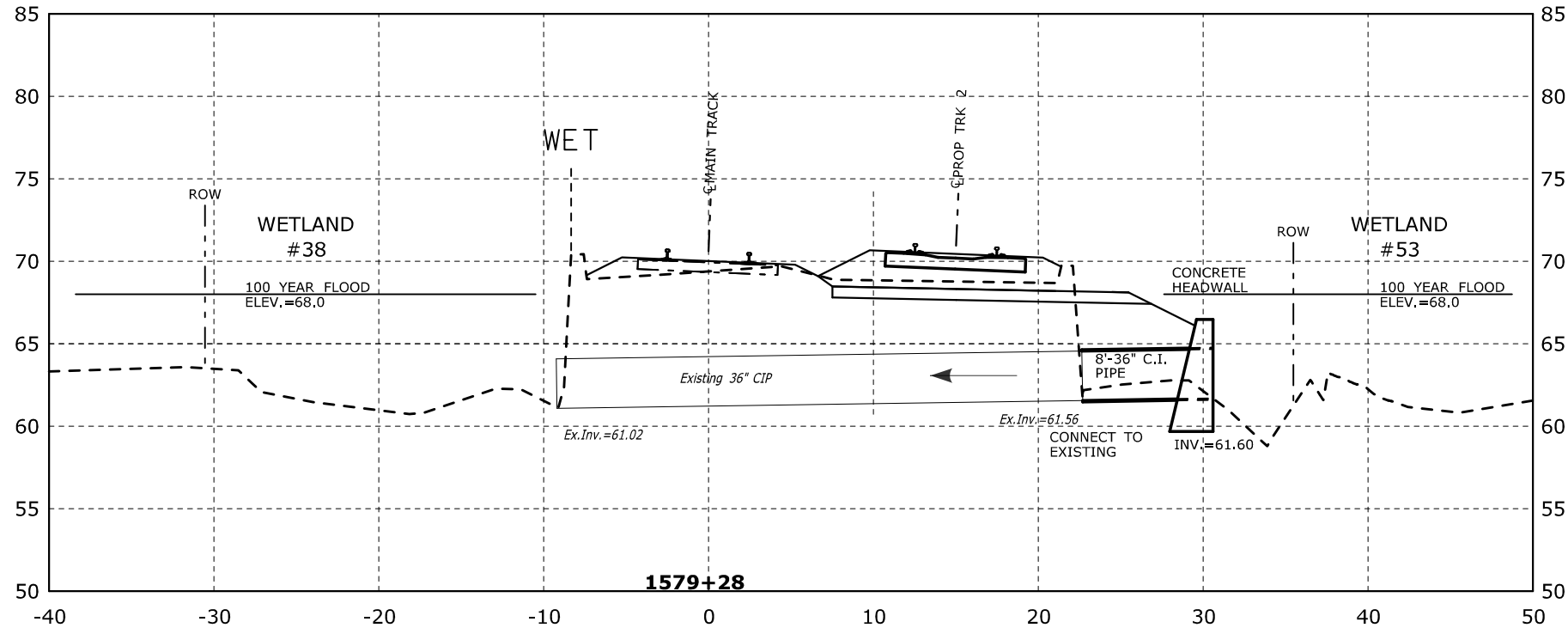
- COFFERDAM
- SUMP
- PUMP
- SEDIMENTATION CONTROL SYSTEM
- DEWATERING BASIN OR SEDIMENT BAG
- DIRECTION OF FLOW
- STABLE VELOCITY DISSIPATOR



PUMP DISCHARGE PIPE UNDER RAILROAD TRACKS DETAIL

CONSTRUCTION NOTES & DETAILS WETLAND ID 38 & 51 MP 30.43 STA. 1578+00	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: HARTFORD CITY/TOWN: NEWINGTON	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	PARSONS BRINCKERHOFF SCALE:1"=40'	DATE: MAR 2014 WETLAND ID No.38 & 51 PLATE 4.3I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 4.3I.dgn



CONSTRUCTION SEQUENCE

1. CONSTRUCT THE SEDIMENTATION CONTROL SYSTEMS, AND SWALES AS SHOWN AND IN ACCORDANCE WITH THE "HANDLING WATER" SPECIAL PROVISION AND THE PERMIT DOCUMENTS.
2. STABILIZE SLOPES 1.75:1 AND FLATTER WITH TURF ESTABLISHMENT, SLOPES STEEPER THAN 1.75:1 SHALL HAVE CRUSHED STONE SLOPE PROTECTION OR RIPRAP INSTALLED.
3. ONCE ALL DISTURBED AREAS HAVE BEEN STABILIZED, REMOVE THE SEDIMENTATION CONTROL SYSTEMS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES, 1.75:1 OR FLATTER, ARE ESTABLISHED.

SCALE IN FEET

0 10 20

IMPACT SECTION

WETLAND ID 38 & 53
MP 30.44
STA. 1579+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

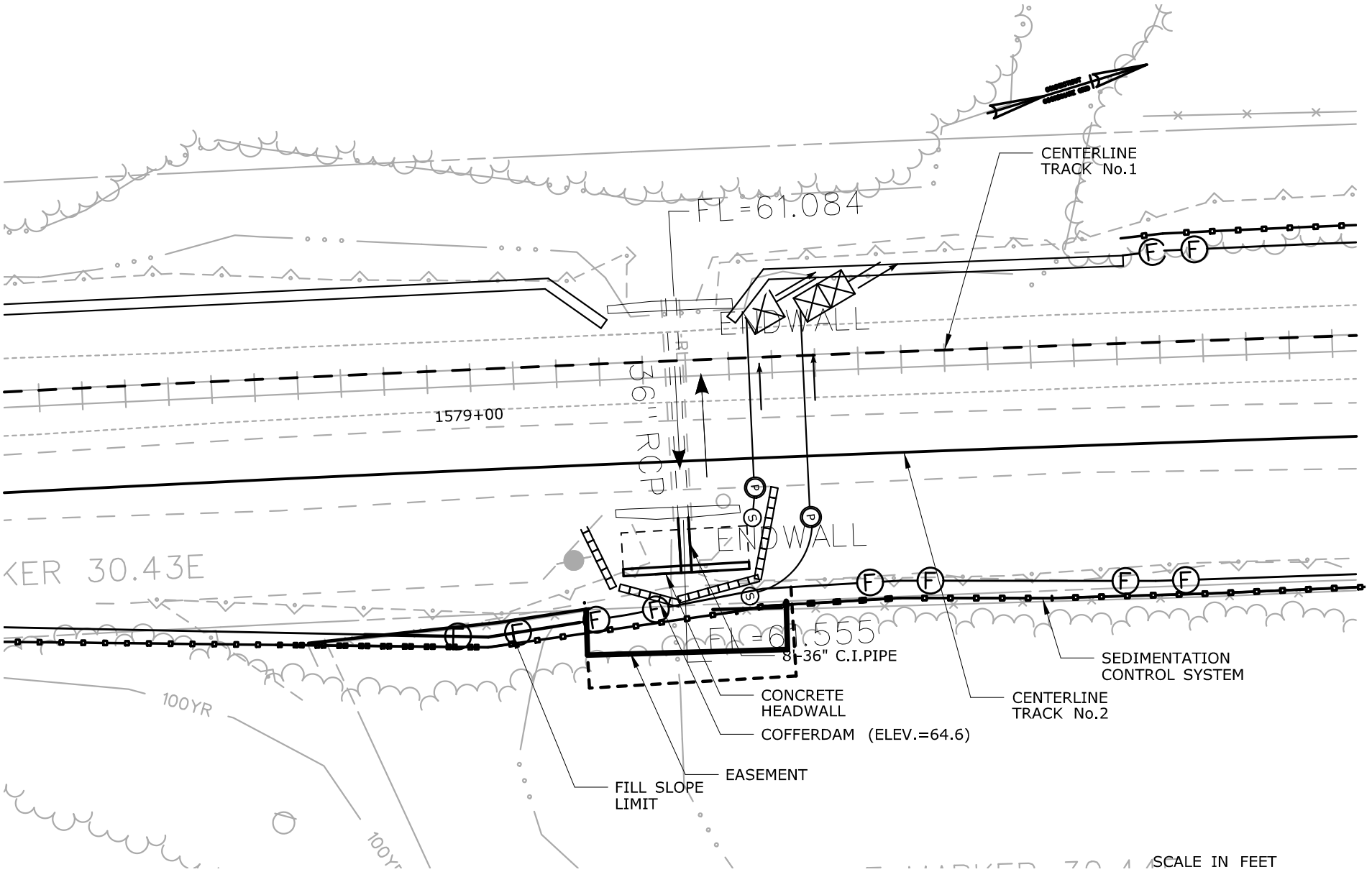
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.38 & 53

PLATE 4.4I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 4.4I.dgn



STAGE CONSTRUCTION PLAN

WETLAND ID 38 & 53
MP 30.44
STA. 1579+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.38 & 53

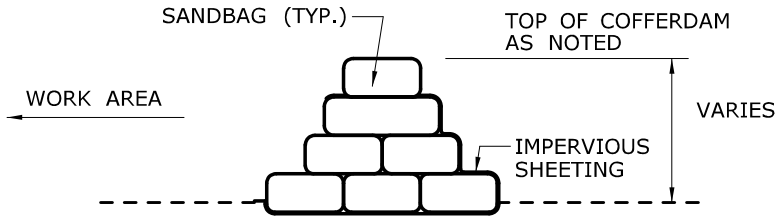
PLATE 4.5I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 4.5I.dgn

CONSTRUCTION SEQUENCE PHASE 1
CULVERT MP 30.44

1. INSTALL COFFERDAM AND DEWATERING DEVICES.
2. REMOVE EXISTING HEADWALL TO ELEVATION REQUIRED FOR TRACK 2 CONSTRUCTION.
3. INSTALL 8 L.F. OF 36" CAST IRON PIPE.
4. INSTALL CONCRETE HEADWALL.
5. REMOVE COFFERDAM AND DEWATERING DEVICES.

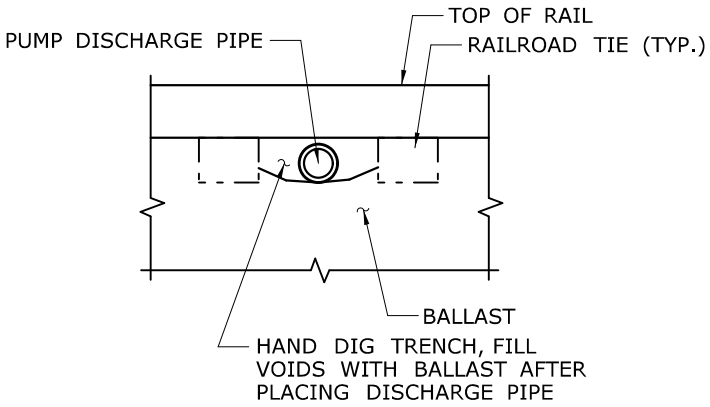
TEMPORARY HYDRAULIC DATA	
COFFERDAM ELEVATION	64.6 FT



COFFERDAM DETAIL

LEGEND

- COFFERDAM
- (S) SUMP
- (P) PUMP
- SEDIMENTATION CONTROL SYSTEM
- DEWATERING BASIN OR SEDIMENT BAG
- DIRECTION OF FLOW
- STABLE VELOCITY DISSIPATOR



PUMP DISCHARGE PIPE UNDER RAILROAD TRACKS DETAIL

CONSTRUCTION NOTES & DETAILS
WETLAND ID 38 & 53
MP 30.44
STA. 1579+30

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

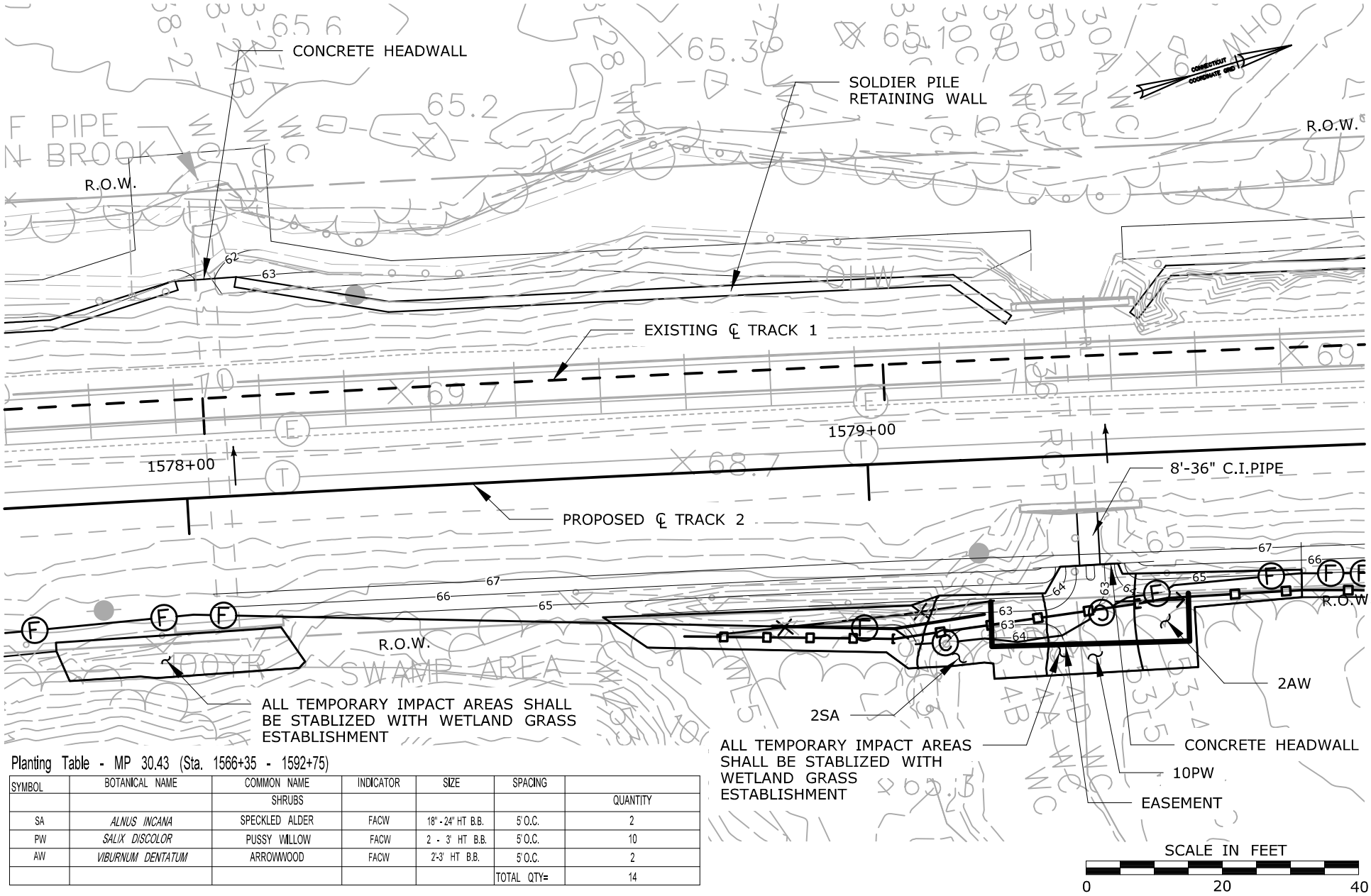
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38 & 53

PLATE 4.6I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 4.6I.dgn



Planting Table - MP 30.43 (Sta. 1566+35 - 1592+75)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	
		SHRUBS				QUANTITY
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" - 24" HT B.B.	5' O.C.	2
PW	*SALIX DISCOLOR*	PUSSY WILLOW	FACW	2 - 3' HT B.B.	5' O.C.	10
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2-3' HT B.B.	5' O.C.	2
					TOTAL QTY=	14

PLANTING PLAN

WETLAND ID 38 & 53
MP 30.43 & MP 30.44
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

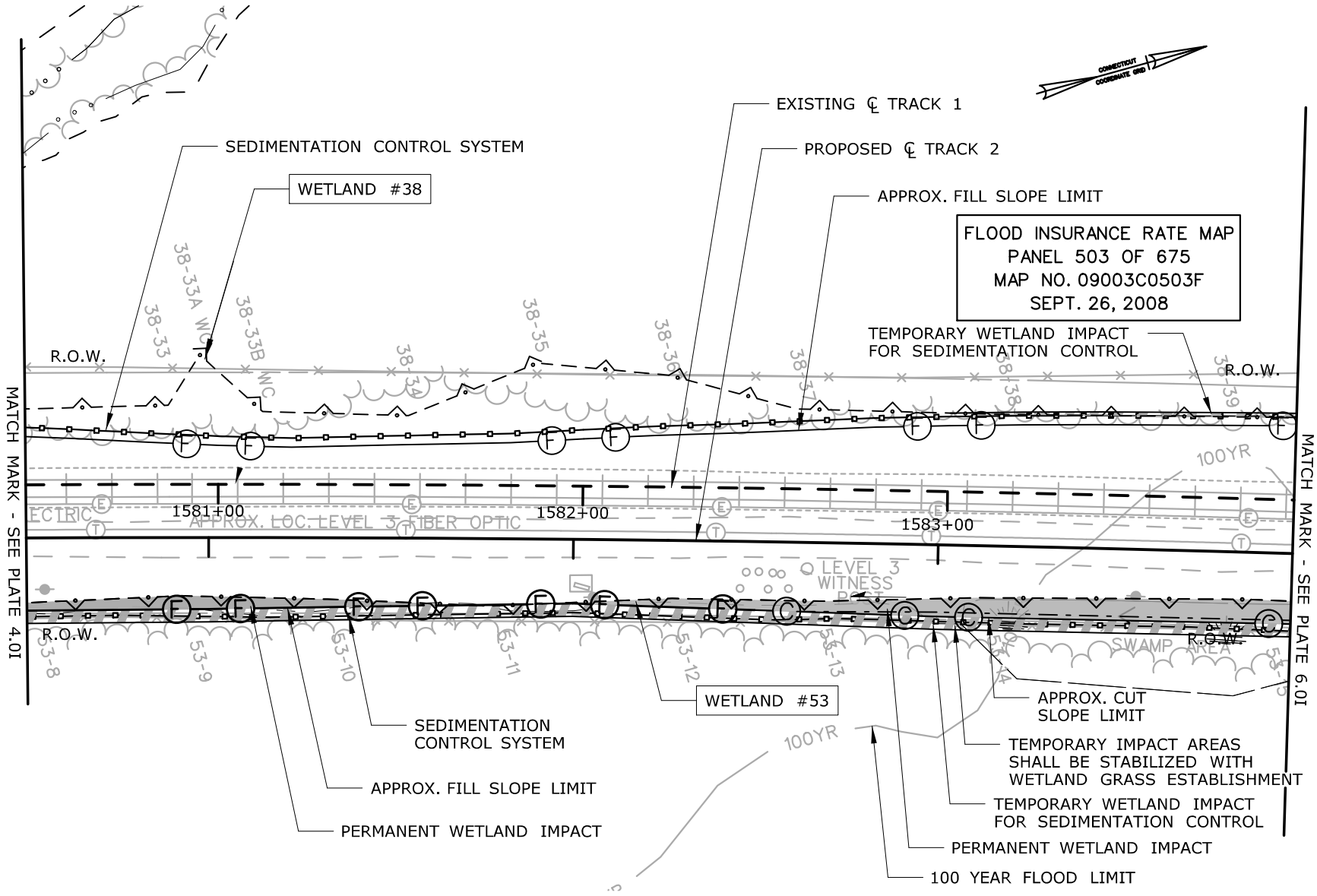
PARSONS BRINCKERHOFF

SCALE:1"=20'

DATE:
MAR 2014
WETLAND ID No.38 & 53

PLATE 4.7I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 4.7I.dgn



SEE PLATE 4.0I FOR TOTAL WETLAND ID 53 IMPACT AREAS

IMPACT PLAN

WETLAND ID 38, 49, 51, & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

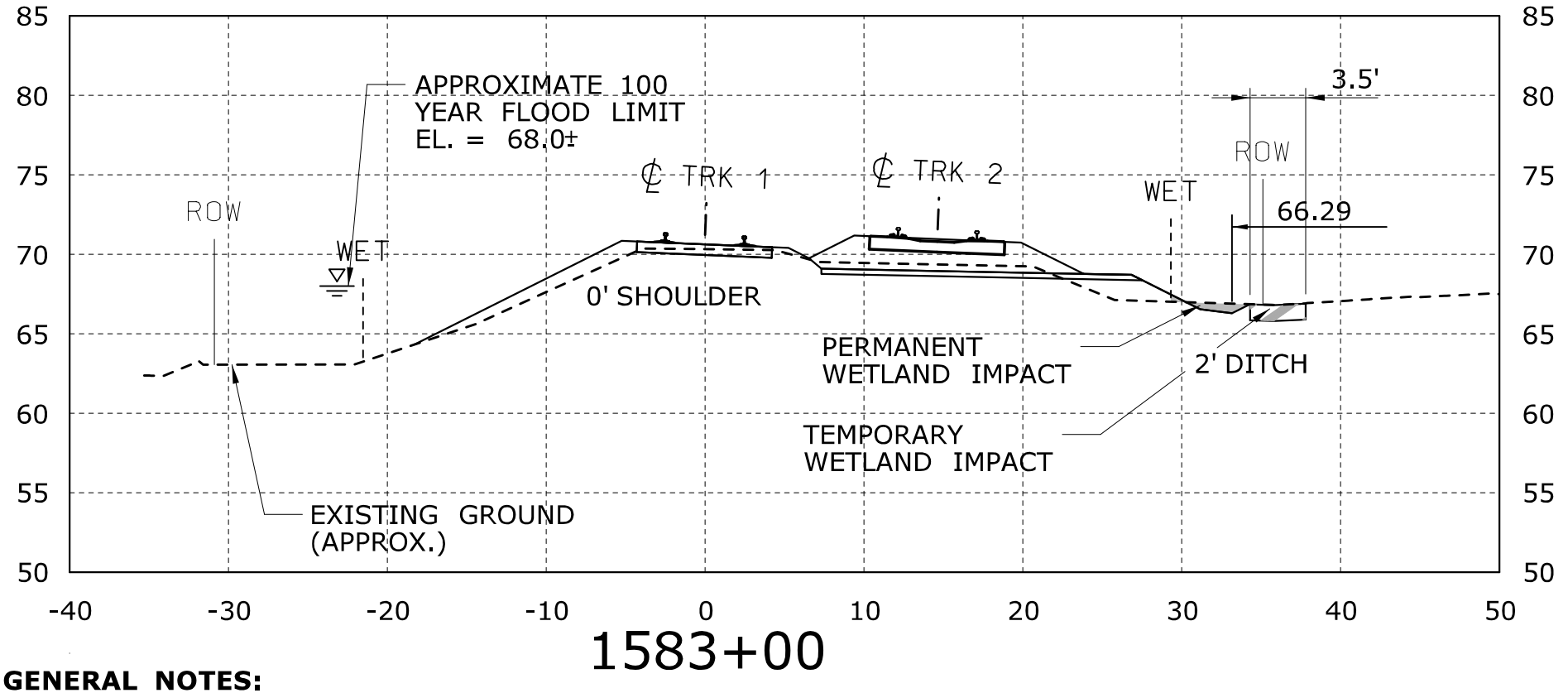
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DATE:
MAR 2014

WETLAND ID No.38,49, 51, & 53

PLATE 5.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 5.0I.dgn



1583+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION

WETLAND ID 38, 49, 51, & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

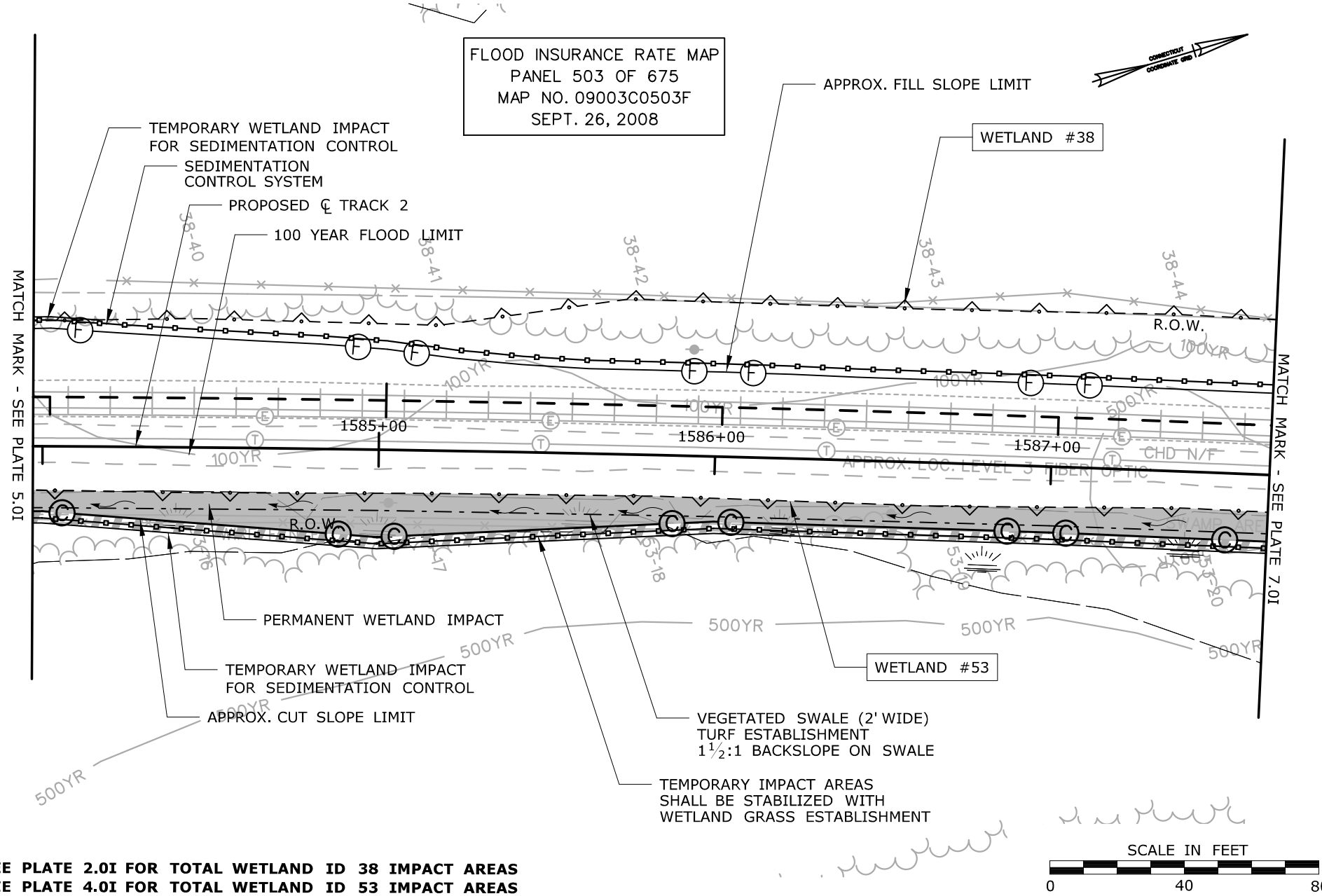
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.38 & 51

PLATE 5.1I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 5.1I.dgn



SEE PLATE 2.0I FOR TOTAL WETLAND ID 38 IMPACT AREAS
SEE PLATE 4.0I FOR TOTAL WETLAND ID 53 IMPACT AREAS

IMPACT PLAN

WETLAND ID 38, 49, 51 & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

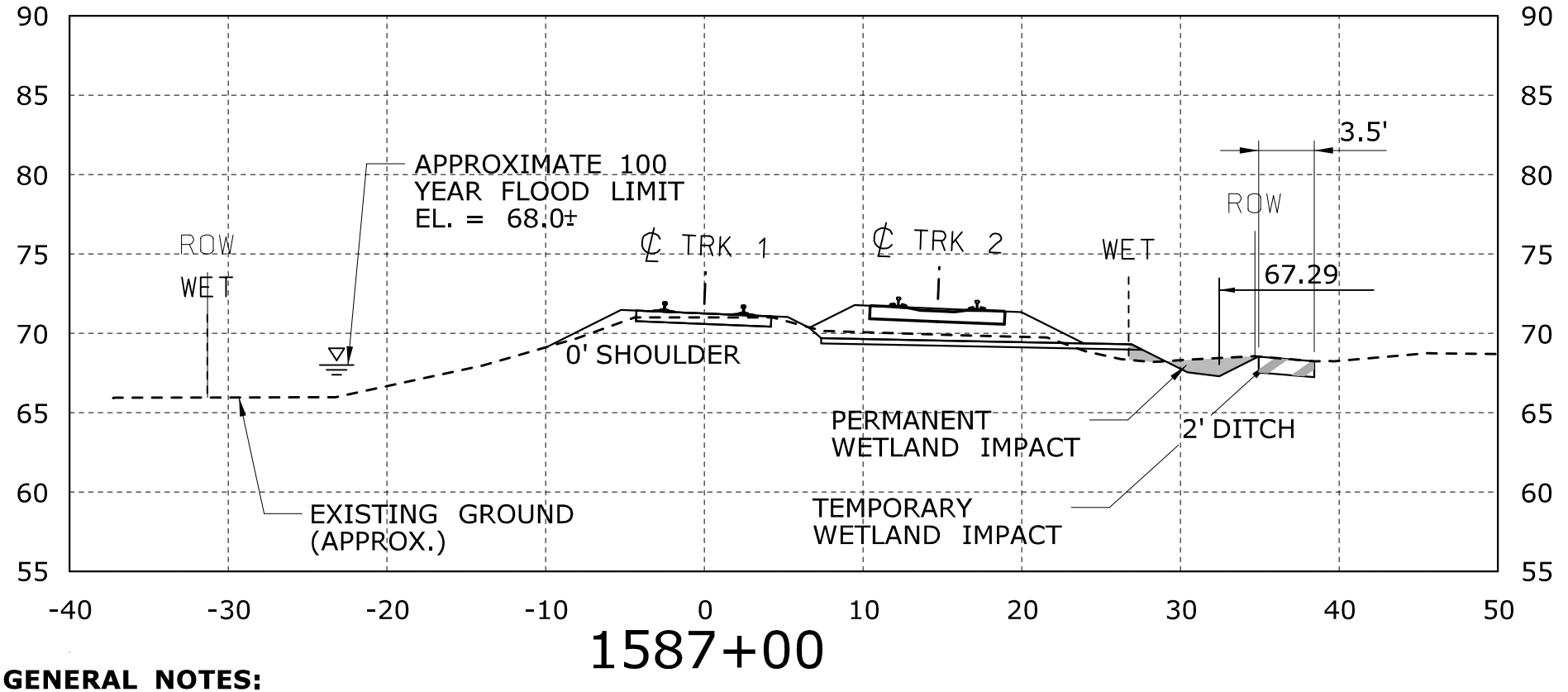
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DATE:
MAR 2014

WETLAND ID No.38,49, 51, & 53

PLATE 6.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 6.0I.dgn



1587+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

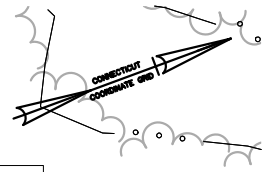
1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

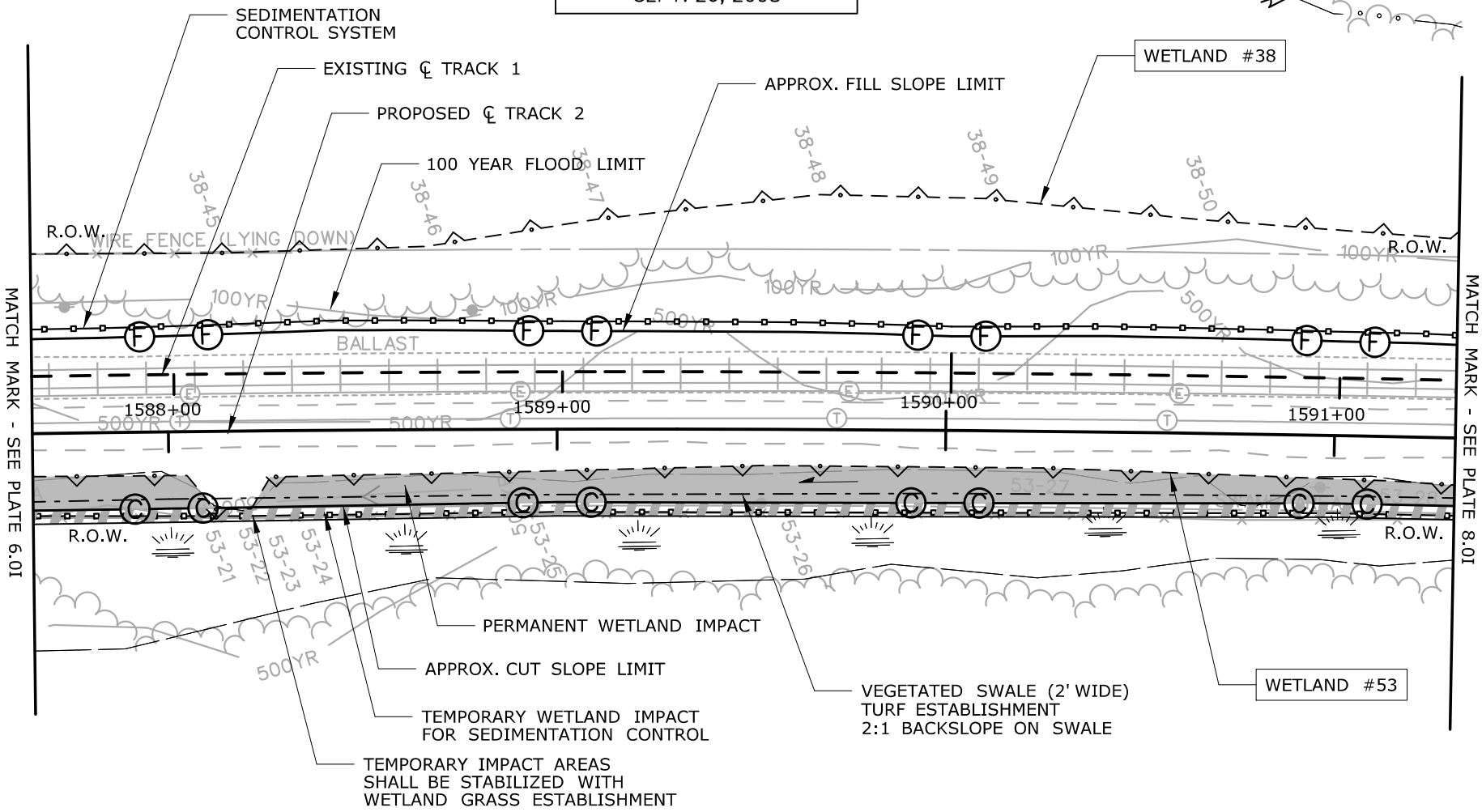
SCALE IN FEET
0 10 20

IMPACT SECTION WETLAND ID 38, 49, 51, & 53 MP 30.43 STA. 1566+35 - 1592+75	CTDOT PROJECT NO.: 170-3154/3155/3156 COUNTY: HARTFORD CITY/TOWN: NEWINGTON	APPLICATION BY: AMTRAK® NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM MP 0.0 TO MP 39.0 ENVIRONMENTAL IMPACT PLATES	PARSONS BRINCKERHOFF SCALE:1"=10'	DATE: MAR 2014 WETLAND ID No.38 & 53 PLATE 6.1I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_Permit Plate 6.1I.dgn

FLOOD INSURANCE RATE MAP
PANEL 503 OF 675
MAP NO. 09003C0503F
SEPT. 26, 2008





SCALE IN FEET
0 40 80

SEE PLATE 4.0I FOR TOTAL WETLAND ID 53 IMPACT AREAS

IMPACT PLAN

WETLAND ID 38, 49, 51, & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

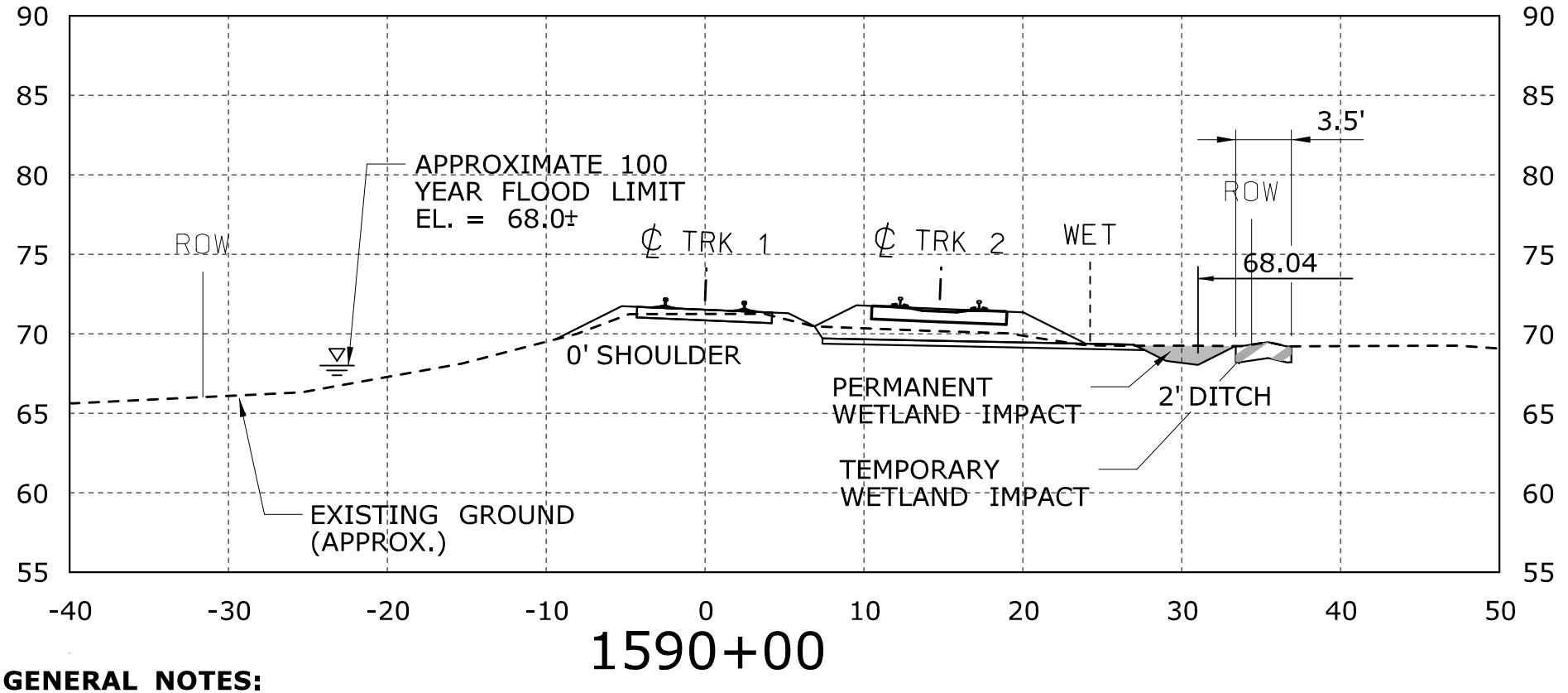
SCALE:1"=40'

DATE:
MAR 2014

WETLAND ID No.38,49, 51, & 53

PLATE 7.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 7.0I.dgn



1590+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 38, 49, 51, & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

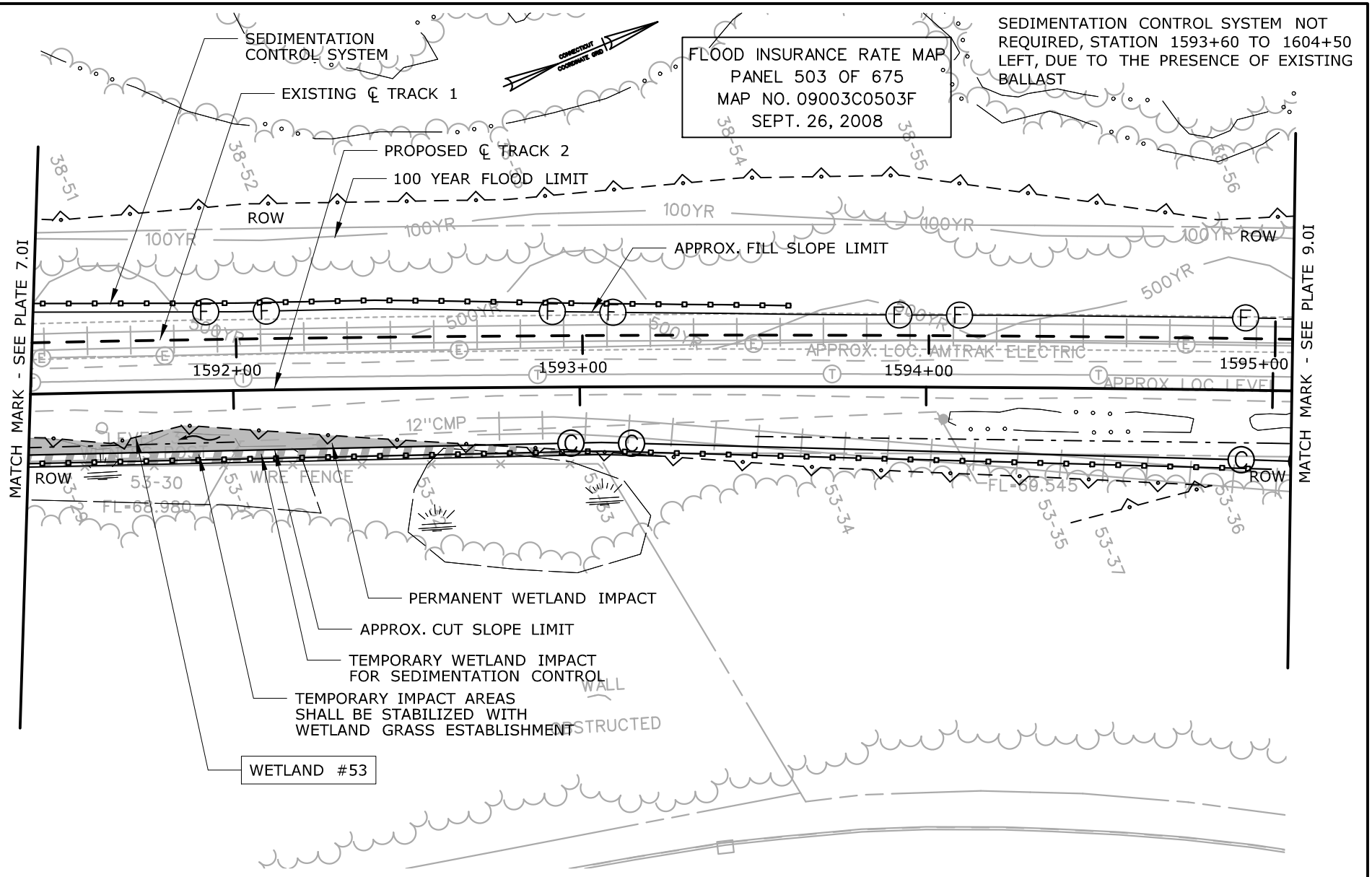
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.38 & 53

PLATE 7.1I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 7.1I.dgn



SEE PLATE 4.0I FOR TOTAL WETLAND ID 53 IMPACT AREAS

IMPACT PLAN

WETLAND ID 38, 49, 51 & 53
MP 30.43
STA. 1566+35 - 1592+75

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

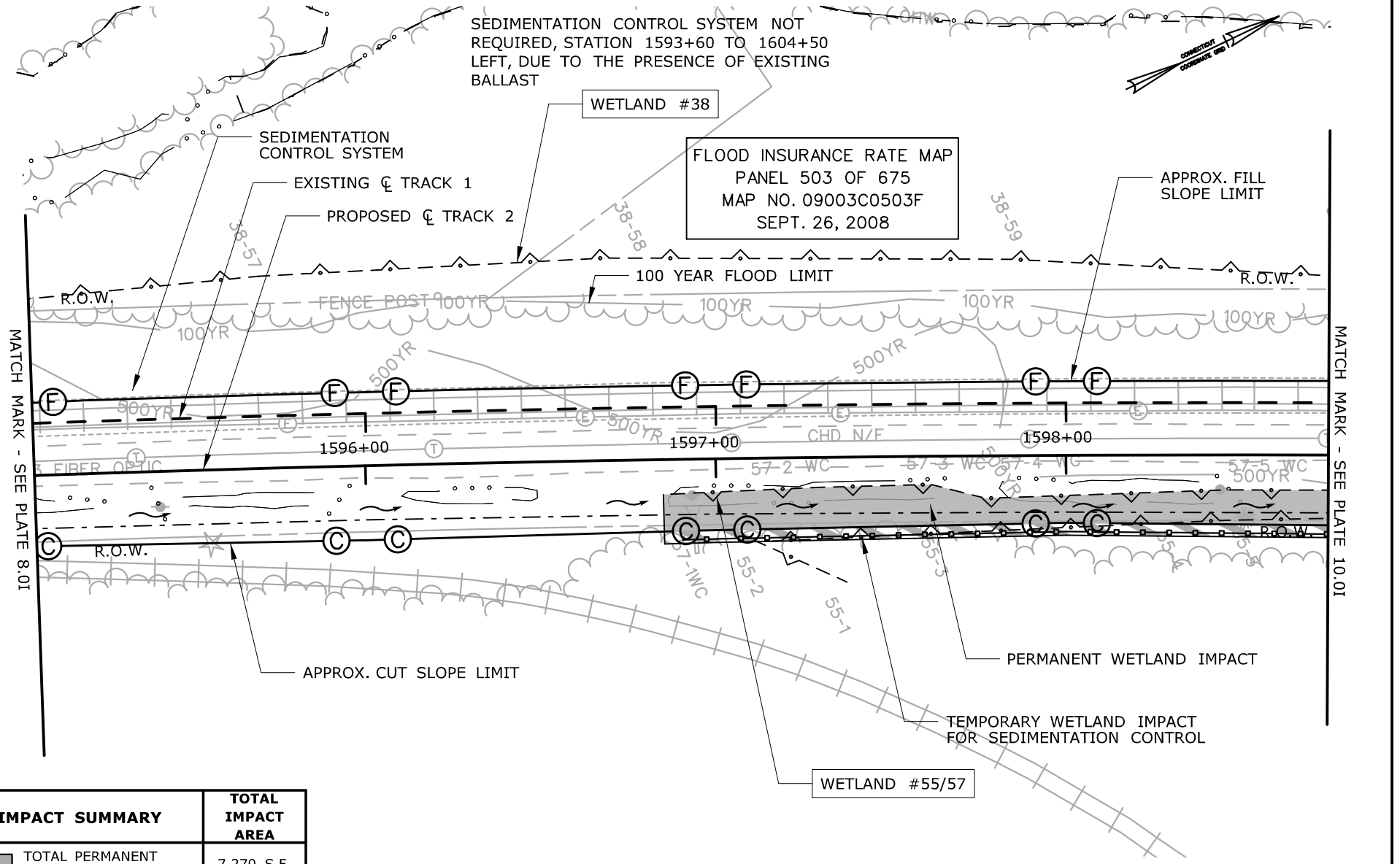
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DATE:
MAR 2014

WETLAND ID No.38,49 51 & 53

PLATE 8.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 8.0I.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 55/57 IMPACT	7,270 S.F.
TOTAL TEMPORARY WETLAND 55/57 IMPACT	2,390 S.F.

IMPACT AREAS FOR WETLAND ID 55/57 ARE ALSO SHOWN ON PLATES 10.0I, 11.0I
IMPACT AREAS FOR WETLAND ID 59 ARE ALSO SHOWN ON PLATES 12.0I, 12.0I

SCALE IN FEET
0 40 80

IMPACT PLAN

WETLAND ID 38, & 55/57
MP 30.82
STA. 1596+90 - 1603+65

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

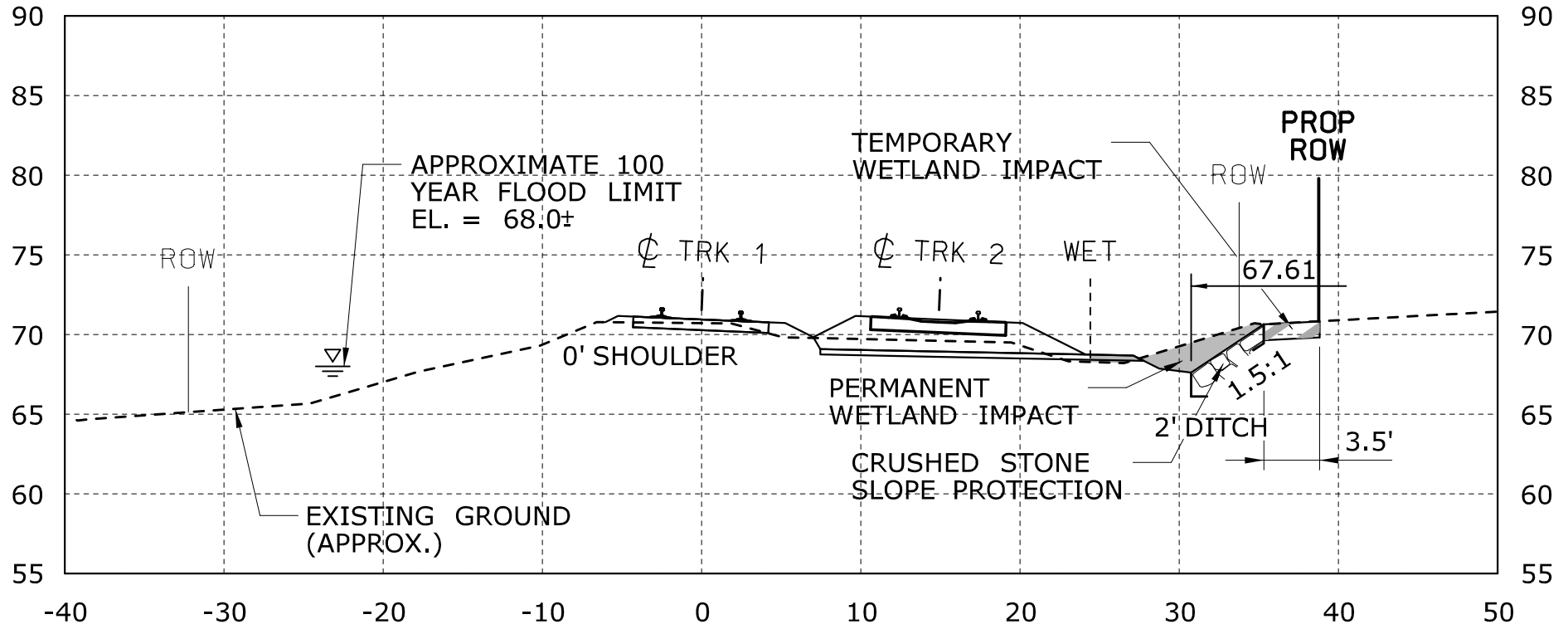
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38 & 55/57

PLATE 9.0I OF 13.3I



1597+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 38 & 55/57
MP 30.82
STA. 1596+90 - 1603+65

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=10'

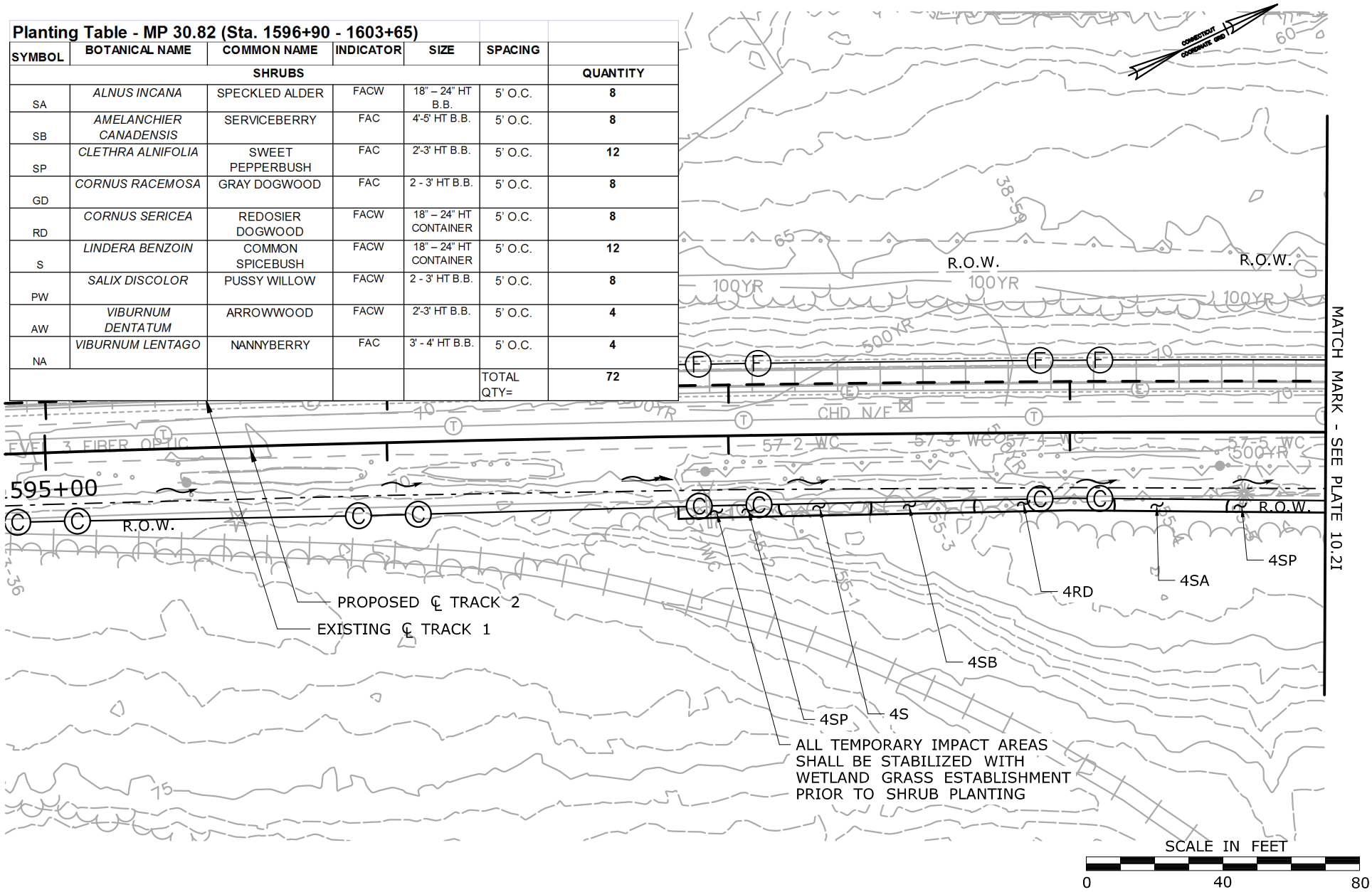
DATE:
MAR 2014
WETLAND ID No.38 & 55/57

PLATE 9.1I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 9.1I.dgn

Planting Table - MP 30.82 (Sta. 1596+90 - 1603+65)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	
		SHRUBS				QUANTITY
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	8
SB	*AMELANCHIER CANADENSIS*	SERVICEBERRY	FAC	4'-5' HT B.B.	5' O.C.	8
SP	*CLETHRA ALNIFOLIA*	SWEET PEPPERBUSH	FAC	2'-3' HT B.B.	5' O.C.	12
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	8
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	8
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	12
PW	*SALIX DISCOLOR*	PUSSY WILLOW	FACW	2 - 3' HT B.B.	5' O.C.	8
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	4
NA	*VIBURNUM LENTAGO*	NANNYBERRY	FAC	3' - 4' HT B.B.	5' O.C.	4
					TOTAL QTY=	72



PLANTING PLAN

WETLAND ID 38, & 55/57
MP 30.82
STA. 1596+90 - 1603+65

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

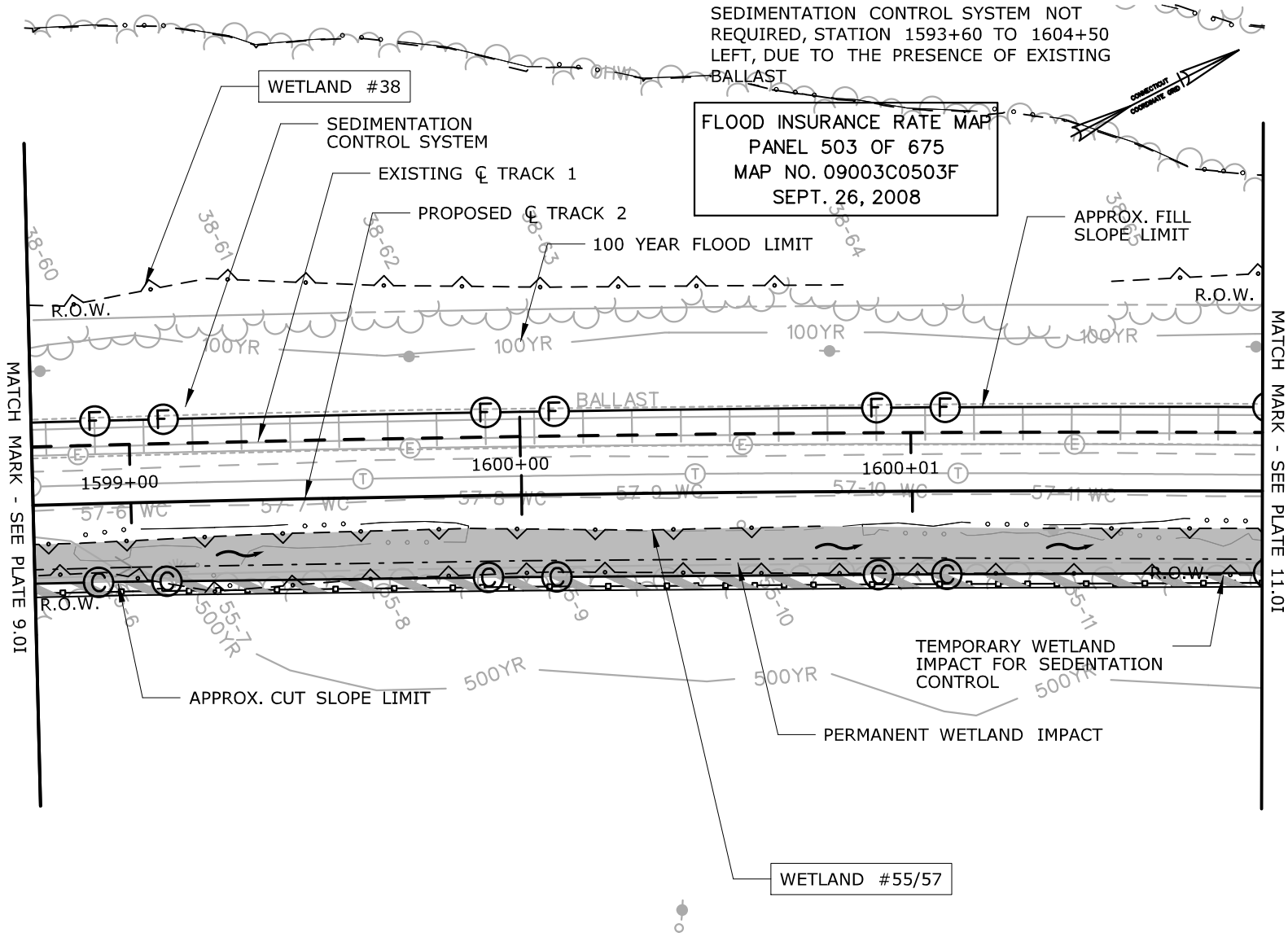
NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38 & 55/57

PLATE 9.2I OF 13.3I



SCALE IN FEET

0 40 80

SEE PLATE 9.0I FOR TOTAL WETLAND ID 55/57 IMPACT AREAS

IMPACT PLAN

WETLAND ID 38, & 55/57
MP 30.82
STA. 1596+90 - 1603+65

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

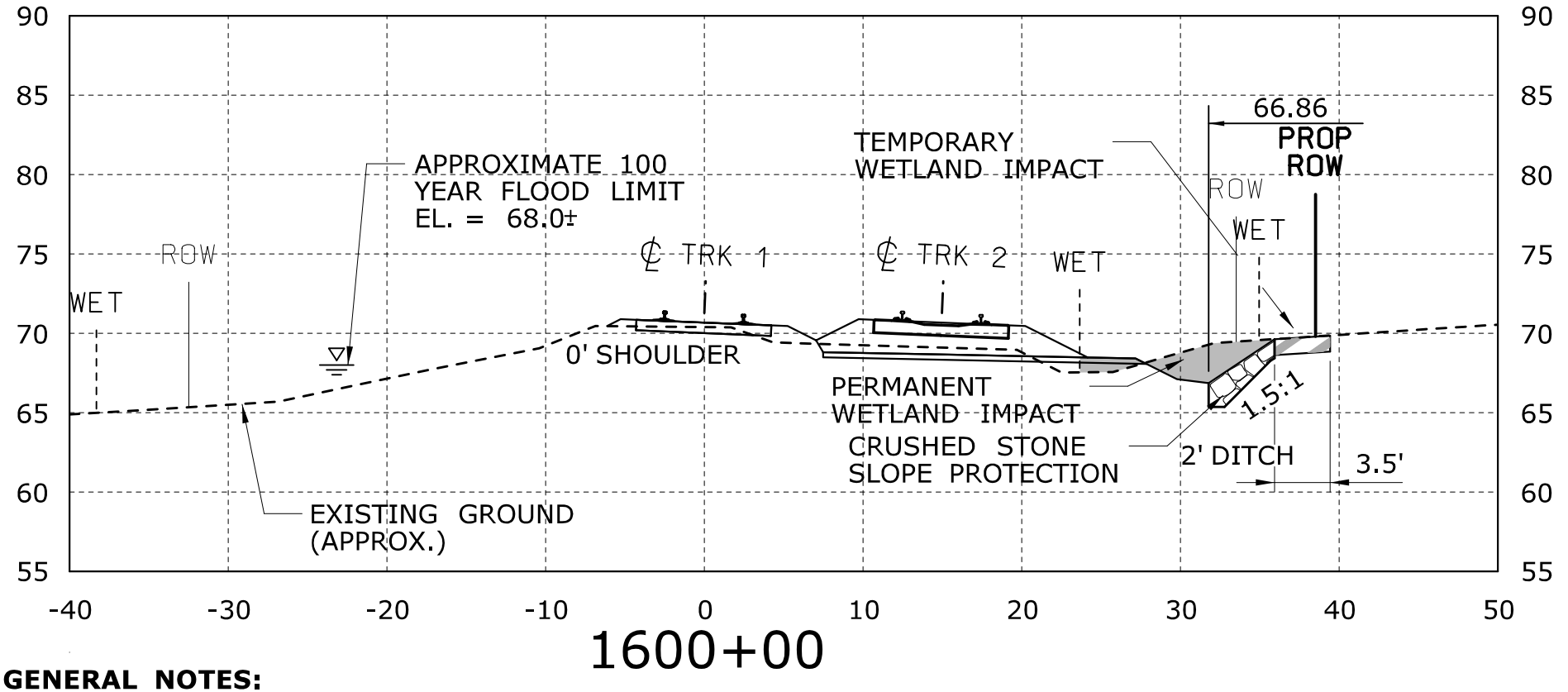
SCALE:1"=40'

DATE:
MAR 2014

WETLAND ID No.38 & 55/57

PLATE 10.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 10.0I.dgn



1600+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 38 & 55/57
MP 30.82
STA. 1596+90 - 1603+65

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

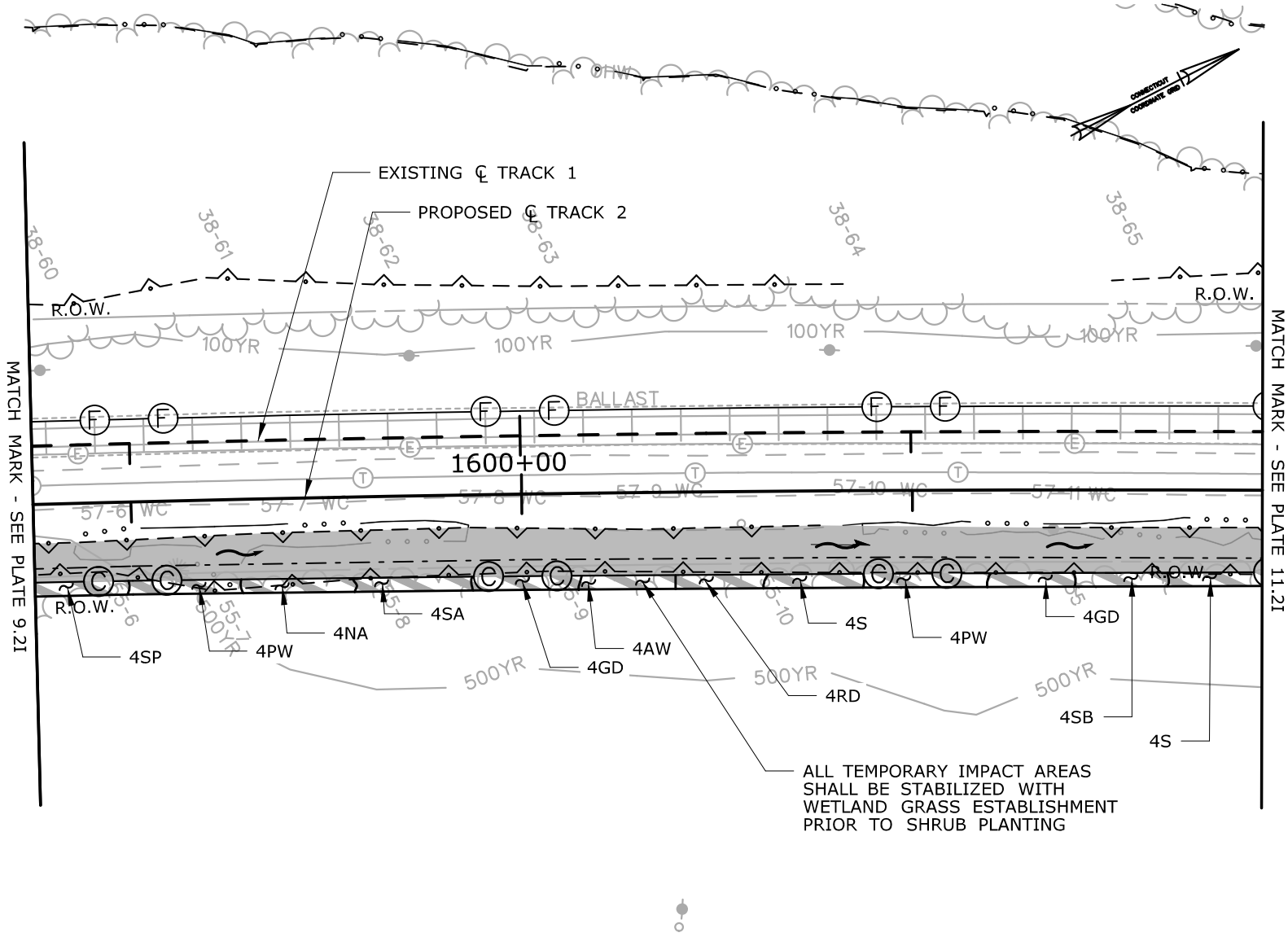
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.38 & 55/57

PLATE 10.1I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_Plate Permit 10.1I.dgn



SCALE IN FEET
0 40 80

SEE PLATE 9.2I FOR PLANTING TABLE

PLANTING PLAN

WETLAND ID 38, & 55/57
MP 30.82
STA. 1596+90 - 1603+65

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

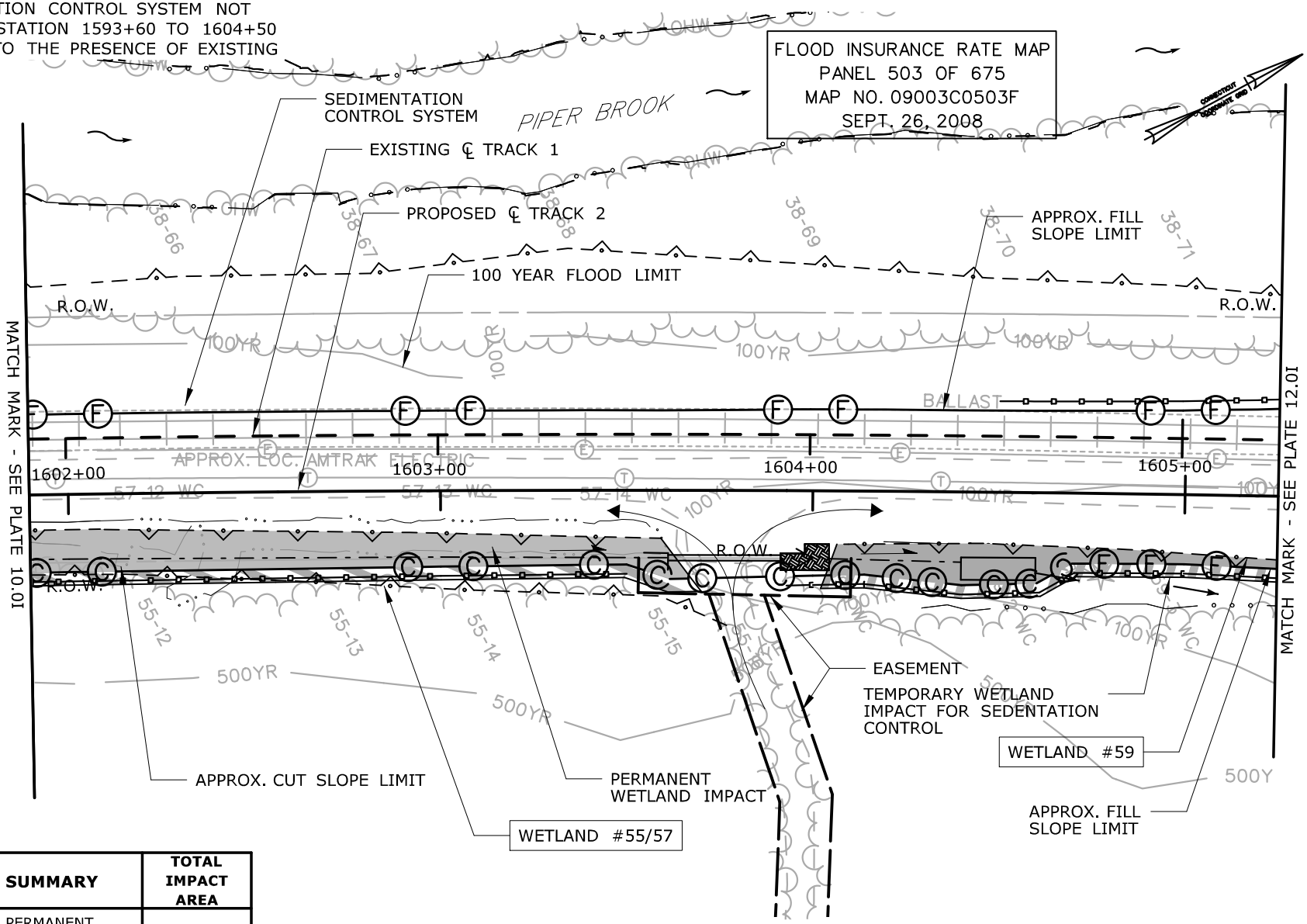
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38 & 55/57

PLATE 10.2I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 10.2I.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 59 IMPACT	1,380 S.F.
TOTAL TEMPORARY WETLAND 59 IMPACT	1,250 S.F.

SEE PLATE 9.0I FOR TOTAL WETLAND ID 55/57 IMPACT AREAS
IMPACT AREAS FOR WETLAND ID 59 ARE ALSO SHOWN ON PLATES 12.0I, 13.0I

SCALE IN FEET
0 40 80

IMPACT PLAN

WETLAND ID 38, 55/57, & 59
MP 30.93
STA. 1604+00 - 1607+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

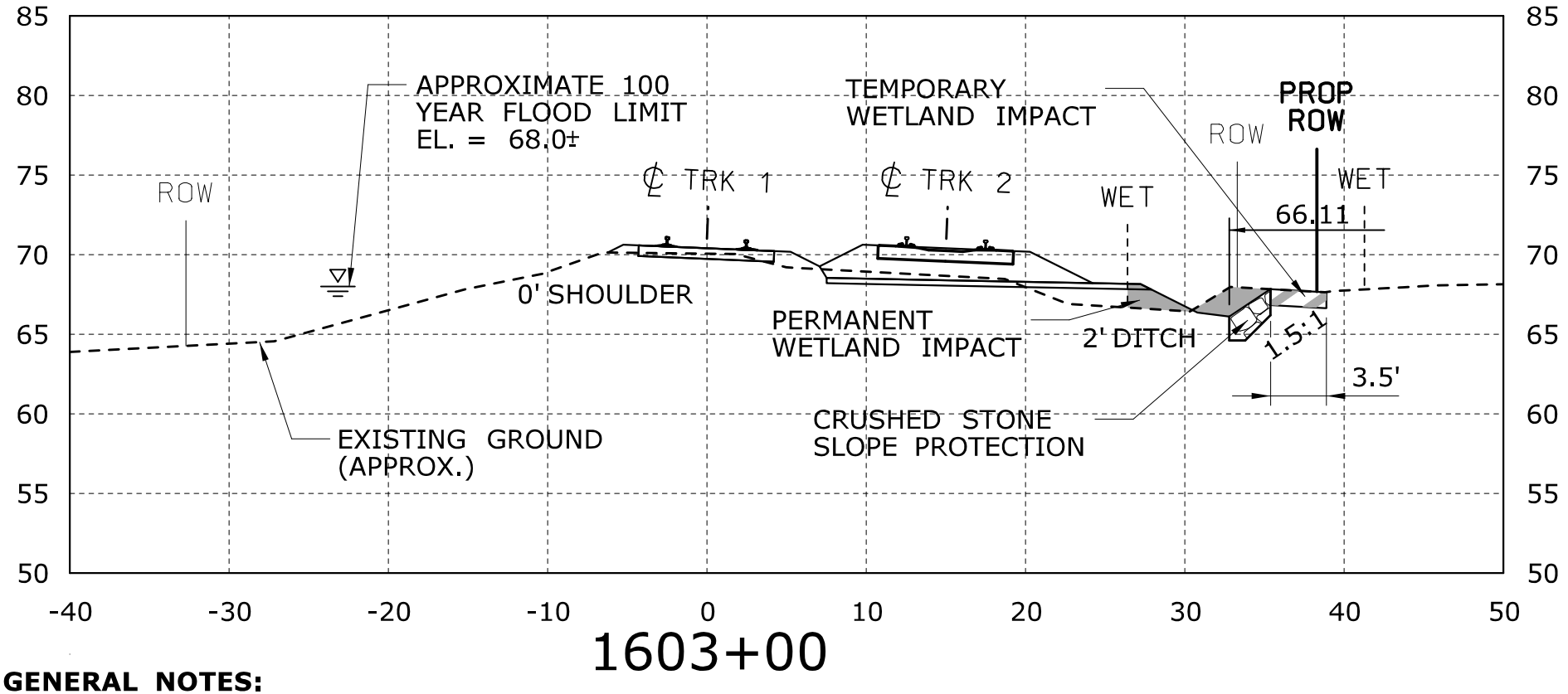
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DATE:
MAR 2014

WETLAND ID No.38, 55/57, & 59

PLATE 11.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093__01_PER_PER_Permit Plate 11.0I.dgn



1603+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_Permit Plate 11.1I.dgn

IMPACT SECTION

WETLAND ID 38 ,57, & 59
MP 30.93
STA. 1604+00 - 1607+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

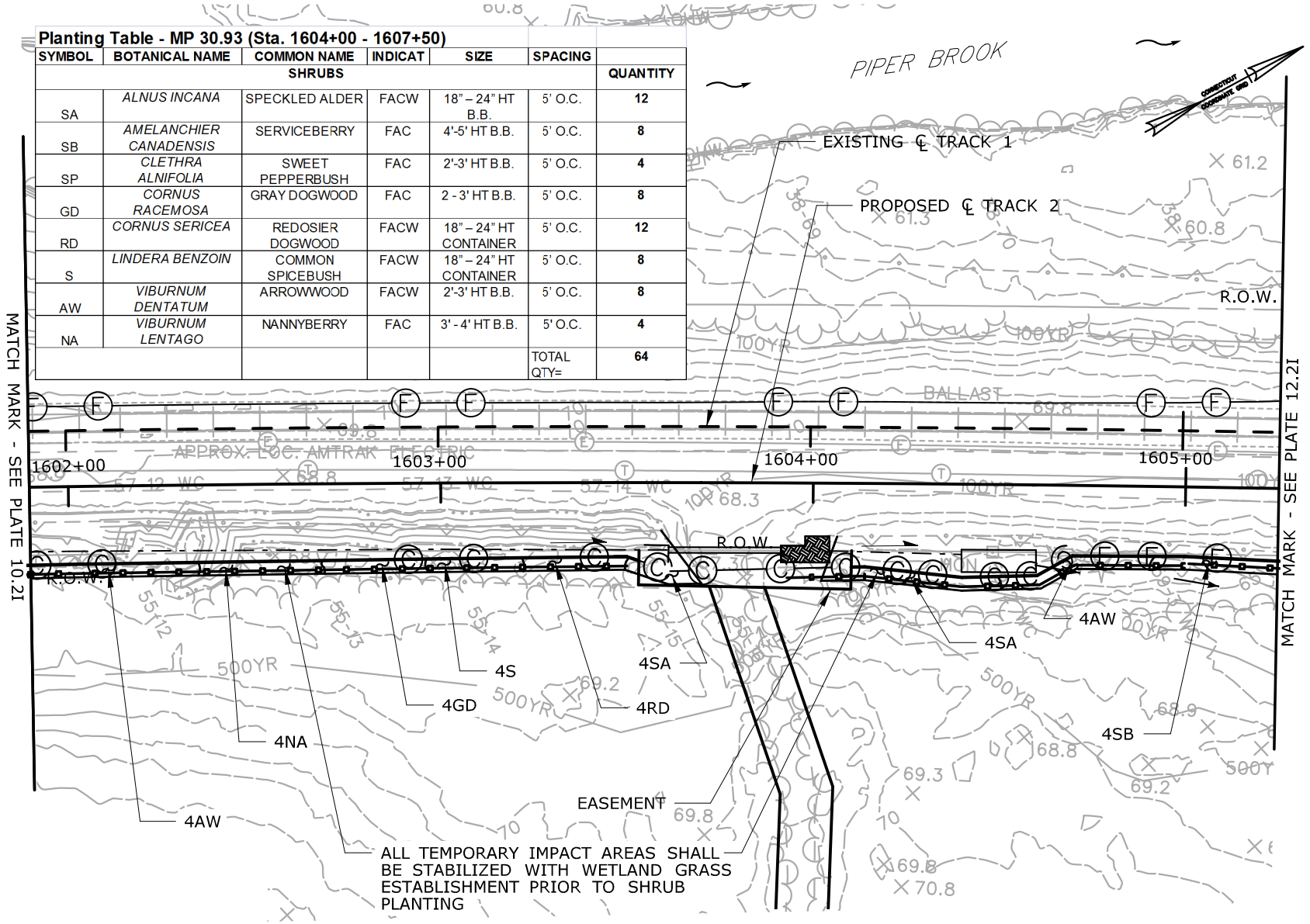
SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No. 38, 57, & 59

PLATE 11.1I OF 13.3I

Planting Table - MP 30.93 (Sta. 1604+00 - 1607+50)

SYMBOL	BOTANICAL NAME	COMMON NAME	INDICAT	SIZE	SPACING	QUANTITY
		SHRUBS				
SA	*ALNUS INCANA*	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	12
SB	*AMELANCHIER CANADENSIS*	SERVICEBERRY	FAC	4'-5' HT B.B.	5' O.C.	8
SP	*CLETHRA ALNIFOLIA*	SWEET PEPPERBUSH	FAC	2'-3' HT B.B.	5' O.C.	4
GD	*CORNUS RACEMOSA*	GRAY DOGWOOD	FAC	2 - 3' HT B.B.	5' O.C.	8
RD	*CORNUS SERICEA*	REDOSIER DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.	12
S	*LINDERA BENZOIN*	COMMON SPICEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.	8
AW	*VIBURNUM DENTATUM*	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.	8
NA	*VIBURNUM LENTAGO*	NANNYBERRY	FAC	3' - 4' HT B.B.	5' O.C.	4
					TOTAL QTY=	64



SCALE IN FEET
0 40 80

PLANTING PLAN
WETLAND ID 38, 55/57, & 59
MP 30.93
STA. 1604+00 - 1607+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

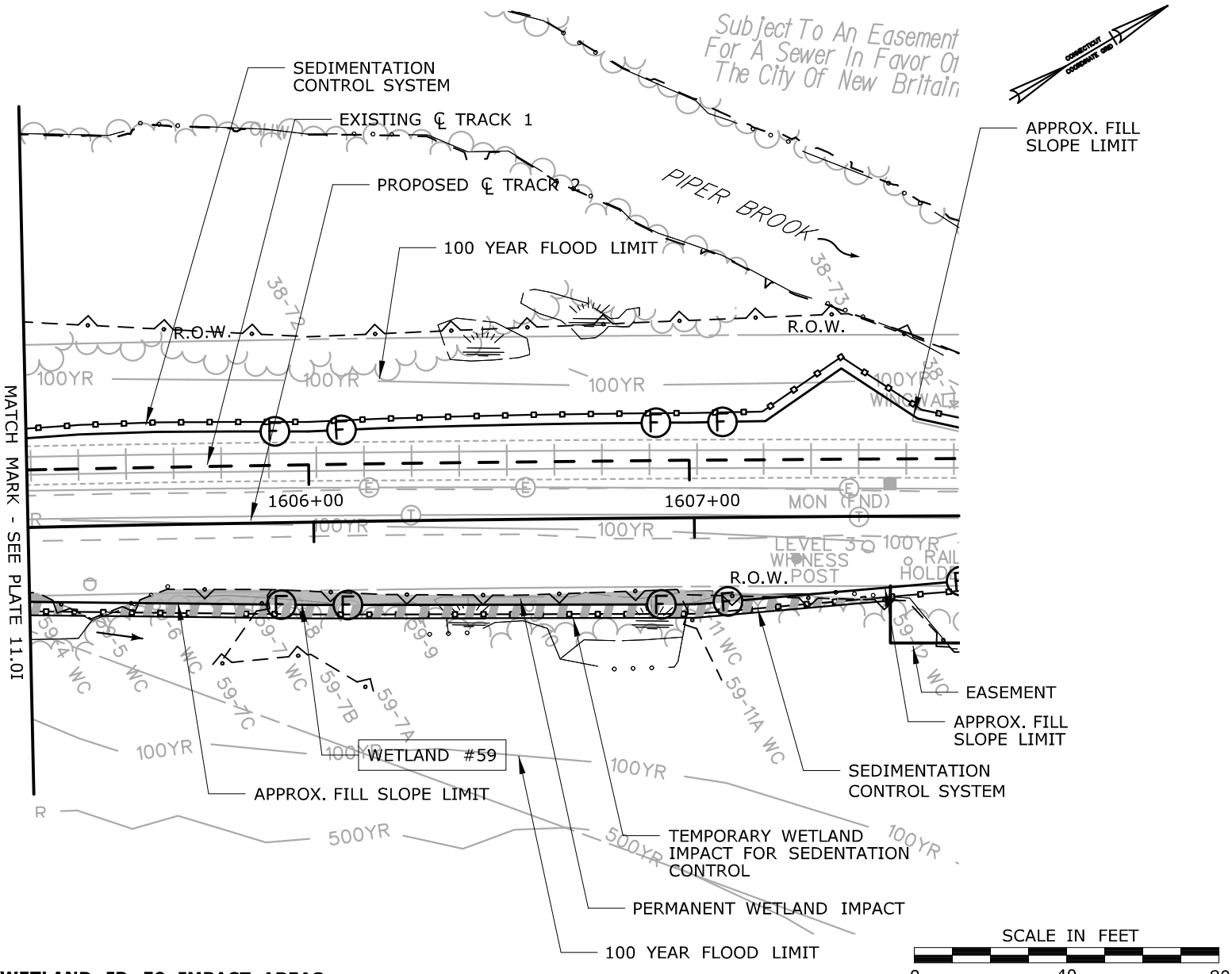
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38, 55/57, & 59

PLATE 11.2I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_Permit Plate 11.2I.dgn



SEE PLATE 11.0I FOR TOTAL WETLAND ID 59 IMPACT AREAS

IMPACT PLAN

WETLAND ID 59

MP 30.93

STA. 1604+00 - 1607+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

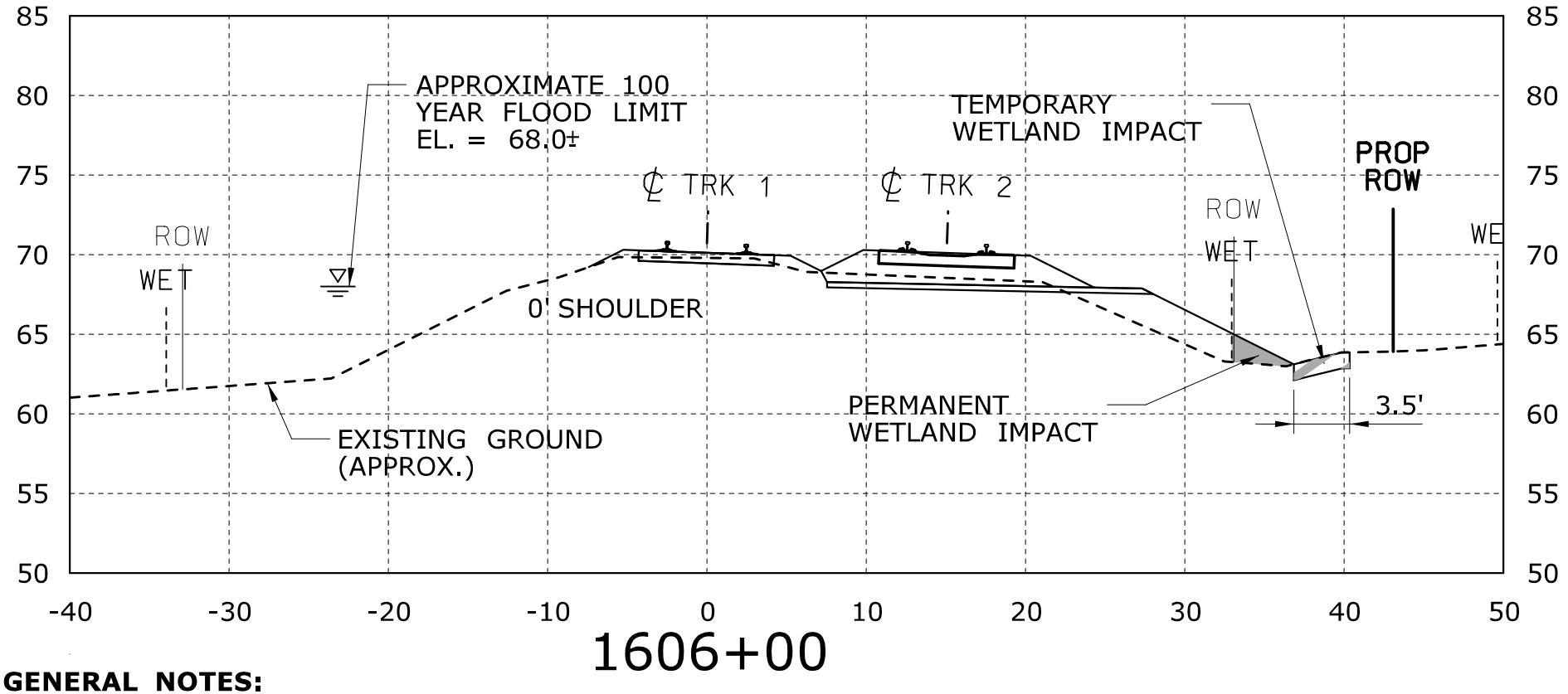
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.59

PLATE 12.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_PER_Permit Plate 12.0I.dgn



GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

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3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION

WETLAND ID 38 ,57, & 59
MP 30.93
STA. 1604+00 - 1607+50

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

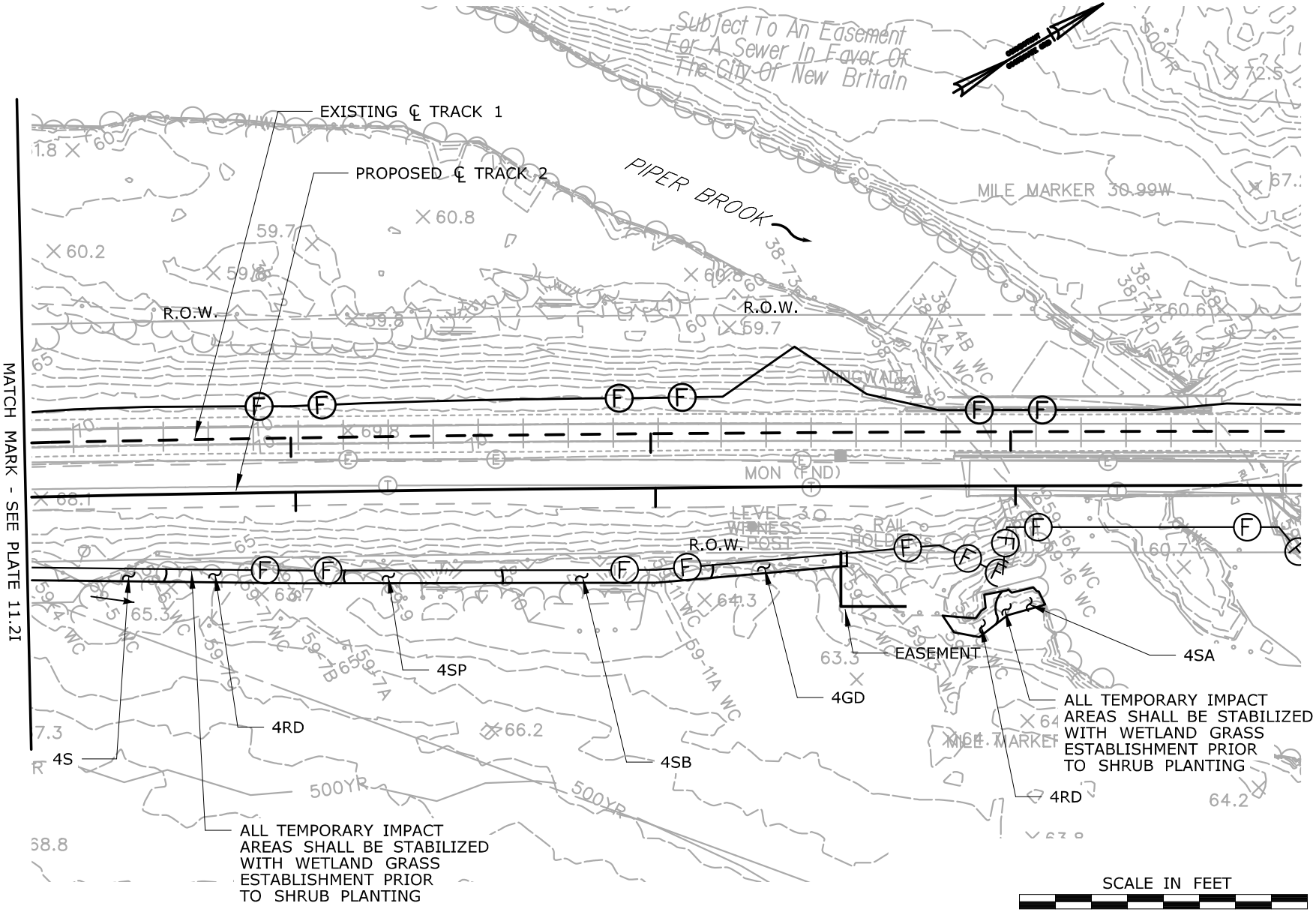
PARSONS BRINCKERHOFF

SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.59

PLATE 12.1I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_093_01_PER_PER_Permit Plate 12.1I.dgn



SEE PLATE 11.2I FOR PLANTING TABLE

PLANTING PLAN

WETLAND ID 59

MP 30.93

STA. 1604+00 - 1607+50

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

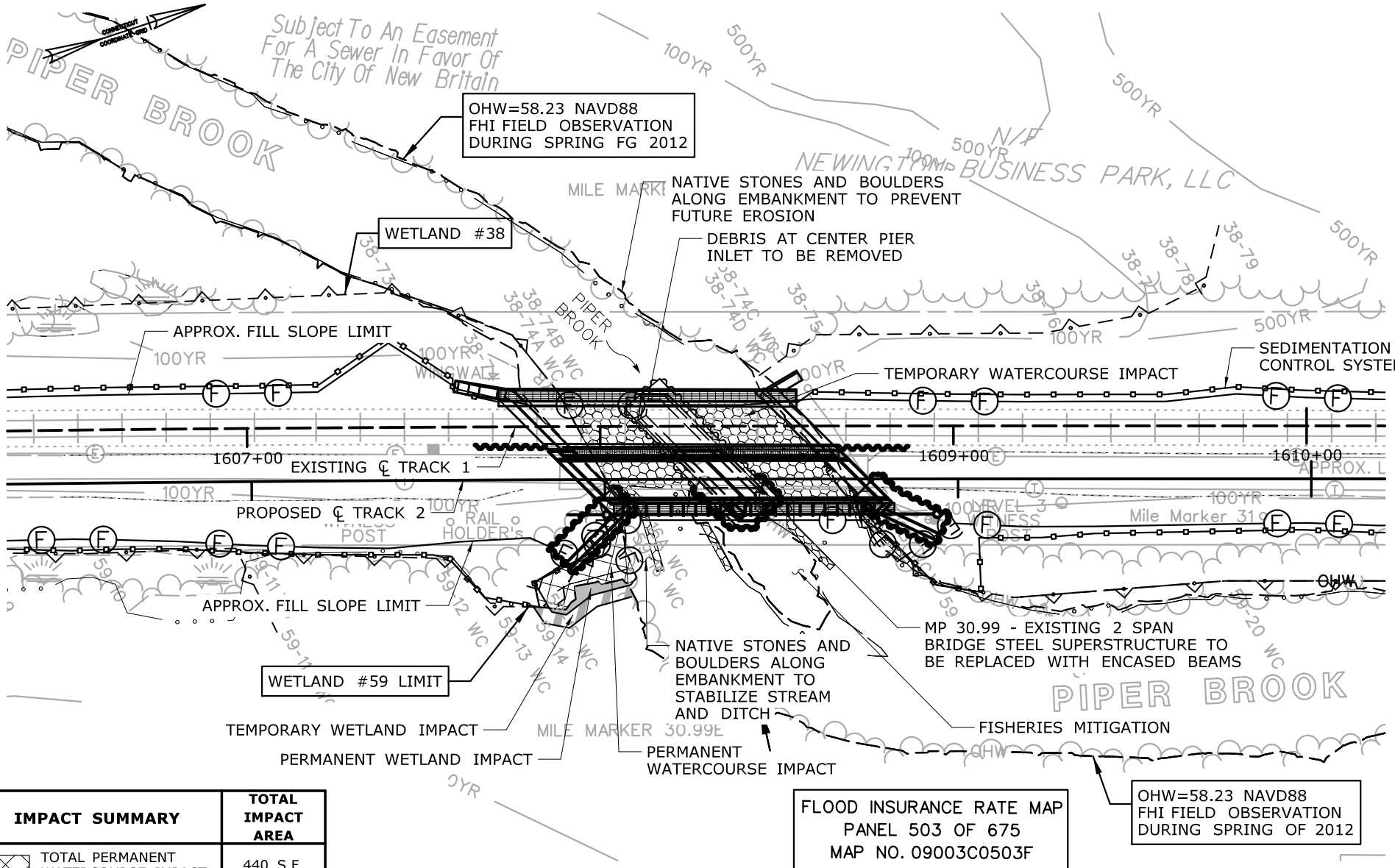
SCALE:1"=40'

DATE: MAR 2014

WETLAND ID No.59

PLATE 12.2I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_PER_Permit Plate 12.2I.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WATERCOURSE IMPACT	440 S.F.
TOTAL TEMPORARY WATERCOURSE IMPACT	1,380 S.F.

FLOOD INSURANCE RATE MAP
PANEL 503 OF 675
MAP NO. 09003C0503F
SEPT. 26, 2008

SCALE IN FEET
0 40 80

SEE PLATE 11.0I FOR TOTAL WETLAND ID 59 IMPACT AREAS

IMPACT PLAN
WETLAND ID 38 & 59
MP 30.99
STA. 1608+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

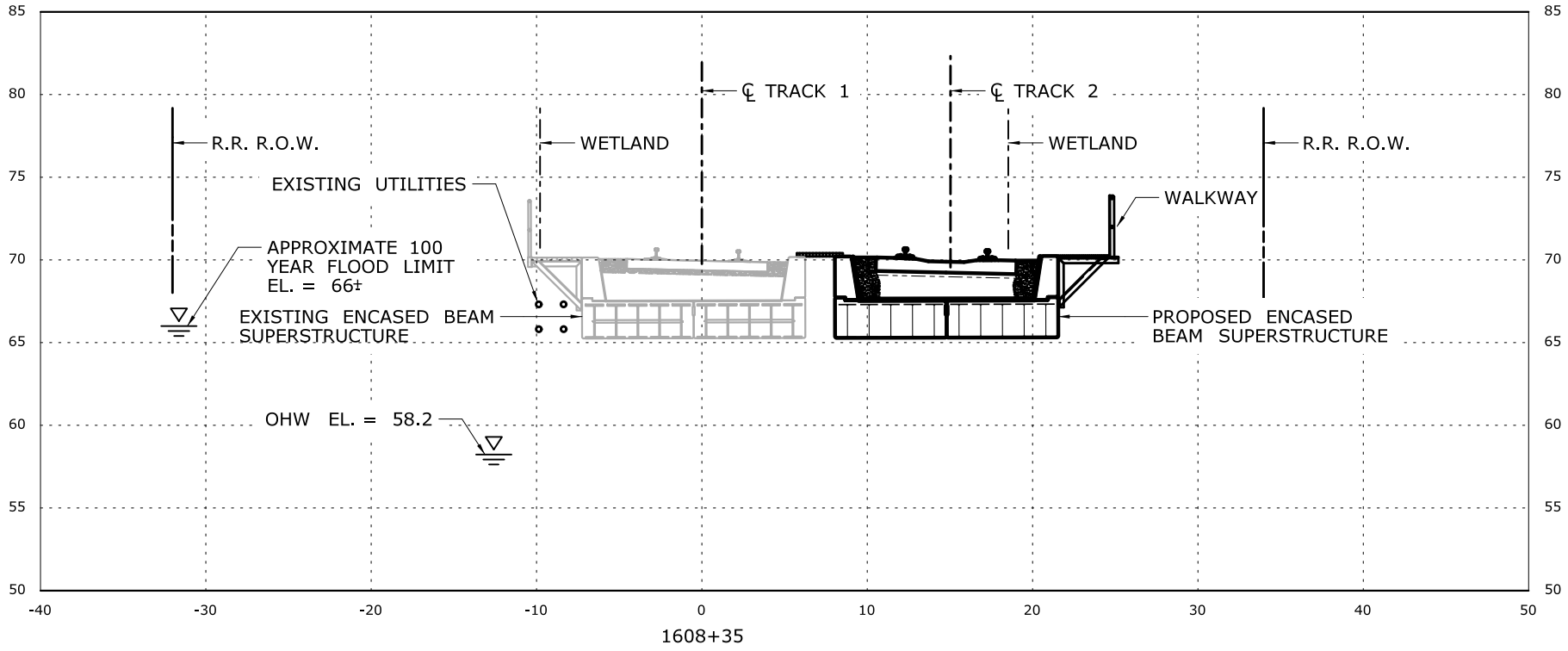
LOCHNER
H.W. LOCHNER, INC
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.38 & 59
WATERCOURSE
PIPER BROOK

PLATE 13.0I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 30.99_01.dgn



SCALE IN FEET

0 40 80

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER_MP 30.99_02.dgn

IMPACT SECTION

WETLAND ID 38 & 59
MP 30.99
STA. 1608+30

CTDOT PROJECT NO.:
170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

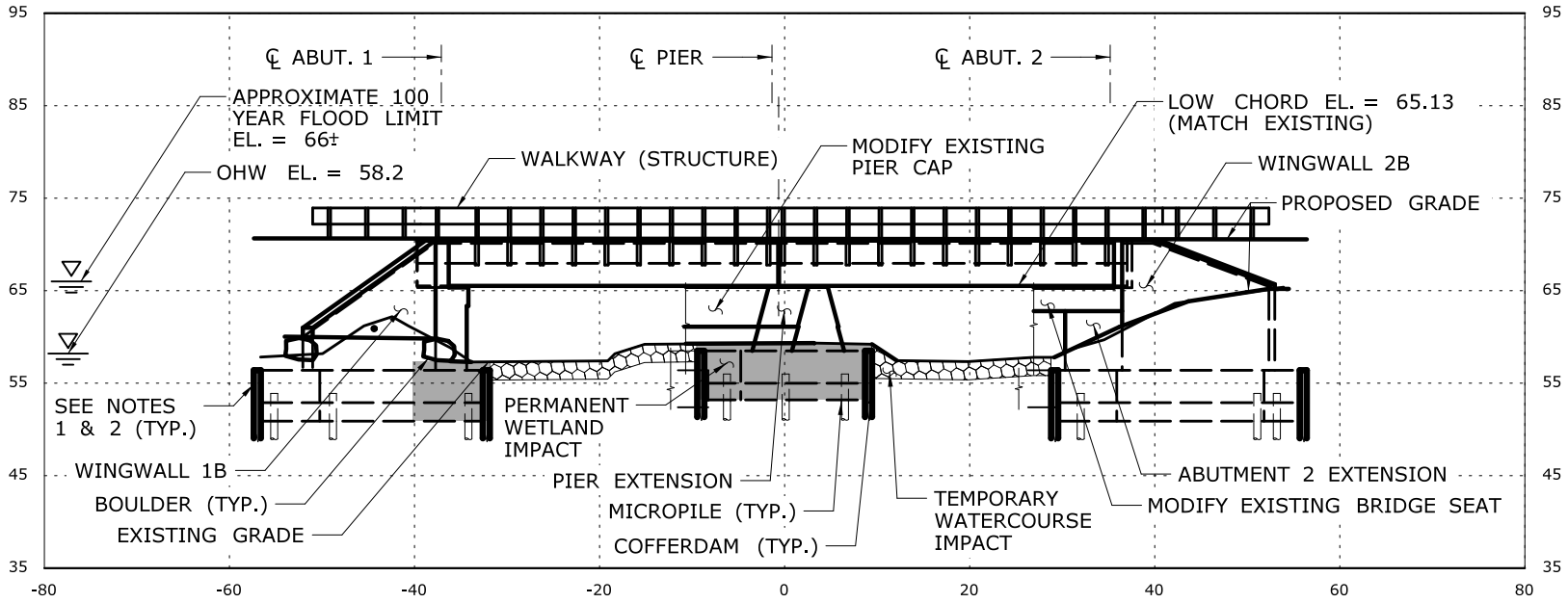
LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=40'

DATE:
MAR 2014

WETLAND ID No. 38 & 59
WATERCOURSE
PIPER BROOK

PLATE 13.1I OF 13.3I



ELEVATION

NOTES:

1. COFFERDAM TO BE LEFT IN PLACE SHALL BE CUT OFF FLUSH WITH TOP OF FOOTING.
2. ENSURE A MINIMUM OF 1'-0" CLEAR BETWEEN TOP OF COFFERDAM TO BE LEFT IN PLACE AND PROPOSED MUDLINE BE PROVIDED.

TEMPORARY HYDRAULIC DATA - NEWINGTON RIVER	
AVERAGE DAILY FLOW	24 CFS
AVERAGE SPRING FLOW	47 CFS
2-YEAR FREQUENCY DISCHARGE	426 CFS
TEMPORARY DESIGN DISCHARGE	200 CFS
TEMPORARY DESIGN FREQUENCY	OHW
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	60.15
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	59.10

SCALE IN FEET

0 20 40

IMPACT ELEVATION

WETLAND ID 38 & 59
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NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC.
2110 Silas Deane Highway
Rocky Hill, CT 06067

SCALE:1"=20'

DATE:
MAR 2014

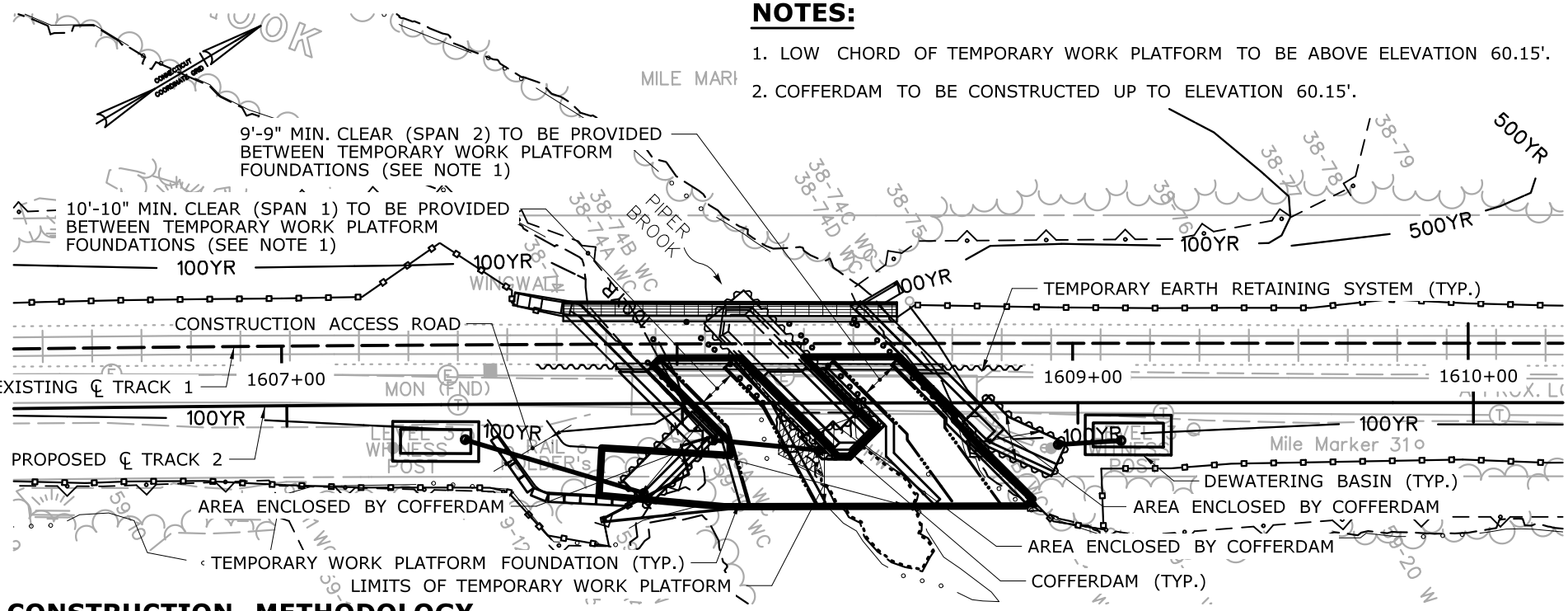
WETLAND ID No. 38 & 59
WATERCOURSE
PIPER BROOK

PLATE 13.2I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_000_01_PER__MP 30.99_03.dgn

NOTES:

1. LOW CHORD OF TEMPORARY WORK PLATFORM TO BE ABOVE ELEVATION 60.15'.
2. COFFERDAM TO BE CONSTRUCTED UP TO ELEVATION 60.15'.



CONSTRUCTION METHODOLOGY

1. INSTALL SEDIMENTATION CONTROL SYSTEM.
2. CLEARING AND GRUBBING SHALL BE COMPLETED PRIOR TO STARTING THE BRIDGE CONSTRUCTION WORK.
3. INSTALL TEMPORARY ACCESS ROAD AND TEMPORARY WORK PLATFORM AS REQUIRED. MAINTAIN MINIMUM CHANNEL WIDTHS SHOWN ON THE PLAN.
4. REMOVE EXISTING TRACK 2 SUPERSTRUCTURE.
5. INSTALL COFFERDAMS AND TEMPORARY EARTH RETAINING SYSTEM.
6. INSTALL DEWATERING BASIN(S).
7. BEGIN EXCAVATION AND REMOVE EXISTING SUBSTRUCTURE, DEWATER AS REQUIRED.
8. INSTALL SUBSTRUCTURE; PILES, FOOTINGS, STEMS, BACKWALLS, ETC.
   A. COMPLETE WW1B STEM AFTER REMOVING THE TEMPORARY WORK PLATFORM.
   B. INSTALL BACKWALLS, BALLAST RETAINERS AND CHEEKWALLS AFTER INSTALLING SUPERSTRUCTURE.
   C. CUT-OFF COFFERDAM REMOVE TO THE LIMITS SHOWN ON THE PLANS.
9. REPAIR EXISTING SUBSTRUCTURE.
10. REMOVE TEMPORARY WORK PLATFORM FROM CHANNEL AND RESTORE CHANNEL.
11. INSTALL SUPERSTRUCTURE; SLAB UNITS, MEMBRANE WATERPROOFING, SAFETY RAILING AND WALKWAY, ETC.
12. INSTALL SUBBALLAST, BALLAST, FINAL GRADING AND SAFETY RAILING.
13. REMOVE TEMPORARY FILL, CUT-OFF TEMPORARY EARTH RETAINING SYSTEM AND RESTORE WORK AREA.

SCALE IN FEET
0 40 80

STAGE 1 CONSTRUCTION PLAN

WETLAND ID 38 & 59
MP 30.99
STA. 1608+30

CTDOT PROJECT NO.: 170-2296/3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: NEWINGTON

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

LOCHNER
H.W. LOCHNER, INC
2110 Silas Deane Highway
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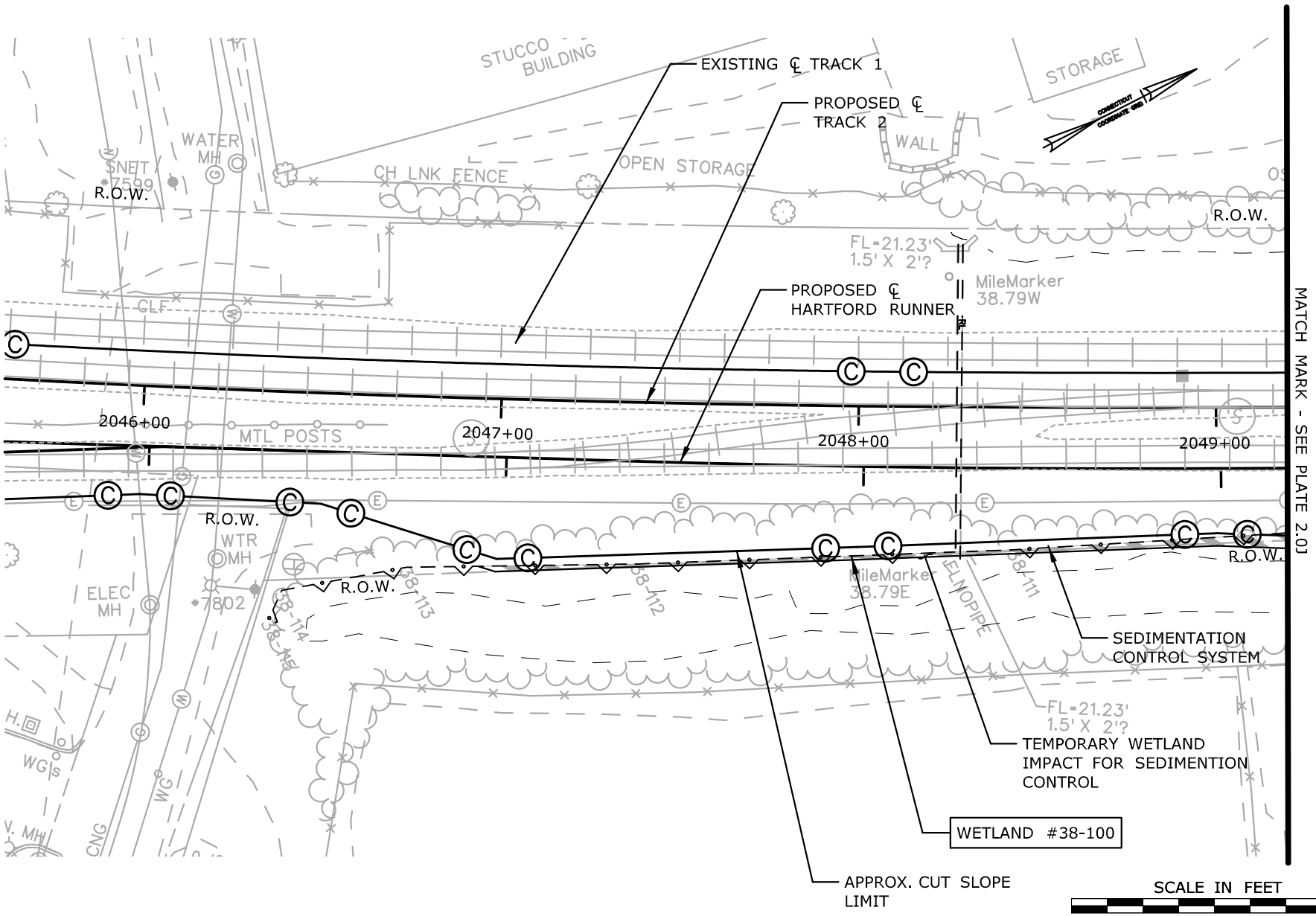
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DATE: MAR 2014

WETLAND ID No. 38 & 59
WATERCOURSE
PIPER BROOK

PLATE 13.3I OF 13.3I

Filename: ...\FA_CGR_MSM_0170-2296_000__01_PER__MP 30.99_04.dgn



SEE PLATE 2.0J FOR TOTAL WETLAND ID 38-100 IMPACT AREAS

IMPACT PLAN

WETLAND ID 38-100
MP 38.93
STA. 2046+90 - 2054+70

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: HARTFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

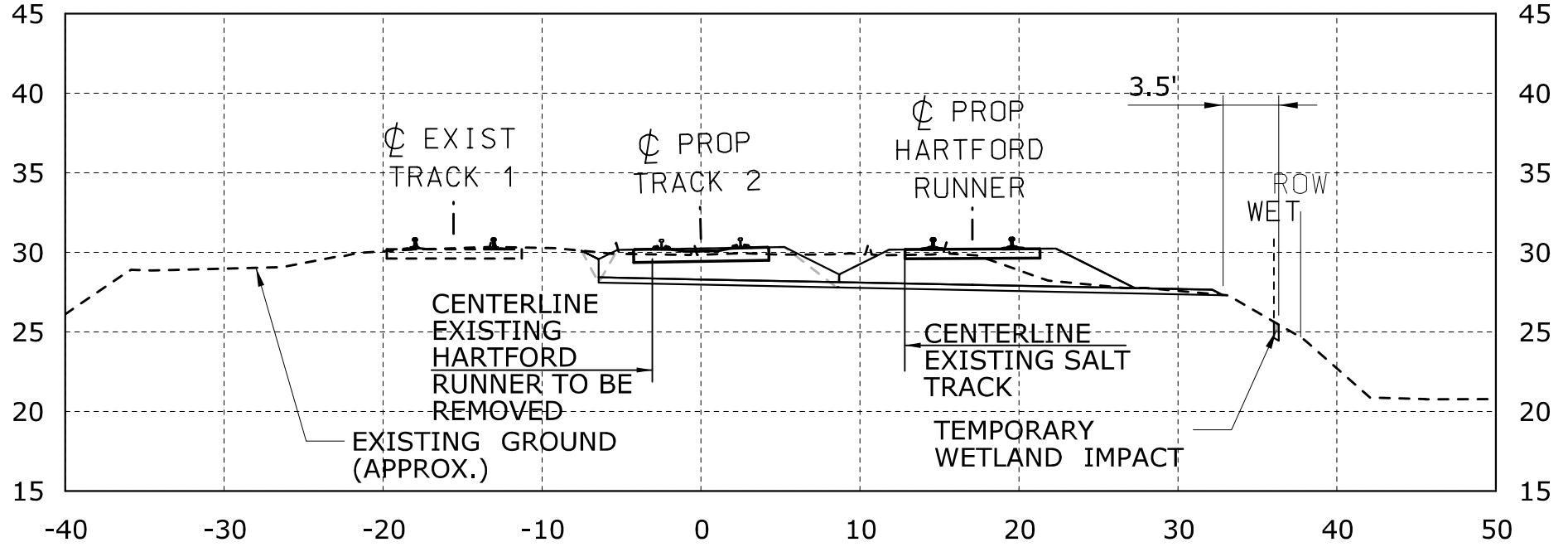
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DATE:
MAR 2014

WETLAND ID No.
38-100

PLATE 1.0J OF 3.0J

Filename: ...\FA_CGR_MSM_0170-2296_063_03_PER_PER_Permit Plate 1.0J.dgn



2049+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 38-100
MP 38.93
STA. 2046+90 - 2054+70

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: HARTFORD

APPLICATION BY: AMTRAK

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

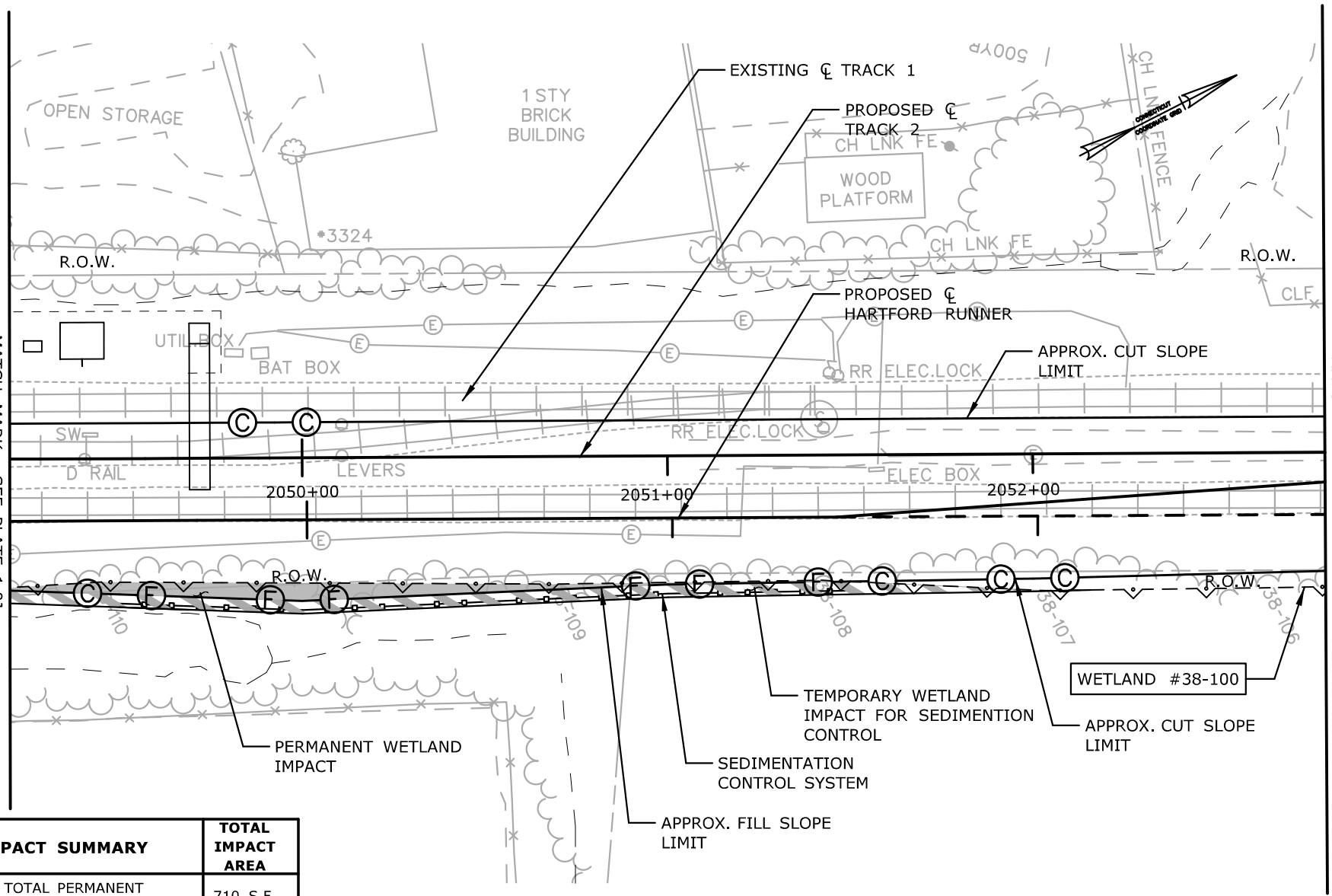
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SCALE:1"=10'

DATE:
MAR 2014
WETLAND ID No.
38-100

PLATE 1.1J OF 3.0J

Filename: ...\FA_CGR_MSM_0170-2296_007__03_PER_PER_Permit Plate 1.1J.dgn



IMPACT SUMMARY	TOTAL IMPACT AREA
TOTAL PERMANENT WETLAND 38-100 IMPACT	710 S.F.
TOTAL TEMPORARY WETLAND 38-100 IMPACT	1,585 S.F.

IMPACT AREAS FOR TOTAL WETLAND ID 38-100 ARE ALSO SHOWN ON PLATES 1.0J, 3.0J

SCALE IN FEET
0 40 80

IMPACT PLAN
WETLAND ID 38-100
MP 38.93
STA. 2046+90 - 2054+70

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: HARTFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

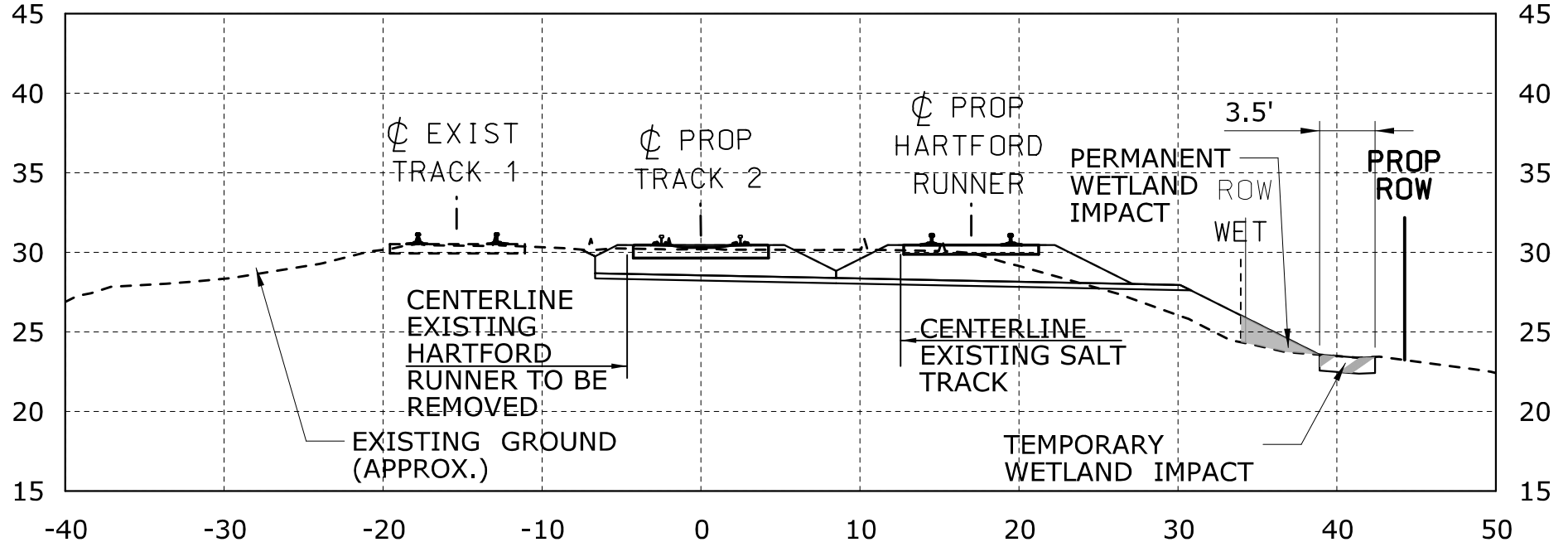
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SCALE:1"=40'

DATE:
MAR 2014
WETLAND ID No.
38-100

PLATE 2.0J OF 3.0J

Filename: ...\FA_CGR_MSM_0170-2296_063_03_PER_PER_Permit Plate 2.0J.dgn



2050+00

GENERAL NOTES:

1. WIDTH OF DISTURBED WETLAND VARIES BY LOCATION.
2. LIMIT OF TEMPORARY WETLAND IMPACT IS DEFINED BY SEDIMENTATION CONTROL LINE (CUT SECTIONS).
3. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE SEDIMENTATION CONTROL FENCE DEPENDING ON THE LIMIT OF DISTURBANCE NEEDED. THE SEDIMENTATION CONTROL FENCE SHALL NOT BE LOCATED OUTSIDE THE TEMPORARY WORK AREA DEFINED HEREIN ON THESE PLANS.

CONSTRUCTION METHODS

1. INSTALL SEDIMENTATION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL ALL OF THE DISTURBED AREAS ARE STABILIZED.
2. BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED DURING CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.
3. TURF ESTABLISH ALL DISTURBED AREAS ONCE FINAL SLOPES ARE ESTABLISHED.

SCALE IN FEET
0 10 20

IMPACT SECTION
WETLAND ID 38-100
MP 38.93
STA. 2046+90 - 2054+70

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: HARTFORD

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

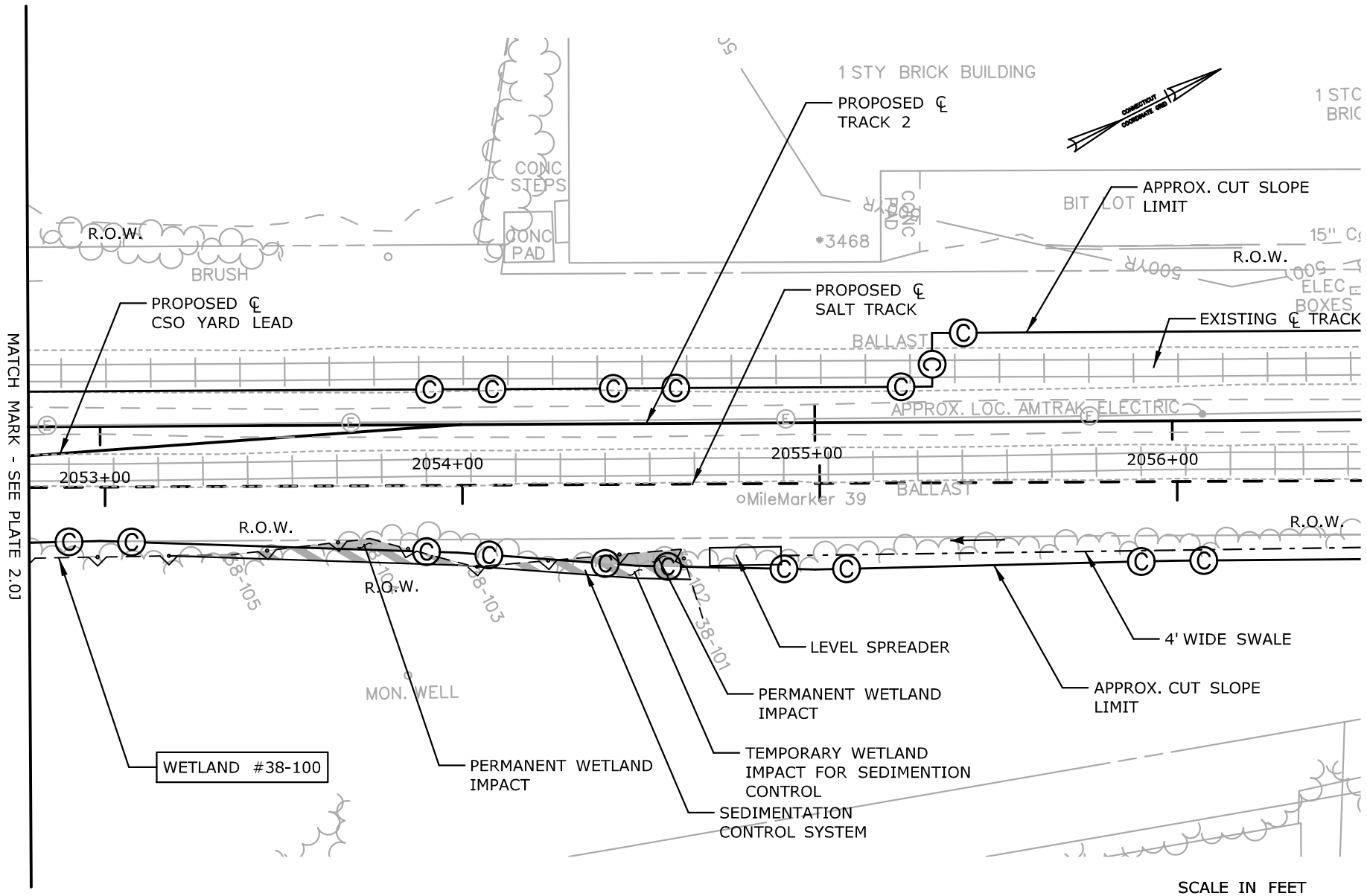
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DATE:
MAR 2014

WETLAND ID No.
38-100

PLATE 2.1J OF 3.0J

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SEE PLATE 2.0J FOR TOTAL WETLAND ID 38-100 IMPACT AREAS

IMPACT PLAN

WETLAND ID 38-100
MP 38.93
STA. 2046+90 - 2054+70

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: HARTFORD

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NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

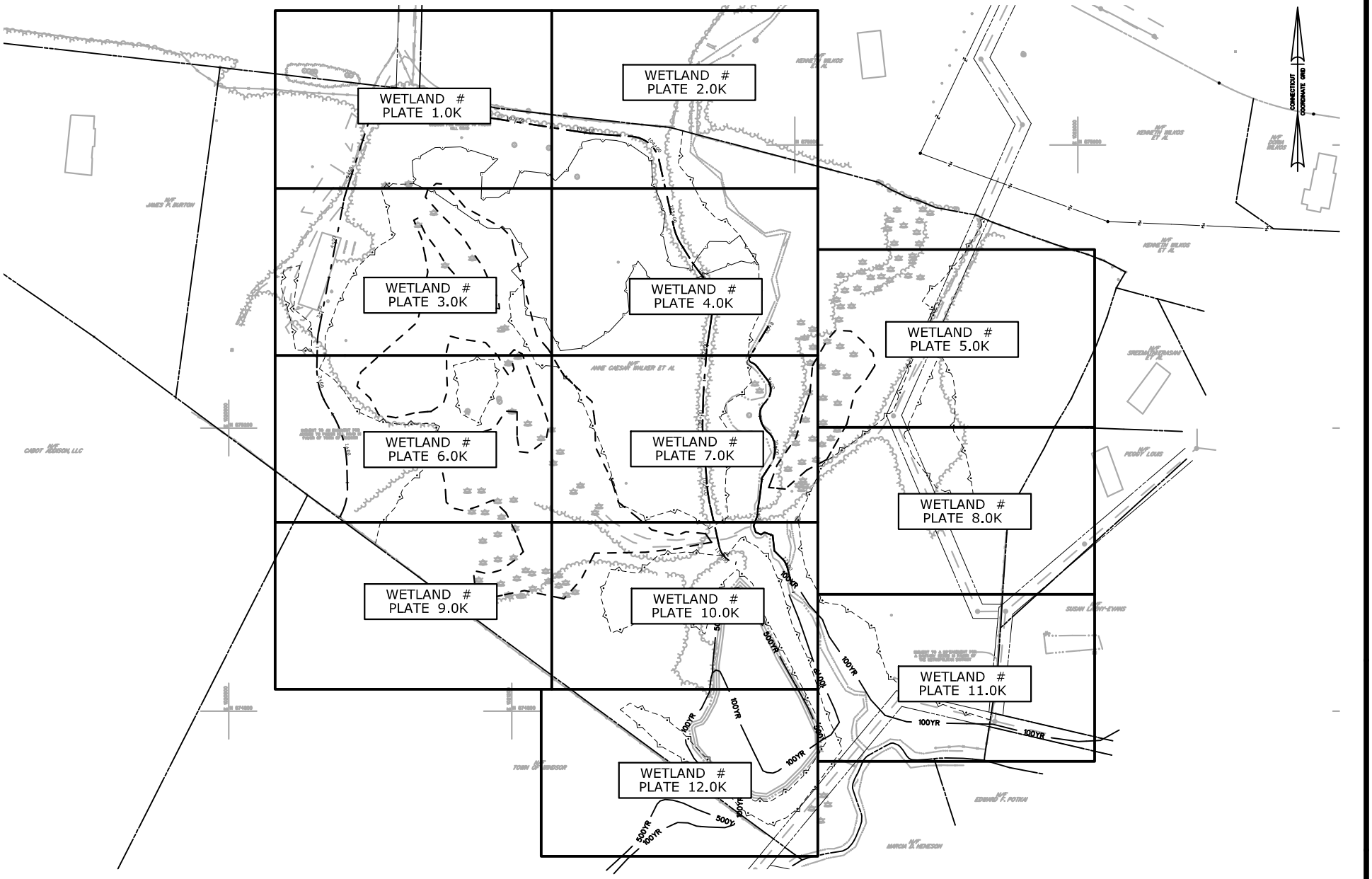
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SCALE:1"=40'

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MAR 2014

WETLAND ID No.
38-100

PLATE 3.0J OF 3.0J



INDEX OF PERMIT PLATES PIGEON HILL

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: WINDSOR

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
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ENVIRONMENTAL IMPACT PLATES

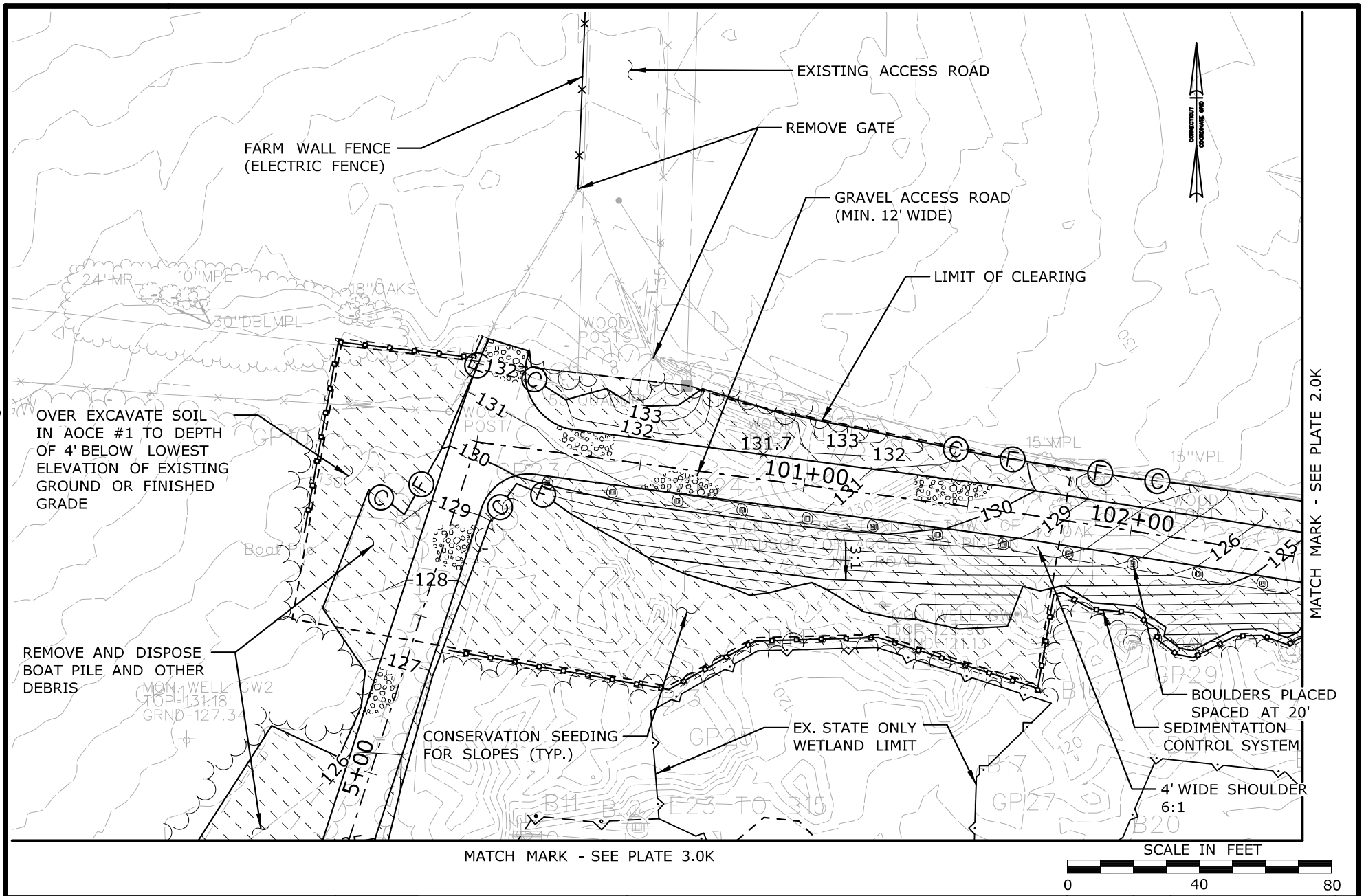
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NOT TO SCALE

DATE:
MAR 2014

INDEX
WETLAND
MITIGATION

Filename: ...\FA_CGR_MDM_0170-2296_164_03_CIN__PERMIT PLATE INDEX - 1.dgn



WETLAND MITIGATION PLAN

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: WINDSOR

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014

PLATE 1.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 1.0K.dgn

SEDIMENTATION AND EROSION CONTROL MEASURES:

1. THE CONTRACTOR SHALL INSTALL TEMPORARY SEDIMENTATION AND EROSION CONTROL DEVICES AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

2. EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE CONNECTICUT DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION", FORM 816, 2004, WITH THE SUPPLEMENTAL SPECIFICATIONS ATTACHED TO THE CONTRACT, 2002 CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL, DEP BULLETIN 34, AND THE PROJECT SPECIFICATIONS.

3. THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

4. IN GENERAL FOR ALL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INSOFAR AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATERBODIES, AND TO PREVENT, INSOFAR AS POSSIBLE, EROSION ON THE SITE.

5. DEBRIS AND OTHER WASTE RESULTING FROM THE CONTRACTOR'S EQUIPMENT MAINTENANCE AND CONSTRUCTION SHALL NOT BE DISCARDED ON SITE.

6. THROUGHOUT THE DURATION OF THE WORK, THE CONTRACTOR MUST MAINTAIN ON SITE A SUPPLY OF ABSORBENT PADS AND OTHER APPROVED MATERIALS NEEDED TO TREAT ANY HAZARDOUS SPILL OR CONTAMINATION. ALL SPILLS OR CONTAMINATIONS MUST BE REPORTED IMMEDIATELY TO THE DEEP HAZARDOUS MATERIALS OFFICE AT 866-337-7745 OR 860-424-3338 AS WELL AS LOCAL AUTHORITIES.

7. ALL SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE INSPECTED DURING CONSTRUCTION BY THE CONTRACTOR ON A DAILY BASIS AND FOLLOWING ALL STORMS. THE CONTRACTOR SHALL MAINTAIN AND MAKE REPAIRS AND REMOVE SEDIMENT AS REQUIRED AND AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PERFORMED WITHIN 24 HOURS FOLLOWING ALL STORM EVENTS. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK.

8. THE CONTRACTOR SHALL CLEAN SEDIMENT AND DEBRIS FROM ALL DRAINAGE STRUCTURES AND PIPES AT THE COMPLETION OF CONSTRUCTION AND AS REQUIRED TO KEEP THE SYSTEM FUNCTIONING PROPERLY DURING CONSTRUCTION.

9. FOLLOWING COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REPAIR ALL ERODED AREAS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REPAIR ALL ERODED OR DISPLACED RIPRAP AND CLEAN SEDIMENT COVERED STONES.

6. ANY SEDIMENT REMOVED DURING THE SEDIMENTATION AND EROSION CONTROL MAINTENANCE SHALL BE TAKEN TO THE WASTE STOCKPILE AREA FOR TESTING.

7. THERE SHALL BE NO SEPARATE PAYMENT FOR SEDIMENTATION AND EROSION CONTROL MAINTENANCE DURING CONSTRUCTION.

GENERAL STAGING OF PROJECT:

THE CONSTRUCTION OF THE TEMPORARY SEDIMENTATION BASINS, IF REQUIRED MUST BE COMPLETED BY THE CONTRACTOR BEFORE ANY OTHER WORK BEGINS AT THE SITE. EXTREME CAUTION MUST BE TAKEN TO LIMIT THE EXTENT OF DISTURBED AREAS. WORK SHALL BE CONDUCTED BY THE CONTRACTOR IN THE FOLLOWING ORDER:

1. INSTALL ANTI-TRACKING PADS AS DIRECTED BY THE ENGINEER.
2. INSTALL SEDIMENTATION CONTROL SYSTEM AROUND ALL EXISTING CATCH BASINS AND DRAINS, EACH STOCKPILE AND STORAGE AREA AND IN OTHER AREAS AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. CONSTRUCT TEMPORARY SEDIMENTATION BASINS
4. DEMOLISH OLD TOBACCO BARN
5. CONSTRUCT WSA
6. OVER EXCAVATE AOEC #1
7. BACKFILL EXCAVATION
8. CLEAR & GRUB FOR PROPOSED ACCESS ROADS, DURING GRUBBING OPERATIONS, INSTALL CHECK DAMS AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS.
9. CONSTRUCT ACCESS ROADS, TEMPORARY CONSTRUCTION AREAS, AND TEMPORARY STREAM CROSSING, PLACE TIMBER MATS
10. STABILIZE ALL DISTURBED AREAS
11. REMOVE INVASIVE PLANTS, STABILIZE AREA DISTURBED BY REMOVAL
12. CONSTRUCT STREAM BANK IMPROVEMENTS, STABILIZE AREA DISTURBED WITH WETLAND GRASS ESTABLISHMENT
13. REMOVE TEMPORARY ACCESS ROADS AND TIMBER MATS, CLEAR TEMPORARY CONSTRUCTION AREAS, REMOVE TEMPORARY STREAM CROSSING
14. STABILIZE ALL DISTURBED AREAS
15. CONSTRUCT WETLAND RESTORATION AREA, STABILIZE AREA DISTURBED WITH WETLAND GRASS ESTABLISHMENT
15. PLANT TREES AND SHRUBS
16. REMOVE WSA
18. RESTORE DISTURBED AREAS AND REMOVE EROSION CONTROL DEVICES.

WETLAND MITIGATION PLAN E&S NOTES

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: WINDSOR

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NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
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ENVIRONMENTAL IMPACT PLATES

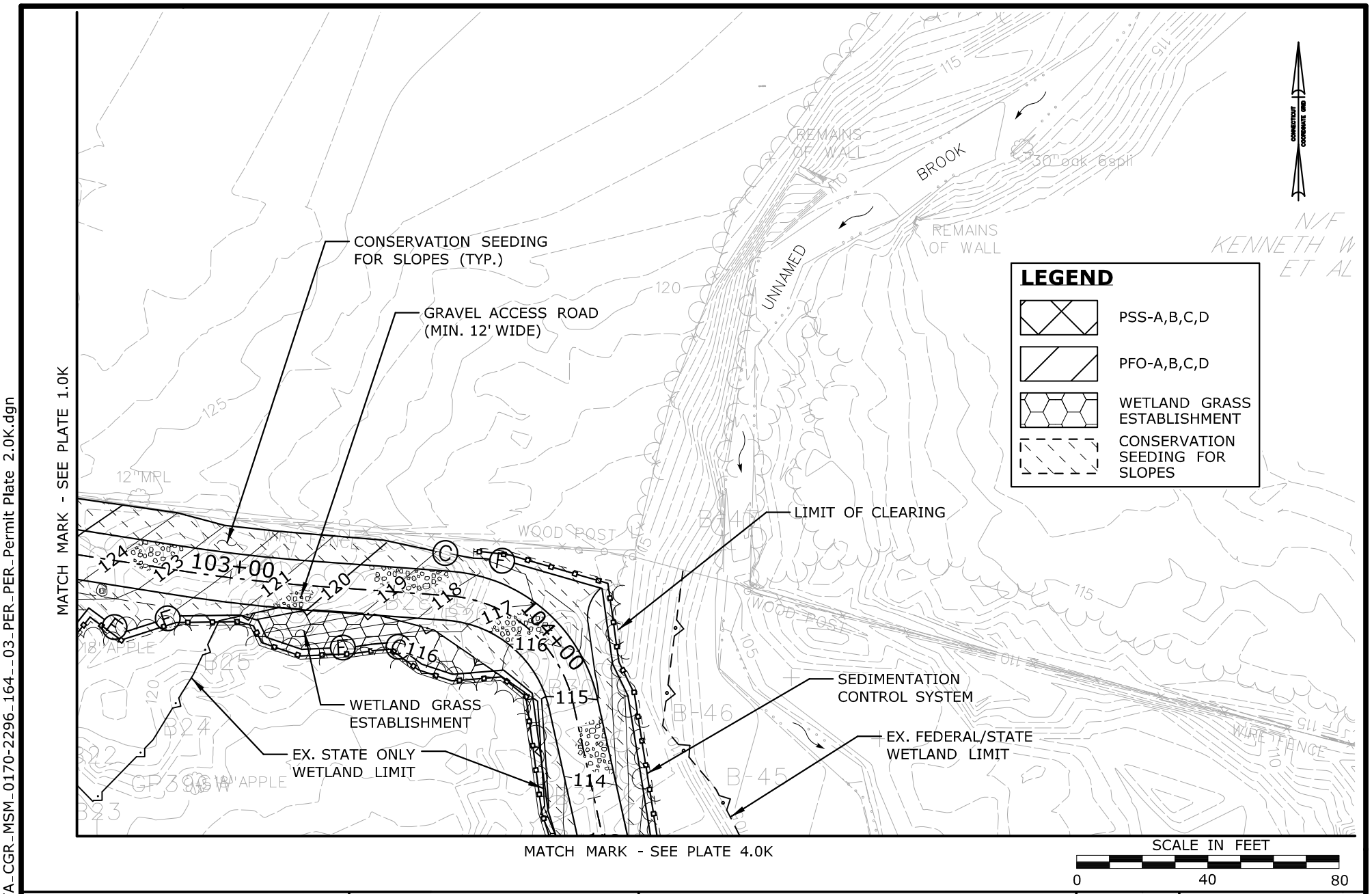
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SCALE: NTS

DATE: MAR 2014

PLATE 1.1K OF 13.0K

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WETLAND MITIGATION PLAN

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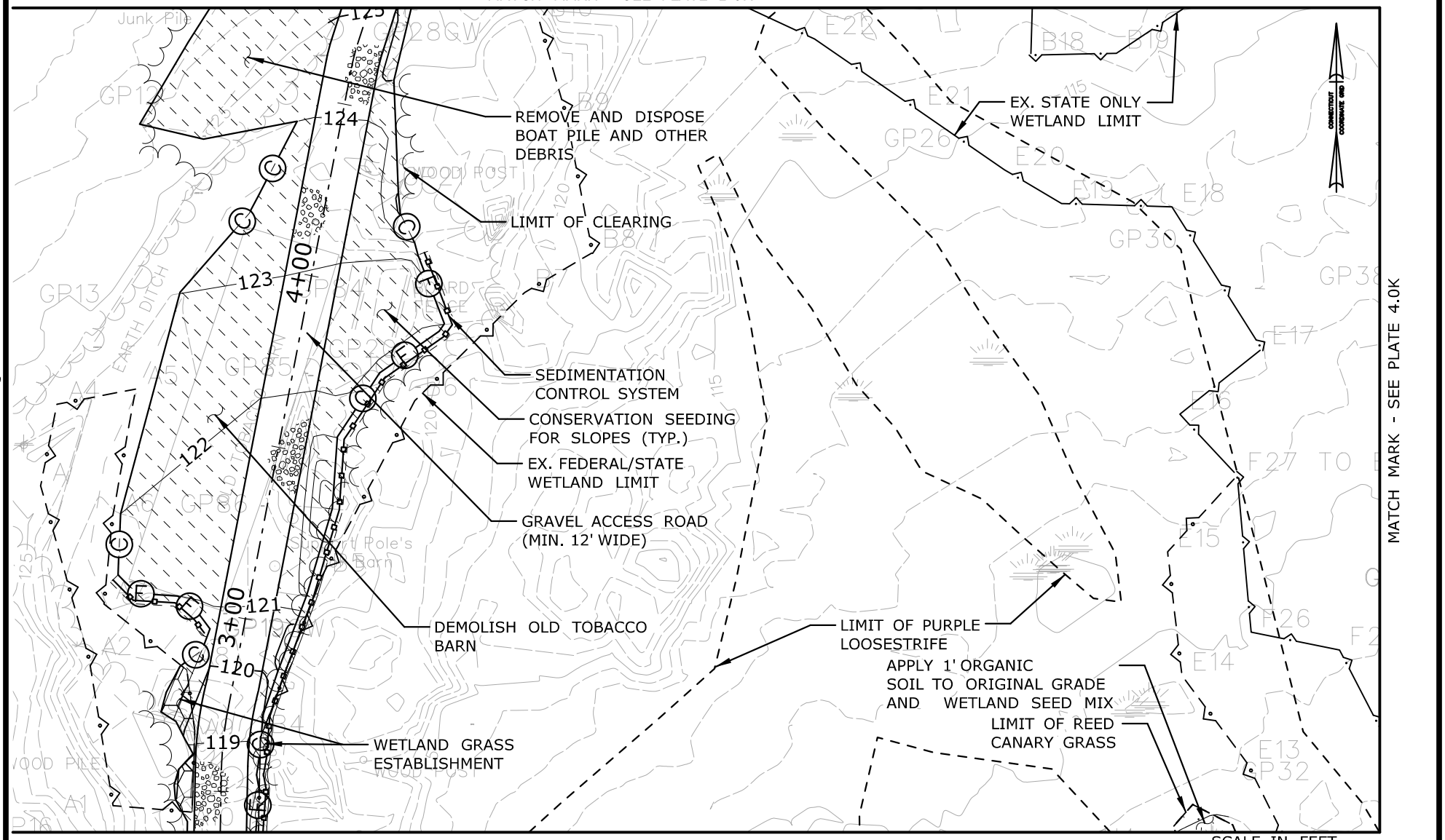
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DATE: MAR 2014

PLATE 2.0K OF 13.0K

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SEE PLATE 2.0K FOR LEGEND

WETLAND MITIGATION PLAN

CTDOT PROJECT NO.:
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CITY/TOWN: WINDSOR

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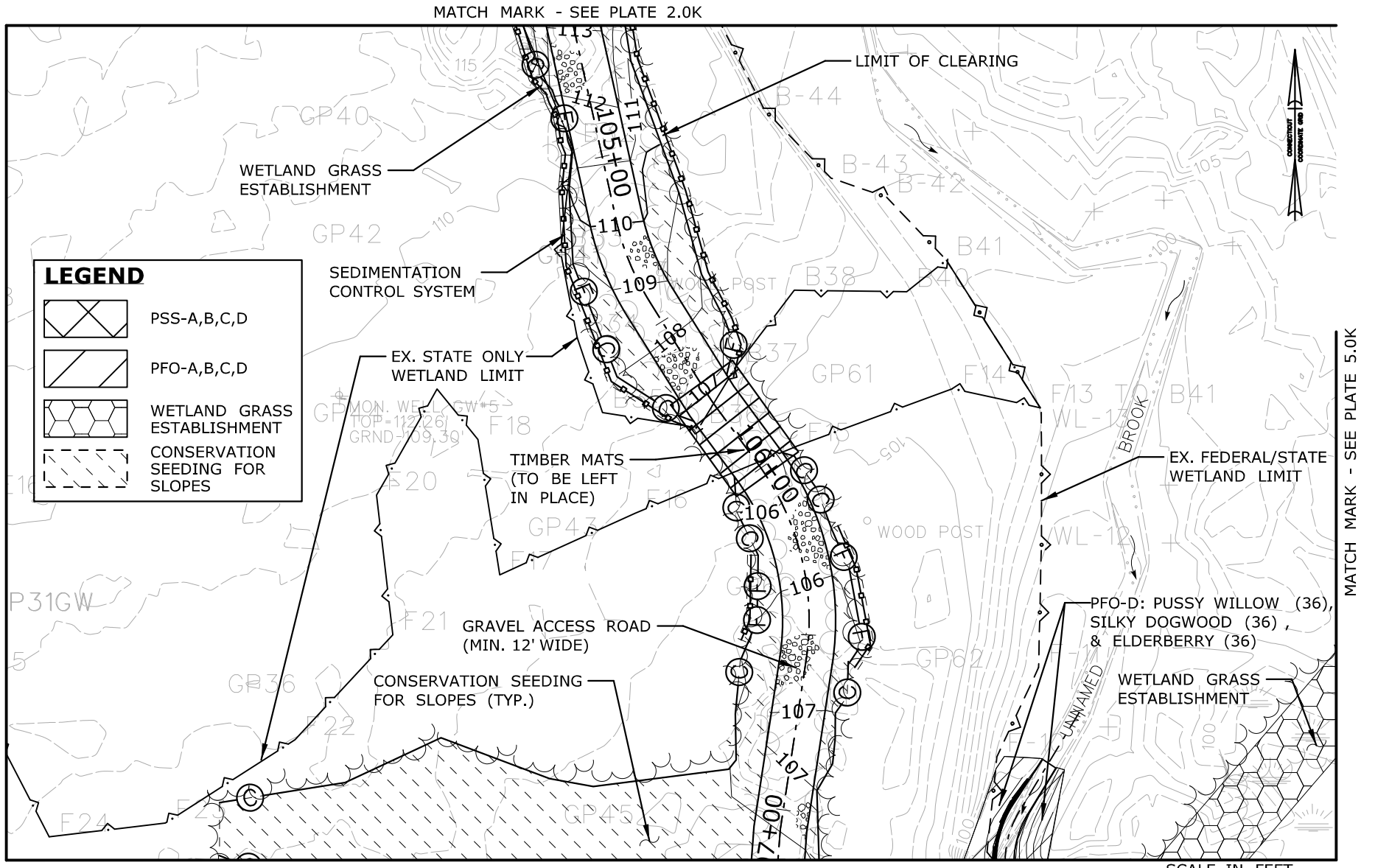
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SCALE:1"=40'

DATE:
MAR 2014

PLATE 3.0K OF 13.0K

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SEE PLATE 10.1K FOR PLANTING TABLE

WETLAND MITIGATION PLAN

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: WINDSOR

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NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
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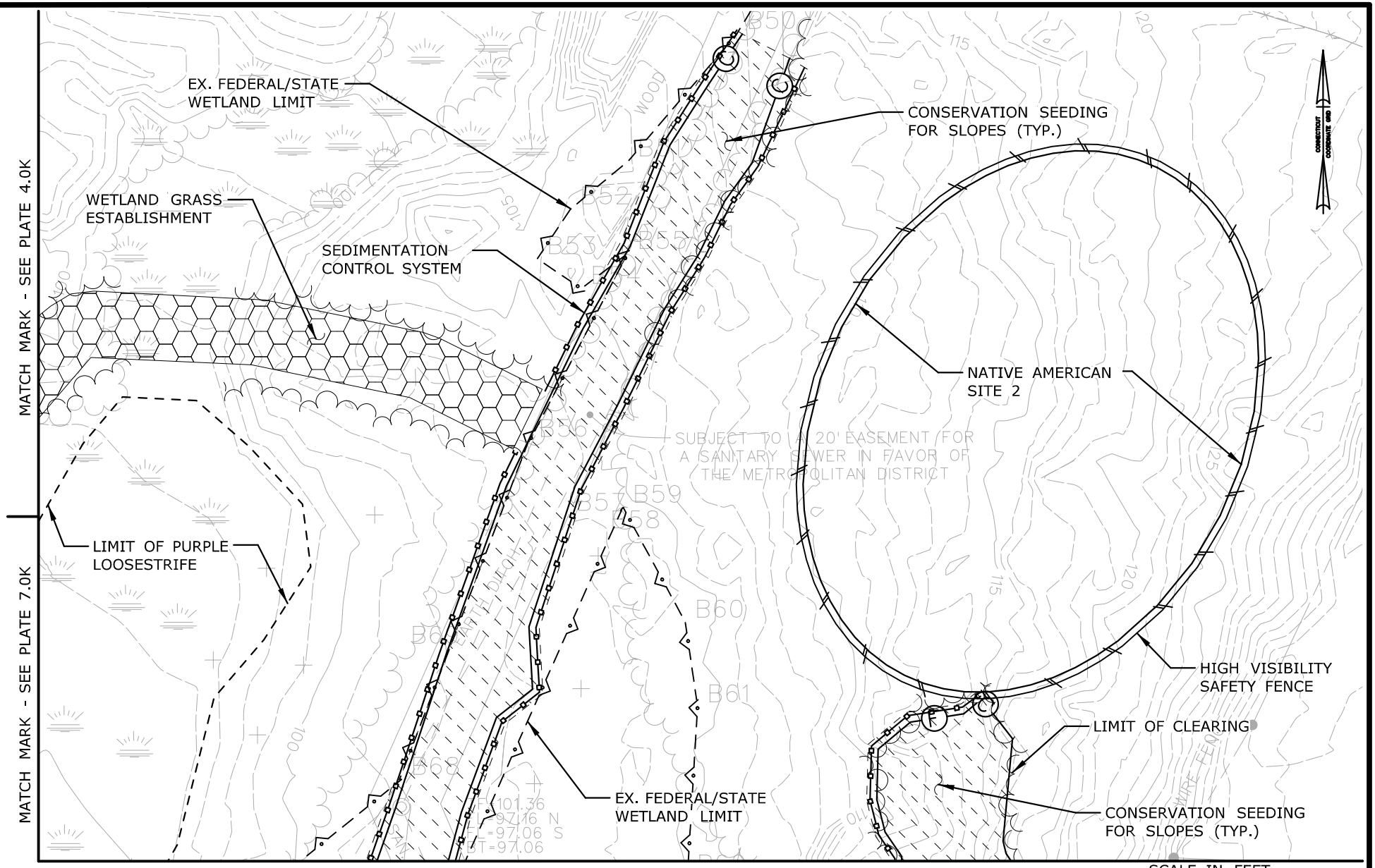
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SCALE:1"=40'

DATE:
MAR 2014

PLATE 4.0K OF 13.0K

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SEE PLATE 4.0K FOR LEGEND

WETLAND MITIGATION PLAN

CTDOT PROJECT NO.:
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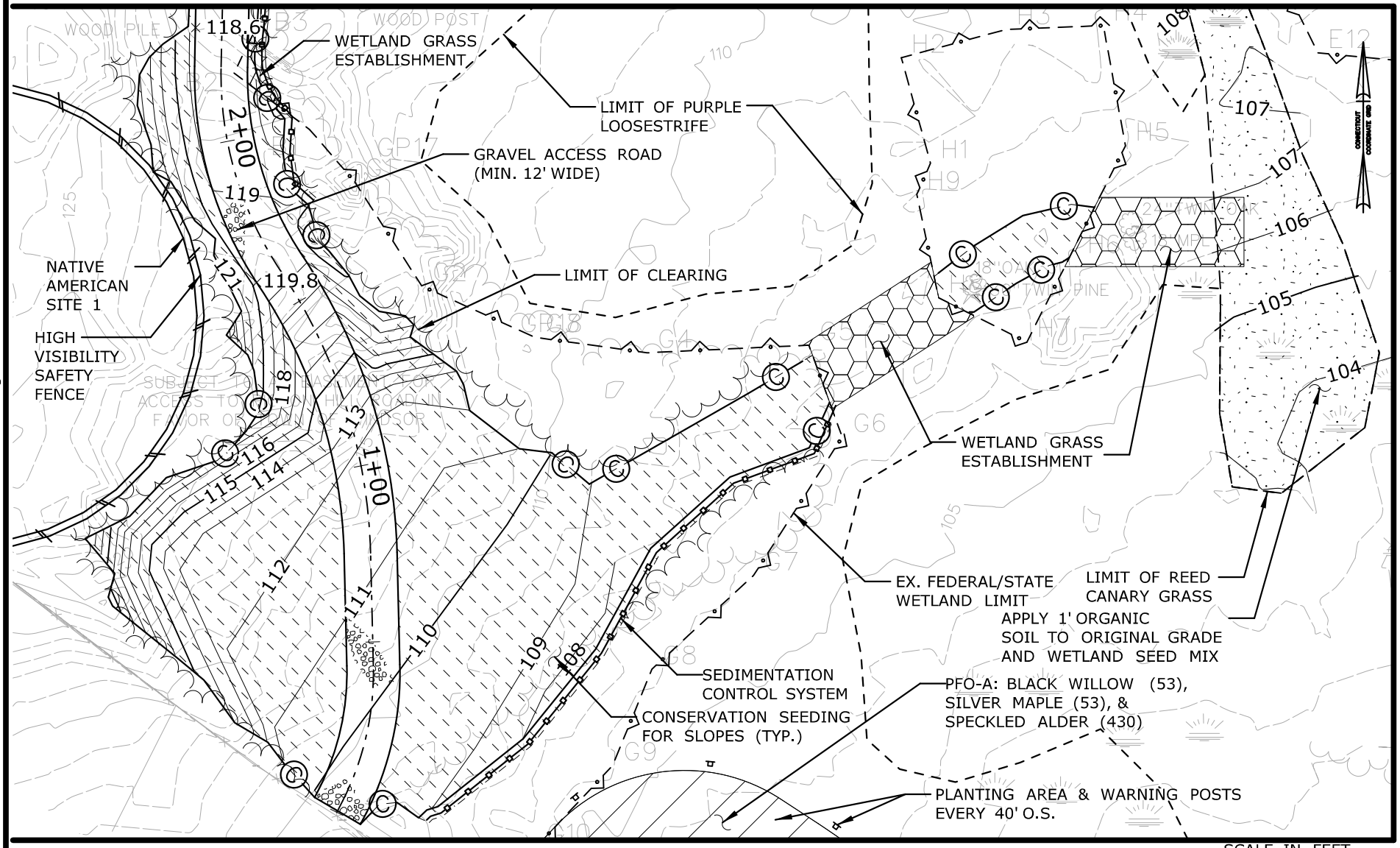
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SCALE:1"=40'

DATE:
MAR 2014

PLATE 5.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 5.0K.dgn



SEE PLATE 4.0K FOR LEGEND
SEE PLATE 10.1K FOR PLANTING TABLE

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MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

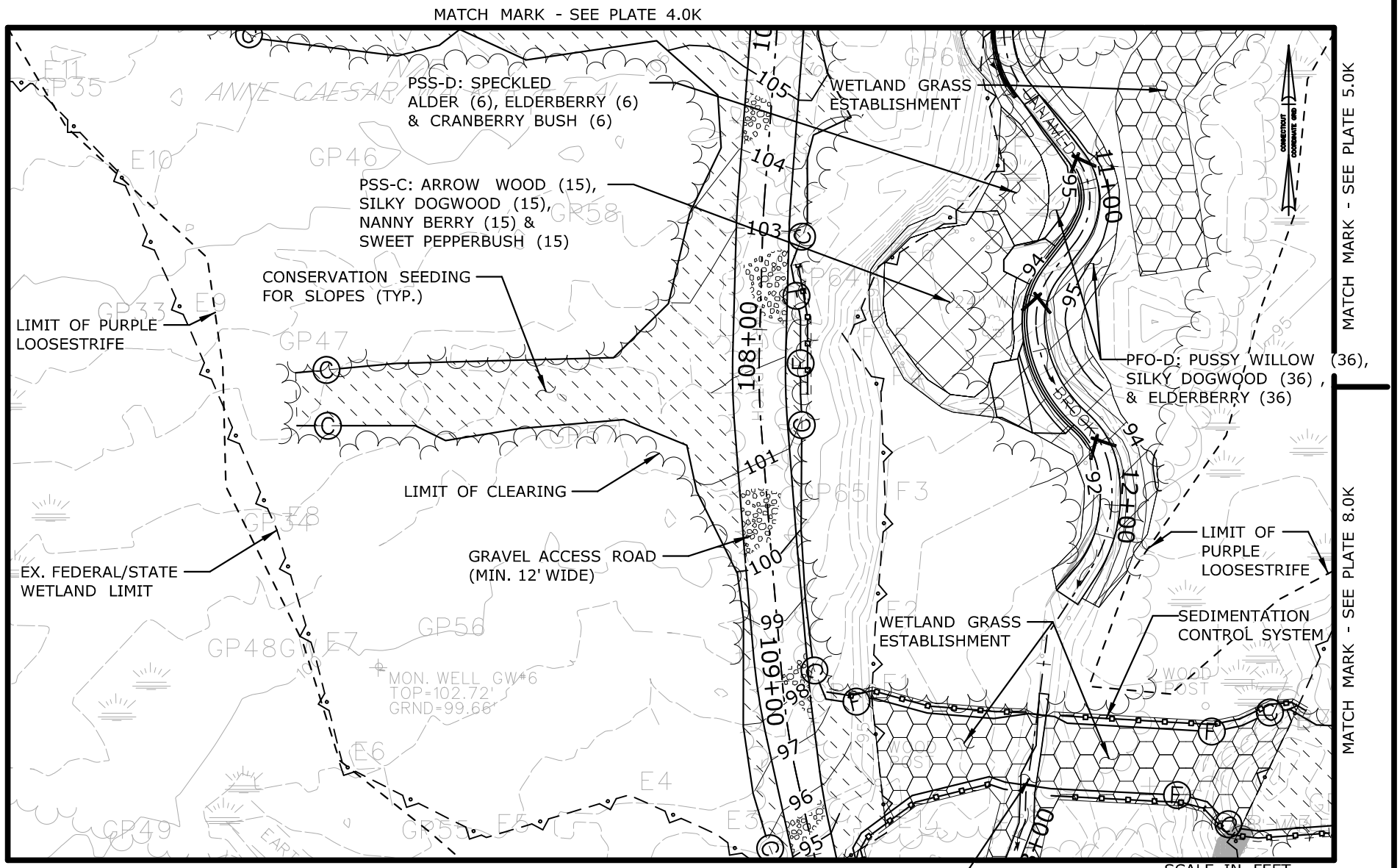
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE: MAR 2014

PLATE 6.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 6.0K.dgn



SEE PLATE 4.0K FOR LEGEND
SEE PLATE 10.1K FOR PLANTING TABLE

WETLAND MITIGATION PLAN

CTDOT PROJECT NO.: 170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: WINDSOR

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

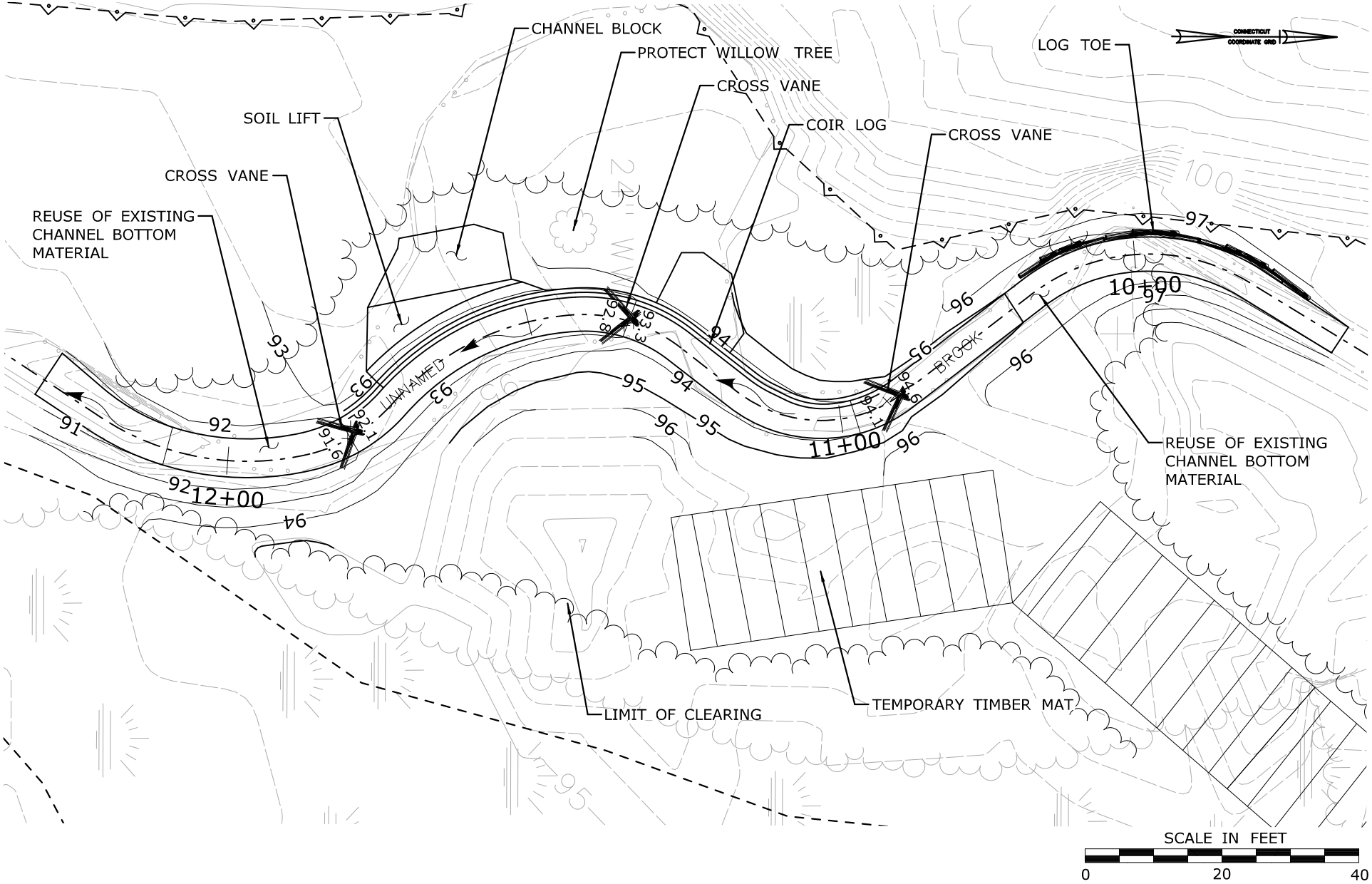
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SCALE:1"=40'

DATE: MAR 2014

PLATE 7.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 7.0K.dgn



STREAM BANK IMPROVEMENTS

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: WINDSOR

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

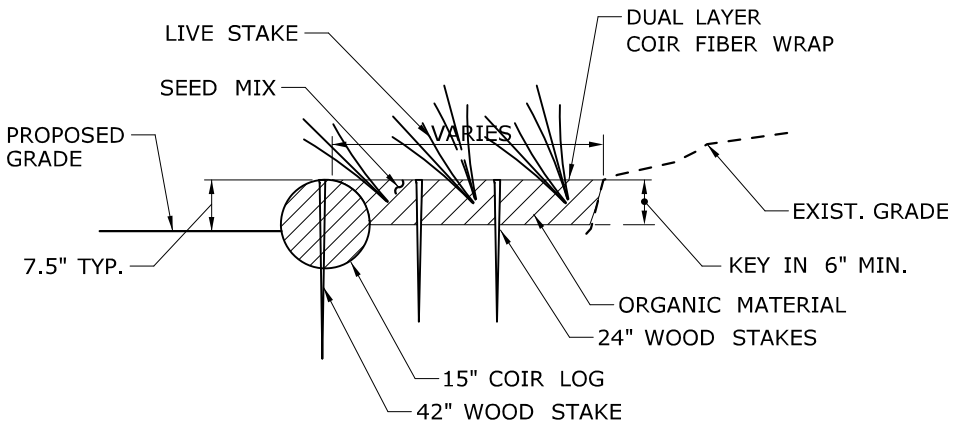
PARSONS BRINCKERHOFF

SCALE: 1"=20'

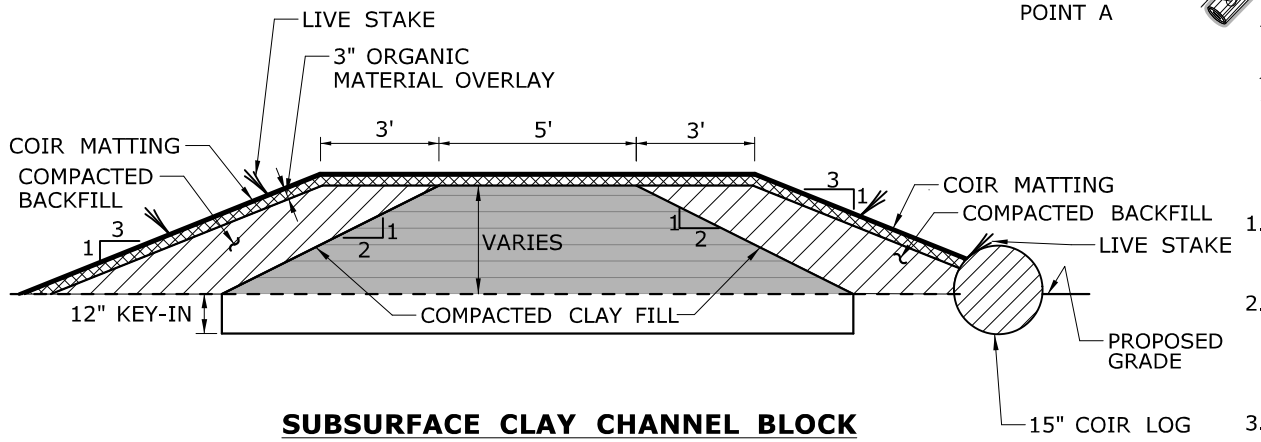
DATE:
MAR 2014

PLATE 7.1K OF 13.0K

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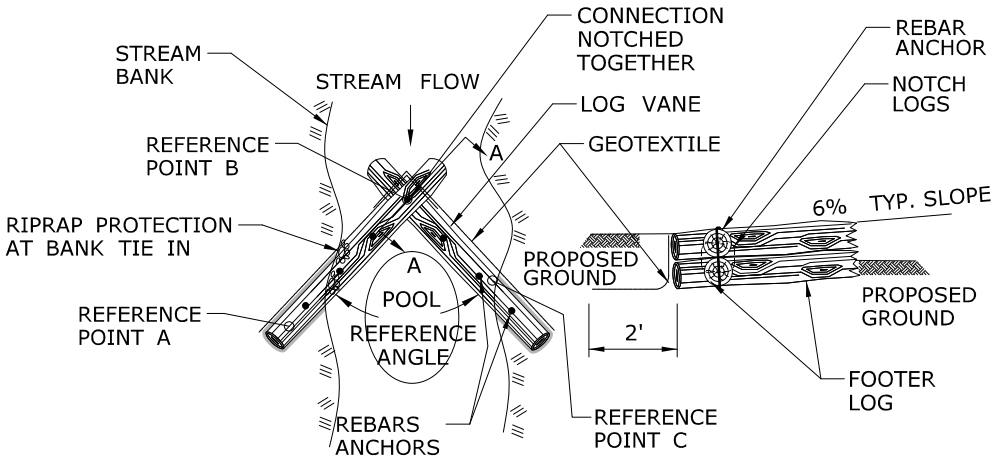
SOIL LIFTS WITH COIR LOGS



SUBSURFACE CLAY CHANNEL BLOCK

MATERIALS:

1. GEOTEXTILE TO CONFORM TO SPECIFICATION FOR ROCK TOE.
2. LOGS ARE TO CONSIST OF NATIVE HARDWOOD WITH THE FOLLOWING PROPERTIES:
   A. LOGS SHOULD BE STRAIGHT SECTIONS OF 12" TO 15" DIAMETER HARDWOOD WITH LENGTH OF 12' TO 15'.
   B. LOGS SHOULD BE FREE OF ROT, LIMBS AND VOIDS.
3. REBAR SHOULD CONSIST OF #6 BARS OR LARGER.



PLAN VIEW

NOTES:

1. LOG VANES ARE TO BE CONSTRUCTED USING FOUR LOGS. TWO TOP LOGS AND TWO FOOTER LOGS.
2. LOGS ARE TO BE NOTCHED AT THE APEX OF THE V-SHAPE TO CREATE A TIGHT FIT BETWEEN LOGS. THE LOGS AT THE TOP OF THE LOG VANE SHOULD FIT TIGHTLY TOGETHER TO FORM A LOW FLOW CHANNEL OVER THE CENTER OF LOG VANE.
3. TOP LOGS AND FOOTER LOGS ARE TO BE CONNECTED WITH REBAR. THE REBAR IS TO BE BENT TO 90° AT BOTH ENDS.
4. GEOTEXTILE IS TO BE AFFIXED TO THE FRONT OF THE LOGS USING STANDARD STAPLES. GEOTEXTILE IS TO EXTEND A MINIMUM OF 2- FEET IN FRONT OF THE LOGS.
5. LOGS ARE TO BE EMBEDDED A MIN. OF 3' INTO BANK, 6 RIPRAP PROTECTION SHALL BE PLACED AT TIE IN.

STRUCTURE DETAILS

PIGEON HILL ROAD

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: WINDSOR

APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

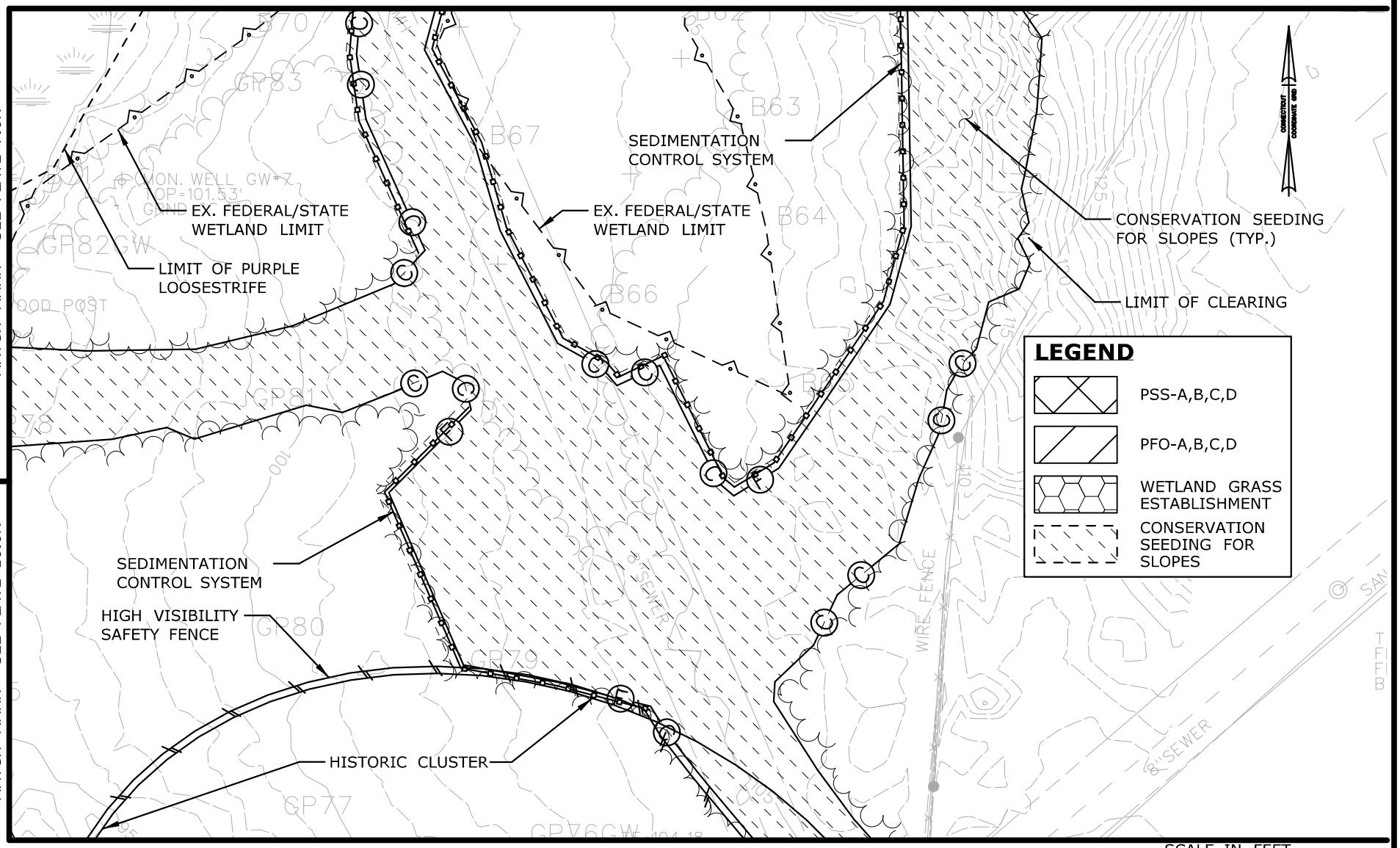
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SCALE:NTS

DATE:
MAR 2014

PLATE 7.2K OF 13.0K

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WETLAND MITIGATION PLAN

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

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NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

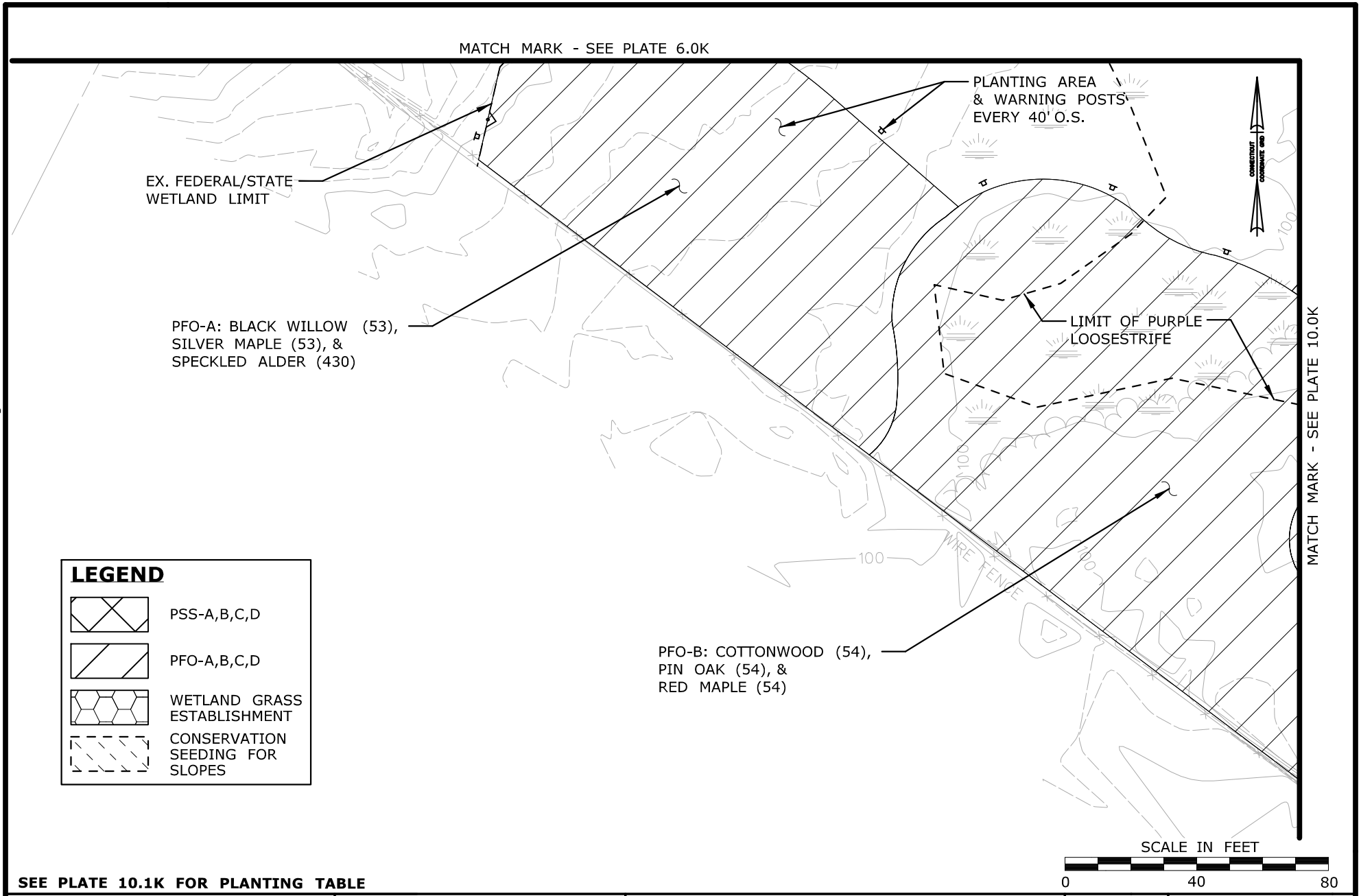
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014

PLATE 8.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 8.0K.dgn



SEE PLATE 10.1K FOR PLANTING TABLE

WETLAND MITIGATION PLAN

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ENVIRONMENTAL IMPACT PLATES

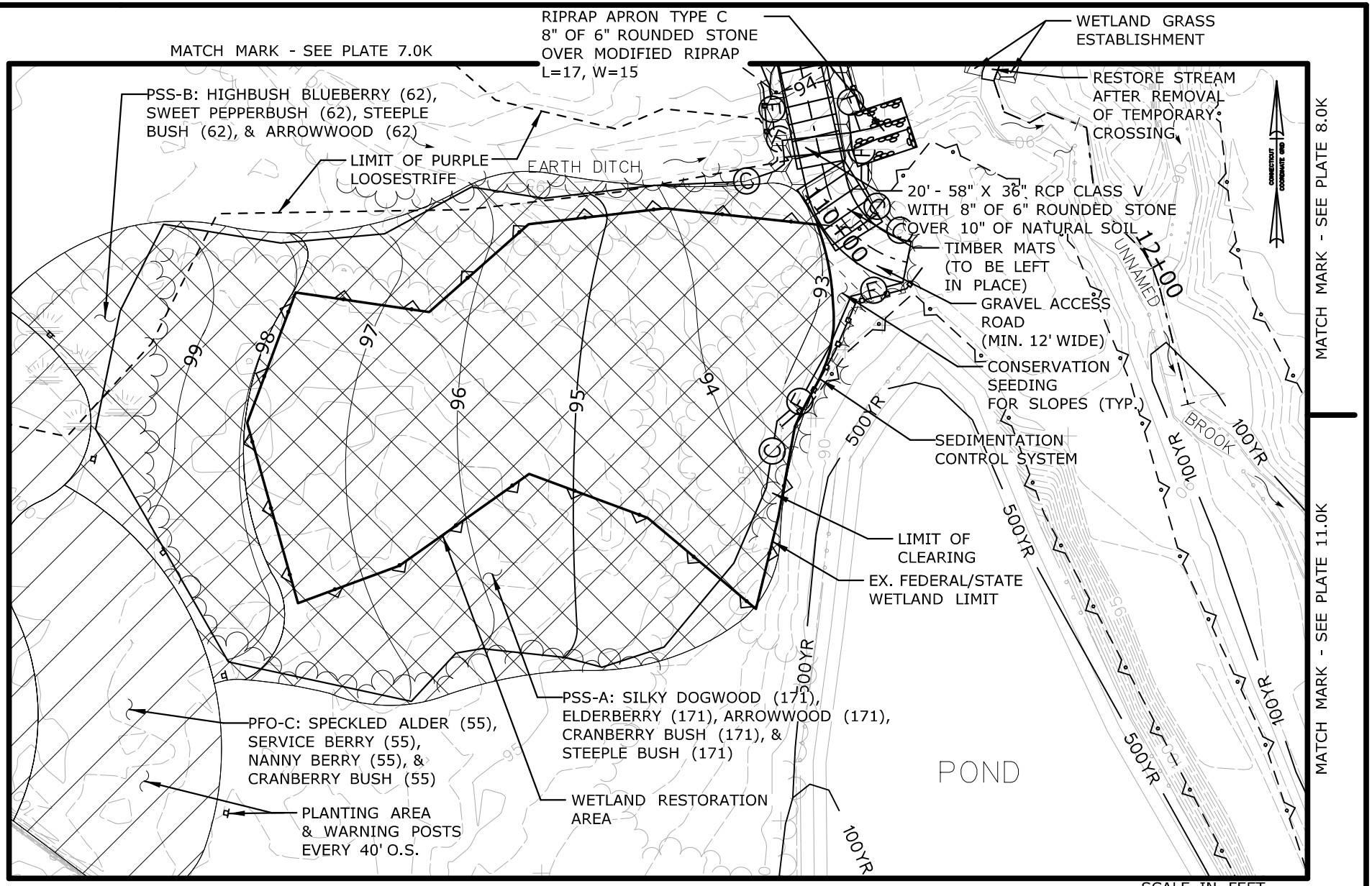
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE: MAR 2014

PLATE 9.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 9.0K.dgn



SEE PLATE 9.0K FOR LEGEND
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WETLAND MITIGATION PLAN

CTDOT PROJECT NO.:
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NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
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PARSONS BRINCKERHOFF

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Pigeon Hill Wetland Plantings

BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	PFO-A	PFO-C	PFO-B	PFO-D	PSS-A	PSS-B	PSS-C	PSS-D	TOTAL
TREES					**QUANTITIES**								
ACER RUBRUM	RED MAPLE	FAC	2 - 3' HT B.B.	10' O.C.			54						**54**
ACER SACCHARINUM	SILVER MAPLE	FACW	18" – 24" HT B.B.	10' O.C.	53								**53**
POPULUS DELTOIDES	COTTONWOOD	FACW	2 - 3' HT B.B.	10' O.C.			54						**54**
QUERCUS PALUSTRIS	PIN OAK	FACW	24"-36' HT CONTAINER	10' O.C.			54						**54**
SALIX NIGRA	BLACK WILLOW	FACW	18" – 24" HT B.B.	10' O.C.	53								**53**
													268
SHRUBS													
ALNUS INCANA	SPECKLED ALDER	FACW	18" – 24" HT B.B.	5' O.C.	430	55						6	**491**
AMELANCHIER CANADENSIS	SERVICE BERRY	FAC	4'-5' HT B.B.	5' O.C.		55							**55**
CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	FAC	2'-3' HT B.B.	5' O.C.						62	15		**77**
CORNUS AMOMUM	SILKY DOGWOOD	FACW	18" – 24" HT CONTAINER	5' O.C.				36	171		15		**222**
SALIX DISCOLOR	PUSSY WILLOW	FACW	2 - 3' HT B.B.	5' O.C.				36					**36**
SAMBUCUS CANADENSIS	ELDERBERRY	FACW	18" – 24" HT CONTAINER	5' O.C.				36	171			6	**213**
SPIRAEA TOMENTOSA	STEEPLEBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.					171	62			**233**
VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	FACW	18" – 24" HT CONTAINER	5' O.C.						62			**62**
VIBURNUM DENTATUM	ARROWWOOD	FACW	2'-3' HT B.B.	5' O.C.					171	62	15		**248**
VIBURNUM LENTAGO	NANNYBERRY	FAC	3'-4' HT B.B.	5' O.C.		55					15		**70**
VIBURNUM TRILOBUM	CRANBERRYBUSH	FACW	18" – 24" HT CONTAINER	5' O.C.		55			171			6	**232**
													1939

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_Permit Plate 10.1K.dgn

PLANTING TABLE

PIGEON HILL ROAD

CTDOT PROJECT NO.:
170-3154/3155/3156

COUNTY: HARTFORD

CITY/TOWN: WINDSOR

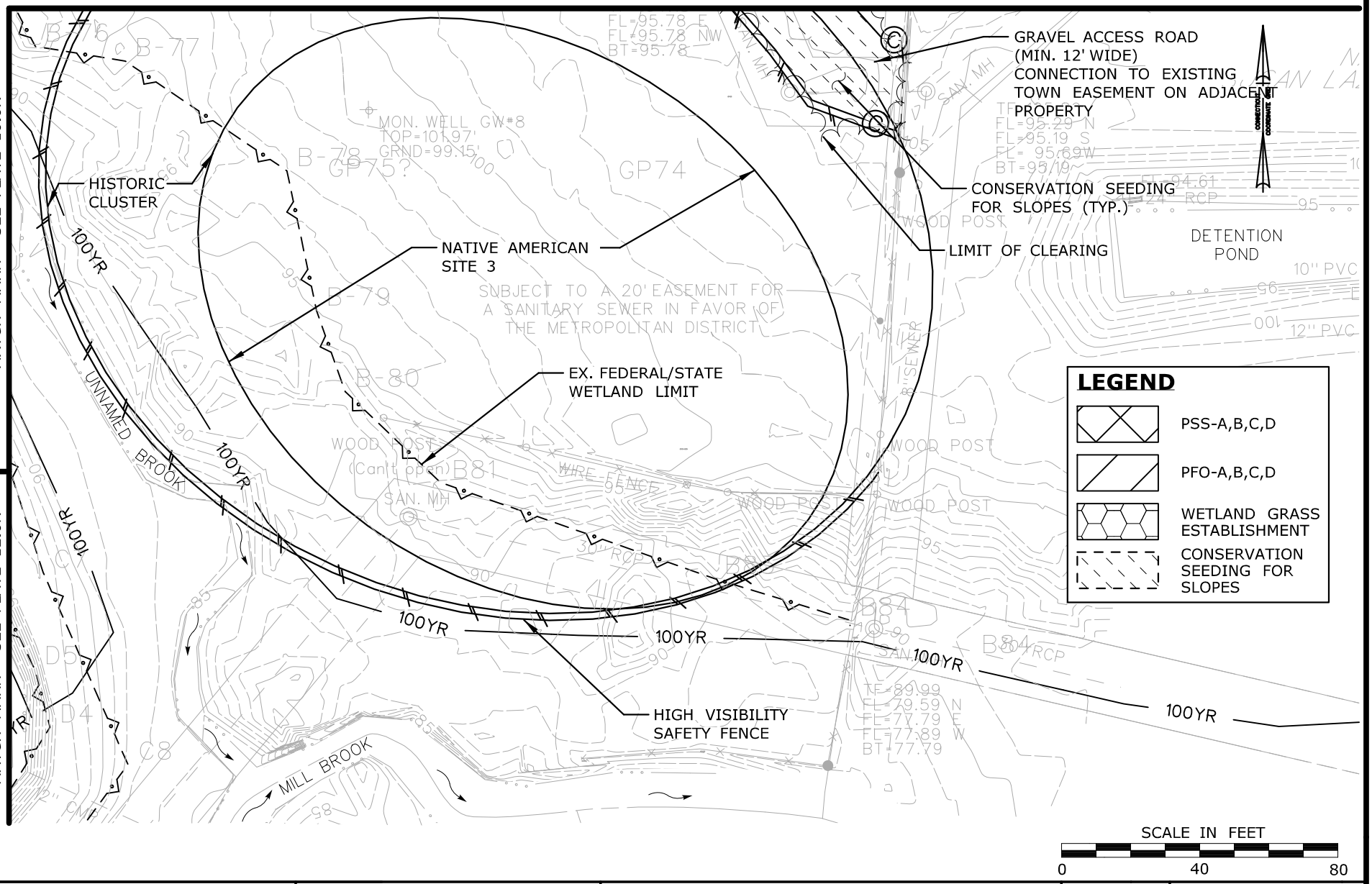
APPLICATION BY: AMTRAK®

NEW HAVEN - HARTFORD - SPRINGFIELD RAIL PROGRAM
MP 0.0 TO MP 39.0
ENVIRONMENTAL IMPACT PLATES

PARSONS BRINCKERHOFF

SCALE:NTS

DATE:
MAR 2014



WETLAND MITIGATION PLAN

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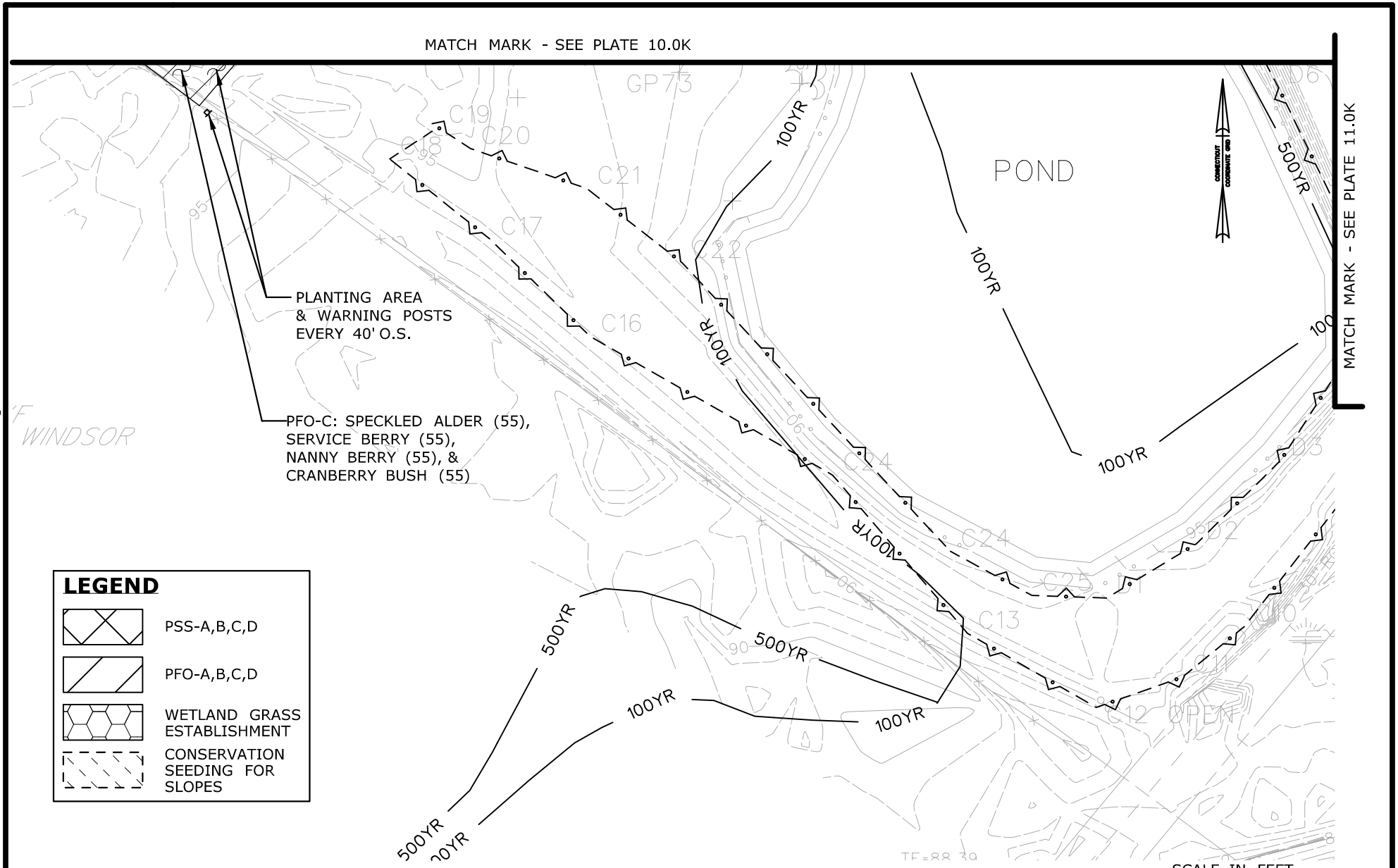
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE: MAR 2014

PLATE 11.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 11.0K.dgn



SEE PLATE 10.1K FOR PLANTING TABLE

WETLAND MITIGATION PLAN

CTDOT PROJECT NO.:
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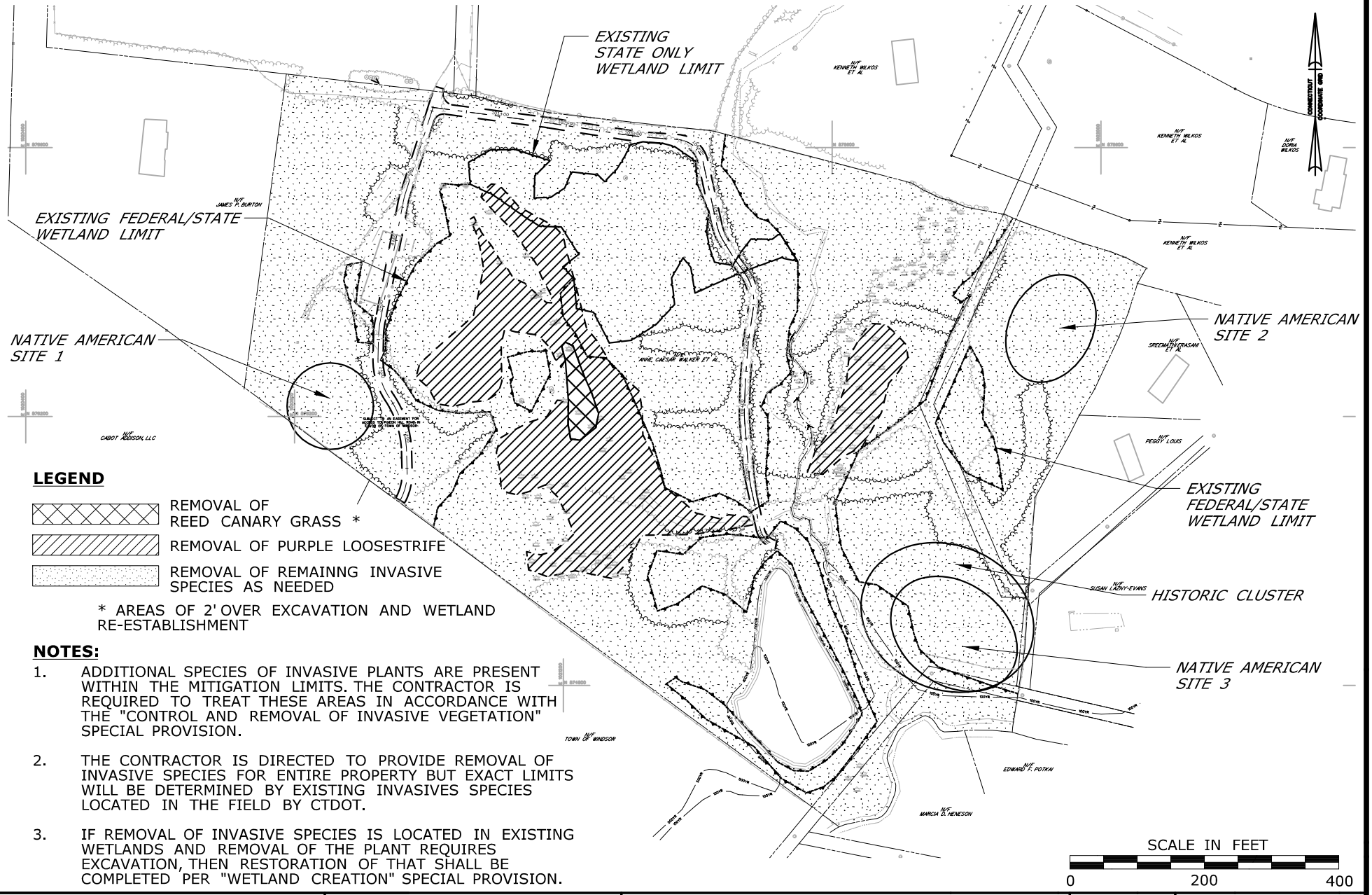
PARSONS BRINCKERHOFF

SCALE:1"=40'

DATE:
MAR 2014

PLATE 12.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 12.0K.dgn



LEGEND

- REMOVAL OF REED CANARY GRASS *
- REMOVAL OF PURPLE LOOSESTRIFE
- REMOVAL OF REMAINNG INVASIVE SPECIES AS NEEDED

* AREAS OF 2' OVER EXCAVATION AND WETLAND RE-ESTABLISHMENT

NOTES:

1. ADDITIONAL SPECIES OF INVASIVE PLANTS ARE PRESENT WITHIN THE MITIGATION LIMITS. THE CONTRACTOR IS REQUIRED TO TREAT THESE AREAS IN ACCORDANCE WITH THE "CONTROL AND REMOVAL OF INVASIVE VEGETATION" SPECIAL PROVISION.
2. THE CONTRACTOR IS DIRECTED TO PROVIDE REMOVAL OF INVASIVE SPECIES FOR ENTIRE PROPERTY BUT EXACT LIMITS WILL BE DETERMINED BY EXISTING INVASIVES SPECIES LOCATED IN THE FIELD BY CTDOT.
3. IF REMOVAL OF INVASIVE SPECIES IS LOCATED IN EXISTING WETLANDS AND REMOVAL OF THE PLANT REQUIRES EXCAVATION, THEN RESTORATION OF THAT SHALL BE COMPLETED PER "WETLAND CREATION" SPECIAL PROVISION.

SCALE IN FEET
0 200 400

WETLAND MITIGATION PLAN INVASIVES REMOVAL

CTDOT PROJECT NO.: 170-3154/3155/3156

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PARSONS BRINCKERHOFF

SCALE:1"=200'

DATE: MAR 2014

PLATE 13.0K OF 13.0K

Filename: ...\FA_CGR_MSM_0170-2296_164_03_PER_PER_Permit Plate 13.0K.dgn