TOWN OF DUDLEY, MASSACHUSETTS

PROPOSED SUPERSTRUCTURE REPLACEMENT

BRANDON ROAD OVER MILL RACE

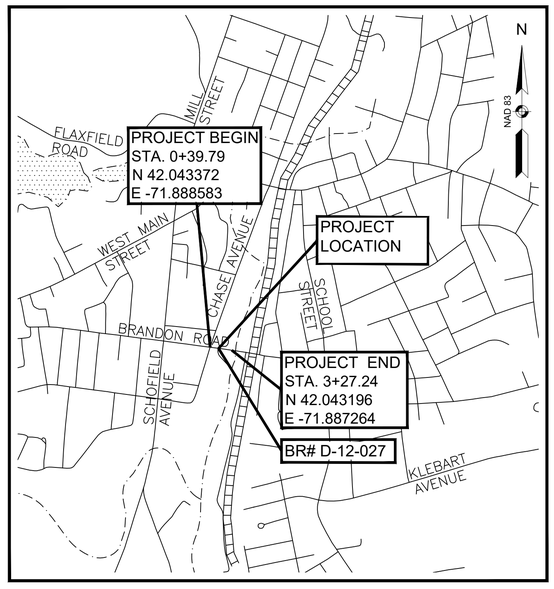
MASSDOT BRIDGE NO. D-12-027, BIN NO. 1BJ

FINAL DESIGN
APRIL 2026

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES, LEGEND & ABBREVIATIONS
3	TYPICAL SECTIONS
4	EXISTING CONDITIONS & DEMOLITION PLAN
5	SITE PLAN
6	CONSTRUCTION DETAILS
7 - 17	BRIDGE PLANS

THESE PLANS ARE SUPPLEMENTED BY THE LATEST EDITIONS OF THE FOLLOWING PUBLICATIONS, AS IDENTIFIED IN THE CONTRACT SPECIAL PROVISIONS: THE MASSDOT CONSTRUCTION STANDARD DETAILS, THE MASSDOT STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE MASSDOT STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE MASSDOT OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, THE MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, AND THE ANSI AMERICAN STANDARD FOR NURSERY STOCK.



0 1000 2000 3000 4000

SCALE: 1" = 1000'

LENGTH OF PROJECT = 287.45 FEET = 0.054 MILES

PREPARED BY:

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ANDREA LACASSE, PE

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50176
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

BRIAN GARGAN, PE

PREPARED FOR:

TOWN OF DUDLEY, TOWN ADMINISTRATOR
JONATHAN RUDA, TOWN ADMINISTRATOR

TOWN OF DUDLEY, HIGHWAY DEPARTMENT
MJ GATZKE, HIGHWAY SUPERINTENDENT

TOWN OF DUDLEY, SELECT BOARD
JANA DESCHENES, CHAIR
JASON JOHNSON, VICE CHAIRMAN
CHRIS STARCZEWSKI, CLERK
STEVE SULLIVAN, MEMBER
KERRY CYGANIEWICZ SR., MEMBER

COMPLETE SET 17 SHEETS

Last Saved: 4/7/2026
Plotted: Apr 07, 2026 - 12:47pm By: RRose
Tighe & Bond: J:\D\05011 Dudley\019 Brandon Road Over Mill Race\Drawings, Figures\AutoCAD\Sheet\D5011-019_01_COVER.dwg

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
SIZE & TYPE		TREE
SMH		SANITARY SEWER MANHOLE
CB		CATCH BASIN
T		TELECOMM MANHOLE
E		ELECTRIC MANHOLE
UPL		UTILITY POLE W/ GUY
UPL		UTILITY POLE
ULT		UTILITY POLE W/ LIGHT
GG		GAS GATE
		SIGN
TBM		TEMPORARY BENCHMARK
DH		DRILL HOLE
120		CONTOUR (INDEX)
122		CONTOUR (INTERMEDIATE)
		GUARD RAIL - STEEL POSTS
		TEMPORARY FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMITS OF RACEWAY STRUCTURE
		EROSION AND SEDIMENT CONTROL BARRIER
WF#		FLAGGED WETLAND
		100-FOOT BUFFER ZONE
		200-FOOT RIVERFRONT AREA
		FEMA REGULATORY FLOODWAY
		100-FOOT INNER RIPARIAN ZONE
		50-FOOT NO DISTURBANCE ZONE
		75-FOOT NO BUILD ZONE
		LIMIT OF WORK
		EXTENT OF CONCRETE DEMOLITION
		BORDERING LAND SUBJECT TO FLOODING
		NHESP PRIORITY HABITAT ZONE
		NHESP ESTIMATED HABITAT ZONE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
BLDG		BUILDING
		CURB OR BERM (AS NOTED)
EP		EDGE OF PAVEMENT
		CHAIN LINK FENCE
		RIGHT OF WAY LINE

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
	DYL	DASHED YELLOW LINE
	DBYL	DOUBLE YELLOW LINE
	SWL	SOLID WHITE LINE
	SYL	SOLID YELLOW LINE

ABBREVIATIONS

GENERAL

APPROX.	APPROXIMATE
BIT.	BITUMINOUS
BL	BASELINE
BM	BENCHMARK
BR.	BRIDGE
BRKN	BROKEN
CL	CENTERLINE
CLR	CLEAR
CONST	CONSTRUCTION
DIA	DIAMETER
EC	EDGE OF CONCRETE
ELEV (or EL.)	ELEVATION
EP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
FDN.	FOUNDATION
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
LT	LEFT
MPL	MAPLE
MAX	MAXIMUM
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
OHW	OVERHEAD WIRES
PROJ	PROJECT
PROP	PROPOSED
PMK	PUNCH MARK
RD	ROAD
REM	REMOVE
RET	RETAIN
ROW	RIGHT OF WAY
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SHLD	SHOULDER
ST	STREET
SWL	SOLID WHITE LINE
SYL	SOLID YELLOW LINE
TEMP	TEMPORARY
TYP	TYPICAL
UG	UNDERGROUND
UP	UTILITY POLE
VERT	VERTICAL
VGC	VERTICAL GRANITE CURB
VIF	VERIFY IN FIELD
X-SECT	CROSS SECTION

GENERAL NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS FOR THE ADJUSTMENT, ALTERATION, OR PROTECTION OF PRIVATE UTILITES BY THE UTILITY.

2. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.

3. THE TERM "PROPOSED" (PROP OR PR) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS.

4. JOINTS BETWEEN NEW HOT MIX ASPHALT ROADWAY AND SAWCUT EXISTING PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBSECTION 460.49, JOINTS, IN THE MASSDOT STANDARD SPECIFICATIONS.

5. ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.

6. THE CONTRACTOR IS REQUIRED TO CONTACT DIGSAFE (888-344-7233) AND OBTAIN A VALID DIGSAFE NUMBER A MINIMUM OF 72 HOURS PRIOR TO ANY GROUND DISTURBANCE.

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/26

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/26

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

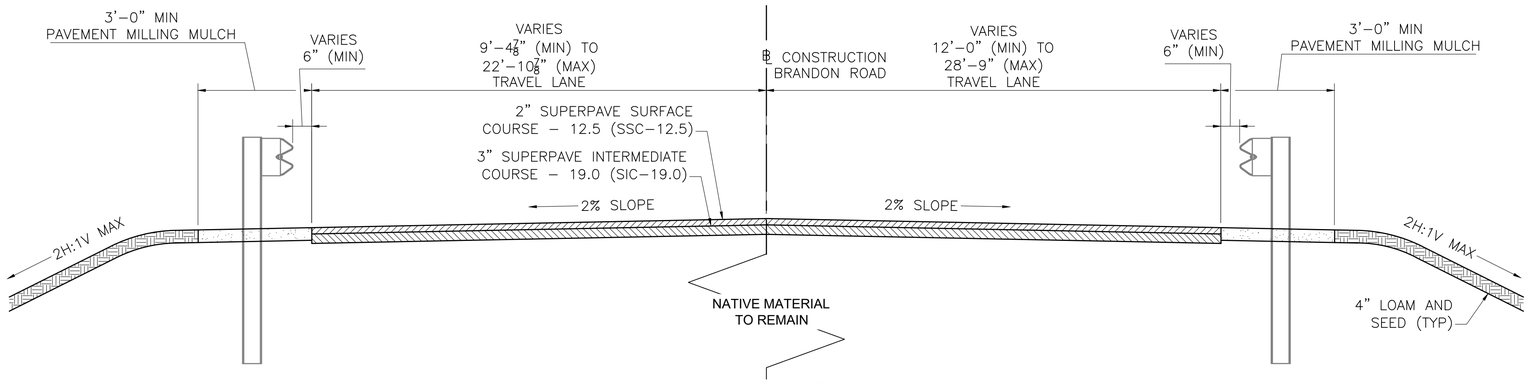
PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_02_LEGEND.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

GENERAL NOTES, LEGEND & ABBREVIATIONS

SCALE: AS SHOWN

SHEET 2 OF 17

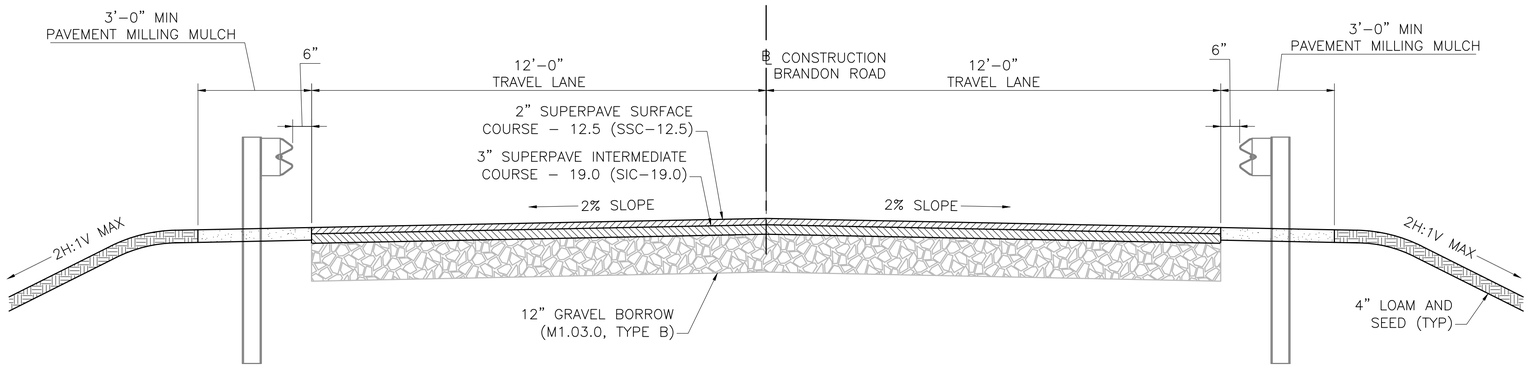
Last Saved: 4/7/2026
Plotted: Date/Time 2026-12-48pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings, Figures\AutoCAD\Sheet\D5011-019_02_LEGEND.dwg



BRANDON ROAD TYPICAL PARTIAL RECONSTRUCTION APPROACH SECTION

SCALE: 1/2" = 1'-0"

STA 0+45.00 TO 0+97.71 &
STA 1+93.71 TO 3+21.00



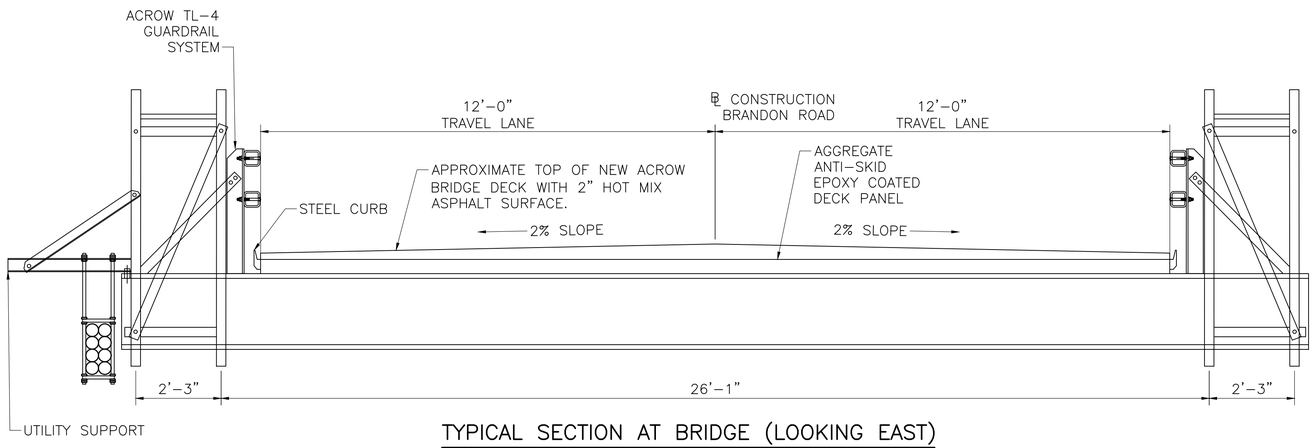
BRANDON ROAD TYPICAL FULL-DEPTH RECONSTRUCTION APPROACH SECTION

SCALE: 1/2" = 1'-0"

STA 0+97.71 TO 1+17.71 &
STA 1+73.71 TO 1+93.71

TYPICAL BUTT JOINT TO EXISTING PAVEMENT

NOT TO SCALE



TYPICAL SECTION AT BRIDGE (LOOKING EAST)

SCALE: 1/2" = 1'-0"

STA 1+17.71 TO 1+73.71

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road
Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

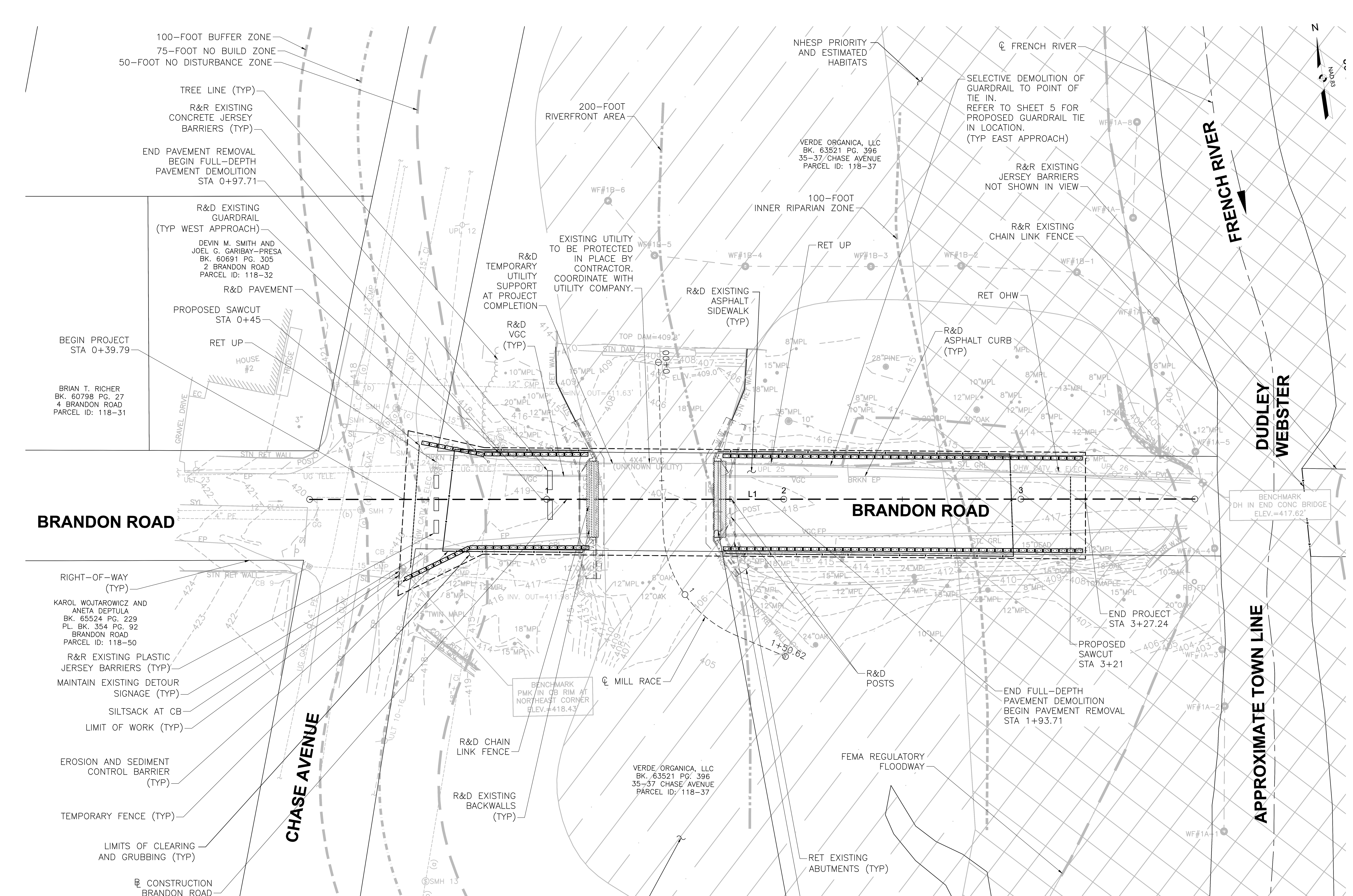
PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_03_CIVIL.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

TYPICAL SECTIONS

SCALE: AS SHOWN

SHEET 3 OF 17

Last Saved: 4/7/2026
Plotted: 04/07/2026 12:49pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_03_CIVIL.dwg



100-FOOT BUFFER ZONE
75-FOOT NO BUILD ZONE
50-FOOT NO DISTURBANCE ZONE
TREE LINE (TYP)
R&R EXISTING CONCRETE JERSEY BARRIERS (TYP)
END PAVEMENT REMOVAL BEGIN FULL-DEPTH PAVEMENT DEMOLITION STA 0+97.71
R&D EXISTING GUARDRAIL (TYP WEST APPROACH)
DEVIN M. SMITH AND JOEL G. GARIBAY-PRESA BK. 60691 PG. 305 2 BRANDON ROAD PARCEL ID: 118-32
R&D PAVEMENT
PROPOSED SAWCUT STA 0+45
BEGIN PROJECT STA 0+39.79
RET UP
BRIAN T. RICHER BK. 60798 PG. 27 4 BRANDON ROAD PARCEL ID: 118-31
BRANDON ROAD
RIGHT-OF-WAY (TYP)
KAROL WOJTAROWICZ AND ANETA DEPTULA BK. 65524 PG. 229 PL. BK. 354 PG. 92 BRANDON ROAD PARCEL ID: 118-50
R&R EXISTING PLASTIC JERSEY BARRIERS (TYP)
MAINTAIN EXISTING DETOUR SIGNAGE (TYP)
SILTSACK AT CB
LIMIT OF WORK (TYP)
EROSION AND SEDIMENT CONTROL BARRIER (TYP)
TEMPORARY FENCE (TYP)
LIMITS OF CLEARING AND GRUBBING (TYP)
℄ CONSTRUCTION BRANDON ROAD
CHASE AVENUE
R&D TEMPORARY UTILITY SUPPORT AT PROJECT COMPLETION
R&D VGC (TYP)
200-FOOT RIVERFRONT AREA
EXISTING UTILITY TO BE PROTECTED IN PLACE BY CONTRACTOR. COORDINATE WITH UTILITY COMPANY.
4"X4" PVC (UNKNOWN UTILITY)
BENCHMARK PMK IN CB RIM AT NORTHEAST CORNER ELEV.=418.43
℄ MILL RACE
R&D CHAIN LINK FENCE
R&D EXISTING BACKWALLS (TYP)
VERDE ORGANICA, LLC BK. 63521 PG. 396 35-37 CHASE AVENUE PARCEL ID: 118-37
BORDERING LAND SUBJECT TO FLOODING
NHESP PRIORITY AND ESTIMATED HABITATS
100-FOOT INNER RIPARIAN ZONE
RET UP
R&D EXISTING ASPHALT SIDEWALK (TYP)
R&D ASPHALT CURB (TYP)
RET OHW
L1
BRANDON ROAD
1+50.62
R&D POSTS
FEMA REGULATORY FLOODWAY
RET EXISTING ABUTMENTS (TYP)
APPROXIMATE LIMIT OF EXCAVATION
SELECTIVE DEMOLITION OF EXISTING ABUTMENTS (TYP)
END FULL-DEPTH PAVEMENT DEMOLITION BEGIN PAVEMENT REMOVAL STA 1+93.71
℄ FRENCH RIVER
SELECTIVE DEMOLITION OF GUARDRAIL TO POINT OF TIE IN. REFER TO SHEET 5 FOR PROPOSED GUARDRAIL TIE IN LOCATION. (TYP EAST APPROACH)
R&R EXISTING JERSEY BARRIERS NOT SHOWN IN VIEW
R&R EXISTING CHAIN LINK FENCE
FRENCH RIVER
BENCHMARK DH IN END CONC BRIDGE ELEV.=417.62'
END PROJECT STA 3+27.24
PROPOSED SAWCUT STA 3+21
DUDLEY
WEBSTER
APPROXIMATE TOWN LINE
N
NAD 83
SCALE: 1" = 20'

BRANDON ROAD ALIGNMENT CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	0+00.00	2841047.802	550572.394		S82°16'30"E 373.37'	3+73.37	2840997.614	550942.378

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS BRIAN J. GARGAN CIVIL No. 50170 REGISTERED PROFESSIONAL ENGINEER 04/07/2026

COMMONWEALTH OF MASSACHUSETTS ANDREA LACASSE CIVIL No. 57194 REGISTERED PROFESSIONAL ENGINEER 04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_03_CIVIL.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

EXISTING CONDITIONS & DEMOLITION PLAN

SCALE: AS SHOWN

Last Saved: 4/7/2026
Plotted On:Apr 07, 2026-12:49pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_03_CIVIL.dwg

100-FOOT BUFFER ZONE
75-FOOT NO BUILD ZONE
50-FOOT NO DISTURBANCE ZONE
BEGIN FULL-DEPTH RECONSTRUCTION STA 0+97.71
PROPOSED LOAM & SEED (TYP)
PROPOSED TRAILING ANCHORAGE
RET UP
DEVIN M. SMITH AND JOEL G. GARIBAY-PRESA BK. 60691 PG. 305 2 BRANDON ROAD PARCEL ID: 118-32
PROPOSED SAWCUT MATCH EXISTING STA 0+45
PROPOSED PAVEMENT REPLACEMENT RETAIN GRAVEL STA 0+45 TO 0+97.71
BEGIN PROJECT STA 0+39.79
BRIAN T. RICHER BK. 60798 PG. 27 4 BRANDON ROAD PARCEL ID: 118-31
SPACE POSTS ON EITHER SIDE TO ACCOMMODATE SPAN OVER TOP. SPAN MUST BE REMOVABLE FOR ACCESS TO VAULT.
200-FOOT RIVERFRONT AREA
NHESP PRIORITY AND ESTIMATED HABITATS
℄ FRENCH RIVER
TIE INTO EXISTING GUARDRAIL STA 2+2+50, LT
VERDE ORGANICA, LLC BK. 63521 PG. 396 35-37 CHASE AVENUE PARCEL ID: 118-37
PROPOSED PAVEMENT REPLACEMENT RETAIN GRAVEL STA 1+93.71 TO 3+21
100-FOOT INNER RIPARIAN ZONE
PROPOSED RELOCATED UTILITY (BY OTHERS)
R&R EXISTING CHAIN LINK FENCE
RET OHW
UTILITY SUPPORT SEE SHEET 17 FOR DETAILS
PROPOSED 700XS ACROW PANEL BRIDGE
DAYLIGHT UTILITY OVER EXISTING WINGWALL (TYP)
RET UP
24'-0"
22'-9½"
51'-7⅞"
BRANDON ROAD
BRANDON ROAD
FRENCH RIVER
DUDLEY
WEBSTER
BENCHMARK DH IN END CONC BRIDGE ELEV.=417.62'
RIGHT-OF-WAY (TYP)
KAROL WOJTAROWICZ AND ANETA DEPTULA BK. 65524 PG. 229 PL. BK. 354 PG. 92 BRANDON ROAD PARCEL ID: 118-50
CHASE AVENUE
BENCHMARK PMK IN CB RIM AT NORTHEAST CORNER ELEV.=418.43'
℄ MILL RACE
PROPOSED BACKWALL RECONSTRUCTION (TYP) EACH ABUTMENT
END FULL-DEPTH RECONSTRUCTION STA 1+93.71
PROPOSED TL-2 (SINGLE FACED) GUARDRAIL (TYP)
PROPOSED SAWCUT MATCH EXISTING STA 3+21.00
END PROJECT STA 3+27.24
TIE INTO EXISTING GUARDRAIL STA 2+50, RT
FEMA REGULATORY FLOODWAY
LIMITS OF PROPOSED GRADING (TYP)
APPROXIMATE TOWN LINE
VERDE ORGANICA, LLC BK. 63521 PG. 396 35-37 CHASE AVENUE PARCEL ID: 118-37
PROPOSED TRANSITION TO BRIDGE RAIL
PAVEMENT MILLING MULCH AT GUARDRAILS (TYP)
PROPOSED TRANSITION TO BRIDGE RAIL
BORDERING LAND SUBJECT TO FLOODING
LIMIT OF WORK (TYP)
EROSION AND SEDIMENT CONTROL BARRIER (TYP)
PROPOSED TRAILING ANCHORAGE
PROPOSED EDGE OF PAVEMENT (TYP)
℄ CONSTRUCTION BRANDON ROAD
1+50.62
SCALE: 1" = 20'

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS BRIAN J. GARGAN CIVIL No. 50170 REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS ANDREA LACASSE CIVIL No. 57194 REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_03_CIVIL.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

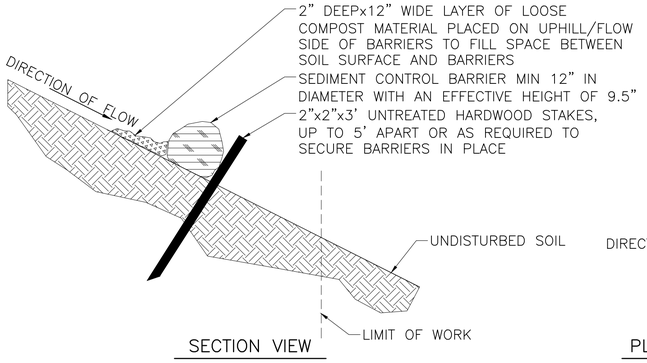
SITE PLAN

SCALE: AS SHOWN

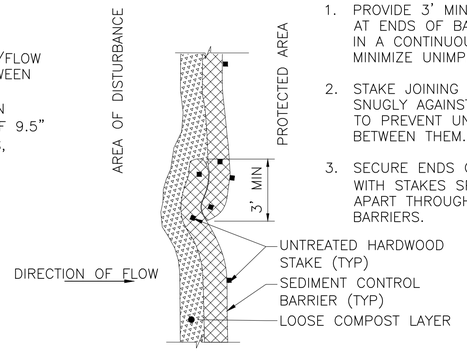
Last Saved: 4/7/2026
Plotted: Tuesday, April 07, 2026-12:50pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_03_CIVIL.dwg

EROSION CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED AND REQUIRED BY THE ENGINEER SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN ALL SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED.
2. MAINTAIN AN ADDITIONAL SUPPLY OF EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.
3. PRIOR TO STARTING WORK, CLEARLY STAKE WORK LIMIT LINE(S). DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE NEW LIMIT LINE. COORDINATE WITH THE ENGINEER THE LOCATIONS FOR THE TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
4. SIDE SLOPES, AND DISTURBED VEGETATED AREAS, SHALL BE A MAXIMUM GRADE OF 2:1 COMPACTED, STABILIZED, LOAMED AND SEEDED AS SHOWN ON DRAWINGS. SIDE SLOPES SHALL BE IMMEDIATELY FINE GRADED AND SEEDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
5. SILT TRAPPED AT BARRIERS SHALL BE REMOVED AND DISPOSED OF IN UPLAND AREAS OUTSIDE BUFFER ZONES. MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASIN SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT. ALL DISTURBED AREAS SHALL BE RESTORED.
6. INSTALL EROSION CONTROLS AT THE EDGE OF NEW WORK. EROSION CONTROLS SHALL ACT AS LIMIT OF WORK LINE TO HELP ENSURE THAT EQUIPMENT DOES NOT DISTURB ADJACENT PROPERTIES.
7. ADDITIONAL EROSION CONTROLS MAY BE REQUIRED TO LIMIT SEDIMENTS FROM DISCHARGING TO ADJACENT PROPERTIES OR WATERWAYS.
8. PROPERLY STABILIZE AND PROTECT TEMPORARY STOCKPILES OF MATERIALS RELATED TO THE CONSTRUCTION ACTIVITIES TO LIMIT MOVEMENT OF MATERIAL ONTO ADJACENT PARCELS, OR INTO THE STREAM.
9. STABILIZE THE AREAS OF CONSTRUCTION ACTIVITIES AT THE CLOSE OF EACH CONSTRUCTION DAY. CHECK EROSION CONTROLS AT THIS TIME AND MAINTAIN OR REINFORCE IF NECESSARY
10. PROTECT NEW WORK FROM FLOODING. PROPERLY SLOPE GRADING IN THE AREAS SURROUNDING ALL EXCAVATIONS TO LIMIT WATER FROM RUNNING INTO THE EXCAVATED AREA OR TO ADJACENT PROPERTIES. UPON COMPLETION OF THE WORK, RESTORE ALL AREAS IN A SATISFACTORY MANNER.
11. ALL SILT–LADEN WATER MUST BE SETTLED OR FILTERED TO REMOVE ALL SEDIMENTS PRIOR TO RELEASE TO AN UPLAND AREA, IN A SEDIMENTATION OR FILTER BAG LOCATED DOWN GRADIENT.
12. AT THE END OF EACH WORK DAY, ANY SEDIMENTS TRACKED ONTO PUBLIC RIGHTS–OF–WAY BEYOND THE PROJECT LIMITS SHALL BE SWEPT.



SECTION VIEW



PLAN VIEW – JOINT DETAIL

NOTES:

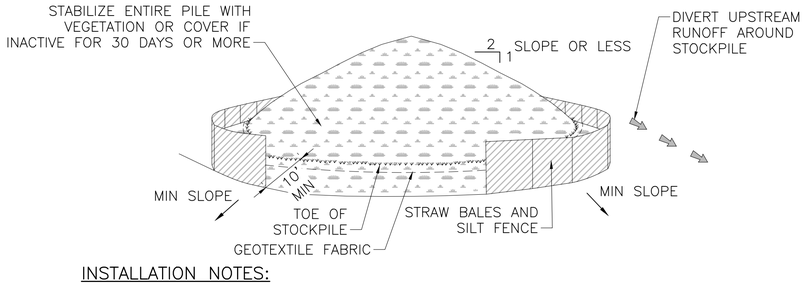
1. PROVIDE 3' MINIMUM OVERLAP AT ENDS OF BARRIERS TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW.
2. STAKE JOINING BARRIERS SNUGLY AGAINST EACH OTHER TO PREVENT UNFILTERED FLOW BETWEEN THEM.
3. SECURE ENDS OF BARRIERS WITH STAKES SPACED 18" APART THROUGH TOPS OF BARRIERS.

SEDIMENT CONTROL BARRIER NOTES:

1. PROVIDE A MINIMUM BARRIER DIAMETER OF 12" FOR SLOPES UP TO 50' IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER BARRIER DIAMETER OR ADDITIONAL COURSING OF BARRIERS TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATION WITH LONGER SLOPES OR STEEPER SLOPES.
2. INSTALL BARRIERS ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
4. CONFIGURE BARRIERS AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN–OFF.
5. SEDIMENT CONTROL BARRIERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL. ADDITIONAL BARRIERS SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
6. TAMP BARRIERS IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO TRENCH BARRIERS INTO EXISTING GRADE.
7. WHEN STAKING IS NOT POSSIBLE, SUCH AS WHEN BARRIERS MUST BE PLACED ON PAVEMENT, HEAVY CONCRETE OR CINDER BLOCKS CAN BE USED BEHIND BARRIERS UP TO 5' APART OR AS REQUIRED TO SECURE BARRIERS IN PLACE.
8. PROVIDE 3' MINIMUM OVERLAP AT ENDS OF BARRIERS TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW.
9. STAKE JOINING BARRIERS SNUGLY AGAINST EACH OTHER TO PREVENT UNFILTERED FLOW BETWEEN THEM.
10. SECURE ENDS OF BARRIERS WITH STAKES SPACED 18" APART THROUGH TOPS OF BARRIERS.

SEDIMENT CONTROL BARRIERS

NOT TO SCALE

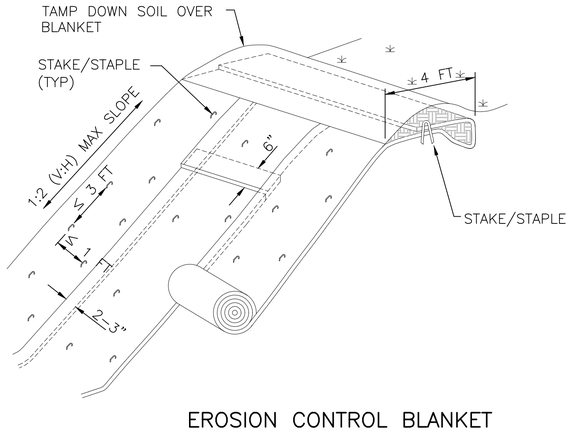


INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING AND STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

SOIL STOCKPILING

NOT TO SCALE



EROSION CONTROL BLANKET

NOT TO SCALE

INSTALLATION NOTES:

1. 100% BIODEGRADABLE WEAVE JUTE NET EROSION CONTROL BLANKET OVER 6" LOAM & SEED. DO NOT USE NYLON OR PLASTIC NETTING. IN ALL LOCATIONS WITH A 3:1 SLOPE OR STEEPER. SEED MIX AS SHOWN IN MASSDOT STANDARD SPECIFICATIONS TABLE M6.03.01–1.
2. EROSION CONTROL BLANKET SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
3. STAKES/STAPLES SHOULD BE PLACED NO MORE THAN 3 FT APART VERTICALLY, AND 1 FT APART HORIZONTALLY.
4. SLOPE SURFACE SHOULD BE FREE OF STICKS, ROCKS, AND OTHER OBSTRUCTIONS.
5. BLANKETS SHOULD BE ROLLED OUT LOOSELY AND STAKED/STAPLED TO MAINTAIN DIRECT SOIL CONTACT. DO NOT STRETCH THE BLANKETS.

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

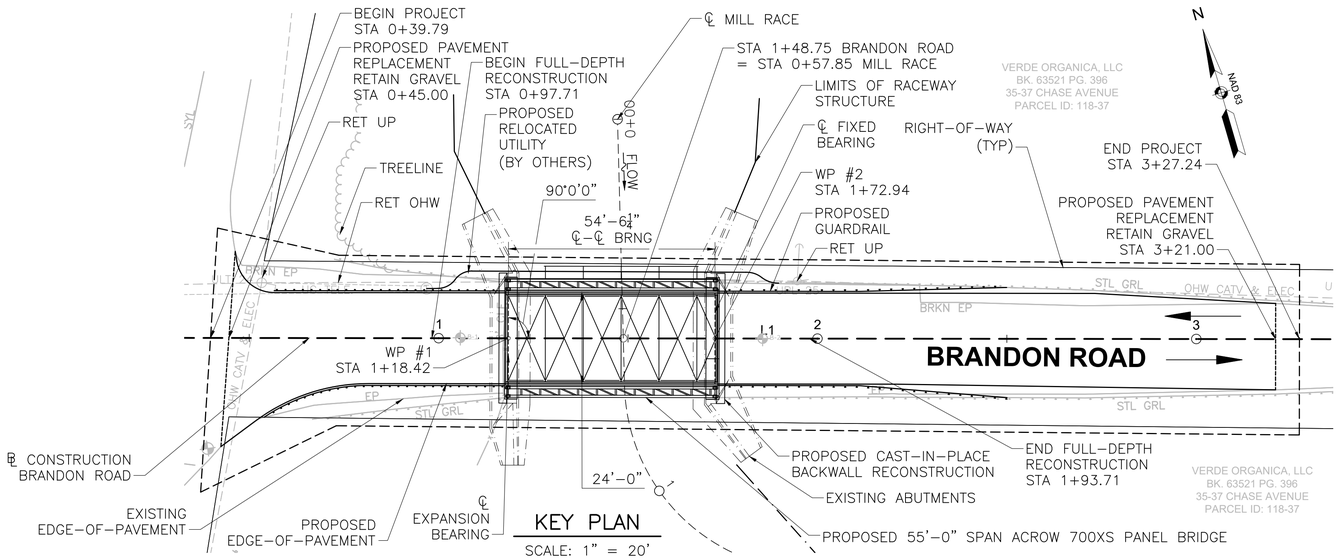
MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_03_CIVIL.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

CONSTRUCTION DETAILS

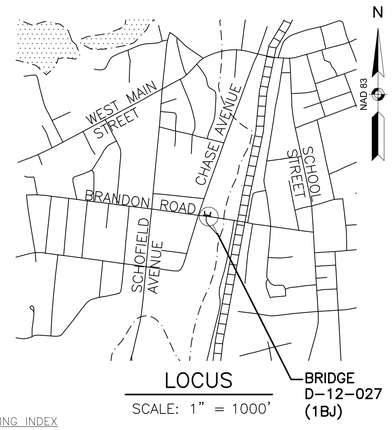
SCALE: AS SHOWN

Last Saved: 4/7/2026
Plotted: Apr 07, 2026 - 12:50pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_03_CIVIL.dwg



KEY PLAN

SCALE: 1" = 20'



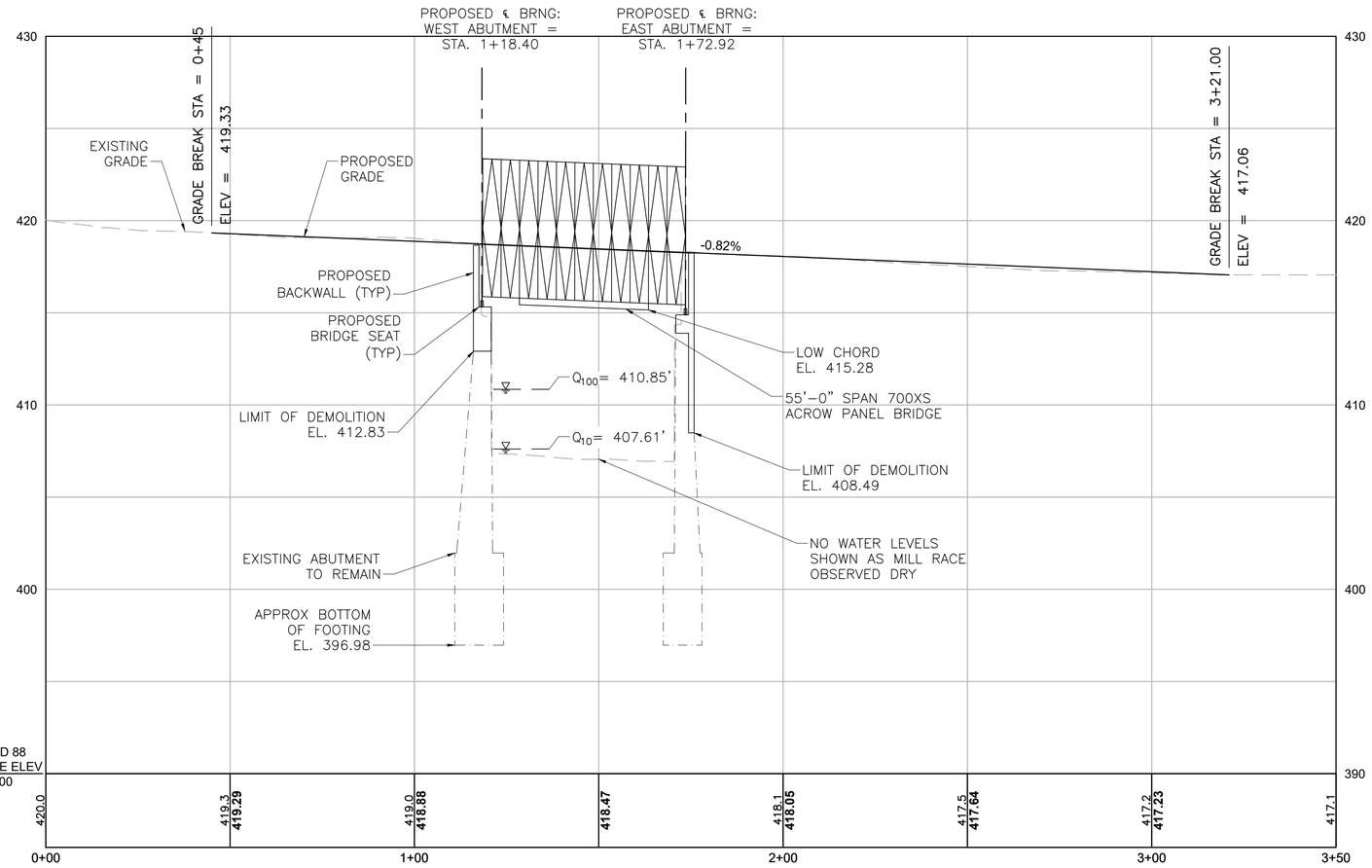
LOCUS

SCALE: 1" = 1000'

SEE SHEET 8 FOR HYDRAULIC AND SCOUR TABLES.

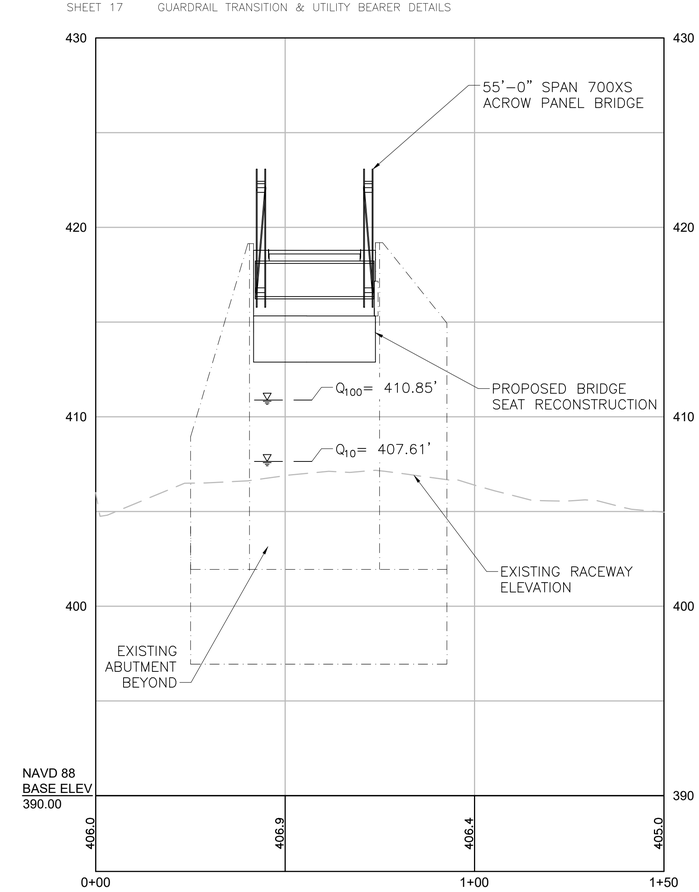
BRIDGE DRAWING INDEX

SHEET 7	BRIDGE KEY PLAN, PROFILES, LOCUS, & INDEX
SHEET 8	BRIDGE NOTES
SHEET 9	EXISTING BRIDGE WEST ABUTMENT SELECTIVE DEMOLITION
SHEET 10	EXISTING BRIDGE EAST ABUTMENT SELECTIVE DEMOLITION
SHEET 11	PROPOSED WEST ABUTMENT PLAN, ELEVATION, AND SECTION
SHEET 12	PROPOSED EAST ABUTMENT PLAN, ELEVATION, AND SECTION
SHEET 13	PROPOSED REINFORCING DETAILS
SHEET 15	PROPOSED SUPERSTRUCTURE FRAMING PLAN AND CROSS SECTION
SHEET 16	BRIDGE DETAILS
SHEET 17	GUARDRAIL TRANSITION & UTILITY BEARER DETAILS



PROFILE – BRANDON ROAD CONSTRUCTION ℄

HORIZ: 1" = 20' VERT: 1" = 4'



PROFILE ALONG ℄ MILL RACE

HORIZ.: 1" = 20' VERT.: 1" = 4'

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER — DATE

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

BRIDGE KEY PLAN, PROFILES, LOCUS, & INDEX

SCALE: AS SHOWN

Last Saved: 4/7/2026
Printed On: 4/7/2026-12:50pm By: RRose
Tighe & Bond J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_ Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg

DESIGN:

PROPOSED DESIGN (SUPERSTRUCTURE):

IN ACCORDANCE WITH THE 2024 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS LRFD BRIDGE DESIGN SPECIFICATIONS FOR HL-93 LOADING.

EXISTING DESIGN (ABUTMENTS):

IN ACCORDANCE WITH THE 2002 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES FOR HS-20 44 LOADING.

BASE PLAN NOTES:

THE EXISTING CONDITIONS INFORMATION SHOWN ON THE DRAWINGS IS BASED ON SURVEY DRAWINGS PROVIDED BY SHERMAN & FRYDRYK LAND SURVEYING & ENGINEERING CONSULTANTS TITLED: "25127-EC-2025-09-12" AND DATED SEPTEMBER 12, 2025. THE EXISTING CONDITIONS SHOWN ARE APPROXIMATE.

UTILITY LOCATIONS SHOWN WERE PLOTTED FROM INFORMATION SUPPLIED BY RESPECTIVE UTILITY COMPANIES AND DATA OBTAINED FROM FIELD SURVEYS AND AS BUILT DRAWINGS. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED.

THE HORIZONTAL COORDINATE SYSTEM IS THE NORTH AMERICAN DATUM OF 1983, MASSACHUSETTS STATE PLANE, MAINLAND ZONE, US FEET. VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988.

THE RIGHT OF WAY SHOWN IS BASED ON THE 1936 WORCESTER COUNTY LAYOUT. THE PROPERTY LINES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND ARE NOT BASED ON DEED OR PLAN RESEARCH.

THE RESOURCE AREA BOUNDARIES DEPICTED ON THE DRAWINGS WERE DELINEATED BY TIGHE & BOND, INC. ON 8/13/2025.

BENCHMARK:

PMK IN CB RIM AT NORTHEAST CORNER EL. 418.43'
N = 2841013.6297
E = 550607.1886

CONCRETE:

ALL CONCRETE SHALL BE AS NOTED BELOW:

5000 PSI, $\frac{3}{8}$", 710 CEMENT HP CONCRETE – PROPOSED CONCRETE REPAIR

THE USE OF CONSTRUCTION JOINTS WHERE SHOWN ON THE DRAWINGS IS MANDATORY. OMISSIONS, ADDITIONS OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMISSION OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER.

WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, DRAWINGS SHOWING LOCATION OF CONSTRUCTION JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS.

EXPOSED EDGES OF CONCRETE ELEMENTS SHALL HAVE CHAMFERED CORNERS.

REINFORCMENT:

REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

ALL REINFORCEMENT SHALL BE EPOXY COATED.

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS
1. NONE	16"	19"	23"
2. 12" OF CONCRETE BELOW BAR	20"	25"	30"
3. EPOXY COATED BARS, COVER < 3DB, OR CLEAR SPACING < 6DB	23"	29"	34"
4. COATED BARS, ALL OTHER CASES	18"	23"	27"
5. CONDITION 2. AND 3.	26"	32"	39"
6. CONDITION 2. AND 4.	24"	30"	36"

INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO SCHEDULED COMPLETION OF PLACEMENT OR REINFORCEMENT. REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE.

REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE. SETTING ANY REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.

UTILITIES:

THE CONTRACTOR SHALL LOCATE AND PROTECT FROM DAMAGE OR RELOCATE, AS NECESSARY, ALL EXISTING UTILITIES. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE RESPECTIVE UTILITY OWNERS FOR ALL UTILITIES THAT ARE TO BE TEMPORARILY OR PERMANENTLY RELOCATED FOR THE PROPOSED WORK.

NOTIFY DIGSAFE AT 1-888-344-7233 AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.

LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IN ADDITION, SOME UTILITIES MAY NOT BE SHOWN. DETERMINE THE EXACT LOCATION OF UTILITIES BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND/OR INTERRUPTIONS IN UTILITY SERVICE OR CONSTRUCTION OPERATIONS. PERFORM TEST PIT EXCAVATIONS AND OTHER INVESTIGATIONS TO LOCATE UTILITIES, AND PROVIDE THIS INFORMATION TO THE ENGINEER, PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS. LOCATE ALL EXISTING UTILITIES TO BE CROSSED BY HAND EXCAVATION.

EXISTING CONDITIONS:

REMOVE AND DISPOSE OF ALL CONSTRUCTION-RELATED WASTE MATERIALS AND DEBRIS IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.

COMPLY WITH PERMITS AND NOTICES NECESSARY TO COMPLETE THE WORK. ARRANGE NECESSARY INSPECTIONS AND APPROVALS FROM THE JURISDICTIONAL AUTHORITIES.

THE TERM "DEMOLISH" AND "R&D" USED ON THE DRAWINGS MEANS TO REMOVE AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.

ALL PROPOSED WORK MAY BE ADJUSTED IN THE FIELD BY THE OWNER'S PROJECT REPRESENTATIVE TO MEET EXISTING CONDITIONS.

ALL DIMENSIONS AND DETAILS SHOWN FOR THE EXISTING STRUCTURE ARE BASED ON THE ORIGINAL DRAWINGS AND FIELD SURVEY, AND ARE NOT GUARANTEED.

THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH THE EXTENT AND NATURE OF THE WORK TO BE DONE UNDER THIS CONTRACT.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS REQUIRED FOR THE PROPER PERFORMANCE OF THE WORK. FIELD CONDITIONS MAY EXIST WHICH DEVIATE FROM THE TYPICAL AND THEORETICAL DIMENSIONS SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FABRICATION AND FIT OF THE WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF ALL EXISTING MATERIALS WHICH ARE TO BE REMOVED FROM THE STRUCTURE AS SHOWN ON THE PLANS.

THE CONTRACTOR IS NOTIFIED THAT IT IS UNACCEPTABLE FOR ANY MATERIAL(S) TO FALL INTO THE AREAS BELOW OR BE PROJECTED INTO THE TRAVEL LANES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING AND COLLECTING ALL MATERIALS.

ANY EXISTING PAVEMENT MARKINGS DISTURBED BY THE WORK PERFORMED SHALL BE REPLACED, IN-KIND.

TRAFFIC CONTROL:

TAKE NECESSARY MEASURES AND PROVIDE CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH TO PREVENT ACCESS TO ALL WORK AND STAGING AREAS AT THE COMPLETION OF EACH DAYS WORK. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLEMENTING EXISTING BARRIERS ON-SITE AS REQUIRED TO PREVENT ACCESS TO ALL WORK AREAS.

THE CONTRACTOR IS RESPONSIBLE FOR RE-INSTALLING EXISTING JERSEY BARRIERS TO CLOSE THE ROAD AT THE COMPLETION OF EACH DAYS WORK.

NO OPEN TRENCHES WILL BE ALLOWED OVER NIGHT. THE USE OF ROAD PLATES TO PROTECT THE EXCAVATION WILL BE CONSIDERED UPON REQUEST, BUT BACKFILLING IS PREFERRED.

BRANDON ROAD SHALL REMAIN CLOSED TO ALL VEHICULAR AND PEDESTRIAN TRAFFIC THROUGHOUT THE DURATION OF CONSTRUCTION.

WHEN WORKING IN THE ROAD, PROVIDE THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS. PROVIDE COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN THE OWNER, CONTRACTOR AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE CONSTRUCTION PERIOD.

CHAPTER 85 SECTION 35 REVIEW AND APPROVAL:

IN ACCORDANCE AND COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 85 SECTION 35 OF THE MASSACHUSETTS GENERAL LAWS, THE CONTRACTOR SHALL SUBMIT TO THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION ALL CONSTRUCTION DRAWINGS AND DESIGN CALCULATIONS THAT SHALL BE USED TO FABRICATE AND CONSTRUCT THE STRUCTURE DENOTED ON THESE PLANS FOR REVIEW AND APPROVAL. THIS APPROVAL SHALL CONSTITUTE THE FINAL APPROVAL AS STIPULATED BY CHAPTER 85 SECTION 35 OF THE MASSACHUSETTS GENERAL LAWS.

SEISMIC DESIGN CRITERIA	
DESIGN RETURN PERIOD (YEARS):	1000
DESIGN SPECTRA	
As	0.096g
SDs	0.208g
SD1	0.088g
SITE CLASS	D
SEISMIC DESIGN CATEGORY (SDC)	A

HYDRAULIC DESIGN FLOOD (HDF) DATA	
DRAINAGE AREA (SQ. MILES)	90.5
HDF DISCHARGE (C.F.S.)	48
HDF FREQUENCY (YEARS)	10
HDF VELOCITY (F.P.S.)	1.86
HDF ELEVATION (FEET, NAVD, UPSTREAM)	407.61
BASE (100-YEAR) FLOOD DATA	
BASE FLOOD DISCHARGE (C.F.S.)	727
BASE FLOOD ELEVATION (FEET, NAVD, UPSTREAM)	410.85
DESIGN AND CHECK SCOUR DATA	
DESIGN SCOUR FLOOD EVENT RETURN FREQUENCY (YEARS)	25
DESIGN FLOOD ABUTMENT SCOUR DEPTH (FEET)	0.17
DESIGN FLOOD PIER SCOUR DEPTH (FEET)	N/A
CHECK SCOUR FLOOD EVENT RETURN FREQUENCY (YEARS)	50
CHECK FLOOD ABUTMENT SCOUR DEPTH (FEET)	0.65
CHECK FLOOD PIER SCOUR DEPTH (FEET)	N/A
FLOOD OF RECORD	
DISCHARGE (C.F.S.)	UNKNOWN
FREQUENCY (IF KNOWN, YEARS)	N/A
MAXIMUM ELEVATION (FEET, NAVD)	N/A
DATE (MM/YYYY)	N/A
HISTORY OF ICE FLOES	UNKNOWN
EVIDENCE OF SCOUR AND EROSION	N/A

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER _____ DATE _____

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement
Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

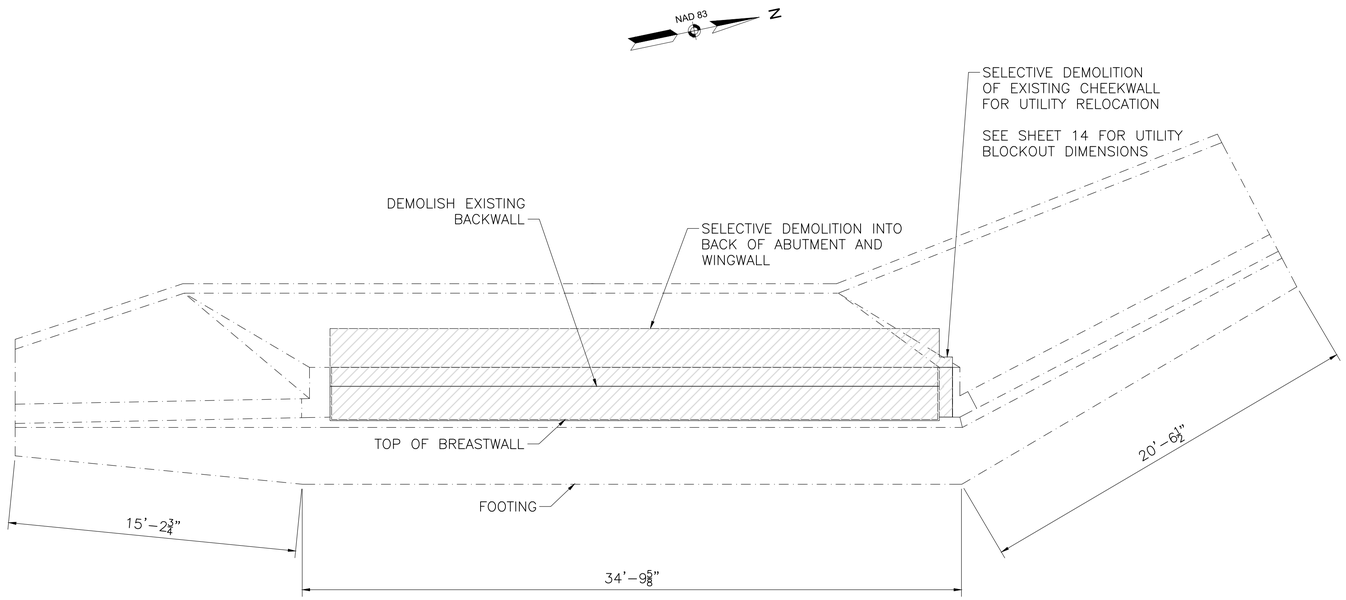
PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

BRIDGE NOTES

SCALE: AS SHOWN

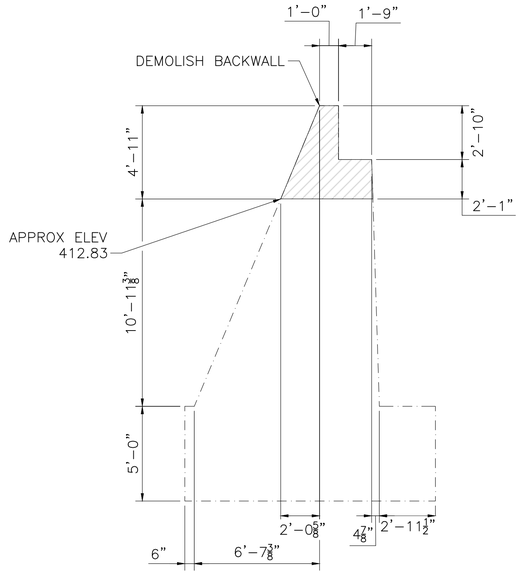
SHEET 8 OF 17

Last Saved: 4/7/2026
Plotted: 04/07/2026 12:50pm By: RRose
Tighe & Bond J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings, Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg



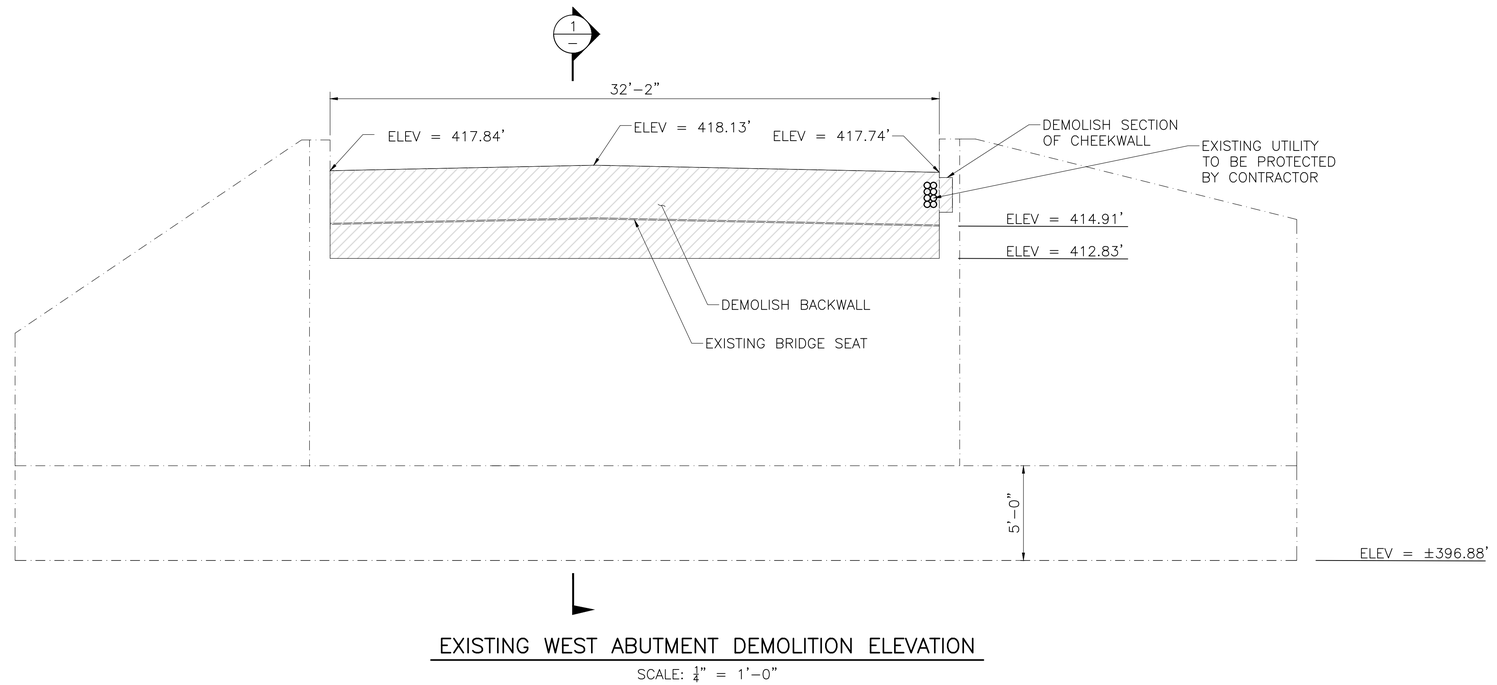
EXISTING WEST ABUTMENT DEMOLITION PLAN

SCALE: ¼" = 1'-0"



SECTION 1 – EXISTING WEST ABUTMENT

SCALE: ¼" = 1'-0"



EXISTING WEST ABUTMENT DEMOLITION ELEVATION

SCALE: ¼" = 1'-0"

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER _____ DATE _____

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

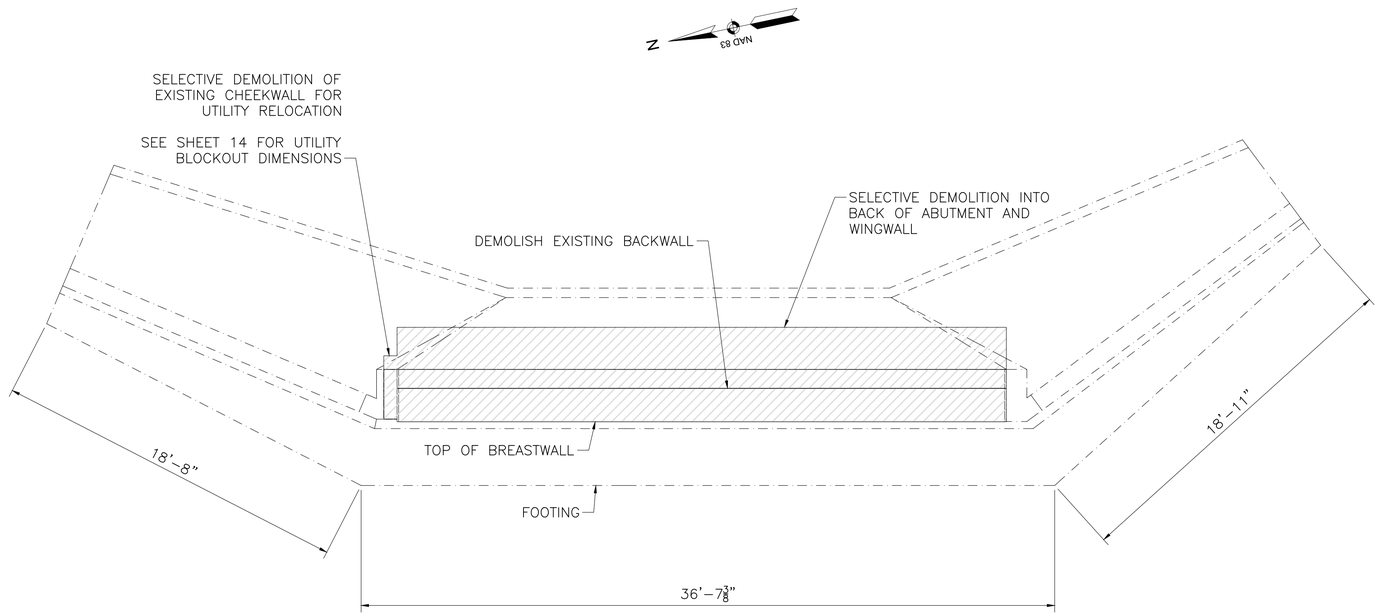
PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

EXISTING BRIDGE WEST ABUTMENT SELECTIVE DEMOLITION

SCALE: AS SHOWN

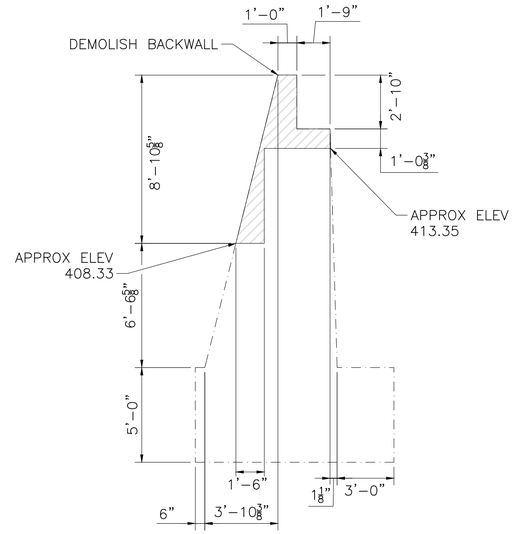
SHEET 9 OF 17

Last Saved: 4/7/2026
Plotted: Apr 07, 2026 - 12:51pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg



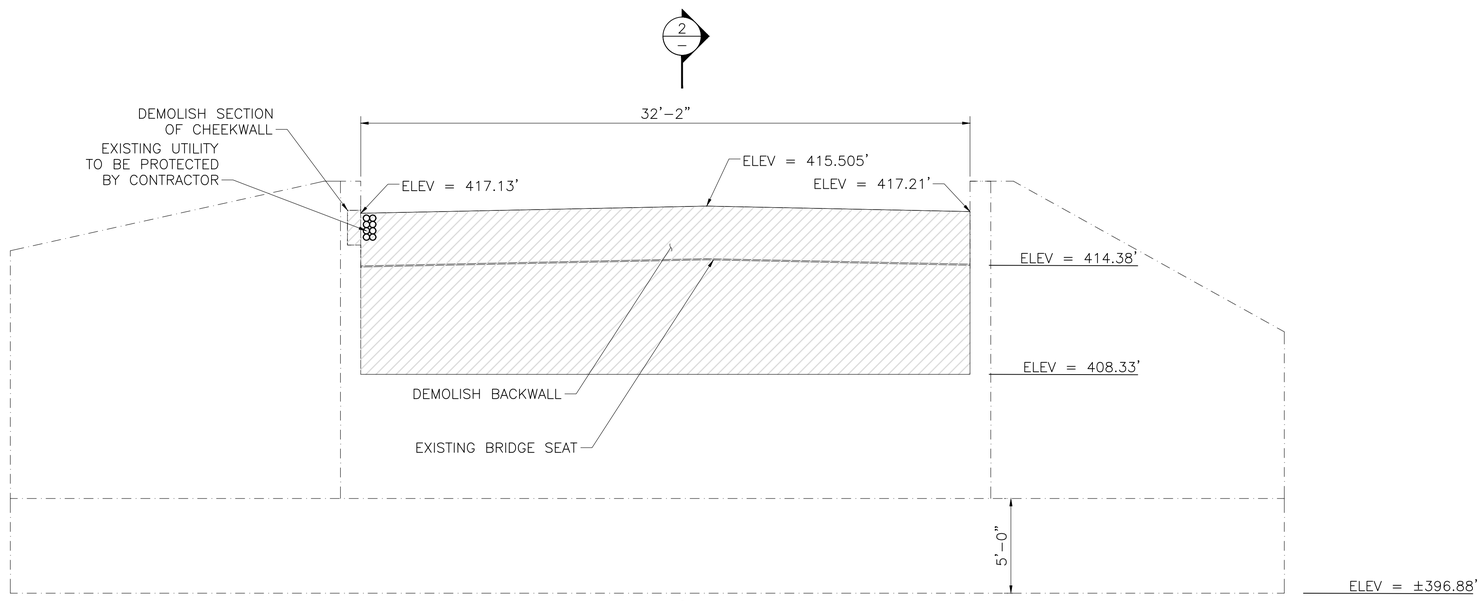
EXISTING EAST ABUTMENT DEMOLITION PLAN

SCALE: ¼" = 1'-0"



SECTION 2 – EXISTING EAST ABUTMENT

SCALE: ¼" = 1'-0"



EXISTING EAST ABUTMENT DEMOLITION ELEVATION

SCALE: ¼" = 1'-0"

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER _____ DATE _____

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

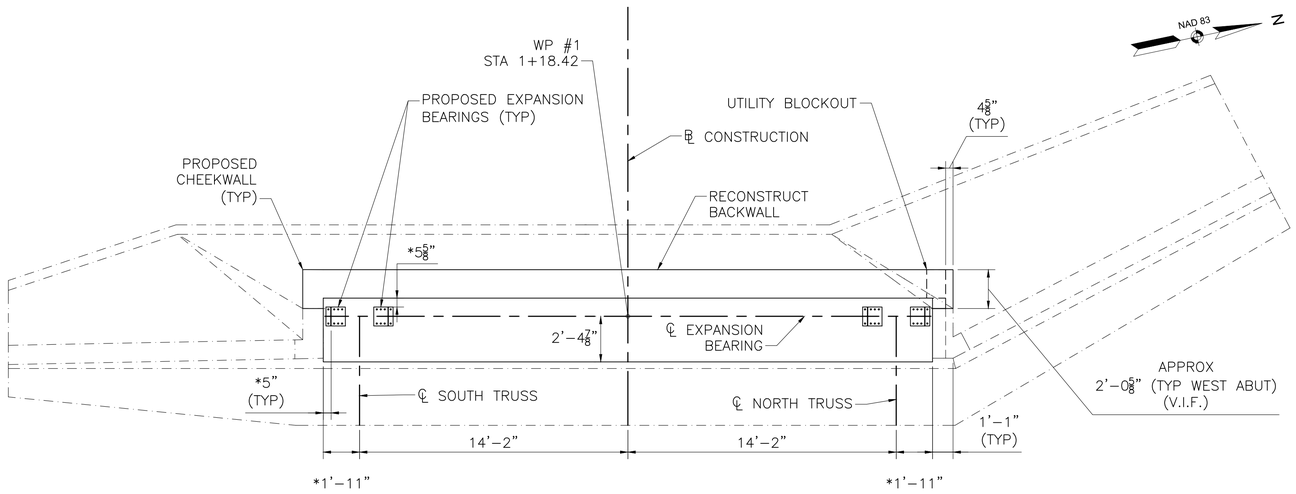
PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

EXISTING BRIDGE EAST ABUTMENT SELECTIVE DEMOLITION

SCALE: AS SHOWN

SHEET 10 OF 17

Last Saved: 4/7/2026
Printed: Oct 07, 2026-12:51pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg

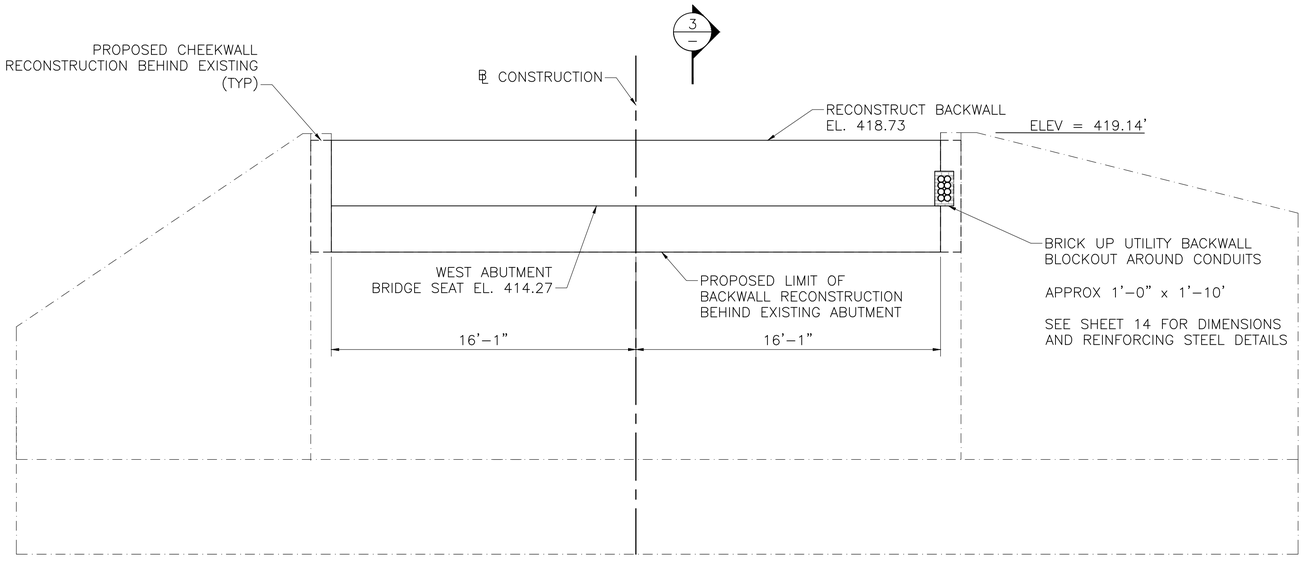


PROPOSED WEST ABUTMENT PLAN

SCALE: 1/4" = 1'–0"

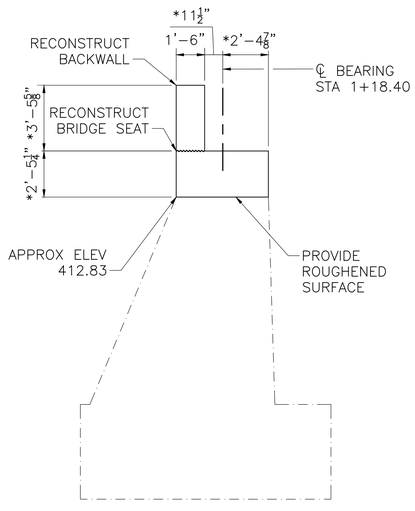
NOTES:

1. COORDINATE FINAL BACKWALL AND BRIDGE SEAT CONFIGURATION WITH EXISTING ABUTMENT GEOMETRY AND PREFABRICATED BRIDGE GEOMETRY. DIMENSIONS SHOWN IN PLAN VIEWS WERE TAKEN FROM ORIGINAL DRAWINGS FOR CONSTRUCTION DATED JULY 1937. CONTRACTOR TO VERIFY EXISTING ABUTMENT DIMENSIONS AND DISTANCE BETWEEN ABUTMENTS PRIOR TO COMMENCING CONSTRUCTION.
2. COORDINATE THE REBAR CONSTRUCTION SEQUENCE FOR THE PROPOSED ABUTMENT MODIFICATIONS WITH THE TRUSS MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
3. PRIOR TO CONCRETE PLACEMENT, CLEAN DEMOLISHED SURFACE OF DEBRIS. REMOVE WEAK/PUNKY CONCRETE BELOW DEMOLITION CUT LINES AS DETERMINED BY ENGINEER IN THE FIELD.
4. IF ENCOUNTERED, ANY EXISTING EXPOSED STEEL REINFORCEMENT SHALL BE TREATED WITH CORROSION INHIBITOR.
5. ASTERISKED DIMENSIONS ARE APPROXIMATE. BEARINGS ARE TO BE SET BASED ON BEARING LAYOUT ON SHEET 16.



MODIFICATION OF WEST ABUTMENT ELEVATION

SCALE: 1/4" = 1'–0"



SECTION 3 – PROPOSED WEST ABUTMENT

SCALE: 1/4" = 1'–0"

*ASTERISKED DIMENSIONS WERE BASED OFF OF DIMENSIONS PROVIDED BY THE ORIGINAL DRAWINGS FOR CONSTRUCTION DATED JULY 1937. CONTRACTOR TO VERIFY EXISTING ABUTMENT DIMENSIONS AND DISTANCE BETWEEN ABUTMENTS PRIOR TO COMMENCING CONSTRUCTION.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER — DATE

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

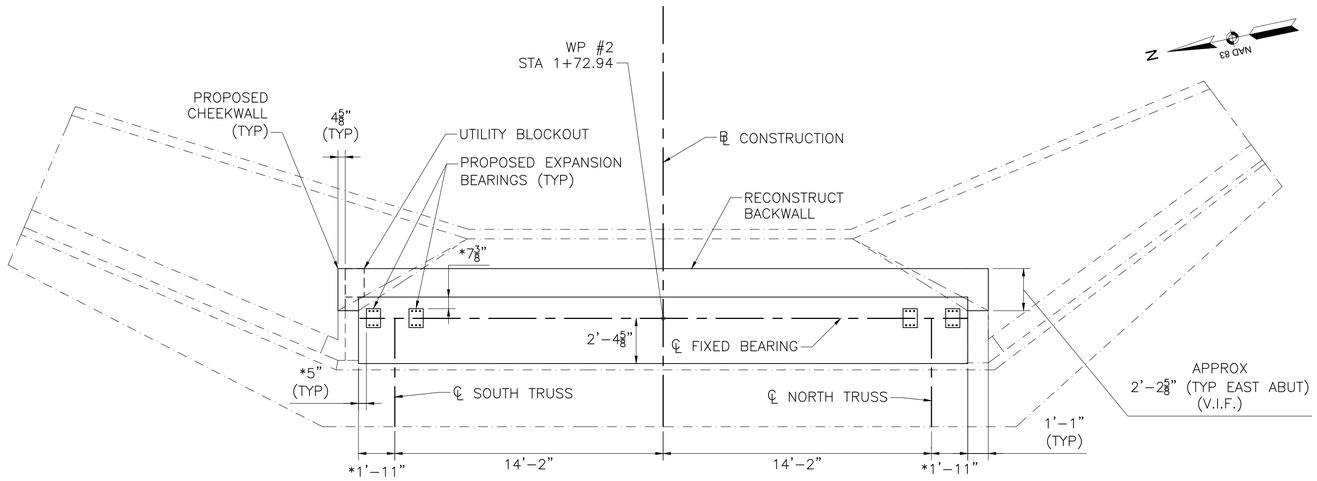
MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

PROPOSED WEST ABUTMENT PLAN, ELEVATION, AND SECTION

SCALE: AS SHOWN

Last Saved: 4/7/2026
Plotted: Apr 07, 2026 - 12:52pm By: RRose
Tighe & Bond J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg

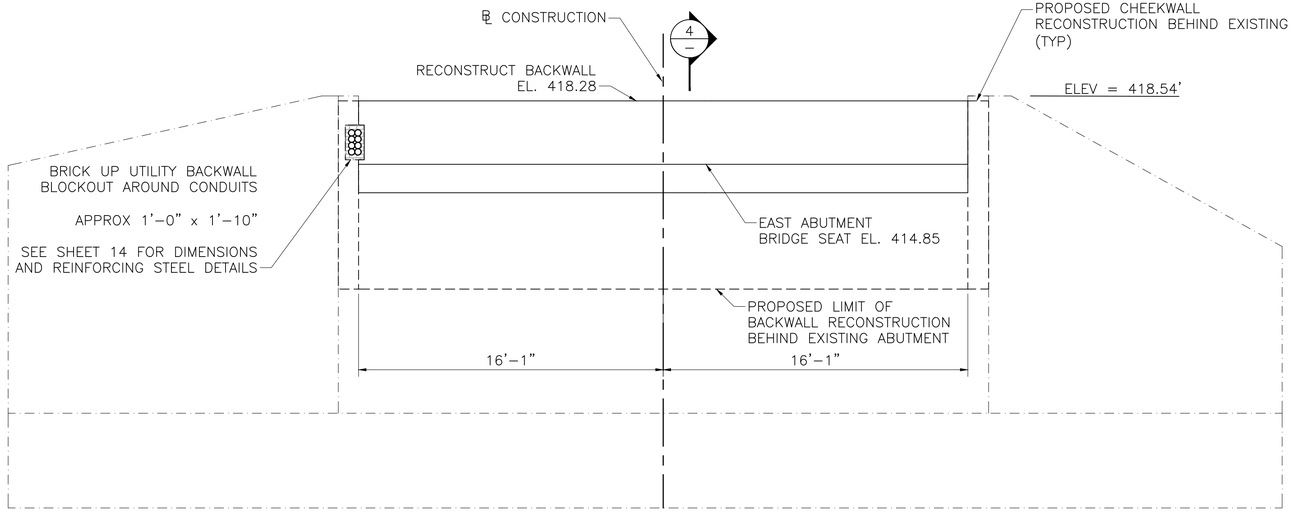


PROPOSED EAST ABUTMENT PLAN

SCALE: 1/4" = 1'-0"

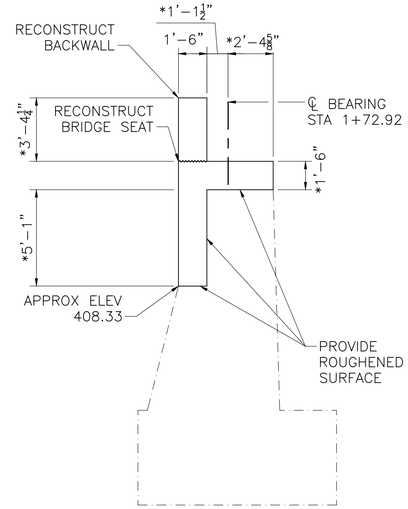
NOTES:

1. COORDINATE FINAL BACKWALL AND BRIDGE SEAT CONFIGURATION WITH EXISTING ABUTMENT GEOMETRY AND PREFABRICATED BRIDGE GEOMETRY. DIMENSIONS SHOWN IN PLAN VIEWS WERE TAKEN FROM ORIGINAL DRAWINGS FOR CONSTRUCTION DATED JULY 1937. CONTRACTOR TO VERIFY EXISTING ABUTMENT DIMENSIONS AND DISTANCE BETWEEN ABUTMENTS PRIOR TO COMMENCING CONSTRUCTION.
2. COORDINATE THE REBAR CONSTRUCTION SEQUENCE FOR THE PROPOSED ABUTMENT MODIFICATIONS WITH THE TRUSS MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
3. PRIOR TO CONCRETE PLACEMENT, CLEAN DEMOLISHED SURFACE OF DEBRIS. REMOVE WEAK/PUNKY CONCRETE BELOW DEMOLITION CUT LINES AS DETERMINED BY ENGINEER IN THE FIELD.
4. IF ENCOUNTERED, ANY EXISTING EXPOSED STEEL REINFORCEMENT SHALL BE TREATED WITH CORROSION INHIBITOR.
5. ASTERISKED DIMENSIONS ARE APPROXIMATE. BEARINGS ARE TO BE SET BASED ON BEARING LAYOUT ON SHEET 16.



MODIFICATION OF EAST ABUTMENT ELEVATION

SCALE: 1/4" = 1'-0"



SECTION 4 – PROPOSED EAST ABUTMENT

SCALE: 1/4" = 1'-0"

*ASTERISKED DIMENSIONS WERE BASED OFF OF DIMENSIONS PROVIDED BY THE ORIGINAL DRAWINGS FOR CONSTRUCTION DATED JULY 1937. CONTRACTOR TO VERIFY EXISTING ABUTMENT DIMENSIONS AND DISTANCE BETWEEN ABUTMENTS PRIOR TO COMMENCING CONSTRUCTION.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER — DATE

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/26

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/26

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

PROPOSED EAST ABUTMENT PLAN, ELEVATION, AND SECTION

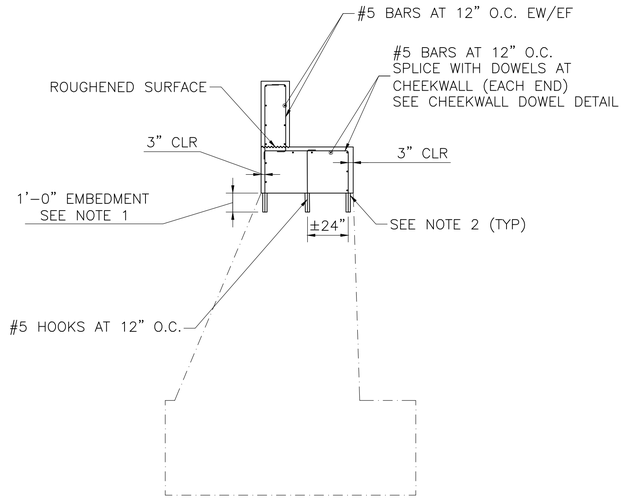
SCALE: AS SHOWN

SHEET 12 OF 17

Last Saved: 4/7/2026
Plotted On: 4/7/2026-12:52pm By: RRose
Tighe & Bond J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_ Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg

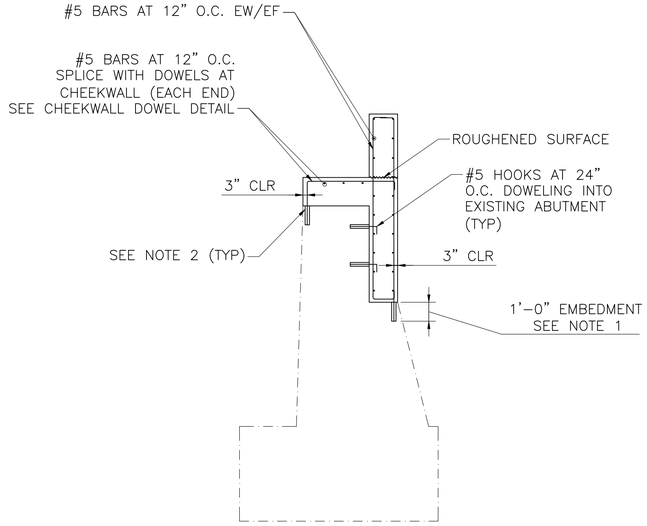
NOTES:

1. SELECT GROUT FROM THE MASSDOT PRE-APPROVED MATERIALS LIST.
2. CORE HOLE SIZE SHALL BE DETERMINED PER MANUFACTURER'S REQUIREMENTS WITH A 2¾" MINIMUM DIAMETER.
3. REINFORCING STEEL COVER IS 2" UNLESS OTHERWISE NOTED.



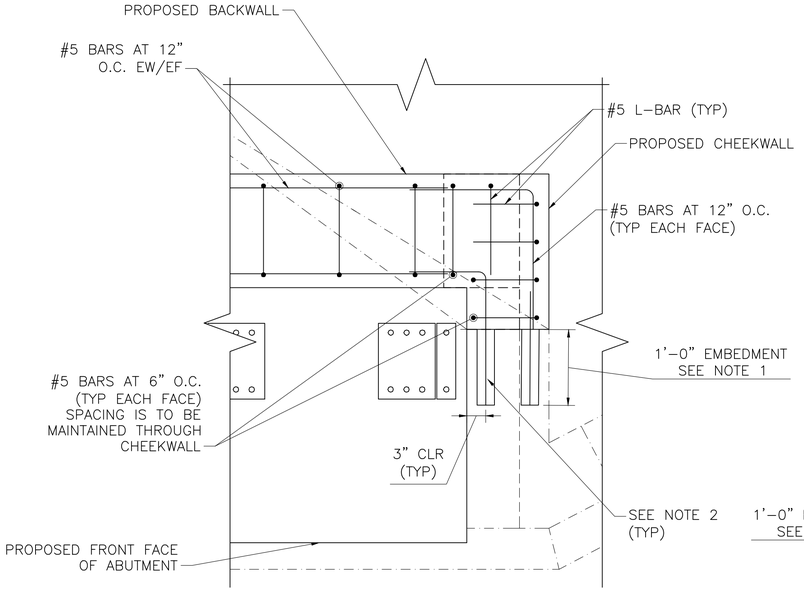
PROPOSED WEST ABUTMENT REINFORCING

SCALE: ¼" = 1'-0"



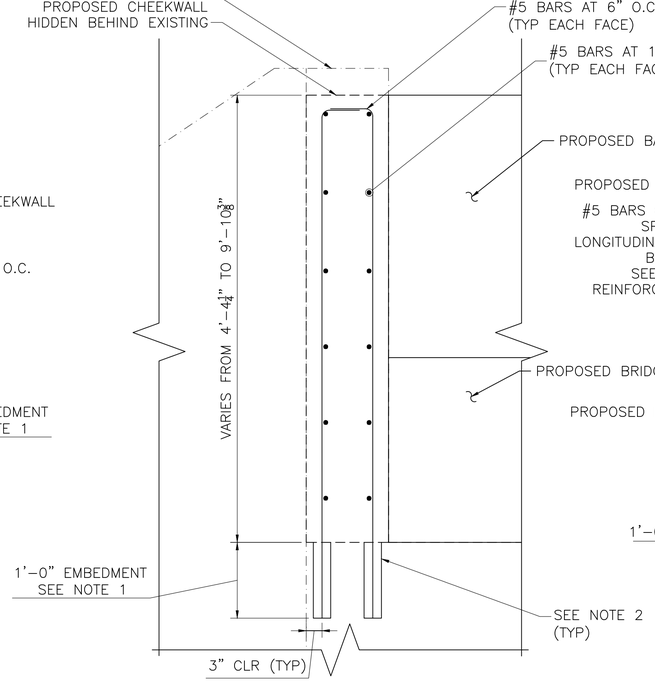
PROPOSED EAST ABUTMENT REINFORCING

SCALE: ¼" = 1'-0"



PLAN OF PROPOSED HORIZONTAL CHEEKWALL REINFORCING

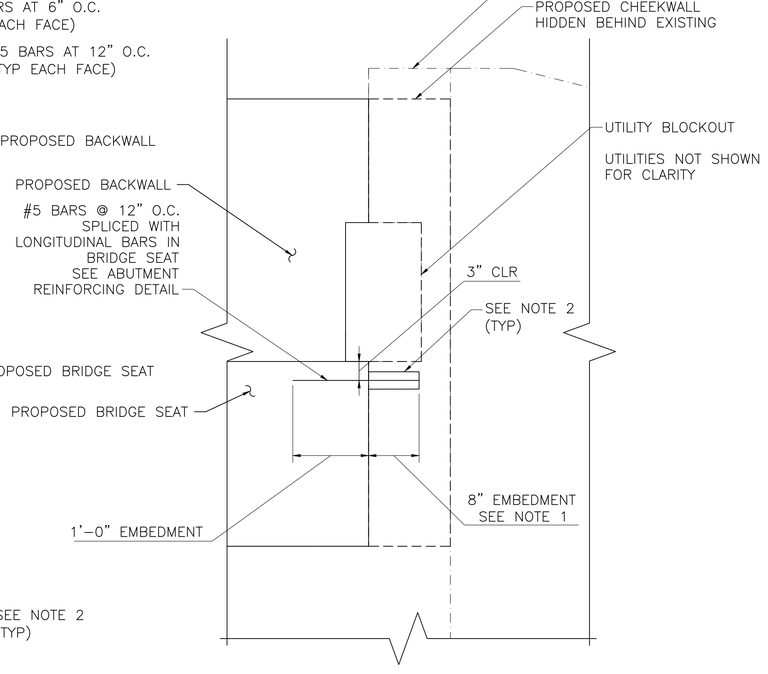
SCALE: 1" = 1'-0"



ELEVATION OF PROPOSED CHEEKWALL REINFORCING

SCALE: 1" = 1'-0"

DOWELS NOT SHOWN FOR CLARITY.



ELEVATION OF BRIDGE SEAT DOWELS INTO CHEEKWALL

SCALE: 1" = 1'-0"

REINFORCING STEEL NOT SHOWN FOR CLARITY.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER _____ DATE _____

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement
Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

PROPOSED REINFORCING DETAILS

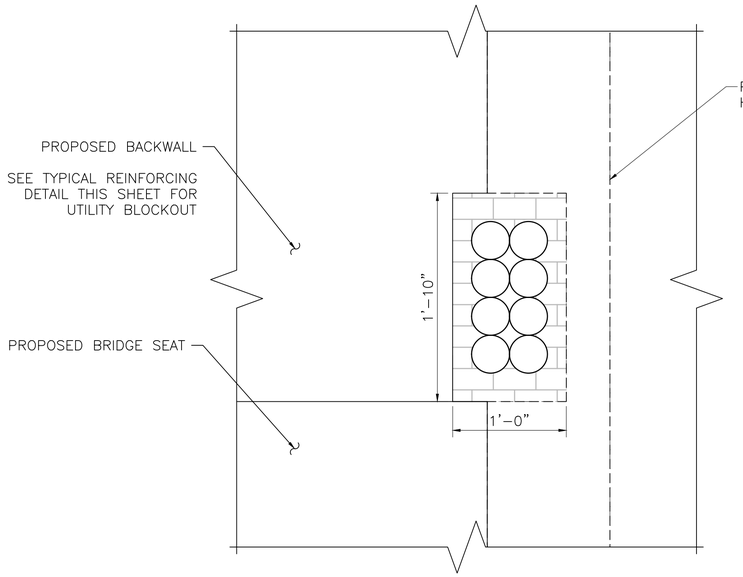
SCALE: AS SHOWN

SHEET 13 OF 17

Last Saved: 4/7/2026
Plotted: Apr 07, 2026-12:53pm By: RRose
Tighe & Bond J:\D\D5011 Dudley\01\9 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg

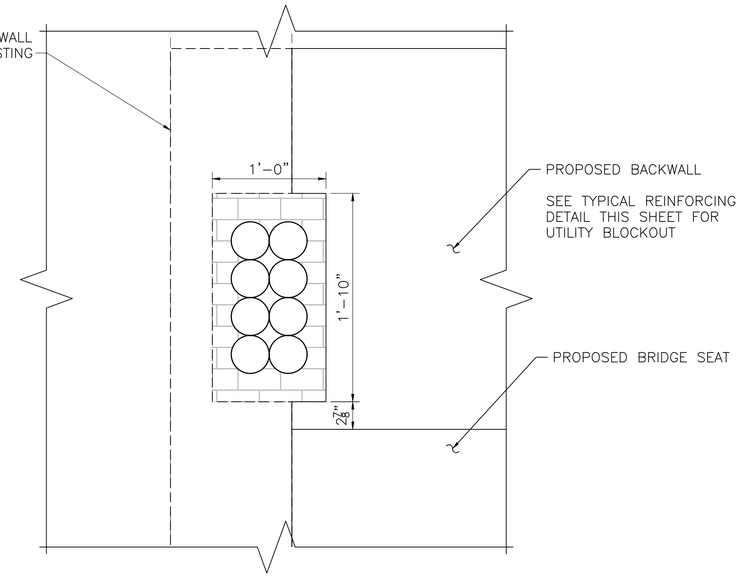
NOTES:

1. SELECT GROUT FROM THE MASSDOT PRE–APPROVED MATERIALS LIST.
2. CORE HOLE SIZE SHALL BE DETERMINED PER MANUFACTURER'S REQUIREMENTS WITH A 2¾" MINIMUM DIAMETER.
3. REINFORCING STEEL COVER IS 2" UNLESS OTHERWISE NOTED.
4. BLOCKOUT DIMENSIONS ARE APPROXIMATE. FINAL DIMENSIONS OF UTILITY BLOCKOUT TO BE DETERMINED WITH UTILITY COMPANY AND ENGINEER IN THE FIELD.
5. UTILITY TO BE REROUTED BY UTILITY COMPANY. CONTRACTOR TO PROTECT AND ACCOMMODATE UTILITIES FOR CONSTRUCTION OF BACKWALLS AND CHEEKWALLS.



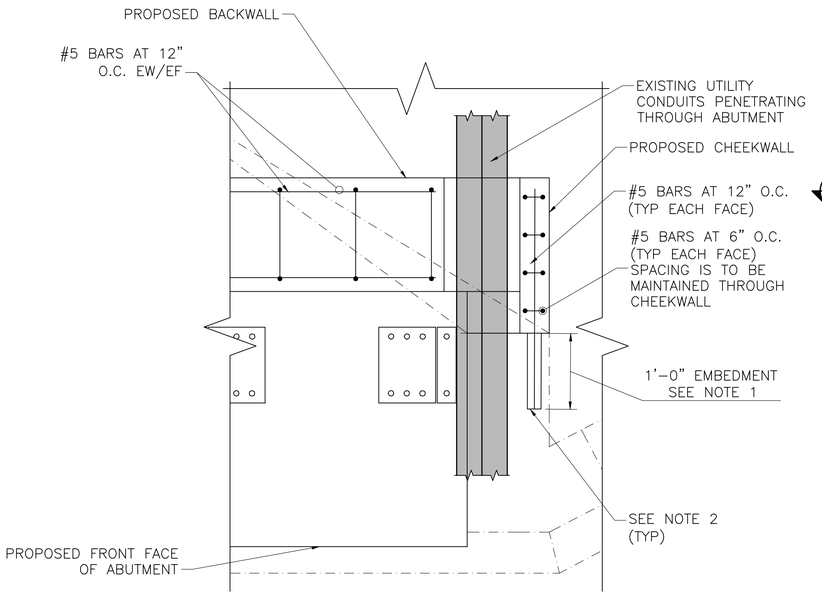
PROPOSED UTILITY BLOCKOUT AT WEST ABUTMENT

SCALE: 1½" = 1'–0"



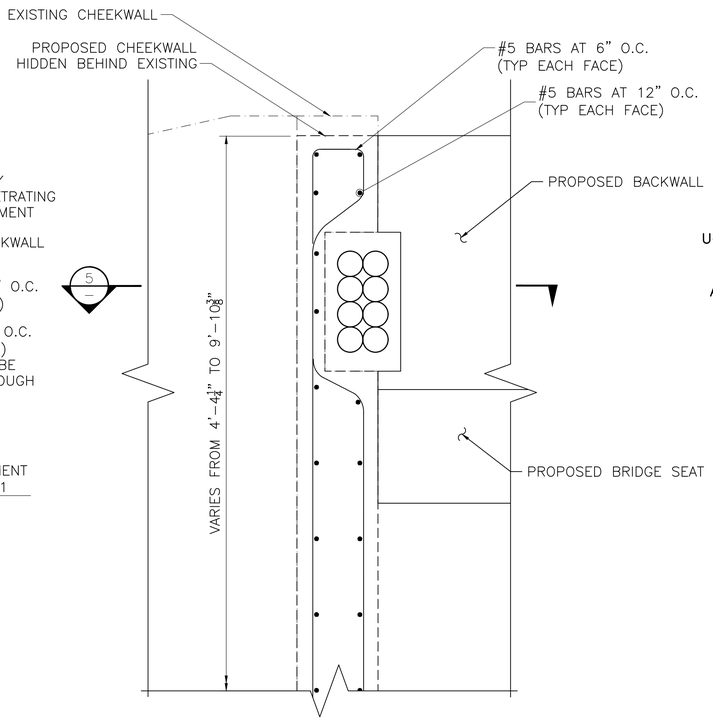
PROPOSED UTILITY BLOCKOUT AT EAST ABUTMENT

SCALE: 1½" = 1'–0"



SECTION 5 – PROPOSED HORIZONTAL CHEEKWALL REINFORCING AT UTILITY BLOCKOUT

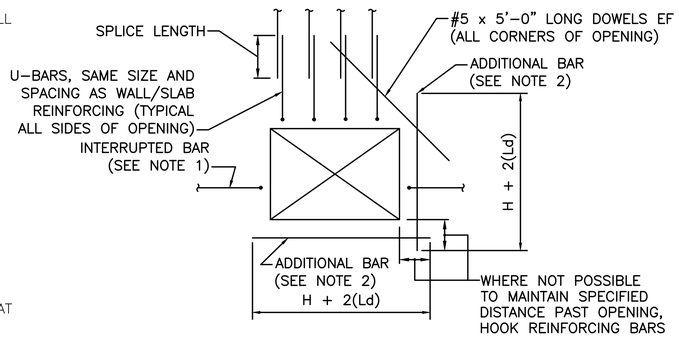
SCALE: 1" = 1'–0"



ELEVATION OF PROPOSED CHEEKWALL REINFORCING AT UTILITY BLOCKOUT

SCALE: 1" = 1'–0"

DOWELS NOT SHOWN FOR CLARITY.



NOTES:

1. FOR WALL APPLICATION WITH A CONCRETE THICKNESS LESS THAN 12 INCHES, 180° OR 90°, HOOK BARS MAY BE USED IN LIEU OF "U–BARS".
2. PROVIDE ADDITIONAL BARS NOT LESS THAN ONE HALF (1/2) OF INTERRUPTED BARS AT EACH SIDE OF OPENING AT 3" ON CENTER.

TYPICAL REINFORCING AT UTILITY BLOCKOUT IN BACKWALL

NOT TO SCALE

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER _____ DATE _____

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement
Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

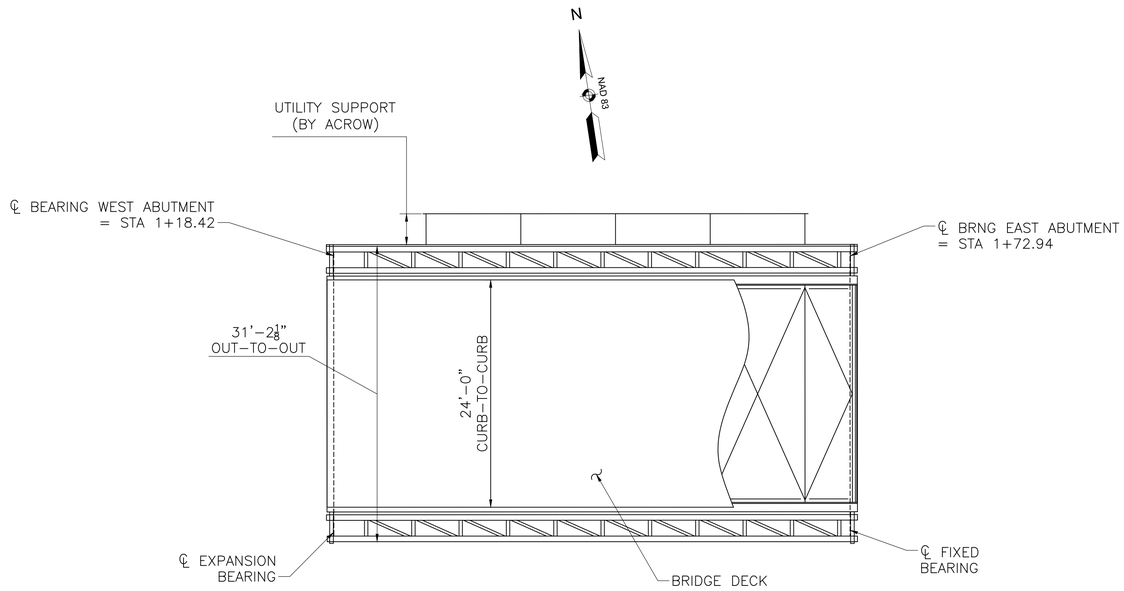
PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

PROPOSED UTILITY BLOCKOUT DETAILS

SCALE: AS SHOWN

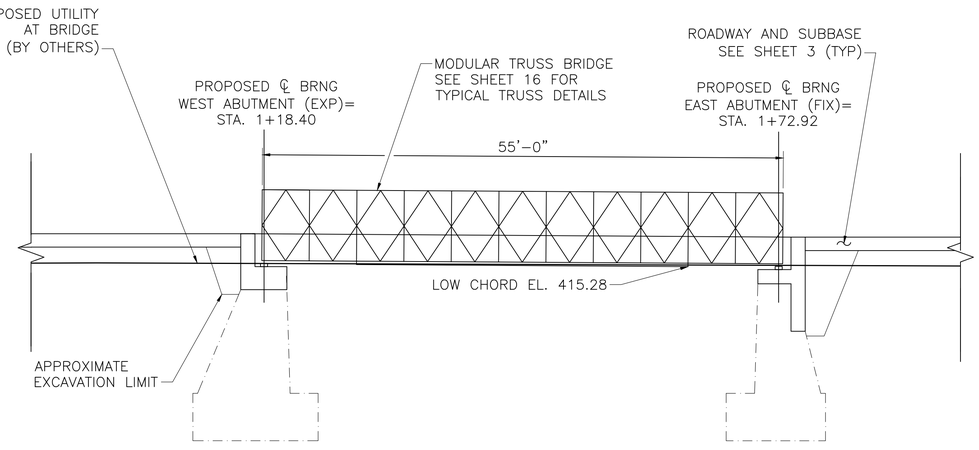
SHEET 14 OF 17

Last Saved: 4/7/2026
Plotted: Oct 07, 2026-12:54pm By: RRose
Tighe & Bond J:\D\D5011 Dudley\D19 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg



PROPOSED SUPERSTRUCTURE FRAMING PLAN

SCALE: ⅛" = 1'-0"



PROPOSED SUPERSTRUCTURE ELEVATION (LOOKING NORTH)

SCALE: ⅛" = 1'-0"

MODULAR TRUSS NOTES:

1. ALL COMPONENTS OF THE ACROW BRIDGE STRUCTURE ARE CURRENTLY STORED AT THE DUDLEY HIGHWAY DEPARTMENT YARD. THE BRIDGE COMPONENTS SHALL BE TRANSPORTED FROM THE DUDLEY YARD TO THE BRIDGE SITE AND ASSEMBLED BASED ON ACROW'S STAMPED ENGINEERING PLANS AND CALCULATIONS. SEE SPECIFICATIONS.
2. MAXIMUM ALLOWABLE LIVE LOAD DEFLECTION SHALL BE L/800.
3. SUBSTRUCTURE ELEMENTS ARE EXISTING AND SHALL BE MODIFIED PER THESE DOCUMENTS FOR REUSE. VERIFY FINAL DIMENSIONS WITH ACROW.
4. SUBSTRUCTURE ELEMENTS WERE ANALYZED USING ASSUMED SUPERSTRUCTURE PARAMETERS PROVIDED FOR 700XS SERIES SUPERSTRUCTURE BY ACROW AND ARE LISTED IN THE FOLLOWING TABLE. NOTIFY THE ENGINEER IF DESIGN ASSUMPTIONS DEVIATE FROM THE FOLLOWING:

SUPERSTRUCTURE LOADS				
BRIDGE	SPAN	PARAMETER	UNFACTORED (*KIPS PER CORNER)	FACTORED (*KIPS PER CORNER)
D-12-027 TBD	55 FT.	DC (***SUPERSTRUCTURE)	22	28
		DW (2"ASPHALT + UTILITY)	13	19
		1* HL-93 TRUCK	66	114
		1* HL-93 LANE	21	36
		PERMIT TRUCK	0	0
		PEDESTRIAN LIVE LOAD	0	0
		TOTAL (VERTICAL)	122	197
			UNFACTORED (**KIPS PER END)	FACTORED (**KIPS PER END)
		WIND (LATERAL)	7	10

*LOADS AT EACH CORNER ARE SPLIT BETWEEN TWO BEARINGS.
**LOADS AT EACH END ARE SPLIT BETWEEN FOUR BEARINGS.
***SUPERSTRUCTURE IS COMPRISED OF 2L24 + DS + TL-4.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER _____ DATE _____

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement
Dudley

Brandon Road
Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

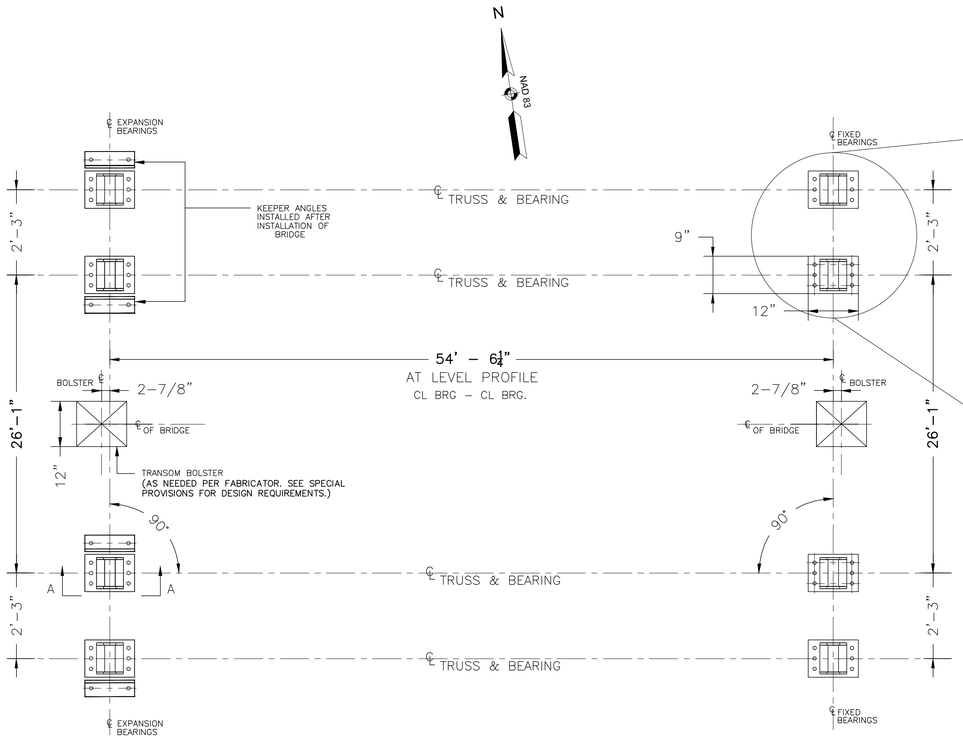
PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

PROPOSED SUPERSTRUCTURE FRAMING PLAN AND CROSS SECTION

SCALE: AS SHOWN

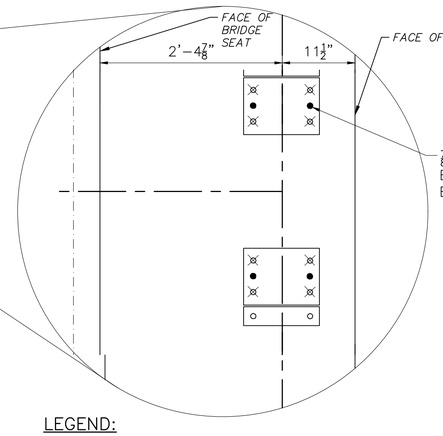
SHEET 15 OF 17

Last Saved: 4/7/2026
Plotted: 04/07/2026-12:54pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\D19 Brandon Road Over Mill Race\Drawings, Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg



BEARING LAYOUT

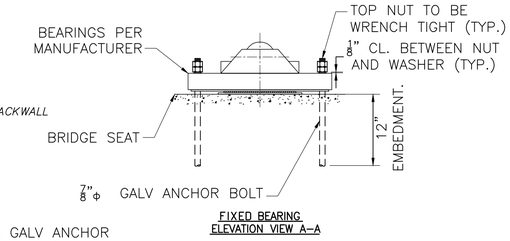
NOT TO SCALE



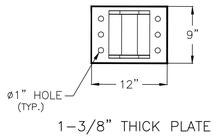
LEGEND:

⊗ ANCHOR BOLT NOT REQUIRED

● ANCHOR BOLT REQUIRED

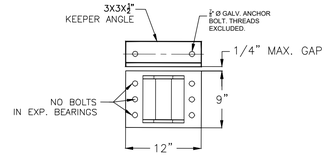


FIXED BEARING ELEVATION VIEW A-A



FIXED END - BEARING DETAIL

NOT TO SCALE



EXPANSION END - BEARING DETAIL

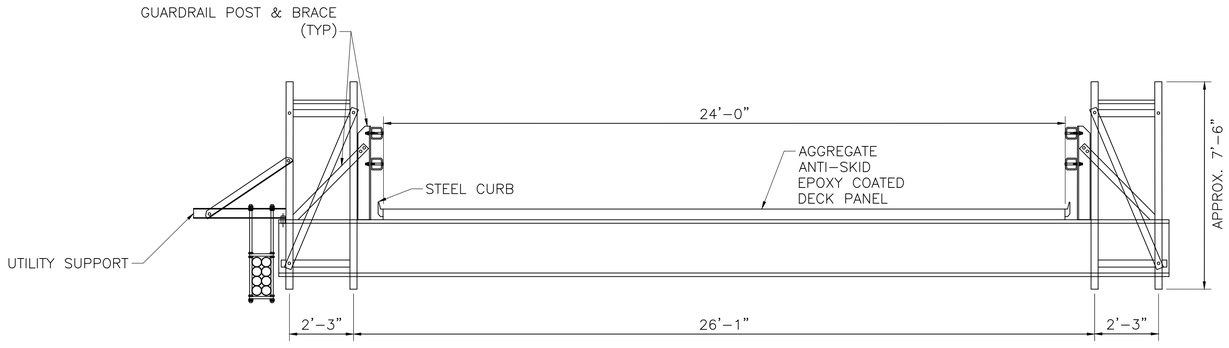
NOT TO SCALE

BEARING DETAILS

NOT TO SCALE

BEARING NOTES:

1. BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED AND CONFORM TO MASSDOT STANDARD SPECIFICATION SECTION M8.01.5.
2. ALL BEARING ANCHOR BOLTS SHALL BE POST-INSTALLED.



PROPOSED SUPERSTRUCTURE CROSS SECTION

SCALE: ⅜" = 1'-0"

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER _____ DATE _____

Tighe&Bond

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

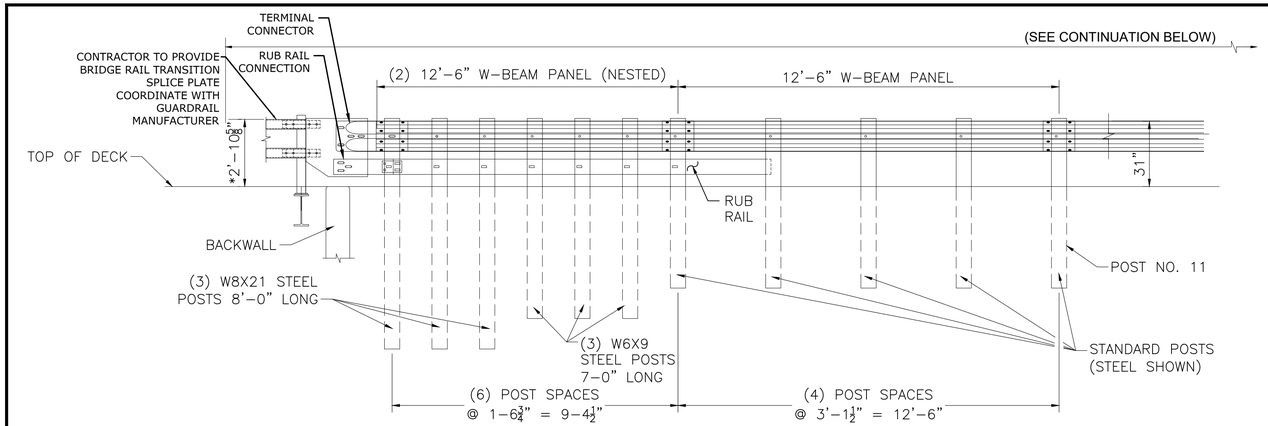
PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_05_STRC.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

BRIDGE DETAILS

SCALE: AS SHOWN

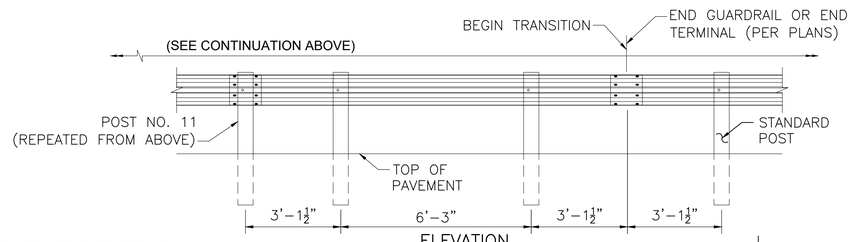
SHEET 16 OF 17

Last Saved: 4/7/2026
Plotted: Oct 07, 2026 - 12:55pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_05_STRC.dwg



ELEVATION

NOT TO SCALE

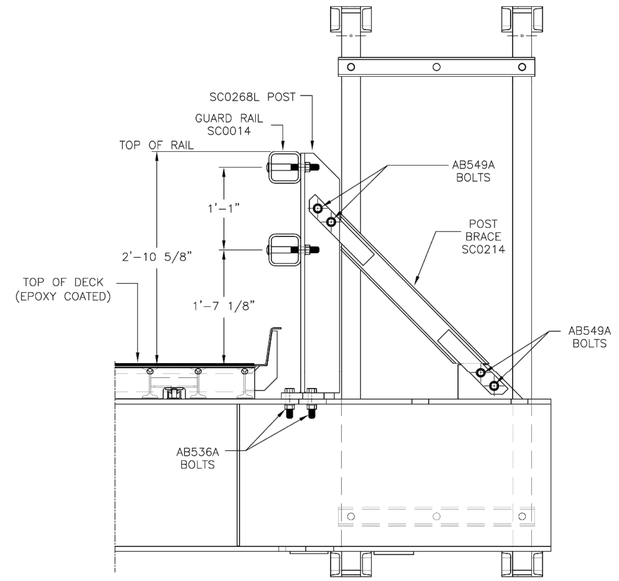


ELEVATION

NOT TO SCALE

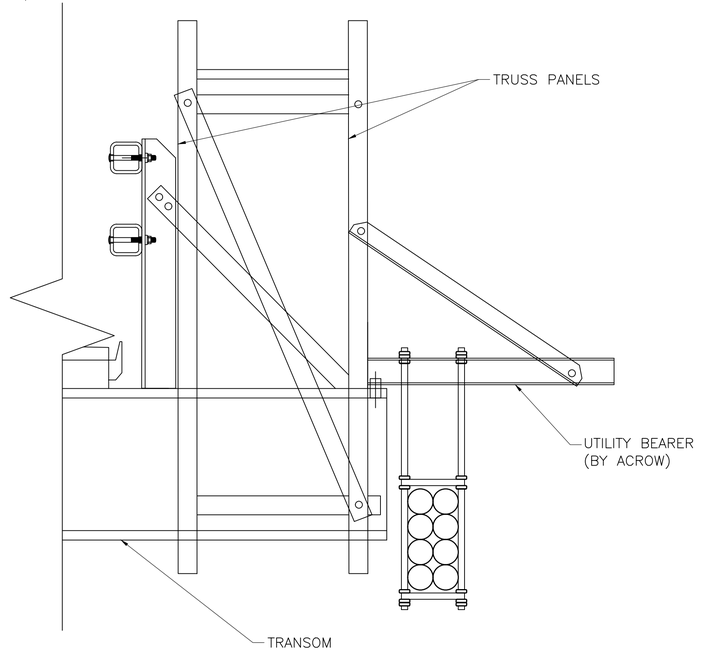
BRIDGE RAIL TO APPROACH RAIL TRANSITION

NOT TO SCALE



GUARDRAIL DETAIL – LOW POST

NOT TO SCALE



UTILITY BRACKET DETAIL

SCALE: 1" = 1'-0"

TRANSITION NOTES:

1. SEE SHEET 628.22.2 FOR COMPONENT DETAILS.
2. BOLT RUB RAIL TO POST WITHOUT WASHER.
3. POSTS WITH RUB RAIL ATTACHMENT REQUIRE AN ADDITIONAL HOLE.
4. STEEL SPACER TUBE, SCHEDULE 40 GALVANIZED PIPE, 6" ID X 12". CONNECT TO THE W-BEAM PANEL ELEMENTS USING SPLICE BOLT.
5. DIMENSIONS DENOTED WITH AN ASTERISK ARE APPROXIMATE. CONTRACTOR TO COORDINATE FINAL DIMENSIONS WITH BRIDGE MANUFACTURER AND FINAL FIELD CONFIGURATION.
6. SPLICE PLATE BOLT HOLES TO BE FIELD DRILLED. REPAIR GALVANIZING IN ACCORDANCE WITH MASSDOT STANDARD SPECIFICATIONS.

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. GARGAN
CIVIL
No. 50170
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

COMMONWEALTH OF MASSACHUSETTS
ANDREA LACASSE
CIVIL
No. 57194
REGISTERED PROFESSIONAL ENGINEER
04/07/2026

ISSUED FOR BID

Proposed Superstructure Replacement

Dudley

Brandon Road Over Mill Race

D-12-027 (1BJ)

MARK	DATE	DESCRIPTION
0	4/8/2026	FOR BIDDING

PROJECT NO:	D5011-019
DATE:	April 26
FILE:	D5011-019_06_DETAILS.dwg
DRAWN BY:	R.ROSE
DESIGNED BY:	D.FELTY
CHECKED BY:	D.FELTY
APPROVED BY:	A.LACASSE

GUARDRAIL TRANSITION & UTILITY BEARER DETAILS

SCALE: AS SHOWN

SHEET 17 OF 17

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
CONCEPTUAL DESIGN IS ACCEPTABLE TO MASSDOT FOR CONTRACTING

DISTRICT 3 BRIDGE ENGINEER _____ DATE _____

Last Saved: 3/9/2026
Printed: Mar 09, 2026-12:55pm By: RRose
Tighe & Bond:J:\D\D5011 Dudley\019 Brandon Road Over Mill Race\Drawings_Figures\AutoCAD\Sheet\D5011-019_06_DETAILS.dwg