THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

William Cass, P.E.
Commissioner

David Rodrigue, P.E.
Assistant Commissioner

Andre Briere, Colonel, USAF (RET)
Deputy Commissioner

March 21, 2024

Mr. Karl Benedict
Public Works Supervisor, Wetlands Bureau
Land Resources Management, Water Division
NH Department of Environmental Services
29 Hazen Drive, PO Box 483
Concord, NH 03302

RE: NHDES File Number: 2023-00858/ NHDOT Project # Jaffrey 16307
Standard Dredge and Fill Wetlands Permit Application (RSA 482-A)
US 202/ NH 124/ NH 137 Intersection Improvements Project, Downtown Jaffrey, NH

This memorandum follows your December 7, 2023, *Request for More Information* (RFMI) regarding the proposed construction of roadway improvements in downtown Jaffrey ("the Project"). Please see our responses to your comments below, as well as the attachments to this letter which provide revised plans and additional information. These responses incorporate NHDES feedback from the meeting on January 3, 2024.

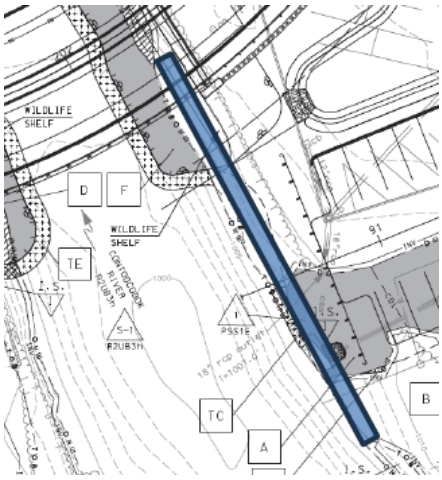
Attachment A includes updated wetland impact plans to account for the updates reflected in the May 2023 RFMI, along with the additional updates requested in this RFMI. With the current impact areas, the wetlands permit application fee is $5,271.60. Since NHDOT previously paid $4,989.20, a voucher for the remaining $282.40 balance is provided with this response (Voucher #: 750726).

Revised Suggested Permit Description: The NHDOT proposes to permanently impact 2,540 sq ft (225 lin ft) within the bed and 1,955 sq ft (316 lin ft) within the banks of the Contoocook River to construct a new bridge with associated riprap stabilization and simulated streambed material, and to fill 4,396 sq ft of palustrine wetlands to construct a new connector road, stormwater infrastructure, and relocated parking. Temporary impacts include 3,504 sq ft (484 lin ft) within the bed and 592 sq ft (164 lin ft) within the banks of the Contoocook River, along with 192 sq ft within a palustrine wetland (Wetland 1) to install proposed erosion controls (i.e., steel sheet pile cofferdams, sandbag cofferdams, silt fence/sock, etc.).

In response to the NHDES technical comments on the application, we offer the following:

Comment 1: *Review of TOB jurisdiction was reviewed at 202+40± R over to proposed parking area. NHDES has identified TOB location should be located consistent with flagging and elevations shown throughout the rest of the project area and would be consistent with contour elevations identified per plan. Existing flagging location excludes portions of jurisdictional bank areas.*

Revise the TOB location on plans and quantify associated square feet and linear feet of bank areas within this project impact area location. The TOB elevations at Wetland impact areas TH and TC are confirmed and boundary should extend between these points.



Response: The top of bank (TOB) line was revised to extend farther upslope in this area (but not to include Wetland 1), as decided in a meeting with NHDES. Since this line revision was not field delineated by a NH Certified Wetland Scientist, a note was added to the Existing Conditions Plan (Sheet 5 of 19) to clarify that the TOB line in this area was the result of NHDES comments. Due to this line modification, the permanent bank Impact G was expanded, new permanent bank Impacts I and J were added, new temporary bank Impacts TL and TN were added, and a new temporary bed Impact TM was added.

Comment 2: *Please quantify all linear feet of impacts along Contoocook River to include bank impact along areas TC and A.*

Response: The revised TOB line goes around Wetland 1 (along the previously shown TOB/OHW line) and no impacts were previously proposed below that line. Per recent coordination with NHDES, Impact TC was merged with Impact A, and we added an additional temporary impact parallel to Wetland 1 (labeled as Impact TM on the plans) to be consistent with how temporary impacts were calculated elsewhere for this project (a five-foot buffer off the proposed slope lines). This temporary impact is below the TOB/OHW line and was therefore calculated as temporary riverbed impact in square feet and linear feet. The corresponding NB/PC line on the Erosion Control Plan (Sheet 11 of 19) was also updated to reflect this change.

Comment 3: *Please review proposed Impact Areas TC, TA, and TF for confirmation as proposed temporary impacts. Noting activity in the vicinity to include wall removal, grading, and outlet construction. There are no permanent impacts to bank proposed at outlet construction Sta. 200+74 to river outlet or vicinity at the west abutment.*

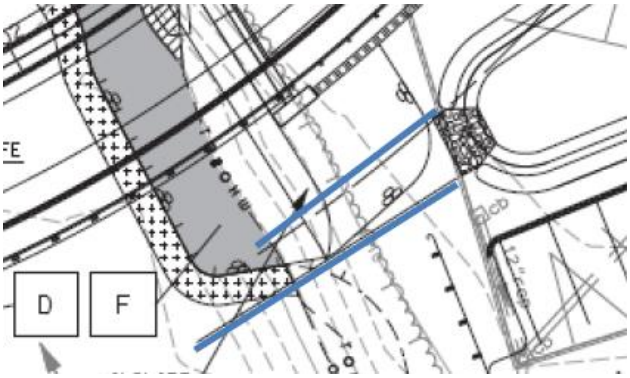
Response: Since the temporary impact areas TC and TA are relatively small, we have merged those areas with permanent Impact A, as requested.

Temporary Impact TF is intended to show some potential workspace within the riverbank that may be required during the retaining wall removal (which is represented with permanent Impact H). Both Impacts H and TF

are associated with the proposed removal of the existing stone retaining wall that retains the backyard of a residential property at 15 River Street (NHDOT Parcel #11) and regrading of this area to even out the topography. This property has been acquired as part of this Project between the Jaffrey War Memorial parcel to the north and the proposed new bridge crossing to the south. This retaining wall is proposed to be removed to allow this area to be regraded to support the bridge abutment installation, eliminate any future maintenance requirements for this wall if it were left in place. The slopes adjacent to the river will be regraded to a 2:1 slope to provide the maximum relatively flat, usable area for potential expansion of the adjacent War Memorial Park use. Refer to the Erosion Control Plan (Sheet 11 of 19) for the proposed grading around the bridge. This area would be stabilized using standard techniques such as loaming, seeding, and erosion control blanket per NHDOT standard specification. Appropriate perimeter controls would be in place until stable.

The last part of this comment relates to the proposed outfall (located at approximately Station 201+10) that originates from a pipe at approximately Station 200+74. This outfall and associated riprap apron are located greater than two feet away from the delineated top of bank line and do not constitute a jurisdictional impact. Additionally, given the limited anticipated flow velocities, there is no design need to extend the riprap all the way to the river. Furthermore, the proposed riprap apron has been sized appropriately to provide outlet protection from erosion at the 10-year design storm in accordance with the NHDOT Drainage Design Manual (2023) and the Federal Highway Administration Hydraulic Engineering Circular No. 14 (HEC-14).

Comment 4: *Please clarify whether rip rap will be extended from the outlet of proposed bioretention basin over slope with outlet to Contoocook River. The extent appears to extend below OHW (and through areas identified as jurisdictional banks per Item 1). Please clarify proposed impact if rip rap, quantify associated impact area, and consider limiting extent to above OHW.*



Response: The northern most highlighted line is a proposed ROW line for the US Route 202 roadway and the southernmost line is a stray construction line that was mistakenly included on the plan set (and has since been removed). The riprap for the spillway will only extend to the area shown with a stone hatch on the plans and will not extend below the OHW. We believe the riprap area shown on the plans is sufficient to account for the flow velocities (less than 2 feet per second at the 50-year design storm). The riprap area for the bridge has already been included in the impact area calculations.

Comment 5: *Please review extent of jurisdictional bank limit along impact area at Blake Street Pipe Sta. 30+41 to River Outlet (between impact areas TC-A). Note this area is identified as above OHW, and below site contour elevation break associated with TOB throughout the site although no jurisdictional impacts are identified adjacent to Contoocook River (ID bank of Contoocook River at consistent elevation with vicinity project determination through impact area A).*

Response: Impact A correctly follows the delineated wetland boundary of Wetland 1. The small break in the wetland along the bank (where a portion of the outlet stone extends) represents a small non-jurisdictional upland inclusion within Wetland 1 adjacent to the riverbank. This upland inclusion was confirmed in the field by Kris Wilkes, NH Certified Wetland Scientist and does not meet the three wetland parameters per the Army Corps Wetland Delineation Manual and Regional Supplement.

Comment 6: *Please provide revised ARM mitigation calculator reflecting updated bank impact areas and excluding the proposed reduction for credit associated with wildlife shelf construction. Calculate square feet*

of impacts for priority resource areas and calculate total linear feet of permanent impact to bed and banks of the Contoocook River.

Response: The revised ARM Fund mitigation payment for this project is $119,454.51. This accounts for the updated bank areas and removes the previously proposed wildlife shelf credit. The updated mitigation documentation is provided as **Attachment B.**

Comment 7: *Please confirm whether revised plans and RFMI response to the CNBRLAC and Town of Jaffrey project comments have been forwarded to each agency with responses identifying any concerns have been addressed.*

Response: The revised plans and previous RFMI response were not sent to the CNBRLAC and Town of Jaffrey. However, this RFMI response and all corresponding attachments will be sent to them. Refer to the cc list at the end of this letter.

As always, please don't hesitate to call or email if you have any additional questions or concerns.

Sincerely,

Andrew O'Sullivan
Wetlands Program Manager
Room 109 – Tel (603) 271-0556
E-mail – andrew.m.osullivan@dot.nh.gov

Attachments

cc: Tobey Reynolds, NHDOT
Marc Laurin, NHDOT
Chuck Gregory, VHB
Greg Goodrich, VHB
Peter J. Walker, VHB
Town of Jaffrey Conservation Commission
CNBRLAC

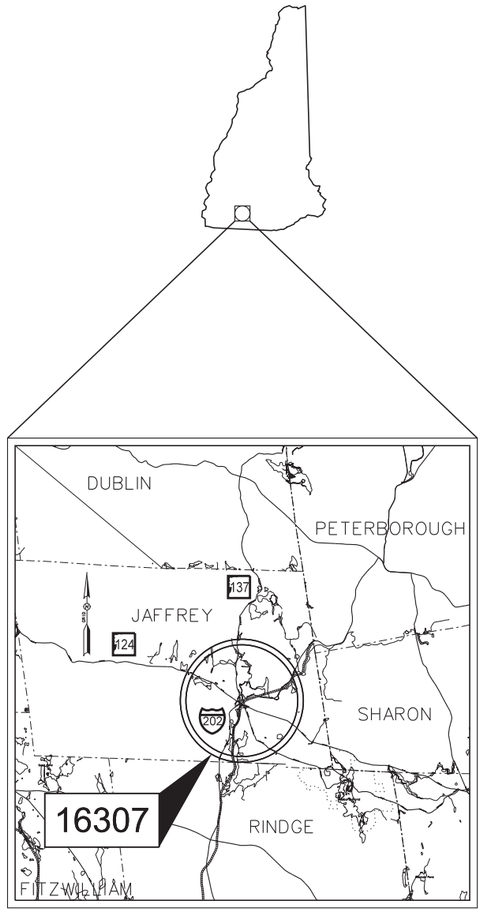
Attachment A

Wetland Impact Plans, dated November 7, 2023 (updated March 6, 2024) (half-scale)

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

WETLANDS IMPACT PLANS
FEDERAL AID PROJECT

X-(A001)234
N.H. PROJECT NO. 16307
US 202, NH 124, NH 137, STRATTON ROAD



LOCATION MAP

2 1 0 2 4 mi.

GRAPHIC SCALE

GRID

TO TROY

TO PETERBOROUGH
US ROUTE 202 NORTH/
PETERBOROUGH
STREET

NH ROUTE 124
MAIN STREET

NH ROUTE 137 TO DUBLIN

BRIDGE NO.
155/084

RIVER STREET

CONTOOCOOK RIVER

US ROUTE 202
CONNECTOR

BRIDGE NO.
153/081

BLAKE STREET

ELLISON STREET

UNION STREET

STRATTON
ROAD

TO RINDGE
US ROUTE 202
SOUTH

TO SHARON
NH ROUTE 124/
TURNPIKE ROAD

STA. 305+00
US 202 ROUTE NORTH
END APPROACH
LIMIT OF WORK

STA. 303+30
US ROUTE 202 NORTH
END FULL DEPTH
CONSTRUCTION
BEGIN APPROACH

STA. 704+50
NH ROUTE 124/
MAIN STREET
LIMIT OF WORK

STA. 402+25
NH ROUTE 124
END FULL DEPTH
CONSTRUCTION
BEGIN APPROACH

STA. 401+25
NH ROUTE 124 / TURNPIKE ROAD
LIMIT OF APPROACH

STA. 399+84
NH ROUTE 124 / TURNPIKE ROAD
LIMIT OF WORK

STA. 30+25
BLAKE STREET
LIMIT OF WORK

STA. 598+95
STRATTON ROAD
LIMIT OF WORK

STA. 101+50
US ROUTE 202 SOUTH
LIMIT OF WORK
BEGIN APPROACH

STA. 102+75
US ROUTE 202 SOUTH
END APPROACH
BEGIN FULL DEPTH
CONSTRUCTION

STA. 601+50
STRATTON ROAD
END FULL DEPTH
CONSTRUCTION
BEGIN APPROACH

US 202	
AVERAGE DAILY TRAFFIC 20 26	14,200
AVERAGE DAILY TRAFFIC 20 46	18,500
PERCENT OF TRUCKS	2%
DESIGN SPEED	30 MPH
LENGTH OF PROJECT	1295

NH 124 (MAIN STREET / TURNPIKE STREET)	
AVERAGE DAILY TRAFFIC 20 26	7,300
AVERAGE DAILY TRAFFIC 20 46	9,700
PERCENT OF TRUCKS	2%
DESIGN SPEED	30 MPH
LENGTH OF PROJECT	965

NH 137 (RIVER STREET):	
AVERAGE DAILY TRAFFIC 20 26	7,100
AVERAGE DAILY TRAFFIC 20 46	9,300
PERCENT OF TRUCKS	2%
DESIGN SPEED	30 MPH
LENGTH OF PROJECT	385

INDEX OF SHEETS

TOWN OF JAFFREY
COUNTY OF CHESHIRE

100 0 100 200

SCALE IN FEET
SCALE: 1" = 100'

PERMITTING - LEVEL PLANS
SUBJECT TO CHANGE
NOT FOR CONSTRUCTION
NOVEMBER 7, 2023

FOR CONSTRUCTION AND ALIGNMENT DETAILS
- SEE CONSTRUCTION PLANS

VHB STRUCTURES	VHB HIGHWAY	VHB ENVIRONMENTAL
GREGORY S. GOODRICH No. 12284 LICENSED PROFESSIONAL ENGINEER	CHARLES P. GREENY No. 13139 LICENSED PROFESSIONAL ENGINEER	KRISTOPHER P. WILKES No. 288 CERTIFIED WETLAND SCIENTIST

NHDOT THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL:

DIRECTOR OF PROJECT DEVELOPMENT — DATE

MUNICIPAL HIGHWAYS ENGINEER
BUREAU OF PLANNING AND COMMUNITY ASSISTANCE — DATE

APPROVED:

ASSISTANT COMMISSIONER AND CHIEF ENGINEER — DATE

DRAWN BY — DATE

CHECKED BY — DATE

DRAWING NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
16307FSC_Wet.dgn	X-(A001)234	16307	1	19

GENERAL

EDGE OF PAVEMENT — PROPOSED ROADWAY
TRAVELED WAY — existing roadway — (pavement removed outside slope lines)

DRIVEWAYS — (label surface type)

BUILDINGS — (building to be removed)
(label house or type of building)

FOUNDATION — (label type)

LEACH FIELD — leach field

BRIDGE CROSSINGS — STREAM — OVERPASS

STEPS AND WALK — (label type)

INTERMITTENT WATER COURSE

SHORE LINE — river/stream — pond — (label name of water body)

POTENTIAL WET AREA SYMBOL

BRUSH OR WOODS LINE

TREES (PLANS) — (deciduous) (coniferous) (stump)

TREE OR STUMP (CROSS-SECTIONS) — (show station, circumference in feet & type)

HEDGE — (label type)

MONITORING WELL — mon W

WELL — W

FLAG POLE — fp

ORIGINAL GROUND (TYPICALS)

ROCK OUTCROP

ROCK LINE (TYPICALS & SECTIONS ONLY)

GUARDRAIL (label type) — existing — PROPOSED — bgr — cgr

JERSEY BARRIER

CURB (LABEL TYPE)

STONE WALL

RETAINING WALL (LABEL TYPE) — (points toward retained ground)

FENCE (LABEL TYPE)

SIGNS — (single post) — (double post)

GAS PUMP — gp

FUEL TANK (ABOVE GROUND) — ft (label size & type)

STORAGE TANK FILLER CAP — fc

SEPTIC TANK — S

GRAVE — gr

MAILBOX — mb

VENT PIPE — vp

SATELLITE DISH ANTENNA — da

PHONE — ph

GROUND LIGHT/LAMP POST — gl — lp

BORING LOCATION — B

TEST PIT — TP

INTERSTATE NUMBERED HIGHWAY — 293

UNITED STATES NUMBERED HIGHWAY — 3

STATE NUMBERED HIGHWAY — 102

SHORELAND - WETLAND

WETLAND DESIGNATION AND TYPE — 2 PUB2E

DELINEATED WETLAND — DW
ORDINARY HIGH WATER — OHW
TOP OF BANK — TOB
TOP OF BANK & ORDINARY HIGH WATER — TOBOHW
NORMAL HIGH WATER — NHW
WIDTH AT BANK FULL — WBF
PRIME WETLAND — PWET
PRIME WETLAND 100' BUFFER — PWET100
NON-JURISDICTIONAL DRAINAGE AREA — NJDA
COWARDIN DISTINCTION LINE — CDL
TIDAL BUFFER ZONE — TBZ
DEVELOPED TIDAL BUFFER ZONE — DTBZ
HIGHEST OBSERVABLE TIDE LINE — HOTL
MEAN HIGH WATER — MHW
MEAN LOW WATER — MLW
VERNAL POOL — VP
SPECIAL AQUATIC SITE — SAS
REFERENCE LINE — REF
WATER FRONT BUFFER — WB50
NATURAL WOODLAND BUFFER — NWB150
PROTECTED SHORELAND — PS250
INVASIVE SPECIES LABEL — I.S. I — I.S. II
INVASIVE SPECIES — INV

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY — FP500
100 YEAR FLOODPLAIN BOUNDARY — FP100
FLOODWAY — FW

ENGINEERING

CONSTRUCTION BASELINE — 30 — 31 — 32

PC, PT, POT (ON CONST BASELINE)

PI (IN CONSTRUCTION BASELINES)

INTERSECTION OR EQUATION OF TWO LINES

ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)

PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)

CLEARING LINE — SLOPE LINE

SLOPE LINE

SLOPE LINE (FILL)

SLOPE LINE (CUT)

PROFILES AND CROSS SECTIONS:
ORIGINAL GROUND ELEVATION (LEFT) — 72.5
FINISHED GRADE ELEVATION (RIGHT) — 79.14

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	DATE	STATION

		DATE
SDR PROCESSED	NHDOT & VHB	9/2021
NEW DESIGN	VHB TEAM	10/2023
SHEET CHECKED	PJW	10/2023
AS BUILT DETAILS		

SHEET 1 OF 2

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

REVISION DATE	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-21-2014	3/6/2024	52792.00	16307SYM.dgn	16307	2	19

DRAINAGE

MANHOLE

CATCH BASIN — cb

DROP INLET — di

(existing) (PROPOSED)

DRAINAGE PIPE (existing) (label size & type)

DRAINAGE PIPE (PROPOSED)

UNDERDRAIN (existing) W/ FLUSHING BASIN — fb (label size & type)

UNDERDRAIN (PROPOSED) W/ FLUSHING BASIN

show direction of flow

HEADER (existing & PROPOSED) (with stone outlet protection)

END SECTION (existing & PROPOSED) METAL or PLASTIC / RCP

OPEN DITCH (PROPOSED)

EROSION CONTROL/ STONE SLOPE PROTECTION

BOUNDARIES / RIGHT-OF-WAY

RIGHT-OF-WAY LINE (label type)

RR RIGHT-OF-WAY LINE

PROPERTY LINE — PL

PROPERTY LINE (COMMON OWNER) — Z

TOWN LINE — BOW / CONCORD

COUNTY LINE — COOS / GRAFTON

STATE LINE — MAINE / NEW HAMPSHIRE

NATIONAL FOREST

CONSERVATION LAND — LC

BENCH MARK / SURVEY DISK

BOUND — (PROPOSED) — bnd

STATE LINE/ TOWN LINE MONUMENT — S/L — T/L

NHDOT PROJECT MARKER

IRON PIPE OR PIN — ip

DRILL HOLE IN ROCK — dh

TAX MAP AND LOT NUMBER — 156 / 14 — 1642/341 — 6.80 Ac.±

PROPERTY PARCEL NUMBER — 12

HISTORIC PROPERTY — H

UTILITIES

	existing	PROPOSED
TELEPHONE POLE		
POWER POLE		
JOINT OCCUPANCY		
MISCELLANEOUS/UNKNOWN POLE		
GUY POLE OR PUSH BRACE		

(plot point at face not center of symbol)

LIGHT POLE		
LIGHT ON POWER POLE		
LIGHT ON JOINT POLE		

POLE STATUS: REMOVE, LEAVE, PROPOSED, OR TEMPORARY AS APPLICABLE e.g.:

RAILROAD	R L — (label ownership)	P+04 25.0′ — T+04 25.0′
RAILROAD SIGN		
RAILROAD SIGNAL		
UTILITY JUNCTION BOX	jb	JB
OVERHEAD WIRE	OW — OW (label type)	OW — OW

UNDERGROUND UTILITIES

WATER (on existing lines label size, type and note if abandoned)	W — W	PW — PW
SEWER	S — S	PS — PS
TELEPHONE	T — T	PT — PT
ELECTRIC	E — E	PE — PE
GAS	G — G	PG — PG
LIGHTING	L — L	PL — PL
INTELLIGENT TRANSPORTATION SYSTEM	ITS — ITS	
FIBER OPTIC	FO — FO	PFO — PFO
WATER SHUT OFF	WSO	WSO
GAS SHUT OFF	GSO	GSO
HYDRANT	HYD	HYD

MANHOLES

SEWER	S	MHS
TELEPHONE	T	MHT
ELECTRICAL	E	MHE
GAS	G	MHG
UNKNOWN	U	

TRAFFIC SIGNALS / ITS

	existing	PROPOSED
MAST ARM (existing)		30′ MA (NOTE ANGLE FROM ℄)
OPTICOM RECEIVER		
OPTICOM STROBE		
TRAFFIC SIGNAL		
PEDESTAL WITH PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON UNIT		
SIGNAL CONDUIT	C — C — C	PC — PC — PC
CONTROLLER CABINET	cc	CC
METER PEDESTAL	mp	MP
PULL BOX	pb	PB
LOOP DETECTOR (QUADRUPOLE)		(label size)
LOOP DETECTOR (RECTANGULAR)		(label size)
CAMERA POLE (CCTV)		
FIBER OPTIC DELINEATOR	fod	FOD
FIBER OPTIC SPLICE VAULT		SVF
ITS EQUIPMENT CABINET	its	ITS
VARIABLE SPEED LIMIT SIGN		
DYNAMIC MESSAGE SIGN		
ROAD AND WEATHER INFO SYSTEM		

CONSTRUCTION NOTES

CURB MARK NUMBER - BITUMINOUS	B-1
CURB MARK NUMBER - GRANITE	G-1
CLEARING AND GRUBBING AREA	A
DRAINAGE NOTE	1
EROSION CONTROL NOTE	A
FENCING NOTE	A
GUARDRAIL NOTE	1
ITS NOTE	1
LIGHTING NOTE	A
TRAFFIC SIGNAL NOTE	1

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	DATE

SDR PROCESSED	NHDOT & VHB	DATE 9/2021
NEW DESIGN	VHB TEAM	DATE 10/2023
SHEET CHECKED	PJW	DATE 10/2023
AS BUILT DETAILS		DATE

SHEET 2 OF 2

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

REVISION DATE	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	3/6/2024	52792.00	16307SYM.dgn	16307	3	19

EROSION CONTROL NOTES AND STRATEGIES

1. Erosion Control/Stormwater Control Selection, Sequencing and Maintenance
   - 1.1. Comply with RSA 485-A:17 Terrain Alteration.
   - 1.2. Install and maintain all erosion control/stormwater controls in accordance with the New Hampshire Stormwater Management Manual, Volume 3, Erosion and Sediment Controls During Construction, December 2008 (BMP Manual), available from the NH Department of Environmental Services (NHDES).
   - 1.3. Install erosion control/stormwater control measures prior to the start of work and in accordance with the manufacturer's recommendations.
   - 1.4. Select erosion control/stormwater control measures based on the size and nature of the project and physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to jurisdictional areas.
   - 1.5. Install perimeter controls prior to earth disturbing activities.
   - 1.6. Install stormwater treatment ponds and drainage swales before rough grading the site.
   - 1.7. Clean, replace, and augment stormwater control measures and infiltration basins as necessary to prevent sedimentation beyond project limits throughout the project duration.
   - 1.8. Inspect erosion and sediment control measures in accordance with Section 645 of the specifications, weekly, and within 24 hours (during normal work hours), of any storm event greater than 0.25 inches of rain in a 24-hour period.
   - 1.9. Contain stockpiles with temporary perimeter controls. Protect inactive soil stockpiles with soil stabilization measures (temporary erosion control seed mix and mulch, soil binder) or cover them with anchored tarps. If the stockpile is to remain undisturbed for more than 14 days, mulch the stockpile.
   - 1.10. Maintain temporary erosion and stormwater control measures in place until the area has been permanently stabilized.
   - 1.11. An area is considered stable if one of the following has occurred:
     - Base course gravels have been installed in areas to be paved;
     - A minimum of 85% vegetative growth has been established;
     - A minimum of 3"of non-erosive material such as stone or rip-rap has been installed;
     - Temporary slope stabilization has been properly installed (see Table 1).
   - 1.12. Direct runoff to temporary practices until permanent stormwater infrastructure is constructed and stabilized.
   - 1.13. Use temporary mulching, permanent mulching, temporary vegetative cover, and permanent vegetative cover to reduce the need for dust control. Use mechanical sweepers on paved surfaces where necessary to prevent dust buildup. Apply water, or other dust inhibiting agents or tackifiers.
   - 1.14. Plan activities to account for sensitive site conditions
     - Sequence construction to limit the duration and area of exposed soils.
     - Clearly flag areas to be protected in the field and provide construction barrier to prevent trafficking outside of work areas.
     - Protect and maximize existing native vegetation and natural forest buffers between construction activities and sensitive areas.
     - When work is undertaken in a flowing watercourse, implement stream flow diversion methods prior to any excavation or filling activity.
   - 1.15. Utilize storm drain inlet protection to prevent sediment from entering a storm drainage system prior to the permanent stabilization of the contributing disturbed area.
   - 1.16. Use care to ensure that sediments do not enter any existing catch basins during construction. Place temporary inlet protection at inlets in areas of soil disturbance that are subject to sedimentation.
   - 1.17. Construct, stabilize, and maintain temporary and permanent ditches in a manner that will minimize scour. Direct temporary and permanent ditches to drain to sediment basins or stormwater collection areas.
   - 1.18. Supplement channel protection measures with perimeter control measures when ditch lines occur at the bottom of long fill slopes. Install the perimeter controls on the fill slope to minimize the potential for fill slope sediment deposits in the ditch line.
   - 1.19. Divert sediment laden water away from drainage inlet structures to the extent possible.
   - 1.20. Install sediment barriers and sediment traps at drainage inlets to prevent sediment from entering the drainage system.
   - 1.21. Clean catch basins, drainage pipes, and culverts if significant sediment is deposited.
   - 1.22. Construct and stabilize dewatering infiltration basins prior to any excavation that may require dewatering.
   - 1.23. Place and stabilize temporary sediment basins or traps at locations where concentrated flow (channels and pipes) discharge to the surrounding environment from areas of unstabilized earth disturbing activities.
   - 1.24. Stabilize, to appropriate anticipated velocities, conveyance channels or pumping systems needed to convey construction stormwater to basins and discharge locations prior to use.
   - 1.25. Size temporary sediment basins to contain the 2-year, 24 hour storm event.
   - 1.26. Size temporary sediment traps to contain 3,600 cubic feet of storage for each acre of drainage area.
   - 1.27. Construct detention basins to accommodate the 2-year, 24-hour storm event.

2. Construction Planning
   - 2.1. Divert off site runoff or clean water away from the construction activities to reduce the volume that needs to be treated on site.
   - 2.2. Divert storm runoff from upslope drainage areas away from disturbed areas, slopes and around active work areas to a stabilized outlet location.
   - 2.3. Construct impermeable barriers, as necessary, to collect or divert concentrated flows from work or disturbed areas.
   - 2.4. Locate staging areas and stockpiles outside of wetlands jurisdiction.
   - 2.5. Do not store, maintain, or repair mobile heavy equipment in wetlands, unless equipment cannot be practicably removed and secondary containment is provided.
   - 2.6. Provide a water truck to control excessive dust, at the discretion of the Contract Administrator.

3. Site Stabilization
   - 3.1. Stabilize all areas of unstabilized soil as soon as practicable, but no later than 45 days after initial disturbance.
   - 3.2. Limit unstabilized soil to a maximum of 5 acres unless documentation is provided that demonstrates that cuts and fills are such that 5 acres is unreasonable.
   - 3.3. Use erosion control seed mix in all inactive construction areas that will not be permanently seeded within two weeks of disturbance and prior to September 15th of any given year in order to achieve vegetative stabilization prior to the end of the growing season.
   - 3.4. Apply, and reapply as necessary, soil tackifiers in accordance with the manufacturer's specifications to minimize soil and mulch loss until permanent vegetation is established.
   - 3.5. Stabilize basins, ditches and swales prior to directing runoff to them.
   - 3.6. Stabilize roadway and parking areas within 72 hours of achieving finished grade.
   - 3.7. Stabilize cut and fill slopes within 72 hours of achieving finished grade.
   - 3.8. When temporarily stabilizing soils and slopes, utilize the techniques outlined in Table 1.
   - 3.9. Stabilize all areas that can be stabilized prior to opening up new areas to construction activities.
   - 3.10. Utilize Table 1 when selecting temporary soil stabilization measures.
   - 3.11. Divert off-site water through the project in an appropriate manner so as not to disturb the upstream or downstream soils, vegetation or hydrology beyond the permitted area.
   - 3.12. Install and maintain construction exits anywhere traffic leaves a construction site onto a public right-of-way.
   - 3.13. Sweep all construction related debris and soil from the adjacent paved roadways, as necessary.

4. Slope Protection
   - 4.1. Intercept and divert storm runoff from upslope drainage areas away from unprotected and newly established areas and slopes to a stabilized outlet or conveyance.
   - 4.2. Consider how groundwater seepage on cut slopes may impact slope stability and incorporate appropriate measures to minimize erosion.
   - 4.3. Convey storm water down the slope in a stabilized channel or slope drain.
   - 4.4. The outer face of the fill slope should be in a loose, ruffled condition prior to turf establishment.

5. Winter Construction
   - 5.1. To minimize erosion and sedimentation impacts, limit the extent and duration of winter excavation and earthwork activities. The maximum amount of disturbed earth shall not exceed a total of 5 acres from May 1st through November 30th, or exceed one acre during winter months, unless the contractor demonstrates to the Department that the additional area of disturbance is necessary to meet the contractor's Critical Path Method (CPM) schedule, and the contractor has adequate resources available to ensure that environmental requirements will be met.
   - 5.2. Construction performed any time between November 30th and May 1st of any year is considered winter construction. During winter construction:
     - Stabilize all proposed vegetation areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, in accordance with Table 1.
     - Stabilize all ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, in accordance with Table 1.
     - Protect incomplete road surfaces, where base course gravels have not been installed, and where work has stopped for the season after November 30th, in accordance with Table 1.
     - Unless a winter construction plan has been approved by NHDOT, conduct winter excavation and earthwork such that no more than 1 acre of the project is without stabilization an any one time.

6. Wildlife Protection Measures
   - 6.1. Report all observations of threatened and endangered species on the project site to the Department's Bureau of Environment by phone at 603-271-3226 or by email at Bureau16@dot.nh.gov, indicating in the subject line the project name, number, and that a threatened/endangered species was found.
   - 6.2. Photograph the observed species and nearby elements of habitat or areas of land disturbance and provide them to the Department's Bureau of Environment at the above email address.
   - 6.3. In the event that a threatened or endangered species is observed on the project during work, the species shall not be disturbed, handled, or harmed prior to receiving direction from the Bureau of Environment.
   - 6.4. Utilize wildlife friendly erosion control methods when:
     - Erosion control blankets are used,
     - A protected species or habitat is documented,
     - The proposed work is in or adjacent to a priority resource area, and/or when specifically requested by NHB or NHF&G

GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES
TABLE 1

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES[2]				ROLLED EROSION CONTROL BLANKETS[3]			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNSCB	DNCB
SLOPES[1]												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES1	YES[1]	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION	4T/AC	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNSCB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

NOTES:
1. All slope stabilization options assume a slope length ≤ 10 times the horizontal distance component of the slope, in feet.
2. Do not apply products containing polyacrylamide (PAM) directly to, or within 100 feet of any surface water without NHDES approval.
3. Install all methods in Table 1 per the manufacturer's recommendation for time of year and steepness of slope.

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL NOTES AND STRATEGIES

REVISION DATE	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
07-31-2023	3/6/2024	52792.00	16307Weterostrat.dgn	16307	4	19

MATCH TO SHEET EXCOND02

13 PEARD PROPERTIES, LLC

12 JAFFREY WAR MEMORIAL COMMITTEE, INC.

11 COM2 MEDIA LLC

10 NORTHERN NEW ENGLAND TELEPHONE OPERATIONS, LLC

APPROX. EXIST. R.O.W.

9 CAISSIE, DOMINIQUE CAISSIE, ANNE MARIE & VANCAMPEN, JAMES K.

APPROX. LOCATION OF EXIST. ACCESS EASE. TO TM 239 LT 230

7 LANGOREN, BJORN FRODE

8 IFAN.

27 PANAGIOTES, ARTHUR G. & PANAGIOTES, ANTHONY V. asph parking lot

EXIST. 20' WIDE R.O.W.

28 STATE OF NH (DOT)

asph parking lot

29 MONOMONAC EQUITIES, LLC

EXIST. 20' WIDE SEWER EASE.

EXIST. 5' WIDE ACCESS EASE.

30 SILVER RANCH, INC.

31 MONADNOK PROPERTIES LLC

asphalt drive

THE TOB LINE IN THIS AREA WAS REVISED PER NHDES COMMENTS AND WAS NOT FIELD DELINEATED BY A NH CERTIFIED WETLAND SCIENTIST.

CONTOOCOOK RIVER R2UB3h S-1

PSS1E 1

PEM1E 2

18" rcp outlet i=1007.0

NOTES

1. VHB SENIOR ENVIRONMENTAL SCIENTIST, KRISTOPHER WILKES (NH CWS #288), DELINEATED JURISDICTIONAL WETLANDS AND SURFACE WATERS WITHIN AND ADJACENT TO THE PROPOSED LIMITS DISTURBANCE ON OCTOBER 7, 2021.
2. WETLAND DELINEATION WAS PERFORMED IN ACCORDANCE WITH THE PROCEDURES AND STANDARDS OUTLINED IN THE REGIONAL SUPPLEMENT TO THE U.S. ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0 (JANUARY 2012).
3. WETLAND DELINEATION ALSO RELIED UPON THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, PUBLISHED BY THE NATURAL RESOURCE CONSERVATION SERVICE AND THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4.0, PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.
4. DOMINANT WETLAND VEGETATION WAS ASSESSED USING THE NORTHCENTRAL AND NORTHEAST REGION WETLAND PLANT LIST PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS.
5. WETLANDS AND SURFACE WATERS WERE CLASSIFIED USING THE USFWS METHODOLOGY CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES (COWARDIN ET AL. 1979, REVISED 1985).
6. STREAM TOP-OF-BANK DELINEATION WAS PERFORMED IN ACCORDANCE WITH ENV-WT 102.15 AND THE ORDINARY HIGH-WATER ELEVATION WAS SET AT 1005.9 FEET NGVD29.

WETLAND CLASSIFICATION CODES	
PEM1E	PALUSTRINE, EMERGENT, PERSISTENT, SEASONALLY FLOODED/SATURATED
PSS1E	PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED
R2UB3h	RIVERINE, LOWER PERENNIAL, UNCONSOLIDATED BOTTOM, MUD, DIKED/IMPOUNDED

20 0 20 40
SCALE IN FEET

REVISIONS AFTER PROPOSAL

STATION	DESCRIPTION	STATION	DATE	NUMBER	DATE

		DATE
SDR PROCESSED	NHDOT & VHB	9/2021
NEW DESIGN	VHB TEAM	10/2023
SHEET CHECKED	PJW	10/2023
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EXISTING CONDITIONS PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
EXCOND01	3/6/2024	52792.00	16307Ex_Cond.dgn	16307	5	19

NUMBER	DATE	STATION	DESCRIPTION
			REVISIONS AFTER PROPOSAL

SDR PROCESSED	NHDOT & VHB	DATE 9/2021
NEW DESIGN	VHB TEAM	DATE 10/2023
SHEET CHECKED	PJW	DATE 10/2023
AS BUILT DETAILS		DATE

GRID

16 GREAT BRIDGE MONADNOCK CONDOMINIUM

17 RIVERMILL AT BASCOM FALLS

21 RARED JAFFREY LLC

APPROX. LOCATION OF EXIST. 10' WIDE PEDESTRIAN/BIKE TRAFFIC EASE.

23 STATE OF NH (DOT)

MILL RACE
BRIDGE NO.
154/084

BRIDGE NO.
155/084

15-1 WE SERVE HIM, LLC

18 JAFFREY CHAMBER OF COMMERCE

24 J.M.P. REAL ESTATE, LLC

15 THE PARK THEATRE

APPROX. LOCATION OF RIVER WALK EASE.

CONTOOCOOK RIVER R2UB3h

25 ARTHUR G. PANAGIOTES REVOCABLE TRUST & PANAGIOTES, ANTHONY V.

26 ASHWORTH INVESTMENTS LLC

14 J.M.P. REAL ESTATE, LLC

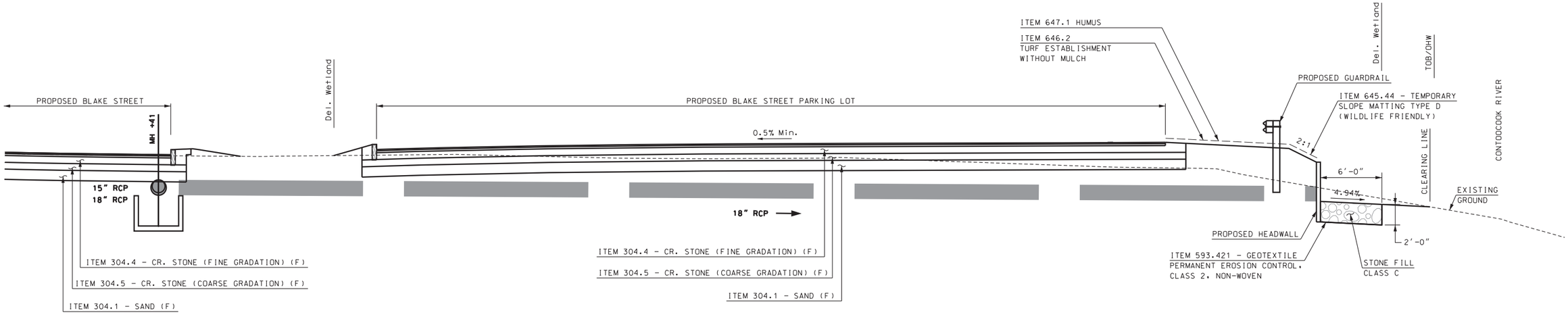
MATCH TO SHEET EXCOND01

MATCH TO SHEET EXCOND01

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

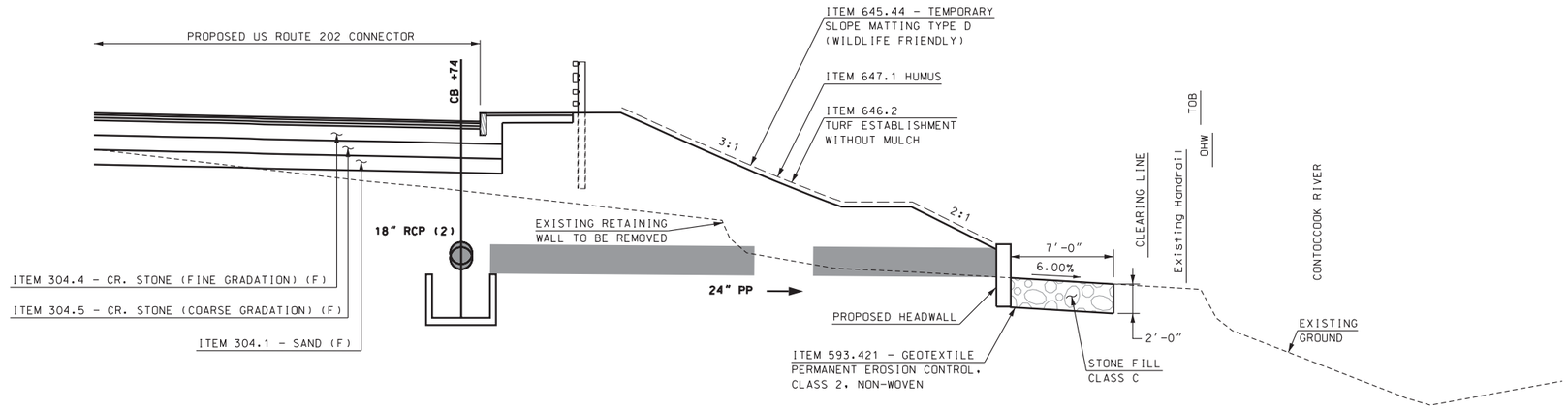
EXISTING CONDITIONS PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
EXCOND02	3/6/2024	52792.00	16307Ex_Cond.dgn	16307	6	19



BLAKE STREET PIPE AT STA. 30+41 TO RIVER OUTLET

NOT TO SCALE



US ROUTE 202 CONNECTOR PIPE AT STA. 200+74 TO RIVER OUTLET

NOT TO SCALE

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED NHDOT & VHB DATE 9/2021
NEW DESIGN VHB TEAM DATE 10/2023
SHEET CHECKED PJW DATE 10/2023
AS BUILT DETAILS DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

PIPE OUTLET DETAILS

DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
3/6/2024	52792.00	16307Wet_Detail.dgn	16307	7	19

WETLAND CLASSIFICATION CODES	
PEM1E	PALUSTRINE, EMERGENT, PERSISTENT, SEASONALLY FLOODED/SATURATED
PSS1E	PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED
R2UB3h	RIVERINE, LOWER PERENNIAL, UNCONSOLIDATED BOTTOM, MUD, DIKED/IMPOUNDED

LEGEND

- # — WETLAND DESIGNATION NUMBER
- # — WETLAND IMPACT LOCATION

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS (NON-WETLAND)	
TEMPORARY IMPACTS (WETLAND)	

MATCH TO SHEET WET02

PEARD PROPERTIES, LLC

JAFFREY WAR MEMORIAL COMMITTEE, INC.

COM2 MEDIA LLC

NORTHERN NEW ENGLAND TELEPHONE OPERATIONS, LLC

PANAGIOTES, ARTHUR G. & PANAGIOTES, ANTHONY V.

STATE OF NH DOT

MONADNOK PROPERTIES LLC

KLEAN, KELLY L.

TEMP. CONST. EASE. (TYP.)

REMOVE EXISTING RETAINING WALL AND FENCE

BUILDING DEMOLITION (BY OTHERS)

REMOVE EXISTING RETAINING WALL

WILDLIFE SHELF

PROPOSED R.O.W.

EXIST. 20' WIDE R.O.W.

EXIST. 5' WIDE ACCESS EASE.

SEWER EASE.

DRAINAGE EASEMENT

US Rte 202 Connector

Hadaway Street

Union Street

CONTOOCOOK RIVER R2UB3h

X1 LOCATION TST. ACCESS TO TM 238

18" rcp outlet i=1007.9

S-1 R2UB3h

2 PEM1E

1 PSS1E

1 PEM1E

WETLAND IMPACT SUMMARY

WETLAND IDENT-IFICATION	WETLAND CLASS-IFICATION	WETLAND DESIGNA-TION	AREA IMPACTS									
			PERMANENT					TEMPORARY				
			N.H.W.B. (NON-WETLAND) BANK		N.H.W.B. & A.C.O.E. (WETLAND) BED		PALUSTRINE WETLAND	(NON-WETLAND)		(WETLAND)		PALUSTRINE WETLAND
			SF	LF	SF	LF	SF	SF	LF	SF	LF	SF
A	PSS1E	1					1086					
B	PEM1E	1					2093					
C	PEM1E	2					1217					
D	BANK	S-1	762	107								
E	R2UB3h	S-1			1143	110						
F	R2UB3h	S-1			1397	115						
G	BANK	S-1	1035	123								
H	BANK	S-1	90	57								
I	BANK	S-1	54	20								
J	BANK	S-1	14	9								
TA	PSS1E	1										0
TB	PEM1E	1										192
TC	PSS1E	1										0
TD	BANK	S-1						46	5			
TE	R2UB3h	S-1								663	117	
TF	BANK	S-1						266	104			
TG	R2UB3h	S-1								732	125	
TH	BANK	S-1						36	5			
TL	BANK	S-1						207	45			
TM	R2UB3h	S-1								132	42	
TN	BANK	S-1						37	5			

SCALE IN FEET: 20 0 20 40

REVISIONS AFTER PROPOSAL	NUMBER	DATE	STATION	DESCRIPTION

		DATE
SDR PROCESSED	NHDOT & VHB	9/2021
NEW DESIGN	VHB TEAM	10/2023
SHEET CHECKED	PJW	10/2023
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WET01	3/6/2024	52792.00	16307Wet_Plans.dgn	16307	8	19

WETLAND IMPACT SUMMARY												
WETLAND IDENT-IFICATION	WETLAND CLASS-IFICATION	WETLAND DESIGNA-TION	AREA IMPACTS									
			PERMANENT					TEMPORARY				
			N.H.W.B. (NON-WETLAND) BANK		N.H.W.B. & A.C.O.E. (WETLAND) BED		PALUSTRINE WETLAND	(NON-WETLAND)		(WETLAND)		PALUSTRINE WETLAND
			SF	LF	SF	LF	SF	SF	LF	SF	LF	SF
A	PSS1E	1					1086					
B	PEM1E	1					2093					
C	PEM1E	2					1217					
D	BANK	S-1	762	107								
E	R2UB3h	S-1			1143	110						
F	R2UB3h	S-1			1397	115						
G	BANK	S-1	1035	123								
H	BANK	S-1	90	57								
I	BANK	S-1	54	20								
J	BANK	S-1	14	9								
TA	PSS1E	1										0
TB	PEM1E	1										192
TC	PSS1E	1										0
TD	BANK	S-1						46	5			
TE	R2UB3h	S-1								663	117	
TF	BANK	S-1						266	104			
TG	R2UB3h	S-1								732	125	
TH	BANK	S-1						36	5			
TI	R2UB3h	S-1								267	32	
TJ	R2UB3h	S-1								864	84	
TK	R2UB3h	S-1								846	84	
TL	BANK	S-1						207	45			
TM	R2UB3h	S-1								132	42	
TN	BANK	S-1						37	5			
TOTAL			1955	316	2540	225	4396	592	164	3504	484	192

LEGEND

- # — WETLAND DESIGNATION NUMBER
- # — WETLAND IMPACT LOCATION

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS (NON-WETLAND)	
TEMPORARY IMPACTS (WETLAND)	

WETLAND CLASSIFICATION CODES	
PEM1E	PALUSTRINE, EMERGENT, PERSISTENT, SEASONALLY FLOODED/SATURATED
PSS1E	PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED
R2UB3h	RIVERINE, LOWER PERENNIAL, UNCONSOLIDATED BOTTOM, MUD, DIKED/IMPOUNDED

REVISIONS AFTER PROPOSAL

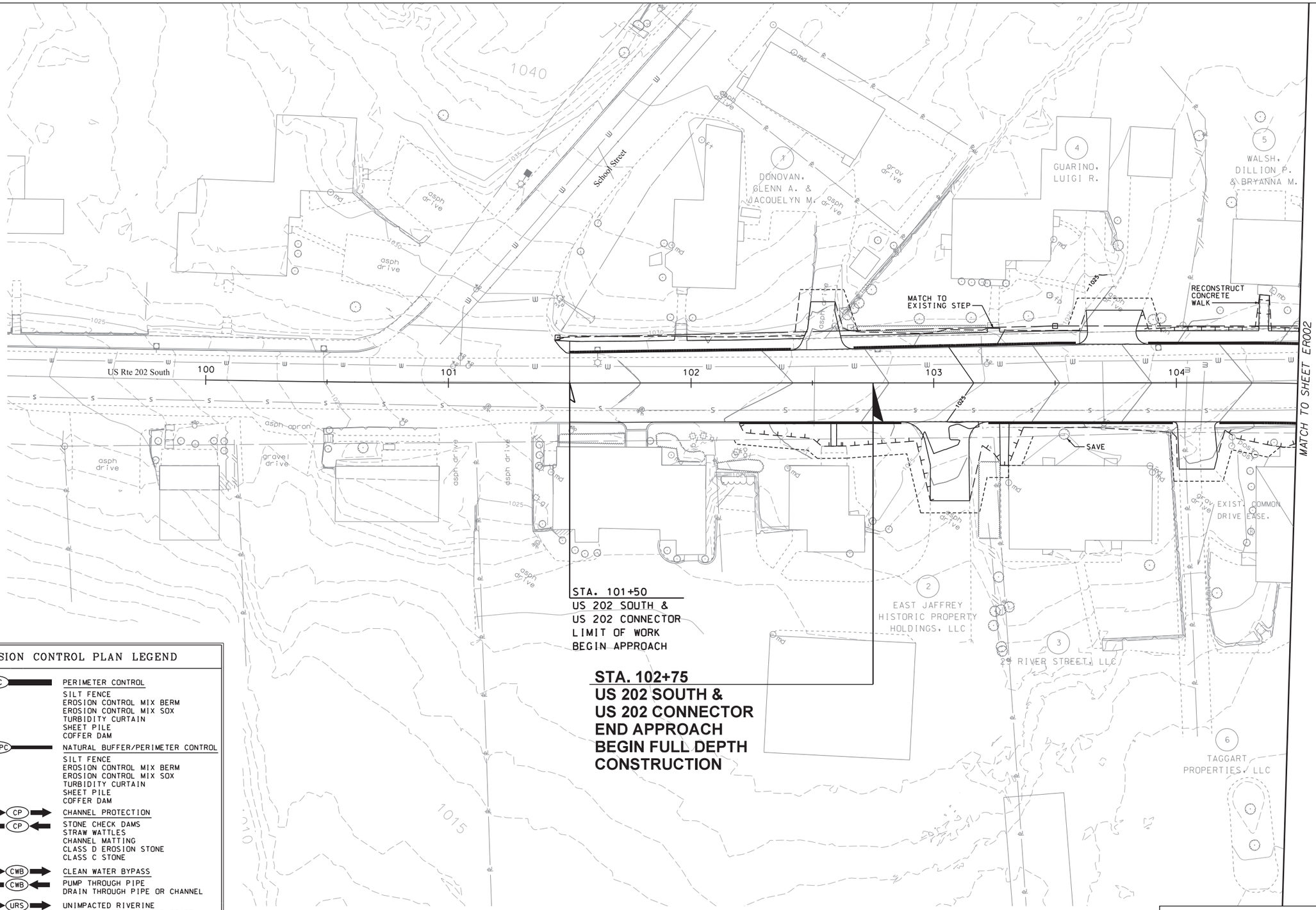
NUMBER	DESCRIPTION	DATE	STATION

SDR PROCESSED NHDOT & VHB DATE 9/2021
NEW DESIGN VHB TEAM DATE 10/2023
SHEET CHECKED PJW DATE 10/2023
AS BUILT DETAILS DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WET02	3/6/2024	52792.00	16307Wet_Plans.dgn	16307	9	19



EROSION CONTROL PLAN LEGEND

PC	PERIMETER CONTROL SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
NB/PC	NATURAL BUFFER/PERIMETER CONTROL SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
CP	CHANNEL PROTECTION STONE CHECK DAMS STRAW WATTLES CHANNEL MATTING CLASS D EROSION STONE CLASS C STONE
CWB	CLEAN WATER BYPASS PUMP THROUGH PIPE DRAIN THROUGH PIPE OR CHANNEL
URS	UNIMPACTED RIVERINE SURFACE WATERS OF THE STATE
ROA	ROUTINE ROADWAY QUALIFYING ACTIVITY
SD	STREAM DIVERSION

20 0 20 40
SCALE IN FEET

NUMBER	DATE	STATION	DESCRIPTION
			REVISIONS AFTER PROPOSAL

SDR PROCESSED	NHDOT & VHB	DATE 9/2021
NEW DESIGN	VHB TEAM	DATE 10/2023
SHEET CHECKED	PJW	DATE 10/2023
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER001	3/6/2024	52792.00	16307Ero_Plans.dgn	16307	10	19

REVISIONS AFTER PROPOSAL

STATION	DESCRIPTION	STATION	NUMBER	DATE

		DATE
SDR PROCESSED	NHDOT & VHB	9/2021
NEW DESIGN	VHB TEAM	10/2023
SHEET CHECKED	PJW	10/2023
AS BUILT DETAILS		DATE

MATCH TO SHEET ER003

MATCH TO SHEET ER004

MATCH TO SHEET ER001

13 PEARD PROPERTIES, LLC

12 JAFFREY WAR MEMORIAL COMMITTEE, INC.

11 COM2 MEDIA LLC

10 NORTHERN NEW ENGLAND TELEPHONE OPERATIONS, LLC

9 CAISSIE, DOMINIQUE CAISSIE, ANNE MARIE & VANCAMPEN, JAMES K.

5 WALSH, DILLION E. & BRYANNA M.

7 LANGOREN, BJORN FRODE

8 BEAN, KELLY L.

6 TAGGART PROPERTIES, LLC

27 PANAGIOTES, ARTHUR G. & PANAGIOTES, ANTHONY V.

28 STATE OF NH DOT

29 MONOMUNAC EQUITIES, LLC

30 MONADNOCK PROPERTIES LLC

TEMP. CONST. EASE. (TYP.)

REMOVE EXISTING RETAINING WALL AND FENCE

BUILDING DEMOLITION (BY OTHERS)

REMOVE EXISTING RETAINING WALL

SAVE

EXIST. 20' WIDE R.O.W.

EXIST. 20' WIDE SEWER EASE. PER PLAN CAB. 11 DR. 6-674

EXIST. 5' WIDE ACCESS EASE.

DRAINAGE EASEMENT

PROPOSED R.O.W.

US Rte 202 Connector

Union Street

CONTOOCOOK RIVER R2UB3h

S-1 R2UB3h

PEM1E

PSS1E

BMP 203

STA. 30+25
BLAKE STREET
LIMIT OF WORK

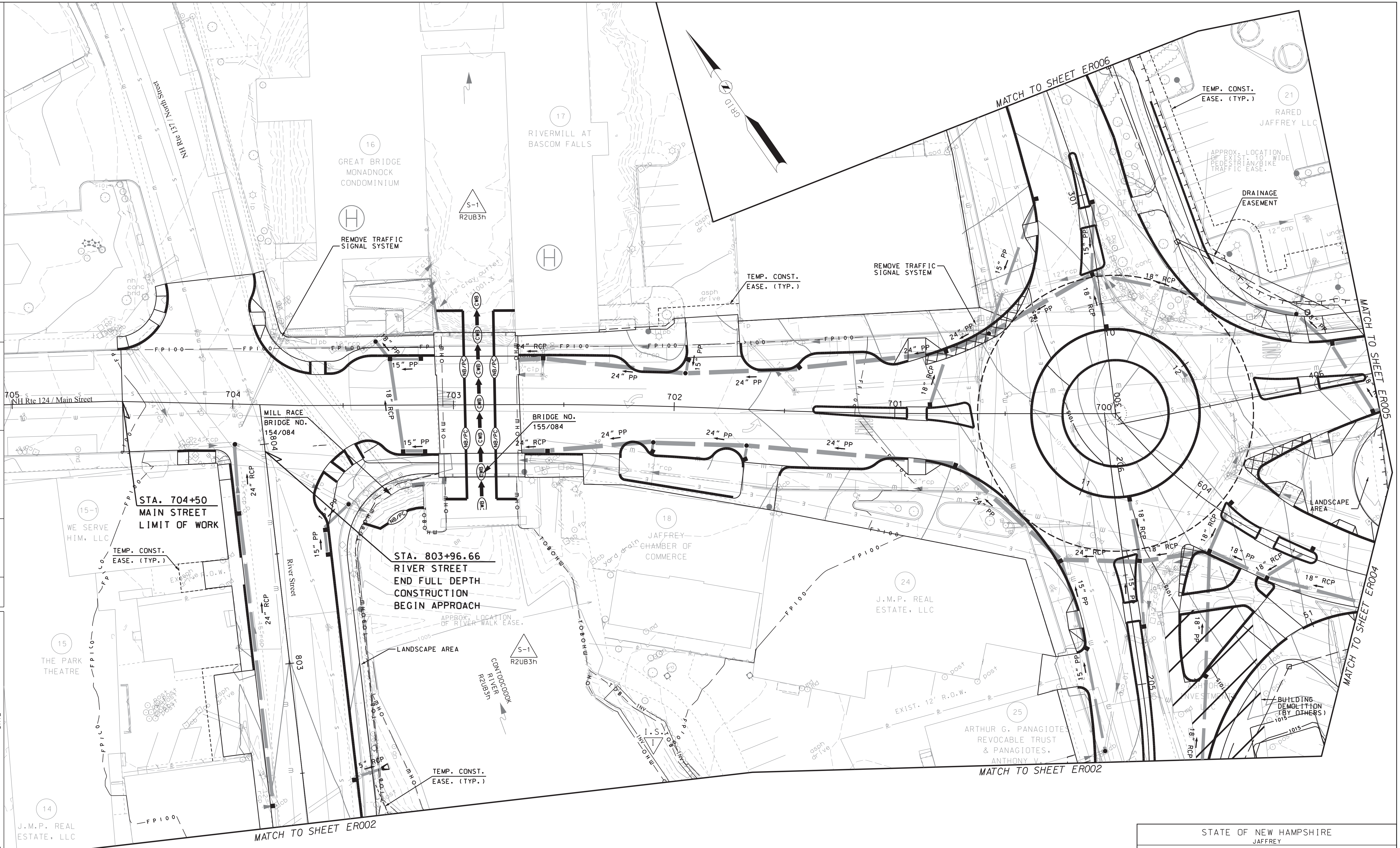
STA. 30+75
BLAKE STREET
END APPROACH
BEGIN FULL DEPTH
CONSTRUCTION

SCALE IN FEET

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER002	3/6/2024	52792.00	16307Ero_Plans.dgn	16307	11	19



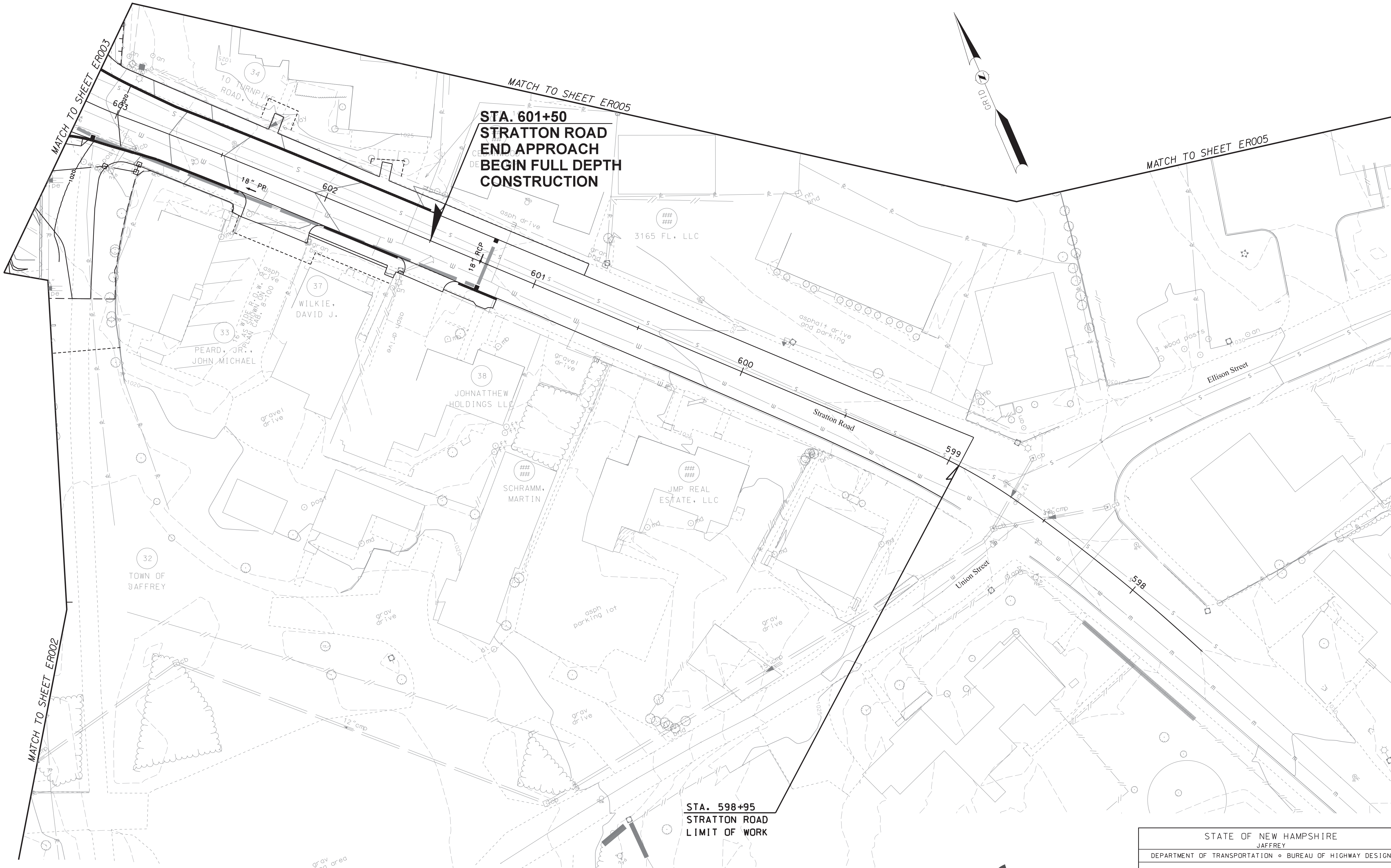
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	NHDOT & VHB	DATE 9/2021
NEW DESIGN	VHB TEAM	DATE 10/2023
SHEET CHECKED	PJW	DATE 10/2023
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER003	3/6/2024	52792.00	16307Ero_Plans.dgn	16307	12	19



20 0 20 40

SCALE IN FEET

SDR PROCESSED	NHDOT & VHB	DATE	9/2021
NEW DESIGN	VHB TEAM	DATE	10/2023
SHEET CHECKED	PJW	DATE	10/2023
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

vhb

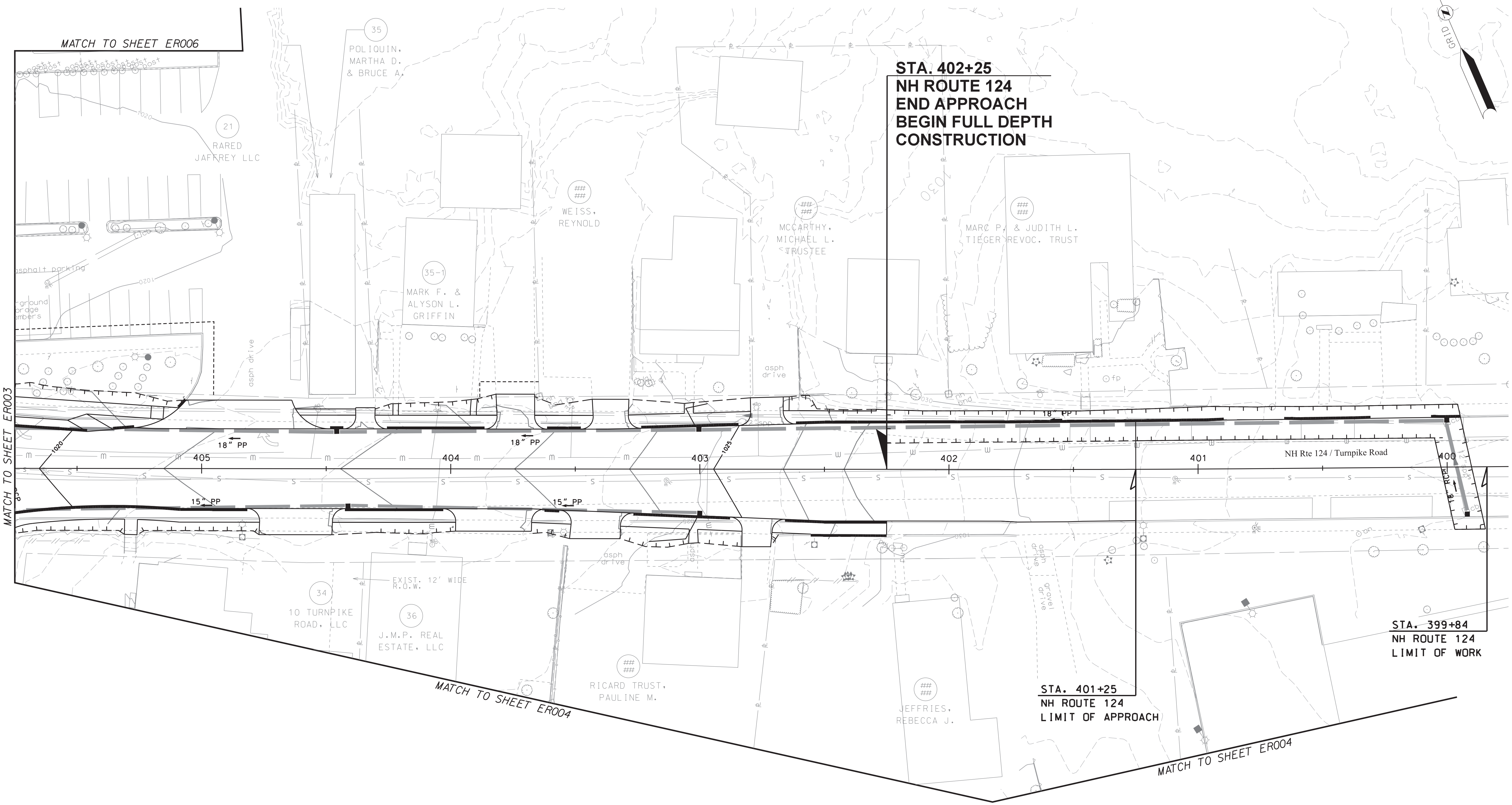
STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER004	3/6/2024	52792.00	16307Ero_Plans.dgn	16307	13	19

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

SDR PROCESSED NHDOT & VHB DATE 9/2021
NEW DESIGN VHB TEAM DATE 10/2023
SHEET CHECKED PJW DATE 10/2023
AS BUILT DETAILS DATE



20 0 20 40
SCALE IN FEET

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER005	3/6/2024	52792.00	16307Ero_Plans.dgn	16307	14	19

STA. 303+30
US 202 NORTH &
US 202 CONNECTOR
END FULL DEPTH
CONSTRUCTION
BEGIN APPROACH

STA. 305+00
US 202 NORTH &
US 202 CONNECTOR
LIMIT OF WORK
END APPROACH

MATCH TO SHEET ER003

MATCH TO SHEET ER005

MATCH TO SHEET ER007

US Rte 202 North /
Peterborough Street

Christian Court

EAST JAFFREY TRUST

RIVERMILL AT BASCOM FALLS

STATE OF NH (DOT)

APPROX. LOCATION OF EXIST. 10' WIDE PEDESTRIAN/BIKE TRAFFIC EASE.

EXIST. TELECOMMUNICATION EASE.

MONADNOCK PROPERTIES, INC.

GRID N

SCALE IN FEET
20 0 20 40

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION

DESCRIPTION

SDR PROCESSED	NHDOT & VHB	DATE 9/2021
NEW DESIGN	VHB TEAM	DATE 10/2023
SHEET CHECKED	PJW	DATE 10/2023
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER006	3/6/2024	52792.00	16307Ero_Plans.dgn	16307	15	19

REVISIONS AFTER PROPOSAL

NUMBER	DATE	DESCRIPTION	STATION

SDR PROCESSED	NHDOT & VHB	DATE 9/2021
NEW DESIGN	VHB TEAM	DATE 10/2023
SHEET CHECKED	PJW	DATE 10/2023
AS BUILT DETAILS		DATE

MATCH TO SHEET GEN06

US Rte 202 North /
Peterborough Street

307

308

12"rcp

6"pvc

grav

asph drive

gravel drive

4"clay

asphalt

1005 1010 1015 1020

GRID

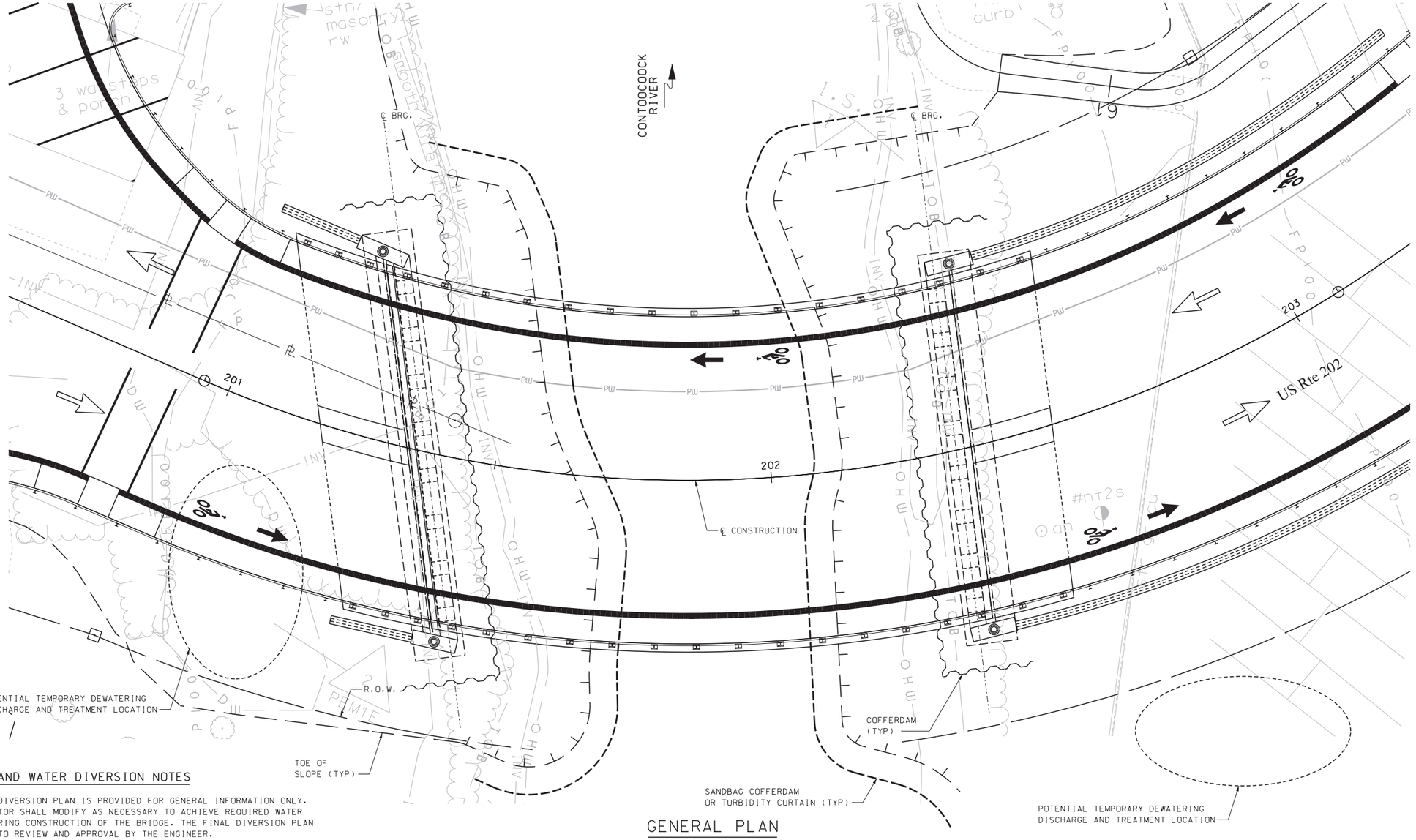
20 0 20 40
SCALE IN FEET

vhb

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER007	3/6/2024	52792.00	16307Ero_Plans.dgn	16307	16	19



GENERAL PLAN

SCALE: 1" = 10'

COFFERDAM AND WATER DIVERSION NOTES

1. THIS WATER DIVERSION PLAN IS PROVIDED FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL MODIFY AS NECESSARY TO ACHIEVE REQUIRED WATER HANDLING DURING CONSTRUCTION OF THE BRIDGE. THE FINAL DIVERSION PLAN IS SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.

2. THE FINAL WATER DIVERSION SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE. THE CONTRACTOR SHALL SUBMIT STAMPED WORKING DRAWINGS SHOWING WATER DIVERSION STRUCTURE LOCATION, COFFERDAMS, CONSTRUCTION METHOD AND SEQUENCE, AND DEWATERING METHOD, FOR REVIEW AND DOCUMENTATION IN ACCORDANCE WITH SECTION 105.02. ALL COSTS FOR THE WATER DIVERSION STRUCTURE, DEWATERING, AND APPURTENANCES SHALL BE INCLUDED IN ITEM 503.103, WATER DIVERSION.

3. WATER DIVERSION AND CONSTRUCTION ACTIVITIES IN CHANNEL SHALL BE SCHEDULED FOR LOW FLOW. IF THERE IS FLOWING WATER DURING CONSTRUCTION THE FLOW SHALL BE DIVERTED AROUND THE WORK SITE IN A STABLE MANNER USING METHODS APPROVED BY THE ENGINEER. SUCH METHODS WOULD LIKELY INCLUDE USE OF A COFFERDAMS AND PUMPS.

4. UPON COMPLETION OF THE FOOTING CONSTRUCTION AND RIPRAP PLACEMENT, THE COFFERDAMS SHALL BE REMOVED AND WATER SHALL BE ROUTED THROUGH THE BRIDGE. COMPLETE REMOVAL IMMEDIATELY AFTER CONSTRUCTION, WITHIN ONE DAY WHENEVER POSSIBLE.

5. DEWATERING OF THE WORK AREA SHALL BE CONDUCTED IN A MANNER THAT PREVENTS DISCHARGE OF TURBID WATER TO THE CONTOOCOOK RIVER AND ADJACENT WETLANDS. TURBID DISCHARGE SHALL BE DIRECTED TO A FILTER BAG (AND/OR A STABILIZED ABOVE-GRADE, TEMPORARY SEDIMENT BASIN/TRAP) LOCATED IN ONSITE UPLANDS. ALL COSTS SHALL BE INCLUDED IN ITEM 503.103.

CONSTRUCTION NOTES

1. RIPRAP WILL BE INSTALLED DURING THE DAM DRAWDOWN AND SHALL BE COORDINATED WITH THE DAM OWNER AND NH FISH AND GAME.

2. WATER DIVERSION AND FOUNDATION DEWATERING IS ANTICIPATED FOR THIS PROJECT. THE WORK SHALL BE PERFORMED DURING LOW-FLOW PERIODS. THE CONTRACTOR SHALL SELECT A DEWATERING METHOD THAT LOWERS GROUNDWATER AT LEAST 2 FEET BELOW EXCAVATION SUBGRADE.

3. ALL UNSUITABLE FILLS, ORGANICS, AND ANY DEBRIS SHALL BE COMPLETELY REMOVED BENEATH PROPOSED FOUNDATIONS AS DETAILED IN THE PLANS. THE EXTENT OF REMOVAL SHALL BE 1-FOOT LATERALLY FOR EVERY 1-FOOT OF EXCAVATION OUTSIDE THE PERIMETER OF ALL FOOTINGS.

4. CONTROL OF WATER WITHIN THE EXCAVATION SHALL BE CONDUCTED IN SUCH A MANNER AS TO PREVENT DISTURBANCE OF THE BEARING SOIL. WELL POINTS, SUMPS OR OTHER PUMPING AREAS SHALL BE LOCATED OUTSIDE THE FOOTING LIMITS AND FILTERED TO PREVENT PUMPING OF THE SOIL MATERIALS BELOW THE EXCAVATION SUBGRADE. INCLUDED IN ITEM 503.101 - WATER DIVERSION STRUCTURE.

5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE WETLAND PERMIT ISSUED BY NHDES SPECIFIC TO THE PROJECT.

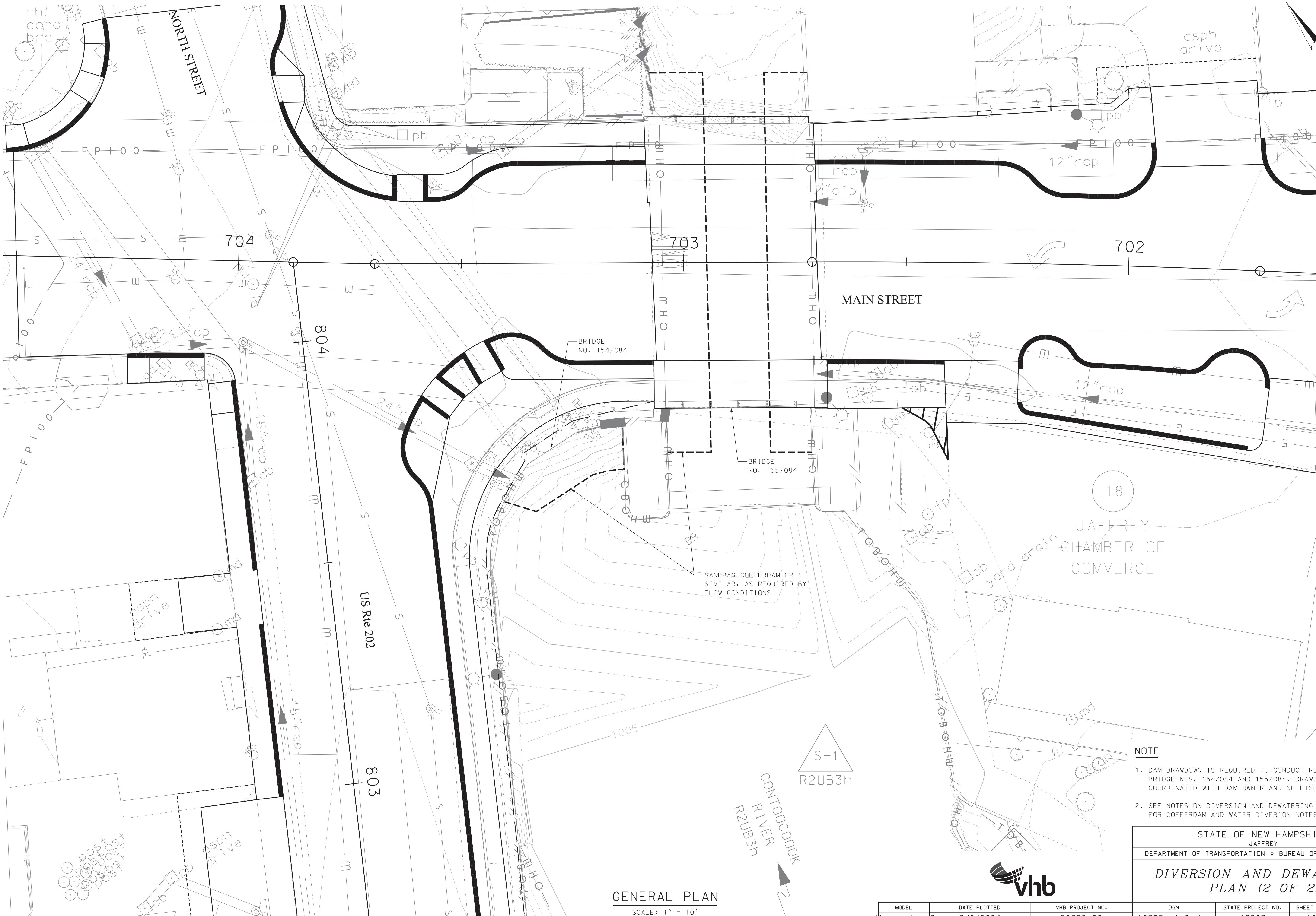
NUMBER	DESCRIPTION	DATE	STATION
	REVISIONS AFTER PROPOSAL		

SDR PROCESSED	NHDOT & VHB	DATE 9/2021
NEW DESIGN	VHB TEAM	DATE 10/2023
SHEET CHECKED	PJW	DATE 10/2023
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

DIVERSION AND DEWATERING PLAN (1 OF 2)

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Default	3/6/2024	52792.00	16307_div1	16307	17	19



GENERAL PLAN

SCALE: 1" = 10'

NOTE

1. DAM DRAWDOWN IS REQUIRED TO CONDUCT REPAIRS ON BRIDGE NOS. 154/084 AND 155/084. DRAWDOWN SHALL BE COORDINATED WITH DAM OWNER AND NH FISH AND GAME.

2. SEE NOTES ON DIVERSION AND DEWATERING PLAN (1 OF 2) FOR COFFERDAM AND WATER DIVERION NOTES 1 THRU 3.

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

DIVERSION AND DEWATERING PLAN (2 OF 2)

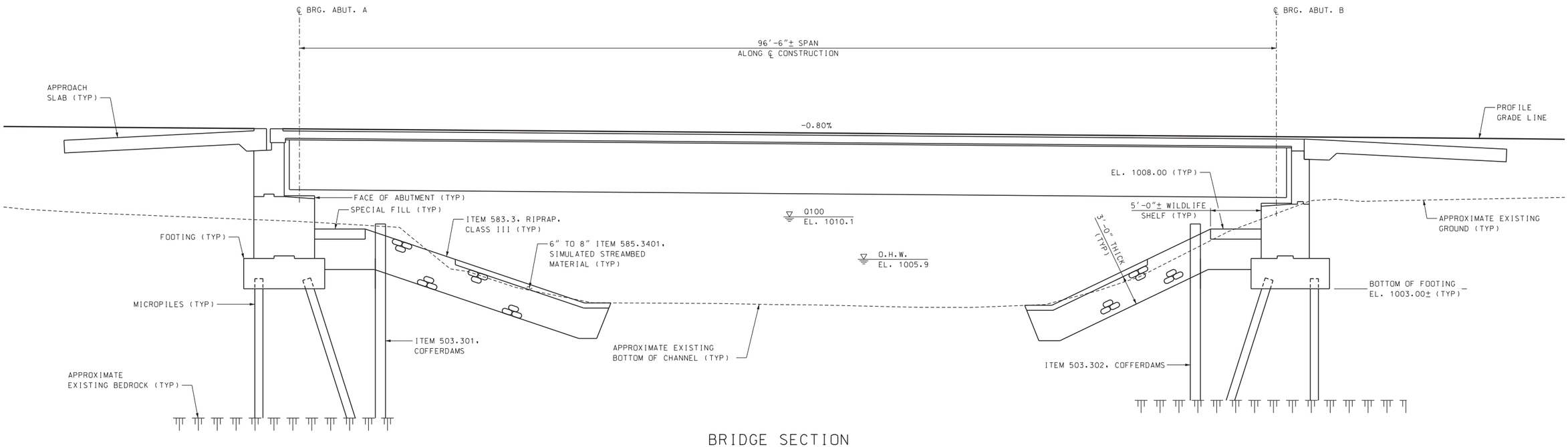
vhb

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
diver plan 2	3/6/2024	52792.00	16307_div2.dgn	16307	18	19

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

SDR PROCESSED NHDOT & VHB DATE 9/2021
NEW DESIGN VHB TEAM DATE 10/2022
SHEET CHECKED BAM DATE 3/6/2024
AS BUILT DETAILS DATE



BRIDGE SECTION

SCALE: 1" = 5'

NUMBER	DESCRIPTION	DATE	STATION

REVISIONS AFTER PROPOSAL

SDR PROCESSED	NHDOT & VHB	DATE 9/2021
NEW DESIGN	VHB TEAM	DATE 10/2023
SHEET CHECKED	PJW	DATE 10/2023
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
JAFFREY
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

BRIDGE SECTION

MODEL	DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Default	3/6/2024	52792.00	16307_div3	16307	19	19

Attachment B

Updated Mitigation Documentation

US 202 / NH 124 / NH 137 Intersection Improvements Project - Jaffrey, NH
Updated ARM Fund Mitigation Payment Justification (per the Dec 2023 RFMI Comments)

PERMANENT WETLAND IMPACT SUMMARY									
WETLAND IDENTIFICATION	WETLAND CLASSIFICATION	WETLAND DESIGNATION	PERMANENT					Subject to Mitigation?	Impact Description
			N.H.W.B. (NON-WETLAND) BANK		N.H.W.B. & A.C.O.E. (WETLAND) BED		PALUSTRINE WETLAND		
			SF	LF	SF	LF	SF		
A	PSS1E	1					1086	Yes, Wetland 1 is a PRA.	Wetland 1 (PSS area)
B	PEM1E	1					2093	Yes, Wetland 1 is a PRA.	Wetland 1 (PEM area)
C	PEM1E	2					1217	No, Wetland 2 is not a PRA and total non-PRA wetland impacts are under 10,000 sq. ft.	Wetland 2 (entire area)
D	BANK	S-1	762	107				Yes, non-compliant bridge.	Left bank under new bridge
E	R2UB3h	S-1			1143	110		Yes, non-compliant bridge.	Left bed under new bridge
F	R2UB3h	S-1			1397	115		Yes, non-compliant bridge.	Right bed under new bridge
G	BANK	S-1	1035	123				Yes, non-compliant bridge.	Right bank under new bridge
H	BANK	S-1	90	57				No, grading associated with retaining wall removal.	Left bank near retaining wall removal
I	BANK	S-1	54	20				No, grading associated with parking area.	Right bank near parking area/Wetland 1.
J	BANK	S-1	14	9				No, grading associated with parking area.	Right bank near parking area/Wetland 1.
TOTALS			1955	316	2540	225	4396		

KEY
Subject to Mitigation (Stream Calculator)
Subject to Mitigation (Wetlands Calculator)
Not included in stream calculator to not double count the bed impacts.
#s that changed from the May 2023 RFMI Response

ARM Fund Calculations (Dec 2023 RFMI Revisions)			
Wetlands Calculator	3,179	SF	$14,344.05
Stream Calculator	345	LF	$105,110.46
TOTAL PAYMENT			$119,454.51

US 202 / NH 124 / NH 137 Intersection Improvements
Project Jaffrey, NH
Mitigation Calculation - Wetland Impacts

2022 VALUES

TOWN	LAND VALUE
Acworth	2015
Albany	1166
Alexandria	3283
Allenstown	11545
Alstead	3107
Alton	28465
Amherst	33150
Andover	5187
Antrim	5186
Ashland	17888
Atkinson	53267
Auburn	25811
Barnstead	10183
Barrington	14071
Bartlett	10785
Bath	2148
Bean's Grant	494
Bean's Purchase	494
Bedford	53267
Belmont	16815
Bennington	5777
Benton	494
Berlin	2091
Bethlehem	1170
Boscawen	8475
Bow	22793
Bradford	5543
Brentwood	25013
Bridgewater	21888
Bristol	19371
Brookfield	3208
Brookline	24118
Cambridge	494
Campton	6327
Canaan	5832
Candia	13335
Canterbury	4856
Carroll	4102
Center Harbor	43396
Chandler's Purchase	494
Charlestown	3287
Chatham	742
Chester	16676
Chesterfield	9817
Chichester	10581
Claremont	5788
Clarksville	681
Colebrook	1771
Columbia	684
Concord	37684
Conway	17622
Cornish	2954
Crawford's Purchase	494
Croydon	1878
Cutt's Grant	494
Dalton	1912
Danbury	2798
Danville	25564
Deerfield	9596
Deering	6106
Derry	53267
Dix's Grant	494
Dixville	494
Dorchester	869
Dover	53267
Dublin	6403
Dummer	494
Dunbarton	7038
Durham	35249
East Kingston	26497
Easton	1943
Eaton	3515
Effingham	4109
Ellsworth	655
Enfield	12084
Epping	22559
Epsom	10218
Errol	1110
Erving's Location	494
Exeter	53267
Farmington	9882
Fitzwilliam	4939
Francestown	5172
Franconia	4017
Franklin	15980
Freedom	16133
Fremont	18506
Gilford	30949
Gilmanton	7638
Gilsum	2184
Goffstown	38305
Gorham	3104
Goshen	2880

NHDES AQUATIC RESOURCE MITIGATION FUND
WETLAND PAYMENT CALCULATION
INSERT AMOUNTS IN YELLOW CELLS

1 Convert square feet of impact to acres:

INSERT SQ FT OF	Square feet of impact	3179.00
		43560.00
	Acres of impact =	0.0730

2 Determine acreage of wetland construction:

Forested wetlands:	0.1095
Tidal wetlands:	0.2189
All other areas:	0.1095

3 Wetland construction cost:

Forested wetlands:	$11,215.66
Tidal Wetlands:	$22,431.31
All other areas:	$11,215.66

4 Land acquisition cost (See land value table):

INSERT LAND VALUE FROM TABLE WHICH APPEARS TO THE LEFT. (Insert the amount do not copy and paste.)

Town land value:	6739
Forested wetlands:	$737.72
Tidal wetlands:	$1,475.43
All other areas:	$737.72

5 Construction + land costs:

Forested wetland:	$11,953.37
Tidal wetlands:	$23,906.75
All other areas:	$11,953.37

6 NHDES Administrative cost:

Forested wetlands:	$2,390.67
Tidal wetlands:	$4,781.35
All other areas:	$2,390.67

********** **TOTAL ARM PAYMENT**********

Forested wetlands:	$14,344.05
Tidal wetlands:	$28,688.09
All other areas:	$14,344.05

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

US 202 / NH 124 / NH 137 Intersection Improvements Project

Jaffrey, NH

Mitigation Calculation - Stream Impacts

NHDES AQUATIC RESOURCE MITIGATION FUND STREAM PAYMENT CALCULATION		
INSERT LINEAR FEET OF IMPACT on BOTH BANKS AND CHANNEL	Right Bank	115.00
	Left Bank	107.0000
	Channel	123.0000
	TOTAL IMPACT	345.0000
	Stream Impact Cost:	$87,592.05
	NHDES Administrative cost:	
		$17,518.41
********* TOTAL ARM FUND STREAM PAYMENT********		
		$105,110.46

NEW HAMPSHIRE DEPARTMENT OF Environmental Services